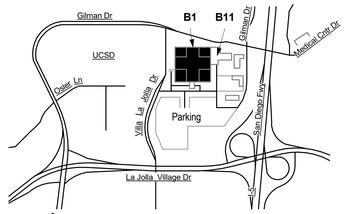
SAN DIEGO VA HEALTH CARE SYSTEM (SDVAHCS)

Energy Management Controls Integration 1

BUILDING 1

VA PROJECT NO : 664-18-320

ISSUED FOR CONSTRUCTION SUBMITTAL MARCH 15, 2019



PROJECT LOCATION KEY PLAN
3350 LA JOLLA VILLAGE DRIVE

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SCOPE OF WORK

The project encompasses the Upgrade and integration of existing pneumatic and Direct Digital controls to a centralized Energy Management System at the VA San Diego Medical Center campus. The intent of the project is to ensure that all the terminal reheat boxes, air handling units, and relief air fans are tied into a manageable DDC BACNET system. The goal is to remove old pneumatic controls and upgrade them to DDC to integrate all control devices to one platform and provide enough control points to effectively manipulate the units remotely. All pneumatic terminal units and duct mounted hot water reheat coils shall be replaced with new terminal units with DDC.

A new single duct terminal unit with hospital grade liner, hot water reheat coil, valve actuator, airflow sensor, duct probe temperature sensor, and factory mounted Metasys controller shall be provided at each location identified on the mechanical plans and schedules. Additional items include a thermostat, a valve set, control wiring and conduit, and power wiring and conduit to provide a complete and operational system at each installation. Each valve set includes a stainless-steel hose with a Belimo pressure independent control valve, strainer, and isolation valves on the HWS and HWR valve set. A network controller panel shall be provided to serve a maximum of 60 terminal units.

A detail commissioning plan is required to ensure that all devices are calibrated, programmed, and all graphic displays are accurate and reflect the existing configurations. The existing control system, Metasys, is to be evaluated to determine if a replacement system would provide more functionality for our facility. The latest software should be specified. It is required to design redundancy into the system to ensure we have remote controls available during emergencies.

BASE BID - ALLOWANCE

The Base Bid shall include all work indicated by the drawings and specifications. The Base Bid shall also include a +20% Terminal Unit quantity allowance to account for terminal unit and thermostat relocations, additions and deletions not indicated on the drawings due to an active hospital environment. (See Specification Section 01 00 00 - General Requirements)

DEDUCTIVE ALTERNATES

This project shall be phased and bid by building level and to separate the work associated with Variable Frequency Drive (VFD) replacement. The contractor shall include the following CLIN (Contract Line Item Numbers) as Deductive Alternates when preparing bids:

CLIN #1 - Deductive Alternate No. 1: Remove Building 1/L0 from the SOW
CLIN #2 - Deductive Alternate No. 2: Remove Building 1/L1 from the SOW
CLIN #3 - Deductive Alternate No. 3: Remove Building 1/L2 from the SOW
CLIN #4 - Deductive Alternate No. 4: Remove Building 1/L3 from the SOW
CLIN #5 - Deductive Alternate No. 5: Remove Building 1/L4 from the SOW
CLIN #6 - Deductive Alternate No. 6: Remove Building 1/L5 from the SOW
CLIN #7 - Deductive Alternate No. 7: Remove Building 1/L6 from the SOW

CLIN #10 - Deductive Alternate No. 10: Remove VFD replacement from Building 1/L0 from the SOW
CLIN #11 - Deductive Alternate No. 11: Remove VFD replacement from Building 1/L1 from the SOW
CLIN #12 - Deductive Alternate No. 12: Remove VFD replacement from Building 1/L2 from the SOW
CLIN #13 - Deductive Alternate No. 13: Remove VFD replacement from Building 1/L3 from the SOW
CLIN #14 - Deductive Alternate No. 14: Remove VFD replacement from Building 1/L4 from the SOW
CLIN #15 - Deductive Alternate No. 15: Remove VFD replacement from Building 1/L5 from the SOW
CLIN #16 - Deductive Alternate No. 16: Remove VFD replacement from Building 1/L6 from the SOW

(See Specification Section 01 00 00 - General Requirements)

PHASING PLAN

DDC UPGRADES SHALL BE PHASED BY FLOOR (L0-L6) AND THEN QUADRANT (AS SHOWN ON THE PHASING SEQUENCE). CONTRACTOR TO PROVIDE SCHEDULE FOR VA/AE APPROVAL PRIOR TO STARTING ANY WORK THAT IDENTIFIES THE SEQUENCE OF FLOOR/QUADRANT PHASES TO BE COMPLETED FOR THE PROJECT. CONTRACTOR SHALL IDENTIFY LENGTH OF TIME FOR EACH PHASE AND COORDINATE WORK TO COMPLY WITH ICRA REQUIREMENTS SHOWN ON G-011. CONTRACTOR TO REPLACE TERMINAL UNITS DURING NIGHTS AND WEEKENDS TO MINIMIZE FACILITY DISRUPTIONS AND COORDINATE ALL OUTAGES WITH THE VA. **FACILITY HOURS OF OPERATION ARE 7:00 AM TO 4:30 PM MONDAY THROUGH FRIDAY.**

PHASING SEQUENCE/PRIORITIES

1. BUILDING 1 - BASEMENT - WEST
2. BUILDING 1 - BASEMENT - NORTHWEST
3. BUILDING 1 - BASEMENT - NORTHEAST
4. BUILDING 1 - BASEMENT - EAST
5. BUILDING 1 - FIRST FLOOR - WEST
6. BUILDING 1 - FIRST FLOOR - NORTHWEST
7. BUILDING 1 - FIRST FLOOR - NORTHEAST
8. BUILDING 1 - FIRST FLOOR - EAST
9. BUILDING 1 - FIRST FLOOR - SOUTHEAST
10. BUILDING 1 - FIRST FLOOR - SOUTHWEST
11. BUILDING 1 - SECOND FLOOR - WEST
12. BUILDING 1 - SECOND FLOOR - NORTH
13. BUILDING 1 - SECOND FLOOR - EAST
14. BUILDING 1 - SECOND FLOOR - SOUTH
15. BUILDING 1 - THIRD FLOOR - WEST
16. BUILDING 1 - THIRD FLOOR - NORTH
17. BUILDING 1 - THIRD FLOOR - EAST
18. BUILDING 1 - THIRD FLOOR - SOUTH
19. BUILDING 1 - FOURTH FLOOR - WEST
20. BUILDING 1 - FOURTH FLOOR - NORTH
21. BUILDING 1 - FOURTH FLOOR - EAST
22. BUILDING 1 - FIFTH FLOOR - WEST
23. BUILDING 1 - FIFTH FLOOR - NORTH
24. BUILDING 1 - FIFTH FLOOR - EAST
25. BUILDING 1 - FIFTH FLOOR - SOUTH
26. BUILDING 1 - SIXTH FLOOR - WEST
27. BUILDING 1 - SIXTH FLOOR - NORTH
28. BUILDING 1 - SIXTH FLOOR - EAST
29. BUILDING 1 - SIXTH FLOOR - SOUTH

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PROJECT REVIEW

DATE:	APPROVED: DIRECTOR
DATE:	APPROVED: ASSOCIATE DIRECTOR
DATE:	APPROVED: ASSISTANT DIRECTOR
DATE:	APPROVED: CHIEF OF STAFF
DATE:	APPROVED: CHIEF ENGINEER
DATE:	APPROVED: ASSOCIATE DIRECTOR, PATIENT CARE SERVICES
DATE:	APPROVED:
DATE:	APPROVED:

THERE IS NO LEAD OR ASBESTOS MATERIAL DESIGNED INTO THIS PROJECT.

_____SIGNATURE _____DATE

AUTHOR: MAT PERKINS, AIA, NCARB, PMP, LEED AP BD+C
TRIPLE C - THE A&E GROUP

THIRD-PARTY INSPECTIONS: COMPREHENSIVE THIRD-PARTY INSPECTIONS, TESTING AND WRITTEN REPORTS FOR ALL DIVISIONS (PAID BY THE GENERAL CONTRACTOR). CONTRACTOR SHALL EMPLOY THIRD PARTY INSPECTION CONSULTANTS TO PERFORM ALL INSPECTIONS REQUIRED BY THIS CONTRACT. THE VA HAS NO INSPECTION CAPABILITY. ANY REFERENCE TO VA INSPECTIONS SHALL BE BY A THIRD-PARTY INSPECTOR QUALIFIED TO PERFORM THE WORK. CREDENTIALS SHALL BE SUPPLIED TO THE VA/AE AS REQUIRED BY THIS CONTRACT. ALL INSPECTIONS, TESTING, CERTIFICATIONS, AND PERMITS ARE TO BE PAID FOR BY THE GENERAL CONTRACTOR. THE VA WILL NOT PAY FOR OR PERFORM ANY REQUIRED INSPECTIONS. VA INSPECTIONS ARE FOR VA USE ONLY, WHEN PERFORMED, AND DO NOT REDUCE THE INSPECTION BURDEN ON THE CONTRACTOR.

THIS PROJECT MUST BE "STAND ALONE". THAT IS, THE PROJECT CANNOT DEPEND ON ANOTHER PROJECT OR OTHER FUNDING SOURCE TO MAKE THE FINAL RESULT COMPLETE AND USABLE.

Revisions:	Date:

CONSULTANT

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STAMP

REGISTERED ARCHITECT 39128 MATHEW R. PERKINS STATE OF ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: COVER SHEET	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Building Number: 1
		Issue Date: 03/15/2019 / Checked: M. Perkins / Drawn: K. Luke	Drawing Number: G-001

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:53:16 AM

VA FORM 08 - 6231

GENERAL NOTES

1. THESE GENERAL NOTES APPLY TO ALL DRAWINGS.

2. COMPLY WITH ALL APPLICABLE CODES, RULES, AND REGULATIONS WHEN REQUIRED BY CODE, ALL WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES.

3. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR(S) PRIOR TO FABRICATION AND CONSTRUCTION. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE DRAWINGS, WHICH AFFECT THE SCOPE AND INTENT OF THE WORK DESCRIBED IN CONSTRUCTION DOCUMENTS, SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER REPRESENTATIVE (COR) IMMEDIATELY.

4. GENERAL CONTRACTOR SHALL COORDINATE ALL MECHANICAL AND ELECTRICAL DUCT SIZES AND LOCATIONS.

5. ALL EXITS TO BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE.

6. WALL OUTLETS, SWITCHES,THERMOSTATS, ETC. TO BE INSTALLED LEVEL WITH EACH OTHER AND PLUMB.

7. THE WORK INDICATED IN THE NOTES DESCRIBES THE GENERAL SCOPE OF WORK ONLY AND IS NOT INTENDED TO BE INCLUSIVE OF ALL WORK REQUIRED TO COMPLETE FULL SCOPE OF WORK.

8. DO NOT MEASURE DRAWINGS. ALL DIMENSIONS SHALL BE FIELD VERIFIED. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER REPRESENTATIVE (COR).

9. FIELD VERIFICATION: BEFORE BIDDING AND DURING CONSTRUCTION, CONTRACTOR SHALL VERIFY THAT ACTUAL CONDITIONS ARE THOSE REFLECTED BY THE CONTRACT DOCUMENTS. REPORT DISCREPANCIES TO CONTRACTING OFFICER REPRESENTATIVE (COR) PRIOR TO BIDDING OR PERFORMING WORK RELATED TO ANY DISCREPANCIES. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

10. MOST EXPENSIVE BID: IF THERE ARE SCHEDULES, SYSTEMS, SUBCONTRACT, OR MATERIAL CONFLICTS NOT BROUGHT TO THE CONTRACTING OFFICER REPRESENTATIVE (COR)'S ATTENTION PRIOR TO BIDDING, THE CONTRACTOR WILL BE DEEMED TO HAVE ELECTED THE MORE COSTLY TIME, METHOD, SYSTEM, PRODUCT, SUBCONTRACT AND/OR MATERIAL.

11. NIC: CONSTRUCTION OF WORK INDICATED ON DRAWINGS AS "NIC" IS NOT IN THE CONTRACT. HOWEVER, THE CONTRACTOR SHALL COORDINATE ITS WORK, WITH WORK INDICATED AS NIC.

12. SITE COORDINATION: COORDINATE ALL SITE OPERATIONS WITH OWNER, INCLUDING STAGING AREAS, MATERIAL STORAGE, ACCESS TO WORK, TIMING OF WORK, NOISY OPERATIONS, INTERRUPTION OF UTILITIES, ETC. SEE SPECIFICATIONS.

13. TRADE COORDINATION: CONTRACTOR SHALL COORDINATE THE PLACEMENT OF EACH TRADE'S WORK SO THAT THERE ARE NO CONFLICTS AND NO SYSTEMS OPERATION OR FUNCTION IMPAIRED. IT IS ESPECIALLY IMPORTANT TO COORDINATE PENETRATIONS THROUGH FOUNDATIONS, FLOORS, WALLS AND CEILING SPACES. SEE SPECIFICATIONS.

14. PROVIDE GALVANIC SEPARATION MATERIAL, ACCEPTABLE TO CONTRACTING OFFICER REPRESENTATIVE (COR), BETWEEN DISSIMILAR METALS. SEE SPECIFICATIONS.

15. ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE FIRE TREATED. SEE SPECIFICATIONS. ALL SURFACE ATTACHED METAL SHALL BE SEPARATED FROM CONCRETE OR MASONRY BY NON-METALLIC MATERIAL SUCH AS #30 FELT, "PEEL AND STICK" OR OTHER MATERIAL AS APPROVED BY CONTRACTING OFFICER REPRESENTATIVE (COR).

16. EXTERIOR / INTERIOR ELEVATIONS DO NOT SHOW ALL EQUIPMENT, FIXTURES, DEVICES, MECHANICAL, PLUMBING OR ELECTRICAL ITEMS. SEE ARCHITECTURAL, INTERIOR, MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL ELEVATION COORDINATION.

17. CONTRACTOR TO COORDINATE WITH RECENT ROOF INSTALLATION WARRANTY REQUIREMENTS TO ENSURE NO VIOLATIONS OCCUR. CONTRACTOR TO EMPLOY A CERTIFIED ROOFING INSPECTOR MEETING THE REQUIREMENTS OF THE INSTALLED ROOF. ALL WARRANTY VIOLATIONS WILL BE REQUIRED TO BE CORRECTED PRIOR TO CLOSE OUT.

18. ANY CUTTING/WELDING WILL REQUIRE DAILY BURN PERMITS TO BE COORDINATED WITH COR.

GENERAL DEMOLITION AND PHASING NOTES

1 HALF-TONED OR LIGHT LINES INDICATE EXISTING CONSTRUCTION TO REMAIN. DASHED BOLD LINES INDICATE EXTENT OF DEMOLITION.

2. SEE COVER SHEET FOR PROJECT REQUIREMENTS AND ADDITIONAL INFORMATION.

3. THESE DRAWINGS HAVE BEEN PREPARED USING (AS-DESIGNED) DOCUMENTS PROVIDED BY THE OWNER. NEITHER THE OWNER OR THE ARCHITECT WARRANT THESE TO BE (AS-BUILT) DOCUMENTS AND ACTUAL CONDITIONS MAY VARY. THE DRAWINGS SUPPORT THE INTENT OF THE PHASED REPLACEMENT OF THE MECHANICAL EQUIPMENT.

4. TEMPORARY BRACING OR SHORING OF THE EXISTING MASONRY WALL MAY BE NECESSARY, AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

6. CONTRACTOR SHALL COORDINATE DEMOLITION ACTIVITIES TO MEET APPROVAL OF CODE AGENCIES. COORDINATE DEMOLITION WORK WITH ALL DISCIPLINES. CONTRACTOR SHALL DISPOSE OF ALL ITEMS PER SPECIFICATIONS. THE CONTRACTING OFFICER REPRESENTATIVE (COR) RESERVES THE RIGHT TO SELECT SPECIFIC ITEMS FOR SALVAGE. THESE ITEMS SHALL BE IDENTIFIED DURING THE PRE-CONSTRUCTION WALK THROUGH.

7. CONTRACTOR SHALL PATCH AND REPAIR ALL OPENINGS, VOIDS OR PENETRATIONS LEFT BY THE REMOVAL OF EXISTING CONSTRUCTION, EQUIPMENT, PIPING, DUCTS, ETC. TO MAINTAIN THE INTEGRITY OF THE WALL AND/OR ROOF. REMOVE ALL SUPPORTS THAT ARE NOT TO BE REUSED. PROTECT SURFACES AND EQUIPMENT DESIGNATED AS EXISTING TO REMAIN AND/OR UNDISTURBED. PREPARE PATCHED AREAS TO RECEIVE FINISHES WHERE FINISHES ARE REQUIRED.

8. THE ACCESSIBLE PARKING AREA AND PUBLIC RIGHT-OF-WAY OF THE PROJECT SITE WILL BE IMPACTED BY CONSTRUCTION ACTIVITIES. TEMPORARY BARRICADES PERTAINING TO THE CONTRACTOR'S ACTIVITIES SHALL BE INSTALLED TO PREVENT POSSIBLE INJURY IN AND AROUND DEMOLITION AND CONSTRUCTION AREAS IN ACCORDANCE WITH THE LATEST OSHA REQUIREMENTS. COORDINATE CONTRACTOR STAGING AREA WITH TEMPORARY ACCESSIBLE PARKING AND PUBLIC ACCESS WITH CONTRACTING OFFICER REPRESENTATIVE (COR)PRIOR TO CONSTRUCTION. PROTECT PARKING SIGNAGE WITHIN PROJECT AREA.

9. CONTRACTOR SHALL SAWCUT NEW OPENINGS AND/OR PENETRATIONS. COORDINATE NEW MASONRY OPENINGS WITH THE MASONRY MODULAR. PATCH CAVITIES SMOOTH WHERE CUT PORTIONS OF EXISTING MASONRY WALLS REMAIN. SEE SPECIFICATIONS FOR CUTTING AND PATCHING AND DEMOLITION FOR RELATED DEMOLITION WORK.

10. SEE MECHANICAL DRAWINGS FOR WORK REQUIRED WITHIN OFFICE TOWERS. COORDINATE BUILDING'S SYSTEM SHUTDOWN WITH CONTRACTING OFFICER REPRESENTATIVE (COR) AND TENANTS.

11. WHEREVER EXISTING EQUIPMENT, FIXTURES, PIPING, DUCTS, ETC. ARE REQUIRED TO BE REMOVED - SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, HANGERS, BASE, SUPPORT, ETC. AFTER REMOVAL, FLOORS, WALLS AND CEILINGS SHALL BE PATCHED AND MATCH ADJACENT SURFACES MATERIAL, TEXTURE AND COLOR.

GENERAL DIMENSIONING NOTES

1. ALTHOUGH SIGNIFICANT EFFORTS HAVE BEEN MADE TO COORDINATE DIMENSIONS, THERE MAY BE DISCREPANCIES AND/OR OMISSIONS. IF ENCOUNTERED, CONTACT THE CONTRACTING OFFICER REPRESENTATIVE (COR) FOR ADDITIONAL INFORMATION. IF THERE IS A DIMENSIONAL VARIANCE BETWEEN DISCIPLINES OR SIGNIFICANT OMISSION OR CONFLICT WITHIN A DISCIPLINE, CONTRACTING OFFICER REPRESENTATIVE (COR) PRIOR TO BID. IF DISCREPANCIES ARE DISCOVERED AFTER THE BID, CONTRACTOR SHALL CONFIRM DIMENSIONS WITH CONTRACTING OFFICER REPRESENTATIVE (COR) PRIOR TO CONSTRUCTION OF THE AFFECTED AREA.

2. ACTUAL CONSTRUCTION CONDITIONS AND/OR MATERIAL AND EQUIPMENT SIZES MAY NOT BE THOSE ANTICIPATED BY THE DESIGNERS. THROUGH FIELD INVESTIGATION AND SHOP DRAWINGS CONTRACTOR SHALL VERIFY DIMENSIONS AND RECOMMEND DIMENSIONAL MODIFICATIONS AS REQUIRED.

3. ARCHITECTURAL DIMENSIONS MAY BE FOUND ON FLOOR PLANS, EXPANDED PLANS, REFLECTED CEILING PLANS, SECTIONS, DETAILS, DOOR SCHEDULES, INTERIOR ELEVATIONS AND EXTERIOR ELEVATIONS.

4. ADDITIONAL DIMENSIONS MAY BE SHOWN ON STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. MECHANICAL AND ELECTRICAL EQUIPMENT SCHEDULES MAY ALSO CONTAIN DIMENSIONAL INFORMATION RELATED TO EQUIPMENT SIZES AND CLEARANCES.

5. DESIGNATIONS ARE NOTED AS NOMINAL, NOT ACTUAL (2 X 4 STUD); DIMENSIONS ARE SHOWN AS ACTUAL, NOT NOMINAL (1 1/2" X 3 1/2" STUD). DIMENSIONS ARE NOT ROUNDED, BUT UN-ROUNDED DIMENSIONS SHOULD NOT BE VIEWED AS MAXIMUM CONSTRUCTION TOLERANCE. (FOR INSTANCE, MASONRY OPENING DIMENSIONS MAY BE SHOWN IN THE 16THS OF AN INCH, BUT STANDARD MASONRY CONSTRUCTION TOLERANCES MAY BE +/- 1/4").

FLOOR PLAN DIMENSIONS

1. THE LOWEST FLOOR OVERALL BUILDING DIMENSIONS ARE FROM THE OUTSIDE FACE OF THE FOUNDATION WALL TO THE OPPOSITE OUTSIDE FACE OF THE FOUNDATION WALL (OR, FROM OUTSIDE GRIDLINE TO OUTSIDE GRIDLINE) AS SHOWN.

2. DIMENSIONS FOR NON-LOAD BEARING WALLS ARE TO ONE FACE OF THE STUDS, BOTH FACES OF MASONRY WALLS, OR BOTH FACES OF CONCRETE WALLS, ETC, UNLESS NOTED OTHERWISE.

3. WALL DIMENSIONS ARE ACTUAL, NOT NOMINAL (UNLESS NOTED AS "NOM").

4. DOOR OPENING DIMENSIONS IN FRAME CONSTRUCTION (WOOD OR STEEL STUDS) ARE TYPICALLY SHOWN AT THEIR CENTERLINES. HOWEVER, WHEN THE EDGE OF THE DOOR IS IMPORTANT, OR MAKES THE PLACEMENT CLEARER, THE DIMENSION MAY BE TO THE ACTUAL FRAME EDGE.

5. DOOR DIMENSIONS IN LOAD-BEARING MASONRY AND CONCRETE WALLS ARE TO "ROUGH" OPENINGS (FACES OF MASONRY OR CONCRETE). TYPICAL DOOR ROUGH OPENING DIMENSIONS ARE THE FRAME WIDTH PLUS 1/2" (1/4" CLEARANCE EACH SIDE) AND PLUS 1/2" TOTAL FOR THE HEAD/SILL DIMENSIONS.

6. "TYPICAL" DOOR FRAME CLEARANCE DIMENSIONS TO ADJACENT WALLS: BETWEEN FRAME FACES AND FACES OF STUDS, OR FACES OF MASONRY OR CONCRETE, AT NEARBY PERPENDICULAR WALLS ARE TYPICALLY 4", DEPENDING ON HARDWARE CLEARANCES AND FRAME REQUIREMENTS (2.5"-DOOR HANDLE PLUS 1" -WALL STOP PLUS 1/2" GB=4.0")

7. SOME DIMENSIONS REQUIRED TO BE CLEAR, SUCH AS AT REQUIRED EXIT WAYS, APPLIANCE COVES OR PREFABRICATED STAIR ENCLOSURES, ARE NOTE "CLR" AND ARE SHOWN TO THE FACES OF FINISHES.

8. DIMENSIONS DESIGNATED WITH "MIN" INDICATE THE MINIMUM CLEARANCE OR SEPARATION REQUIRED.

ROOF PLAN DIMENSIONS

1. UN-DIMENSIONED LOCATIONS OF ROOFTOP EQUIPMENT AND CONSTRUCTION OFTEN MAY BE DETERMINED BY THE FLOOR PLAN BELOW, SUCH AS ROOF HATCH DETERMINED BY REFERENCE TO A FIXED WALL AND LADDER, OR MECHANICAL EQUIPMENT DETERMINED BY DUCT PENETRATIONS BETWEEN JOISTS.

2. UN-DIMENSIONED ITEMS SUCH AS EQUIPMENT RAILS, HVAC EQUIPMENT, SCREEN WALLS, ANTENNAS, WALK PADS, LADDERS, SCUPPER LOCATIONS, ETC. MAY BE LOCATED FROM MECHANICAL AND ELECTRICAL DRAWINGS OR LOCATED BY SCALING. CONFIRM ALL ROOF ITEM DIMENSIONS WITH THE CONTRACTING OFFICER REPRESENTATIVE (COR) PRIOR TO CONSTRUCTION.

VERTICAL DIMENSIONS

1. UNLESS NOTED OTHERWISE, THE FIRST FLOOR REFERENCE ELEVATION IS 100'-0". THIS IS REFERENCED TO A GROUND ELEVATION (ABOVE MSL) AS SHOWN IN CIVIL OR STRUCTURAL DRAWINGS. ELEVATIONS BELOW 0'-0" ARE "-" (PREFIXED WITH A MINUS SIGN).

2. BUILDING, FLOOR AND ROOF HEIGHTS SHOWN ON ARCHITECTURAL DRAWINGS ARE TO TOP OF DECKING OR SHEATING, BUT DO NOT INCLUDE FINISHES OR ROOFING MATERIAL.

3. WALL OPENINGS: DOOR AND LOUVER HEIGHTS ARE TO FINISH HEIGHTS (UNLESS THEY ARE IN LOAD-BEARING MASONRY OR CONCRETE WALLS, WHERE THEY ARE TO ROUGH OPENINGS). HEIGHT REFERENCES SHOULD BE TO THE NEXT LOWER FINISH FLOOR ELEVATION

4. LIGHTING HEIGHTS ON WALLS ARE TO CENTERLINES OF THE ELECTRICAL BOXES, UNO. EQUIPMENT, VENT, PLUMBING AND FIXTURE ELEVATIONS ARE TO CENTERLINES OF THE WALL PENETRATIONS, UNO.

5. SOME VERTICAL DIMENSIONS ARE SHOWN ON PLANS FOR DEPRESSIONS, RIDGES, CURBS, AND ELEVATION CHANGES. A PLAN ELEVATION CHANGE SYMBOL LOOKS LIKE A STEP OR VERTICAL "Z" AND INDICATES THE + OR - ELEVATION CHANGE IN INCHES FROM THE FFE NEXT TO IT.

GENERAL FIRE AND LIFE SAFETY NOTES

FIRE ALARM

1. DESIGN SHALL BE AN APPROVED FIRE ALARM SYSTEM IN ACCORDANCE WITH CLASS "A" PROTECTION OF THE NFPA 72.

2. SUBMIT FOUR SETS OF PLANS TO STATE FIRE MARSHAL FOR APPROVAL PRIOR TO THE INSTALLATION.

3. SUBMITTAL SHALL INCLUDE FM LISTING NUMBER FOR ALL COMPONENTS, A SINGLE-LINE DIAGRAM SHOWING PRIMARY POWER, EMERGENCY POWER RISER DIAGRAM, DETAILS OF TROUBLE SUPERVISION & POWER LIMITED/NON POWER LIMITED CIRCUITRY, FLOOR PLANS SHOWING LOCATION OF ALL COMPONENTS AND METHOD OF ALARM TRANSMISSION TO STATE FIRE MARSHAL OR LOCAL FIRE DEPARTMENT.

4. THE FIRE ALARM SYSTEM SHALL CONFORM TO IFC 2015 STANDARDS AND APPLICABLE NFPA STANDARDS. FIRE ALARM SHOP DRAWINGS SHALL BE SUBMITTED TO STATE MARSHAL FOR APPROVAL PRIOR TO INSTALLATION. UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM WILL BE PERFORMED IN THE PRESENCE OF THE ENFORCING AGENCY.

FIRE EXTINGUISHERS

1. TEMPORARY- CONTRACTOR SHALL PROVIDE JOB SITE WITH TEMPORARY PORTABLE FIRE EXTINGUISHERS AND SHALL MAINTAIN THEM DURING THE COURSE OF CONSTRUCTION, EACH EXTINGUISHER SHALL BE 10 lb. CAPACITY, CAPABLE OF EXTINGUISHING CLASS A, B & C FIRES. ALL EXTINGUISHERS SHALL BE U.L. LABELED AND SHALL BE DRY CHEMICAL TYPE.

FIRE SPRINKLER SYSTEM

1. THE BUILDING IS EQUIPPED WITH A FIRE SPRINKLER SYSTEM.

FIRE & SMOKE DAMPERS

1. THE BUILDING IS EQUIPPED WITH FIRE & SMOKE DAMPERS.

EXIT AND EMERGENCY LIGHTING

1. EXIT SIGNS SHALL CLEARLY INDICATE DIRECTION LEADING TO EXTERIOR WITH MINIMUM 6" HIGH LETTERS AT REQUIRED EXITS, EXIT DISCHARGE AND AT ALL CORRIDOR INTERSECTIONS AND CHANGES OF DIRECTION. EXIT WAY: CORRIDORS AND STAIRS SHALL BE ILLUMINATED BY A SUITABLE EMERGENCY LIGHTING SYSTEM TO OPERATE WHEN NORMAL POWER IS INTERRUPTED. EMERGENCY LIGHTING SHALL PROVIDE A MINIMUM OF 5 FOOT CANDLE POWER AT FLOOR LEVEL. EXIT DOOR SHALL SWING IN THE DIRECTION OF EXIT OVER A LANDING NOT MORE THAN 1/2" BELOW THE THRESHOLD.

2. EXIT AND EMERGENCY LIGHTING SHALL CONFORM WITH THE LOCAL AND CURRENT NEC GUIDELINES.

RATED DOOR AND WINDOW ASSEMBLIES

1. THE BUILDING IS EQUIPPED WITH RATED DOOR ASSEMBLIES.

2. EXISTING RATINGS ARE TO BE MAINTAINED. NEW RATED DOORS SHALL CLEARLY LABEL DOOR AND FRAME RATING, DO NOT PAINT LABELS.

FIRE STOPPING

1. FIRE STOPPING IS REQUIRED.

GENERAL

1. ANY DECORATIONS USED SHALL BE NON-COMBUSTIBLE OR FLAME-PROOFED IN AN APPROVED MANNER.

2. INSULATION APPLIED TO EXTERIOR SURFACE OF DUCTS LOCATED IN BUILDINGS SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND SMOKE-DEVELOPED RATING OF NOT MORE THAN 50 WHEN TESTED AS A COMPOSITE INSTALLATION, INCLUDING INSULATION, FACING MATERIALS, TAPES AND ADHESIVES NORMALLY APPLIED.

3. ALL INSULATION MATERIALS INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF CEILING ASSEMBLIES, WALLS SHALL HAVE A FLAME-SPREAD RATING NOT TO EXCEED 25 AND A SMOKE DENSITY NOT TO EXCEED 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

4. HAND-ACTIVATED, DOOR-OPENING HARDWARE SHALL BE CENTERED BETWEEN 30" AND 44" ABOVE THE FLOOR. LATCHING AND LOCKING DOORS THAT ARE HAND-ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER-TYPE HARDWARE, PANIC BARS, PUSH-PULL PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. LOCKED EXIT DOORS SHALL OPERATE AS ABOVE IN EGRESS DIRECTION. DOOR CLOSERS (EXCEPT FIRE DOORS) SHALL HAVE SWEEP PERIOD SO THAT FROM AN OPEN POSITION OF 70 DEGREES, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED FROM THE LEADING EDGE OF THE DOOR.

5. LEVEL FLOOR OR LANDING: THIS STRUCTURE IS AN UN-OCCUPIED BUILDING AND NOT REQUIRED TO BE ACCESSIBLE.

6. MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED:
   A. INTERIOR DOORS - 5 lbs.
   B. EXTERIOR DOORS - 8.5 lbs.
   C. FIRE DOORS - 15 lbs.

7. ALL FLOOR, WALL, AND CEILING PENETRATIONS FOR PIPING, DUCTS, CONDUIT, ETC. SHALL BE SEALED WITH A UL APPROVED METHOD AND MATERIAL APPROVED BY BUILDING.

GENERAL PAINTING NOTES

1. STANDARDS: GENERAL PAINTING SPECIFICATIONS FOR THIS PROJECT ARE DEFINED BY THE PROJECT MANUAL AND ARE BASED ON THE MPI ARCHITECTURAL PAINTING SPECIFICATION MANUAL FOR NEW WORK AND THE MPI MAINTENANCE REPAINTING MANUAL FOR RENOVATION OR REPAINTING WORK.

2. PAINTING WORK: INCLUDES TAPING, SURFACE PREPARATION, CLEANING, DE-RUSTING, PRIMING, FIELD PAINTING AND FINISHING AS REQUIRED BY STANDARD PRACTICE, MANUFACTURER OR SPECIFICATION. REQUIRED COATS OF PAINT OR STAIN ARE IN ADDITION TO SHOP PRIMING, SURFACE TREATMENT AND FINISHING. THE WORK ALSO INCLUDES PAINTING CLEANUP AND REMOVAL OF OVERSPRAY, DRIPS AND SPLATTERS. THE SPECIFICATIONS MAY REQUIRE OTHER TYPES OF PAINTING, INCLUDING, BUT NOT LIMITED TO, FIELD APPLIED SPECIAL COATINGS AND FACTORY PRIMING.

3. PROJECT PAINTING SCOPE: EXCEPT AS NOTED OTHERWISE, CONTRACTOR IS TO FIELD PAINT INTERIOR AND EXTERIOR EXPOSED ITEMS AND BUILDING SURFACES, WHETHER OR NOT PREVIOUSLY PAINTED, AND ALL NEW ITEMS AND SURFACES. THIS INCLUDES, BUT IS NOT LIMITED TO, FACTORY-PRIMED ITEMS, GALVANIZED SHEET METAL AND EXPOSED PIPING AND FITTINGS (INCLUDING IRON AND PVC). EXTERIOR EXPOSED MASONRY AND CONCRETE SHALL BE SEALED, UNLESS NOTED OTHERWISE OR NOT RECOMMENDED BY MANUFACTURER. PAINTING SCOPE ITEMS MAY BE FOUND IN FINISH SCHEDULES, DRAWINGS, SPECIFICATIONS AND PAINTING GENERAL NOTES. THESE SOURCES ARE COMPLEMENTARY, NOT MUTUALLY EXCLUSIVE.

4. MECHANICAL AND ELECTRICAL PAINTING: INCLUDES FIELD PAINTING OF INTERIOR AND EXTERIOR EXPOSED PIPES, DUCTS, HANGERS, EXPOSED STEEL AND IRON WORK AND PRIMED METAL SURFACES OF EQUIPMENT IN EXPOSED AREAS INSTALLED UNDER MECHANICAL AND ELECTRICAL WORK, EXCEPT AS OTHERWISE INDICATED. PAINTING OF ELECTRICAL AND MECHANICAL WORK IN ELECTRICAL AND MECHANICAL ROOMS IS NOT REQUIRED UNLESS NOTED OTHERWISE IN THE PROJECT MANUAL. COLOR-CODING OF PIPING FOR MECHANICAL AND PLUMBING WORK IS COVERED IN THE MECHANICAL OR PLUMBING SPECIFICATIONS.

5. APPLICATION: EACH COAT OF PAINT SHALL TERMINATE AT AN EDGE, CORNER, CHANGE OF MATERIALS OR CHANGE OF PAINT COLOR. COMPLETED PAINTING SHALL NOT IMPEDE THE INTENDED OPERATION OF ANY ITEM, SUCH AS WINDOWS, DRAWERS, HINGES, DOORS, ETC.

6. TOUCH-UP: SURFACES REQUIRING TOUCH-UP SHALL BE REPAIRED AS REQUIRED. PAINT TEXTURE, GLOSS AND COLOR SHALL MATCH EXISTING. IF TOTAL TOUCH-UP AREA ON ONE SURFACE IS LARGER THAN 1 SQUARE FOOT, OF IF TEXTURE, GLOSS AND COLOR CANNOT BE MATCHED, THE ENTIRE SURFACE SHALL BE REPAINTED TO ENCLOSING EDGES OR CORNERS.

7. DO NOT PAINT: UNLESS OTHERWISE INDICATED, DO NOT PAINT ITEMS THAT ARE SPECIFIED FACTORY-FINISHED OR INSTALLER-FINISHED. ALSO, UNLESS OTHERWISE INDICATED, DO NOT PAINT SUCH ITEMS AS ACOUSTIC MATERIALS, HARDWARE, PRE-FINISHED FIXTURES AND EQUIPMENT, PRE-FINISHED MECHANICAL AND ELECTRICAL EQUIPMENT, SWITCH AND OUTLET PLATES, THERMOSTATS, LIGHTING FIXTURES, SWITCHGEAR, MOTORS, DISTRIBUTION PANELS AND INTERIOR AND EXTERIOR SIGNAGE. IF THERE IS A QUESTION WHETHER OR NOT TO PAINT AN ITEM OR SURFACE, CONTACT THE CONTRACTING OFFICER REPRESENTATIVE (COR) FOR INSTRUCTIONS PRIOR TO PAINTING.

8. EXPOSED FINISH METAL SURFACES: UNLESS OTHERWISE INDICATED, DO NOT PAINT METAL SURFACES OF ANODIZED ALUMINUM, STAINLESS STEEL, NICKEL, CHROMIUM PLATE, COPPER, BRASS, BRONZE AND SIMILAR FINISHED MATERIALS.

9. CONCEALED SURFACES: UNLESS OTHERWISE INDICATED, DO NOT PAINT SURFACES SUCH AS WALLS AND CEILINGS IN CONCEALED AND GENERALLY INACCESSIBLE AREAS, INCLUDING FURRED AREAS, UTILITY TUNNELS, PIPE SPACES, CHASES AND DUCT SHAFTS. WATERPROOF SEAL CONCRETE IN PIPE SPACE.

10. OPERATING PARTS AND SENSING DEVICES: UNLESS OTHERWISE INDICATED, DO NOT PAINT MOVING PARTS OF OPERATING UNITS SUCH AS VALVES, DAMPER OPERATORS, LINKAGES, MOTOR AND FAN SHAFTS, LIGHT SENSING OR EMITTING DEVICES THAT MIGHT NOT FUNCTION PROPERLY IF PAINTED.

11. CODE-REQUIRED LABELS: DO NOT PAINT OVER CODE-REQUIRED LABELS.

12. ALL FLOORS ARE TO BE CLEANED AND SEALED AT COMPLETION OF WORK. NO EPOXY PAINT.

GENERAL SEALANT / CAULKING NOTES

1. THE PRIMARY OBJECT OF APPLYING SEALANT IS TO FACILITATE WEATHER TIGHTNESS AT THE EXTERIOR BUILDING ENVELOPE AND WATER TIGHTNESS AT INTERIOR WET/DAMP LOCATIONS. PROPER PRIMING MUST BE USED WITH SEALANTS.

2. THE PRIMARY OBJECT OF APPLYING CAULKING IS TO ENHANCE APPEARANCE AND FINISH AT INTERIOR APPLICATIONS AND IN SOME SITUATIONS TO REDUCE AIRFLOW, SUCH AS AT DUCTS, INTERIOR SIDES OF THE EXTERIOR ENVELOPE AND AT FIREWALL/SMOKE BARRIER PENETRATIONS (FIRE CAULKING) AND TO DECREASE SOUND TRANSMISSION THROUGH WALLS AND CEILINGS. OTHER USES MAY BE NOTED IN THE SPECIFICATIONS AND/OR ON THE DRAWINGS. IF THERE ARE QUESTIONS ABOUT WHERE OR WHAT TYPE OF SEALANT OR CAULKING SHOULD BE USED, CONTACT THE CONTRACTING OFFICER REPRESENTATIVE (COR).

3. SPECIFIED SEALANT (AND BACKER RODS, AS REQUIRED) SHALL BE USED AT HORIZONTAL AND VERTICAL CONCRETE JOINTS AND AS NOTED.

4. SPECIFIED SEALANT AND BACKER RODS, OR EXPANSION JOINT MATERIAL, AS REQUIRED, SHALL BE USED AT MASONRY AND CONCRETE CONTROL JOINTS.

5. APPLY SEALANT TAPE OR TWO CONTINUOUS BEADS OF SEALANT BETWEEN PERIMETER SOLE PLATES AND FOUNDATIONS, SLABS AND FLOOR DECKS. SET EXTERIOR THRESHOLDS IN SEALANT UNLESS NOTED OTHERWISE.

6. SPECIFIED SEALANT OR CAULK SHALL BE USED ALL AROUND BOTH SIDES OF DOOR FRAMES.

7. SPECIFIED SEALANT OR CAULK SHALL BE USED ALL AROUND INTERIOR WALL MOUNTED EQUIPMENT FRAMES AND EXPOSED SUPPORTS.

8. SPECIFIED SEALANT OR CAULK SHALL BE USED AT JOINTS BETWEEN DIFFERENT WALL MATERIALS (TILE TO BRICK, CMU TO GYPSUM BOARD, WOOD TO STONE, METAL PANEL TO P-LAM, ETC).

9. USE SPECIFIED CAULK OR SEALANT AT WALL MATERIAL GAPS OR 1/16TH INCH OR MORE.

10. SEAL ALL AROUND ATTACHMENTS TO, AND PENETRATIONS THROUGH, FLOORS AND WALLS.

11. USE SPECIFIED SEALANT AROUND WALL, FLOOR AND CEILING PIPE PENETRATIONS. WHERE ESCUTCHEONS ARE SPECIFIED OR PROVIDED, SET THE ESCUTCHEONS IN A BED OF SEALANT.

12. USE SPECIFIED CAULK OR SEALANT AROUND PENETRATIONS IN EXTERIOR WALLS AND SOFFITS, SUCH AS AT HOSE BIBS, FD CONNECTIONS, ELECTRIC SERVICE ENTRIES, GAS PIPE ENTRIES, ELECTRIC OUTLETS, LIGHTING, VENTS, ETC.

FIRE AND LIFE SAFETY NOTES DURING CONSTRUCTION

FIRE LIFE SAFETY NOTES
1. IF ENCOUNTERED, FIRE RATED ASSEMBLIES, INCLUDING FIREPROOFING, DAMAGED DURING CONSTRUCTION MUST BE RESTORED TO THEIR ORIGINAL CONDITION.
2. FIRE RESISTIVE ASSEMBLIES, FIRE-RESISTIVE CONSTRUCTION, AND THE MEANS OF EGRESS MUST BE MAINTAINED AT ALL TIMES. WHEN IT IS NOT POSSIBLE TO MAINTAIN FIRE-RESISTIVE ASSEMBLIES, FIRE-RESISTIVE CONSTRUCTION AND/OR MEANS OF EGRESS, TEMPORARY CONSTRUCTION BARRIERS AND/OR A FIRE WATCH MUST BE PROVIDED.

FIRE SAFETY DURING CONSTRUCTION, ALTERATIONS AND DEMOLITION
1. FIRE DEPARTMENT ACCESS ROADS SHALL BE ESTABLISHED AND MAINTAINED AT ALL TIMES PER LOCAL FIRE DEPARTMENT.
2. FIRE DEPARTMENT WATER MAINS AND FIRE HYDRANTS SHALL BE OPERATIONAL AT ALL TIMES AND SHALL BE IN ACCORDANCE WITH LOCAL FIRE DEPARTMENT.
3. FIRE EXTINGUISHERS SHALL BE PROVIDED FOR BUILDINGS UNDER CONSTRUCTION. THE NUMBER AND TYPE OF EXTINGUISHERS SHALL BE AS REQUIRED BY THE STATE FIRE MARSHAL OR LOCAL FIRE DEPARTMENT.
4. COMBUSTIBLE DEBRIS SHALL NOT ACCUMULATE WITHIN BUILDINGS.
5. CUTTING AND WELDING OPERATIONS SHALL BE IN ACCORDANCE WITH LOCAL FIRE CODES.
6. FIRE PROTECTION SYSTEMS SHALL BE MAINTAINED OPERATIONAL AT ALL TIMES PER LOCAL FIRE CODES.
7. REQUIRED MEANS OF EGRESS COMPONENTS SHALL BE MAINTAINED AT ALL TIMES. TEMPORARY EXITING SHALL BE APPROVED BY THE STATE FIRE MARSHAL OR BY THE LOCAL FIRE DEPARTMENT.
8. FIRE-RESISTIVE ASSEMBLIES AND CONSTRUCTION SHALL BE MAINTAINED..
9. PLASTIC FILM (VISQUEEN) WHEN USED FOR DUST PROTECTION, SHALL BE FLAME-RETARDANT.
10. SMOKE DETECTORS SHALL BE COVERED OR REMOVED DURING ALTERATIONS. WHEN REQUIRED BY THE STATE FIRE MARSHAL OR LOCAL FIRE DEPARTMENT, HEAT DETECTORS MAY BE SUBSTITUTED FOR SMOKE DETECTORS DURING ALTERATIONS.
11. ALL FIRE HYDRANTS, WATER SUPPLY TO FIRE HYDRANTS, AND FIRE DEPARTMENT VEHICLE ACCESS ROADWAYS SHALL BE INSTALLED, TESTED AND PLACED IN SERVICE PRIOR TO AND DURING THE TIME OF CONSTRUCTION. INSTALLATION MUST BE COORDINATED WITH LOCAL FIRE DEPARTMENT IN THE FIELD.

Revisions:	Date:

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GENERAL ABATEMENT NOTES

1. PROJECT SPECIFIC PLANS ARE REQUIRED FOR THIS PROJECT. CONTRACTOR TO SUBMIT INFECTIOUS CONTROL PLAN, SAFETY PLAN AND QUALITY CONTROL PLAN PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL MEET AND DISCUSS EXTENT OF ABATEMENT WITH ALL PARTIES TO COORDINATE WITH THE FACILITY INFECTION CONTROL TO CONDUCT AN INFECTION CONTROL RISK ASSESSMENT PRIOR TO BEGINNING ANY ABATEMENT, REMOVAL, AND / OR REPAIRS PER MCM 111-40.

2. THE CONTRACTOR SHALL WRITE THE ASBESTOS HAZARD ABATEMENT PLAN (AHAP) AND DEVELOP A SCHEDULE FOR APPROVAL BY THE VETERANS PROFESSIONAL INDUSTRIAL HYGIENIST (VPIH).

3. THE CONTRACTOR SHALL PERFORM NEGATIVE EXPOSURE ASSESSMENTS (NEA) AND MONITORING PER OSHA 1926.1101(f) FOE EACH REMOVAL WORK OPERATION IN EACH WORK AREA.

4. THE CONTRACTOR SHALL MONITOR AND SAMPLE AIRBORNE ASBESTOS LEVEL PER OSHA 1926.1101 UTILIZING THE POINT COUNT METHOD (PCM). SITE VISITS AND INSPECTIONS OF CONTAINMENT BARRIERS, ANTE-ROOMS, HEPA EQUIPMENT AND CONTROL EQUIPMENT SHALL BE PER THE ASBESTOS HAZARD ABATEMENT PLAN.

5. THE CONTRACTOR SHALL PERFORM THE ABATEMENT CLOSEOUT AND CERTIFICATION OF COMPLIANCE AND FINAL AIR CLEARANCE TESTING WITH VETERANS PROFESIONAL INDUSTRIAL HYGIENIST AS PER SPECIFICATION SECTION 02 82 11.

6. THE CONTRACTOR SHALL MAINTAIN SAFETY DATA SHEETS.

7. THE CONTRACTOR SHALL STORE, TRANSPORT, REMOVE ANY MATERIAL AND WASTE, AND CLEAN WORK AREA UPON COMPLETION OF EACH ABATEMENT.

8. THE CONTRACTOR SHALL MAINTAIN INTEGRITY OF ALL FIRE OR SMOKE RESISTANT PENETRATIONS THAT ARE AFFECTED BY WORK WITHIN AREA. REMOVE AND REPLACE OR REPAIR ANY UNSATISFACTORY SEALS WITHIN AREAS OF WORK. REPORT AREAS AND UNSATISFACTORY CONDITIONS THAT ARE NOT IN SCOPE PROMPTLY TO COR.

9. SAFETY (ILSM) PLAN IS REQUIRED. ICRA REQUIREMENTS MUST BE INCLUDED. PROVIDE SIGNAGE SUBMITTAL PRIOR TO THE START OF WORK.

10. CONTRACTOR TO ENSURE DOOR IS LOCKED AND CLOSED WHEN NOT IN USE. CONTRACTOR SHALL KEEP ALL DOORS SECURE IN ALL AREAS AT ALL TIMES.

11. CONTRACTOR TO VERIFY QUANTITIES AND LOCATIONS OF EXISTING DUCTWORK, PIPING, AND EQUIPMENT THAT REQUIRES ABATEMENT PRIOR TO COMMENCEMENT OF WORK.

12. CONTRACTOR WILL BE HELD RESPONSIBLE IF ACM IS USED ON THIS PROJECT. ALL WORK TO REMOVE AND REPLACE ACM WILL BE AT THEIR COST IF ACM IS USED.

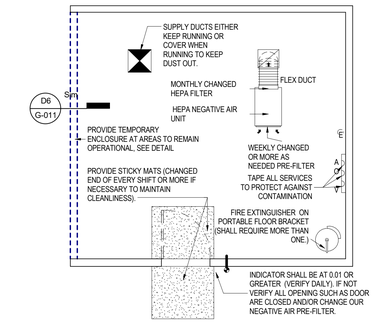
13. CONTRACTOR TO PREPARE AND MAINTAIN A WASTE MANIFEST PER VA ACM ABATEMENT REQUIREMENTS IN THE SPECIFICATIONS.

APPLICABLE STANDARDS:

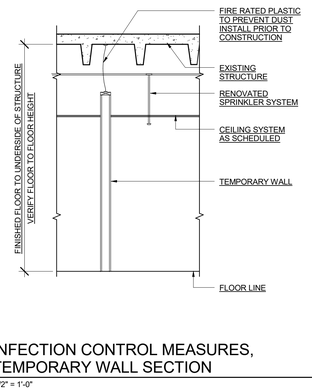
1. DEPARTMENT OF VETERANS AFFAIRS (VA) EXPERIENCE
   A. ASSESSING AND IMPLEMENTING INFECTION CONTROL RISK ASSESSMENT (ICRA)

2. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) TRAINING
   A. OSHA 30-HOUR FOR ALL EMPLOYEES
   B. TITLE 29 CFR 1926.1101 - CONSTRUCTION STANDARD FOR ASBESTOS
   C. TITLE 29 CFR 1910.132 - PERSONAL PROTECTIVE EQUIPMENT
   D. TITLE 29 CFR 1910.134 - RESPIRATORY PROTECTION
   E. TITLE 29 CFR 1926 - CONSTRUCTION INDUSTRY STANDARDS
   F. TITLE 29 CFR 1910.20 - ACCESS TO EMPLOYEE EXPOSURE AND MEDICAL RECORDS
   G. TITLE 29 CFR 1910.1200 - HAZARD COMMUNICATION
   H. TITLE 29 CFR 1910.151 – MEDICAL AND FIRST AID
   I. TITLE 29 CFR 1910.151 – ASBESTOS

3. ENVIRONMENTAL PROTECTION AGENCY (EPA) PERMITS, TRAINING, AND CERTIFICATIONS
   A. 40 CFR 61 SUBPART A AND M (REVISED SUBPART B) - NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS -- ASBESTOS--PERMIT
   B. 40 CFR 763.80 - ASBESTOS HAZARD EMERGENCY RESPONSE ACT (AHERA) TRAINING AND CERTIFICATION
      I. AHERA ASBESTOS REMOVAL CONTRACTOR – CLASS I, II, III, AND IV
      II. AHERA SUPERVISOR TRAINING FOR THE SUPERVISOR - CLASS I, II, III, AND IV
4. DEPARTMENT OF TRANSPORTATION (DOT) PERMITS AND LICENSES
   A. TITLE 49 CFR 100 - 185 – TRANSPORTATION



B6 INFECTION CONTROL MEASURES, TYPICAL CONSTRUCTION LAYOUT
1/4" = 1'-0"



D6 INFECTION CONTROL MEASURES, TEMPORARY WALL SECTION
1/2" = 1'-0"

INFECTION CONTROL RISK ASSESSMENT:

STEP 1: **TYPE D**
IDENTIFY THE TYPE OF CONSTRUCTION PROJECT ACTIVITY (TYPE A-D)
TYPE A: INSPECTION AND NONINVASIVE ACTIVITIES.
TYPE B: SMALL- SCALE, SHORT-DURATION ACTIVITIES THAT CREATE MINIMAL DUST.
TYPE C: WORK THAT GENERATES A MODERATE TO HIGH LEVEL OF DUST OR REQUIRES DEMOLITION OR REMOVAL OF ANY FIXED BUILDING COMPONENTS OR ASSEMBLIES.
TYPE D: MAJOR DEMOLITION AND CONSTRUCTION PROJECTS.

STEP 2: **HIGH RISK**
IDENTIFY THE **PATIENT RISK GROUPS** THAT WILL BE AFFECTED.
IF MORE THAN ONE RISK GROUP WILL BE AFFECTED, SELECT THE HIGHER RISK GROUP.

STEP 3: **CLASS IV**
MATCH THE PATIENT RISK GROUP (LOW, MEDIUM, HIGH, HIGHEST) WITH THE PLANNED CONSTRUCTION PROJECT TYPE (A, B, C, D) ON THE FOLLOWING MATRIX, TO FIND THE CLASS OF PRECAUTIONS (I, II, III OR IV) OR LEVEL OF INFECTION CONTROL ACTIVITIES REQUIRED.

	CONSTRUCTION PROJECT TYPE			
PATIENT RISK GROUP	TYPE A	TYPE B	TYPE C	TYPE D
LOW-RISK GROUP	I	II	II	III/IV
MEDIUM-RISK GROUP	I	II	III	IV
HIGH-RISK GROUP	I	III	III/IV	IV
HIGHEST RISK GROUP	II	III/IV	III/IV	IV

CLASS IV	DURING CONSTRUCTION PROJECT	UPON COMPLETION OF PROJECT
	1. ISOLATE HVAC SYSTEM IN AREA WHERE WORK IS BEING DONE TO PREVENT CONTAMINATION OF DUCT SYSTEM. 2. COMPLETE ALL CRITICAL BARRIERS (THAT IS, SHEETROCK, PLYWOOD, PLASTIC) TO SEAL WORK AREA FROM NONWORK AREA OR IMPLEMENT CONTROL CUBE METHOD (CAT) WITH PLASTIC COVERING AND SEALED CONNECTION TO WORK SITE WITH HEPA VACUUM FOR VACUUMING PRIOR TO EXIT) BEFORE CONSTRUCTION BEGINS. 3. MAINTAIN NEGATIVE AIR PRESSURE WITHIN WORK SITE BEYOND HEPA-EQUIPPED AIR FILTRATION UNITS. 4. SEAL HOLES, PIPES, CONDUITS, AND PUNCTURES APPROPRIATELY. 5. CONSTRUCT ANTEROOM AND REQUIRE ALL PERSONNEL TO PASS THROUGH THIS ROOM SO THEY CAN BE VACUUMED USING A HEPA VACUUM CLEANER BEFORE LEAVING WORK SITE OR THEY CAN WEAR CLOTH OR PAPER COVERALLS THAT ARE REMOVED EACH TIME THEY LEAVE THE WORK SITE. 6. ALL PERSONNEL ENTERING WORK SITE ARE REQUIRED TO WEAR SHOE COVERS. SHOE COVERS MUST BE CHANGED EACH TIME THE WORKER EXITS THE WORK AREA.	1. DO NOT REMOVE BARRIERS FROM WORK AREA UNTIL COMPLETED PROJECT IS INSPECTED BY FIRE OWNNER'S SAFETY DEPARTMENT AND INFECTION PREVENTION AND CONTROL DEPARTMENT AND THOROUGHLY CLEANED BY THE OWNNER'S ENVIRONMENTAL SERVICES DEPARTMENT 2. REMOVE BARRIER MATERIAL CAREFULLY TO MINIMIZE SPREADING OF DIRT AND DEBRIS ASSOCIATED WITH CONSTRUCTION. 3. CONTAIN CONSTRUCTION WASTE BEFORE TRANSPORT IN TIGHTLY COVERED CONTAINERS. 4. COVER TRANSPORT RECEPTACLES OR CARTS. TAPE COVERING UNLESS LID IS SOLID. 5. VACUUM WORK AREA WITH HEPA-FILTERED VACUUMS. 6. WET MOP AREA WITH CLEANER/DISINFECTANT. 7. UPON COMPLETION, RESTORE HVAC SYSTEM WHERE WORK WAS PERFORMED.

STEP 4: IDENTIFY THE AREAS SURROUNDING THE PROJECT AREA, ASSESSING POTENTIAL IMPACT.

BELOW	ABOVE	NORTH	SOUTH	EAST	WEST
RISK GROUP					
LOW	LOW	N/A	HIGH	LOW	LOW

STEP 5:
IDENTIFY SPECIFIC SITE OF ACTIVITY, FOR EXAMPLE, PATIENT ROOMS, MEDICATION ROOM, AND SO ON.

STEP 6: IDENTIFY ISSUES RELATED TO: VENTILATION, PLUMBING, AND ELECTRICAL IN TERMS OF THE OCCURRENCE OF PROBABLE OUTAGES.

STEP 7. IDENTIFY CONTAINMENT MEASURES, USING PRIOR ASSESSMENT. WHAT TYPES OF BARRIERS (FOR EXAMPLE, SOLIDS WALLS)? WILL HEPA FILTRATION BE REQUIRED?
NOTE: *RENOVATION/CONSTRUCTION AREA SHALL BE ISOLATED FROM THE OCCUPIED AREAS DURING CONSTRUCTION AND SHALL BE NEGATIVE WITH RESPECT TO SURROUNDING AREAS.*

STEP 8. CONSIDER POTENTIAL RISK OF WATER DAMAGE. IS THERE A RISK DUE TO COMPROMISING STRUCTURAL INTEGRITY (FOR EXAMPLE, WALL, CEILING, ROOF)?

STEP 9. WORK HOURS: CAN OR WILL THE WORK BE DONE DURING NON-PATIENT-CARE HOURS?

STEP 10. DO PLANS ALLOW FOR ADEQUATE NUMBER OF ISOLATIONNEGATIVE AIRFLOW ROOMS?

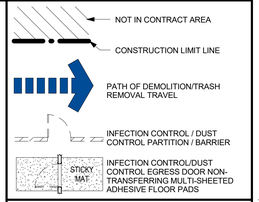
STEP 11. DO THE PLANS ALLOW FOR THE REQUIRED NUMBER AND TYPE OF HAND-WASHING SINKS?

STEP 12. DOES THE INFECTION PREVENTION AND CONTROL STAFF AGREE WITH THE MINIMUM NUMBER OF SINKS FOR THIS PROJECT? (VERIFY AGAINST FACILITY GUIDELINES INSTITUTE (FGI) DESIGN AND CONSTRUCTION GUIDELINES FOR TYPES AND AREA.)

STEP 13. DOES THE INFECTION PREVENTION AND CONTROL STAFF AGREE WITH THE PLANS RELATIVE TO CLEAN AND SOILED UTILITY ROOMS?

STEP 14. PLAN TO DISCUSS THE FOLLOWING CONTAINMENT ISSUES WITH THE PROJECT TEAM, FOR EXAMPLE, TRAFFIC FLOW, HOUSEKEEPING, DEBRIS REMOVAL (HOW AND WHEN).

ICRA SYMBOL LEGEND



ICRA NOTES:

A. IMPLEMENT INFECTION CONTROL RISK ASSESSMENT (ICRA) PROCEDURES AS PER THE VA MEDICAL CENTER ICRA PLAN AND AS DIRECTED BY THE CONTRACTING OFFICER REPRESENTATIVE (COR).
B. COORDINATE ALL DEMOLITION/ CONSTRUCTION DEBRIS PATH OF TRAVEL AND INTERIM LIFE SAFETY MEASURES (ILSM) WITH THE COR. ALL INTERIOR DOORS THAT LEAD TO THE CONSTRUCTION SITE SHALL BE POSTED AS PER THE ISLM PLAN.
C. OBTAIN INFECTION CONTROL PERMIT PRIOR TO BEGINNING WORK.
D. THE ONE HOUR FIRE RATED CONSTRUCTION BARRIERS SHALL BE CONSTRUCTED PRIOR TO BEGINNING OTHER WORK.
E. CONSTRUCT ANTEROOM AT ENTRANCES TO CONSTRUCTION AREAS AND REQUIRE ALL CONSTRUCTION PERSONNEL TO PASS THROUGH THIS ROOM TO BE VACUUMED WITH HEPA VACUUM CLEANER PRIOR TO LEAVING THE SITE.
F. FIRE PROTECTION SYSTEMS SHALL REMAIN FUNCTIONAL FOR OCCUPIED AREAS ON THE FLOOR.
G. PROVIDE FIRE EXTINGUISHERS IN CONSTRUCTION AREAS; REVIEW WITH COR AND VA SAFETY GROUP.
H. MAINTAIN EXIT LIGHTS IN CONSTRUCTION AREA.
I. MAINTAIN NEGATIVE AIR PRESSURE IN CONSTRUCTION AREA AT ALL TIMES (24/7). WHETHER OCCUPIED OR NOT, THROUGHOUT DURATION OF PROJECT USING HEPA EQUIPPED AIR FILTRATION UNITS.
J. CONSTRUCTION AREA SHALL REMAIN ISOLATED FROM THE OTHER AREAS OF THE MEDICAL CENTER; NO RETURN AIR OR EXHAUST SHALL PASS INTO THE AREAS OUTSIDE THE CONSTRUCTION AREA. ISOLATE HVAC SYSTEM WITHIN CONSTRUCTION AREA TO PREVENT CONTAMINATION OF EXISTING DUCT SYSTEM.
K. REDIRECT ALL MEDICAL CENTER PERSONNEL, PATIENTS AND VISITORS SO THEY DO NOT EXIT THROUGH THE CONSTRUCTION AREA. PROVIDE SIGNS ON DOORS INTO THE CONSTRUCTION AREA THAT READS: "CONSTRUCTION AREA-DO NOT ENTER".
L. GENERAL CONTRACTOR SHALL MAINTAIN DAILY LOGS AND KEEP A CURRENT HOT WORK PERMIT ON SITE.
M. TACKY MATS SHALL BE PLACED AT ALL DOORS INTO THE CONSTRUCTION AREA AND SHALL BE MONITORED TO MAKE SURE THEY REMAIN EFFECTIVE.
N. MAINTAIN A CLEAN AND ORDERLY CONSTRUCTION AREA. ALL DEBRIS REMOVAL SHALL BE IN COVERED CARTS AND/OR CONTAINERS.
O. SEAL ALL HOLES, PUNCTURES, AND PENETRATIONS FROM PIPES AND CONDUITS APPROPRIATELY AND IMMEDIATELY TO MAINTAIN DUST PROTECTION AND NEGATIVE AIR PRESSURE.
P. MAINTAIN STAFFING AND EQUIPMENT INCLUDING DUST MOPS, WET MOPS, BROOMS, BUCKETS AND CLEAN WIPING RAGS FOR CLEANING FINE DUST FROM FLOORS AND ADJACENT OCCUPIED AREAS. ANY DUST TRACKED OUTSIDE OF CONSTRUCTION AREA SHALL BE CLEANED IMMEDIATELY.
Q. AFTER COMPLETION OF WORK: VACUUM CONSTRUCTION AREA WITH HEPA FILTERED VACUUMS, WET MOP WITH DISINFECTANT, REMOVE CONSTRUCTION BARRIERS (UPON APPROVAL). PATCH OR REPAIR ANY DAMAGE FROM CONSTRUCTION BARRIER REMOVAL AND REMOVE ISOLATION OF VAC SYSTEM.
R. CONSTRUCTION BARRIERS SHALL NOT BE REMOVE UNTIL PROJECT IS COMPLETED AND INSPECTED BY VA SAFETY PERSONNEL, INFECTION CONTROL GROUP, AND COR.

Revisions:	Date:

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Mikhail Fuks

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DATE SIGNED
ARCHITECT
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	GENERAL INFECTION CONTROL NOTES AND SYMBOLS
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	K. Luke
Project Number	664-18-320
Building Number	1
Drawing Number	G-011

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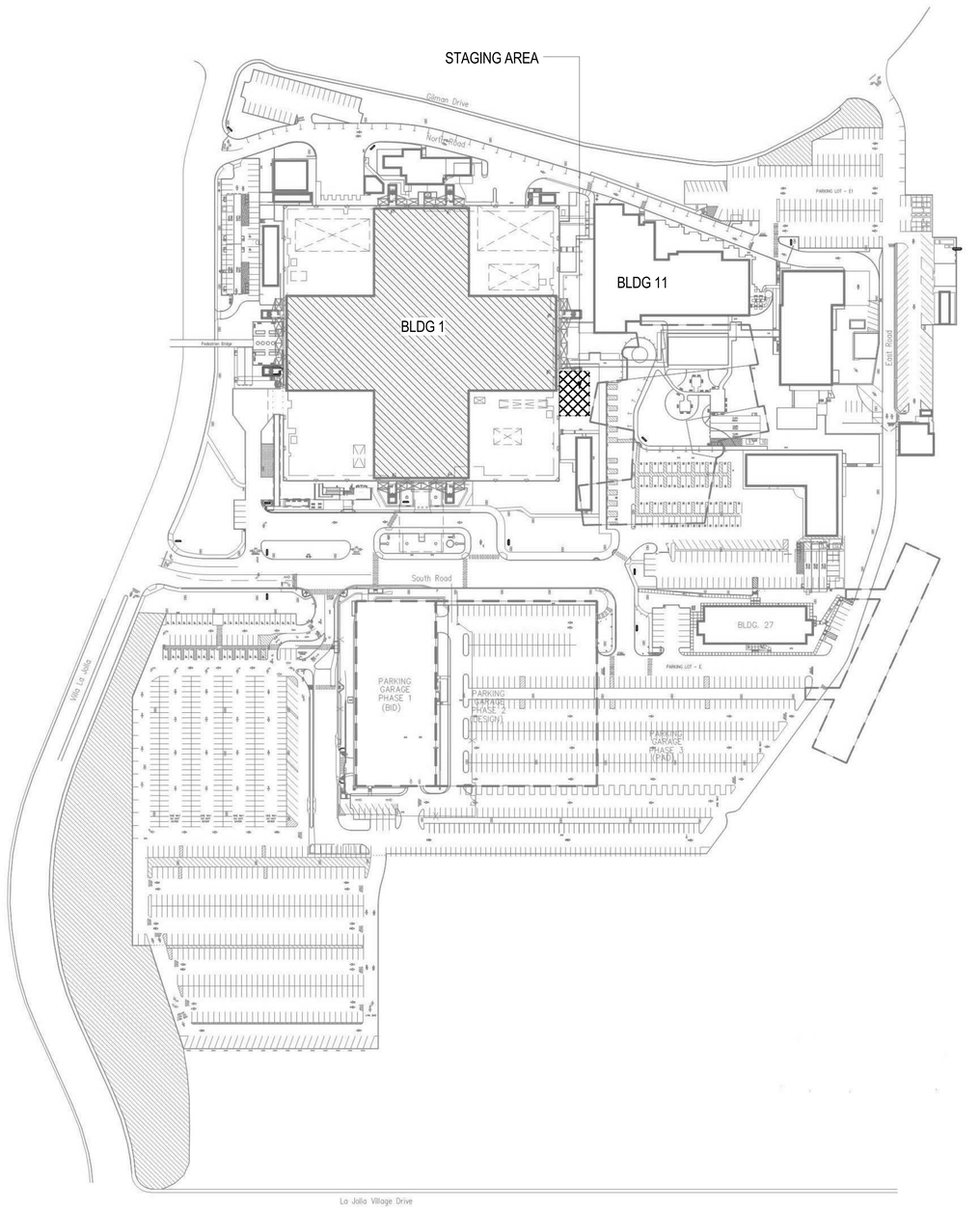
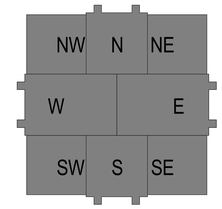


F5 OVERALL SITE
NTS

KEY PLAN



Revisions:	Date:

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Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL SITE PLAN	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
			Building Number: 1
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1AS101
		Issue Date: 03/15/2019 / Checked: M. PERKINS / Drawn: M. RIOS	

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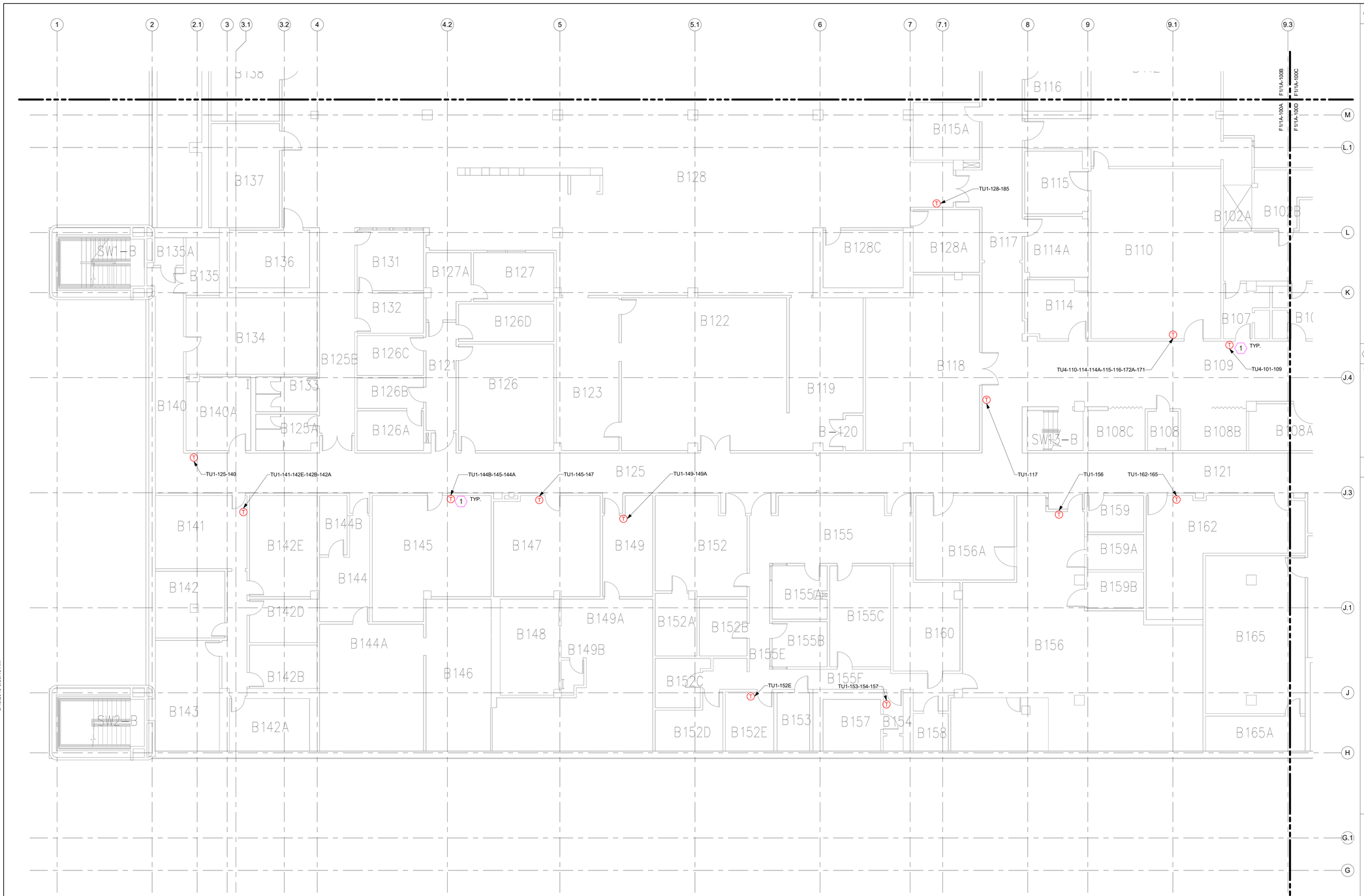


GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
2. ALL NEW THERMOSTATS ARE TO BE MOUNTED IN THE SAME LOCATION AS THE EXISTING THERMOSTATS BEING REPLACED AT A HEIGHT OF 54" ABOVE FINISHED FLOOR. VERIFY FINAL THERMOSTAT LOCATIONS WITH VA.
3. CONTRACTOR IS TO COORDINATE THERMOSTAT REPLACEMENT SCHEDULE WITH THE VA TO ENSURE MINIMAL EFFECT ON FACILITY OPERATIONS. THIS WILL INCLUDE NIGHT AND WEEKEND WORK TO AVOID CONFLICTS WITH HOSPITAL OPERATIONS. SEE PHASING REQUIREMENTS ON G-001.
4. CONTRACTOR IS TO REPAIR, PATCH AND PAINT ALL AREAS AFFECTED BY THERMOSTAT REPLACEMENT TO MATCH EXISTING FINISHES.

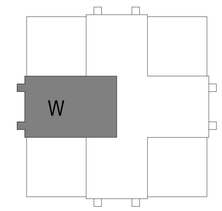
KEYNOTES

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.

ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- T TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- T TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



F1 ARCHITECTURAL PLAN - BASEMENT - WEST
1/8" = 1'-0"

0' 4' 8' 16'

Revisions:	Date:

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Mat Perkins

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REGISTERED PROFESSIONAL ENGINEER
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DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - BASEMENT - WEST
Approved:
Phase: ISSUED FOR CONSTRUCTION
FULLY SPRINKLERED
Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION
Location: 3350 La Jolla Village Drive, San Diego, CA 92161
Issue Date: 03/15/2019
Checked: M. PERKINS
Drawn: M. RIOS
Project Number: 664-18-320
Building Number: 1
Drawing Number: 1A-100A

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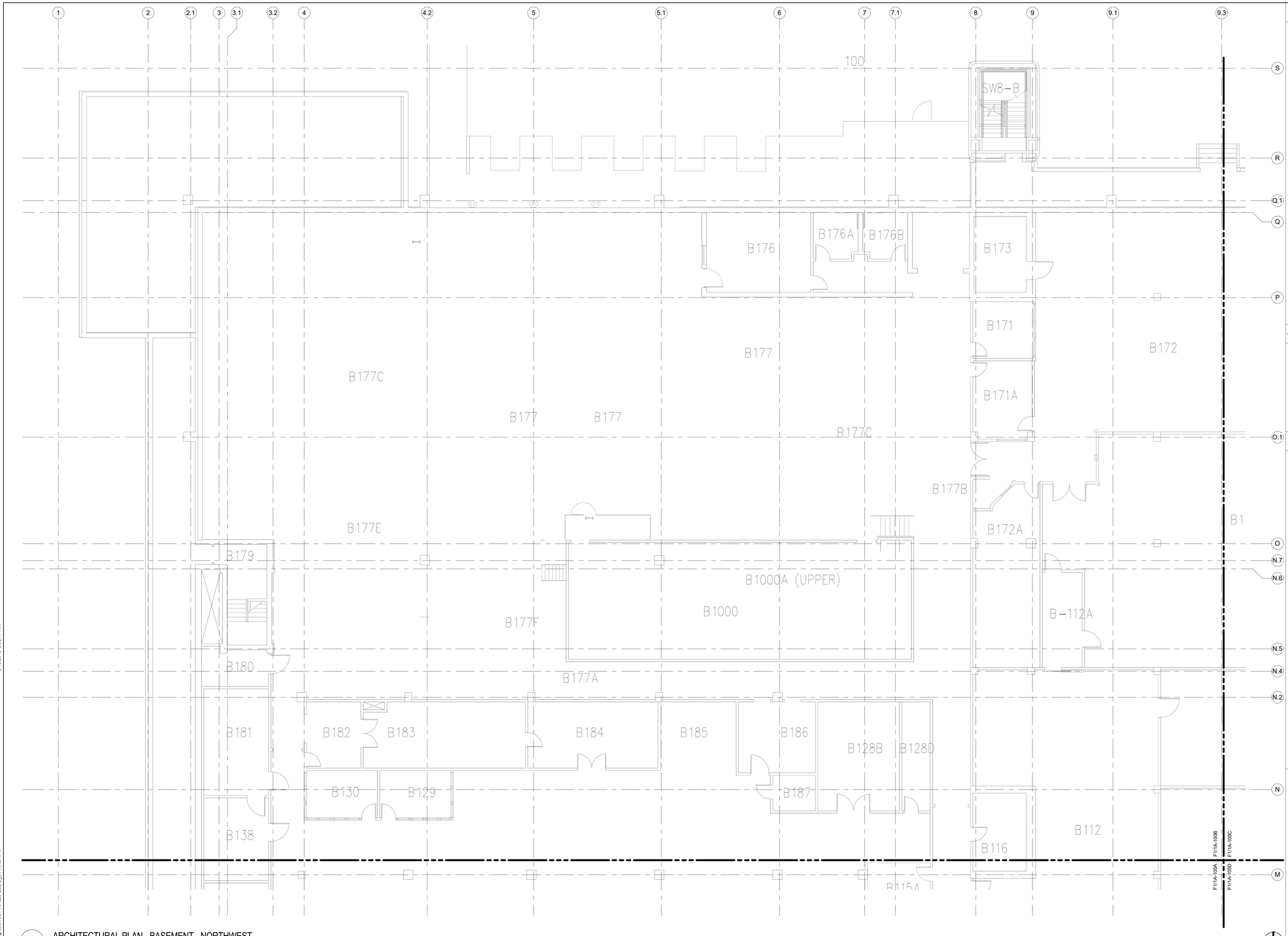

F1 ARCHITECTURAL PLAN - BASEMENT - NORTHWEST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
2. ALL NEW THERMOSTATS ARE TO BE MOUNTED IN THE SAME LOCATION AS THE EXISTING THERMOSTATS BEING REPLACED AT A HEIGHT OF 54" ABOVE FINISHED FLOOR. VERIFY FINAL THERMOSTAT LOCATIONS WITH VA.
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4. CONTRACTOR IS TO REPAIR, PATCH AND PAINT ALL AREAS AFFECTED BY THERMOSTAT REPLACEMENT TO MATCH EXISTING FINISHES.

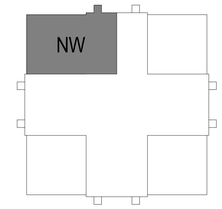
KEYNOTES

NOT USED

ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- (T) TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- (T) TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

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ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - BASEMENT - NORTHWEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-100B
Issue Date: 03/15/2019	Checked: M. PERKINS / Drawn: M. RIOS

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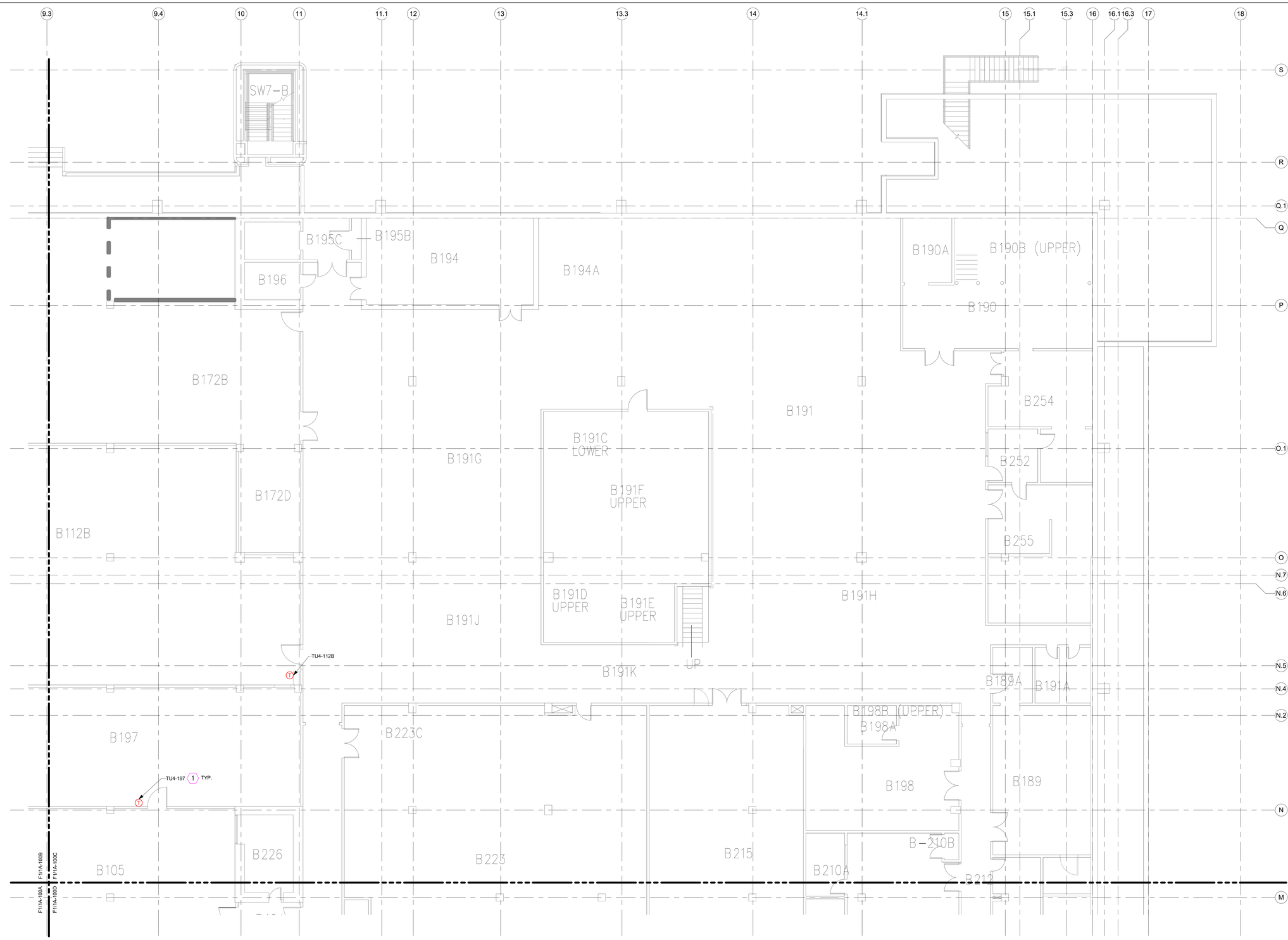

F1 ARCHITECTURAL PLAN - BASEMENT - NORTHEAST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

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KEYNOTES

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ARCHITECTURAL SYMBOL LEGEND

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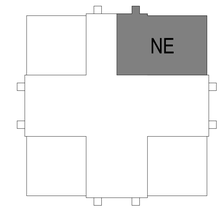
KEY PLAN



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Mikhail Fuks

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Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
MATHEW R. PERKINS
35128
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - BASEMENT - NORTHEAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-100C
Issue Date: 03/15/2019	Checked: M. PERKINS / Drawn: M. RIOS

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-ARCH.rvt
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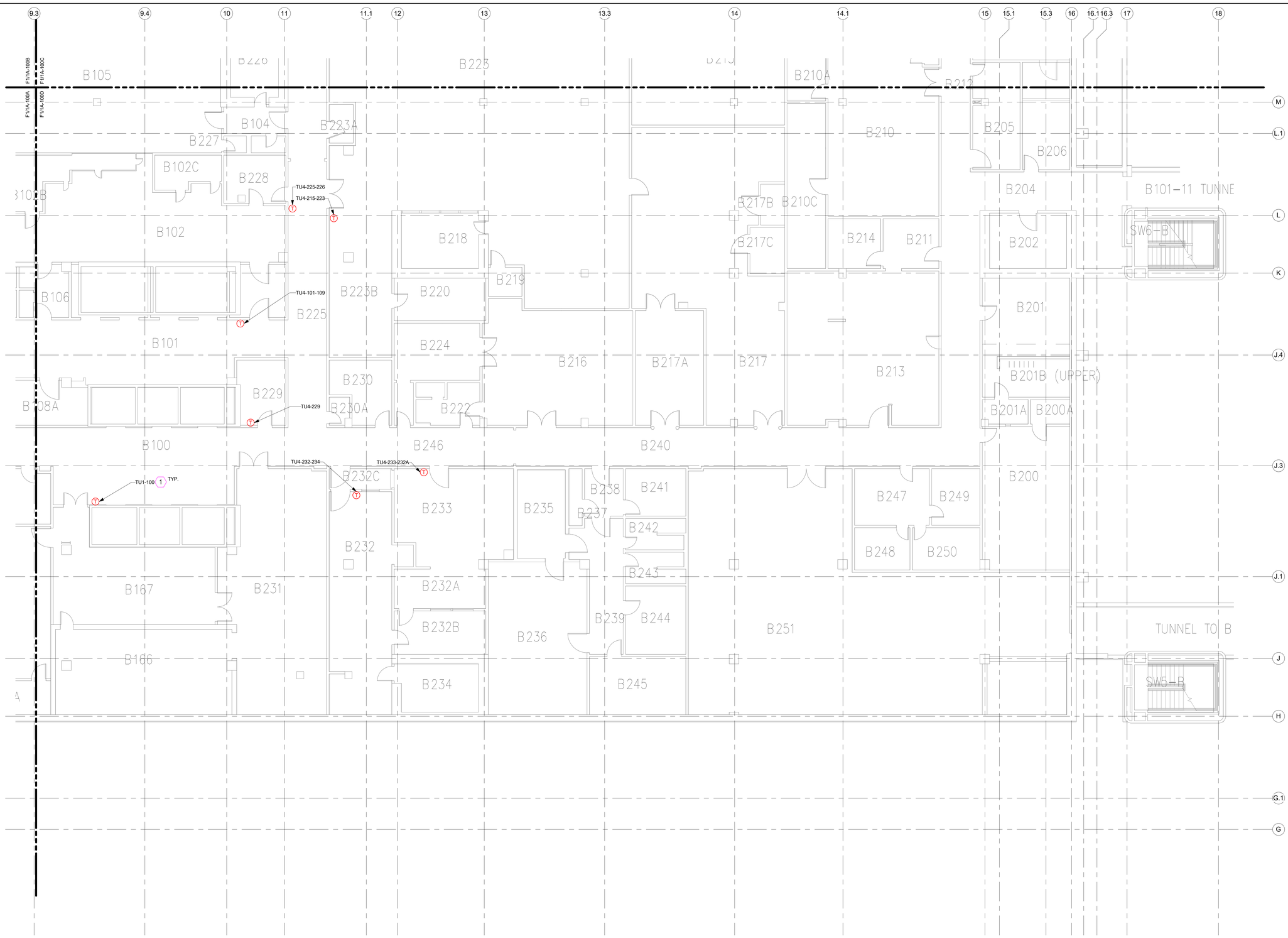
VA FORM 08 - 6231



F1 ARCHITECTURAL PLAN - BASEMENT - EAST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
2. ALL NEW THERMOSTATS ARE TO BE MOUNTED IN THE SAME LOCATION AS THE EXISTING THERMOSTATS BEING REPLACED AT A HEIGHT OF 54" ABOVE FINISHED FLOOR. VERIFY FINAL THERMOSTAT LOCATIONS WITH VA.
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KEYNOTES

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.

ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- (T) TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
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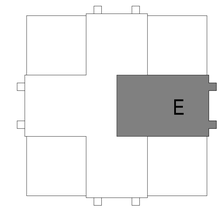
KEY PLAN



Revisions:	Date:

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ARIZONA U.S.A.
Expires: 6/30/21

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VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - BASEMENT - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION			Project Number: 664-18-320
			Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161			Drawing Number: 1A-100D
Issue Date: 03/15/2019	Checked: M. PERKINS	Drawn: M. RIOS	

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F1 ARCHITECTURAL PLAN - FIRST FLOOR - WEST

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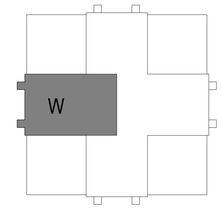

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VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - FIRST FLOOR - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED
Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-101A
Issue Date: 03/15/2019	Checked: M. PERKINS
	Drawn: M. RIOS

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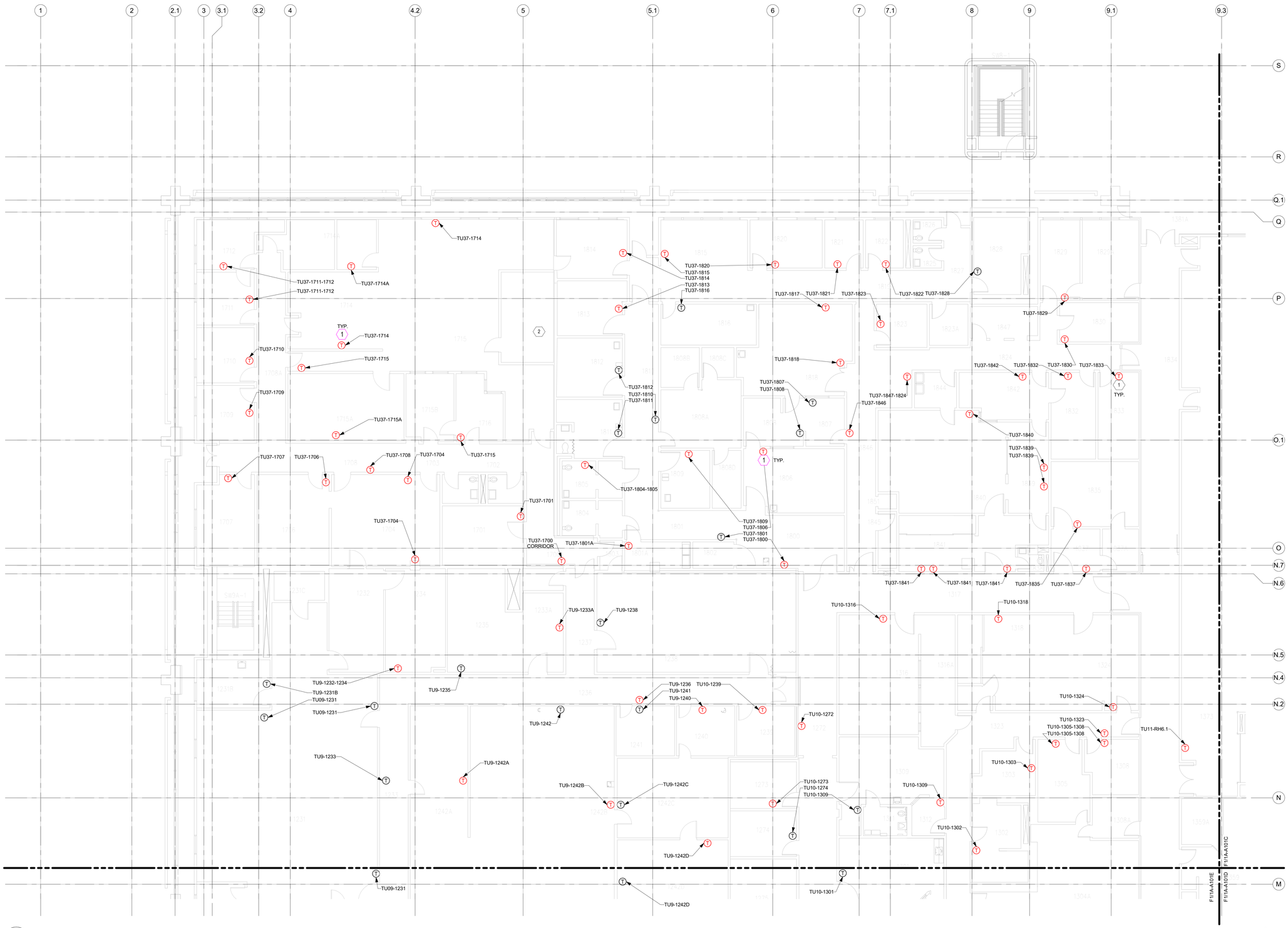

F1 ARCHITECTURAL PLAN - FIRST FLOOR - NORTHWEST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

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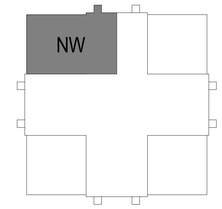

Revisions:	Date:

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REGISTERED ARCHITECT 35126 MATHEW R. PERKINS STATE OF ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - FIRST FLOOR - NORTHWEST

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION

Project Number: 664-18-320

Building Number: 1

Location: 3350 La Jolla Village Drive, San Diego, CA 92161

Issue Date: 03/15/2019

Checked: M. PERKINS

Drawn: M. RIOS

Drawing Number: 1A-101B

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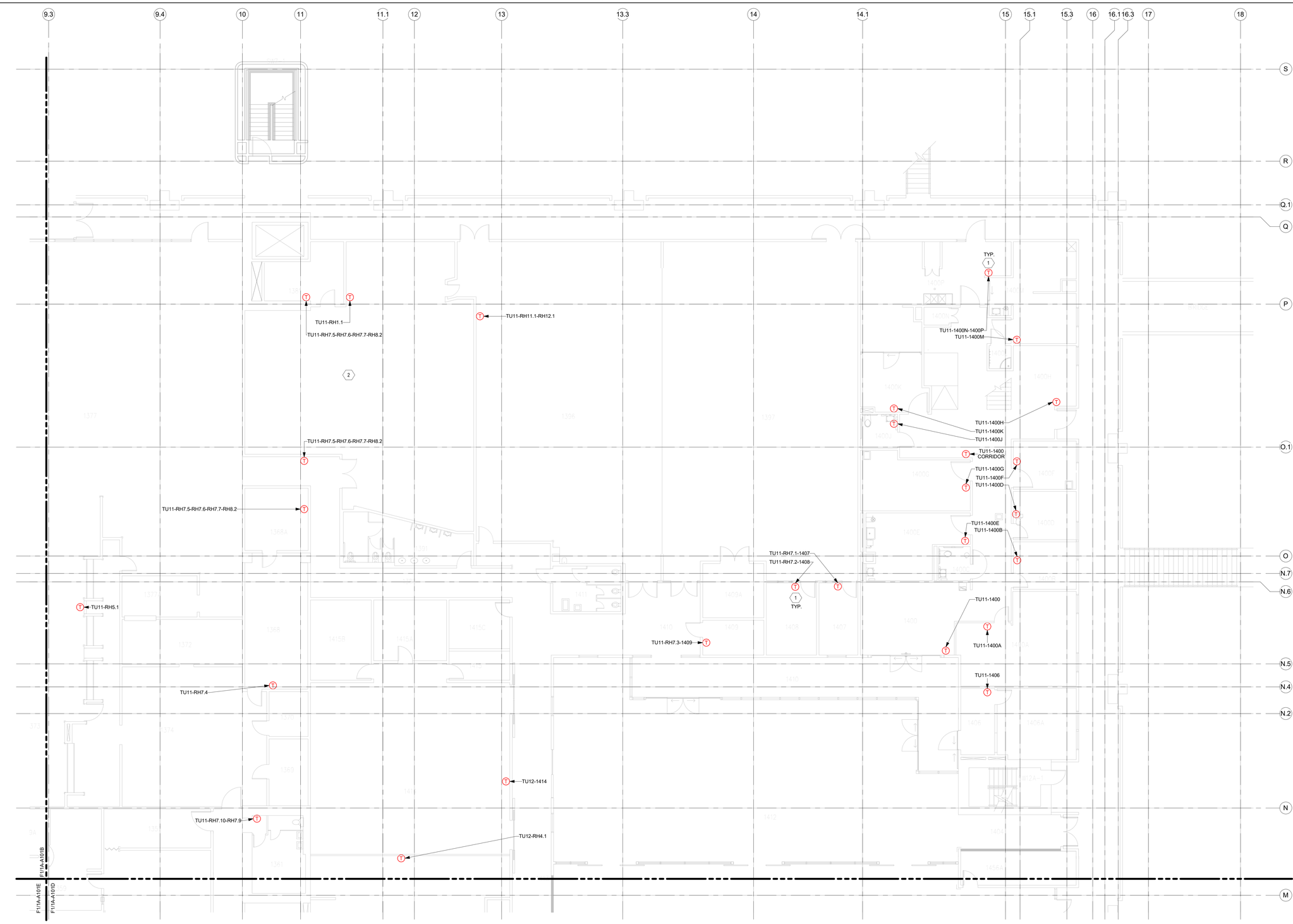

F1 ARCHITECTURAL PLAN - FIRST FLOOR - NORTHEAST

1/8" = 1'-0"

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GENERAL SHEET NOTES

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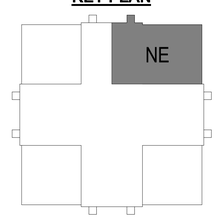

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Drawing Title: ARCHITECTURAL PLAN - FIRST FLOOR - NORTHEAST	Phase: ISSUED FOR CONSTRUCTION
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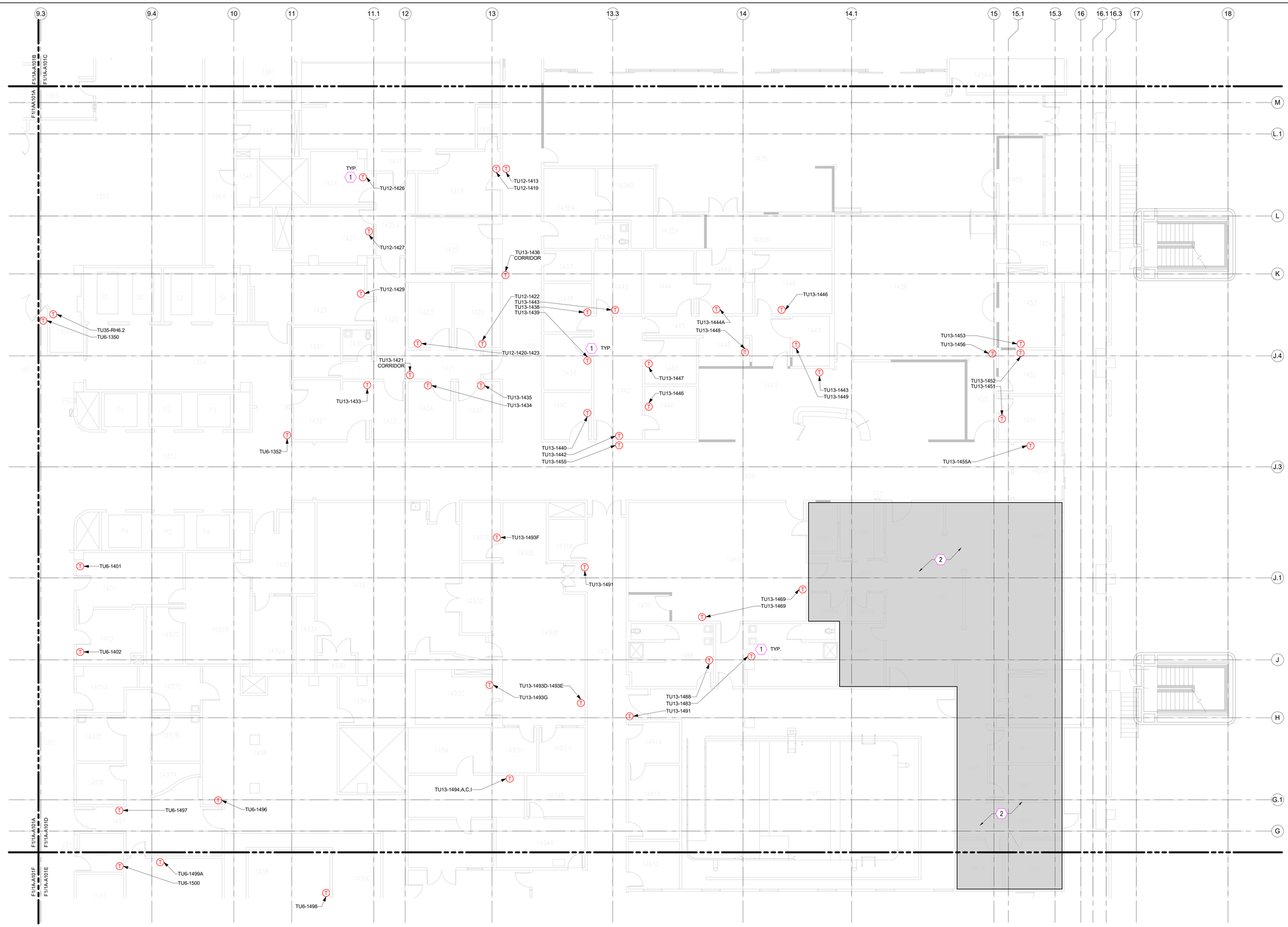

F1 ARCHITECTURAL PLAN - FIRST FLOOR - EAST
1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

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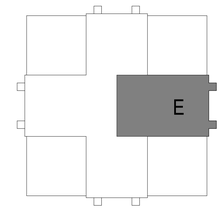

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Drawing Title: ARCHITECTURAL PLAN - FIRST FLOOR - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

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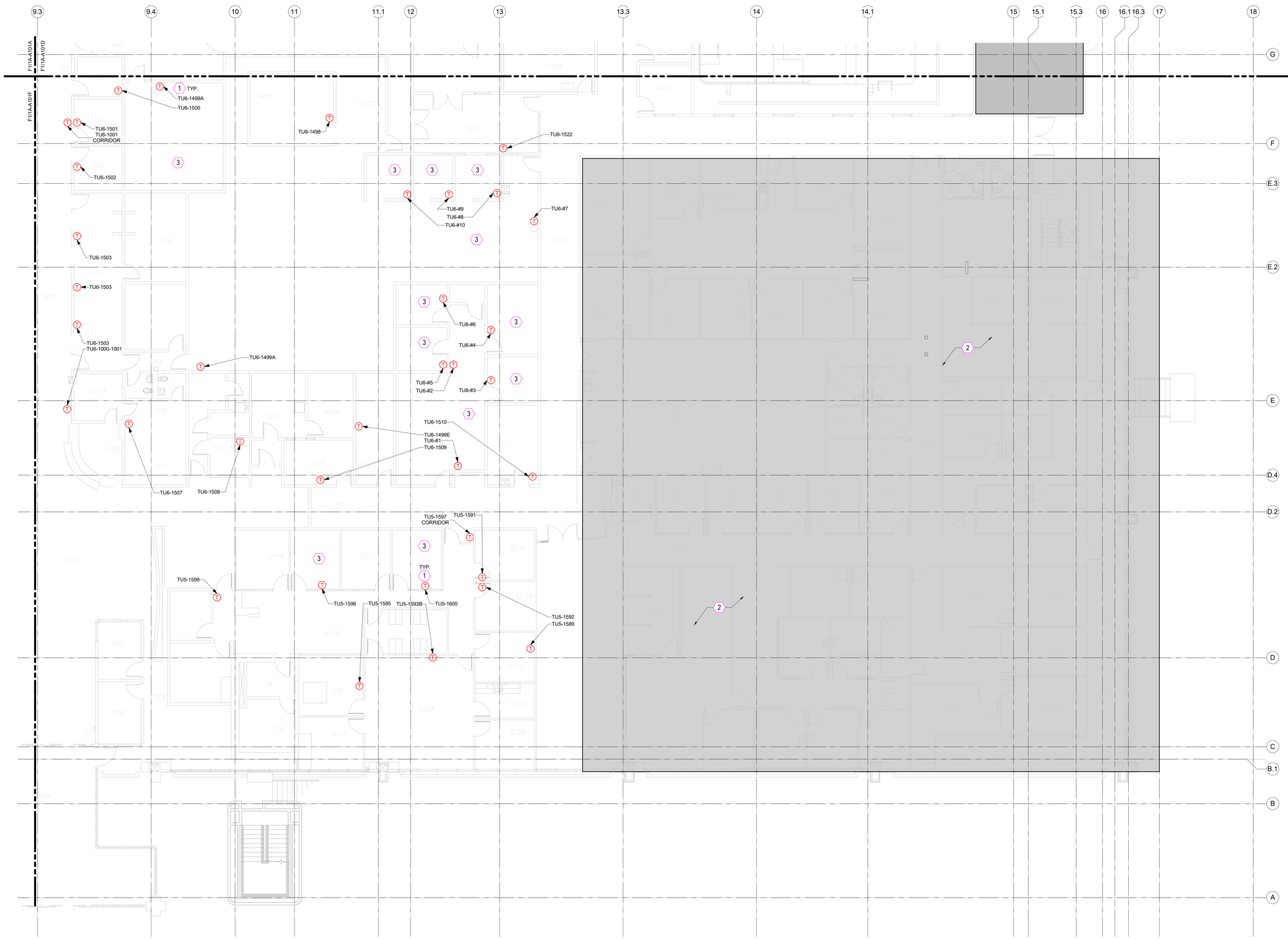

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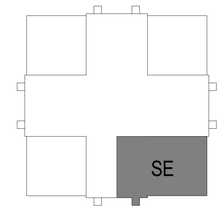

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Drawing Title	ARCHITECTURAL PLAN - FIRST FLOOR - SOUTHEAST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
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Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION
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Drawn	M. RIOS
Project Number	664-18-320
Building Number	1
Drawing Number	1A-101E

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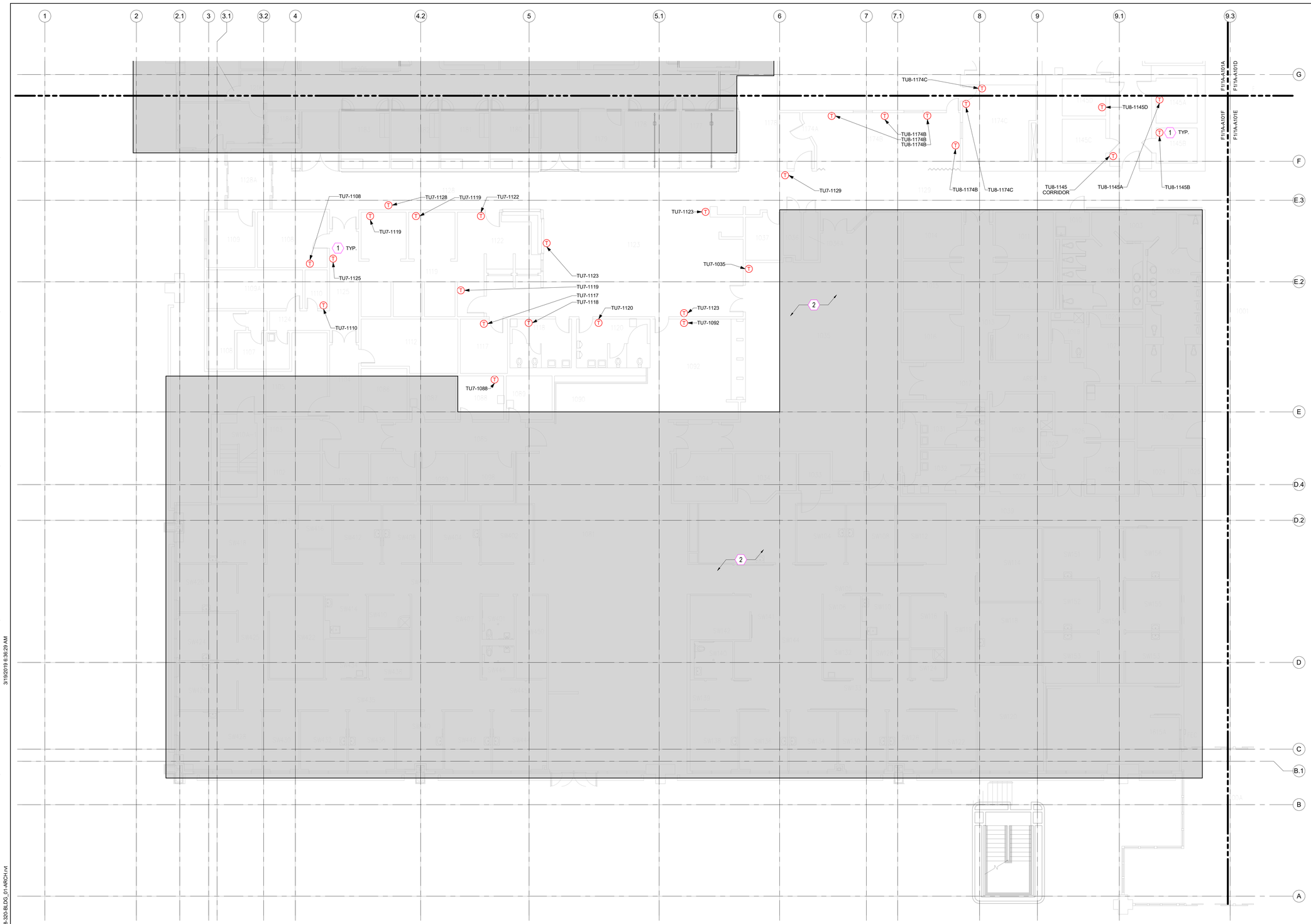
VA FORM 08 - 6231



F1 ARCHITECTURAL PLAN - FIRST FLOOR - SOUTHWEST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
2. ALL NEW THERMOSTATS ARE TO BE MOUNTED IN THE SAME LOCATION AS THE EXISTING THERMOSTATS BEING REPLACED AT A HEIGHT OF 54" ABOVE FINISHED FLOOR. VERIFY FINAL THERMOSTAT LOCATIONS WITH VA.
3. CONTRACTOR IS TO COORDINATE THERMOSTAT REPLACEMENT SCHEDULE WITH THE VA TO ENSURE MINIMAL EFFECT ON FACILITY OPERATIONS. THIS WILL INCLUDE NIGHT AND WEEKEND WORK TO AVOID CONFLICTS WITH HOSPITAL OPERATIONS. SEE PHASING REQUIREMENTS ON G-001.
4. CONTRACTOR IS TO REPAIR, PATCH AND PAINT ALL AREAS AFFECTED BY THERMOSTAT REPLACEMENT TO MATCH EXISTING FINISHES.

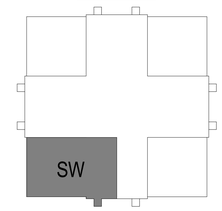
KEYNOTES

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.
2. EXISTING DDC THERMOSTAT UPGRADED UNDER PREVIOUS WORK. NOT IN CONTRACT

ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- T TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- T TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

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Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED ARCHITECT 35128 MATHEW R. PERKINS DATE SIGNED ARIZONA U.S.A.

Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ARCHITECTURAL PLAN - FIRST FLOOR - SOUTHWEST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION
Location	3350 La Jolla Village Drive, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. PERKINS
Drawn	M. RIOS
Project Number	664-18-320
Building Number	1
Drawing Number	1A-101F

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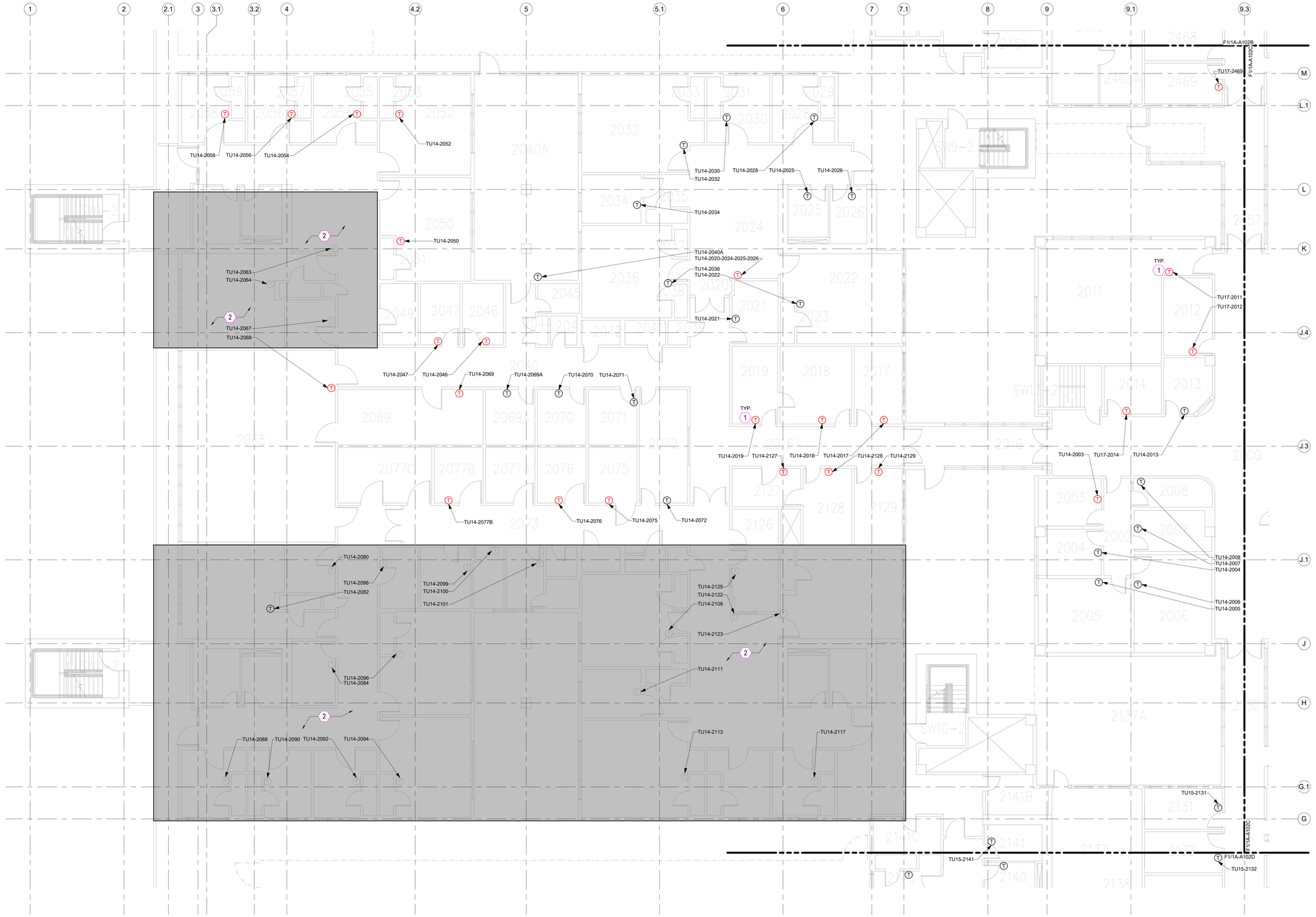

F1 ARCHITECTURAL PLAN - SECOND FLOOR - WEST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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4. CONTRACTOR IS TO REPAIR, PATCH AND PAINT ALL AREAS AFFECTED BY THERMOSTAT REPLACEMENT TO MATCH EXISTING FINISHES.

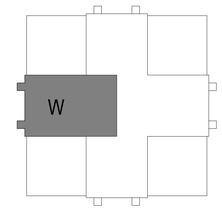
KEYNOTES

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.
2. EXISTING DDC THERMOSTAT UPGRADED UNDER PREVIOUS WORK. NOT IN CONTRACT.

ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- T — TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- T — TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

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307-460-2054
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A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED ARCHITECT
39128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - SECOND FLOOR - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-102A
Issue Date: 03/15/2019	Checked: M. PERKINS / Drawn: M. RIOS

3/19/2019 6:36:30 AM

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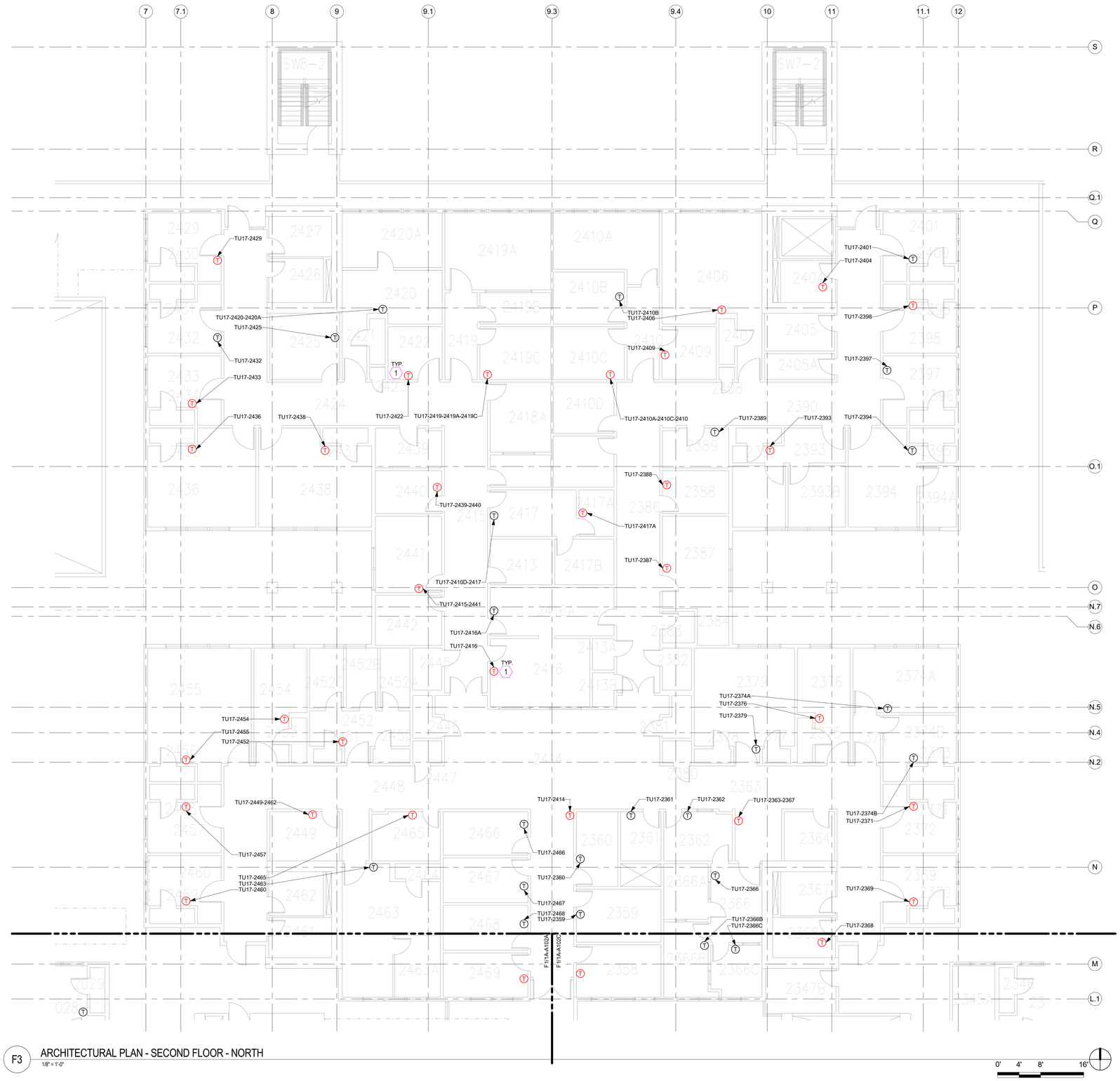
VA FORM 08 - 6231



F3 ARCHITECTURAL PLAN - SECOND FLOOR - NORTH

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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KEYNOTES

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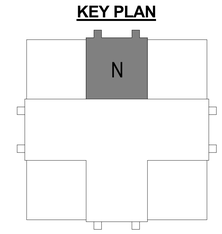
ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- (T) TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- (T) TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

CONSULTANT

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Mat Perkins

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REGISTERED ARCHITECT 39128 MATHEW R. PERKINS STATE OF ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - SECOND FLOOR - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-102B
Issue Date: 03/15/2019	Checked: M. PERKINS / Drawn: M. RIOS

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3/19/2019 6:36:31 AM

VA FORM 08 - 6231

F1 ARCHITECTURAL PLAN - SECOND FLOOR - EAST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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KEYNOTES

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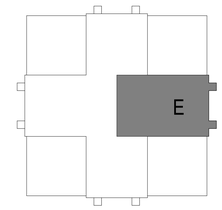
ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT – TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- T TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- T TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

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REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - SECOND FLOOR - EAST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Building Number: 1
		Issue Date: 03/15/2019 / Checked: M. PERKINS / Drawn: M. RIOS	Drawing Number: 1A-102C

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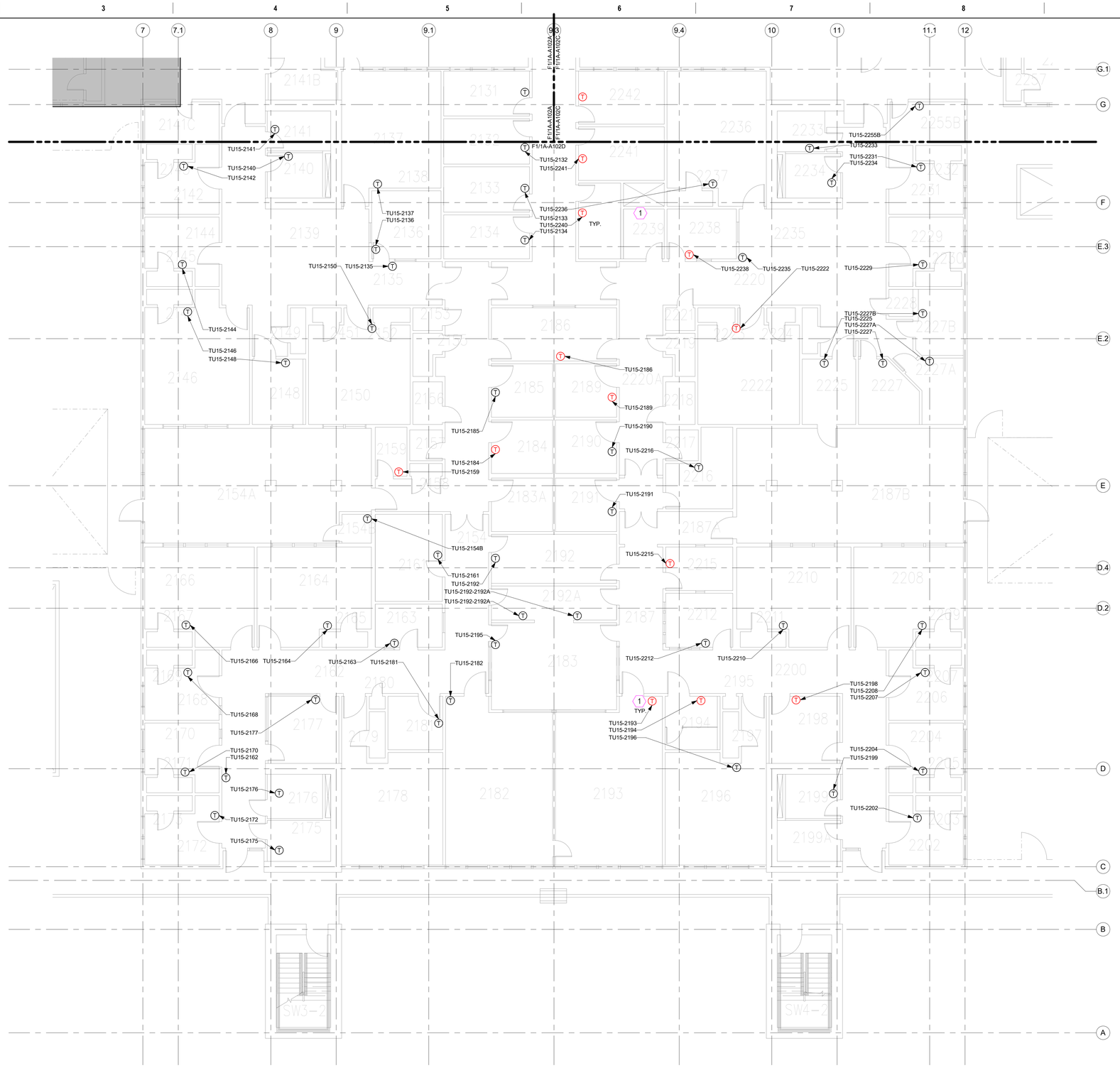

F3 ARCHITECTURAL PLAN - SECOND FLOOR - SOUTH

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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KEYNOTES

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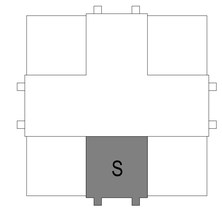
ARCHITECTURAL SYMBOL LEGEND

AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS

T TUXX-RM## NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK

T TUXX-RM## EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

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307-460-2054
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STAMP

REGISTERED PROFESSIONAL ENGINEER
33128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - SECOND FLOOR - SOUTH	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Building Number: 1
		Issue Date: 03/15/2019 / Checked: M. PERKINS / Drawn: M. RIOS	Drawing Number: 1A-102D

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-ARCH.rvt

3/19/2019 6:36:34 AM

VA FORM 08 - 6231

F1 ARCHITECTURAL PLAN - THIRD FLOOR - WEST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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2. EXISTING DDC THERMOSTAT UPGRADED UNDER PREVIOUS WORK. NOT IN CONTRACT

ARCHITECTURAL SYMBOL LEGEND

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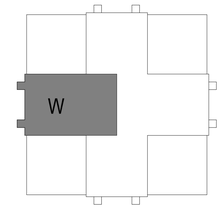
- T TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- T TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

CONSULTANT

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Mat Perkins

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A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED ARCHITECT
39126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

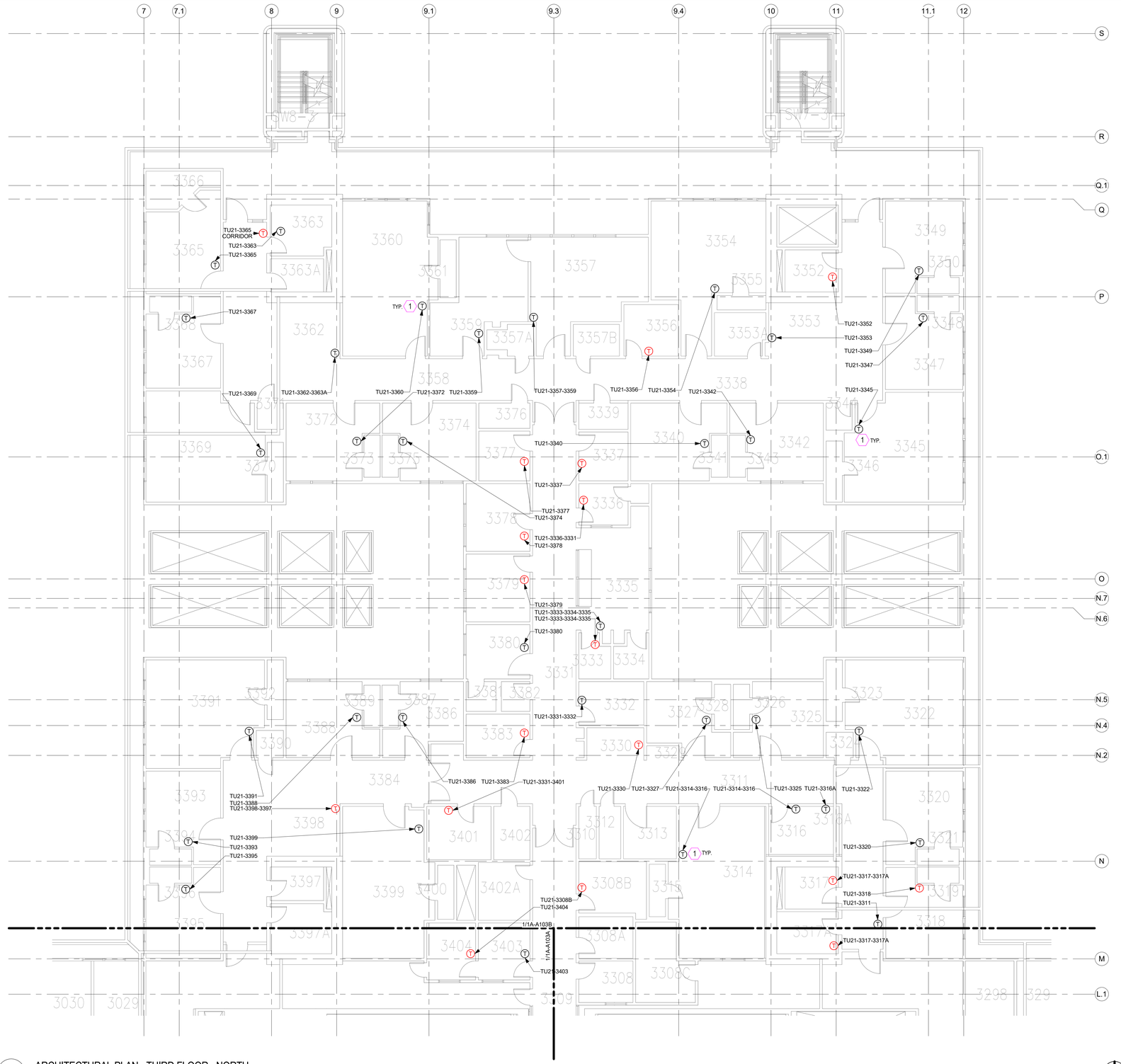
VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - THIRD FLOOR - WEST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Building Number: 1
		Issue Date: 03/15/2019 / Checked: M. PERKINS / Drawn: M. RIOS	Drawing Number: 1A-103A

3/19/2019 6:36:37 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-ARCH.rvt

VA FORM 08 - 6231



F2 ARCHITECTURAL PLAN - THIRD FLOOR - NORTH

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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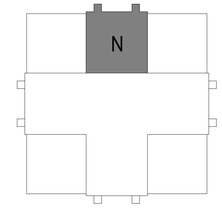
KEYNOTES

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.

ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- T TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- T TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

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Mikhail Fuks

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Mat Perkins

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A MULTI-DISCIPLINE AE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
SP126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - THIRD FLOOR - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-103B
Issue Date: 03/15/2019	Checked: M. PERKINS / Drawn: M. RIOS

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-ARCH.rvt
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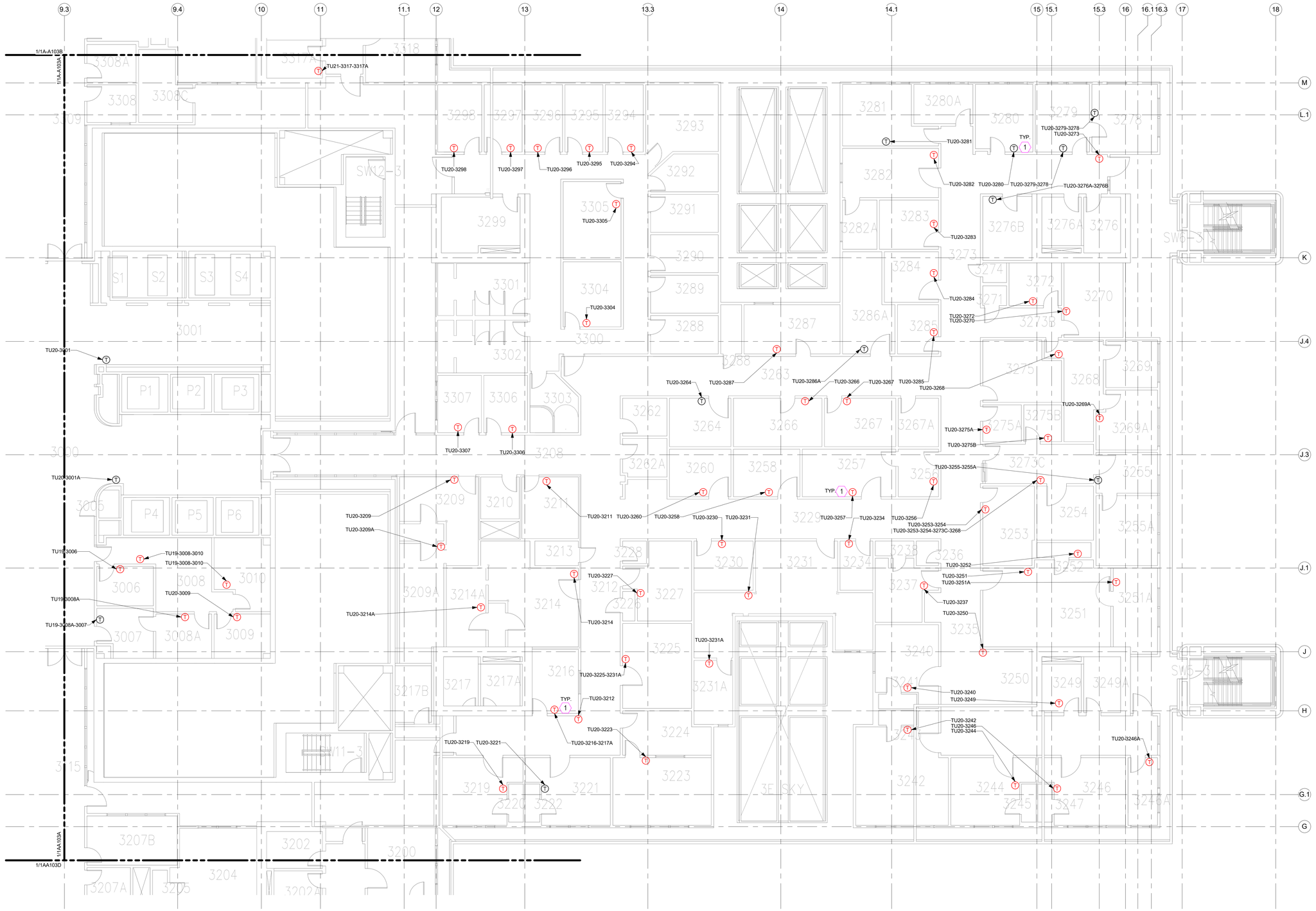

F1 ARCHITECTURAL PLAN - THIRD FLOOR - EAST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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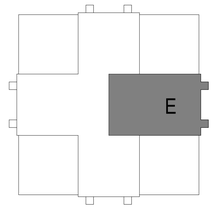
ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- T TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- T TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



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Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

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REGISTERED PROFESSIONAL ENGINEER
GRANTED
35128
MATHEW R. PERKINS
WET SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - THIRD FLOOR - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-103C
Issue Date: 03/15/2019	Checked: M. PERKINS / Drawn: M. RIOS

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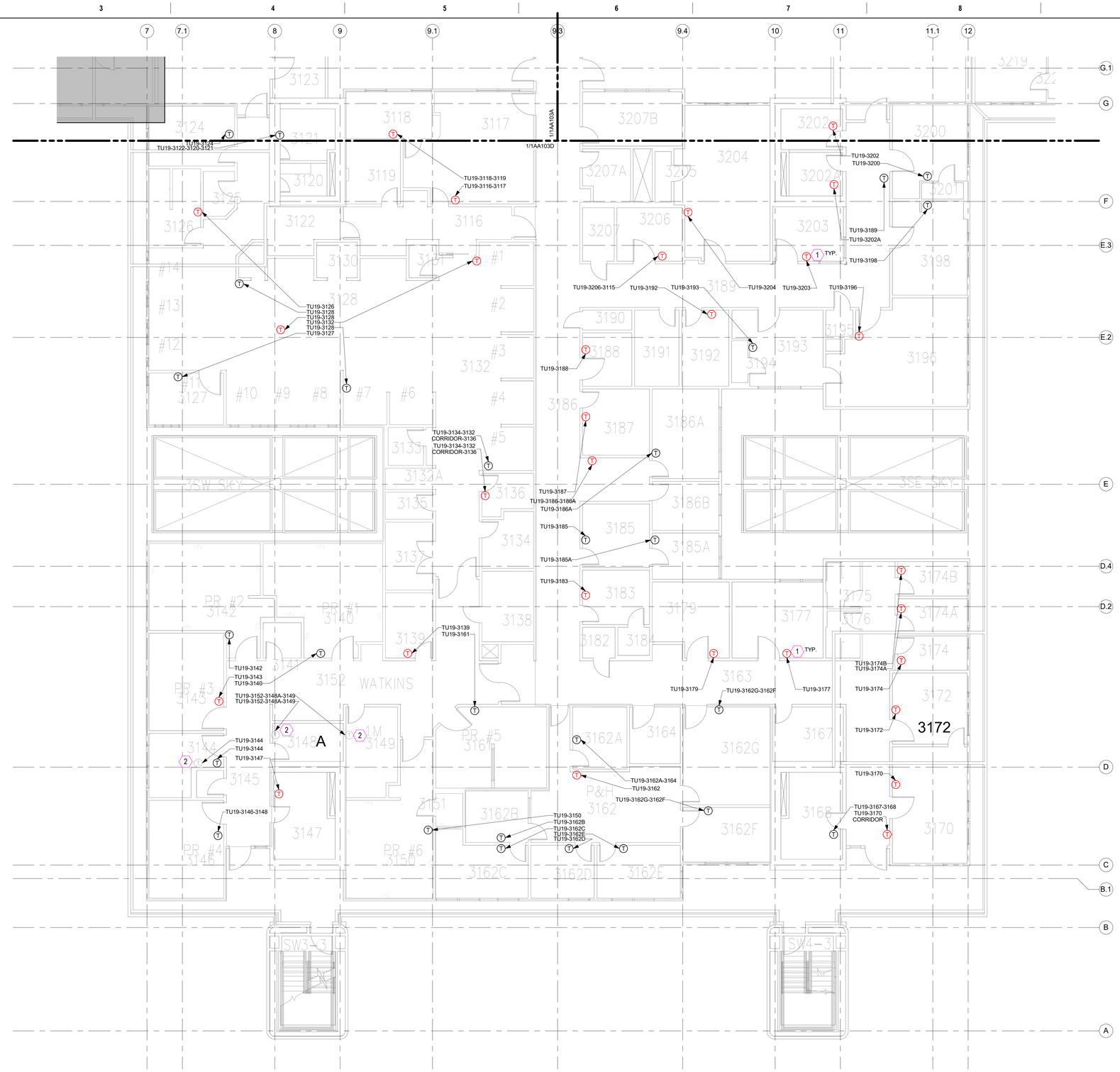

F3 ARCHITECTURAL PLAN - THIRD FLOOR - SOUTH

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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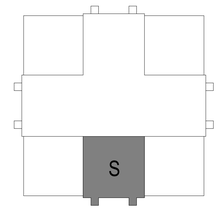
2. EXISTING DDC THERMOSTAT UPGRADED UNDER PREVIOUS WORK. NOT IN CONTRACT

ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- (T) TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- (T) TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

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Mat Perkins

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A MULTI-DISCIPLINE COMPANY

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REGISTERED ARCHITECT
35128
MATHEW R. PERKINS
STATE OF ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ARCHITECTURAL PLAN - THIRD FLOOR - SOUTH
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION
Location	3350 La Jolla Village Drive, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. PERKINS
Drawn	M. RIOS
Project Number	664-18-320
Building Number	1
Drawing Number	1A-103D

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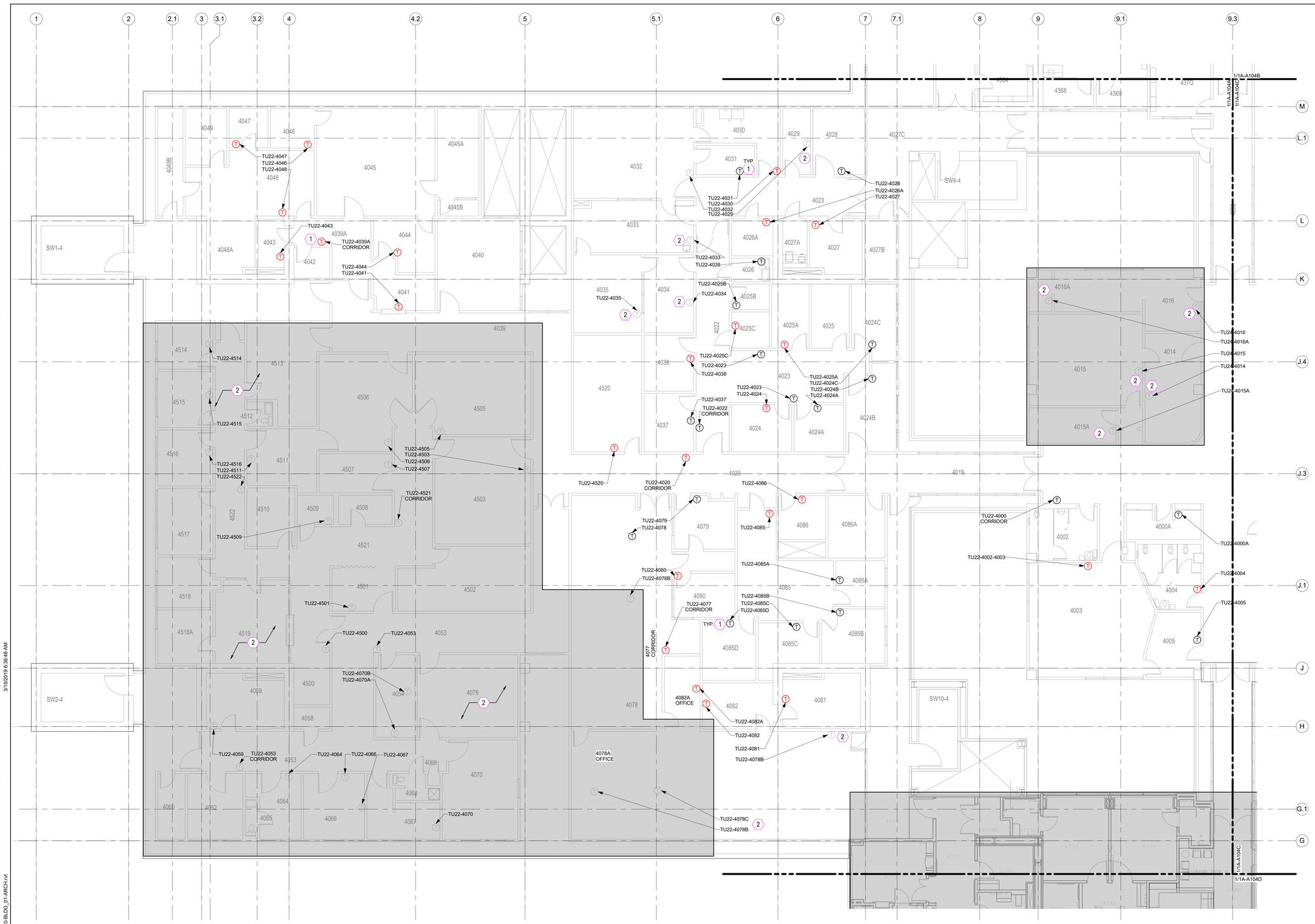

F1 ARCHITECTURAL PLAN - FOURTH FLOOR - WEST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT. PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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ARCHITECTURAL SYMBOL LEGEND

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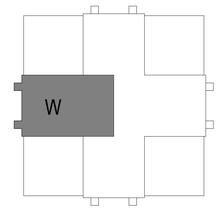

Revisions:	Date:

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562-497-2999
Mikhail Fuks

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307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED ARCHITECT 33128 MATHEW R. PERKINS D.O.N.E. SIGNED ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - FOURTH FLOOR - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-104A
Issue Date: 03/15/2019 / Checked: M. PERKINS / Drawn: M. RIOS	

3/19/2019 6:36:48 AM

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F3 ARCHITECTURAL PLAN - FOURTH FLOOR - NORTH

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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ARCHITECTURAL SYMBOL LEGEND

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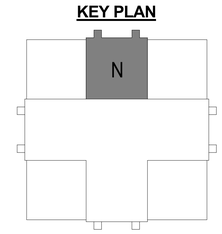
KEY PLAN



Revisions:	Date:

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REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - FOURTH FLOOR - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-104B
Issue Date: 03/15/2019	Checked: M. PERKINS / Drawn: M. RIOS

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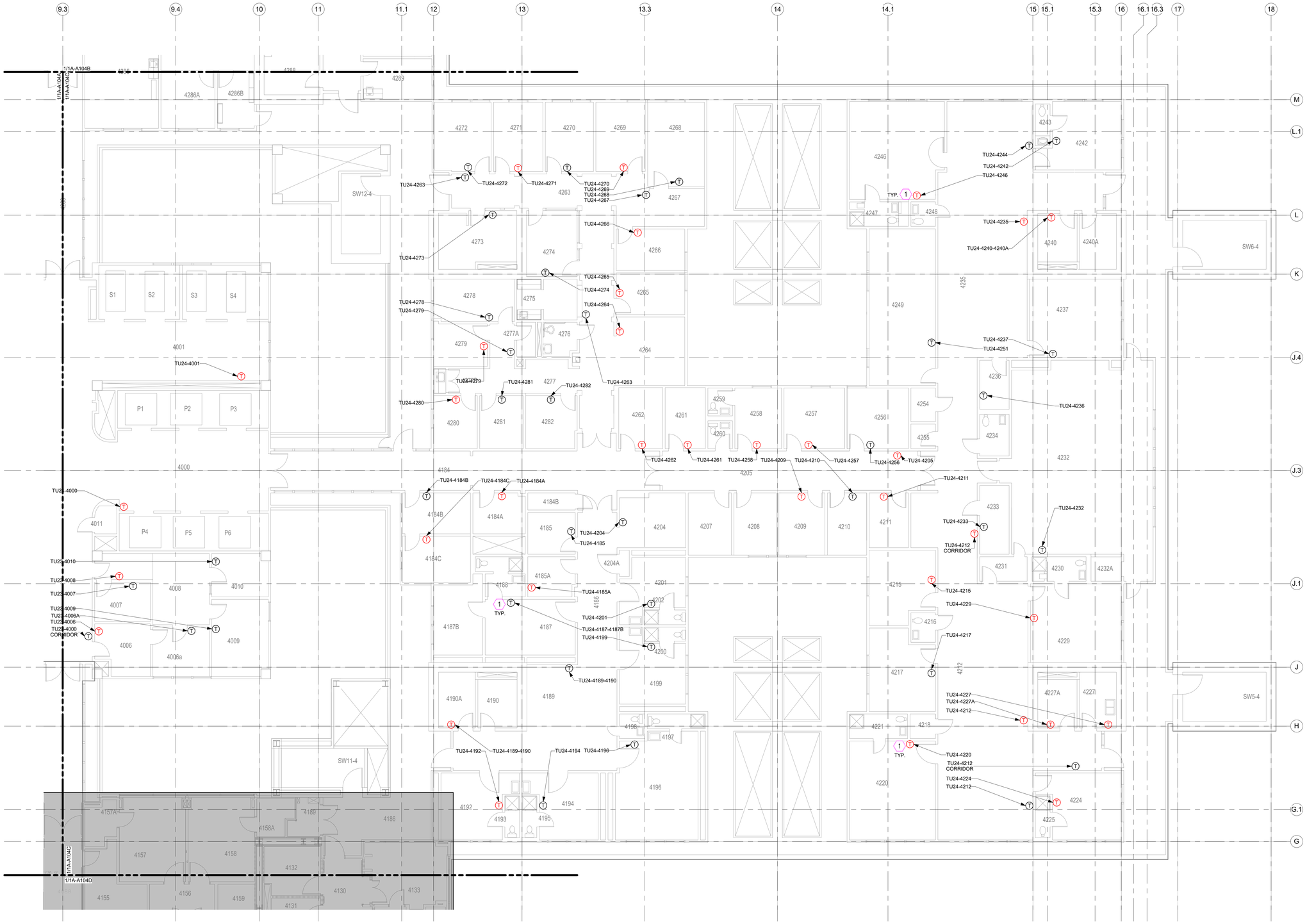

F1 ARCHITECTURAL PLAN - FOURTH FLOOR - EAST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT. PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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ARCHITECTURAL SYMBOL LEGEND

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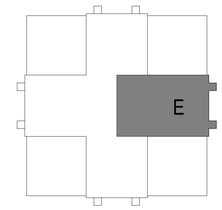
KEY PLAN



Revisions:	Date:

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A MULTI-DISCIPLINE A/E COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
39126
MATHEW R. PERKINS
CERTIFICATE NOT VALID UNLESS SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - FOURTH FLOOR - EAST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Building Number: 1
		Issue Date: 03/15/2019 / Checked: M. PERKINS / Drawn: M. RIOS	Drawing Number: 1A-104C

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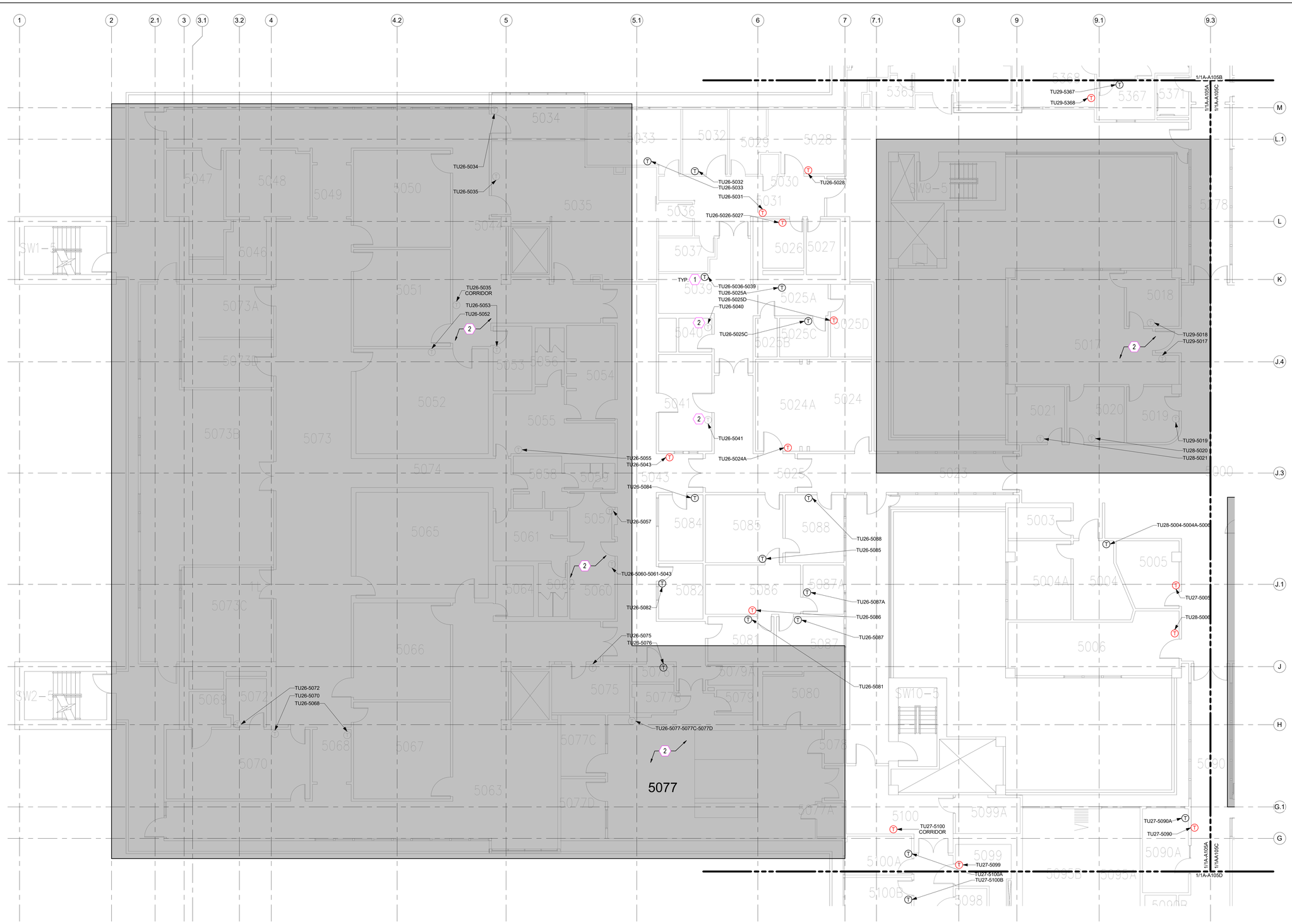

F1 ARCHITECTURAL PLAN - FIFTH FLOOR - WEST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

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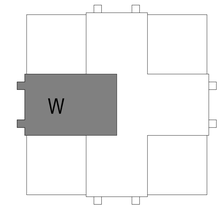
KEYNOTES

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.
2. EXISTING DDC THERMOSTAT UPGRADED UNDER PREVIOUS WORK. NOT IN CONTRACT

ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- T TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- T TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

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Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED ARCHITECT 33128 MATHEW R. PERKINS DATE SIGNED ARIZONA U.S.A.
Expires: 6/30/21

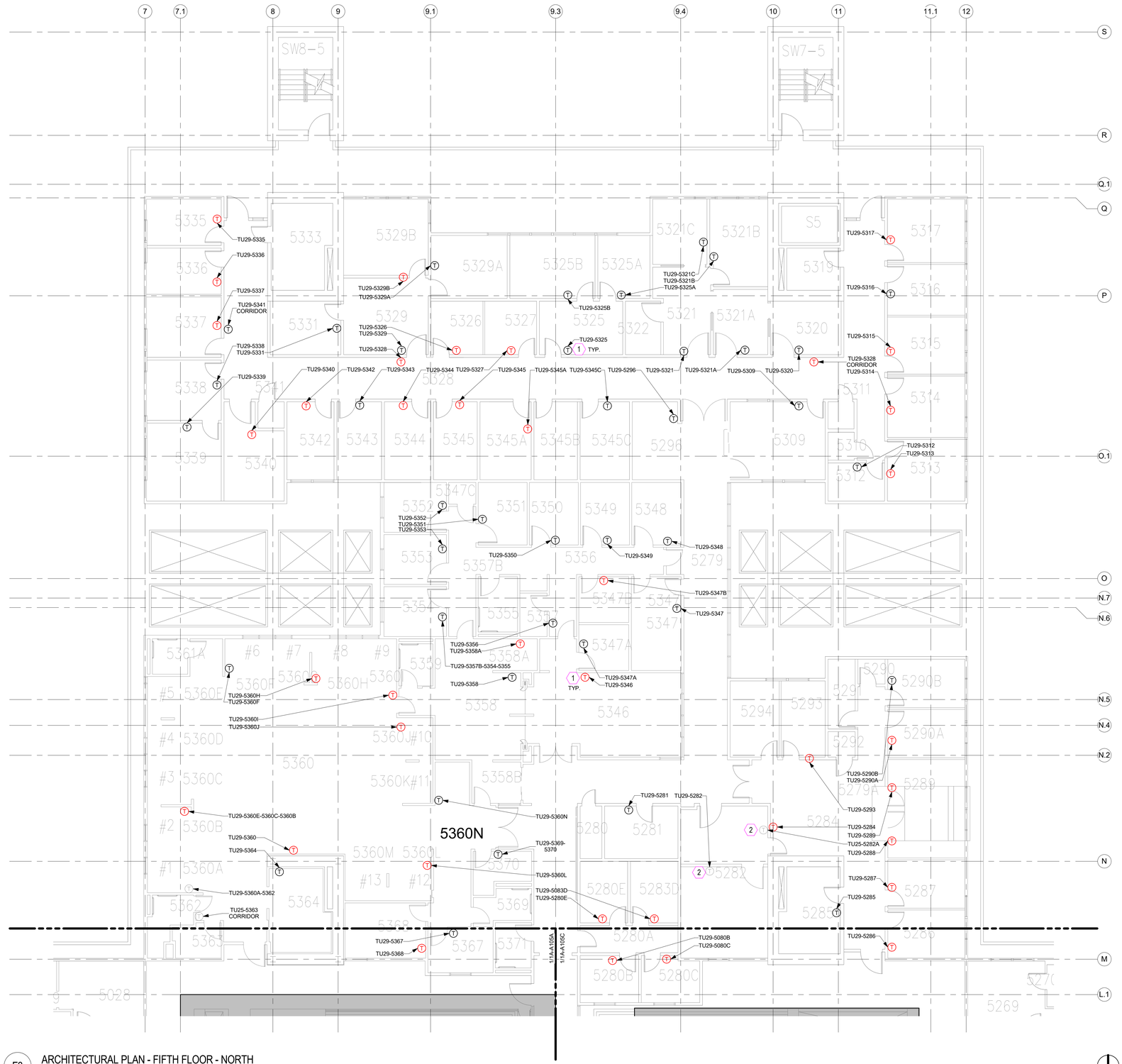
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - FIFTH FLOOR - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-105A
Issue Date: 03/15/2019 / Checked: M. PERKINS / Drawn: M. RIOS	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-ARCH.rvt
3/19/2019 6:36:57 AM



F3 ARCHITECTURAL PLAN - FIFTH FLOOR - NORTH
1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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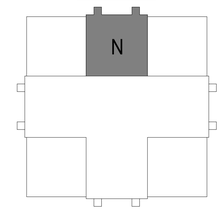
KEY PLAN



Revisions:	Date:

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Mat Perkins

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A MULTI-DISCIPLINE COMPANY

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REGISTERED ARCHITECT 39128 MATHEW R. PERKINS NOT VALID UNLESS SIGNED ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ARCHITECTURAL PLAN - FIFTH FLOOR - NORTH
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION
Location	3350 La Jolla Village Drive, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. PERKINS
Drawn	M. RIOS
Project Number	664-18-320
Building Number	1
Drawing Number	1A-105B

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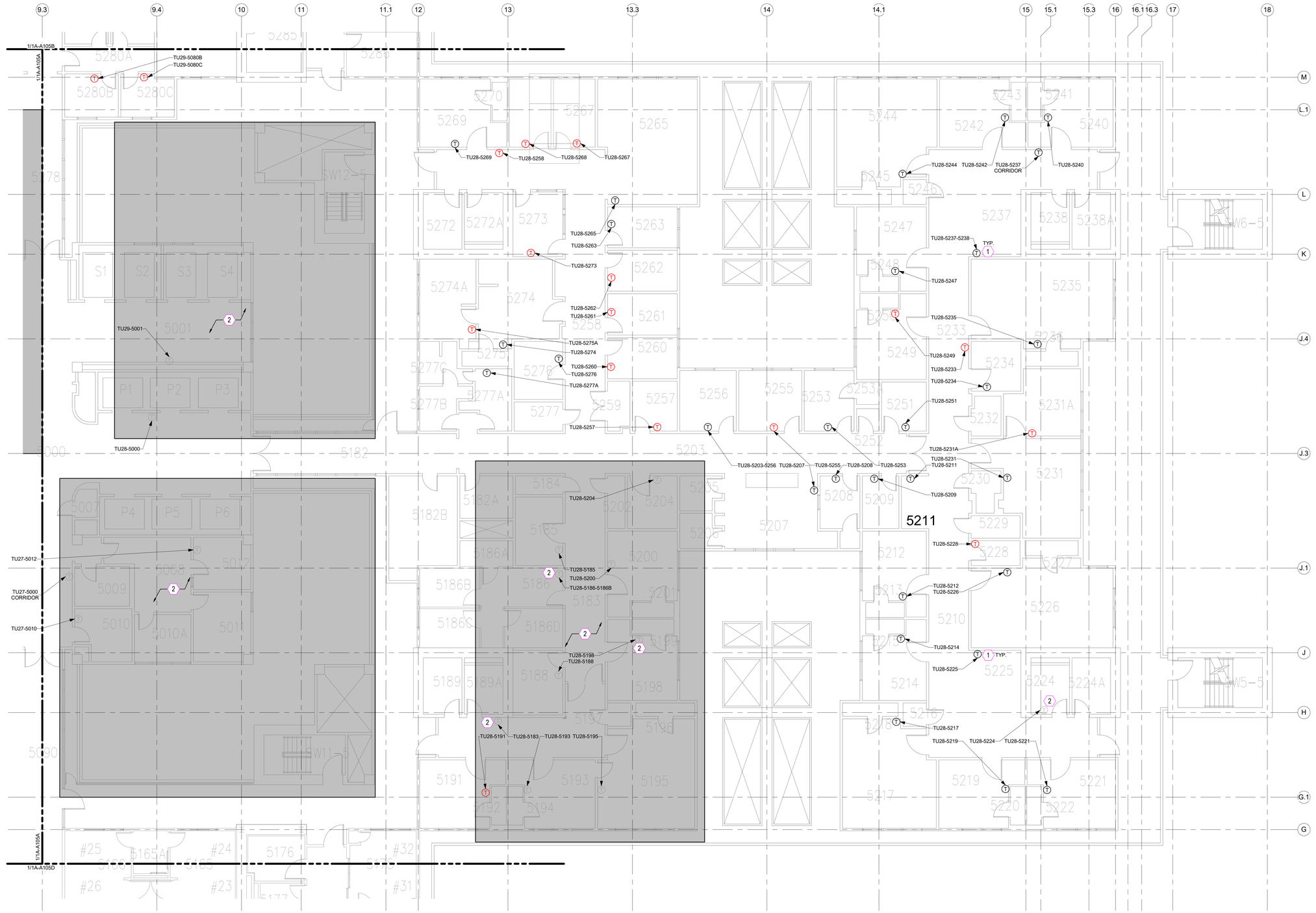
VA FORM 08 - 6231



F1 ARCHITECTURAL PLAN - FIFTH FLOOR - EAST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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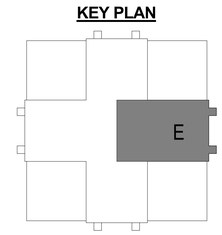

Revisions:	Date:

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Mat Perkins

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STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - FIFTH FLOOR - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-105C
Issue Date: 03/15/2019	Checked: M. PERKINS / Drawn: M. RIOS

3/19/2019 6:37:04 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-ARCH.rvt

VA FORM 08 - 6231

F3 ARCHITECTURAL PLAN - FIFTH FLOOR - SOUTH

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

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ARCHITECTURAL SYMBOL LEGEND

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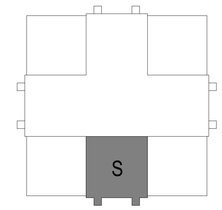

Revisions:	Date:

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Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE A/E COMPANY

STAMP

REGISTERED ARCHITECT 35128 MATHEW R. PERKINS ELECTRONICALLY SIGNED ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - FIFTH FLOOR - SOUTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION			Project Number: 664-18-320
			Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161			Drawing Number: 1A-105D
Issue Date: 03/15/2019	Checked: M. PERKINS	Drawn: M. RIOS	

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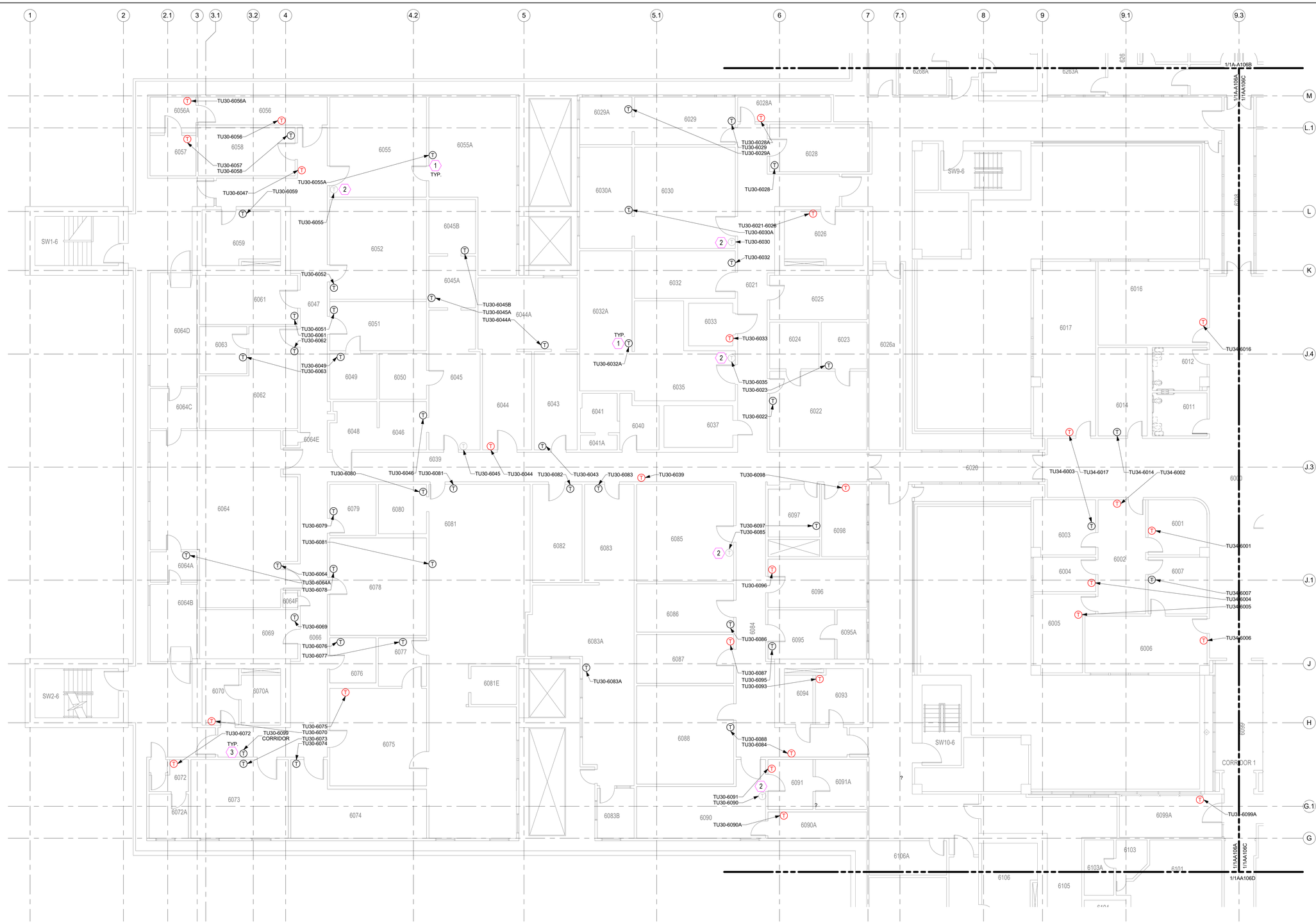
VA FORM 08 - 6231



F1 ARCHITECTURAL PLAN - SIXTH FLOOR - WEST

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
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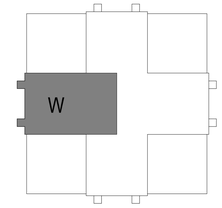

Revisions:	Date:

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Mat Perkins

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STAMP

REGISTERED ARCHITECT SP126 MATHEW R. PERKINS DATE SIGNED ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - SIXTH FLOOR - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-106A
Issue Date: 03/15/2019 / Checked: M. PERKINS / Drawn: M. RIOS	

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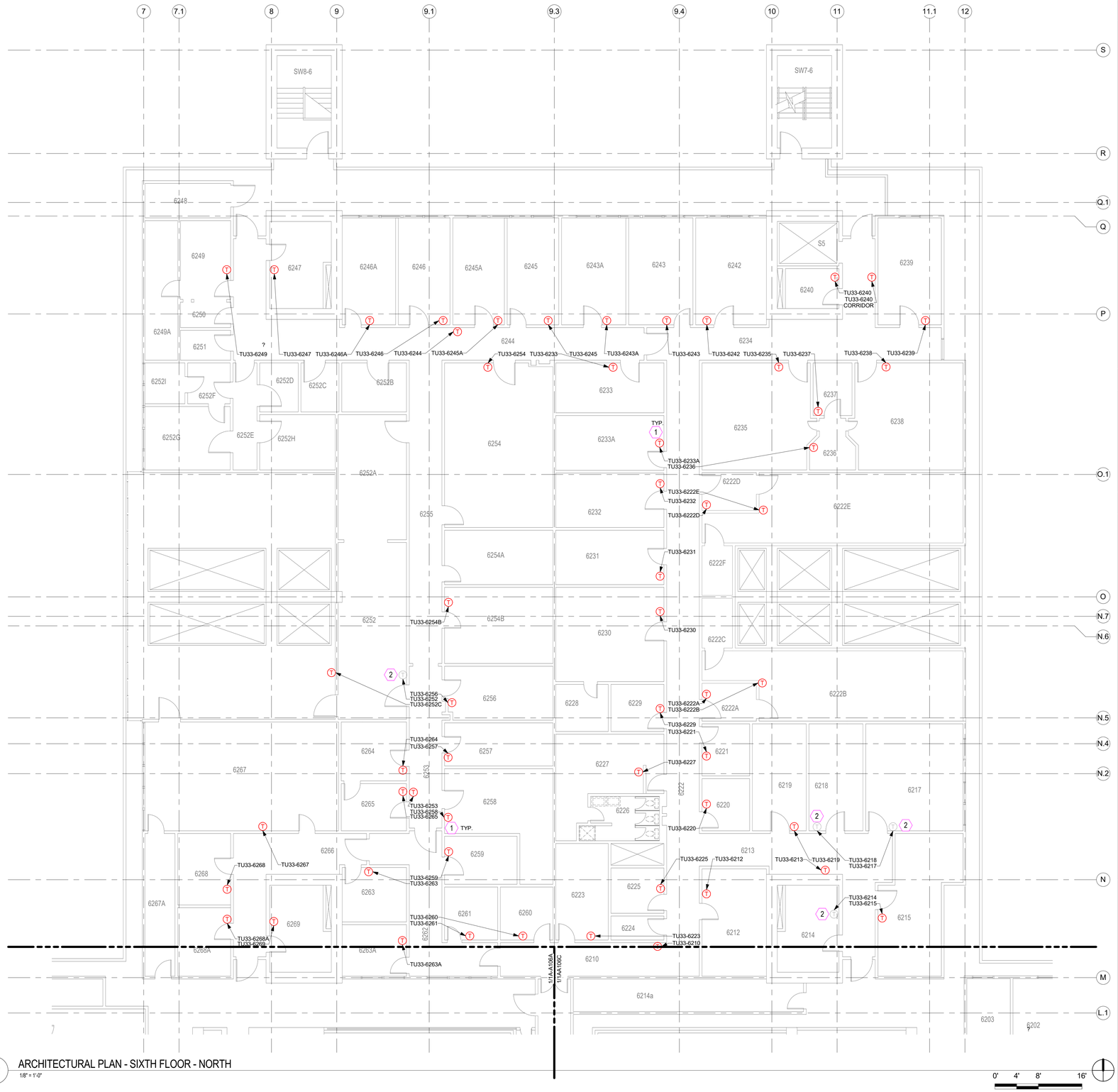
3/19/2019 6:37:10 AM

VA FORM 08 - 6231



F3 ARCHITECTURAL PLAN - SIXTH FLOOR - NORTH
1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

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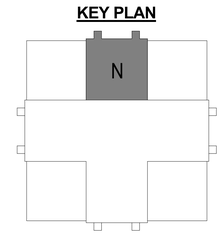

Revisions:	Date:

CONSULTANT

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STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

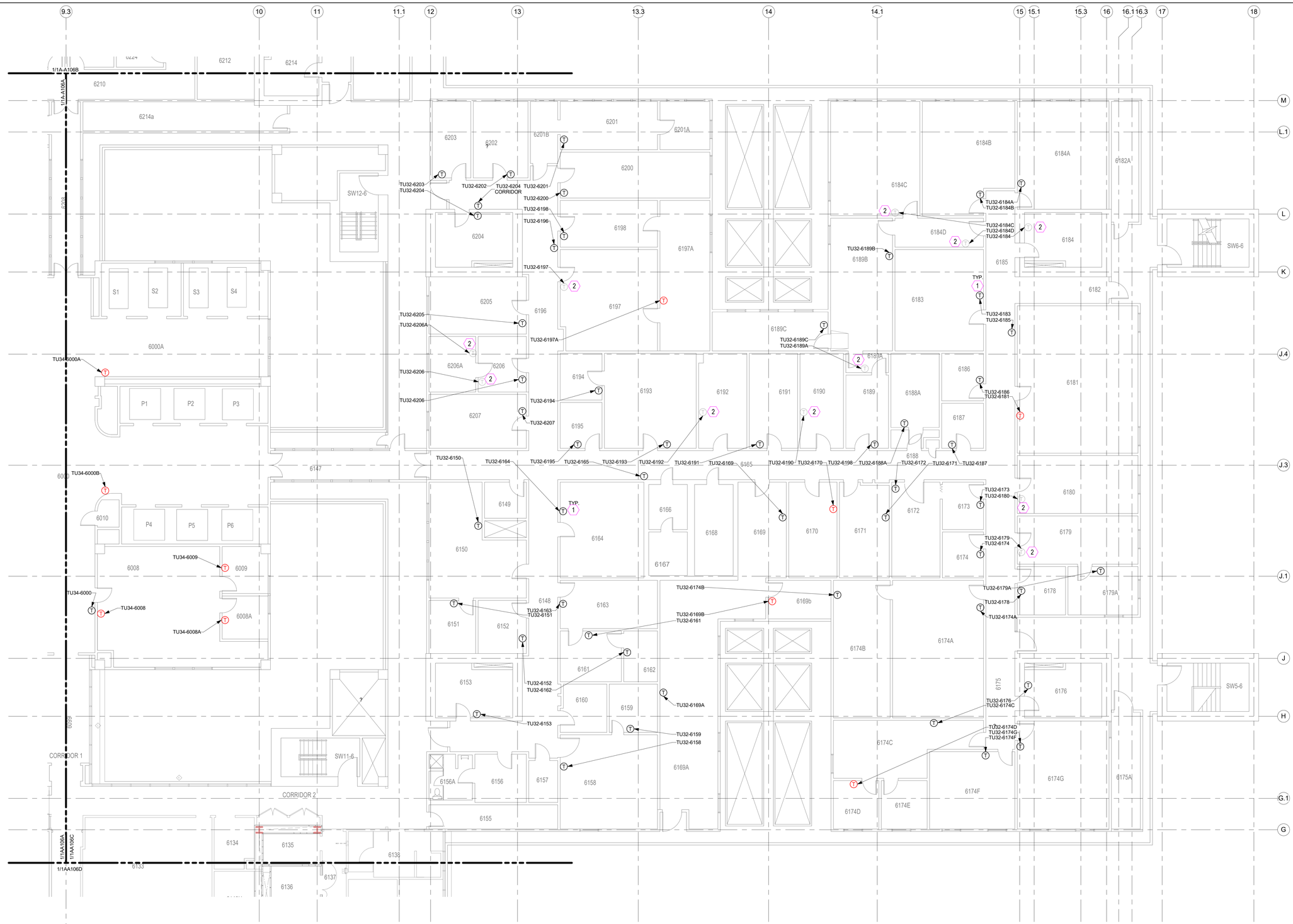
VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - SIXTH FLOOR - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-106B
Issue Date: 03/15/2019	Checked: M. PERKINS / Drawn: M. RIOS

3/19/2019 6:37:14 AM
BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-ARCH.rvt

VA FORM 08 - 6231



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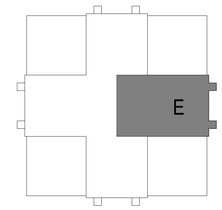
- (T) TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

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TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
STATE OF ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

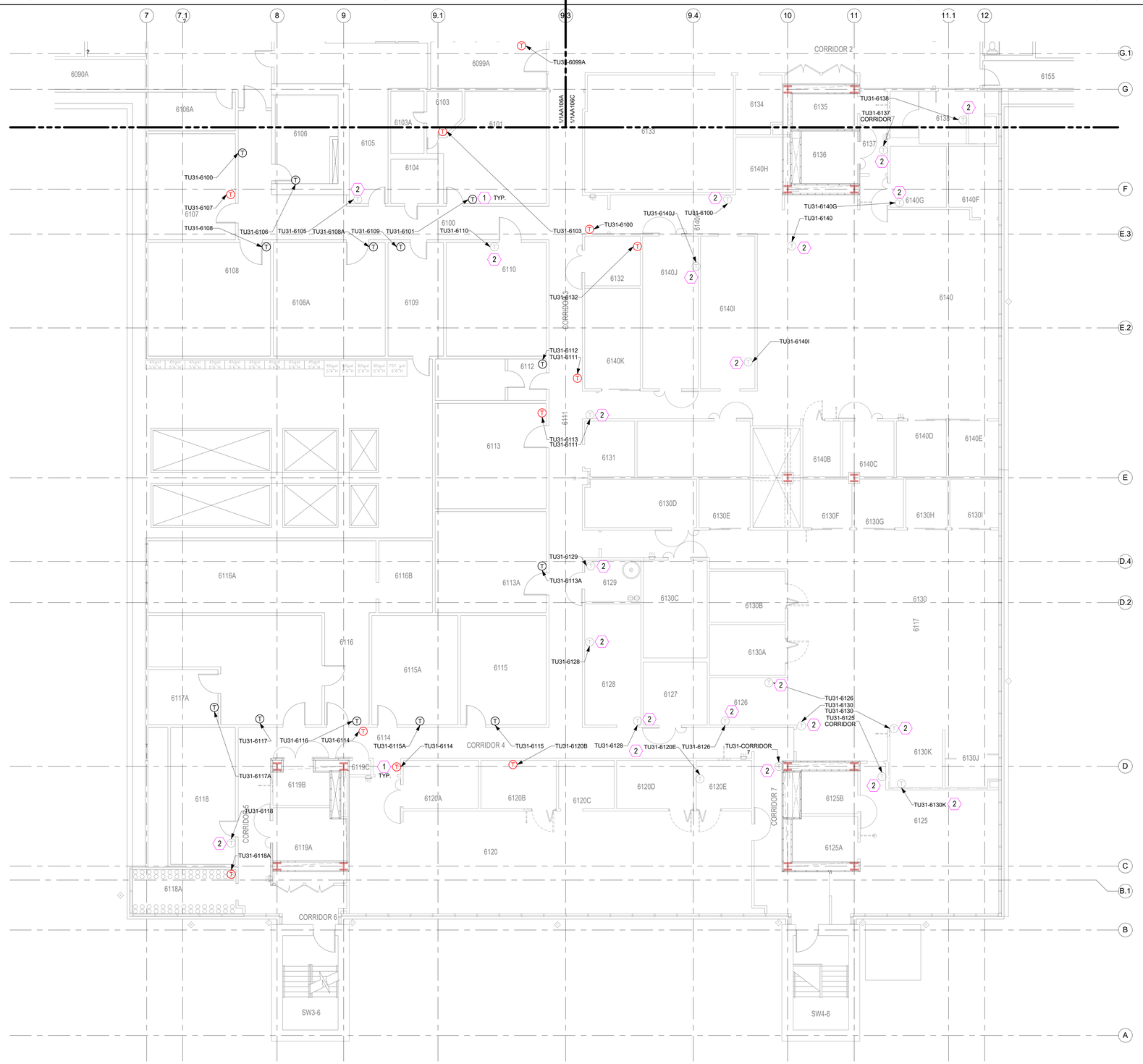
VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL PLAN - SIXTH FLOOR - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Drive, San Diego, CA 92161	Drawing Number: 1A-106C
Issue Date: 03/15/2019	Checked: M. PERKINS / Drawn: M. RIOS

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-ARCH.rvt
3/19/2019 6:37:17 AM

VA FORM 08 - 6231



F2 ARCHITECTURAL PLAN - SIXTH FLOOR - SOUTH

1/8" = 1'-0"

0' 4' 8' 16'

GENERAL SHEET NOTES

1. CONTROLS CONTRACTOR IS TO COORDINATE THERMOSTAT WIRING AND CONTROL WITH MECHANICAL EQUIPMENT CONTRACTOR TO ENSURE ALL CONTROL POINTS ARE ADDRESSABLE ON THE CONTROLS NETWORK AND FUNCTION PER THE CONTROL SEQUENCES ON THE MECHANICAL SHEETS. FOR AREAS THAT ARE BEING RENOVATED DURING CONSTRUCTION UNDER SEPARATE CONTRACTS, THE CONTRACTOR SHALL REPLACE THE TERMINAL UNIT, PROVIDE POWER AND CONTROL WIRING/CONDUIT AND PROVIDE THE THERMOSTAT TO THE VA TO BE INSTALLED LATER. DUE TO THE ACTIVE NATURE OF THE FACILITY, COORDINATE THESE AREAS PRIOR TO BEGINNING WORK ON EACH PHASE. SEE G-001 FOR PHASING.
2. ALL NEW THERMOSTATS ARE TO BE MOUNTED IN THE SAME LOCATION AS THE EXISTING THERMOSTATS BEING REPLACED AT A HEIGHT OF 54" ABOVE FINISHED FLOOR. VERIFY FINAL THERMOSTAT LOCATIONS WITH VA.
3. CONTRACTOR IS TO COORDINATE THERMOSTAT REPLACEMENT SCHEDULE WITH THE VA TO ENSURE MINIMAL EFFECT ON FACILITY OPERATIONS. THIS WILL INCLUDE NIGHT AND WEEKEND WORK TO AVOID CONFLICTS WITH HOSPITAL OPERATIONS. SEE PHASING REQUIREMENTS ON G-001.
4. CONTRACTOR IS TO REPAIR, PATCH AND PAINT ALL AREAS AFFECTED BY THERMOSTAT REPLACEMENT TO MATCH EXISTING FINISHES.

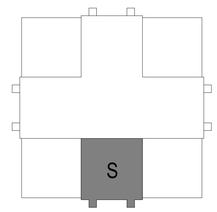
KEYNOTES

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.
2. EXISTING DDC THERMOSTAT UPGRADED UNDER PREVIOUS WORK. NOT IN CONTRACT

ARCHITECTURAL SYMBOL LEGEND

- AREA NOT IN CONTRACT - TERMINAL UNITS PREVIOUSLY UPGRADED TO DDC CONTROLS
- T — TUXX-RM## — NEW THERMOSTAT WITH TERMINAL UNIT IDENTIFICATION MARK
- T — TUXX-RM## — EXISTING THERMOSTAT WITH TERMINAL UNIT PREVIOUSLY UPGRADED TO DDC CONTROLS

KEY PLAN



Revisions:	Date:

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REGISTERED PROFESSIONAL ENGINEER
33128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ARCHITECTURAL PLAN - SIXTH FLOOR - SOUTH
Phase	ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION
Project Number	664-18-320
Building Number	1
Location	3350 La Jolla Village Drive, San Diego, CA 92161
Drawing Number	1A-106D
Issue Date	03/15/2019
Checked	M. PERKINS
Drawn	M. RIOS

3/19/2019 6:37:18 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-ARCH.rvt

VA FORM 08 - 6231

Thermostat Schedule - Basement

TU ID#	AIR HANDLING UNIT ID#	NOTES
New Construction		
AC-1		
TU1-100	AC-1	1
TU1-117	AC-1	1
TU1-125-140	AC-1	1
TU1-128-185	AC-1	1
TU1-141-142E-142B-142A	AC-1	1
TU1-144B-145-144A	AC-1	1
TU1-145-147	AC-1	1
TU1-149-149A	AC-1	1
TU1-152E	AC-1	1
TU1-153-154-157	AC-1	1
TU1-156	AC-1	1
TU1-162-165	AC-1	1
AC-4		
TU4-101-109	AC-4	1
TU4-101-109	AC-4	1
TU4-110-114-114A-115-116-172A-171	AC-4	1
TU4-112B	AC-4	1
TU4-197	AC-4	1
TU4-215-223	AC-4	1
TU4-225-226	AC-4	1
TU4-229	AC-4	1
TU4-232-234	AC-4	1
TU4-233-232A	AC-4	1

Thermostat Schedule - First Floor

TU ID#	AIR HANDLING UNIT ID#	NOTES
New Construction		
AC-5		
TU5-1589	AC-5	1
TU5-1591	AC-5	1
TU5-1592	AC-5	1
TU5-1593B	AC-5	1
TU5-1595	AC-5	1
TU5-1596	AC-5	1
TU5-1597 CORRIDOR	AC-5	1
TU5-1599	AC-5	1
TU5-1600	AC-5	1
AC-6		
TU6-1000-1001	AC-6	1
TU6-1001 CORRIDOR	AC-6	1
TU6-1304	AC-6	1
TU6-1326A	AC-6	1
TU6-1326A	AC-6	1
TU6-1350	AC-6	1
TU6-1352	AC-6	1
TU6-1401	AC-6	1
TU6-1402	AC-6	1
TU6-1496	AC-6	1
TU6-1497	AC-6	1
TU6-1498	AC-6	1
TU6-1499A	AC-6	1
TU6-1499A	AC-6	1
TU6-1499E	AC-6	1
TU6-1500	AC-6	1
TU6-1501	AC-6	1
TU6-1502	AC-6	1
TU6-1503	AC-6	1
TU6-1503	AC-6	1
TU6-1503	AC-6	1
TU6-1507	AC-6	1
TU6-1508	AC-6	1
TU6-1509	AC-6	1
TU6-1510	AC-6	1
TU6-1522	AC-6	1
TU6-#1	AC-6	1
TU6-#2	AC-6	1
TU6-#3	AC-6	1
TU6-#4	AC-6	1
TU6-#5	AC-6	1
TU6-#6	AC-6	1
TU6-#7	AC-6	1
TU6-#8	AC-6	1
TU6-#9	AC-6	1
TU6-#10	AC-6	1
AC-7		
TU7-1035	AC-7	1
TU7-1088	AC-7	1
TU7-1092	AC-7	1
TU7-1108	AC-7	1
TU7-1110	AC-7	1
TU7-1117	AC-7	1
TU7-1118	AC-7	1
TU7-1119	AC-7	1
TU7-1119	AC-7	1
TU7-1120	AC-7	1
TU7-1122	AC-7	1
TU7-1123	AC-7	1
TU7-1123	AC-7	1
TU7-1123	AC-7	1

Thermostat Schedule - First Floor

TU ID#	AIR HANDLING UNIT ID#	NOTES
TU7-1125	AC-7	1
TU7-1128	AC-7	1
TU7-1129	AC-7	1
AC-8		
TU8-1145 CORRIDOR	AC-8	1
TU8-1145A	AC-8	1
TU8-1145B	AC-8	1
TU8-1145D	AC-8	1
TU8-1146	AC-8	1
TU8-1147	AC-8	1
TU8-1148	AC-8	1
TU8-1149	AC-8	1
TU8-1150	AC-8	1
TU8-1151	AC-8	1
TU8-1151	AC-8	1
TU8-1151	AC-8	1
TU8-1152	AC-8	1
TU8-1153	AC-8	1
TU8-1154	AC-8	1
TU8-1155	AC-8	1
TU8-1156	AC-8	1
TU8-1160	AC-8	1
TU8-1161	AC-8	1
TU8-1162	AC-8	1
TU8-1163	AC-8	1
TU8-1164	AC-8	1
TU8-1166	AC-8	1
TU8-1167	AC-8	1
TU8-1167A	AC-8	1
TU8-1168	AC-8	1
TU8-1168A	AC-8	1
TU8-1169	AC-8	1
TU8-1171	AC-8	1
TU8-1171	AC-8	1
TU8-1172	AC-8	1
TU8-1174	AC-8	1
TU8-1174	AC-8	1
TU8-1174B	AC-8	1
TU8-1174B	AC-8	1
TU8-1174B	AC-8	1
TU8-1174B	AC-8	1
TU8-1174C	AC-8	1
TU8-1174C	AC-8	1
TU8-1174D	AC-8	1
TU8-1281	AC-8	1
TU8-1285	AC-8	1
TU8-1351	AC-8	1
AC-9		
TU9-1218	AC-9	1
TU9-1220	AC-9	1
TU9-1220A	AC-9	1
TU9-1220A	AC-9	1
TU9-1220B	AC-9	1
TU9-1220C	AC-9	1
TU9-1220C	AC-9	1
TU9-1221 CORRIDOR	AC-9	1
TU9-1221 CORRIDOR	AC-9	1
TU9-1226	AC-9	1
TU9-1227	AC-9	1
TU9-1229	AC-9	1
TU9-1229	AC-9	1
TU9-1230	AC-9	1
TU9-1230	AC-9	1

Thermostat Schedule - First Floor

TU ID#	AIR HANDLING UNIT ID#	NOTES
TU09-1231	AC-9	1
TU09-1231	AC-9	1
TU09-1231	AC-9	1
TU9-1231A	AC-9	1
TU9-1231B	AC-9	1
TU9-1232-1234	AC-9	1
TU9-1233	AC-9	1
TU9-1233A	AC-9	1
TU9-1235	AC-9	1
TU9-1236	AC-9	1
TU9-1238	AC-9	1
TU9-1240	AC-9	1
TU9-1241	AC-9	1
TU9-1242	AC-9	1
TU9-1242	AC-9	1
TU9-1242A	AC-9	1
TU9-1242B	AC-9	1
TU9-1242C	AC-9	1
TU9-1242D	AC-9	1
TU9-1242D	AC-9	1
TU9-1242D	AC-9	1
TU9-1243	AC-9	1
TU9-1244	AC-9	1
TU9-1246	AC-9	1
TU9-1247	AC-9	1
TU9-1247	AC-9	1
TU9-1248	AC-9	1
TU9-1248	AC-9	1
TU9-1252	AC-9	1
TU9-1253	AC-9	1
AC-10		
TU10-1239	AC-10	1
TU10-1272	AC-10	1
TU10-1273	AC-10	1
TU10-1274	AC-10	1
TU10-1275-1294	AC-10	1
TU10-1275-1294	AC-10	1
TU10-1276	AC-10	1
TU10-1279	AC-10	1
TU10-1280	AC-10	1
TU10-1280A	AC-10	1
TU10-1286	AC-10	1
TU10-1288	AC-10	1
TU10-1291	AC-10	1
TU10-1293	AC-10	1
TU10-1295	AC-10	1
TU10-1301	AC-10	1
TU10-1302	AC-10	1
TU10-1303	AC-10	1
TU10-1304-1304A	AC-10	1
TU10-1305-1308	AC-10	1
TU10-1305-1308	AC-10	1
TU10-1309	AC-10	1
TU10-1309	AC-10	1
TU10-1316	AC-10	1
TU10-1318	AC-10	1
TU10-1323	AC-10	1
TU10-1324	AC-10	1
AC-11		
TU11-1400	AC-11	1
TU11-1400 CORRIDOR	AC-11	1
TU11-1400A	AC-11	1
TU11-1400B	AC-11	1
TU11-1400D	AC-11	1

Thermostat Schedule - First Floor

TU ID#	AIR HANDLING UNIT ID#	NOTES
TU11-1400E	AC-11	1
TU11-1400F	AC-11	1
TU11-1400G	AC-11	1
TU11-1400H	AC-11	1
TU11-1400J	AC-11	1
TU11-1400K	AC-11	1
TU11-1400M	AC-11	1
TU11-1400N-1400P	AC-11	1
TU11-1406	AC-11	1
TU11-RH1.1	AC-11	1
TU11-RH5.1	AC-11	1
TU11-RH6.1	AC-11	1
TU11-RH7.1-1407	AC-11	1
TU11-RH7.2-1408	AC-11	1
TU11-RH7.3-1409	AC-11	1
TU11-RH7.4	AC-11	1
TU11-RH7.5-RH7.6-RH7.7-RH8.2	AC-11	1
TU11-RH7.5-RH7.6-RH7.7-RH8.2	AC-11	1
TU11-RH7.5-RH7.6-RH7.7-RH8.2	AC-11	1
TU11-RH7.10-RH7.9	AC-11	1
TU11-RH11.1-RH12.1	AC-11	1
AC-12		
TU12-1413	AC-12	1
TU12-1414	AC-12	1
TU12-1419	AC-12	1
TU12-1420-1423	AC-12	1
TU12-1422	AC-12	1
TU12-1426	AC-12	1
TU12-1427	AC-12	1
TU12-1429	AC-12	1
TU12-RH4.1	AC-12	1
AC-13		
TU13-1421 CORRIDOR	AC-13	1
TU13-1433	AC-13	1
TU13-1434	AC-13	1
TU13-1435	AC-13	1
TU13-1436 CORRIDOR	AC-13	1
TU13-1438	AC-13	1
TU13-1439	AC-13	1
TU13-1440	AC-13	1
TU13-1442	AC-13	1
TU13-1443	AC-13	1
TU13-1443	AC-13	1
TU13-1444A	AC-13	1
TU13-1446	AC-13	1
TU13-1446	AC-13	1
TU13-1447	AC-13	1
TU13-1448	AC-13	1
TU13-1449	AC-13	1
TU13-1451	AC-13	1
TU13-1452	AC-13	1
TU13-1453	AC-13	1
TU13-1455	AC-13	1
TU13-1455A	AC-13	1
TU13-1456	AC-13	1
TU13-1469	AC-13	1
TU13-1469	AC-13	1
TU13-1483	AC-13	1
TU13-1488	AC-13	1
TU13-1491	AC-13	1
TU13-1491	AC-13	1
TU13-1493D-1493E	AC-13	1
TU13-1493F	AC-13	1
TU13-1493G	AC-13	1

Thermostat Schedule - First Floor

TU ID#	AIR HANDLING UNIT ID#	NOTES
TU13-1494,A,C,I	AC-13	1
AC-35		
TU35-RH6.2	AC-35	1
TU35-RH9.1-RH8.3-RH7.8	AC-35	1
AC-37		
TU37-1700 CORRIDOR	AC-37	1
TU37-1701	AC-37	1
TU37-1704	AC-37	1
TU37-1704	AC-37	1
TU37-1706	AC-37	1
TU37-1707	AC-37	1
TU37-1708	AC-37	1
TU37-1709	AC-37	1
TU37-1710	AC-37	1
TU37-1711-1712	AC-37	1
TU37-1711-1712	AC-37	1
TU37-1714	AC-37	1
TU37-1714	AC-37	1
TU37-1714A	AC-37	1
TU37-1715	AC-37	1
TU37-1715	AC-37	1
TU37-1715A	AC-37	1
TU37-1800	AC-37	1
TU37-1801	AC-37	1
TU37-1801A	AC-37	1
TU37-1804-1805	AC-37	1
TU37-1806	AC-37	1
TU37-1807	AC-37	1
TU37-1808	AC-37	1
TU37-1809	AC-37	1
TU37-1810	AC-37	1
TU37-1811	AC-37	1
TU37-1812	AC-37	1
TU37-1813	AC-37	1
TU37-1814	AC-37	1
TU37-1815	AC-37	1
TU37-1816	AC-37	1
TU37-1817	AC-37	1
TU37-1818	AC-37	1
TU37-1820	AC-37	1
TU37-1821	AC-37	1
TU37-1822	AC-37	1
TU37-1823	AC-37	1
TU37-1828	AC-37	1
TU37-1829	AC-37	1
TU37-1830	AC-37	1
TU37-1832	AC-37	1
TU37-1833	AC-37	1
TU37-1835	AC-37	1
TU37-1837	AC-37	1
TU37-1839	AC-37	1
TU37-1839	AC-37	1
TU37-1840	AC-37	1
TU37-1841	AC-37	1
TU37-1841	AC-37	1
TU37-1841	AC-37	1
TU37-1842	AC-37	1
TU37-1846	AC-37	1
TU37-1847-1824	AC-37	1

SCHEDULE NOTES:

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.

Revisions:	Date:

CONSULTANT

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STAMP

REGISTERED ARCHITECT 39126 MATHEW R. PERKINS DATE SIGNED ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ARCHITECTURAL SCHEDULES - BASEMENT & FIRST FLOOR
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION
Location	3350 La Jolla Village Drive, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. PERKINS
Drawn	M. RIOS
Project Number	664-18-320
Building Number	1
Drawing Number	1A-701

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-ARCH.rvt 3/19/2019 6:37:21 AM

Thermostat Schedule - First Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
New Construction		
AC-5		
TU5-1589	AC-5	1
TU5-1591	AC-5	1
TU5-1592	AC-5	1
TU5-1593B	AC-5	1
TU5-1595	AC-5	1
TU5-1596	AC-5	1
TU5-1597 CORRIDOR	AC-5	1
TU5-1599	AC-5	1
TU5-1600	AC-5	1
AC-6		
TU6-1000-1001	AC-6	1
TU6-1001 CORRIDOR	AC-6	1
TU6-1304	AC-6	1
TU6-1326A	AC-6	1
TU6-1326A	AC-6	1
TU6-1350	AC-6	1
TU6-1352	AC-6	1
TU6-1401	AC-6	1
TU6-1402	AC-6	1
TU6-1496	AC-6	1
TU6-1497	AC-6	1
TU6-1498	AC-6	1
TU6-1499A	AC-6	1
TU6-1499A	AC-6	1
TU6-1499E	AC-6	1
TU6-1500	AC-6	1
TU6-1501	AC-6	1
TU6-1502	AC-6	1
TU6-1503	AC-6	1
TU6-1503	AC-6	1
TU6-1503	AC-6	1
TU6-1507	AC-6	1
TU6-1508	AC-6	1
TU6-1509	AC-6	1
TU6-1510	AC-6	1
TU6-1522	AC-6	1
TU6-#1	AC-6	1
TU6-#2	AC-6	1
TU6-#3	AC-6	1
TU6-#4	AC-6	1
TU6-#5	AC-6	1
TU6-#6	AC-6	1
TU6-#7	AC-6	1
TU6-#8	AC-6	1
TU6-#9	AC-6	1
TU6-#10	AC-6	1
AC-7		
TU7-1035	AC-7	1
TU7-1088	AC-7	1
TU7-1092	AC-7	1
TU7-1108	AC-7	1
TU7-1110	AC-7	1
TU7-1117	AC-7	1
TU7-1118	AC-7	1
TU7-1119	AC-7	1
TU7-1119	AC-7	1
TU7-1119	AC-7	1
TU7-1120	AC-7	1
TU7-1122	AC-7	1
TU7-1123	AC-7	1
TU7-1123	AC-7	1
TU7-1123	AC-7	1

Thermostat Schedule - First Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU7-1125	AC-7	1
TU7-1128	AC-7	1
TU7-1129	AC-7	1
AC-8		
TU8-1145 CORRIDOR	AC-8	1
TU8-1145A	AC-8	1
TU8-1145B	AC-8	1
TU8-1145D	AC-8	1
TU8-1146	AC-8	1
TU8-1147	AC-8	1
TU8-1148	AC-8	1
TU8-1149	AC-8	1
TU8-1150	AC-8	1
TU8-1151	AC-8	1
TU8-1151	AC-8	1
TU8-1151	AC-8	1
TU8-1152	AC-8	1
TU8-1153	AC-8	1
TU8-1154	AC-8	1
TU8-1155	AC-8	1
TU8-1156	AC-8	1
TU8-1160	AC-8	1
TU8-1161	AC-8	1
TU8-1162	AC-8	1
TU8-1163	AC-8	1
TU8-1164	AC-8	1
TU8-1166	AC-8	1
TU8-1167	AC-8	1
TU8-1167A	AC-8	1
TU8-1168	AC-8	1
TU8-1168A	AC-8	1
TU8-1169	AC-8	1
TU8-1171	AC-8	1
TU8-1171	AC-8	1
TU8-1172	AC-8	1
TU8-1174	AC-8	1
TU8-1174	AC-8	1
TU8-1174B	AC-8	1
TU8-1174B	AC-8	1
TU8-1174B	AC-8	1
TU8-1174B	AC-8	1
TU8-1174C	AC-8	1
TU8-1174C	AC-8	1
TU8-1174D	AC-8	1
TU8-1281	AC-8	1
TU8-1285	AC-8	1
TU8-1351	AC-8	1
AC-9		
TU9-1218	AC-9	1
TU9-1220	AC-9	1
TU9-1220A	AC-9	1
TU9-1220A	AC-9	1
TU9-1220B	AC-9	1
TU9-1220C	AC-9	1
TU9-1220C	AC-9	1
TU9-1221 CORRIDOR	AC-9	1
TU9-1221 CORRIDOR	AC-9	1
TU9-1226	AC-9	1
TU9-1227	AC-9	1
TU9-1229	AC-9	1
TU9-1229	AC-9	1
TU9-1230	AC-9	1
TU9-1230	AC-9	1

Thermostat Schedule - First Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU09-1231	AC-9	1
TU09-1231	AC-9	1
TU09-1231	AC-9	1
TU9-1231A	AC-9	1
TU9-1231B	AC-9	1
TU9-1232-1234	AC-9	1
TU9-1233	AC-9	1
TU9-1233A	AC-9	1
TU9-1235	AC-9	1
TU9-1236	AC-9	1
TU9-1238	AC-9	1
TU9-1240	AC-9	1
TU9-1241	AC-9	1
TU9-1242	AC-9	1
TU9-1242	AC-9	1
TU9-1242A	AC-9	1
TU9-1242B	AC-9	1
TU9-1242C	AC-9	1
TU9-1242D	AC-9	1
TU9-1242D	AC-9	1
TU9-1242D	AC-9	1
TU9-1243	AC-9	1
TU9-1244	AC-9	1
TU9-1246	AC-9	1
TU9-1247	AC-9	1
TU9-1247	AC-9	1
TU9-1248	AC-9	1
TU9-1248	AC-9	1
TU9-1252	AC-9	1
TU9-1253	AC-9	1
AC-10		
TU10-1239	AC-10	1
TU10-1272	AC-10	1
TU10-1273	AC-10	1
TU10-1274	AC-10	1
TU10-1275-1294	AC-10	1
TU10-1275-1294	AC-10	1
TU10-1276	AC-10	1
TU10-1279	AC-10	1
TU10-1280	AC-10	1
TU10-1280A	AC-10	1
TU10-1286	AC-10	1
TU10-1288	AC-10	1
TU10-1291	AC-10	1
TU10-1293	AC-10	1
TU10-1295	AC-10	1
TU10-1301	AC-10	1
TU10-1302	AC-10	1
TU10-1303	AC-10	1
TU10-1304-1304A	AC-10	1
TU10-1305-1308	AC-10	1
TU10-1305-1308	AC-10	1
TU10-1309	AC-10	1
TU10-1309	AC-10	1
TU10-1316	AC-10	1
TU10-1318	AC-10	1
TU10-1323	AC-10	1
TU10-1324	AC-10	1
AC-11		
TU11-1400	AC-11	1
TU11-1400 CORRIDOR	AC-11	1
TU11-1400A	AC-11	1
TU11-1400B	AC-11	1
TU11-1400D	AC-11	1

Thermostat Schedule - First Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU11-1400E	AC-11	1
TU11-1400F	AC-11	1
TU11-1400G	AC-11	1
TU11-1400H	AC-11	1
TU11-1400J	AC-11	1
TU11-1400K	AC-11	1
TU11-1400M	AC-11	1
TU11-1400N-1400P	AC-11	1
TU11-1406	AC-11	1
TU11-RH1.1	AC-11	1
TU11-RH5.1	AC-11	1
TU11-RH6.1	AC-11	1
TU11-RH7.1-1407	AC-11	1
TU11-RH7.2-1408	AC-11	1
TU11-RH7.3-1409	AC-11	1
TU11-RH7.4	AC-11	1
TU11-RH7.5-RH7.6-RH7.7-RH8.2	AC-11	1
TU11-RH7.5-RH7.6-RH7.7-RH8.2	AC-11	1
TU11-RH7.5-RH7.6-RH7.7-RH8.2	AC-11	1
TU11-RH7.10-RH7.9	AC-11	1
TU11-RH11.1-RH12.1	AC-11	1
AC-12		
TU12-1413	AC-12	1
TU12-1414	AC-12	1
TU12-1419	AC-12	1
TU12-1420-1423	AC-12	1
TU12-1422	AC-12	1
TU12-1426	AC-12	1
TU12-1427	AC-12	1
TU12-1429	AC-12	1
TU12-RH4.1	AC-12	1
AC-13		
TU13-1421 CORRIDOR	AC-13	1
TU13-1433	AC-13	1
TU13-1434	AC-13	1
TU13-1435	AC-13	1
TU13-1436 CORRIDOR	AC-13	1
TU13-1438	AC-13	1
TU13-1439	AC-13	1
TU13-1440	AC-13	1
TU13-1442	AC-13	1
TU13-1443	AC-13	1
TU13-1443	AC-13	1
TU13-1444A	AC-13	1
TU13-1446	AC-13	1
TU13-1446	AC-13	1
TU13-1447	AC-13	1
TU13-1448	AC-13	1
TU13-1449	AC-13	1
TU13-1451	AC-13	1
TU13-1452	AC-13	1
TU13-1453	AC-13	1
TU13-1455	AC-13	1
TU13-1455A	AC-13	1
TU13-1456	AC-13	1
TU13-1469	AC-13	1
TU13-1469	AC-13	1
TU13-1483	AC-13	1
TU13-1488	AC-13	1
TU13-1491	AC-13	1
TU13-1491	AC-13	1
TU13-1493D-1493E	AC-13	1
TU13-1493F	AC-13	1
TU13-1493G	AC-13	1

Thermostat Schedule - First Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU13-1494,A,C,I	AC-13	1
AC-35		
TU35-RH6.2	AC-35	1
TU35-RH9.1-RH8.3-RH7.8	AC-35	1
AC-37		
TU37-1700 CORRIDOR	AC-37	1
TU37-1701	AC-37	1
TU37-1704	AC-37	1
TU37-1704	AC-37	1
TU37-1706	AC-37	1
TU37-1707	AC-37	1
TU37-1708	AC-37	1
TU37-1709	AC-37	1
TU37-1710	AC-37	1
TU37-1711-1712	AC-37	1
TU37-1711-1712	AC-37	1
TU37-1714	AC-37	1
TU37-1714	AC-37	1
TU37-1714A	AC-37	1
TU37-1715	AC-37	1
TU37-1715	AC-37	1
TU37-1715A	AC-37	1
TU37-1800	AC-37	1
TU37-1801	AC-37	1
TU37-1801A	AC-37	1
TU37-1804-1805	AC-37	1
TU37-1806	AC-37	1
TU37-1807	AC-37	1
TU37-1808	AC-37	1
TU37-1809	AC-37	1
TU37-1810	AC-37	1
TU37-1811	AC-37	1
TU37-1812	AC-37	1
TU37-1813	AC-37	1
TU37-1814	AC-37	1
TU37-1815	AC-37	1
TU37-1816	AC-37	1
TU37-1817	AC-37	1
TU37-1818	AC-37	1
TU37-1820	AC-37	1
TU37-1821	AC-37	1
TU37-1822	AC-37	1
TU37-1823	AC-37	1
TU37-1828	AC-37	1
TU37-1829	AC-37	1
TU37-1830	AC-37	1
TU37-1832	AC-37	1
TU37-1833	AC-37	1
TU37-1835	AC-37	1
TU37-1837	AC-37	1
TU37-1839	AC-37	1
TU37-1839	AC-37	1
TU37-1840	AC-37	1
TU37-1841	AC-37	1
TU37-1841	AC-37	1
TU37-1841	AC-37	1
TU37-1842	AC-37	1
TU37-1846	AC-37	1
TU37-1847-1824	AC-37	1

SCHEDULE NOTES:

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.

Revisions:	Date:

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MATHEW R. PERKINS
DO NOT SIGN/DATE
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL SCHEDULES - FIRST FLOOR

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION

Location: 3350 La Jolla Village Drive, San Diego, CA 92161

Issue Date: 03/15/2019 | Checked: M. PERKINS | Drawn: M. RIOS

Project Number: 664-18-320

Building Number: 1

Drawing Number: 1A-702

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-ARCH-r4 3/19/2019 6:37:25 AM

Thermostat Schedule - Second Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
New Construction		
AC-14		
TU14-2003	AC-14	1
TU14-2004	AC-14	1
TU14-2005	AC-14	1
TU14-2006	AC-14	1
TU14-2007	AC-14	1
TU14-2008	AC-14	1
TU14-2013	AC-14	1
TU14-2017	AC-14	1
TU14-2018	AC-14	1
TU14-2019	AC-14	1
TU14-2020-2024-2025-2026	AC-14	1
TU14-2021	AC-14	1
TU14-2022	AC-14	1
TU14-2025	AC-14	1
TU14-2026	AC-14	1
TU14-2028	AC-14	1
TU14-2030	AC-14	1
TU14-2032	AC-14	1
TU14-2034	AC-14	1
TU14-2036	AC-14	1
TU14-2040A	AC-14	1
TU14-2046	AC-14	1
TU14-2047	AC-14	1
TU14-2050	AC-14	1
TU14-2052	AC-14	2
TU14-2054	AC-14	2
TU14-2056	AC-14	2
TU14-2058	AC-14	2
TU14-2068	AC-14	2
TU14-2069	AC-14	1
TU14-2069A	AC-14	1
TU14-2070	AC-14	1
TU14-2071	AC-14	1
TU14-2072	AC-14	1
TU14-2075	AC-14	1
TU14-2076	AC-14	1
TU14-2077B	AC-14	1
TU14-2082	AC-14	2
TU14-2127	AC-14	1
TU14-2128	AC-14	1
TU14-2129	AC-14	1
AC-15		
TU15-2131	AC-15	1
TU15-2132	AC-15	1
TU15-2133	AC-15	1
TU15-2134	AC-15	1
TU15-2135	AC-15	1
TU15-2136	AC-15	1
TU15-2137	AC-15	1
TU15-2140	AC-15	1
TU15-2141	AC-15	1
TU15-2142	AC-15	1
TU15-2144	AC-15	1
TU15-2146	AC-15	1
TU15-2148	AC-15	1
TU15-2150	AC-15	1
TU15-2154B	AC-15	1
TU15-2159	AC-15	1
TU15-2161	AC-15	1
TU15-2162	AC-15	1

Thermostat Schedule - Second Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU15-2163	AC-15	1
TU15-2164	AC-15	1
TU15-2166	AC-15	1
TU15-2168	AC-15	1
TU15-2170	AC-15	1
TU15-2172	AC-15	1
TU15-2175	AC-15	1
TU15-2176	AC-15	1
TU15-2177	AC-15	1
TU15-2181	AC-15	1
TU15-2182	AC-15	1
TU15-2184	AC-15	1
TU15-2185	AC-15	1
TU15-2186	AC-15	1
TU15-2189	AC-15	1
TU15-2190	AC-15	1
TU15-2191	AC-15	1
TU15-2192	AC-15	1
TU15-2192-2192A	AC-15	1
TU15-2192-2192A	AC-15	1
TU15-2193	AC-15	1
TU15-2194	AC-15	1
TU15-2195	AC-15	1
TU15-2196	AC-15	1
TU15-2198	AC-15	1
TU15-2199	AC-15	1
TU15-2202	AC-15	1
TU15-2204	AC-15	1
TU15-2207	AC-15	1
TU15-2208	AC-15	1
TU15-2210	AC-15	1
TU15-2212	AC-15	1
TU15-2215	AC-15	1
TU15-2216	AC-15	1
TU15-2222	AC-15	1
TU15-2225	AC-15	1
TU15-2227	AC-15	1
TU15-2227A	AC-15	1
TU15-2227B	AC-15	1
TU15-2229	AC-15	1
TU15-2231	AC-15	1
TU15-2233	AC-15	1
TU15-2234	AC-15	1
TU15-2235	AC-15	1
TU15-2236	AC-15	1
TU15-2238	AC-15	1
TU15-2240	AC-15	1
TU15-2241	AC-15	1
TU15-2242	AC-15	1
TU15-2255B	AC-15	1
AC-16		
TU16-2243	AC-16	1
TU16-2243B	AC-16	1
TU16-2247	AC-16	1
TU16-2249	AC-16	1
TU16-2250	AC-16	1
TU16-2250A	AC-16	1
TU16-2252-2253	AC-16	1
TU16-2254A	AC-16	1
TU16-2256	AC-16	1
TU16-2258	AC-16	1

Thermostat Schedule - Second Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU16-2260	AC-16	1
TU16-2262	AC-16	1
TU16-2264	AC-16	1
TU16-2268-2268A-2271	AC-16	1
TU16-2272	AC-16	1
TU16-2274-2275	AC-16	1
TU16-2274-2278	AC-16	1
TU16-2280	AC-16	1
TU16-2282	AC-16	1
TU16-2284	AC-16	1
TU16-2286	AC-16	1
TU16-2291	AC-16	1
TU16-2292	AC-16	1
TU16-2295	AC-16	1
TU16-2296	AC-16	1
TU16-2296A	AC-16	1
TU16-2296B	AC-16	1
TU16-2297A	AC-16	1
TU16-2297B-2297C	AC-16	1
TU16-2298	AC-16	1
TU16-2299	AC-16	1
TU16-2300	AC-16	1
TU16-2301-2328	AC-16	1
TU16-2302	AC-16	1
TU16-2303	AC-16	1
TU16-2304	AC-16	1
TU16-2305A-2305-2305B	AC-16	1
TU16-2306	AC-16	1
TU16-2306A	AC-16	1
TU16-2306B	AC-16	1
TU16-2306C	AC-16	1
TU16-2308	AC-16	1
TU16-2310	AC-16	1
TU16-2312	AC-16	1
TU16-2313-2307	AC-16	1
TU16-2316	AC-16	1
TU16-2318	AC-16	1
TU16-2320	AC-16	1
TU16-2322	AC-16	1
TU16-2322-2324	AC-16	1
TU16-2326-2327	AC-16	1
TU16-2336	AC-16	1
TU16-2336A	AC-16	1
TU16-2341	AC-16	1
TU16-2342	AC-16	1
TU16-2343	AC-16	1
TU16-2345	AC-16	1
TU16-2349-2350	AC-16	1
TU16-2351	AC-16	1
TU16-2353	AC-16	1
TU16-2354	AC-16	1
TU16-2355	AC-16	1
TU16-2356	AC-16	1
TU16-COORIDOR	AC-16	1
AC-17		
TU17-2011	AC-17	1
TU17-2012	AC-17	1
TU17-2014	AC-17	1
TU17-2358	AC-17	1
TU17-2359	AC-17	1
TU17-2360	AC-17	1
TU17-2361	AC-17	1

Thermostat Schedule - Second Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU17-2362	AC-17	1
TU17-2363-2367	AC-17	1
TU17-2366	AC-17	1
TU17-2366B	AC-17	1
TU17-2366C	AC-17	1
TU17-2368	AC-17	1
TU17-2369	AC-17	1
TU17-2371	AC-17	1
TU17-2374A	AC-17	1
TU17-2374B	AC-17	1
TU17-2376	AC-17	1
TU17-2379	AC-17	1
TU17-2387	AC-17	1
TU17-2388	AC-17	1
TU17-2389	AC-17	1
TU17-2393	AC-17	1
TU17-2394	AC-17	1
TU17-2397	AC-17	1
TU17-2398	AC-17	1
TU17-2401	AC-17	1
TU17-2404	AC-17	1
TU17-2406	AC-17	1
TU17-2409	AC-17	1
TU17-2410A-2410C-2410	AC-17	1
TU17-2410B	AC-17	1
TU17-2410D-2417	AC-17	1
TU17-2414	AC-17	1
TU17-2415-2441	AC-17	1
TU17-2416	AC-17	1
TU17-2416A	AC-17	1
TU17-2417A	AC-17	1
TU17-2419-2419A-2419C	AC-17	1
TU17-2420-2420A	AC-17	1
TU17-2422	AC-17	1
TU17-2425	AC-17	1
TU17-2429	AC-17	1
TU17-2432	AC-17	1
TU17-2433	AC-17	1
TU17-2436	AC-17	1
TU17-2438	AC-17	1
TU17-2439-2440	AC-17	1
TU17-2449-2462	AC-17	1
TU17-2452	AC-17	1
TU17-2454	AC-17	1
TU17-2455	AC-17	1
TU17-2457	AC-17	1
TU17-2460	AC-17	1
TU17-2463	AC-17	1
TU17-2465	AC-17	1
TU17-2466	AC-17	1
TU17-2467	AC-17	1
TU17-2468	AC-17	1
TU17-2469	AC-17	1

SCHEDULE NOTES:

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.

Revisions:	Date:

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REGISTERED ARCHITECT
39128
MATHEW R. PERKINS
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL SCHEDULES - SECOND FLOOR

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION

Location: 3350 La Jolla Village Drive, San Diego, CA 92161

Issue Date: 03/15/2019

Checked: M. PERKINS

Drawn: M. RIOS

Project Number: 664-18-320

Building Number: 1

Drawing Number: 1A-703

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VA FORM 08 - 6231

Thermostat Schedule - Third Floor

TU ID#	AIR HANDLING UNIT ID#	NOTES
New Construction		
AC-18		
TU18-3002	AC-18	1
TU18-3004	AC-18	1
TU18-3022-3025A-3025B	AC-18	1
TU18-3022-3025A-3025B	AC-18	1
TU18-3022-3025A-3025B	AC-18	1
TU18-3024	AC-18	1
TU18-3030	AC-18	1
TU18-3031	AC-18	1
TU18-3033	AC-18	1
TU18-3033A-3033B	AC-18	1
TU18-3035	AC-18	1
TU18-3036-3027-3028	AC-18	1
TU18-3037	AC-18	1
TU18-3039	AC-18	1
TU18-3048	AC-18	2
TU18-3051	AC-18	2
TU18-3053	AC-18	2
TU18-3056	AC-18	2
TU18-3058	AC-18	2
TU18-3060	AC-18	2
TU18-3065	AC-18	2
TU18-3068	AC-18	2
TU18-3069	AC-18	2
TU18-3070	AC-18	2
TU18-3071A-3071B	AC-18	2
TU18-3073	AC-18	2
TU18-3076	AC-18	2
TU18-3078	AC-18	2
TU18-3080A-3080B	AC-18	2
TU18-3083	AC-18	2
TU18-3085	AC-18	2
TU18-CORRIDOR	AC-18	2
AC-19		
TU19-3000	AC-19	1
TU19-3006	AC-19	1
TU19-3008-3010	AC-19	1
TU19-3008-3010	AC-19	1
TU19-3008A	AC-19	1
TU19-3008A-3007	AC-19	1
TU19-3116-3117	AC-19	1
TU19-3118-3119	AC-19	1
TU19-3122-3120-3121	AC-19	1
TU19-3124	AC-19	1
TU19-3126	AC-19	1
TU19-3127	AC-19	1
TU19-3128	AC-19	1
TU19-3128	AC-19	1
TU19-3128	AC-19	1
TU19-3132	AC-19	1
TU19-3134-3132 CORRIDOR-3136	AC-19	1
TU19-3134-3132 CORRIDOR-3136	AC-19	1
TU19-3139	AC-19	1
TU19-3140	AC-19	1
TU19-3142	AC-19	1
TU19-3143	AC-19	1
TU19-3144	AC-19	1
TU19-3146-3148	AC-19	1
TU19-3147	AC-19	1
TU19-3150	AC-19	1

Thermostat Schedule - Third Floor

TU ID#	AIR HANDLING UNIT ID#	NOTES
TU19-3161	AC-19	1
TU19-3162	AC-19	1
TU19-3162A-3164	AC-19	1
TU19-3162B	AC-19	1
TU19-3162C	AC-19	1
TU19-3162D	AC-19	1
TU19-3162E	AC-19	1
TU19-3162G-3162F	AC-19	1
TU19-3162G-3162F	AC-19	1
TU19-3167-3168	AC-19	1
TU19-3170	AC-19	1
TU19-3170 CORRIDOR	AC-19	1
TU19-3172	AC-19	1
TU19-3174	AC-19	1
TU19-3174A	AC-19	1
TU19-3174B	AC-19	1
TU19-3177	AC-19	1
TU19-3179	AC-19	1
TU19-3183	AC-19	1
TU19-3185	AC-19	1
TU19-3185A	AC-19	1
TU19-3186-3186A	AC-19	1
TU19-3186A	AC-19	1
TU19-3187	AC-19	1
TU19-3188	AC-19	1
TU19-3189	AC-19	1
TU19-3192	AC-19	1
TU19-3193	AC-19	1
TU19-3196	AC-19	1
TU19-3198	AC-19	1
TU19-3200	AC-19	1
TU19-3202	AC-19	1
TU19-3202A	AC-19	1
TU19-3203	AC-19	1
TU19-3204	AC-19	1
TU19-3206-3115	AC-19	1
TU20-3009	AC-19	1
AC-20		
TU20-3001	AC-20	1
TU20-3001A	AC-20	1
TU20-3209	AC-20	1
TU20-3209A	AC-20	1
TU20-3211	AC-20	1
TU20-3212	AC-20	1
TU20-3214	AC-20	1
TU20-3214A	AC-20	1
TU20-3216-3217A	AC-20	1
TU20-3219	AC-20	1
TU20-3221	AC-20	1
TU20-3223	AC-20	1
TU20-3225-3231A	AC-20	1
TU20-3227	AC-20	1
TU20-3230	AC-20	1
TU20-3231	AC-20	1
TU20-3231A	AC-20	1
TU20-3234	AC-20	1
TU20-3237	AC-20	1
TU20-3240	AC-20	1
TU20-3242	AC-20	1
TU20-3244	AC-20	1
TU20-3246	AC-20	1

Thermostat Schedule - Third Floor

TU ID#	AIR HANDLING UNIT ID#	NOTES
TU20-3246A	AC-20	1
TU20-3249	AC-20	1
TU20-3250	AC-20	1
TU20-3251	AC-20	1
TU20-3251A	AC-20	1
TU20-3252	AC-20	1
TU20-3253-3254	AC-20	1
TU20-3253-3254-3273C-3268	AC-20	1
TU20-3255-3255A	AC-20	1
TU20-3256	AC-20	1
TU20-3257	AC-20	1
TU20-3258	AC-20	1
TU20-3260	AC-20	1
TU20-3264	AC-20	1
TU20-3266	AC-20	1
TU20-3267	AC-20	1
TU20-3268	AC-20	1
TU20-3269A	AC-20	1
TU20-3270	AC-20	1
TU20-3272	AC-20	1
TU20-3273	AC-20	1
TU20-3275A	AC-20	1
TU20-3275B	AC-20	1
TU20-3276A-3276B	AC-20	1
TU20-3279-3278	AC-20	1
TU20-3279-3278	AC-20	1
TU20-3280	AC-20	1
TU20-3281	AC-20	1
TU20-3282	AC-20	1
TU20-3283	AC-20	1
TU20-3284	AC-20	1
TU20-3285	AC-20	1
TU20-3286A	AC-20	1
TU20-3287	AC-20	1
TU20-3288	AC-20	2
TU20-3289	AC-20	2
TU20-3290	AC-20	2
TU20-3291	AC-20	2
TU20-3292	AC-20	2
TU20-3293	AC-20	2
TU20-3294	AC-20	2
TU20-3295	AC-20	2
TU20-3296	AC-20	2
TU20-3297	AC-20	2
TU20-3298	AC-20	2
TU20-3299	AC-20	2
TU20-3304	AC-20	2
TU20-3305	AC-20	2
TU20-3306	AC-20	2
TU20-3307	AC-20	2
AC-21		
TU21-3011	AC-21	1
TU21-3012	AC-21	1
TU21-3014-3018-3013	AC-21	1
TU21-3014-3018-3013	AC-21	1
TU21-3014-3018-3013	AC-21	1
TU21-3016	AC-21	1
TU21-3017	AC-21	1
TU21-3018A	AC-21	1
TU21-3308B	AC-21	1
TU21-3311	AC-21	1
TU21-3314-3316	AC-21	1

Thermostat Schedule - Third Floor

TU ID#	AIR HANDLING UNIT ID#	NOTES
TU21-3314-3316	AC-21	1
TU21-3316A	AC-21	1
TU21-3317-3317A	AC-21	1
TU21-3317-3317A	AC-21	1
TU21-3318	AC-21	1
TU21-3320	AC-21	1
TU21-3322	AC-21	1
TU21-3325	AC-21	1
TU21-3327	AC-21	1
TU21-3330	AC-21	1
TU21-3331-3332	AC-21	1
TU21-3331-3401	AC-21	1
TU21-3333-3334-3335	AC-21	1
TU21-3333-3334-3335	AC-21	1
TU21-3336-3331	AC-21	1
TU21-3337	AC-21	1
TU21-3340	AC-21	1
TU21-3342	AC-21	1
TU21-3345	AC-21	1
TU21-3347	AC-21	1
TU21-3349	AC-21	1
TU21-3352	AC-21	1
TU21-3353	AC-21	1
TU21-3354	AC-21	1
TU21-3356	AC-21	1
TU21-3357-3359	AC-21	1
TU21-3359	AC-21	1
TU21-3360	AC-21	1
TU21-3362-3363A	AC-21	1
TU21-3363	AC-21	1
TU21-3365	AC-21	1
TU21-3365 CORRIDOR	AC-21	1
TU21-3367	AC-21	1
TU21-3369	AC-21	1
TU21-3372	AC-21	1
TU21-3374	AC-21	1
TU21-3377	AC-21	1
TU21-3378	AC-21	1
TU21-3379	AC-21	1
TU21-3380	AC-21	1
TU21-3383	AC-21	1
TU21-3386	AC-21	1
TU21-3388	AC-21	1
TU21-3391	AC-21	1
TU21-3393	AC-21	1
TU21-3395	AC-21	1
TU21-3398-3397	AC-21	1
TU21-3399	AC-21	1
TU21-3403	AC-21	1
TU21-3404	AC-21	1

SCHEDULE NOTES:

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.

Revisions:	Date:

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ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL SCHEDULES - THIRD FLOOR
Approved:
Phase: ISSUED FOR CONSTRUCTION
FULLY SPRINKLERED
Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION
Location: 3350 La Jolla Village Drive, San Diego, CA 92161
Issue Date: 03/15/2019
Checked: M. PERKINS
Drawn: M. RIOS
Project Number: 664-18-320
Building Number: 1
Drawing Number: 1A-704

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VA FORM 08 - 6231

Thermostat Schedule - Fourth Floor		
TU ID#	AC-##	NOTES
New Construction		
AC-22		
TU22-4000 CORRIDOR	AC-22	1
TU22-4000A	AC-22	1
TU22-4002-4003	AC-22	1
TU22-4004	AC-22	1
TU22-4005	AC-22	1
TU22-4020 CORRIDOR	AC-22	1
TU22-4022 CORRIDOR	AC-22	1
TU22-4023	AC-22	1
TU22-4023	AC-22	1
TU22-4024	AC-22	1
TU22-4024A	AC-22	1
TU22-4024B	AC-22	1
TU22-4024C	AC-22	1
TU22-4025A	AC-22	1
TU22-4025B	AC-22	1
TU22-4025C	AC-22	1
TU22-4026	AC-22	1
TU22-4026A	AC-22	1
TU22-4027	AC-22	1
TU22-4028	AC-22	1
TU22-4030	AC-22	1
TU22-4031	AC-22	1
TU22-4037	AC-22	1
TU22-4038	AC-22	1
TU22-4039A CORRIDOR	AC-22	1
TU22-4041	AC-22	1
TU22-4043	AC-22	1
TU22-4044	AC-22	1
TU22-4046	AC-22	1
TU22-4047	AC-22	1
TU22-4048	AC-22	1
TU22-4077 CORRIDOR	AC-22	1
TU22-4078	AC-22	1
TU22-4079	AC-22	1
TU22-4080	AC-22	1
TU22-4081	AC-22	1
TU22-4082	AC-22	1
TU22-4082A	AC-22	1
TU22-4085	AC-22	1
TU22-4085A	AC-22	1
TU22-4085B	AC-22	1
TU22-4085C	AC-22	1
TU22-4085D	AC-22	1
TU22-4086	AC-22	1
TU22-4520	AC-22	1
AC-23		
TU23-4000 CORRIDOR	AC-23	1
TU23-4006	AC-23	1
TU23-4006A	AC-23	1
TU23-4007	AC-23	1
TU23-4008	AC-23	1
TU23-4009	AC-23	1
TU23-4010	AC-23	1
AC-24		
TU24-4000	AC-24	1
TU24-4001	AC-24	1
TU24-4184A	AC-24	1
TU24-4184B	AC-24	1
TU24-4184C	AC-24	1
TU24-4185	AC-24	1
TU24-4185A	AC-24	1
TU24-4187-4187B	AC-24	1

Thermostat Schedule - Fourth Floor		
TU ID#	AC-##	NOTES
TU24-4189-4190	AC-24	1
TU24-4189-4190	AC-24	1
TU24-4192	AC-24	1
TU24-4194	AC-24	1
TU24-4196	AC-24	1
TU24-4199	AC-24	1
TU24-4201	AC-24	1
TU24-4204	AC-24	1
TU24-4205	AC-24	1
TU24-4209	AC-24	1
TU24-4210	AC-24	1
TU24-4211	AC-24	1
TU24-4212	AC-24	1
TU24-4212	AC-24	1
TU24-4212 CORRIDOR	AC-24	1
TU24-4212 CORRIDOR	AC-24	1
TU24-4215	AC-24	1
TU24-4217	AC-24	1
TU24-4220	AC-24	1
TU24-4224	AC-24	1
TU24-4227	AC-24	1
TU24-4227A	AC-24	1
TU24-4229	AC-24	1
TU24-4232	AC-24	1
TU24-4233	AC-24	1
TU24-4235	AC-24	1
TU24-4236	AC-24	1
TU24-4237	AC-24	1
TU24-4240-4240A	AC-24	1
TU24-4242	AC-24	1
TU24-4244	AC-24	1
TU24-4246	AC-24	1
TU24-4251	AC-24	1
TU24-4256	AC-24	1
TU24-4257	AC-24	1
TU24-4258	AC-24	1
TU24-4261	AC-24	1
TU24-4262	AC-24	1
TU24-4263	AC-24	1
TU24-4263	AC-24	1
TU24-4264	AC-24	1
TU24-4265	AC-24	1
TU24-4266	AC-24	1
TU24-4267	AC-24	1
TU24-4268	AC-24	1
TU24-4269	AC-24	1
TU24-4270	AC-24	1
TU24-4271	AC-24	1
TU24-4272	AC-24	1
TU24-4273	AC-24	1
TU24-4274	AC-24	1
TU24-4278	AC-24	1
TU24-4279	AC-24	1
TU24-4279	AC-24	1
TU24-4280	AC-24	1
TU24-4281	AC-24	1
TU24-4282	AC-24	1
AC-25		
TU25-4285	AC-25	1
TU25-4286	AC-25	1
TU25-4286A	AC-25	1
TU25-4288	AC-25	1
TU25-4289	AC-25	1

Thermostat Schedule - Fourth Floor		
TU ID#	AC-##	NOTES
TU25-4290	AC-25	1
TU25-4291	AC-25	1
TU25-4293	AC-25	1
TU25-4294	AC-25	1
TU25-4295	AC-25	1
TU25-4298	AC-25	1
TU25-4298B	AC-25	1
TU25-4299-4303	AC-25	1
TU25-4299A	AC-25	1
TU25-4304A	AC-25	1
TU25-4304B	AC-25	1
TU25-4304C	AC-25	1
TU25-4305	AC-25	1
TU25-4307 CORRIDOR	AC-25	1
TU25-4308	AC-25	1
TU25-4310	AC-25	1
TU25-4312	AC-25	1
TU25-4315	AC-25	1
TU25-4317	AC-25	1
TU25-4319	AC-25	1
TU25-4323-4322	AC-25	1
TU25-4324 CORRIDOR	AC-25	1
TU25-4324D	AC-25	1
TU25-4325	AC-25	1
TU25-4327	AC-25	1
TU25-4329	AC-25	1
TU25-4330	AC-25	1
TU25-4332	AC-25	1
TU25-4335	AC-25	1
TU25-4337	AC-25	1
TU25-4339	AC-25	1
TU25-4342	AC-25	1
TU25-4344	AC-25	1
TU25-4347	AC-25	1
TU25-4352	AC-25	1
TU25-4352A	AC-25	1
TU25-4355	AC-25	1
TU25-4356	AC-25	1
TU25-4357	AC-25	1
TU25-4358	AC-25	1
TU25-4359	AC-25	1
TU25-4359	AC-25	1
TU25-4361	AC-25	1
TU25-4362	AC-25	1
TU25-4364	AC-25	1
TU25-4367	AC-25	1
TU25-4368-4369	AC-25	1
TU25-4370	AC-25	1
TU25-4371	AC-25	1

SCHEDULE NOTES:

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.

Revisions:	Date:

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REGISTERED ARCHITECT
35126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL SCHEDULES - FOURTH FLOOR

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION

Location: 3350 La Jolla Village Drive, San Diego, CA 92161

Issue Date: 03/15/2019 | Checked: M. PERKINS | Drawn: M. RIOS

Project Number: 664-18-320

Building Number: 1

Drawing Number: 1A-705

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Thermostat Schedule - Fifth Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
New Construction		
AC-26		
TU26-5024A	AC-26	1
TU26-5025A	AC-26	1
TU26-5025C	AC-26	1
TU26-5025D	AC-26	1
TU26-5026-5027	AC-26	1
TU26-5028	AC-26	1
TU26-5031	AC-26	1
TU26-5032	AC-26	1
TU26-5033	AC-26	1
TU26-5036-5039	AC-26	1
TU26-5043	AC-26	1
TU26-5076	AC-26	1
TU26-5081	AC-26	1
TU26-5082	AC-26	1
TU26-5084	AC-26	1
TU26-5085	AC-26	1
TU26-5086	AC-26	1
TU26-5087	AC-26	1
TU26-5087A	AC-26	1
TU26-5088	AC-26	1
AC-27		
TU27-5005	AC-27	1
TU27-5090	AC-27	1
TU27-5090A	AC-27	1
TU27-5090C	AC-27	1
TU27-5090D	AC-27	1
TU27-5091	AC-27	1
TU27-5092	AC-27	1
TU27-5095A	AC-27	1
TU27-5095B	AC-27	1
TU27-5096	AC-27	1
TU27-5099	AC-27	1
TU27-5100 CORRIDOR	AC-27	1
TU27-5100A	AC-27	1
TU27-5100B	AC-27	1
TU27-5100C	AC-27	1
TU27-5100D	AC-27	1
TU27-5100E	AC-27	1
TU27-5101B	AC-27	1
TU27-5101C	AC-27	1
TU27-5101D	AC-27	1
TU27-5101F	AC-27	1
TU27-5101G	AC-27	1
TU27-5102	AC-27	1
TU27-5103-5104	AC-27	1
TU27-5105	AC-27	1
TU27-5105	AC-27	1
TU27-5106A	AC-27	1
TU27-5107	AC-27	1
TU27-5108	AC-27	1
TU27-5109	AC-27	1
TU27-5110	AC-27	1
TU27-5111	AC-27	1
TU27-5112	AC-27	1
TU27-5114	AC-27	1
TU27-5116	AC-27	1
TU27-5117	AC-27	1
TU27-5118	AC-27	1
TU27-5119	AC-27	1
TU27-5120	AC-27	1
TU27-5121	AC-27	1

Thermostat Schedule - Fifth Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU27-5122	AC-27	1
TU27-5123	AC-27	1
TU27-5129	AC-27	1
TU27-5132	AC-27	1
TU27-5133	AC-27	1
TU27-5134	AC-27	1
TU27-5135	AC-27	1
TU27-5136	AC-27	1
TU27-5137	AC-27	1
TU27-5140	AC-27	1
TU27-5164	AC-27	1
TU27-5165	AC-27	1
TU27-5166	AC-27	1
TU27-5167	AC-27	1
TU27-5168	AC-27	1
TU27-5169	AC-27	1
TU27-5170	AC-27	1
TU27-5172	AC-27	1
TU27-5173	AC-27	1
TU27-5175	AC-27	1
TU27-5176	AC-27	1
TU27-5176	AC-27	1
TU27-5179	AC-27	1
TU27-5180	AC-27	1
AC-28		
TU28-5004-5004A-5006	AC-28	1
TU28-5006	AC-28	1
TU28-5191	AC-28	1
TU28-5203-5256	AC-28	1
TU28-5207	AC-28	1
TU28-5208	AC-28	1
TU28-5209	AC-28	1
TU28-5211	AC-28	1
TU28-5212	AC-28	1
TU28-5214	AC-28	1
TU28-5217	AC-28	1
TU28-5219	AC-28	1
TU28-5221	AC-28	1
TU28-5225	AC-28	1
TU28-5226	AC-28	1
TU28-5228	AC-28	1
TU28-5231	AC-28	1
TU28-5231A	AC-28	1
TU28-5233	AC-28	1
TU28-5234	AC-28	1
TU28-5235	AC-28	1
TU28-5237 CORRIDOR	AC-28	1
TU28-5237-5238	AC-28	1
TU28-5240	AC-28	1
TU28-5242	AC-28	1
TU28-5244	AC-28	1
TU28-5247	AC-28	1
TU28-5249	AC-28	1
TU28-5251	AC-28	1
TU28-5253	AC-28	1
TU28-5255	AC-28	1
TU28-5257	AC-28	1
TU28-5258	AC-28	1
TU28-5260	AC-28	1
TU28-5261	AC-28	1
TU28-5262	AC-28	1
TU28-5263	AC-28	1

Thermostat Schedule - Fifth Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU28-5265	AC-28	1
TU28-5267	AC-28	1
TU28-5268	AC-28	1
TU28-5269	AC-28	1
TU28-5273	AC-28	1
TU28-5274	AC-28	1
TU28-5275A	AC-28	1
TU28-5276	AC-28	1
TU28-5277A	AC-28	1
AC-29		
TU29-5080B	AC-29	1
TU29-5080C	AC-29	1
TU29-5083D	AC-29	1
TU29-5280E	AC-29	1
TU29-5281	AC-29	1
TU29-5284	AC-29	1
TU29-5285	AC-29	1
TU29-5286	AC-29	1
TU29-5287	AC-29	1
TU29-5288	AC-29	1
TU29-5289	AC-29	1
TU29-5290A	AC-29	1
TU29-5290B	AC-29	1
TU29-5293	AC-29	1
TU29-5296	AC-29	1
TU29-5309	AC-29	1
TU29-5312	AC-29	1
TU29-5313	AC-29	1
TU29-5314	AC-29	1
TU29-5315	AC-29	1
TU29-5316	AC-29	1
TU29-5317	AC-29	1
TU29-5320	AC-29	1
TU29-5321	AC-29	1
TU29-5321A	AC-29	1
TU29-5321B	AC-29	1
TU29-5321C	AC-29	1
TU29-5325	AC-29	1
TU29-5325A	AC-29	1
TU29-5325B	AC-29	1
TU29-5326	AC-29	1
TU29-5327	AC-29	1
TU29-5328	AC-29	1
TU29-5328 CORRIDOR	AC-29	1
TU29-5329	AC-29	1
TU29-5329A	AC-29	1
TU29-5329B	AC-29	1
TU29-5331	AC-29	1
TU29-5335	AC-29	1
TU29-5336	AC-29	1
TU29-5337	AC-29	1
TU29-5338	AC-29	1
TU29-5339	AC-29	1
TU29-5340	AC-29	1
TU29-5341 CORRIDOR	AC-29	1
TU29-5342	AC-29	1
TU29-5343	AC-29	1
TU29-5344	AC-29	1
TU29-5345	AC-29	1
TU29-5345A	AC-29	1
TU29-5345C	AC-29	1
TU29-5346	AC-29	1
TU29-5347	AC-29	1

Thermostat Schedule - Fifth Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU29-5347A	AC-29	1
TU29-5347B	AC-29	1
TU29-5348	AC-29	1
TU29-5349	AC-29	1
TU29-5350	AC-29	1
TU29-5351	AC-29	1
TU29-5352	AC-29	1
TU29-5353	AC-29	1
TU29-5356	AC-29	1
TU29-5357B-5354-5355	AC-29	1
TU29-5358	AC-29	1
TU29-5358A	AC-29	1
TU29-5360	AC-29	1
TU29-5360E-5360C-5360B	AC-29	1
TU29-5360F	AC-29	1
TU29-5360H	AC-29	1
TU29-5360I	AC-29	1
TU29-5360J	AC-29	1
TU29-5360L	AC-29	1
TU29-5360N	AC-29	1
TU29-5364	AC-29	1
TU29-5367	AC-29	1
TU29-5368	AC-29	1
TU29-5369- 5370	AC-29	1

SCHEDULE NOTES:

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.

Revisions:	Date:

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REGISTERED ARCHITECT 35128 MATHEW R. PERKINS NOT VALID UNLESS SIGNED ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL SCHEDULES - FIFTH FLOOR

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION

Location: 3350 La Jolla Village Drive, San Diego, CA 92161

Issue Date: 03/15/2019

Checked: M. PERKINS

Drawn: M. RIOS

Project Number: 664-18-320

Building Number: 1

Drawing Number: 1A-706

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3/19/2019 6:37:35 AM

Thermostat Schedule - Sixth Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
New Construction		
AC-30		
TU30-6021-6026	AC-30	1
TU30-6022	AC-30	1
TU30-6023	AC-30	1
TU30-6028	AC-30	1
TU30-6028A	AC-30	1
TU30-6029	AC-30	1
TU30-6029A	AC-30	1
TU30-6030A	AC-30	1
TU30-6032	AC-30	1
TU30-6032A	AC-30	1
TU30-6033	AC-30	1
TU30-6039	AC-30	1
TU30-6043	AC-30	1
TU30-6044	AC-30	1
TU30-6044A	AC-30	1
TU30-6045A	AC-30	1
TU30-6045B	AC-30	1
TU30-6046	AC-30	1
TU30-6047	AC-30	1
TU30-6049	AC-30	1
TU30-6051	AC-30	1
TU30-6052	AC-30	1
TU30-6055A	AC-30	1
TU30-6056	AC-30	1
TU30-6056A	AC-30	1
TU30-6057	AC-30	1
TU30-6058	AC-30	1
TU30-6059	AC-30	1
TU30-6061	AC-30	1
TU30-6062	AC-30	1
TU30-6063	AC-30	1
TU30-6064	AC-30	1
TU30-6064A	AC-30	1
TU30-6069	AC-30	1
TU30-6070	AC-30	1
TU30-6072	AC-30	1
TU30-6073	AC-30	1
TU30-6074	AC-30	1
TU30-6075	AC-30	1
TU30-6076	AC-30	1
TU30-6077	AC-30	1
TU30-6078	AC-30	1
TU30-6079	AC-30	1
TU30-6080	AC-30	1
TU30-6081	AC-30	1
TU30-6081	AC-30	1
TU30-6082	AC-30	1
TU30-6083	AC-30	1
TU30-6083A	AC-30	1
TU30-6084	AC-30	1
TU30-6086	AC-30	1
TU30-6087	AC-30	1
TU30-6088	AC-30	1
TU30-6090A	AC-30	1
TU30-6091	AC-30	1
TU30-6093	AC-30	1
TU30-6095	AC-30	1
TU30-6096	AC-30	1
TU30-6097	AC-30	1
TU30-6098	AC-30	1
TU30-6099 CORRIDOR	AC-30	1
AC-31		

Thermostat Schedule - Sixth Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU31-6099A	AC-31	1
TU31-6100	AC-31	1
TU31-6100	AC-31	1
TU31-6101	AC-31	1
TU31-6103	AC-31	1
TU31-6106	AC-31	1
TU31-6107	AC-31	1
TU31-6108	AC-31	1
TU31-6108A	AC-31	1
TU31-6109	AC-31	1
TU31-6111	AC-31	1
TU31-6112	AC-31	1
TU31-6113	AC-31	1
TU31-6113A	AC-31	1
TU31-6114	AC-31	1
TU31-6114	AC-31	1
TU31-6115	AC-31	1
TU31-6115A	AC-31	1
TU31-6116	AC-31	1
TU31-6117	AC-31	1
TU31-6117A	AC-31	1
TU31-6118A	AC-31	1
TU31-6120B	AC-31	1
TU31-6132	AC-31	1
AC-32		
TU32-6150	AC-32	1
TU32-6151	AC-32	1
TU32-6152	AC-32	1
TU32-6153	AC-32	1
TU32-6158	AC-32	1
TU32-6159	AC-32	1
TU32-6161	AC-32	1
TU32-6162	AC-32	1
TU32-6163	AC-32	1
TU32-6164	AC-32	1
TU32-6165	AC-32	1
TU32-6169	AC-32	1
TU32-6169A	AC-32	1
TU32-6169B	AC-32	1
TU32-6170	AC-32	1
TU32-6171	AC-32	1
TU32-6172	AC-32	1
TU32-6173	AC-32	1
TU32-6174	AC-32	1
TU32-6174A	AC-32	1
TU32-6174B	AC-32	1
TU32-6174C	AC-32	1
TU32-6174D	AC-32	1
TU32-6174F	AC-32	1
TU32-6174G	AC-32	1
TU32-6176	AC-32	1
TU32-6178	AC-32	1
TU32-6179A	AC-32	1
TU32-6181	AC-32	1
TU32-6183	AC-32	1
TU32-6184A	AC-32	1
TU32-6184B	AC-32	1
TU32-6185	AC-32	1
TU32-6186	AC-32	1
TU32-6187	AC-32	1
TU32-6188A	AC-32	1
TU32-6189B	AC-32	1
TU32-6189C	AC-32	1

Thermostat Schedule - Sixth Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU32-6191	AC-32	1
TU32-6193	AC-32	1
TU32-6194	AC-32	1
TU32-6195	AC-32	1
TU32-6196	AC-32	1
TU32-6197A	AC-32	1
TU32-6198	AC-32	1
TU32-6198	AC-32	1
TU32-6200	AC-32	1
TU32-6201	AC-32	1
TU32-6202	AC-32	1
TU32-6203	AC-32	1
TU32-6204	AC-32	1
TU32-6204 CORRIDOR	AC-32	1
TU32-6205	AC-32	1
TU32-6206	AC-32	1
TU32-6207	AC-32	1
AC-33		
TU33-6210	AC-33	1
TU33-6212	AC-33	1
TU33-6213	AC-33	1
TU33-6215	AC-33	1
TU33-6219	AC-33	1
TU33-6220	AC-33	1
TU33-6221	AC-33	1
TU33-6222A	AC-33	1
TU33-6222B	AC-33	1
TU33-6222D	AC-33	1
TU33-6222E	AC-33	1
TU33-6223	AC-33	1
TU33-6225	AC-33	1
TU33-6227	AC-33	1
TU33-6229	AC-33	1
TU33-6230	AC-33	1
TU33-6231	AC-33	1
TU33-6232	AC-33	1
TU33-6233	AC-33	1
TU33-6233A	AC-33	1
TU33-6235	AC-33	1
TU33-6236	AC-33	1
TU33-6237	AC-33	1
TU33-6238	AC-33	1
TU33-6239	AC-33	1
TU33-6240	AC-33	1
TU33-6240 CORRIDOR	AC-33	1
TU33-6242	AC-33	1
TU33-6243	AC-33	1
TU33-6243A	AC-33	1
TU33-6244	AC-33	1
TU33-6245	AC-33	1
TU33-6245A	AC-33	1
TU33-6246	AC-33	1
TU33-6246A	AC-33	1
TU33-6247	AC-33	1
TU33-6249	AC-33	1
TU33-6252C	AC-33	1
TU33-6253	AC-33	1
TU33-6254	AC-33	1
TU33-6254B	AC-33	1
TU33-6256	AC-33	1
TU33-6257	AC-33	1
TU33-6258	AC-33	1
TU33-6259	AC-33	1
TU33-6260	AC-33	1

Thermostat Schedule - Sixth Floor		
TU ID#	AIR HANDLING UNIT ID#	NOTES
TU33-6261	AC-33	1
TU33-6263	AC-33	1
TU33-6263A	AC-33	1
TU33-6264	AC-33	1
TU33-6265	AC-33	1
TU33-6267	AC-33	1
TU33-6268	AC-33	1
TU33-6268A	AC-33	1
TU33-6269	AC-33	1
AC-34		
TU34-6000	AC-34	1
TU34-6000A	AC-34	1
TU34-6000B	AC-34	1
TU34-6001	AC-34	1
TU34-6002	AC-34	1
TU34-6003	AC-34	1
TU34-6004	AC-34	1
TU34-6005	AC-34	1
TU34-6006	AC-34	1
TU34-6007	AC-34	1
TU34-6008	AC-34	1
TU34-6008A	AC-34	1
TU34-6009	AC-34	1
TU34-6014	AC-34	1
TU34-6016	AC-34	1
TU34-6017	AC-34	1

SCHEDULE NOTES:

1. PROVIDE NEW DDC THERMOSTAT CONTROLLING THE TERMINAL UNIT INDICATED. SEE MECHANICAL INTERSTITIAL PLANS FOR TERMINAL UNIT LOCATIONS AND THERMOSTATIC CONTROL SEQUENCES.

Revisions:	Date:

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REGISTERED PROFESSIONAL ENGINEER
33128
MATHEW R. PERKINS
DO NOT SIGN
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ARCHITECTURAL SCHEDULES - SIXTH FLOOR
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION
Location	3350 La Jolla Village Drive, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. PERKINS
Drawn	M. RIOS
Project Number	664-18-320
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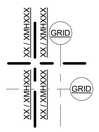
MECHANICAL SYMBOL LEGEND

ABBREVIATIONS

AC	AIR CONDITIONER
AD	ACCESS DOOR
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AL	ACOUSTIC LINING
APD	AIR PRESSURE DROP
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CA	COMPRESSED AIR
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CO	CLEANOUT
CONT.	CONTINUATION
CP	CONTROL PANEL
D	DRAIN
DX	DIRECT EXPANSION
EAT	ENTERING AIR TEMPERATURE
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
ENT	ENTERING
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
°F	DEGREES FAHRENHEIT
FB	FLAT BOTTOM
FCO	FLOOR CLEANOUT
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
F.G.	FILTER GAUGE
FLEX	FLEXIBLE
FPM	FEET PER MINUTE
FS	FLOOR SINK
FT	FLAT TOP
FT.	FEET
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GX	RELIEF/EXHAUST FAN
HB	HOSE BIBB
HD	HAND DAMPER (VOLUME DAMPER)
HEPA	HIGH EFFICIENCY PARTICULATE AIR (FILTER)
IN	INCHES
KW	KILOWATT
KWH	KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MA	MAIN AIR (CONTROLS)
MCC	MOTOR CONTROL CENTER
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO.	NUMBER (QUANTITY)
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
PSIG	POUNDS PER SQUARE INCH GAGE
QTY	QUANTITY
QUAD	QUADRANT
R.A.	RETURN AIR
Rh	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
S	SUPPLY FAN
SCD	SMOKE CONTROL DAMPER
SP	STATIC PRESSURE (INCHES OF WATER)
SDVV	SINGLE DUCT VARIABLE VOLUME
ST	SOUND TRAP
STC	SOUND TRANSMISSION CLASS
TOPT	TOP OF PIPE TRAPEZE
TP	TOTAL PRESSURE (INCHES OF WATER)
TYP.	TYPICAL
TU	TERMINAL UNIT
V	VOLTS
VAC	VOLTS, ALTERNATING CURRENT
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
VTR	VENT THRU ROOF
WCO	WALL CLEANOUT
WH	WALL HYDRANT

SHEET BREAK UP SYMBOLS



DUCTWORK SYMBOLS

- FLEXIBLE DUCT
- ACOUSTICAL DUCT LINING
- MANUAL BALANCING DAMPER
- F.DPR — FIRE DAMPER
- S.DPR — SMOKE DAMPER
- F/S DPR — COMBINATION FIRE/SMOKE DAMPER
- 1HR FIRE BARRIER (VERIFY WITH ARCHITECTURAL DRAWINGS)
- 2HR FIRE BARRIER (VERIFY WITH ARCHITECTURAL DRAWINGS)
- 2HR SMOKE BARRIER (VERIFY WITH ARCHITECTURAL DRAWINGS)
- CONNECT NEW DUCT TO EXISTING DUCT
- EXISTING DUCT TO BE REMOVED
- FLEXIBLE CONNECTION
- RISE IN DUCT
- MITERED ELBOW (ALL MITERED ELBOWS ARE TO HAVE VANES EXCEPT TRANSFER AIR SOUND ELBOW)
- SHORT RADIUS VANED ELBOW (ALL SHORT RADIUS ELBOWS ARE TO HAVE VANES PER SMACNA)
- STANDARD RADIUS ELBOW
- SUPPLY DUCT, SECTION
- EXHAUST DUCT, SECTION
- RETURN DUCT, SECTION
- CEILING DIFFUSERS (ARROWS DENOTE THROW PATTERN IF THROW IS SOMETHING OTHER THAN 4-WAY)
- DUCTED EXHAUST REGISTER
- DUCTED RETURN REGISTER
- CEILING RETURN AIR REGISTER OR TRANSFER AIR GRILLE
- SIDEWALL EXHAUST OR RETURN AIR GRILLE OR REGISTER
- SIDEWALL SUPPLY REGISTER
- DUCT TRANSITION
- 24"x12" — INDICATES A RECTANGULAR DUCT SIZE (WIDTH x DEPTH)
- 12" ø — INDICATES A ROUND DUCT SIZE
- 24"/12" — INDICATES A FLAT OVAL DUCT SIZE (WIDTH x DEPTH)
- ACCESS DOOR
- T — ROOM THERMOSTAT/TEMP. TRANSMITTER LOCATION ONLY SEE CONTROL DRAWINGS FOR TYPE
- H — ROOM HUMIDISTAT/HUMIDITY TRANSMITTER LOCATION ONLY SEE CONTROL DRAWINGS FOR TYPE
- CO2 — ROOM CARBON DIOXIDE SENSOR LOCATION ONLY
- SD — DUCT MOUNTED SMOKE DETECTOR
- DUCT MOUNTED STATIC PRESSURE PROBE

EQUIPMENT SYMBOLS

- XX - ## — LETTERS REFER TO THE EQUIPMENT TYPE; NUMBERS REFER TO SPECIFIC EQUIPMENT; SYMBOL INDICATES NEW EQUIPMENT IDENTIFIED IN EQUIPMENT SCHEDULE
- ##x# / XX - # / ### — SIDEWALL GRILLE DIMENSION WHERE SHOWN ON PLANS; SYMBOL INDICATES GRILLE OR DIFFUSER IDENTIFIED IN EQUIPMENT SCHEDULE; CFM

SECTION SYMBOLS

- SECTION NUMBER → X#
- DRAWING NUMBER WHERE DETAILED → X###

DETAIL REFERENCE

- DETAIL LOCATION → X#/X###
- DRAWING NUMBER WHERE DETAILED

SECTION AND DETAIL TITLES

- SECTION LOCATION → X# SECTION / SCALE
- DETAIL LOCATION → X# DETAIL / SCALE

PIPING SYMBOLS

HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
CD	CONDENSATE DRAIN
D	DRAIN
V	VENT
MU	MAKE-UP WATER
RS	REFRIGERATION SUCTION
RL	REFRIGERATION LIQUID
R	REFRIGERATION
TWS	TOWER WATER SUPPLY
TWR	TOWER WATER RETURN
TWB	TOWER WATER BYPASS
HPS	STEAM - HIGH PRESSURE SUPPLY
HPR	STEAM - HIGH PRESSURE RETURN
MPS	STEAM - MEDIUM PRESSURE SUPPLY
MPR	STEAM - MEDIUM PRESSURE RETURN
LPS	STEAM - LOW PRESSURE SUPPLY
LPR	STEAM - LOW PRESSURE RETURN
CND	STEAM - CONDENSATE RETURN
PC	STEAM - PUMPED CONDENSATE

- DOWN — DIRECTION OF PIPE PITCH (DOWN)
- DIRECTION OF FLOW
- EXISTING PIPE TO REMAIN
- EXISTING PIPE TO BE REMOVED

VALVE SYMBOLS

SINGLE LINE PIPE SYMBOLS

- GATE VALVE
- GLOBE VALVE
- CHECK VALVE
- PLUG VALVE
- PRESSURE REDUCING VALVE
- THREE-WAY MODULATING CONTROL VALVE
- TWO-WAY CONTROL VALVE
- SAFETY VALVE OR PRESSURE RELIEF
- MANUAL AIR VENT
- SOLENOID VALVE
- 3/4" GATE VALVE WITH ADAPTER TO 3/4" HOSE THREAD
- BUTTERFLY VALVE
- BALL VALVE
- VALVE IN RISE
- WATER FLOW MEASURING DEVICE
- VALVE ASSEMBLY
- VALVE - BALL LEVER
- VALVE - GATE MANUAL
- VALVE - BUTTERFLY LEVER
- VALVE - BUTTERFLY MOTORIZED
- VALVE - GLOBE MANUAL
- VALVE - GLOBE LEVER
- VALVE - PLUG LEVER
- VALVE - PLUG MANUAL
- VALVE - PRESSURE REGULATING
- VALVE - CHECK
- VALVE - PRESSURE RELIEF

DOUBLE LINE PIPE SYMBOLS

- GATE VALVE
- GLOBE VALVE
- CHECK VALVE
- PLUG VALVE
- PRESSURE REDUCING VALVE
- 3-WAY CONTROL VALVE
- 2-WAY CONTROL VALVE
- RELIEF VALVE
- SOLENOID VALVE
- BUTTERFLY VALVE
- BALL VALVE
- DIAPHRAGM VALVE
- CIRCUIT SETTER
- STEAM TRAP INVERTED BUCKET

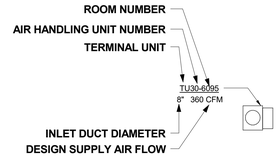
FITTING SYMBOLS

SINGLE LINE PIPE SYMBOLS

- ELBOW - DOWN
- ELBOW - UP
- PIPE RISE - DROP
- ELBOW - DOWN TO TEE
- TEE - DOWN
- TEE - UP
- ELBOW - UP TO TEE
- END CAP
- FLEX — FLEX CONNECTION
- PIPE REDUCER - CONCENTRIC
- PIPE REDUCER - ECCENTRIC
- PIPE STRAINER
- UNION - SCREWED
- A — AIR VENT - AUTOMATIC
- AIR VENT - MANUAL
- DP — GAUGE - DIFFERENTIAL
- GAUGE - PRESSURE
- PG — GAUGE - PRESSURE
- GAUGE - PRESSURE WITH COCK
- GAUGE - TEMPERATURE
- PIPE - CAPPED WITH SHUT-OFF VALVE
- PIPE ANCHOR
- PIPE EXPANSION JOINT
- PIPE GUIDE
- F — SENSOR - FLOW
- SWITCH - FLOW
- PS — SWITCH - PRESSURE
- TS — SWITCH - TEMPERATURE
- TEMPERATURE - PRESSURE TEST FITTING
- THERMOMETER
- THERMOMETER WELL

DOUBLE LINE PIPE SYMBOLS

- ELBOW - DOWN
- ELBOW - UP
- PIPE RISE - DROP
- ELBOW - DOWN TO TEE
- TEE - DOWN
- END CAP
- PIPE REDUCER - CONCENTRIC
- PIPE REDUCER - ECCENTRIC
- UNION - SCREWED
- PIPE STRAINER



NOTE: NOT ALL ABBREVIATIONS AND SYMBOLS APPLY TO THIS PROJECT.

GENERAL NOTES:

1. WATER PIPE CONNECTIONS TO WATER COILS SHALL BE MADE SO THERE WILL BE COUNTER FLOW BETWEEN WATER AND AIR.
2. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. ALL DUCT SIZES SHOWN ON DRAWINGS ARE NET INSIDE DIMENSIONS. PROVIDE ONE INCH ACOUSTICAL LINING IN LOW VELOCITY RECTANGULAR DUCTWORK UNLESS NOTED OTHERWISE ON THE DRAWINGS. SEE SPECIFICATIONS.
3. ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASES OR SUSPENDED CEILINGS, UNLESS OTHERWISE NOTED.
4. PROVIDE ACCESS PANELS OR DOORS IN INACCESSIBLE CEILINGS AND/OR CHASES FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, COILS, FANS, CONTROLS, ETC. THEY SHALL BE FURNISHED UNDER DIVISION 23 AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATION. ACCESS DOOR RATING SHALL MATCH CLASSIFICATION OF WALL AND CEILING FIRE RATING.
5. PROVIDE 1/2" MANUAL AIR VENTS AT ALL HIGH POINTS OF CLOSED SYSTEM PIPING AND 1/2" MANUAL DRAIN VALVES WITH HOSE CONNECTION AT LOW POINTS AS REQUIRED TO PROVIDE COMPLETE SYSTEM DRAINAGE. WHERE DRAIN VALVES OCCUR ABOVE CEILING AREAS AND IN AREAS OUTSIDE MECHANICAL RANGE PROVIDE HOSE CONNECTION ON VALVE.
6. PROVIDE TURNING VANES IN ALL SQUARE ELBOWS, EXCEPT TRANSFER AIR SOUND ELBOWS.
7. CONTRACTOR SHALL COORDINATE ALL DUCTWORK, PIPING, PLUMBING AND FIRE PROTECTION PIPING WITH STRUCTURAL AND ELECTRICAL SYSTEMS AND SHALL PROVIDE NECESSARY OFFSETS TO AVOID CONFLICTS AND TO MAINTAIN EQUIPMENT ACCESS AND SERVICEABILITY.
8. CONTRACTOR SHALL FURNISH ALL NECESSARY STRUCTURES, INSERTS, SLEEVES, AND HANGING DEVICES FOR INSTALLATION OF MECHANICAL AND PLUMBING EQUIPMENT, DUCTWORK AND PIPING, ETC. CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR AND ALL BUILDING TRADES TO AVOID CONFLICTS AND TO MAINTAIN EQUIPMENT ACCESS AND SERVICEABILITY.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY MISCELLANEOUS ANGLES, CHANNELS, UNISTRUT, ETC., AS MAY BE REQUIRED TO ADEQUATELY SUPPORT THE MECHANICAL PIPING, DUCTWORK, AND EQUIPMENT IN A MANNER APPROVED BY THE ARCHITECT, WHICH WILL NOT OVERLOAD THE BUILDING STRUCTURAL SYSTEM.
10. SEAL ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, DUCT WALL PENETRATIONS AND FITTING CONNECTIONS ON ALL DUCT SYSTEMS.
11. A MECHANICAL SPECIAL INSPECTION IS REQUIRED FOR THE DUCT MOUNTED SMOKE DETECTORS AND FIRE/SMOKE DAMPERS PER IBC 2802.
12. PROVIDE A PRE-CONSTRUCTION AIR BALANCE REPORT TO THE VA PRIOR TO COMMENCEMENT OF WORK.
13. PROVIDE AN AIR BALANCE REPORT TO THE VA PRIOR TO THE CALLING FOR A FINAL INSPECTION PER IMC, SECTION 107 AND 403.3.4.
14. THERMOSTATS SHALL BE INSTALLED WITH THE CENTER OF THE THERMOSTAT 54-INCHES ABOVE FINISH FLOOR.
15. AIR BALANCING CONTRACTOR SHALL VERIFY THAT THE WORK WILL NOT AFFECT THE AIR BALANCE IN AREAS OUTSIDE OF THE SCOPE OF WORK.
16. IT IS CRITICAL THAT THE CONTRACTOR PERFORM A COMPLETE REVIEW OF ALL SUBMITTALS PRIOR TO SUBMISSION TO THE AE/COR. INCOMPLETE, INCORRECT AND UNCLEAR SUBMITTALS WILL BE REJECTED AND MARKED AS "REVISE AND RESUBMIT". ALL SUBMITTALS MUST CLEARLY INDICATE THE EQUIPMENT SELECTIONS FOR THE PROJECT. TECHNICAL DRAWINGS OF COMPLETE ASSEMBLIES, REFLECTING ACCURATE PROJECT CONDITIONS, SHALL BE SUBMITTED WITH EQUIPMENT SELECTIONS TO ENSURE SPACE ALLOWANCES ARE REFLECTED IN THE ACTUAL SPACE AVAILABLE. WHERE SIZE DEVIATIONS DIFFER FROM THE BASIS OF DESIGN CONTRACTOR SHALL HIGHLIGHT THE DIFFERENCES FOR AE COR REVIEW WITHIN THE SUBMITTAL. CONTRACTOR SHALL PROVIDE INSTALLATION ROUTE AND VERIFICATION THAT ACCESS POINTS, PLACEMENT ROUTE, SUPPORTS, AND REQUIRED EQUIPMENT CLEARANCES ARE IDENTIFIED ON THE ROUTE DRAWING. SAFETY PROTOCOLS FOR SUBJECT STATION SHALL BE REFLECTED ON EQUIPMENT CLEARANCES. PLATFORMS AND INTERFACE AREAS (FILTER, GAUGES, MONITORS, VALVES, ETC.) SHALL HAVE PROPER CLEARANCE AS DEFINED BY THE MANUFACTURER, VA SAFETY PERSONNEL AND SERVICE PERSONNEL. ACCESS POINTS OF USE SHALL BE CLEARLY IDENTIFIED ON THE DRAWINGS.

GENERAL DEMO NOTES:

A. THE DEMOLITION DRAWINGS REFLECT INFORMATION ON EXISTING BUILDING SERVICES GATHERED BY SITE INSPECTION, DISCUSSIONS WITH MAINTENANCE PERSONNEL AND PREVIOUS CONSTRUCTION DRAWINGS. THE EXACT LOCATION, ARRANGEMENT, AND SIZES OF PIPE LINES AND DUCTWORK IN THE EXISTING BUILDING MAY BE DIFFERENT FROM THAT SHOWN ON THESE DRAWINGS.

B. THE CONTRACTOR SHALL COORDINATE THE SHUTDOWN OF EXISTING BUILDING SERVICES FOR REMOVALS WITH OWNER AUTHORIZED REPRESENTATIVE AND SHALL CONFORM TO THEIR REQUIREMENTS.

C. DISRUPTION OF NORMAL FACILITY ACTIVITIES ARE TO BE KEPT TO AN ABSOLUTE MINIMUM. DUST, DEBRIS, AND FUMES SHALL BE CONTROLLED SO AS NOT TO AFFECT THE HEALTH AND SAFETY OF OCCUPIED AREAS WITHIN THE FACILITY WHICH ARE OUTSIDE THE AREA OF WORK. COORDINATE WITH THE ARCHITECT AND THE OWNER'S REPRESENTATIVE WITH REGARD TO ALL ACTIVITIES TO BE CONDUCTED OUTSIDE OF THE SUITE REMODEL AREA WHICH MAY AFFECT THE OPERATION OF THE FACILITY. THE CONTRACTOR SHALL PROVIDE TEMPORARY VENTILATION (MAINTAIN WORK ZONE AT NEGATIVE PRESSURE), FILTRATION, AIR PURIFIERS, DUST SCREENS, ETC. FOR ALL WORK AREAS AFFECTED BY DEMOLITION FOR NEW INSTALLATION TO MINIMIZE DUST AND FUMES.

D. THE CONTRACTOR SHALL PRESENT AN AREA BY AREA WORK PLAN WELL IN ADVANCE TO THE ARCHITECT AND THE OWNER'S AUTHORIZED REPRESENTATIVE FOR APPROVAL PRIOR TO BEGINNING WORK. THE WORK PLAN SHALL INCLUDE AN OUTLINE OF ALL ACTIVITIES OF ALL SUBCONTRACTORS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S AUTHORIZED REPRESENTATIVE TO ESTABLISH ACCEPTABLE ROUTING AND ACCESS FOR MATERIALS REQUIRED FOR THE NEW INSTALLATION.

E. SEE SPECIFICATION SECTION 230593, TESTING, ADJUSTING, & BALANCING FOR HVAC, FOR ADDITIONAL DESCRIPTION AND REQUIREMENTS.

F. ALL TEST AND MEASUREMENT TRAVERSE LOCATIONS SHALL BE CLEARLY NOTED ON FLOOR PLANS WHICH SHALL BE INCLUDED WITH THE TEST AND MEASUREMENT DATA.

G. ALL DATA OBTAINED VIA TESTING AND MEASURING OF THE EXISTING AIR HANDLING UNITS, ASSOCIATED RETURN/RELIEF FANS, SUPPLY AIR DUCTS, EXHAUST, AND RETURN AIR DUCTS AND TERMINAL UNITS PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK SCOPE OF WORK SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO DEMOLITION.

H. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL TRADES INCLUDING MECHANICAL, PLUMBING, ELECTRICAL, FURNITURE, AND ARCHITECTURAL. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT PRIOR TO START OF WORK.

I. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS

Revisions:	Date:

CONSULTANT

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REGISTERED PROFESSIONAL ENGINEER
No. 35126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	MECHANICAL LEGEND
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	K. Luke
Project Number	664-18-320
Building Number	1
Drawing Number	1M-001

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:44:54 AM

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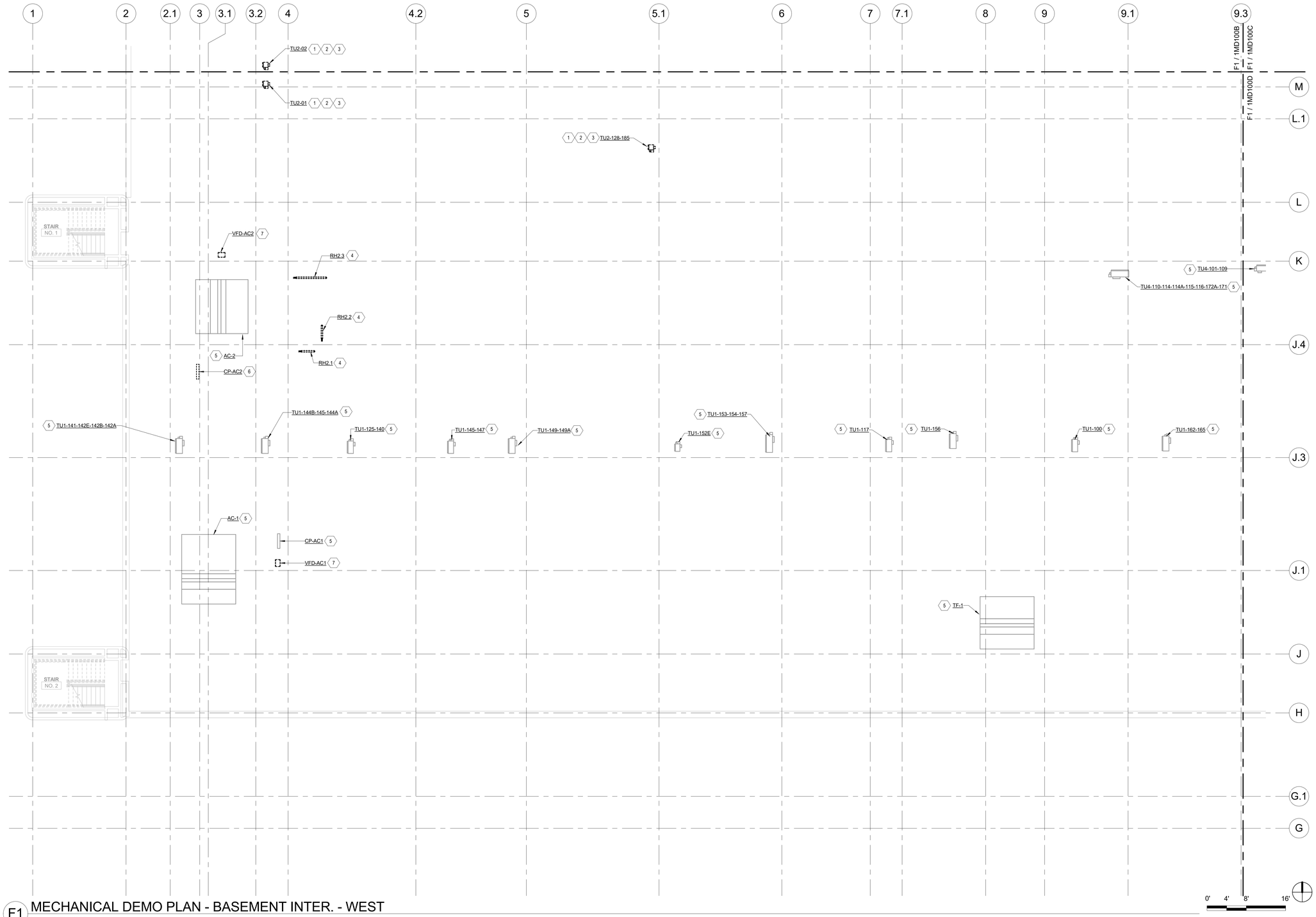


F1 MECHANICAL DEMO PLAN - BASEMENT INTER. - WEST

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

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.
G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
I. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00 AM TO 4:30 PM..

KEYNOTES

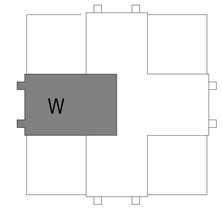
1. REMOVE EXISTING TERMINAL UNIT AND SUPPORT AS NECESSARY TO INSTALL NEW TERMINAL UNIT. REMOVE ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY INCLUDING EXISTING CONTROLLER AND PNEUMATIC TUBING BACK TO MAIN AND CAP. SEE MECHANICAL SCHEDULES FOR ADDITIONAL AIR BALANCE REQUIREMENTS PRIOR TO DEMOLITION.
2. REMOVE EXISTING DUCTWORK AS NECESSARY TO CONNECT EXISTING DUCTWORK TO NEW TERMINAL UNIT. REMOVE ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.
3. REMOVE EXISTING PIPING AS NECESSARY TO CONNECT NEW HOSE KIT TO EXISTING HEATING WATER PIPING AND NEW TERMINAL UNIT. REMOVE ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.
4. REMOVE EXISTING REHEAT COIL AND DUCTWORK AS NECESSARY TO INSTALL NEW REHEAT COIL. REMOVE ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY INCLUDING EXISTING CONTROLLER AND PNEUMATIC TUBING BACK TO MAIN AND CAP.
5. EXISTING HVAC EQUIPMENT TO REMAIN IN PLACE. EQUIPMENT'S EXISTING DIRECT DIGITAL CONTROL (DDC) TO BE MODIFIED AS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM BY UTILIZING THE EXISTING CONTROL COMPONENTS WHERE FEASIBLE, AND ADDING HARDWARE DEVICES, SENSORS, TRANSMITTERS, AND OR REPROGRAMMING THE CONTROLS AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS. REFER TO THE M-800 SERIES SHEETS FOR CONTROLS.
6. REMOVE EXISTING CONTROL PANEL AND DEVICES AS NECESSARY TO INSTALL NEW CONTROL PANEL HOUSING TERMINAL UNIT CONTROL HARWARE. REMOVE INCLUDING PNEUMATIC TUBING AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.
7. **DEDUCTIVE ALTERNATE NO. 10:** EXISTING VFD TO BE REPLACED. CONTRACTOR SHALL DISCONNECT AND REMOVE ELECTRICAL SERVICE TO THE EXISTING VFD. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROLS SYSTEM BY UTILIZING THE EXISTING CONTROLS COMPONENTS WHERE FEASIBLE AND ADDING DEVICES AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS. REFER TO M-800 SERIES SHEETS FOR CONTROLS. SEE ELECTRICAL DRAWINGS.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

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STAMP

REGISTERED PROFESSIONAL ENGINEER
CP 35128
MATHEW R. PERKINS
ELECTRONICALLY SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - BASEMENT INTERSTITIAL - WEST

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019 | **Checked:** K. Luke | **Drawn:** G. Weaver

Project Number: 664-18-320

Building Number: 1

Drawing Number: 1MD100A

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

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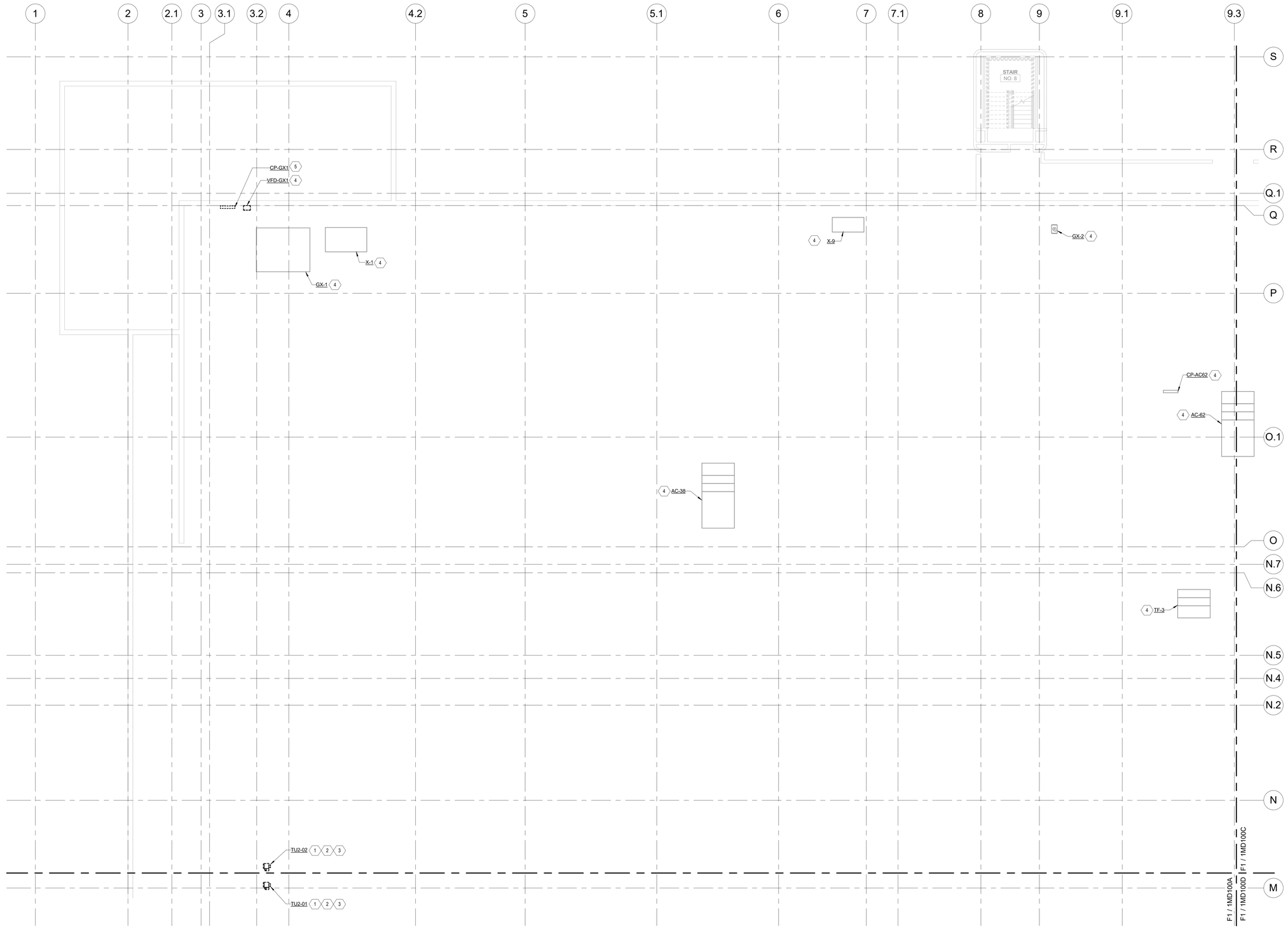

F1 MECHANICAL DEMO PLAN - BASEMENT INTER. - NORTHWEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.
G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
I. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00 AM TO 4:30 PM..

KEYNOTES

1. REMOVE EXISTING TERMINAL UNIT AND SUPPORT AS NECESSARY TO INSTALL NEW TERMINAL UNIT. REMOVE ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY INCLUDING EXISTING CONTROLLER AND PNEUMATIC TUBING BACK TO MAIN AND CAP. SEE MECHANICAL SCHEDULES FOR ADDITIONAL AIR BALANCE REQUIREMENTS PRIOR TO DEMOLITION.
2. REMOVE EXISTING DUCTWORK AS NECESSARY TO CONNECT EXISTING DUCTWORK TO NEW TERMINAL UNIT. REMOVE ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.
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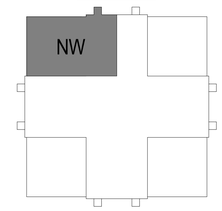
4. EXISTING HVAC EQUIPMENT TO REMAIN IN PLACE. EQUIPMENT'S EXISTING DIRECT DIGITAL CONTROL (DDC) TO BE MODIFIED AS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM BY UTILIZING THE EXISTING CONTROL COMPONENTS WHERE FEASIBLE, AND ADDING HARDWARE DEVICES, SENSORS, TRANSMITTERS, AND OR REPROGRAMMING THE CONTROLS AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS. REFER TO THE M-800 SERIES SHEETS FOR CONTROLS.
5. REMOVE EXISTING CONTROL PANEL AND DEVICES AS NECESSARY TO INSTALL NEW CONTROL PANEL HOUSING TERMINAL UNIT CONTROL HARWARE. REMOVE INCLUDING PNEUMATIC TUBING AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. CONTRACTOR TO PHASE REPLACEMENT UNTIL AFTER NEW CONTROL PANEL IS IN PLACE TO MITIGATE DOWNTIME DURING CHANGEOVER.
6. **DEDUCTIVE ALTERNATE NO. 10:** EXISTING VFD TO BE REPLACED. CONTRACTOR SHALL DISCONNECT AND REMOVE ELECTRICAL SERVICE TO THE EXISTING VFD. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROLS SYSTEM BY UTILIZING THE EXISTING CONTROLS COMPONENTS WHERE FEASIBLE AND ADDING DEVICES AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS. REFER TO M-800 SERIES SHEETS FOR CONTROLS. SEE ELECTRICAL DRAWINGS.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

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Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

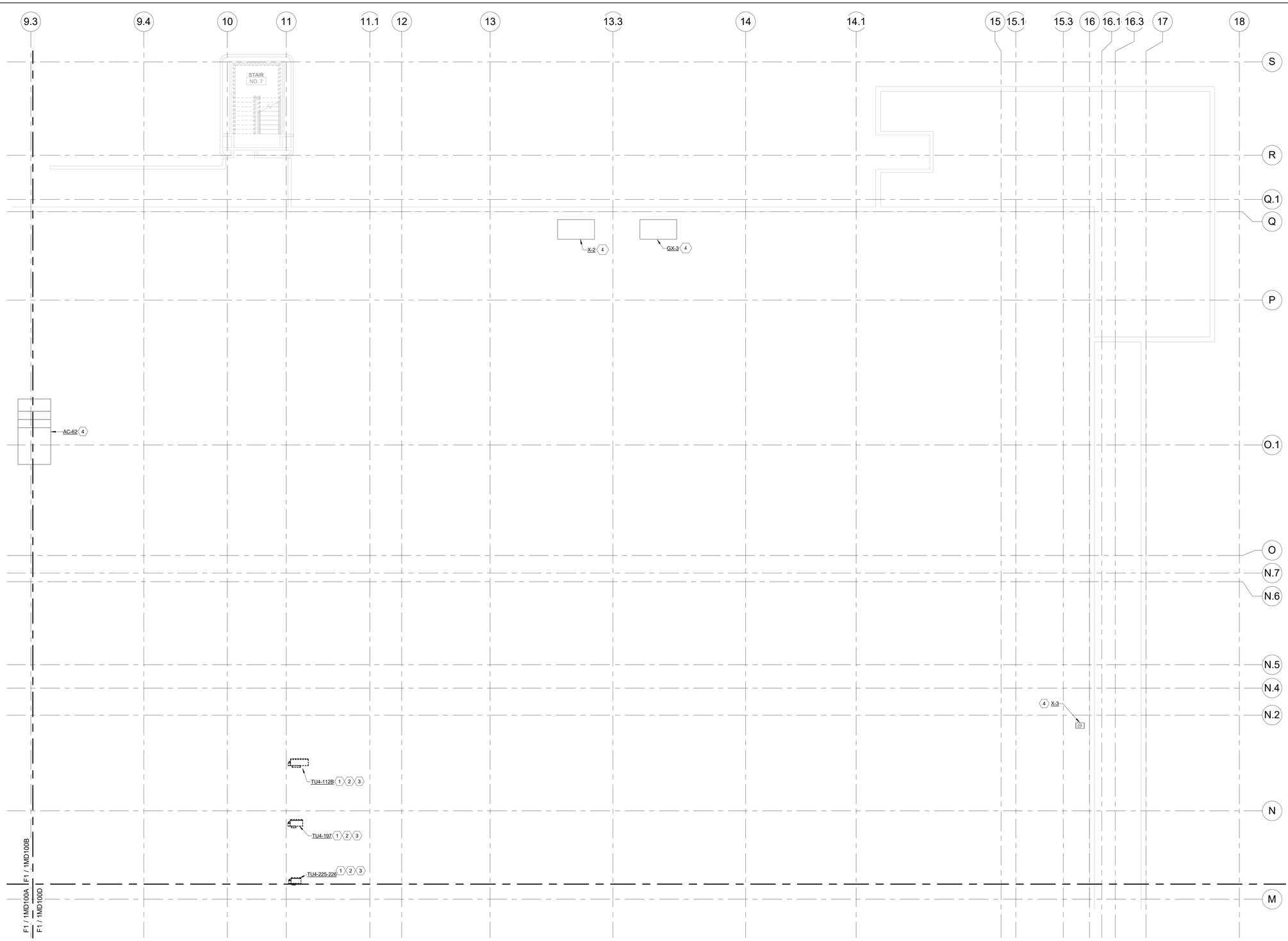
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	MECHANICAL DEMO PLAN - BASEMENT INTERSTITIAL - NORTHWEST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	K. Luke
Drawn	G. Weaver
Project Number	664-18-320
Building Number	1
Drawing Number	1MD100B

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt 3/18/2019 10:47:11 AM

VA FORM 08 - 6231



F1 MECHANICAL DEMO PLAN - BASEMENT INTER. - NORTHEAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
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F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.
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H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
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KEYNOTES

1. REMOVE EXISTING TERMINAL UNIT AND SUPPORT AS NECESSARY TO INSTALL NEW TERMINAL UNIT. REMOVE ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY INCLUDING EXISTING CONTROLLER AND PNEUMATIC TUBING BACK TO MAIN AND CAP. SEE MECHANICAL SCHEDULES FOR ADDITIONAL AIR BALANCE REQUIREMENTS PRIOR TO DEMOLITION.
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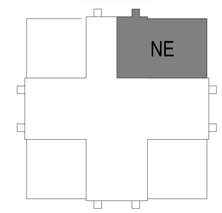
SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
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LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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STAMP

REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

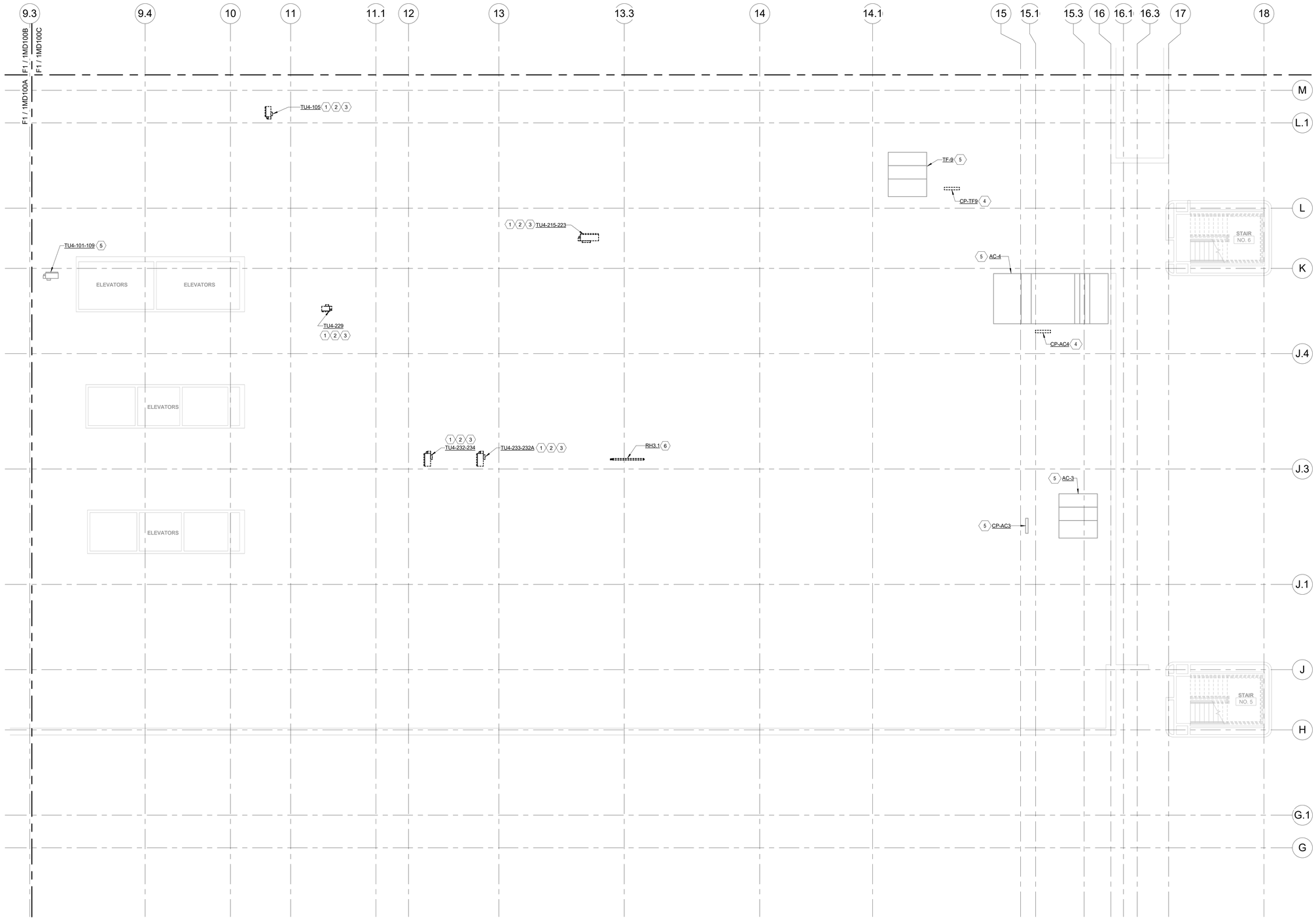
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	MECHANICAL DEMO PLAN - BASEMENT INTERSTITIAL - NORTHEAST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	K. Luke
Drawn	G. Weaver
Project Number	664-18-320
Building Number	1
Drawing Number	1MD100C

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt 3/18/2019 10:47:15 AM

VA FORM 08 - 6231



F1 MECHANICAL DEMO PLAN - BASEMENT INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.
G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
I. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00 AM TO 4:30 PM..

KEYNOTES

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4. REMOVE EXISTING CONTROL PANEL AND DEVICES AS NECESSARY TO INSTALL NEW CONTROL PANEL HOUSING TERMINAL UNIT CONTROL HARWARE. REMOVE PNEUMATIC TUBING AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.
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6. REMOVE EXISTING DUCT MOUNTED HOT WATER REHEAT COIL AND SUPPORT AS NECESSARY TO INSTALL DUCT MOUNTED HOT WATER COIL. REMOVE ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.

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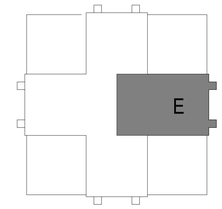
KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
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LONG BEACH, CA 90815-5218

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A MULTI-DISCIPLINE A/E COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
CP 35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - BASEMENT INTERSTITIAL - EAST

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

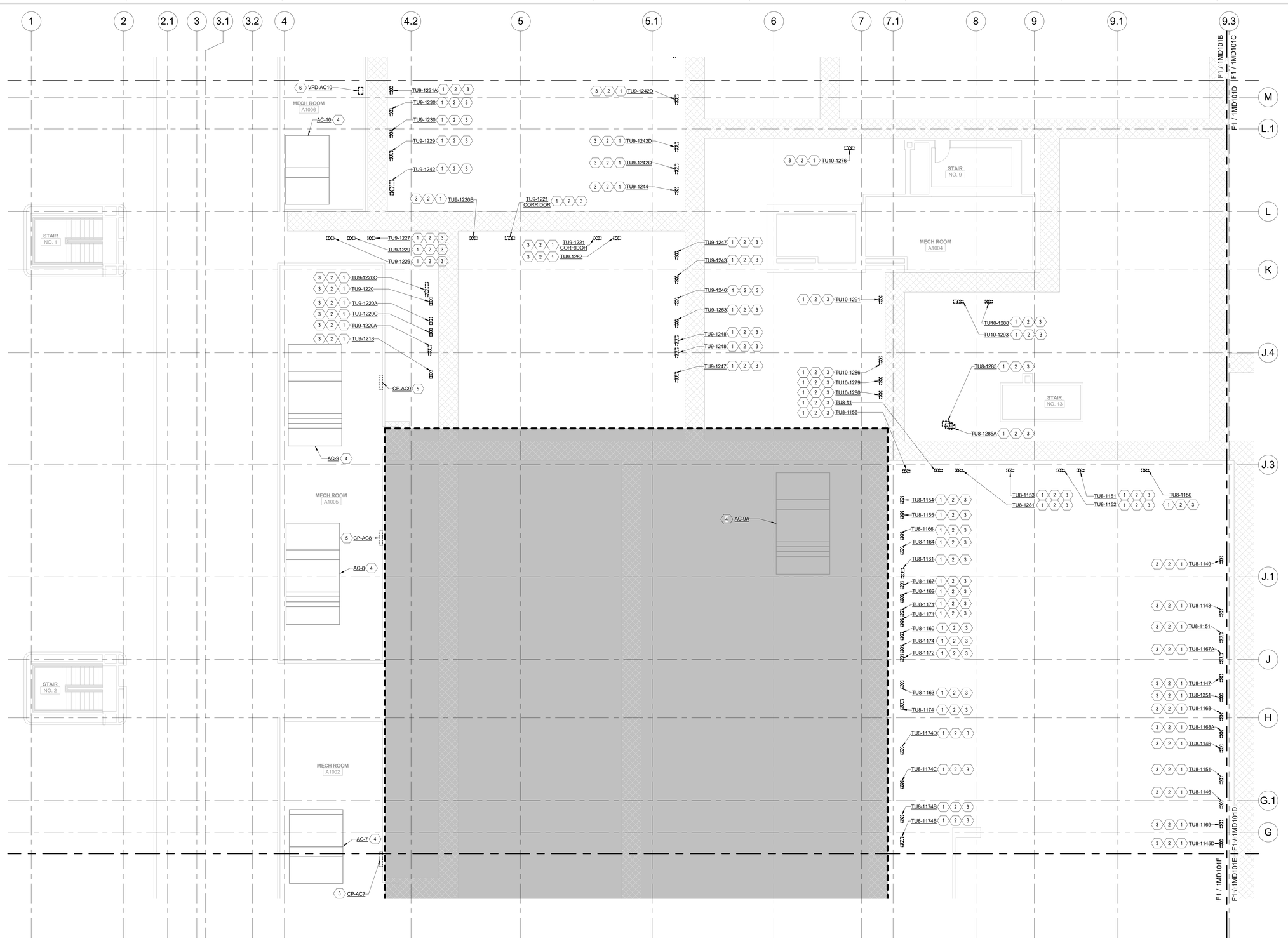
Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019
Checked: K. Luke
Drawn: G. Weaver

Project Number: 664-18-320
Building Number: 1
Drawing Number: 1MD100D

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:47:20 AM

VA FORM 08 - 6231



F1 MECHANICAL DEMO PLAN - FIRST FLOOR INTER. - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.

G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.

H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.

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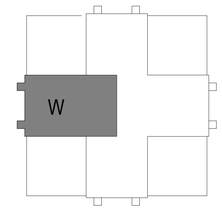
6. **DEDUCTIVE ALTERNATE NO. 11**: EXISTING VFD TO BE REPLACED. CONTRACTOR SHALL DISCONNECT AND REMOVE ELECTRICAL SERVICE TO THE EXISTING VFD. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROLS SYSTEM BY UTILIZING THE EXISTING CONTROLS COMPONENTS WHERE FEASIBLE AND ADDING DEVICES AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS. REFER TO M-800 SERIES SHEETS FOR CONTROLS. SEE ELECTRICAL DRAWINGS.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED GRADUATE ARCHITECT
35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.

Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - FIRST FLOOR INTERSTITIAL - WEST

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Project Number: 664-18-320

Building Number: 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Drawing Number: 1MD101A

Issue Date: 03/15/2019

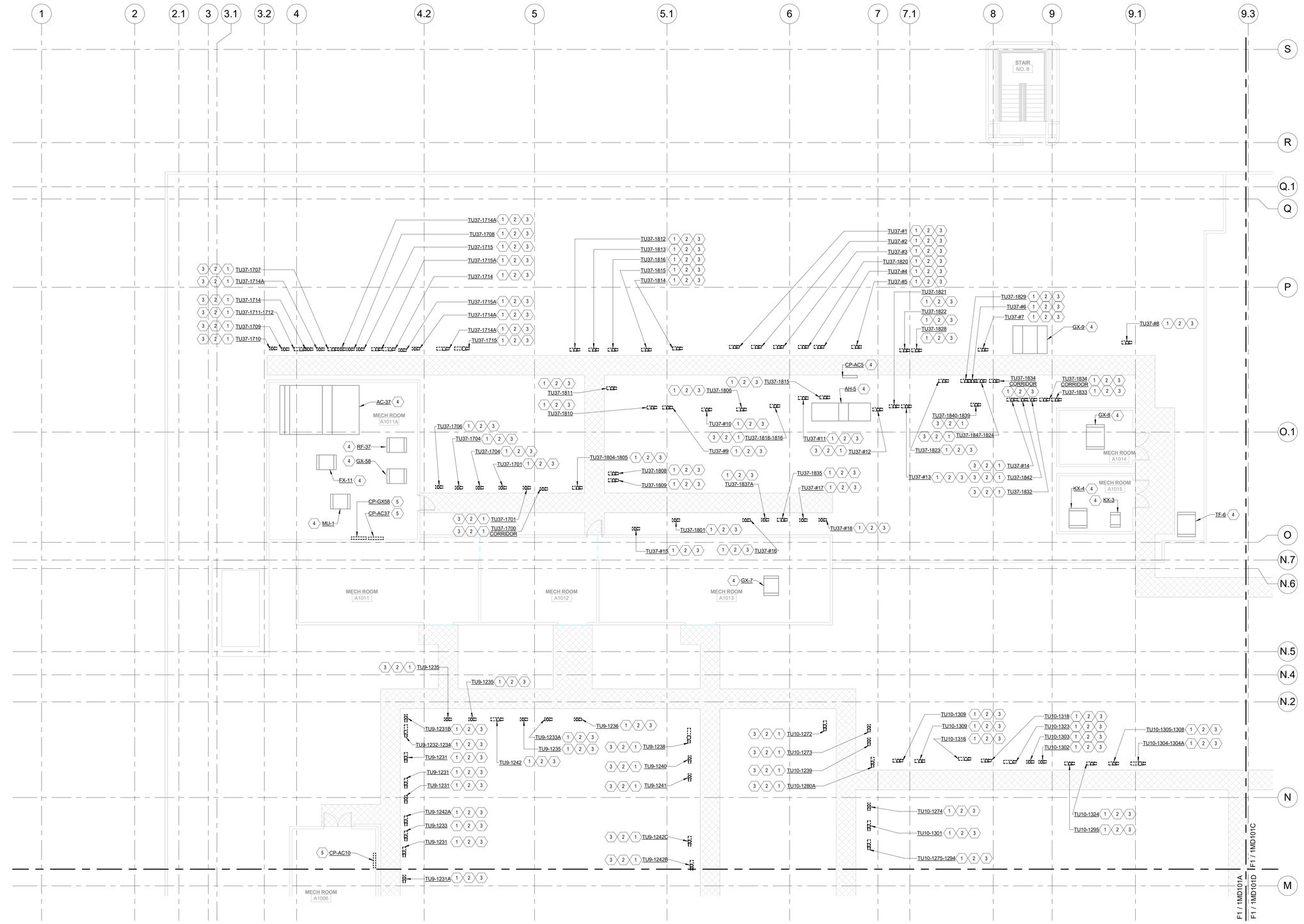
Checked: K. Luke

Drawn: G. Weaver

BIM 360:\664-18-320 Energy Management Controls Integration\664-18-320-BLDG_01-MEP.rvt

3/18/2019 10:47:27 AM

VA FORM 08 - 6231



F1 MECHANICAL DEMO PLAN - FIRST FLOOR INTER. - NORTHWEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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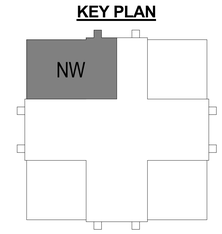
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
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DATE SIGNED
ARCHITECT U.S.A.

Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - FIRST FLOOR INTERSTITIAL - NORTHWEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD101B
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
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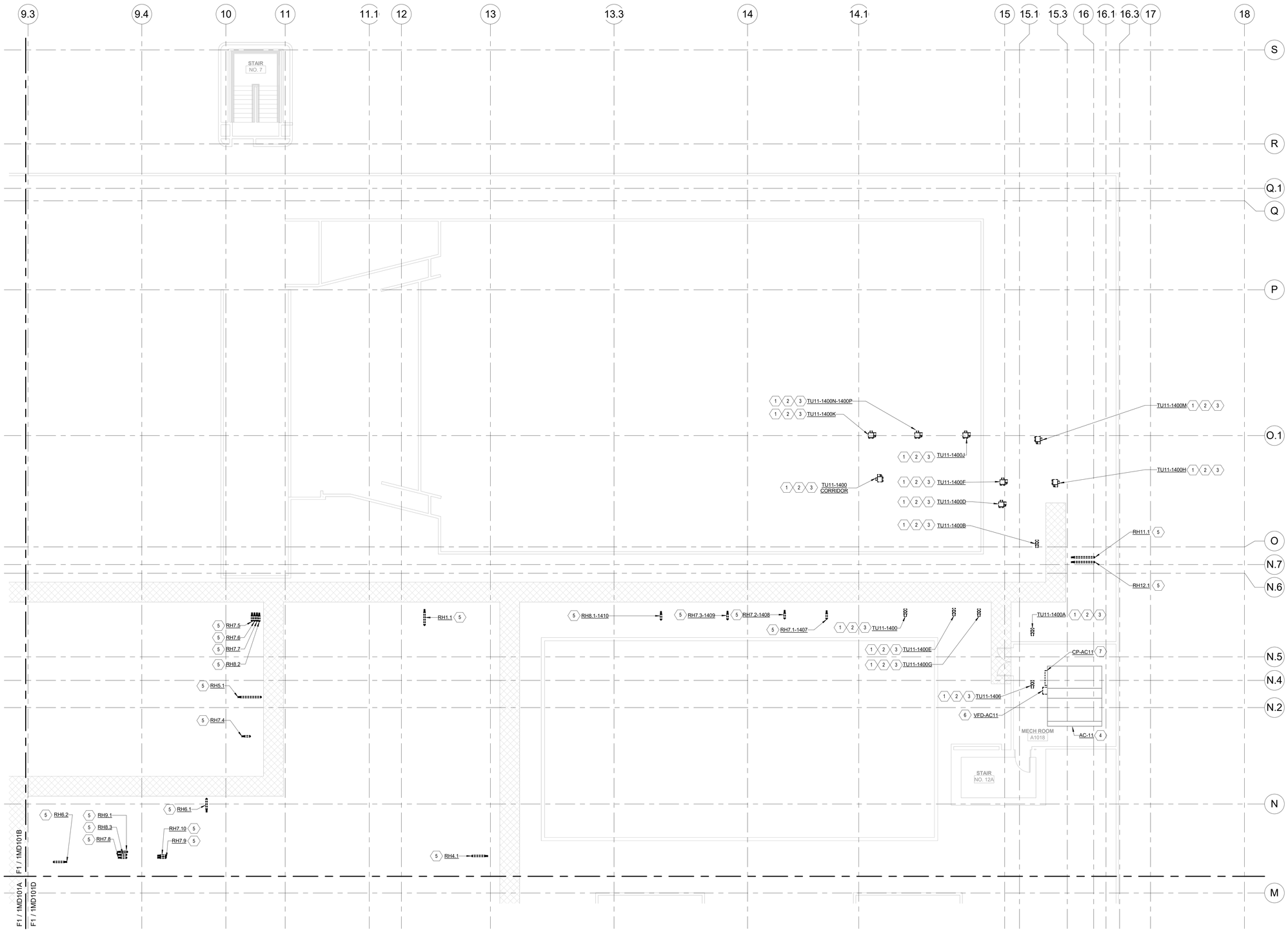

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KEYNOTES

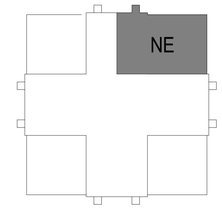
1. REMOVE EXISTING TERMINAL UNIT AND SUPPORT AS NECESSARY TO INSTALL NEW TERMINAL UNIT. REMOVE ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY INCLUDING EXISTING CONTROLLER AND PNEUMATIC TUBING BACK TO MAIN AND CAP. SEE MECHANICAL SCHEDULES FOR ADDITIONAL AIR BALANCE REQUIREMENTS PRIOR TO DEMOLITION.
2. REMOVE EXISTING DUCTWORK AS NECESSARY TO CONNECT EXISTING DUCTWORK TO NEW TERMINAL UNIT. REMOVE ALL EXISTING ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.
3. REMOVE EXISTING PIPING AS NECESSARY TO CONNECT NEW HOSE KIT TO EXISTING HEATING WATER PIPING AND NEW TERMINAL UNIT. REMOVE ALL EXISTING ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.
4. EXISTING HVAC EQUIPMENT TO REMAIN IN PLACE. EQUIPMENT'S EXISTING DIRECT DIGITAL CONTROL (DDC) TO BE MODIFIED AS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM BY UTILIZING THE EXISTING CONTROL COMPONENTS WHERE FEASIBLE, AND ADDING HARDWARE DEVICES, SENSORS, TRANSMITTERS, AND OR REPROGRAMMING THE CONTROLS AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS. REFER TO THE M-800 SERIES SHEETS FOR CONTROLS.
5. REMOVE EXISTING DUCT MOUNTED HOT WATER REHEAT COIL AND SUPPORT AS NECESSARY TO INSTALL DUCT MOUNTED HOT WATER COIL. REMOVE ALL EXISTING ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.
6. **DEDUCTIVE ALTERNATE NO. 11**: EXISTING VFD TO BE REPLACED. CONTRACTOR SHALL DISCONNECT AND REMOVE ELECTRICAL SERVICE TO THE EXISTING VFD. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROLS SYSTEM BY UTILIZING THE EXISTING CONTROLS COMPONENTS WHERE FEASIBLE AND ADDING DEVICES AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS. REFER TO M-800 SERIES SHEETS FOR CONTROLS. SEE ELECTRICAL DRAWINGS.
7. REMOVE EXISTING CONTROL PANEL AND DEVICES AS NECESSARY TO INSTALL NEW CONTROL PANEL HOUSING TERMINAL UNIT CONTROL HARWARE. REMOVE INCLUDING PNEUMATIC TUBING AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
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ARCHITECT/ENGINEER OF RECORD

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307-460-2054
Mat Perkins

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A MULTI-DISCIPLINE A/E COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
35126
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - FIRST FLOOR INTERSTITIAL - NORTHEAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD101C
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

VA FORM 08 - 6231

3/18/2019 10:47:40 AM

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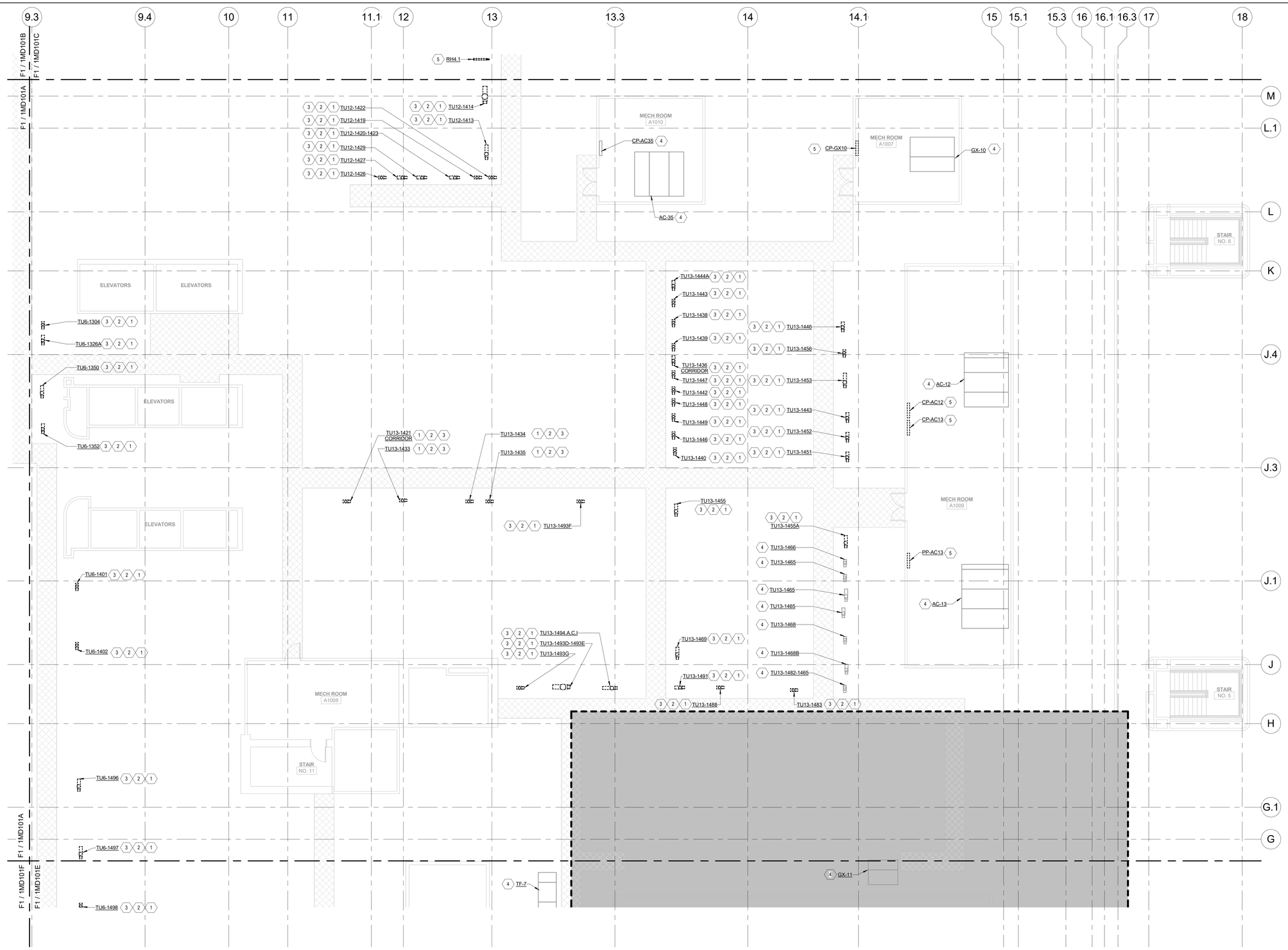

F1 MECHANICAL DEMO PLAN - FIRST FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.

B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.

C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.

E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.

F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.

G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.

H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.

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KEYNOTES

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SYMBOL LEGEND

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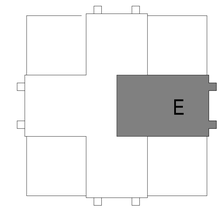
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
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Mikhail Fuks

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307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE AE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
SP126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - FIRST FLOOR INTERSTITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
			Building Number: 1
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD101D
		Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

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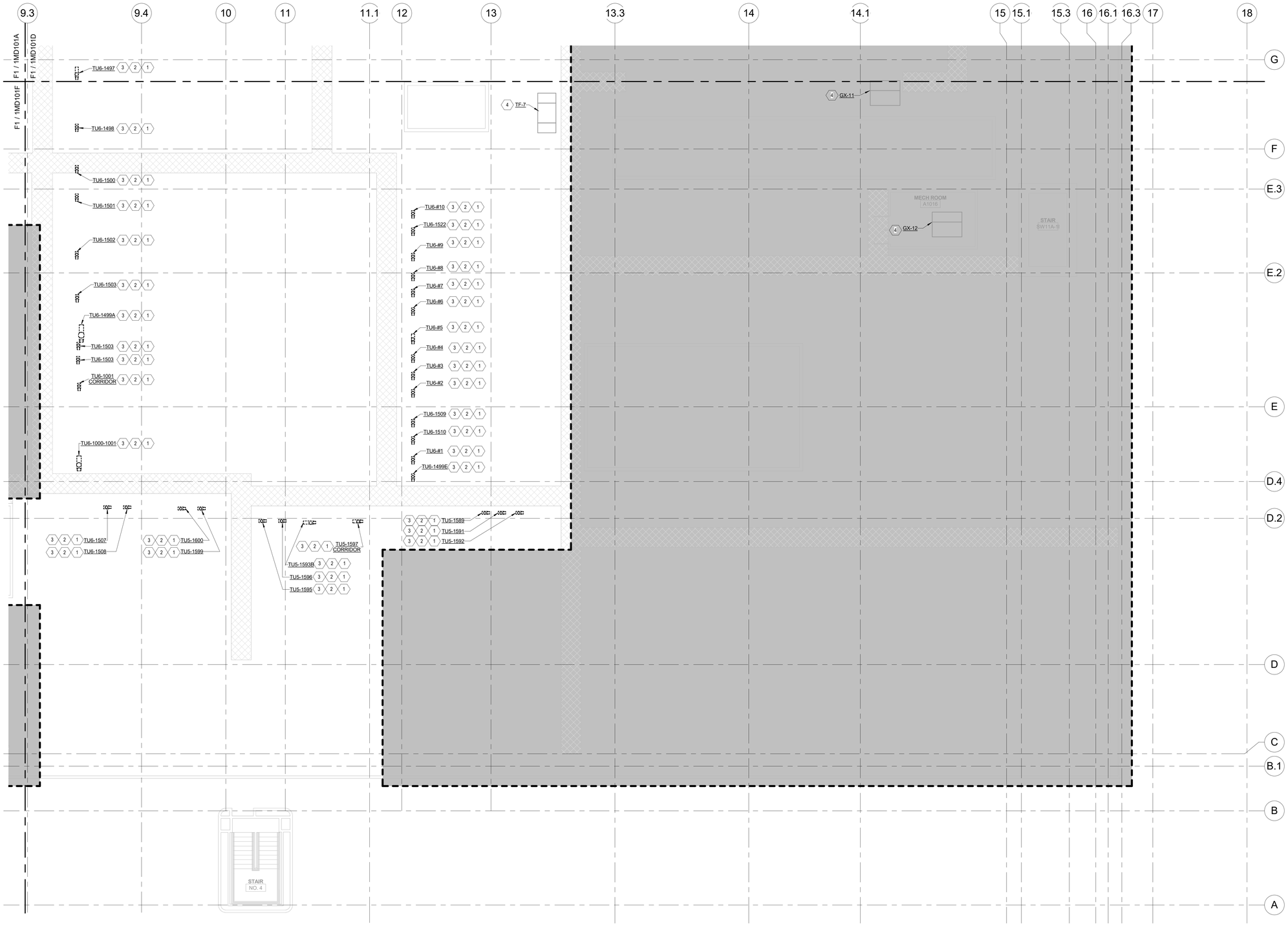

F1 MECHANICAL DEMO PLAN - FIRST FLOOR INTER. - SOUTHEAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
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G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
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SYMBOL LEGEND

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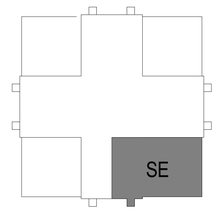
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED ARCHITECT
39126
MATHEW R. PERKINS
DIGITALLY SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - FIRST FLOOR INTERSTITIAL - SOUTHEAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD101E
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

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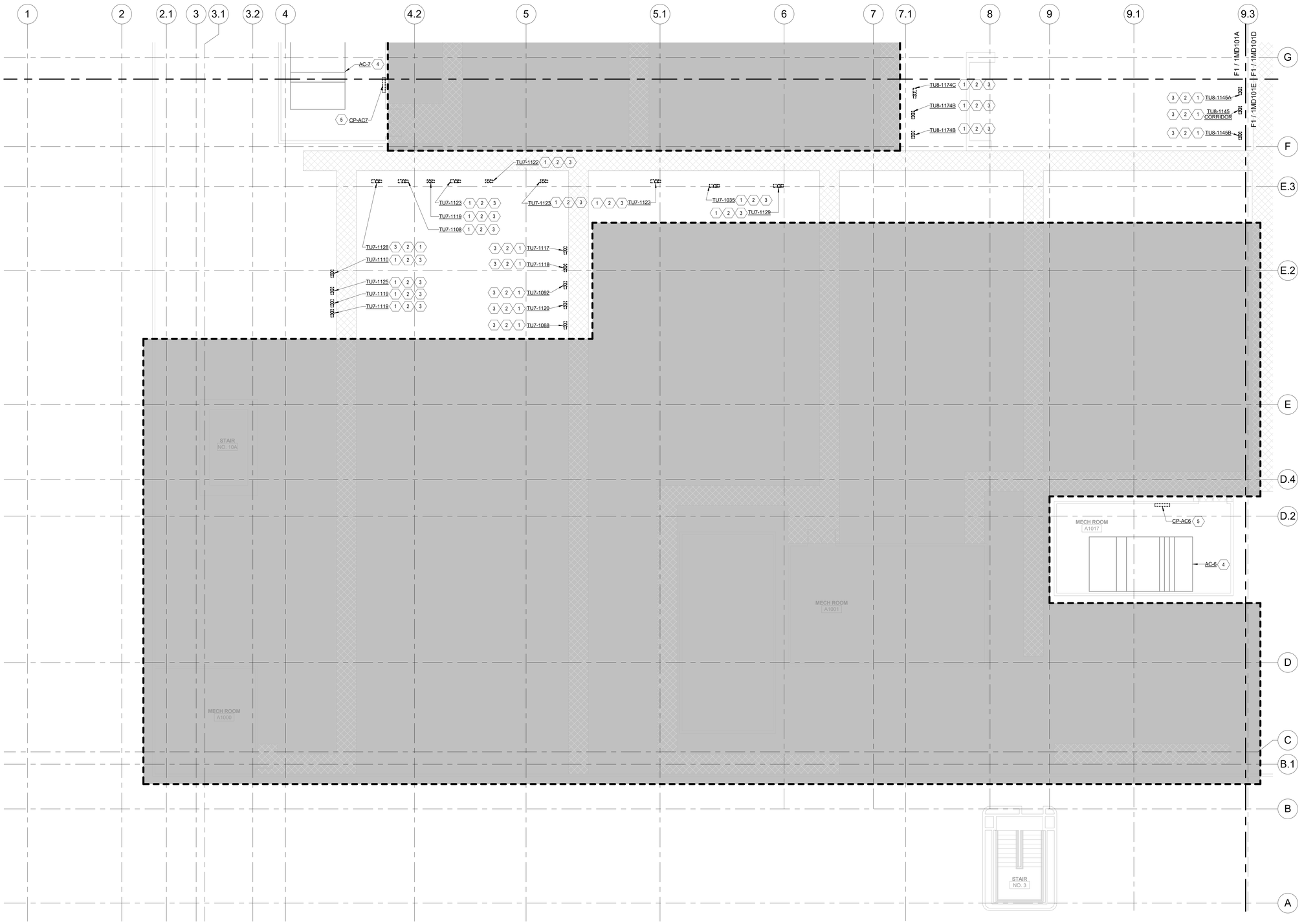
VA FORM 08 - 6231



F1 MECHANICAL DEMO PLAN - FIRST FLOOR INTER. - SOUTHWEST

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

0' 4' 8' 16'

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SYMBOL LEGEND

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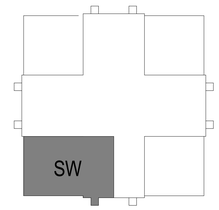
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
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Expires: 6/30/21

Office of Construction and Facilities Management

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Drawing Title: MECHANICAL DEMO PLAN - FIRST FLOOR INTERSTITIAL - SOUTHWEST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Building Number: 1
		Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	Drawing Number: 1MD101F

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
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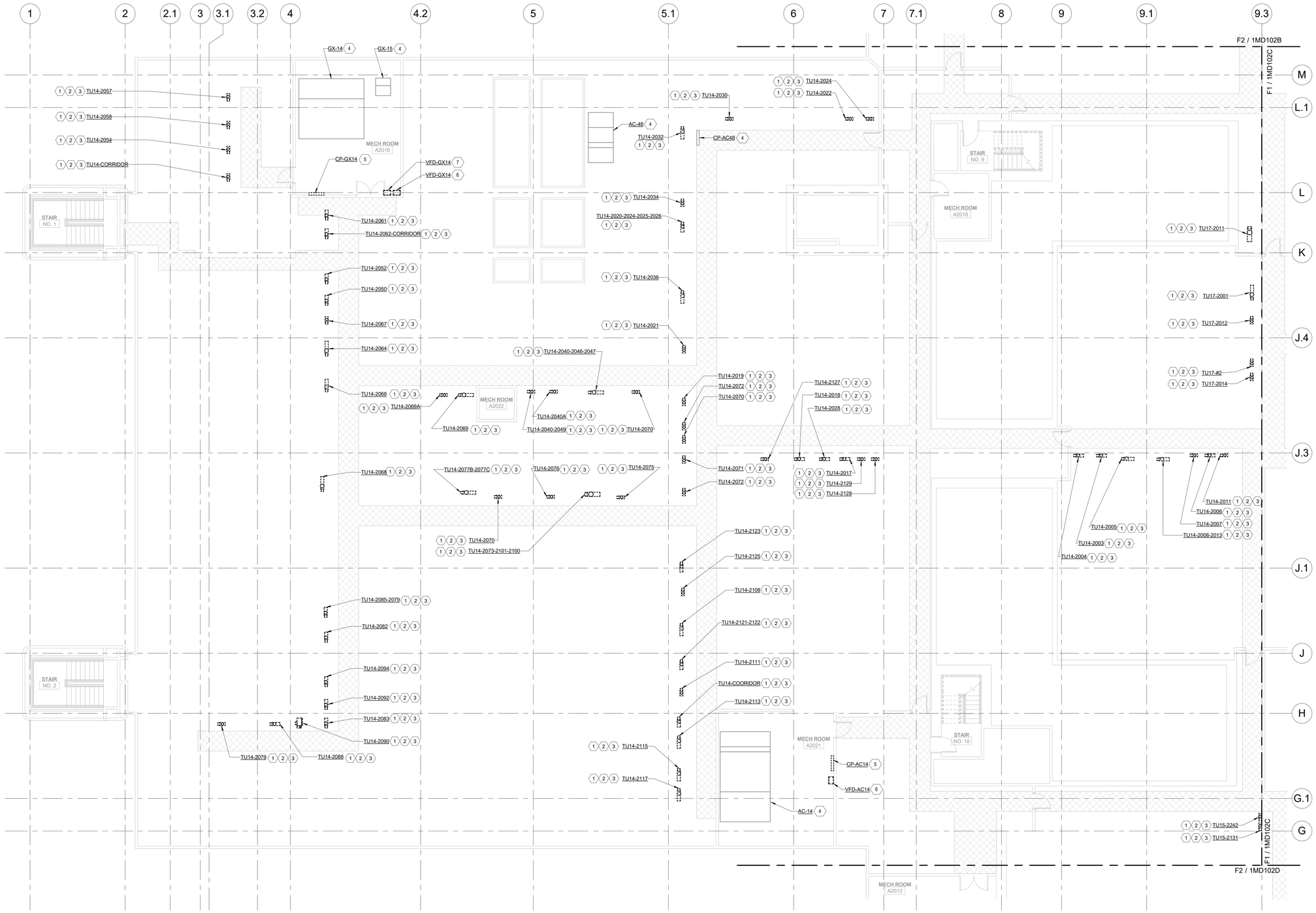

F1 MECHANICAL DEMO PLAN - SECOND FLOOR INTER. - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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KEYNOTES

1. REMOVE EXISTING TERMINAL UNIT AND SUPPORT AS NECESSARY TO INSTALL NEW TERMINAL UNIT. REMOVE ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY INCLUDING EXISTING CONTROLLER AND PNEUMATIC TUBING BACK TO MAIN AND CAP. SEE MECHANICAL SCHEDULES FOR ADDITIONAL AIR BALANCE REQUIREMENTS PRIOR TO DEMOLITION.
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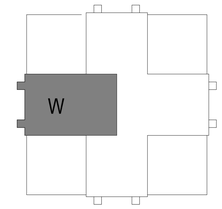
7. REMOVE EXISTING ABANDONED LEGACY VFD IN ITS ENTIRETY INCLUDING CONTROL WIRE AND CONDUIT, POWER WIRE AND CONDUIT AND PNEUMATIC TUBING BACK TO THE POINT OF SERVICE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
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LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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307-460-2054
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STAMP

REGISTERED PROFESSIONAL ENGINEER
33128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

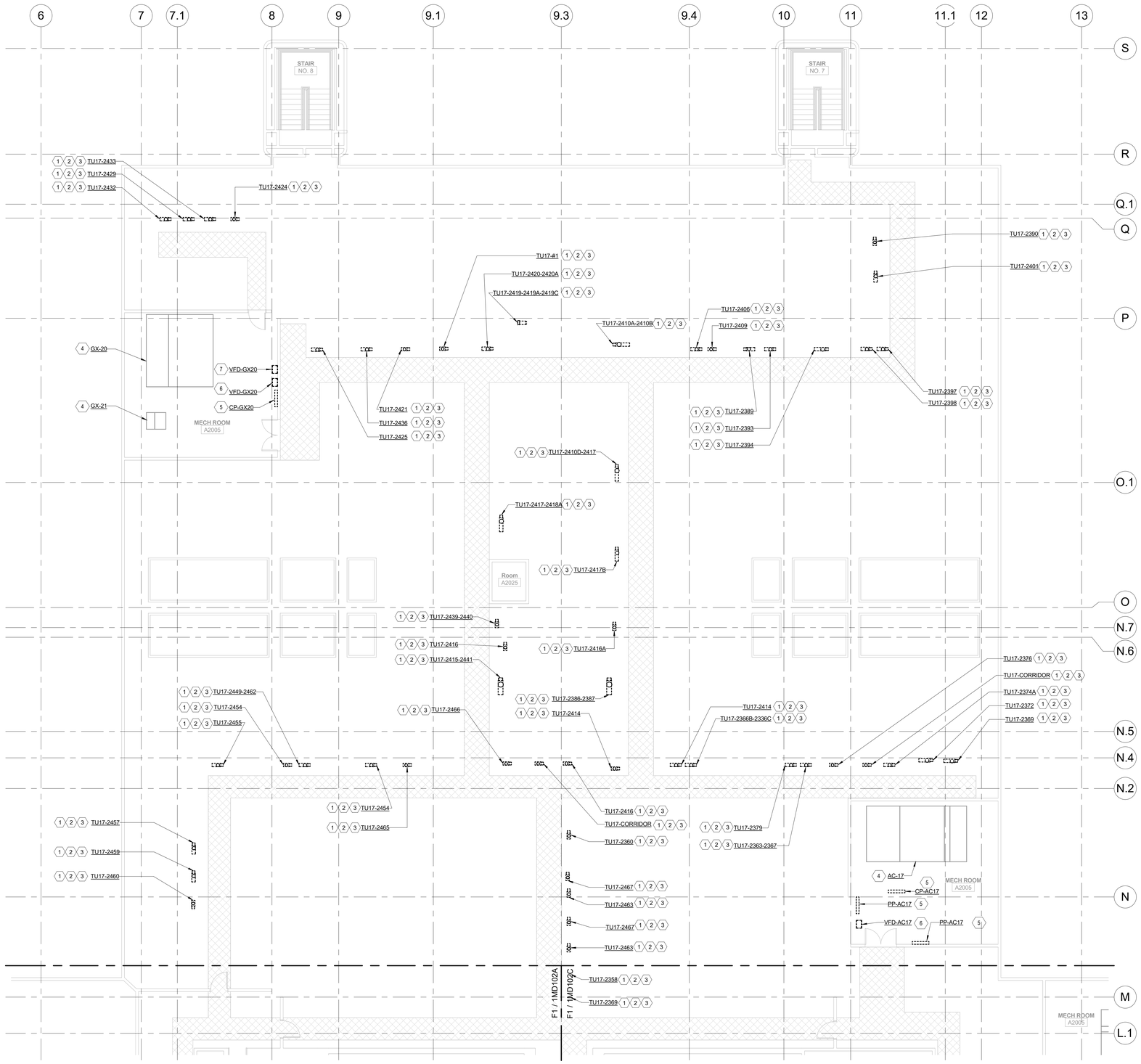
Drawing Title: MECHANICAL DEMO PLAN - SECOND FLOOR INTERSTITIAL - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD102A
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

3/18/2019 10:48:06 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F2 MECHANICAL DEMO PLAN - SECOND FLOOR INTER. - NORTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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SYMBOL LEGEND

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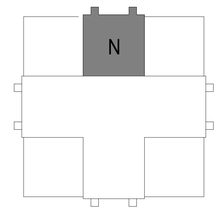
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
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LONG BEACH, CA 90815-5218

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STAMP

REGISTERED PROFESSIONAL ENGINEER
33128
MATHEW R. PERKINS
06.30.19(NVD)
ARIZONA U.S.A.
Expires: 6/30/21

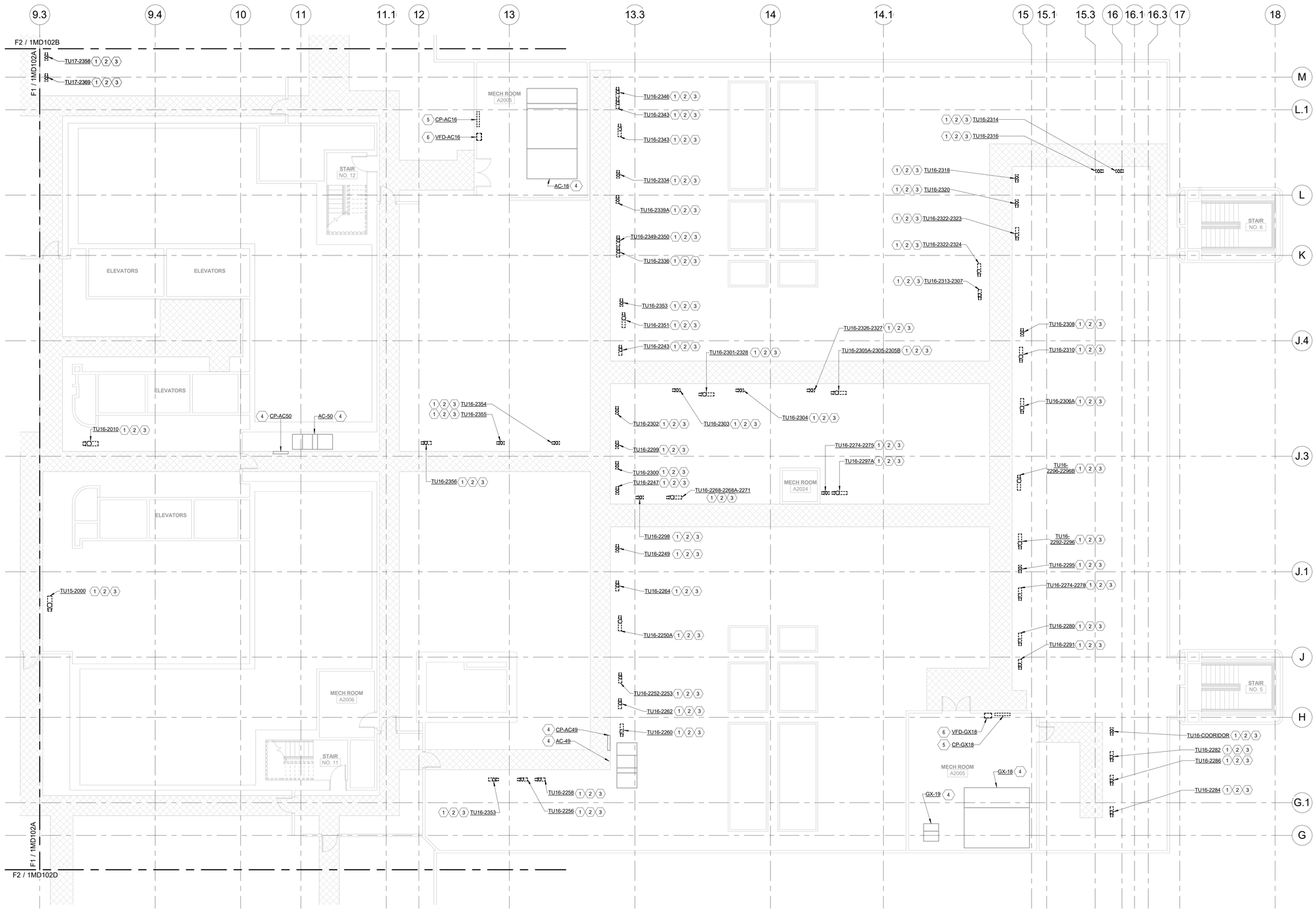
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	MECHANICAL DEMO PLAN - SECOND FLOOR INTERSTITIAL - NORTH
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	K. Luke
Drawn	G. Weaver
Project Number	664-18-320
Building Number	1
Drawing Number	1MD102B

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:48:12 AM

VA FORM 08 - 6231



F1 MECHANICAL DEMO PLAN - SECOND FLOOR INTER. - EAST

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

0' 4' 8' 16'

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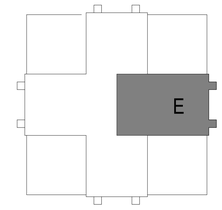
KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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307-460-2054
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STAMP

REGISTERED ARCHITECT
39126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

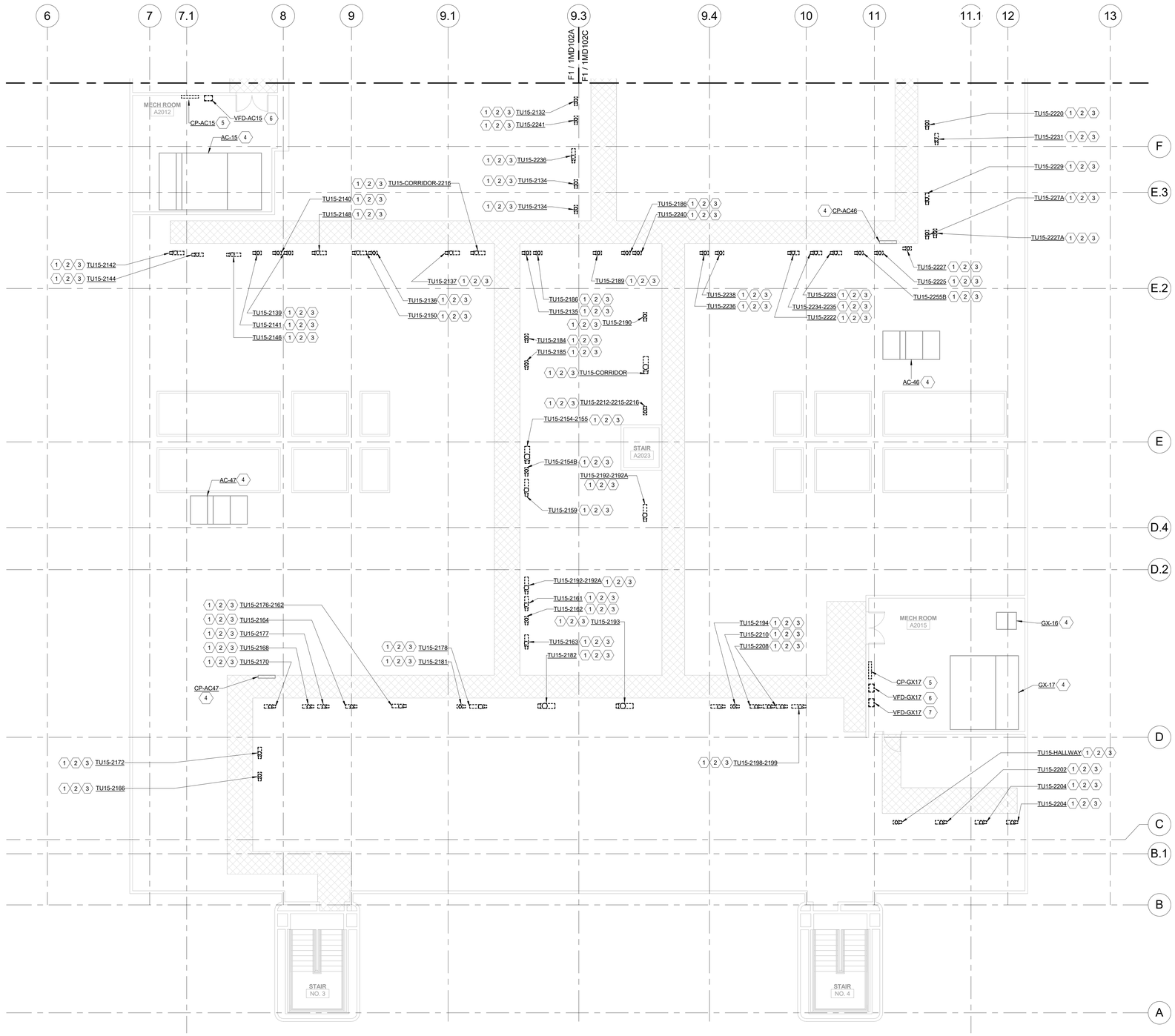
Drawing Title: MECHANICAL DEMO PLAN - SECOND FLOOR INTERSTITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD102C
Issue Date: 03/15/2019	Checked: K. Luke / Drawn: G. Weaver

3/18/2019 10:48:19 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F2 MECHANICAL DEMO PLAN - SECOND FLOOR INTER. - SOUTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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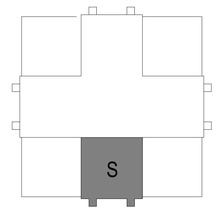
KEY PLAN



Revisions:	Date:

CONSULTANT

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Drawing Title: MECHANICAL DEMO PLAN - SECOND FLOOR INTERSTITIAL - SOUTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD102D
Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

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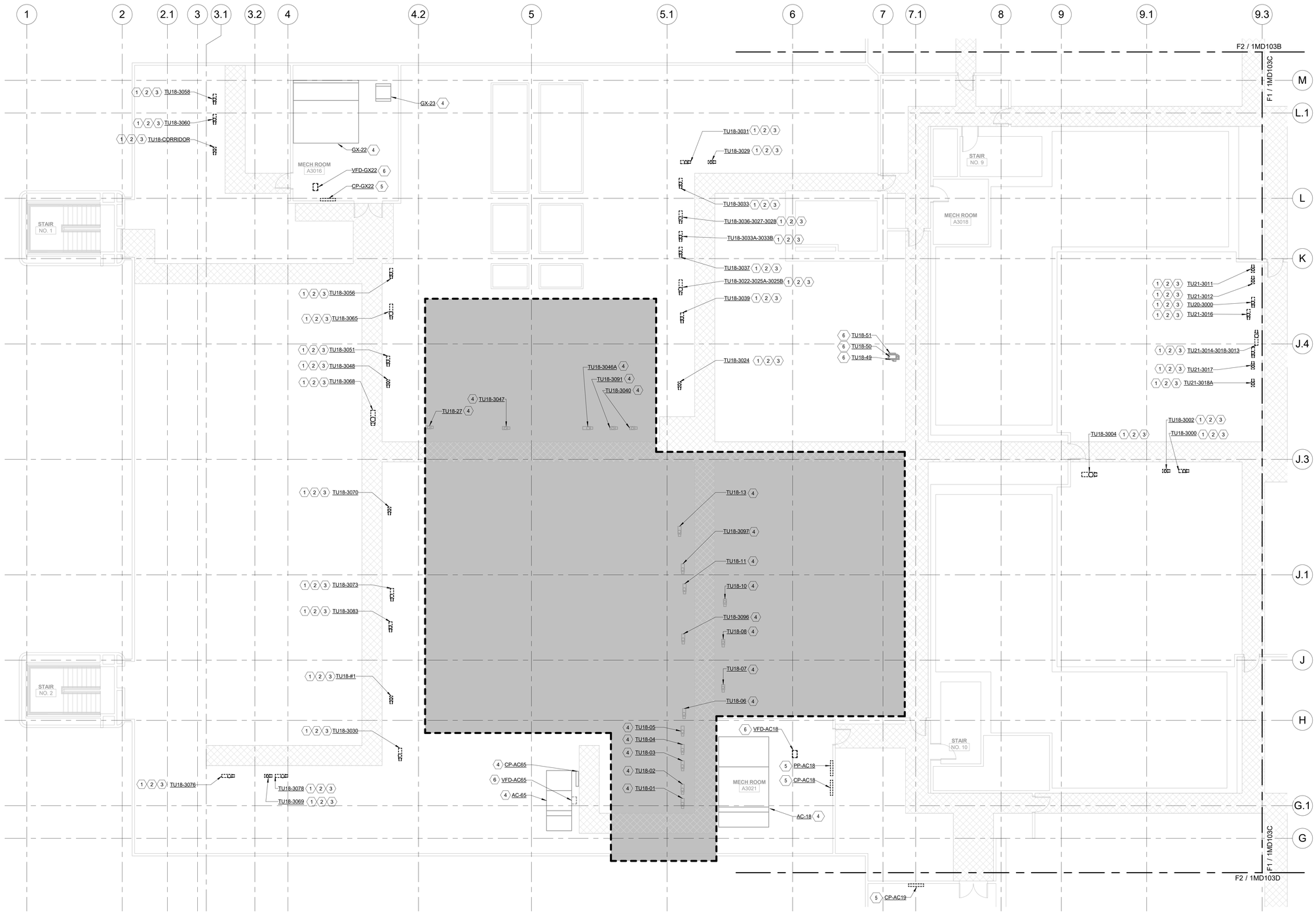
3/18/2019 10:48:25 AM

VA FORM 08 - 6231



F1 MECHANICAL DEMO PLAN - THIRD FLOOR INTER. - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.
G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
I. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00 AM TO 4:30 PM..

KEYNOTES

1. REMOVE EXISTING TERMINAL UNIT AND SUPPORT AS NECESSARY TO INSTALL NEW TERMINAL UNIT. REMOVE ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY INCLUDING EXISTING CONTROLLER AND PNEUMATIC TUBING BACK TO MAIN AND CAP. SEE MECHANICAL SCHEDULES FOR ADDITIONAL AIR BALANCE REQUIREMENTS PRIOR TO DEMOLITION.
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5. REMOVE EXISTING CONTROL PANEL AND DEVICES AS NECESSARY TO INSTALL NEW CONTROL PANEL HOUSING TERMINAL UNIT CONTROL HARWARE. REMOVE INCLUDING PNEUMATIC TUBING AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.
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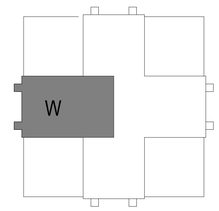
SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Mesa, AZ 85210
307-460-2054
Mat Perkins

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A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED ARCHITECT
39128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

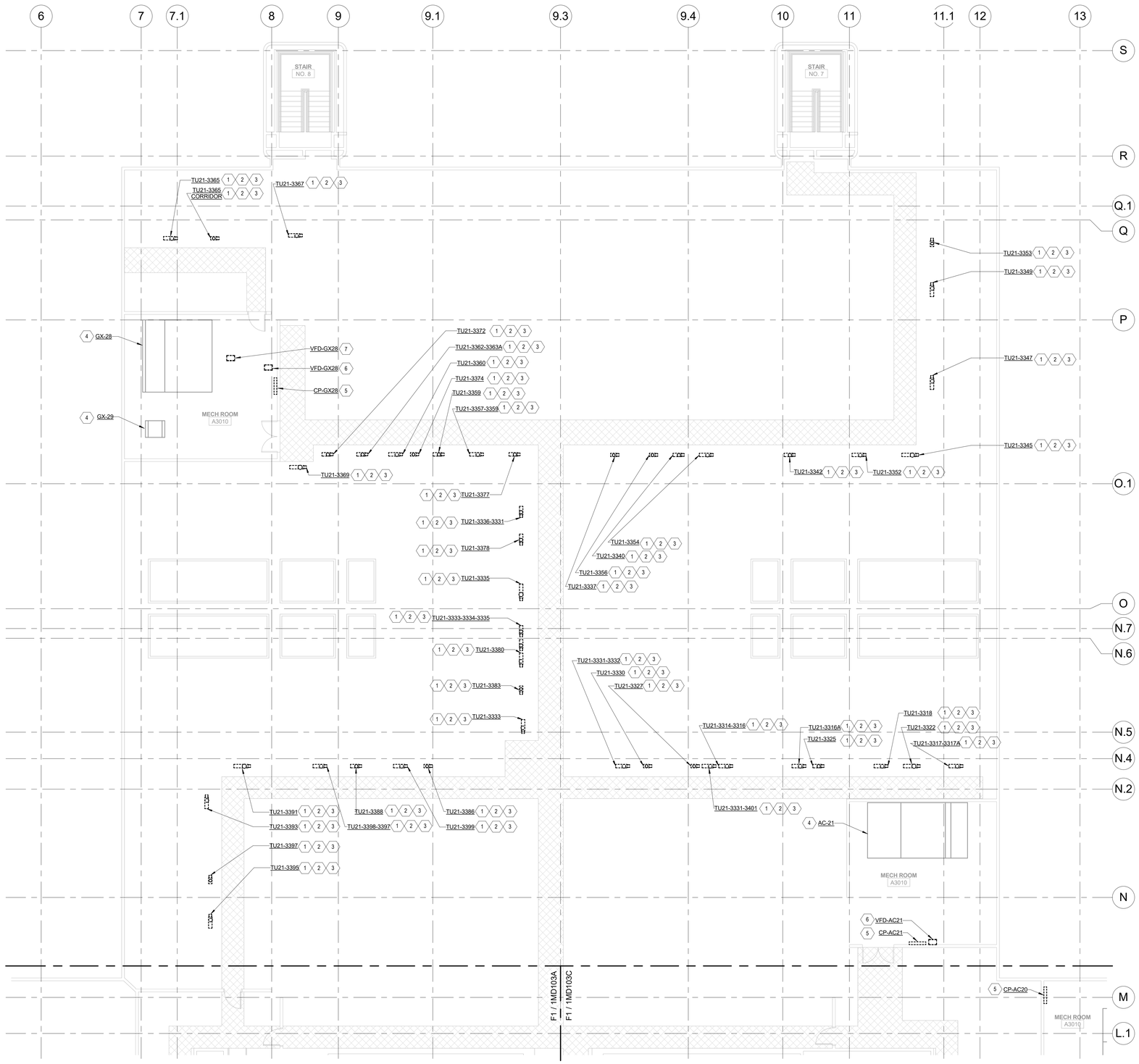
Drawing Title: MECHANICAL DEMO PLAN - THIRD FLOOR INTERSTITIAL - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD103A
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

3/18/2019 10:48:32 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F2 MECHANICAL DEMO PLAN - THIRD FLOOR INTER. - NORTH

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

0' 4' 8' 16'

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SYMBOL LEGEND

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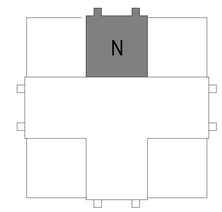
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

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STAMP

REGISTERED PROFESSIONAL ENGINEER
33128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

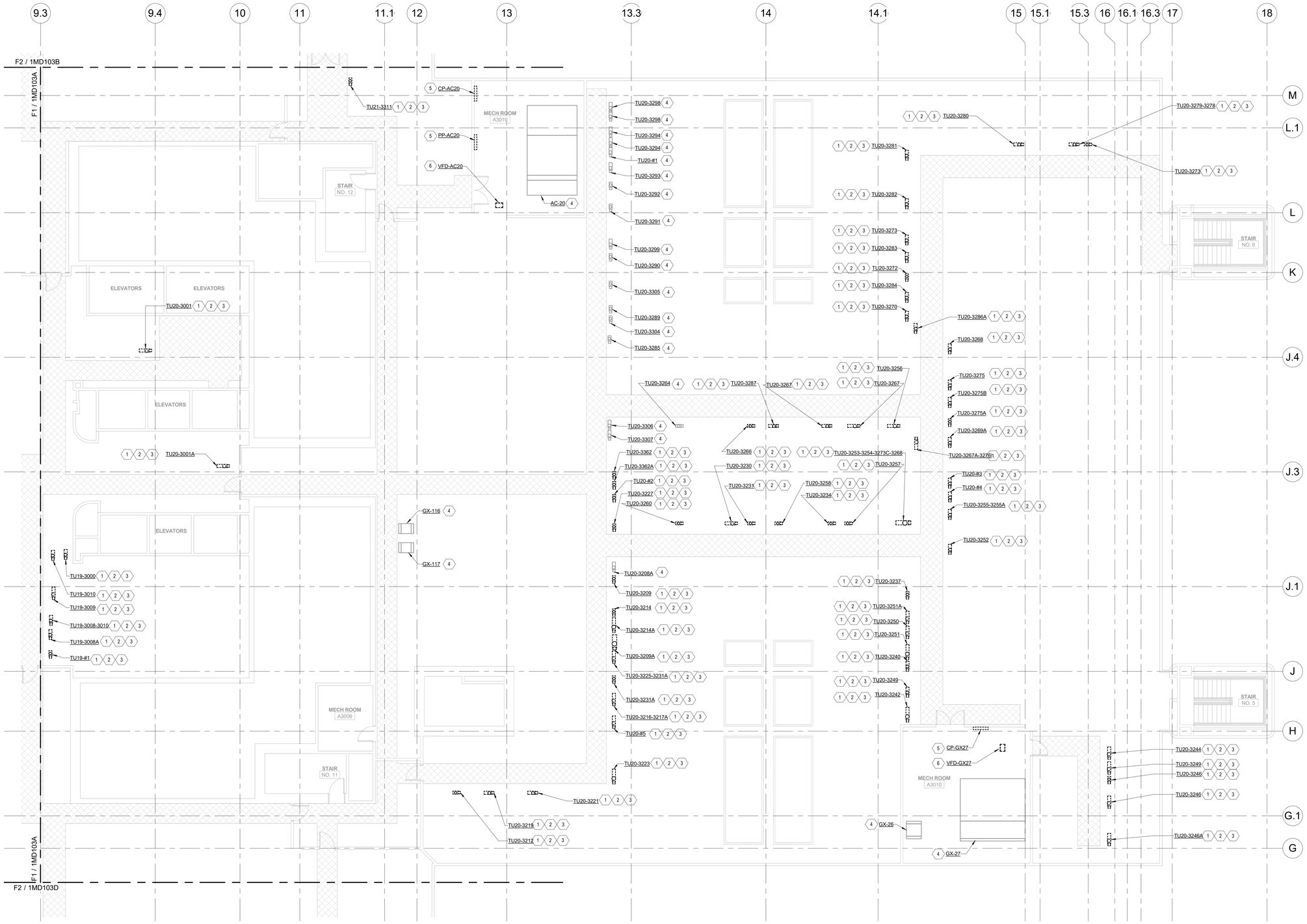
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	MECHANICAL DEMO PLAN - THIRD FLOOR INTERSTITIAL - NORTH
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	K. Luke
Drawn	G. Weaver
Project Number	664-18-320
Building Number	1
Drawing Number	1MD103B

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:48:38 AM

VA FORM 08 - 6231



F1 MECHANICAL DEMO PLAN - THIRD FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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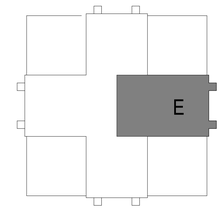
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

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Office of Construction and Facilities Management

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Drawing Title: MECHANICAL DEMO PLAN - THIRD FLOOR INTERSTITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD103C
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

3/18/2019 10:48:45 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

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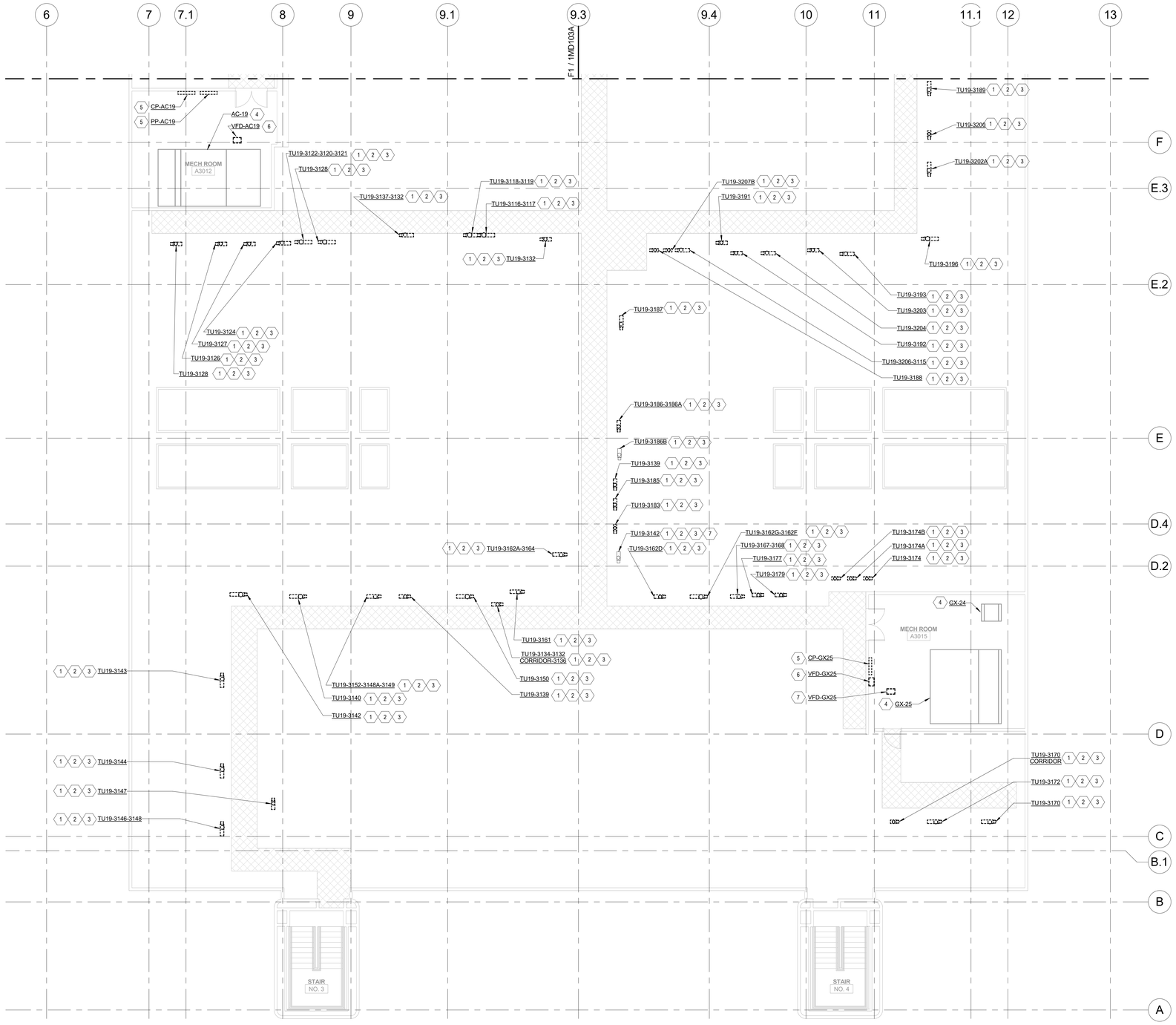

F2 MECHANICAL DEMO PLAN - THIRD FLOOR INTER. - SOUTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN

Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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1839 S. Alma School Rd., Ste. 300
Mesa, AZ 85210
307-460-2054
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TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
35126
MATHEW R. PERKINS
CERTIFICATE NOT VALID UNLESS SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

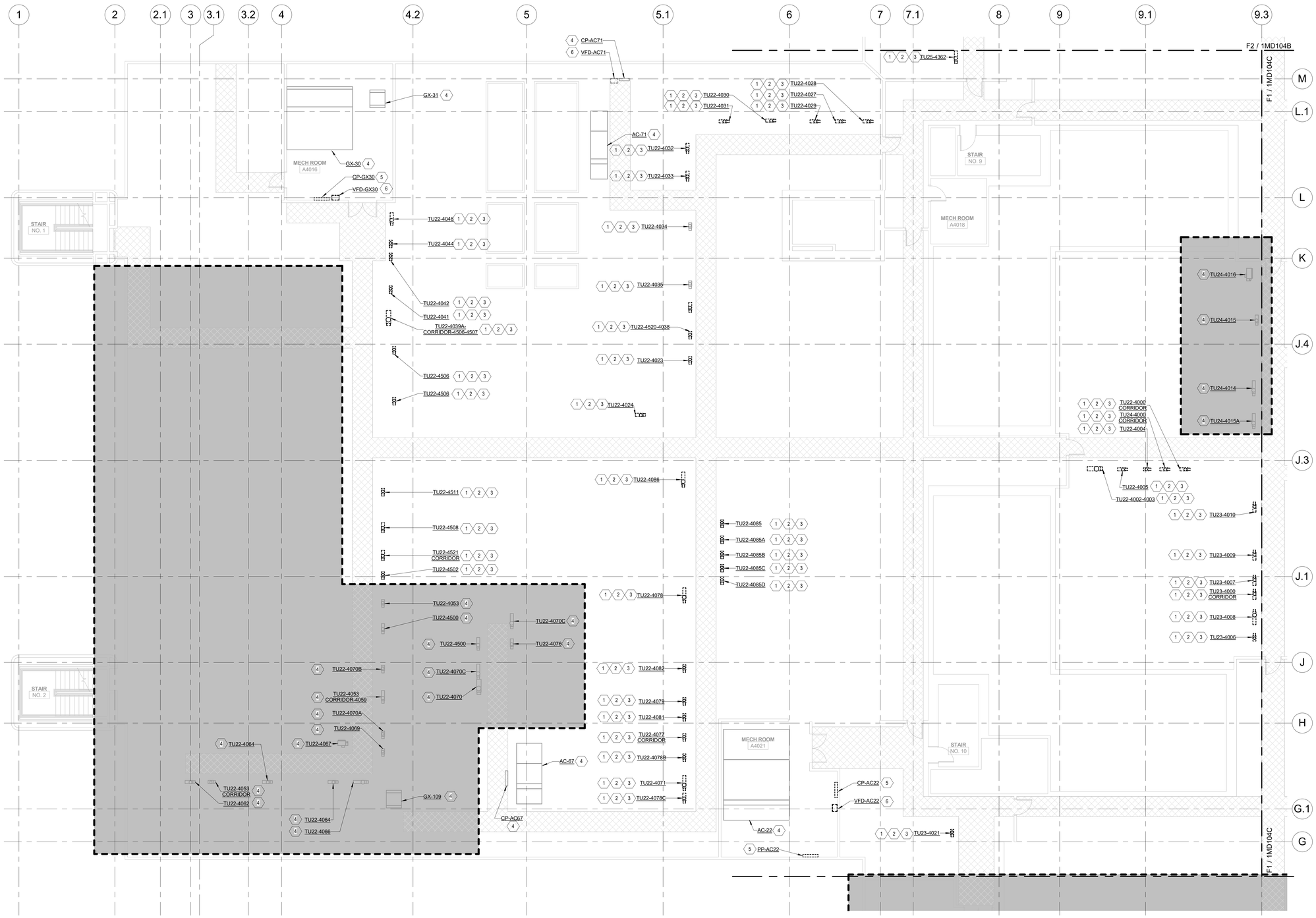
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - THIRD FLOOR INTERSTITIAL - SOUTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1			Project Number: 664-18-320
			Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161			Drawing Number: 1MD103D
Issue Date: 03/15/2019	Checked: K. Luke	Drawn: G. Weaver	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:48:51 AM

VA FORM 08 - 6231



F1 MECHANICAL DEMO PLAN - FOURTH FLOOR INTER. - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.

B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.

C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.

E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.

F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.

G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.

H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.

I. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00 AM TO 4:30 PM..

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5. REMOVE EXISTING CONTROL PANEL AND DEVICES AS NECESSARY TO INSTALL NEW CONTROL PANEL HOUSING TERMINAL UNIT CONTROL HARWARE. REMOVE INCLUDING PNEUMATIC TUBING AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.
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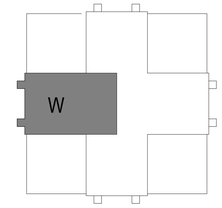
SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



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CIVIL
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Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - FOURTH FLOOR INTERSTITIAL - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD104A
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

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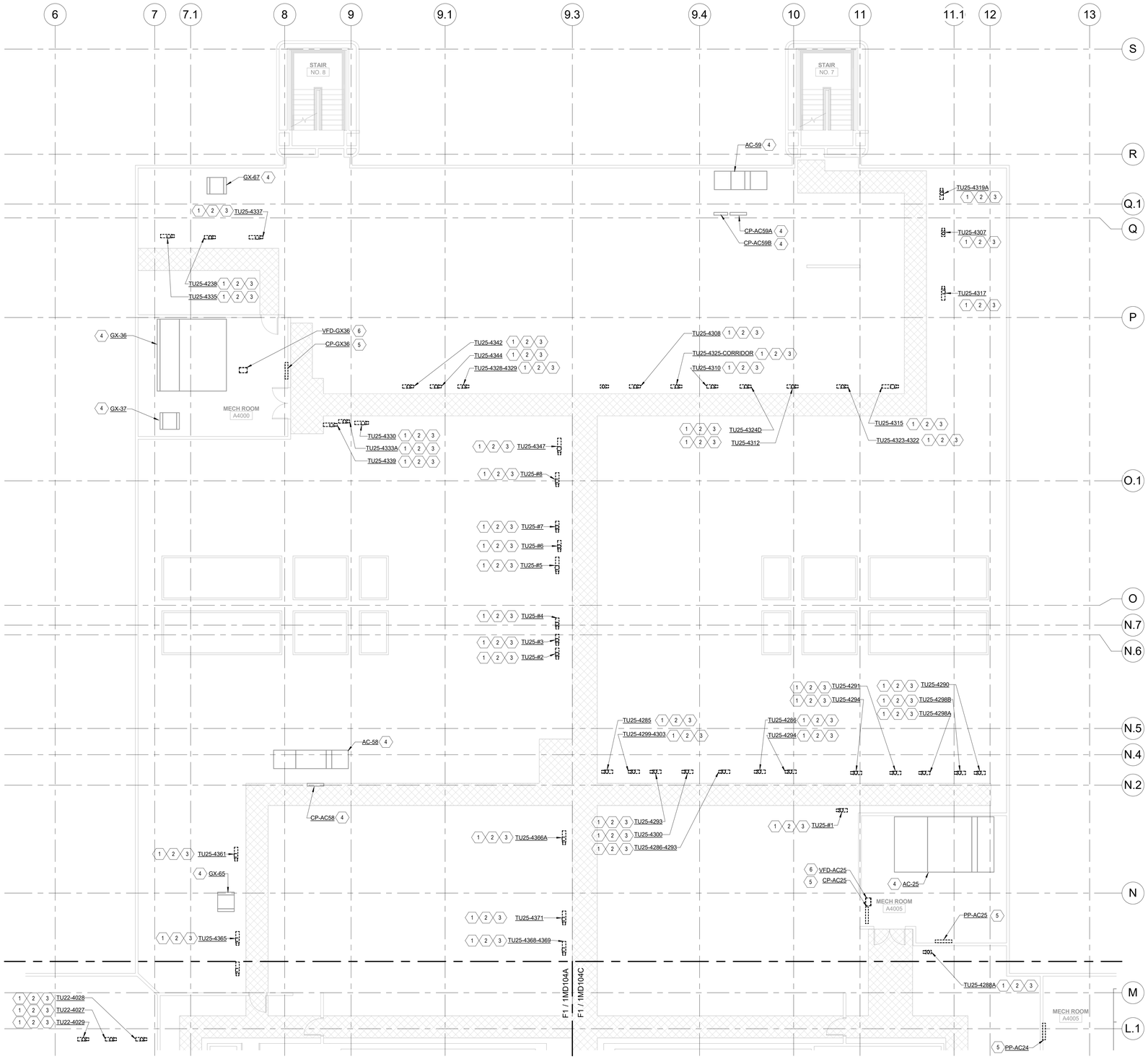
VA FORM 08 - 6231



F2 MECHANICAL DEMO PLAN - FOURTH FLOOR INTER. - NORTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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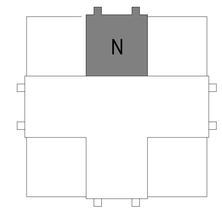
KEY PLAN



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Office of Construction and Facilities Management

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Drawing Title: MECHANICAL DEMO PLAN - FOURTH FLOOR INTERSITIAL - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD104B
Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

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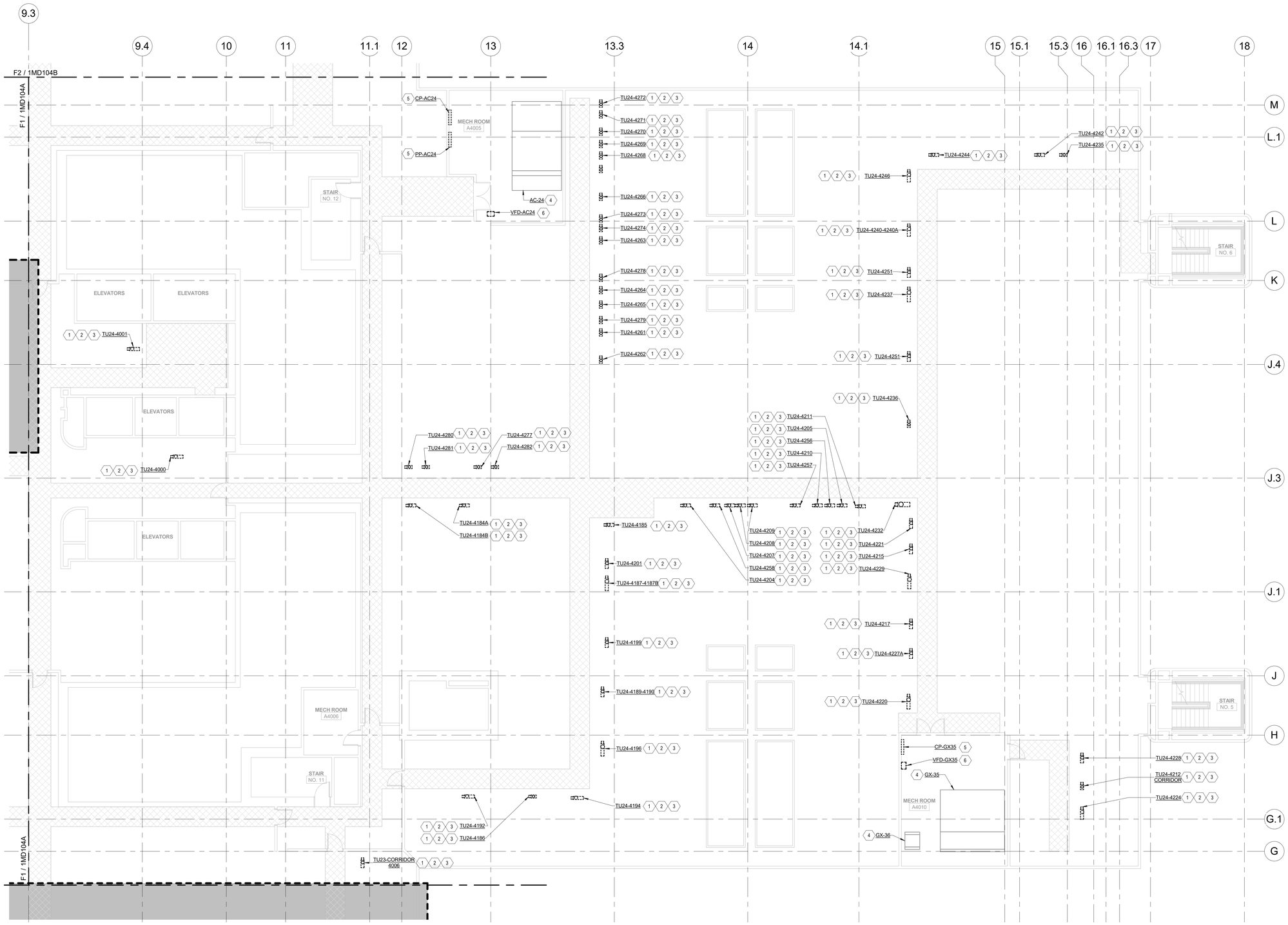

F1 MECHANICAL DEMO PLAN - FOURTH FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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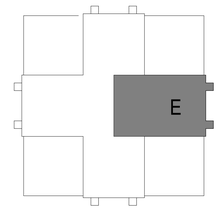

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DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL DEMO PLAN - FOURTH FLOOR INTERSITIAL - EAST

Approved:

Phase
ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location
3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date 03/15/2019
Checked K. Luke
Drawn G. Weaver

Project Number 664-18-320
Building Number 1
Drawing Number 1MD104C

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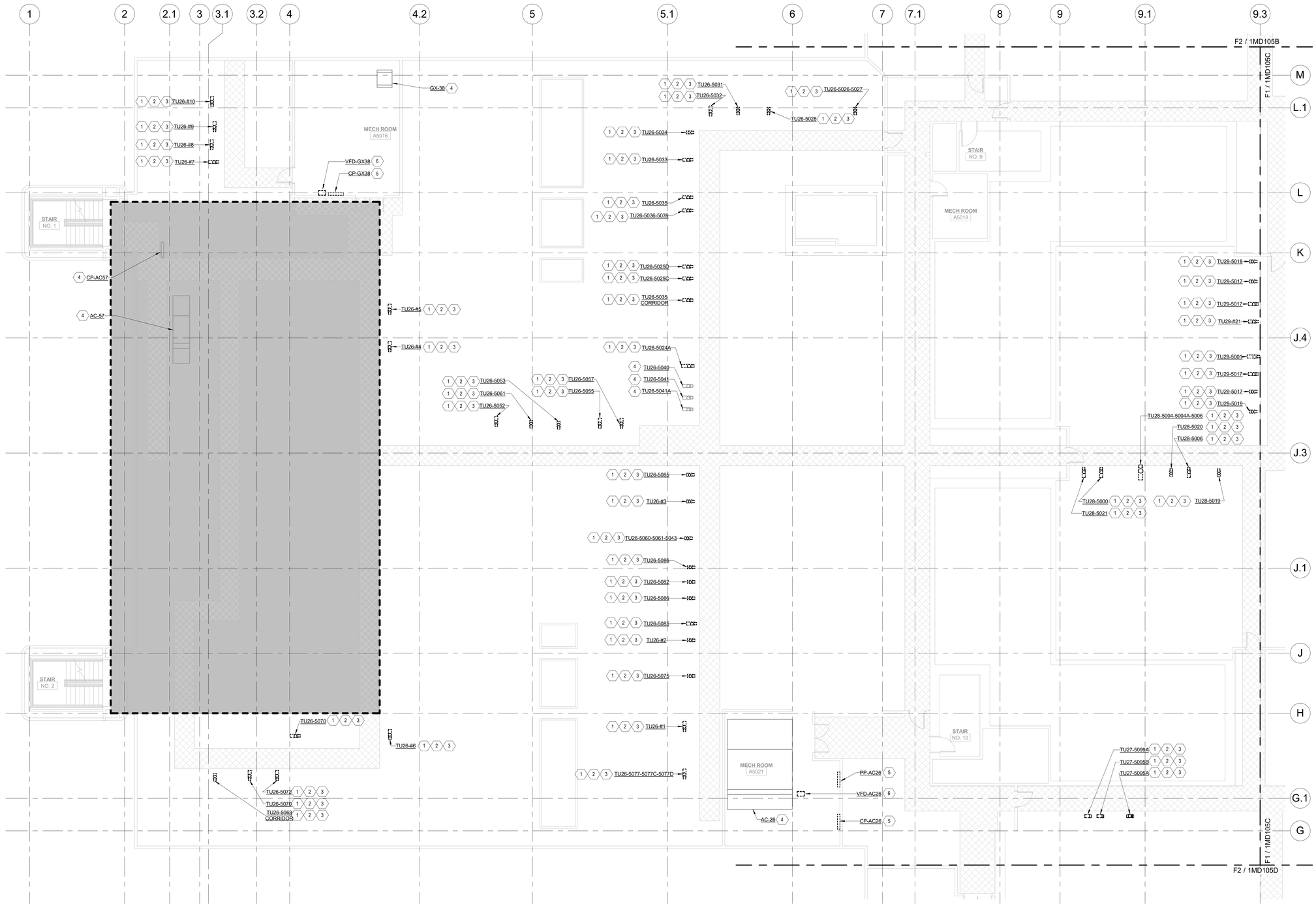

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5. REMOVE EXISTING CONTROL PANEL AND DEVICES AS NECESSARY TO INSTALL NEW CONTROL PANEL HOUSING TERMINAL UNIT CONTROL HARWARE. REMOVE PNEUMATIC TUBING AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY.
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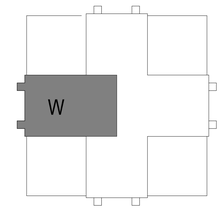
SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Mat Perkins

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A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
35126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

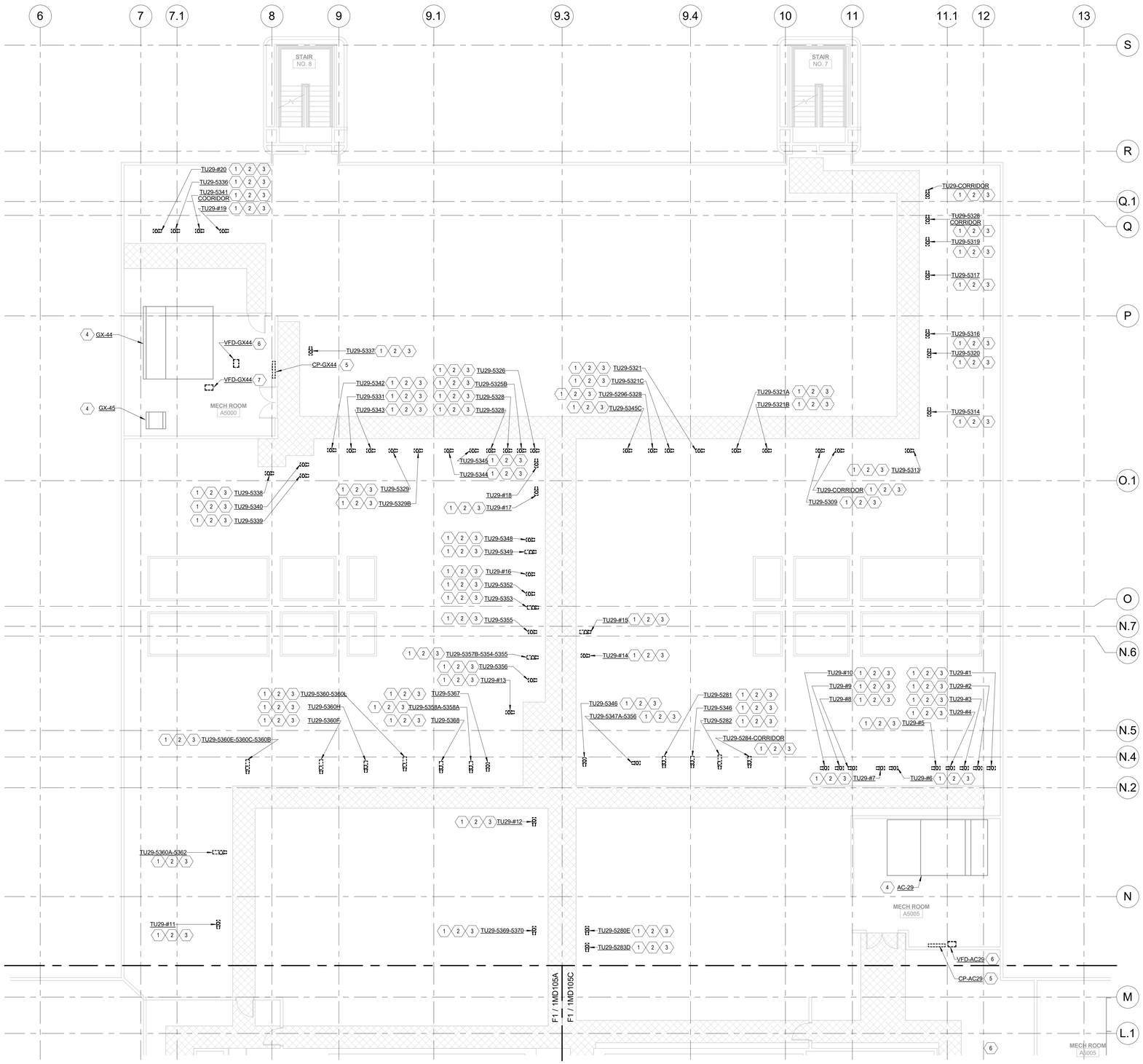
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - FIFTH FLOOR INTERSITIAL - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1			Project Number: 664-18-320
			Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161			Drawing Number: 1MD105A
Issue Date: 03/15/2019	Checked: K. Luke	Drawn: G. Weaver	

VA FORM 08 - 6231

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt 3/18/2019 10:49:18 AM



F2 MECHANICAL DEMO PLAN - FIFTH FLOOR INTER. - NORTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
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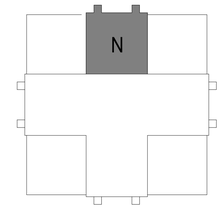
7. REMOVE EXISTING ABANDONED LEGACY VFD IN ITS ENTIRETY INCLUDING CONTROL WIRE AND CONDUIT, POWER WIRE AND CONDUIT AND PNEUMATIC TUBING BACK TO THE POINT OF SERVICE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

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5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

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STAMP

REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

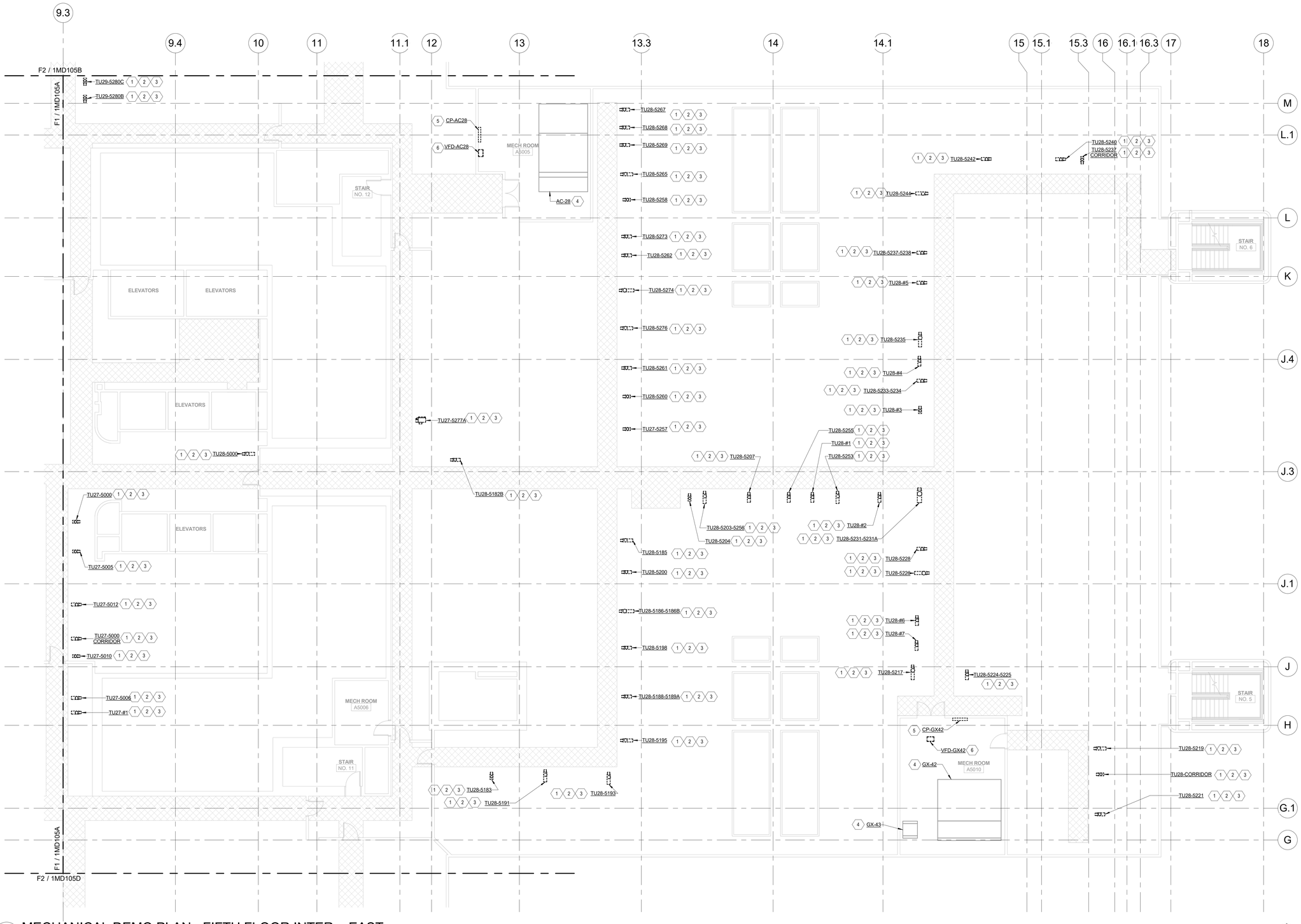
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - FIFTH FLOOR INTERSITIAL - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD105B
Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:49:24 AM

VA FORM 08 - 6231



F1 MECHANICAL DEMO PLAN - FIFTH FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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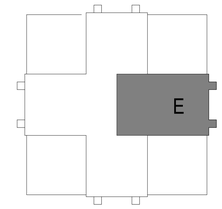

Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - FIFTH FLOOR INTERSITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD105C
Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

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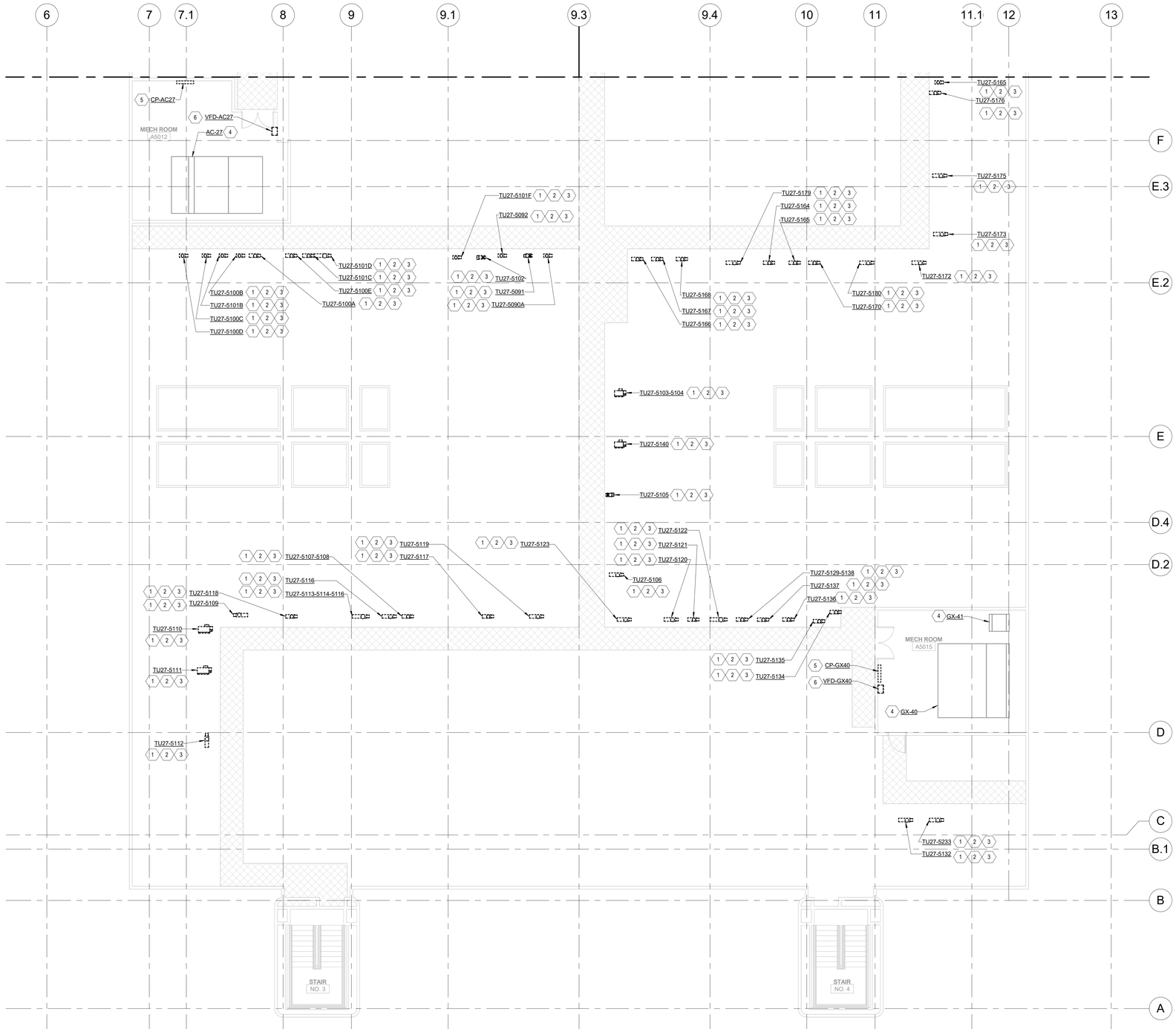
VA FORM 08 - 6231



F2 MECHANICAL DEMO PLAN - FIFTH FLOOR INTER. - SOUTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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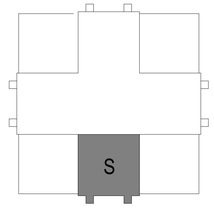

Revisions:	Date:

CONSULTANT

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WET SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - FIFTH FLOOR INTERSITIAL - SOUTH

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019 | Checked: K. Luke | Drawn: G. Weaver

Project Number: 664-18-320

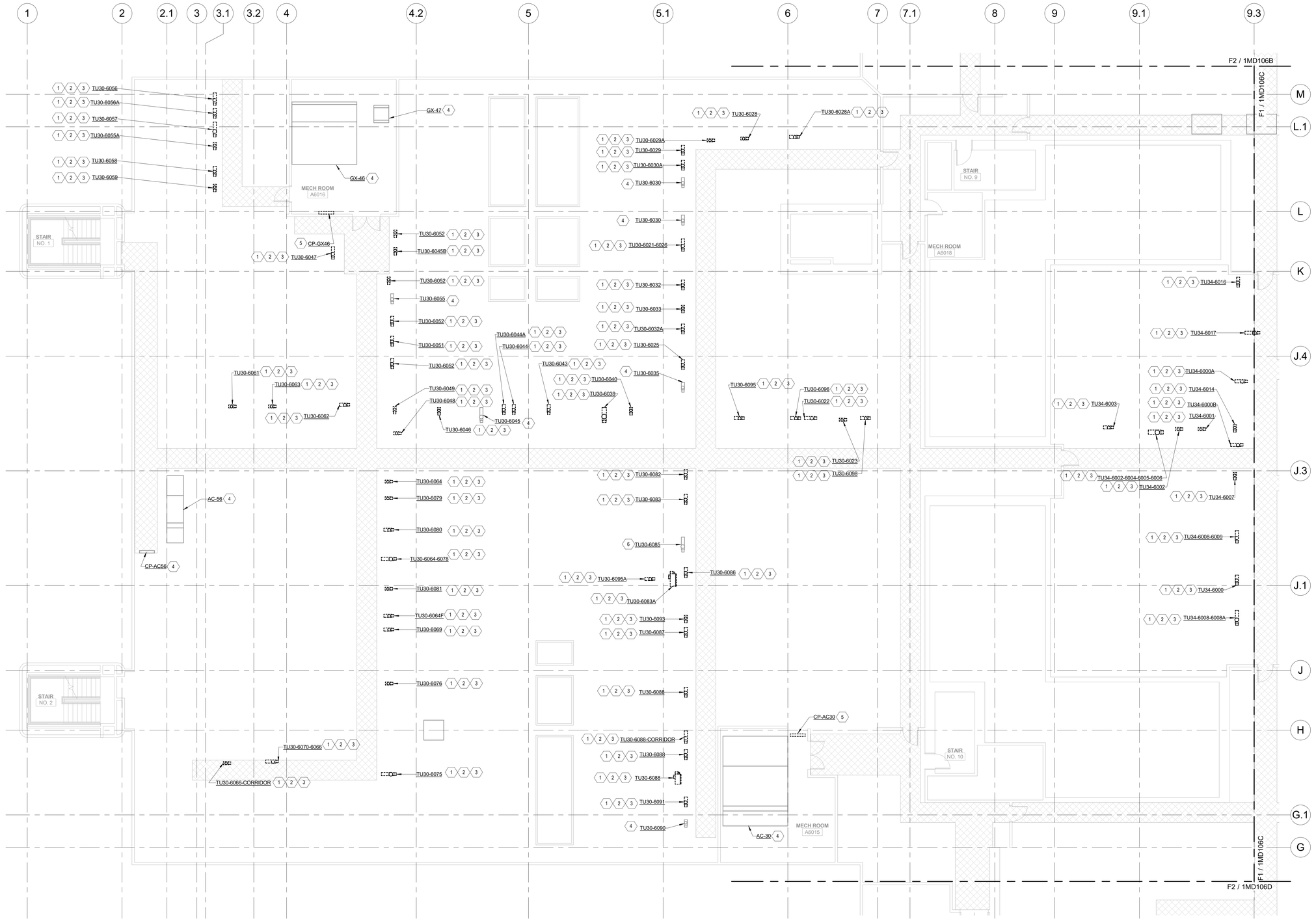
Building Number: 1

Drawing Number: 1MD105D

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

3/18/2019 10:49:38 AM

VA FORM 08 - 6231



F1 MECHANICAL DEMO PLAN - SIXTH FLOOR INTER. - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.
G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
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KEYNOTES

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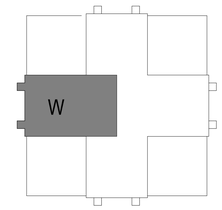
SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE A/E COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
39126
MATHEW R. PERKINS
CIVIL
SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

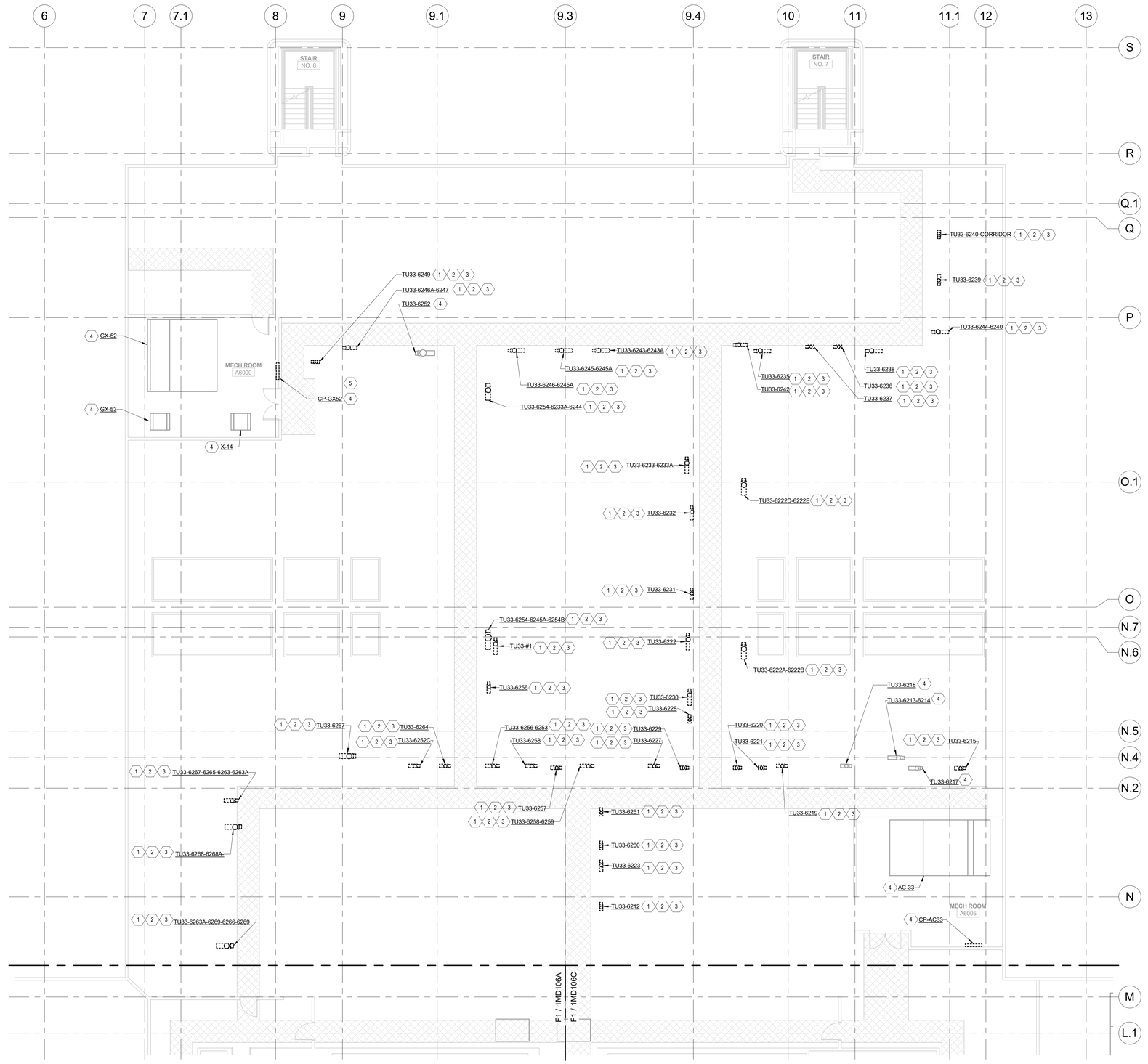
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - SIXTH FLOOR INTERSITIAL - WEST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
			Building Number: 1
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD106A
		Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:49:45 AM

VA FORM 08 - 6231



F2 MECHANICAL DEMO PLAN - SIXTH FLOOR INTER. - NORTH

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

0' 4' 8' 16'

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SYMBOL LEGEND

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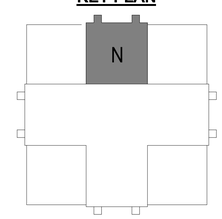
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
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5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

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STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - SIXTH FLOOR INTERSITIAL - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1			Project Number: 664-18-320
			Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161			Drawing Number: 1MD106B
Issue Date: 03/15/2019	Checked: K. Luke	Drawn: G. Weaver	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
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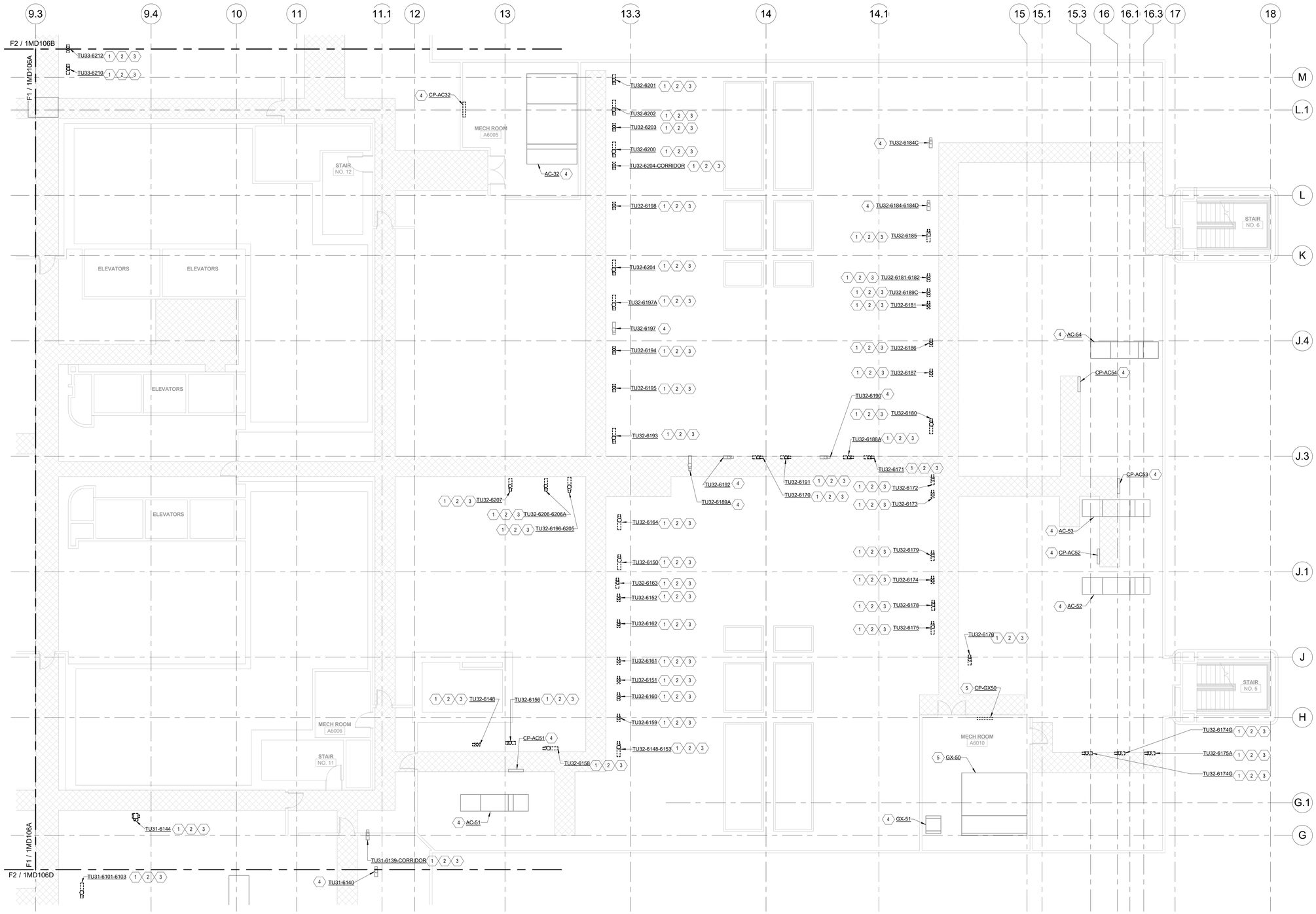

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0' 4' 8' 16'

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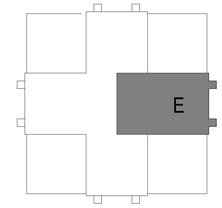

Revisions:	Date:

CONSULTANT

MECHANICAL:
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5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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1839 S. Alma School Rd., Ste. 300
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307-460-2054
Mat Perkins

TRIPLE C – THE A&E GROUP
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STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
DO NOT SIGN
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

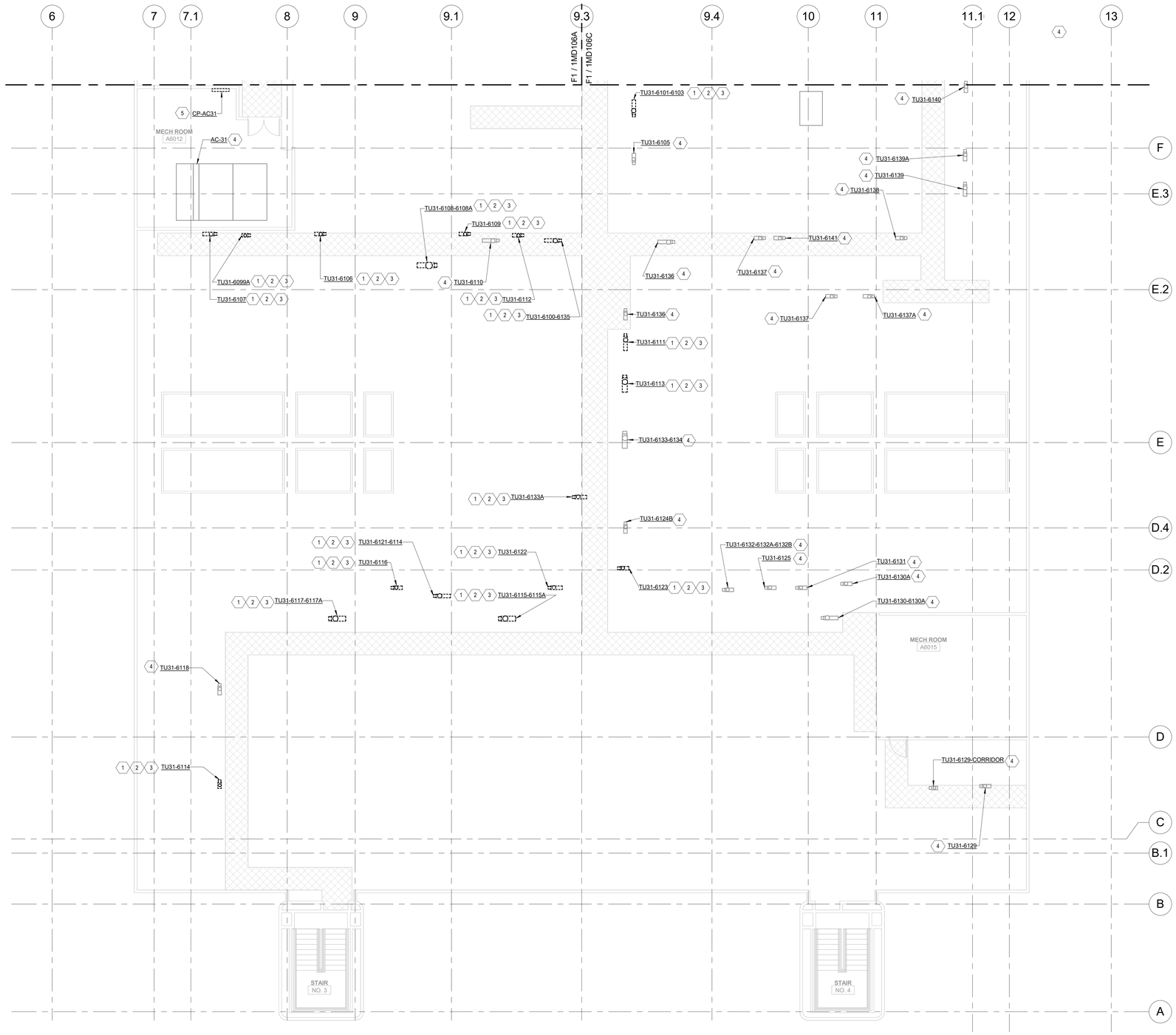
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DEMO PLAN - SIXTH FLOOR INTERSITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MD106C
Issue Date: 03/15/2019	Checked: K. Luke / Drawn: G. Weaver

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt 3/18/2019 10:49:58 AM

VA FORM 08 - 6231



F2 MECHANICAL DEMO PLAN - SIXTH FLOOR INTER. - SOUTH

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0' 4' 8' 16'

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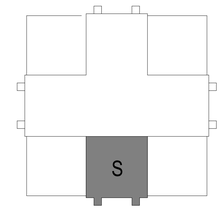

Revisions:	Date:

CONSULTANT

MECHANICAL:
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STAMP

REGISTERED CERTIFIED ARCHITECT 39128 MATHEW R. PERKINS DATE SIGNED ARIZONA U.S.A.

Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	MECHANICAL DEMO PLAN - SIXTH FLOOR INTERSITIAL - SOUTH
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	K. Luke
Drawn	G. Weaver
Project Number	664-18-320
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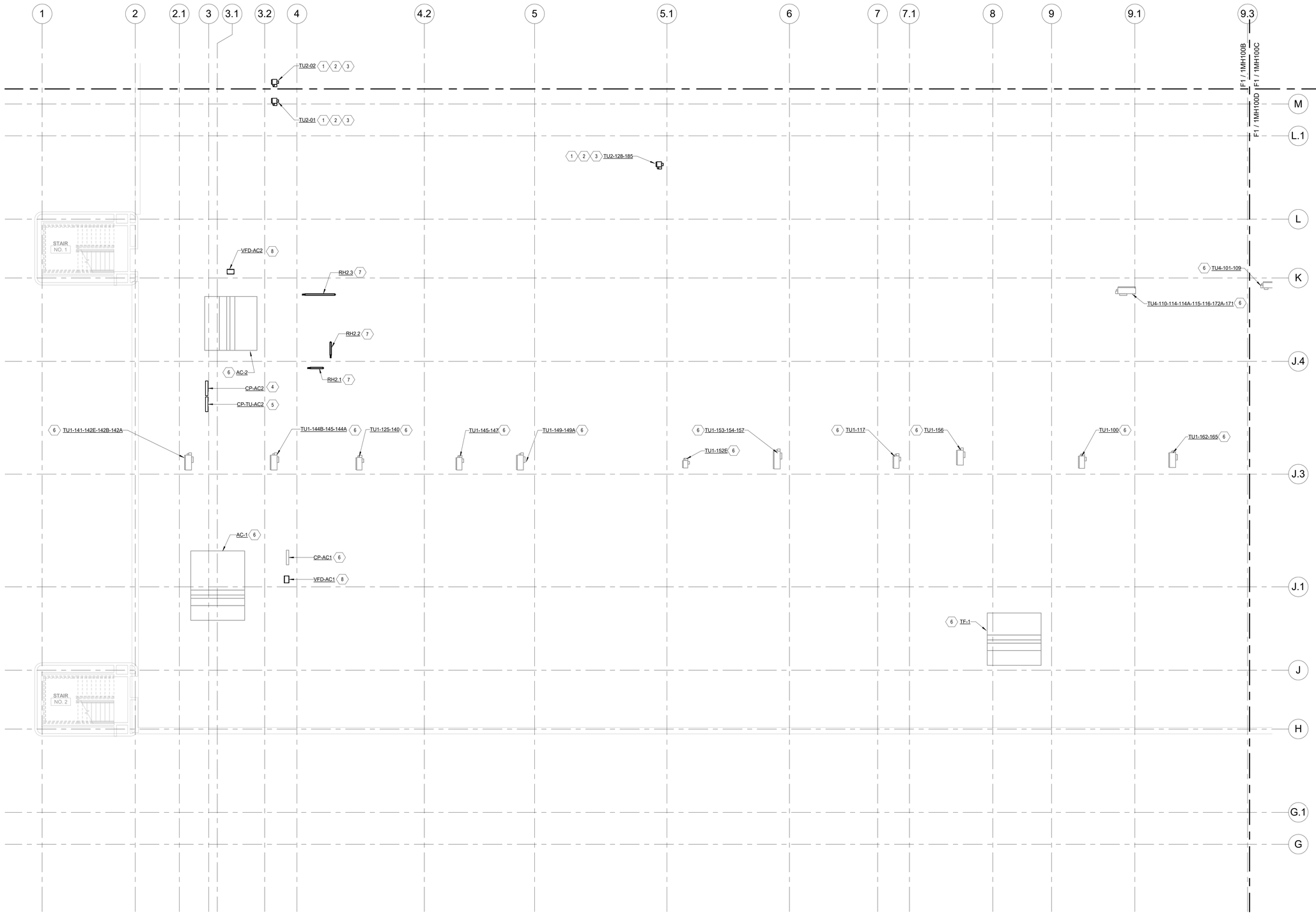

F1 MECHANICAL DUCT PLAN - BASEMENT INTER. - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.
G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
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KEYNOTES

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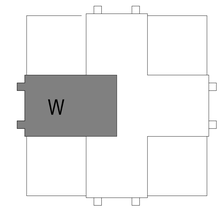
8. **DEDUCTIVE ALTERNATE NO. 10** PROVIDE NEW VFD. CONTACTOR SHALL PULL NEW WIRES, SIZED PER THE EXISTING FROM THE VFD INTEGRAL DISCONNECT MEANS BACK TO THE EXISTING OVERCURRENT PROTECTION DEVICE (BREAKER/FUSE) IN THE SERVICE EQUIPMENT PANEL. THE NEW VFD SHALL BE SIZED SIZED TO MATCH EXISTING, NO LOAD CHANGE. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROLS SYSTEM BY UTILIZING THE EXISTING CONTROLS COMPONENTS WHERE FEASIBLE AND ADDING DEVICES AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS. REFER TO M-800 SERIES SHEETS FOR CONTROLS.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

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LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Mesa, AZ 85210
307-460-2054
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STAMP

REGISTERED PROFESSIONAL ENGINEER
SP126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.

Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

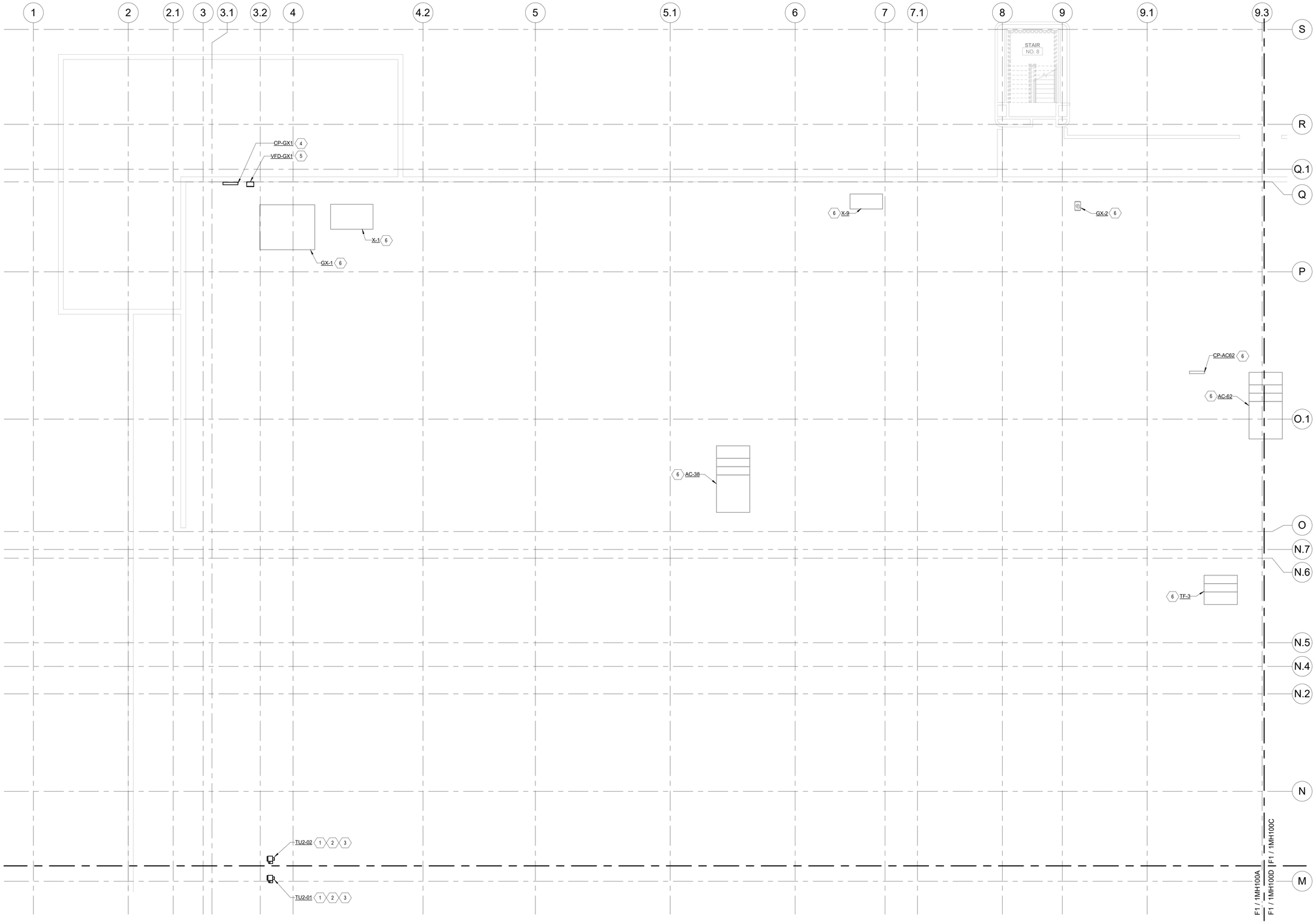
Drawing Title: MECHANICAL HVAC PLAN - BASEMENT - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH100A
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

VA FORM 08 - 6231

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

3/18/2019 10:50:09 AM



F1 MECHANICAL DUCT PLAN - BASEMENT INTER. - NORTHWEST

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

0' 4' 8' 16'

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SYMBOL LEGEND

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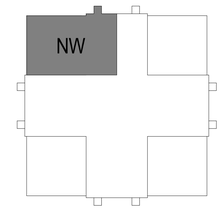
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

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5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

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307-460-2054
Mat Perkins

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STAMP

REGISTERED PROFESSIONAL ENGINEER
35126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.

Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL HVAC PLAN - BASEMENT - NORTHWEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH100B
Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

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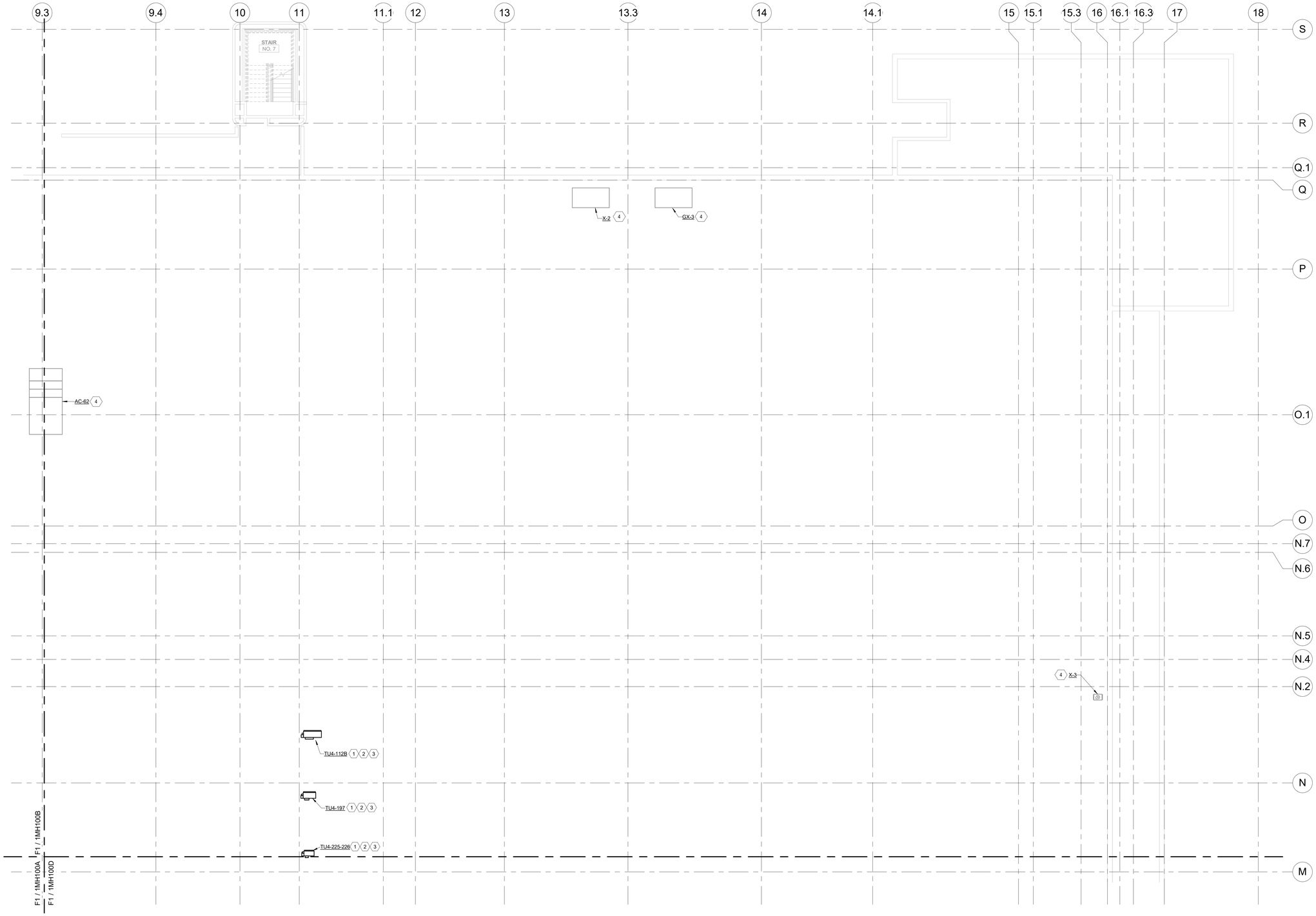

F1 MECHANICAL DUCT PLAN - BASEMENT INTER. - NORTHEAST

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

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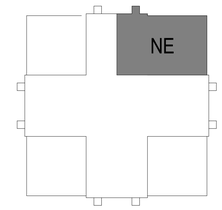

Revisions:	Date:

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MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL HVAC PLAN - BASEMENT - NORTHEAST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
			Building Number: 1
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH100C
		Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

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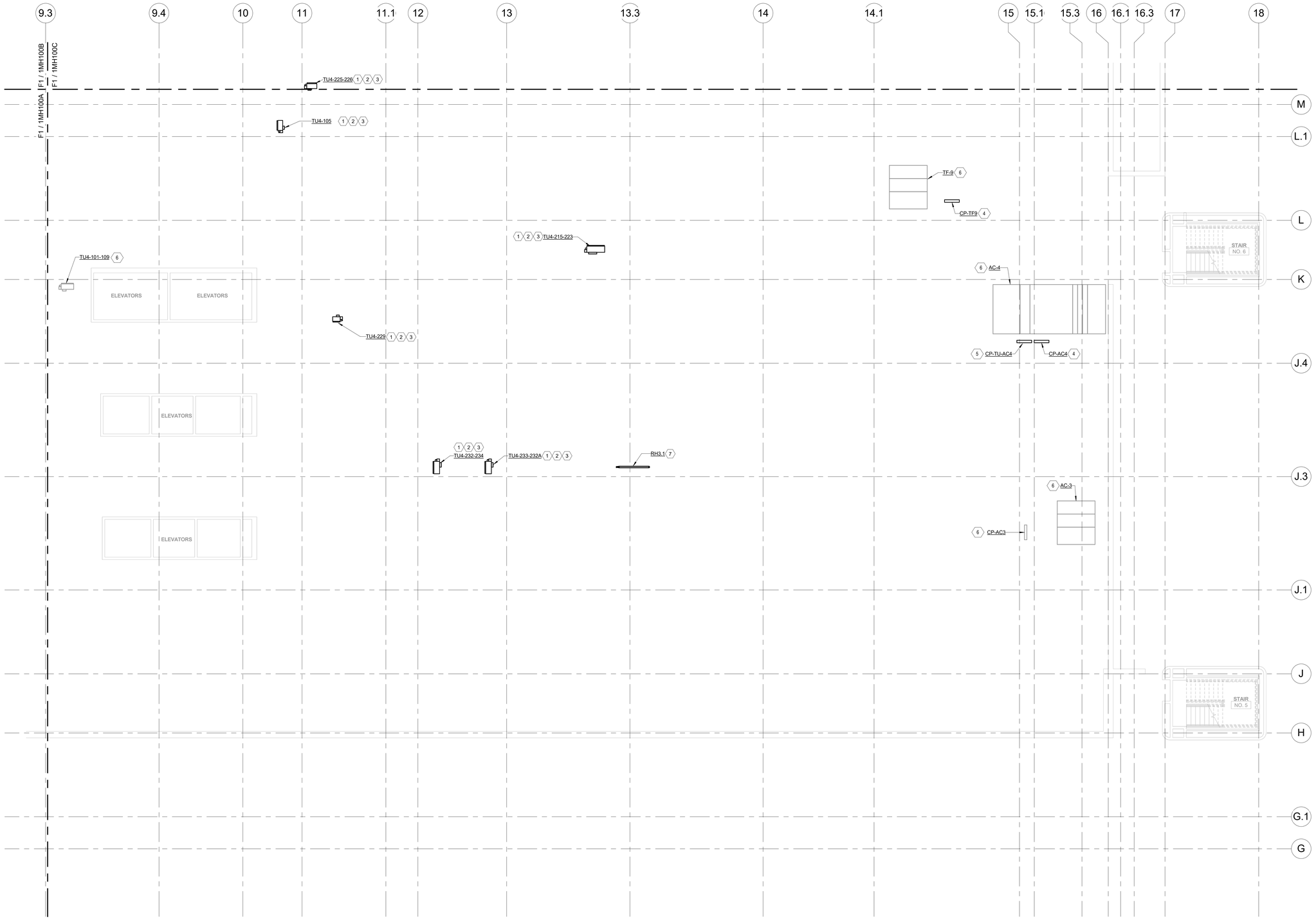

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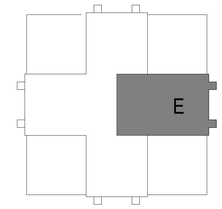

Revisions:	Date:

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Approved:	FULLY SPRINKLERED

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BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
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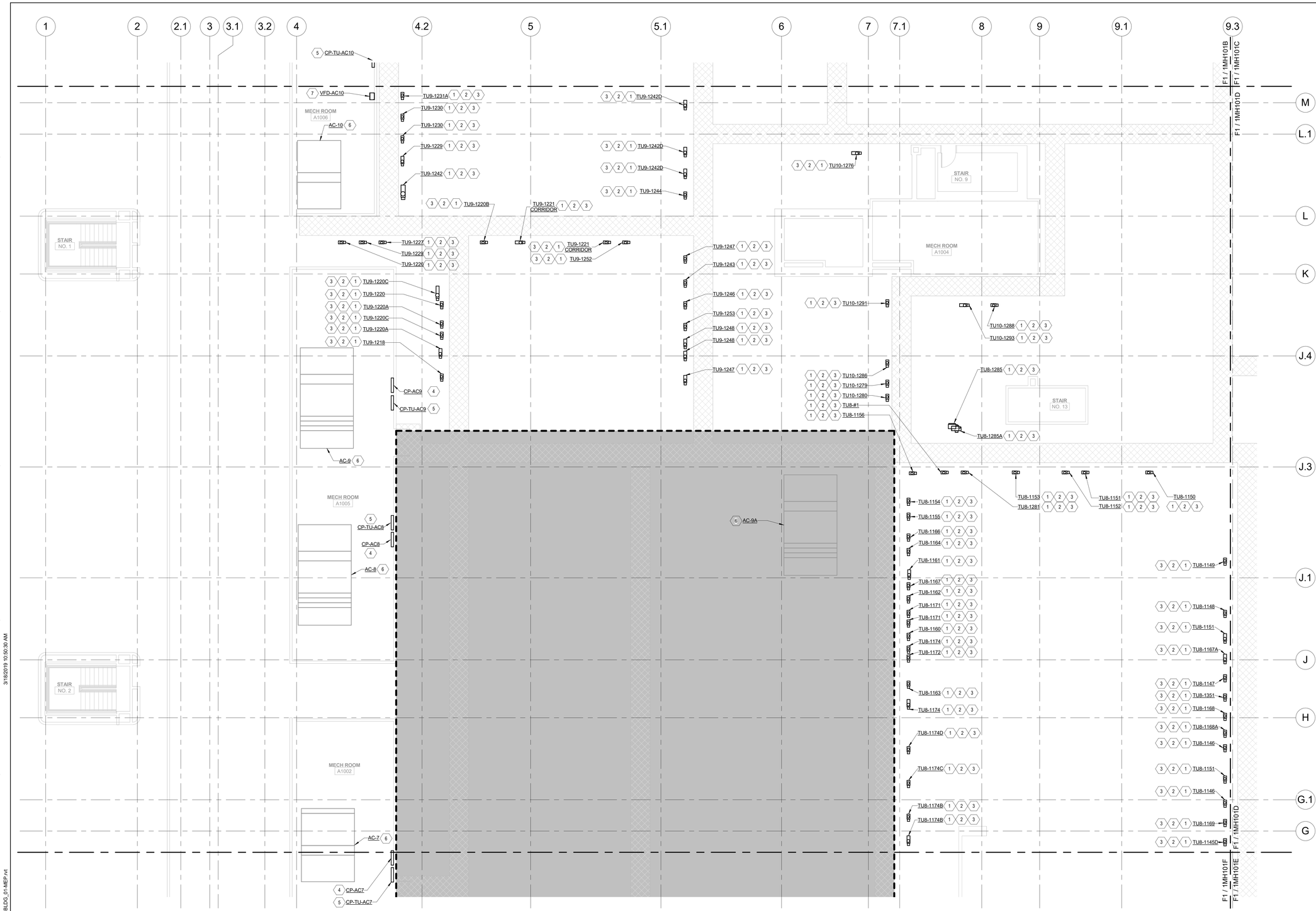

F1 MECHANICAL DUCT PLAN - FIRST FLOOR INTER. - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.

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F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.

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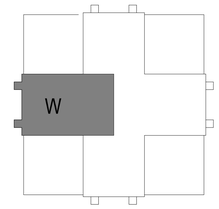
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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1839 S. Alma School Rd., Ste. 300
Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

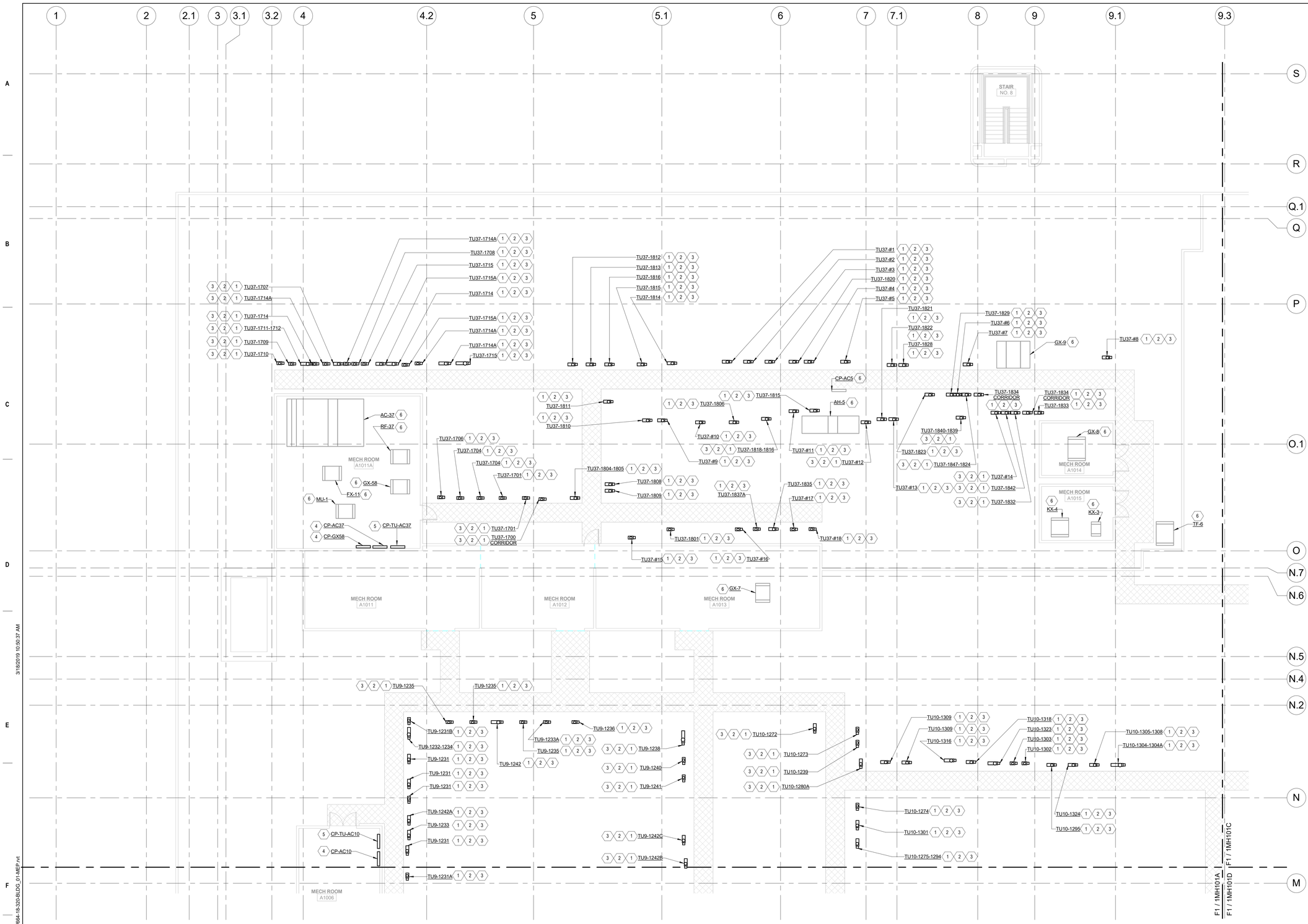
Drawing Title: MECHANICAL HVAC PLAN - FIRST FLOOR INTERSTITIAL - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH101A
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

3/18/2019 10:50:30 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



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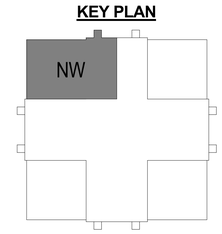

Revisions:	Date:

CONSULTANT

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Expires: 6/30/21

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VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL HVAC PLAN - FIRST FLOOR INTERSTITIAL - NORTHWEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH101B
Issue Date: 03/15/2019	Checked: K. Luke / Drawn: G. Weaver

3/18/2019 10:50:37 AM

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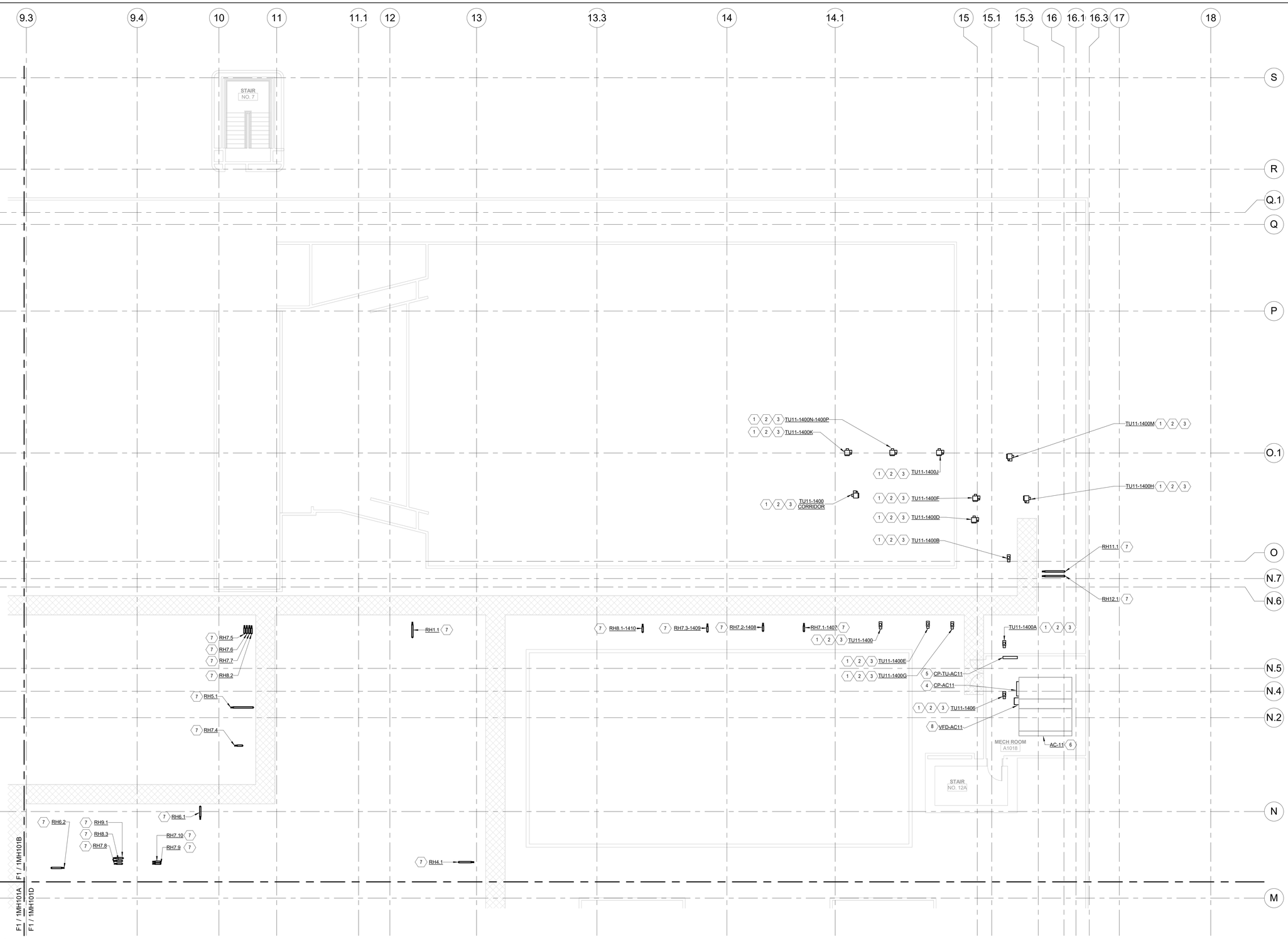
VA FORM 08 - 6231



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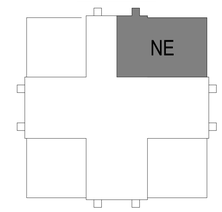

Revisions:	Date:

CONSULTANT

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REGISTERED ARCHITECT
35128
MATHEW R. PERKINS
STATE OF ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

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Drawing Title	MECHANICAL HVAC PLAN - FIRST FLOOR INTERSTITIAL - NORTHEAST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
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Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	K. Luke
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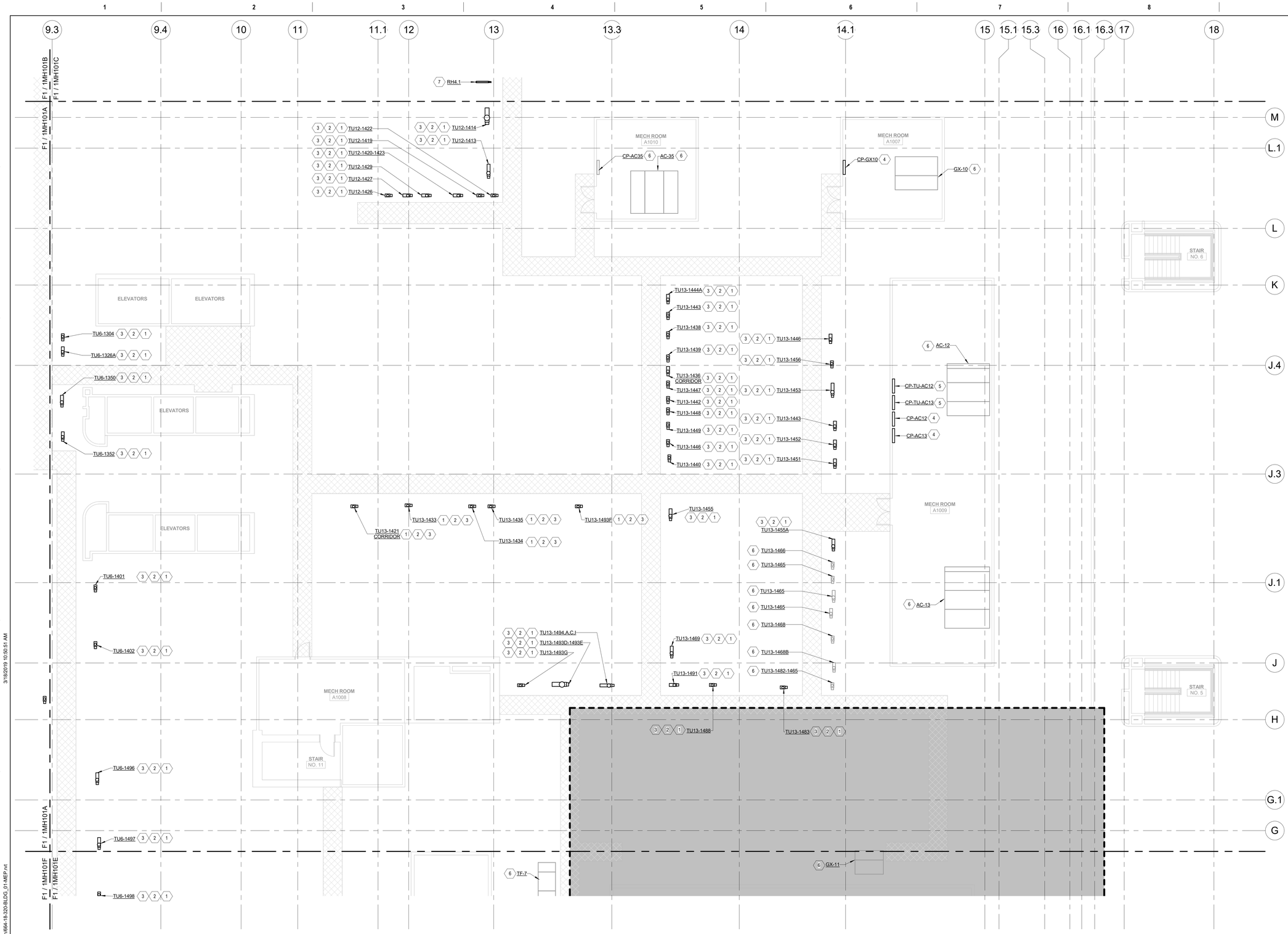

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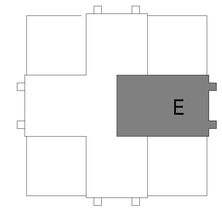

Revisions:	Date:

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MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

A/E:
TRIPLE C The A/E Group
1839 S. Alma School Rd., Ste. 300
Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE AE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

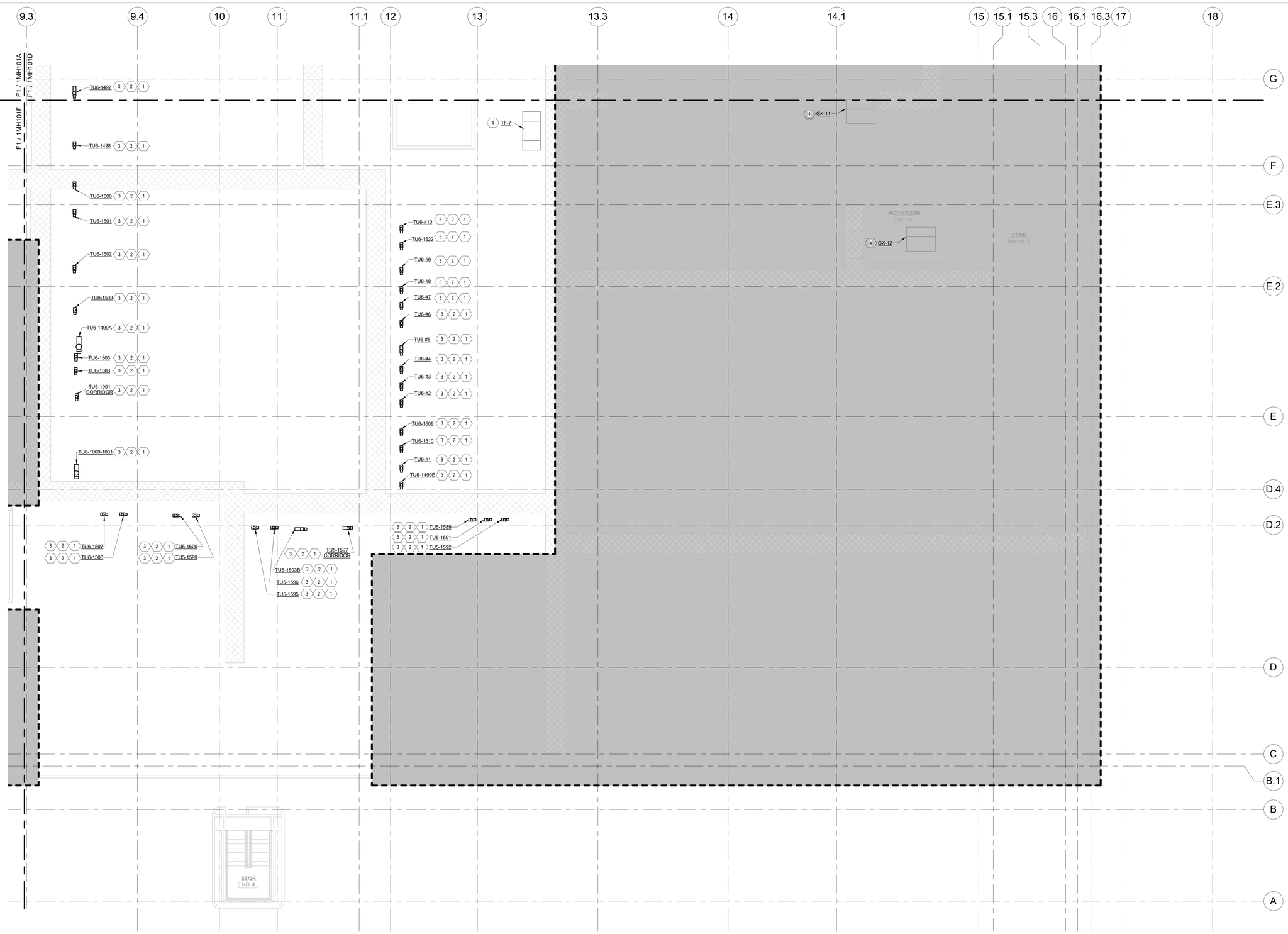
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL HVAC PLAN - FIRST FLOOR INTERSTITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH101D
Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:50:51 AM



F1 MECHANICAL DUCT PLAN - FIRST FLOOR INTER. - SOUTHEAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
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F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.
G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
I. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00 AM TO 4:30 PM..

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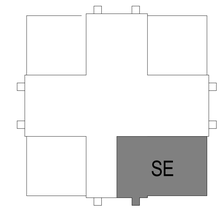
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

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Office of Construction and Facilities Management

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Drawing Title: MECHANICAL HVAC PLAN - FIRST FLOOR INTERSTITIAL - SOUTHEAST

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019

Checked: K. Luke

Drawn: G. Weaver

Project Number: 664-18-320

Building Number: 1

Drawing Number: 1MH101E

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

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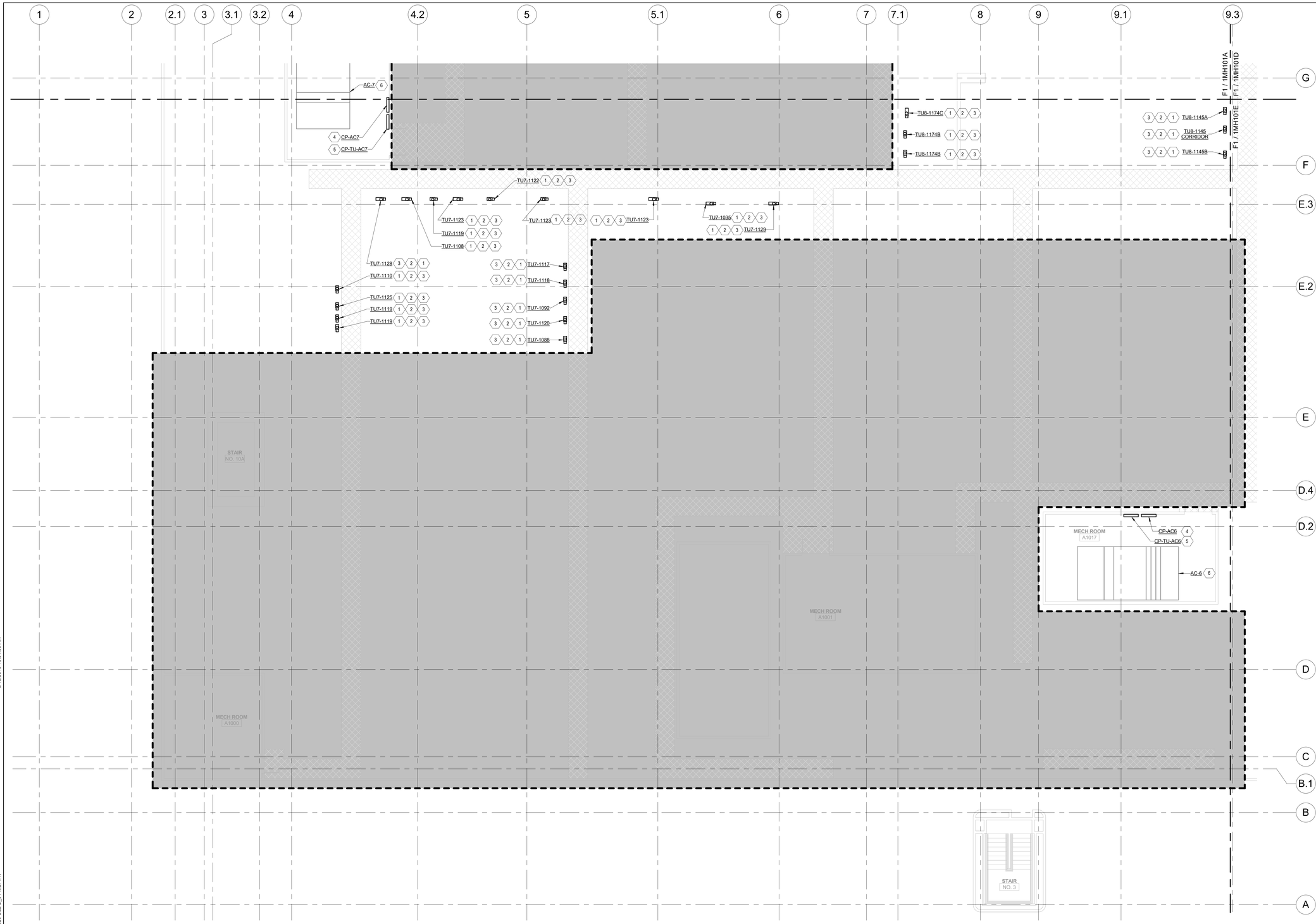

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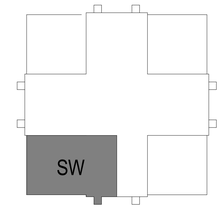

Revisions:	Date:

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Drawing Title: MECHANICAL HVAC PLAN - FIRST FLOOR INTERSTITIAL - SOUTHWEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH101F
Issue Date: 03/15/2019	Checked: K. Luke / Drawn: G. Weaver

VA FORM 08 - 6231

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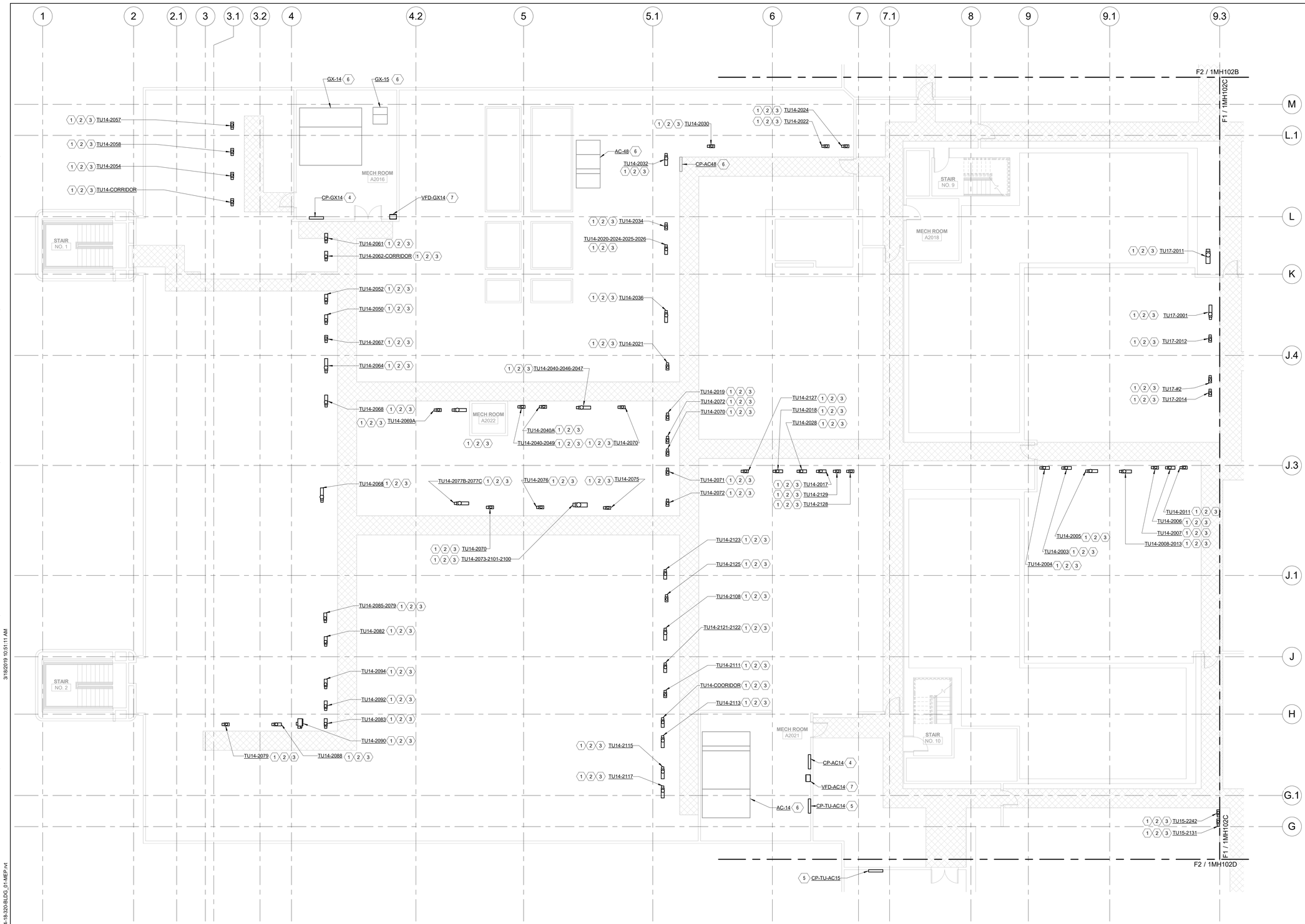

F1 MECHANICAL DUCT PLAN - SECOND FLOOR INTER. - WEST

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

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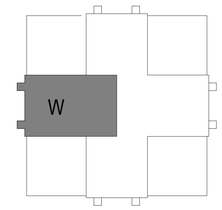

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Drawing Title: MECHANICAL HVAC PLAN - SECOND FLOOR INTERSTITIAL - WEST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
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Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH102A
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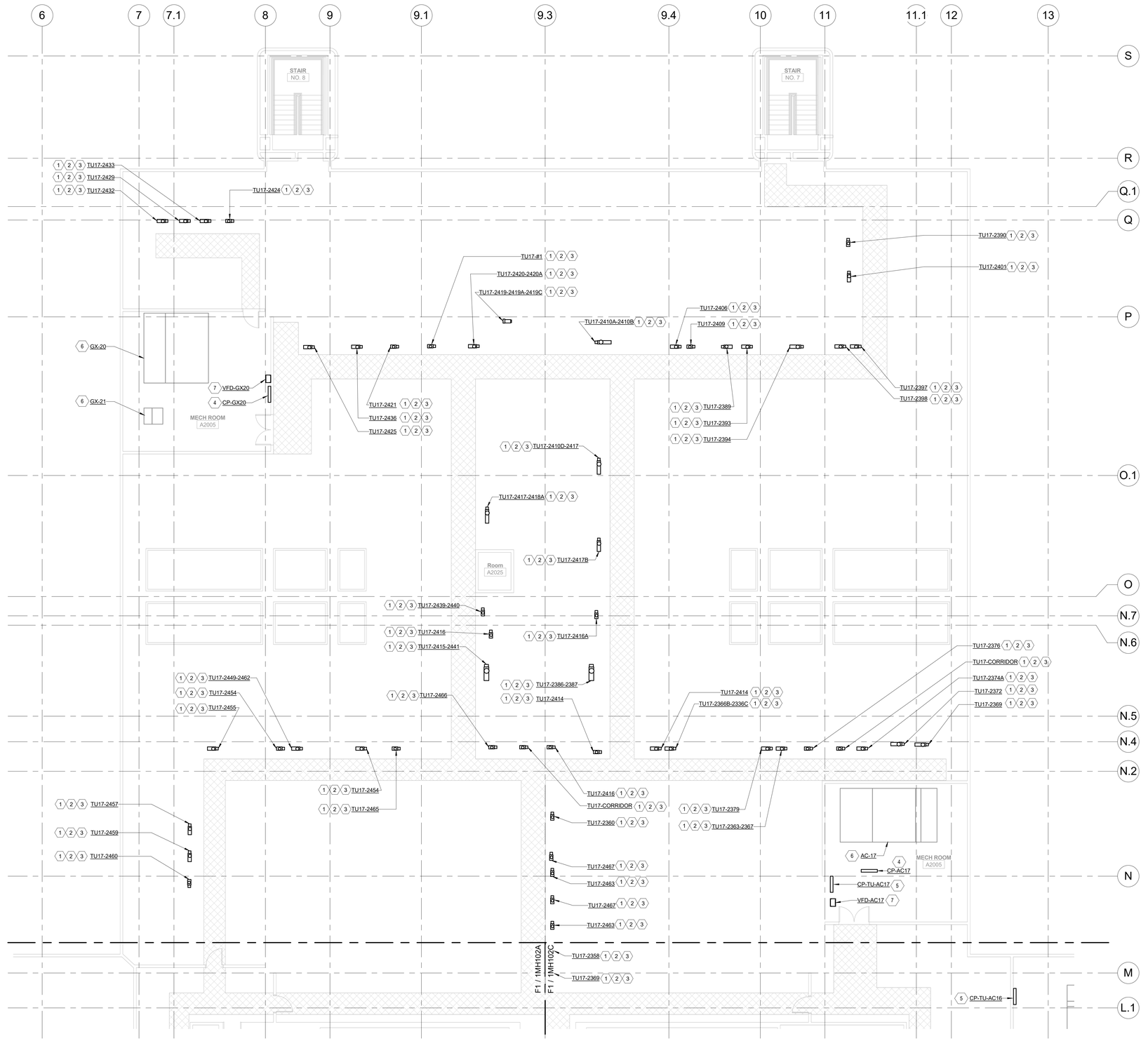

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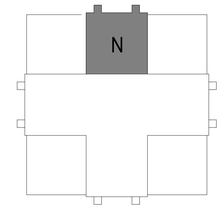


Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

A/E:
TRIPLE C The A/E Group
1839 S. Alma School Rd., Ste. 300
Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

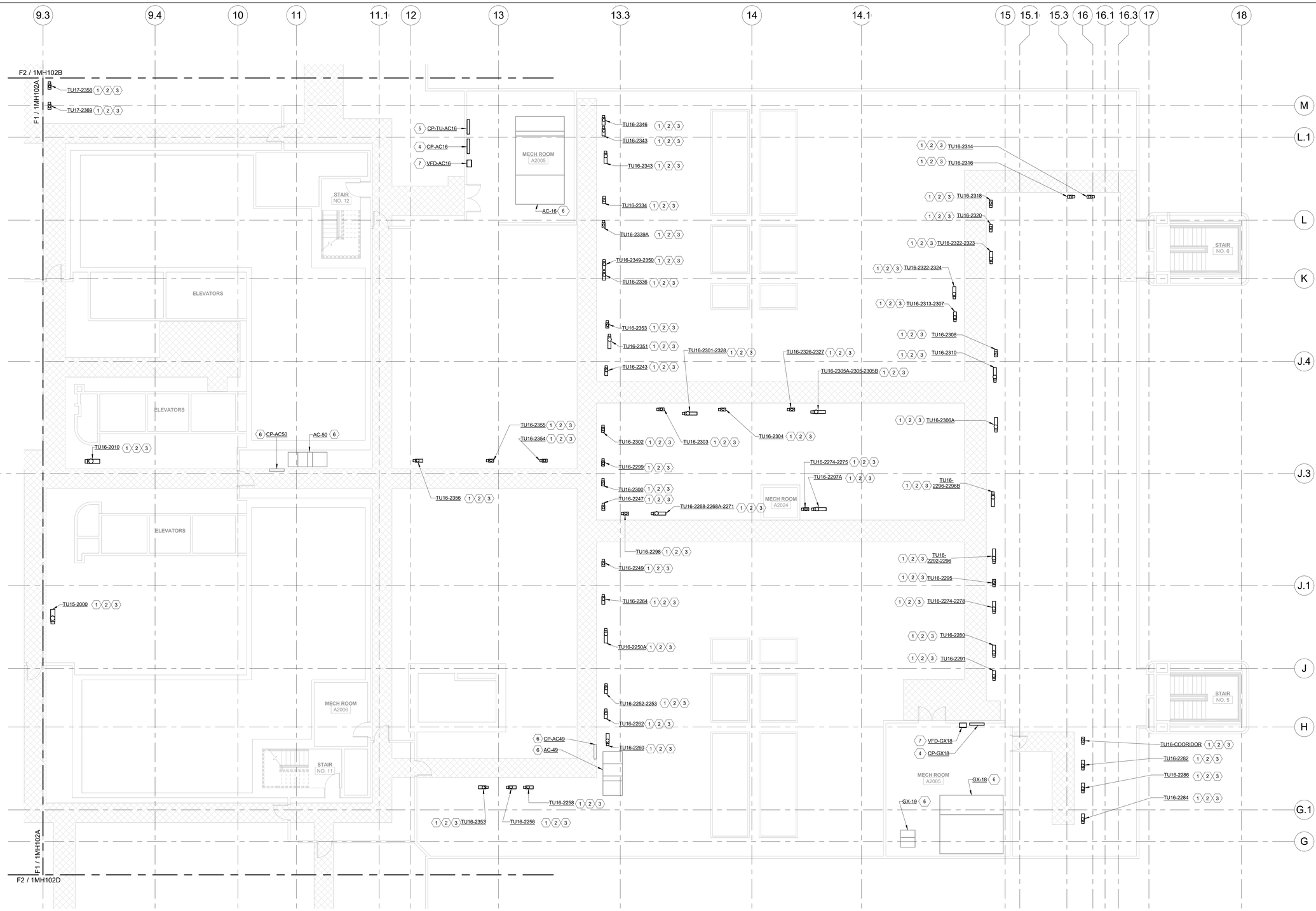
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL HVAC PLAN - SECOND FLOOR INTERSTITIAL - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH102B
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:51:17 AM

VA FORM 08 - 6231



F1 MECHANICAL DUCT PLAN - SECOND FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.

B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.

C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.

E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.

F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.

G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.

H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.

I. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00 AM TO 4:30 PM..

KEYNOTES

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3. CONNECT NEW HOSE KIT TO EXISTING HEATING WATER PIPING AND NEW TERMINAL UNIT. PROVIDE NEW FLEXIBLE HOSE KIT. REFER TO DETAILS ON M-501.
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SYMBOL LEGEND

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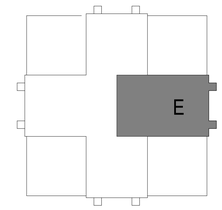
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

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Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Building Number: 1
		Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	Drawing Number: 1MH102C

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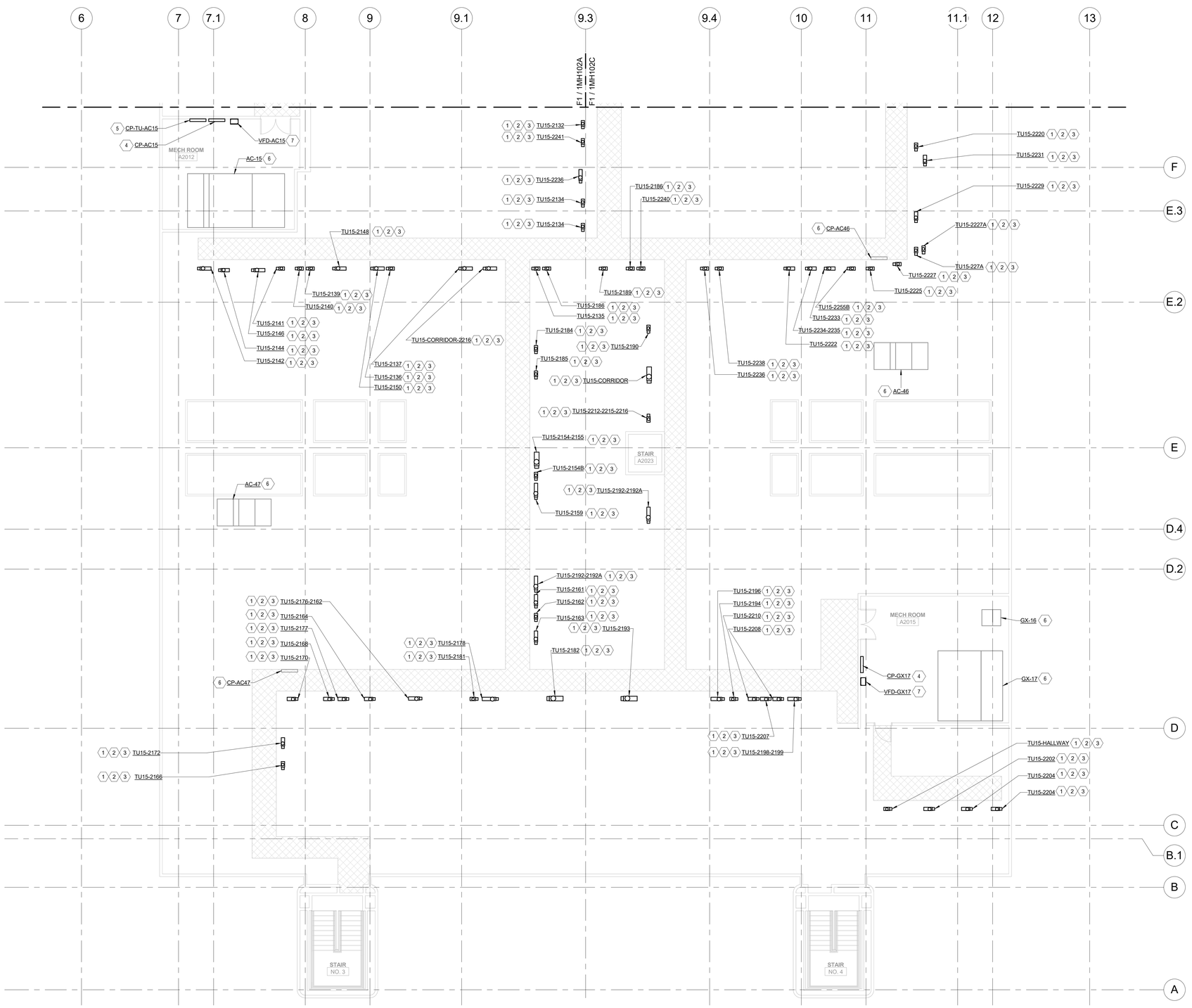
VA FORM 08 - 6231



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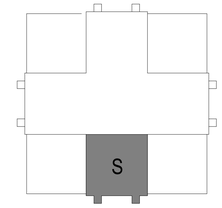
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

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REGISTERED ARCHITECT 39128 MATHEW R. PERKINS STATE OF ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

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Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH102D
Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

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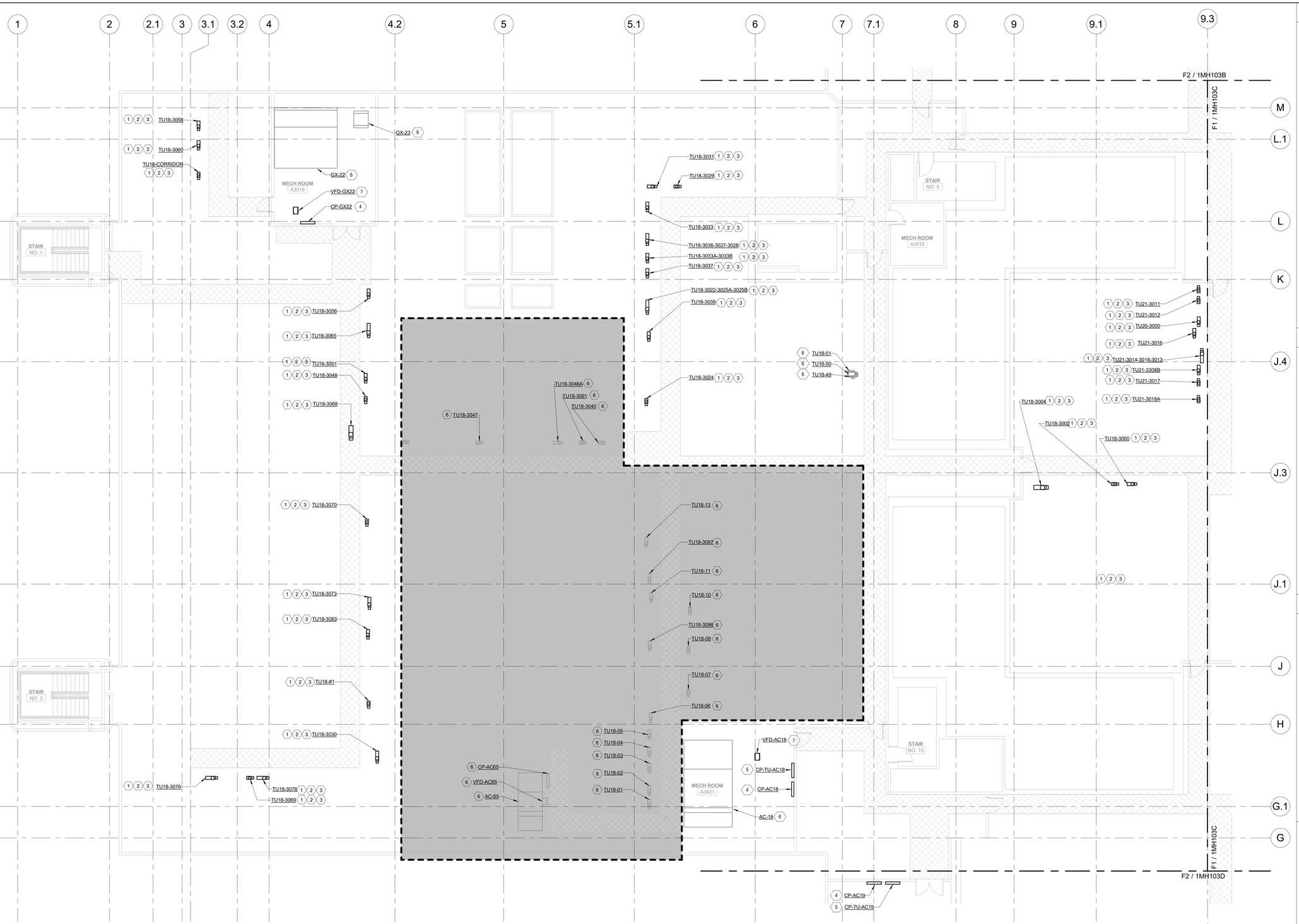

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Scale: 1/8" = 1'-0"

0' 4' 8' 16'

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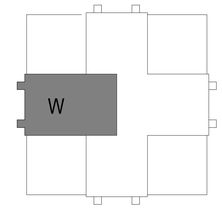

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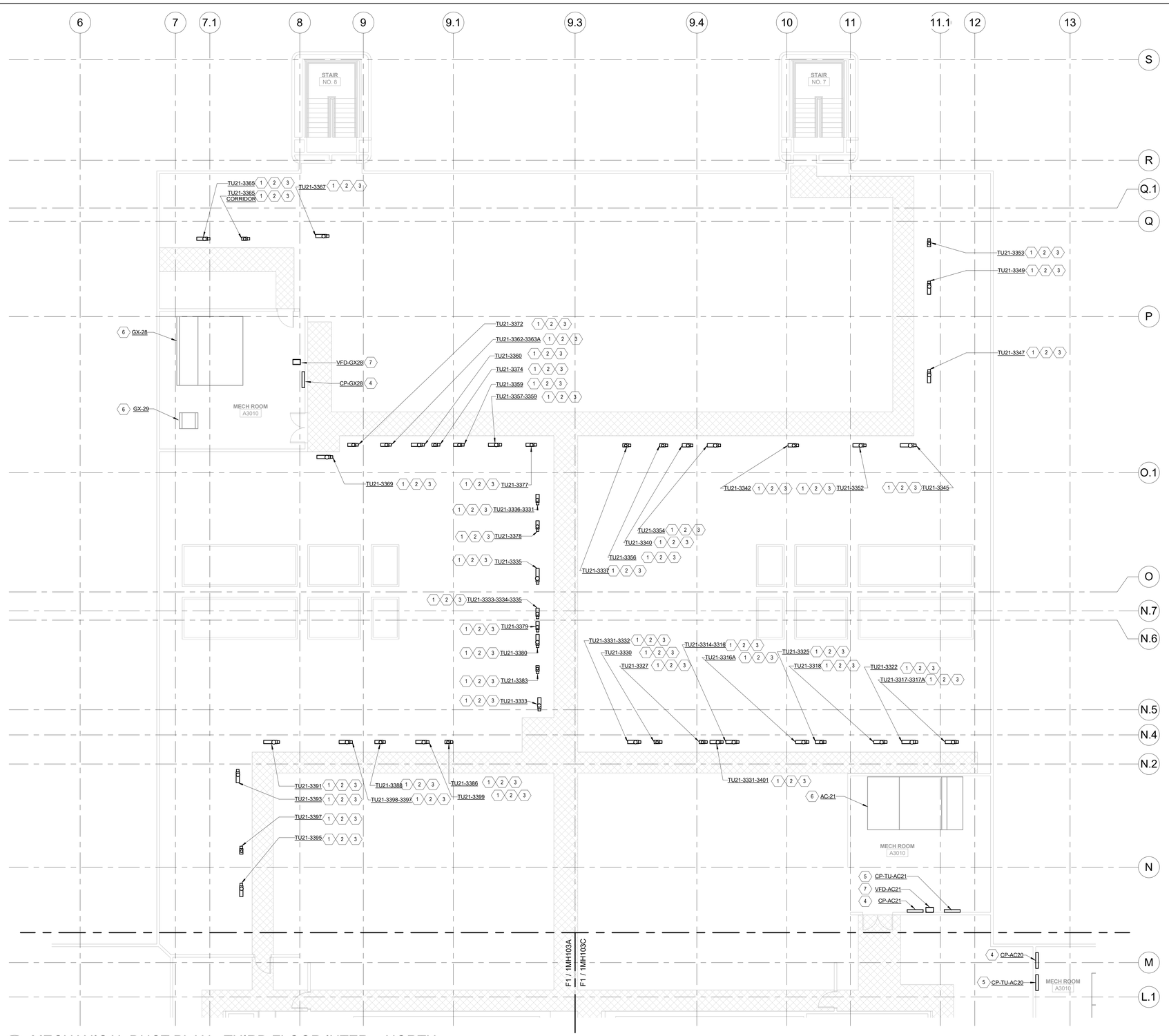

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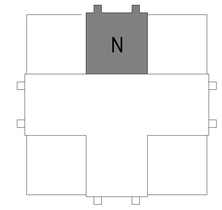
SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

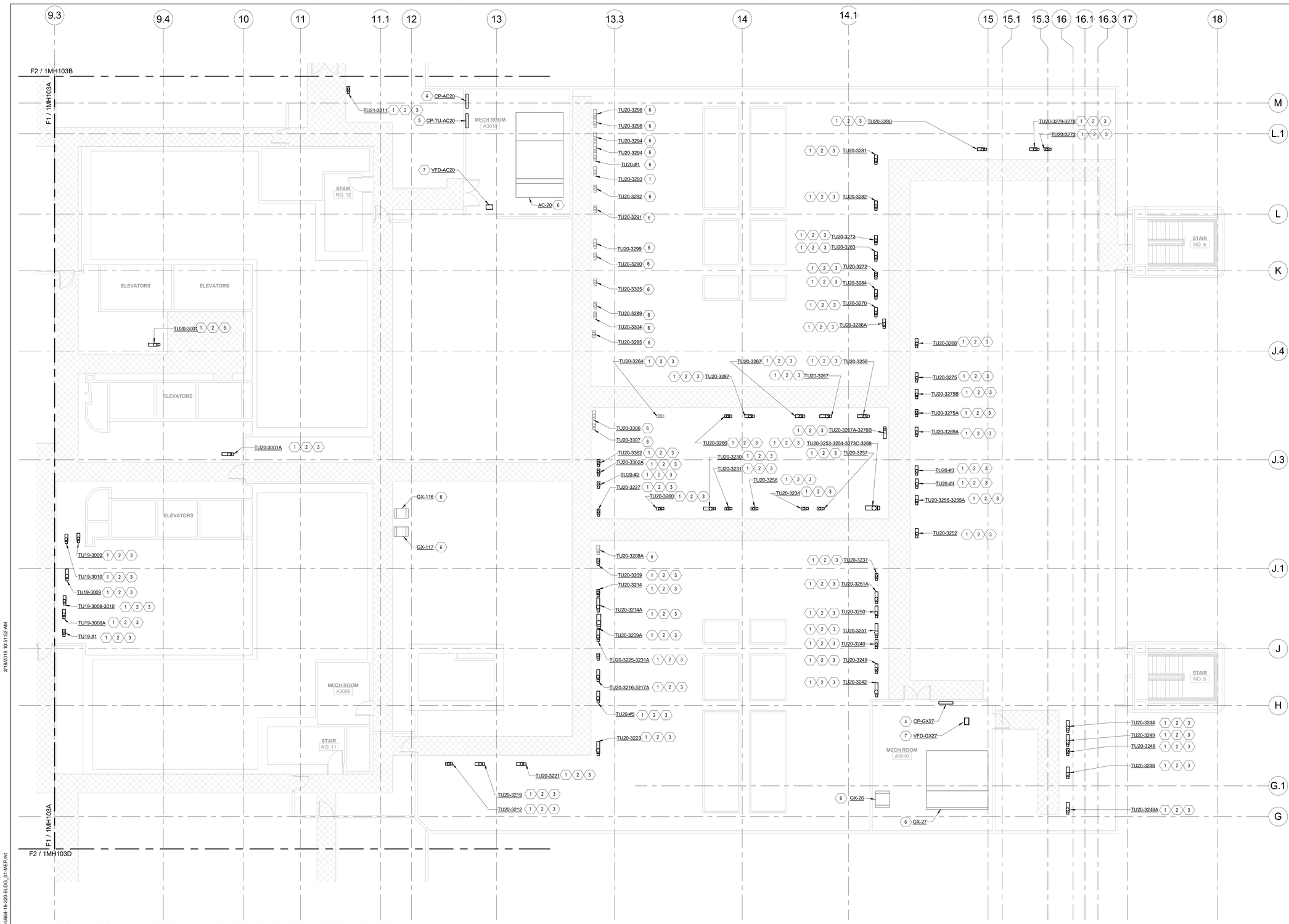
Drawing Title: MECHANICAL HVAC PLAN - THIRD FLOOR INTERSTITIAL - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH103B
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

3/18/2019 10:51:45 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F1 MECHANICAL DUCT PLAN - THIRD FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.

B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.

C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.

E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.

F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.

G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.

H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.

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KEYNOTES

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SYMBOL LEGEND

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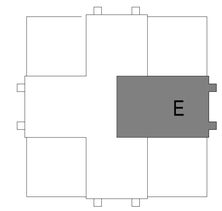
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

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STAMP

REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
DATE SIGNED
ARCHIVES U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL HVAC PLAN - THIRD FLOOR INTERSTITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
			Building Number: 1
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH103C
		Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

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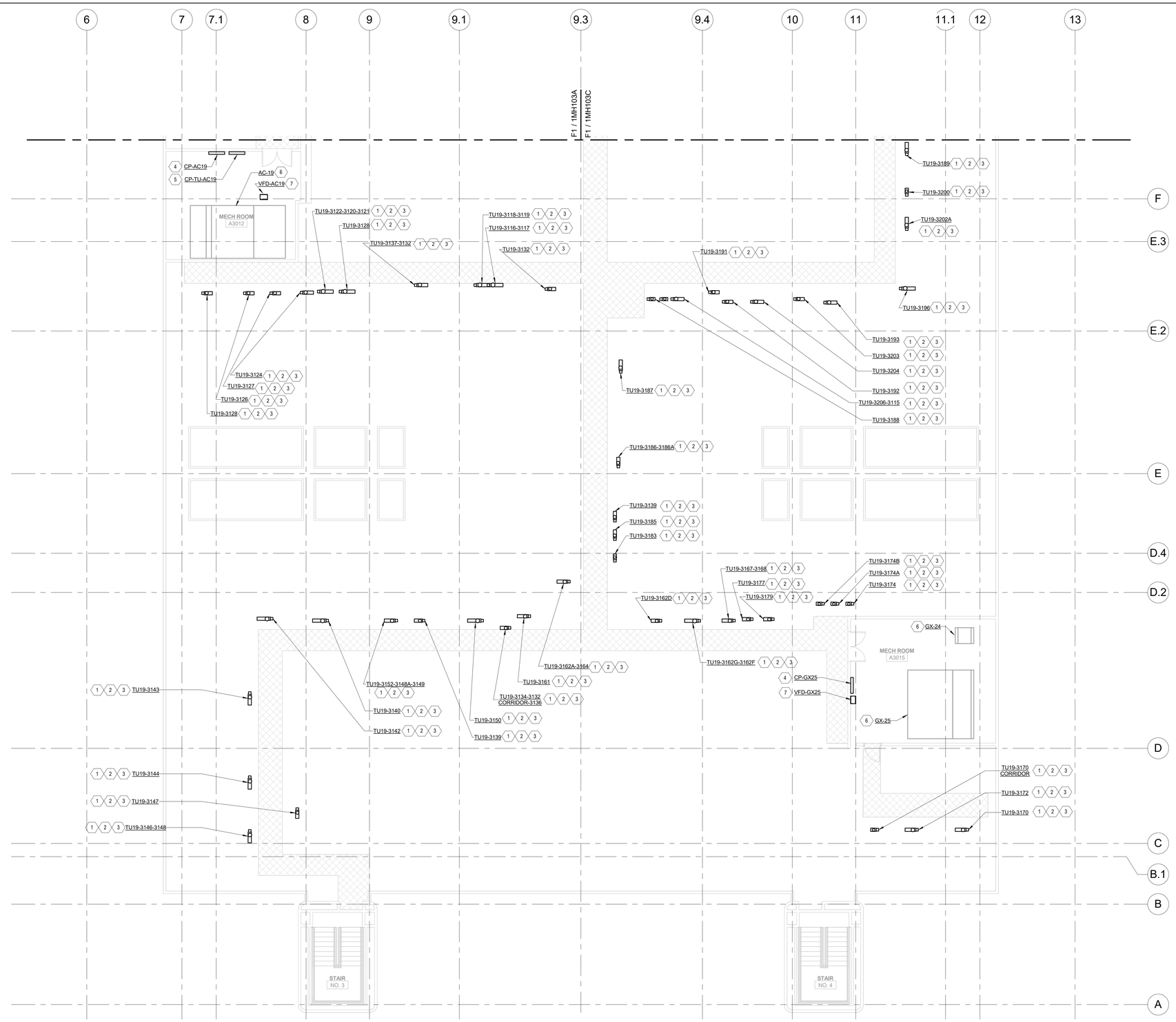

F2 MECHANICAL DUCT PLAN - THIRD FLOOR INTER. - SOUTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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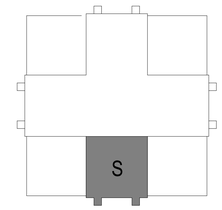
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

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REGISTERED PROFESSIONAL ENGINEER 33128 MATHEW R. PERKINS DATE SIGNED ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL HVAC PLAN - THIRD FLOOR INTERSTITIAL - SOUTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH103D
Issue Date: 03/15/2019	Checked: K. Luke / Drawn: G. Weaver

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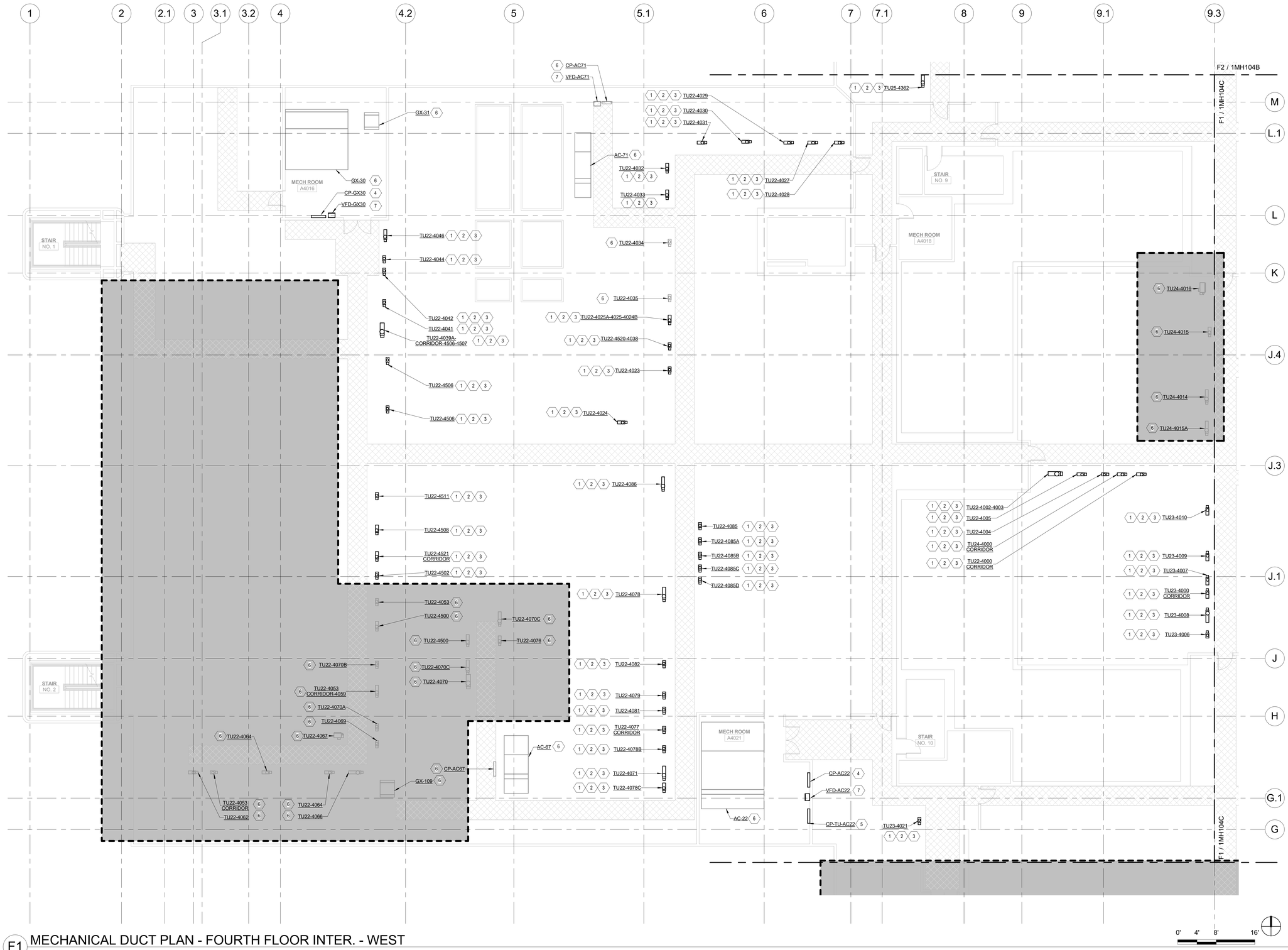

F1 MECHANICAL DUCT PLAN - FOURTH FLOOR INTER. - WEST

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

GENERAL SHEET NOTES

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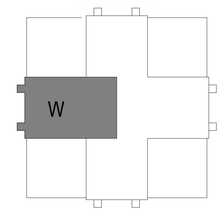
KEY PLAN



Revisions:	Date:

CONSULTANT

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STAMP

REGISTERED ARCHITECT 39129 MATHEW R. PERKINS DATE SIGNED ARIZONA U.S.A.

Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title MECHANICAL HVAC PLAN - FOURTH FLOOR INTERSITIAL - WEST	**Phase** ISSUED FOR CONSTRUCTION	**Project Title** ENERGY MANAGEMENT CONTROLS INTEGRATION 1	**Project Number** 664-18-320
			Building Number 1
Approved:	FULLY SPRINKLERED	**Location** 3350 La Jolla Village Dr, San Diego, CA 92161	**Drawing Number** 1MH104A
		Issue Date 03/15/2019 · **Checked** K. Luke · **Drawn** G. Weaver	

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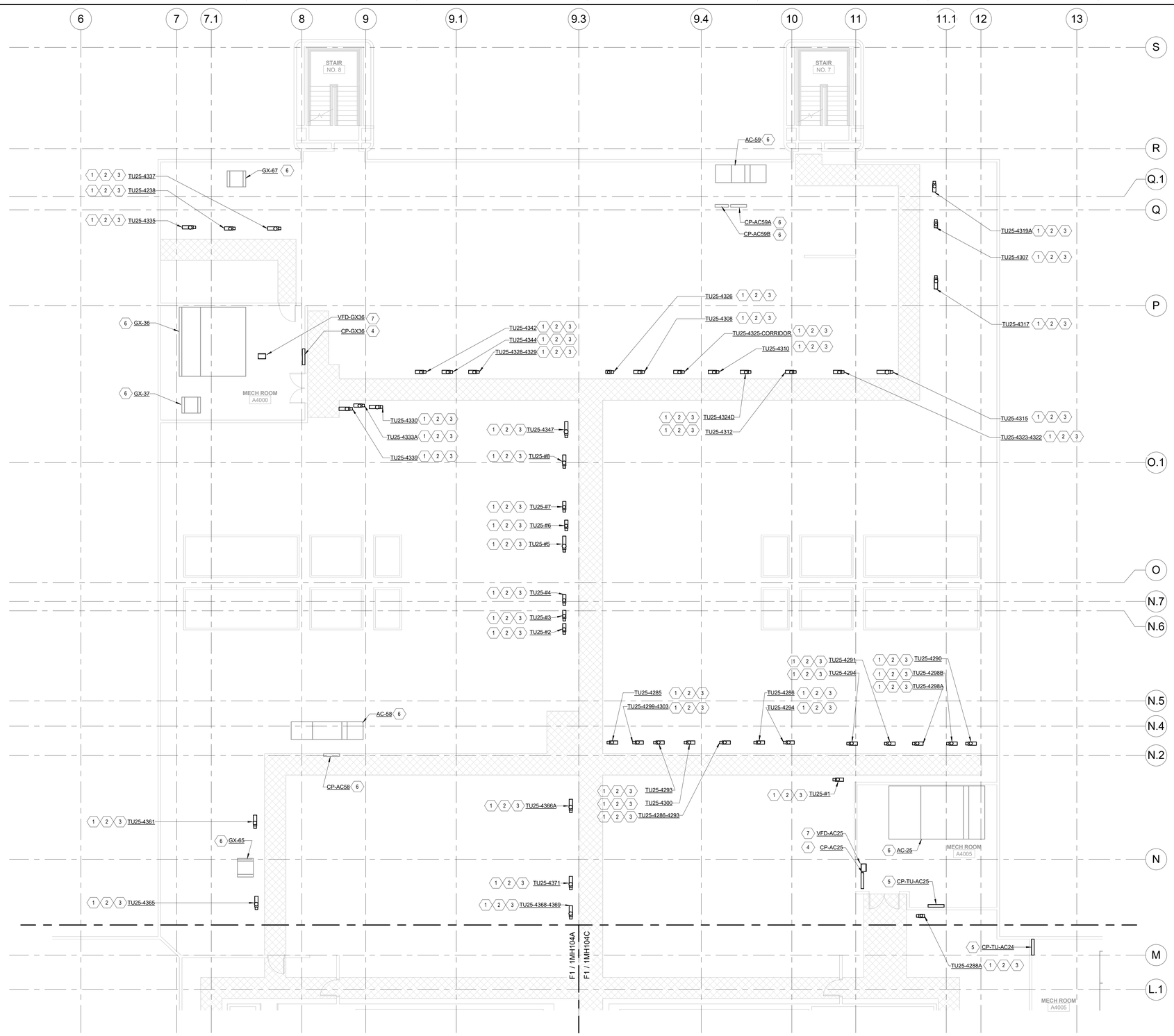

F2 MECHANICAL DUCT PLAN - FOURTH FLOOR INTER. - NORTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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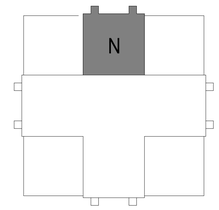
SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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33128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

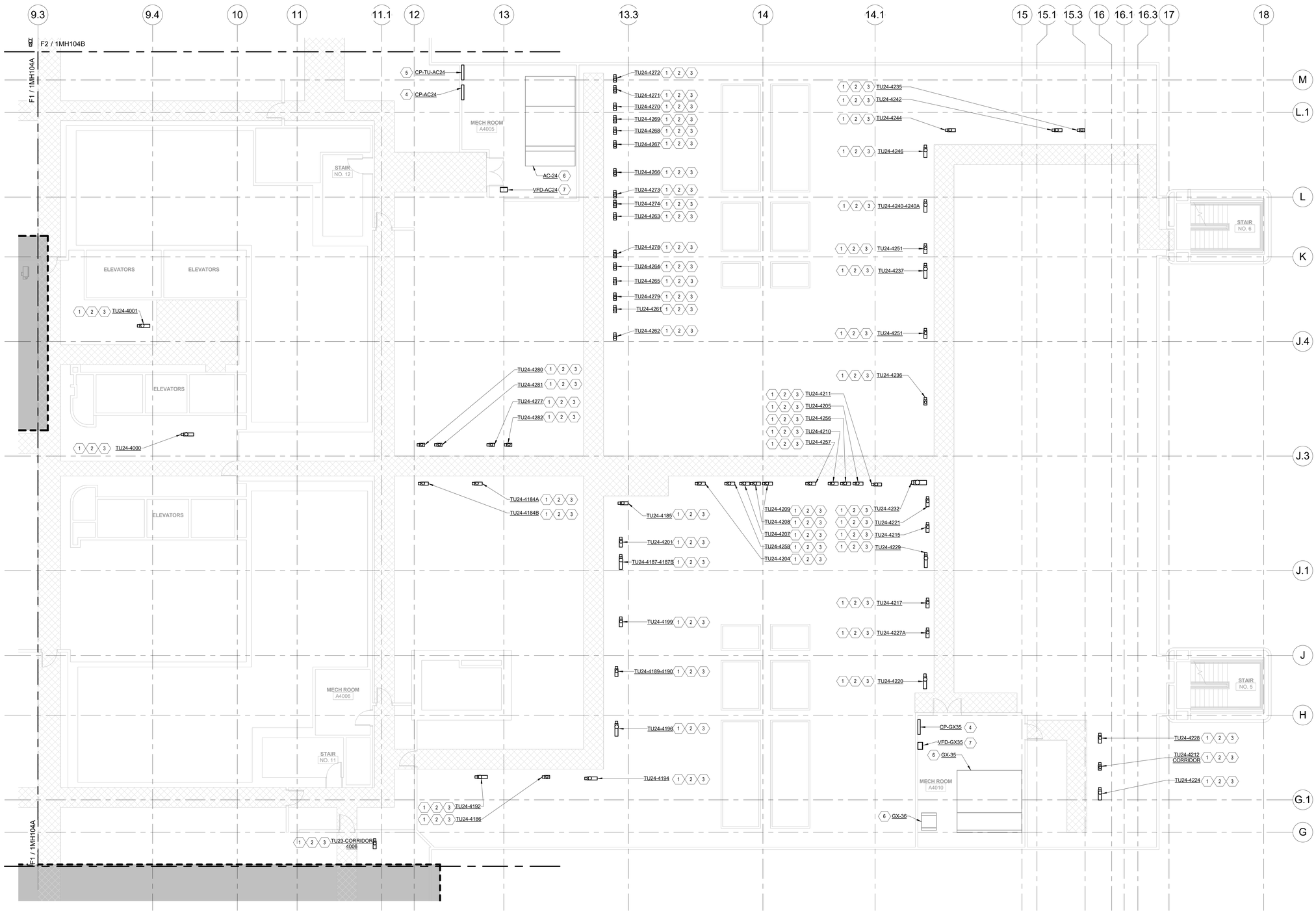
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL HVAC PLAN - FOURTH FLOOR INTERSTITIAL - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH104B
Issue Date: 03/15/2019	Checked: K. Luke
	Drawn: G. Weaver

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:52:12 AM

VA FORM 08 - 6231



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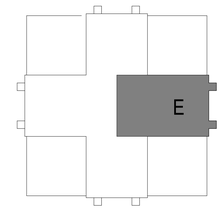

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Office of Construction and Facilities Management

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Drawing Title: MECHANICAL HVAC PLAN - FOURTH FLOOR INTERSTITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH104C
Issue Date: 03/15/2019	Checked: K. Luke
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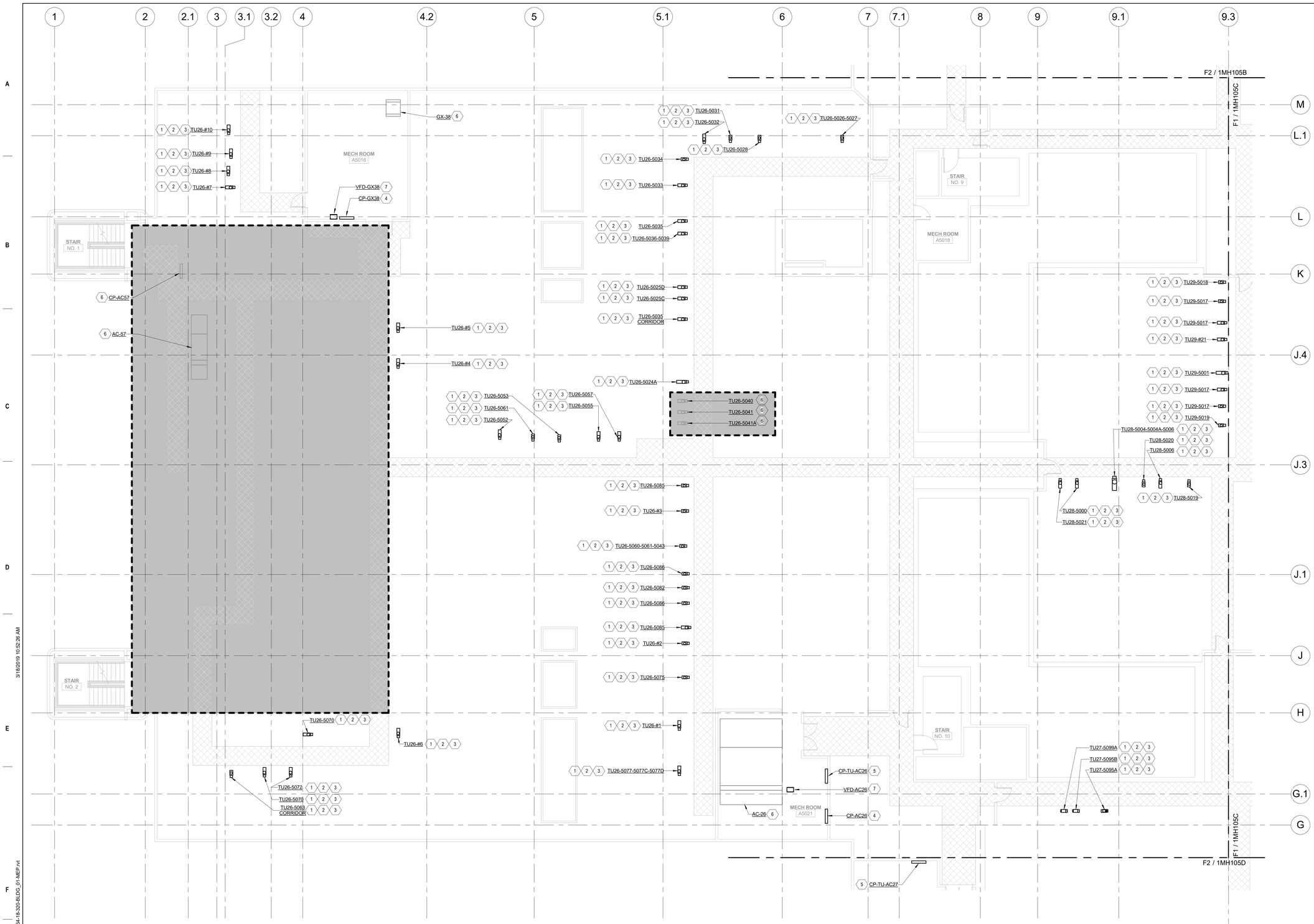
VA FORM 08 - 6231



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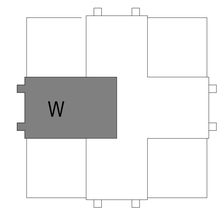

F1 MECHANICAL DUCT PLAN - FIFTH FLOOR INTER. - WEST

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

0' 4' 8' 16'

Revisions:	Date:

CONSULTANT

MECHANICAL:
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5000 E. SPRING STREET, 8TH FLOOR
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Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
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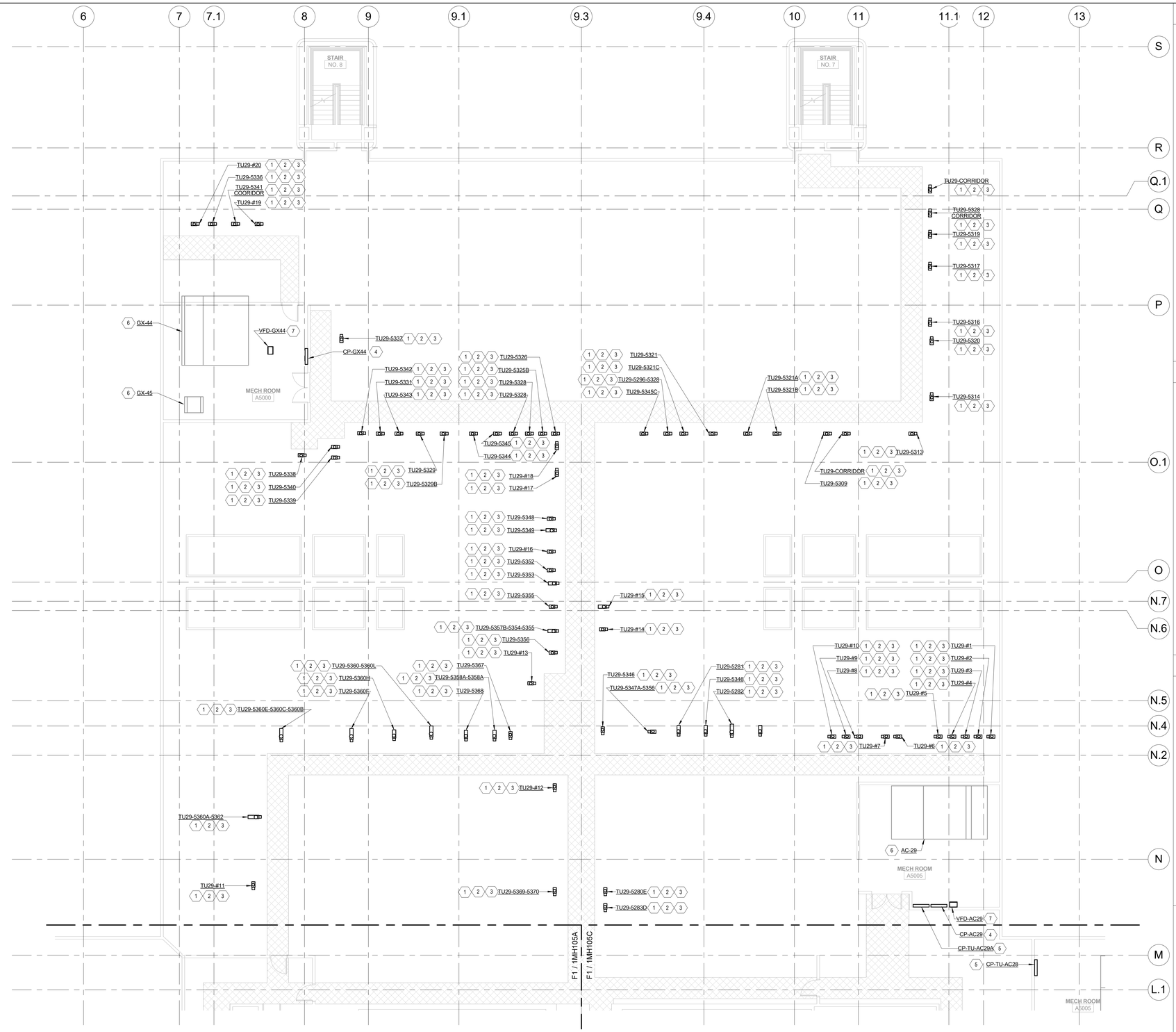

F2 MECHANICAL DUCT PLAN - FIFTH FLOOR INTER. - NORTH

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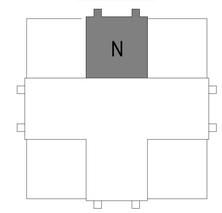
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE AE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

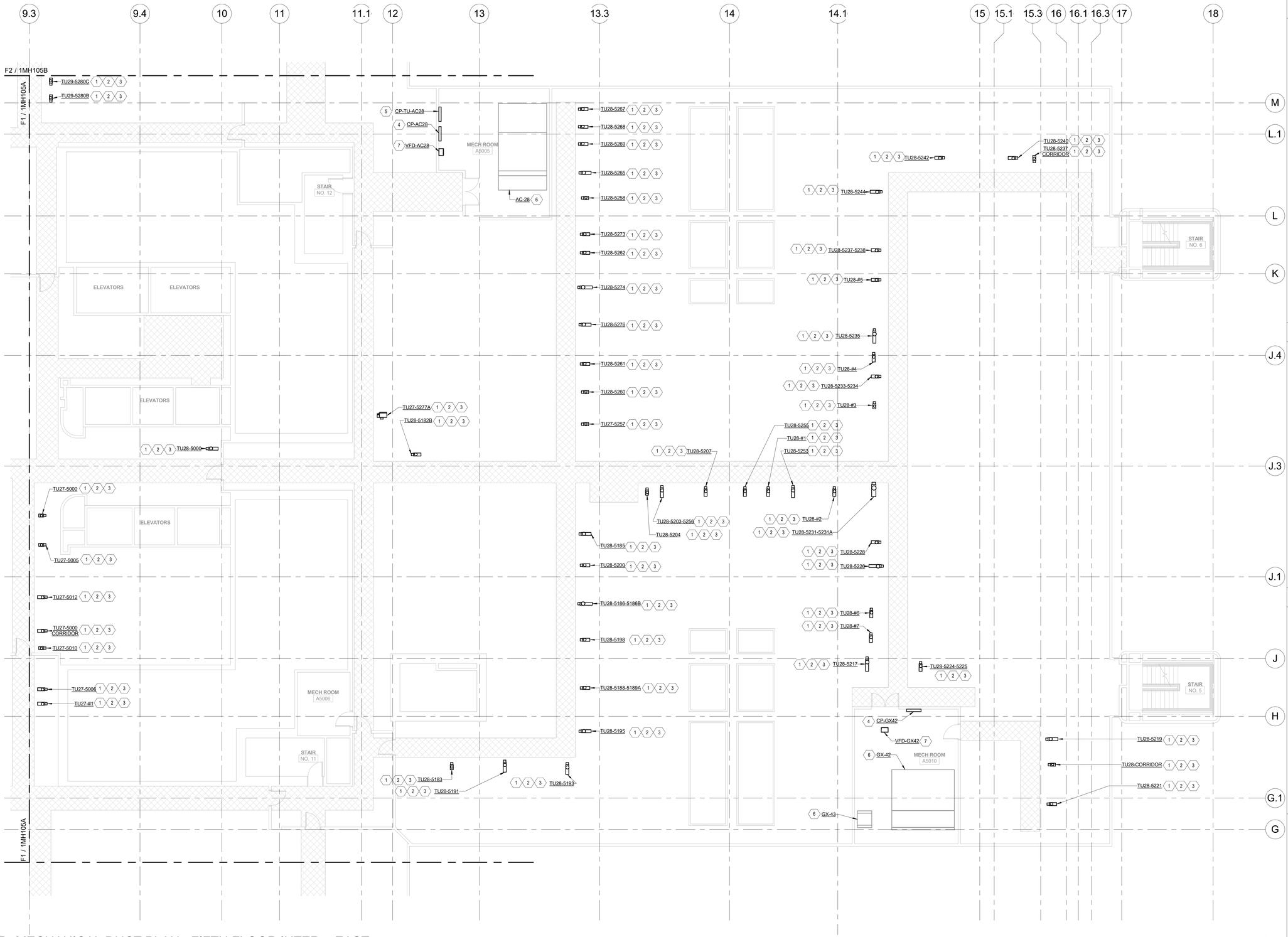
VA U.S. Department of Veterans Affairs

Drawing Title	MECHANICAL HVAC PLAN - FIFTH FLOOR INTERSTITIAL - NORTH
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	K. Luke
Drawn	G. Weaver
Project Number	664-18-320
Building Number	1
Drawing Number	1MH105B

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

3/18/2019 10:52:33 AM

VA FORM 08 - 6231



F1 MECHANICAL DUCT PLAN - FIFTH FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
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H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
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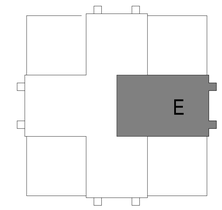
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

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Expires: 6/30/21

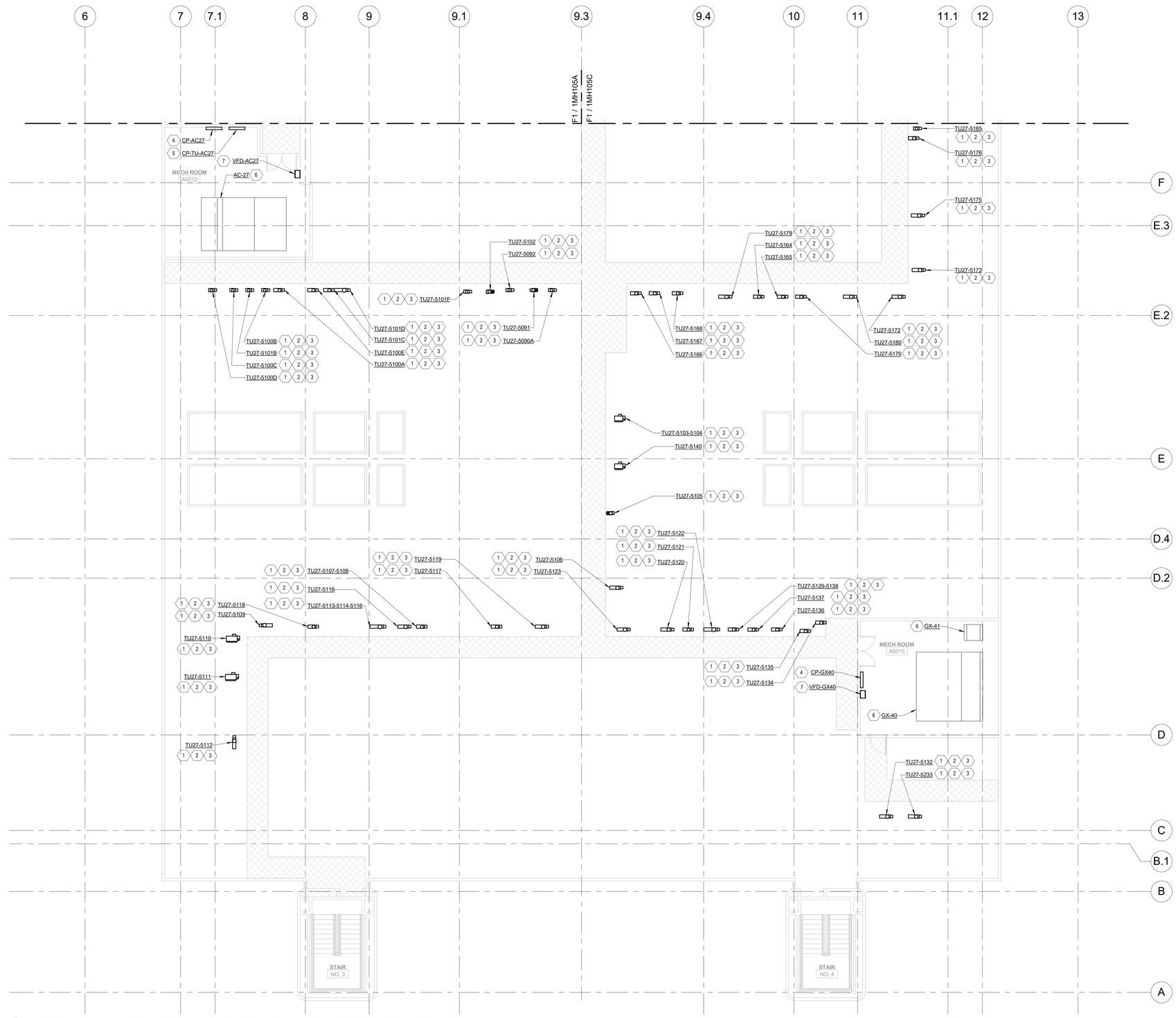
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL HVAC PLAN - FIFTH FLOOR INTERSTITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH105C
Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:52:41 AM



F2 MECHANICAL DUCT PLAN - FIFTH FLOOR INTER. - SOUTH

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

0' 4' 8' 16'

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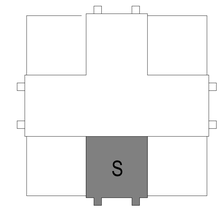
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

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STAMP

REGISTERED PROFESSIONAL ENGINEER
ID 35128
MATHEW R. PERKINS
ELECTRONICALLY SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
MECHANICAL HVAC PLAN - FIFTH FLOOR INTERSTITIAL - SOUTH

Approved:

Phase
ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location
3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date	Checked	Drawn
03/15/2019	K. Luke	G. Weaver

Project Number
664-18-320

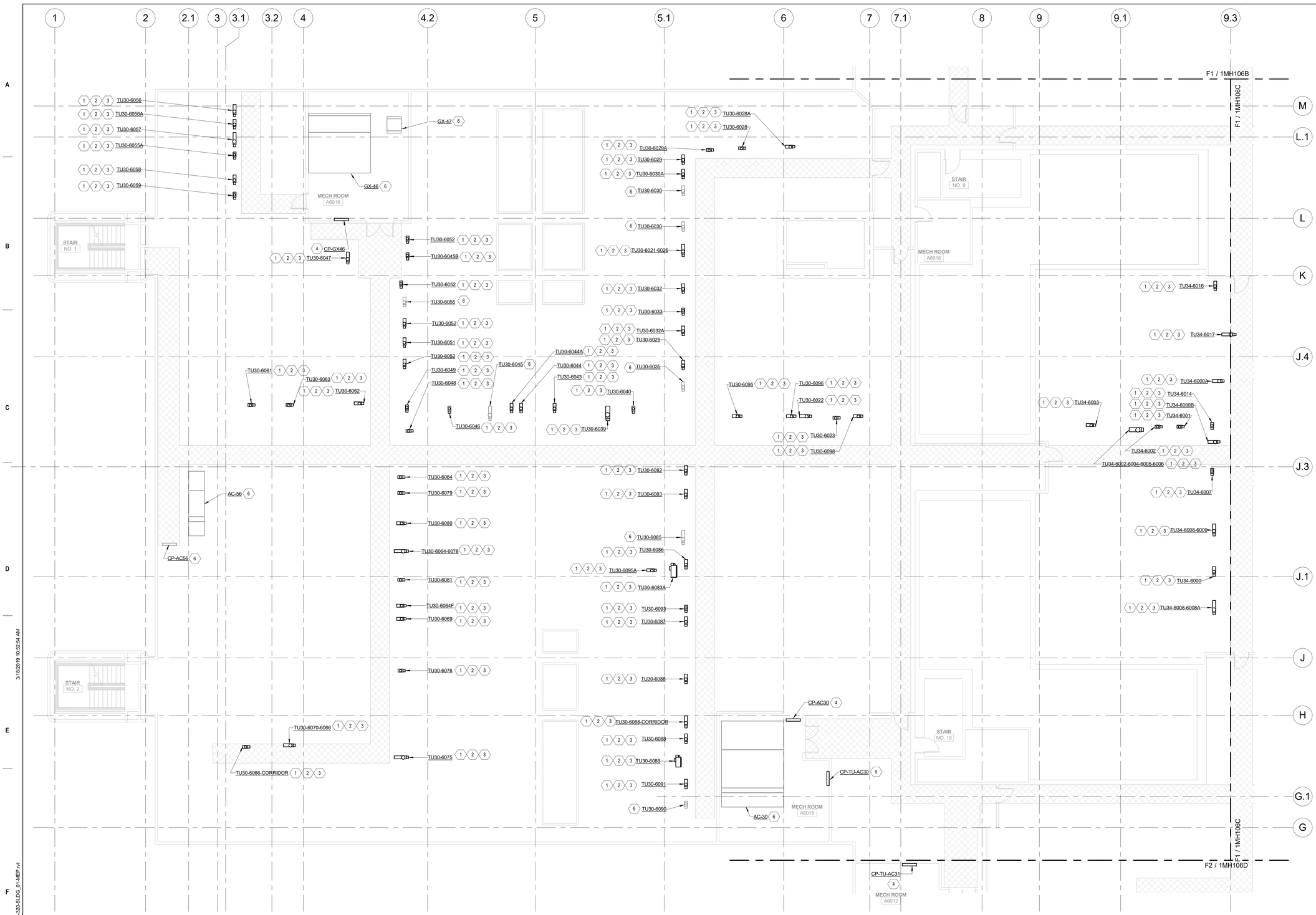
Building Number
1

Drawing Number
1MH105D

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

3/18/2019 10:55:28 AM

VA FORM 08 - 6231



F1 MECHANICAL DUCT PLAN - SIXTH FLOOR INTER. - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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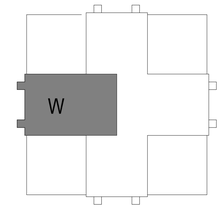

Revisions:	Date:

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Drawing Title	MECHANICAL HVAC PLAN - SIXTH FLOOR INTERSTITIAL - WEST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	K. Luke
Drawn	G. Weaver
Project Number	664-18-320
Building Number	1
Drawing Number	1MH106A

BIM 360/(664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
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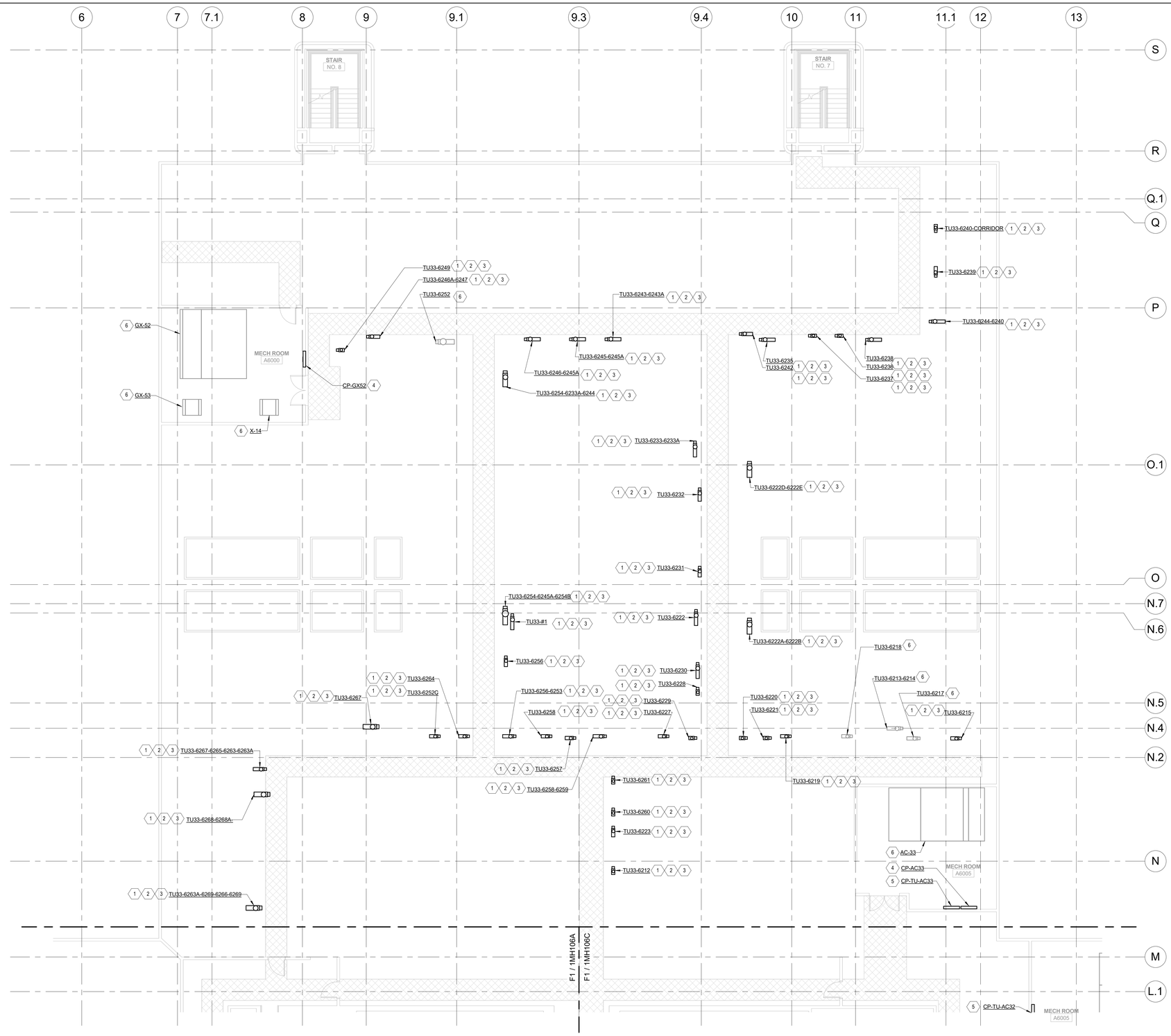

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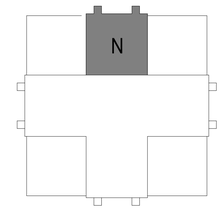
4. PROVIDE NEW CONTROL PANEL FOR EXISTING EQUIPMENT. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROLS SYSTEM BY UTILIZING THE EXISTING CONTROLS COMPONENTS WHERE FEASIBLE AND ADDING DEVICES AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS. REFER TO M-800 SERIES SHEETS FOR CONTROLS. REFER TO ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
5. PROVIDE NEW CONTROL PANEL FOR NEW TERMINAL UNIT CONTROLS HARDWARE. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROLS SYSTEM BY UTILIZING THE EXISTING CONTROLS COMPONENTS WHERE FEASIBLE AND ADDING DEVICES AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS. REFER TO M-800 SERIES SHEETS FOR CONTROLS.
6. EXISTING HVAC EQUIPMENT WITH DIRECT DIGITAL CONTROL (DDC). CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROLS SYSTEM BY UTILIZING THE EXISTING CONTROLS COMPONENTS WHERE FEASIBLE AND ADDING DEVICES AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS. REFER TO M-800 SERIES SHEETS FOR CONTROLS.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

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Mat Perkins

TRIPLE C – THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

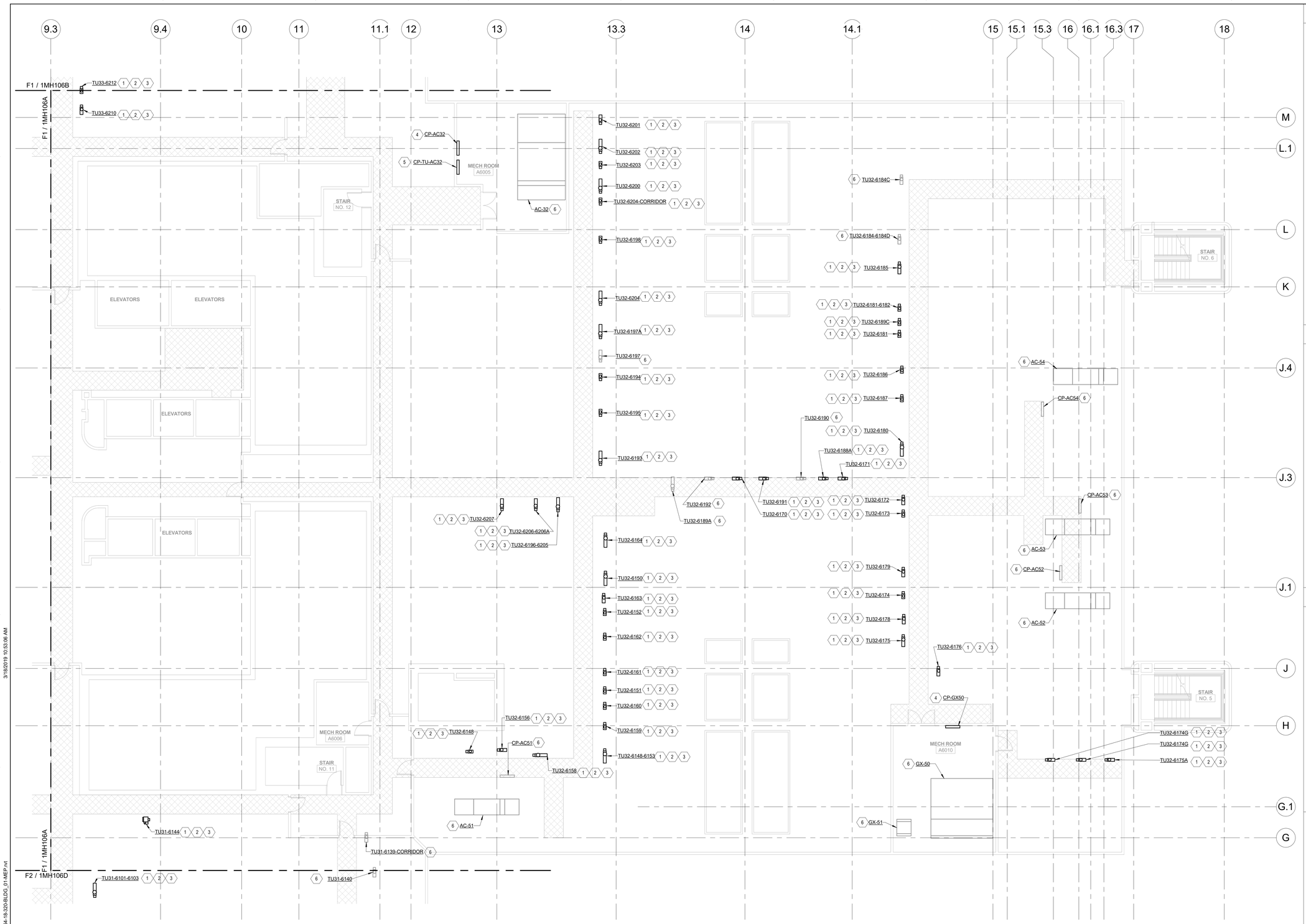
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL HVAC PLAN - SIXTH FLOOR INTERSTITIAL - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH106B
Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP .rvt
3/18/2019 10:53:00 AM

VA FORM 08 - 6231



F1 MECHANICAL DUCT PLAN - SIXTH FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL TERMINAL UNITS SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO EXISTING CATWALK FOR MAINTENANCE AND SERVICEABILITY.
G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
H. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
I. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00 AM TO 4:30 PM..

KEYNOTES

1. PROVIDE NEW TERMINAL UNIT. REFER TO M-800 SERIES SHEETS FOR CONTROLS. SCHEDULES ON M-700 SERIES SHEETS, AND DETAILS ON M-501.
2. CONNECT EXISTING DUCTWORK TO NEW TERMINAL UNIT. PROVIDE TRANSITIONS AS NECESSARY TO MAKE THE CONNECTION AND SEAL AIRTIGHT.
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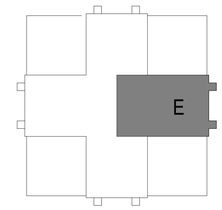
SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
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Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
No. 35126
MATHEW R. PERKINS
CERTIFIED ELECTRONICALLY SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

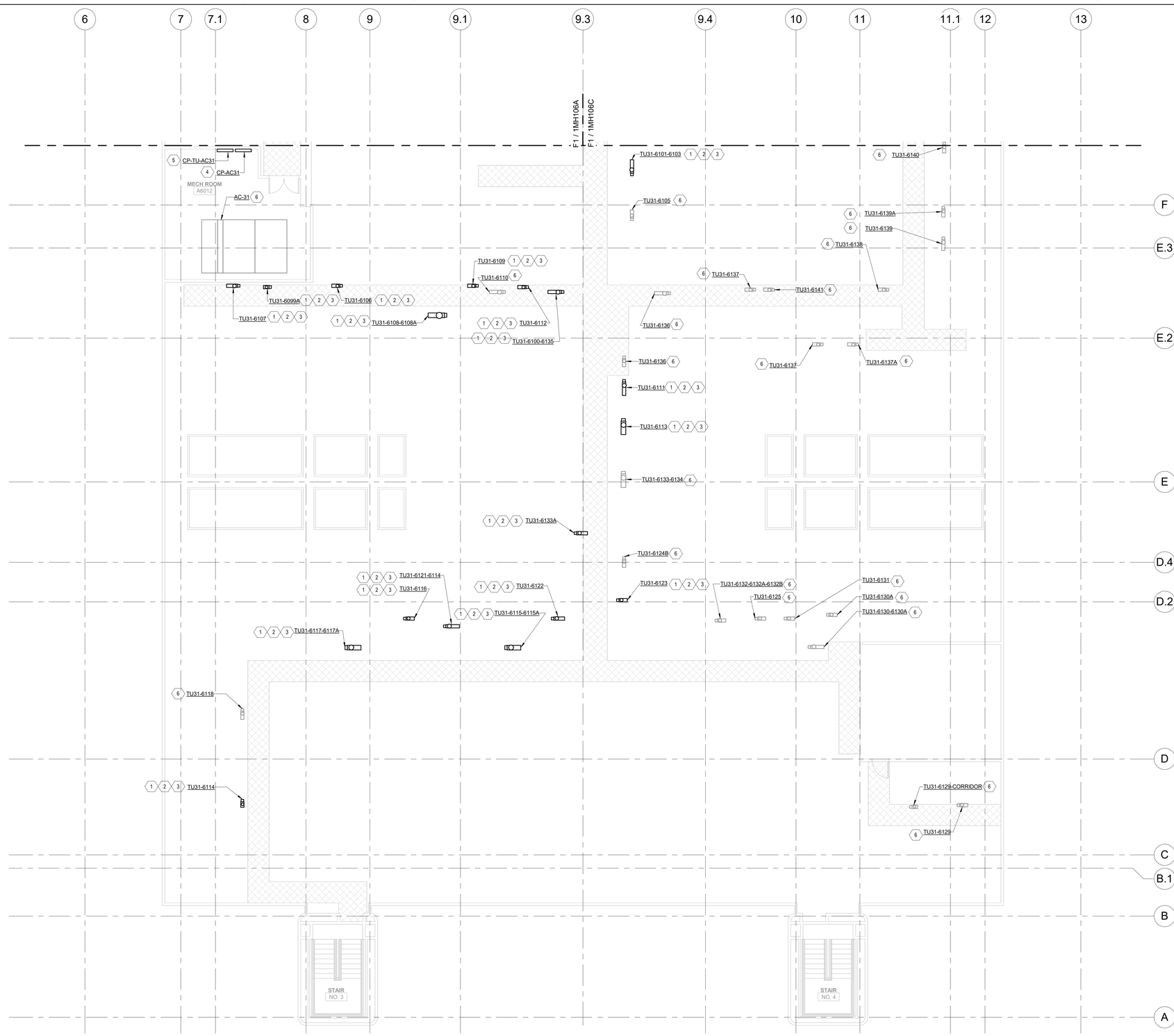
VA U.S. Department of Veterans Affairs

Drawing Title	MECHANICAL HVAC PLAN - SIXTH FLOOR INTERSTITIAL - EAST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	K. Luke
Drawn	G. Weaver
Project Number	664-18-320
Building Number	1
Drawing Number	1MH106C

3/18/2019 10:53:06 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F2 MECHANICAL DUCT PLAN - SIXTH FLOOR INTER. - SOUTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

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G. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
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KEYNOTES

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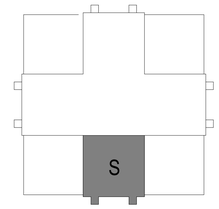
SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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STAMP

REGISTERED PROFESSIONAL ENGINEER
33128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL HVAC PLAN - SIXTH FLOOR INTERSTITIAL - SOUTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1MH106D
Issue Date: 03/15/2019 / Checked: K. Luke / Drawn: G. Weaver	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

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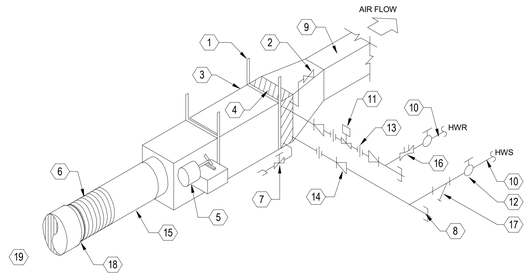
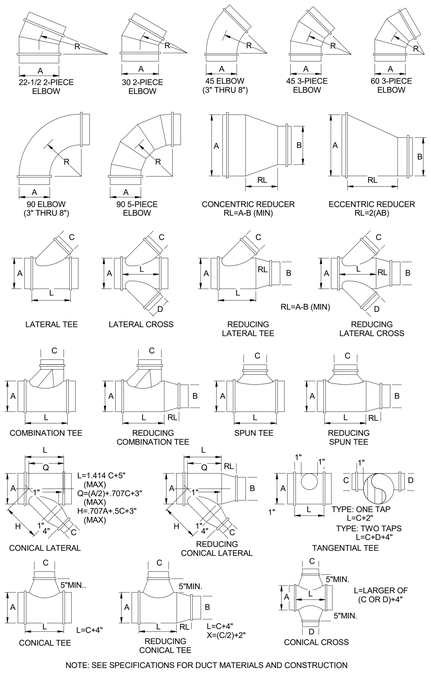
VA FORM 08 - 6231



1. METAL STRAP SUPPORT FROM STRUCTURE (TYPICAL). UTILIZE EXISTING SUPPORT LOCATION.
2. AUTOMATIC AIR VENT ON COIL OR HWR PIPING
3. FACTORY FABRICATED SOUND ATTENUATOR
4. HOT WATER COIL
5. DAMPER ACTUATOR
6. HIGH VELOCITY FLEXIBLE SUPPLY DUCT 12" MIN., 24" MAX.
7. DRAIN
8. TEMPERATURE-PRESSURE FITTING (TYP.)
9. LOW VELOCITY DUCTWORK TO DISTRIBUTION
10. MATCH EXISTING PIPE SIZES AT EACH TERMINAL UNIT LOCATION (TYP.)
11. 2-WAY CONTROL VALVE, NORMALLY CLOSED. FAIL TO COOL
12. BALL VALVE WITH MEMORY STOP FOR BALANCING (TYP)
13. UNION (TYP)
14. REDUCER (TYP)
15. HIGH VELOCITY RIGID SUPPLY DUCT, 3 FT. MINIMUM STRAIGHT RUN PRIOR TO TERMINAL UNIT CONNECTION. MATCH EXISTING DAMPER AND DUCT SIZES
16. FLOW BALANCING VALVE, OR FLOW LIMITING VALVE, SEE SPECIFICATIONS
17. STRAINER
18. TRANSITION FROM 2" LARGER DUCT DIAMETER THAN DAMPER CONNECTION SIZE
19. ALL TAPS FROM MAIN SUPPLY AIR DUCTWORK FOR TERMINAL UNITS SHALL BE MINIMUM 4D DISTANCE FROM THE MAIN DUCT ELBOW AND TRANSITIONS.

C3 TERMINAL UNIT WITH REHEAT COIL - 2-WAY VALVE

SCALE: NONE



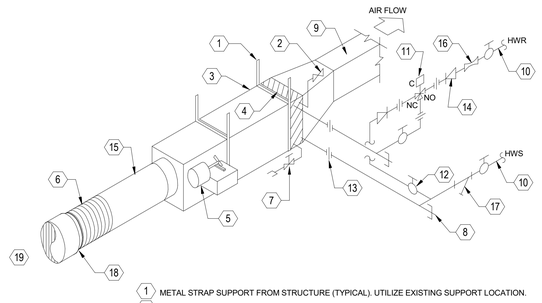
NOTE: SEE SPECIFICATIONS FOR DUCT MATERIALS AND CONSTRUCTION

C6 MEDIUM PRESSURE DUCT DETAIL

SCALE: NONE

C8 EXISTING TERMINAL UNIT WITH DDC

SCALE: NONE



1. METAL STRAP SUPPORT FROM STRUCTURE (TYPICAL). UTILIZE EXISTING SUPPORT LOCATION.
2. AUTOMATIC AIR VENT ON COIL OR HWR PIPING
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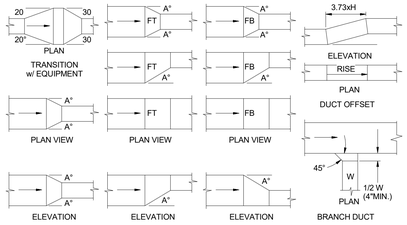
7. DRAIN
8. TEMPERATURE-PRESSURE FITTING (TYP.)
9. LOW VELOCITY DUCTWORK TO DISTRIBUTION
10. MATCH EXISTING PIPE SIZES AT EACH TERMINAL UNIT LOCATION (TYP.)
11. 3-WAY CONTROL VALVE
12. BALL VALVE WITH MEMORY STOP FOR BALANCING (TYP)
13. UNION (TYP)
14. REDUCER (TYP)
15. HIGH VELOCITY RIGID SUPPLY DUCT, 3 FT. MINIMUM STRAIGHT RUN PRIOR TO TERMINAL UNIT CONNECTION. MATCH EXISTING DAMPER AND DUCT SIZES.
16. FLOW BALANCING VALVE, SEE SPECIFICATIONS.
17. STRAINER
18. TRANSITION FROM 2" LARGER DUCT DIAMETER THAN DAMPER CONNECTION
19. ALL TAPS FROM MAIN SUPPLY AIR DUCTWORK FOR TERMINAL UNITS SHALL BE MINIMUM 4D DISTANCE FROM THE MAIN DUCT ELBOW AND TRANSITIONS.

F3 TERMINAL UNIT WITH REHEAT COIL - 3-WAY VALVE

SCALE: NONE



NOTES
1. ANGLE A=30 MAXIMUM WHEN AIR FLOWS IN DIRECTION OF ARROWS. (SUPPLY AIR)
2. ANGLE A=15 WHEN AIR FLOWS IN OPPOSITE DIRECTION OF ARROWS (R.A. OR EXHAUST)

F6 LOW PRESSURE DUCT DETAIL

SCALE: NONE

KEYED NOTES

1. REMOVE EXISTING TERMINAL UNIT.
2. REMOVE EXISTING HOT WATER COIL.
3. REMOVE EXISTING PNEUMATIC CONTROLLER AND TUBING IN ITS ENTIRETY. CAP TUBING AT MAIN.
4. REMOVE EXISTING PNEUMATIC VALVE AND ACTUATOR.
5. REMOVE EXISTING HEATING HOT WATER SUPPLY AND RETURN PIPING AS REQUIRED TO INSTALL NEW VALVES SETS.
6. REMOVE EXISTING MEDIUM PRESSURE DUCTWORK AS REQUIRED TO MAKE CONNECT TO NEW TERMINAL UNIT.
7. REMOVE EXISTING LOW VELOCITY DUCTWORK AS REQUIRED TO MAKE CONNECT TO NEW TERMINAL UNIT.
8. REMOVE EXISTING THERMOSTAT LOCATED IN ROOM BELOW AND TUBING IN ITS ENTIRETY.
9. PROVIDE NEW TERMINAL UNIT AND CONTROLS PER M-700 SERIES AND M-800 SERIES SHEETS.

F8 TYPICAL TERMINAL UNIT REPLACEMENT

SCALE: NONE

Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

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ARIZONA U.S.A.
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DETAILS

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019
Checked: K. Luke
Drawn: G. Weaver

Project Number: 664-18-320
Building Number: 1
Drawing Number: 1M-501

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:45:00 AM

VA FORM 08 - 6231

NEW TERMINAL UNIT SCHEDULE - L0

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
AC-2															
TU2-01	AC-2	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 7, 8, 9, 10
TU2-02	AC-2	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 7, 8, 9, 10
TU2-128-185	AC-2	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 7, 8, 9, 10
AC-4															
TU4-105	AC-4	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 5, 7, 8, 9, 10
TU4-112B	AC-4	KC	Yes	No	5200-6400	5800 CFM	20"	4.35 SF	31200 Btu/h	31.20 GPM					3, 5, 7, 8, 9, 10
TU4-197	AC-4	EC	Yes	No	1000-1600	1300 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					3, 5, 7, 8, 9, 10
TU4-215-223	AC-4	KC	Yes	No	5200-6400	5800 CFM	20"	4.35 SF	31200 Btu/h	31.20 GPM					4, 5, 7, 8, 9, 10
TU4-225-226	AC-4	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 5, 7, 8, 9, 10
TU4-229	AC-4	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 5, 7, 8, 9, 10
TU4-232-234	AC-4	EC	Yes	No	1000-1600	1300 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					4, 5, 7, 8, 9, 10
TU4-233-232A	AC-4	EC	Yes	No	1000-1600	1300 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					4, 5, 7, 8, 9, 10
11															

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
G. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
H. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00AM TO 4:30PM.
I. BASED ON RECORD DRAWINGS, TERMINAL UNITS WITH A SUPPLY AIR FLOW LESS THAN THE RECOMMENDED RANGE INDICATED ON THE SCHEDULE ARE NOT BEING OPERATED AT FULL CAPACITY. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
J. SUPPLY AIR FLOW COULD NOT BE DETERMINED FROM THE AS-BUILTS FOR TERMINAL UNITS SCHEDULED WITH 0 CFM. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
K. BASIS OF DESIGN SINGLE DUCT TERMINAL UNIT WITH REHEAT COIL IS SHOWN BELOW (OR APPROVED EQUAL). CONTRACTOR SHALL PREPARE SEPARATE SUBMITTALS FOR EACH SIZE AND CONFIGURATION ACCORDING TO THE SCHEDULE AND IN ACCORDANCE WITH SPECIFICATION SECTION 23 36 00.

TERMINAL UNIT KEYNOTES

1. THE TERMINAL UNIT "MARK", **TUXX-YYYY-ZZZZ** INDICATES THE AIR HANDLING UNIT SUPPLYING THE TU AND THE ROOM NUMBER SUPPLIED BY THE TU. AS FOLLOWS: "XX" IS THE IDENTIFICATION NUMBER OF THE AIR HANDLING UNIT SUPPLYING THE TU; "YYYY" IS THE ROOM NUMBER SUPPLIED BY THE TU WITH THERMOSTATIC CONTROL; AND "ZZZZ" ARE ADDITIONAL ROOMS SUPPLIED BY THE TU. (SEE MECHANICAL DUCT PLANS FOR TERMINAL UNIT LOCATIONS IN THE INTERSTITIAL SPACE ABOVE THE FLOOR SERVED BY EACH TU.) ROOM NUMBERS FOR UNITS SCHEDULED WITH #1 SHALL BE FIELD VERIFIED.
2. TERMINAL UNIT "TYPE" IS BASED ON VA RECORD DRAWINGS OF EXISTING TU AND INDICATES THE SIZE AND TYPE OF EACH TU, AS FOLLOWS:
3. FIRST LETTER - SUPPLY AIR INLET DUCT DIAMETER, WHERE **A = 6", B = 7", C = 8", D = 9", E = 11", F = 14", G = 15" or 18" x 10", H = 18" or 18" x 14", J = 18" x 16", K = 24" x 16"**
4. SECOND LETTER - CONTROL TYPE, WHERE **C = CONSTANT AIR VOLUME AND V = VARIABLE AIR VOLUME.**
5. CONTRACTOR IS TO PROVIDE A NEW, DDC CONTROLLED TERMINAL UNIT MATCHING THE TYPE AND FLOW OF THE EXISTING UNIT IN THE SAME LOCATION SUPPLYING THE SAME SUPPLY DUCTWORK AND DIFFUSERS
6. NEW DIGITAL THERMOSTATS ARE TO BE SUPPLIED IN THE SAME LOCATION (ROOM AND MOUNTING) AS EXISTING PNEUMATIC THERMOSTATS REMOVED UNDER THIS CONTRACT. COORDINATE FINAL LOCATIONS WITH VA. (SEE ARCHITECTURAL FLOOR PLANS.)
7. TERMINAL UNIT TYPES, SIZES, WATER AND AIR FLOW RATES ARE BASED ON LIDAR FIELD SURVEYS AND AS-BUILT DOCUMENTATION AND THE CONTRACTOR SHALL VERIFY OPERATING RANGES AND/OR SETPOINTS PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
8. ALL EXISTING TERMINAL UNITS HAVE A MINIMUM INLET STATIC PRESSURE OF 1" W.G. AND A HEATING HOT WATER DELTA T OF 20 DEGREES F. NEW TERMINAL UNITS SHALL MATCH EXISTING PERFORMANCE.

SCHEDULE NOTES

1. LOCATION: WEST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
2. LOCATION: NORTHWEST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
3. LOCATION: NORTHEAST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
4. LOCATION: EAST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
5. TERMINAL UNIT AIR FLOW RATE AND INLET DUCT SIZE DOCUMENTED FROM VA SUPPLIED AS-BUILT DRAWINGS.
6. AS-BUILT DRAWINGS DO NOT INDICATE TERMINAL UNIT SIZE, CONTRACTOR TO FIELD VERIFY.
7. AS-BUILT DRAWINGS DO NOT INDICATE AIR FLOW RATE, CONTRACTOR TO FIELD VERIFY.
8. CONTRACTOR TO PROVIDE PRE-CONSTRUCTION TAB REPORT TO VERIFY: EXISTING AIR FLOW RATE; EXISTING HEATING HOT WATER FLOW RATE AND EXISTING INLET/OULET DUCT DIMENSIONS.
9. PROVIDE NEW TERMINAL UNIT MATCHING EXISTING AIR FLOW, EXISTING HEATING HOT WATER FLOW AND INLET/OUTLET DUCT DIMENSIONS.
10. CONTRACTOR TO PROVIDE POST-CONSTRUCTION TAB REPORT TO VERIFY AIR FLOW RATE. HEATING WATER FLOW RATE MATCHES PRE-CONSTRUCTION TAB REPORT.
11. PROVIDE NEW 120/24V TRANSFORMER WITH EACH NEW TERMINAL UNIT.

SINGLE DUCT CONSTANT VOLUME AND VARIABLE AIR VOLUME TERMINAL UNITS WITH HOT WATER REHEAT COILS: FURNISH AND INSTALL SINGLE DUCT CONSTANT VOLUME OR VARIABLE AIR VOLUME CONTROL ASSEMBLIES OF SIZES AND CAPACITIES SHOWN ON THE SCHEDULES AND AS DETERMINED BY THE PRE-CONSTRUCTION TAB REPORT. ALL UNITS SHALL BE CAPABLE OF CONSTANT VOLUME OPERATION UP TO THE MAXIMUM AIR AND HOT WATER FLOW RATES OF THE EXISTING TERMINAL UNITS. TERMINAL UNITS SHALL BE ABLE TO OPERATE IN CONSTANT OR VARIABLE VOLUME CONTROL MODE TO ACCOUNT FOR THE RECONFIUGRATION OF THE SPACES THEY SERVE. VALVE ASSEMBLY SHALL BE NORMALLY OPEN ARRANGEMENT, PRESSURE INDEPENDENT AND SHALL BE CAPABLE OF FIELD RESET TO ANY DESIRED AIR FLOW BETWEEN ZERO AND THE MAXIMUM SCHEDULED CFM. ALL TERMINAL UNITS SHALL BE FURNISHED WITH ACOUSTICALLY LINED CASING CONSTRUCTED OF 22 GAUGE GALVANIZED STEEL INTERNAL LINING OF 1" THICKNESS, 1-1/2 POUND DENSITY, UL181 AND ASTM C1071 REQUIREMENTS. EACH UNIT SHALL BE FURNISHED WITH A FACTORY ATTENUATOR SECTION HAVING THE SAME CONSTRUCTION AND LINER AS ABOVE. DAMPER BLADE SHALL BE CONSTRUCTED OF EXTRUDED ALUMINUM WITH RUSTPROOF SELF-LUBRICATING BEARINGS. DAMPER SHALL SEAL AGAINST GASKETED STOPS. THE DAMPER LEAKAGE SHALL BE CERTIFIED TO NOT EXCEED 2 PERCENT LEAKAGE AT 6" INLET STATIC PRESSURE AS DETERMINED BY AIR DIFFUSION COUNCIL STANDARDS. A FLOW MEASURING PROBE SHALL BE INSTALLED IN THE UNIT INTAKE AND PROVIDE TOTAL AND STATIC PRESSURE CONNECTIONS ON THE INLET COLLAR EXTERIOR. SOUND RATINGS SHALL NOT EXCEED THOSE SCHEDULED AT 3" STATIC PRESSURE. RADIATED NOISE CRITERIA ADDITIONALLY ASSUMES A CEILING STC OF 35-39. ALL UNITS SHALL BE RATED FOR A MINIMUM INLET STATIC PRESSURE OF 1" W.G. TERMINALS SHALL BE SHIPPED WITH APPROPRIATE IDENTIFICATION INCLUDING MODEL, SIZE AND CFM MARKED ON THE UNIT. SEE FLOOR PLANS FOR LOCATION AND SCHEDULES FOR THE MAXIMUM AND MINIMUM AIR FLOW REQUIREMENTS AND HEATING WATER GPM OF EACH UNIT. PERMANENTLY AFFIXED ENGRAVED METAL NAMEPLATE CONTAINING MODEL AND SERIAL NUMBER.

UNITS SHALL BE PRICE, KRUEGER, TITUS, OR APPROVED EQUIVALENT.

HEATING: COILS SHALL BE 2 ROWS MINIMUM SELECTED FOR HOT WATER DUTY AT 200 DEGREES F EWT, 180 DEGREED F LWT, AND SHALL BE CAPABLE OF RAISING THE MINIMUM AIR FLOW SCHEDULED ON THE DRAWINGS FROM 55 DEGREES EAT TO 95 DEGREES LAT, USING 4.3 GPM PER 1000 CFM OF AIR FLOW. COILS SHALL BE SELECTED FOR SAME END CONNECTIONS, ARI CERTIFIED, AND SELECTED SUCH THAT MAXIMUM STATIC PRESSURE DROP THROUGH THE ENTIRE VAV REHEAT ASSEMBLY SHALL NOT EXCEED 0.55" APD. WATER PD THROUGH COIL SHALL NOT EXCEED 3'.

TERMINAL UNIT CONTROLS: UNIT CONTROL SYSTEM (VMA 1832 OR APPROVED EQUAL) SHALL INCLUDE DIRECT DIGITAL VARIABLE VOLUME TERMINAL UNIT CONTROLLER MOUNTED IN NEMA 1 ENCLOSURE, 120/24 VAC CONTROL TRANSFORMER SIZED FOR THE REQUIRED CONTROL 24 VAC LOADS, A DETAILED POINT TO POINT WIRING DIAGRAM, AND 24 VAC FLOATING POINT AIR VALVE ACTUATOR AND HOT WATER REHEAT COIL CONTROL VALVE WITH ELECTRONIC FULLY MODULATING ACTUATOR SHALL BE FURNISHED AND INSTALLED BY TEMPERATURE CONTROL SUB-CONTRACTOR UNDER SPECIFICATION SECTION 23 09 23. SECTION 23 09 23 SHALL PROVIDE AND CONNECT ALL CONTROL WIRING, SAFETY DISCONNECT, TRANSFORMER SECONDARY FUSING, ETC. IN ACCORDANCE WITH THE DETAILED POINT TO POINT WIRING DIAGRAM, AND PERFORM A PRELIMINARY STARTUP AND TESTING PROCEDURE ON THE INSTALLED ASSEMBLY. THE TERMINAL UNIT HOT WATER VALVE SHALL BE FURNISHED UNDER SECTION 23 09 23 FOR FIELD PIPING INSTALLATION BY THE CONTRACTOR. ALL REQUIRED DDC SYSTEM COMMUNICATIONS WIRING, AND SPACE TEMPERATURE SENSOR STATION SHALL BE SUPPLIED AND INSTALLED UNDER SECTION 23 09 23.

CFM RANGE	BOX INLET DIAMETER INCHES	FLEXIBLE DUCT INCHES	PRESSURE DROP AT MAX CFM
75 - 200	6	8	0.55
200 - 400	7	9	0.55
400 - 600	8	10	0.55
600 - 1000	9	11	0.55
1000 - 1600	11	13	0.55
1600 - 2000	14	16	0.55
2000 - 3400	15	17	0.55
3400 - 4200	18	20	0.55
5200 - 6400	24x16	20	0.55

Revisions:	Date:

CONSULTANT

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STAMP

REGISTERED PROFESSIONAL ENGINEER
SP126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL SCHEDULES - BASEMENT

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019 | Checked: M. Perkins | Drawn: K. Luke

Project Number: 664-18-320

Building Number: 1

Drawing Number: 1M-701

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

3/18/2019 10:45:05 AM

VA FORM 08 - 6231

NEW TERMINAL UNIT SCHEDULE - L1

MARK	AHU ID#	TYPE ID	TYPE CAV	TYPE VAV	AS-BUILT SPECIFICATIONS CFM RANGE	AS-BUILT SPECIFICATIONS CFM	AS-BUILT SPECIFICATIONS SIZE	AS-BUILT SPECIFICATIONS COIL AREA	AS-BUILT SPECIFICATIONS COIL CAPACITY	AS-BUILT SPECIFICATIONS COIL FLOW	PRE-CONSTRUCTION TAB CFM	PRE-CONSTRUCTION TAB GPM	POST-CONSTRUCTION TAB CFM	POST-CONSTRUCTION TAB GPM	NOTES
AC-5															
TU5-1589	AC-5	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU5-1591	AC-5	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU5-1592	AC-5	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU5-1593B	AC-5	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					5, 7, 8, 9, 10, 11, 12
TU5-1595	AC-5	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU5-1596	AC-5	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU5-1597 CORRIDOR	AC-5	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 7, 8, 9, 10, 11, 12
TU5-1599	AC-5	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU5-1600	AC-5	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
AC-6															
TU6-1000-1001	AC-6	EC	Yes	No	1000-1600	1300 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1001 CORRIDOR	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1304	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU6-1326A	AC-6	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
TU6-1350	AC-6	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 7, 8, 9, 10, 11, 12
TU6-1352	AC-6	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
TU6-1401	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU6-1402	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU6-1496	AC-6	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 7, 8, 9, 10, 11, 12
TU6-1497	AC-6	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 7, 8, 9, 10, 11, 12
TU6-1498	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU6-1499A	AC-6	FC	Yes	No	1600-2000	1800 CFM	14"	1.82 SF	87000 Btu/h	8.70 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1499E	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1500	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1501	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1502	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1503	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1503	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1503	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1507	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1508	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1509	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1510	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-1522	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-#1	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-#2	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-#3	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-#4	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-#5	AC-6	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 7, 8, 9, 10, 11, 12
TU6-#6	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-#7	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-#8	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-#9	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
TU6-#10	AC-6	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 7, 8, 9, 10, 11, 12
AC-7															
TU7-1035	AC-7	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1088	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1092	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1108	AC-7	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1110	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1117	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1118	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1119	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1119	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1119	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1120	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1122	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1123	AC-7	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1123	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1123	AC-7	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1125	AC-7	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1128	AC-7	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					6, 7, 8, 9, 10, 11, 12
TU7-1129	AC-7	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					6, 7, 8, 9, 10, 11, 12
AC-8															
TU8-1145 CORRIDOR	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU8-1145A	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU8-1145B	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU8-1145D	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1146	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1146	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1147	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1148	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1149	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1150	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1151	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1151	AC-8	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1151	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1152	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1153	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1154	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1155	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1156	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1160	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1161	AC-8	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1162	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1163	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1164	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1166	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1167	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1167A	AC-8	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1168	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1168A	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1169	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1171	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12

NEW TERMINAL UNIT SCHEDULE - L1

MARK	AHU ID#	TYPE ID	TYPE CAV	TYPE VAV	AS-BUILT SPECIFICATIONS CFM RANGE	AS-BUILT SPECIFICATIONS CFM	AS-BUILT SPECIFICATIONS SIZE	AS-BUILT SPECIFICATIONS COIL AREA	AS-BUILT SPECIFICATIONS COIL CAPACITY	AS-BUILT SPECIFICATIONS COIL FLOW	PRE-CONSTRUCTION TAB CFM	PRE-CONSTRUCTION TAB GPM	POST-CONSTRUCTION TAB CFM	POST-CONSTRUCTION TAB GPM	NOTES
TU8-1171	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1172	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1174	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1174	AC-8	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1174B	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1174B	AC-8	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1174B	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU8-1174B	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					6, 7, 8, 9, 10, 11, 12
TU8-1174C	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1174C	AC-8	BC	Yes	No	200-400	350 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					6, 7, 8, 9, 10, 11, 12
TU8-1174D	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1281	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1285	AC-8	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1285A	AC-8	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU8-1351	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU8-#1	AC-8	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
AC-9															
TU9-1218	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1220	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1220A	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1220A	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1220B	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1220C	AC-9	DC	Yes	No	600-1000	800 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1220C	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1221 CORRIDOR	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1221 CORRIDOR	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1226	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1227	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1229	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1229	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1230	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1230	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1231	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1231	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1231	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1231	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1231A	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1231B	AC-9	AC	Yes	No	75-200	300 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1232-1234	AC-9	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1233	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1233A	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1235	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1235	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1235	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1236	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1238	AC-9	DC	Yes	No	600-1000	800 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1240	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1241	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1242	AC-9	EC	Yes	No	1000-1600	1300 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1242	AC-9	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1242A	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1242B	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1242C	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU9-1242D	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1242D	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1242D	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1243	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1244	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1246	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1247	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1247	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1248	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1248	AC-9	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1252	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
TU9-1253	AC-9	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 7, 8, 9, 10, 11, 12
AC-10															
TU10-1239	AC-10	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU10-1272	AC-10	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU10-1273	AC-10	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU10-1274	AC-10	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU10-1275-1294	AC-10	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h

NEW TERMINAL UNIT SCHEDULE - L1 (CONTINUED)

so much for a	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
AC-11															
TU11-1400	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400 CORRIDOR	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400A	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400B	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400D	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400E	AC-11	AC	Yes	No	75-200	200 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400F	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400G	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400H	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400J	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400K	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400M	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1400N-1400P	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
TU11-1406	AC-11	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 7, 8, 9, 10, 11, 12
AC-12															
TU12-1413	AC-12	DC	Yes	No	600-1000	800 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 7, 8, 9, 10, 11, 12
TU12-1414	AC-12	FC	Yes	No	1600-2000	1800 CFM	14"	1.82 SF	87000 Btu/h	8.70 GPM					4, 7, 8, 9, 10, 11, 12
TU12-1419	AC-12	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU12-1420-1423	AC-12	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
TU12-1422	AC-12	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU12-1426	AC-12	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU12-1427	AC-12	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
TU12-1429	AC-12	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
AC-13															
TU13-1421 CORRIDOR	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1433	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1434	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1435	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1436 CORRIDOR	AC-13	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1438	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1439	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1440	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1442	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1443	AC-13	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1443	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1444A	AC-13	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1446	AC-13	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1446	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1447	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1448	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1449	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1451	AC-13	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1452	AC-13	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1453	AC-13	DC	Yes	No	600-1000	800 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1455	AC-13	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1455A	AC-13	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1456	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1469	AC-13	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1483	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1488	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1491	AC-13	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1493D-1493E	AC-13	FC	Yes	No	1600-2000	1800 CFM	14"	1.82 SF	87000 Btu/h	8.70 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1493F	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1493G	AC-13	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 7, 8, 9, 10, 11, 12
TU13-1494,A,C,I	AC-13	DC	Yes	No	600-1000	800 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 7, 8, 9, 10, 11, 12
AC-37															
TU37-1700 CORRIDOR	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1701	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1701	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1704	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1704	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1706	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1707	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1708	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1709	AC-37	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1710	AC-37	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1711-1712	AC-37	CC	Yes	No	400-600	0 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1714	AC-37	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1714	AC-37	CC	Yes	No	400-600	300 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1714A	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1714A	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1714A	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1714A	AC-37	CC	Yes	No	400-600	300 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1715	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1715	AC-37	DC	Yes	No	600-1000	900 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1715A	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1715A	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1801	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1804-1805	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1806	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1808	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1809	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1810	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1811	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1812	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1813	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1814	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1815	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1815	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1816	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1818-1816	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1820	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1821	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1822	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12

NEW TERMINAL UNIT SCHEDULE - L1 (CONTINUED)

so much for a	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
TU37-1823	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1828	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1829	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1832	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1833	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1834 CORRIDOR	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1834 CORRIDOR	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1835	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1837A	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1840-1839	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1842	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-1847-1824	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#1	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#2	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#3	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#4	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#5	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#6	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#7	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#8	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#9	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#10	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#11	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#12	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#13	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#14	AC-37	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#15	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#16	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#17	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12
TU37-#18	AC-37	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 7, 8, 9, 10, 11, 12

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.

B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.

C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.

E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.

F. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.

G. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.

H. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00AM TO 4:30PM.

I. BASED ON RECORD DRAWINGS, TERMINAL UNITS WITH A SUPPLY AIR FLOW LESS THAN THE RECOMMENDED RANGE INDICATED ON THE SCHEDULE ARE NOT BEING OPERATED AT FULL CAPACITY. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.

J. SUPPLY AIR FLOW COULD NOT BE DETERMINED FROM THE AS-BUILTS FOR TERMINAL UNITS SCHEDULED WITH 0 CFM. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.

K. BASIS OF DESIGN SINGLE DUCT TERMINAL UNIT WITH REHEAT COIL IS SHOWN BELOW (OR APPROVED EQUAL). CONTRACTOR SHALL PREPARE SEPARATE SUBMITTALS FOR EACH SIZE AND CONFIGURATION ACCORDING TO THE SCHEDULE AND IN ACCORDANCE WITH SPECIFICATION SECTION 23 36 00.

TERMINAL UNIT KEYNOTES

1. THE TERMINAL UNIT "MARK", **TUXX-YYYY-ZZZZ** INDICATES THE AIR HANDLING UNIT SUPPLYING THE TU AND THE ROOM NUMBER SUPPLIED BY THE TU, AS FOLLOWS: "XX" IS THE IDENTIFICATION NUMBER OF THE AIR HANDLING UNIT SUPPLYING THE TU; "YYYY" IS THE ROOM NUMBER SUPPLIED BY THE TU WITH THERMOSTATIC CONTROL; AND "ZZZZ" ARE ADDITIONAL ROOMS SUPPLIED BY THE TU. (SEE MECHANICAL DUCT PLANS FOR TERMINAL UNIT LOCATIONS IN THE INTERSTITIAL SPACE ABOVE THE FLOOR SERVED BY EACH TU.) ROOM NUMBERS FOR UNITS SCHEDULED WITH #1 SHALL BE FIELD VERIFIED.
2. TERMINAL UNIT "TYPE" IS BASED ON VA RECORD DRAWINGS OF EXISTING TU AND INDICATES THE SIZE AND TYPE OF EACH TU, AS FOLLOWS:
3. FIRST LETTER - SUPPLY AIR INLET DUCT DIAMETER, WHERE **A = 6", B = 7", C = 8", D = 9", E = 11", F = 14", G = 15" or 18" x 10", H = 18" or 18" x 14", J = 18" x 16", K = 24" x 16"**
4. SECOND LETTER - CONTROL TYPE, WHERE **C = CONSTANT AIR VOLUME AND V = VARIABLE AIR VOLUME.**
5. CONTRACTOR IS TO PROVIDE A NEW, DDC CONTROLLED TERMINAL UNIT MATCHING THE TYPE AND FLOW OF THE EXISTING UNIT IN THE SAME LOCATION SUPPLYING THE SAME SUPPLY DUCTWORK AND DIFFUSERS
6. NEW DIGITAL THERMOSTATS ARE TO BE SUPPLIED IN THE SAME LOCATION (ROOM AND MOUNTING) AS EXISTING PNEUMATIC THERMOSTATS REMOVED UNDER THIS CONTRACT. COORDINATE FINAL LOCATIONS WITH VA. (SEE ARCHITECTURAL FLOOR PLANS.)
7. TERMINAL UNIT TYPES, SIZES, WATER AND AIR FLOW RATES ARE BASED ON LIDAR FIELD SURVEYS AND AS-BUILT DOCUMENTATION AND THE CONTRACTOR SHALL VERIFY OPERATING RANGES AND/OR SETPOINTS PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
8. ALL EXISTING TERMINAL UNITS HAVE A MINIMUM INLET STATIC PRESSURE OF 1" W.G. AND A HEATING HOT WATER DELTA T OF 20 DEGREES F. NEW TERMINAL UNITS SHALL MATCH EXISTING PERFORMANCE.

SCHEDULE NOTES

1. LOCATION: WEST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
2. LOCATION: NORTHWEST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
3. LOCATION: NORTHEAST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
4. LOCATION: EAST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
5. LOCATION: SOUTHEAST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
6. LOCATION: SOUTHWEST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
7. TERMINAL UNIT AIR FLOW RATE AND INLET DUCT SIZE DOCUMENTED FROM VA SUPPLIED AS-BUILT DRAWINGS.
8. AS-BUILT DRAWINGS DO NOT INDICATE TERMINAL UNIT SIZE, CONTRACTOR TO FIELD VERIFY.
9. AS-BUILT DRAWINGS DO NOT INDICATE AIR FLOW RATE, CONTRACTOR TO FIELD VERIFY.
10. CONTRACTOR TO PROVIDE PRE-CONSTRUCTION TAB REPORT TO VERIFY: EXISTING AIR FLOW RATE; EXISTING HEATING HOT WATER FLOW RATE AND EXISTING INLET/OULET DUCT DIMENSIONS.
11. PROVIDE NEW TERMINAL UNIT MATCHING EXISTING AIR FLOW, EXISTING HEATING HOT WATER FLOW AND INLET/OUTLET DUCT DIMENSIONS.
12. CONTRACTOR TO PROVIDE POST-CONSTRUCTION TAB RE

NEW TERMINAL UNIT SCHEDULE - L2

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
AC-14															
TU14-2003	AC-14	BV	No	Yes	200-400	190 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU14-2004	AC-14	BV	No	Yes	200-400	230 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU14-2005	AC-14	CV	No	Yes	400-600	560 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					5, 6, 9, 10, 11
TU14-2006	AC-14	BV	No	Yes	200-400	385 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU14-2007	AC-14	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU14-2008-2013	AC-14	CV	No	Yes	400-600	245 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					5, 6, 9, 10, 11
TU14-2011	AC-14	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU14-2017	AC-14	BV	No	Yes	200-400	400 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2018	AC-14	BV	No	Yes	200-400	215 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2019	AC-14	AV	No	Yes	75-200	140 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2020-2024-2025-2026	AC-14	BV	No	Yes	200-400	350 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2021	AC-14	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU14-2022	AC-14	AV	No	Yes	75-200	200 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2024	AC-14	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU14-2028	AC-14	BV	No	Yes	200-400	400 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2030	AC-14	AV	No	Yes	75-200	180 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2032	AC-14	CV	No	Yes	400-600	240 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU14-2034	AC-14	AV	No	Yes	75-200	160 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2036	AC-14	CV	No	Yes	400-600	440 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU14-2040-2046-2047	AC-14	DV	No	Yes	600-1000	730 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					1, 6, 9, 10, 11
TU14-2040-2049	AC-14	AV	No	Yes	75-200	165 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2040A	AC-14	AV	No	Yes	75-200	165 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2050	AC-14	BV	No	Yes	200-400	375 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2052	AC-14	BV	No	Yes	200-400	390 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2054	AC-14	AV	No	Yes	75-200	180 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2057	AC-14	AV	No	Yes	75-200	180 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2058	AC-14	AC	Yes	No	75-200	190 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU14-2061	AC-14	BC	Yes	No	200-400	350 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2062-CORRIDOR	AC-14	BC	Yes	No	200-400	350 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2064	AC-14	DV	No	Yes	600-1000	710 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					1, 6, 9, 10, 11
TU14-2067	AC-14	AC	Yes	No	75-200	90 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU14-2068	AC-14	DV	No	Yes	600-1000	800 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					1, 6, 9, 10, 11
TU14-2068	AC-14	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					1, 6, 9, 10, 11
TU14-2069	AC-14	DC	Yes	No	600-1000	740 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					1, 6, 9, 10, 11
TU14-2069A	AC-14	AC	Yes	No	75-200	740 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU14-2070	AC-14	AV	No	Yes	75-200	165 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2070	AC-14	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2070	AC-14	AC	Yes	No	75-200	200 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU14-2071	AC-14	AC	Yes	No	75-200	115 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU14-2072	AC-14	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2072	AC-14	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2073-2101-2100	AC-14	EV	No	Yes	1000-1600	1030 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					1, 6, 9, 10, 11
TU14-2075	AC-14	AC	Yes	No	75-200	115 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU14-2076	AC-14	AC	Yes	No	75-200	200 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU14-2077B-2077C	AC-14	DC	Yes	No	600-1000	740 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					1, 6, 9, 10, 11
TU14-2079	AC-14	AC	Yes	No	75-200	190 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU14-2082	AC-14	BV	No	Yes	200-400	375 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2083	AC-14	BV	No	Yes	200-400	400 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2085-2079	AC-14	BV	No	Yes	200-400	350 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2088	AC-14	BC	Yes	No	200-400	280 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2090	AC-14	BV	No	Yes	200-400	275 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2092	AC-14	BV	No	Yes	200-400	275 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2094	AC-14	BV	No	Yes	200-400	400 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2108	AC-14	CV	No	Yes	400-600	440 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU14-2111	AC-14	AV	No	Yes	75-200	160 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2113	AC-14	CV	No	Yes	400-600	470 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU14-2115	AC-14	CV	No	Yes	400-600	275 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU14-2117	AC-14	CV	No	Yes	400-600	290 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU14-2121-2122	AC-14	BV	No	Yes	200-400	350 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2123	AC-14	BC	Yes	No	200-400	400 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-2125	AC-14	AV	No	Yes	75-200	100 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2127	AC-14	AV	No	Yes	75-200	110 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2128	AC-14	AV	No	Yes	75-200	185 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-2129	AC-14	AV	No	Yes	75-200	185 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU14-COORIDOR	AC-14	BV	No	Yes	200-400	100 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU14-CORRIDOR	AC-14	AV	No	Yes	75-200	190 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
AC-15															
TU15-227A	AC-15	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2000	AC-15	EV	No	Yes	1000-1600	680 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					5, 6, 9, 10, 11
TU15-2131	AC-15	AV	No	Yes	75-200	200 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2132	AC-15	AV	No	Yes	75-200	130 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2134	AC-15	AC	Yes	No	75-200	130 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2134	AC-15	AC	Yes	No	75-200	130 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2135	AC-15	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2136	AC-15	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2137	AC-15	CV	No	Yes	400-600	410 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU15-2139	AC-15	AC	Yes	No	75-200	145 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2140	AC-15	AC	Yes	No	75-200	95 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2141	AC-15	AC	Yes	No	75-200	95 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2142	AC-15	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU15-2144	AC-15	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2146	AC-15	CV	No	Yes	400-600	400 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU15-2148	AC-15	CV	No	Yes	400-600	400 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU15-2150	AC-15	CV	No	Yes	400-600	400 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU15-2154-2155	AC-15	EV	No	Yes	1000-1600	1140 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					4, 6, 9, 10, 11
TU15-2154B	AC-15	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2159	AC-15	DC	Yes	No	600-1000	740 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU15-2161	AC-15	CV	No	Yes	400-600	420 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU15-2162	AC-15	AV	No	Yes	75-200	420 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2163	AC-15	CV	No	Yes	400-600	420 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU15-2164	AC-15	BV	No	Yes	200-400	370 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2166	AC-15	AC	Yes	No	75-200	175 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2168	AC-15	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2170	AC-15	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2172	AC-15	BV	No	Yes	200-400	320 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2176-2162	AC-15	CV	No	Yes	400-600	450 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11

NEW TERMINAL UNIT SCHEDULE - L2

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
TU15-2177	AC-15	BV	No	Yes	200-400	380 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2178	AC-15	DV	No	Yes	600-1000	660 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					4, 6, 9, 10, 11
TU15-2181	AC-15	AC	Yes	No	75-200	90 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2182	AC-15	EV	No	Yes	1000-1600	600 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					4, 6, 9, 10, 11
TU15-2184	AC-15	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2185	AC-15	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2186	AC-15	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2186	AC-15	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2189	AC-15	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2190	AC-15	AC	Yes	No	75-200	115 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2192-2192A	AC-15	DC	Yes	No	600-1000	740 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU15-2192-2192A	AC-15	DC	Yes	No	600-1000	740 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU15-2193	AC-15	EV	No	Yes	1000-1600	600 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					4, 6, 9, 10, 11
TU15-2194	AC-15	AC	Yes	No	75-200	90 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2196	AC-15	CV	No	Yes	400-600	90 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU15-2198-2199	AC-15	CV	No	Yes	400-600	350 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU15-2202	AC-15	BV	No	Yes	200-400	280 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2204	AC-15	BV	No	Yes	200-400	280 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2204	AC-15	BV	No	Yes	200-400	280 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2207	AC-15	BV	No	Yes	200-400	370 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2208	AC-15	BV	No	Yes	200-400	390 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2210	AC-15	BV	No	Yes	200-400	370 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2212-2215-2216	AC-15	AC	Yes	No	75-200	200 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2220	AC-15	AC	Yes	No	75-200	95 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2222	AC-15	BC	Yes	No	200-400	400 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2225	AC-15	AC	Yes	No	75-200	145 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2227	AC-15	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2227A	AC-15	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2229	AC-15	BC	Yes	No	200-400	285 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2231	AC-15	BC	Yes	No	200-400	285 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2233	AC-15	BC	Yes	No	200-400	400 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2234-2235	AC-15	BC	Yes	No	200-400	400 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU15-2236	AC-15	AC	Yes	No	75-200	115 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2236	AC-15	CV	No	Yes	400-600	335 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU15-2238	AC-15	AC	Yes	No	75-200	115 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2240	AC-15	AV	No	Yes	75-200	110 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2241	AC-15	AC	Yes	No	75-200	200 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU15-2242	AC-15	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-2255B	AC-15	AV	No	Yes	75-200	400 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU15-CORRIDOR	AC-15	EV	No	Yes	1000-1600	740 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					4, 6, 9, 10, 11
TU15-CORRIDOR-2216	AC-15	CV	No	Yes	400-600	345 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU15-HALLWAY	AC-15	AC	Yes	No	75-200	175 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES. AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND BALANCING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
G. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
H. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00AM TO 4:30PM.
I. BASED ON RECORD DRAWINGS, TERMINAL UNITS WITH A SUPPLY AIR FLOW LESS THAN THE RECOMMENDED RANGE INDICATED ON THE SCHEDULE ARE NOT BEING OPERATED AT FULL CAPACITY. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
J. SUPPLY AIR FLOW COULD NOT BE DETERMINED FROM THE AS-BUILTS FOR TERMINAL UNITS SCHEDULED WITH 0 CFM. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
K. BASIS OF DESIGN SINGLE DUCT TERMINAL UNIT WITH REHEAT COIL IS SHOWN BELOW (OR APPROVED EQUAL). CONTRACTOR SHALL PREPARE SEPARATE SUBMITTALS FOR EACH SIZE AND CONFIGURATION ACCORDING TO THE SCHEDULE AND IN ACCORDANCE WITH SPECIFICATION SECTION 23 36 00.

TERMINAL UNIT KEYNOTES

1. THE TERMINAL UNIT "MARK", **TUXX-YYYY-ZZZZ** INDICATES THE AIR HANDLING UNIT SUPPLYING THE TU AND THE ROOM NUMBER SUPPLIED BY THE TU, AS FOLLOWS: "XX" IS THE IDENTIFICATION NUMBER OF THE AIR HANDLING UNIT SUPPLYING THE TU; "YYYY" IS THE ROOM NUMBER SUPPLIED BY THE TU WITH THERMOSTATIC CONTROL; AND "ZZZZ" ARE ADDITIONAL ROOMS SUPPLIED BY THE TU. (SEE MECHANICAL DUCT PLANS FOR TERMINAL UNIT LOCATIONS IN THE INTERSTITIAL SPACE ABOVE THE FLOOR SERVED BY EACH TU.) ROOM NUMBERS FOR UNITS SCHEDULED WITH #1 SHALL BE FIELD VERIFIED.
2. TERMINAL UNIT "TYPE" IS BASED ON VA RECORD DRAWINGS OF EXISTING TU AND INDICATES THE SIZE AND TYPE OF EACH TU, AS FOLLOWS:
3. FIRST LETTER - SUPPLY AIR INLET DUCT DIAMETER, WHERE **A = 6", B = 7", C = 8", D = 9", E = 11", F = 14", G = 15" or 18" x 10", H = 18" or 18" x 14", J = 16" x 16", K = 24" x 16"**
4. SECOND LETTER - CONTROL TYPE, WHERE **C = CONSTANT AIR VOLUME AND V = VARIABLE AIR VOLUME.**
5. CONTRACTOR IS TO PROVIDE A NEW, DDC CONTROLLED TERMINAL UNIT MATCHING THE TYPE AND FLOW OF THE EXISTING UNIT IN THE SAME LOCATION SUPPLYING THE SAME SUPPLY DUCTWORK AND DIFFUSERS
6. INDICATED THERMOSTATS ARE TO BE SUPPLIED IN THE SAME LOCATION (ROOM AND MOUNTING) AS EXISTING PNEUMATIC THERMOSTATS REMOVED UNDER THIS CONTRACT. COORDINATE FINAL LOCATIONS WITH VA. (SEE ARCHITECTURAL FLOOR PLANS.)
7. TERMINAL UNIT TYPES, SIZES, WATER AND AIR FLOW RATES ARE BASED ON LIDAR FIELD SURVEYS AND AS-BUILT DOCUMENTATION AND THE CONTRACTOR SHALL VERIFY OPERATING RANGES AND/OR SETPOINTS PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
8. ALL EXISTING TERMINAL UNITS HAVE A MINIMUM INLET STATIC PRESSURE OF 1" W.G. AND A HEATING HOT WATER DELTA T OF 20 DEGREES F. NEW TERMINAL UNITS SHALL MATCH EXISTING PERFORMANCE.

SCHEDULE NOTES

1. LOCATION: WEST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
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NEW TERMINAL UNIT SCHEDULE - L2 (CONTINUED)

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
AC-16															
TU16-2010	AC-16	EV	No	Yes	1000-1600	1160 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					5, 6, 9, 10, 11
TU16-2243	AC-16	BV	No	Yes	200-400	305 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2247	AC-16	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2249	AC-16	AC	Yes	No	75-200	110 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU16-2250A	AC-16	DV	No	Yes	600-1000	750 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU16-2252-2253	AC-16	BV	No	Yes	200-400	180 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2256	AC-16	BV	No	Yes	200-400	280 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2258	AC-16	BV	No	Yes	200-400	275 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2260	AC-16	CV	No	Yes	400-600	430 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU16-2262	AC-16	BV	No	Yes	200-400	145 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2264	AC-16	BV	No	Yes	200-400	360 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2268-2268A-2271	AC-16	DV	No	Yes	600-1000	755 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU16-2274-2275	AC-16	AV	No	Yes	75-200	165 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2274-2278	AC-16	CV	No	Yes	400-600	420 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU16-2280	AC-16	CV	No	Yes	400-600	420 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU16-2282	AC-16	BV	No	Yes	200-400	275 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2284	AC-16	BV	No	Yes	200-400	275 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2286	AC-16	BV	No	Yes	200-400	290 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2291	AC-16	BV	No	Yes	200-400	400 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2295	AC-16	AC	Yes	No	75-200	90 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU16-2297A	AC-16	DC	Yes	No	600-1000	740 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU16-2298	AC-16	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2299	AC-16	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2300	AC-16	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU16-2301-2328	AC-16	DV	No	Yes	600-1000	880 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU16-2302	AC-16	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2303	AC-16	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2304	AC-16	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2305A-2305-2305B	AC-16	DC	Yes	No	600-1000	386 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU16-2306A	AC-16	DV	No	Yes	600-1000	368 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU16-2308	AC-16	AC	Yes	No	75-200	75 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU16-2310	AC-16	DV	No	Yes	600-1000	460 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU16-2313-2307	AC-16	BV	No	Yes	200-400	400 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2314	AC-16	AC	Yes	No	75-200	165 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU16-2316	AC-16	AC	Yes	No	75-200	200 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU16-2318	AC-16	AV	No	Yes	75-200	180 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2320	AC-16	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2322-2323	AC-16	CV	No	Yes	400-600	430 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU16-2322-2324	AC-16	CV	No	Yes	400-600	420 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU16-2326-2327	AC-16	AV	No	Yes	75-200	165 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2334	AC-16	AV	No	Yes	75-200	100 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2336	AC-16	BV	No	Yes	200-400	360 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2339A	AC-16	AV	No	Yes	75-200	145 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2343	AC-16	BV	No	Yes	200-400	180 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2343	AC-16	CV	No	Yes	400-600	410 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU16-2346	AC-16	BV	No	Yes	200-400	190 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2349-2350	AC-16	BV	No	Yes	200-400	180 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2351	AC-16	DV	No	Yes	600-1000	750 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU16-2353	AC-16	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU16-2353	AC-16	BV	No	Yes	200-400	100 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16-2354	AC-16	AV	No	Yes	75-200	140 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2355	AC-16	AV	No	Yes	75-200	200 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU16-2356	AC-16	BV	No	Yes	200-400	400 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU16- 2292-2296	AC-16	DV	No	Yes	600-1000	690 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU16- 2296-2296B	AC-16	DV	No	Yes	600-1000	800 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU16-COORIDOR	AC-16	AC	Yes	No	75-200	165 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
AC-17															
TU17-2001	AC-17	DV	No	Yes	600-1000	430 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					5, 6, 9, 10, 11
TU17-2011	AC-17	EV	No	Yes	1000-1600	1600 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					5, 6, 9, 10, 11
TU17-2012	AC-17	AC	Yes	No	75-200	140 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 6, 9, 10, 11
TU17-2014	AC-17	AC	Yes	No	75-200	115 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 6, 9, 10, 11
TU17-2358	AC-17	AV	No	Yes	75-200	100 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2360	AC-17	AV	No	Yes	75-200	110 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2363-2367	AC-17	BV	No	Yes	200-400	80 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2366B-2336C	AC-17	BV	No	Yes	200-400	400 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2369	AC-17	CV	No	Yes	400-600	285 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU17-2369	AC-17	AV	No	Yes	75-200	200 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2372	AC-17	CV	No	Yes	400-600	285 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU17-2374A	AC-17	BV	No	Yes	200-400	400 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2376	AC-17	AV	No	Yes	75-200	140 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2379	AC-17	BV	No	Yes	200-400	350 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2386-2387	AC-17	EV	No	Yes	1000-1600	1130 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					2, 6, 9, 10, 11
TU17-2389	AC-17	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2390	AC-17	AC	Yes	No	75-200	135 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU17-2393	AC-17	BV	No	Yes	200-400	390 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2394	AC-17	CV	No	Yes	400-600	410 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU17-2397	AC-17	BV	No	Yes	200-400	285 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2398	AC-17	BC	Yes	No	200-400	285 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2401	AC-17	BV	No	Yes	200-400	285 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2406	AC-17	BC	Yes	No	200-400	400 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2409	AC-17	AC	Yes	No	75-200	90 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU17-2410A-2410B	AC-17	DV	No	Yes	600-1000	880 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					2, 6, 9, 10, 11
TU17-2410D-2417	AC-17	DC	Yes	No	600-1000	740 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU17-2414	AC-17	BV	No	Yes	200-400	340 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2414	AC-17	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2415-2441	AC-17	EV	No	Yes	1000-1600	1130 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					2, 6, 9, 10, 11
TU17-2416	AC-17	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2416	AC-17	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2416A	AC-17	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2417-2418A	AC-17	DC	Yes	No	600-1000	740 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU17-2417B	AC-17	CV	No	Yes	400-600	505 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU17-2419-2419A-2419C	AC-17	DV	No	Yes	600-1000	880 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					2, 6, 9, 10, 11
TU17-2420-2420A	AC-17	BV	No	Yes	200-400	276 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2421	AC-17	AC	Yes	No	75-200	90 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU17-2424	AC-17	AC	Yes	No	75-200	95 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU17-2425	AC-17	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11

NEW TERMINAL UNIT SCHEDULE - L2 (CONTINUED)

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
TU17-2429	AC-17	BV	No	Yes	200-400	205 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2432	AC-17	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2433	AC-17	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2436	AC-17	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2439-2440	AC-17	AV	No	Yes	75-200	165 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2449-2462	AC-17	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2454	AC-17	BV	No	Yes	200-400	350 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2454	AC-17	AV	No	Yes	75-200	140 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2455	AC-17	BC	Yes	No	200-400	390 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2457	AC-17	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2459	AC-17	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU17-2460	AC-17	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU17-2463	AC-17	AV	No	Yes	75-200	130 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2463	AC-17	AV	No	Yes	75-200	130 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2465	AC-17	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU17-2466	AC-17	AC	Yes	No	75-200	130 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU17-2467	AC-17	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-2467	AC-17	AV	No	Yes	75-200	130 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU17-#1	AC-17	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU17-#2	AC-17	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU17-CORRIDOR	AC-17	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU17-CORRIDOR	AC-17	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES. AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
G. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
H. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00AM TO 4:30PM.
I. BASED ON RECORD DRAWINGS, TERMINAL UNITS WITH A SUPPLY AIR FLOW LESS THAN THE RECOMMENDED RANGE INDICATED ON THE SCHEDULE ARE NOT BEING OPERATED AT FULL CAPACITY. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
J. SUPPLY AIR FLOW COULD NOT BE DETERMINED FROM THE AS-BUILTS FOR TERMINAL UNITS SCHEDULED WITH 0 CFM. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
K. BASIS OF DESIGN SINGLE DUCT TERMINAL UNIT WITH REHEAT COIL IS SHOWN BELOW (OR APPROVED EQUAL). CONTRACTOR SHALL PREPARE SEPARATE SUBMITTALS FOR EACH SIZE AND CONFIGURATION ACCORDING TO THE SCHEDULE AND IN ACCORDANCE WITH SPECIFICATION SECTION 23 36 00.

TERMINAL UNIT KEYNOTES

1. THE TERMINAL UNIT "MARK", **TUXX-YYYY-ZZZZ** INDICATES THE AIR HANDLING UNIT SUPPLYING THE TU AND THE ROOM NUMBER SUPPLIED BY THE TU. AS FOLLOWS: "XX" IS THE IDENTIFICATION NUMBER OF THE AIR HANDLING UNIT SUPPLYING THE TU; "YYYY" IS THE ROOM NUMBER SUPPLIED BY THE TU WITH THERMOSTATIC CONTROL; AND "ZZZZ" ARE ADDITIONAL ROOMS SUPPLIED BY THE TU. (SEE MECHANICAL DUCT PLANS FOR TERMINAL UNIT LOCATIONS IN THE INTERSTITIAL SPACE ABOVE THE FLOOR SERVED BY EACH TU.) ROOM NUMBERS FOR UNITS SCHEDULED WITH #1 SHALL BE FIELD VERIFIED.
2. TERMINAL UNIT "TYPE" IS BASED ON VA RECORD DRAWINGS OF EXISTING TU AND INDICATES THE SIZE AND TYPE OF EACH TU, AS FOLLOWS:
3. FIRST LETTER - SUPPLY AIR INLET DUCT DIAMETER, WHERE **A = 6", B = 7", C = 8", D = 9", E = 11", F = 14", G = 15" or 18" x 10", H = 18" or 18" x 14", J = 18" x 16", K = 24" x 16"**
4. SECOND LETTER - CONTROL TYPE, WHERE **C = CONSTANT AIR VOLUME AND V = VARIABLE AIR VOLUME.**
5. CONTRACTOR IS TO PROVIDE A NEW, DDC CONTROLLED TERMINAL UNIT MATCHING THE TYPE AND FLOW OF THE EXISTING UNIT IN THE SAME LOCATION SUPPLYING THE SAME SUPPLY DUCTWORK AND DIFFUSERS
6. NEW DIGITAL THERMOSTATS ARE TO BE SUPPLIED IN THE SAME LOCATION (ROOM AND MOUNTING) AS EXISTING PNEUMATIC THERMOSTATS REMOVED UNDER THIS CONTRACT. COORDINATE FINAL LOCATIONS WITH VA. (SEE ARCHITECTURAL FLOOR PLANS.)
7. TERMINAL UNIT TYPES, SIZES, WATER AND AIR FLOW RATES ARE BASED ON LIDAR FIELD SURVEYS AND AS-BUILT DOCUMENTATION AND THE CONTRACTOR SHALL VERIFY OPERATING RANGES AND/OR SETPOINTS PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
8. ALL EXISTING TERMINAL UNITS HAVE A MINIMUM INLET STATIC PRESSURE OF 1" W.G. AND A HEATING HOT WATER DELTA T OF 20 DEGREES F. NEW TERMINAL UNITS SHALL MATCH EXISTING PERFORMANCE.

SCHEDULE NOTES

1. LOCATION: WEST QUADRANT INTERSTITIAL LEVEL. SEE MH SHEETS.
2. LOCATION: NORTH QUADRANT INTERSTITIAL LEVEL. SEE MH SHEETS.
3. LOCATION: EAST QUADRANT INTERSTITIAL LEVEL. SEE MH SHEETS.
4. LOCATION: SOUTH QUADRANT INTERSTITIAL LEVEL. SEE MH SHEETS.
5. LOCATION: CENTER AREA INTERSTITIAL LEVEL. SEE MH SHEETS.
6. TERMINAL UNIT AIR FLOW RATE AND INLET DUCT SIZE DOCUMENTED FROM VA SUPPLIED AS-BUILT DRAWINGS.
7. AS-BUILT DRAWINGS DO NOT INDICATE TERMINAL UNIT SIZE, CONTRACTOR TO FIELD VERIFY.
8. AS-BUILT DRAWINGS DO NOT INDICATE AIR FLOW RATE, CONTRACTOR TO FIELD VERIFY.
9. CONTRACTOR TO PROVIDE PRE-CONSTRUCTION TAB REPORT TO VERIFY: EXISTING AIR FLOW RATE; EXISTING HEATING HOT WATER FLOW RATE AND EXISTING INLET/OULET DUCT DIMENSIONS.
10. PROVIDE NEW TERMINAL UNIT MATCHING EXISTING AIR FLOW, EXISTING HEATING HOT WATER FLOW AND INLET/OUTLET DUCT DIMENSIONS.
11. CONTRACTOR TO PROVIDE POST-CONSTRUCTION TAB REPORT TO VERIFY AIR FLOW RATE, HEATING WATER FLOW RATE MATCHES PRE-CONSTRUCTION TAB REPORT.
12. PROVIDE NEW 120/24V TRANSFORMER WITH EACH NEW TERMINAL UNIT.

SINGLE DUCT CONSTANT VOLUME AND VARIABLE AIR VOLUME TERMINAL UNITS WITH HOT WATER REHEAT COILS: FURNISH AND INSTALL SINGLE DUCT CONSTANT VOLUME OR VARIABLE AIR VOLUME CONTROL ASSEMBLIES OF SIZES AND CAPACITIES SHOWN ON THE SCHEDULES AND AS DETERMINED BY THE PRE-CONSTRUCTION TAB REPORT. ALL UNITS SHALL BE CAPABLE OF CONSTANT VOLUME OPERATION UP TO THE MAXIMUM AIR AND HOT WATER FLOW RATES OF THE EXISTING TERMINAL UNITS. TERMINAL UNITS SHALL BE ABLE TO OPERATE IN CONSTANT OR VARIABLE VOLUME CONTROL MODE TO ACCOUNT FOR THE RECONFIGURATION OF THE SPACES THEY SERVE. VALVE ASSEMBLY SHALL BE NORMALLY OPEN ARRANGEMENT, PRESSURE INDEPENDENT AND SHALL BE CAPABLE OF FIELD RESET TO ANY DESIRED AIR FLOW BETWEEN ZERO AND THE MAXIMUM SCHEDULED CFM. ALL TERMINAL UNITS SHALL BE FURNISHED WITH ACOUSTICALLY LINED CASING CONSTRUCTED OF 22 GAUGE GALVANIZED STEEL INTERNAL LINING OF 1" THICKNESS, 1-1/2 POUND DENSITY, UL181 AND ASTM C1071 REQUIREMENTS. EACH UNIT SHALL BE FURNISHED WITH A FACTORY ATTENUATOR SECTION HAVING THE SAME CONSTRUCTION AND LINER AS ABOVE. DAMPER BLADE SHALL BE CONSTRUCTED OF EXTRUDED ALUMINUM WITH RUSTPROOF SELF-LUBRICATING BEARINGS. DAMPER SHALL SEAL AGAINST GASKETED STOPS. THE DAMPER LEAKAGE SHALL BE CERTIFIED TO NOT EXCEED 2 PERCENT LEAKAGE AT 6" INLET STATIC PRESSURE AS DETERMINED BY AIR DIFFUSION COUNCIL STANDARDS. A FLOW MEASURING PROBE SHALL BE INSTALLED IN THE UNIT INTAKE AND PROVIDE TOTAL AND STATIC PRESSURE CONNECTIONS ON THE INLET COLLAR EXTERIOR. SOUND RATINGS SHALL NOT EXCEED THOSE SCHEDULED AT 3" STATIC

NEW TERMINAL UNIT SCHEDULE - L3

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
AC-18															
TU18-3000	AC-18	BV	No	Yes	200-400	175 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU18-3002	AC-18	AV	No	Yes	75-200	175 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU18-3004	AC-18	EV	No	Yes	1000-1600	1500 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					5, 6, 9, 10, 11
TU18-3022-3025A-3025B	AC-18	DV	No	Yes	600-1000	635 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					1, 6, 9, 10, 11
TU18-3024	AC-18	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU18-3029	AC-18	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU18-3030	AC-18	CV	No	Yes	400-600	0 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU18-3031	AC-18	BV	No	Yes	200-400	260 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU18-3033	AC-18	BV	No	Yes	200-400	240 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU18-3033A-3033B	AC-18	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU18-3036-3027-3028	AC-18	CV	No	Yes	400-600	410 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU18-3037	AC-18	BC	Yes	No	200-400	170 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU18-3039	AC-18	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU18-3048	AC-18	AC	Yes	No	75-200	80 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU18-3051	AC-18	BV	No	Yes	200-400	250 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU18-3056	AC-18	BV	No	Yes	200-400	250 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU18-3058	AC-18	BC	Yes	No	200-400	240 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU18-3060	AC-18	BC	Yes	No	200-400	250 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU18-3065	AC-18	DV	No	Yes	600-1000	680 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					1, 6, 9, 10, 11
TU18-3068	AC-18	EV	No	Yes	1000-1600	1200 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					1, 6, 9, 10, 11
TU18-3069	AC-18	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU18-3070	AC-18	AC	Yes	No	75-200	95 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU18-3073	AC-18	CV	No	Yes	400-600	330 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU18-3076	AC-18	CV	No	Yes	400-600	430 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU18-3078	AC-18	CV	No	Yes	400-600	430 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU18-3083	AC-18	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU18-#1	AC-18	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU18-CORRIDOR	AC-18	AC	Yes	No	75-200	190 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
AC-19															
TU19-3000	AC-19	BC	Yes	No	200-400	180 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU19-3008-3010	AC-19	BV	No	Yes	200-400	250 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU19-3008A	AC-19	BV	No	Yes	200-400	175 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU19-3009	AC-19	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					5, 6, 9, 10, 11
TU19-3010	AC-19	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU19-3116-3117	AC-19	DC	Yes	No	600-1000	650 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU19-3118-3119	AC-19	DC	Yes	No	600-1000	650 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU19-3122-3120-3121	AC-19	DC	Yes	No	600-1000	250 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU19-3124	AC-19	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU19-3126	AC-19	BC	Yes	No	200-400	350 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3127	AC-19	BC	Yes	No	200-400	310 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3128	AC-19	BC	Yes	No	200-400	290 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3128	AC-19	DC	Yes	No	600-1000	700 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU19-3132	AC-19	BC	Yes	No	200-400	400 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3134-3132 CORRIDOR-3136	AC-19	BC	Yes	No	200-400	140 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3137-3132	AC-19	CC	Yes	No	400-600	550 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU19-3139	AC-19	BC	Yes	No	200-400	120 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3139	AC-19	BV	No	Yes	200-400	330 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3140	AC-19	DC	Yes	No	600-1000	600 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU19-3142	AC-19	DC	Yes	No	600-1000	650 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU19-3143	AC-19	CC	Yes	No	400-600	250 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU19-3144	AC-19	CC	Yes	No	400-600	200 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU19-3146-3148	AC-19	CC	Yes	No	400-600	600 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU19-3147	AC-19	BC	Yes	No	200-400	200 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3150	AC-19	DC	Yes	No	600-1000	650 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU19-3152-3148A-3149	AC-19	CC	Yes	No	400-600	600 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU19-3161	AC-19	CC	Yes	No	400-600	550 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU19-3162A-3164	AC-19	CC	Yes	No	400-600	260 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU19-3162D	AC-19	BV	No	Yes	200-400	210 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3162G-3162F	AC-19	DV	No	Yes	600-1000	710 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					4, 6, 9, 10, 11
TU19-3167-3168	AC-19	CV	No	Yes	400-600	355 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU19-3170	AC-19	CV	No	Yes	400-600	450 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU19-3170 CORRIDOR	AC-19	AC	Yes	No	75-200	160 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU19-3172	AC-19	CV	No	Yes	400-600	450 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU19-3174	AC-19	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU19-3174A	AC-19	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU19-3174B	AC-19	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU19-3177	AC-19	BV	No	Yes	200-400	235 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3179	AC-19	BV	No	Yes	200-400	235 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3183	AC-19	AV	No	Yes	75-200	135 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU19-3185	AC-19	BV	No	Yes	200-400	330 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3186-3186A	AC-19	BV	No	Yes	200-400	220 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3187	AC-19	CV	No	Yes	400-600	220 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU19-3188	AC-19	AC	Yes	No	75-200	90 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU19-3189	AC-19	CV	No	Yes	400-600	450 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU19-3191	AC-19	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3192	AC-19	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3193	AC-19	CV	No	Yes	400-600	270 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU19-3196	AC-19	DV	No	Yes	600-1000	720 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					4, 6, 9, 10, 11
TU19-3200	AC-19	AV	No	Yes	75-200	95 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					4, 6, 9, 10, 11
TU19-3202A	AC-19	CV	No	Yes	400-600	450 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU19-3203	AC-19	BV	No	Yes	200-400	245 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU19-3204	AC-19	CV	No	Yes	400-600	440 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU19-3206-3115	AC-19	CV	No	Yes	400-600	485 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					4, 6, 9, 10, 11
TU19-3207B	AC-19	AC	Yes	No	75-200	90 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU19-#1	AC-19	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
AC-20															
TU20-3000	AC-20	BV	No	Yes	200-400	250 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU20-3001	AC-20	CV	No	Yes	400-600	425 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					5, 6, 9, 10, 11
TU20-3001A	AC-20	CV	No	Yes	400-600	425 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					5, 6, 9, 10, 11
TU20-3209	AC-20	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3209A	AC-20	EC	Yes	No	1000-1600	1300 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					3, 6, 9, 10, 11
TU20-3212	AC-20	AC	Yes	No	75-200	105 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3214	AC-20	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3214A	AC-20	DC	Yes	No	600-1000	800 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU20-3216-3217A	AC-20	CV	No	Yes	400-600	350 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU20-3219	AC-20	BV	No	Yes	200-400	400 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3221	AC-20	BV	No	Yes	200-400	395 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3223	AC-20	DV	No	Yes	600-1000	700 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU20-3225-3231A	AC-20	CV	No	Yes	400-600	406 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU20-3227	AC-20	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU20-3230	AC-20	CV	No	Yes	400-600	180 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11

NEW TERMINAL UNIT SCHEDULE - L3

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
TU20-3231	AC-20	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3231A	AC-20	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3234	AC-20	AC	Yes	No	75-200	70 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3237	AC-20	AC	Yes	No	75-200	190 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3240	AC-20	BV	No	Yes	200-400	270 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3242	AC-20	DV	No	Yes	600-1000	680 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU20-3244	AC-20	CV	No	Yes	400-600	395 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU20-3246	AC-20	AC	Yes	No	75-200	165 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3246	AC-20	CV	No	Yes	400-600	210 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU20-3246A	AC-20	CV	No	Yes	400-600	395 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU20-3249	AC-20	BV	No	Yes	200-400	80 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3249	AC-20	CV	No	Yes	400-600	395 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU20-3250	AC-20	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					3, 6, 9, 10, 11
TU20-3251	AC-20	DC	Yes	No	600-1000	610 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU20-3251A	AC-20	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					3, 6, 9, 10, 11
TU20-3252	AC-20	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3253-3254-3273C-3268	AC-20	EV	No	Yes	1000-1600	1350 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					3, 6, 9, 10, 11
TU20-3255-3255A	AC-20	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3256	AC-20	CV	No	Yes	400-600	180 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU20-3257	AC-20	AV	No	Yes	75-200	155 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU20-3258	AC-20	AV	No	Yes	75-200	175 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU20-3260	AC-20	AV	No	Yes	75-200	115 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU20-3266	AC-20	AC	Yes	No	75-200	175 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3267	AC-20	BV	No	Yes	200-400	205 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3267	AC-20	CV	No	Yes	400-600	445 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU20-3267A-3276B	AC-20	CV	No	Yes	400-600	180 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU20-3268	AC-20	BC	Yes	No	200-400	235 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3269A	AC-20	BV	No	Yes	200-400	235 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3270	AC-20	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3272	AC-20	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3273	AC-20	AC	Yes	No	75-200	165 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3273	AC-20	BC	Yes	No	200-400	350 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3275	AC-20	BC	Yes	No	200-400	350 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3275A	AC-20	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3275B	AC-20	BC	Yes	No	200-400	350 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3279-3278	AC-20	BV	No	Yes	200-400	200 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3280	AC-20	BV	No	Yes	200-400	205 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3281	AC-20	BC	Yes	No	200-400	235 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3282	AC-20	BC	Yes	No	200-400	235 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3283	AC-20	BC	Yes	No	200-400	350 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3284	AC-20	BV	No	Yes	200-400	235 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3286A	AC-20	BC	Yes	No	200-400	235 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3287	AC-20	BC	Yes	No	200-400	245 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3295	AC-20	AV	No	Yes	75-200	135 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU20-3362	AC-20	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU20-3362A	AC-20	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU20-#2	AC-20	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU20-#3	AC-20	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-#4	AC-20	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-#5	AC-20	CV	No	Yes	400-600	350 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
AC-21															
TU21-3308B	AC-21	BV	No	Yes	200-400	250 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES. AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.

B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.

C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.

E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.

F. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.

G. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.

H. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00AM TO 4:30PM.

I. BASED ON RECORD DRAWINGS, TERMINAL UNITS WITH A SUPPLY AIR FLOW LESS THAN THE RECOMMENDED RANGE INDICATED ON THE SCHEDULE ARE NOT BEING OPERATED AT FULL CAPACITY. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.

J. SUPPLY AIR FLOW COULD NOT BE DETERMINED FROM THE AS-BUILTS FOR TERMINAL UNITS SCHEDULED WITH 0 CFM. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.

K. BASIS OF DESIGN SINGLE DUCT TERMINAL UNIT WITH REHEAT COIL IS SHOWN BELOW (OR APPROVED EQUAL). CONTRACTOR SHALL PREPARE SEPARATE SUBMITTALS FOR EACH SIZE AND CONFIGURATION ACCORDING TO THE SCHEDULE AND IN ACCORDANCE WITH SPECIFICATION SECTION 23 36 00.

TERMINAL UNIT KEYNOTES

1. THE TERMINAL UNIT "MARK", **TUXX-YYYY-

NEW TERMINAL UNIT SCHEDULE - L3 (CONTINUED)

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
AC-20															
TU20-3286	AC-20	AV	No	Yes	75-200	135 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU20-3288	AC-20	AV	No	Yes	75-200	135 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
AC-21															
TU21-3011	AC-21	AV	No	Yes	75-200	130 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU21-3012	AC-21	AV	No	Yes	75-200	160 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU21-3014-3018-3013	AC-21	DC	Yes	No	600-1000	640 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					5, 6, 9, 10, 11
TU21-3016	AC-21	BC	Yes	No	200-400	265 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU21-3017	AC-21	AV	No	Yes	75-200	135 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU21-3018A	AC-21	AV	No	Yes	75-200	135 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU21-3311	AC-21	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU21-3314-3316	AC-21	CV	No	Yes	400-600	435 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3316A	AC-21	CV	No	Yes	400-600	270 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3317-3317A	AC-21	CV	No	Yes	400-600	225 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3318	AC-21	CV	No	Yes	400-600	450 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3322	AC-21	DV	No	Yes	600-1000	720 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					2, 6, 9, 10, 11
TU21-3325	AC-21	BV	No	Yes	200-400	235 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU21-3327	AC-21	AV	No	Yes	75-200	180 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU21-3330	AC-21	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU21-3331-3332	AC-21	CV	No	Yes	400-600	435 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3331-3401	AC-21	CV	No	Yes	400-600	180 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3333	AC-21	CV	No	Yes	400-600	325 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3333-3334-3335	AC-21	BC	Yes	No	200-400	345 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU21-3335	AC-21	DV	No	Yes	600-1000	730 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					2, 6, 9, 10, 11
TU21-3336-3331	AC-21	BC	Yes	No	200-400	400 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU21-3337	AC-21	AV	No	Yes	75-200	80 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU21-3340	AC-21	BV	No	Yes	200-400	260 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU21-3342	AC-21	BV	No	Yes	200-400	260 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU21-3345	AC-21	DC	Yes	No	600-1000	720 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU21-3347	AC-21	CV	No	Yes	400-600	450 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3349	AC-21	CV	No	Yes	400-600	450 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3352	AC-21	CV	No	Yes	400-600	80 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3353	AC-21	AC	Yes	No	75-200	95 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU21-3354	AC-21	CV	No	Yes	400-600	450 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3356	AC-21	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU21-3357-3359	AC-21	CV	No	Yes	400-600	590 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3359	AC-21	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU21-3360	AC-21	CC	Yes	No	400-600	440 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 6, 9, 10, 11
TU21-3362-3363A	AC-21	BV	No	Yes	200-400	350 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU21-3365	AC-21	CV	No	Yes	400-600	480 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3365 CORRIDOR	AC-21	AC	Yes	No	75-200	95 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU21-3367	AC-21	CV	No	Yes	400-600	235 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3369	AC-21	DV	No	Yes	600-1000	780 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					2, 6, 9, 10, 11
TU21-3372	AC-21	BV	No	Yes	200-400	260 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU21-3374	AC-21	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU21-3377	AC-21	BV	No	Yes	200-400	310 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU21-3378	AC-21	BV	No	Yes	200-400	295 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU21-3379	AC-21	BC	Yes	No	200-400	345 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU21-3380	AC-21	CV	No	Yes	400-600	270 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3383	AC-21	AC	Yes	No	75-200	180 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU21-3386	AC-21	AC	Yes	No	75-200	180 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU21-3388	AC-21	BV	No	Yes	200-400	235 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU21-3391	AC-21	DV	No	Yes	600-1000	760 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					2, 6, 9, 10, 11
TU21-3393	AC-21	CV	No	Yes	400-600	470 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3395	AC-21	CV	No	Yes	400-600	500 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3397	AC-21	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU21-3398-3397	AC-21	CV	No	Yes	400-600	350 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU21-3399	AC-21	CV	No	Yes	400-600	440 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
G. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
H. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00AM TO 4:30PM.
I. BASED ON RECORD DRAWINGS, TERMINAL UNITS WITH A SUPPLY AIR FLOW LESS THAN THE RECOMMENDED RANGE INDICATED ON THE SCHEDULE ARE NOT BEING OPERATED AT FULL CAPACITY. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
J. SUPPLY AIR FLOW COULD NOT BE DETERMINED FROM THE AS-BUILTS FOR TERMINAL UNITS SCHEDULED WITH 0 CFM. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
K. BASIS OF DESIGN SINGLE DUCT TERMINAL UNIT WITH REHEAT COIL IS SHOWN BELOW (OR APPROVED EQUAL). CONTRACTOR SHALL PREPARE SEPARATE SUBMITTALS FOR EACH SIZE AND CONFIGURATION ACCORDING TO THE SCHEDULE AND IN ACCORDANCE WITH SPECIFICATION SECTION 23 36 00.

TERMINAL UNIT KEYNOTES

1. THE TERMINAL UNIT "MARK", **TUXX-YYYY-ZZZZ** INDICATES THE AIR HANDLING UNIT SUPPLYING THE TU AND THE ROOM NUMBER SUPPLIED BY THE TU, AS FOLLOWS: "XX" IS THE IDENTIFICATION NUMBER OF THE AIR HANDLING UNIT SUPPLYING THE TU; "YYYY" IS THE ROOM NUMBER SUPPLIED BY THE TU WITH THERMOSTATIC CONTROL; AND "ZZZZ" ARE ADDITIONAL ROOMS SUPPLIED BY THE TU. (SEE MECHANICAL DUCT PLANS FOR TERMINAL UNIT LOCATIONS IN THE INTERSTITIAL SPACE ABOVE THE FLOOR SERVED BY EACH TU.) ROOM NUMBERS FOR UNITS SCHEDULED WITH #1 SHALL BE FIELD VERIFIED.
2. TERMINAL UNIT "TYPE" IS BASED ON VA RECORD DRAWINGS OF EXISTING TU AND INDICATES THE SIZE AND TYPE OF EACH TU, AS FOLLOWS:
3. FIRST LETTER - SUPPLY AIR INLET DUCT DIAMETER, WHERE **A = 6", B = 7", C = 8", D = 9", E = 11", F = 14", G = 15" or 18" x 10", H = 18" or 18" x 14", I = 16" x 16", K = 24" x 16"**
4. SECOND LETTER - CONTROL TYPE, WHERE **C = CONSTANT AIR VOLUME AND V = VARIABLE AIR VOLUME.**
5. CONTRACTOR IS TO PROVIDE A NEW, DDC CONTROLLED TERMINAL UNIT MATCHING THE TYPE AND FLOW OF THE EXISTING UNIT IN THE SAME LOCATION SUPPLYING THE SAME SUPPLY DUCTWORK AND DIFFUSERS.
6. NEW DIGITAL THERMOSTATS ARE TO BE SUPPLIED IN THE SAME LOCATION (ROOM AND MOUNTING) AS EXISTING PNEUMATIC THERMOSTATS REMOVED UNDER THIS CONTRACT. COORDINATE FINAL LOCATIONS WITH VA. (SEE ARCHITECTURAL FLOOR PLANS.)
7. TERMINAL UNIT TYPES, SIZES, WATER AND AIR FLOW RATES ARE BASED ON LIDAR FIELD SURVEYS AND AS-BUILT DOCUMENTATION AND THE CONTRACTOR SHALL VERIFY OPERATING RANGES AND/OR SETPOINTS PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
8. ALL EXISTING TERMINAL UNITS HAVE A MINIMUM INLET STATIC PRESSURE OF 1" W.G. AND A HEATING HOT WATER DELTA T OF 20 DEGREES F. NEW TERMINAL UNITS SHALL MATCH EXISTING PERFORMANCE.

SCHEDULE NOTES

1. LOCATION: WEST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
2. LOCATION: NORTH QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
3. LOCATION: EAST QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
4. LOCATION: SOUTH QUADRANT INTERSTITIAL LEVEL, SEE MH SHEETS.
5. LOCATION: CENTER AREA INTERSTITIAL LEVEL, SEE MH SHEETS.
6. TERMINAL UNIT AIR FLOW RATE AND INLET DUCT SIZE DOCUMENTED FROM VA SUPPLIED AS-BUILT DRAWINGS.
7. AS-BUILT DRAWINGS DO NOT INDICATE TERMINAL UNIT SIZE, CONTRACTOR TO FIELD VERIFY.
8. AS-BUILT DRAWINGS DO NOT INDICATE AIR FLOW RATE, CONTRACTOR TO FIELD VERIFY.
9. CONTRACTOR TO PROVIDE PRE-CONSTRUCTION TAB REPORT TO VERIFY: EXISTING AIR FLOW RATE; EXISTING HEATING HOT WATER FLOW RATE AND EXISTING INLET/OULET DUCT DIMENSIONS.
10. PROVIDE NEW TERMINAL UNIT MATCHING EXISTING AIR FLOW, EXISTING HEATING HOT WATER FLOW AND INLET/OUTLET DUCT DIMENSIONS.
11. CONTRACTOR TO PROVIDE POST-CONSTRUCTION TAB REPORT TO VERIFY AIR FLOW RATE, HEATING WATER FLOW RATE MATCHES PRE-CONSTRUCTION TAB REPORT.
12. PROVIDE NEW 120/24V TRANSFORMER WITH EACH NEW TERMINAL UNIT.

SINGLE DUCT CONSTANT VOLUME AND VARIABLE AIR VOLUME TERMINAL UNITS WITH HOT WATER REHEAT COILS: FURNISH AND INSTALL SINGLE DUCT CONSTANT VOLUME OR VARIABLE AIR VOLUME CONTROL ASSEMBLIES OF SIZES AND CAPACITIES SHOWN ON THE SCHEDULES AND AS DETERMINED BY THE PRE-CONSTRUCTION TAB REPORT. ALL UNITS SHALL BE CAPABLE OF CONSTANT VOLUME OPERATION UP TO THE MAXIMUM AIR AND HOT WATER FLOW RATES OF THE EXISTING TERMINAL UNITS. TERMINAL UNITS SHALL BE ABLE TO OPERATE IN CONSTANT OR VARIABLE VOLUME CONTROL MODE TO ACCOUNT FOR THE RECONFIUGRATION OF THE SPACES THEY SERVE. VALVE ASSEMBLY SHALL BE NORMALLY OPEN ARRANGEMENT, PRESSURE INDEPENDENT AND SHALL BE CAPABLE OF FIELD RESET TO ANY DESIRED AIR FLOW BETWEEN ZERO AND THE MAXIMUM SCHEDULED CFM. ALL TERMINAL UNITS SHALL BE FURNISHED WITH ACOUSTICALLY LINED CASING CONSTRUCTED OF 22 GAUGE GALVANIZED STEEL INTERNAL LINING OF 1" THICKNESS, 1-1/2 POUND DENSITY, UL181 AND ASTM C1071 REQUIREMENTS. EACH UNIT SHALL BE FURNISHED WITH A FACTORY ATTENUATOR SECTION HAVING THE SAME CONSTRUCTION AND LINER AS ABOVE. DAMPER BLADE SHALL BE CONSTRUCTED OF EXTRUDED ALUMINUM WITH RUSTPROOF SELF-LUBRICATING BEARINGS. DAMPER SHALL SEAL AGAINST GASKETED STOPS. THE DAMPER LEAKAGE SHALL BE CERTIFIED TO NOT EXCEED 2 PERCENT LEAKAGE AT 6" INLET STATIC PRESSURE AS DETERMINED BY AIR DIFFUSION COUNCIL STANDARDS. A FLOW MEASURING PROBE SHALL BE INSTALLED IN THE UNIT INTAKE AND PROVIDE TOTAL AND STATIC PRESSURE CONNECTIONS ON THE INLET COLLAR EXTERIOR. SOUND RATINGS SHALL NOT EXCEED THOSE SCHEDULED AT 3" STATIC PRESSURE. RADIATED NOISE CRITERIA ADDITIONALLY ASSUMES A CEILING STC OF 35-39. ALL UNITS SHALL BE RATED FOR A MINIMUM INLET STATIC PRESSURE OF 1" W.G. TERMINALS SHALL BE SHIPPED WITH APPROPRIATE IDENTIFICATION INCLUDING MODEL, SIZE AND CFM MARKED ON THE UNIT. SEE FLOOR PLANS FOR LOCATION AND SCHEDULES FOR THE MAXIMUM AND MINIMUM AIR FLOW REQUIREMENTS AND HEATING WATER GPM OF EACH UNIT. PERMANENTLY AFFIXED ENGRAVED METAL NAMEPLATE CONTAINING MODEL AND SERIAL NUMBER.

UNITS SHALL BE PRICE, KRUEGER, TITUS, OR APPROVED EQUIVALENT.

HEATING: COILS SHALL BE 2 ROWS MINIMUM SELECTED FOR HOT WATER DUTY AT 200 DEGREES F EWT, 180 DEGREED F LWT, AND SHALL BE CAPABLE OF RAISING THE MINIMUM AIR FLOW SCHEDULED ON THE DRAWINGS FROM 55 DEGREES EAT TO 95 DEGREES LAT, USING 4.3 GPM PER 1000 CFM OF AIR FLOW. COILS SHALL BE SELECTED FOR SAME END CONNECTIONS, ARI CERTIFIED, AND SELECTED SUCH THAT MAXIMUM STATIC PRESSURE DROP THROUGH THE ENTIRE VAV REHEAT ASSEMBLY SHALL NOT EXCEED 0.55" APD. WATER PD THROUGH COIL SHALL NOT EXCEED 3'.

TERMINAL UNIT CONTROLS: UNIT CONTROL SYSTEM (VMA 1832 OR APPROVED EQUAL) SHALL INCLUDE DIRECT DIGITAL VARIABLE VOLUME TERMINAL UNIT CONTROLLER MOUNTED IN NEMA 1 ENCLOSURE, 120/24 VAC CONTROL TRANSFORMER SIZED FOR THE REQUIRED CONTROL 24 VAC LOADS, A DETAILED POINT TO POINT WIRING DIAGRAM, AND 24 VAC FLOATING POINT AIR VALVE ACTUATOR AND HOT WATER REHEAT COIL CONTROL VALVE WITH ELECTRONIC FULLY MODULATING ACTUATOR SHALL BE FURNISHED AND INSTALLED BY TEMPERATURE CONTROL SUB-CONTRACTOR UNDER SPECIFICATION SECTION 23 09 23. SECTION 23 09 23 SHALL PROVIDE AND CONNECT ALL CONTROL WIRING, SAFETY DISCONNECT, TRANSFORMER SECONDARY FUSING, ETC. IN ACCORDANCE WITH THE DETAILED POINT TO POINT WIRING DIAGRAM, AND PERFORM A PRELIMINARY STARTUP AND TESTING PROCEDURE ON THE INSTALLED ASSEMBLY. THE TERMINAL UNIT HOT WATER VALVE SHALL BE FURNISHED UNDER SECTION 23 09 23 FOR FIELD PIPING INSTALLATION BY THE CONTRACTOR. ALL REQUIRED DDC SYSTEM COMMUNICATIONS WIRING, AND SPACE TEMPERATURE SENSOR STATION SHALL BE SUPPLIED AND INSTALLED UNDER SECTION 23 09 23.

CFM RANGE	BOX INLET DIAMETER INCHES	FLEXIBLE DUCT INCHES	PRESSURE DROP AT MAX. CFM
75 - 200	6	8	0.55
200 - 400	7	9	0.55
400 - 600	8	10	0.55
600 - 1000	9	11	0.55
1000 - 1600	11	13	0.55
1600 - 2000	14	16	0.55
2000 - 3400	15	17	0.55
3400 - 4200	18	20	0.55
5200 - 6400	24x16	20	0.55

Revisions:	Date:

CONSULTANT

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STAMP

REGISTERED PROFESSIONAL ENGINEER
35126
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DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL SCHEDULES - THIRD FLOOR

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019
Checked: M. Perkins
Drawn: K. Luke

Project Number: 664-18-320
Building Number: 1
Drawing Number: 1M-707

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:45:44 AM

VA FORM 08 - 6231

NEW TERMINAL UNIT SCHEDULE - L4

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS					PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
AC-22															
TU22-4000 CORRIDOR	AC-22	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU22-4002-4003	AC-22	EV	No	Yes	1000-1600	0 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					5, 6, 9, 10, 11
TU22-4004	AC-22	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 6, 9, 10, 11
TU22-4005	AC-22	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU22-4023	AC-22	AV	No	Yes	75-200	0 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4024	AC-22	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU22-4025A-4025-4024B	AC-22	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU22-4027	AC-22	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU22-4028	AC-22	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU22-4029	AC-22	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU22-4030	AC-22	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU22-4031	AC-22	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU22-4032	AC-22	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU22-4033	AC-22	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU22-4039A-CORRIDOR-4506-4507	AC-22	EV	No	Yes	1000-1600	0 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					1, 6, 9, 10, 11
TU22-4041	AC-22	AV	No	Yes	75-200	0 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4042	AC-22	AV	No	Yes	75-200	155 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4044	AC-22	AV	No	Yes	75-200	200 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4046	AC-22	CV	No	Yes	400-600	530 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU22-4071	AC-22	DC	Yes	No	600-1000	665 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					1, 6, 9, 10, 11
TU22-4077 CORRIDOR	AC-22	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4078	AC-22	DC	Yes	No	600-1000	760 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					1, 6, 9, 10, 11
TU22-4078B	AC-22	AV	No	Yes	75-200	600 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					LEVEL 4 WEST
TU22-4078C	AC-22	BC	Yes	No	200-400	200 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 4 WEST
TU22-4079	AC-22	AV	No	Yes	75-200	0 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4081	AC-22	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4082	AC-22	AV	No	Yes	75-200	0 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4085	AC-22	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU22-4085A	AC-22	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU22-4085B	AC-22	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU22-4085C	AC-22	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU22-4085D	AC-22	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU22-4086	AC-22	DV	No	Yes	600-1000	800 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					1, 6, 9, 10, 11
TU22-4502	AC-22	AV	No	Yes	75-200	0 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4506	AC-22	AV	No	Yes	75-200	0 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4506	AC-22	AV	No	Yes	75-200	0 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4508	AC-22	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU22-4511	AC-22	AV	No	Yes	75-200	0 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					1, 6, 9, 10, 11
TU22-4520-4038	AC-22	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU22-4521 CORRIDOR	AC-22	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
AC-23															
TU23-4000 CORRIDOR	AC-23	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU23-4006	AC-23	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU23-4007	AC-23	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU23-4008	AC-23	DV	No	Yes	600-1000	900 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					5, 6, 9, 10, 11
TU23-4009	AC-23	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU23-4010	AC-23	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU23-4021	AC-23	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU23-CORRIDOR 4006	AC-23	BC	Yes	No	200-400	225 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
AC-24															
TU24-4000	AC-24	CV	No	Yes	400-600	0 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					5, 6, 9, 10, 11
TU24-4000 CORRIDOR	AC-24	BV	No	Yes	200-400	0 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU24-4001	AC-24	CV	No	Yes	400-600	0 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					5, 6, 9, 10, 11
TU24-4184A	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4184B	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4185	AC-24	BV	No	Yes	200-400	305 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4186	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4187-4187B	AC-24	DV	No	Yes	600-1000	675 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU24-4189-4190	AC-24	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4192	AC-24	CV	No	Yes	400-600	430 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU24-4194	AC-24	CV	No	Yes	400-600	425 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU24-4196	AC-24	DV	No	Yes	600-1000	720 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU24-4199	AC-24	BV	No	Yes	200-400	265 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4201	AC-24	BV	No	Yes	200-400	255 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4204	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4205	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4207	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4208	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4209	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4210	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4211	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4212 CORRIDOR	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4215	AC-24	BC	Yes	No	200-400	270 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4217	AC-24	BV	No	Yes	200-400	350 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4220	AC-24	DV	No	Yes	600-1000	700 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU24-4221	AC-24	BV	No	Yes	200-400	330 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4224	AC-24	CV	No	Yes	400-600	445 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU24-4227A	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4228	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4229	AC-24	DV	No	Yes	600-1000	620 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU24-4232	AC-24	EV	No	Yes	1000-1600	1320 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					3, 6, 9, 10, 11
TU24-4235	AC-24	AC	Yes	No	75-200	120 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4236	AC-24	AC	Yes	No	75-200	90 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4237	AC-24	DV	No	Yes	600-1000	625 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU24-4240-4240A	AC-24	CV	No	Yes	400-600	350 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU24-4242	AC-24	BV	No	Yes	200-400	255 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4244	AC-24	BV	No	Yes	200-400	235 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4246	AC-24	CV	No	Yes	400-600	420 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU24-4251	AC-24	BC	Yes	No	200-400	270 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4251	AC-24	BC	Yes	No	200-400	270 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4256	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4257	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU24-4258	AC-24	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11

NEW TERMINAL UNIT SCHEDULE - L4

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
TU24-4261	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4262	AC-24	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4263	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4264	AC-24	AC	Yes	No	75-200	120 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4265	AC-24	AC	Yes	No	75-200	120 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4266	AC-24	AC	Yes	No	75-200	120 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4267	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4268	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4269	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4270	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4271	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4272	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4273	AC-24	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4274	AC-24	AC	Yes	No	75-200	160 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4277	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4278	AC-24	AC	Yes	No	75-200	120 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4279	AC-24	AC	Yes	No	75-200	120 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4280	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4281	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU24-4282	AC-24	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
AC-25															
TU25-4238	AC-25	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4285	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4286	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4286-4293	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4288A	AC-25	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU25-4290	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4291	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4293	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4294	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4294	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4298A	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4298B	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4299-4303	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4300	AC-25	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4307	AC-25	AV	No	Yes	75-200	125 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					2, 6, 9, 10, 11
TU25-4308	AC-25	BV	No	Yes	200-400	200 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4310	AC-25	BV	No	Yes	200-400	100 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4312	AC-25	BV	No	Yes	200-400	200 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4315	AC-25	DV	No	Yes	600-1000	650 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					2, 6, 9, 10, 11
TU25-4317	AC-25	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU25-4319A	AC-25	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4323-4322	AC-25	BV	No	Yes	200-400	225 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4324D	AC-25	BC	Yes	No	200-400	175 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4325-CORRIDOR	AC-25	BV	No	Yes	200-400	375 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4326	AC-25	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU25-4328-4329	AC-25	BV	No	Yes	200-400	225 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4330	AC-25	CV	No	Yes	400-600	125 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU25-4333A	AC-25	BV	No	Yes	200-400	275 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4335	AC-25	CV	No	Yes	400-600	250 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU25-4337	AC-25	CV	No	Yes	400-600	275 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU25-4339	AC-25	CV	No	Yes	400-600	400 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU25-4342	AC-25	BV	No	Yes	200-400	150 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4344	AC-25	BV	No	Yes	200-400	100 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-4347	AC-25	DV	No	Yes	600-1000	150 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					2, 6, 9, 10, 11
TU25-4361	AC-25	CV	No	Yes	400-600	270 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU25-4362	AC-25	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU25-4365	AC-25	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					1, 6, 9, 10, 11
TU25-4366A	AC-25	CV	No	Yes	400-600	0 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU25-4368-4369	AC-25	CV	No	Yes	400-600	0 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU25-4371	AC-25	CV	No	Yes	400-600	0 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU25-#1	AC-25	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-#2	AC-25	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-#3	AC-25	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-#4	AC-25	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-#5	AC-25	DC	Yes	No	600-1000	800 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU25-#6	AC-25	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-#7	AC-25	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU25-#8	AC-25	CV	No	Yes	400-600	150 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES. AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.

B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.

C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.

E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.

F. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.

G. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND /

NEW TERMINAL UNIT SCHEDULE - L5

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
AC-26															
TU26-5024A	AC-26	CC	Yes	No	400-600	300 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					1, 6, 9, 10, 11
TU26-5025C	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5025D	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5026-5027	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5028	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5031	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5032	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5033	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5034	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5035	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5035 CORRIDOR	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5036-5039	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5052	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5053	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5055	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5057	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5060-5061-5043	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5061	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5063 CORRIDOR	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5070	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5070	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5072	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5075	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5077-5077C-5077D	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5082	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5085	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-5085	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5086	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-5086	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-#1	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-#2	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-#3	AC-26	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU26-#4	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-#5	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-#6	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-#7	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-#8	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-#9	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU26-#10	AC-26	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
AC-27															
TU27-5000	AC-27	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU27-5000 CORRIDOR	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU27-5005	AC-27	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU27-5006	AC-27	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU27-5010	AC-27	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU27-5012	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU27-5090A	AC-27	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU27-5091	AC-27	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU27-5092	AC-27	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU27-5095A	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5095B	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5099A	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5100A	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5100B	AC-27	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU27-5100C	AC-27	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU27-5100D	AC-27	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU27-5100E	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5101B	AC-27	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU27-5101C	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5101D	AC-27	DC	Yes	No	600-1000	800 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU27-5101F	AC-27	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU27-5102	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5103-5104	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5105	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5106	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5107-5108	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5109	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5110	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5111	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5112	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5113-5114-5116	AC-27	DC	Yes	No	600-1000	800 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU27-5116	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5117	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5118	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5119	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5120	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5121	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5122	AC-27	DC	Yes	No	600-1000	800 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU27-5123	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5129-5138	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5132	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5134	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11

NEW TERMINAL UNIT SCHEDULE - L5

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
TU27-5135	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5136	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5137	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5140	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5164	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5165	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5165	AC-27	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU27-5166	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5167	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5168	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5170	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5172	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5173	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5175	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5176	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU27-5179	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5180	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5233	AC-27	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU27-5257	AC-27	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU27-5277A	AC-27	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU27-#1	AC-27	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES. AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND BALANCING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
G. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
H. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00AM TO 4:30PM.
I. BASED ON RECORD DRAWINGS, TERMINAL UNITS WITH A SUPPLY AIR FLOW LESS THAN THE RECOMMENDED RANGE INDICATED ON THE SCHEDULE ARE NOT BEING OPERATED AT FULL CAPACITY. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
J. SUPPLY AIR FLOW COULD NOT BE DETERMINED FROM THE AS-BUILTS FOR TERMINAL UNITS SCHEDULED WITH 0 CFM. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
K. BASIS OF DESIGN SINGLE DUCT TERMINAL UNIT WITH REHEAT COIL IS SHOWN BELOW (OR APPROVED EQUAL). CONTRACTOR SHALL PREPARE SEPARATE SUBMITTALS FOR EACH SIZE AND CONFIGURATION ACCORDING TO THE SCHEDULE AND IN ACCORDANCE WITH SPECIFICATION SECTION 23 36 00.

TERMINAL UNIT KEYNOTES

1. THE TERMINAL UNIT "MARK", **TUXX-YYYY-ZZZZ** INDICATES THE AIR HANDLING UNIT SUPPLYING THE TU AND THE ROOM NUMBER SUPPLIED BY THE TU. AS FOLLOWS: "XX" IS THE IDENTIFICATION NUMBER OF THE AIR HANDLING UNIT SUPPLYING THE TU; "YYYY" IS THE ROOM NUMBER SUPPLIED BY THE TU WITH THERMOSTATIC CONTROL; AND "ZZZZ" ARE ADDITIONAL ROOMS SUPPLIED BY THE TU. (SEE MECHANICAL DUCT PLANS FOR TERMINAL UNIT LOCATIONS IN THE INTERSTITIAL SPACE ABOVE THE FLOOR SERVED BY EACH TU.) ROOM NUMBERS FOR UNITS SCHEDULED WITH #1 SHALL BE FIELD VERIFIED.
2. TERMINAL UNIT "TYPE" IS BASED ON VA RECORD DRAWINGS OF EXISTING TU AND INDICATES THE SIZE AND TYPE OF EACH TU, AS FOLLOWS:
3. FIRST LETTER - SUPPLY AIR INLET DUCT DIAMETER, WHERE **A = 6", B = 7", C = 8", D = 9", E = 11", F = 14", G = 15" or 18" x 10", H = 18" or 18" x 14", J = 16" x 16", K = 24" x 16"**
4. SECOND LETTER - CONTROL TYPE, WHERE **C = CONSTANT AIR VOLUME AND V = VARIABLE AIR VOLUME.**
5. CONTRACTOR IS TO PROVIDE A NEW, DDC CONTROLLED TERMINAL UNIT MATCHING THE TYPE AND FLOW OF THE EXISTING UNIT IN THE SAME LOCATION SUPPLYING THE SAME SUPPLY DUCTWORK AND DIFFUSERS
6. NEW DIGITAL THERMOSTATS ARE TO BE SUPPLIED IN THE SAME LOCATION (ROOM AND MOUNTING) AS EXISTING PNEUMATIC THERMOSTATS REMOVED UNDER THIS CONTRACT. COORDINATE FINAL LOCATIONS WITH VA. (SEE ARCHITECTURAL FLOOR PLANS.)
7. TERMINAL UNIT TYPES, SIZES, WATER AND AIR FLOW RATES ARE BASED ON LIDAR FIELD SURVEYS AND AS-BUILT DOCUMENTATION AND THE CONTRACTOR SHALL VERIFY OPERATING RANGES AND/OR SETPOINTS PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
8. ALL EXISTING TERMINAL UNITS HAVE A MINIMUM INLET STATIC PRESSURE OF 1" W.G. AND A HEATING HOT WATER DELTA T OF 20 DEGREES F. NEW TERMINAL UNITS SHALL MATCH EXISTING PERFORMANCE.

SCHEDULE NOTES

1. LOCATION: WEST QUADRANT INTERSTITIAL LEVEL. SEE MH SHEETS.
2. LOCATION: NORTH QUADRANT INTERSTITIAL LEVEL. SEE MH SHEETS.
3. LOCATION: EAST QUADRANT INTERSTITIAL LEVEL. SEE MH SHEETS.
4. LOCATION: SOUTH QUADRANT INTERSTITIAL LEVEL. SEE MH SHEETS.
5. LOCATION: CENTER AREA INTERSTITIAL LEVEL. SEE MH SHEETS.
6. TERMINAL UNIT AIR FLOW RATE AND INLET DUCT SIZE DOCUMENTED FROM VA SUPPLIED AS-BUILT DRAWINGS.
7. AS-BUILT DRAWINGS DO NOT INDICATE TERMINAL UNIT SIZE, CONTRACTOR TO FIELD VERIFY.
8. AS-BUILT DRAWINGS DO NOT INDICATE AIR FLOW RATE, CONTRACTOR TO FIELD VERIFY.
9. CONTRACTOR TO PROVIDE PRE-CONSTRUCTION TAB REPORT TO VERIFY: EXISTING AIR FLOW RATE; EXISTING HEATING HOT WATER FLOW RATE AND EXISTING INLET/OULET DUCT DIMENSIONS.
10. PROVIDE NEW TERMINAL UNIT MATCHING EXISTING AIR FLOW, EXISTING HEATING HOT WATER FLOW AND INLET/OUTLET DUCT DIMENSIONS.
11. CONTRACTOR TO PROVIDE POST-CONSTRUCTION TAB REPORT TO VERIFY AIR FLOW RATE, HEATING WATER FLOW RATE MATCHES PRE-CONSTRUCTION TAB REPORT.
12. PROVIDE NEW 120/24V TRANSFORMER WITH EACH NEW TERMINAL UNIT.

SINGLE DUCT CONSTANT VOLUME AND VARIABLE AIR VOLUME TERMINAL UNITS WITH HOT WATER REHEAT COILS: FURNISH AND INSTALL SINGLE DUCT CONSTANT VOLUME OR VARIABLE AIR VOLUME CONTROL ASSEMBLIES OF SIZES AND CAPACITIES SHOWN ON THE SCHEDULES AND AS DETERMINED BY THE PRE-CONSTRUCTION TAB REPORT. ALL UNITS SHALL BE CAPABLE OF CONSTANT VOLUME OPERATION UP TO THE MAXIMUM AIR AND HOT WATER FLOW RATES OF THE EXISTING TERMINAL UNITS. TERMINAL UNITS SHALL BE ABLE TO OPERATE IN CONSTANT OR VARIABLE VOLUME CONTROL MODE TO ACCOUNT FOR THE RECONFIUGRATION OF THE SPACES THEY SERVE. VALVE ASSEMBLY SHALL BE NORMALLY OPEN ARRANGEMENT, PRESSURE INDEPENDENT AND SHALL BE CAPABLE OF FIELD RESET TO ANY DESIRED AIR FLOW BETWEEN ZERO AND THE MAXIMUM SCHEDULED CFM. ALL TERMINAL UNITS SHALL BE FURNISHED WITH ACOUSTICALLY LINED CASING CONSTRUCTED OF 22 GAUGE GALVANIZED STEEL INTERNAL LINING OF 1" THICKNESS, 1-1/2 POUND DENSITY, UL181 AND ASTM C1071 REQUIREMENTS. EACH UNIT SHALL BE FURNISHED WITH A FACTORY ATTENUATOR SECTION HAVING THE SAME CONSTRUCTION AND LINER AS ABOVE. DAMPER BLADE SHALL BE CONSTRUCTED OF EXTRUDED ALUMINUM WITH RUSTPROOF SELF-LUBRICATING BEARINGS. DAMPER SHALL SEAL AGAINST GASKETED STOPS. THE DAMPER LEAKAGE SHALL BE CERTIFIED TO NOT EXCEED 2 PERCENT LEAKAGE AT 6" INLET STATIC PRESSURE AS DETERMINED BY AIR DIFFUSION COUNCIL STANDARDS. A FLOW MEASURING PROBE SHALL BE INSTALLED IN THE UNIT INTAKE AND PROVIDE TOTAL AND STATIC PRESSURE CONNECTIONS ON THE INLET COLLAR EXTERIOR. SOUND RATINGS SHALL NOT EXCEED THOSE SCHEDULED AT 3" STATIC PRESSURE. RADIATED NOISE CRITERIA ADDITIONALLY ASSUMES A CEILING STC OF 35-39. ALL UNITS SHALL BE RATED FOR A MINIMUM INLET STATIC PRESSURE OF 1" W.G. TERMINALS SHALL BE SHIPPED WITH APPROPRIATE IDENTIFICATION INCLUDING MODEL, SIZE AND CFM MARKED ON THE UNIT. SEE FLOOR PLANS FOR LOCATION AND SCHEDULES FOR THE MAXIMUM AND MINIMUM AIR FLOW REQUIREMENTS AND HEATING WATER GPM OF EACH UNIT. PERMANENTLY AFFIXED ENGRAVED METAL NAMEPLATE CONTAINING MODEL AND SERIAL NUMBER.

UNITS SHALL BE PRICE, KRUEGER, TITUS, OR APPROVED EQUIVALENT.

HEATING: COILS SHALL BE 2 ROWS MINIMUM SELECTED FOR HOT WATER DUTY AT 200 DEGREES F EWT, 180 DEGREED F LWT, AND SHALL BE CAPABLE OF RAISING THE MINIMUM AIR FLOW SCHEDULED ON THE DRAWINGS FROM 55 DEGREES EAT TO 95 DEGREES LAT, USING 4.3 GPM PER 1000 CFM OF AIR FLOW. COILS SHALL BE SELECTED FOR SAME END CONNECTIONS, ARI CERTIFIED, AND SELECTED SUCH THAT MAXIMUM STATIC PRESSURE DROP THROUGH THE ENTIRE VAV REHEAT ASSEMBLY SHALL NOT EXCEED 0.55" APD. WATER PD THROUGH COIL SHALL NOT EXCEED 3'.

TERMINAL UNIT CONTROLS: UNIT CONTROL SYSTEM (VMA 1832 OR APPROVED EQUAL) SHALL INCLUDE DIRECT DIGITAL VARIABLE VOLUME TERMINAL UNIT CONTROLLER MOUNTED IN NEMA 1 ENCLOSURE, 120/24 VAC CONTROL TRANSFORMER SIZED FOR THE REQUIRED CONTROL 24 VAC LOADS, A DETAILED POINT TO POINT WIRING DIAGRAM, AND 24 VAC FLOATING POINT AIR VALVE ACTUATOR AND HOT WATER REHEAT COIL CONTROL VALVE WITH ELECTRONIC FULLY MODULATING ACTUATOR SHALL BE FURNISHED AND INSTALLED BY TEMPERATURE CONTROL SUB-CONTRACTOR UNDER SPECIFICATION SECTION 23 09 23. SECTION 23 09 23 SHALL PROVIDE AND CONNECT ALL CONTROL WIRING, SAFETY DISCONNECT, TRANSFORMER SECONDARY FUSING, ETC. IN ACCORDANCE WITH THE DETAILED POINT TO POINT WIRING DIAGRAM, AND PERFORM A PRELIMINARY STARTUP AND TESTING PROCEDURE ON THE INSTALLED ASSEMBLY. THE TERMINAL UNIT HOT WATER VALVE SHALL BE FURNISHED UNDER SECTION 23 09 23 FOR FIELD PIPING INSTALLATION BY THE CONTRACTOR. ALL REQUIRED DDC SYSTEM COMMUNICATIONS WIRING, AND SPACE TEMPERATURE SENSOR STATION SHALL BE SUPPLIED AND INSTALLED UNDER SECTION 23 09 23.

| CFM RANGE | BOX INLET DIAMETER INCHES

NEW TERMINAL UNIT SCHEDULE - L5 (CONTINUED)

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
AC-28															
TU28-5000	AC-28	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					5, 6, 9, 10, 11
TU28-5000	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU28-5004-5004A-5006	AC-28	EV	No	Yes	1000-1600	1300 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					5, 6, 9, 10, 11
TU28-5006	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU28-5019	AC-28	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 6, 9, 10, 11
TU28-5020	AC-28	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 6, 9, 10, 11
TU28-5021	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU28-5182B	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5183	AC-28	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU28-5185	AC-28	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU28-5186-5186B	AC-28	DV	No	Yes	600-1000	800 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU28-5188-5189A	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5191	AC-28	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU28-5193	AC-28	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU28-5195	AC-28	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					3, 6, 9, 10, 11
TU28-5198	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5200	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5203-5256	AC-28	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU28-5204	AC-28	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU28-5207	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5217	AC-28	DV	No	Yes	600-1000	800 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU28-5219	AC-28	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU28-5221	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5224-5225	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5226	AC-28	DV	No	Yes	600-1000	800 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU28-5228	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5231-5231A	AC-28	EV	No	Yes	1000-1600	1300 CFM	11"	1.51 SF	39000 Btu/h	3.90 GPM					3, 6, 9, 10, 11
TU28-5233-5234	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5235	AC-28	DV	No	Yes	600-1000	800 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU28-5237 CORRIDOR	AC-28	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU28-5237-5238	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5240	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5242	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5244	AC-28	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU28-5253	AC-28	CV	No	Yes	400-600	500 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU28-5255	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5258	AC-28	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU28-5260	AC-28	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU28-5261	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5262	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5265	AC-28	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU28-5267	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5268	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5269	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5273	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-5274	AC-28	DV	No	Yes	600-1000	800 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					3, 6, 9, 10, 11
TU28-5276	AC-28	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU28-#1	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-#2	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-#3	AC-28	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU28-#4	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-#5	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-#6	AC-28	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-#7	AC-28	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU28-CORRIDOR	AC-28	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
AC-29															
TU29-5001	AC-29	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					5, 6, 9, 10, 11
TU29-5017	AC-29	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU29-5017	AC-29	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU29-5017	AC-29	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU29-5017	AC-29	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU29-5018	AC-29	AV	No	Yes	75-200	150 CFM	6"	0.38 SF	4900 Btu/h	0.49 GPM					5, 6, 9, 10, 11
TU29-5019	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					5, 6, 9, 10, 11
TU29-5280B	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5280C	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5280E	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5281	AC-29	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU29-5282	AC-29	CV	No	Yes	400-600	300 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					2, 6, 9, 10, 11
TU29-5283D	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5284-CORRIDOR	AC-29	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU29-5296-5328	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5309	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5313	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5314	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5316	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5317	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5319	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5320	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5321	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5321A	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5321B	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5321C	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5325B	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5326	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5328	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5328	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5328 CORRIDOR	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5329	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5329B	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5331	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5336	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5337	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5338	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5339	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5340	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5341 COORIDOR	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11

NEW TERMINAL UNIT SCHEDULE - L5 (CONTINUED)

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS						PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	CFM	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
TU29-5342	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5343	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5344	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5345	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5345C	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5346	AC-29	BV	No	Yes	200-400	300 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU29-5346	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5347A-5356	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5348	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5349	AC-29	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU29-5352	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5353	AC-29	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU29-5355	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5356	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5357B-5354-5355	AC-29	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU29-5358A-5358A	AC-29	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU29-5360-5360L	AC-29	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 6, 9, 10, 11
TU29-5360A-5362	AC-29	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 6, 9, 10, 11
TU29-5360E-5360C-5360B	AC-29	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 6, 9, 10, 11
TU29-5360F	AC-29	CC	Yes	No	400-600	500 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 6, 9, 10, 11
TU29-5360H	AC-29	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU29-5367	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-5368	AC-29	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU29-5369-5370	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#1	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#2	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#3	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#4	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#5	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#6	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#7	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#8	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#9	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#10	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#11	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#12	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#13	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#14	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#15	AC-29	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU29-#16	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#17	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#18	AC-29	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#19	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#20	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-#21	AC-29	BC	Yes	No	200-400	300 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					5, 6, 9, 10, 11
TU29-CORRIDOR	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU29-CORRIDOR	AC-29	AC	Yes	No	75-200	0 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
G. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
H. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00AM TO 4:30PM.
I. BASED ON RECORD DRAWINGS, TERMINAL UNITS WITH A SUPPLY AIR FLOW LESS THAN THE RECOMMENDED RANGE INDICATED ON THE SCHEDULE ARE NOT BEING OPERATED AT FULL CAPACITY. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
J. SUPPLY AIR FLOW COULD NOT BE DETERMINED FROM THE AS-BUILTS FOR TERMINAL UNITS SCHEDULED WITH 0 CFM. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
K. BASIS OF DESIGN SINGLE DUCT TERMINAL UNIT WITH REHEAT COIL IS SHOWN BELOW (OR APPROVED EQUAL). CONTRACTOR SHALL PREPARE SEPARATE SUBMITTALS FOR EACH SIZE AND CONFIGURATION ACCORDING TO THE SCHEDULE AND IN ACCORDANCE WITH SPECIFICATION SECTION 23 36 00.

TERMINAL UNIT KEYNOTES

1. THE TERMINAL UNIT "MARK", **TUXX-YYYY-ZZZZ** INDICATES THE AIR HANDLING UNIT SUPPLYING THE TU AND THE ROOM NUMBER SUPPLIED BY THE TU, AS FOLLOWS: "XX" IS THE IDENTIFICATION NUMBER OF THE AIR HANDLING UNIT SUPPLYING THE TU; "YYYY" IS THE ROOM NUMBER SUPPLIED BY THE TU WITH THERMOSTATIC CONTROL; AND "ZZZZ" ARE ADDITIONAL ROOMS SUPPLIED BY THE TU. (SEE MECHANICAL DUCT PLANS FOR TERMINAL UNIT LOCATIONS IN THE INTERSTITIAL SPACE ABOVE THE FLOOR SERVED BY EACH TU.) ROOM NUMBERS FOR UNITS SCHEDULED WITH #1 SHALL BE FIELD VERIFIED.
2. TERMINAL UNIT "TYPE" IS BASED ON VA RECORD DRAWINGS OF EXISTING TU AND INDICATES THE SIZE AND TYPE OF EACH TU, AS FOLLOWS:
3. FIRST LETTER - SUPPLY AIR INLET DUCT DIAMETER, WHERE **A = 6", B = 7", C = 8", D = 9", E = 11", F = 14", G = 15" or 18" x 10", H = 15" or 18" x 14", J = 16" x 16", K = 24" x 16"**
4. SECOND LETTER - CONTROL TYPE, WHERE **C = CONSTANT AIR VOLUME AND V = VARIABLE AIR VOLUME.**
5. CONTRACTOR IS TO PROVIDE A NEW, DDC CONTROLLED TERMINAL UNIT MATCHING THE TYPE AND FLOW OF THE EXISTING UNIT IN THE SAME LOCATION SUPPLYING THE SAME SUPPLY DUCTWORK AND DIFFUSERS.
6. NEW DIGITAL THERMOSTATS ARE TO BE SUPPLIED IN TH

NEW TERMINAL UNIT SCHEDULE - L6

MARK	AHU ID#	TYPE ID	TYPE CAV	TYPE VAV	AS-BUILT SPECIFICATIONS CFM RANGE	AS-BUILT SPECIFICATIONS CFM	AS-BUILT SPECIFICATIONS SIZE	AS-BUILT SPECIFICATIONS COIL AREA	AS-BUILT SPECIFICATIONS COIL CAPACITY	AS-BUILT SPECIFICATIONS COIL FLOW	PRE-CONSTRUCTION TAB CFM	PRE-CONSTRUCTION TAB GPM	POST-CONSTRUCTION TAB CFM	POST-CONSTRUCTION TAB GPM	NOTES
AC-30															
TU30-6021-6026	AC-30	CC	Yes	No	400-600	590 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					1, 6, 9, 10, 11
TU30-6022	AC-30	CC	Yes	No	400-600	300 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					1, 6, 9, 10, 11
TU30-6023	AC-30	AC	Yes	No	75-200	180 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6025	AC-30	BC	Yes	No	200-400	400 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6028	AC-30	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6028A	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6029	AC-30	BC	Yes	No	200-400	380 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6029A	AC-30	AC	Yes	No	75-200	380 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6030A	AC-30	BC	Yes	No	200-400	380 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6032	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6032A	AC-30	BC	Yes	No	200-400	220 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6033	AC-30	AC	Yes	No	75-200	180 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6039	AC-30	EC	Yes	No	1000-1600	1220 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					1, 6, 9, 10, 11
TU30-6040	AC-30	AC	Yes	No	75-200	185 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6043	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6044	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6044A	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6045B	AC-30	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6046	AC-30	AC	Yes	No	75-200	180 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6047	AC-30	CC	Yes	No	400-600	150 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					1, 6, 9, 10, 11
TU30-6048	AC-30	AC	Yes	No	75-200	180 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6049	AC-30	AC	Yes	No	75-200	180 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6051	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6052	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6052	AC-30	AC	Yes	No	75-200	180 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6052	AC-30	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6052	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6055A	AC-30	AC	Yes	No	75-200	185 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6056	AC-30	CC	Yes	No	400-600	540 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					1, 6, 9, 10, 11
TU30-6056A	AC-30	BC	Yes	No	200-400	370 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6057	AC-30	DC	Yes	No	600-1000	740 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					1, 6, 9, 10, 11
TU30-6058	AC-30	BC	Yes	No	200-400	370 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6059	AC-30	AC	Yes	No	75-200	105 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6061	AC-30	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6062	AC-30	BC	Yes	No	200-400	390 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6063	AC-30	AC	Yes	No	75-200	195 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6064	AC-30	AC	Yes	No	75-200	195 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6064-6078	AC-30	DC	Yes	No	600-1000	690 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					1, 6, 9, 10, 11
TU30-6064F	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6066-CORRIDOR	AC-30	AC	Yes	No	75-200	105 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6069	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6070-6066	AC-30	CC	Yes	No	400-600	585 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					1, 6, 9, 10, 11
TU30-6075	AC-30	DC	Yes	No	600-1000	720 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					1, 6, 9, 10, 11
TU30-6076	AC-30	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6079	AC-30	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6080	AC-30	BC	Yes	No	200-400	150 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6081	AC-30	AC	Yes	No	75-200	160 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6082	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6083	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6083A	AC-30	DC	Yes	No	600-1000	360 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					1, 6, 9, 10, 11
TU30-6086	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6087	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6088	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6088	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6088	AC-30	CC	Yes	No	400-600	360 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					1, 6, 9, 10, 11
TU30-6088-CORRIDOR	AC-30	CC	Yes	No	400-600	330 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					1, 6, 9, 10, 11
TU30-6091	AC-30	BC	Yes	No	200-400	400 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6093	AC-30	AC	Yes	No	75-200	180 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					1, 6, 9, 10, 11
TU30-6095	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6095A	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6096	AC-30	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
TU30-6098	AC-30	BC	Yes	No	200-400	225 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					1, 6, 9, 10, 11
AC-31															
TU31-6099A	AC-31	AC	Yes	No	75-200	90 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU31-6100-6135	AC-31	DC	Yes	No	600-1000	620 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU31-6101-6103	AC-31	DC	Yes	No	600-1000	460 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU31-6106	AC-31	BC	Yes	No	200-400	290 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU31-6107	AC-31	CC	Yes	No	400-600	535 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU31-6108-6108A	AC-31	FC	Yes	No	1600-2000	1110 CFM	14"	1.82 SF	87000 Btu/h	8.70 GPM					4, 6, 9, 10, 11
TU31-6109	AC-31	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU31-6111	AC-31	DC	Yes	No	600-1000	615 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU31-6112	AC-31	BC	Yes	No	200-400	325 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU31-6113	AC-31	EC	Yes	No	1000-1600	695 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					4, 6, 9, 10, 11
TU31-6114	AC-31	AC	Yes	No	75-200	160 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
TU31-6115-6115A	AC-31	EC	Yes	No	1000-1600	1150 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					4, 6, 9, 10, 11
TU31-6116	AC-31	BC	Yes	No	200-400	290 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU31-6117-6117A	AC-31	EC	Yes	No	1000-1600	1110 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					4, 6, 9, 10, 11
TU31-6121-6114	AC-31	DC	Yes	No	600-1000	690 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					4, 6, 9, 10, 11
TU31-6122	AC-31	CC	Yes	No	400-600	535 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU31-6123	AC-31	BC	Yes	No	200-400	350 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					4, 6, 9, 10, 11
TU31-6133A	AC-31	CC	Yes	No	400-600	600 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					4, 6, 9, 10, 11
TU31-6144	AC-31	AC	Yes	No	75-200	190 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					4, 6, 9, 10, 11
AC-32															
TU32-6148	AC-32	AC	Yes	No	75-200	105 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6148-6153	AC-32	DC	Yes	No	600-1000	610 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU32-6150	AC-32	DC	Yes	No	600-1000	950 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU32-6151	AC-32	AC	Yes	No	75-200	130 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6152	AC-32	AC	Yes	No	75-200	125 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6156	AC-32	BC	Yes	No	200-400	210 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6158	AC-32	DC	Yes	No	600-1000	585 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU32-6159	AC-32	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6160	AC-32	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6161	AC-32	AC	Yes	No	75-200	180 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6162	AC-32	AC	Yes	No	75-200	120 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6163	AC-32	BC	Yes	No	200-400	380 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6164	AC-32	BC	Yes	No	600-1000	760 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU32-6170	AC-32	BC	Yes	No	200-400	380 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6171	AC-32	BC	Yes	No	200-400	380 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11

NEW TERMINAL UNIT SCHEDULE - L6

MARK	AHU ID#	TYPE ID	TYPE CAV	TYPE VAV	AS-BUILT SPECIFICATIONS CFM RANGE	AS-BUILT SPECIFICATIONS CFM	AS-BUILT SPECIFICATIONS SIZE	AS-BUILT SPECIFICATIONS COIL AREA	AS-BUILT SPECIFICATIONS COIL CAPACITY	AS-BUILT SPECIFICATIONS COIL FLOW	PRE-CONSTRUCTION TAB CFM	PRE-CONSTRUCTION TAB GPM	POST-CONSTRUCTION TAB CFM	POST-CONSTRUCTION TAB GPM	NOTES
TU32-6172	AC-32	BC	Yes	No	200-400	380 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6173	AC-32	AC	Yes	No	75-200	120 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6174	AC-32	AC	Yes	No	75-200	170 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6174G	AC-32	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6174G	AC-32	BC	Yes	No	200-400	0 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6175	AC-32	CC	Yes	No	400-600	550 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					3, 6, 9, 10, 11
TU32-6175A	AC-32	BC	Yes	No	200-400	290 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6176	AC-32	BC	Yes	No	200-400	240 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6178	AC-32	BC	Yes	No	200-400	245 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6179	AC-32	BC	Yes	No	200-400	340 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6180	AC-32	DC	Yes	No	600-1000	570 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU32-6181	AC-32	AC	Yes	No	75-200	105 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6181-6182	AC-32	AC	Yes	No	75-200	145 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6185	AC-32	CV	No	Yes	400-600	460 CFM	8"	0.80 SF	13000 Btu/h	1.30 GPM					3, 6, 9, 10, 11
TU32-6186	AC-32	AC	Yes	No	75-200	160 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6187	AC-32	AC	Yes	No	75-200	120 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6188A	AC-32	BC	Yes	No	200-400	380 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6189C	AC-32	AC	Yes	No	75-200	173 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6191	AC-32	BC	Yes	No	200-400	380 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6193	AC-32	DC	Yes	No	600-1000	760 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU32-6194	AC-32	AC	Yes	No	75-200	160 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6195	AC-32	AC	Yes	No	75-200	130 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6196-6205	AC-32	DC	Yes	No	600-1000	675 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU32-6197A	AC-32	DC	Yes	No	600-1000	215 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU32-6198	AC-32	AC	Yes	No	75-200	120 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6200	AC-32	DC	Yes	No	600-1000	235 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU32-6201	AC-32	BC	Yes	No	200-400	310 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU32-6202	AC-32	DC	Yes	No	600-1000	365 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU32-6203	AC-32	AC	Yes	No	75-200	170 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6204	AC-32	DC	Yes	No	600-1000	210 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					3, 6, 9, 10, 11
TU32-6204-CORRIDOR	AC-32	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU32-6206-6206A	AC-32	CC	Yes	No	400-600	460 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					3, 6, 9, 10, 11
TU32-6207	AC-32	CC	Yes	No	400-600	460 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					3, 6, 9, 10, 11
AC-33															
TU33-6210	AC-33	BC	Yes	No	200-400	340 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU33-6212	AC-33	AC	Yes	No	75-200	150 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU33-6212	AC-33	AC	Yes	No	75-200	190 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU33-6215	AC-33	BC	Yes	No	200-400	390 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU33-6219	AC-33	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU33-6220	AC-33	AC	Yes	No	75-200	110 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU33-6221	AC-33	AC	Yes	No	75-200	145 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU33-6222	AC-33	DC	Yes	No	600-1000	625 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU33-6222A-6222B	AC-33	EC	Yes	No	1000-1600	1600 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					2, 6, 9, 10, 11
TU33-6222D-6222E	AC-33	EC	Yes	No	1000-1600	1600 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					2, 6, 9, 10, 11
TU33-6223	AC-33	BC	Yes	No	200-400	275 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU33-6227	AC-33	BC	Yes	No	200-400	345 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU33-6228	AC-33	AC	Yes	No	75-200	110 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU33-6229	AC-33	AC	Yes	No	75-200	110 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU33-6230	AC-33	DC	Yes	No	600-1000	685 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU33-6231	AC-33	BC	Yes	No	200-400	320 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU33-6232	AC-33	CC	Yes	No	400-600	420 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 6, 9, 10, 11
TU33-6233-6233A	AC-33	DC	Yes	No	600-1000	935 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU33-6235	AC-33	DC	Yes	No	600-1000	760 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU33-6236	AC-33	AC	Yes	No	75-200	110 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU33-6237	AC-33	AC	Yes	No	75-200	110 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU33-6238	AC-33	DC	Yes	No	600-1000	1000 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU33-6239	AC-33	BV	No	Yes	200-400	305 CFM	7"	0.59 SF	8700 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU33-6240-CORRIDOR	AC-33	AC	Yes	No	75-200	110 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU33-6242	AC-33	CC	Yes	No	400-600	560 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 6, 9, 10, 11
TU33-6243-6243A	AC-33	DC	Yes	No	600-1000	950 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU33-6244-6240	AC-33	DV	No	Yes	600-1000	655 CFM	9"	1.01 SF	21600 Btu/h	2.16 GPM					2, 6, 9, 10, 11
TU33-6245-6245A	AC-33	DC	Yes	No	600-1000	600 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU33-6246-6245A	AC-33	DC	Yes	No	600-1000	600 CFM	9"	1.01 SF	43500 Btu/h	4.35 GPM					2, 6, 9, 10, 11
TU33-6246A-6247	AC-33	CC	Yes	No	400-600	600 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 6, 9, 10, 11
TU33-6249	AC-33	AC	Yes	No	75-200	100 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU33-6252C	AC-33	BC	Yes	No	200-400	360 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU33-6254-6233A-6244	AC-33	EC	Yes	No	1000-1600	1330 CFM	11"	1.51 SF	69000 Btu/h	6.90 GPM					2, 6, 9, 10, 11
TU33-6254-6245A-6254B	AC-33	FC	Yes	No	1600-2000	1630 CFM	14"	1.82 SF	87000 Btu/h	8.70 GPM					2, 6, 9, 10, 11
TU33-6256	AC-33	BC	Yes	No	200-400	200 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU33-6256-6253	AC-33	CC	Yes	No	400-600	570 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 6, 9, 10, 11
TU33-6257	AC-33	BC	Yes	No	200-400	320 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU33-6258	AC-33	BC	Yes	No	200-400	230 CFM	7"	0.59 SF	17400 Btu/h	1.74 GPM					2, 6, 9, 10, 11
TU33-6258-6259	AC-33	CC	Yes	No	400-600	565 CFM	8"	0.80 SF	26000 Btu/h	2.60 GPM					2, 6, 9, 10, 11
TU33-6260	AC-33	AC	Yes	No	75-200	130 CFM	6"	0.38 SF	8700 Btu/h	0.87 GPM					2, 6, 9, 10, 11
TU33-6261	AC-33	AC	Yes	No	75-200	130 CFM	6"	0.38 SF	8700

AIR HANDLING UNIT AND RELIEF FAN CONTROL PANEL SCHEDULE

SYMBOL	ENCLOSURE DIMENSIONS (L" x H" x D")	POWER (V/PH/HZ)	CONTROL DIAGRAM	MANUFACTURER	MODEL #	Level	NOTES
BASEMENT							
CP-AC2	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	BASEMENT	1
CP-AC4	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	BASEMENT	1
CP-GX1	16"x16"x6", NEMA 4/12	120/1/60	B2/M-802	JCI	NAE4510, FAC2610, IOM4711	BASEMENT	1
CP-TF9	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	BASEMENT	1
FIRST FLOOR INTERSTITIAL							
CP-AC6	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-AC7	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-AC8	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-AC9	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-AC10	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-AC11	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-AC12	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-AC13	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-AC37	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-GX10	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-GX58	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
SECOND FLOOR INTERSTITIAL							
CP-AC14	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
CP-AC15	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
CP-AC16	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
CP-AC17	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
CP-GX14	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
CP-GX17	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
CP-GX18	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
CP-GX20	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
THIRD FLOOR INTERSTITIAL							
CP-AC18	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
CP-AC19	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
CP-AC20	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
CP-AC21	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
CP-GX22	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
CP-GX25	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
CP-GX27	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
CP-GX28	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
FOURTH FLOOR INTERSTITIAL							
CP-AC22	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FOURTH FLOOR INTERSTITIAL	1
CP-AC24	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FOURTH FLOOR INTERSTITIAL	1
CP-AC25	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FOURTH FLOOR INTERSTITIAL	1
CP-GX30	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FOURTH FLOOR INTERSTITIAL	1
CP-GX35	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FOURTH FLOOR INTERSTITIAL	1
CP-GX36	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FOURTH FLOOR INTERSTITIAL	1
FIFTH FLOOR INTERSTITIAL							
CP-AC26	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
CP-AC27	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
CP-AC28	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
CP-AC29	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
CP-GX38	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
CP-GX40	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
CP-GX42	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
CP-GX44	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
SIXTH FLOOR INTERSTITIAL							
CP-AC30	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SIXTH FLOOR INTERSTITIAL	1
CP-AC31	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SIXTH FLOOR INTERSTITIAL	1
CP-AC32	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SIXTH FLOOR INTERSTITIAL	1
CP-AC33	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SIXTH FLOOR INTERSTITIAL	1
CP-GX46	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SIXTH FLOOR INTERSTITIAL	1
CP-GX50	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SIXTH FLOOR INTERSTITIAL	1
CP-GX52	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SIXTH FLOOR INTERSTITIAL	1
Grand total: 52							

DUCT MOUNTED REHEAT COIL SCHEDULE

MARK	DESIGN CFM	DUCT CONNECTION SIZE	EAT (F)	LAT (F)	HEATING CAPACITY (BTU/H)	WATER FLOW (GPM)	AIR HANDLING UNIT SERVED	Level	NOTES
BASEMENT									
RH2.1	1600	30" x 12"	55	75	39500	3.95	AC-2	BASEMENT	5, 6, 7
RH2.2	4840	42" x 22"	55	75	104500	10.45	AC-2	BASEMENT	5, 6, 7
RH2.3	14760	72" X 39"	55	75	239000	23.9	AC-2	BASEMENT	5, 6, 7
RH3.1	14760	72" x 40"	55	75	239000	23.9	AC-4	BASEMENT	5, 6, 7
FIRST FLOOR INTERSTITIAL									
RH1.1	1600	30" x 12"	55	75	39500	3.95	AC-11	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH4.1	1600	46" x 18"	55	75	39500	3.95	AC-12	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH5.1	7935	48" X 36"	55	75	189000	18.9	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH6.1	900	24" X 8"	55	75	20000	2	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH6.2	900	24" X 8"	55	75	20000	2	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH7.1-1407	300	12" X 6"	55	75	13900	1.39	AC-11	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH7.2-1408	300	12" X 6"	55	75	13900	1.39	AC-11	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH7.3-1409	300	12" X 6"	55	75	13900	1.39	AC-11	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH7.4	300	12" X 6"	55	75	13900	1.39	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH7.5	300	12" X 6"	55	75	13900	1.39	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH7.6	300	12" X 6"	55	75	13900	1.39	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH7.7	300	12" X 6"	55	75	13900	1.39	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH7.8	400	12" X 8"	55	75	15100	1.51	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH7.9	400	12" X 8"	55	75	15100	1.51	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH7.10	400	12" X 8"	55	75	15100	1.51	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH8.1-1410	400	12" X 8"	55	75	15100	1.51	AC-11	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH8.2	400	12" X 8"	55	75	15100	1.51	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH8.3	400	12" X 8"	55	75	15100	1.51	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH9.1	500	16" X 8"	55	75	15600	1.56	AC-35	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH11.1	7000	48" X 29"	55	75	176000	17.6	AC-11	FIRST FLOOR INTERSTITIAL	5, 6, 7
RH12.1	5600	48" X 22"	55	75	137000	13.7	AC-11	FIRST FLOOR INTERSTITIAL	5, 6, 7
Grand total: 25									

TERMINAL UNIT CONTROL PANEL SCHEDULE

SYMBOL	ENCLOSURE DIMENSIONS (L" x H" x D")	POWER (V/PH/HZ)	CONTROL DIAGRAM	MANUFACTURER	MODEL	Level	NOTES
BASEMENT							
CP-TU-AC2	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	BASEMENT	1
CP-TU-AC4	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	BASEMENT	1
FIRST FLOOR INTERSTITIAL							
CP-TU-AC6	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-TU-AC7	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-TU-AC8	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-TU-AC9	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-TU-AC10	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-TU-AC11	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-TU-AC12	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-TU-AC13	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
CP-TU-AC37	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIRST FLOOR INTERSTITIAL	1
SECOND FLOOR INTERSTITIAL							
CP-TU-AC14	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
CP-TU-AC15	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
CP-TU-AC16	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
CP-TU-AC17	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SECOND FLOOR INTERSTITIAL	1
THIRD FLOOR INTERSTITIAL							
CP-TU-AC18	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
CP-TU-AC19	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
CP-TU-AC20	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
CP-TU-AC21	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	THIRD FLOOR INTERSTITIAL	1
FOURTH FLOOR INTERSTITIAL							
CP-TU-AC22	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FOURTH FLOOR INTERSTITIAL	1
CP-TU-AC24	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FOURTH FLOOR INTERSTITIAL	1
CP-TU-AC25	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FOURTH FLOOR INTERSTITIAL	1
FIFTH FLOOR INTERSTITIAL							
CP-TU-AC26	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
CP-TU-AC27	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
CP-TU-AC28	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
CP-TU-AC29A	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	FIFTH FLOOR INTERSTITIAL	1
SIXTH FLOOR INTERSTITIAL							
CP-TU-AC30	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SIXTH FLOOR INTERSTITIAL	1
CP-TU-AC31	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SIXTH FLOOR INTERSTITIAL	1
CP-TU-AC32	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SIXTH FLOOR INTERSTITIAL	1
CP-TU-AC33	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SIXTH FLOOR INTERSTITIAL	1
SEVENTH FLOOR							
CP-TU-AC35	16"x16"x6", NEMA 4/12	120/1/60	F1/M-802	JCI	NAE4510, FAC2610, IOM4711	SEVENTH FLOOR	1
Grand total: 31							

VARIABLE FREQUENCY DRIVE SCHEDULE (DEDUCT ALTERNATES NO. 10 - 19)

MARK	MINIMUM VFD HP CAPACITY	SYMBOL(S) SERVED	MANUFACTURER	MODEL	Level	NOTES
BASEMENT						
VFD-AC1	20	AC-1	ABB	ACH580 w/ E-Clipse	BASEMENT	2,3
VFD-AC2	25	AC-2	ABB	ACH580 w/ E-Clipse	BASEMENT	2,3
VFD-GX1	7.5	GX-1	ABB	ACH580 w/ E-Clipse	BASEMENT	2,3
FIRST FLOOR INTERSTITIAL						
VFD-AC10	20	AC-10	ABB	ACH580 w/ E-Clipse	FIRST FLOOR INTERSTITIAL	2,3
VFD-AC11	20	AC-10	ABB	ACH580 w/ E-Clipse	FIRST FLOOR INTERSTITIAL	2,3
SECOND FLOOR INTERSTITIAL						
VFD-AC14	25	AC-14	ABB	ACH580 w/ E-Clipse	SECOND FLOOR INTERSTITIAL	2,3
VFD-AC15	25	AC-15	ABB	ACH580 w/ E-Clipse	SECOND FLOOR INTERSTITIAL	2,3
VFD-AC16	25	AC-16	ABB	ACH580 w/ E-Clipse	SECOND FLOOR INTERSTITIAL	2,3
VFD-AC17	25	AC-17	ABB	ACH580 w/ E-Clipse	SECOND FLOOR INTERSTITIAL	2,3
VFD-GX14	10	GX-14	ABB	ACH580 w/ E-Clipse	SECOND FLOOR INTERSTITIAL	2,3
VFD-GX14	10	GX-14	ABB	ACH580 w/ E-Clipse	SECOND FLOOR INTERSTITIAL	4
VFD-GX17	3	AC-15	ABB	ACH580 w/ E-Clipse	SECOND FLOOR INTERSTITIAL	2,3
VFD-GX17	3	AC-15	ABB	ACH580 w/ E-Clipse	SECOND FLOOR INTERSTITIAL	4
VFD-GX18	10	GX-18	ABB	ACH580 w/ E-Clipse	SECOND FLOOR INTERSTITIAL	2,3
VFD-GX20	10	GX-20	ABB	ACH580 w/ E-Clipse	SECOND FLOOR INTERSTITIAL	2,3
VFD-GX20	10	GX-20	ABB	ACH580 w/ E-Clipse	SECOND FLOOR INTERSTITIAL	4
THIRD FLOOR INTERSTITIAL						
VFD-AC18	25	AC-18	ABB	ACH580 w/ E-Clipse	THIRD FLOOR INTERSTITIAL	2,3
VFD-AC19	25	AC-19	ABB	ACH580 w/ E-Clipse	THIRD FLOOR INTERSTITIAL	2,3
VFD-AC20	25	AC-20	ABB	ACH580 w/ E-Clipse	THIRD FLOOR INTERSTITIAL	2,3
VFD-AC21	25	AC-21	ABB	ACH580 w/ E-Clipse	THIRD FLOOR INTERSTITIAL	2,3
VFD-GX22	10	GX-22	ABB	ACH580 w/ E-Clipse	THIRD FLOOR INTERSTITIAL	2,3
VFD-GX25	3	GX-25	ABB	ACH580 w/ E-Clipse	THIRD FLOOR INTERSTITIAL	2,3
VFD-GX25	3	GX-25	ABB	ACH580 w/ E-Clipse	THIRD FLOOR INTERSTITIAL	4
VFD-GX27	3	GX-27	ABB	ACH580 w/ E-Clipse	THIRD FLOOR INTERSTITIAL	2,3
VFD-GX28	10	GX-28	ABB	ACH580 w/ E-Clipse	THIRD FLOOR INTERSTITIAL	2,3
VFD-GX28	10	GX-28	ABB	ACH580 w/ E-Clipse	THIRD FLOOR INTERSTITIAL	4
FOURTH FLOOR INTERSTITIAL						
VFD-AC22	25	AC-22	ABB	ACH580 w/ E-Clipse	FOURTH FLOOR INTERSTITIAL	2,3
VFD-AC23	25	AC-23	ABB	ACH580 w/ E-Clipse	FOURTH FLOOR INTERSTITIAL	2,3
VFD-AC23	25	AC-23	ABB	ACH580 w/ E-Clipse	FOURTH FLOOR INTERSTITIAL	4
VFD-AC24	25	AC-24	ABB	ACH580 w/ E-Clipse	FOURTH FLOOR INTERSTITIAL	2,3
VFD-AC25	25	AC-25	ABB	ACH580 w/ E-Clipse	FOURTH FLOOR INTERSTITIAL	2,3
VFD-GX30	10	GX-30	ABB	ACH580 w/ E-Clipse	FOURTH FLOOR INTERSTITIAL	2,3
VFD-GX35	3	GX-35	ABB	ACH580 w/ E-Clipse	FOURTH FLOOR INTERSTITIAL	2,3
VFD-GX36	10	GX-36	ABB	ACH580 w/ E-Clipse	FOURTH FLOOR INTERSTITIAL	2,3
FIFTH FLOOR INTERSTITIAL						
VFD-AC26	25	AC-26	ABB	ACH580 w/ E-Clipse	FIFTH FLOOR INTERSTITIAL	2,3
VFD-AC27	25	AC-27	ABB	ACH580 w/ E-Clipse	FIFTH FLOOR INTERSTITIAL	2,3
VFD-AC28	25	AC-28	ABB	ACH580 w/ E-Clipse	FIFTH FLOOR INTERSTITIAL	2,3
VFD-AC29	25	AC-29	ABB	ACH580 w/ E-Clipse	FIFTH FLOOR INTERSTITIAL	2,3
VFD-GX38	25	GX-38	ABB	ACH580 w/ E-Clipse	FIFTH FLOOR INTERSTITIAL	2,3
VFD-GX40	10	GX-40	ABB	ACH580 w/ E-Clipse	FIFTH FLOOR INTERSTITIAL	2,3
VFD-GX42	10	GX-42	ABB	ACH580 w/ E-Clipse	FIFTH FLOOR INTERSTITIAL	2,3
VFD-GX44	10	GX-44	ABB	ACH580 w/ E-Clipse	FIFTH FLOOR INTERSTITIAL	2,3
VFD-GX44	10	GX-44	ABB	ACH580 w/ E-Clipse	FIFTH FLOOR INTERSTITIAL	4
Grand total: 43						

GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATERFLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 05 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
G. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
H. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00AM TO 4:30PM.
I. BASED ON RECORD DRAWINGS, TERMINAL UNITS WITH A SUPPLY AIR FLOW LESS THAN THE RECOMMENDED RANGE INDICATED ON THE SCHEDULE ARE NOT BEING OPERATED AT FULL CAPACITY. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
J. SUPPLY AIR FLOW COULD NOT BE DETERMINED FROM THE AS-BUILTS FOR TERMINAL UNITS SCHEDULED WITH 0 CFM. CONTRACTOR SHALL VERIFY TERMINAL UNIT SIZE AND SUPPLY AIR FLOW SETPOINT DURING PRE-CONSTRUCTION TAB.
K. BASIS OF DESIGN REHEAT COIL IS SHOWN BELOW (OR APPROVED EQUAL). CONTRACTOR SHALL PREPARE SEPARATE SUBMITTALS FOR EACH SIZE AND CONFIGURATION ACCORDING TO THE SCHEDULE AND IN COMPLIANCE WITH SPECIFICATION SECTION 23 36 00.

SCHEDULE NOTES

1. PROVIDE NAE-4510 FOR EACH LEVEL AND QUADRANT, FAC-2611 CONTROLLER HAS SPACE FOR 17 CONTROL POINTS. PROVIDE IOM-4711 INPUT/OUT MODULES FOR ADDITIONAL CONTROL POINT CAPACITY. SEE 1M-805 FOR NETWORK RISER DIAGRAM.
2. CONTRACTOR SHALL DISCONNECT AND REMOVE ELECTRICAL SERVICE TO THE EXISTING VFD. REMOVE THE EXISTING WIRING BACK TO THE SERVICE EQUIPMENT PANEL. SEE ELECTRICAL SHEETS.
3. CONTACTOR SHALL PULL NEW WIRES, SIZED PER THE EXISTING FROM THE VFD INTEGRAL DISCONNECT MEANS BACK TO THE EXISTING OVERCURRENT PROTECTION DEVICE (BREAKER/FUSE) IN THE SERVICE EQUIPMENT PANEL. THE NEW VFD SHALL BE SIZED TO MATCH EXISTING, NO LOAD CHANGE. SEE ELECTRICAL SHEETS.
4. REMOVE EXISTING ABANDONED LEGACY VFD IN ITS ENTIRETY INCLUDING CONTROL WIRE AND CONDUIT, POWER WIRE AND CONDUIT AND PNEUMATIC TUBING BACK TO THE POINT OF SERVICE.
5. BASIS OF DESIGN REHEAT COILS SHALL BE PRICE, KRUEGER, TITUS, OR APPROVED EQUIVALENT.
6. **HEATING:** COILS SHALL BE 2 ROW

AIR CONDITIONING WATER CHILLER

NO.	LOCATION	TYPE	NOMINAL CAPACITY TONS	CHILLER G.P.M.	CHILLER WATER °F LVG	CHILLER WATER °F ENT	CHILLER P.D. FT. OF H_2O	CHILLER NO. OF PASSES	CONDENSER G.P.M.	CONDENSER WATER °F ENT.	CONDENSER WATER °F LVG.	CONDENSER P.D. FT. OF H_2O	CONDENSER NO. OF PASSES	COMPRESSOR REFRIGERANT CHARGE LBS.	COMPRESSOR MOTOR-60 CYCLE H.P	V	F.L.A.	L.R.A.	O.T.A.
1	CH. WATER PLANT BLDG. NO. 2	HERMETIC CENTRIF'L.	1,000	1500	42	58	11.0	2	2900	85	95	22.0	2	3600 F-11	1066	480	1100	5500	1190
1	CH. WATER PLANT BLDG. NO. 2	HERMETIC CENTRIF'L.	1,000	1500	42	58	11.0	2	2900	85	95	22.0	2	3600 F-11	1066	480	1100	5500	1190
1	CH. WATER PLANT BLDG. NO. 2	HERMETIC CENTRIF'L.	1,000	1500	42	58	11.0	2	2900	85	95	22.0	2	3600 F-11	1066	480	1100	5500	1190

CONDENSATE PUMP SCHEDULE

NO.	LOCATION	TYPE	G.P.M.	DISCHARGE PRESSURE	RECEIVER SIZE	MOTOR-60 CYCLE H.P EACH	R.P.M.	V.	ϕ
CP-1	BMNT. EQUIP. RM.	HORIZONT. DUPLEX	150	20 PSIG	200 GAL.	7 1/2	1750	4 0	3
CP-2	BMNT. EQUIP. RM.	HORIZONT. DUPLEX	25	20 PSIG	55 GAL	1/2	1750	4 0	3

COOLING TOWER SCHEDULE

NO.	LOCATION	TYPE	NOMINAL CAPACITY	G.P.M.	WATER °F IN	WATER °F OUT	W.B. TEMP	C.F.M.	MOTOR-60 CYCLE H.P.	R.P.M.	V.	ϕ
CT-1	CH. WATER PLANT BLDG. NO. 2	CERAMIC	1,000	2900	95	85	74°	193,600	40	1750	460	3
CT-2	CH. WATER PLANT BLDG. NO. 2	CERAMIC	1,000	2900	95	85	74°	193,600	40	1750	460	3
CT-3	CH. WATER PLANT BLDG. NO. 2	CERAMIC	1,000	2900	95	85	74°	193,600	40	1750	460	3

HEAT EXCHANGER SCHEDULE

NO.	LOCATION	SERVICE	TYPE	CIRCULATING WATER G.P.M.	CIRC. WATER TEMP °F ENT.	CIRC. WATER TEMP °F LVG.	CIRC. WATER P.D. FT. of H_2O	CIRC. WATER NO. OF PASSES	STEAM STM. RATE LBS/HR.	STEAM STEAM PRESS.	STEAM *TRAP SIZE LBS/HR.
HX-1	BMNT. EQUIP. RM.	PRE-HEAT	U	440	170	200	3.0	2	7070	30 PSIG	10,700
-2	↑ ↓	PRE-HEAT	↑ ↓	440	170	↑	3.0	↓	7070	↑ ↓	10,700
-3		RE-HEAT		760	180	↓	3.3		8150		12,300
HX-4	BMNT. EQUIP. RM.	RE-HEAT	U	760	180	200	3.3	2	8150	30 PSIG	12,300

*SIZE TRAP FOR 5 PSI P.D.

NOTE: HWG 1 & 2 STEAM RATE OF 4500 #/HR @ 60 PSIG
HWG 3 & 4 STEAM RATE OF 7000 #/HR @ 125 PSIG
HWC-1 STEAM RATE OF 1250 #/HR @ 60 PSIG
SEE PLBG DRWG SHT NO P-2

DUCT HUMIDIFIERS

NO.	STEAM RATE	STEAM PRESS.	AIR TEMP. °F ENT. D.B.	AIR TEMP. °F ENT. R.H.	AIR TEMP. °F LVG. D.B.	AIR TEMP. °F LVG. R.H.
H-1	11.4	5	80	40 %	80	60 %
H-2	15.1	↑	↑	↑	↑	↑
H-3	18.9					
H-4	22.7					
H-5	26.4	↓	↓	↓	↓	↓
H-6	30.2	5	80	40 %	80	60 %

P.R.V. SCHEDULE

NO.	LOCATION	SERVICE	CAPACITY LBS./HR.	STEAM PRESSURE P.S.I.G. INLET	STEAM PRESSURE P.S.I.G. OUTLET	SET PRESS.	SIZE IN	SIZE OUT	ORIFICE
1	BMNT. EQUIP. RM.	STEAM EQUIPMENT & HEAT EXCHANGER	16,000	125	62	62	4"	4"	FULL PORTED
2	↑	STEAM EQUIPMENT & HEAT EXCHANGER	16,000	125	60	60	4"	4"	
3		STEAM EQUIPMENT & HEAT EXCHANGER	16,000	125	58	58	4"	4"	
4		HUMIDIFIER & FUME HOODS	1,300	60	7	7	1 1/4"	1 1/4"	
5		HUMIDIFIER & FUME HOODS	1,300	60	5	5	1 1/4"	1 1/4"	
6	↓	KITCHEN STEAM EQUIPMENT	1,000	60	42	42	1 1/4"	1 1/4"	
7	BMNT. EQUIP. RM.	KITCHEN STEAM EQUIPMENT	1,000	60	40	40	1 1/4"	1 1/4"	

PUMP SCHEDULE

NO.	LOCATION	SERVICE	TYPE	G.P.M.	P.D. FT. OF HEAD	MOTOR-60 CYCLE H.P.	R.P.M.	V.	ϕ
P-1	CH. WATER PLANT BLDG. NO. 2	CONDENSER WATER	VERTICAL TURBINE-2 STAGE	2900	100	100	1160	480	3
P-2	↑	CONDENSER WATER	↑	↓	↓	↓	↓	↓	↓
P-3		CONDENSER WATER							
P-4		COND. WATER (ABS.)	VERTICAL TURBINE-2 STAGE	1400	75	40			
P-5		CHILLED WATER	SPLIT CASE-DOUBLE SUCT.	1500	30	15	1150		
P-6		CHILLED WATER	↑	↑	200	125	1750		
P-7	↓	CHILLED WATER		↓	30	15	1150	↓	↓
P-8	CH. WATER PLANT BLDG. NO. 2	CH. WATER (ABS.)	END SUCTION	530	160	30	1750	460	3
P-9	FOR PUMP SCHEDULE, SEE SHEET 2-G3								
P-10									
P-11									
P-12									
P-13									
P-14									
P-15									
P-16	BASE EQUIP. RM.	HEATING H.W.	HORIZ. SPLIT CASE	880	150 FT.	50	1750	460	3
P-17	↕	HEATING H.W.	↕	880	150 FT	50	1750	460	3
P-18		RE-HEAT		1520	175 FT.	100	1750	460	3
P-19	BASE. EQUIP. RM.	RE-HEAT	HORIZ. SPLIT CASE	1520	175 FT.	100	1750	460	3

HIGH PRESSURE TERMINAL UNIT W/REHEAT COIL

UNIT NO.	TYPE	C.F.M.—RANGE	**UNIT SIZE L. X W. X D.	INLET DUCT SIZE	*OUTLET DUCT SIZE	MIN. INLET PRESSURE	**RE HEAT COIL SIZE L. X W. X D.	COIL FACE AREA	†CAPACITY BTU /HR	WATER TEMP G.P.M.	WATER TEMP IN	WATER TEMP OUT
*AV	VARIABLE	75-200	40 1/2 X 19 1/2 X 9"	6"	11" X 6" OR 7" DIA.	1"	13 3/8" X 7 1/2" X 4"	0.38	4,900	0.49	200°	180°
AC	CONSTANT	75-200	40 1/2" X 19 1/2 X 9"	6"	11" X 6" OR 7" DIA.	↑	13 3/8" X 7 1/2" X 4"	0.38	8,700	0.87	↑	↑
BV	VARIABLE	200-400	49 1/2 X 25 1/2 X 9"	7"	17" X 6" OR 10" DIA.		19 3/8" X 7 1/2" X 4"	0.59	8,700	0.87		
BC	CONSTANT	200-400	49 1/2 X 25 1/2 X 9"	7"	17" X 6" OR 10" DIA.		19 3/8" X 7 1/2" X 4"	0.59	17,400	1.74		
CV	VARIABLE	400-600	64" X 31 1/2 X 10"	8	23" X 6"		25 3/8" X 7 1/2" X 4"	0.80	13,000	1.30		
CC	CONSTANT	400-600	64" X 31 1/2 X 10"	8"	23 X 6"		25 3/8" X 7 1/2" X 4"	0.80	26,000	2.60		
DV	VARIABLE	600-1000	66 1/4 X 35 1/2 X 12"	9"	29" X 6"		31 3/8" X 7 1/2" X 4"	1.01	21,600	2.16		
DC	CONSTANT	600-1000	66 1/4 X 35 1/2 X 12"	9"	29" X 6"		31 3/8" X 7 1/2" X 4"	1.01	43,500	4.35		
EV	VARIABLE	1000-1600	74 3/4 X 42" X 14"	11"	29" X 9"		31 3/8" X 10 1/2" X 4"	1.51	39,000	3.90		
EC	CONSTANT	1000-1600	74 3/4 X 42" X 14"	11"	29" X 9"		31 3/8" X 10 1/2" X 4"	1.51	69,000	6.90	200°	160°
FV	VARIABLE	1600-2000	82" X 46" X 16"	14"	35" X 9"		37 3/8" X 10 1/2" X 4"	1.82	49,000	4.90		
FC	CONSTANT	1600-2000	82" X 46" X 16"	14"	35" X 9		37 3/8" X 10 1/2" X 4"	1.82	87,000	8.70		
GV	VARIABLE	2000-3400	69 1/4 X 45" X 18 1/4"	18" X 10"	42" X 15"		44" X 17 3/4" X 4"	4.35	82,500	8.25		
GC	CONSTANT	2000-3400	69 1/4 X 45" X 18 1/4"	18" X 10"					165,000	16.50		
HV	VARIABLE	3400-4200	69 1/4" X 45" X 18 1/4"	18" X 14"					102,000	10.20		
HC	CONSTANT	3400-4200	69 1/4" X 45" X 18 1/4"	18" X 14"					204,000	20.40		
JV	VARIABLE	4200-5200	69 1/4" X 47" X 20 1/4"	18 X 16"	42" X 15"		44" X 17 3/4" X 4"	4.35	127,000	12.70		
JC	CONSTANT	4200-5200		18" X 16"					254,000	25.40		
KV	VARIABLE	5200-6400		20" X 16"					156,000	15.60		
KC	CONSTANT	5200-6400	69 1/4" X 47" X 20 1/4"	20" X 16"	42 X 15"	1"	44" X 17 3/4" X 4"	4.35	312,000	31.20	200°	180°

*AV — CFM (SEE PLANS)

**APPROXIMATE SIZE

**2 ROWS MIN.

†AIR TEMP. — INT. = 55° F.D.B. VG. = 90° F.D.B.

RE-HEAT COIL SCHEDULE

NO.	NO. REQ.	C.F.M. RANGE	COIL SIZE	FACE AREA	MAX. FACE VELOCITY	MIN ROWS DEEP	MAX. SP	AIR TEMP. D.B. °F ENT.	AIR TEMP. D.B. °F LVG.	R.H WATER G.P.M.	R.H WATER MAX. P.D.
RH-1	2	1460 — 1710	30 L. X 12H.	2.40	715	2	26	55	75	3.95	3'
-2	1	4,840	48 L. X 32H.	6.41	750	↑	.30	↑	↑	10.48	↓
-3	1	14,760	72 L. X 39H.	19.75	750		.29			23.9	
-4	1	2,650	46 L. X 18H.	5.91	450		.120			5.40	
-5	1	7,935	48 L. X 36H.	12.0	660		.23			18.9	
-6	3	900 — 930	24 L. X 8H.	1.33	700		25			2.0'	
-7	11	100 — 350	12 L. X 8H.	.52	700		25			1.39	
-8	3	400	12 L. X 8H.	.67	600		20			1.51	
-9	2	500 — 540	16 L. X 8H.	.78	610		.21			1.56	
-10	1	1,860	24 L. X 15H.	2.5	745		.28			5.81	
-11	1	7,000	48 L. X 29H.	5.57	725		.27			17.6	
-12	1	5,600	48 L. X 22H.	7.33	760	↓	.29	↓	75	13.7	↓
RH-13	1	5,200	66 L. X 22H.	10.0	520	2	.16	55	80	5.7	3'

NOTE RH-2 NOT USED

KITCHEN STEAM EQUIPMENT

SYMBOL	NO. REQ.	ITEM	LOCATION	*STEAM PRESS.	STEAM RATE LBS./HR.	SUPPLY SIZE CONN.	SUPPLY SIZE LINE	CONDENSATE SIZE CONN.	CONDENSATE SIZE LINE
(SW1)	2	10 QT. TILT KETTLE	BMNT. KITCHEN	30	10	1/2"	3/4"	1/2"	3/4"
(SW2)	1	20 QT. TILT KETTLE	↑	30	10	1/2"	3/4"	↑	↑
(SW3)	↑	KETTLE W/MIXER		30	55	3/4"	1"	↓	↓
(SW4)		30 GAL. KETTLE		30	55	3/4"	1"	1/2"	
(SW5)		40 GAL. KETTLE		30	70	1"	1 1/4"	3/4	3/4"
(SW6)		STEAMER		15	70	3/4"	1 1/4"	—	—
(SW7)	↓	POT WASHER		10	85	3/4"	1 1/4"	1/2"	1"
(SW8)	1	DISHWASHER		20	405 ± 17.0	(2) 1" (2) 2"	2" 3"	3/4" 3/4"	1 1/2" 2"
(SW9)	2	CLEANING STM. STATION		40	50	1"	1 1/4"	—	—
(SW10)	1	REVOLVING TRAY OVEN	↓	5	35	2- 3/4"	1"	—	—
(SW11)	1	CANWASHER	BMNT. KITCHEN	5	30	1/2"	1"	—	—
(SW12)	1	DISHWASHER	1ST.FL. CANTEEN	20	30	1/2"	1"	—	—
(SW13)	1	DISHWASHER BOOSTER HEATER	1ST.FL. CANTEEN	20	90	1"	1"	3/4"	3/4"
(SW14)	2	STEAMER	1ST.FL. CANTEEN	5	150	3/4"	2"	—	—
(SW15)	1	POT SINK BOOSTER HEATER	1ST.FL. CANTEEN	15	60	1"	1 1/4"	—	—
(SW16)	1	BAIN MARIE	1ST.FL. CANTEEN	5	10	1/2"	3/4"	—	—

*PROVIDE PRV ASSEMBLY FOR ALL EQUIPMENT REQUIRING PRESSURE OTHER THAN 40 PSIG EXCEPT EQUIPMENT REQUIRING 5 PSIG FURNISH F&T TRAPS FOR ALL EQUIPMENT WITH RETURN CONNECTIONS. SIZE F&T TRAPS FOR 3 TIMES STEAM RATES AT 5 PSIG PRESSURE DROP.

HOSPITAL STEAM EQUIPMENT

SYMBOL	NO. REQ.	ITEM	LOCATION	STEAM PRESS. P.S.I.G.	STEAM RATE LBS/HR	TOTAL STM. CONSUMPTION LBS/HR.	STEAM PIPE SIZE CONN.	STEAM PIPE SIZE LINE	CONDENSATE SIZE CONN.	CONDENSATE SIZE LINE	VENT CONN. SIZE & C.F.M.
*(ST1)	1	25 GAL. STILL	RM. B-152	60	750	750		2 1/2"	—	1 1/4"	
(ST2)	1	STERILIZER	RM. B-102	↑	10	10	3/4"	3/4"	—	—	
(ST3)	3	STERILIZER	RM. B-102		1000	300	1 1/4"	3"	—	—	
(ST4)	2	INSTRUMENT WASHER-STERILIZER	RM. B-102		160	160	3/4"	1 1/4"	—	—	
(ST5)	1	CART & UTENSIL WASHER	RM. B-102		800	400	1 1/2"	2 1/2"	—	—	12" DIA.-1340 CFM
(ST6)	1	WASHER	RM. B 102		180	180	3/4"	1 1/2"	—	—	6" DIA.- 500 CFM
(ST7)	2	INSTRUMENT STERILIZER	RM. 5073	60	45	45	1/2"	1"	—	—	
(ST8)	5	INSTRUMENT & DRESSING STERILIZER	TMS. 6017 6510, 6512 & 6025		55	55	1/2"	1"	—	—	4" DIA.- 200 CFM
(ST9)	1	LABORATORY GLASSWARE WASHER	RM. 6258		70	70	3/4"	1"	—	—	
(ST10)	1	CAGE & RACK WASHER	RM. 6258		320	320	1"	2"	—	—	12" DIA.-400 CFM
(ST11)	↑	GLASSWARE WASHER	RM. 6017		60	60	3/4"	1"	3/4"	3/4"	4" DIA.-230 CFM
(ST12)	1	LAB.-STERILIZER	RM. 6015		90	90	3/4"	1 1/4"	—	—	
(ST13)	2	INSTRUMENT DRESSING STERILIZER	RMS. 6050 & 6054		45	45	1/2"	1"	—	—	
*(ST14)	2	50 GAL STILL	PENTHOUSE	↓	1500	1500	1 1/2"	2"	3/4"	1"	
(ST15)	1	STERILIZER	RM. 1263	60	45	45	1/2"	3/4"	—	—	

*PROVIDE F&T TRAPS. SIZE TRAPS FOR 5 TIMES STEAM RATE AT 5 PSIG PRESSURE DROP.

1-9-2-0822

NO.	REVISION	BY	DATE
1	ADDED SK-16 AT CANTEEN	MK	11-11-70

SCHEDULES
BUILDING NO. 1 & 2
811 BED
GENERAL HOSPITAL
VETERANS ADMINISTRATION
SAN DIEGO, CALIFORNIA

Drawn ALICE
Checked M.S.
Proj. Mgr. J.S.
Date 11-15-68

REVISIONS
AS-BUILT
8-8-88

CHARLES LUCKMAN ASSOCIATES
PLANNING • ARCHITECTURE • ENGINEERING
9220 SUNSET BLVD. LOS ANGELES, 90069

DRAWING NUMBER
H-2
Sheet 503 of 748
Proj. No. 04-5543

Approved: Director, Western Area Projects

ORIGINAL MECHANICAL EQUIPMENT SCHEDULES - FOR CONTRACTOR REFERENCE ONLY

Revisions:	Date:

CONSULTANT
MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218
Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD
A/E:
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307-460-2054
Mat Perkins
TRIPLE C – THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP
REGISTERED PROFESSIONAL ENGINEER 35128 MATHEW R. PERKINS WET SIGNED ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL SCHEDULES -EXISTING EQUIPMENT
Phase: ISSUED FOR CONSTRUCTION
Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Project Number: 664-18-320
Building Number: 1
Approved:
Location: 3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date: 03/15/2019
Checked: M. Perkins
Drawn: K. Luke
Drawing Number: 1M-713

FULLY SPRINKLERED

VA FORM 08 - 6231

BIM 360\664-18-320 Energy Management Controls Integration\664-18-320-BLDG_01-MEP.rvt 3/18/2019 10:46:22 AM

SUPPLY FAN SCHEDULE

SYS. NO.	SHEET NO.	FAN LOCATION	AREA SERVED	C.F.M. NOW	C.F.M. FUTURE	VOLUME CONTROL	MAX. AIR REDUCT.	MIN. WHEEL DIA.	TYPE*	CLASS	ARRANGEMENT	DISCHARGE	S.P. INCHES H_2O	FAN R.P.M.	O.V. F.P.M.	DRIVE	MOTOR-60 CYCLE H.P.	B.H.P.	R.P.M.	V	φ
AC-1	I-H1	BASEMENT CEILING	PERSONNEL LOCKER	13,980	—	V.F.D.	50%	22	AIR FOIL	II	D.W.D.I.	T.H.D.	5 1/2	1920	2750	V-BELT	20	15.8	1750	460	3
-2	1		KITCHEN-DINING	20,000		NONE	—	2) 25	CABINET-AF	I	—	—	2 1/4	1230	1600		25	—			
-3	4		ENGINEERING SHOP	12,560		NONE	—	2) 21	CABINET-AF	I	—	—	2 1/2	1520	1400		25	—			
-4	4	BASEMENT CEILING	CENTRAL SUPPLY	20,000		NONE	50%	27	AIR FOIL	II	D.W.D.I.	T.H.D.	5 1/2	1543	2650		25	22.0			
-5	6	1ST FL.-INTERSTITIAL	ADMIN. NURSE	17,635				27	AIR FOIL				5	1420	2280		25	16.5			
-6	6		REGISTRAR	12,260				22	AIR FOIL				5 1/2	1878	2400		25	14.0			
-7	6		OUT-PATIENT	19,840				27	AIR FOIL				5 1/2	1543	2650		25	21.6			
-8	8		DAY CARE	19020		NONE	50%	27	AIR FOIL				5	1475	2523		25	18			
-9	8		LABORATORY	15830		V.F.D.	—	22	B.I.	II			5 1/4	2000	3110		30	22.0			
-10	8	1ST. FL.	RADIOLOGY	9415		V.F.D.	50%	18	B.I.	II	D.W.D.I.	T.H.D.	5 1/2	2400	2782		20	13.2			
-11	14		AUDITORIUM	18,835		NONE	—	2) 18	CABINET-AF	I	—	—	2 3/4	1920	2000		25	14.87			
-12	14		CHAPEL	5070		NONE	—	15	B.I.	II	D.W.D.I.	T.H.D.	5	2576	2775		10	4.7			
-13	14	IST. FL.	PHYSICAL-MED.	13,890		NONE	50%	22	AIR FOIL	II			5	1918	2740		25	15.7			
-14	18	2ND. FL.	NEUROPSYCHIATRIC	20,000		V.F.D.		27					5 1/2	1543	2650		25	21.6			
-15	20					V.F.D.															
-16	22					V.F.D.															
-17	24	2ND. FL.,	NEUROPSYCHIATRIC	20,000	—	V.F.D.															
-18	26	3RD. FL.	MEDICAL SERVICE	16,270	20,000	V.F.D.															
-19	28		MEDICAL SERVICE	18,545		V.F.D.															
-20	30		SELF CARE	17,430		V.F.D.															
-21	32	3RD. FL.	MEDICAL SERVICE	17,850		V.F.D.															
-22	34	4TH. FL.	CARDIO-CLINIC	16,900																	
-23	36		SURG. SELF CARE	18 745		V.F.D.															
-24	38		NEURO-PATIENT CARE	17,865		V.F.D.															
-25	40	4TH. FL.	PSYCHIATRIC	17,330		NONE															
-26	42	5TH. FL.	OPERATING SUITE	20,000		NONE															
-27	44		SURGICAL	17,825		NONE															
-28	46		SURGICAL SERVICE	18,975		V.F.D.															
-29	48	5TH. FL.	SURGICAL SERVICE	18,080	20,000	V.F.D.	50%	27						1543	2650		25	21.6			
-30	50	6TH. FL.	LABORATORIES	21,040	24,000	NONE	—	40						1376	2580		30	25.5			
-31	52			22,810	24,000		—	30													
-32	54			16,780	24,000		—	30													
-33	56	6TH. FL. INTERSTITIAL	LABORATORIES	28,000	24,265	NONE	—	30	AIR FOIL				4.8	1350	2580		30	25.5			
-34	57	PENTHOUSE	CENTER CORE	7,000	—	NONE	50%	18	AIR FOIL	II	D.W.D.I.	THD	5	2040	2140		10	7.5			
-35	I-H14	IST. FL.-INTERSTITIAL	CANTEEN	12,000	—	NONE	—	2) 18	AF	I	—	—	2 1/2	1537	1400		7½	6.54			
AC-36	2-H1	CH. W. PLANT	ENGINEER'S OFFICE	1,000	—	NONE	—	10	CABINET-FC	I	—	—	1 1/2	1360	1515	V-BELT	3/4	0.44	1750	460	3
S-1	I-H50	6TH. FL.-INTERSTITIAL	ELECTRICAL RM.	4,800	—	NONE	—	15	CABINET-AF	I	—	—	1 1/4	2160	1990	V-BELT	3	2.06	1750	460	3
S-2	I-H54	6TH. FL.-INTERSTITIAL	ELECTRICAL RM.	4,800	—	NONE	—	15	CABINET-AF	I	—	—	1 1/4	2160	1990	V-BELT	3	2.06	1750	460	3
TF-1	I-H1	BASEMENT CEILING	TRANSFORMER & M.S. ROOMS	31,200	—	—	—	2) 30	CABINET-AF	I	—	—	2	967	1535	V-BELT	20	14.8	1750	460	3
-5	2		DECONTAMINATION	6,700				2) 15					1 1/4	1560	1400		3	2.12			
-4	4		LAUNDRY	21,360				2) 24					2 1/2	1233	1640		15	9.72			
-5	4	BASEMENT CEILING	MECH. EQUIP. RM.	11,345				2) 18					1 3/4	1603	1635		7 1/2	4.97			
-6	10	IST FL. INTERSTITIAL	CANTEEN KITCHEN	3,000				15					1 1/2	1840	1455		7	1.43			
-7	10	IST FL. INTERSTITIAL	POOL	6,200	—	—	—	2) 12	CABINET-AF		—	—	8	2490	1535		5	2.60			
TF-8	I-H57	PENTHOUSE	LORF	26,700	—	NONE	50%	49	A.F.	I	S.I.S.W.	UBD	2	578	1935	V-BELT	15	10.95	1750	460	3
TF-9	I-H4	BASEMENT CEILING	LINEN PROCESSING	9.000	—	—	—	2) 15	CABINET-FC	I	—	THD	2	987	1630	V-BELT	7½	5.13	1750	460	3

*B.I. FAN FOR WHEEL DIAMETERS LESS THAN 27" ARE ACCEPTABLE.

PRE-FILTERS

NO. REQ.	NOMINAL SIZE	ARRANGEMENT	INITIAL PRESS	FINAL PRESS
10	24 X 24 X 2	5W X 2H	0.14	0.30
28	20 20 2	7W X 4H	0.14	
18	20 20 2	6W X 3H	0.14	
15	25 20 2	5W X 3H	0.12	
15	25 20 2		0.11	
10	24 24 2		0.10	
15	25 20 2		0.12	
15	25 20 2	5W X 3H	0.11	
10	25 20 2	5W X 2H	0.11	
6	24 24 2	3 2	0.14	
30	16 25 2	6 5		
4	20 25 2	2 2		
10	24 24 2	5W X 2H	0.14	
15	25 X 20 X 2	5W X 3H	0.12	
16	25 X 20 X 2	5W X 3H	0.12	0.30
15	25 X 20 X 2		0.12	0.30
15	24 X 24 X 2		0.17	.33
15		5W X 3H	0.17	.33
15	25 X 20 X 2	5W X 3H	0.30	.33
6	24 X 24 X 2	5W X 2H	0.14	0.30
18	20 X 20 X 2	5W X 4H	0.10	0.30
1	20 X 25 X 2	1W X 1H	.12	0.30
1	20 X 25 X 2	2W X 2H	.13	0.30
4	20 X 25 X 2 16 X 20 X 2	3W X 2H		
1	20 X 20 X 2	7W X 4H		
12	20 X 25 X 2	6W X 2H		
4	20 X 25 X 2	2W X 2H		
4	20 X 25 X 2 16 X 20 X 2	4W X 2H		
20	20 X 25 X 2	5W X 4H	0.14	0.30
8	24 × 24 × 2	4 W × 2H	0.12	0.25

AFTER FILTERS

NO. REQ.	NOMINAL SIZE	ARRANGEMENT	INITIAL PRESS	FINAL PRESS
8	24 X 24 X 36	4W X 2H	0.45	1.00
—	—	—	—	—
—	—	—	—	—
10	24 X 24 X 36	5W X 2H	0.45	1.00
10		5 2	0.25	
8		4 2	0.25	
10		5 2	0.45	
10		5 2	0.35	
8		4 2	0.18	
4	24 X 24 X 36	2W X 2H	0.45	1.00
—	—	—	—	—
4	24 X 24 X 24	2W X 2H	0.45	1.00
8	24 X 24 X 36	4W X 2H		
10		5W X 2H		
10				
10	24 X 24 X 36	5W X 2H	0.45	1.00
10				
10		5W X 2H	0.45	
15		5W X 3H	0.30	
15		5W X 3H	0.30	
4	24 X 24 X 36	2W X 2H	0.37	1.00
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
1	24 × 24 × 8¾	4W × 2H	0.25	0.25

**33% EFFICIENCY

SOUND ATTENUATORS

SYS NO.	INTAKE NO. REQ.	INTAKE APPROX. SIZE W"X H"X L"	INTAKE MAX. P.D.	DISCHARGE NO. REQ.	DISCHARGE APPROX. SIZE W"X H"X L"	DISCHARGE MAX. P.D.
AC-1		72 X 48 X 36	.10	1	60 X 42 X 36	.30
-2		84 X 48 X 36				
-3		72 X 36 X 36				
-4		84 X 48 X 36			72 X 36 X 36	
-5		84 X 42 X 36			60 48	
-6	1	60 X 42 X 36			48 48	
-7	2	36 X 54 X 36			60 48	
-8	2	36 X 54 X 36			60 48	
-9	2	36 X 54 X 36			54 48	
-10	1	54 X 36 X 36			48 X 36 X 36	
-11	1	84 X 48 X 36				
-12	1	36 X 36 X 36			36 X 24 X 36	
-13	2	36 X 54 X 36			60 X 48 X 36	
-14	1	144 X 30 X 36			72 X 36 X 36	
-15						
-16						
-17			.15	1		.30
-18						
-19						
-20						
-21	4	144 X 30 X 36			72 X 36 X 36	
-22						
-23						
-24						
-25						
-26						
-27						
-28						
-29	1	144 X 30 X 36			72 X 36 X 36	
-30	1 1	144 X 30 X 36 24 X 30 X 36			72 X 48 X 36	
-31						
-32						
-33	1 1	144 X 30 X 36 24 X 30 X 36			72 X 48 X 36	
AC-34	1	60 X 24 X 36	.15	1	48 X 24 X 36	.30
—	1	96 X 30 X 36				

CONTROL

SYS NO.	DEAD BAND
AC-1	
-2	X
-3	
-4	X
-5	X
-6	X
-7	
-8	
-9	
-10	
-11	X
-12	X
-13	X
-14	X
-15	X
-16	X
-17	X
-18	X
-19	
-20	X
-21	X
-22	
-23	X
-24	X
-25	X
-26	
-27	
-28	X
-29	X
-30	X
-31	X
-32	X
-33	
AC-34	X
—	X
-2	X
-3	
-4	X
-5	X
-6	X
-7	
-8	
-9	
-10	
-11	X
-12	X
-13	X
-14	X
TF-9	

SCHEDULE – SUPPLY FANS
BUILDING NO. 1

EXISTING AIR HANDLING UNIT SCHEDULE - FOR CONTRACTOR REFERENCE

Revisions:	Date:

CONSULTANT
MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218
Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD
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Mat Perkins
TRIPLE C – THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP
REGISTERED PROFESSIONAL ENGINEER
33128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL SCHEDULES -EXISTING AHU
Approved:
Phase: ISSUED FOR CONSTRUCTION
FULLY SPRINKLERED
Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date: 03/15/2019
Checked: M. Perkins
Drawn: K. Luke
Project Number: 664-18-320
Building Number: 1
Drawing Number: 1M-714

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
3/18/2019 10:46:24 AM
VA FORM 08 - 6231

PRE-HEAT COIL SCHEDULE

SYS NO.	SHEET NO.	LOCATION	C.F.M. NOW	C.F.M. FUTURE	NO. REQ.	NOM. TUBE LENGTH	COIL HEIGHT	MIN. ROWS DEEP	FACE AREA SQ. FT.	FACE VELOCITY F.P.M.	AIR TEMP °F ENT. D.B.	AIR TEMP °F ENT. W.B.	AIR TEMP °F LVG. D.B.	AIR TEMP °F LVG. W.B.	S.P. "H_2O	WATER TEMP °F G.P.M.	WATER TEMP °F ENT.	WATER TEMP °F LVG.	MAX. P.D.
AC-1	1-H1	BASEMENT CEILING	13,980	—	1	120	32 1/2	2	27.08	520	38		55		0.15	17.2	200	170	3'
-2	1		20,000			134	43		40.00	500					0.14	24.5			
-3	4		12,560			112	32 1/2		25.30	500					0.14	15.4			
-4	4	BASEMENT CEILING	20,000			120	53 1/2		44.58	450					0.13	24.5			
-5	6	1ST. FL.- INTERSTITIAL	17,250			120	53 1/2		44.58	390					0.10	21.1			
-6	6		12,190			112	32 1/2		27.08	450					0.12	15.0			
-7	6		19,840			120	53 1/2		44.58	450					0.13	24.5			
-8	8		17,190			120	53 1/2		44.58	390					0.10	21.1			
-9	8		13,070			120	32 1/2		27.08	485					0.13	16.0			
-10	8		7,955			72	36		18.00	440					0.12	9.8			
-11	14		18,835			112	43		33.40	565					0.28	23.0			
-12	14		5,070			80	22		12.22	415					0.11	6.2			
-13	14	1ST. FL.-	13,890			120	32 1/2		27.08	510					0.15	17.0			
-14	18	2ND.FL.-	20,000				53 1/2		44.58	450					0.13	24.5			
-15	20																		
-16	22																		
-17	24	2ND. FL.-	20,000	—															
-18	26	3RD.FL.- INTERSTITIAL	16,270	20,000															
AC -19	1-H	28	18,545		1			2			38		55				200	170	3'
-20	30		17,430																
-21	32	3RD. FL.-	17,850												0.13	24.5			
-22	34	4TH.FL.-	16,900							450									
-23	36		18,745	20,000		120	53 1/2		44.58										
-24	38		17,865																
-25	40	4TH. FL.-	17,330																
-26	42	5TH. FL.-	20,000																
-27	44		17,825																
-28	46		18,975																
-29	48	5TH. FL.-	18,060	20,000						450					0.13	24.5			
-30	50	6TH. FL.-	21,040	24,000						475					0.14	29.4			
-31	52		22,810																
-32	54		16,780																
-33	56	6TH. FL.- INTERSTITIAL	24,000	24,000		120	53 1/2		44.58	475					0.14	29.4			3'
-34	I-H56	PENTHOUSE	7,000	—		72	29		14.50	485					0.12	8.6			3'
-35	I-H14	1ST. FL.- INTERSTITIAL	12,000	—		112	32 1/2		25.3	475					0.13	14.8			3.6'
AC-36	2-H1	CH.W. PLANT BLDG. NO.2	1,000	—	1	24	15	2	2.5	400	38		55		.10	3.0	200	170	3'
TF-2	1-H1	BASEMENT CEILING	3,765	—															

COOLING COIL SCHEDULE

NO. REQ.	NOM. TUBE LENGTH	COIL HEIGHT	MIN. ROWS DEEP	FACE AREA SQ. FT.	FACE VELOCITY F.P.M.	AIR TEMP °F ENT. D.B.	AIR TEMP °F ENT. W.B.	AIR TEMP °F LVG. D.B.	AIR TEMP °F LVG. W.B.	S.P. "H_2O	WATER TEMP °F G.P.M.	WATER TEMP °F ENT.	WATER TEMP °F LVG.	MAX. P.D.
1	120	32 1/2	6	27.08	520	87.0	71.0	55.0	53.7	0.48	98	42	58	11.6
	134	43		40.00	500					0.44	140			12.8
	112	32 1/2		25.30	500					0.44	87.5			7.2
	120	53 1/2		44.58	450					0.37	140			7.6
		53 1/2		44.58	390					0.30	120			6.0
		32 1/2		27.08	450					0.37	85			7.6
		53 1/2		44.58	450					0.37	140			7.6
		53 1/2		44.58	390					0.30	120			6.0
	120	32 1/2		27.08	485					0.41	92			8.8
	72	36		18.00	440					0.36	56			12.8
	112	43		33.40	565					0.60	132			9.6
	80	22		12.22	415					0.33	35.4			7.2
	120	32 1/2		27.08	510					0.45	97.0			10.0
		53 1/2		44.58	450					0.37	140			7.6
1			6			87.0	71.0	55.0	53.7			42	58	
	120	53 1/2		44.58	450					0.37	140			7.6

EXISTING DDC TERMINAL UNIT SCHEDULE - NIC

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS					PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
AC-1														
TU1-100	AC-1	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					BASEMENT LEVEL WEST
TU1-117	AC-1	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					BASEMENT LEVEL WEST
TU1-125-140	AC-1	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					BASEMENT LEVEL WEST
TU1-141-142E-142B-142A	AC-1	FC	Yes	No	1600-2000	14"	1.82 SF	87000 Btu/h	8.70 GPM					BASEMENT LEVEL WEST
TU1-144B-145-144A	AC-1	FC	Yes	No	1600-2000	14"	1.82 SF	87000 Btu/h	8.70 GPM					BASEMENT LEVEL WEST
TU1-145-147	AC-1	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					BASEMENT LEVEL WEST
TU1-149-149A	AC-1	FC	Yes	No	1600-2000	14"	1.82 SF	87000 Btu/h	8.70 GPM					BASEMENT LEVEL WEST
TU1-152E	AC-1	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					BASEMENT LEVEL WEST
TU1-153-154-157	AC-1	GC	Yes	No	2000-3400	15"	4.35 SF	165000 Btu/h	16.50 GPM					BASEMENT LEVEL WEST
TU1-156	AC-1	FC	Yes	No	1600-2000	14"	1.82 SF	87000 Btu/h	8.70 GPM					BASEMENT LEVEL WEST
TU1-162-165	AC-1	FC	Yes	No	1600-2000	14"	1.82 SF	87000 Btu/h	8.70 GPM					BASEMENT LEVEL WEST
AC-4														
TU4-101-109	AC-4	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					BASEMENT LEVEL EAST
TU4-110-114-114A-115-116-172A-171	AC-4	HC	Yes	No	3400-4200	18"	4.35 SF	204000 Btu/h	20.40 GPM					BASEMENT LEVEL WEST
AC-13														
TU13-1465	AC-13	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 1 EAST
TU13-1465	AC-13	CC	Yes	No	400-600	8"	0.80 SF	26000 Btu/h	2.60 GPM					LEVEL 1 EAST
TU13-1465	AC-13	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 1 EAST
TU13-1466	AC-13	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 1 EAST
TU13-1468	AC-13	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 1 EAST
TU13-1468B	AC-13	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 1 EAST
TU13-1482-1465	AC-13	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 1 EAST
AC-18														
TU18-01	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-02	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-03	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-04	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-05	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-06	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-07	AC-18	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 3 WEST
TU18-08	AC-18	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 3 WEST
TU18-10	AC-18	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 3 WEST
TU18-11	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-13	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-27	AC-18	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 3 WEST
TU18-49	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-50	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-51	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-3040	AC-18	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 3 WEST
TU18-3046A	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-3047	AC-18	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 3 WEST
TU18-3091	AC-18	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 3 WEST
TU18-3096	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
TU18-3097	AC-18	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 WEST
AC-19														
TU19-3142	AC-19	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 SOUTH
TU19-3186B	AC-19	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 3 SOUTH
AC-20														
TU20-3208A	AC-20	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3264	AC-20	AV	No	Yes	75-200	6"	0.38 SF	4900 Btu/h	0.49 GPM					3, 6, 9, 10, 11
TU20-3285	AC-20	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3289	AC-20	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3290	AC-20	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3291	AC-20	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3292	AC-20	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3293	AC-20	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3294	AC-20	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3294	AC-20	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3298	AC-20	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3298	AC-20	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3299	AC-20	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3304	AC-20	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3305	AC-20	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					3, 6, 9, 10, 11
TU20-3306	AC-20	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-3307	AC-20	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
TU20-#1	AC-20	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					3, 6, 9, 10, 11
AC-22														
TU22-4034	AC-22	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 WEST
TU22-4035	AC-22	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 WEST
TU22-4053	AC-22	AV	No	Yes	75-200	6"	0.38 SF	4900 Btu/h	0.49 GPM					LEVEL 4 WEST
TU22-4053 CORRIDOR	AC-22	AV	No	Yes	75-200	6"	0.38 SF	4900 Btu/h	0.49 GPM					LEVEL 4 WEST
TU22-4053 CORRIDOR-4059	AC-22	CC	Yes	No	400-600	8"	0.80 SF	26000 Btu/h	2.60 GPM					LEVEL 4 WEST
TU22-4062	AC-22	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 4 WEST
TU22-4064	AC-22	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 4 WEST
TU22-4064	AC-22	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 WEST
TU22-4066	AC-22	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 WEST
TU22-4067	AC-22	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 4 WEST
TU22-4069	AC-22	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 WEST
TU22-4070	AC-22	EV	No	Yes	1000-1600	11"	1.51 SF	39000 Btu/h	3.90 GPM					LEVEL 4 WEST
TU22-4070A	AC-22	AV	No	Yes	75-200	6"	0.38 SF	4900 Btu/h	0.49 GPM					LEVEL 4 WEST
TU22-4070B	AC-22	AV	No	Yes	75-200	6"	0.38 SF	4900 Btu/h	0.49 GPM					LEVEL 4 WEST
TU22-4070C	AC-22	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 WEST
TU22-4070C	AC-22	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 WEST
TU22-4076	AC-22	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 WEST
TU22-4500	AC-22	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 WEST
TU22-4500	AC-22	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 WEST
AC-23														
TU23-	AC-23	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 SOUTH
TU23-04	AC-23	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 SOUTH
TU23-10	AC-23	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 SOUTH
TU23-11	AC-23	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 SOUTH
TU23-13	AC-23	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 SOUTH
TU23-15	AC-23	AV	No	Yes	75-200	6"	0.38 SF	4900 Btu/h	0.49 GPM					LEVEL 4 SOUTH
TU23-20	AC-23	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 SOUTH
TU23-39	AC-23	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 SOUTH
TU23-40	AC-23	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 SOUTH
TU23-41	AC-23	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 SOUTH
TU23-4090	AC-23	AV	No	Yes	75-200	6"	0.38 SF	4900 Btu/h	0.49 GPM					LEVEL 4 SOUTH

EXISTING DDC TERMINAL UNIT SCHEDULE - NIC

MARK	AHU ID#	TYPE			AS-BUILT SPECIFICATIONS					PRE-CONSTRUCTION TAB		POST-CONSTRUCTION TAB		NOTES
		ID	CAV	VAV	CFM RANGE	SIZE	COIL AREA	COIL CAPACITY	COIL FLOW	CFM	GPM	CFM	GPM	
TU23-4092	AC-23	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 SOUTH
TU23-4098-4095	AC-23	CC	Yes	No	400-600	8"	0.80 SF	26000 Btu/h	2.60 GPM					LEVEL 4 SOUTH
TU23-4100-4089	AC-23	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 SOUTH
TU23-4103	AC-23	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 SOUTH
TU23-4105	AC-23	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 SOUTH
TU23-4109	AC-23	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 SOUTH
TU23-4113-4114	AC-23	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					LEVEL 4 SOUTH
TU23-4114-4115	AC-23	CC	Yes	No	400-600	8"	0.80 SF	26000 Btu/h	2.60 GPM					LEVEL 4 SOUTH
TU23-4117	AC-23	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 SOUTH
TU23-4117-4117B	AC-23	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 4 SOUTH
TU23-4120	AC-23	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 SOUTH
TU23-4120 CORRIDOR	AC-23	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 SOUTH
TU23-4122	AC-23	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 SOUTH
TU23-4125	AC-23	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 SOUTH
TU23-4127	AC-23	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 SOUTH
TU23-4129	AC-23	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 SOUTH
TU23-4130-4131	AC-23	CC	Yes	No	400-600	8"	0.80 SF	26000 Btu/h	2.60 GPM					LEVEL 4 SOUTH
TU23-4133	AC-23	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 SOUTH
TU23-4133	AC-23	CC	Yes	No	400-600	8"	0.80 SF	26000 Btu/h	2.60 GPM					LEVEL 4 SOUTH
TU23-4133 CORRIDOR	AC-23	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 4 SOUTH
TU23-4134	AC-23	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 SOUTH
TU23-4134	AC-23	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 SOUTH
TU23-4140	AC-23	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 SOUTH
TU23-4141	AC-23	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 SOUTH
TU23-4141-4140	AC-23	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 SOUTH
TU23-4142A-4143A	AC-23	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 4 SOUTH
TU23-4146-4130	AC-23	CC	Yes	No	400-600	8"	0.80 SF	26000 Btu/h	2.60 GPM					LEVEL 4 SOUTH
TU23-4159-4158	AC-23	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 SOUTH
TU23-4170-4117	AC-23	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 4 SOUTH
TU23-4173	AC-23	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 SOUTH
TU23-4174	AC-23	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 SOUTH
TU23-4175	AC-23	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 SOUTH
TU23-4175	AC-23	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 SOUTH
TU23-4175	AC-23	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 SOUTH
TU23-4175B	AC-23	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					LEVEL 4 SOUTH
TU23-4175C	AC-23	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 SOUTH
TU23-4176	AC-23	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 SOUTH
AC-24														
TU24-4014	AC-24	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 CENTER
TU24-4015	AC-24	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 4 CENTER
TU24-4015A	AC-24	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 4 CENTER
TU24-4016	AC-24	CV	No	Yes	400-600	8"	0.80 SF	13000 Btu/h	1.30 GPM					LEVEL 4 CENTER
AC-26														
TU26-5040	AC-26	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 5 WEST
TU26-5041	AC-26	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 5 WEST
TU26-5041A	AC-26	BV	No	Yes	200-400	7"	0.59 SF	8700 Btu/h	1.74 GPM					LEVEL 5 WEST
AC-30														
TU30-6030	AC-30	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 WEST, 2008 6TH FLOOR UPGRADE
TU30-6030	AC-30	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 WEST, 2008 6TH FLOOR UPGRADE
TU30-6035	AC-30	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 WEST, 2008 6TH FLOOR UPGRADE
TU30-6045	AC-30	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					LEVEL 6 WEST, 2008 6TH FLOOR UPGRADE
TU30-6055	AC-30	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 WEST, 2008 6TH FLOOR UPGRADE
TU30-6085	AC-30	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					LEVEL 6 WEST, 2008 6TH FLOOR UPGRADE
TU30-6090	AC-30	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 6 WEST, 2008 6TH FLOOR UPGRADE
AC-31														
TU31-6105	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2008 6TH FLOOR UPGRADE
TU31-6110	AC-31	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					LEVEL 6 SOUTH, 2008 6TH FLOOR UPGRADE
TU31-6118	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2008 6TH FLOOR UPGRADE
TU31-6124B	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6125	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6129	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2008 6TH FLOOR UPGRADE
TU31-6129-CORRIDOR	AC-31	AC	Yes	No	75-200	6"	0.38 SF	8700 Btu/h	0.87 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6130-6130A	AC-31	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6130A	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6131	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6132-6132A-6132B	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6133-6134	AC-31	EC	Yes	No	1000-1600	11"	1.51 SF	69000 Btu/h	6.90 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6136	AC-31	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6136	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6137	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6137	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6137A	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6138	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6139	AC-31	CC	Yes	No	400-600	8"	0.80 SF	26000 Btu/h	2.60 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6139-CORRIDOR	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6139A	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6140	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
TU31-6141	AC-31	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 SOUTH, 2015 EXPAND RESEARCH LAB
AC-32														
TU32-6184-6184D	AC-32	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 EAST, 2008 6TH FLOOR UPGRADE
TU32-6184C	AC-32	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 EAST, 2008 6TH FLOOR UPGRADE
TU32-6189A	AC-32	DV	No	Yes	600-1000	9"	1.01 SF	21600 Btu/h	2.16 GPM					LEVEL 6 EAST, 2008 6TH FLOOR UPGRADE
TU32-6190	AC-32	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 EAST, 2008 6TH FLOOR UPGRADE
TU32-6192	AC-32	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 EAST, 2008 6TH FLOOR UPGRADE
TU32-6197	AC-32	CC	Yes	No	400-600	8"	0.80 SF	26000 Btu/h	2.60 GPM					LEVEL 6 EAST, 2008 6TH FLOOR UPGRADE
AC-33														
TU33-6213-6214	AC-33	DC	Yes	No	600-1000	9"	1.01 SF	43500 Btu/h	4.35 GPM					LEVEL 6 NORTH, 2008 6TH FLOOR UPGRADE
TU33-6217	AC-33	CC	Yes	No	400-600	8"	0.80 SF	26000 Btu/h	2.60 GPM					LEVEL 6 NORTH, 2008 6TH FLOOR UPGRADE
TU33-6218	AC-33	BC	Yes	No	200-400	7"	0.59 SF	17400 Btu/h	1.74 GPM					LEVEL 6 NORTH, 2008 6TH FLOOR UPGRADE
TU33-6252	AC-33	FC	Yes	No	1600-2000	14"	1.82 SF	87000 Btu/h	8.70 GPM					LEVEL 6 NORTH, 2008 6TH FLOOR UPGRADE

Revisions:	Date:

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39128
MATHEW R. PERKINS
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL SCHEDULES -EXISTING DDC

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT

INSTRUMENTATION SOCIETY OF AMERICA TABLE

	FIRST LETTER	SUCCEEDING LETTERS (3)			
	MEASURING OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER FLAME		USER CHOICE	USER CHOICE	USER CHOICE
C	CONDUCTIVITY			CONTROL (13)	
D	DENSITY	DIFFERENTIAL			
E	VOLTAGE		SENSOR PRIMARY ELEMENT		
F	FLOW RATE	RATIO FRACTION			
G	GAUGE		GLASS, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT		INDICATE		
J	POWER	SCAN			
K	TIME	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOTION	MOMENTARY	INTERMEDIATE		MIDDLE
N	HUMIDITY		USER DEFINED	USER DEFINED	USER DEFINED
O	USER CHOICE		ORIFICE RESTRICTION		
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY	INTEGRATE, TOTALIZE			
R	RADIATION		RECORD		
S	SPEED, FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTI-VARIABLE		MULTI-FUNCTION	MULTI-FUNCTION	MULTI-FUNCTION
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER LOUVER	
W	WEIGHT, FORCE		WELL		
X	UNCLASSIFIED	X-AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE OR PRESENCE	Y-AXIS		RELAY, COMPUTE CONVERT	
Z	POSITION DIMENSION	Z-AXIS FINAL CONTROL ELEMENT		DRIVER, ACTUATOR UNCLASSIFIED	

INSTRUMENTATION TYPE ABBREVIATION LIST

CODE	DESCRIPTION
AA	ANALYTICAL ALARM
AE	ANALYTICAL ELEMENT
AET	ANALYTICAL ELEMENT TRANSMITTER
AI	ANALYTICAL INDICATOR
AC	ANALYTICAL CONTROLLER
AIC	ANALYTICAL INDICATING CONTROLLER
AT	ANALYTICAL TRANSMITTER
AIT	ANALYTICAL INDICATING CONTROLLER
ACV	ANALYTICAL CONTROL VALVE
AY	ANALYTICAL SIGNAL CONVERTER
EI	VOLTAGE INDICATOR
EA	VOLTAGE ALARM
ES	VOLTAGE SWITCH (CONTROL RELAY)
ESL	VOLTAGE SWITCH LOW (24 VAC OR LESS)
ET	VOLTAGE TRANSMITTER
EY	VOLTAGE SIGNAL CONVERTER
FA	FLOW ALARM
FCV	FLOW CONTROL VALVE
FE	FLOW ELEMENT
FET	FLOW ELEMENT\TRANSMITTER
FI	FLOW INDICATOR
FIT	FLOW INDICATING TRANSMITTER
FS	FLOW SWITCH
FT	FLOW TRANSMITTER
FY	FLOW SIGNAL CONVERTER
HK	MANUAL VARIABLE CONTROL
HS	HAND SWITCH
HSI	HAND SWITCH INDICATOR
II	CURRENT INDICATOR
IA	CURRENT ALARM
IS	CURRENT SWITCH
IT	CURRENT TRANSMITTER
IY	CURRENT SIGNAL CONVERTER
JIT	POWER INDICATING TRANSMITTER
JY	POWER SIGNAL CONVERTER
KC	TIME CLOCK

CODE	DESCRIPTION
LA	LEVEL ALARM
LC	LEVEL CONTROLLER (STAND ALONE)
LCV	LEVEL CONTROL VALVE
LE	LEVEL ELEMENT
LIC	LEVEL INDICATING CONTROLLER
LIT	LEVEL INDICATING TRANSMITTER
LS	LEVEL SWITCH
LT	LEVEL TRANSMITTER
LY	LEVEL SIGNAL CONVERTER
MV	MANUAL HAND VALVE
NT	HUMIDITY TRANSMITTER
PA	PRESSURE ALARM
PCV	PRESSURE CONTROL VALVE
PDI	PRESSURE DIFFERENTIAL INDICATOR
PDS	PRESSURE DIFFERENTIAL SWITCH
PDT	PRESSURE DIFFERENTIAL TRANSMITTER
PI	PRESSURE INDICATOR
PIS	PRESSURE INDICATING SWITCH
PIT	PRESSURE INDICATING TRANSMITTER
PS	PRESSURE SWITCH
PT	PRESSURE TRANSMITTER
PY	PRESSURE SIGNAL CONVERTER
SC	SPEED CONTROL
SCM	SPEED CONTROL MANUAL
TA	TEMPERATURE ALARM
TC	TEMPERATURE CONTROLLER
TCV	TEMPERATURE CONTROL VALVE
TE	TEMPERATURE ELEMENT
TET	TEMPERATURE ELEMENT TRANSMITTER
TI	TEMPERATURE INDICATOR
TIT	TEMPERATURE INDICATING TRANSMITTER
TIC	TEMPERATURE INDICATING CONTROLLER
TS	TEMPERATURE SWITCH
TSL	FREEZE STAT
TT	TEMPERATURE TRANSMITTER

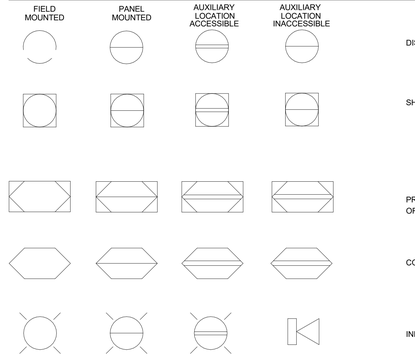
CODE	DESCRIPTION
VA	VIBRATION ALARM
VS	VIBRATION SWITCH
XV	SOLENOID VALVE
YA	EQUIPMENT ALARM
YI	EQUIPMENT STATUS
YCD	SMOKE DAMPER
YS	SMOKE DETECTOR
ZC	POSITION CONTROL
ZI	POSITION INDICATOR
ZS	POSITION SWITCH
VA	VIBRATION ALARM
VS	VIBRATION SWITCH

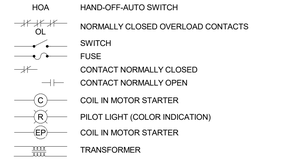
FMS SYSTEM OPERATING CONSTRAINTS

THE FMS CONTROL SYSTEM SHALL OPERATE WITHIN THE FOLLOWING SYSTEM CONSTRAINTS FOR CONTROL:

SUPPLY AIR DRYBULB TEMPERATURE	+/- 0.5°F OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
MIXED AIR DRYBULB TEMPERATURE	+/- 0.5°F OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
WATER TEMPERATURE	+/- 0.5°F OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
DUCT STATIC PRESSURE	+/- 0.1" W.C. OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
SUPPLY/ RETURN AIR VOLUME	+/- 2.5% OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
OUTSIDE AIR/ RELIEF AIR VOLUME	+/- 2.5% OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
BUILDING PRESSURE	+/- 0.01" W.C. OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
ROOM TEMPERATURE	+/- 1.0°F OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
ROOM AIR VOLUME	+/- 2.5% OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
HUMIDITY LEVEL	+/- 2.5% R.H. OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
WATER TEMPERATURE	+/- 1.0°F OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
WATER DIFFERENTIAL PRESSURE	+/- 1.0 PSI OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL

GENERAL INSTRUMENT OR FUNCTION SYMBOLS





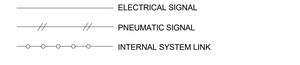
ABBREVIATIONS

IA	INSTRUMENTATION AIR
DDC	DIRECT DIGITAL CONTROL
C	COMMON VALVE PORT
F.O	FAIL OPEN
F.C	FAIL CLOSED
SR	SPRING RANGE
TR	THROTTLING RANGE
PH	PREHEAT
HR	HEAT RECOVERY
CPA	CONTROL POINT ADJUSTMENT
SPDT	SINGLE POLE DOUBLE THROW
DPDT	DOUBLE THROW DOUBLE POLE
DA	DIRECT ACTING
RA	REVERSE ACTING

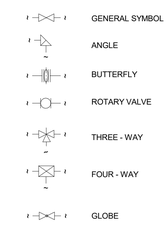
PROCESS CODES

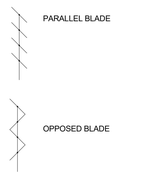
TW	COOLING TOWER OR CONDENSER WATER
CHW	CHILLED WATER
SCHW	SECONDARY CHILLED WATER
HW	HOT WATER
SHW	SECONDARY HOT WATER
STM	STEAM

LINE LEGEND

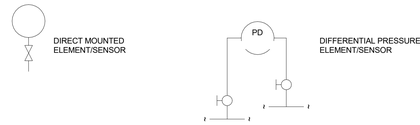


CONTROL VALVE BODY/ DAMPER SYMBOLS

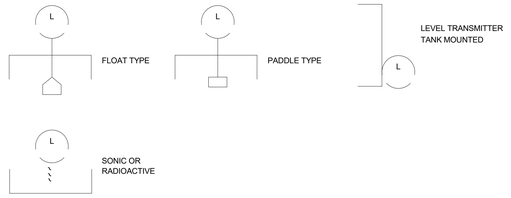




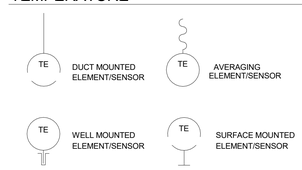
PRESSURE



LEVEL

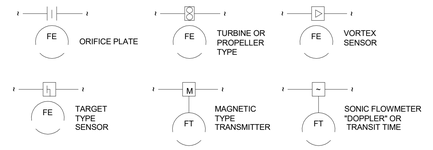


TEMPERATURE



CURRENT

FLOW



GENERAL SHEET NOTES

A. TEST AND BALANCE CONTRACTOR SHALL PROVIDE A PRE-CONSTRUCTION TAB REPORT FOR THE EQUIPMENT AND ASSOCIATED SYSTEMS SHOWN ON THE CONSTRUCTION DOCUMENTS AND UTILIZE ALL AVAILABLE AS-BUILT DRAWINGS FROM THE OWNER. TEST AND BALANCE CONTRACTOR SHALL VISIT SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING EQUIPMENT AND DEVICES, AND DEVELOP THEIR TEST AND BALANCE FORMS INCLUDING DRAWINGS SHOWING EQUIPMENT LOCATIONS, AIR DISTRIBUTION DEVICE LOCATIONS AND TAG NUMBERS. IF THERE ARE LOCATIONS WHERE THE DRAWINGS DO NOT REFLECT FIELD CONDITIONS, THE TEST AND BALANCE CONTRACTOR SHALL INCLUDE THE AIRFLOW AND WATER FLOW READINGS ON THE FORMS AND LOCATE THE EQUIPMENT AND/OR AIR DEVICE ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 23 50 93 FOR MORE INFORMATION.
B. ALL DATA OBTAINED VIA TESTING AND MEASURING SHALL BE UTILIZED TO ESTABLISH NEW HVAC SYSTEM PERFORMANCE AND BALANCE DATA FOR THE RENOVATION. DATA SHALL BE FORWARDED TO THE PROJECT ENGINEER FOR REVIEW AND COMMENT PRIOR TO COMMENCING THE DEMOLITION AND/OR NEW WORK ASSOCIATED WITH THE FACILITY RENOVATION.
C. THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, CONTROL PANELS, CONTROL DEVICES INCLUDING PNEUMATIC TUBING, AND ASSOCIATED ITEMS WHICH ARE BEING REPLACED, IN THEIR ENTIRETY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEMOLISHED ITEMS FROM THE SITE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
D. PROVIDE AIR BALANCE REPORT PRIOR TO FINAL INSPECTION.
E. ALL NEW TO EXISTING DUCT CONNECTIONS SHALL BE FIELD VERIFIED PRIOR TO ORDERING AND FABRICATING NEW DUCTWORK OR DAMPERS.
F. ALL CONTROL WIRING SHALL BE ROUTED IN CONDUIT TO EACH CONTROL DEVICE.
G. AS-BUILT NOTE: THE BUILDING'S VERTICAL STRUCTURE AND GRID LAYOUT IS SHOWN BASED ON RECORD DOCUMENTS AND / OR LASER SCANS OF THE AREA. COLUMNS MAY BE OFFSET FROM GRID LINES WITHOUT AN IDENTIFYING GRID LINE AND ALL GRID LINES MAY NOT HOST COLUMNS ON ALL LEVELS.
H. CONTRACTOR TO PERFORM MECHANICAL EQUIPMENT REPLACEMENT DURING NIGHTS AND WEEKENDS TO MITIGATE FACILITY DOWNTIME. ALL OUTAGES MUST BE SCHEDULED WITH AND APPROVED BY THE VA. FACILITY HOURS OF OPERATION ARE 7:00 AM TO 4:30 PM..

MECHANICAL CONTROLS GENERAL NOTES

1. EQUIPMENT CONTROLLERS SHALL CONTAIN COMPLETE CONTROL LOGIC, INCLUDING ALL I/O POINTS TO PROVIDE STAND-ALONE CONTROL IN THE EVENT OF COMMUNICATION FAILURE.
2. ALL EQUIPMENT CONTROL HARDWARE SHALL USE BACNET PROTOCOL BETWEEN THE OPERATOR WORKSTATION, WEBSERVER AND FOR COMMUNICATIONS BETWEEN CONTROLLERS.
3. ALL EQUIPMENT CONTROL HARDWARE SHALL CONFORM TO APPLICABLE BACNET DEVICE PROFILES AND SHALL BE LISTED BY THE BACNET TESTING LABORATORIES.
4. THE MECHANICAL CONTROL SYSTEM SOFTWARE SHALL INCLUDE A GRAPHICAL USER INTERFACE WITH POINT AND CLICK NAVIGATION THAT ALLOWS THE OPERATOR TO ADJUST PROPERTIES, SET POINTS AND ALARMS.
5. GRAPHICAL USER INTERFACE SHALL PROVIDE AT LEAST ONE GRAPHIC FOR EACH PIECE OF EQUIPMENT AND ZONE. GRAPHICAL USER INTERFACE SHALL USE DYNAMIC COLORS TO REPRESENT EACH ZONE'S TEMPERATURE RELATIVE TO ITS SETPOINT.
6. CONTROL SYSTEM SHALL INCLUDE AN ENERGY REPORTING TOOL AND SCHEDULING FUNCTIONALITY.
7. CONTRACTOR SHALL PROVIDE ALL THE TOOLS AND FUNCTIONALITY NECESSARY FOR THE OPERATOR TO MAINTAIN AND ADJUST THE SYSTEM, INCLUDING: CONFIGURING THE DATABASE; DOWNLOADING MEMORY TO THE CONTROLLERS; ADD, DELETE AND CONTROL PRIVILEGES FOR EACH OPERATOR; CONFIGURE ALARMS, ALARM MESSAGES, AND ALARM REACTIONS; CONFIGURE TRENDS INCLUDING SETTING THE INTERVAL RANGE OR CHANGE VALUE INCREMENT THAT CAUSES A TREND SAMPLE TO BE RECORDED; CONFIGURE AND RUN STANDARD REPORTS TO SHOW POINT STATUS, ALARM STATUS, LOCKED POINTS, AND OPERATOR ACTIVITY; CREATE AND EDIT SYSTEM GRAPHICS AND TO DISPLAY DYNAMIC SYSTEM DATA ON THE GRAPHICS; AND CREATE AND EDIT CUSTOM CONTROL PROGRAMS AND DOWNLOAD THESE PROGRAMS TO EACH CONTROLLER.
8. SYSTEM SECURITY SHALL ALLOW AN AUTHORIZED USER TO CONTROL PRIVILEGES ASSOCIATED WITH EACH OPERATOR INCLUDING THE ABILITY TO VARY AND REGULATE ACCESS TO INDIVIDUAL PIECES OF EQUIPMENT.

Revisions:	Date:

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MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	MECHANICAL CONTROL LEGEND
Phase	ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Project Number	664-18-320
Building Number	1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Drawing Number	1M-801
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	K. Luke

3/18/2019 10:46:40 AM

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VA FORM 08 - 6231

100% OA Air Handling Unit (AC-XX, typical of 32)

Run Conditions - Continuous:
The unit shall run continuously.

Emergency Shutdown:
The unit shall shut down and generate an alarm upon receiving an emergency shutdown signal.

Freeze Protection:
The unit shall shut down and generate an alarm upon receiving a freezestat status.

High Static Shutdown:
The unit shall shut down and generate an alarm upon receiving an high static shutdown signal.

Supply Air Smoke Detection:
The unit shall shut down and generate an alarm upon receiving a supply air smoke detector status.

Supply Fan:
The supply fan shall run anytime the unit is commanded to run, unless shutdown on safeties. To prevent short cycling, the supply fan shall have a user definable (adj.) minimum runtime.

Alarms shall be provided as follows:
- Supply Fan Failure: Commanded on, but the status is off.
- Supply Fan in Hand: Commanded off, but the status is on.
- Supply Fan Runtime Exceeded: Status runtime exceeds a user definable limit (adj.).
- Supply Fan VFD Fault

1 Supply Air Duct Static Pressure Control (VAV typical of 15):
The controller shall measure duct static pressure and modulate the supply fan VFD speed to maintain a duct static pressure setpoint. The speed shall not drop below 30% (adj.). The static pressure setpoint shall be reset based upon the position of the zone dampers, with a goal of reducing the static pressure until at least one zone damper is nearly wide open.
- The initial duct static pressure setpoint shall be 1.5in H2O (adj.).
- If no zone damper is nearly wide open, the setpoint shall incrementally reset down until one zone damper is 90% open (adj.).
- As one or more dampers nears the wide open position, the setpoint shall incrementally reset up until just one zone damper is 90% open (adj.).

2 Supply Air Duct Static Pressure Control (CAV typical of 17):
The controller shall maintain a constant supply air plenum pressure by modulating the fan inlet vane operator. As the prefilter and afterfilter load up, these vanes shall open to provide constant supply air pressure.

Alarms shall be provided as follows:
- High Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) greater than setpoint.
- Low Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) less than setpoint.
- Supply Fan VFD Fault.

Preheating Coil Valve:
The controller shall measure the outside air temperature and modulate the preheating coil valve to maintain its setpoint 5°F (adj.) less than the supply air temperature setpoint.

The preheating shall be enabled whenever:
- Outside air temperature is less than 60°F (adj.).
- AND the supply fan status is on.

Supply Air Temperature Setpoint - Optimized:
The controller shall monitor the supply air temperature and shall maintain a supply air temperature setpoint reset based on zone cooling requirements.

The supply air temperature setpoint shall be reset based on zone cooling requirements as follows:
- The initial supply air temperature setpoint shall be 55°F (adj.).
- As cooling demand increases (I.E. zone damper is greater than 85% open (adj.), the setpoint shall incrementally reset down to a minimum of 53°F (adj.).
- As cooling demand decreases (I.E. zone damper is less than 85% open (adj.), the setpoint shall incrementally reset up to a maximum of 72°F (adj.) .

Cooling Coil Valve:
The controller shall measure the supply air temperature and modulate the cooling coil valve to maintain its cooling setpoint.

The cooling shall be enabled whenever:
- Outside air temperature is greater than 60°F (adj.).
- AND the economizer (if present) is disabled or fully open.
- AND the supply fan status is on.
- AND the heating (if present) is not active.

The cooling coil valve shall open to 50% (adj.) whenever the freezestat (if present) is on.

Humidifier Control:
The controller shall measure the return air humidity and modulate the humidifier to maintain a setpoint of 50% rh (adj.). The humidifier shall be enabled whenever the supply fan status is on.

The humidifier shall turn off whenever:
- Supply air humidity rises from 90% rh to 95% rh (adj.).
- OR on loss of supply fan status.

Alarms shall be provided as follows:
- High Supply Air Humidity: If the supply air humidity is greater than 90% rh (adj.).
- Low Supply Air Humidity: If the supply air humidity is less than 30% rh (adj.).

Alarms shall be provided as follows:
- High Supply Air Temp: If the supply air temperature is 5°F (adj.) greater than setpoint.

Low Supply Air Temperature Alarm:
- The controller shall alarm if the supply air temperature is less than 45°F (adj.).

Prefilter Differential Pressure Monitor:
The controller shall monitor the differential pressure across the prefilter.

Alarms shall be provided as follows:
- Prefilter Change Required: Prefilter differential pressure exceeds a user definable limit (adj.).

Final Filter Differential Pressure Monitor:
- The controller shall monitor the differential pressure across the final filter.

Alarms shall be provided as follows:
- Final Filter Change Required: Final filter differential pressure exceeds a user definable limit (adj.).

Supply Air Temperature:
The controller shall monitor the supply air temperature.

Alarms shall be provided as follows:
- High Supply Air Temp: If the supply air temperature is greater than 85°F (adj.).
- Low Supply Air Temp: If the supply air temperature is less than 45°F (adj.).
- High Outside Air Temp: If outside air temperature is greater than 60°F (adj.) and the preheated air temperature is greater than the outside air temperature.

Relief and Transfer Fan - Building Static (GX-XX and TF-XX typical of 34)

Run Conditions - Interlocked:
The unit(s) GX-XX shall be interlocked to run whenever AC-XX runs unless shutdown on safeties.

Control - Building Static Pressure:
The exhaust fan shall run when commanded on.

The controller shall measure building static pressure and modulate the exhaust fan VFD speed to maintain a building static pressure setpoint of 0.05in H2O (adj.). The exhaust fan VFD speed shall not drop below 20% (adj.).

Alarms shall be provided as follows:
- High Building Static Pressure: If the building static pressure is 25% (adj.) greater than setpoint.
- Low Building Static Pressure: If the building static pressure is 25% (adj.) less than setpoint.
- Exhaust Fan VFD Fault.

Fan Status:
The controller shall monitor the fan status.

Alarms shall be provided as follows:
- Fan Failure: Commanded on, but the status is off.
- Fan in Hand: Commanded off, but the status is on.
- Fan Runtime Exceeded: Fan status runtime exceeds a user definable limit (adj.).

Return Air Humidity:
The controller shall monitor the return air humidity and use as required for humidity control.

Alarms shall be provided as follows:
- High Return Air Humidity: If the return air humidity is greater than 70% (adj.).
- Low Return Air Humidity: If the return air humidity is less than 35% (adj.).

OUTSIDE AIR CONDITIONS:
The controller shall monitor the outside air temperature and humidity and calculate the outside air enthalpy on a continual basis. These values shall be made available to the system at all times.

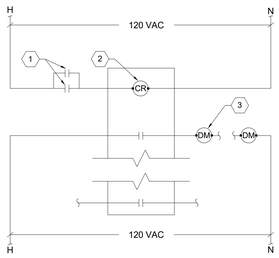
Alarm shall be generated as follows:
- Sensor Failure: Sensor reading indicates shorted or disconnected sensor. In the event of a sensor failure, an alternate outside air conditions sensor shall be made available to the system without interruption in sensor readings.

If an OA Temp Sensor cannot be read, a default value of 65°F will be used.

If an OA Humidity Sensor cannot be read, a default value of 50 % will be used.

Outside Air Temperature History:
The controller shall monitor and record the high and low temperature readings for the outside air. These readings shall be recorded on a daily, month-to-date, and year-to-date basis.

Heating Degree Day:
The controller shall provide a Degree Day history index that reflects the energy consumption for the facilities heating demand. Computations shall use a mean daily temperature of 65°F (adj.). The Degree Day peak value readings shall be recorded on a daily, month-to-date, and year-to-date basis.



KEYED NOTES

1 CONTROL MODULE OR OUTPUT CONTACT FROM FIRE ALARM SYSTEM, ACTIVATED AS NOTED BELOW.

2 AUXILARY CONTROL RELAY SUPPLIED BY FIRE ALARM SYSTEM. (DIV. 26). MORE THAN ONE OUTPUT CONTACT CAN BE USED FOR MULTIPLE CIRCUITS. INSTALL NEAR FIRE ALARM PANEL OR SUB PANEL AS REQUIRED.

3 SMOKE DAMPER ACTUATOR (NORMALLY CLOSED/FAIL CLOSED). FURNISHED AND INSTALLED BY DIVISION 23.

FIRE/SMOKE CONTROL:

SMOKE DETECTORS LOCATED IN SUPPLY AIR AND EXHAUST AIR STREAMS SHALL BE MONITORED AND INTERLOCKED WITH BUILDING FIRE ALARM SYSTEM. UPON ACTIVATION OF EITHER AHU SMOKE DETECTOR OR BUILDING SMOKE/FIRE ALARM SYSTEM, THE AIR HANDLING UNIT SHALL AUTOMATICALLY BE DEACTIVATED BY MEANS OF THE FIRE ALARM RELAY INTERLOCK AND SUPPLY FAN SHALL BE SHUT OFF.

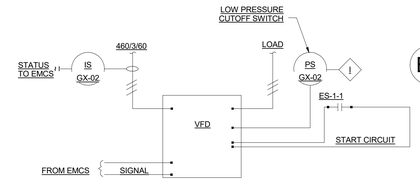
GENERAL NOTES

A ALL RELAYS, WIRING, AND RACEWAY SHALL BE INSTALLED BY DIV. 26.

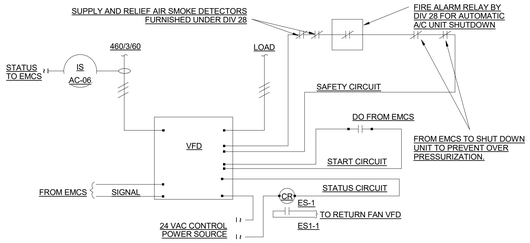
B SMOKE DETECTORS LOCATED IN THE MAIN SUPPLY AND EXHAUST AIR STREAMS SHALL BE MONITORED AND INTERLOCKED TO THE BUILDING FIRE ALARM SYSTEM BY THE DIVISION 26 CONTRACTOR. THE DIVISION 26 CONTRACTOR SHALL SUPPLY A CONTACT TO THE AIR HANDLING UNIT WHICH WILL ACTIVATE UPON A FIRE/SMOKE CONDITION OF THE DUCT DETECTORS, BUILDING TOTAL AREA COVERAGE FIRE ALARM AREA DETECTORS, (ASSOCIATED WITHIN THAT PORTION OF THE BUILDING SUPPLIED BY THE AHU), OR MANUAL FIRE ALARM PULL STATIONS (LOCATED WITHIN THE BUILDING AREA SUPPLIED BY THE AHU).

C THE DIV. 23 CONTRACTOR SHALL USE THE CONTACT TO SHUT OFF THE UNIT SUPPLY AND EXHAUST FANS AND RETURN THE UNIT DAMPERS TO THEIR NORMAL POSITION.

D WITH THE ACTIVITION OF A FIRE/SMOKE CONDITION THE FIRE ALARM RELAY SHALL DEACTIVATE ELECTRICAL POWER TO THE SMOKE DAMPER RELAY WHICH SHALL CAUSE ALL THE FIRE/SMOKE DAMPERS ASSOCIATED WITH THE AIR HANDLING UNIT TO CLOSE. THE FIRE/SMOKE DAMPERS SHALL CLOSE ONLY ON ACTIVATION OF THE FIRE/SMOKE RELAY AND NOT ANY OTHER AIR HANDLER FUNCTION.



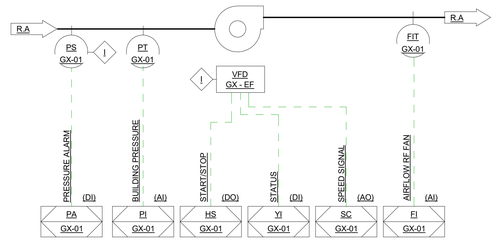
EXHAUST / RELIEF AND TRANSFER FAN VFD WIRING DETAIL



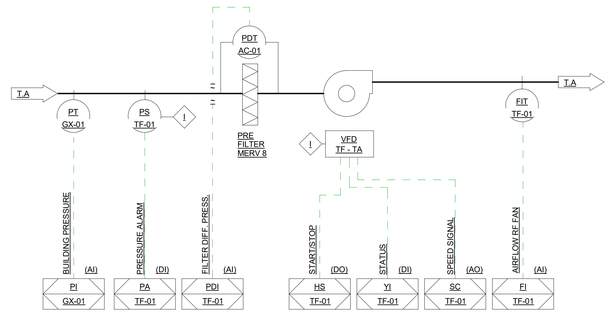
AIR HANDLING UNIT SUPPLY FAN VFD WIRING DETAIL

B5 DUCT SMOKE DETECTOR CONTROL1

SCALE: NONE



NOTE: AIRFLOW MONITORING IS EXISTING. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROLS SYSTEM BY UTILIZING THE EXISTING CONTROLS COMPONENTS WHERE FEASIBLE AND ADDING DEVICES AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS.



NOTE: AIRFLOW MONITORING IS EXISTING. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERATIONAL CONTROLS SYSTEM BY UTILIZING THE EXISTING CONTROLS COMPONENTS WHERE FEASIBLE AND ADDING DEVICES AS REQUIRED TO MONITOR AND CONTROL THE EQUIPMENT PER THE CONSTRUCTION DOCUMENTS.

(TYPICAL FOR TRANSFER FAN SYMBOL NOS. TF-5, 8 AND 9)

D4 VFD WIRING DETAILS

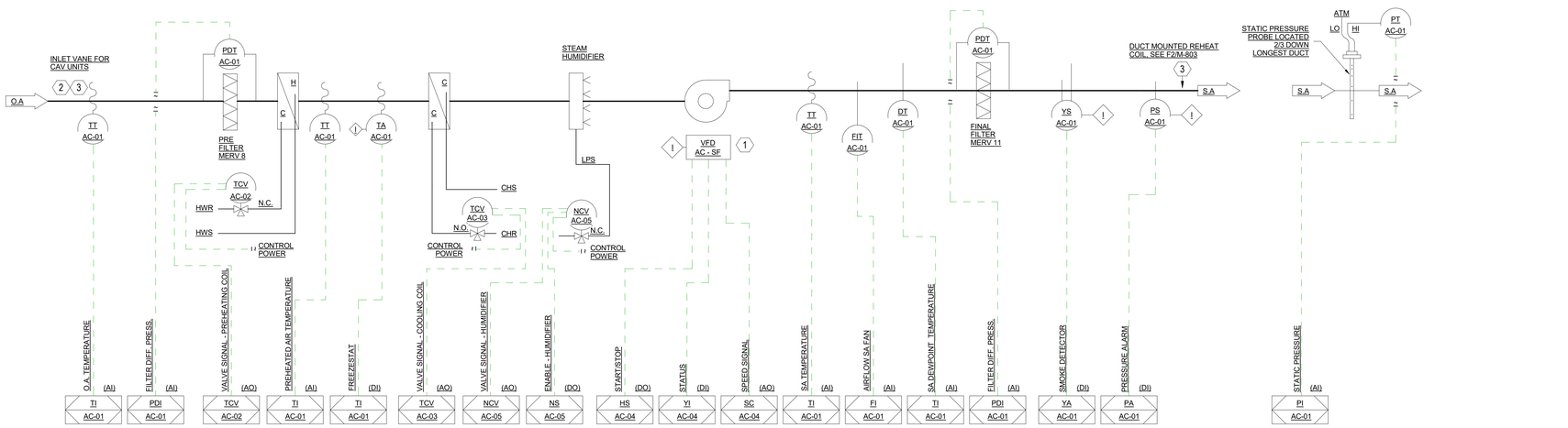
SCALE: NONE

D6 EXISTING VAV RELIEF FAN CONTROL DIAGRAM

SCALE: NONE

D8 EXISTING VAV TRANSFER FAN CONTROL DIAGRAM

SCALE: NONE



1 EXISTING VAV AIR HANDLING UNIT CONTROL DIAGRAM
(TYPICAL FOR AHU SYMBOL NOS. AC-9, AC-10, AC-14, AC-15, AC-16, AC-17, AC-18, AC-19, AC-20, AC-21, AC-22, AC-23, AC-24, AC-28 & AC-29

2 EXISTING CAV AIR HANDLING UNIT CONTROL DIAGRAM
(TYPICAL FOR AHU SYMBOL NOS. AC-4, AC-5, AC-6, AC-7, AC-8, AC-12, AC-13, AC-25, AC-26, AC-27, AC-30, AC-32, AC-33 & AC-37

3 EXISTING CAV AIR HANDLING UNIT CONTROL DIAGRAM (WITH DUCT MOUNTED REHEAT COIL SEE F2/M-803)
(TYPICAL FOR AHU SYMBOL NOS. AC-2, AC-3, AC-11 & AC-31)

F1 EXISTING 100% OA AIR HANDLING UNIT CONTROL DIAGRAMS AND SEQUENCES OF OPERATION

SCALE: NONE

Revisions:	Date:

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Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL CONTROL DIAGRAMS	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1M-802
Issue Date: 03/15/2019 / Checked: M. Perkins / Drawn: K. Luke	

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VA FORM 08 - 6231

DUCT MOUNTED REHEAT COIL

Run Conditions - Continuous:
The unit shall run continuously and shall maintain a heating setpoint of 70°F (adj.) [+/- 2 degree F.].

Alarms shall be provided as follows:
- Low Zone Temp: If the zone temperature is less than the heating setpoint by a user definable amount (adj.).

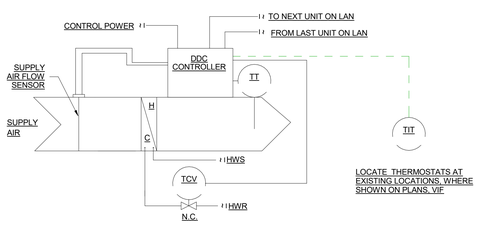
Reheating Coil Valve:
The controller shall measure the zone temperature and modulate the reheating coil valve to maintain its setpoint. Controller should increase zone supply air temperature. Reheat coil modulates to maintain supply air temperature setpoint.

The reheating shall be enabled whenever:
- Outside air temperature is less than 65°F(adj.).
- AND the zone temperature is below setpoint.
- AND sufficient airflow is provided.

Discharge Air Temperature:
The controller shall monitor the discharge air temperature. Controller should increase zone supply air temperature setpoint to meet zone temperature. Reheat coil modulates to maintain supply air temperature setpoint.

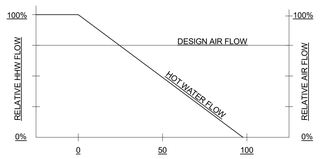
Alarms shall be provided as follows:
- High Discharge Air Temp: If the discharge air temperature is greater than 120°F (adj.).
- Low Discharge Air Temp: If the discharge air temperature is less than 40°F (adj.).

Environmental Index:
When the zone is occupied, the controller will monitor the deviation of the zone temperature from the heating or cooling setpoint and calculate a 0 - 100% Environmental Index which gives an indication of how well the zone is maintaining comfort. The controller will also calculate the percentage of time since occupancy began that the Environmental Index is 70% or higher. Optionally, a weighting factor can be configured to adjust the contribution of the zone to the rollup average index based upon the floor area of the zone, importance of the zone, or other static criteria.



NOTES:

1. DUCT MOUNTED REHEAT COIL SHALL PROVIDE THE FLOW CHARACTERISTICS SHOWN ON THE GRAPH. EACH COIL SHALL BE EQUIPPED WITH ITS OWN STAND ALONE CONTROLLER WHICH SHALL HAVE THE CAPABILITIES DESCRIBED IN THE SPECIFICATION. THE WIRING SHOWN IS PROVIDED AS A GENERAL DESCRIPTION AND IS NOT A DETAILED WIRING DIAGRAM WHICH VARIES WITH THE MANUFACTURER.
2. CONTRACTOR TO MATCH EXISTING AIR AND WATER FLOW SET POINTS FROM PRE-CONSTRUCTION TAB REPORT



CONSTANT AIR VOLUME CONTROL
CONTROL SIGNAL, PERCENT

F2 TYPICAL DUCT MOUNTED REHEAT COIL CONTROL DIAGRAM
SCALE: NONE

CONSTANT AIR VOLUME (CAV) TERMINAL UNIT SEQUENCE OF OPERATION:

OPERATION:
The occupied period will be scheduled through the Energy Management System (EMS). During the unoccupied mode, the CAV box will maintain required temperatures and flow setpoints. The unit shall maintain zone temperature setpoints [+/- 2 degree F.] with constant airflow through one of the following:

Occupied:
- The zone damper shall modulate to maintain a constant occupied airflow (adj.) distributed into the zone.
- When the CAV box room temperature is lower than the room temperature setpoint (RM-TSET), the CAV controller shall modulate the CAV box reheat valve to achieve the setpoint. Increase CAV supply temperature measured by TT. Reheat valve modulates to maintain setpoint.
- Reverse sequence above as temperature in space rises.

Unoccupied:
- The zone damper shall modulate to a constant unoccupied airflow (adj.) distributed into the zone.
- When zone temperature is less than its heating setpoint, the controller shall enable heating to maintain the zone temperature at its unoccupied heating setpoint.

Night Setback:
- The CAV box, associated Air Handling Unit, and associated CAV boxes will be indexed to the occupied mode if the CAV box room temperature is greater than the unoccupied cooling setpoint of 85 degrees F. (adj.), or lower than the unoccupied heating setpoint of 55 degrees F. (adj.). the Air Handling Unit and associated boxes will return to the unoccupied mode once the cooling and heating setpoints are satisfied [+/- 2 degree F.].

Run Conditions - Scheduled:
The unit shall run according to a user definable time schedule in the following modes:
- Occupied Mode: The unit shall maintain
- A 75°F (adj.) cooling setpoint
- A 70°F (adj.) heating setpoint.

- Unoccupied Mode (night setback): The unit shall maintain
- A 85°F (adj.) cooling setpoint.
- A 55°F (adj.) heating setpoint.

ROOM TEMPERATURE SETPOINT:
The room temperature setpoint (RM-TSET will be adjustable by the user at the wall mounted room temperature sensor.

FLOW CONTROL:
The CAV controller will modulate the damper in order to maintain the CFM setpoint.

ALARMS AND WARNING:
An alarm shall be sent to the EMS system upon any of the following conditions:
- The room temperature is greater than 86 degrees F. (adj.) or less than 54 degrees F. (adj.)
- (For rooms with CO2 monitoring) High Zone Carbon Dioxide Concentration: If the zone CO2 concentration is greater than 1000 ppm (adj.)., .
- Supply airflow alarm: is 15% below setpoint, delay time 5 minutes.

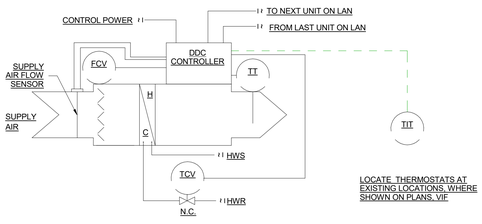
A warning shall be sent to the EMS system under any of the following conditions:
- The room temperature rises more than 5 degrees F. (adj.) above the room temperature setpoint.
- The room temperature falls more than 5 degrees F. (adj.) below the room temperature setpoint.

REHEATING COIL VALVE:
The controller shall measure the zone temperature and modulate the reheating coil valve open on dropping temperature to maintain its heating setpoint. Controller should increase zone supply air temperature setpoint to meet zone temperature. Reheat coil modulates to maintain supply air temperature setpoint.

DISCHARGE AIR TEMPERATURE:
The controller shall monitor the discharge air temperature.

Alarms shall be provided as follows:
- High Discharge Air Temp: If the discharge air temperature is greater than 120°F (adj.).
- Low Discharge Air Temp: If the discharge air temperature is less than 40°F (adj.).

ENVIRONMENTAL INDEX:
When the zone is occupied, the controller will monitor the deviation of the zone temperature from the heating or cooling setpoint and calculate a 0 - 100% Environmental Index which gives an indication of how well the zone is maintaining comfort. The controller will also calculate the percentage of time since occupancy began that the Environmental Index is 70% or higher. Optionally, a weighting factor can be configured to adjust the contribution of the zone to the rollup average index based upon the floor area of the zone, importance of the zone, or other static criteria.



NOTES:

1. TERMINAL UNIT SHALL PROVIDE THE FLOW CHARACTERISTICS SHOWN ON THE GRAPH. EACH TERMINAL SHALL BE EQUIPPED WITH ITS OWN STAND ALONE CONTROLLER WHICH SHALL HAVE THE CAPABILITIES DESCRIBED IN THE SPECIFICATION. THE WIRING SHOWN IS PROVIDED AS A GENERAL DESCRIPTION AND IS NOT A DETAILED WIRING DIAGRAM WHICH VARIES WITH THE MANUFACTURER.
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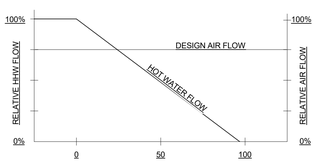


CONSTANT AIR VOLUME CONTROL
CONTROL SIGNAL, PERCENT

F5 TYPICAL CAV TERMINAL UNIT CONTROL DIAGRAM
SCALE: NONE

VARIABLE AIR VOLUME (VAV) TERMINAL UNIT SEQUENCE OF OPERATION:

OPERATION:
The occupied period will be scheduled through the Energy Management System (EMS). During the unoccupied mode, the VAV box will maintain required temperatures and flow setpoints. The unit shall maintain zone setpoints [+/- 2 degree F.] by controlling the air and water flow through one of the following:

Occupied:
- If the VAV box room temperature (RM-T) is higher than the room temperature setpoint (RM-TSET), the VAV controller will reset the CFM setpoint upwards from the minimum CFM setpoint to the maximum CFM setpoint.
- When zone temperature is greater than its cooling setpoint, the zone damper shall modulate between the minimum occupied airflow (adj.) and the maximum cooling airflow (adj.) until the zone is satisfied.
- When the zone temperature is between the cooling setpoint and the heating setpoint, the zone damper shall maintain the minimum required zone ventilation (adj.).
- If the VAV box room temperature (RM-T) is lower than the room temperature setpoint (RM-TSET), the VAV controller shall modulate the VAV box reheat valve to achieve the setpoint. The VAV controller shall modulate the damper in order to maintain the minimum setpoint.
- If the VAV is at minimum airflow position and the zone temperature continues to be below setpoint; increase the supply air temperature up to be 15 deg F greater than RM-TSET.
- If the supply air temperature is 15 deg F higher than RM-TSET and the zone temperature remains below RM-TSET, increase the airflow setpoint up to the heating maximum.
- Modulate the HHW valve as required to maintain the supply air temperature setpoint.
- Reverse the heating sequence above as zone temperature rises.

Unoccupied:
- When the zone is unoccupied the zone damper shall control to its minimum unoccupied airflow (adj.).
- When the zone temperature is greater than its cooling setpoint, the zone damper shall modulate between the minimum unoccupied airflow (adj.) and the maximum cooling airflow (adj.) until the zone is satisfied.
- When zone temperature is less than its unoccupied heating setpoint, the controller shall enable heating to maintain the zone temperature at the setpoint. Additionally, if warm air is available from the AHU, the zone damper shall modulate between the minimum unoccupied airflow (adj.) and the auxiliary heating airflow (adj.) until the zone is satisfied.

Run Conditions - Scheduled:
The unit shall run according to a user definable time schedule in the following modes:
- Occupied Mode: The unit shall maintain
- A 75°F (adj.) cooling setpoint
- A 70°F (adj.) heating setpoint.

- Unoccupied Mode (night setback): The unit shall maintain
- A 85°F (adj.) cooling setpoint.
- A 55°F (adj.) heating setpoint.

ROOM TEMPERATURE SETPOINT:
The room temperature setpoint (RM-TSET) will be adjustable by the user at the wall mounted room temperature sensor.

ALARMS AND WARNING:
An alarm shall be sent to the EMS system upon any of the following conditions:
- The room temperature is greater than 86 degrees F. (adj.) or less than 54 degrees F. (adj.)
- Supply airflow is 30% or more below setpoint, delay time 5 minutes.
- (For rooms with CO2 monitoring) High Zone Carbon Dioxide Concentration: If the zone CO2 concentration is greater than 1000 ppm (adj.)., .

A warning shall be sent to the EMS system under any of the following conditions:
- The room temperature rises more than 5 degrees F. (adj.) above the room temperature setpoint.
- The room temperature falls more than 5 degrees F. (adj.) below the room temperature setpoint.

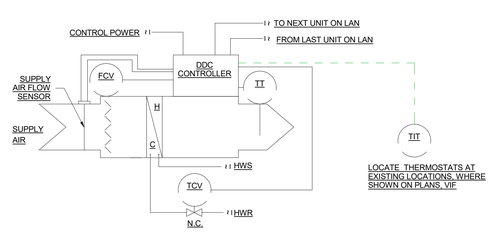
(For rooms with CO2 monitoring) Minimum Ventilation on Carbon Dioxide (CO2) Concentration:
When in the occupied mode, the controller shall measure the zone CO2 concentration and modulate the zone damper open on rising CO2 concentrations, overriding normal damper operation to maintain a CO2 setpoint of not more than 750 ppm (adj.).

REHEATING - HIGH DISCHARGE AIR TEMPERATURE LIMIT:
The controller shall measure the discharge air temperature and limit reheating if the discharge air temperature is more than 95°F (adj.).

DISCHARGE AIR TEMPERATURE:
The controller shall monitor the discharge air temperature.

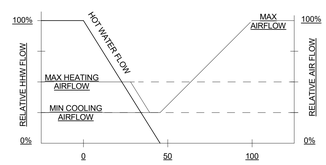
Alarms shall be provided as follows:
- High Discharge Air Temp: If the discharge air temperature is greater than 120°F (adj.).
- Low Discharge Air Temp: If the discharge air temperature is less than 40°F (adj.).

ENVIRONMENTAL INDEX:
When the zone is occupied, the controller will monitor the deviation of the zone temperature from the heating or cooling setpoint. The controller will also monitor the carbon dioxide concentration and compare it to comfort conditions. This data will be used to calculate a 0 - 100% Environmental Index which gives an indication of how well the zone is maintaining comfort. The controller will also calculate the percentage of time since occupancy began that the Environmental Index is 70% or higher. Optionally, a weighting factor can be configured to adjust the contribution of the zone to the rollup average index based upon the floor area of the zone, importance of the zone, or other static criteria.



NOTES:

1. TERMINAL UNIT SHALL PROVIDE THE FLOW CHARACTERISTICS SHOWN ON THE GRAPH. EACH TERMINAL SHALL BE EQUIPPED WITH ITS OWN STAND ALONE CONTROLLER WHICH SHALL HAVE THE CAPABILITIES DESCRIBED IN THE SPECIFICATION. THE WIRING SHOWN IS PROVIDED AS A GENERAL DESCRIPTION AND IS NOT A DETAILED WIRING DIAGRAM WHICH VARIES WITH THE MANUFACTURER.
2. CONTRACTOR TO MATCH EXISTING AIR AND WATER FLOW SET POINTS FROM PRE-CONSTRUCTION TAB REPORT .



VARIABLE AIR VOLUME CONTROL
CONTROL SIGNAL, PERCENT

F8 TYPICAL VAV TERMINAL UNIT CONTROL DIAGRAM
SCALE: NONE

Revisions:	Date:

CONSULTANT

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ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL CONTROL DIAGRAMS	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1M-803
Issue Date: 03/15/2019	Checked: M. Perkins
	Drawn: K. Luke

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BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231

OUTSIDE AIR CONDITIONS

	Hardware Points				Software Points						
Point Name	AI	AO	BI	BO	AV	BV	Loop	Sched	Trend	Alarm	Show On Graphic
Outside Air Humidity	x								x		x
Outside Air Temp	x								x		x
Outside Air Enthalpy					x				x		x
Outside Air Humidity (Alternate)					x				x		
Outside Air Temp (Alternate)					x				x		
High Temp Month-to-Date									x		x
High Temp Today									x		x
High Temp Year-to-Date									x		x
Low Temp Month-to-Date									x		x
Low Temp Today									x		x
Low Temp Year-to-Date									x		x
Sensor Failure										x	
Totals	**2**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**11**	**1**	**9**

Total Hardware (2) **Total Software (15)**

VARIABLE FREQUENCY DRIVES

	Hardware Points				Software Points						
Point Name	AI	AO	BI	BO	AV	BV	Loop	Sched	Trend	Alarm	Show On Graphic
Motor Current Amps					x				x		x
Motor Frequency Hertz					x				x		x
Motor Runtime					x						x
Motor Speed RPM					x				x		x
In Bypass						x			x	x	x
In Fault Condition						x			x	x	x
VFD Status						x			x		x
Totals	**0**	**0**	**0**	**0**	**4**	**3**	**0**	**0**	**6**	**2**	**7**

Total Hardware (0) **Total Software (15)**

DUCT MOUNTED REHEAT COILS

	Hardware Points				Software Points						
Point Name	AI	AO	BI	BO	AV	BV	Loop	Sched	Trend	Alarm	Show On Graphic
Discharge Air Temp	x								x		x
Zone Setpoint Adjust	x										x
Zone Temp	x								x		x
Reheating Valve		x							x		x
Environmental Index					x				x		
Heating Setpoint					x				x		x
Percent of Time Satisfied					x				x		
High Discharge Air Temp										x	
Low Discharge Air Temp										x	
Low Zone Temp										x	
Totals	**3**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**6**	**3**	**5**

Total Hardware (4) **Total Software (12)**

CAV TERMINAL UNITS

	Hardware Points				Software Points						
Point Name	AI	AO	BI	BO	AV	BV	Loop	Sched	Trend	Alarm	Show On Graphic
Airflow	x								x		x
Discharge Air Temp	x								x		x
Zone Setpoint Adjust	x										x
Zone Temp	x								x		x
Reheating Valve		x							x		x
Zone Damper		x							x		x
Zone Override			x						x		x
Airflow Setpoint					x				x		x
Cooling Setpoint					x				x		x
Environmental Index					x				x		
Heating Setpoint					x				x		x
Percent of Time Satisfied					x				x		
Schedule								x			
High Discharge Air Temp										x	
High Zone Temp										x	
Low Discharge Air Temp										x	
Low Zone Temp										x	
Totals	**4**	**2**	**1**	**0**	**5**	**0**	**0**	**1**	**11**	**4**	**10**

Total Hardware (7) **Total Software (21)**

VAV TERMINAL UNITS

	Hardware Points				Software Points						
Point Name	AI	AO	BI	BO	AV	BV	Loop	Sched	Trend	Alarm	Show On Graphic
Airflow	x								x		x
Discharge Air Temp	x								x		x
Zone Carbon Dioxide PPM	x								x		x
Zone Setpoint Adjust	x										x
Zone Temp	x								x		x
Reheating Valve		x							x		x
Zone Damper		x							x		x
Zone Override			x						x		x
Airflow Setpoint					x				x		x
Cooling Setpoint					x				x		x
DAT Heating Limit					x						
Environmental Index					x				x		
Heating Setpoint					x				x		x
Percent of Time Satisfied					x				x		
Zone Carbon Dioxide PPM Setpoint					x				x		x
Heating Mode						x			x		
Schedule								x			
High Discharge Air Temp										x	
High Zone Carbon Dioxide Concentration										x	
High Zone Temp										x	
Low Discharge Air Temp										x	
Low Zone Temp										x	
Totals	**5**	**2**	**1**	**0**	**7**	**1**	**0**	**1**	**14**	**5**	**12**

Total Hardware (8) **Total Software (28)**

RELIEF FANS

	Hardware Points				Software Points						
Point Name	AI	AO	BI	BO	AV	BV	Loop	Sched	Trend	Alarm	Show On Graphic
Building Static Pressure	x								x		x
Fan VFD Speed		x							x		x
Fan Status			x						x		x
Fan VFD Fault			x							x	x
Fan Start/Stop				x					x		x
Building Static Pressure Setpoint					x				x		x
Fan Failure										x	
Fan in Hand										x	
Fan Runtime Exceeded										x	
High Building Static Pressure										x	
Low Building Static Pressure										x	
Totals	**1**	**1**	**2**	**1**	**1**	**0**	**0**	**0**	**5**	**6**	**6**

Total Hardware (5) **Total Software (12)**

VAV AIR HANDLING UNITS

	Hardware Points				Software Points						
Point Name	AI	AO	BI	BO	AV	BV	Loop	Sched	Trend	Alarm	Show On Graphic
Final Filter Differential Pressure	x								x		
Mixed Air Temp	x								x		x
Prefilter Differential Pressure	x								x		
Supply Air Static Pressure	x								x	x	x
Supply Air Temp	x								x		x
Cooling Valve		x							x		x
Preheating Valve		x							x		x
Supply Fan VFD Speed		x							x		x
Freezestat			x						x	x	x
High Static Shutdown			x						x	x	x
Supply Air Smoke Detector			x						x	x	x
Supply Fan Status			x						x		x
Supply Fan VFD Fault			x							x	x
Supply Fan Start/Stop				x					x		x
Preheating Mixed Air Temp Setpoint					x				x		x
Supply Air Static Pressure Setpoint					x				x		x
Supply Air Temp Setpoint					x				x		x
Emergency Shutdown						x			x	x	x
Final Filter Change Required										x	x
High Mixed Air Temp										x	
High Supply Air Static Pressure										x	
High Supply Air Temp										x	
High Supply Air Temp										x	
Low Mixed Air Temp										x	
Low Supply Air Static Pressure										x	
Low Supply Air Temp										x	
Low Supply Air Temp										x	
Prefilter Change Required										x	x
Supply Fan Failure										x	
Supply Fan in Hand										x	
Supply Fan Runtime Exceeded										x	
Totals	**5**	**3**	**5**	**1**	**3**	**1**	**0**	**0**	**17**	**19**	**18**

Total Hardware (14) **Total Software (40)**

Revisions:	Date:

CONSULTANT

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REGISTERED PROFESSIONAL ENGINEER
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MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL CONTROL POINTS SCHEDULES

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019 | Checked: M. Perkins | Drawn: K. Luke

Project Number: 664-18-320

Building Number: 1

Drawing Number: 1M-804

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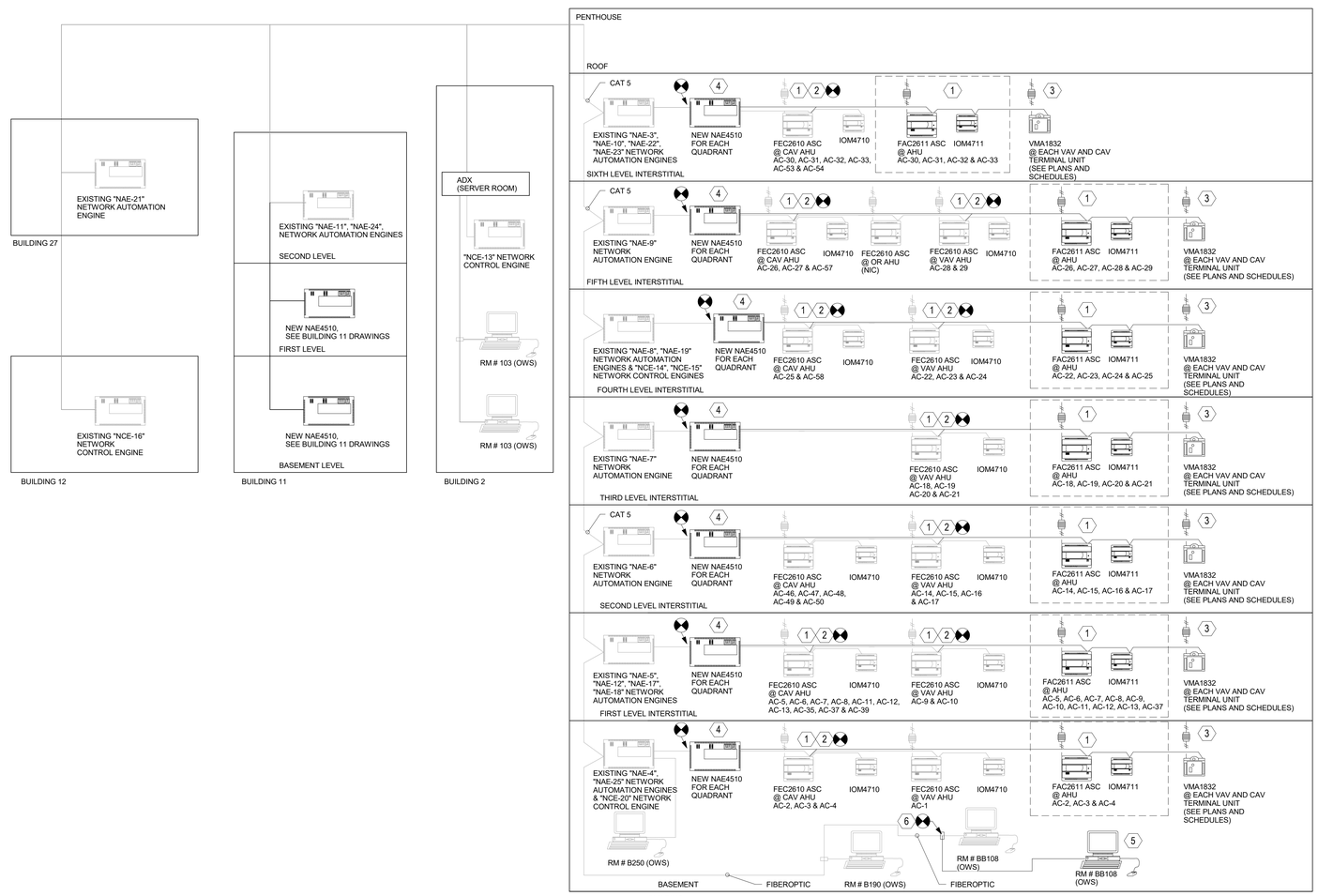
NOTE: CONTRACTOR SHALL PROVIDE NEW MECHANICAL CONTROL SYSTEM HARDWARE AND SOFTWARE AND INTEGRATE WITH EXISTING CONTROL SYSTEM HARDWARE AND SOFTWARE IN ACCORDANCE WITH SPECIFICATION SECTION 23 09 23.



KEYNOTES

1. PROVIDE NEW ADVANCED APPLICATION FIELD EQUIPMENT CONTROLLERS (FAC2611 OR APPROVED EQUAL), POWER SUPPLY, IOM PANELS, NETWORK CABLE WIRE AND CONDUIT AS REQUIRED TO CONTROL NEW TERMINAL UNITS. EXISTING AIR HANDLING UNITS AND EXHAUST FANS (ALSO AS SHOWN ON THE PLANS AND SCHEDULES). ALL NEW CONTROLS HARDWARE TO BE MOUNTED IN A NEW CONTROL PANEL ENCLOSURES LOCATED AS SHOWN ON THE MH SHEETS. COORDINATE ROUGH-IN LOCATION WITH VA. SEE M-800 SERIES SHEETS FOR CONTROLS SEQUENCES.
2. EXISTING FEC CONTROL PANELS CONTROLLING EXISTING VAV AND CAV AIR HANDLING UNITS. CONTRACTOR TO LOCATE NEW TERMINAL UNIT CONTROL PANELS ADJACENT TO THE EXISTING AIR HANDLING UNIT PANEL. EXISTING CONTROLS SHALL BE MAINTAINED AND NEW TERMINAL UNIT CONTROLS INTEGRATED. PROVIDE EQUIPMENT CONTROLLERS, NEW CABLE, WIRE, ENCLOSURES AND RACEWAY AS REQUIRED TO CONNECT TO THE EXISTING.
3. PROVIDE NEW VMA1832 (OR APPROVED EQUAL) CONTROL PANELS, POWER SUPPLY, AND REQUIRED INSTRUMENTATION MOUNTED ON EACH TERMINAL UNIT. SEE MH SHEETS FOR TERMINAL UNIT LOCATIONS, M-700 SERIES FOR TERMINAL UNIT SCHEDULES AND M-800 SERIES SHEETS FOR CONTROL SEQUENCES. PROVIDE NEW THERMOSTAT WITH BLANK FACEPLATE. THERMOSTAT SET POINTS SHALL BE CONTROLLED BY BUILDING HVAC OPERATORS, NO LOCAL CONTROL.
4. PROVIDE NEW NETWORK AUTOMATION ENGINES, POWER SUPPLY AND ALL ASSOCIATED CABLING, CONDUIT AND ACCESSORIES (NAE45 OR APPROVED EQUAL) FOR EACH BUILDING LEVEL AND QUADRANT. ALL NEW CONTROLS HARDWARE TO BE MOUNTED IN NEW CONTROL PANEL ENCLOSURES LOCATED AS SHOWN ON THE MH SHEETS. SEE M-800 SERIES SHEETS FOR CONTROLS SEQUENCES.
5. PROVIDE NEW OPERATOR WORKSTATION PER SPECIFICATION 23 09 23, COORDINATE FINAL LOCATION WITH COR.
6. PROVIDE NEW SIGNAL SPLITTER AND MEDIA CONVERSION AS REQUIRED TO INTEGRATE NEW OPERATOR WORKSTATION TO EXISTING FIBER NETWORK.

F7 MECHANICAL CONTROLS RISER DIAGRAM

SCALE: NONE

Revisions:	Date:

CONSULTANT

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DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title MECHANICAL CONTROLS RISER DIAGRAM	**Phase** ISSUED FOR CONSTRUCTION	**Project Title** ENERGY MANAGEMENT CONTROLS INTEGRATION 1	**Project Number** 664-18-320
			Building Number 1
Approved:	FULLY SPRINKLERED	**Location** 3350 La Jolla Village Dr, San Diego, CA 92161	**Drawing Number** 1M-805
		Issue Date 03/15/2019 / **Checked** M. Perkins / **Drawn** K. Luke	

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ELECTRICAL SYMBOL LEGEND

NOTES:
1. REFER TO FLOORPLANS AND ELECTRICAL SPECIFICATIONS FOR DEVICE/EQUIPMENT TYPES AND REQUIREMENTS.
2. NOT ALL SYMBOLS INDICATED APPLY TO THIS PROJECT.
3. DIMESIONS INDICATED ARE TO THE TOP OF DEVICE, UON.

ELECTRICAL ABBREVIATIONS

A	AMPERES	KO	KNOCK-OUT
AC	ALTERNATING CURRENT	KV	KILOVOLT
ADO	AUTOMATIC DOOR OPENER	KVA	KILOVOLT-AMPERES
AF	AMPERE FRAME	KW	KILOWATTS
AFF	ABOVE FINISHED FLOOR	KWH	KILOWATT HOURS
AIC	AMP INTERRUPTING CAPACITY	LAN	LOCAL AREA NETWORK
ALT	ALTERNATE	LGT	LIGHT
ARCH	ARCHITECTURAL	LTG	LIGHTING
ASC	ABOVE SUSPENDED CEILING	LTS	LIGHTS
AT	AMPERE TRIP	LV	LOW VOLTAGE
ATS	AUTOMATIC TRANSFER SWITCH	MATV	MASTER ANTENNA TELEVISION
BATS	BYPASS AUTOMATIC TRANSFER SWITCH	MCB	MAIN CIRCUIT BREAKER
BCG	BARE COPPER GROUND	MCC	MOTOR CONTROL CENTER
BLDG	BUILDING	MCP	MAIN DISTRIBUTION PANEL
BKR	BREAKER	MLO	MAIN LUGS ONLY
C	CONDUIT	MH	MANHOLE
CB	CIRCUIT BREAKER	MTD	MOUNTED
CCTV	CLOSED CIRCUIT TELEVISION	MTG	MOUNTING
CCT	CIRCUIT	MGHT	MOUNTING HEIGHT
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	MTR	MOTOR/METER
CLG	CEILING	NA	NOT APPLICABLE
CONTR	CONTRACTOR	NEC	NATIONAL ELECTRICAL CODE
CORR	CORRIDOR	NFD	NON-FUSED DISCONNECT
CT	CURRENT TRANSFORMER	NFSS	NON-FUSED SAFETY SWITCH
DB	DIRECT BURIAL	NIC	NOT IN CONTRACT
DC	DIRECT CURRENT	NO	NORMALLY OPEN
DED	DEDICATED	NTS	NOT TO SCALE
DET	DETAIL	OC	ON CENTER
DIA	DIAMETER	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
DISC	DISCONNECT	OFOI	OWNER FURNISHED OWNER INSTALLED
DN	DOWN	PA	PUBLIC ADDRESS
DS	DISCONNECT SWITCH	PC	PHOTOCELL
EC	EMPTY CONDUIT/ELECTRICAL CONTRACTOR	PDU	POWER DISTRIBUTION UNIT
EG	EQUIPMENT GROUND	PF	POWER FACTOR
EGS	ENGINE GENERATOR SET	PH	PHASE
ELEC	ELECTRIC/ELECTRICAL	PLBG	PLUMBING
EMER	EMERGENCY	PNL	PANEL
EMI	ELECTROMAGNETIC INTERFERENCE	PT	POTENTIAL TRANSFORMER
EMT	ELECTRICAL METALLIC TUBING	PWR	POWER
EQUIP	EQUIPMENT	RECD	RECESSED
ETR	EXISTING TO REMAIN	REC	RECEPTACLE
FA	FIRE ALARM	REQD	REQUIRED
FACP	FIRE ALARM CONTROL PANEL	RMC	RIGID METAL CONDUIT
FCU	FAN COIL UNIT	SHT	SHEET
FDR	FEEDER	SIG	SIGNAL
FIXT	FIXTURE	SIM	SIMILAR
FLA	FULL LOAD AMPERES	SPD	SURGE PROTECTIVE DEVICE
FLEX	FLEXIBLE	SPEC	SPECIFICATION
FLR	FLOOR	SS	SAFETY SWITCH
FLUOR	FLUORESCENT	STR	STARTER
FS	FLOW SWITCH	SW	SWITCH
FVNR	FULL VOLTAGE NON-REVERSING	SWBD	SWITCHBOARD
GC	GENERAL CONTRACTOR	SWGR	SWITCHGEAR
GEC	GROUNDING ELECTRODE CONDUCTOR	TEL	TELEPHONE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TS	TAMPER SWITCH/TIME SWITCH
GFP	GROUND FAULT PROTECTION	TV	TELEVISION
GND	GROUND	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
GEN	GENERATOR	TYP	TYPICAL
GFI	GROUND FAULT INTERRUPTER	UG	UNDER GROUND
HH	HANDHOLE	UNO	UNLESS NOTED OTHERWISE
HOA	HAND OFF AUTOMATIC	UPS	UNINTERRUPTED POWER SUPPLY
HP	HORSE POWER	VFD	VARIABLE FREQUENCY DRIVE
HV	HIGH VOLTAGE	W	WIRE
IMC	INTERMEDIATE METAL CONDUIT	W/	WITH
IT	INFORMATION TECHNOLOGY	WP	WEATHERPROOF
JB	JUNCTION BOX	X	EXISTING
		XFMR	TRANSFORMER

DISTRIBUTION EQUIPMENT LABELS

EXAMPLES:
1EHSA (LEVEL 1, EMERGENCY, 277/480V, SWITCHBOARD, SEQUENCE A)
1USS1A (LEVEL 1, NORMAL, OTHER VOLTAGE, UNIT SUBSTATION 1, SECTION A)

1 = FLOOR OR LEVEL
E = SOURCE
- BLANK = NORMAL
- E = EMERGENCY
- C = CRITICAL
- S = LIFE SAFETY
- Q = EQUIPMENT
- U = UNINTERRUPTIBLE POWER SUPPLY
- I = ISOLATION POWER (HEALTHCARE)
- G = ISOLATED GROUND

H = VOLTAGE
- BLANK = OTHER VOLTAGE, REFER TO ONE LINE DIAGRAM
- L = 120/208V
- H = 277/480V

S = EQUIPMENT TYPE
- BLANK = BRANCH PANELBOARD
- D = DISTRIBUTION PANELBOARD
- S = SWITCHBOARD
- G = SWITCHGEAR
- M = MOTOR CONTROL CENTER
- T = TRANSFORMER
- A = AUTOMATIC TRANSFER SWITCH
- B = BUSDUCT
- U = UNINTERRUPTIBLE POWER SUPPLY
- US = UNIT SUBSTATION

A = SEQUENCE AND/OR SECTION

LIGHTING

(REFER TO THE LUMINAIRE SCHEDULE FOR TYPES AND REQUIREMENTS)

LABEL LEGEND
A = TYPE
2 = BRANCH CIRCUIT NUMBER
a = SWITCH NUMBER OR 'NL' (NIGHT LIGHT)

BRANCH POWER LEGEND:
- NORMAL
- CRITICAL / EMERGENCY
- LIFE SAFETY

A.2.a — TROFFER, REFER TO BRANCH POWER LEGEND FOR POWER SOURCE, TYPICAL
DOWNLIGHT, CEILING
DOWNLIGHT, WALL
GROUND/FLOOR
WALL WASHER
TRACK
STRIP
LINEAR
EMERGENCY LIGHTING UNIT, BATTERY PACK ON LIFE SAFETY/EMERGENCY POWER. UON.
EXIT SIGNS, SINGLE FACE WITH DIRECTIONAL ARROWS AS INDICATED
EXIT SIGNS, DOUBLE FACE WITH DIRECTIONAL ARROWS AS INDICATED
POLE LIGHT, SINGLE HEAD.
POLE LIGHT, DOUBLE HEAD.

SWITCHES

(WALL MOUNTED DEVICES MOUNTED 48" AFF TO TOP OF BOX, UON.)

LIGHT SWITCH, SINGLE POLE, . ADJACENT TEXT INDICATES TYPE:
- a = ID, LOWER CASE
- 2 = 2 POLE
- 3 = 3-WAY
- 4 = 4-WAY
- A = TIMER
- K = KEYED
- P = PILOT LIGHT
- M = MOMENTARY CONTACT

D — DIMMER SWITCH, WALL
S — COMBINATION DIMMER SWITCH, OCCUPANCY SENSOR, WALL
O — OCCUPANCY SENSOR, WALL
O — OCCUPANCY SENSOR, CEILING
L — AMBIENT LIGHT LEVEL SENSOR, WALL
L — AMBIENT LIGHT LEVEL SENSOR,CEILING
C — LIGHTING CONTACTOR
P — PHOTOCELL

RECEPTACLES AND WIRING

(WALL MOUNTED DEVICES MOUNTED 18" AFF TO TOP, UON.)

DUPLEX RECEPTACLE, NORMAL & EMERGENCY
DUPLEX RECEPTACLE, 2" ABOVE BACKSPLASH. TYPICAL FOR ALL RECEPTACLES WITH VERTICAL STRIKETHROUGH LINE.
DUPLEX - CEILING, NORMAL & EMERGENCY
DUPLEX - FLOOR, NORMAL & EMERGENCY. REFER TO FLOORPLANS FOR DEVICE TYPE.
DUPLEX - SUSPENDED FROM CEILING, NORMAL & EMERGENCY
DUPLEX RECEPTACLE - GFCI. NORMAL & EMERGENCY
QUADPLEX
SIMPLEX
SIMPLEX, TWISTLOCK L6-20R, NORMAL & EMERGENCY
SPECIAL TYPE - WALL , NORMAL & EMERGENCY. NEMA CONFIGURATION PER FLOORPLANS
SPECIAL TYPE - CEILING, NORMAL & EMERGENCY
FIXED EQUIPMENT CONNECTION - WALL, NORMAL & EMERGENCY
FIXED EQUIPMENT CONNECTION, NORMAL & EMERGENCY. LOCATION PER FLOORPLANS
J — SURFACE MOUNTED WIREWAY WITH RECEPTACLES LENGTH AS INDICATED ON DRAWINGS, SPACING AS INDICATED:
- A = 6" ON CENTER
- B = 12" ON CENTER
- C = 24" ON CENTER

J — JUNCTION BOX, FLUSH WALL
J — JUNCTION BOX - FLUSH MOUNTED
J — JUNCTION BOX, SURFACE MOUNTED
PANEL DIVISION ARROW
PANEL DIVISION LINE
1H1A-2 — HOMERUN, 2#12, 1#12G, 3/4"C. UNO. LABEL INDICATES PANEL & CIRCUIT NUMBERS
LINEWORK: EXISTING TO BE REMOVED (BOLD AND DASHED)
LINEWORK: EXISTING TO REMAIN (HALFTONE)
LINEWORK: NEW (BOLD)

EQUIPMENT

PANELBOARD, SURFACE, NORMAL POWER
PANELBOARD, SURFACE, CRITICAL / EMERGENCY POWER - TYPICAL ALL EQUIPMENT
PANELBOARD, SURFACE, LIFE SAFETY - TYPICAL ALL EQUIPMENT
PANELBOARD, SURFACE, EQUIPMENT POWER - TYPICAL EQUIPMENT
PANELBOARD, SURFACE >42 CIRCUITS, SINGLE ENCLOSURE
PANELBOARD, FLUSH
CABINET, SURFACE, TYPE AS INDICATED ON FLOORPLANS
CABINET, FLUSH, TYPE AS INDICATED ON FLOORPLANS
SWITCHBOARD, MOTOR CONTROL CENTER OR AS INDICATED.
T — TRANSFORMER
NON-FUSED DISCONNECT SWITCH
F — FUSED DISCONNECT SWITCH
B — BREAKER DISCONNECT SWITCH
MAGNETIC MOTOR STARTER
COMBINATION MOTOR STARTER
MANUAL STARTER W/THERMAL OVERLOADS
M — MOTOR

FIRE ALARM

(WALL MOUNTED DEVICES MOUNTED 48" AFF, UON.)

F — MANUAL PULLSTATION
FACP — FIRE ALARM CONTROL PANEL, 6'-0" AFF TO TOP
FANN — FIRE ALARM REMOTE ANNUNCIATOR, 6'-0" AFF TO TOP
NACP — NACP, NOTIFICATION APPLIANCE POWER, 6'-0" AFF TO TOP
H — HEAT DETECTOR, CEILING
S — SMOKE DETECTOR, CEILING
B — BEAM TRANSMITTER, WALL 12" BELOW CEILING OBSTRUCTION
R — BEAM RECEIVER, WALL 12" BELOW CEILING OBSTRUCTION
M — MAGNETIC DOOR HOLDER, WALL. COORDINATE WITH DOOR HARDWARE.
D — ELECTRIC DOOR CLOSER. COORDINATE WITH DOOR OPENER.
FS — FLOW SWITCH
TS — TAMPER SWITCH
PS — PRESSURE SWITCH
D S/R — DUCT MOUNTED SMOKE DETECTOR. LABEL INDICATES 'S' SUPPLY OR 'R' RETURN AIR SYSTEM.
SD — SMOKE DAMPER
CD — COMBINATION FIRE/SMOKE DAMPER
F 15 — FIRE ALARM SPEAKER AND STROBE, CEILING OR WALL +82" AFF FLOOR CANDELLA RATING INDICATED.
F 15 — FIRE ALARM CHIME AND STROBE, CEILING OR WALL +82" AFF FLOOR. CANDELLA RATING INDICATED.
F 15 — FIRE ALARM STROBE, CEILING OR WALL +82" AFF FLOOR. CANDELLA RATING INDICATED.

NURSE CALL

(WALL MOUNTED DEVICES MOUNTED 60" AFF TO TOP, UON.)

N 1 — PATIENT BED STATION, SINGLE BED
N 2 — PATIENT BED STATION, DOUBLE BED
N R — PATIENT BED RECEPTACLE, 20" AFF
N E — EMERGENCY CALL:
- TOILETS: W/PULL CORD. 84" AFF IN SHOWERS, +54" AFF IN TUBS AND 36" AFF AT TOILETS.
- TREATEMENT ROOMS: 84" AFF.

N C — CODE BLUE
N S — STAFF STATION
N D — DUTY STATION
N P — PSYCHIATRIC COORIDOR STATION
N T — CABLE TV INTERFACE
Z — DOME LIGHT, CEILING OR WALL +80" AFF FLOOR OR 6" BELOW CEILING.
N — ZONE LIGHT, CEILING OR WALL +80" AFF FLOOR OR 6" BELOW CEILING.
NCM — NURSE CALL MASTER
ANN — NURSE CALL ANNUNCIATOR
NCT — NURSE CALL TERMINAL CABINET

ONE LINE DIAGRAM

MOLDED CASE CIRCUIT BREAKER
LOW VOLTAGE, DRAW OUT CIRCUIT BREAKER
DISCONNECT SWITCH
DISCONNECT SWITCH, DRAW OUT TYPE
FUSE
FUSE, DRAW OUT TYPE
MEDIUM VOLTAGE VACUUM BREAKER
MEDIUM VOLTAGE VACUUM BREAKER, DRAW OUT TYPE
1EHT1 — MEDIUM VOLTAGE SWITCH
45kVA 480V : 208Y/120V 3P,4W — TRANSFORMER DELTA-WYE
TRANSFER SWITCH
TB — BUSS DUCT
BUSS DUCT PLUG-IN UNIT
CURRENT TRANSFORMER
M — METER WITH CURRENT TRANSFORMER
PR — PROTECTIVE RELAYS
M — MOTOR
GROUND
DIODE
N.O. CONTACT
N.C. CONTACT
INVERTER
BATTERY RACK
VFD — VFD
K — KIRK KEY INTERLOCK
PNL 100A — PANELBOARD, NORMAL POWER
PNL 100A — PANELBOARD, CRITICAL / EMERGENCY POWER
PNL 100A — PANELBOARD, LIFE SAFETY POWER
PNL 100A — PANELBOARD, EQUIPMENT POWER

COMMUNICATIONS / SECURITY

(WALL MOUNTED DEVICES MOUNTED 18" AFF TO TOP, UON.)

2 — VOICE/DATA, WALL, NUMBER OF PORTS INDICATED
2 — VOICE/DATA, FLOOR
A — VOICE/DATA, SUSPENDED FROM CEILING
PHONE
W — WALL PHONE, +48" AFF
S — CEILING SPEAKER
S — WALL SPEAKER, +80" AFF, UNO.
TTC — TELEPHONE TERMINAL CABINET
TTB — TELEPHONE TERMINAL BOARD
CR — PROXIMITY CARD READER,
ES — ELECTRIC STRIKE
DC — DOOR CONTACT
RE — REQUEST TO EXIT
DO DO — DOOR OPENER POWER CONNECTOR, NORMAL & EMERGENCY
PP — PUSHPLATE, +48" AFF TO TOP
KP — KEYPAD, +48" AFF TO TOP
IC — INTERCOM, +48" AFF TO TOP
PB — PANIC BUTTON, +48" AFF TO TOP
SM — MONITOR
MD — MOTION DETECTOR
GB — GLASS BREAK DETECTOR
SB — SECURITY ACCESS BUZZER
CAMERA, CEILING. TYPE INDICATED; PTZ, 360, ETC.

Southwire/ Technical Support/ Voltage Drop Calculator

Voltage Drop Calculator

THE VOLTAGE DROP OF <3% WAS CALCULATED FOR A 20A, 120VAC BRANCH CIRCUIT WITH A MAXIMUM LOAD OF 10A AND A MAXIMUM FEEDER LENGTH OF 260 LINEAR FEET.

Results

1 conductors per phase utilizing a #8 Copper conductor will limit the voltage drop to 3.00% or less when supplying 10.0 amps for 260 feet on a 120 volt system.
For Engineering Information Only:
40.0 Amps Rated ampacity of selected conductor
0.7421 Ohms Resistance (Ohms per 1000 feet)
0.052 Ohms Reactance (Ohms per 1000 feet)
3.5999999999999996 volts maximum allowable voltage drop at 3%
3.591. Actual voltage drop loss at 3.00% for the circuit
0.9 Power Factor
**Note to User:All ampacity values are taken from the Section of 310-15 of the NEC. The conductor characteristics are taken from Table 9 of the NEC. The calculations used to determine the recommended conductor sizes for branch circuits are based on 60°C ampacity ratings for circuits rated 100 amps or less or marked for use with #14 AWG - #1 AWG. Circuits rated over 100 amps or marked for conductors larger than #1 AWG are determined using 75°C ampacity ratings. Calculations to determine service and feeder conductor sizes are based on overcurrent device ratings rather than actual expected loads which are conservative and may yield oversized conductors. No calculations take into account temperature correction factors or conductor de-rating. This voltage drop calculator is applicable only to NEC applications. It does not optimize conductor sizes for several different loads at various points in a circuit. The total combined load and length of the circuit must be used. Consult with an engineer if your application requires more complex engineering calculations.

Revisions:	Date:

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Mat Perkins

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REGISTERED PROFESSIONAL ENGINEER — 39126 — MATHEW R. PERKINS — CIVIL — DATE SIGNED — ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SYMBOLS AND ABBREVIATIONS
Approved:
Phase: ISSUED FOR CONSTRUCTION — FULLY SPRINKLERED
Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date: 02/13/2019
Checked: M. PERKINS
Drawn: F. CLARK
Project Number: 664-18-320
Building Number: 1
Drawing Number: 1E-001

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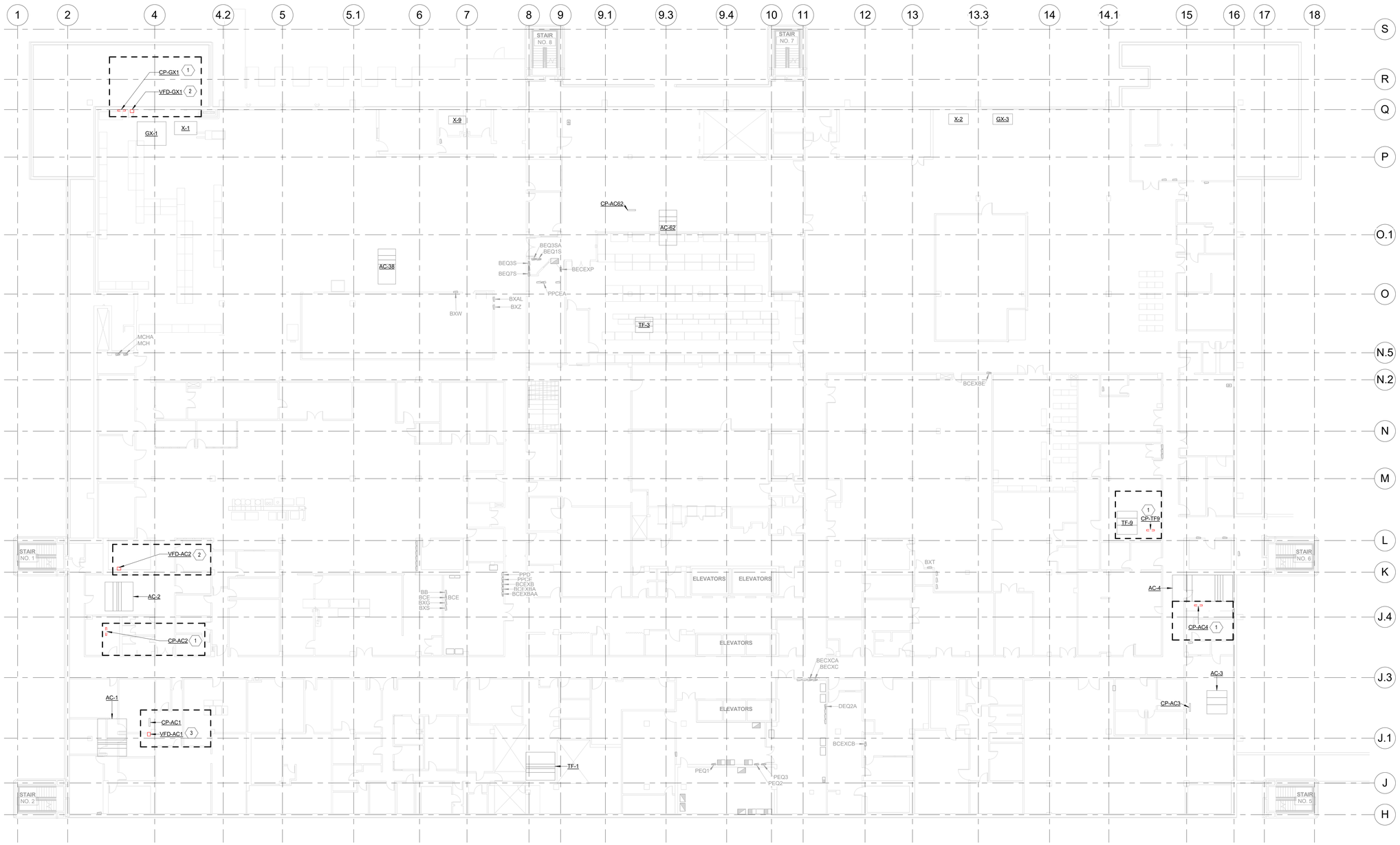
3/18/2019 2:32:34 PM
VA FORM 08 - 6231



F1 ELECTRICAL DEMO. - BASEMENT INTERST.

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT IS EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
B MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT THAT REMAIN.
C CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS..

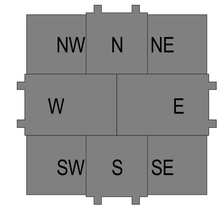
KEYNOTES

1 REMOVE ELECTRICAL SERVICE TO CONTROL PANEL, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO NEAREST POINT OF SERVICE. MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT ON THE SAME CIRCUIT.

2 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL PPD.

3 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL PPCE,

KEY PLAN



Revisions:	Date:

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Mikhail Fuks

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A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
CP 35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DEMO. PLAN - BASEMENT INTERSTITIAL	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1ED-100
Issue Date: 03/15/2019	Checked: M. Perkins
Drawn: F. Clark	

3/18/2019 10:41:25 AM

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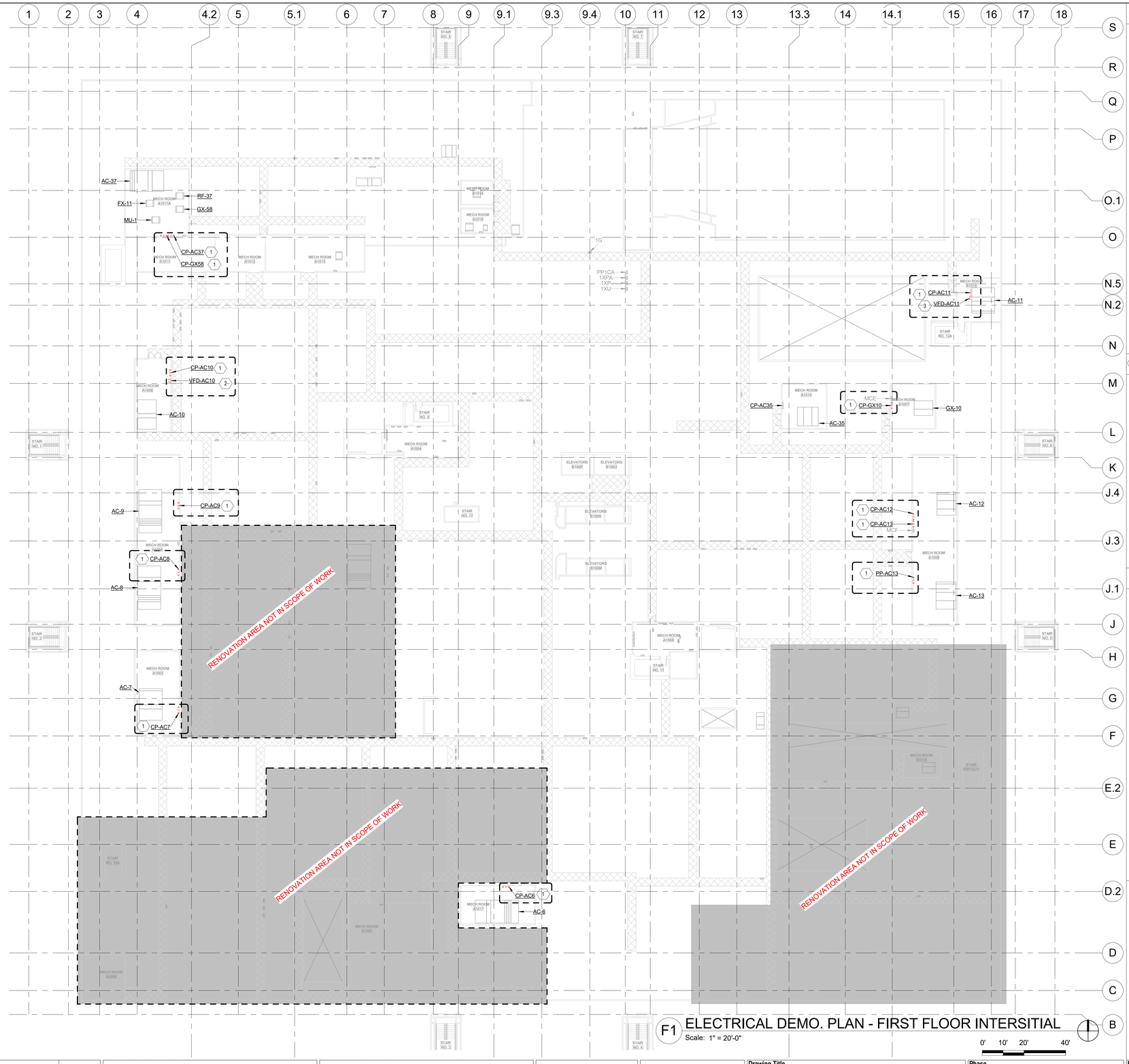


F1 ELECTRICAL DEMO. PLAN - FIRST FLOOR INTERSITIAL

Scale: 1" = 20'-0"

0' 10' 20' 40'

GENERAL SHEET NOTES

A ALL EQUIPMENT IS EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
B MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT THAT REMAIN.
C CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS..

KEYNOTES

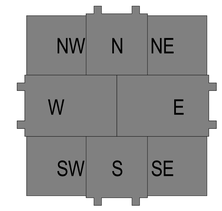
1 REMOVE ELECTRICAL SERVICE TO CONTROL PANEL, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO NEAREST POINT OF SERVICE. MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT ON THE SAME CIRCUIT.
2 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL MCB.
3 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL MCE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

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Mikhail Fuks

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307-460-2054
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A MULTI-DISCIPLINE COMPANY

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REGISTERED PROFESSIONAL ENGINEER
CP 35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ELECTRICAL DEMO. PLAN - FIRST FLOOR INTERSTITIAL
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark
Project Number	664-18-320
Building Number	1
Drawing Number	1ED-101

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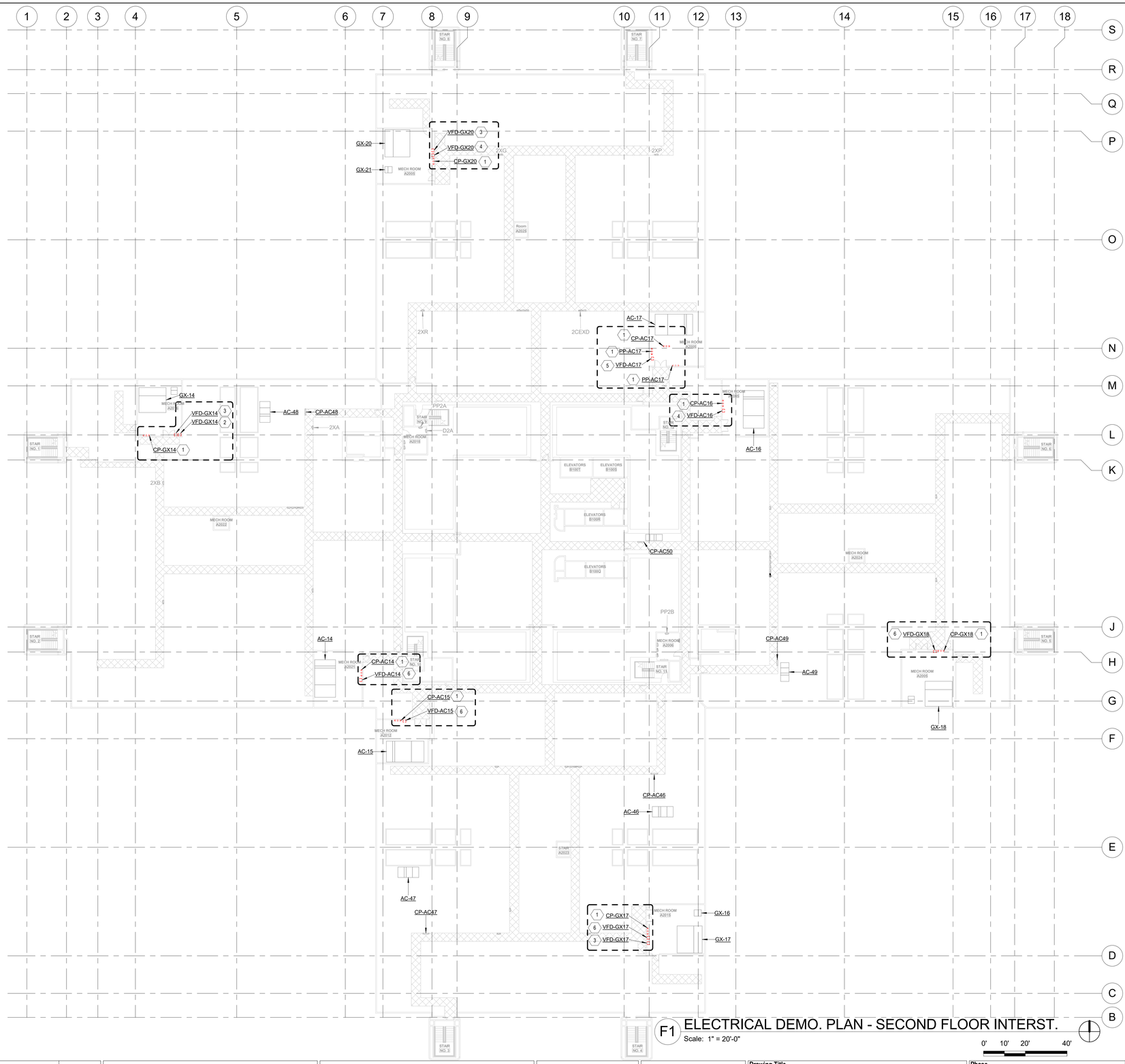
VA FORM 08 - 6231



F1 ELECTRICAL DEMO. PLAN - SECOND FLOOR INTERST.

Scale: 1" = 20'-0"

0' 10' 20' 40'

GENERAL SHEET NOTES

A ALL EQUIPMENT IS EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
B MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT THAT REMAIN.
C CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS..

KEYNOTES

1 REMOVE ELECTRICAL SERVICE TO CONTROL PANEL, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO NEAREST POINT OF SERVICE. MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT ON THE SAME CIRCUIT.
2 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL EQ2.
3 CONTRACTOR SHALL REMOVE EXISTING ABANDONED EQUIPMENT IN IT'S ENTIRETY.
4 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL PP2A.
5 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO THE SERVICE PANEL. AS-BUILT DRAWINGS AND FIELD INVESTIGATION COULD NOT IDENTIFY THE SERVICE PANEL..
6 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL PP2B.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN

NW N NE
W E
SW S SE

Revisions:	Date:

CONSULTANT

MECHANICAL:
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REGISTERED PROFESSIONAL ENGINEER
33126
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DEMO. PLAN - SECOND FLOOR INTERSTITIAL

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019 | Checked: M. Perkins | Drawn: F. Clark

Project Number: 664-18-320

Building Number: 1

Drawing Number: 1ED-102

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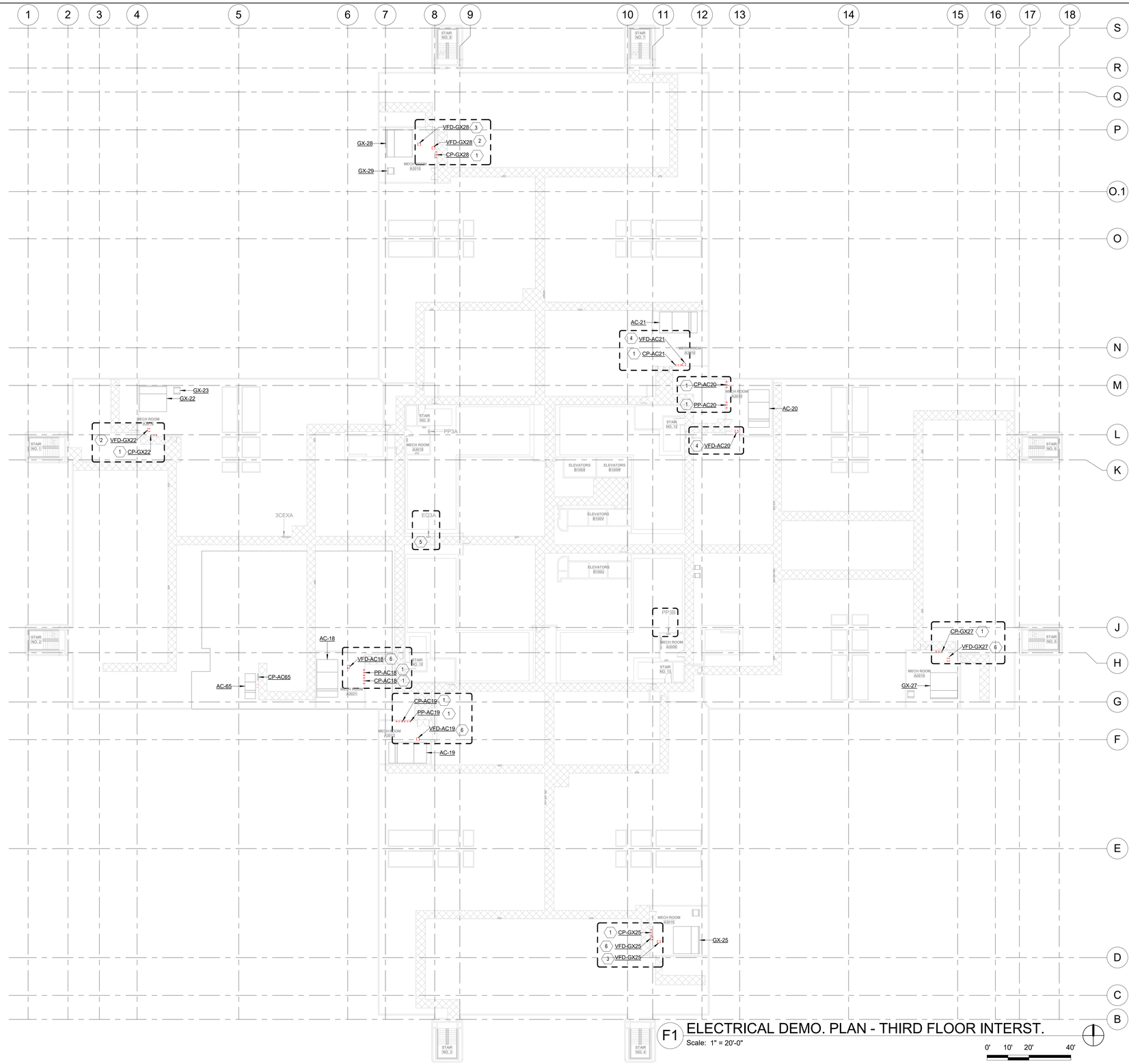


GENERAL SHEET NOTES

A ALL EQUIPMENT IS EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
B MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT THAT REMAIN.
C CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS..

KEYNOTES

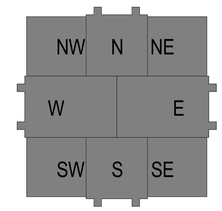
1 REMOVE ELECTRICAL SERVICE TO CONTROL PANEL, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO NEAREST POINT OF SERVICE. MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT ON THE SAME CIRCUIT.
2 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL EQ3A.
3 CONTRACTOR SHALL REMOVE EXISTING ABANDONED EQUIPMENT IN IT'S ENTIRETY.
4 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL PP3A.
5 WE WERE UNABLE TO LOCATE PANEL EQ3A, THIS LOCATION IS APPROXIMATE.
6 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL PP3B.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



F1 ELECTRICAL DEMO. PLAN - THIRD FLOOR INTERST.

Scale: 1" = 20'-0"

0' 10' 20' 40'

Revisions:	Date:

CONSULTANT

MECHANICAL:
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Mikhail Fuks

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ARIZONA U.S.A.

Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ELECTRICAL DEMO. PLAN - THIRD FLOOR INTERSTITIAL
Approved:	
Phase	ISSUED FOR CONSTRUCTION
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Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark
Project Number	664-18-320
Building Number	1
Drawing Number	1ED-103

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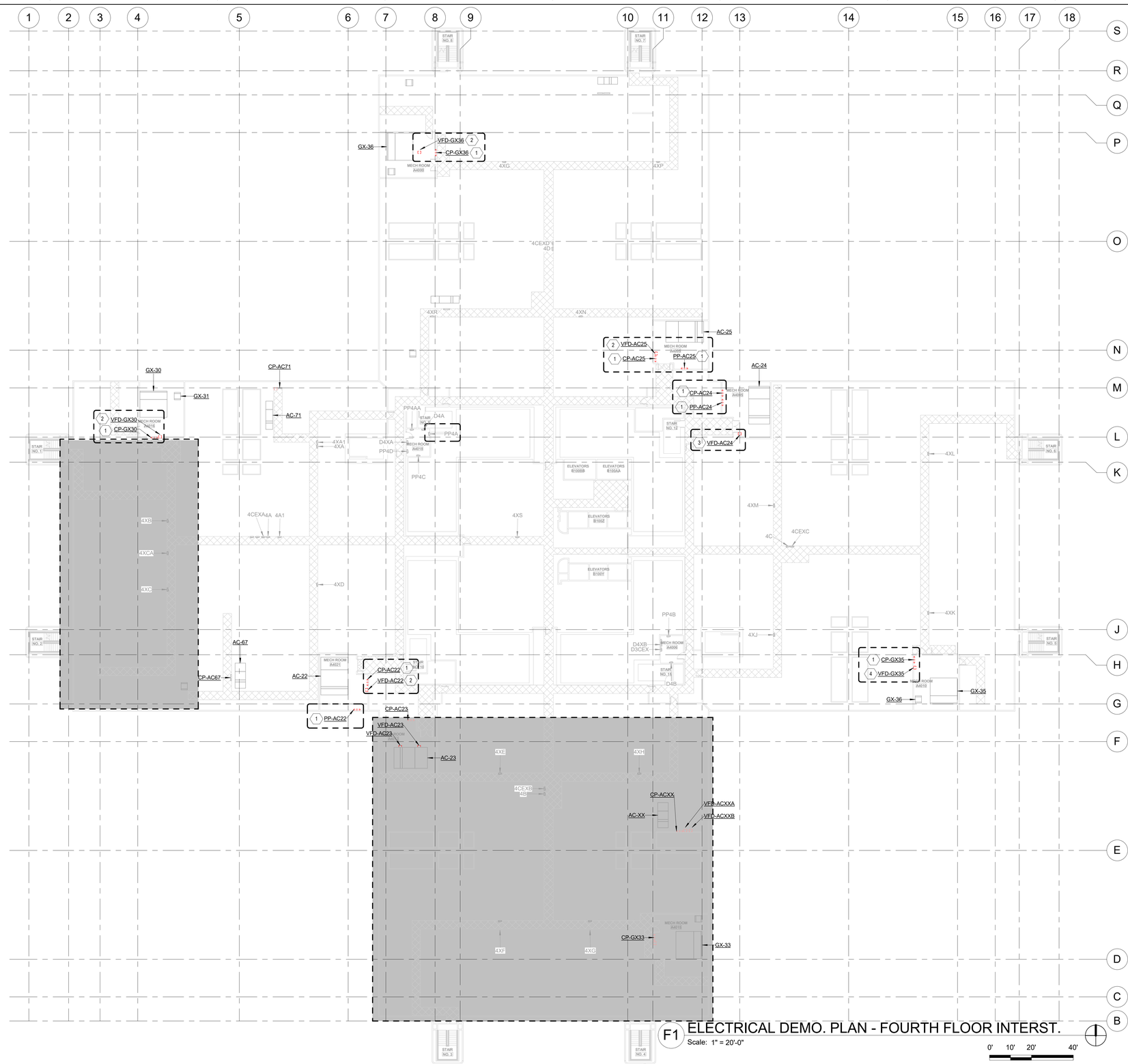
3/18/2019 10:41:45 AM

VA FORM 08 - 6231



F1 ELECTRICAL DEMO. PLAN - FOURTH FLOOR INTERST.

Scale: 1" = 20'-0"

0' 10' 20' 40'

GENERAL SHEET NOTES

A ALL EQUIPMENT IS EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
B MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT THAT REMAIN.
C CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS..

KEYNOTES

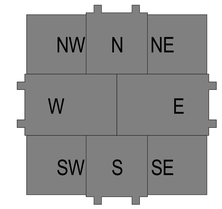
1 REMOVE ELECTRICAL SERVICE TO CONTROL PANEL, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO NEAREST POINT OF SERVICE. MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT ON THE SAME CIRCUIT.
2 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL EQ4A.
3 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL PP4A.
4 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL PP4B.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

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Mat Perkins

TRIPLE C – THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
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MATHEW R. PERKINS
CHIEF ELECTRICAL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ELECTRICAL DEMO. PLAN - FOURTH FLOOR INTERSTITIAL
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Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark
Project Number	664-18-320
Building Number	1
Drawing Number	1ED-104

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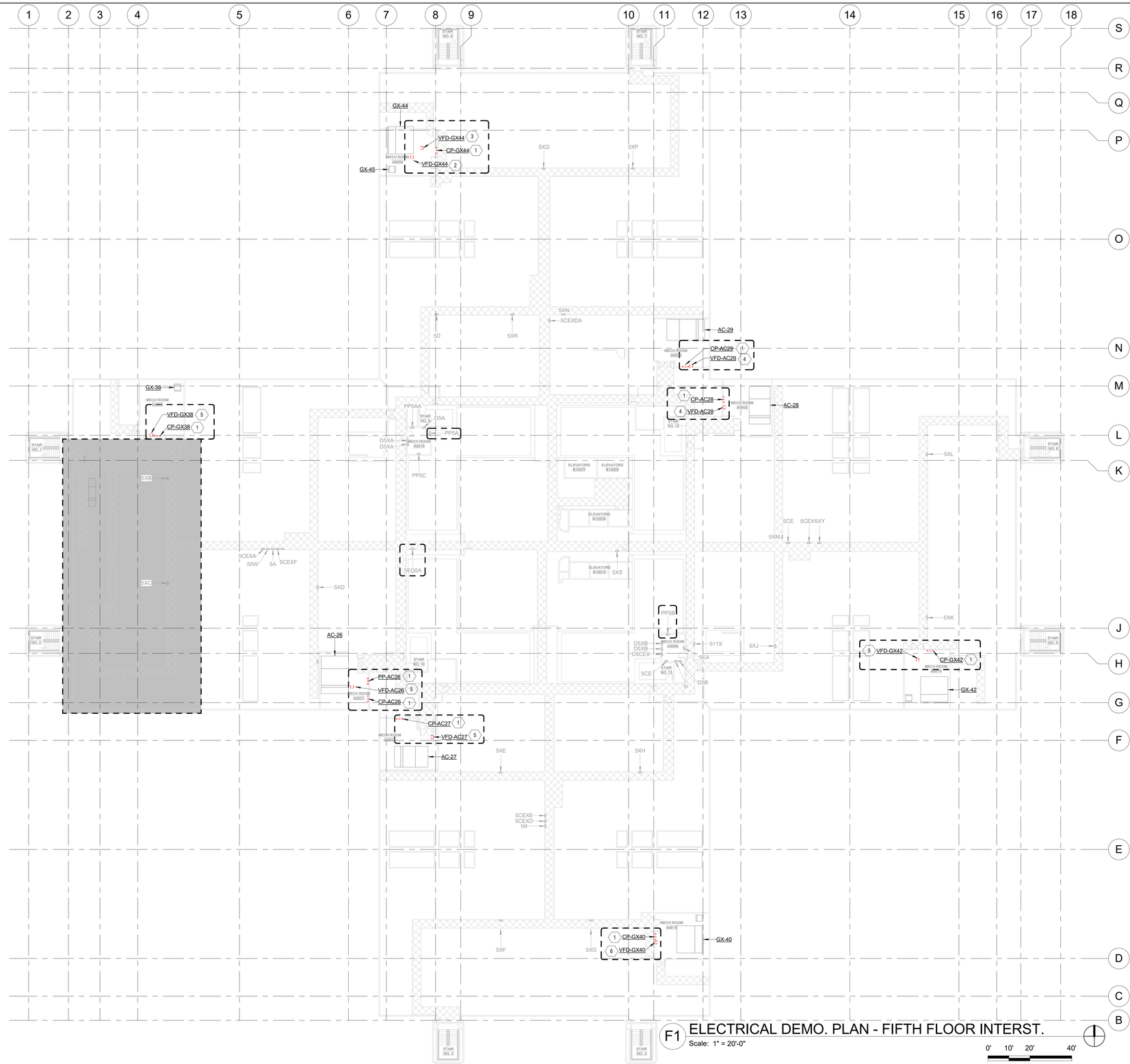

F1 ELECTRICAL DEMO. PLAN - FIFTH FLOOR INTERST.

Scale: 1" = 20'-0"

0' 10' 20' 40'

GENERAL SHEET NOTES

A ALL EQUIPMENT IS EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
B MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT THAT REMAIN.
C CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS..

KEYNOTES

1 REMOVE ELECTRICAL SERVICE TO CONTROL PANEL, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO NEAREST POINT OF SERVICE. MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT ON THE SAME CIRCUIT.
2 CONTRACTOR SHALL REMOVE EXISTING ABANDONED EQUIPMENT IN IT'S ENTIRETY.
3 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL EO5A
4 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL PP5A.
5 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO THE SERVICE PANEL. AS-BUILT DRAWINGS AND FIELD INVESTIGATION COULD NOT IDENTIFY THE SERVICE PANEL.
6 REMOVE ELECTRICAL SERVICE TO VFD, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO PANEL PP5B.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN

NW N NE
W E
SW S SE

Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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1839 S. Alma School Rd., Ste. 300
Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ELECTRICAL DEMO. PLAN - FIFTH FLOOR INTERSTITIAL
Phase	ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Project Number	664-18-320
Building Number	1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Drawing Number	1ED-105
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark

3/18/2019 10:41:58 AM

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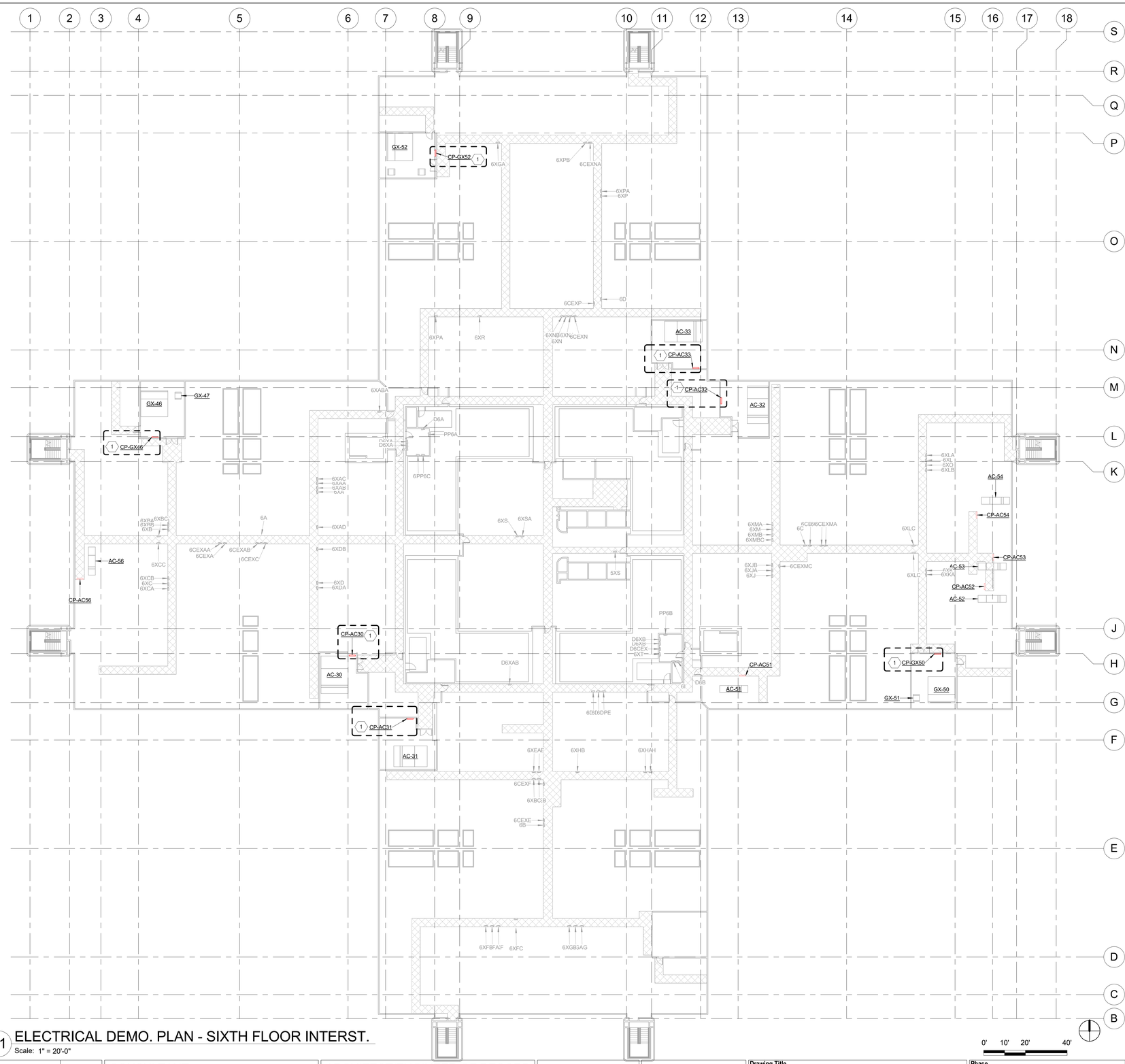
VA FORM 08 - 6231



F1 ELECTRICAL DEMO. PLAN - SIXTH FLOOR INTERST.

Scale: 1" = 20'-0"

0' 10' 20' 40'

GENERAL SHEET NOTES

A ALL EQUIPMENT IS EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
B MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT THAT REMAIN.
C CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS..

KEYNOTES

1 REMOVE ELECTRICAL SERVICE TO CONTROL PANEL, INCLUDING ASSOCIATED WIRING AND RACEWAYS BACK TO NEAREST POINT OF SERVICE. MAINTAIN CIRCUIT CONTINUITY TO EQUIPMENT ON THE SAME CIRCUIT.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN

NW N NE
W E
SW S SE

Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

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REGISTERED PROFESSIONAL ENGINEER
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MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DEMO. PLAN - SIXTH FLOOR INTERSTITIAL	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1			Project Number: 664-18-320
			Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161			Drawing Number: 1ED-106
Issue Date: 03/15/2019	Checked: M. Perkins	Drawn: F. Clark	

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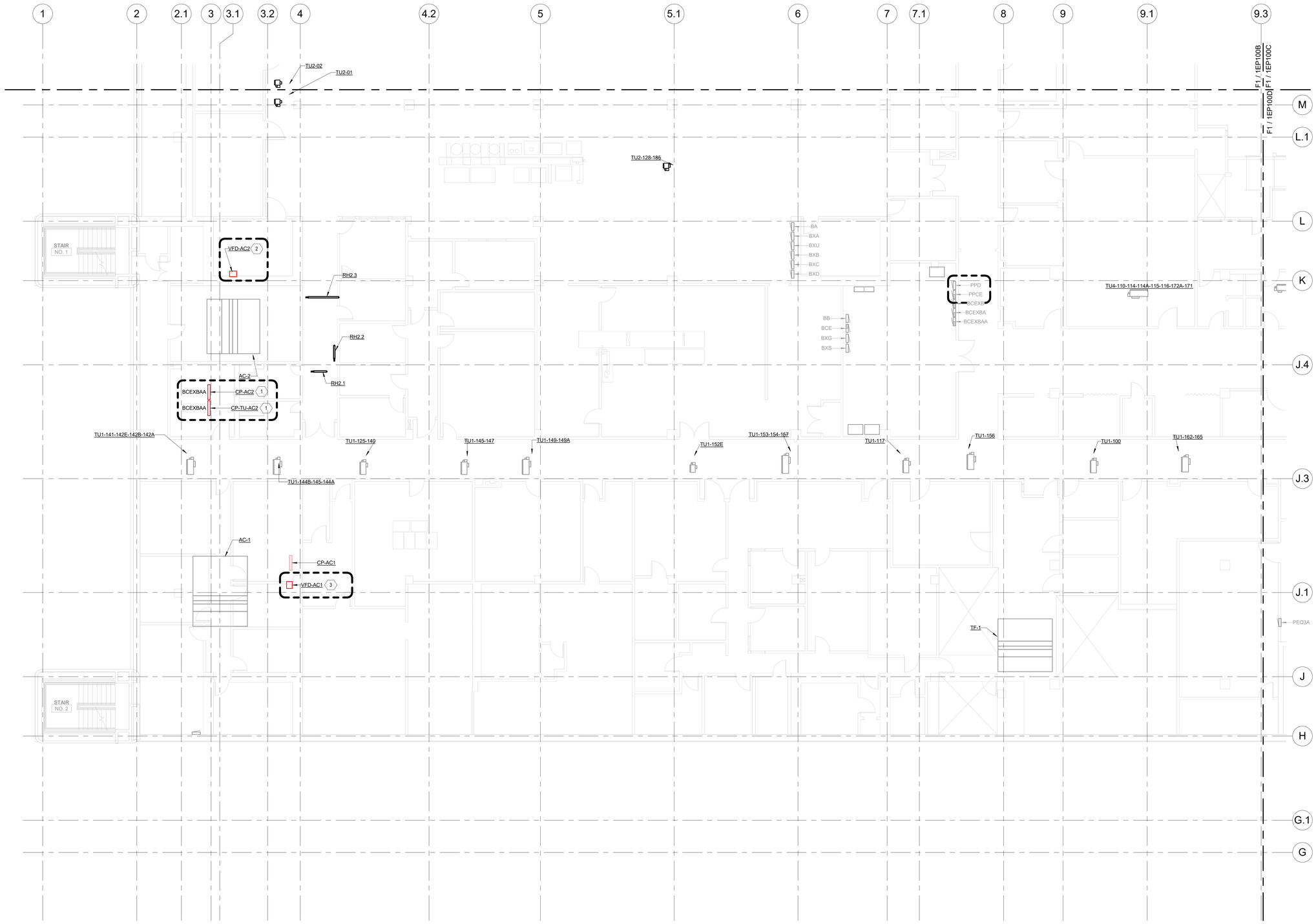
VA FORM 08 - 6231



F1 POWER PLAN - BASEMENT - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 HOMERUN 3#6, 1#10G IN 3/4"C. FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PPD PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

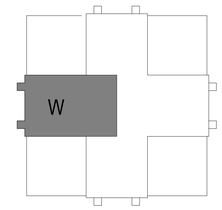
3 HOMERUN 3#6, 1#10G IN 3/4"C. FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PPCE PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Mesa, AZ 85210
307-460-2054
Mat Perkins

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STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	POWER PLAN - BASEMENT - WEST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark
Project Number	664-18-320
Building Number	1
Drawing Number	1EP100A

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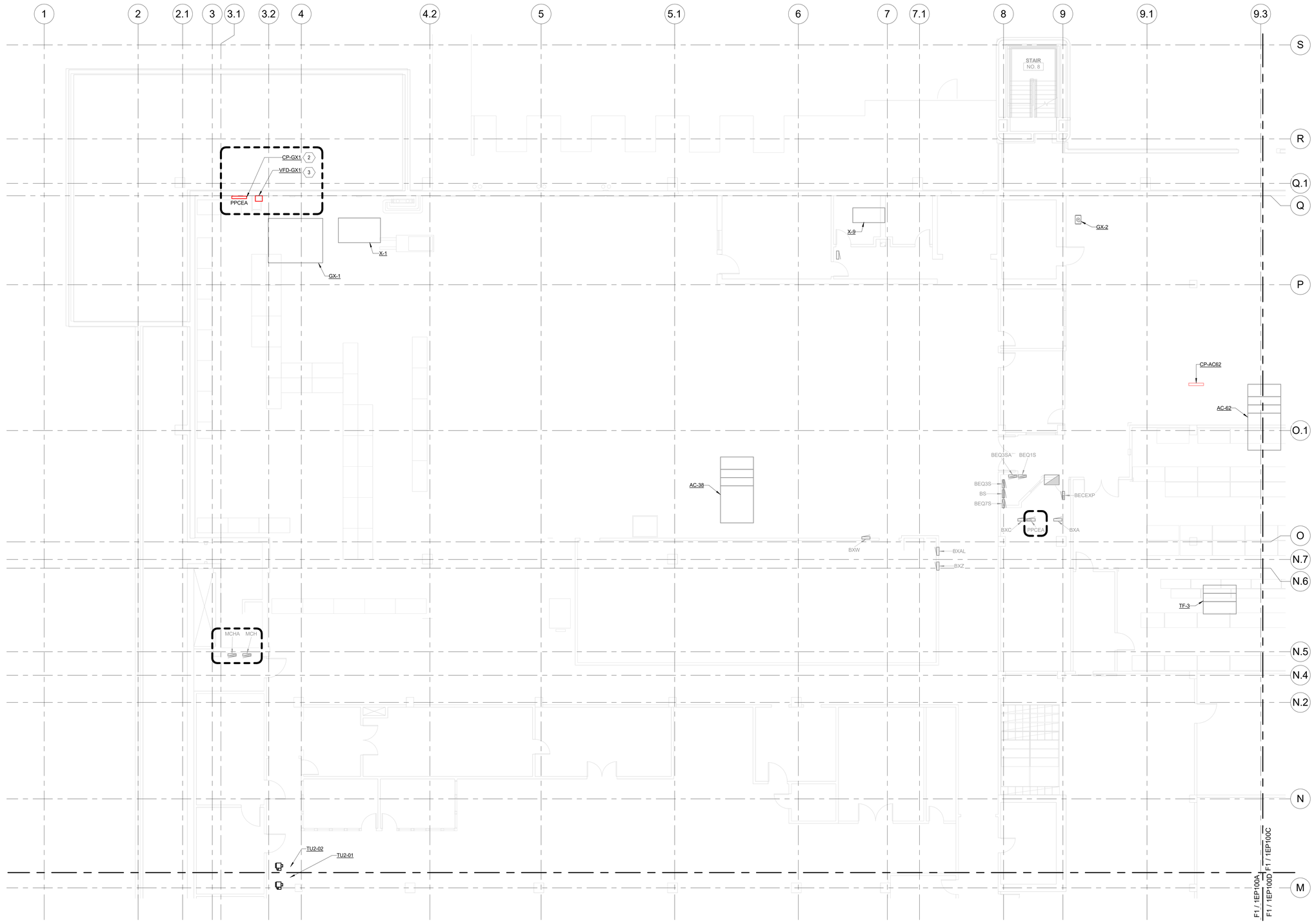
BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F1 POWER PLAN - BASEMENT - NORTHWEST

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

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

2 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

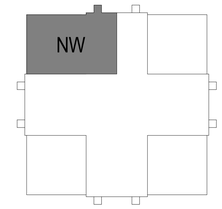
3 HOMERUN 3#10, 1#10G IN 3/4"C. FROM NEW VFD LOCAL DISCONNECT MEANS TO PANEL PPD PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
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307-460-2054
Mat Perkins

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A MULTI-DISCIPLINE COMPANY

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REGISTERED PROFESSIONAL ENGINEER
35126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

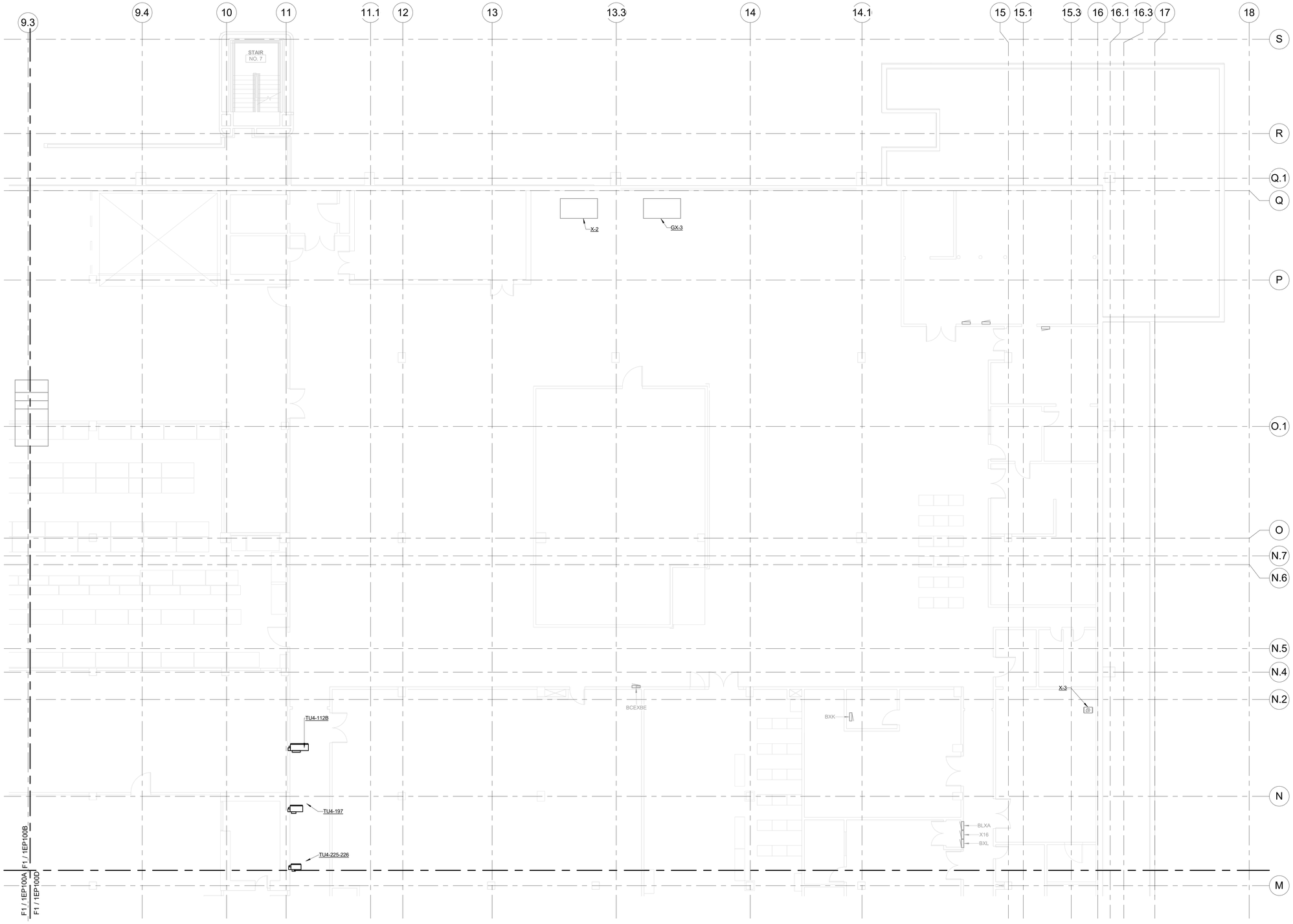
Drawing Title: POWER PLAN - BASEMENT - NORTHWEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP100B
Issue Date: 03/15/2019 / Checked: M. Perkins / Drawn: F. Clark	

9/18/2019 10:42:15 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F1 POWER PLAN - BASEMENT - NORTHEAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

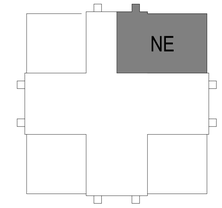
NOT USED.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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307-460-2054
Mat Perkins

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STAMP

REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

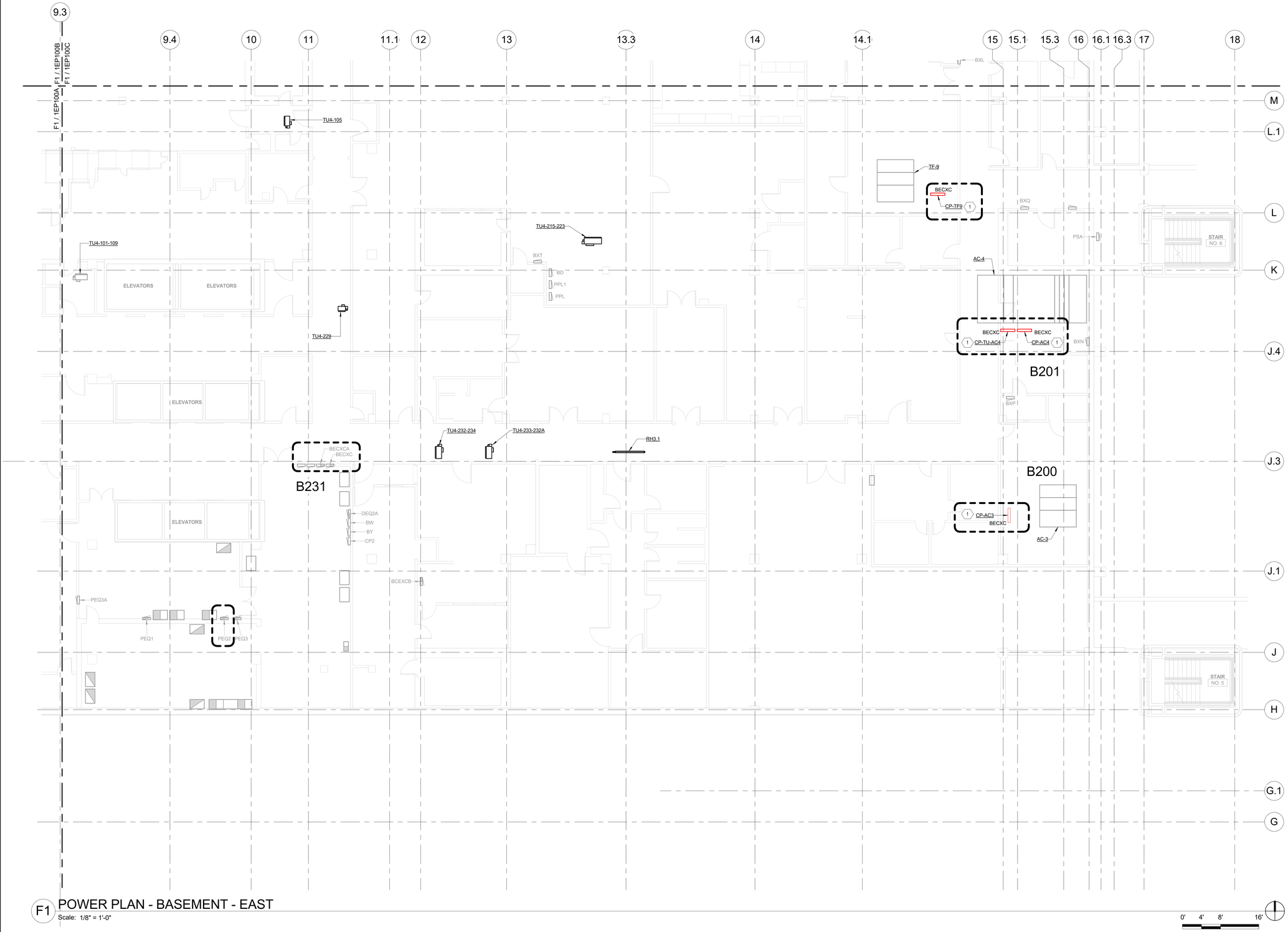
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - BASEMENT - NORTHEAST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Building Number: 1
		Issue Date: 03/15/2019 / Checked: M. Perkins / Drawn: F. Clark	Drawing Number: 1EP100C

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt 3/18/2019 10:42:20 AM

VA FORM 08 - 6231



F1 POWER PLAN - BASEMENT - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

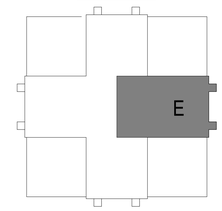
1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

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STAMP

REGISTERED PROFESSIONAL ENGINEER
CP 35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - BASEMENT - EAST

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019

Checked: M. Perkins

Drawn: F. Clark

Project Number: 664-18-320

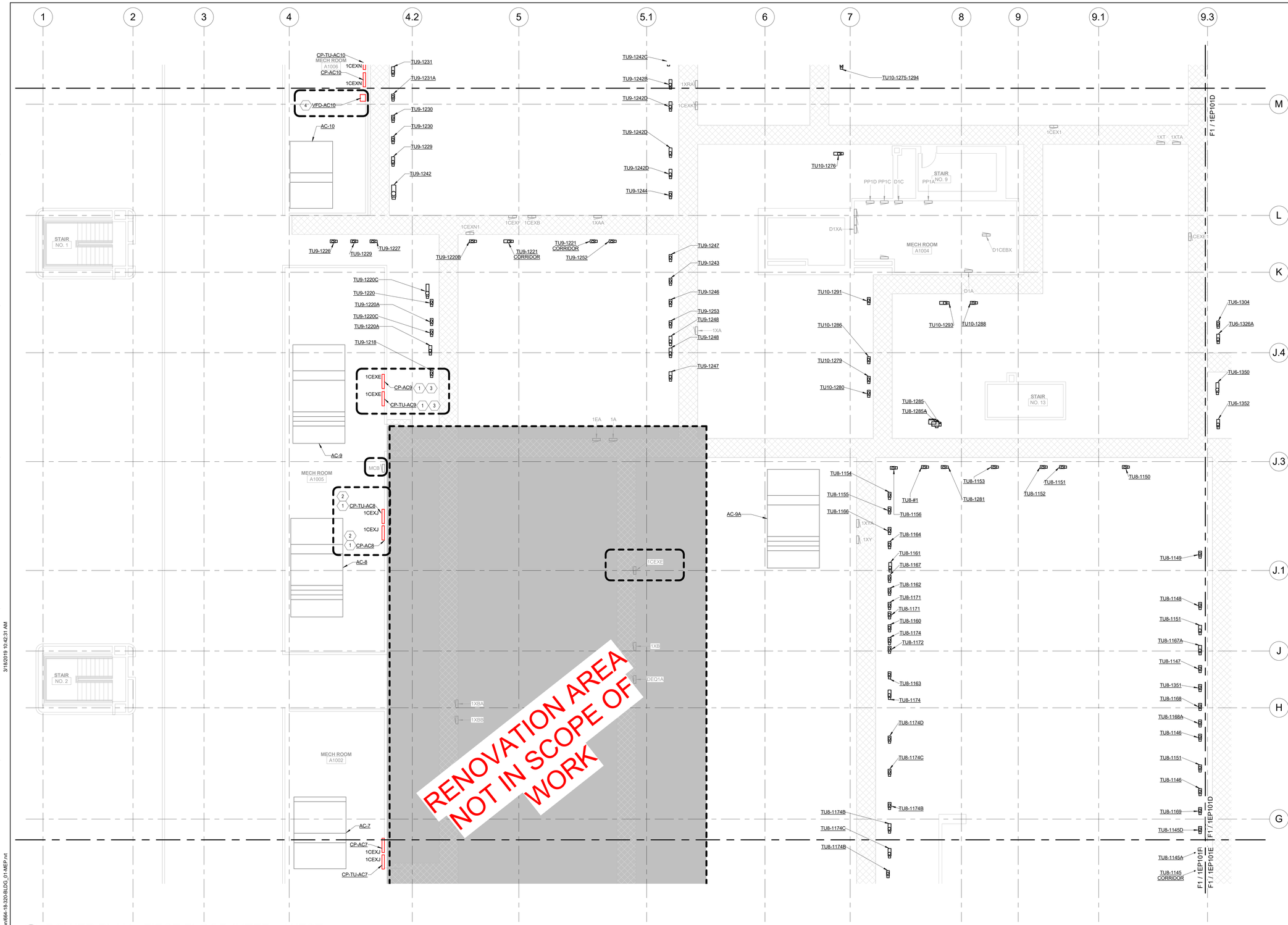
Building Number: 1

Drawing Number: 1EP100D

3/18/2019 10:42:25 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F1 POWER PLAN - FIRST FLOOR INTER. - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E7/0 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-8 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 THE TERMINAL UNITS ASSOCIATED WITH AC-9 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

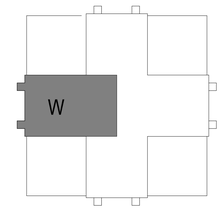
4 HOMERUN 3#4, 1#10G IN 1"C. FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING MCC MCB PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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REGISTERED PROFESSIONAL ENGINEER
35126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - FIRST FLOOR INTERSTITIAL - WEST

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019

Checked: M. Perkins

Drawn: F. Clark

Project Number: 664-18-320

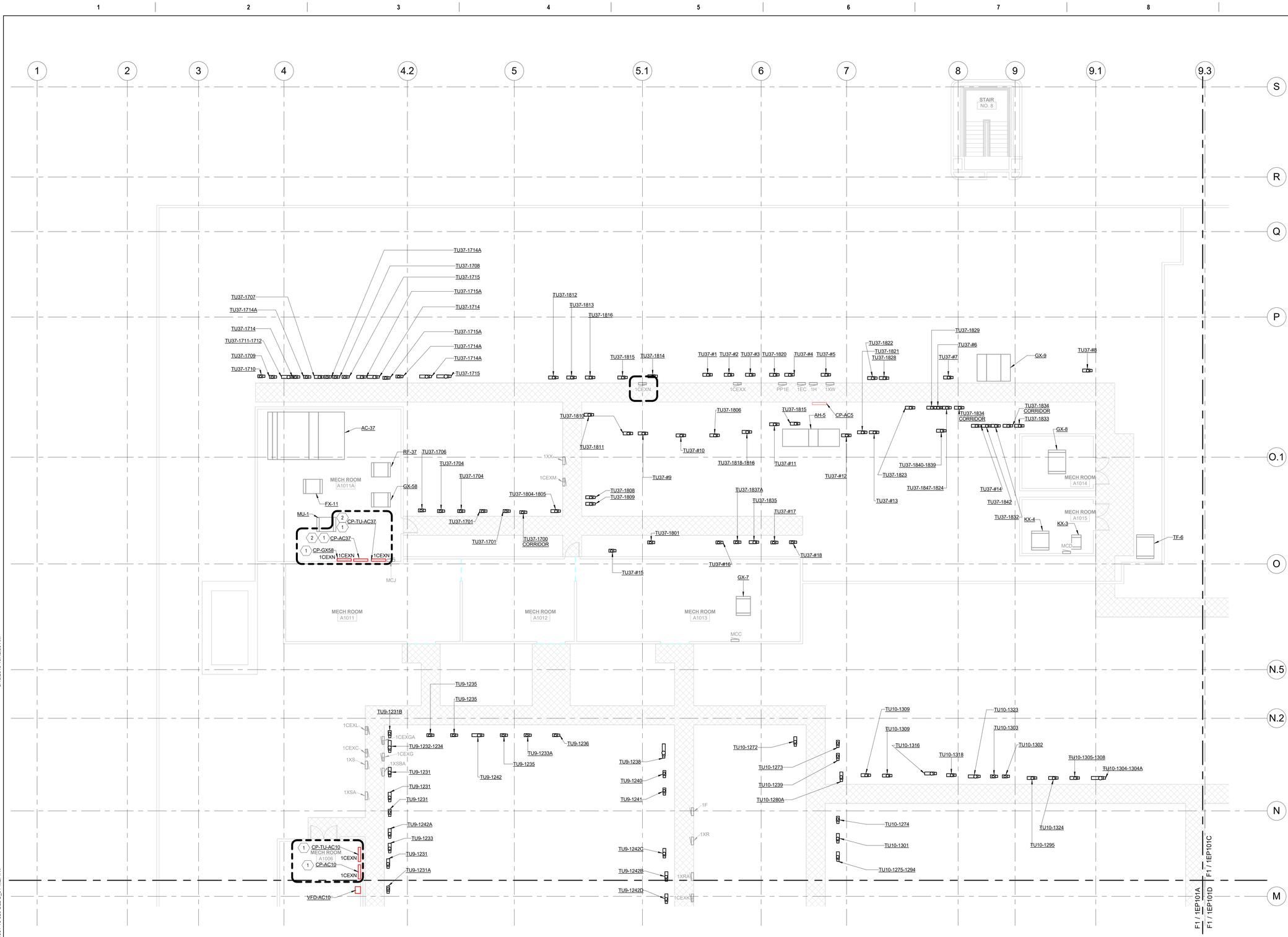
Building Number: 1

Drawing Number: 1EP101A

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

9/18/2019 10:42:31 AM

VA FORM 08 - 6231



F1 POWER PLAN - FIRST FLOOR INTER. - NORTHWEST

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

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

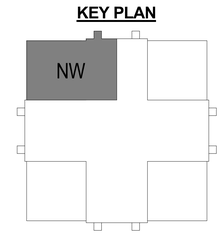
2 THE TERMINAL UNITS ASSOCIATED WITH AC-37 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
33128
MATHEW R. PERKINS
06/30/2021
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

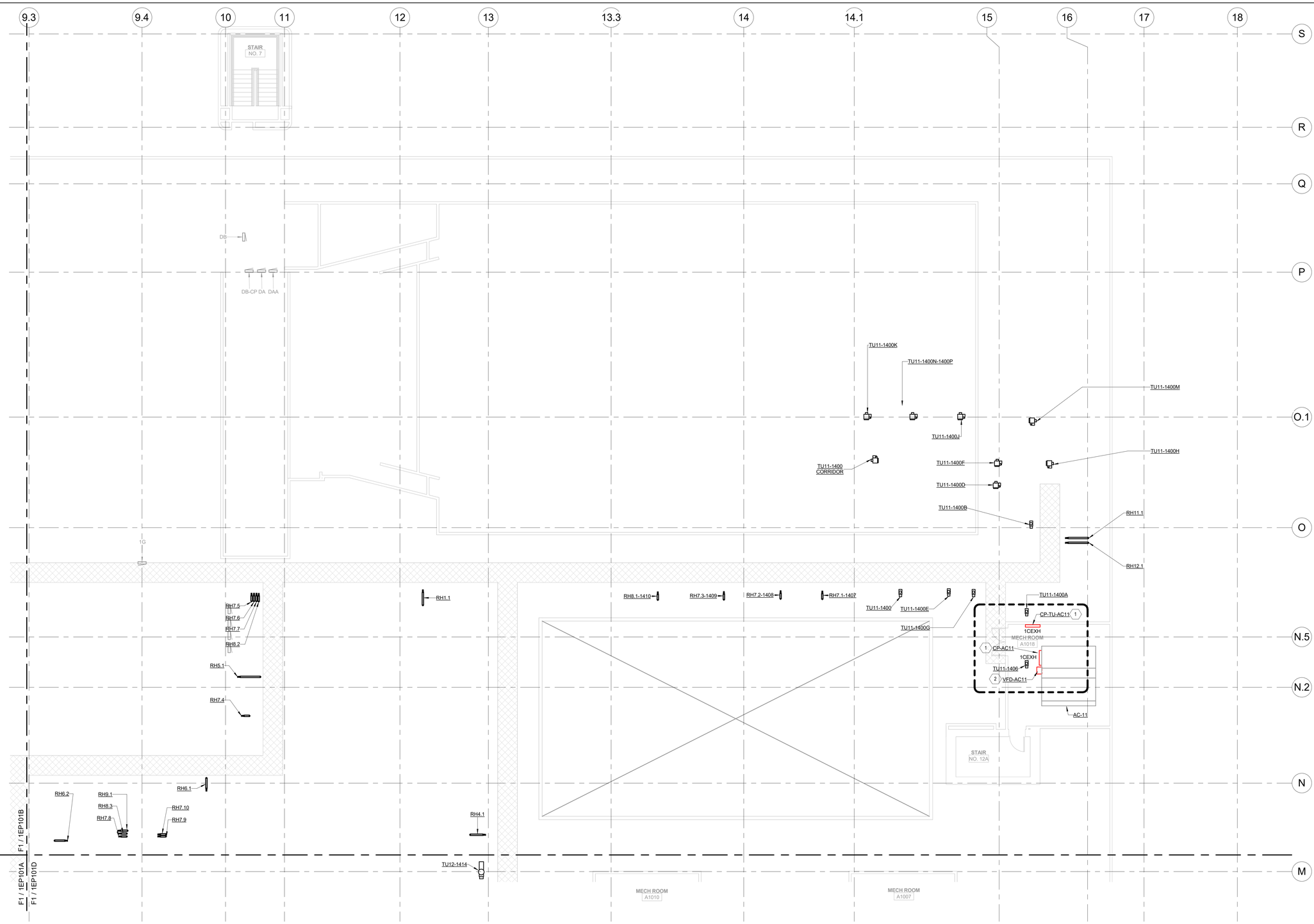
VA U.S. Department of Veterans Affairs

Drawing Title	POWER PLAN - FIRST FLOOR INTERSTITIAL - NORTHWEST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark
Project Number	664-18-320
Building Number	1
Drawing Number	1EP101B

3/18/2019 10:42:36 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.
B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.
C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.
D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.
E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.
F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.
G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

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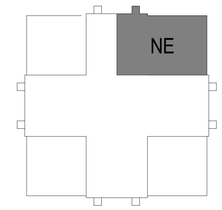
2 HOMERUN 3#4, 1#10G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING MCC MCE PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



F1 POWER PLAN - FIRST FLOOR INTER. - NORTHEAST

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

0' 4' 8' 16'

Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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307-460-2054
Mat Perkins

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A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
CP 35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - FIRST FLOOR INTERSTITIAL - NORTHEAST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
			Building Number: 1
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP101C
		Issue Date: 03/15/2019 / Checked: M. Perkins / Drawn: F. Clark	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt
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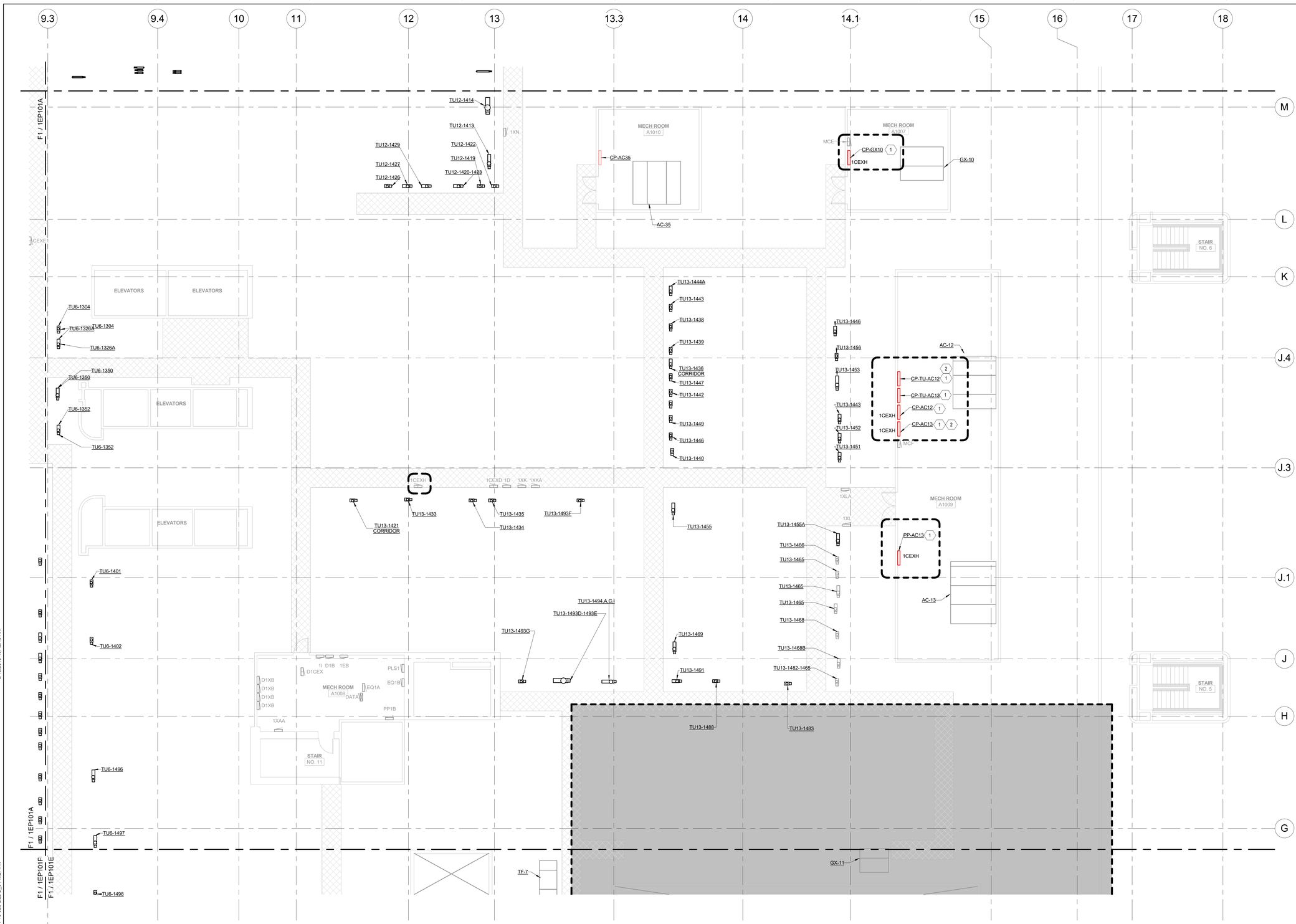
VA FORM 08 - 6231



F1 POWER PLAN - FIRST FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS..

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KEYNOTES

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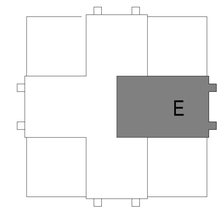
2 THE TERMINAL UNITS ASSOCIATED WITH AC-13 WILL REQUIRE (2)20A BRANCH CIRCUITS. WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
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Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.

Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - FIRST FLOOR INTERSTITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP101D
Issue Date: 03/15/2019	Checked: M. Perkins
	Drawn: F. Clark

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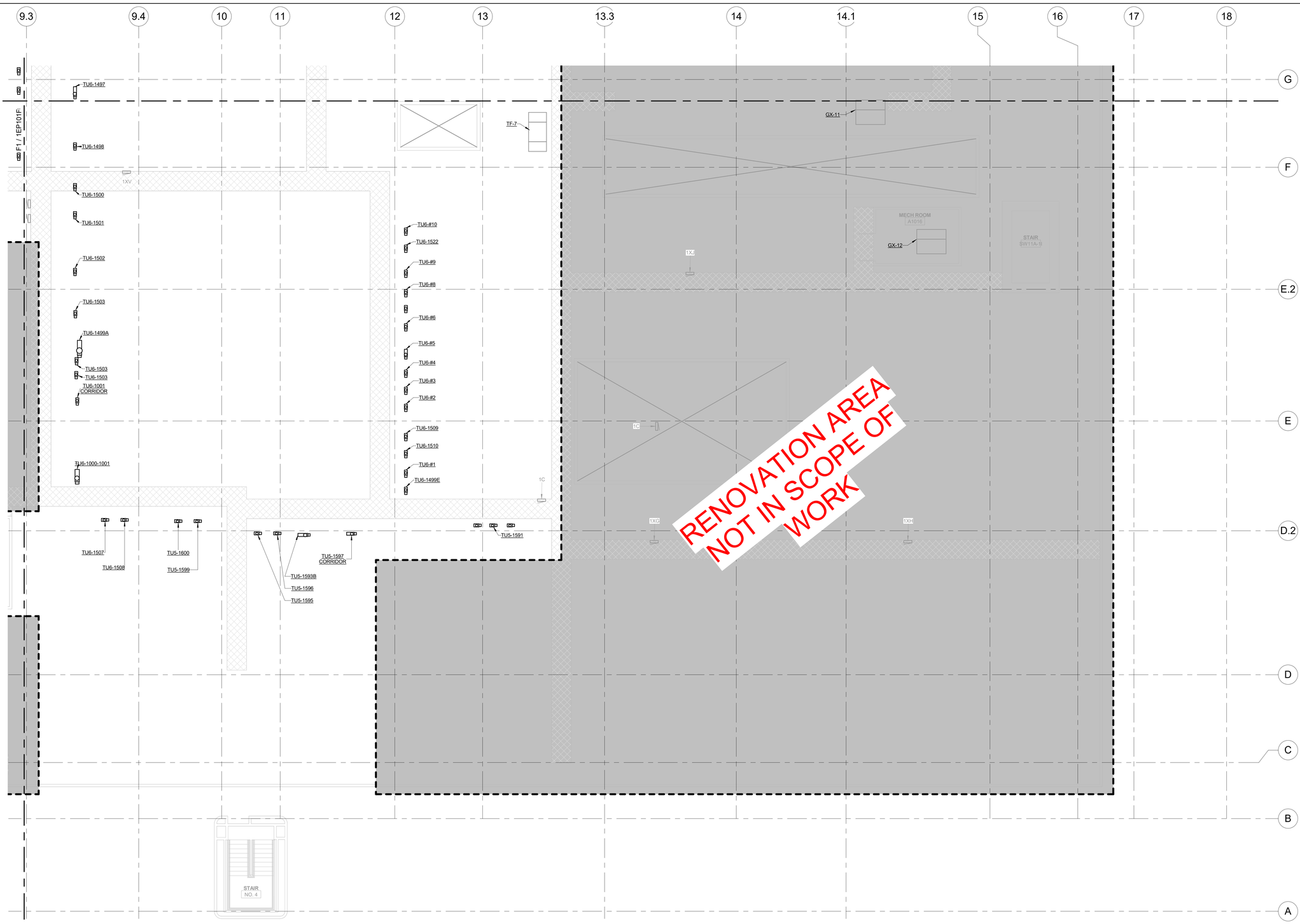
3/18/2019 10:42:48 AM

VA FORM 08 - 6231



F1 POWER PLAN - FIRST FLOOR INTER. - SOUTHEAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.
B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.
C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.
D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.
E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.
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G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

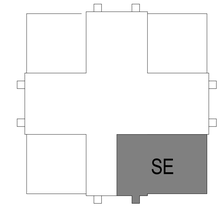
NOT USED.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
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Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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1839 S. Alma School Rd., Ste. 300
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307-460-2054
Mat Perkins

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REGISTERED PROFESSIONAL ENGINEER
39126
MATHEW R. PERKINS
ELECTRONICALLY SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

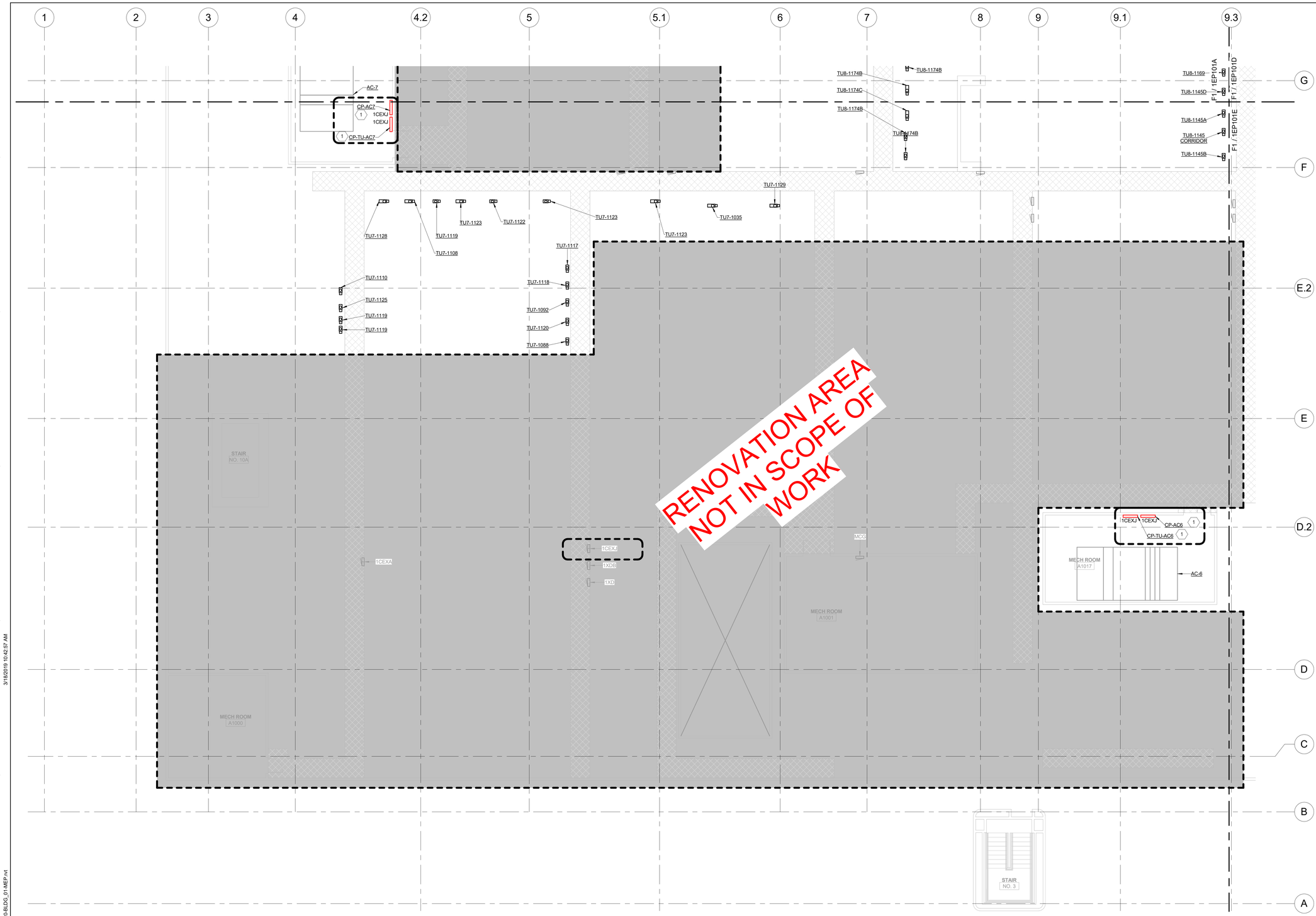
Drawing Title: POWER PLAN - FIRST FLOOR INTERSTITIAL - SOUTHEAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP101E
Issue Date: 03/15/2019	Checked: M. Perkins
	Drawn: F. Clark

3/18/2019 10:42:52 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F1 POWER PLAN - FIRST FLOOR INTER. - SOUTHWEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

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KEYNOTES

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SYMBOL LEGEND

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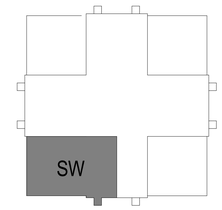
CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE A/E COMPANY

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REGISTERED PROFESSIONAL ENGINEER
CP 35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.

Expires: 6/30/21

Office of Construction and Facilities Management

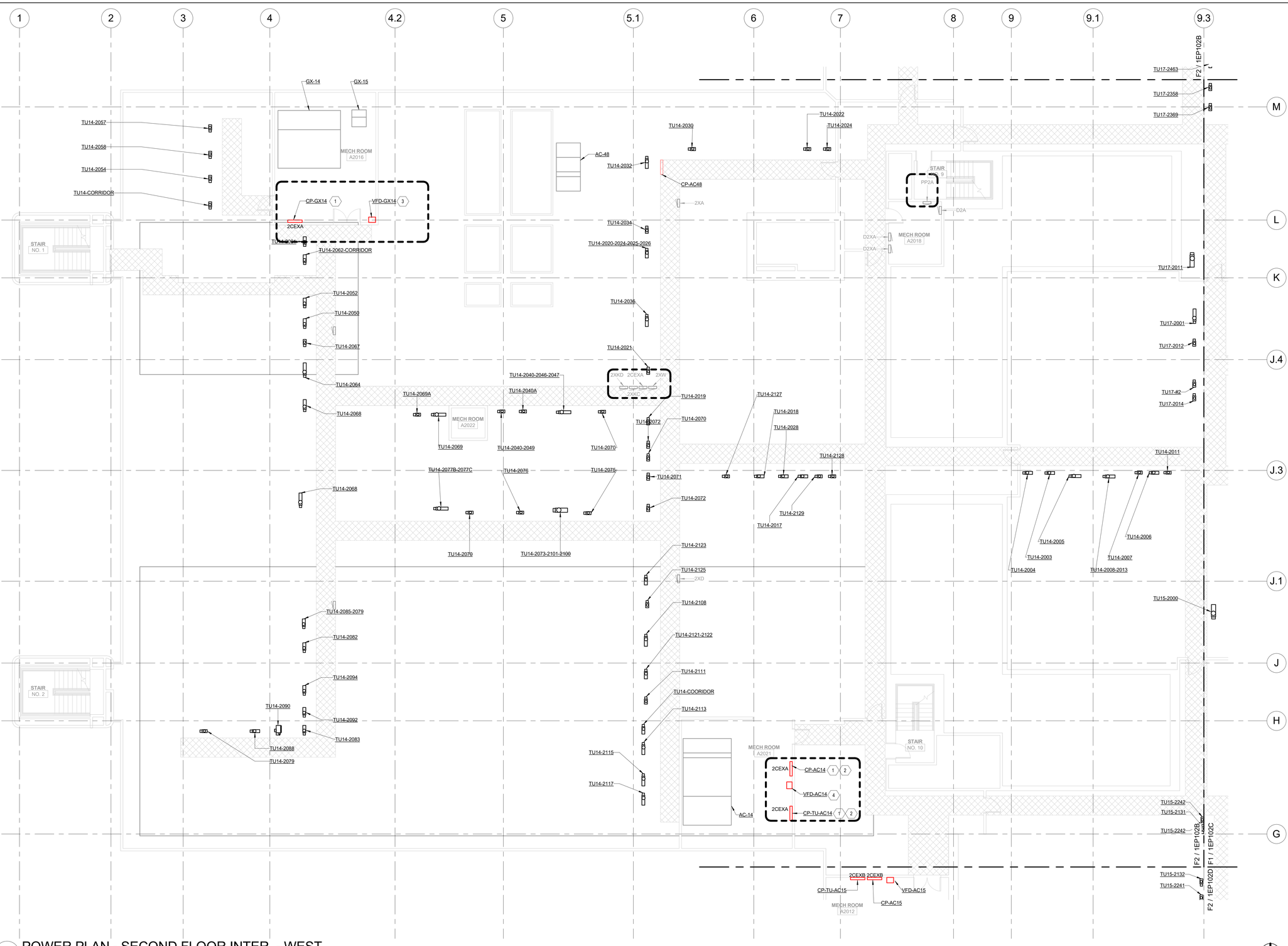
VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - FIRST FLOOR INTERSTITIAL - SOUTHWEST	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
			Building Number: 1
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP101F
		Issue Date: 03/15/2019 / Checked: M. Perkins / Drawn: F. Clark	

3/18/2019 10:42:57 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F1 POWER PLAN - SECOND FLOOR INTER. - WEST

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

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

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2 THE TERMINAL UNITS ASSOCIATED WITH AC-14 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL EQ2A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

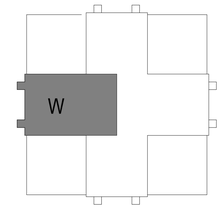
4 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP2B PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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STAMP

REGISTERED PROFESSIONAL ENGINEER
35126
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

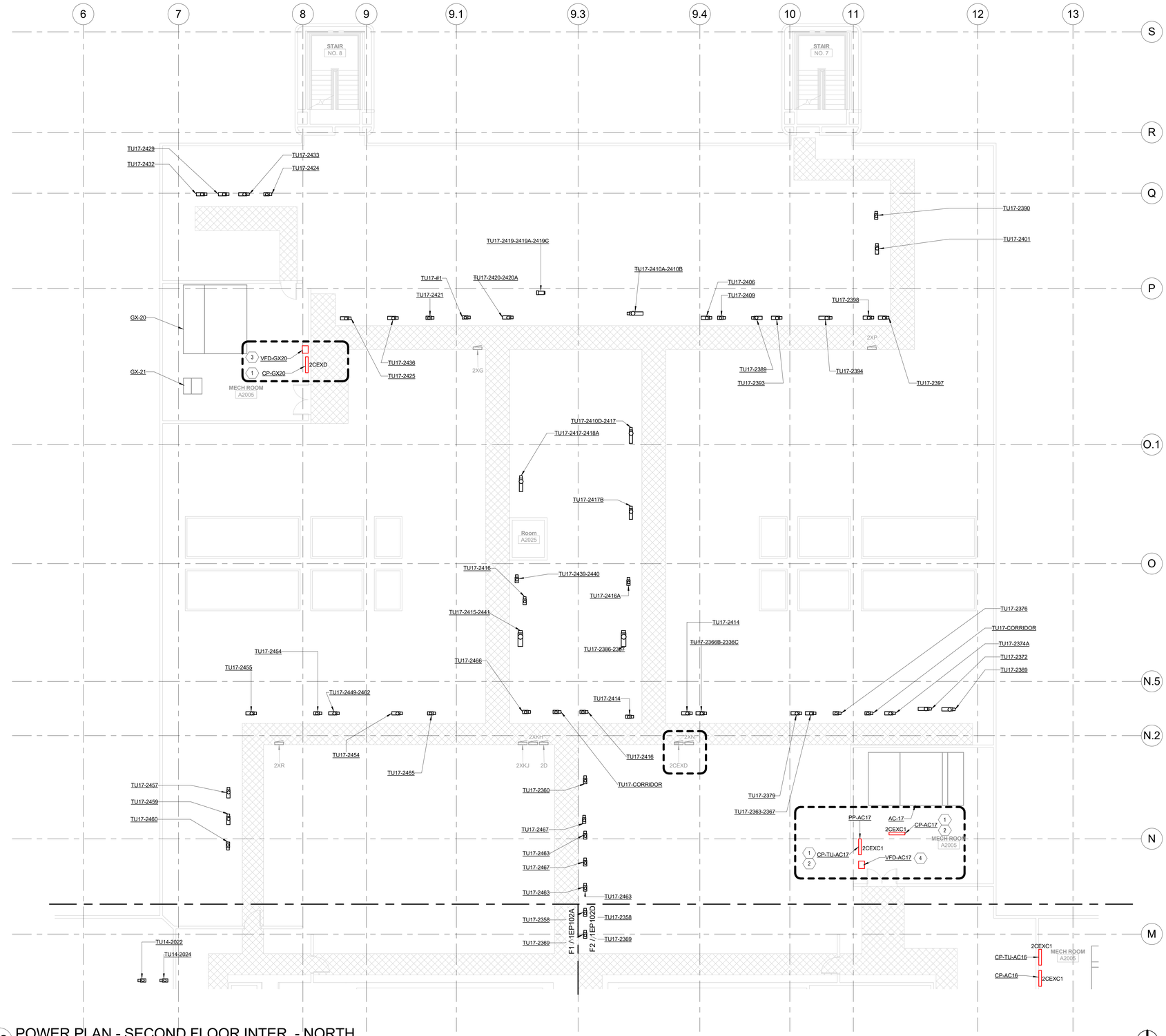
Drawing Title: POWER PLAN - SECOND FLOOR INTERSTITIAL - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP102A
Issue Date: 03/15/2019	Checked: M. Perkins
	Drawn: F. Clark

3/18/2019 10:43:02 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F2 POWER PLAN - SECOND FLOOR INTER. - NORTH

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

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-17 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#10, 1#10G IN 3/4"C. FROM NEW VFD INTEGRAL DISCONNECT MEANS TO PANEL PP2A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

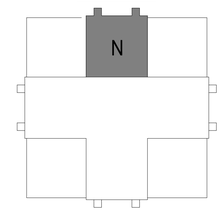
4 HOMERUN 3#4, 1#8G IN 1"C. FROM NEW VFD INTEGRAL DISCONNECT MEANS TO THE EXISTING SERVICE PANEL PREVIOUSLY SERVING THE REMOVED VFD. AS-BUILT DRAWINGS AND FIELD INVESTIGATION COULD NOT IDENTIFY THE EXISTING SERVICE PANEL. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
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LONG BEACH, CA 90815-5218

Mikhail Fuks

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STAMP

REGISTERED PROFESSIONAL ENGINEER
No. 39128
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - SECOND FLOOR INTERSTITIAL - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP102B
Issue Date: 03/15/2019 / Checked: M. Perkins / Drawn: F. Clark	

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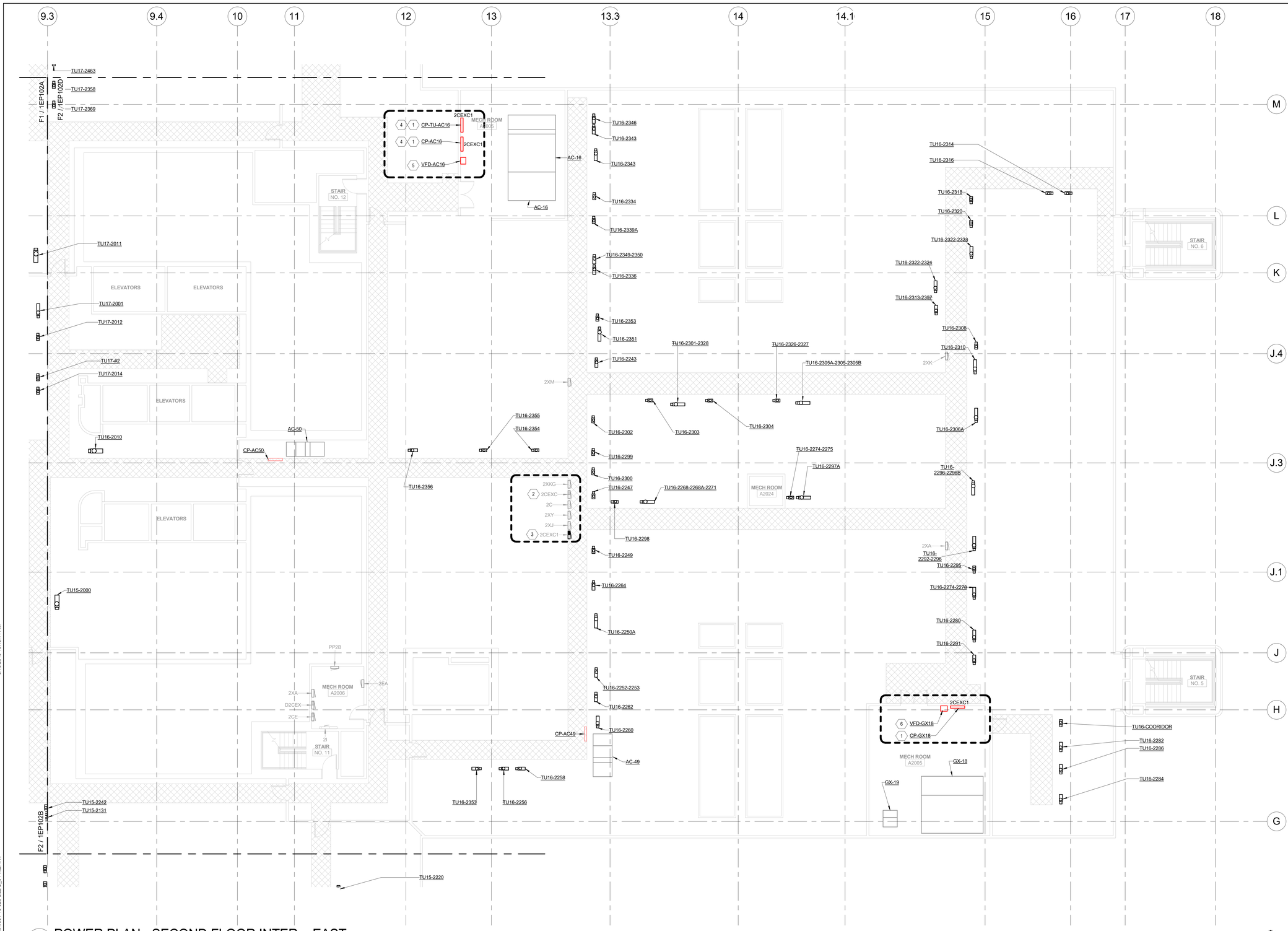


F1 POWER PLAN - SECOND FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 REMOVE (3)20A1P CIRCUIT BREAKERS AND RELOCATE TO NEW SUBFED PANEL '2CEXCA'. REFER TO ONE LINE DIAGRAM FOR ADDITIONAL INFORMATION.

3 PROVIDE A NEW SURFACE MOUNTED BRANCH PANEL. FIELD COORDINATE FINAL LOCATION ALONG CATWALK RAILING. REFER TO ONE LINE DIAGRAM FOR ADDITIONAL INFORMATION.

4 THE TERMINAL UNITS ASSOCIATED WITH AC-16 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

5 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP2A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

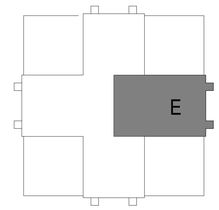
6 HOMERUN 3#10, 1#10G IN 3/4"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP2B PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
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Mat Perkins

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REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - SECOND FLOOR INTERSTITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP102C
Issue Date: 03/15/2019	Checked: M. Perkins
	Drawn: F. Clark

9/18/2019 10:43:14 AM

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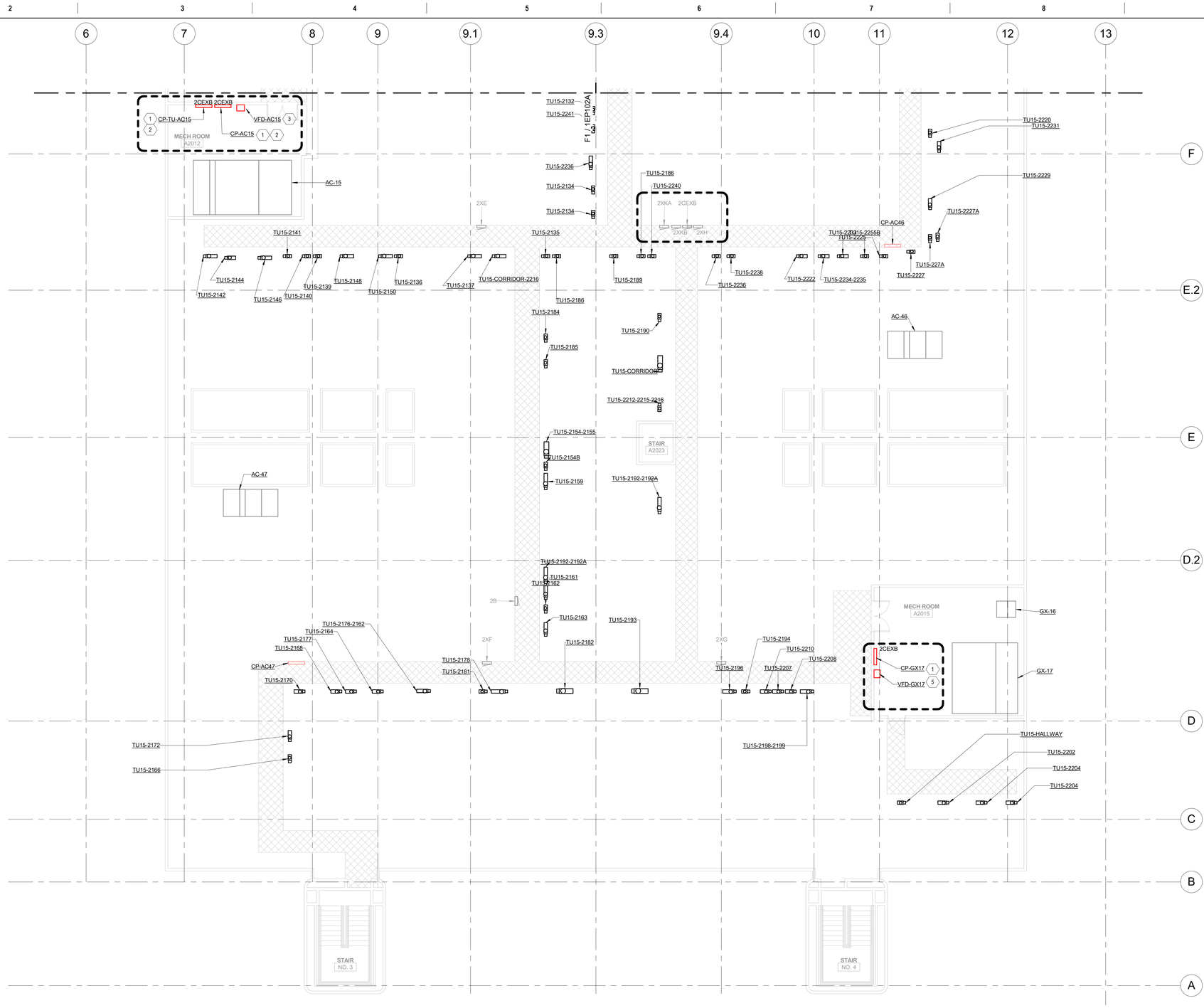


F2 POWER PLAN - SECOND FLOOR INTER. - SOUTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E790 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDS PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-15 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP2B PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

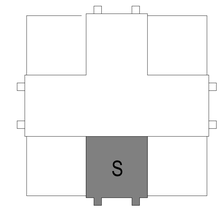
5 HOMERUN 3#10, 1#10G IN 3/4"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP2B PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
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Mat Perkins

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STAMP

REGISTERED PROFESSIONAL ENGINEER
33128
MATHEW R. PERKINS
D.O.E. SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - SECOND FLOOR INTERSTITIAL - SOUTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1			Project Number: 664-18-320
			Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161			Drawing Number: 1EP102D
Issue Date: 03/15/2019	Checked: M. Perkins	Drawn: F. Clark	

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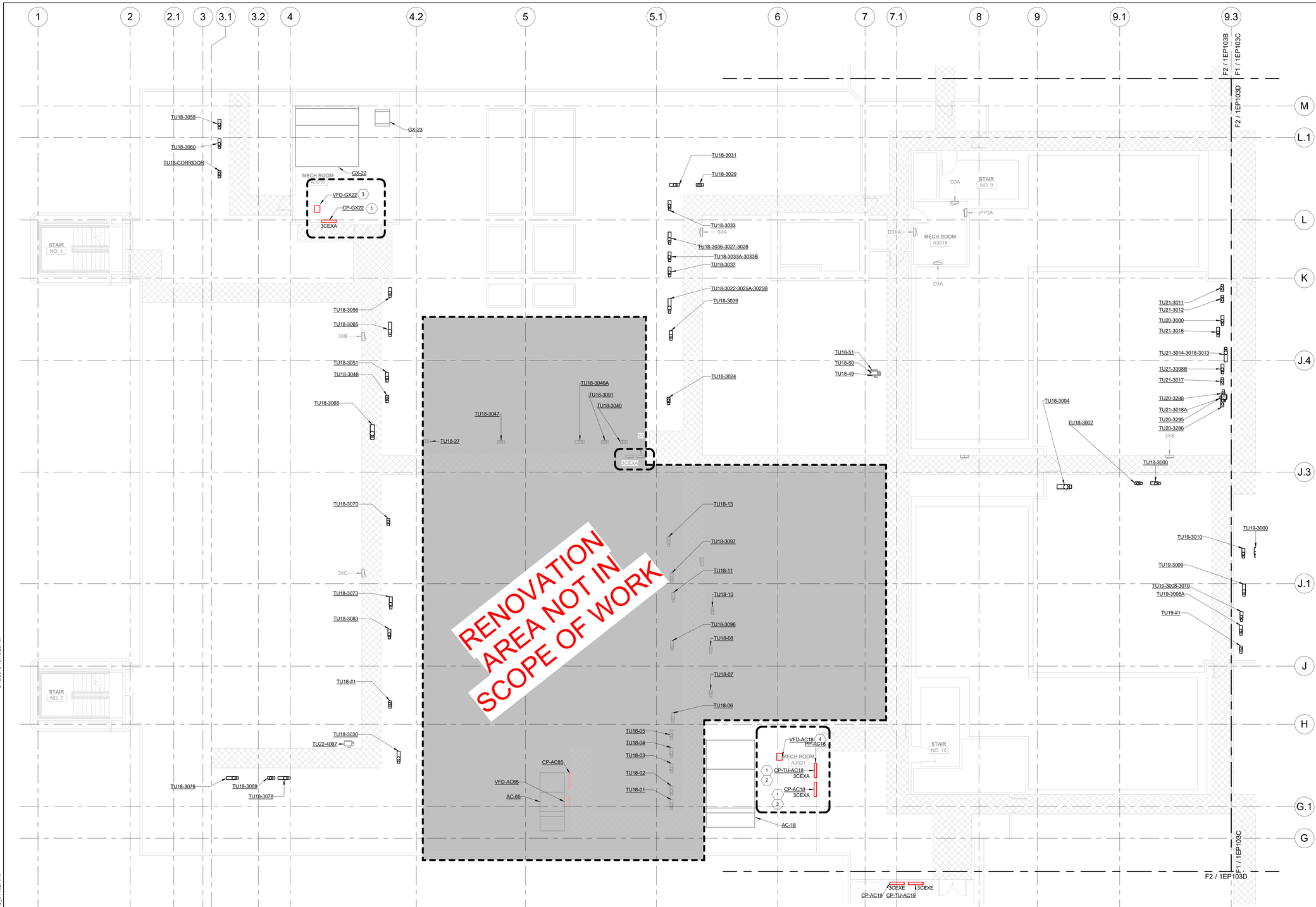


GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU. TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-18 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#10, 1#10G IN 3/4"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL EQ3A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

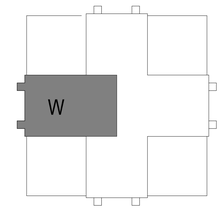
4 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP3B PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



F1 POWER PLAN - THIRD FLOOR INTER. - WEST

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

0' 4' 8' 16'

Revisions:	Date:

CONSULTANT

MECHANICAL:
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5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

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STAMP

REGISTERED PROFESSIONAL ENGINEER
CP 35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - THIRD FLOOR INTERSTITIAL - WEST

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019

Checked: M. Perkins

Drawn: F. Clark

Project Number: 664-18-320

Building Number: 1

Drawing Number: 1EP103A

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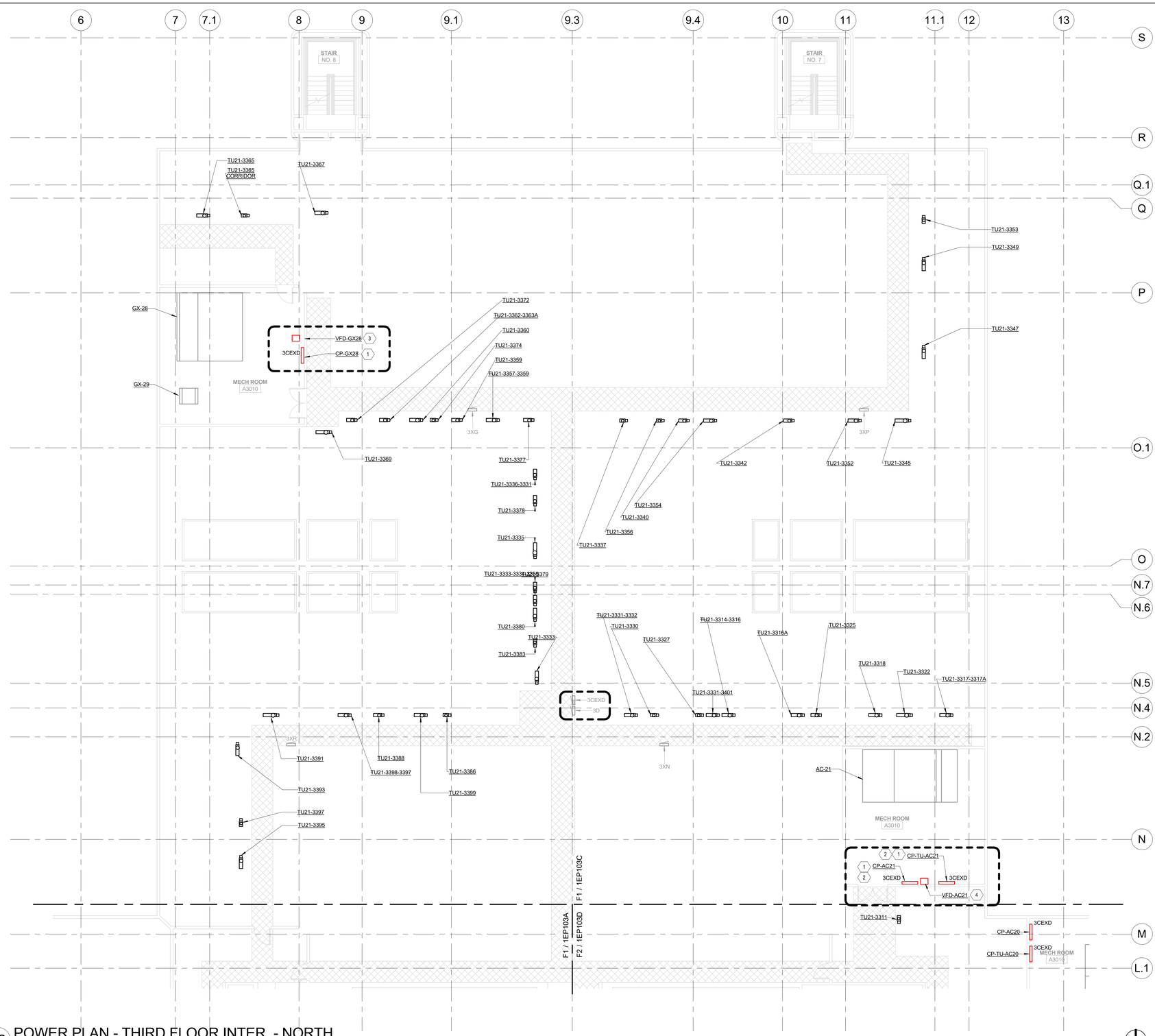


F2 POWER PLAN - THIRD FLOOR INTER. - NORTH

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

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU. TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-21 WILL REQUIRE (2)20A BRANCH CIRCUITS, WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#10, 1#10G IN 3/4"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL EQ3A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

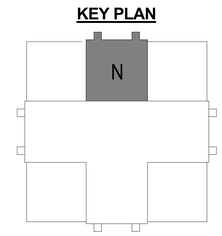
4 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP3A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
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5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

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MATHEW R. PERKINS
ELECTRICAL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - THIRD FLOOR INTERSTITIAL - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP103B
Issue Date: 03/15/2019	Checked: M. Perkins / Drawn: F. Clark

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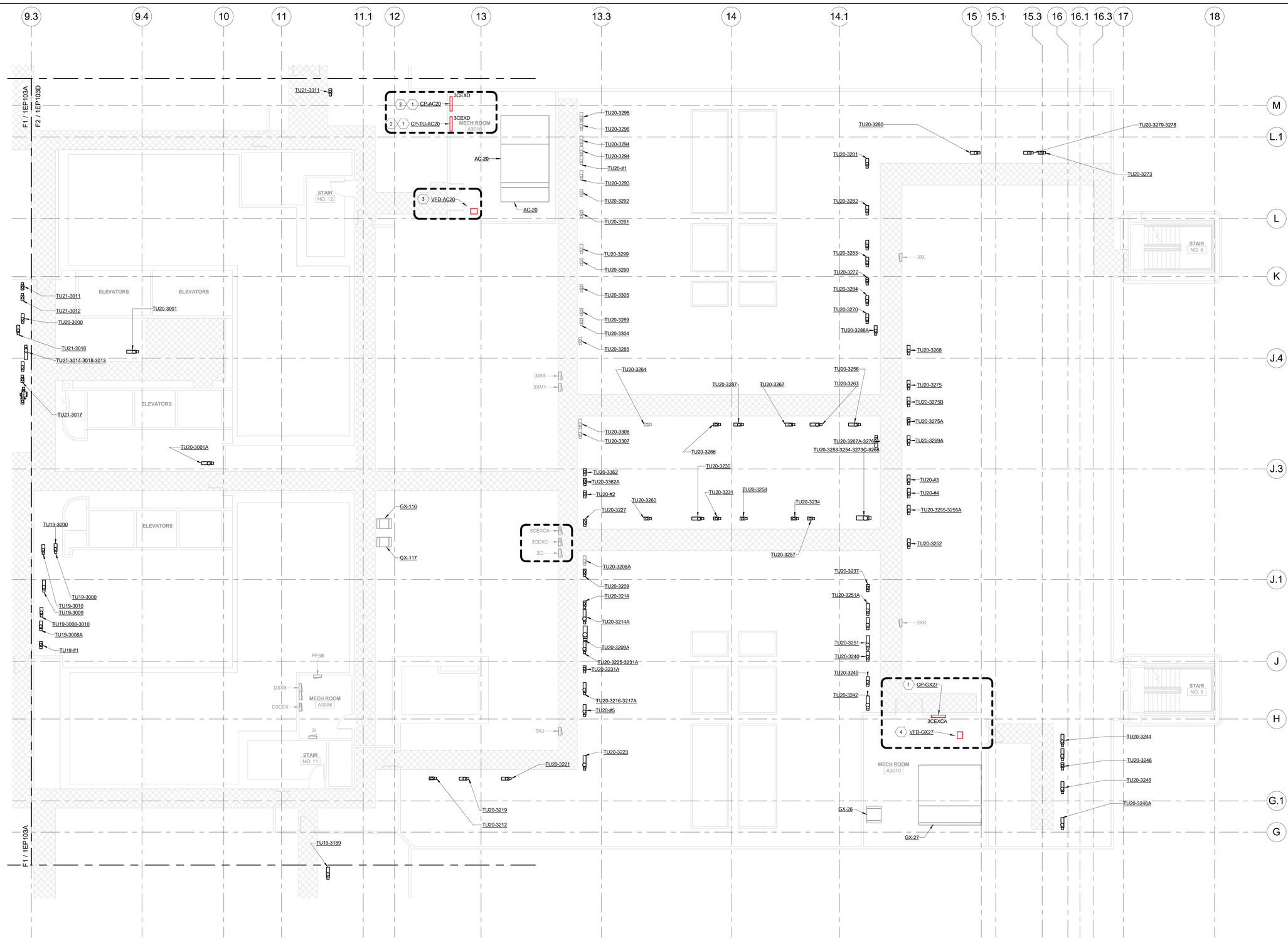


F1 POWER PLAN - THIRD FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-20 WILL REQUIRE (2)20A BRANCH CIRCUITS. WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP3A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

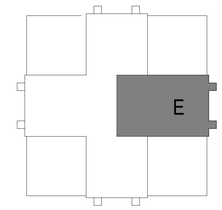
4 HOMERUN 3#6, 1#10G IN 3/4"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP3B PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE AE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
SP126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

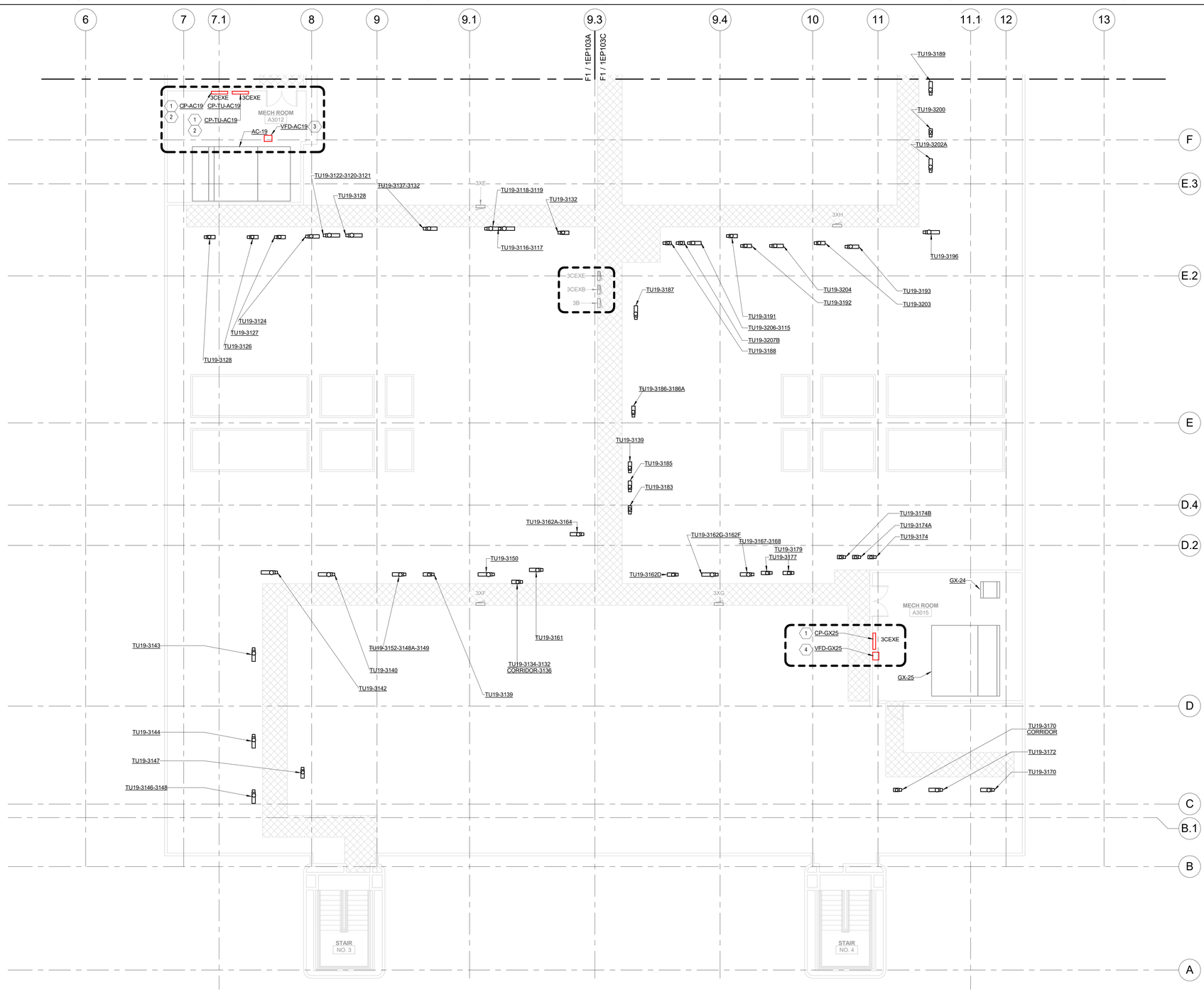
VA U.S. Department of Veterans Affairs

Drawing Title	POWER PLAN - THIRD FLOOR INTERSTITIAL - EAST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark
Project Number	664-18-320
Building Number	1
Drawing Number	1EP103C

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

3/18/2019 10:43:37 AM

VA FORM 08 - 6231



F2 POWER PLAN - THIRD FLOOR INTER. - SOUTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-19 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP3B PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

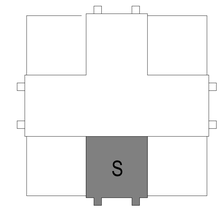
4 HOMERUN 3#10, 1#10G IN 3/4"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP3B PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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A MULTI-DISCIPLINE A&E COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
CP 35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

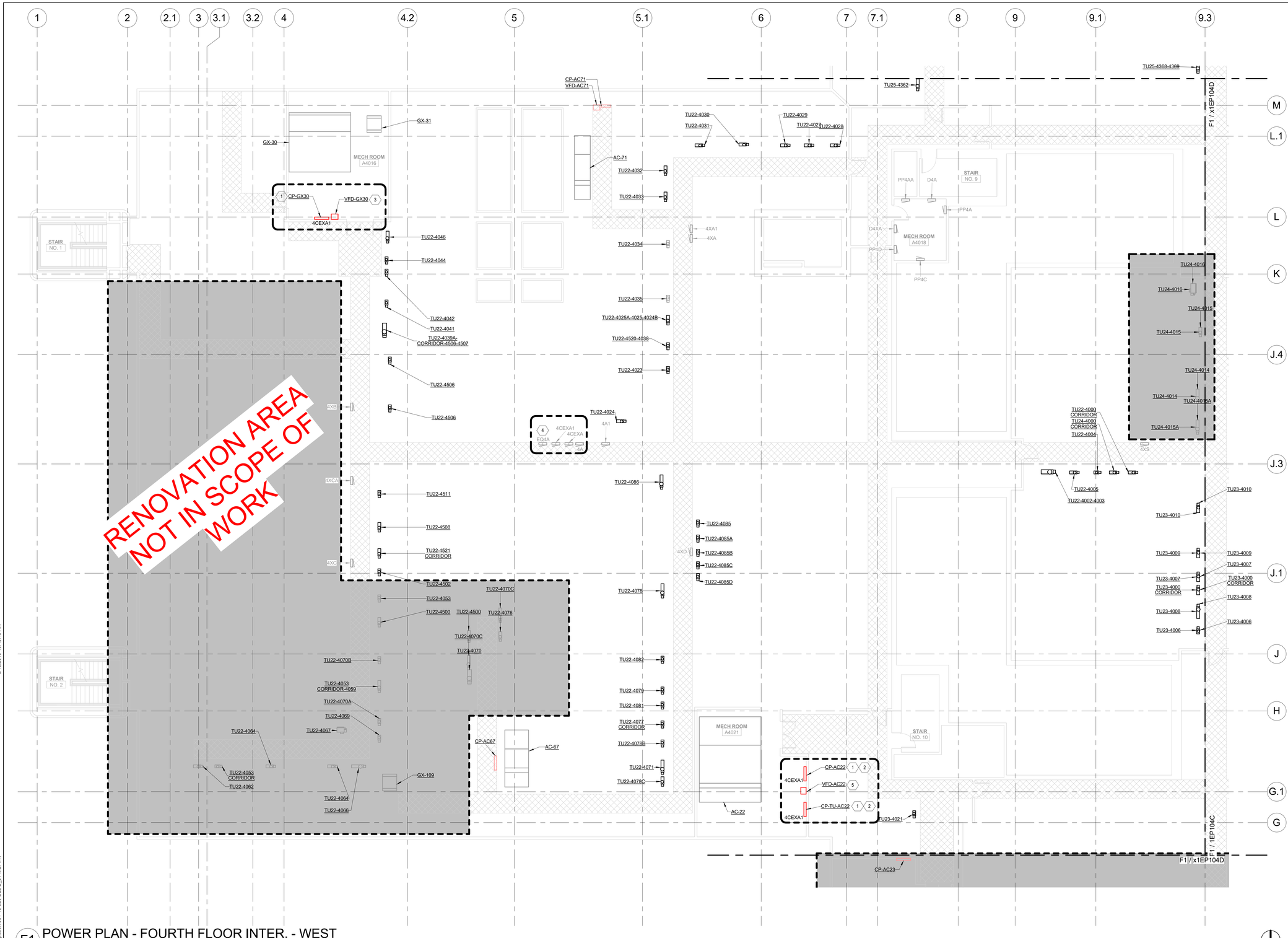
VA U.S. Department of Veterans Affairs

Drawing Title	POWER PLAN - THIRD FLOOR INTERSTITIAL - SOUTH
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark
Project Number	664-18-320
Building Number	1
Drawing Number	1EP103D

3/18/2019 10:43:43 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F1 POWER PLAN - FOURTH FLOOR INTER. - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED, EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-22 WILL REQUIRE (2)20A BRANCH CIRCUITS. WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#10, 1#10G IN 3/4"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL EQ4A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

4 WE WERE UNABLE TO LOCATE PANEL EQ4A, THIS LOCATION IS APPROXIMATE.

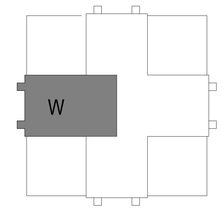
5 HOMERUN 3#4, 1#8 IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL EQ4A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

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A MULTI-DISCIPLINE COMPANY

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REGISTERED PROFESSIONAL ENGINEER
39126
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	POWER PLAN - FOURTH FLOOR INTERSTITIAL - WEST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark
Project Number	664-18-320
Building Number	1
Drawing Number	1EP104A

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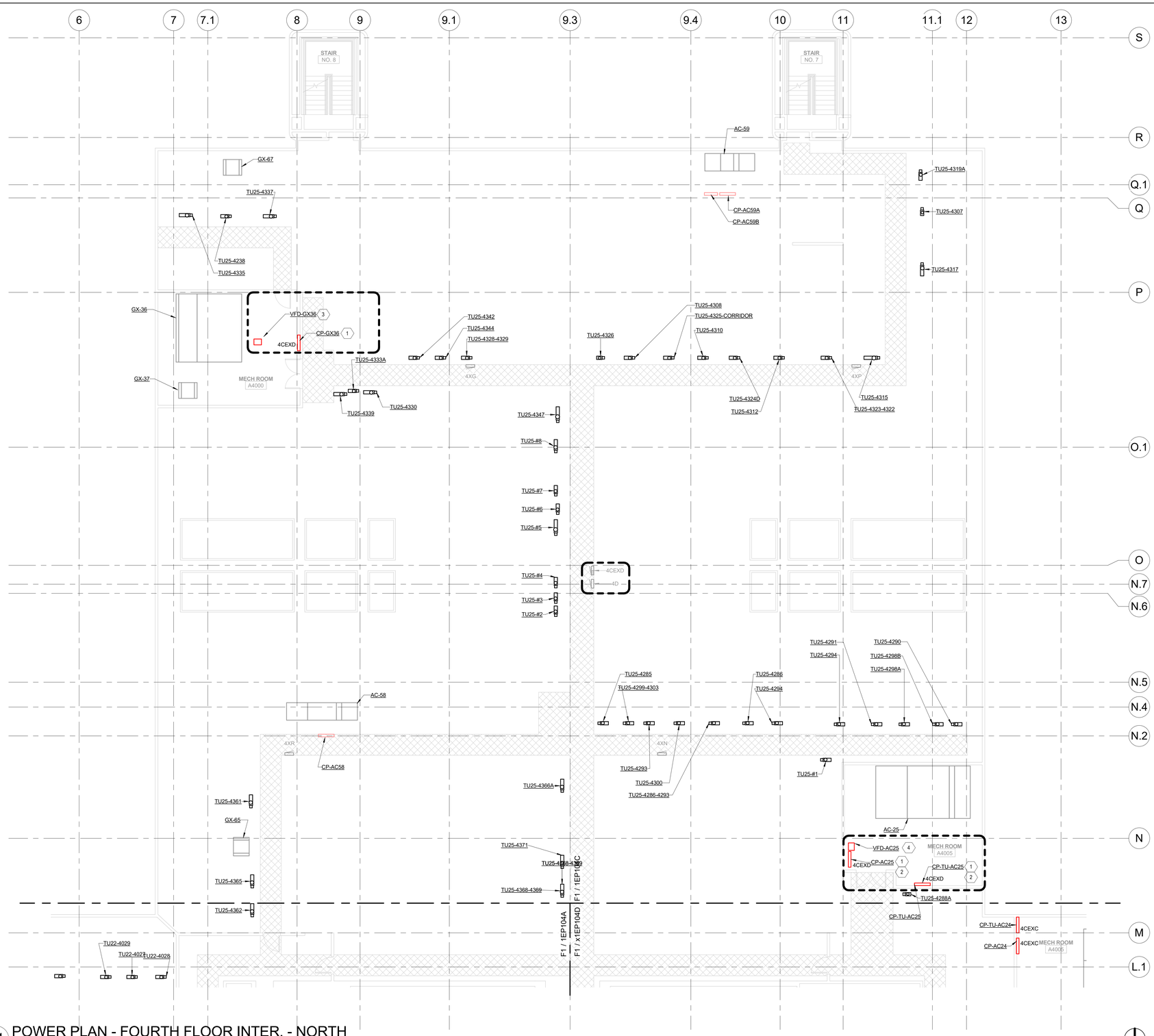
VA FORM 08 - 6231



F1 POWER PLAN - FOURTH FLOOR INTER. - NORTH

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

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-25 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#10, 1#10G IN 3/4"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL EQ4A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

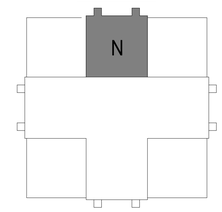
4 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL EQ4A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Mat Perkins

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REGISTERED PROFESSIONAL ENGINEER
32128
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - FOURTH FLOOR INTERSTITIAL - NORTH	Phase: ISSUED FOR CONSTRUCTION	Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
			Building Number: 1
Approved:	FULLY SPRINKLERED	Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP104B
		Issue Date: 03/15/2019 / Checked: M. Perkins / Drawn: F. Clark	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

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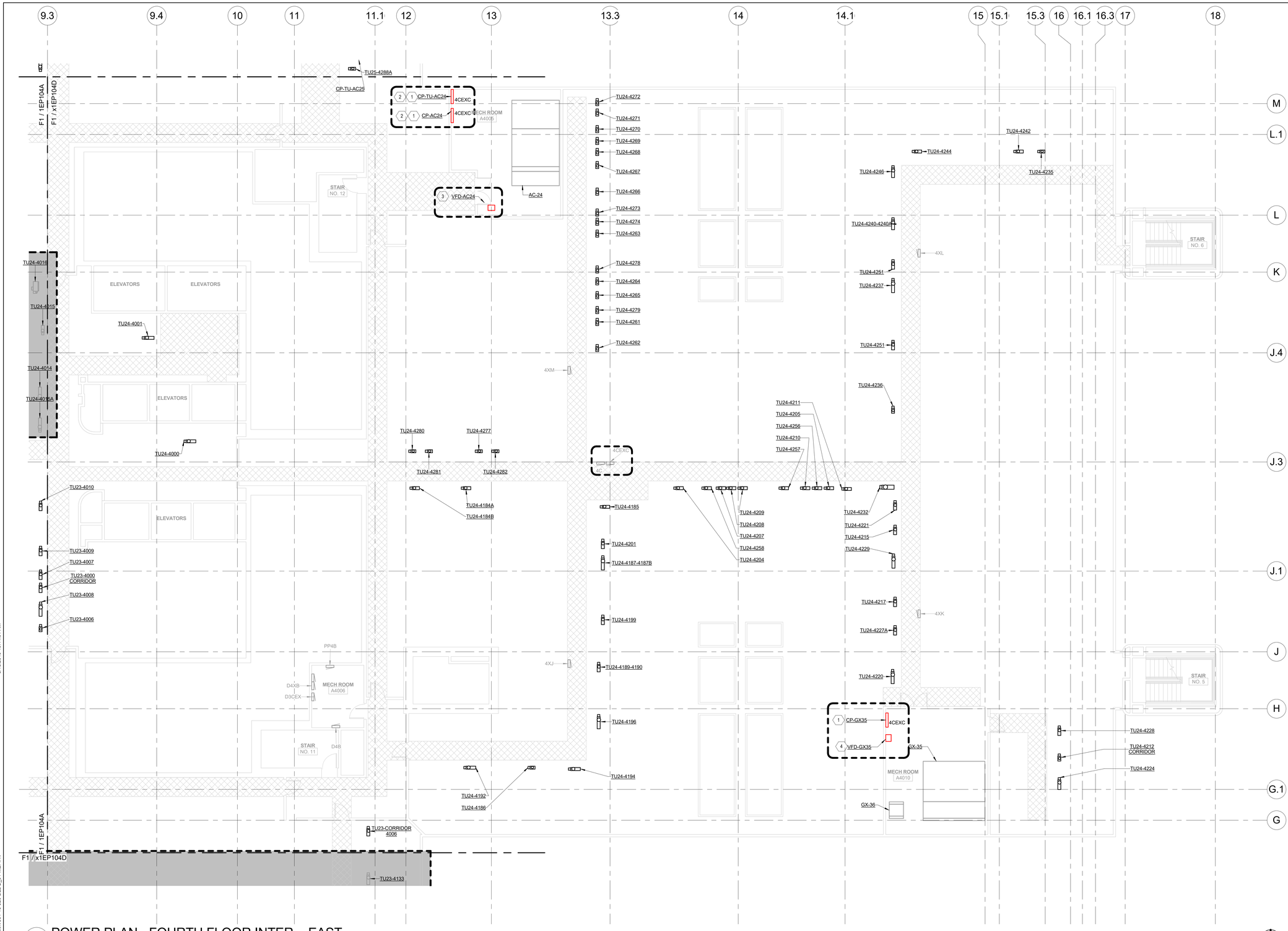
VA FORM 08 - 6231



F1 POWER PLAN - FOURTH FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS..

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-24 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP4A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

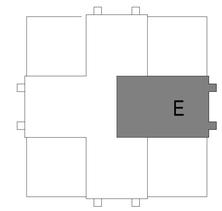
4 HOMERUN 3#10, 1#10G IN 3/4"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP4B PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

A/E:
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307-460-2054
Mat Perkins

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A MULTI-DISCIPLINE AE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
SP126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - FOURTH FLOOR INTERSTITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP104C
Issue Date: 03/15/2019 / Checked: M. Perkins / Drawn: F. Clark	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

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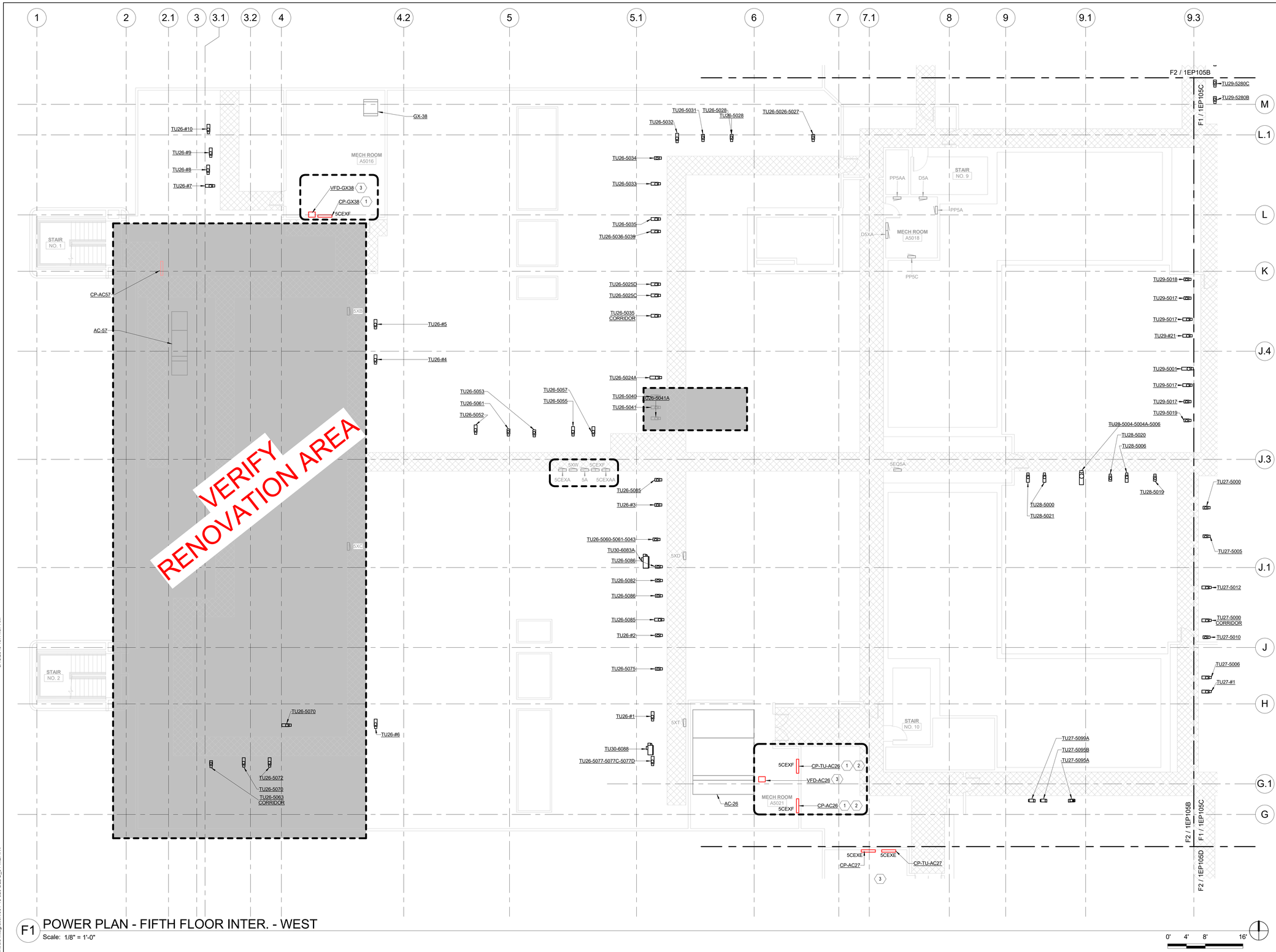
VA FORM 08 - 6231



F1 POWER PLAN - FIFTH FLOOR INTER. - WEST

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

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU. TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-26 WILL REQUIRE (2)20A BRANCH CIRCUITS. WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

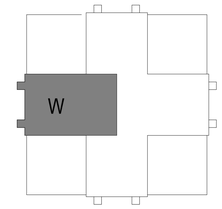
3 HOMERUN 3#4, 1#8G IN 1"C. FROM NEW VFD INTEGRAL DISCONNECT MEANS TO THE EXISTING SERVICE PANEL PREVIOUSLY SERVING THE REMOVED VFD. AS-BUILT DRAWINGS AND FIELD INVESTIGATION COULD NOT IDENTIFY THE EXISTING SERVICE PANEL. THE NEW VFD IS SIZED PER THE

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

A/E:
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STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

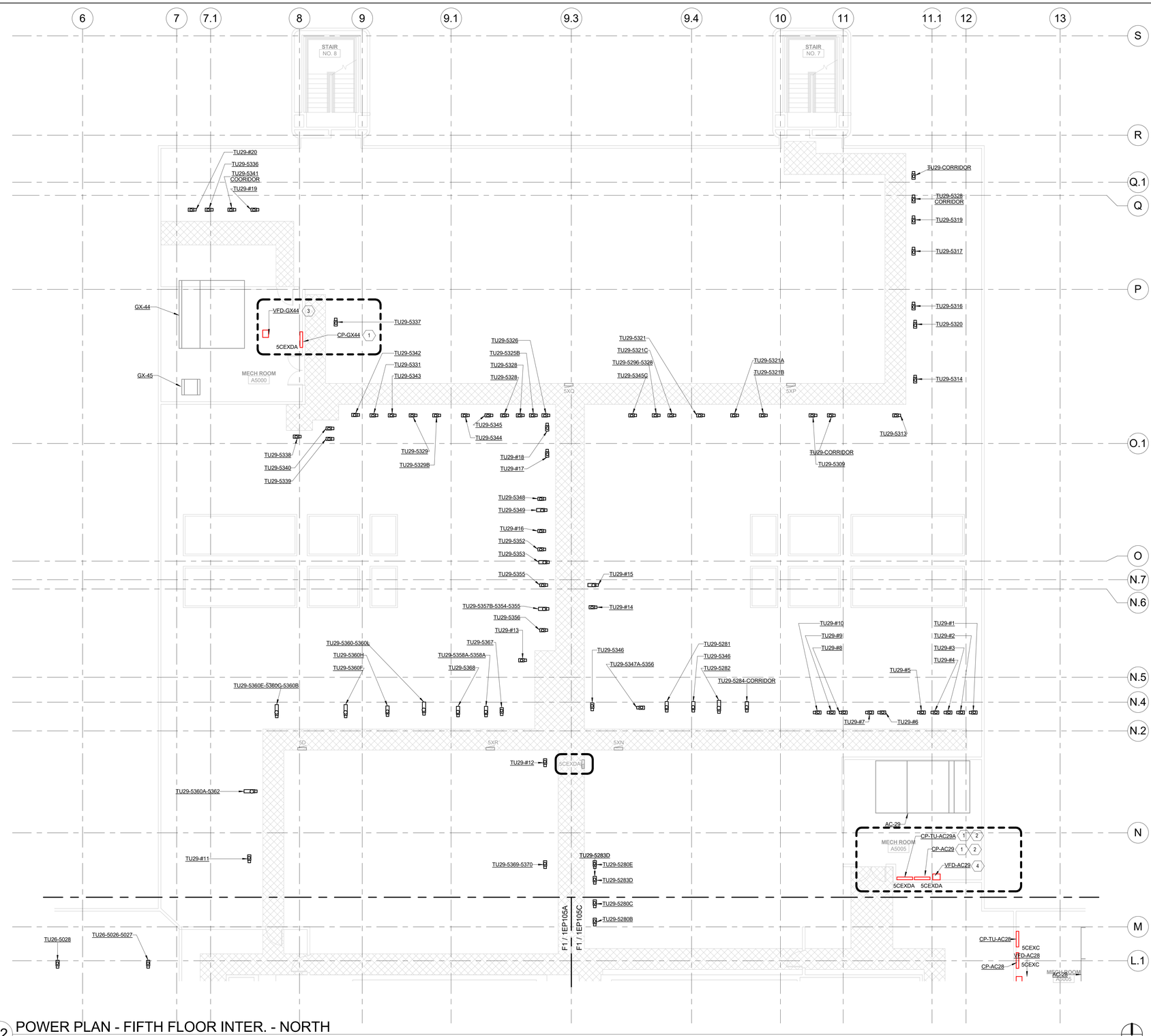
Drawing Title: POWER PLAN - FIFTH FLOOR INTERSTITIAL - WEST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1			Project Number: 664-18-320
			Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161			Drawing Number: 1EP105A
Issue Date: 03/15/2019	Checked: M. Perkins	Drawn: F. Clark	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

3/18/2019 10:44:07 AM

VA FORM 08 - 6231



F2 POWER PLAN - FIFTH FLOOR INTER. - NORTH

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

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.
B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.
C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.
D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.
E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.
F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.
G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

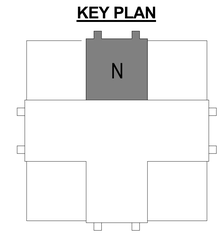
1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.
2 THE TERMINAL UNITS ASSOCIATED WITH AC-29 WILL REQUIRE (3)20A BRANCH CIRCUITS; WIRE (29) TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.
3 HOMERUN 3#10, 1#10G IN 3/4"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL EQ5A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.
4 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP5A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
35128
MATHEW R. PERKINS
STATE OF ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - FIFTH FLOOR INTERSTITIAL - NORTH

Approved:

Phase: ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location: 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date: 03/15/2019

Checked: M. Perkins

Drawn: F. Clark

Project Number: 664-18-320

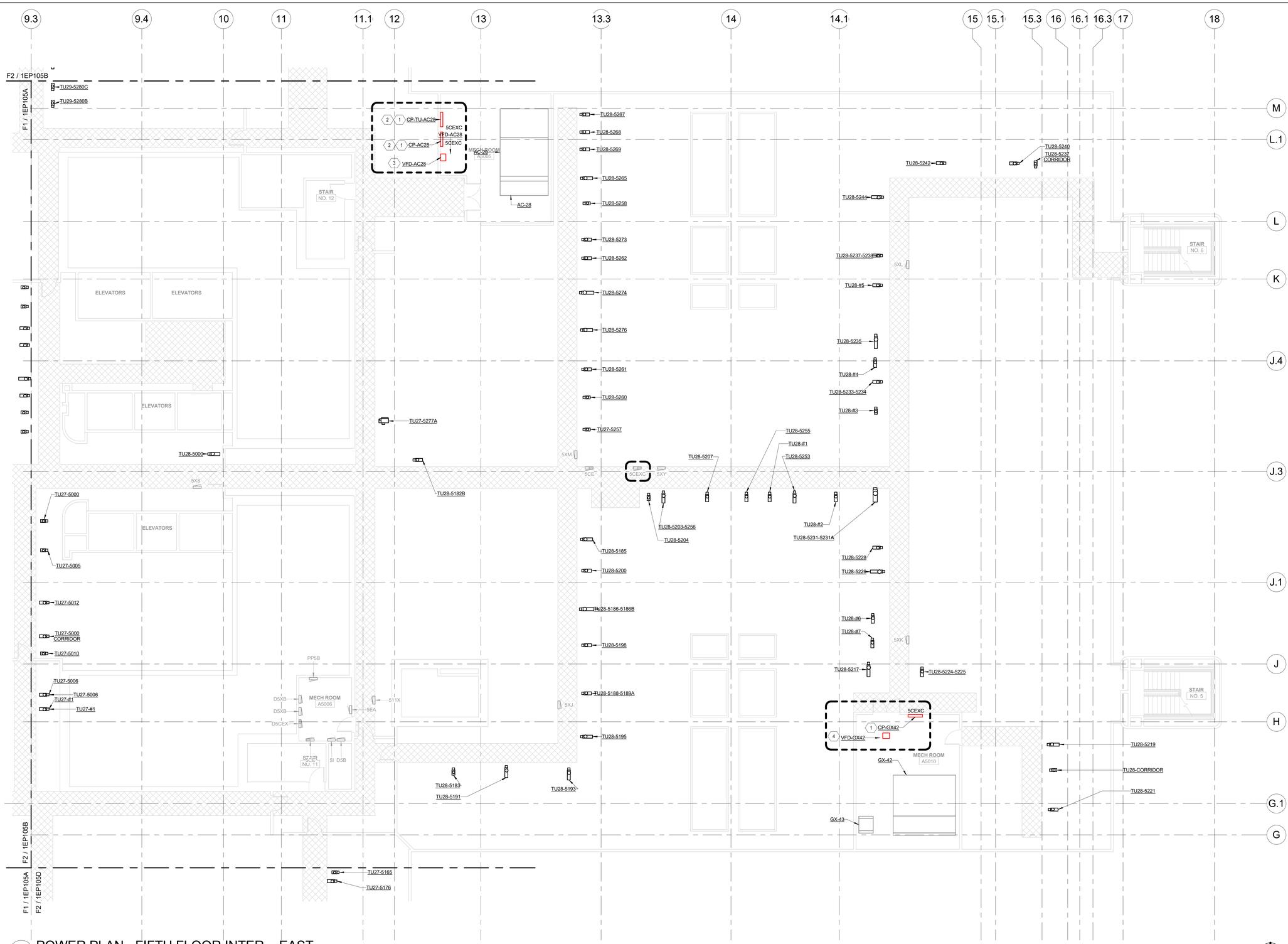
Building Number: 1

Drawing Number: 1EP105B

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

3/18/2019 10:44:12 AM

VA FORM 08 - 6231



F1 POWER PLAN - FIFTH FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU. TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-28 WILL REQUIRE (2)20A BRANCH CIRCUITS. WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#4, 1#8G IN 1"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP5A PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

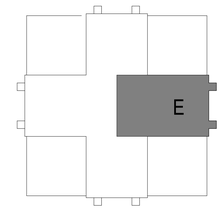
4 HOMERUN 3#10, 1#10G IN 3/4"C. FROM NEW VFD INTEGRAL DISCONNECT MEANS TO THE EXISTING SERVICE PANEL PREVIOUSLY SERVING THE REMOVED VFD. AS-BUILT DRAWINGS AND FIELD INVESTIGATION COULD NOT IDENTIFY THE EXISTING SERVICE PANEL. THE NEW VFD IS SIZED PER THE

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

A/E:
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Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C – THE A&E GROUP
A MULTI-DISCIPLINE AE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
39129
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

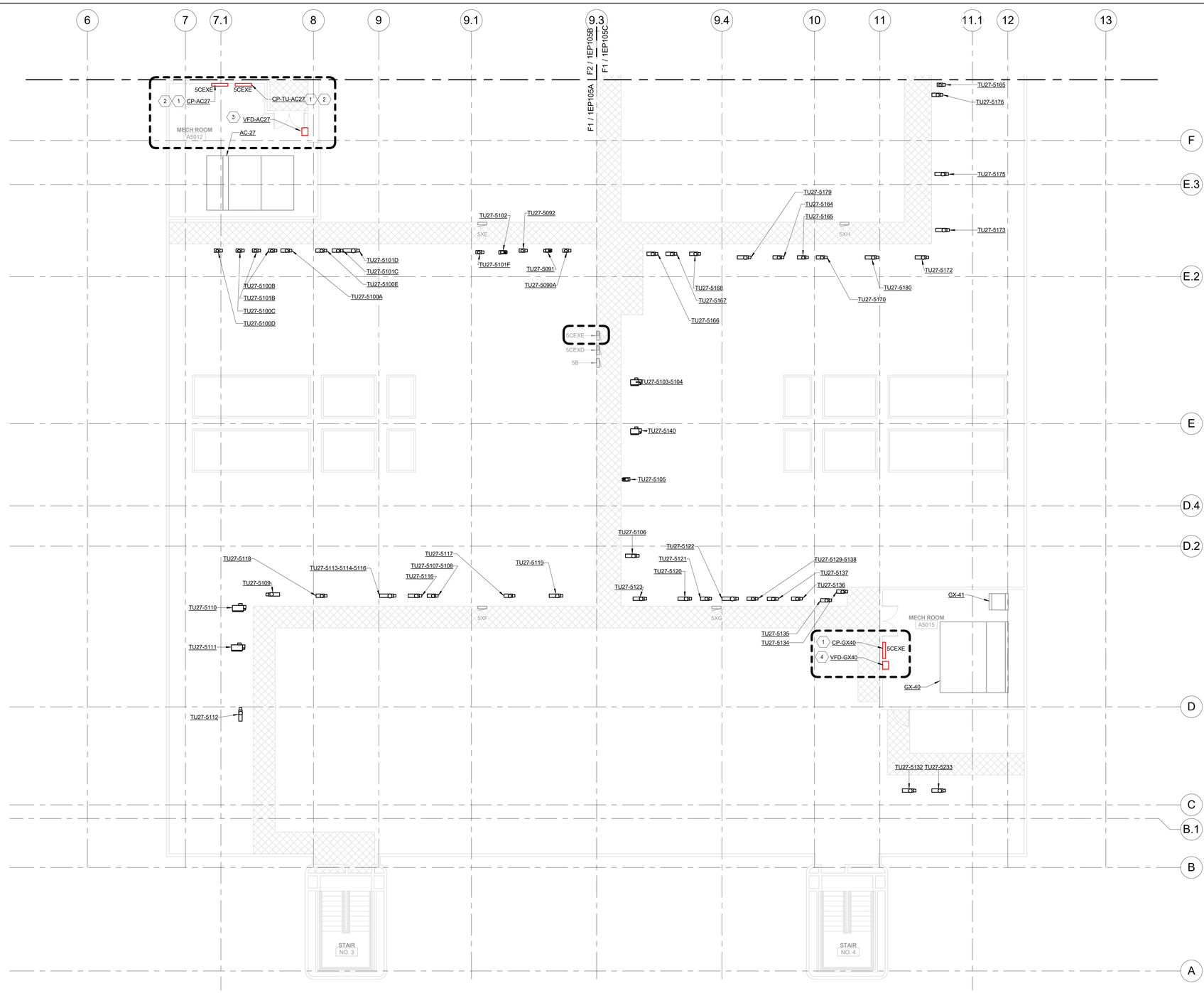
VA U.S. Department of Veterans Affairs

Drawing Title	POWER PLAN - FIFTH FLOOR INTERSTITIAL - EAST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark
Project Number	664-18-320
Building Number	1
Drawing Number	1EP105C

3/18/2019 10:44:18 AM

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

VA FORM 08 - 6231



F2 POWER PLAN - FIFTH FLOOR INTER. - SOUTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

2 THE TERMINAL UNITS ASSOCIATED WITH AC-27 WILL REQUIRE (2)20A BRANCH CIRCUITS. WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

3 HOMERUN 3#4, 1#8G IN 1"C. FROM NEW VFD INTEGRAL DISCONNECT MEANS TO THE EXISTING SERVICE PANEL PREVIOUSLY SERVING THE REMOVED VFD. AS-BUILT DRAWINGS AND FIELD INVESTIGATION COULD NOT IDENTIFY THE EXISTING SERVICE PANEL. THE NEW VFD IS SIZED PER THE

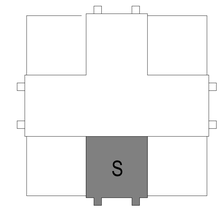
4 HOMERUN 3#10, 1#10G IN 3/4"C FROM NEW VFD LOCAL DISCONNECT MEANS TO EXISTING PANEL PP58 PREVIOUSLY SERVING THE REMOVED VFD. THE NEW VFD IS SIZED PER THE OLD VFD, NO NET LOAD INCREASE.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

A/E:
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Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
CERTIFICATE NO. 35128
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - FIFTH FLOOR INTERSTITIAL - SOUTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1		Project Number: 664-18-320
		Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161		Drawing Number: 1EP105D
Issue Date: 03/15/2019	Checked: M. Perkins	Drawn: F. Clark

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP .rvt

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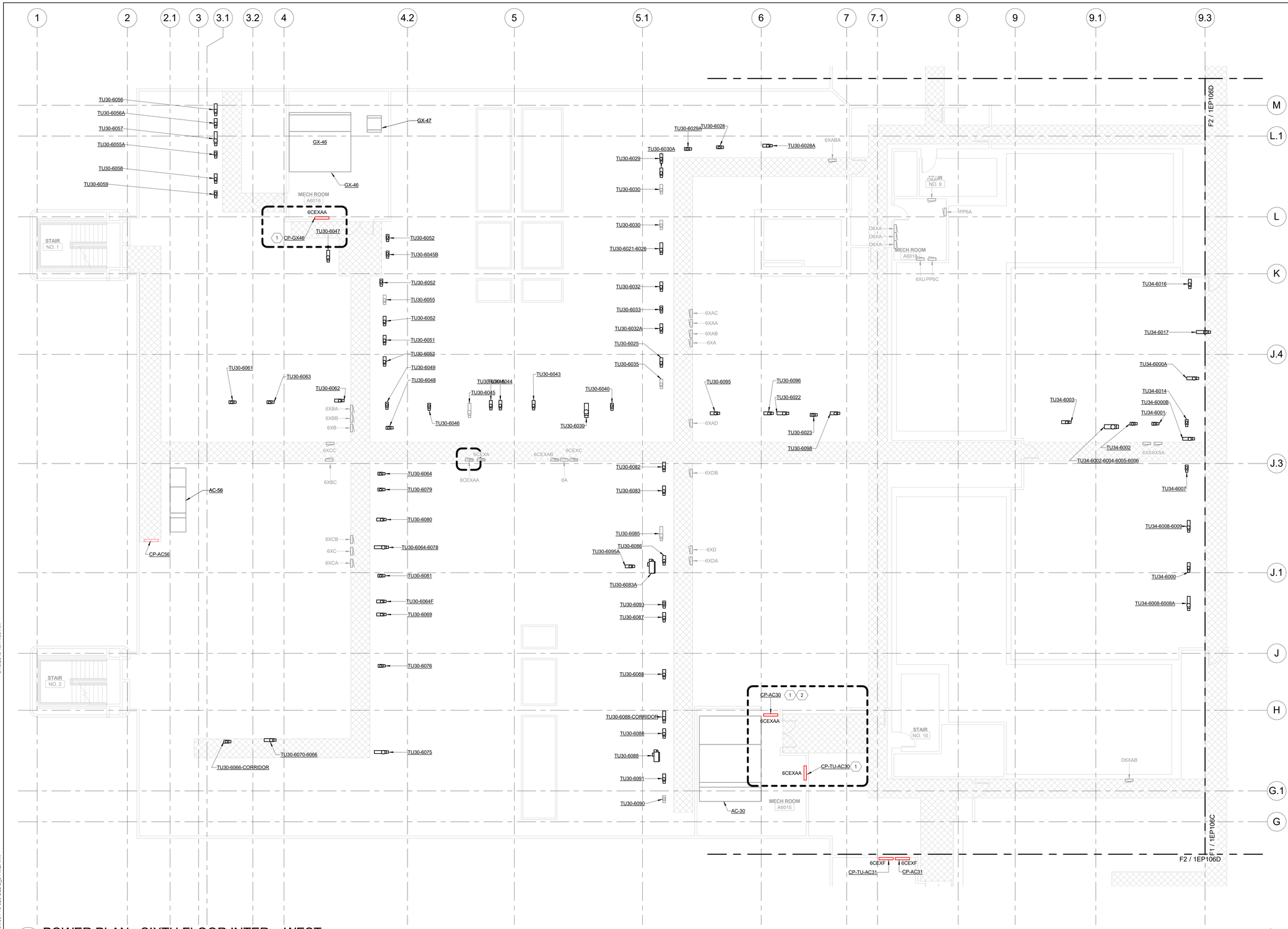
VA FORM 08 - 6231



F1 POWER PLAN - SIXTH FLOOR INTER. - WEST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

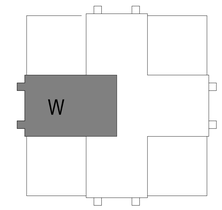
2 THE TERMINAL UNITS ASSOCIATED WITH AC-30 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

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STAMP

REGISTERED PROFESSIONAL ENGINEER
35126
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	POWER PLAN - SIXTH FLOOR INTERSTITIAL - WEST
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark
Project Number	664-18-320
Building Number	1
Drawing Number	1EP106A

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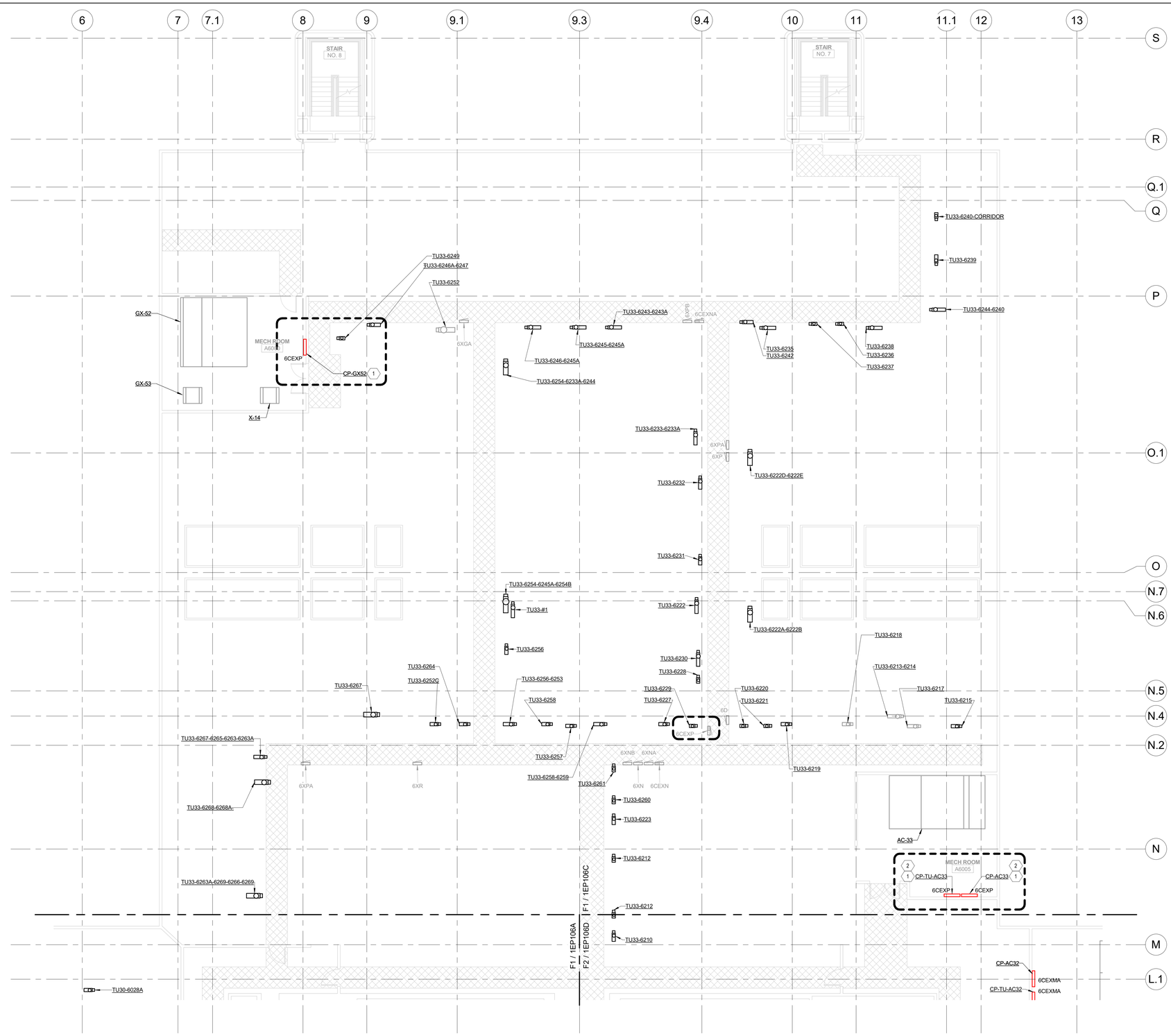
VA FORM 08 - 6231



F2 POWER PLAN - SIXTH FLOOR INTER. - NORTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

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F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

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KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU, TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

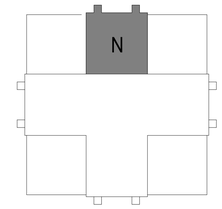
2 THE TERMINAL UNITS ASSOCIATED WITH AC-33 WILL REQUIRE (2)20A BRANCH CIRCUITS; WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

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Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C – THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER 39128 MATHEW R. PERKINS CIVIL ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

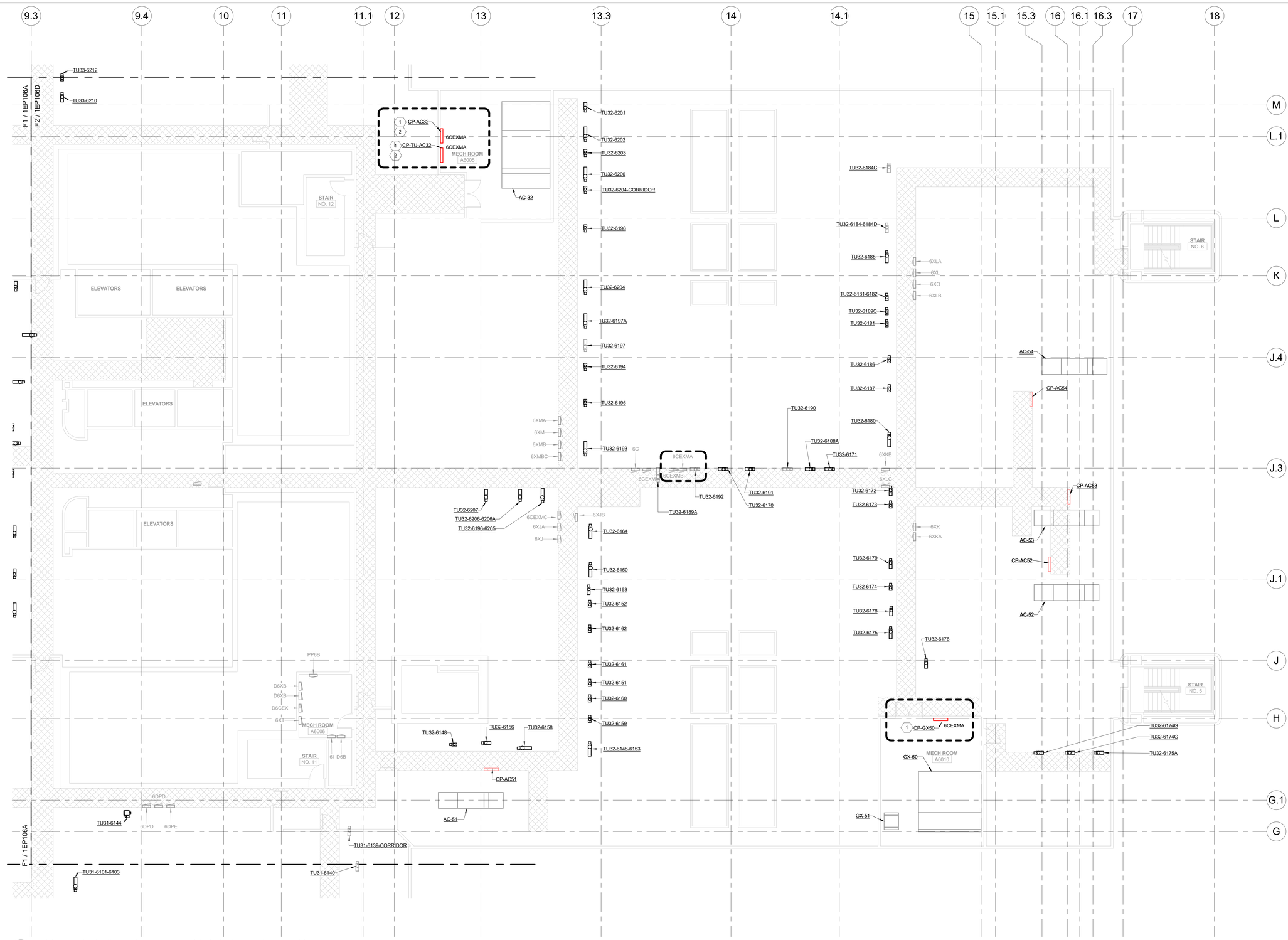
VA U.S. Department of Veterans Affairs

Drawing Title: POWER PLAN - SIXTH FLOOR INTERSTITIAL - NORTH	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1			Project Number: 664-18-320
			Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161			Drawing Number: 1EP106B
Issue Date: 03/15/2019	Checked: M. Perkins	Drawn: F. Clark	

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP .rvt
3/18/2019 10:44:36 AM

VA FORM 08 - 6231



F1 POWER PLAN - SIXTH FLOOR INTER. - EAST

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

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E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

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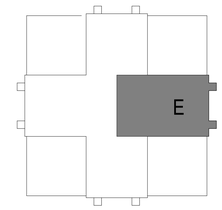
2 THE TERMINAL UNITS ASSOCIATED WITH AC-32 WILL REQUIRE (2)20A BRANCH CIRCUITS. WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

A/E:
TRIPLE C The A/E Group
1839 S. Alma School Rd., Ste. 300
Mesa, AZ 85210
307-460-2054
Mat Perkins

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE A&E COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
35126
MATHEW R. PERKINS
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

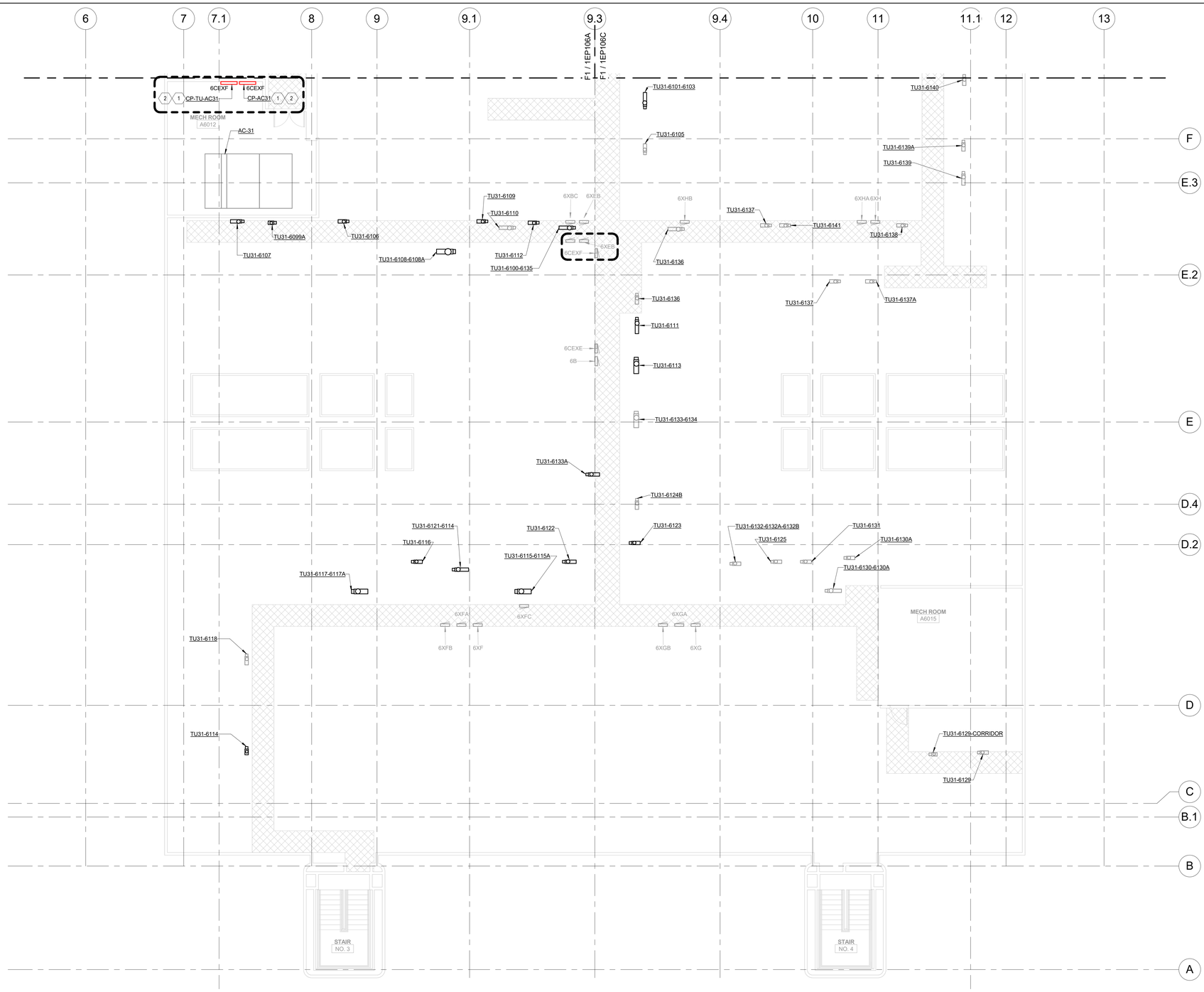
Drawing Title: POWER PLAN - SIXTH FLOOR INTERSTITIAL - EAST	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1EP106C
Issue Date: 03/15/2019	Checked: M. Perkins
	Drawn: F. Clark

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

3/18/2019 10:44:42 AM

VA FORM 08 - 6231



F2 POWER PLAN - SIXTH FLOOR INTER. - SOUTH

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

0' 4' 8' 16'

GENERAL SHEET NOTES

A ALL EQUIPMENT SHOWN HALFTONE IS EXISTING, UNLESS NOTED OTHERWISE.

B PROVIDE A 6" SQUARE PULLBOX AT EACH NEW CONTROL TRANSFORMER LOCATION FOR 120VAC FEED-THRU AND SPLICING. MOUNT THE CONTROL TRANSFORMER TO THE JBOX.

C PROVIDE A 20A TOGGLE SWITCH IN A SURFACE MOUNTED JBOX AT EACH NEW CONTROL PANEL LOCATION FOR THE 120VAC LOCAL DISCONNECT MEANS.

D REFER TO THE E700 SERIES DRAWINGS FOR PANEL SCHEDULES.

E CONTRACTOR SHALL INSTALL NEW HOMERUNS TO THE NEW CONTROL PANELS AND VFDs PRIOR TO THE DEMOLITION OF THE EXISTING EQUIPMENT. COORDINATE THE REMOVAL OF EQUIPMENT WITH THE MECHANICAL DRAWINGS.

F CONTRACTOR SHALL REPLACE THE WIRING BETWEEN THE NEW VFD AND THE EXISTING ASSOCIATED MOTOR, SIZED PER THE HOMERUN IN EXISTING RACEWAY.

G CONTRACTOR SHALL REPLACE THE FUSES IN THE EXIST MOTOR CONTROL CENTER SWITCHES SERVING THE NEW VFDS, SIZED PER THE EQUIPMENT SUPPLIER'S REQUIREMENTS.

KEYNOTES

1 PROVIDE 120VAC EMERGENCY POWER FOR CONTROL PANEL. HOMERUN 2#8, 1#10G IN 3/4"C. TO PANEL INDICATED. EXTEND 120V TO NEAREST DEVICE AND DAISY-CHAIN 120VAC BETWEEN DDC CONTROL TRANSFORMERS AT EACH AHU. TERMINAL UNIT AND VFD DDC CONTROL MODULE ASSOCIATED WITH THE AHU. REFER TO THE MECHANICAL FLOOR PLANS FOR EQUIPMENT LOCATIONS AND ADDITIONAL INFORMATION. REFER TO THE PANEL SCHEDULES FOR THE CIRCUIT USED.

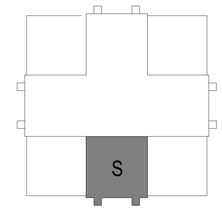
2 THE TERMINAL UNITS ASSOCIATED WITH AC-31 WILL REQUIRE (2)20A BRANCH CIRCUITS, WIRE HALF THE TOTAL NUMBER OF TERMINAL UNITS TO EACH BRANCH CIRCUIT PROVIDED.

SYMBOL LEGEND

MECHANICAL EQUIPMENT IN THIS AREA IS NOT IN CONTRACT

CATWALK LOCATION

KEY PLAN



Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

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307-460-2054
Mat Perkins

TRIPLE C – THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

STAMP

REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
WET SIGNED
ARIZONA U.S.A.

Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	POWER PLAN - SIXTH FLOOR INTERSTITIAL - SOUTH
Approved:	
Phase	ISSUED FOR CONSTRUCTION
	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	03/15/2019
Checked	M. Perkins
Drawn	F. Clark
Project Number	664-18-320
Building Number	1
Drawing Number	1EP106D

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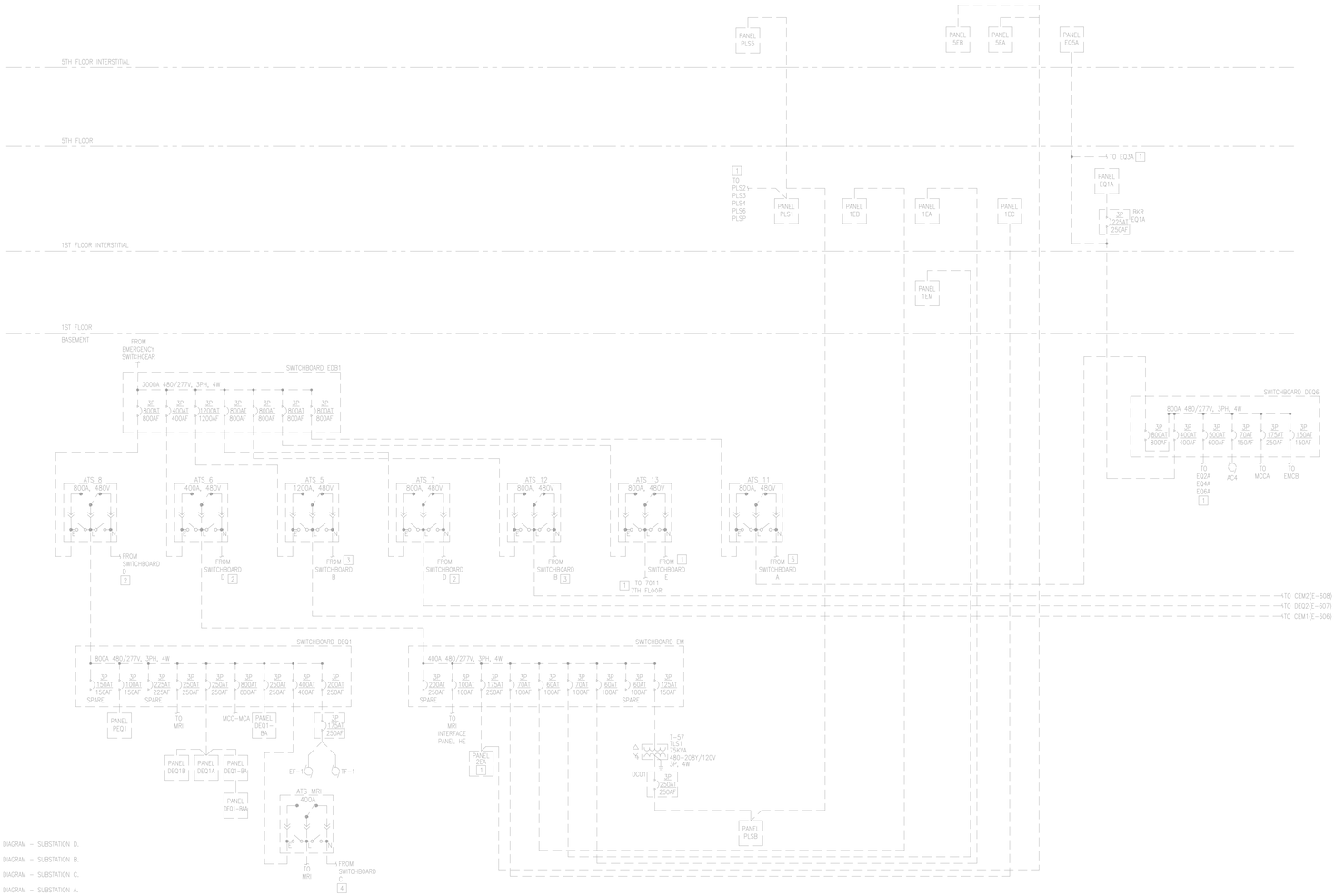

NOTES:

1. NOT USED.
2. REFER TO SINGLE LINE DIAGRAM – SUBSTATION D.
3. REFER TO SINGLE LINE DIAGRAM – SUBSTATION B.
4. REFER TO SINGLE LINE DIAGRAM – SUBSTATION C.
5. REFER TO SINGLE LINE DIAGRAM – SUBSTATION A.

GENERAL SHEET NOTES

A THE DISTRIBUTION EQUIPMENT IS EXISTING, UNO.

Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

TRIPLE C – THE A&E GROUP
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A/E:
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Mat Perkins

STAMP

REGISTERED PROFESSIONAL ENGINEER
39126
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: EMERGENCY ONE LINE DIAGRAM	Phase: ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1	Project Number: 664-18-320
	Building Number: 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161	Drawing Number: 1E-601
Issue Date: 02/13/2019	Checked: M. PERKINS
	Drawn: F. CLARK

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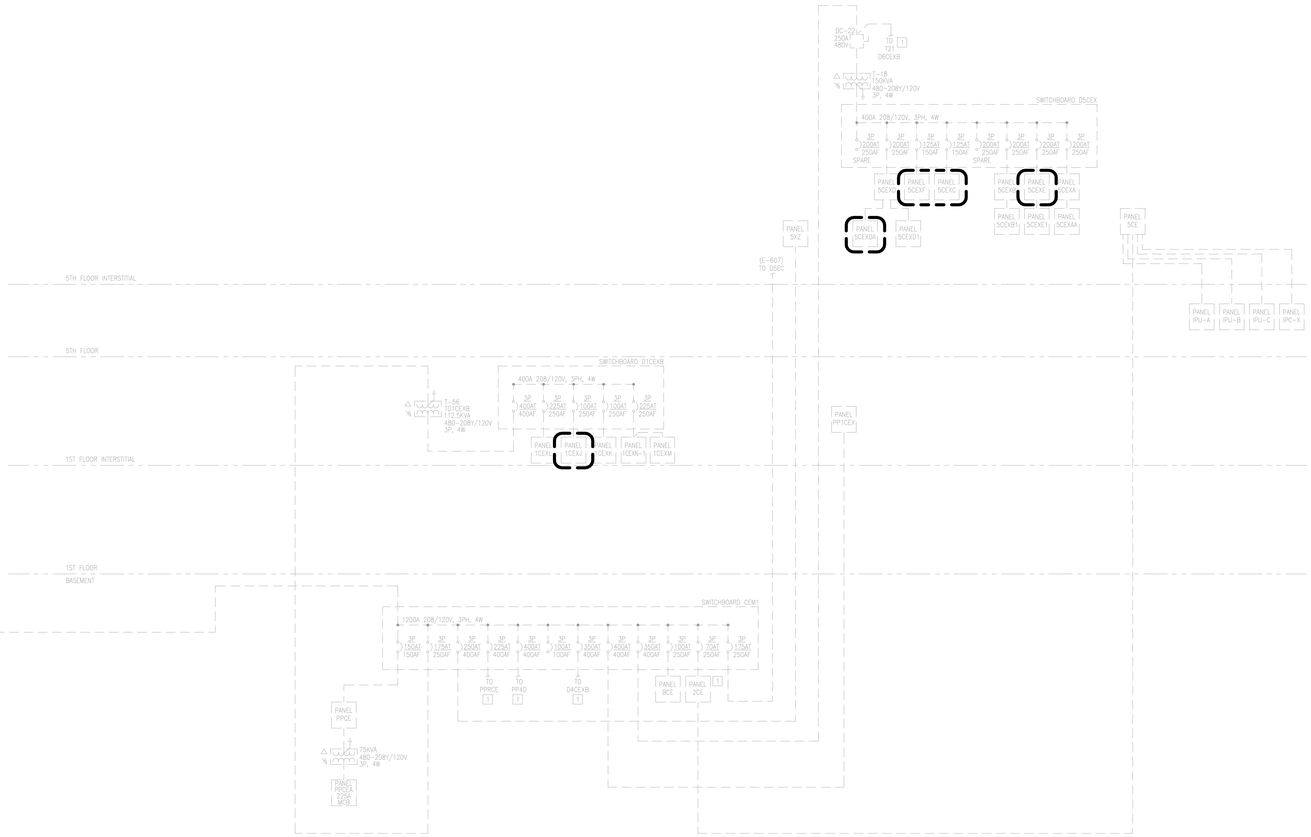

NOTES:

1 NOT USED.

2 REFER TO SINGLE LINE DIAGRAMS – EMERGENCY POWER.

GENERAL SHEET NOTES

A THE DISTRIBUTION EQUIPMENT IS EXISTING, UNO.

Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

TRIPLE C – THE A&E GROUP
A MULTI-DISCIPLINE A&E COMPANY

A/E:
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Mesa, AZ 85210
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Mat Perkins

STAMP

REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
CIVIL
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title EMERGENCY ONE LINE DIAGRAM	**Phase** ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED

Project Title ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Location 3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date	Checked	Drawn
02/13/2019	M. PERKINS	F. CLARK

Project Number 664-18-320

Building Number 1

Drawing Number 1E-602

BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

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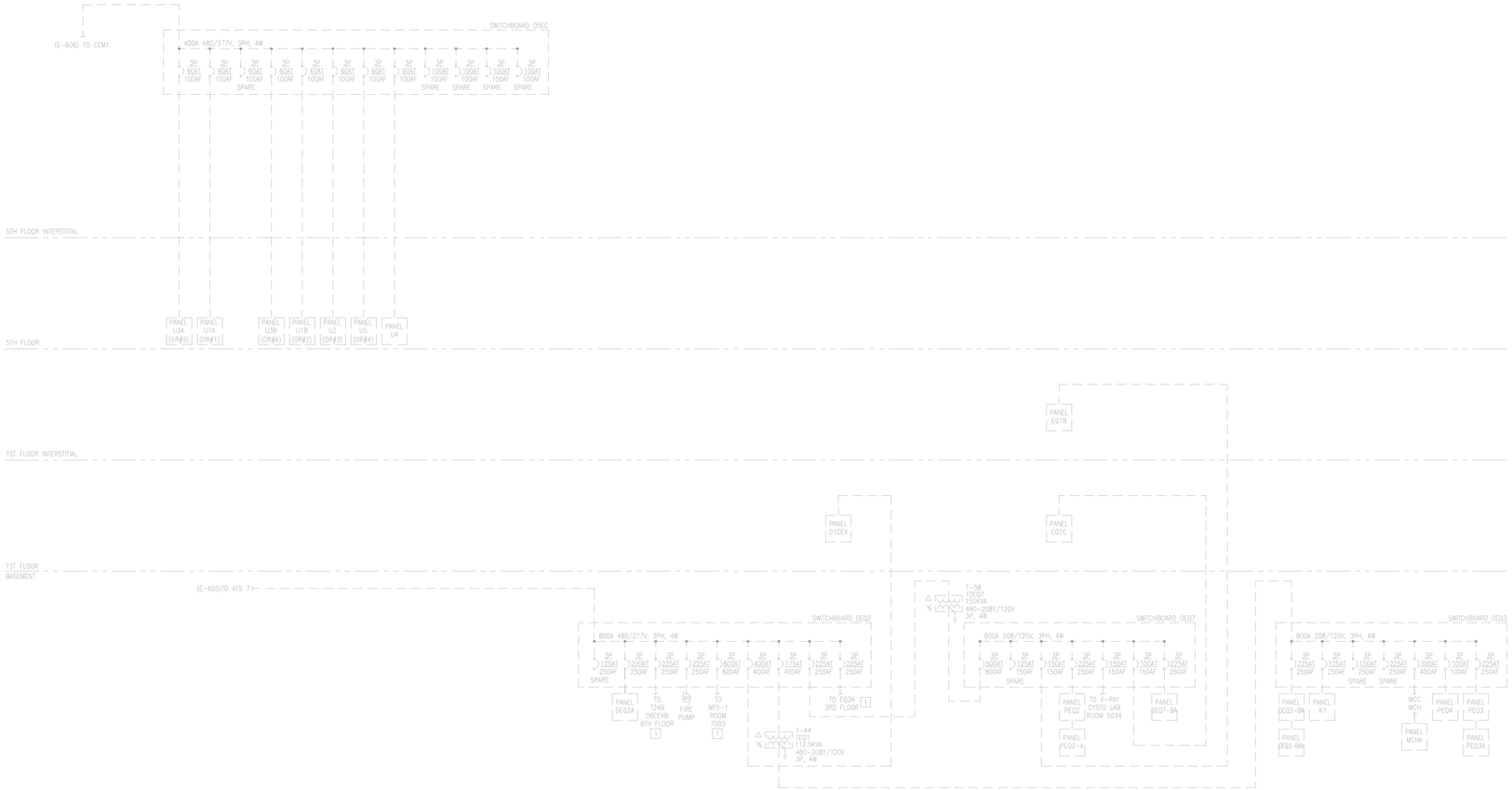
VA FORM 08 - 6231



NOTES:

1 NOT USED.

2 REFER TO SINGLE LINE DIAGRAMS = EMERGENCY POWER.

GENERAL SHEET NOTES

A THE DISTRIBUTION EQUIPMENT IS EXISTING, UNO.

Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE A&E COMPANY

A/E:
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1839 S. Alma School Rd., Ste. 300
Mesa, AZ 85210
307-460-2054
Mat Perkins

STAMP

REGISTERED PROFESSIONAL ENGINEER
39128
MATHEW R. PERKINS
CIVIL
DATE SIGNED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	EMERGENCY ONE LINE DIAGRAM
Phase	ISSUED FOR CONSTRUCTION
Approved:	FULLY SPRINKLERED
Project Title	ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location	3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date	02/13/2019
Checked	M. PERKINS
Drawn	F. CLARK
Project Number	664-18-320
Building Number	1
Drawing Number	1E-603

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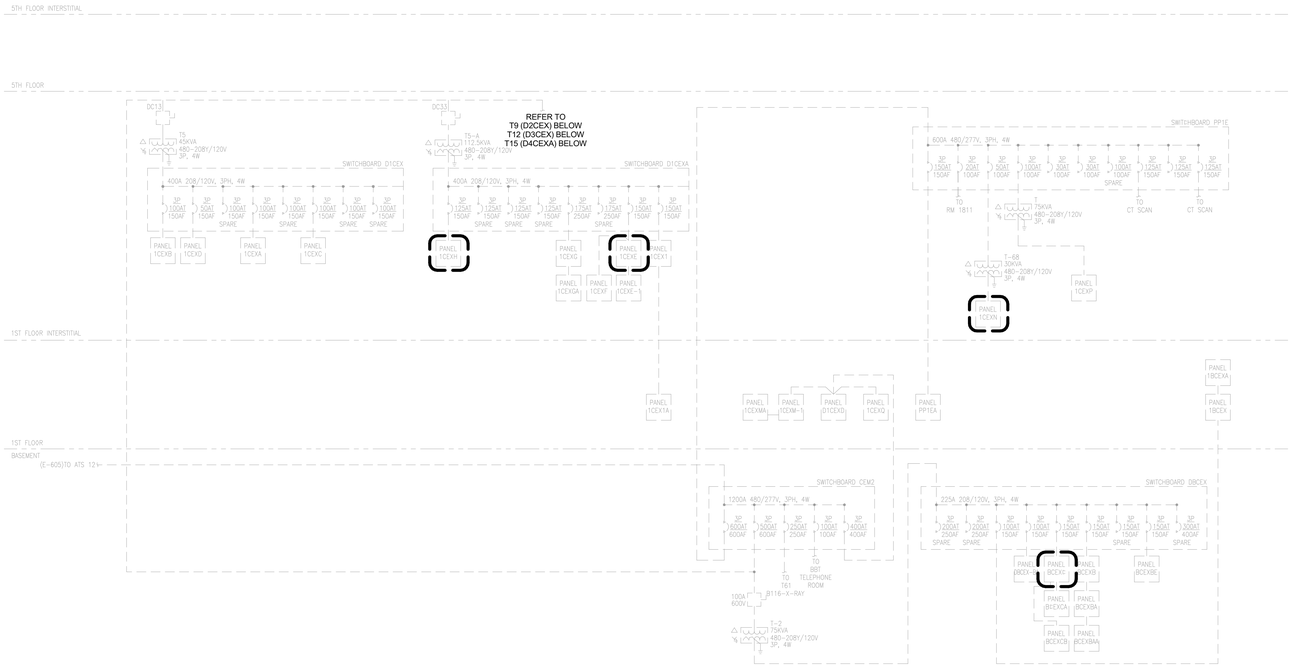
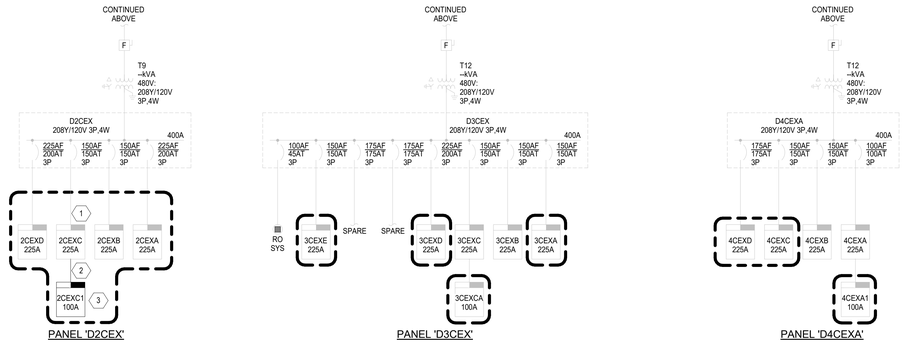
VA FORM 08 - 6231



NOTES:

1 NOT USED.

2 REFER TO SINGLE LINE DIAGRAMS – EMERGENCY POWER.



GENERAL SHEET NOTES

A THE DISTRIBUTION EQUIPMENT IS EXISTING, UNO.

KEYNOTES

1 REPLACE 3-20A-1P CIRCUIT BREAKERS WITH NEW 50A-3P CIRCUIT BREAKER TO SERVE NEW PANEL 2CEXC1. MOVE THE 3-20A LOADS PREVIOUSLY SERVED FROM PANEL 2CEXC TO NEW PANEL 2CEXC1. SPLICE FEEDER ABOVE EXISTING PANEL. NEW CIRCUIT BREAKER SHALL MATCH EXISTING TYPE. COORDINATE POWER SHUTDOWN WITH COR PER SPECIFICATION REQUIREMENTS.

2 4#1, 1#6G IN 1-1/2"C.

3 PROVIDE 100A MLO SURFACE MOUNTED PANEL, SEE PANEL SCHEDULE. REFER TO SPECIFICATIONS FOR PANEL REQUIREMENTS.

Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

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TRIPLE C – THE A&E GROUP
A MULTI-DISCIPLINE A&E COMPANY

A/E:
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1839 S. Alma School Rd., Ste. 300
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Mat Perkins

STAMP

REGISTERED PROFESSIONAL ENGINEER
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MATHEW R. PERKINS
CERTIFIED ELECTRICAL POWER
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title EMERGENCY ONE LINE DIAGRAM	**Phase** ISSUED FOR CONSTRUCTION	**Project Title** ENERGY MANAGEMENT CONTROLS INTEGRATION 1	**Project Number** 664-18-320
			Building Number 1
Approved:	FULLY SPRINKLERED	**Location** 3350 La Jolla Village Dr, San Diego, CA 92161	**Drawing Number** 1E-604
		Issue Date 02/13/2019 / **Checked** M. PERKINS / **Drawn** F. CLARK	

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VA FORM 08 - 6231

Branch Panel: BCEXBAA
Location:
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	SPACE ONLY	--	--	0 VA	0 VA					--	--	SPACE ONLY	2
3	SPACE ONLY	--	--			0 VA	0 VA			--	--	SPACE ONLY	4
5	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	6
7	SPACE ONLY	--	--	0 VA	0 VA					--	--	SPACE ONLY	8
9	SPACE ONLY	--	--			0 VA	0 VA			--	--	SPACE ONLY	10
11	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	12
13	SPACE ONLY	--	--	0 VA	0 VA					--	--	SPACE ONLY	14
15	SPACE ONLY	--	--			0 VA	0 VA			--	--	SPACE ONLY	16
17	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	18
19	SPACE ONLY	--	--	0 VA	0 VA					--	--	SPACE ONLY	20
21	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	22
23	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	24
25	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	26
27	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	SPARE	28
29	SPARE	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	30
31	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	32
33	EXST LOAD	20 A	1			0 VA	272 VA			1	20 A	CP-AC2 & CP-TU-AC2	34
35	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	SPARE	36
37	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	38
39	EXST LOAD	20 A	1			0 VA	0 VA			--	--	--	40
41	EXST LOAD	20 A	1					0 VA	0 VA	--	--	--	42
			Total Load:	0 VA		272 VA		0 VA					
			Total Amps:	0 A		2 A		0 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	272 VA	100.00%	272 VA		
				Total Conn. Load:	272 VA
				Total Est. Demand:	272 VA
				Total Conn. Current:	1 A
				Total Est. Demand Current:	1 A

Branch Panel: BECXC
Location:
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	30 A	EXST LOAD	6
7	EXST LOAD	20 A	2	0 VA	0 VA					1	30 A	EXST LOAD	8
9	--	--	--			0 VA	0 VA			3	40 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	--	--	--	12
13	EXST LOAD	20 A	2	0 VA	0 VA					--	--	--	14
15	--	--	--			0 VA	0 VA			3	3 A	SPARE	16
17	EXST LOAD	30 A	2					0 VA	0 VA	--	--	--	18
19	--	--	--	0 VA	0 VA					--	--	--	20
21	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	22
23	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	24
25	EXST PANEL 'BECXA'	30 A	3	0 VA	0 VA					1	20 A	EXST LOAD	26
27	--	--	--			0 VA	0 VA			1	20 A	EXST LOAD	28
29	--	--	--					0 VA	0 VA	1	20 A	EXST LOAD	30
31	SPARE	20 A	3	0 VA	96 VA					1	20 A	**CP-AC4	32
33	--	--	--			0 VA	0 VA			1	15 A	EXST LOAD	34
35	--	--	--					0 VA	416 VA	1	20 A	CP-TU-AC4	36
37	**CP-TF9	20 A	1	96 VA	96 VA					1	20 A	**CP-AC3	38
39	--	--	--			0 VA	0 VA			1	20 A	EXST LOAD	40
41	SPARE	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	42
			Total Load:	288 VA		0 VA		416 VA					
			Total Amps:	3 A		0 A		4 A					

Notes:
**PROVIDE A NEW 20A1P CIRCUIT BREAKER. CIRCUIT BREAKER SHALL MATCH EXISTING TYPE.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	704 VA	100.00%	704 VA		
				Total Conn. Load:	704 VA
				Total Est. Demand:	704 VA
				Total Conn. Current:	2 A
				Total Est. Demand Current:	2 A

Branch Panel: PPCEA
Location:
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating:
OC Device Type: MCB
Mains Rating: 225 A
MCB Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	25 A	1	0 VA	0 VA					1	25 A	EXST LOAD	2
3	SPACE ONLY	--	--			0 VA	0 VA			--	--	SPACE ONLY	4
5	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	6
7	EXST LOAD	40 A	1	0 VA	0 VA					1	40 A	EXST LOAD	8
9	SPACE ONLY	--	--			0 VA	0 VA			--	--	SPACE ONLY	10
11	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	12
13	EXST LOAD	40 A	1	0 VA	0 VA					1	60 A	EXST LOAD	14
15	SPACE ONLY	--	--			0 VA	0 VA			--	--	SPACE ONLY	16
17	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	18
19	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	20
21	SPACE ONLY	--	--			0 VA	96 VA			1	20 A	CP-GX1	22
23	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	24
25	SPACE ONLY	--	--	0 VA	0 VA					--	--	SPACE ONLY	26
27	SPACE ONLY	--	--			0 VA	0 VA			--	--	SPACE ONLY	28
29	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	30
			Total Load:	0 VA		96 VA		0 VA					
			Total Amps:	0 A		1 A		0 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	96 VA	100.00%	96 VA		
				Total Conn. Load:	96 VA
				Total Est. Demand:	96 VA
				Total Conn. Current:	0 A
				Total Est. Demand Current:	0 A

Branch Panel: 1CEXE
Location: Unoccupied Unoccupied
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	936 VA					1	20 A	CP-TU-AC9	2
3	EXST LOAD	20 A	1			0 VA	0 VA			--	--	--	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	6
7	SPACE ONLY	--	--	0 VA	0 VA					1	20 A	EXST LOAD	8
9	CP-AC9	20 A	1			896 VA	0 VA			1	20 A	EXST LOAD	10
11	CP-AC37	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	12
13	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	14
15	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	16
17	EXST LOAD	20 A	1					0 VA	0 VA	2	50 A	EXST LOAD	18
19	EXST LOAD	20 A	1	0 VA	0 VA					--	--	--	20
21	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	22
23	EXST LOAD	60 A	2					0 VA	0 VA	1	20 A	EXST LOAD	24
25	--	--	--	0 VA	0 VA					1	20 A	EXST LOAD	26
27	EXST PANEL '1CEXE1'	70 A	3			0 VA	0 VA			1	20 A	EXST LOAD	28
29	--	--	--					0 VA	0 VA	1	20 A	EXST LOAD	30
31	--	--	--	0 VA	0 VA					1	20 A	EXST LOAD	32
33	SPARE	20 A	1			0 VA	0 VA			2	20 A	EXST LOAD	34
35	SPARE	20 A	1					0 VA	0 VA	--	--	--	36
37	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	SPARE	38
39	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	40
41	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	42
			Total Load:	936 VA		896 VA		0 VA					
			Total Amps:	9 A		9 A		0 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	1832 VA	100.00%	1832 VA		
				Total Conn. Load:	1832 VA
				Total Est. Demand:	1832 VA
				Total Conn. Current:	5 A
				Total Est. Demand Current:	5 A

Branch Panel: 1CEXN
Location: Unoccupied Unoccupied
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	4
5	SPACE ONLY	--	--					0 VA	0 VA	1	20 A	EXST LOAD	6
7	CP-GX58	20 A	1	96 VA	0 VA					1	20 A	EXST LOAD	8
9	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	10
11	CP-AC37	20 A	1					1456 VA	0 VA	1	20 A	EXST LOAD	12
13	EXST LOAD	20 A	1	0 VA	896 VA					1	20 A	CP-TU-AC10	14
15	EXST LOAD	20 A	1			0 VA	1456 VA			1	20 A	CP-TU-AC37	16
17	CP-AC10	20 A	1					96 VA	0 VA	1	20 A	EXST LOAD	18
19	EXST LOAD	20 A	1	0 VA	0 VA					2	30 A	EXST LOAD	20
21	EXST LOAD	20 A	2			0 VA	0 VA			--	--	--	22
23	--	--	--					0 VA	0 VA	1	20 A	SPARE	24
25	EXST LOAD	20 A	2	0 VA	0 VA					--	--	SPACE ONLY	26
27	--	--	--			0 VA	0 VA			--	--	SPACE ONLY	28
29	EXST LOAD	20 A	2					0 VA	0 VA	--	--	SPACE ONLY	30
31	--	--	--	0 VA	0 VA					2	20 A	EXST LOAD	32
33	SPACE ONLY	--	--			0 VA	0 VA			--	--	--	34
35	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	36
37	EXST LOAD	20 A	2	0 VA	0 VA					--	--	SPACE ONLY	38
39	--	--	--			0 VA	0 VA			--	--	SPACE ONLY	40
41	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	42
			Total Load:	992 VA		1456 VA		1552 VA					
			Total Amps:	8 A		13 A		14 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	4000 VA	100.00%	4000 VA		
				Total Conn. Load:	4000 VA
				Total Est. Demand:	4000 VA
				Total Conn. Current:	11 A
				Total Est. Demand Current:	11 A

Branch Panel: 1CEXH
Location: Unoccupied Unoccupied
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	6
7	EXST LOAD	20 A	2	0 VA	0 VA					1	20 A	EXST LOAD	8
9	--	--	--			0 VA	0 VA			1	20 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	12
13	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	14
15	EXST LOAD	30 A	2			0 VA	0 VA			1	20 A	EXST LOAD	16
17	--	--	--					0 VA	0 VA	1	20 A	EXST LOAD	18
19	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	20
21	EXST LOAD	30 A	2			0 VA	0 VA			1	20 A	EXST LOAD	22
23	--	--	--					0 VA	0 VA	1	20 A	EXST LOAD	24
25	EXST LOAD	20 A	2	0 VA	0 VA					1	20 A	EXST LOAD	26
27	--	--	--			0 VA	0 VA			1	20 A	EXST LOAD	28
29	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	30
31	EXST LOAD	20 A	1	0 VA	96 VA					1	20 A	**CP-TU-AC11 & CP-AC11	32
33	SPACE ONLY	--	--			0 VA	96 VA			1	20 A	**CP-GX10	34
35	**CP-AC13	20 A	1	896 VA	696 VA			696 VA	96 VA	1	20 A	**CP-AC12	36
37	**CP-TU-AC11	20 A	1							1	20 A	**CP-TU-AC13	38
39	SPACE ONLY	--	--			0 VA	416 VA			1	20 A	**CP-TU-AC12	40
41	SPACE ONLY	20 A	1					0 VA	1296 VA	--	--	--	42
			Total Load:	1688 VA		512 VA		2088 VA					
			Total Amps:	16 A		4 A		19 A					

Notes:
** PROVIDE NEW 20A1P CIRCUIT BREAKER IN EXISTING SPACE. BREAKER SHALL MATCH EXISTING TYPE.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	4288 VA	100.00%	4288 VA		
				Total Conn. Load:	4288 VA
				Total Est. Demand:	4288 VA
				Total Conn. Current:	12 A
				Total Est. Demand Current:	12 A

Branch Panel: 1CEXJ
Location: Unoccupied Unoccupied
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	CP-AC7	20 A	1	616 VA	896 VA					1	20 A	CP-TU-AC8	2
3	CP-AC8	20 A	1			896 VA	96 VA			--	--	--	4
5	CP-TU-AC7	20 A	1					616 VA	1456 VA	1	20 A	CP-TU-AC6	6
7	SPACE ONLY	--	--	0 VA	0 VA					1	20 A	EXST LOAD	8
9	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	SPARE	10
11	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	12
13	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	14
15	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	16
17	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	18
19	SPACE ONLY	--	--	0 VA	0 VA					--	--	SPACE ONLY	20
21	SPACE ONLY	--	--			0 VA	0 VA			--	--	SPACE ONLY	22
23	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	24
25	SPACE ONLY	--	--	0 VA	0 VA					--	--	SPACE ONLY	26
27	SPACE ONLY	--	--			0 VA	0 VA			--	--	SPACE ONLY	28
29	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	30
			Total Load:	1512 VA		992 VA		2072 VA					
			Total Amps:	13 A		8 A		18 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	4576 VA	100.00%	4576 VA		
				Total Conn. Load:	4576 VA
				Total Est. Demand:	4576 VA
				Total Conn. Current:	13 A
				Total Est. Demand Current:	13 A

LOAD SUMMARY BCEXBAA

1 SERVICE RATING: 150A @ 208VAC 3P
2 METERED LOAD: 0 kVA
REC. LOAD: 0 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 28.8 kVA
ESTIMATED LOAD: 28.8 kVA
ADDED LOAD: 0.27 kVA
NET LOAD: 29.07 kVA (81A)
NET BUSS LOAD: 81%

LOAD SUMMARY BECXC

1 SERVICE RATING: 150A @ 208VAC 3P
2 METERED LOAD: 0 kVA
REC. LOAD: 0 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 61.632 kVA
ESTIMATED LOAD: 61.632 kVA
ADDED LOAD: 0.704 kVA
NET LOAD: 62.336 kVA (173A)
NET BUSS LOAD: 115%

LOAD SUMMARY PPCEA

2 SERVICE RATING: 125A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 0 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 24.96 kVA
ESTIMATED LOAD: 24.96 kVA
ADDED LOAD: 0.96 kVA
NET LOAD: 25.92 kVA (72A)
NET BUSS LOAD: 58%

LOAD SUMMARY 1CEXE

1 SERVICE RATING: 100A @ 208VAC 3P
2 METERED LOAD: 0 kVA
REC. LOAD: 55.68 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 41.792 kVA
ESTIMATED LOAD: 74.632 kVA
ADDED LOAD: 1.832 kVA
NET LOAD: 76.464 kVA (212A)
NET BUSS LOAD: 212%

LOAD SUMMARY CEXN

1 SERVICE RATING: 83A @ 208VAC 3P
2 METERED LOAD: 0 kVA
REC. LOAD: 30.592 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 8.64 kVA
ESTIMATED LOAD: 28.936 kVA
ADDED LOAD: 4 kVA
NET LOAD: 32.936 kVA (91A)
NET BUSS LOAD: 110%

LOAD SUMMARY 1CEXH

1 SERVICE RATING: 125A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 15.36 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 17.032 kVA
ESTIMATED LOAD: 29.712 kVA
ADDED LOAD: 4.288 kVA
NET LOAD: 34 kVA (94A)
NET BUSS LOAD: 76%

LOAD SUMMARY 1CEXJ

2 SERVICE RATING: 100A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 21.12 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 0 kVA
ESTIMATED LOAD: 15.56 kVA
ADDED LOAD: 4.576 kVA
NET LOAD: 20.136 kVA (56A)
NET BUSS LOAD: 56%

GENERAL SHEET NOTES

A THE DISTRIBUTION EQUIPMENT IS EXISTING, UNO.
B WIRE ALL NEW LOADS TO EXISTING SPARE CIRCUIT BREAKERS, UNLESS NOTED AS NEW IN THE PANEL SCHEDULE "NOTES" SECTION.

KEYNOTES

1 NO RECENT LOAD INFORMATION WAS AVIALABLE. WE CALCULATED WORSE CASE SCENARIO BASED UPON 80% LOADING OF EACH CIRCUIT BREAKER. RECEPTACLE DEMAND WAS USED WHERE APPLICABLE.
2 CONTRACTOR SHALL PROVIDE A 72HR LOAD MEASUREMENT OF EXISTING PANELBOARD. THE METERING SHALL OCCUR ON MONDAY-WEDNESDAY. PROVIDE THE RESULTS TO THE COR AND AE FOR REVIEW PRIOR TO THE COMMENCEMENT OF PANEL RENOVATION.

PANEL INDEX

BCEXBAA	BCEXC	PPCEA
	1CEXE	1CEXN
1CEXH	1CEXJ	

Revisions:	Date:

CONSULTANT
MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
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Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD
TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY
A/E:
TRIPLE C The A/E Group
1839 S. Alma School Rd., Ste. 300
Mesa, AZ 85210
307-460-2054
Mat Perkins

STAMP
REGISTERED PROFESSIONAL ENGINEER 39128 MATHEW R. PERKINS DATE SIGNED ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: PANEL SCHEDULES - BASEMENT AND FIRST FLOOR
Approved:
Phase: ISSUED FOR CONSTRUCTION
FULLY SPRINKLERED
Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161
Project Number: 664-18-320
Building Number: 1
Drawing Number: 1E-701
Issue Date: 02/13/2019
Checked: M. PERKINS
Drawn: F. CLARK

VA FORM 08 - 6231

3/18/2019 2:32:51 PM
BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

Branch Panel: 2CEXA
Location: MECH ROOM A2021
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	SPACE ONLY	20 A	1	0 VA	0 VA					1	20 A	SPACE ONLY	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	6
7	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	SPARE	8
9	EXST LOAD	20 A	1			0 VA	0 VA						
11	EXST LOAD	20 A	1					0 VA	1336 VA	1	20 A	CP-AC14	12
13	EXST LOAD	20 A	1	0 VA	1336 VA					1	20 A	CP-TU-AC14	14
15	EXST LOAD	20 A	1			0 VA	0 VA						
17	CP-AC48	20 A	1					896 VA	0 VA	2	70 A	EXST LOAD	18
19	CP-GX14	20 A	1	96 VA	0 VA					--	--	--	20
			Total Load:	1432 VA		0 VA		2232 VA					
			Total Amps:	14 A		0 A		20 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
				Total Conn. Load: 3664 VA
				Total Est. Demand: 3664 VA
				Total Conn. Current: 10 A
				Total Est. Demand Current: 10 A

LOAD SUMMARY 2CEXA

1

SERVICE RATING: 175A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 13.44 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 13.568 kVA
ESTIMATED LOAD: 25.288 kVA
ADDED LOAD: 3.664 kVA
NET LOAD: 28.952 kVA (80A)
NET BUSS LOAD: 46%

Branch Panel: 2CEXB
Location: MECH ROOM A2021
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	SPACE ONLY	20 A	1	0 VA	0 VA					1	20 A	SPACE ONLY	2
3	SPARE	20 A	1			0 VA	1376 VA			1	20 A	CP-TU-AC15	4
5	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	6
7	SPARE	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	8
9	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	12
13	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	SPARE	14
15	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	SPARE	16
17	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	18
19	CP-AC15	20 A	1	1376 VA	96 VA					1	20 A	CP-GX17	20
			Total Load:	1472 VA		1376 VA		0 VA					
			Total Amps:	14 A		13 A		0 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
				Total Conn. Load: 2848 VA
				Total Est. Demand: 2848 VA
				Total Conn. Current: 8 A
				Total Est. Demand Current: 8 A

LOAD SUMMARY 2CEXB

1

SERVICE RATING: 150A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 5.67 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 13.44 kVA
ESTIMATED LOAD: 19.11 kVA
ADDED LOAD: 2.848 kVA
NET LOAD: 21.958 kVA (61A)
NET BUSS LOAD: 41%

Branch Panel: 2CEXC
Location: MECH ROOM A2005
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	6
7	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	8
9	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	12
13	EXST LOAD	20 A	1	0 VA	2288 VA					3	50 A	**2CEXC1	14
15	EXST LOAD	20 A	1			0 VA	3568 VA			--	--	--	16
17	EXST LOAD	20 A	1					0 VA	496 VA	--	--	--	18
			Total Load:	2288 VA		3568 VA		496 VA					
			Total Amps:	21 A		32 A		4 A					

Notes:
** PROVIDE NEW CIRCUIT BREAKER. NEW BREAKER SHALL MATCH EXISTING TYPE.RELOCATE THE (3)20A1P LOADS FROM THIS LOCATION TO PANEL '2CEXC1'.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
NC	6352 VA	100.00%	6352 VA	
				Total Conn. Load: 11752 VA
				Total Est. Demand: 11752 VA
				Total Conn. Current: 33 A
				Total Est. Demand Current: 33 A

LOAD SUMMARY 2CEXC

1

SERVICE RATING: 150A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 3.84 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 22.4 kVA
ESTIMATED LOAD: 26.24 kVA
ADDED LOAD: 11.752 kVA
NET LOAD: 37.992 kVA (105A)
NET BUSS LOAD: 70%

Branch Panel: 2CEXC1
Location: MECH ROOM A2005
Supply From: 2CEXC
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: PER UPSTREAM PANEL
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	RELOCATED LOAD FROM 2CEXC	20 A	1	1800 VA	496 VA					1	20 A	CP-AC50	2
3	RELOCATED LOAD FROM 2CEXC	20 A	1			1800 VA	1136 VA			1	20 A	CP-AC16	4
5	RELOCATED LOAD FROM 2CEXC	20 A	1					1800 VA	496 VA	1	20 A	CP-AC49	6
7	CP-GX18	20 A	1	496 VA	1296 VA					1	20 A	CP-AC17	8
9	CP-TU-AC17	20 A	1			1296 VA	1136 VA			1	20 A	CP-TU-AC16	10
11	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	12
13	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	14
15	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	16
17	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	18
19													20
21													22
23													24
			Total Load:	4088 VA		5368 VA		2296 VA					
			Total Amps:	36 A		47 A		19 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
NC	6352 VA	100.00%	6352 VA	
				Total Conn. Load: 11752 VA
				Total Est. Demand: 11752 VA
				Total Conn. Current: 33 A
				Total Est. Demand Current: 33 A

Branch Panel: 2CEXD
Location: MECH ROOM A2005
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	**CP-GX20	20 A	1	96 VA	0 VA					1	20 A	SPACE ONLY	2
3	SPARE	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	6
7	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	8
9	EXST LOAD	20 A	1			0 VA	0 VA			2	20 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	--	--	--	12
13	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	14
15	EXST LOAD	20 A	1			0 VA	0 VA			2	70 A	EXST LOAD	16
17	EXST LOAD	20 A	1					0 VA	0 VA	--	--	--	18
			Total Load:	96 VA		0 VA		0 VA					
			Total Amps:	1 A		0 A		0 A					

Notes:
** PROVIDE NE 20A1P CIRCUIT BREAKER IN EXISTING SPACE. BREAKER SHALL MATCH EXISTING TYPE.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
				Total Conn. Load: 96 VA
				Total Est. Demand: 96 VA
				Total Conn. Current: 0 A
				Total Est. Demand Current: 0 A

LOAD SUMMARY 2CEXD

1

SERVICE RATING: 200A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 19.2 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 9.088 kVA
ESTIMATED LOAD: 23.688 kVA
ADDED LOAD: 0.96 kVA
NET LOAD: 24.648 kVA (68A)
NET BUSS LOAD: 34%

Branch Panel: 3CEXA
Location: MECH ROOM A3021
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	6
7	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	8
9	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	2	70 A	EXST LOAD	12
13	EXST LOAD	20 A	1	0 VA	0 VA					--	--	--	14
15	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	16
17	CP-GX22	20 A	1					96 VA	0 VA	1	20 A	EXST LOAD	18
19	CP-TU-AC18	20 A	1	1056 VA	0 VA					1	20 A	SPARE	20
21	CP-AC18	20 A	1			1056 VA	0 VA			1	20 A	EXST LOAD	22
23										1	20 A	EXST LOAD	24
25	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	26
27	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	28
29	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	SPACE ONLY	30
			Total Load:	1056 VA		1056 VA		96 VA					
			Total Amps:	10 A		10 A		1 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
				Total Conn. Load: 2208 VA
				Total Est. Demand: 2208 VA
				Total Conn. Current: 6 A
				Total Est. Demand Current: 6 A

LOAD SUMMARY 3CEXA

SERVICE RATING: 150A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 24.96 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 39.848 kVA
ESTIMATED LOAD: 48.328 kVA
ADDED LOAD: 2.208 kVA
NET LOAD: 50.536 kVA (140A)
NET BUSS LOAD: 94%

1
2

Branch Panel: 3CEXD
Location: MECH ROOM A3010
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	6
7	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	8
9	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	12
13	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	14
15	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	16
17	CP-GX28	20 A	1					96 VA	0 VA	1	20 A	EXST LOAD	18
19	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	20
21	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	22
23	CP-AC21	20 A	1					1136 VA	0 VA	1	20 A	EXST LOAD	24
25	CP-TU-AC21	20 A	1	1136 VA	0 VA					1	20 A	EXST LOAD	26
27	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	28
29	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	SPARE	30
31	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	32
33	CP-AC20	20 A	1			896 VA	0 VA			1	20 A	SPARE	34
35	CP-TU-AC20	20 A	1					896 VA	0 VA	1	20 A	SPARE	36
37	SPARE	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	38
39	SPARE	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	40
41	SPARE	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	42
			Total Load:	1136 VA		896 VA		2128 VA					
			Total Amps:	10 A		7 A		18 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
NC	4160 VA	100.00%	4160 VA	
				Total Conn. Load: 4160 VA
				Total Est. Demand: 4160 VA
				Total Conn. Current: 12 A
				Total Est. Demand Current: 12 A

Branch Panel: 3CEXE
Location: MECH ROOM A3021
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	2	0 VA	0 VA					1	20 A	SPARE	2
3	--	--	--			0 VA	0 VA			1	20 A	SPARE	4
5	SPACE ONLY	20 A	1					0 VA	0 VA	1	20 A	SPARE	6
7	CP-AC19	20 A	1	1016 VA	0 VA					1	20 A	SPARE	8
9	CP-TU-AC19	20 A	1			976 VA	0 VA			1	20 A	SPARE	10
11	CP-GX25	20 A	1					96 VA	0 VA	1	20 A	SPARE	12
13	--	--	--	0 VA	0 VA					1	20 A	EXST LOAD	14
15	SPARE	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	16
17	SPARE	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	18
19	SPARE	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	20
21	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	SPARE	22
23	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	24
25	EXST LOAD	20 A	2	0 VA	0 VA					1	20 A	SPARE	26
27	--	--	--			0 VA	0 VA			1	20 A	SPARE	28
29	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	30
31	SPARE	20 A	2	0 VA	0 VA					1	20 A	SPARE	32
33	--	--	--			0 VA	0 VA			1	20 A	SPARE	34
35	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	SPARE	36
37	SPACE ONLY	20 A	1	0 VA	0 VA					1	20 A	SPARE	38
39	SPACE ONLY	20 A	1			0 VA	0 VA			1	20 A	SPARE	40
41	SPACE ONLY	20 A	1					0 VA	0 VA	1	20 A	SPARE	42
			Total Load:	1016 VA		976 VA		96 VA					
			Total Amps:	10 A		9 A		1 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
				Total Conn. Load: 2088 VA
				Total Est. Demand: 2088 VA
				Total Conn. Current: 6 A
				Total Est. Demand Current: 6 A

Branch Panel: 3CEXCA
Location: MECH ROOM A3010
Supply From: 3CEXC
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	96 VA			1	20 A	CP-GX27	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	6
7	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	8
9	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	12
13	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	14
15	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	16
17	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	18
19	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	20
21	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	SPARE	22
23	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	24
25	SPARE	20 A	3	0 VA	0 VA					1	20 A	SPARE	26
27	--	--	--			0 VA	0 VA			1	20 A	EXST LOAD	28
29	--	--	--					0 VA	0 VA	1	20 A	EXST LOAD	30
31	SPARE	100 A	3	0 VA	0 VA					1	20 A	EXST LOAD	32
33	--	--	--			0 VA	0 VA			1	20 A	EXST LOAD	34
35	--	--	--					0 VA	0 VA	1	20 A	EXST LOAD	36
37	EXST LOAD	20 A	1	0 VA	0 VA					2	30 A	EXST LOAD	38
39	EXST LOAD	20 A	1			0 VA	0 VA			--	--	--	40
41	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	SPARE	42
			Total Load:	0 VA		96 VA		0 VA					
			Total Amps:	0 A		1 A		0 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
NC	96 VA	100.00%	96 VA	
				Total Conn. Load: 96 VA
				Total Est. Demand: 96 VA
				Total Conn. Current: 0 A
				Total Est. Demand Current: 0 A

GENERAL SHEET NOTES

A THE DISTRIBUTION EQUIPMENT IS EXISTING, UNO.
B WIRE ALL NEW LOADS TO EXISTING SPARE CIRCUIT BREAKERS, UNLESS NOTED AS NEW IN THE PANEL SCHEDULE "NOTES" SECTION.

KEYNOTES

1 NO RECENT LOAD INFORMATION WAS AVIALABLE, WE CALCULATED WORSE CASE SCENARIO BASED UPON 80% LOADING OF EACH CIRCUIT BREAKER; RECEPTACLE DEMAND WAS USED WHERE APPLICABLE.
2 CONTRACTOR SHALL PROVIDE A 72HR LOAD MEASUREMENT OF EXISTING PANELBOARD. THE METERING SHALL OCCUR ON MONDAY-WEDNESDAY. PROVIDE THE RESULTS TO THE COR AND AE FOR REVIEW PRIOR TO THE COMMENCEMENT OF PANEL RENOVATION.

LOAD SUMMARY 3CEXD

1

SERVICE RATING: 200A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 32.64 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 17.28 kVA
ESTIMATED LOAD: 38.6 kVA
ADDED LOAD: 4.16 kVA
NET LOAD: 42.76 kVA (119A)
NET BUSS LOAD: 59%

LOAD SUMMARY 3CEXE

1

SERVICE RATING: 100A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 11.52 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 7.68 kVA
ESTIMATED LOAD: 18.44 kVA
ADDED LOAD: 2.088 kVA
NET LOAD: 20.528 kVA (57A)
NET BUSS LOAD: 57%

LOAD SUMMARY 3CEXCA

1

SERVICE RATING: 100A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 11.52 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 4.992 kVA
ESTIMATED LOAD: 15.752 kVA
ADDED LOAD: 0.96 kVA
NET LOAD: 16.712 kVA (46A)
NET BUSS LOAD: 46%

PANEL INDEX

2CEXA	2CEXB	2CEXC
2CEXC1	2CEXD	3CEXA
3CEXD	3CEXE	3CEXA

Revisions:	Date:

CONSULTANT

MECHANICAL:
P2S ENGINEERING, INC.
5000 E. SPRING STREET, 8TH FLOOR
LONG BEACH, CA 90815-5218

Mikhail Fuks

ARCHITECT/ENGINEER OF RECORD

TRIPLE C - THE A&E GROUP
A MULTI-DISCIPLINE COMPANY

A/E:
TRIPLE C The A/E Group
1839 S. Alma School Rd., Ste. 300
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307-460-2054
Mat Perkins

STAMP

REGISTERED PROFESSIONAL ENGINEER
35126
MATHEW R. PERKINS
CERTIFICATE NOT VALID WITHOUT SIGNATURE AND SEALED
ARIZONA U.S.A.
Expires: 6/30/21

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
PANEL SCHEDULES - SECOND AND THIRD FLOORS

Approved:

Phase
ISSUED FOR CONSTRUCTION

FULLY SPRINKLERED

Project Title
ENERGY MANAGEMENT CONTROLS INTEGRATION 1

Project Number
664-18-320

Building Number
1

Location
3350 La Jolla Village Dr, San Diego, CA 92161

Issue Date
02/13/2019

Checked
M. PERKINS

Drawn
F. CLARK

Drawing Number
1E-702

VA FORM 08 - 6231

3/18/2019 2:32:57 PM
BIM 360://664-18-320 Energy Management Controls Integration/664-18-320-BLDG_01-MEP.rvt

Branch Panel: 4CEXA1
Location: MECH ROOM A4021
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	SPACE ONLY	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	SPACE ONLY	20 A	1			0 VA	0 VA			1	20 A	SPARE	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	SPARE	6
7	SPACE ONLY	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	8
9	SPARE	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	12
13	SPACE ONLY	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	14
15	SPACE ONLY	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	16
17	SPARE	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	18
19	CP-GX30	20 A	1	96 VA	0 VA					1	20 A	EXST LOAD	20
21	CP-AC22	20 A	1			1296 VA	0 VA			1	20 A	EXST LOAD	22
23	CP-TU-AC22	20 A	1					1256 VA	0 VA	1	20 A	EXST LOAD	24
25	SPACE ONLY	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	26
27	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	28
29	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	30
31	SPACE ONLY	20 A	1	0 VA	0 VA					1	20 A	SPACE ONLY	32
33	SPACE ONLY	20 A	1			0 VA	0 VA			1	20 A	SPACE ONLY	34
35	SPACE ONLY	20 A	1					0 VA	0 VA	1	20 A	SPACE ONLY	36
37	SPACE ONLY	20 A	1	0 VA	0 VA					1	20 A	SPACE ONLY	38
39	SPACE ONLY	20 A	1			0 VA	0 VA			1	20 A	SPACE ONLY	40
41	SPACE ONLY	20 A	1					0 VA	0 VA	1	20 A	SPACE ONLY	42
			Total Load:	96 VA		1296 VA		1256 VA					
			Total Amps:	1 A		12 A		12 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	2552 VA	100.00%	2552 VA		
				Total Conn. Load:	2648 VA
				Total Est. Demand:	2648 VA
				Total Conn. Current:	7 A
				Total Est. Demand Current:	7 A

Branch Panel: 4CEXD
Location: MECH ROOM A4005
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	SPARE	4
5	EXST LOAD	20 A	1					0 VA	96 VA	1	20 A	CP-GX35	6
7	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	8
9	EXST LOAD	20 A	1			0 VA	1056 VA			1	20 A	CP-AC25	10
11	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	SPARE	12
13	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	14
15	EXST LOAD	20 A	1			0 VA	0 VA			2	70 A	SPARE	16
17	SPARE	20 A	2					96 VA	0 VA				
19	--	--	--	0 VA	1056 VA					1	20 A	CP-TU-AC25	20
			Total Load:	1056 VA		1056 VA		192 VA					
			Total Amps:	10 A		10 A		2 A					

Notes:
** REMOVE EXISTING 2 POLE 20A BREAKER. REPLACE WITH 2 NEW 1 POLE (20A) CIRCUIT BREAKERS.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	2208 VA	100.00%	2208 VA		
				Total Conn. Load:	2304 VA
				Total Est. Demand:	2304 VA
				Total Conn. Current:	6 A
				Total Est. Demand Current:	6 A

Branch Panel: 4CEXC
Location: MECH ROOM A4005
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	SPARE	4
5	EXST LOAD	20 A	1					0 VA	96 VA	1	20 A	CP-GX35	6
7	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	SPARE	8
9	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	12
13	EXST LOAD	70 A	2	0 VA	0 VA					1	20 A	EXST LOAD	14
15	--	--	--			0 VA	0 VA			1	20 A	EXST LOAD	16
17	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	SPARE	18
19	EXST LOAD	20 A	1	0 VA	1416 VA					1	20 A	CP-TU-AC24	20
21	EXST LOAD	20 A	1			0 VA	1456 VA			1	20 A	CP-AC24	22
23	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	24
25	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	SPARE	26
27	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	SPARE	28
29	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	30
			Total Load:	1416 VA		1456 VA		96 VA					
			Total Amps:	13 A		14 A		1 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	2968 VA	100.00%	2968 VA		
				Total Conn. Load:	2968 VA
				Total Est. Demand:	2968 VA
				Total Conn. Current:	8 A
				Total Est. Demand Current:	8 A

Branch Panel: 5CEXF
Location: MECH ROOM A5021
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	6
7	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	8
9	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	12
13	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	14
15	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	16
17	EXST LOAD	20 A	1					0 VA	96 VA	1	20 A	CP-GX38	18
19	EXST LOAD	20 A	1	0 VA	936 VA					1	20 A	CP-AC26	20
21	EXST LOAD	20 A	1			0 VA	936 VA			1	20 A	CP-TU-AC26	22
23	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	SPARE	24
25	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	26
27	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	28
29	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	30
31	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	32
33	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	34
35	SPACE ONLY	--	--					0 VA	0 VA	--	--	SPACE ONLY	36
			Total Load:	936 VA		936 VA		96 VA					
			Total Amps:	9 A		9 A		1 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	1968 VA	100.00%	1968 VA		
				Total Conn. Load:	1968 VA
				Total Est. Demand:	1968 VA
				Total Conn. Current:	5 A
				Total Est. Demand Current:	5 A

Branch Panel: 5CEXDA
Location: MECH ROOM A5005
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	SPACE ONLY	--	--	0 VA	0 VA					--	--	SPACE ONLY	2
3	SPACE ONLY	--	--			0 VA	0 VA			--	--	SPACE ONLY	4
5	CP-AC29	20 A	1					1256 VA	0 VA	--	--	SPACE ONLY	6
7	CP-TU-AC29A	20 A	1	1256 VA	0 VA					1	20 A	SPARE	8
9	CP-GX44	20 A	1			96 VA	0 VA			1	20 A	SPARE	10
11	--	--	--					0 VA	0 VA	1	20 A	EXST LOAD	12
13	SPARE	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	14
15	SPARE	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	16
17	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	18
19	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	20
21	SPARE	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	22
23	SPARE	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	24
25	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	26
27	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	28
29	SPACE ONLY	--	--					0 VA	0 VA	1	20 A	SPACE ONLY	30
			Total Load:	1256 VA		96 VA		1256 VA					
			Total Amps:	12 A		1 A		12 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	2608 VA	100.00%	2608 VA		
				Total Conn. Load:	2608 VA
				Total Est. Demand:	2608 VA
				Total Conn. Current:	7 A
				Total Est. Demand Current:	7 A

Branch Panel: 5CEXC
Location: MECH ROOM A5005
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 14kA
OC Device Type: MLO
Mains Rating: 250 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	6
7	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	8
9	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	10
11	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	12
13	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	SPARE	14
15	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	16
17	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	SPARE	18
19	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	20
21	EXST LOAD	20 A	1			0 VA	816 VA			1	20 A	CP-TU-AC28	22
23	EXST LOAD	20 A	1					0 VA	1260 VA	1	20 A	CP-AC28	24
25	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	SPARE	26
27	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	28
29	CP-TU-AC28	20 A	1					1260 VA	0 VA	1	20 A	EXST LOAD	30
31	--	--	--	0 VA	0 VA					1	20 A	SPARE	32
33	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	34
35	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	36
37	EXST LOAD	20 A	1	0 VA	0 VA					1	20 A	SPARE	38
39	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	SPARE	40
41	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	SPARE	42
			Total Load:	0 VA		816 VA		2520 VA					
			Total Amps:	0 A		8 A		22 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	3336 VA	100.00%	3336 VA		
				Total Conn. Load:	3336 VA
				Total Est. Demand:	3336 VA
				Total Conn. Current:	9 A
				Total Est. Demand Current:	9 A

Branch Panel: 5CEXE
Location: MECH ROOM A5021
Supply From:
Mounting: Surface
Enclosure: Indoor
Volts: 120/208 Wye
Wiring: 3P,4W
Bus SC Rating: 10kA
OC Device Type: MLO
Mains Rating: 225 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	SPARE	20 A	1	0 VA	0 VA					1	20 A	EXST LOAD	2
3	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	4
5	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	6
7	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	8
9	CP-AC27	20 A	1			1336 VA	0 VA			1	20 A	SPARE	10
11	CP-TU-AC27	20 A	1					1376 VA	0 VA	1	20 A	SPARE	12
13	CP-GX40	20 A	1	96 VA	0 VA					1	20 A	EXST LOAD	14
15	--	--	--			0 VA	0 VA			1	20 A	EXST LOAD	16
17	EXST LOAD	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	18
19	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	20
21	EXST LOAD	20 A	1			0 VA	0 VA			1	20 A	EXST LOAD	22
23	SPARE	20 A	1					0 VA	0 VA	1	20 A	EXST LOAD	24
25	EXST LOAD	20 A	1	0 VA	0 VA					3	100 A	EXST '5CEX1'	26
27	EXST LOAD	20 A	1			0 VA	0 VA			--	--	--	28
29	EXST LOAD	20 A	1					0 VA	0 VA	--	--	--	30
			Total Load:	96 VA		1336 VA		1376 VA					
			Total Amps:	1 A		13 A		13 A					

Notes:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	2808 VA	100.00%	2808 VA		
				Total Conn. Load:	2808 VA
				Total Est. Demand:	2808 VA
				Total Conn. Current:	8 A
				Total Est. Demand Current:	8 A

GENERAL SHEET NOTES

A THE DISTRIBUTION EQUIPMENT IS EXISTING, UNO.
B WIRE ALL NEW LOADS TO EXISTING SPARE CIRCUIT BREAKERS, UNLESS NOTED AS NEW IN THE PANEL SCHEDULE "NOTES" SECTION.

KEYNOTES

1 NO RECENT LOAD INFORMATION WAS AVIALABLE. WE CALCULATED WORSE CASE SCENARIO BASED UPON 80% LOADING OF EACH CIRCUIT BREAKER, RECEPTACLE DEMAND WAS USED WHERE APPLICABLE.
2 CONTRACTOR SHALL PROVIDE A 72HR LOAD MEASUREMENT OF EXISTING PANELBOARD. THE METERING SHALL OCCUR ON MONDAY-WEDNESDAY. PROVIDE THE RESULTS TO THE COR AND AE FOR REVIEW PRIOR TO THE COMMENCEMENT OF PANEL RENOVATION.

LOAD SUMMARY 4CEXA1

(1)
SERVICE RATING: 100A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 0 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 24.96 kVA
ESTIMATED LOAD: 24.96 kVA
ADDED LOAD: 2.648 kVA
NET LOAD: 27.608 kVA (77A)
NET BUSS LOAD: 77%

LOAD SUMMARY 4CEXD

(1)
SERVICE RATING: 175A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 17.28 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 5.67 kVA
ESTIMATED LOAD: 19.31 kVA
ADDED LOAD: 2.34 kVA
NET LOAD: 21.65 kVA (60A)
NET BUSS LOAD: 34%

LOAD SUMMARY 4CEXC

(1)
SERVICE RATING: 150A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 23.04 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 18.688 kVA
ESTIMATED LOAD: 35.208 kVA
ADDED LOAD: 2.968 kVA
NET LOAD: 38.176 kVA (106A)
NET BUSS LOAD: 71%

LOAD SUMMARY 5CEXF

(1)
SERVICE RATING: 100A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 11.52 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 3.84 kVA
ESTIMATED LOAD: 14.6 kVA
ADDED LOAD: 1.968 kVA
NET LOAD: 16.568 kVA (46A)
NET BUSS LOAD: 46%

LOAD SUMMARY 5CEXDA

(1)
SERVICE RATING: 125A @ 208VAC 3P
METERED LOAD: 0 kVA
REC. LOAD: 19.2 kVA
LIGHTING LOAD: 0 kVA
NONCON. LOAD: 9.6 kVA
ESTIMATED LOAD: 24.2 kVA
ADDED LOAD: 2.608 kVA
NET LOAD: 26.808 kVA (74A)
NET BUSS LOAD: 60%

LOAD SUMMARY 5CEXC

(1) SERVICE RATING: 125A @ 208VAC 3P
(1) METERED LOAD: 0 kVA
(2) REC. LOAD: 21.12 kVA
(2) LIGHTING LOAD: 0 kVA
(2) NONCON. LOAD: 17.28 kVA
(2) ESTIMATED LOAD: 32.04 kVA
(2) ADDED LOAD: 3.336 kVA
(2) NET LOAD: 35.176 kVA (100A)
(2) NET BUSS LOAD: 80%

LOAD SUMMARY 5CEXE

(1) SERVICE RATING: 200A @ 208VAC 3P
(1) METERED LOAD: 0 kVA
(2) REC. LOAD: 38.4 kVA
(2) LIGHTING LOAD: 0 kVA
(2) NONCON. LOAD: 42.24 kVA
(2) ESTIMATED LOAD: 80.44 kVA
(2) ADDED LOAD: 2.808 kVA
(2) NET LOAD: 69.248 kVA (192A)
(2) NET BUSS LOAD: 96%

PANEL INDEX

4CEXA1	4CEXD	4CEXC
	5CEXF	
5CEXDA	5CEXC	5CEXE

Revisions:	Date:		

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: PANEL SCHEDULES - FOURTH AND FIFTH FLOORS
Approved:
Phase: ISSUED FOR CONSTRUCTION
FULLY SPRINKLERED
Project Title: ENERGY MANAGEMENT CONTROLS INTEGRATION 1
Location: 3350 La Jolla Village Dr, San Diego, CA 92161
Issue Date: 02/13/2019
Checked: M. PERKINS
Drawn: F. CLARK
Project Number: 664-18-320
Building Number: 1
Drawing Number: 1E-703

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