

FULTON RECEPTION AND DIAGNOSTIC CENTER BACKUP POWER EQUIPMENT REPLACEMENT

Fulton, Missouri



HENDERSON

ENGINEERS

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EXPIRES 10/31/2025

SHEET LIST

G000	COVER SHEET
S000	STURCTURAL GENERAL NOTES
S001	STRUCTURAL GENERAL NOTES
S002	STRUCTURAL GENERAL NOTES
S100	STRUCTURAL PLAN - BUILDING C
P201.C	PLUMBING PLAN - BUILDING C
E000	ELECTRICAL LEGEND
E001	ELECTRICAL GENERAL NOTES
DE201.C	POWER DEMO PLAN - BUILDING C
DE800	ELECTRICAL DEMO ONELINE
E100	ELECTRICAL PLAN - OVERALL
E201.C	POWER PLAN - BUILDING C
E600	PANELBOARD SCHEDULES
E800	GENERAL POWER ONELINE
E801	EMERGENCY POWER ONELINE
E900	ELECTRICAL DETAILS

OWNER:

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

PROJECT
MANAGEMENT:

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION



DESIGNER:

HENDERSON ENGINEERS

PROJECT NUMBER:

C2415-01

SITE NUMBER:

7010

FACILITY NUMBER:

9327010027

SHEET NUMBER:

GENERAL NOTES

I. DESIGN CRITERIA

A. GENERAL BUILDING CODE

1. THE CONSTRUCTION DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2015 WITH CITY OF FULTON AMENDMENTS.

B. STRUCTURE RISK CATEGORY: III

C. DEAD LOADS

1. BASED ON EQUIPMENT SELF-WEIGHT
A) GENERATOR:
B) DIESEL TANK

D. LIVE LOADS

1. DESIGN CONSIDERS A UNIFORM LIVE LOAD FOR MAINTENANCE ACCESS OF 40 PSF

E. WIND LOADS

1. WIND PRESSURES ARE BASED ON THE PROVISIONS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-10 AND THE FOLLOWING CRITERIA:
A. BASIC DESIGN WIND SPEED (V): 120 MPH (3 SECOND GUST)
B. NOMINAL DESIGN WIND SPEED (VASD): 93 MPH (3-SECOND GUST)
C. WIND EXPOSURE CATEGORY: C
D. INTERNAL PRESSURE COEFFICIENT (GCPi): +0.18/-0.18

2. WIND PRESSURES USED FOR THE DESIGN OF EQUIPMENT ARE SHOWN IN THE FOLLOWING TABLE:

LOAD TYPE	WIND LOAD (PSF)
LATERAL	±26.6
UPLIFT	-38.3

NOTES:
A. PRESSURES ACT NORMAL TO THE SURFACE. POSITIVE PRESSURES ACT TOWARDS THE SURFACE AND NEGATIVE PRESSURES ACT AWAY FROM THE SURFACE.

F. SEISMIC DESIGN CRITERIA

1. THE STRUCTURE AND COMPONENTS OF THE BUILDING HAVE BEEN DESIGNED IN ACCORDANCE WITH AFOREMENTIONED BUILDING CODE WITH THE FOLLOWING CRITERIA:
A. SEISMIC IMPORTANCE FACTOR, I: 1.25
B. 0.2 SEC. SPECTRAL ACCELERATION (SS): 0.193G
C. 1 SEC. SPECTRAL ACCELERATION (S1): 0.103G
D. SITE CLASS: D
E. SEISMIC IMPORTANCE FACTOR FOR COMPONENTS, I_c: 1.0
F. 0.2 SEC SPECTRAL RESPONSE COEFF. (SDS): 0.206G
G. 1 SEC SPECTRAL RESPONSE COEFF. (SD1): 0.164g
H. SEISMIC DESIGN CATEGORY: C

II. SCOPE OF WORK

A. GENERAL

1. SCOPE OF WORK INCLUDES THE DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING CONDITIONS PROVIDED BY OWNER.

2. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR, TOOLS, SUPPLIES, PERMITS, EQUIPMENT, TRANSPORTATION, SUPERINTENDENCE, BARRICADES, TEMPORARY CONSTRUCTION OF EVERY NATURE, INSURANCE, TAXES, CONTRIBUTIONS AND ALL SERVICES AND FACILITIES, UNLESS SPECIFICALLY EXCEPTED, AND INSTALL/REMOVE ALL MATERIALS, ITEMS, AND EQUIPMENT REQUIRED TO COMPLETE THE DEMOLITION AND CONSTRUCTION OF THE PROJECT, AS SET FORTH IN THE CONTRACT DOCUMENTS.

3. COOPERATE WITH THE OWNER'S REPRESENTATIVE IN ALL CONSTRUCTION OPERATIONS TO MINIMIZE CONFLICT AND TO FACILITATE OWNER USAGE.

4. CONTRACTOR ACKNOWLEDGES BY SUBMITTING A BID OR PROPOSAL TO PERFORM THE SPECIFIED WORK, THAT THE CONTRACTOR HAS VISITED AND INSPECTED THE PROJECT SITE IN WHICH THE WORK IS TO BE PERFORMED, AND IS SATISFIED AS TO THE NATURE AND LOCATION OF THE WORK, INCLUDING ANY OBSTRUCTIONS, AMOUNT OF WORK, ACTUAL LEVELS, THE EQUIPMENT AND FACILITIES NEEDED PRELIMINARY TO AND DURING THE EXECUTION OF THE WORK, AND ALL OTHER MATTERS WHICH CAN IN ANY WAY AFFECT THE WORK OR THE COST THEREOF UNDER THIS CONTRACT.

5. FAILURE BY CONTRACTOR TO HAVE BECOME ACQUAINTED WITH AVAILABLE INFORMATION CONCERNING SITE CONDITIONS, INCLUDING FACTORS AFFECTING COSTS AND LIABILITIES, SHALL NOT RELIEVE CONTRACTOR OF RESPONSIBILITY FOR PERFORMANCE OF WORK IN ACCORDANCE WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS, AND FOR AMOUNT OF CONSIDERATION NAMED OR OTHERWISE DETERMINED.

6. WHEN CONTRACTOR ENCOUNTERS A CONDITION REQUIRING FURTHER INFORMATION OR A CLARIFICATION, CONTRACTOR SHALL SUBMIT TO ENGINEER A WRITTEN REQUEST FOR INFORMATION (R.F.I.) NUMBERED SEQUENTIALLY. ENGINEER WILL RESPOND IN WRITING TO ALL R.F.I.s

III. SELECTIVE DEMOLITION

A. DEFINITIONS

1. REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF-SITE, UNLESS INDICATED TO BE REMOVED AND SALVAGED OR REMOVED AND REINSTALLED.

2. REMOVE AND SALVAGE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND DELIVER THEM TO OWNER READY FOR REUSE. OWNER TO IDENTIFY ITEMS TO BE REUSED OR SALVAGED.

3. EXISTING TO REMAIN: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, REMOVED AND SALVAGED, OR REMOVED AND REINSTALLED.

B. MATERIAL OWNERSHIP

1. EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE REUSED, SALVAGED, OR OTHERWISE INDICATED TO REMAIN OWNER'S PROPERTY, DEMOLISHED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY, AND SHALL BE REMOVED FROM PROJECT SITE. THE MATERIALS REMOVED SHALL BE DISPOSED OF IN A PROPER AND LEGAL MANNER PER FEDERAL, STATE AND LOCAL REGULATIONS.

C. QUALITY ASSURANCE

1. DEMOLITION FIRM QUALIFICATIONS: AN EXPERIENCED FIRM THAT HAS SPECIALIZED IN DEMOLITION WORK SIMILAR IN MATERIAL AND EXTENT TO THAT INDICATED FOR THIS PROJECT.

2. REGULATORY REQUIREMENTS: COMPLY WITH GOVERNING OWNER, LOCAL, STATE, FEDERAL, AND EPA NOTIFICATIONS AND REGULATIONS BEFORE BEGINNING SELECTIVE DECONSTRUCTION / DEMOLITION. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.

3. CONTRACTOR SHALL PHOTO DOCUMENT EXISTING CONDITIONS OF THE BUILDING AND ADJOINING PROPERTIES. PHOTOS SHALL BE SUBMITTED TO OWNER AND ENGINEER OF RECORD PRIOR TO DECONSTRUCTION /DEMOLITION.

D. PROJECT CONDITIONS

1. CONDUCT SELECTIVE DEMOLITION SO OWNER'S OPERATIONS WILL NOT BE DISRUPTED. PROVIDE NOT LESS THAN 72-HOUR NOTICE TO OWNER OF ACTIVITIES THAT WILL AFFECT OWNER'S OPERATIONS.

2. MAINTAIN ACCESS TO EXISTING WALKWAYS, CORRIDORS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT WALKWAYS, CORRIDORS, OR OTHER OCCUPIED OR USED FACILITIES WITHOUT WRITTEN PERMISSION FROM AUTHORITIES HAVING JURISDICTION.

3. OWNER ASSUMES NO RESPONSIBILITY FOR CONDITION OF AREAS TO BE SELECTIVELY DEMOLISHED.

A. CONDITIONS EXISTING AT TIME OF INSPECTION FOR BIDDING PURPOSE WILL BE MAINTAINED BY OWNER AS FAR AS PRACTICAL.

B. BEFORE SELECTIVE DEMOLITION, OWNER WILL REMOVE ITEMS WITHIN SPACE AS NEEDED.

4. IF MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB; IMMEDIATELY NOTIFY ENGINEER AND OWNER. THESE MATERIALS SHALL BE REMOVED AND DISPOSED OF AS APPROVED BY THE AUTHORITIES HAVING JURISDICTION.

5. STORAGE OR SALE OF REMOVED ITEMS OR MATERIALS ON-SITE WILL NOT BE PERMITTED.

6. UTILITY SERVICE: MAINTAIN EXISTING UTILITIES INDICATED TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. MAINTAIN FIRE-PROTECTION FACILITIES IN SERVICE DURING SELECTIVE DEMOLITION.

7. PROTECT ADJACENT PAVING (ASPHALT OR CEMENT ROADWAYS, SEWERS, ETC.) AND DRAINAGE DITCHES AS NEEDED.

8. ALL AREAS OUTSIDE OF DEMOLITION SCOPE TO BE PROTECTED FROM DAMAGE BY CONTRACTOR. RESTORE AREAS SUBJECT TO DAMAGE TO THEIR PRE-DEMOLITION CONDITION.

E. UTILITY SERVICES

1. MAINTAIN EXISTING UTILITIES IN SERVICE. CONTRACTOR SHALL COORDINATE WITH OWNER IF ANY INTERRUPTION OF EXISTING UTILITIES ARE REQUIRED. CONTRACTOR SHALL NOT COMMENCE WORK WHICH MAY IMPACT EXISTING UTILITIES UNLESS THE OWNER APPROVES IN WRITING A PLANNED INTERRUPTION OF EXISTING UTILITIES.

F. PREPARATION

1. DANGEROUS MATERIALS: DRAIN, PURGE, OR OTHERWISE REMOVE, COLLECT, AND DISPOSE OF CHEMICALS, GASES, EXPLOSIVES, ACIDS, FLAMMABLES, OR OTHER DANGEROUS MATERIALS BEFORE PROCEEDING WITH SELECTIVE DEMOLITION.

A. PROTECT EXISTING SITE IMPROVEMENTS, APPURTENANCES, AND LANDSCAPING TO REMAIN.

B. ERECT A PLAINLY VISIBLE FENCE AROUND DRIP LINE OF INDIVIDUAL TREES OR AROUND PERIMETER DRIP LINE OF GROUPS OF TREES TO REMAIN.

2. CONTRACTOR SHALL MAINTAIN ACCESS TO EXITS AND EXIT STAIRS AT ALL TIMES. FIRE ALARMS AND SMOKE DETECTION SYSTEM SHALL REMAIN OPERATIONAL AT ALL TIMES. PROTECT SMOKE DETECTORS AS REQUIRED AND IN CONFORMANCE TO LOCAL CODES, REGULATIONS, AND LOCAL AUTHORITIES HAVING JURISDICTION.

3. TEMPORARY FACILITIES: PROVIDE TEMPORARY BARRICADES AND OTHER PROTECTION REQUIRED TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN.

A. PROVIDE PROTECTION TO ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA AND TO AND FROM OCCUPIED PORTIONS OF ADJACENT FACILITIES.

4. CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL AND PEDESTRIAN CONTROL MEASURES AS REQUIRED.

5. CONTRACTOR SHALL COORDINATE WITH OWNER IF ANY REMOVAL OF LANDSCAPE IS REQUIRED.

6. TEMPORARY PARTITIONS: ERECT AND MAINTAIN DUSTPROOF PARTITIONS AND TEMPORARY ENCLOSURES TO LIMIT DUST AND DIRT MIGRATION AND TO SEPARATE AREAS FROM FUMES AND NOISE.

G. POLLUTION CONTROLS

1. CONDUCT DEMOLITION WASTE DISPOSAL OPERATIONS IN COMPLIANCE WITH LOCAL LAWS AND ORDINANCES. COMPLY FULLY WITH FEDERAL AND LOCAL ENVIRONMENTAL AND ANTI-POLLUTION REGULATIONS.

H. EXISTING MASTIC, WATERPROOFING, AND ROOFING

1. CONTRACTOR SHALL FIELD VERIFY THE PRESENCE OR ABSENCE OF EXISTING CONCEALED MASTIC, WATERPROOFING, AND ROOFING. REPORT THE PRESENCE OF EXISTING CONCEALED MASTIC, WATERPROOFING, AND ROOFING TO THE OWNER.

2. OWNER WILL BE RESPONSIBLE FOR TESTING ANY EXISTING CONCEALED MASTIC, WATERPROOFING, AND ROOFING FOR THE PRESENCE OF HAZARDOUS MATERIALS. ABATEMENT AND/OR REMEDIATION OF HAZARDOUS MATERIALS IS NOT PART OF THE CONTRACTOR'S SCOPE OF SERVICES WITHIN THESE DOCUMENTS.

I. EXECUTION OF SELECTIVE DEMOLITION

1. GENERAL: DEMOLISH EXISTING CONSTRUCTION AS INDICATED. USE METHODS REQUIRED TO COMPLETE THE WORK WITHIN LIMITATIONS OF GOVERNING REGULATIONS AND AS FOLLOWS:

A. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION TO REMAIN OR ADJOINING CONSTRUCTION.

B. DO NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CONCEALED SPACES, VERIFY CONDITION AND CONTENTS OF HIDDEN SPACES BEFORE STARTING FLAME-CUTTING OPERATIONS. MAINTAIN FIRE WATCH AND PORTABLE FIRE-SUPPRESSION DEVICES DURING FLAME-CUTTING OPERATIONS.

C. MAINTAIN ADEQUATE VENTILATION WHEN USING CUTTING TORCHES.

D. REMOVE DECAYED, VERMIN-INFESTED, OR OTHERWISE DANGEROUS OR UNSUITABLE MATERIALS AND PROMPTLY DISPOSE OF OFF-SITE.

E. LOCATE SELECTIVE DEMOLITION EQUIPMENT AND REMOVE DEBRIS AND MATERIALS SO AS NOT TO IMPOSE EXCESSIVE LOADS ON SUPPORTING WALLS, SLABS, OR FRAMING.

F. DISPOSE OF DEMOLISHED ITEMS AND MATERIALS PROMPTLY.

2. EXISTING FACILITIES: COMPLY WITH OWNER'S REQUIREMENTS FOR USING AND PROTECTING OTHER BUILDING FACILITIES DURING SELECTIVE DEMOLITION OPERATIONS.

3. REMOVED AND SALVAGED ITEMS: COMPLY WITH THE FOLLOWING:
A. CLEAN SALVAGED ITEMS.
B. STORE ITEMS IN A SECURE AREA UNTIL DELIVERY TO OWNER.
C. TRANSPORT ITEMS TO OWNER'S STORAGE AREA AS DESIGNATED BY OWNER.

4. EXISTING ITEMS TO REMAIN: CONTRACTOR TO COORDINATE WITH OWNER (PRIOR TO BEGINNING WORK) ON ITEMS THAT ARE TO REMAIN AND HENCE BE PROTECTED DURING THE DEMOLITION PROCESS. WHEN PERMITTED BY OWNER, ITEMS MAY BE REMOVED TO A SUITABLE AND/OR PROTECTED LOCATION.

5. CONCRETE SLABS-ON-GRADE: SAW-CUT PERIMETER OF AREA TO BE DEMOLISHED, THEN BREAK UP AND REMOVE.

J. DISPOSAL OF WASTE AND DEMOLISHED MATERIALS

1. PROVIDE A PLAN FOR THE COLLECTION AND DISPOSAL OF WASTE MATERIALS ON THE SITE. DESIGNATE LOCATIONS FOR TRASH AND WASTE RECEPTACLES AND ESTABLISH A COLLECTION SCHEDULE. SPECIFY AND CARRY OUT METHODS FOR ULTIMATE DISPOSAL OF WASTE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL HEALTH AND SAFETY REGULATIONS. MAKE SPECIAL PROVISIONS FOR THE COLLECTION AND DISPOSAL OF LIQUID WASTES AND TOXIC OR HAZARDOUS MATERIALS.

2. GENERAL: PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE.

3. BURNING: DO NOT BURN DEMOLISHED MATERIALS.

4. KEEP RECEPTACLES AND OTHER WASTE COLLECTION AREAS NEAT AND ORDERLY. DO NOT ALLOW WASTE TO OVERFLOW ITS CONTAINER OR ACCUMULATE FOR EXCESSIVELY LONG PERIODS OF TIME. LOCATE TRASH COLLECTION POINTS WHERE THEY WILL LEAST LIKELY BE AFFECTED BY STORM WATER RUNOFF.

5. DISPOSAL: TRANSPORT DEMOLISHED MATERIALS OFF OWNER'S PROPERTY AND LEGALLY DISPOSE OF THEM.

IV. FOUNDATION

A. GEOTECHNICAL REPORT

1. FOUNDATION DESIGN IS BASED ON THE PRESUMPTIVE LOAD-BEARING VALUES SPECIFIED IN THE IBC TABLE 1806.2.
A. SOIL ALLOWABLE VERTICAL PRESSURE: 1,500 PSF.

V. BUILDING EARTHWORK

A. CLEARING AND GRUBBING

1. REMOVE TREES, BRUSH AND STUMPS WITHIN THE CONSTRUCTION WORK LIMITS FROM THE WORK SITE.

2. CLEARING AND GRUBBING BEYOND CONSTRUCTION LIMITS FOR THE CONTRACTOR'S CONVENIENCE SHALL BE PREAPPROVED BY THE OWNER AND PERFORMED AT NO COST ADDITIONAL COST TO THE OWNER.

3. REMOVE STUMPS, ROOTS AND BURIED LOGS IN AREAS OF EXCAVATION OR FILL TO A DEPTH OF 1 FT BELOW DESIGN OR EXISTING GROUND SURFACE.

4. REMOVE GRASS AND OTHER VEGETATIVE COVER FROM AREAS TO BE EXCAVATED OR FILLED.

5. REMOVE MATERIAL THAT MAY INTERFERE WITH THE PROPOSED WORK, INCLUDING UNUSABLE MATERIALS, DISTURBED SOILS AND/OR OBJECTIONABLE MATERIAL AS DIRECTED BY ENGINEER.

6. STOCK PILE TOP SOIL FOR REUSE.

B. TRENCHING AND EXCAVATION

1. NOTIFY UTILITY COMPANIES AND OWNER OF INTENT TO EXCAVATE AND REQUEST SUBGRADE UTILITY IDENTIFICATION MARKING.

2. EXCAVATE EXISTING SUBGRADE EARTH TO DEPTHS INDICATED ON THE DRAWINGS.

3. ENGINEER WILL INSPECT AND APPROVE FOUNDATION SOIL PRIOR TO PLACEMENT OF FILL.

4. SHORE TRENCHING AND EXCAVATIONS IN STABLE SOILS DEEPER THAN 5 FT. ADDITIONALLY SHORE ALL TRENCHING AND EXCAVATIONS IN UNSTABLE SOILS. SLOPED OR STEPPED-BACKED EXCAVATION MEETING OSHA 29 CFR 1926 SUBPART "P" MAY BE USED INSTEAD OF SHORING. SHORING, SLOPED EXCAVATION, AND STEPPED-BACKED EXACTION SHALL BE DESIGNED BY THE CONTRACTOR. SHORING, SLOPED EXCAVATION, AND STEPPED-BACKED EXACTION BEYOND THE PRESCRIPTIVE LIMITS OF OSHA 29 CFR 1926 SUBPART "P" SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER.

5. THE SHORING CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS OF THE SHORING TO THE ENGINEER FOR REVIEW BEFORE EXECUTING THE INSTALLATION. THE SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

C. DEWATERING

1. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. REMOVE WATER TO PREVENT SOIL CHANGES DETRIMENTAL TO STABILITY OF THE EXCAVATION. PROVIDE AND MAINTAIN PUMPS, WELL POINTS, SUMPS, SUCTION AND DISCHARGE LINES, AND OTHER DEWATERING SYSTEM COMPONENTS NECESSARY TO CONVEY WATER AWAY FROM EXCAVATIONS.

2. MAINTAIN THE WORK REASONABLY FREE OF WATER. CONTROL SHALL BE ACCOMPLISHED IN A MANNER THAT WILL PRESERVE THE STRENGTH OF THE SUBGRADE AND BACKFILL, NOT CAUSE INSTABILITY OF SLOPES AND NOT RESULT IN DAMAGE TO EXISTING FACILITIES OR CONTAMINATION OF WATER.

3. REMEDIATE CONTAMINATION OF WATER RESULTING FROM CONSTRUCTION ACTIVITIES ON THE PROJECT AT NO COST TO THE OWNER.

4. PREVENT SURFACE WATER AND SUBSURFACE OR GROUND WATER FROM FLOWING INTO EXCAVATIONS AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA.

5. NO CONCRETE SHALL BE PLACED AGAINST A FINAL PREPARED SUBGRADE CONTAINING FREE WATER, ICE, FROST, MUD, OR OTHER UNSUITABLE MATERIAL.

6. REMOVE TEMPORARY DEWATERING SYSTEMS IN A MANNER SO AS NOT TO CONTAMINATE WATER AND RESTORE CHANNEL AREA TO A CONDITION SIMILAR TO EXISTING, AFTER THE WORK IS COMPLETE.

D. SOIL PREPARATION

1. SCARIFY THE TOP 6 IN. OF THE SUBGRADE BELOW BOTTOM OF THE FOOTINGS.

2. REMOVE ALL UNSUITABLE MATERIALS AND SOFT SPOTS AND REPLACE WITH SELECT FILL.

3. RETURN OVER-EXCAVATION BEYOND THE SPECIFIED LIMITS TO GRADE AT NO COST TO THE OWNER.

4. CORRECT GRADING THAT RESULTS IN STANDING WATER AT NO COST TO THE OWNER.

E. SOIL MATERIALS

1. GENERAL SOIL MATERIALS:

A. SATISFACTORY SOIL MATERIALS: SATISFACTORY SOIL MATERIALS ARE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, MH, ML, OH, PT, AND SC.

B. UNSATISFACTORY SOIL MATERIALS: UNSATISFACTORY SOIL MATERIALS ARE DEFINED AS THOSE COMPLYING WITH ASTM D2487 SOIL CLASSIFICATION GROUPS CH, CL, GC, ML, MH, OH, PT, AND SC.

C. USE OF ON-SITE MATERIALS: ON-SITE MATERIALS MAY BE USED FOR FILL AND BACKFILL ONLY WHEN APPROVED BY THE OWNER'S TESTING LABORATORY AS A SATISFACTORY SOIL MATERIAL. UNSATISFACTORY MATERIALS SHALL BE HAULED OFF AND DISPOSED.

D. APPROVAL: ALL SOIL MATERIALS USED FOR THE PROJECT SHALL BE APPROVED BY THE OWNER'S TESTING LABORATORY PRIOR TO HAULING OR PLACEMENT. SOIL MATERIALS USED FOR FILL AND BACKFILL SHALL BE RETESTED AND REAPPROVED EACH TIME THE SOURCE OR CHARACTER OF THE MATERIAL CHANGES.

2. SELECT STRUCTURAL FILL SHALL CONFORM TO ONE OF THE FOLLOWING:

A. SANDY CLAY OR CLAYEY SAND HAVING A PLASTICITY INDEX BETWEEN 8 AND 20 AND A LIQUID LIMIT NOT EXCEEDING 35. MATERIAL SHALL BE FREE OF DEBRIS, ROOTS, VEGETATION, ORGANIC MATTER AND ALL OTHER DELETERIOUS SUBSTANCES AND FREE OF ROCK OR GRAVEL GREATER THAN 2 IN. IN ANY DIMENSION.

B. SATISFACTORY SOIL MATERIAL AS DEFINED ABOVE FREE OF CLAY, ROCK, OR GRAVEL LARGER THAN 2 IN. (50MM) IN ANY DIMENSION AND FREE OF DEBRIS, ROOTS, VEGETATION, WASTE AND ALL OTHER DELETERIOUS MATERIALS.

F. FILLING/BACKFILLING AND COMPACTION

1. LEVEL SOIL SURFACE PRIOR TO PLACING FIRST LAYER OF FILL/BACKFILL.

2. COMPACTION OF SOIL SURFACE SHALL BE CONSIDERED SATISFACTORY WHEN THE CONTRACTOR IS CAPABLE OF ACHIEVING SPECIFIED COMPACTION OF 95% MAXIMUM STANDARD DRY DENSITY FOR THE FIRST LAYER OF FILL/BACKFILL.

3. PROTECT SOILS AND/OR FILL/BACKFILL SOILS FROM DETRIMENTAL DRYING.

4. SCARIFY SURFACES TO RECEIVE FILL/BACKFILL TO ENSURE PROPER BONDING. WHEN THE SURFACE CAN BE PENETRATED BY TAMPING ROLLER FT, ADDITIONAL SCARIFICATION IS USUALLY NOT NECESSARY.

5. MECHANICALLY COMPACT FILL/BACKFILL MATERIALS IN LIFTS.

6. PLACE FILL MATERIALS IN 8-IN. LOOSE LIFTS.

VI. REINFORCED CONCRETE

A. CLASSES OF CONCRETE

1. ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE "CLASSES OF CONCRETE MATRIX" BELOW:

CLASSES OF CONCRETE MATRIX						
LOCATION	COMP STRENGTH, PSI	TYPE	EXPOSURE CLASS	MAX W/C RATIO	AIR CONTENT	MAX AGG. SIZE (IN)
ALL	5,000	NWC	F2,S2,W2,C2	0.45	6%	3/4

B. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS

1. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY CONCRETE POURS UNLESS SHOWN ON THE DRAWINGS. THE ARCHITECT/ENGINEER SHALL APPROVE ALL DEVIATIONS OR ADDITIONAL JOINTS IN WRITING.

C. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60 UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THESE NOTES.

D. REINFORCEMENT IN HOUSEKEEPING PADS

1. PROVIDE MINIMUM REINFORCEMENT AS NOTED BELOW IN ALL HOUSEKEEPING PADS SUPPORTING MECHANICAL EQUIPMENT UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS.
A. WELDED SMOOTH WIRE REINFORCEMENT 6X6-W2.9XW2.9.
B. BLENDED MICRO AND MACRO SYNTHETIC FIBERS AT 5.0 POUNDS PER CUBIC YARD OF CONCRETE.
C. BLENDED MICRO SYNTHETIC FIBERS AND STEEL FIBERS AT 24 POUNDS PER CUBIC YARD OF CONCRETE.

E. REINFORCING STEEL COVERAGE

1. FOR CONCRETE CAST AGAINST SOIL USE A MINIMUM OF 3 INCH CLEAR COVER FOR THE REINFORCEMENT COVER. STRUCTURAL MEMBERS NOT SPECIFIED IN THE DETAILS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 UNLESS SPECIFIED OTHERWISE IN THE DRAWINGS. THE REINFORCING STEEL DETAILER SHALL ADJUST REINFORCING STEEL CAGE SIZES AT INTERSECTING STRUCTURAL MEMBERS AS REQUIRED TO ALLOW CLEARANCE FOR INTERSECTING REINFORCING BAR LAYERS WITH MINIMUM SPECIFIED COVER.

VII. CONCRETE FORMING

A. RESPONSIBILITY

1. THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL FORMS, SHORES, RESHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET CONCRETE IMBALANCE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, RESHORES, BACKSHORES, AND OTHER BRACING MAY BE SAFELY REMOVED.

B. FORM-FACING MATERIALS

1. SMOOTH FORMED FINISHED CONCRETE: UNLESS OTHERWISE SPECIFIED, FORMWORK FOR EXPOSED CONCRETE SURFACES SHALL CONSIST OF PLYWOOD, LUMBER, METAL, METAL FRAMED PLYWOOD, OR OTHER ACCEPTABLE SURFACE. FORMWORK SHALL PROVIDE A CONTINUOUS STRAIGHT AND ROUGH SURFACE FINISH TO MATCH THE EXISTING CONCRETE FINISH. FORM MATERIAL SHALL HAVE SUFFICIENT THICKNESS TO WITHSTAND PRESSURE OF CONCRETE WITHOUT BOW OR DEFLECTION. PLYWOOD SHALL BE EXTERIOR GRADE PLYWOOD PANELS, SUITABLE FOR CONCRETE FORMS, COMPLYING WITH U.S. PRODUCT STANDARD PS-1, EACH PIECE BEARING A LEGIBLE INSPECTION TRADEMARK. LUMBER SHALL BE DRESSED ON AT LEAST TWO EDGES AND ONE SIDE FOR TIGHT FIT. THE MINIMUM GRADE SHALL BE B-C, EXTERIOR GRADE.]

2. ROUGH FORMED FINISHED CONCRETE: UNLESS OTHERWISE SPECIFIED, THE FINISH FOR FORMED SURFACES SHALL BE ROUGH-FORM FINISH CONSTRUCTED WITH PLYWOOD, LUMBER, METAL, OR OTHER ACCEPTABLE MATERIAL. LUMBER SHALL BE DRESSED ON AT LEAST TWO EDGES AND ONE SIDE FOR TIGHT FIT. THE MINIMUM GRADE SHALL BE B-C, EXTERIOR GRADE.

C. FORMWORK COATINGS

1. FORMWORK COATINGS SHALL BE OF A COMMERCIAL FORMULATION THAT WILL NOT BOND WITH, STAIN, NOR ADVERSELY AFFECT CONCRETE SURFACES OR IMPAIR SUBSEQUENT TREATMENT OF CONCRETE SURFACES REQUIRING BOND OR ADHESION, NOR IMPEDE CURING WITH WATER OR CURING COMPOUNDS. PROVIDE A PRODUCT THAT HAS A MAXIMUM VOC (VOLATILE ORGANIC COMPOUNDS) OF 50 GL BUT NOT GREATER THAN THAT PERMITTED BY THE LOCAL GOVERNMENT AGENCY HAVING JURISDICTION IN THE AREA WHERE THE PROJECT IS LOCATED. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE ONE OF THE FOLLOWING:
A. SIKA CORPORATION; MASTERFINSH RL 211
B. EUCUD CHEMICAL; FORMSHIELD PURE
C. DAYTON SUPERIOR; CLEAN STRIP J1EF
D. UNITEK; FARM FRESH XL
E. US SPEC; EZKOTE GREEN

2. NAILS AND FASTENERS: USE ONLY GALVANIZED NAILS AND FASTENERS FOR SECURING FORMWORK IN STRUCTURES EXPOSED TO WEATHER OR UNCONDITIONED SPACES.

3. FORM TIES: FACTORY-FABRICATED AND DESIGNED TO RESIST LATERAL PRESSURE OF FRESH CONCRETE ON FORMS AND TO MINIMIZE SPALLING OF CONCRETE ON REMOVAL. PROVIDE REMOVABLE, GLASS-FIBER-REINFORCED PLASTIC, STAINLESS STEEL, OR GALVANIZED FORM TIES THAT WILL LEAVE NO CORRODIBLE METAL CLOSER THAN 1 1/2 IN. IN SURFACES THAT WILL BE EXPOSED TO WEATHER OR IN AN UNCONDITIONED SPACE IN THE FINAL STRUCTURE. THE



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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

BACKUP POWER EQUIPMENT
REPLACEMENT - FULTON
RECEPTION AND DIAGONSTIC
CORRECTIONAL CENTER

1393 ROUTE O
FULTON, MO 65251

PROJECT # C2415-01
SITE # 7010
FACILITY # 9327010027

REVISION: _____
DATE: _____
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ISSUE DATE: 09/26/2025

CAD DWG FILE:
DRAWN BY: RC
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SHEET TITLE:
GENERAL NOTES

GENERAL NOTES

GENERAL NOTES

4. TIES SHALL LEAVE HOLES NO LARGER THAN ONE IN. IN DIAMETER IN CONCRETE SURFACES WHEN THE ENDS OR END-FASTENERS ARE REMOVED. CHAMFER STRIPS: PROVIDE WOOD, METAL, PVC, OR RUBBER STRIPS, 3/4 IN. BY 3/4 IN., MINIMUM. 5. CARTON FORMS: CARTON FORMS SHALL BE MANUFACTURED USING CORRUGATED PAPER MATERIAL WITH A MOISTURE RESISTANT EXTERIOR SURFACE AND SPECIFICALLY DESIGNED FOR FOUNDATION SUPPORT. CARTON FORMS SHALL BE DESIGNED TO SUPPORT THE WET WEIGHT OF THE CONCRETE THAT IS SHOWN BY THE DETAILS TO BE PLACED ON TOP OF THE FORM, BUT THE WEIGHT ASSUMED SHALL NOT BE LESS THAN 600 POUNDS PER SQUARE FT. THE FORMS SHALL BE DESIGNED IN SUCH A WAY THAT THE BOTTOM OF THE FORM WILL COLLAPSE WHEN ACTED UPON BY UPWARD MOVEMENT OF THE SOIL. ACCEPTABLE CARTON FORMS MANUFACTURE IS SUREVOID PRODUCTS, INC. OR ENGINEER APPROVED EQUIVALENT. D. REMOVAL OF FORMS AND SUPPORTS 1. DETERMINING IN SITU STRENGTH OF CONCRETE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING AND CURING CONCRETE CYLINDERS, CURED UNDER FIELD CONDITIONS, FOR THE PURPOSE OF DETERMINING CONCRETE STRENGTH AT TIME OF FORM AND SHORE REMOVAL. SUCH CYLINDERS SHALL BE MADE BY THE CONTRACTOR AND TESTED BY THE CONTRACTOR'S TESTING AGENCY. ALTERNATIVELY, THE IN SITU STRENGTH OF CONCRETE MAY BE DETERMINED BY THE MATURITY METHOD FOLLOWING THE REQUIREMENTS OF ASTM C1074. 2. RECORDS OF WEATHER CONDITIONS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING RECORDS OF WEATHER CONDITIONS TO BE USED IN THE DECISION ON WHEN TO REMOVE FORMS. 3. FORMWORK NOT SUPPORTING CONCRETE: FORMWORK NOT SUPPORTING CONCRETE, SUCH AS SIDES OF COLUMNS, MAY BE REMOVED AFTER CUMULATIVELY (NOT NECESSARILY CONSECUTIVELY) CURING AT NOT LESS THAN 50°F FOR 12 HOURS AFTER PLACING CONCRETE, PROVIDED THE CONCRETE IS SUFFICIENTLY HARD SO AS NOT TO BE DAMAGED BY FORM REMOVAL OPERATIONS AND PROVIDED CURING AND PROTECTION OPERATIONS ARE MAINTAINED. IF AMBIENT AIR TEMPERATURES REMAIN BELOW 50°F, IF RETARDING AGENTS ARE USED, OR IF TYPE II AND TYPE V PORTLAND CEMENT IS USED, THEN THIS SPECIFIED MINIMUM PERIOD SHALL BE INCREASED AS REQUIRED TO SAFELY REMOVE THE FORMS WITHOUT DAMAGE TO THE CONCRETE. WHERE SUCH FORMS ALSO SUPPORT FORMWORK FOR SLAB OR BEAM SOFFITS, THE REMOVAL TIMES OF THE LATTER SHALL GOVERN. 5. IN-SITU CONCRETE STRENGTH VERIFICATION PRIOR TO FORM STRIPPING: THE CONTRACTOR'S TESTING AGENCY SHALL VERIFY THAT THE CONCRETE HAS REACHED THE REQUIRED MINIMUM STRENGTH BEFORE FORM REMOVAL BY USING FIELD-CURED CYLINDERS, BROKEN AT THE TIME OF FORM REMOVAL, AS DIRECTED BY THE CONTRACTOR OR USING THE MATURITY METHOD ASTM C1074. 6. SHORING REMOVAL: REMOVE SHORING ONLY AFTER THE FOLLOWING HAS BEEN COMPLETED. A. OWNERS TESTING LAB HAS CONFIRM THE DESIGN COMPRESSIVE STRENGTH FOR THE CONCRETE AND GROUT BASED ON LABORATORY CURED SAMPLES. B. CONTRACTORS TESTING LAB HAS CONFIRM THE IN-SITU DESIGN COMPRESSIVE STRENGTH FOR THE CONCRETE AND GROUT BASED ON FIELD CURED SAMPLES OR THE MATURITY METHOD. E. FIELD QUALITY CONTROL: 1. REFER TO GENERAL NOTES PART "STRUCTURAL TESTING AND INSPECTIONS" FOR ADDITIONAL INFORMATION.	B. THE TESTING AGENCY SHALL BE AN APPROVED AGENCY BY THE BUILDING OFFICIAL OF THE CITY WHEREIN THE PROJECT IS LOCATED TO PERFORM SPECIAL INSPECTIONS AND OTHER TESTS AND INSPECTIONS AS OUTLINED IN THE APPLICABLE BUILDING CODE. 3. REJECTION OF MATERIAL OR WORKMANSHIP: THE OWNER, ENGINEER, AND TESTING AGENCY RESERVE THE RIGHT TO REJECT ANY MATERIAL OR WORKMANSHIP NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS AT ANY TIME DURING THE PROGRESS OF THE WORK. HOWEVER, THIS PROVISION DOES NOT ALLOW WAIVING THE OBLIGATION FOR TIMELY, IN SEQUENCE INSPECTIONS. D. INSPECTION OF FORMWORK: THE TESTING AGENCY SHALL MAKE THE FOLLOWING INSPECTIONS OF FORMWORK: 1. INSPECTION FREQUENCY: PROVIDE PERIODIC INSPECTION OF FORMWORK. INSPECT 100% OF FORMWORK BEFORE EACH CONCRETE PLACEMENT TO VERIFY THE INFORMATION NOTED BELOW. A. VERIFY ELEMENT FORMING PROVIDES THE REQUIRED INTERNAL DIMENSION AND ELEMENT ORIENTATION. E. INSPECTION OF REINFORCEMENT STEEL PLACEMENT: THE TESTING AGENCY SHALL MAKE THE FOLLOWING INSPECTIONS OF REINFORCEMENT STEEL PLACEMENT: 1. INSPECTION FREQUENCY: PROVIDE PERIODIC INSPECTION OF REINFORCING STEEL PLACEMENT. INSPECT 100% OF REINFORCEMENT BEFORE EACH CONCRETE PLACEMENT TO VERIFY THE INFORMATION NOTED BELOW. A. REINFORCEMENT HAS CORRECT SIZE, SPACING, AND PROPER COVER. B. SUFFICIENT SPACING BETWEEN REINFORCEMENT FOR CONCRETE PLACEMENT. C. REINFORCEMENT IS PROPERLY SUPPORTED AND BRACED TO FORMWORK TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT. D. PROPER HOOKS ARE PROVIDED AT BAR ENDS AS DETAILED. E. WELDED WIRE REINFORCEMENT IS COMPOSED OF FLAT SHEETS, HAS PROPER WIRE GAGE AND SPACING, IS PROPERLY SUPPORTED, AND IS PROPERLY LAPPED WITH A LENGTH OF ONE SQUARE PLUS TWO IN. F. PROPER CONSTRUCTION/CONTROL/EXPANSION JOINT SPACING AND REINFORCEMENT. G. REINFORCEMENT AROUND EMBEDDED ITEMS IS PLACED PER THE DRAWINGS. F. INSPECTION AND TESTING OF FIELD MIXED CONCRETE: THE TESTING AGENCY SHALL MAKE THE FOLLOWING INSPECTIONS AND TESTING OF CONCRETE: 1. INSPECTION FREQUENCY: PROVIDE PERIODIC INSPECTION OF CONCRETE FIELD MIXING AND PLACEMENT. 2. INSPECTIONS PRIOR TO CONCRETE PLACING A. ENSURE SUPPLEMENTAL REINFORCEMENT STEEL PLACEMENT AND FORMWORK HAS BEEN INSPECTED. B. REINFORCEMENT HAS CORRECT SIZE AND PROPER COVER. C. ENSURE SURFACES INDICATED TO BE INTENTIONALLY ROUGHENED HAVE THE PROPER SURFACES ROUGHNESS AMPLITUDE. 3. ON-SITE CONCRETE INSPECTION A. VERIFY THAT THE CONTRACTOR IS FOLLOWING APPROPRIATE CONCRETING PRACTICES CONSISTENT WITH ANY EXTREME ENVIRONMENTAL CONDITIONS AT THE POINT OF PLACEMENT IN THE STRUCTURE. B. INSPECT FIELD MIXING OF CONCRETE TO VERIFY THAT THE PROPER CONCRETE MIX, WATER CONTENT, AGGREGATE EXTENSION, THAT IT IS MEETING JOB REQUIREMENTS, AND IS BEING PLACED AT THE PROPER LOCATION. REPORT CONCRETE NOT MEETING THE SPECIFIED REQUIREMENTS AND IMMEDIATELY NOTIFY THE CONTRACTOR, ENGINEER, AND OWNER. C. INSPECT PLASTIC CONCRETE UPON COMPLETION OF MIXING TO VERIFY PROPER BATCHING, OBSERVE MIX CONSISTENCY AND ADDING OF WATER AS REQUIRED TO ACHIEVE TARGET SLUMPS/FLOWS IN MIX DESIGNS. RECORD THE AMOUNT OF WATER ADDED AND NOTE IF IT EXCEEDS THAT ALLOWED IN THE MIX DESIGN. THE RESPONSIBILITY FOR ADDING WATER TO THE MIX AT THE JOB SITE SHALL REST ONLY WITH THE CONTRACTOR'S DESIGNATED REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE THAT ALL CONCRETE PLACED IN THE FIELD IS IN CONFORMANCE TO THE CONTRACT DOCUMENTS. 4. ON-SITE CONCRETE MATERIAL TESTING A. PERFORM TESTS TO DETERMINE SLUMP FOR NON-SELF-CONSOLIDATING CONCRETE, FLOW FOR SELF-CONSOLIDATING CONCRETE, CONCRETE TEMPERATURE, UNIT WEIGHT, AND AIR ENTRAINMENT AS SPECIFIED BELOW. THE SLUMP TESTS SHALL BE MADE ON CONCRETE TAKEN FROM THE SAME LOCATION FROM WHICH THE CONCRETE FOR THE TEST CYLINDERS IS OBTAINED. B. RECORD INFORMATION FOR CONCRETE TEST REPORTS AS SPECIFIED BELOW. C. PREPARE CONCRETE TEST CYLINDERS FOR COMPRESSION TESTING. D. PICK UP AND TRANSPORT TO LABORATORY, CYLINDERS CAST THE PREVIOUS DAY. 5. CONCRETE TEST CYLINDERS: THE TESTING AGENCY SHALL MOLD AND TEST CONCRETE TEST CYLINDERS AS DESCRIBED BELOW. A. CYLINDER MOLDING AND TESTING: CYLINDERS FOR STRENGTH TESTS SHALL BE MOLDED AND LABORATORY CURED IN ACCORDANCE WITH ASTM C31 AND TESTED IN ACCORDANCE WITH ASTM C39. CYLINDERS SHALL BE 6" IN DIAMETER BY 12". B. FIELD SAMPLES: FIELD SAMPLES FOR STRENGTH TESTS SHALL BE TAKEN IN ACCORDANCE WITH ASTM C172. C. FREQUENCY OF TESTING: A MINIMUM OF SIX TEST CYLINDERS SHALL BE MADE FOR THE FIELD MIXED CONCRETE. CYLINDERS SHALL BE EVENLY SAMPLED THROUGHOUT THE CONCRETE FIELD MIXING PROCESS. D. THE CYLINDERS SHALL BE NUMBERED, DATED, AND THE POINT OF CONCRETE PLACEMENT IN THE BUILDING RECORDED. E. FOR CONCRETE SPECIFIED ON THE DRAWINGS TO REACH THE REQUIRED STRENGTH AT 28 DAYS, BREAK ONE CYLINDER OF THE SET AT SEVEN DAYS, TWO CYLINDERS AT 28 DAYS, AND ONE KEPT IN RESERVE FOR TESTING AT THE ENGINEERS DIRECTION. F. CYLINDER STORAGE BOX: THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A PROTECTED CONCRETE CYLINDER WOODEN STORAGE BOX AT A POINT ON THE JOB SITE MUTUALLY AGREEABLE WITH THE TESTING AGENCY FOR THE PURPOSE OF STORING CONCRETE CYLINDERS UNTIL THEY ARE TRANSPORTED TO THE LABORATORY. THE BOX SHALL BE CONSTRUCTED AND EQUIPPED TO MAINTAIN THE ENVIRONMENT SPECIFIED FOR INITIAL CURING IN ASTM C31. G. TRANSPORTING CYLINDERS: THE OWNER'S TESTING AGENCY SHALL BE RESPONSIBLE FOR TRANSPORTING THE CYLINDERS TO THE LABORATORY IN A PROTECTED ENVIRONMENT SUCH THAT NO DAMAGE OR ILL EFFECT WILL OCCUR TO THE CONCRETE CYLINDERS INCLUDING LOSS OF MOISTURE, FREEZING TEMPERATURES OR JARRING. H. INFORMATION ON CONCRETE TEST REPORTS: THE OWNER'S TESTING AGENCY SHALL MAKE AND DISTRIBUTE CONCRETE TEST REPORTS AFTER EACH JOB CYLINDER IS BROKEN. SUCH REPORTS SHALL INDICATE: 1) ACCURATE LOCATION OF PLACEMENT IN THE STRUCTURE. 2) STRENGTH REQUIREMENT. 3) DATE CYLINDERS MADE AND BROKEN. 4) TECHNICIAN MAKING CYLINDERS. 5) CONCRETE TEMPERATURE AT PLACING (ASTM C1064). 6) AIR TEMPERATURE AT POINT OF PLACEMENT IN THE STRUCTURE	7) AMOUNT OF WATER ADDED AND WHETHER OR NOT IT EXCEEDS THE AMOUNT ALLOWED BY THE MIX DESIGN. 8) SLUMP (ASTM C143) OR FLOW (ASTM C1611). 9) UNIT WEIGHT (ASTM C138). 10) AIR CONTENT (ASTM C231 OR C 173, C 173 ONLY FOR LIGHT-WEIGHT CONCRETE). 11) CYLINDER COMPRESSIVE STRENGTHS WITH TYPE OF FAILURE IF CONCRETE DOES NOT MEET SPECIFICATION REQUIREMENTS. SEVEN DAY BREAKS ARE TO BE FLAGGED IF THEY ARE LESS THAN 60% OF THE REQUIRED 28 DAY STRENGTH. 28 DAY BREAKS ARE TO BE FLAGGED IF EITHER CYLINDER FAILS TO MEET SPECIFICATION REQUIREMENTS. I. EVALUATION AND ACCEPTANCE OF CONCRETE: CONCRETE ACCEPTANCE SHALL BE GOVERNED BY ACI 318-11 SECTION 5.6.3.3 BASED ON THE 28 DAY COMPRESSIVE STRENGTH AS COMPARED TO THE PROJECT REQUIRED 28 DAY COMPRESSIVE STRENGTH. J. INVESTIGATION OF LOW STRENGTH CONCRETE TEST RESULTS: THE CONTRACTOR SHALL REIMBURSE THE OWNER FOR THE COSTS OF INVESTIGATIONS OF LOW STRENGTH CONCRETE. REFER TO ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE. FOR THE INVESTIGATIONS THAT MAY BE REQUIRED BY THE ENGINEER, THE OWNER'S TESTING AGENCY WILL CONDUCT THESE INVESTIGATIONS. K. CAUSES FOR REJECTION OF CONCRETE: THE CONTRACTOR SHALL REJECT CONCRETE DELIVERED TO THE SITE FOR ANY OF THE FOLLOWING REASONS: 1) WRONG CLASS OF CONCRETE. 2) ENVIRONMENTAL CONDITIONS: ENVIRONMENTAL CONDITION LIMITS SHALL BE AS FOLLOWS UNLESS APPROPRIATE PROVISIONS IN CONCRETING PRACTICES HAVE BEEN MADE FOR COLD OR HOT WEATHER. 3) CONCRETE WITH TEMPERATURES EXCEEDING 95°F SHALL NOT BE PLACED IN THE STRUCTURE. 4) EXCESSIVE AGE: CONCRETE SHALL BE DISCHARGED WITHIN 90 MINUTES OF FIELD MIXING OR THE MANUFACTURE INDICATED WORKING TIME LIMIT IF LESS THAN 90 MINUTES, OR BEFORE IT BEGINS TO SET IF SOONER THAN 90 MINUTES UNLESS APPROVED BY THE TESTING AGENCY JOB INSPECTOR OR OTHER DULY APPOINTED REPRESENTATIVE. G. INSPECTION AND TESTING OF EARTHWORK : THE TESTING AGENCY SHALL PERFORM THE FOLLOWING FIELD QUALITY CONTROL TESTING AND INSPECTIONS: 1. FILL COMPACTION: A. VERIFICATION OF FILL MATERIAL: TESTING AGENCY SHALL SAMPLE EXISTING SUBGRADE AND PROPOSED FILLS AND PERFORM CLASSIFICATION AND TESTING TO VERIFY THAT THE FILL MATERIAL TO BE USED COMPLIES WITH THE PROJECT REQUIREMENTS. PERFORM ASTM D 698 FOR COHESIVE MATERIALS AND ASTM D 4254 FOR COHESIONLESS MATERIALS TO OBTAIN THE MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT. B. FIELD DENSITY TESTING SHALL BE PERFORMED ACCORDING TO ASTM D 2937 OR ASTM D 6938 AS APPLICABLE. PERFORM AT LEAST ONE FIELD DENSITY TEST PER SOIL LIFT OF THE NATURAL SUBGRADE AND FILL FOR EVERY 400 SQUARE FT OF FILL AREA AND NO LESS THAN THREE TOTAL TEST PER SOIL LIFT. THE RESULTS OF FIELD DENSITY TESTS BY THE TESTING AGENCY WILL BE CONSIDERED SATISFACTORY IF THE AVERAGE OF ANY THREE CONSECUTIVE TESTS HAS A VALUE NOT LESS THAN THE REQUIRED DENSITY WITH NO SINGLE TEST FALLING MORE THAN 2% BELOW THE REQUIRED DENSITY AND THE MOISTURE CONTENT CONFORMS TO THE REQUIREMENTS OF THE SPECIFICATION. C. REPORTS: MOISTURE-DENSITY CURVES AND RESULTS OF FIELD DENSITY TESTS SHALL BE SUBMITTED TO THE PARTIES. D. ADDITIONAL TESTING: IF REPORTS BY THE TESTING AGENCY INDICATE FIELD DENSITIES LOWER THAN SPECIFIED, RETESTING WILL BE PERFORMED BY THE TESTING AGENCY WITH AT LEAST THE FREQUENCIES REQUIRED ABOVE ON RE-COMPACTED FILL AND/OR NATURAL SUBGRADE. THE TESTING AGENCY SHALL NOTIFY THE CONTRACTOR IN A TIMELY BASIS FOR ANY REQUIRED RETESTING SO AS NOT TO DELAY THE WORK.	C. REPRODUCTION 1. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON. XI. CONSTRUCTION SAFEGUARDS A. GENERAL REQUIREMENTS 1. CONSTRUCTION SAFEGUARDS GOVERN SAFETY DURING CONSTRUCTION AND THE PROTECTION OF ADJACENT PUBLIC AND PRIVATE PROPERTIES. 2. CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE STORED AND PLACED SO AS NOT TO ENDANGER THE PUBLIC, THE WORKERS, OR THE ADJOINING PROPERTY FOR THE DURATION OF WORK. STRUCTURAL COMPONENTS SHALL BE CAPABLE OF RESISTING MATERIAL AND EQUIPMENT LOADS THAT WILL BE ENCOUNTERED DURING THE WORK. 3. EXISTING STRUCTURAL ELEMENTS, REQUIRED EXITS, FIRE PROTECTION DEVICES, AND SANITARY SAFEGUARDS SHALL BE MAINTAINED AT ALL TIMES DURING THE WORK EXCEPT WHERE MODIFICATION OF THESE ITEMS IS PART OF THE WORK OR WHERE THE EXISTING STRUCTURE IS NOT OCCUPIED. 4. WASTE MATERIALS SHALL BE REMOVED IN A MANNER THAT PREVENTS INJURY OR DAMAGE TO PERSONS, ADJOINING PROPERTIES, AND PUBLIC RIGHTS-OF-WAY. 5. FIRE SAFETY DURING CONSTRUCTION SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. 6. PEDESTRIAN PROTECTION A. PEDESTRIANS SHALL BE PROTECTED DURING CONSTRUCTION AND DEMOLITION ACTIVITIES. B. PROTECTION OF PEDESTRIANS SHALL CONFORM TO: <table><tr><th>HEIGHT OF CONSTRUCTION</th><th>DISTANCE OF CONSTRUCTION TO LIMIT OF PROTECTION</th><th>TYPE OF PROTECTION REQUIRED</th></tr><tr><td rowspan="2">8 FT OR LESS</td><td>LESS THAN 5 FT</td><td>CONSTRUCTION RAILINGS</td></tr><tr><td>5 FT OR MORE</td><td>NONE</td></tr><tr><td rowspan="4">MORE THAN 8 FT</td><td>LESS THAN 5 FT</td><td>BARRIER AND COVERED WALKWAY</td></tr><tr><td>5 FT OR MORE BUT NOT MORE THAN ONE-FOURTH THE HEIGHT OF CONSTRUCTION</td><td>BARRIER AND COVERED WALKWAY</td></tr><tr><td>5 FT OR MORE BUT BETWEEN ONE-FOURTH AND ONE-HALF THE HEIGHT OF CONSTRUCTION</td><td>BARRIER</td></tr><tr><td>5 FT OR MORE BUT EXCEEDING ONE HALF THE HEIGHT OF CONSTRUCTION</td><td>NONE</td></tr></table> C. WALKWAYS 1) A WALKWAY SHALL BE PROVIDED FOR PEDESTRIAN TRAVEL IN FRONT OF EVERY CONSTRUCTION AND DEMOLITION SITE UNLESS THE APPLICABLE AUTHORITY AUTHORIZES THE SIDEWALK TO BE FENCED OR CLOSED. A WALKWAY SHALL BE PROVIDED FOR PEDESTRIAN TRAVEL THAT LEADS FROM A BUILDING ENTRANCE OR EXIT OF AN OCCUPIED STRUCTURE TO A PUBLIC WAY. WALKWAY SHALL BE NOT LESS THEN 4 FT WIDE, SHALL BE PROVIDED WITH A DURABLE WALKING SURFACE, SHALL BE ACCESSIBLE IN ACCORDANCE WITH CHAPTER 11 OF IBC. SHALL BE DESIGNED TO SUPPORT ALL IMPOSED LOADS, AND THE DESIGN LIVE LOAD SHALL NOT BE LESS THAN 150 POUNDS PER SQUARE FT. D. DIRECTIONAL BARRICADES 1) PEDESTRIAN TRAFFIC SHALL BE PROTECTED BY A DIRECTIONAL BARRICADE WHERE THE WALKWAY EXTENDS INTO A STREET. E. CONSTRUCTION RAILINGS 1. CONSTRUCTION RAILING SHALL BE NOT LESS THAN 42 IN. IN HEIGHT AND SHALL BE SUFFICIENT TO DIRECT PEDESTRIAN AROUND CONSTRUCTION AREA. F. BARRIERS 1) BARRIERS SHALL NOT BE LESS THAN 8 FT IN HEIGHT AND SHALL BE PLACED ON SIDE OF THE WALKWAY NEAREST THE CONSTRUCTION OR DEMOLITION. BARRIERS SHALL EXTEND THE ENTIRE LENGTH OF THE CONSTRUCTION SIDE. OPENINGS IN SUCH BARRIER SHALL BE PROTECTED BY DOORS THAT ARE NORMALLY KEPT CLOSED. 2) BARRIERS SHALL BE DESIGNED TO RESIST LOADS REQUIRED BY CHAPTER 16 OF IBC UNLESS CONSTRUCTED IN ACCORDANCE WITH ITEMS A THROUGH F BELOW. A) BARRIER SHALL BE PROVIDED WITH 2-IN. BY 4-IN. TOP AND BOTTOM PLATES. B) THE BARRIER MATERIAL SHALL BE BOARDS NOTE LESS THAN 3/4 IN. IN THICKNESS OR WOOD STRUCTURAL USE PANELS NOTE LESS THAN 1/4 IN. IN THICKNESS. C) WOOD STRUCTURAL USE PANELS SHALL BE BONDED WITH AN ADHESIVE IDENTICAL TO THAT FOR EXTERIOR WOOD STRUCTURAL USE PANELS. D) WOOD STRUCTURAL USE PANELS 1/4 IN. OR 15/16 IN. IN THICKNESS SHALL HAVE STUDS SPACED AT NOT MORE THAN 2 FT ON CENTER. E) WOOD STRUCTURAL USE PANELS 3/8 IN. OR 1/2 IN. IN THICKNESS SHALL HAVE STUDS SPACED NOT MORE THAN 4 FT ON CENTER PROVIDE THAT A 2-IN. BY 4-IN. STIFFENER IS PLACED HORIZONTALLY AT MID-HEIGHT WHERE THE STUB SPACING IS GREATER THAN 2 FT ON CENTER. F) WOOD STRUCTURAL USE PANELS 5/8 IN. OR THICKER SHALL NOT SPAN OVER 8 FT. G. REPAIR, MAINTENANCE AND REMOVAL 1) PEDESTRIAN PROTECTION SHALL BE MAINTAINED IN PLACE AND KEPT IN GOOD ORDER FOR THE ENTIRE LENGTH OF RIME PEDESTRIANS ARE SUBJECT TOT BE BEING ENDANGERED. THE CONTRACTOR ON COMPLETION OF THE CONSTRUCTION ACTIVITY SHALL IMMEDIATELY REMOVE WALKWAYS, DEBRIS, AND OTHER OBSTRUCTIONS AND LEAVE SUCH PUBLIC PROPERTY IN AS GOOD A CONDITION AS IT WAS PRIOR TO THE START OF WORK. H. ADJACENT TO EXCAVATIONS 1) EVERY EXCAVATION ON A SITE LOCATED 5 FT OR LESS FROM THE STREET LOT LINE SHALL BE ENCLOSED WITH A BARRIER NOT LESS THEN 6 FT IN HEIGHT. WHERE LOCATED MORE THAN 5 FT FORM THE STREET LOT LINE, A BARRIER SHALL BE ERECTED WHERE REQUIRED BY CODE OFFICIAL. BARRIERS SHALL BE OF ADEQUATE STRENGTH TO RESIST WIND PRESSURE AS SPECIFIED IN IBC. B. PROTECTION OF ADJOINING PROPERTY 1. ADJOINING PUBLIC AND PRIVATE PROPERTY SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION AND DEMOLITION WORK. PROTECTION MUST BE PROVIDED FOR FOOTINGS, FOUNDATIONS, PARTY WALLS, CHIMNEYS, SKY-	HEIGHT OF CONSTRUCTION	DISTANCE OF CONSTRUCTION TO LIMIT OF PROTECTION	TYPE OF PROTECTION REQUIRED	8 FT OR LESS	LESS THAN 5 FT	CONSTRUCTION RAILINGS	5 FT OR MORE	NONE	MORE THAN 8 FT	LESS THAN 5 FT	BARRIER AND COVERED WALKWAY	5 FT OR MORE BUT NOT MORE THAN ONE-FOURTH THE HEIGHT OF CONSTRUCTION	BARRIER AND COVERED WALKWAY	5 FT OR MORE BUT BETWEEN ONE-FOURTH AND ONE-HALF THE HEIGHT OF CONSTRUCTION	BARRIER	5 FT OR MORE BUT EXCEEDING ONE HALF THE HEIGHT OF CONSTRUCTION	NONE
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GENERAL NOTES

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S001
3 OF 16 SHEETS
09/26/2025

GENERAL NOTES

- LIGHTS, AND ROOFS. PROVISIONS SHALL BE MADE TO CONTROL WATER RUN-OFF AND EROSION DURING CONSTRUCTION AND DEMOLITION ACTIVITIES. THE PERSON MAKING OR CAUSING AN EXCAVATION TO BE MADE SHALL PROVIDE WRITTEN NOTICE TO THE OWNERS OF ADJOINING BUILDING ADVISING THEM THAT THE EXCAVATION IS TO BE MADE AND THAT THE ADJOINING BUILDINGS SHOULD BE PROTECTED.
2. WHERE A RETENTION SYSTEM IS USED TO PROVIDE SUPPORT OF AN EXCAVATION FOR PROTECTION OF ADJACENT STRUCTURES, THE SYSTEM SHALL BE DESIGNED BY A REGISTERED DESIGN PROFESSIONAL TO PROVIDE VERTICAL AND LATERAL SUPPORT, INCLUDE REQUIREMENTS FOR MONITORING, AND SHALL REMAIN IN PLACE FOR THE DURATION OF WORK.
- C. TEMPORARY USE OF PUBLIC PROPERTY
1. THE TEMPORARY USE OF STREETS OR PUBLIC PROPERTY FOR THE STORAGE OR HANDLING OF MATERIALS OR EQUIPMENT REQUIRED FOR CONSTRUCTION OR DEMOLITION AND THE PROTECTION PROVIDED TO THE PUBLIC SHALL COMPLY WITH THE PROVISIONS OF THE APPLICABLE AUTHORITY HAVING JURISDICTION.
2. CONSTRUCTION MATERIALS AND EQUIPMENT SHALL NOT BE PLACED OR STORED SO AS TO OBSTRUCT ACCESS TO FIRE HYDRANTS, STANDPIPES, FIRE OR POLICE ALARM BOXES, CATCH BASINS OR MANHOLE, NOR SHALL SUCH MATERIAL OR EQUIPMENT BE LOCATED WITHIN 20 FT OF A STREET INTERSECTION, OR PLACED SO AS TO OBSTRUCT NORMAL OBSERVATIONS OF TRAFFIC SIGNALS OR TO HINDER THE USE OF PUBLIC TRANSIT LOADING PLATFORMS.
3. BUILDING MATERIALS, FENCES, SHEDS, OR ANY OBSTRUCTION OF ANY KIND SHALL NOT BE PLACED SO AS TO OBSTRUCT FREE APPROACH TO ANY FIRE HYDRANTS, FIRE DEPARTMENT CONNECTION, UTILITY POLE, MANHOLE, FIRE ALARM BOX OR CATCH BASIN, OR SO AS TO INTERFERE WITH THE PASSAGE OF WATER INTO THE GUTTER. PROTECTION AGAINST DAMAGE SHALL BE PROVIDED TO SUCH UTILITY FIXTURES DURING THE PROGRESS OF THE WORK, BUT SIGHT OF THEM SHALL NOT BE OBSTRUCTED.
- D. FIRE EXTINGUISHERS
1. STRUCTURES UNDER CONSTRUCTION, ALTERATION, OR DEMOLITION SHALL BE PROVIDED WITH NOT FEWER THAN ONE APPROVED PORTABLE FIRE EXTINGUISHER IN ACCORDANCE WITH THE INTERNATIONAL FIRE CODE AND SIZED FOR NOT LESS THAN ORDINARY FIRE HAZARD AS FOLLOWS:
- A. AT EACH STAIRWAY ON ALL FLOOR LEVELS WHERE COMBUSTIBLE MATERIALS HAVE ACCUMULATED.
- B. IN EVERY STORAGE OR CONSTRUCTION SHED.
- C. ADDITIONAL PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED WHERE SPECIAL HAZARDS EXIST, SUCH AS THE STORAGE AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.
2. PROVISIONS OF IEBC AND THE INTERNATIONAL FIRE CDE SHALL BE STRICTLY OBSERVED TO SAFEGUARD AGAINST ALL FIRE HAZARDS ATTENDANT UPON CONSTRUCTION OR DEMOLITION OPERATIONS.
- E. ACCESSIBILITY
1. STRUCTURES, SITES, AND EQUIPMENT DIRECTLY ASSOCIATED WITH THE ACTUAL PROCESS OF CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO, SCAFFOLDING, BRIDGING, MATERIAL HOISTS, MATERIAL STORAGE, OR CONSTRUCTION TRAILERS, ARE NOT REQUIRED TO BE ACCESSIBLE.
- F. WATER SUPPLY FOR FIRE PROTECTION
1. AN APPROVED WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AS SOON AS COMBUSTIBLE BUILDING MATERIAL ARRIVES ON SITE, ON COMMENCEMENT OF VERTICAL COMBUSTIBLE CONSTRUCTION, AND ON INSTALLATION OF A STANDPIPE SYSTEM IN BUILDINGS UNDER CONSTRUCTION IN ACCORDANCE WITH IEBC.

XII. MISCELLANEOUS

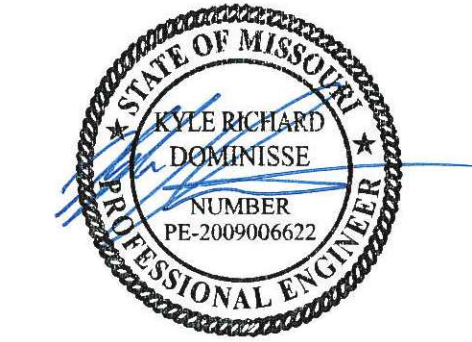
- A. CONTRACT DOCUMENTS
1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.
2. THE CONTRACTOR SHALL FULLY AND PROPERLY IMPLEMENT THE ENGINEERING CONTROLS, WORK PRACTICES, AND RESPIRATORY PROTECTION AGAINST TOXIC AND HAZARDOUS SUBSTANCES INCLUDING RESPIRABLE CRYSTALLINE SILICA ACCORDING TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) 29 CFR 1926.1153. WALTER P MOORE DOES NOT HAVE CONTROL OVER, CHARGE OF, OR RESPONSIBILITY FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, NOR SHALL WALTER P MOORE BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
3. THE CONTRACT STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE, AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCES. PERFORM FIELD SURVEYS TO VERIFY AS-BUILT CONDITIONS INCLUDING: SLAB THICKNESS, AND OTHER INFORMATION RELEVANT TO THE PROJECT.
5. IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR SPECIFIED ON THE DRAWINGS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SHOWN OR SPECIFIED IN SIMILAR CONDITIONS.
- B. CONFLICTS IN STRUCTURAL REQUIREMENTS
1. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES, THE STRICTEST REQUIREMENTS, AS INDICATED BY THE ENGINEER, SHALL GOVERN.
- C. EXISTING CONDITIONS
1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE EXISTING BUILDING AT THE JOB SITE AND REPORT ANY DISCREPANCIES FROM ASSUMED CONDITIONS SHOWN ON THE DRAWINGS TO THE ENGINEER PRIOR TO THE FABRICATION AND ERECTION OF ANY MEMBERS. EXISTING DIMENSIONS SHOWN ON THE DRAWINGS ARE FOR GENERAL REFERENCE ONLY AND SHOULD NOT BE USED FOR FINAL CONSTRUCTION OR DETAILING.
2. WORK SHOWN ON THE DRAWINGS IS EXISTING, UNLESS NOTED AS NEW.
3. EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS WAS OBTAINED FROM EXISTING CONSTRUCTION DOCUMENTS AND LIMITED SITE OBSERVATION. THE DRAWINGS OF EXISTING CONSTRUCTION ARE AVAILABLE FOR CONTRACTOR USE AND SHALL BE REFERENCED FOR FAMILIARIZATION WITH EXISTING CONDITIONS. HOWEVER, THE AVAILABLE DRAWINGS OF EXISTING CONSTRUCTION ARE NOT NECESSARILY COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR BEING KNOWLEDGEABLE OF INFORMATION PRESENTED IN AVAILABLE DRAWINGS AND SHALL FIELD VERIFY ALL PERTINENT INFORMATION.
4. DEMOLITION, CUTTING, DRILLING, ETC. OF EXISTING WORK SHALL BE PERFORMED WITH GREAT CARE SO AS NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE EXISTING BUILDING. IF ANY ARCHITECTURAL, STRUCTURAL, OR MEP MEMBERS NOT DESIGNATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE OWNER SHALL BE NOTIFIED IMMEDIATELY AND WRITTEN APPROVAL OBTAINED PRIOR TO THEIR REMOVAL.
5. CONTRACTOR SHALL PERFORM A SURVEY TO LOCATE ALL EXISTING UTILITIES (INCLUDING UNDERGROUND UTILITIES) PRIOR TO THE START OF CONSTRUCTION AND TAKE CARE TO PROTECT UTILITIES TO REMAIN IN SERVICE. EXISTING

- CIVIL, MECHANICAL, ELECTRICAL, PLUMBING, AND EMERGENCY PROTECTION SYSTEMS SERVICING ANY AREAS OUTSIDE THE WORK AREA SHALL BE MAINTAINED IN OPERABLE CONDITION THROUGHOUT THE DURATION OF CONSTRUCTION. CONTRACTOR SHALL MAKE ALL NECESSARY TEMPORARY CONNECTIONS TO MAINTAIN EXISTING UTILITIES IN SERVICE DURING THE WORK. TEMPORARY, LOCALIZED, INTERRUPTION OF THESE SYSTEMS SHALL REQUIRE OWNER'S WRITTEN APPROVAL.
6. CONTRACTOR SHALL PROVIDE DUST, ODOR, AND NOISE PROTECTION, AND SAFETY MEASURES AS NECESSARY FOR THE DURATION OF CONSTRUCTION. PROVIDE ALL MEASURES NECESSARY TO PROTECT THE EXISTING STRUCTURE, BUILDING INTERIOR, VEHICLES, MACHINERY, FACILITY PATRONS, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT LIMITED TO TEMPORARY BRACING, SHORING, FORMWORK, PROTECTIVE ENCLOSURES, AND TRAFFIC CONTROLS.
7. CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION CONDITION SURVEY TO DOCUMENT SITE CONDITIONS PRIOR TO START OF WORK. SUBMIT SURVEY TO OWNER AND THE ENGINEER. DOCUMENT LOCATION AND CONDITION OF ANY CONSTRUCTION DESIGNATED FOR REMOVAL AND RE-INSTALLATION.
8. CONTRACTOR SHALL REPAIR ALL DAMAGE CAUSED DURING CONSTRUCTION WITH SIMILAR MATERIALS AND WORKMANSHIP TO RESTORE CONDITIONS TO LEVELS ACCEPTABLE TO THE OWNER.
- D. ADJACENT BUILDINGS AND PROPERTY
1. CONTRACTOR SHALL FOLLOW THE CONSTRUCTION SAFEGUARDS REQUIREMENTS RELATED TO ADJACENT PROPERTIES.
2. CONTRACTOR IS ADVISED TO PERFORM ALL PHOTOGRAPHIC SURVEYS AND OTHER DOCUMENTATION OF THE ADJACENT BUILDINGS BEFORE THE START OF AND DURING CONSTRUCTION.
- E. CONTRACTOR SUBSTITUTIONS
1. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIAL OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE CONSIDERED FOR APPROVAL ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED:
- A. A COST SAVINGS TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST.
- B. PRODUCT SPECIFIED IS NOT READILY AVAILABLE. SUBMIT AVAILABILITY DOCUMENTATION WITH THE SUBSTITUTION REQUEST.
- C. SUPERIOR PRODUCT AT THE SAME OR LOWER COST. SUBMIT COST ANALYSIS AND PERFORMANCE DOCUMENTATION WITH THE SUBSTITUTION REQUEST.
- D. THE MATERIAL OR PRODUCT IS IN CONFORMANCE WITH THE REQUIREMENTS OF THE REFERENCED BUILDING CODE AND THE ICC-ES EVALUATION REPORT IS SUBMITTED WITH THE REQUEST.
- 1) THE ICC-ES EVALUATION REPORT THAT IS SUBMITTED MUST REFERENCE THE BUILDING CODE UNDER WHICH THE PROJECT IS PERMITTED.
- 2) ICC-ESR EVALUATION REPORTS THAT HAVE BEEN DISCONTINUED AT THE TIME OF PRODUCT INSTALLATION WILL NOT BE ACCEPTED.
2. SUBMITTALS NOT SATISFYING THE ABOVE CRITERIA WILL NOT BE CONSIDERED.
- F. THE STRUCTURAL ENGINEER'S ROLE DURING CONSTRUCTION
1. THE ENGINEER SHALL NOT HAVE CONTROL NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF WALTER P. MOORE AND ASSOCIATES, INC. IS SOLELY FOR THE PURPOSE OF BECOMING GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF THE WORK COMPLETED AND DETERMINING, IN GENERAL, IF THE WORK OBSERVED IS BEING PERFORMED IN A MANNER INDICATING THAT THE WORK, WHEN FULLY COMPLETED, WILL BE IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.
- G. MAINTENANCE STATEMENT
1. ALL STRUCTURES REQUIRE PERIODIC MAINTENANCE TO EXTEND LIFESPAN AND TO ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. A PLANNED PROGRAM OF MAINTENANCE SHALL BE ESTABLISHED BY THE BUILDING OWNER. THIS PROGRAM SHALL INCLUDE ITEMS SUCH AS BUT NOT LIMITED TO, PROTECTIVE COATING FOR CONCRETE, CAULKED JOINTS, CONTROL JOINTS, REPAIR OF SPALLS AND CRACKS IN CONCRETE, AND PRESURE WASHING OF EXPOSED STRUCTURAL ELEMENTS EXPOSED TO A SALT ENVIRONMENT OR OTHER HARSH CHEMICALS

XIII. DRAWING INTERPRETATION

- A. DRAWING VIEWS LABELED AS "TYPICAL"
1. PARTIAL PLANS, ELEVATIONS, SECTIONS, DETAILS, OR SCHEDULES LABELED WITH "TYPICAL" AT THE BEGINNING OF THEIR TITLE SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY SHOWN. THE APPLICABILITY OF THE CONTENT OF THESE VIEWS TO LOCATIONS ON THE PLAN CAN BE DETERMINED FROM THE TITLE OF THE VIEWS. SUCH VIEWS SHALL APPLY WHETHER OR NOT THEY ARE KEYED IN AT EACH LOCATION. DECISIONS REGARDING APPLICABILITY OF THESE "TYPICAL" VIEWS SHALL BE DETERMINED BY THE STRUCTURAL ENGINEER.
- B. STRUCTURAL ABBREVIATIONS AND NOTATIONS
1. THE FOLLOWING ABBREVIATIONS AND NOTATIONS MAY APPEAR ON THE DRAWINGS:
- | | |
|-------|--|
| @ | AT |
| & | AND |
| # | NUMBER |
| Ø | ROUND, DIAMETER |
| ' | FT |
| " | IN. |
| (E) | EXISTING |
| (N) | NEW |
| ACI | AMERICAN CONCRETE INSTITUTE |
| AISI | AMERICAN IRON AND STEEL INSTITUTE |
| ASTM | AMERICAN SOCIETY FOR TESTING AND MATERIALS |
| BLDG | BUILDING |
| BOT | BOTTOM |
| CJ | CONTROL JOINT |
| CL | CENTER LINE |
| CMU | CONCRETE MASONRY UNIT |
| COL | COLUMN |
| CONC | CONCRETE |
| CSP | CONCRETE SURFACE PROFILE |
| CY | CUBIC YARD |
| DN | DOWN |
| EA | EACH |
| ELEV | ELEVATION |
| ENGR | ENGINEER |
| EJ | EXPANSION JOINT |
| EW | EACH WAY |
| EXIST | EXISTING |
| F'C | CONCRETE STRENGTH |
| FY | FIELD VERIFY |
| FT | FT |
| FY | YIELD STRENGTH |
| FU | ULTIMATE STRENGTH |
| GALV | GALVANIZED |
| GEN | GENERAL |
| GYP | GYPSUM |
| HORZ | HORIZONTAL |
| IBC | INTERNATIONAL BUILDING CODE |
| IEBC | INTERNATIONAL EXISTING BUILDING CODE |
| ICC | INTERNATIONAL CODE COUNCIL |
| ICRI | INTERNATIONAL CONCRETE REPAIR INSTITUTE |
| IN | IN. |
| INFO | INFORMATION |
| KIPS | 1000 LBF |
| KSI | KIPS PER SQUARE IN. |
| LLV | LONG LEG VERTICAL |
| LLH | LONG LEG HORIZONTAL |
| LWC | LIGHTWEIGHT CONCRETE |
| L | LENGTH |
| LBF | POUNDS FORCE |
| MAX | MAXIMUM |
| MIN | MINIMUM |
| MISC | MISCELLANEOUS |
| MSD | MATERIAL SAFETY DATA |
| MSDS | MATERIAL SAFETY DATA SHEET |
| NTS | NOT TO SCALE |
| OC | ON CENTER |
| OD | OUTSIDE DIAMETER |
| OZ | OUNCE |
| PLF | POUNDS PER LINEAR FT |
| PSF | POUNDS PER SQUARE FT |
| PSI | POUNDS PER SQUARE IN. |
| PT | POST-TENSIONED |
| QTY | QUANTITY |
| REINF | REINFORCEMENT |
| REQD | REQUIRED |
| SHT | SHEET |
| SIM | SIMILAR |
| SOG | SLAB-ON-GROUND |
| SPA | SPACING |
| STD | STANDARD |
| SLS | AISC STANDARD LONG SLOT. |
| SBL | AISC STANDARD SHORT SLOT |
| SSMA | STEEL STUD MANUFACTURERS ASSOCIATION |
| TI | TASK ITEM |
| TOC | TOP OF CONCRETE |
| TOS | TOP OF STEEL, TOP OF SLAB |
| TYP | TYPICAL |
| VERT | VERTICAL |
| WHMIS | WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM |
| WT | WEIGHT |
| WWF | WELDED WIRE FABRIC |
| WWR | WELDED WIRE REINFORCEMENT |

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MIKE KEHOE,
GOVERNOR



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EXPIRES 10/31/2025



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816.701.2100

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

BACKUP POWER EQUIPMENT
REPLACEMENT - FULTON
RECEPTION AND DIAGONSTIC
CORRECTIONAL CENTER

1393 ROUTE O
FULTON, MO 65251

PROJECT # C2415-01
SITE # 7010
FACILITY # 9327010027

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DATE: _____
REVISION: _____
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DATE: _____
ISSUE DATE: 09/26/2025

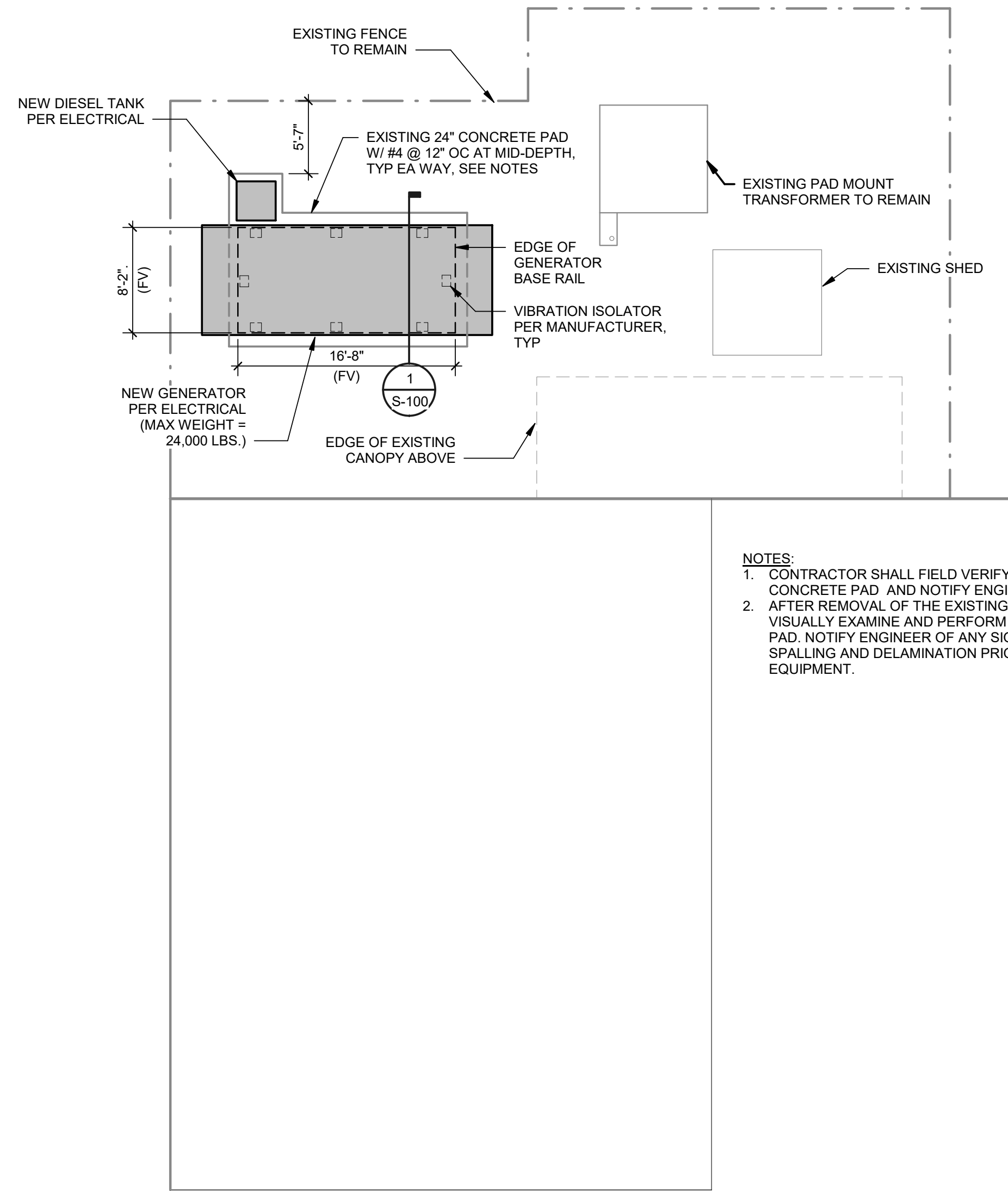
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CHECKED BY: JM/KD
DESIGNED BY: RC

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GENERAL NOTES

SHEET NUMBER:

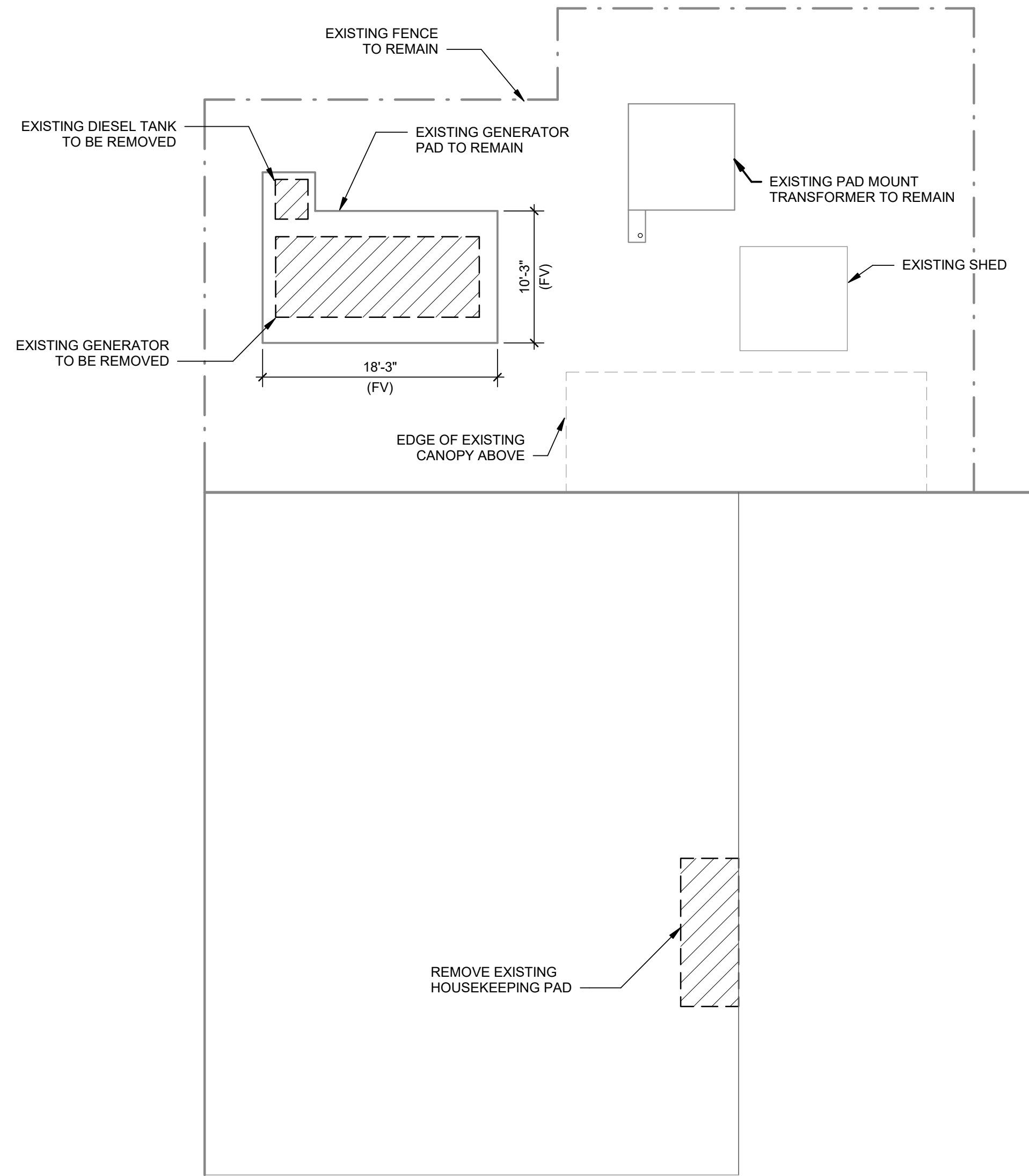
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4 OF 16 SHEETS
09/26/2025

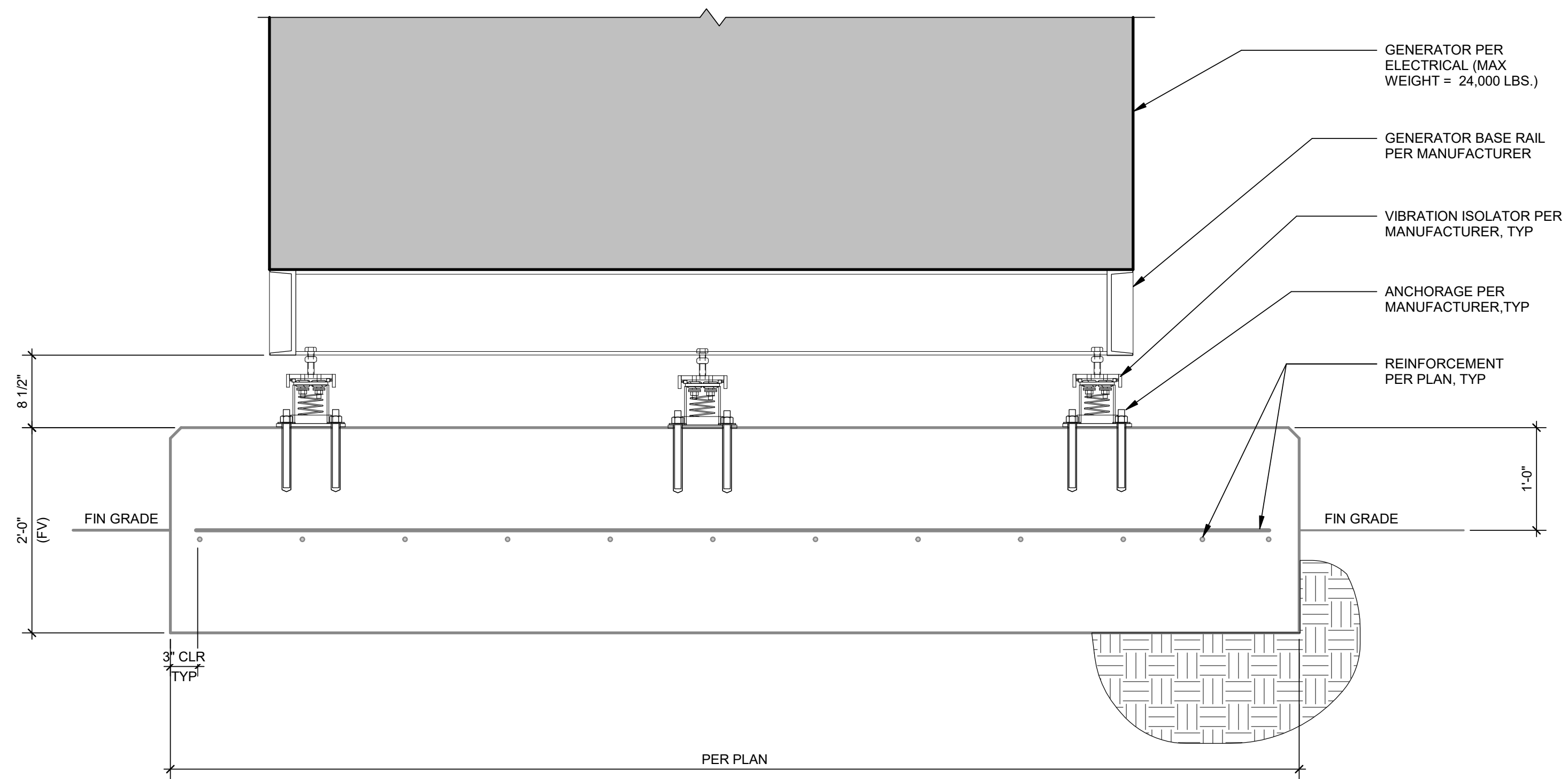


- NOTES:
1. CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE CONCRETE PAD AND NOTIFY ENGINEER OF ANY DISCREPANCIES
 2. AFTER REMOVAL OF THE EXISTING EQUIPMENT, CONTRACTOR SHALL VISUALLY EXAMINE AND PERFORM SOUNDING OF THE CONCRETE PAD. NOTIFY ENGINEER OF ANY SIGNS OF CONCRETE CRACKING, SPALLING AND DELAMINATION PRIOR TO INSTALLATION OF NEW EQUIPMENT.

B BUILDING C - LEVEL 1 PLAN
1/8" = 1'-0"



A BUILDING C - LEVEL 1 DEMO PLAN
1/8" = 1'-0"



1 CONCRETE PAD SECTION
1" = 1'-0"



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ISSUE DATE: 09/26/2025

CAD DWG FILE:
DRAWN BY: RC
CHECKED BY: JM/KD
DESIGNED BY: RC

SHEET TITLE:
**STRUCTURAL
PLAN - BUILDING C**

SHEET NUMBER:

S-100
OF SHEETS
09/26/2025

○ PLUMBING DEMO PLAN NOTES:

- P1 CONFIRM ALL PIPE SIZES AND VENT ELEVATIONS PRIOR TO STARTING DEMOLITION.
- P2 DISCONNECT AND REMOVE EXISTING FUEL OIL SUPPLY AND RETURN PIPING BETWEEN DAY TANK AND EXISTING GENERATOR.
- P3 DISCONNECT AND REMOVE PIPING BETWEEN EXISTING DAY TANK AND EXISTING MAIN STORAGE TANK. REMOVE PIPING BACK TO SECONDARY CONTAINMENT PIPE AT GRADE. MAINTAIN EXISTING SHUTOFF VALVES AT GRADE.
- P4 COORDINATE WITH OTHER TRADES FOR SEQUENCE AND PHASING.

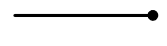
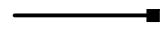
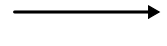
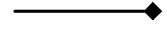
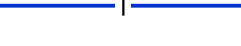
GENERAL NOTES:

1. PROVIDE A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE OWNER'S CONSTRUCTION MANAGER REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCATIONS OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS, REFER TO SPECIFICATIONS.
2. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY OWNER'S CONSTRUCTION MANAGER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
3. PROVIDE TO THE OWNER'S CONSTRUCTION MANAGER A COPY OF INSPECTION REPORTS AND APPROVAL CERTIFICATES FROM LOCAL AND STATE INSPECTIONS, REFER TO SPECIFICATIONS.
4. PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
5. DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE ROUTING.
6. VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.
7. INSTALL PIPING PARALLEL AND / OR PERPENDICULAR TO WALLS.
8. COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
9. VERIFY EXISTING EQUIPMENT, INCLUDING ACCESSORIES, IS NOT DAMAGED AND IS IN GOOD WORKING ORDER. REPORT ANY DEFICIENCIES TO THE OWNER'S CONSTRUCTION MANAGER.
10. PROVIDE SEISMIC RESTRAINTS AS NEEDED FOR THE MECHANICAL SYSTEMS IN THE PROJECT BASED ON THE SEISMIC ANALYSIS REQUIRED BY THE SPECIFICATIONS.
11. SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS.
12. EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

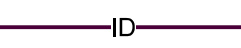
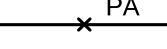
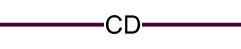
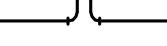
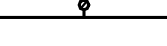
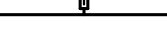
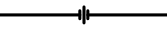
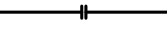
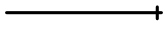
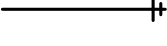
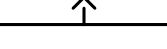
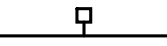
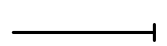
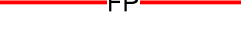
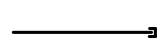
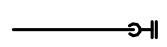
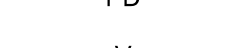
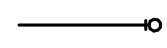
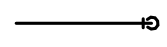
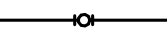
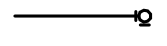
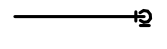
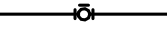
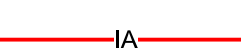
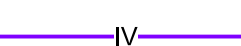
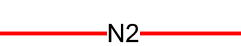
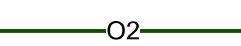
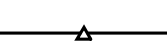
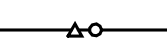
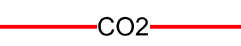
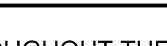
PLUMBING SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

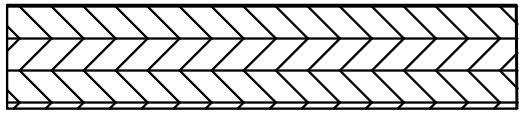
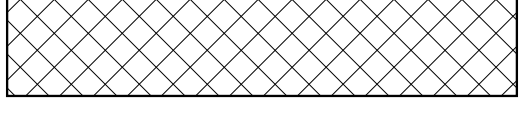
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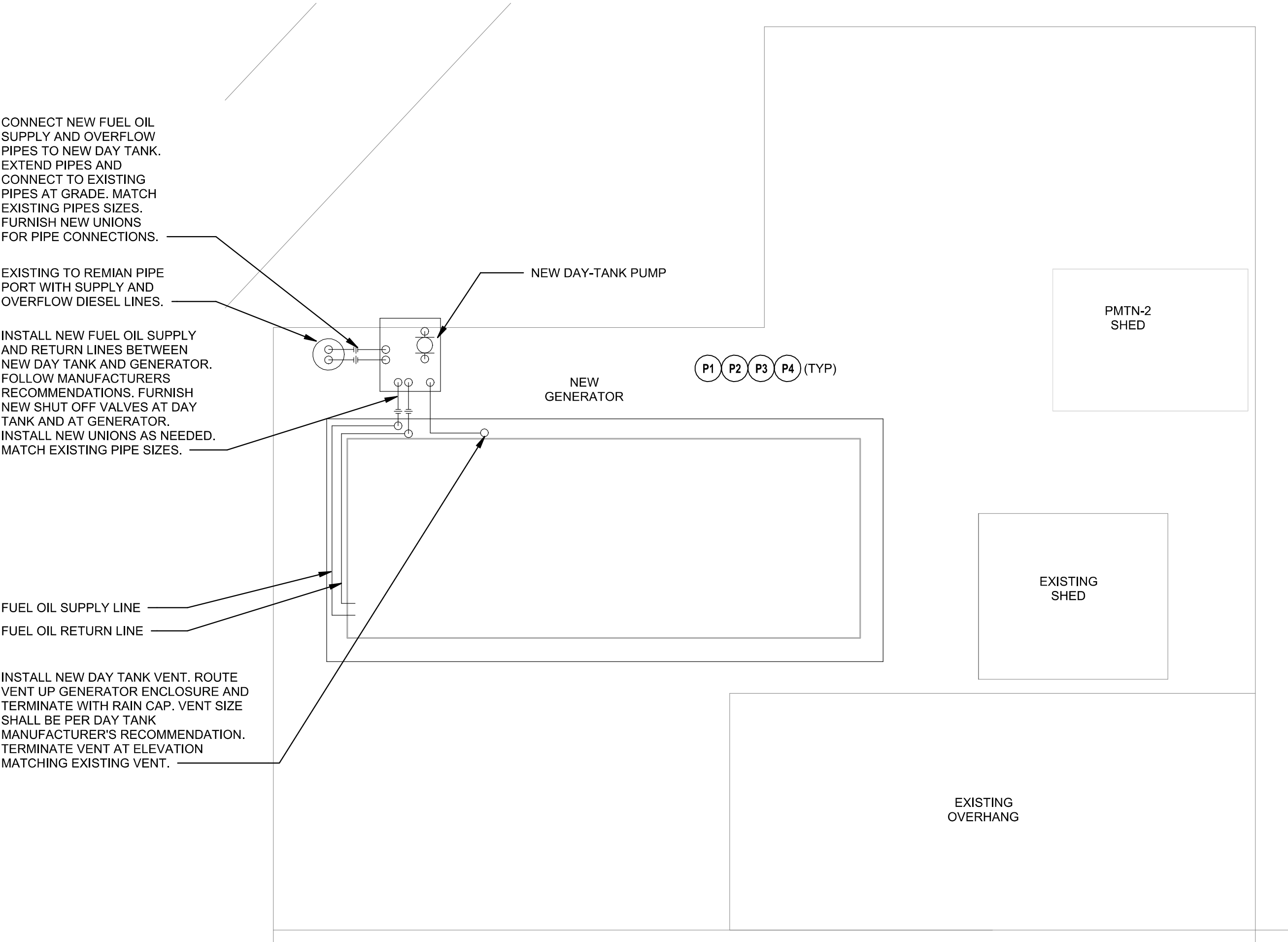
ANNOTATION	PIPING SYMBOLS	PIPING LINETYPES
 PLUMBING PLAN NOTE CALLOUT	 OXYGEN OUTLET	 DOMESTIC COLD WATER (CW)
 PLUMBING EQUIPMENT DESIGNATION, (CONTRACTOR FURNISHED AND INSTALLED), REFER TO PLUMBING FIXTURE OR EQUIPMENT SCHEDULES	 NITROUS OXIDE OUTLET	 SOFTENED COLD WATER (SCW)
 EQUIPMENT DESIGNATION (OWNER FURNISHED, CONTRACTOR INSTALLED)	 MEDICAL AIR OUTLET	 DOMESTIC HOT WATER (HW)
 MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)	 NITROGEN OUTLET	 DOMESTIC HOT WATER RECIRC. (HWR)
 CONNECTION POINT OF NEW WORK TO EXISTING	 MEDICAL VACUUM INLET	 DOMESTIC HOT WATER (140")
 DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER	 FLOOR SINK (FS), SIZE & TYPE	 TRAP PRIMER LINE (T)
 SECTION CUT DESIGNATION	 FLOOR DRAIN (FD), SIZE & TYPE	 SOIL PIPING - ABOVE FLOOR (S)
 DEDICATED EQUIPMENT ACCESS TILE	 ROOF DRAIN (RD), SIZE & TYPE	 SOIL PIPING - BELOW FLOOR (S)
 ACCESS PANEL	 BALL VALVE	 WASTE PIPING - ABOVE FLOOR (W)

ABBREVIATIONS			
ADA	AMERICANS WITH DISABILITIES ACT	MIN	MINIMUM
AFF	ABOVE FINISHED FLOOR	N/C	NORMALLY CLOSED
AFG	ABOVE FINISHED GRADE	N/O	NORMALLY OPEN
AHU	AIR HANDLING UNIT	NIC	NOT IN CONTRACT
AP	ACCESS PANEL	ORD	OVERFLOW ROOF DRAIN
BAS	BUILDING AUTOMATION SYSTEM	PDI	PLUMBING DRAINAGE INSTITUTE
BFF	BELOW FINISHED FLOOR	PH/Ø	PHASE
BFG	BELOW FINISHED GRADE	PRV	PRESSURE REDUCING VALVE
BOP	BOTTOM OF PIPE	PVC	POLYVINYL CHLORIDE
BOS	BOTTOM OF STRUCTURE	RCP	REINFORCED CONCRETE PIPE
BTU	BRITISH THERMAL UNIT	RD	ROOF DRAIN
CP	CONDENSATE PUMP	RPM	REVOLUTIONS PER MINUTE
CPVC	CHLORINATED POLYVINYL CHLORIDE	RTU	ROOFTOP UNIT
CU	COPPER	SF	SQUARE FEET
DI	DUCTILE IRON	SP	SUMP
DN	DOWN	SS	STAINLESS STEEL
DFU	DRAINAGE FIXTURE UNIT	TDH	TOTAL DYNAMIC HEAD
DS	DOWNSPOUT	TFA	TO FLOOR ABOVE
(E)	EXISTING	TFB	TO FLOOR BELOW
EMS	ENERGY MANAGEMENT SYSTEM	TYP	TYPICAL
ETR	EXISTING TO REMAIN	UL	UNDERWRITERS LABORATORIES, INC. UNLESS NOTED OTHERWISE
EWC	ELECTRIC WATER COOLER	UPS	UNINTERRUPTIBLE POWER SUPPLY
FD	FLOOR DRAIN	VCP	VITRIFIED CLAY PIPE
FFA	FROM FLOOR ABOVE	VFD	VARIABLE FREQUENCY DRIVE
FFB	FROM FLOOR BELOW	VS	VENT STACK
FF	FINISHED FLOOR	VTR	VENT THROUGH ROOF
FL	FLOW LINE	W/	WITH
FLA	FULL LOAD AMPS	W/O	WITHOUT
FLR	FLOOR	WC	WATER COLUMN
GPM	GALLONS PER MINUTE	WS	WASTE STACK
HD	HEAD, HUB DRAIN	WSFU	WATER SUPPLY FIXTURE UNIT
HZ	HERTZ	WVS	WASTE VENT STACK
IE	INVERT ELEVATION		
IN WC	INCHES OF WATER COLUMN		
JB	JUNCTION BOX		
J-BOX	JUNCTION BOX		
KW	KILOWATT		
MAU	MAKE-UP AIR UNIT		
MAX	MAXIMUM		
MBH	1000 BTU PER HOUR		
MH	MANHOLE		

PIPING SYMBOLS	PIPING LINETYPES
 SOLENOID VALVE	 VENT BELOW GRADE (VBG)
 PRESSURE REDUCING VALVE	 VENT BELOW FLOOR (VBF)
 GAS PRESSURE REGULATOR	 INDIRECT DRAIN (ID)
 THERMOSTATIC MIXING VALVE	 CONDENSATE DRAIN - HIGH EFFICIENCY RTU (CDH)
 PIPE ANCHOR	 CONDENSATE DRAIN (CD)
 EXPANSION JOINT	 AUXILIARY CONDENSATE DRAIN (ACD)
 BACKFLOW PREVENTER	 SUMP OR SEWAGE PUMP DISCHARGE (SPD)
 PRESSURE GAUGE	 NATURAL GAS (G)
 THERMOMETER	 NATURAL GAS ON ROOF (G)
 UNION	 MEDIUM PRESSURE NATURAL GAS (MPG)
 FLANGE CONNECTION	 MEDIUM PRESSURE NATURAL GAS ON ROOF (MPG)
 HOSE BIBB (HB)	 NON-POTABLE WATER (NPW)
 NON-FREEZING WALL HYDRANT (NW)	 LIQUEFIED PETROLEUM GAS (LPG)
 MANUAL / AUTOMATIC AIR VENT OR VACUUM RELIEF VALVE	 WATER SERVICE (WS)
 PRESSURE / VACUUM SWITCH	 FIRE PROTECTION SPRINKLER DRY (DFP)
 CLEANOUT	 FIRE PROTECTION SPRINKLER WET (FP)
 CAP	 FIRE PROTECTION STANDPIPE DRY (DSP)
 WALL CLEANOUT (WCO)	 FIRE PROTECTION STANDPIPE WET (WSP)
 FLOOR CLEANOUT (FCO)	 CONDENSATE PUMP DISCHARGE (PD)
 EXTERIOR CLEANOUT (ECO)	 VENT PIPING (V)
 ELBOW UP	 ACID WASTE - ABOVE FLOOR (AW)
 ELBOW DOWN	 ACID WASTE - BELOW FLOOR (AW)
 TEE UP	 ACID VENT (AV)
 TEE DOWN	 GRAY WATER (GWS)
 ELBOW UP WITH SHUT-OFF VALVE (SOV)	 COMPRESSED AIR (CA)
 ELBOW DOWN WITH SHUT-OFF VALVE (SOV)	 MEDICAL AIR (MA)
 TEE UP WITH SHUT-OFF VALVE (SOV)	 MEDICAL VACUUM (VE)
 TEE DOWN WITH SHUT OFF VALVE (SOV)	 HELIUM (HE)
 WATER HAMMER ARRESTER (WHA) WITH PDI SIZES, (A, B, C, D, & E)	 INSTRUMENT AIR (IA)
 RECIRCULATION PUMP	 INSTRUMENT VACUUM (IV)
 P-TRAP	 NITROGEN (N2)
 GAS COCK	 NITROUS OXIDE (N20)
 TRAP PRIMER	 OXYGEN (O2)
 TRAP PRIMER WITH DISTRIBUTION UNIT	 EVAC/WAGD (EV)

LINETYPE LEGEND	
THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.	
EXISTING	NEW
DEMOLISH	FUTURE

HATCHING LEGEND	
ENLARGED PLAN	
NOT IN SCOPE (NIS)	



3 PLUMBING - LEVEL 1 PLAN - BUILDING C
1/4" = 1'-0"

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



09/26/25
KELLEY P. CRAMM
LICENSE # E-022323

HENDERSON
ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM

2450003896
MO. CORPORATE NO. E-556D
EXPIRES 10/31/2025

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

BACKUP POWER
EQUIPMENT REPLACEMENT
FULTON RECEPTION AND
DIAGNOSTIC CENTER

1393 ROUTE O
FULTON, MO 65251

PROJECT # C2415-01
SITE # 7010
FACILITY # 9327010027

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 09/26/2025

CAD DWG FILE:
DRAWN BY: _____ Author
CHECKED BY: _____ Checker
DESIGNED BY: _____ Designer

SHEET TITLE:
PLUMBING PLAN -
BUILDING C

SHEET NUMBER:

P201.C

6 OF 16 SHEETS
09/26/2025

ELECTRICAL SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

V4.02

STANDARD MOUNTING HEIGHTS	
AUDIBLE APPLIANCE (CENTERLINE)	84"
ALARM (TOP OF DEVICE)	46"
ANNUNCIATOR PANEL (TOP OF DISPLAY)	60"
CONTROLS (TOP OF DEVICE)	46"
DATA WALL OUTLET	SAME AS ADJACENT DEVICE, UNO
EXIT SIGN (WALL MOUNTED)	92"
FIRE ALARM ANNUNCIATOR PANEL (TOP OF DISPLAY)	60"
FIRE ALARM BELL (EXTERIOR) (CENTERLINE)	120"
FIRE ALARM CONTROL PANEL/UNIT (TOP OF DISPLAY)	60"
INTERCOM (TOP OF DEVICE)	46"
PULL STATION (TOP OF DEVICE)	46"
RECEPTACLE (BOTTOM OF DEVICE)	16"
RECEPTACLE (ABOVE COUNTER) +6" ABOVE BACKSPLASH/COUNTER, 40" MAX	
RECEPTACLE (CLOCK) (CENTERLINE)	84"
RECEPTACLE (EQUIPMENT ROOMS) (TOP OF DEVICE)	46"
RECEPTACLE (EXTERIOR)	24"
RECEPTACLE (GARAGES)	46"
REMOTE INDICATING LIGHT (EQUIPMENT ROOMS) (TOP OF DEVICE)	46"
REMOTE INDICATING LIGHT (FINISHED AREAS)	CEILING
SAFETY SWITCH (TOP OF DEVICE)	46"
STARTER (TOP OF DEVICE)	46"
SWITCH (TOP OF DEVICE)	46"
TELEPHONE WALL OUTLET (TOP OF DEVICE)	46"
TELECOMMUNICATIONS BACKBOARD	6"
TELEVISION OUTLET	REFER TO DRAWINGS
VISIBLE APPLIANCE (CENTERLINE)	84"

INSTALL DEVICES/OUTLET BOXES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE CONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ABOVE, OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS, ARE AFF OR AFG TO BOTTOM OF DEVICE, UNO. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.

ABBREVIATIONS

AF	AMPERE FUSE SIZE	MCB	MAIN CIRCUIT BREAKER
AFC	ABOVE FINISHED CEILING	MCC	MOTOR CONTROL CENTER
AFF	ABOVE FINISHED FLOOR	MFR	MANUFACTURER
AFG	ABOVE FINISHED GRADE	MIN	MINIMUM
AHJ	AUTHORITY HAVING JURISDICTION	MLO	MAIN LUGS ONLY
AHU	AIR HANDLING UNIT	MLV	MAGNETIC LOW-VOLTAGE
AIC	AMPERE INTERRUPTING CAPACITY	MOC	MAXIMUM OVERCURRENT PROTECTION
AS	AMPERE SWITCH SIZE	MTD	MOUNTED
AT	AMPERE TRIP SETTING	N/A	NOT APPLICABLE
ATS	AUTOMATIC TRANSFER SWITCH	NIC	NOT IN CONTRACT
AV	AUDIO VISUAL	NIS	NOT IN SCOPE
BAS	BUILDING AUTOMATION SYSTEM	NF	NON-FUSED
BESS	BATTERY ENERGY STORAGE SYSTEM	NL	NIGHT LIGHT (24HR ON)
BKR	BREAKER	NRTL	NATIONALLY RECOGNIZED TESTING LABORATORY (CSA, ETL, NSF, UL)
C	CONDUIT	NTS	NOT TO SCALE
CAT	CATEGORY	OS	OCCUPANCY SENSOR
CATV	CABLE TELEVISION SYSTEM	P	POLE
CCTV	CLOSED CIRCUIT TELEVISION	PART	PARTIAL CIRCUIT
CD	CANDELA	PHIØ	PHASE
CKT	CIRCUIT	PNL	PANEL
CODE	APPLICABLE CODE	PNLBD	PANELBOARD
CT	ADOPTED BY JURISDICTION	PROVIDE	FURNISH AND INSTALL
CTR	CURRENT TRANSFORMER CENTER	PT	POTENTIAL TRANSFORMER
CTRL	CONTROL/CONTROLLED	PV	PHOTOVOLTAIC
CVD	CUMULATIVE VOLTAGE DROP	QTY	QUANTITY
D/DEMO	DEMOLITION	R/REL	RELOCATE
DDPT	DOUBLE-POLE, DOUBLE-THROW	RCPT	RECEPTACLE
DPST	DOUBLE-POLE, SINGLE-THROW	RLA	RUNNING LOAD AMPS
E/ETREX	EXISTING TO REMAIN	RTU	ROOFTOP UNIT
EC	ELECTRICAL CONTRACTOR	SCCR	SHORT-CIRCUIT CURRENT RATING
EF	EXHAUST FAN	SD	SMOKE DUCT DETECTOR
EM	EMERGENCY	SF	SQUARE FEET
EMS	ENERGY MANAGEMENT SYSTEM	SPDT	SINGLE-POLE, DOUBLE-THROW
ELV	ELECTRONIC LOW-VOLTAGE	SPST	SINGLE-POLE, SINGLE-THROW
ERMS	ENERGY-REDUCING MAINTENANCE SWITCH	SSBJ	SUPPLY-SIDE BONDING JUMPER
EV	ELECTRIC VEHICLE	ST	SHUNT TRIP
EWC	ELECTRIC WATER COOLER	SWBD	SWITCHBOARD
FAAP	FIRE ALARM ANNUNCIATOR PANEL	SWGR	SWITCHGEAR
FACP	FIRE ALARM CONTROL PANEL	TBB	TELECOMMUNICATIONS BONDING BACKBONE
FCA	FAULT CURRENT AMPS AVAILABLE	TBD	TO BE DETERMINED
FCU	FAN COIL UNIT	TGB	TELECOMMUNICATIONS GROUND BUS BAR
FF	FINISHED FLOOR	TL	TWISTLOCK
FLA	FULL LOAD AMPS	TMGB	TELECOMMUNICATIONS MAIN GROUND BUS BAR
FLR	FLOOR	TX/XFMR	TRANSFORMER
GC	GENERAL CONTRACTOR	TYP	TYPICAL
GEC	GROUNDING ELECTRODE CONDUCTOR	U/F	UNDERFLOOR
GES	GROUNDING ELECTRODE SYSTEM	U/G	UNDERGROUND
GFR	GROUND FAULT RELAY	U/S	UNDERSLAB
IG	ISOLATED GROUND	UH	UNIT HEATER
ISC	SHORT CIRCUIT CURRENT	UNO	UNLESS NOTED OTHERWISE
JB/J-BOX	JUNCTION BOX	UPS	UNINTERRUPTIBLE POWER SUPPLY
LF	LINEAR FEET	VD	VOLTAGE DROP
LRA	LOCKED ROTOR AMPS	VFD	VARIABLE FREQUENCY DRIVE
LTGLTS	LIGHTING/LIGHTS	VS	VACANCY SENSOR
MAU	MAKE-UP AIR UNIT	W	WIRE
MAX	MAXIMUM	W/	WITH
MCA	MINIMUM CIRCUIT AMPACITY	WP	WEATHER PROOF
		WR	WEATHER RESISTANT
		WT	WATERTIGHT
		XP	EXPLOSION PROOF

LINETYPE LEGEND

THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.

EXISTING	ARTICLE 700 OR LIFE SAFETY*
DEMOLISH	ARTICLE 701 OR CRITICAL / EQUIPMENT BRANCH*
NEW	
FUTURE	ARTICLE 702 OR OPTIONAL*

* APPLIES TO COLOR PLOTS ONLY

ANNOTATION	
XX###	PLAN NOTE CALLOUT
①	MECHANICAL OR FIRE PROTECTION PLAN NOTE CALLOUT
①	PLUMBING PLAN NOTE CALLOUT
①	ELECTRICAL OR FIRE ALARM PLAN NOTE CALLOUT
①	TECHNOLOGY PLAN NOTE CALLOUT
①	PLUMBING EQUIPMENT DESIGNATION. (CONTRACTOR FURNISHED AND INSTALLED, UNO). REFER TO PLUMBING FIXTURE OR EQUIPMENT SCHEDULES
①	EQUIPMENT DESIGNATION (OWNER FURNISHED, CONTRACTOR INSTALLED, UNO)
CU 1	MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED, UNO)
	CONNECTION POINT OF NEW WORK TO EXISTING
① E1	DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER
E1	SECTION CUT DESIGNATION
	DEDICATED EQUIPMENT ACCESS TILE
	ACCESS PANEL

CIRCUITING & WIRING

7 5 3 OR [R#] P1 P1-3,5,7	HOMERUN TO PANELBOARD. INFORMATION AT ARROWS ARE CIRCUIT NUMBERS AND PANELBOARD FOR TERMINATION. REFER TO PANELBOARD SCHEDULES FOR BRANCH CIRCUIT CONDUCTOR SIZES.
	INDICATES RELAY NUMBER
	CIRCUIT CONTINUATION OR PARTIAL CIRCUIT
	CONDUIT CONCEALED
EM	CONDUIT CONCEALED (EMERGENCY)
	CONDUIT IN/UNDER FLOOR/GROUND CONSTRUCTION
---	EXPOSED CONDUIT
EM	EXPOSED CONDUIT (EMERGENCY)
	FLEXIBLE CONDUIT
	CONDUIT TURNING DOWN
	CONDUIT TURNING UP
	CONNECTION POINT OR EQUIPMENT TERMINATION
	EQUIPMENT TERMINATION

BRANCH CIRCUIT CONDUCTOR TABLE

WHERE TICK MARKS ARE NOT SHOWN, THE FOLLOWING SHALL GOVERN:				
# OF POLES	HOT (PHASE)	NEUTRAL (GROUNDED)**	GROUNDING***	
1P	(1)	(1) UNO	(1)	(1)
2P	(2)	(1) UNO	(1)	(1)
3P	(3)	(1) UNO	(1)	(1)

* PROVIDE ADDITIONAL CONDUCTORS THROUGH ENTIRE CIRCUIT (SWITCHED, UNSWITCHED/EM, ETC.) AS INDICATED THROUGHOUT CONSTRUCTION DOCUMENTS AND AS REQUIRED FOR A COMPLETE AND WORKING SYSTEM.

** REFER TO SPECIFICATIONS FOR LIMITATIONS ON SHARING NEUTRAL (GROUNDED) CONDUCTORS. DO NOT CIRCUIT AS A MULTI-WIRE BRANCH CIRCUIT, UNO.

*** PROVIDE ADDITIONAL ISOLATED GROUNDING CONDUCTORS WHERE INDICATED.

REFER TO SPECIFICATIONS, PLANS, NOTES, WIRING AND CONTROL DIAGRAMS FOR ADDITIONAL CIRCUITING REQUIREMENTS.

HATCHING LEGEND

ENLARGED PLAN	
NOT IN SCOPE (NIS)	

LIGHTING	
A	LIGHT FIXTURE
a	a = LOWER CASE LETTER IS SWITCH IDENTIFIER
A	A = UPPER CASE LETTER INDICATES LIGHT FIXTURE TYPE
[OS]	[OS] = INTEGRAL OCCUPANCY SENSOR
⊥	⊥ = WALL MOUNT
>	> = ARROW INDICATED AIMING DIRECTION
	LIGHT FIXTURE CIRCUITED AS A NIGHT LIGHT (NL)
	EMERGENCY LIGHT FIXTURE WITH EMERGENCY LIGHTING BATTERY PACK OR CONNECTED TO EMERGENCY SOURCE
	NIGHT LIGHT/EMERGENCY LIGHT FIXTURE WITH EMERGENCY BATTERY PACK OR CONNECTED TO EMERGENCY SOURCE
	LIGHT FIXTURE WITH DUAL BALLASTS CIRCUITED SEPARATELY (SHADING IMPLIES EMERGENCY LIGHT FIXTURE)
	LIGHTING TRACK (# INDICATES RELAY NUMBER)
	MIRROR LIGHTS
	EXTERIOR PARKING LOT LIGHT FIXTURE
	EXTERIOR PEDESTRIAN POST TOP LIGHT FIXTURE
	EXTERIOR LIT BOLLARD LIGHT
	EXIT SIGN - CEILING / WALL MOUNTED, ARROWS AS INDICATED, FACE HATCHED
	EMERGENCY LIGHTING UNIT EQUIPMENT WITH BATTERY PACK - CEILING/WALL MOUNTED
	AFEA (AREA FOR EVACUATION ASSISTANCE) SIGN - CEILING/WALL MOUNTED, ARROWS AS INDICATED

REFER TO LIGHT FIXTURE SCHEDULE FOR MORE INFORMATION

POWER EQUIPMENT

	ELECTRICAL PANELBOARD (SURFACE OR FLUSH MOUNT)
	ELECTRICAL CABINET (SURFACE OR FLUSH MOUNT), TYPE AS NOTED
	PLYWOOD TERMINAL BOARD FOR TELEPHONE SYSTEM, UNO. SIZE AS NOTED
	ELECTRICAL EQUIPMENT ON HOUSEKEEPING PAD
	TRANSFORMER
	DISCONNECT SWITCH, 200/3/150/3R = AMPERES/POLE/FUSE/NEMA ENCLOSURE RATING CB = CIRCUIT BREAKER (200/3/CB) FM = FACTORY FURNISHED AND MOUNTED NF = NON-FUSED OL = SIZE INDICATED ON ONE-LINE DIAGRAM NO VALUE FOR NEMA ENCLOSURE = NEMA 1
200/3/150/3R	COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER, 30/3/15/1/3R = AMPERES/POLE/FUSE/NEMA STARTER SIZE/NEMA ENCLOSURE RATING CB= CIRCUIT BREAKER (30/3/CB/1) FM = FACTORY FURNISHED AND MOUNTED NF= NON-FUSED NO VALUE FOR NEMA ENCLOSURE = NEMA 1
30/3/15/1/3R	MAGNETIC MOTOR STARTER, NEMA SIZE AS NOTED, 3-POLE, UNO
	VARIABLE FREQUENCY DRIVE
	INDICATING LIGHT
	EMERGENCY POWER OFF BUTTON
	STOP-START PUSH BUTTON CONTROL STATION
	HAND-OFF-AUTO PUSH BUTTON CONTROL STATION
	MUSHROOM-TYPE PUSH BUTTON
	OVERHEAD PADDLE FAN

BOXES, LIGHTING CONTROL & WIRING DEVICES	
	SWITCH LETTER DESIGNATIONS AS FOLLOWS: BLANK = SINGLE POLE 2 = TWO POLE 3 = THREE-WAY 4 = FOUR-WAY D = DIMMER F = FAN SPEED CONTROL FH = FRACTIONAL HORSEPOWER MANUAL CONTROLLER FM = FACTORY FURNISHED AND MOUNTED IH = INTEGRAL HORSEPOWER MANUAL CONTROLLER K = KEYS LV# = LOW VOLTAGE / DIGITAL M = MANUAL MOTOR STARTER DISCONNECT OS# = OCCUPANCY SENSOR P = SPST PILOT LIGHT VP = WEATHER PROOF 30/3/3R = AMPERES/POLES/NEMA ENCLOSURE RATING # = REFER TO LIGHTING CONTROL DEVICE SCHEDULE
ALC	AUTOMATIC LOAD CONTROL RELAY
BTS	BRANCH CIRCUIT TRANSFER SWITCH

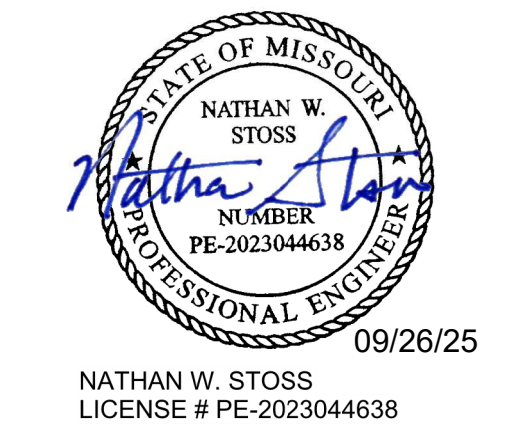
	CEILING / WALL MOUNTED OCCUPANCY SENSOR (# INDICATES TYPE PER SCHEDULE)
	CORNER 90 DEGREE SENSING ONE-DIRECTION SENSING, CEILING/WALL MOUNT CEILING MOUNT, TWO-DIRECTION SENSING CEILING MOUNT, FOUR-DIRECTION SENSING
C#	CONTACTOR (SIZE, COIL VOLTAGE AND NUMBER OF POLES AS INDICATED)
CL##	TRACK-MOUNTED CURRENT LIMITER (## INDICATES AMPERAGE)
DS#	DAYLIGHT SENSOR (# INDICATES TYPE PER SCHEDULE)
LC	LIGHTING CONTROLS PROCESSOR AND/OR EQUIPMENT
PH	POWER PACK (# INDICATES TYPE PER SCHEDULE)
PS#	PHOTOELECTRIC SWITCH
R##	ROOM CONTROLLER (# INDICATES TYPE PER SCHEDULE)
TS#	TIME SWITCH
	SIMPLEX RECEPTACLE - NEMA 5-20R, UNO
	DUPLEX RECEPTACLE - NEMA 5-20R, UNO
	DOUBLE DUPLEX RECEPTACLE - NEMA 5-20R, UNO
	SPECIAL RECEPTACLE - NEMA TYPE AS NOTED
	TWIST-LOCK TYPE RECEPTACLE
	BLANK FACE GFCI FEED THROUGH DEVICE
Ø OR GFCI	GFCI TYPE RECEPTACLE*
	AUTOMATICALLY CONTROLLED SIMPLEX RECEPTACLE
	SPLIT-WIRED DUPLEX RECEPTACLE*, HALF AUTOMATICALLY CONTROLLED
	AUTOMATICALLY CONTROLLED DUPLEX RECEPTACLE*
	DOUBLE DUPLEX RECEPTACLE WITH ONE DUPLEX AUTOMATICALLY CONTROLLED
	DOUBLE DUPLEX RECEPTACLE WITH BOTH DUPLEXES AUTOMATICALLY CONTROLLED
Ø OR EM	EMERGENCY RECEPTACLE*
	RECEPTACLE INSTALLED ABOVE COUNTER OR BACKSPLASH*
	RECEPTACLE INSTALLED IN CEILING*
	RECEPTACLE INSTALLED VIA DROP CORD*
Ø OR H	RECEPTACLE INSTALLED IN HORIZONTAL ORIENTATION*

	ADDITIONAL RECEPTACLE LETTER DESIGNATIONS AS FOLLOWS: CH = CLOCK HANGER TYPE G = RCPT PROTECTED BY GFCI CIRCUIT BREAKER OR UPSTREAM GFCI DEVICE IG = ISOLATED GROUND S = MANUALLY SWITCHED SP / TVSS = SURGE PROTECTION TR = TAMPER RESISTANT TV = TELEVISION USB = USB/DUPLEX WP = WEATHER PROOF COVER WR = WEATHER RESISTANT
	MULTI-OUTLET ASSEMBLY
	TELEPHONE OUTLET
	DATA OUTLET
	MULTI-SERVICE OUTLET; TELEPHONE AND DATA
	ABOVE COUNTER, TYP WALL, TYP
☑ A	MULTI-SERVICE POWER POLE WITH TELEPHONE, DATA AND POWER OUTLETS A = TYPE, REFER TO PLANS, SCHEDULES AND SPECIFICATIONS
■ A	FLOOR BOX WITH TELEPHONE, DATA AND/OR POWER OUTLETS A = TYPE, REFER TO PLANS, SCHEDULES AND SPECIFICATIONS
⊙ A	POKE THROUGH, A = TYPE, REFER TO PLANS, SCHEDULES AND SPECIFICATIONS
○	THERMOSTAT
□ ○	JUNCTION/OUTLET BOX, MOUNTING AS NOTED OR DETAILED

* SYMBOL DEMONSTRATED WITH DUPLEX RECEPTACLE. WHEN USED IN COMBINATION WITH OTHER DEVICES MEANING IS SIMILAR FOR THOSE DEVICE TYPES

REFER TO LIGHTING CONTROL DEVICE SCHEDULE FOR MORE INFORMATION.

ELECTRICAL ONE-LINE & RISER DIAGRAM	
	SWITCH (RATING AND POLES AS INDICATED)
	DRAWOUT CIRCUIT BREAKER (RATINGS, POLES, TRIP SIZE AND BREAKER TYPE AS INDICATED)
	FUSED SWITCH (RATING, POLES, FUSE SIZE AND TYPE AS INDICATED)
	COMBINATION FUSED SWITCH/STARTER (RATING, POLES, FUSE SIZE, FUSE TYPE, NEMA STARTER SIZE, NEMA ENCLOSURE TYPE AS INDICATED)
	CIRCUIT BREAKER (RATING, POLES, TRIP SIZE AND BREAKER TYPE AS INDICATED)
	COMBINATION CIRCUIT BREAKER/STARTER (RATING, POLES, TRIP SIZE, BREAKER TYPE, NEMA STARTER SIZE, NEMA ENCLOSURE TYPE AS INDICATED)
	CIRCUIT BREAKER TRIP FUNCTIONS L = LONG TIME S = SHORT TIME I = INSTANTANEOUS G = GROUND FAULT
	PANELBOARD, SINGLE OR MULTI-SECTION (REFER TO SCHEDULES)
	ISOLATED POWER PANELBOARD W/ INTEGRAL TRANSFORMER (REFER TO SCHEDULES)
	TRANSFORMER (TYPE AND RATINGS AS INDICATED)
	SHIELDED TRANSFORMER (TYPE AND RATINGS AS INDICATED)
	TRANSFER SWITCH (RATINGS AS INDICATED) ATS = AUTOMATIC TRANSFER SWITCH MTS = MANUAL TRANSFER SWITCH NTS = NON-AUTOMATIC TRANSFER SWITCH
	TRANSFER SWITCH WITH BYPASS (RATINGS AS INDICATED)
	GENERATOR (RATINGS AS INDICATED)
	INDICATES CONNECTION TO GROUNDING ELECTRODE SYSTEM IF GENERATOR IS CONNECTED AS A SEPARATELY DERIVED SOURCE
	SPLIT-WIRED DUPLEX ROOM
	SWITCHGEAR, SWITCHBOARD AND/OR DISTRIBUTION PANELBOARD (TYPE, RATING, DEVICES AND ACCESSORIES AS INDICATED)
	AMMETER SWITCH
	VOLTMETER SWITCH
	AMMETER (RANGE AS SPECIFIED OR REQUIRED)
	VOLTMETER (RANGE AS SPECIFIED OR REQUIRED)
	COMBINATION DIGITAL VOLT METER/AMMETER
	UTILITY METER (AS REQUIRED BY UTILITY)
	WATT-HOUR METER, "D" DENOTES DEMAND REGISTER, "15" DENOTES MINUTES OF DEMAND INTERVAL
	CURRENT TRANSFORMER RATING AS SPECIFIED OR REQUIRED
	POTENTIAL TRANSFORMER RATING AS SPECIFIED OR REQUIRED
	CIRCUIT/EQUIPMENT IDENTIFICATION (REFER TO SCHEDULE)
	ENERGY-REDUCING MAINTENANCE SWITCH
	GROUND FAULT RELAY
	PHASE FAILURE RELAY
	PHASE ROTATION MONITOR
	RELAY
	KIRK-KEY INTERLOCK (# INDICATES KEY PAIR)
	SHUNT TRIP
	SURGE-PROTECTIVE DEVICE
	VARIABLE FREQUENCY DEVICE
	GROUND CONNECTION
	GROUND CONNECTION WITH TEST WELL
	GROUND ROD
	LIGHTNING ARRESTER
	CAPACITOR
	CONTACT (OPEN OR CLOSED)
	HEATER
	MOTOR
	BLOCK LOAD KW OR KVA
	FAULT POINT REFERENCED IN SHORT CIRCUIT CURRENT AND VOLTAGE DROP SPREADSHEET



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MO. CORPORATE NO. E-556D
EXPIRES 10/31/2025

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DESIGN AND CONSTRUCTION

BACKUP POWER
EQUIPMENT REPLACEMENT
FULTON RECEPTION AND
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1393 ROUTE O
FULTON, MO 65251

PROJECT # C2415-01
SITE # 7010
FACILITY # 9327010027

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CAD DWG FILE:
DRAWN BY: ASM
CHECKED BY: NWS
DESIGNED BY: ASM

SHEET TITLE:
ELECTRICAL
LEGEND

SHEET NUMBER:

APPLICABLE ELECTRICAL CODES:

NOTE: PROJECT IS DESIGNED IN COMPLIANCE WITH THE FOLLOWING CODES. THIS IS NOT AN EXHAUSTIVE LIST. PROJECT SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS AND LOCAL REQUIREMENTS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE, (NFPA 70)
BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE

GENERAL ELECTRICAL DEMOLITION NOTES:

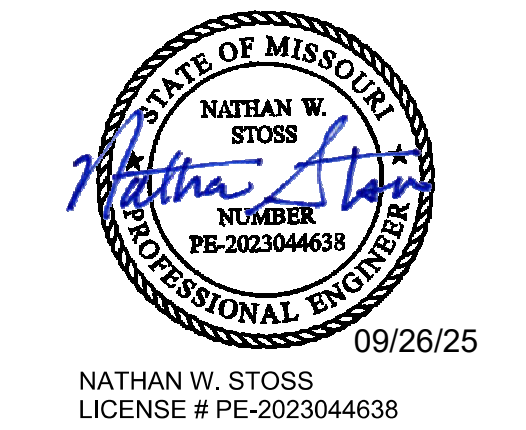
1. THE ELECTRICAL DRAWINGS INDICATE EXISTING ELECTRICAL ITEMS TO BE REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATED EVERY BOX, CONDUIT, OR WIRE THAT MUST BE REMOVED. CONTRACTOR SHALL INSPECT THE SITE PRIOR TO THE SUBMISSION OF A BID. CONTRACTOR SHALL INFORM THEMSELVES OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED CONCERNING THE SITE OF THE WORK, THE OBSTACLES WHICH MAY BE ENCOUNTERED, THE DEMOLITION, AND TEMPORARY REMOVAL AND REINSTALLATION REQUIRED TO PROVIDE ACCESS TO THE WORK, AND ALL OTHER RELEVANT MATTERS CONCERNING THE WORK TO BE PERFORMED.
2. THE EXISTING CONDITIONS INDICATED IN THESE DRAWINGS ARE TAKEN FROM THE BEST INFORMATION AVAILABLE FROM VISUAL SITE INSPECTIONS AND EXISTING DRAWINGS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND THE INTENT OF THE WORK PRIOR TO BEGINNING WORK.
3. CONTRACTOR SHALL REPAIR ALL DAMAGE TO EXISTING BUILDING, FIXTURES, AND FINISHED CAUSED BY CONTRACTOR DURING THE PERFORMANCE OF THE WORK. REPAIRS SHALL BE PERFORMED BY A QUALIFIED TRADESMEN AND SHALL BE COMPLETED IN A MANNER ACCEPTABLE TO THE OWNER.
4. REMOVAL OF CONDUITS SHALL INCLUDE REMOVAL OF HANGERS, SUPPORTS, AND ASSOCIATED MISCELLANEOUS MATERIALS.
5. ALL PIPING, TUBING, CONDUITS, ETC. MADE OBSOLETE, BY WORK UNDER THIS CONTRACT, EXPOSED OR IN CONFLICT WITH NEW WORK, ARE TO BE REMOVED. REPAIR ALL HOLES IN WALLS, FLOORS, AND CEILING TO MATCH EXISTING CONDITIONS AND MAINTAIN FIRE/SMOKE RATINGS.
6. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO PERFORM ALL SELECTIVE DEMOLITION NECESSARY TO PERFORM THE WORK SHOWN ON THE DRAWINGS EXCEPT WHERE SAID DEMOLITION IS SHOWN ON THE ARCHITECTURAL DRAWINGS TO BE PERFORMED BY THE GENERAL CONTRACTOR.
7. SHOULD ACTUAL CONDITIONS DEViate SUBSTANTIALLY FROM THOSE INDICATED ON THE DRAWING, CONTRACTOR SHALL NOTIFY ENGINEER AND REQUEST INSTRUCTIONS.
8. OWNER SHALL HAVE THE RIGHT TO SALVAGE ANY AND ALL MATERIALS AND EQUIPMENT OR PORTION THEREOF. ALL REMOVED EQUIPMENT MATERIALS NOT RETAINED BY THE OWNER SHALL BE CONSIDERED PROPERTY OF THE CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM THE OWNER'S PROPERTY AND LEGALLY DISPOSED OF. OWNER ASSUMES NO RESPONSIBILITY FOR CONDITION OF EQUIPMENT OR MATERIALS TO BE DEMOLISHED.
9. WHERE DEMOLITION WORK INTERRUPTS ELECTRICAL CONTINUITY OF CIRCUITS THAT ARE TO REMAIN IN USE, PROVIDE NECESSARY DEVICES AND RELATED CIRCUITRY TO MAINTAIN ELECTRICAL CONTINUITY IN ACCORDANCE WITH OWNER REQUIREMENTS. MAINTAIN FIRE RATING OF ALL FLOOR/WALL/CEILINGS THAT ARE RATED.
10. COORDINATE DISCONNECTION OF POWER TO EQUIPMENT BEING DEMOLISHED/ REMOVED/ RELOCATED WITH OWNER AND OTHER TRADES PRIOR TO THE START OF WORK. COORDINATE ANY NECESSARY POWER OUTAGES WITH OWNER AND MAKE EVERY ATTEMPT TO MINIMIZE DISRUPTION TO FACILITY OPERATIONS. REQUESTS FOR ELECTRICAL SHUTDOWNS SHALL BE BROUGHT IN WRITING TO THE ATTENTION OF THE OWNER AT LEAST 14 DAYS IN ADVANCE. SHUTDOWNS SHALL NOT BE PERFORMED WITHOUT WRITTEN APPROVAL FROM THE OWNER. ANY POWER OUTAGE LONGER THAN 12 HOURS (OR EXTENDING BEYOND DAYLIGHT HOURS) WILL REQUIRE CONTRACTOR TO PROVIDE BACKUP POWER VIA TEMPORARY GENERATOR OR OTHER APPROVED MEANS. ANY POWER OUTAGE IMPACTING FACILITY OPERATIONS MUST BE COMPLETED DURING DAYLIGHT HOURS.

GENERAL ELECTRICAL NOTES:

1. THIS IS AN EXISTING FACILITY UNDERGOING RENOVATION. PRIOR TO SUBMITTING A BID, PERSONALLY EXAMINE THE SITE OF THE PROPOSED WORK AND VERIFY THE CONDITIONS WHICH INVOLVE THIS WORK. BY THE ACT OF SUBMITTING A BID, THE CONTRACTOR HAS DEEMED TO HAVE MADE REASONABLE ALLOWANCES FOR SITE EXAMINATIONS, SITE CONDITIONS, AND INCLUDED ALL COSTS IN THEIR PROPOSAL. FAILURE TO VERIFY THESE CONDITIONS WILL NOT BE CONSIDERED A BASIS FOR THE GRANTING OF ADDITIONAL COMPENSATION.
2. READ THE SPECIFICATIONS AND REVIEW DRAWINGS OF ALL DIVISIONS OF WORK. COORDINATE THIS WORK WITH ALL OTHER DIVISIONS OF WORK AND ALL SUBCONTRACTORS. PROVIDE ALL SUBCONTRACTORS WITH A COMPLETE SET OF BID DOCUMENTS.
3. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS, AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY NOTED IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY THE ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
4. THE DRAWINGS REPRESENT THE BEST INFORMATION AVAILABLE TO THE ENGINEER. ALL DIMENSIONS AND SIZES SHALL BE FIELD VERIFIED. DO NOT SCALE FROM THE DRAWINGS. SMALL DEVIATIONS SHALL BE RECONCILED DURING THE PERFORMANCE OF THE WORK.
5. INSTALLATION SHALL COMPLY WITH LEGALLY CONSTITUTED CODES AND THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.
6. DRAWINGS AND SPECIFICATIONS GOVERN, WHERE THEY EXCEED CODE REQUIREMENTS.
7. COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS, INCLUDING BUT NOT LIMITED TO, REQUIREMENTS ASSOCIATED WITH NON-BASIS OF DESIGN EQUIPMENT.
8. FIELD VERIFY EXACT LOCATIONS AND ELECTRICAL REQUIREMENTS OF ALL HVAC AND PLUMBING EQUIPMENT WITH OTHER TRADE CONTRACTORS PRIOR TO ORDERING RELATED ELECTRICAL EQUIPMENT.
9. ROOM NAMES/NUMBERS SHOWN IN PANELBOARD SCHEDULES ARE PER ARCHITECTURAL FLOOR PLANS. CONTRACTOR SHALL PROVIDE FINALIZED PANELBOARD SCHEDULES AT COMPLETION OF PROJECT WITH OWNER PROVIDED ROOM NAMES/NUMBERS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
10. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBER ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
11. PROVIDE A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE ENGINEER REFLECTING ANY VARIANCES OF INSTALLED PIPING, EQUIPMENT DEVICES, ETC LOCATIONS CONTRARY TO THE CONSTRUCTION DOCUMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
12. WHERE DEVICES ARE MOUNTED RECESSED IN CMU WALLS, ROUTE CONDUIT CONCEALED WITHIN INTERIOR OPENINGS WITHIN CMU WALL. COORDINATE WITH GENERAL CONTRACTOR PRIOR TO ROUGH-IN.
13. ALL JUNCTION BOXES SHALL BE RIGIDLY ATTACHED TO STRUCTURE OR MILLWORK.
14. CONDUIT AND BOX ROUGH-IN FOR ADJACENT FIRE ALARM, TEMPERATURE CONTROLS, RECEPTACLES, LIGHTING CONTROL DEVICES, ETC. ON THE SAME WALL/CEILING SHALL BE PROVIDED IN A MANNER TO WHICH DEVICES ALIGN VERTICALLY ON SAME WALL. COORDINATE WITH OTHER TRADES.
15. COORDINATE CONDUIT PENETRATIONS THROUGH EXISTING WALLS AND SURFACES WITH STRUCTURAL ENGINEER PRIOR TO ANY CORING.
16. WHERE SPARE CONDUIT(S) ARE INDICATED FOR FUTURE USE, PROVIDE PULL STRINGS IN CONDUIT(S) AND PROTECTIVE BUSHINGS AT OPENINGS. CAP CONDUITS WHERE LOCATED BELOW GRADE OR EXPOSED TO THE ELEMENTS.
17. REFER TO MECHANICAL EQUIPMENT SCHEDULES FOR ELECTRICAL SCOPE OF WORK. IN ADDITION TO WORK SHOWN ON ELECTRICAL DRAWINGS.
18. PROVIDE RECESSED CONDUIT AND OUTLET BOXES FOR ALL MECHANICAL CONTROL LOCATIONS. PROVIDE CONDUIT FOR ALL CONTROLS WIRING LOCATED IN SPACES WITH EXPOSED CEILINGS. REFER TO MECHANICAL DOCUMENTS AND SCHEDULES FOR ALL DEVICE LOCATIONS. COORDINATE WORK WITH MECHANICAL CONTRACTOR.
19. PROVIDE ALL MISCELLANEOUS STEEL REQUIRED FOR THE PROPER INSTALLATION OF ELECTRICAL EQUIPMENT AND SYSTEMS.
20. REFER TO SPECIFICATIONS AND DETAILS FOR APPROVED CABLE AND RACEWAY INSTALLATION. NON-COMPLIANT INSTALLATIONS OF CABLE AND RACEWAY WILL NOT BE ACCEPTED AND WILL BE REQUIRED TO BE BROUGHT TO COMPLIANCE AT NO COST TO THE OWNER, PRIOR TO COMPLETION OF WORK.
21. ALL NEW AND EXISTING ELECTRICAL EQUIPMENT ALTERED UNDER THIS PROJECT SHALL BE VACUUM CLEANED OF ANY DEBRIS. ALL OPENINGS REMAINING SHALL BE SEALED WITH THE PROPER DEVICE (IE. KNOCKOUT BLANKS, BREAKER BLANKS, ETC) LISTED AND APPROVED FOR USE.
22. NO WORK SHALL BE PERFORMED PRIOR TO REVIEW AND APPROVAL OF ALL REQUIRED SHOP DRAWINGS, PRODUCT MATERIALS, AND EQUIPMENT SUBMITTALS. ANY WORK INSTALLED PRIOR TO MEETING THESE REQUIREMENTS SHALL BE DONE SO AT THE SOLE RISK OF THIS CONTRACTOR.
23. PROVIDE UPDATED TYPED PANEL DIRECTORIES TO REFLECT WORK PERFORMED UNDER THIS CONTRACT.
24. COORDINATE ALL SITE ELECTRICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURER INFORMATION AND OTHER TRADES AND ADJUST ELECTRICAL PROVISIONS AS REQUIRED TO MEET REQUIREMENTS.
25. SITE ELECTRICAL CONDUITS SHALL BE 1" MINIMUM, UNLESS NOTED OTHERWISE. WHERE PRACTICABLE, ALL SITE ELECTRICAL CONDUITS SHALL BE INSTALLED A MINIMUM OF 24" BELOW GRADE, UNLESS NOTED OTHERWISE. COORDINATE FINAL CONDUIT ROUTING WITH EXISTING OBSTRUCTIONS AND OTHER TRADES AND ADJUST AS NECESSARY.
26. COORDINATE SCHEDULE FOR ANY REQUIRED ROOF WORK AND ROOF ACCESS PROCEDURES WITH ON SITE PERSONNEL PRIOR TO ACCESSING ANY SECURED AREAS.
27. COORDINATE REQUIREMENTS FOR SITE ACCESS AND MATERIAL STAGING WITH OWNER PRIOR TO BID.
28. ELECTRICAL SYSTEMS SHUTDOWNS SHALL NOT OCCUR OR EXDEND BEYOND DAYLIGHT HOURS. PROVIDE OWNER WITH DETAILED METHOD OF PROCEDURE FOR ALL POWER DISRUPTIONS INCLUDING CONTINGENCY PLANS AND BACK-OUT PROCEDURES. DO NOT PROCEED WITH ANY POWER DISRUPTIONS WITHOUT WRITTEN APPROVAL FROM OWNER.
29. ALL CONDUITS AND BACKBOXES WITHIN FINISHED SPACES SHALL BE RECESSED WITHIN WALLS AND CEILINGS. EXACT ROUTING OF EXPOSED RACEWAY OR CONDUITS SHALL BE COORDIANTED WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.

GENERAL ELECTRICAL POWER NOTES:

1. ALL CIRCUITRY SHALL BE #12 AWG IN 1/2" CONDUIT, MINIMUM, UNLESS OTHERWISE NOTED.
2. TYPE MC CABLE MAY NOT BE USED.
3. PROVIDE A SEPARATE CODE SIZED GREEN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS AND RACEWAYS CONTAINING LINE VOLTAGE CIRCUITS. FOR ALL 20A CIRCUITS, EQUIPMENT GROUNDING CONDUCTOR SHALL MATCH PHASE CONDUCTOR SIZE. FOR CIRCUITS UPSIZED DUE TO VOLTAGE DROP, INCREASE EQUIPMENT GROUNDING CONDUCTOR SIZE PER NEC 2017 250.122.B.
4. REFER TO SPECIFICATIONS AND DETAILS FOR ADDITIONAL PANELBOARD INSTALLATION REQUIREMENTS AND IDENTIFICATION.
5. PROVIDE A NEUTRAL CONDUCTOR TO THREE-PHASE EQUIPMENT WHEREVER REQUIRED.
6. ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH A CONCRETE HOUSEKEEPING PAD. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
7. GROUND AND NEUTRAL CONDUCTORS SHALL NOT BE SHARED UNLESS SPECIFICALLY NOTED ON PLANS.
8. REFER TO VARIABLE FREQUENCY DRIVE (VFD) INSTALLATION INSTRUCTIONS FOR POWER AND CONTROL WIRING REQUIREMENTS. PVC CONDUIT SHALL NOT BE USED FOR VFD WIRING. PROVIDE SPECIAL POWER VFD SHIELDED CABLE OR INDIVIDUAL STEEL CONDUIT RUNS WITH POWER CONDUCTORS AND GROUNDING CONDUCTOR TO EACH MOTOR. CONTROL WIRING SHALL BE ROUTED IN A SEPARATE CONDUIT AND SEPARATED FROM MOTOR WIRING BY A MINIMUM OF 3 FEET PER MANUFACTURER'S INSTRUCTION.
9. ALL GFCI PROTECTED CIRCUITS SHALL HAVE INDIVIDUAL AND DEDICATED NEUTRALS.
10. VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWING SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN SUBMITTALS AND ELECTRICAL DRAWINGS.



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BACKUP POWER
EQUIPMENT REPLACEMENT
FULTON RECEPTION AND
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1393 ROUTE O
FULTON, MO 65251

PROJECT # C2415-01
SITE # 7010
FACILITY # 9327010027

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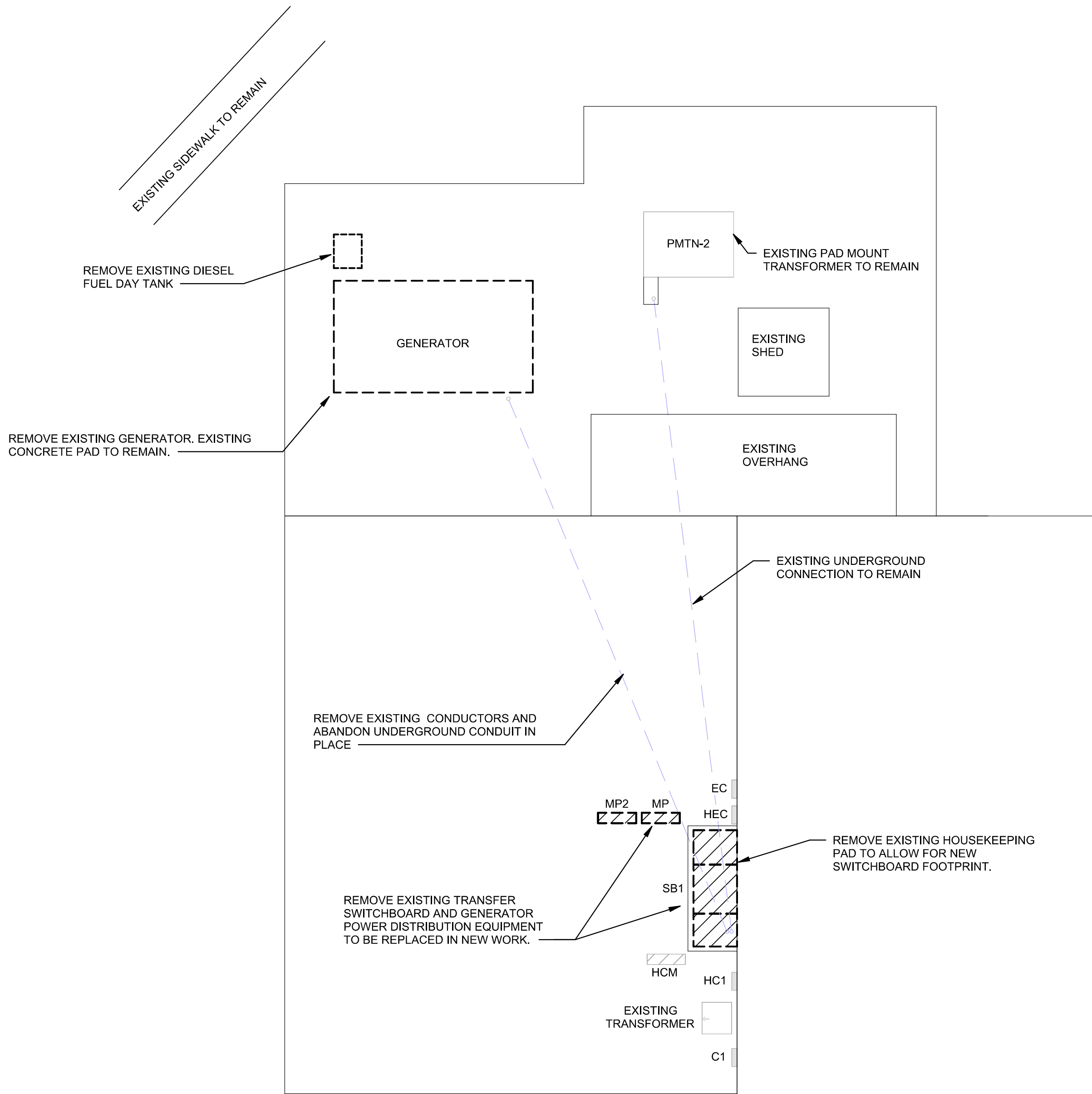
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ELECTRICAL
GENERAL NOTES

SHEET NUMBER:

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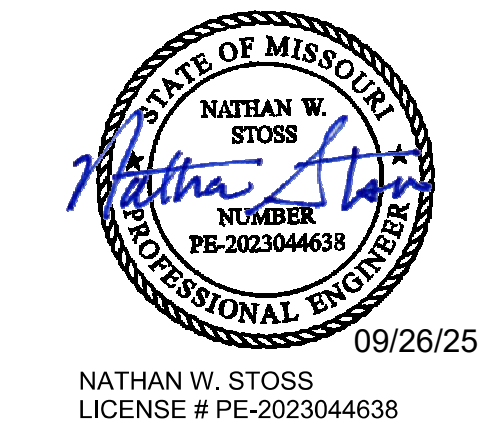
NATHAN W. STOSS



① POWER - LEVEL 1 PLAN - BUILDING C DEMO
1/8" = 1'-0"

BACKUP POWER NOTE:
PROVIDE TEMPORARY GENERATOR AS NEEDED TO MAINTAIN EMERGENCY BACKUP POWER SOURCE FOR FACILITY. AT NO TIME SHALL POWER BE INTERRUPTED OUTSIDE OF DAYLIGHT HOURS. PROVIDE OWNER WITH DETAILED METHOD OF PROCEDURE FOR ALL POWER DISRUPTIONS INCLUDING CONTINGENCY PLANS AND BACK-OUT PROCEDURES. DO NOT PROCEED WITH ANY POWER DISRUPTIONS WITHOUT WRITTEN APPROVAL FROM OWNER.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



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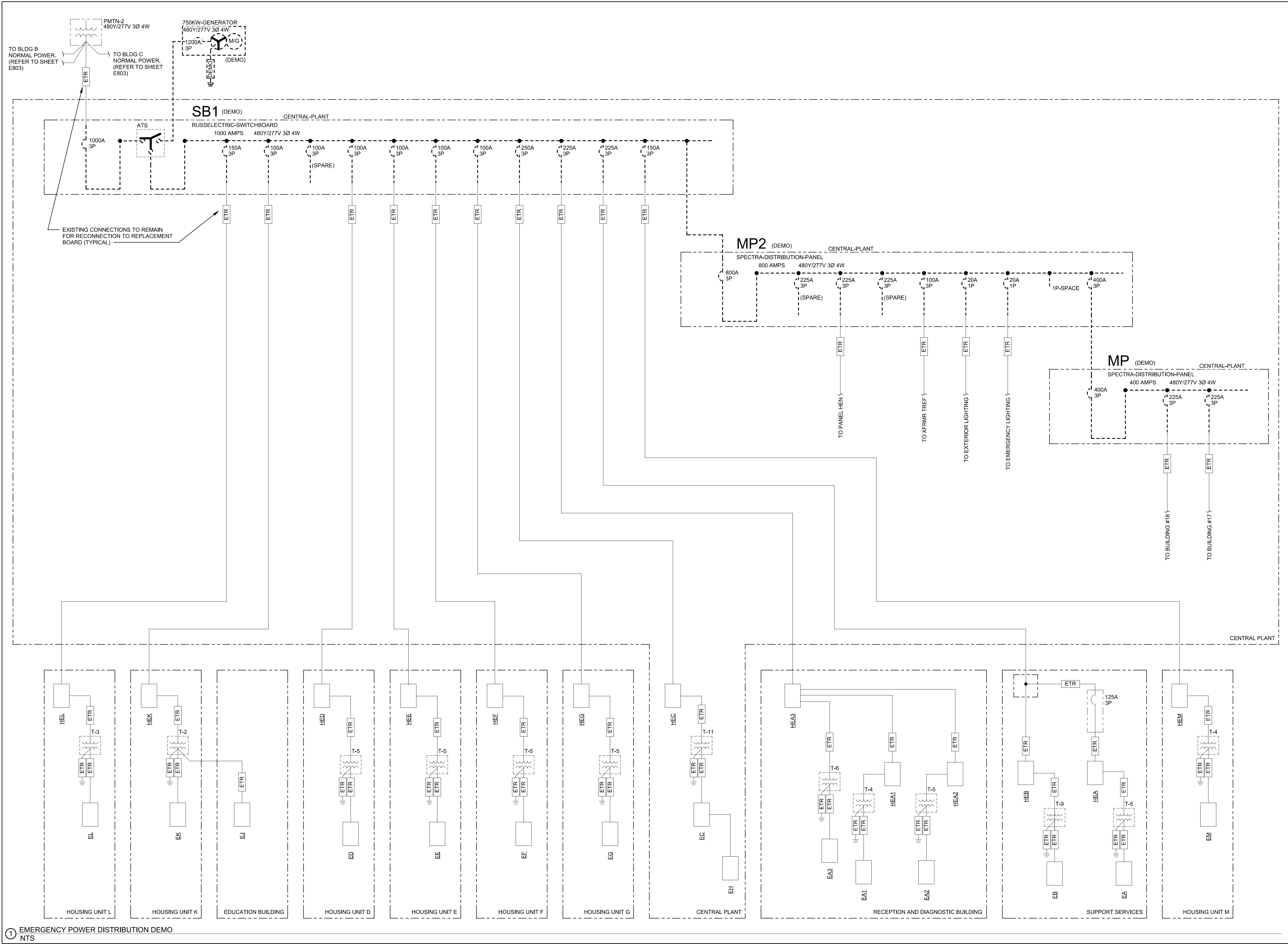
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DESIGNED BY: ASM

SHEET TITLE:
POWER DEMO PLAN
- BUILDING C

SHEET NUMBER:

DE201.C

9 OF 16 SHEETS
09/26/2025



STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

STATE OF MISSOURI

NATHAN W. STOSS

PROFESSIONAL ENGINEER

09/26/25

NATHAN W. STOSS

LICENSE # PE-2023044638

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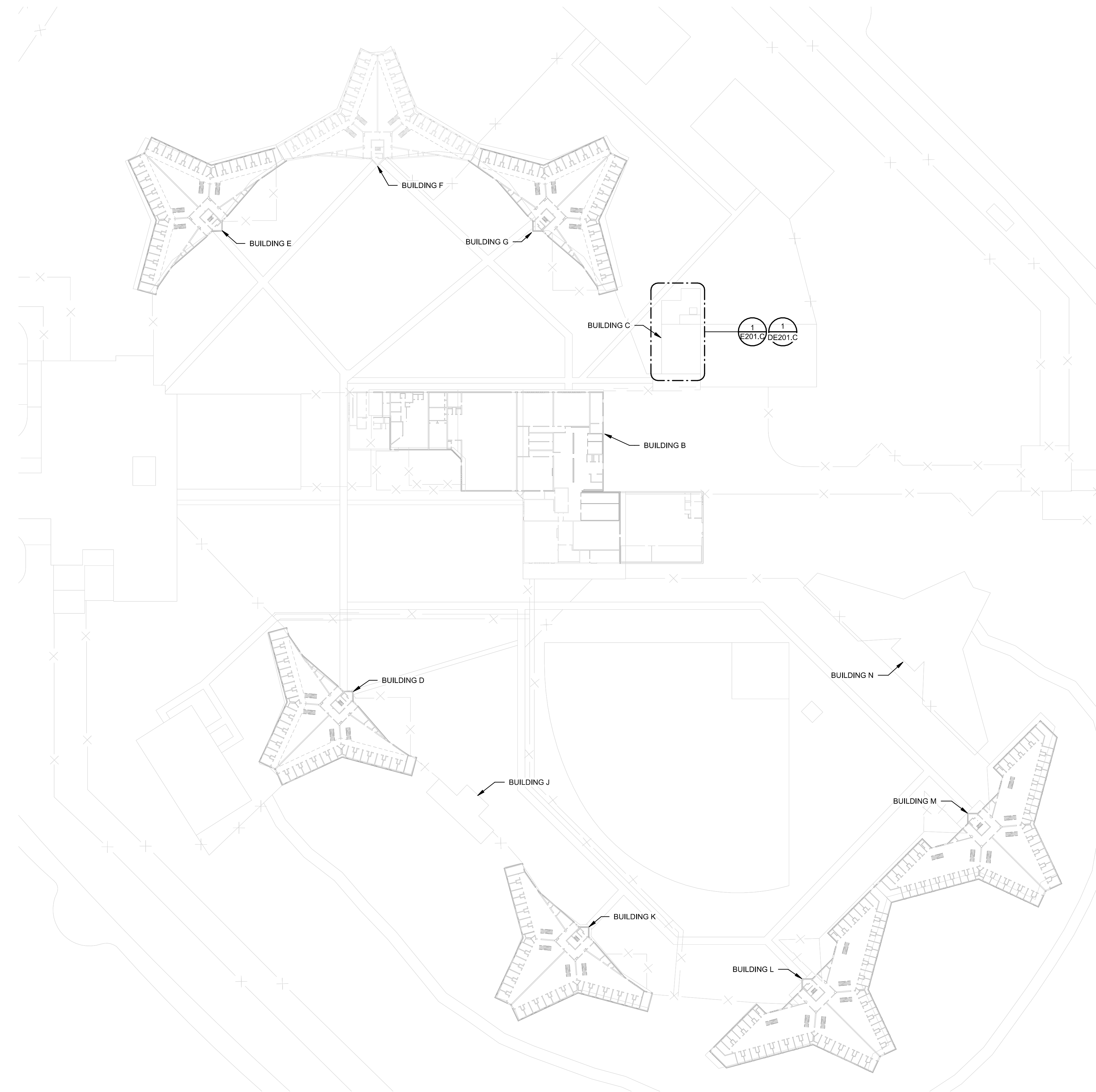
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SHEET TITLE:
ELECTRICAL DEMO
ONLINE

SHEET NUMBER:
DE800
10 OF 16 SHEETS
09/26/2025

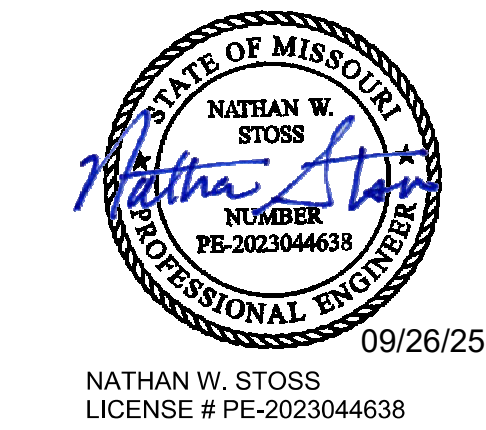
NATHAN W. STOSS

NATHAN W. STOSS



① ELECTRICAL PLAN - OVERALL
1" = 60'-0"

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



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EXPIRES 10/31/2025

OFFICE OF ADMINISTRATION
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DESIGN AND CONSTRUCTION

BACKUP POWER
EQUIPMENT REPLACEMENT
FULTON RECEPTION AND
DIAGNOSTIC CENTER

1393 ROUTE O
FULTON, MO 65251

PROJECT # C2415-01
SITE # 7010
FACILITY # 9327010027

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____

ISSUE DATE: 09/26/2025

CAD DWG FILE:
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CHECKED BY: NWS
DESIGNED BY: ASM

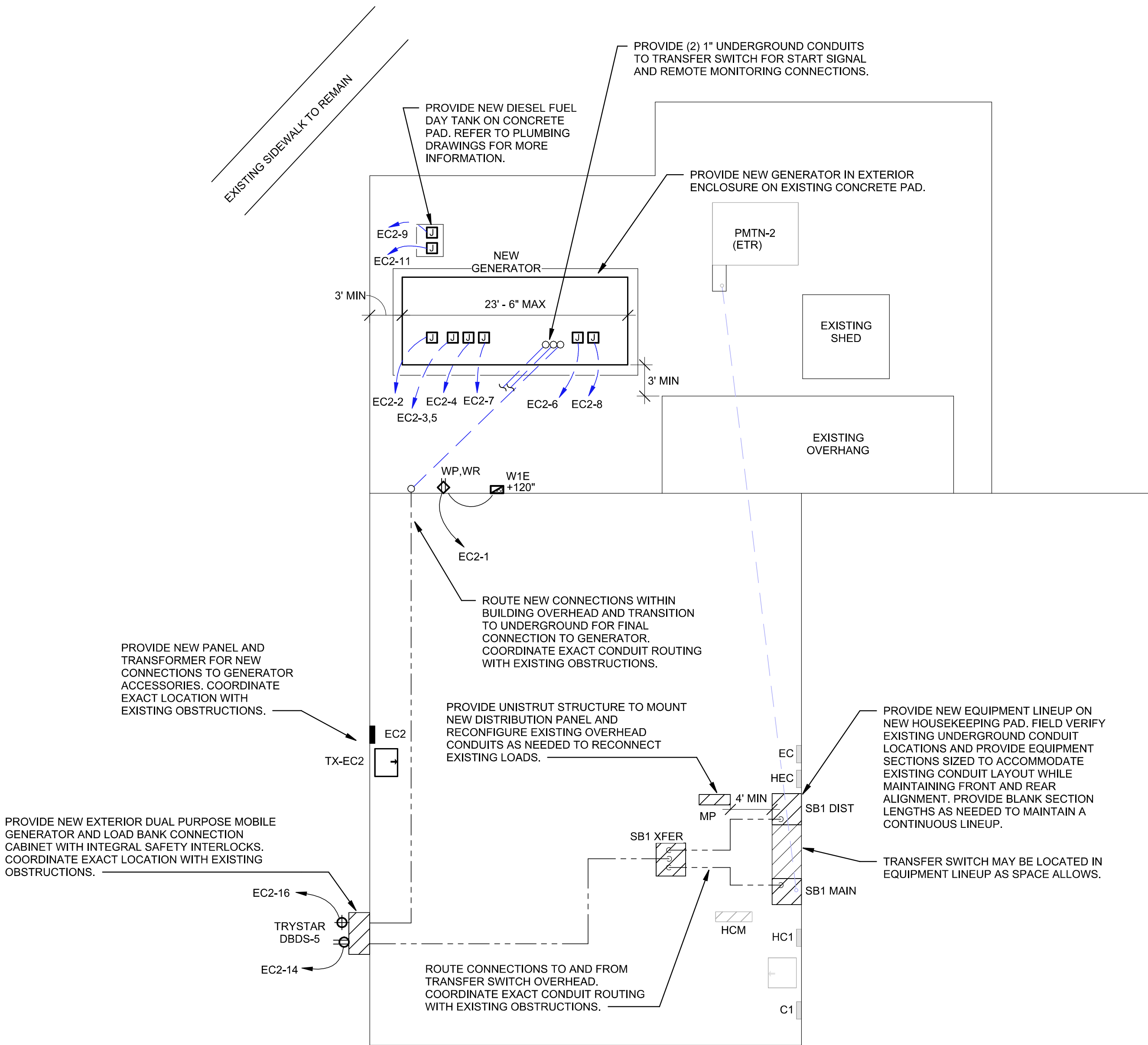
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**ELECTRICAL PLAN -
OVERALL**

SHEET NUMBER:

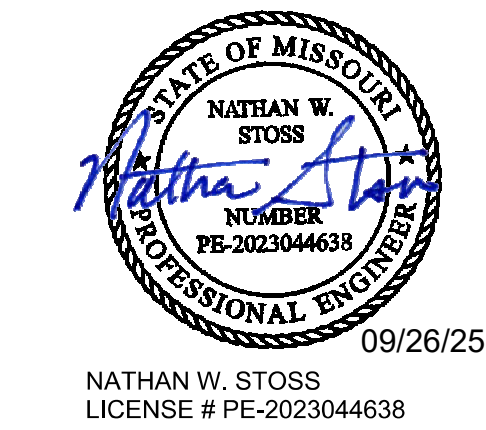
E100

11 OF 16 SHEETS
09/26/2025

LIGHT FIXTURE SCHEDULE													
TYPE	MANUFACTURER	SERIES / MODEL	APPROVED ALTERNATES					DIMMING TYPE	VOLTAGE	INPUT WATTS	INPUT VA	DESCRIPTION	NOTES
				TYPE	CRI	CCT	LUMENS						
W1E	ACUITY	WDGE2 LED P3 40K 80CRI T4M MVOLT SRM E20WC PE	BEACON GEOPACK SERIES COOPER GWC SERIES	LED	80	4000k	3000	N/A	120	32	36	WALL MOUNT FORWARD THROW SECURITY LIGHT WITH INTEGRAL PHOTOCELL AND COLD WEATHER EMERGENCY BATTERY PACK.	
GENERAL NOTES: A. REFER TO LIGHT FIXTURE SCHEDULE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.													
NOTES: 1. NOT USED.													



1 POWER - LEVEL 1 PLAN - BUILDING C
1/8" = 1'-0"



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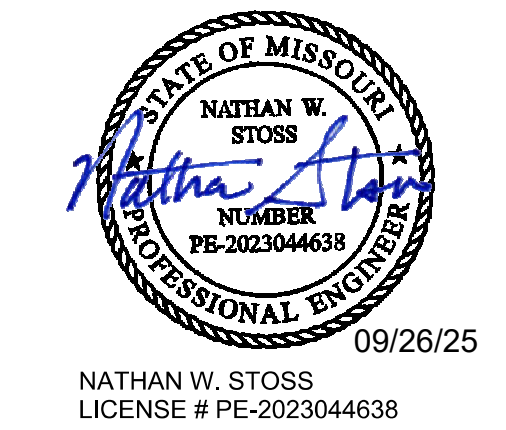
CAD DWG FILE:
DRAWN BY: ASM
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DESIGNED BY: ASM

SHEET TITLE:
POWER PLAN -
BUILDING C

SHEET NUMBER:

E201.C

12 OF 16 SHEETS
09/26/2025



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DESIGNED BY: ASM

SHEET TITLE:
**PANELBOARD
SCHEDULES**

SHEET NUMBER:

E600

PANELBOARD: EC2 (NEW)										FAULT CURRENT: REFER TO CALCULATION TABLE BELOW										EQUIPMENT GROUND BUS									
BUS AMPS: 100A										AIC RATED: FULLY RATED																			
MAIN SIZE/TYPE: 100A MCB										AIC RATING: FCA +10% MINIMUM																			
VOLTS/PHASE: 208Y/120 V 3P/4W										SERVES: GEN ACCESSORY PWR																			
SUPPLIED BY: REFER TO ONE-LINE										MOUNTING: SURFACE																			
										LOCATION: CENTRAL PLANT																			
																				LINE-SIDE LUGS: MECHANICAL									
CKT NO.	DESCRIPTION	LOAD TYPE	NOTES	WIRE SIZE	BKR AMP	P	PHASE A		PHASE B		PHASE C		P	BKR AMP	WIRE SIZE	NOTES	LOAD TYPE	DESCRIPTION	CKT NO.										
1	GENERATOR YARD RCPT & LTG	L R		12	20	1	254	1000					1	20	12		Z	GENERATOR JACKET HEATER	2										
3	GENERATOR ENCLOSURE HEAT	Z		8	40	2			2500	500			1	20	12		Z	GENERATOR BATT CHARGE	4										
5											2500	300	1	20	12		Z	GENERATRO ENC DAMPERS	6										
7	GENERATOR ENC SERVICE	R		12	20	1	360	1000					1	20	12		Z	ALTERNATOR HEATER	8										
9	DAY TANK CONTROLS	Z		12	20	1			500	0			1	20				SPARE	10										
11	DAY TANK PUMP	M		12	20	1					864	0	1	20				SPARE	12										
13	SPARE				20	1	0	180					1	20	12		R	RCPT-MOBILE GEN BATT CHARGE	14										
15	SPARE				20	1			0	2500			1	30	10		R	RCPT-MOBILE GEN HEATER	16										
17	SPARE				20	1					0	0	1					EQUIPPED SPACE	18										
19	SPARE				20	1	0	0					1					EQUIPPED SPACE	20										
21	SPARE				20	1			0	0			1					EQUIPPED SPACE	22										
23	SPARE				20	1					0	0	1					EQUIPPED SPACE	24										
25	EQUIPPED SPACE					1	0	0					3	60				SPD	26										
27	EQUIPPED SPACE					1			0	0									28										
29	EQUIPPED SPACE					1					0	0							30										
TOTAL LOAD (VA):							2794 VA		6000 VA		3664 VA																		
TOTAL AMPS:							23 A		51 A		32 A																		
LOAD TYPE		CONNECTED LOAD	DEMAND FACTOR	NEC DEMAND	PANELBOARD NOTES															PANELBOARD TOTALS									
EXISTING LOAD (E)		0 VA	100%	0 VA																TOTAL CONNECTED LOAD		12458 VA							
COOLING (C)		0 VA	0%	0 VA																TOTAL NEC LOAD		12693 VA							
HEATING (H)		0 VA	100%	0 VA																TOTAL CONNECTED CURRENT		35 A							
LIGHTING (L)		74 VA	125%	93 VA																TOTAL NEC DEMAND CURRENT		35 A							
RECEPTACLES (R)		3220 VA	100%	3220 VA																									
MOTORS (M)		0 VA	100%	0 VA																									
SUPPLEMENTAL HEAT (U)		0 VA	100%	0 VA																									
MISC EQUIP (Z)		8300 VA	100%	8300 VA																									
REFRIGERATION (F)		0 VA	100%	0 VA																									
SIGNAGE (S)		0 VA	125%	0 VA																									
KITCHEN (K)		0 VA	100%	0 VA																									
LARGEST MOTOR		864 VA	125%	1080 VA																									
SHOW WINDOW (W)		0 VA	125%	0 VA																									
TRACK LIGHTING		0 VA	100%	0 VA																									

PANELBOARD LEGEND	
ABBREVIATIONS	V1.01
AF	ARC FAULT CIRCUIT INTERRUPTER.
C#	CIRCUIT VIA CONTACTOR #.
CL	CIRCUIT VIA CURRENT LIMITING DEVICE.
D	DISCONNECT CIRCUITRY FOR REMOVED LOAD, UPDATE CIRCUIT DIRECTORY TO SPARE AND TURN OFF.
EM	EMERGENCY LIGHTING HANDLE-ON CLAMP.
EX	EXISTING.
F	FUTURE LOAD; NOTE AS SPARE AND TURN OFF.
FA	RED/HANDLE-ON CLAMP.
GF	GROUND-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER (5 mA).
GFEP	GROUND FAULT EQUIPMENT PROTECTION BREAKER (30 mA).
HT	PROVIDE HANDLE-TIE FOR MULTI-WIRE BRANCH CIRCUIT PER CODE.
IG	ISOLATED GROUND CIRCUIT.
L#	LIGHTING CONTROL SCHEME NUMBER.
LCK	HANDLE PADLOCKABLE-OFF DEVICE.
LO	HANDLE-ON CLAMP.
N	PROVIDE NEW CIRCUIT BREAKER.
OL	REFER TO ELECTRICAL ONE-LINE/RISER DIAGRAM.
PS	POWER-SWITCHING CIRCUIT BREAKER.
PSE	EMERGENCY POWER-SWITCHING CIRCUIT BREAKER.
R	REUSE EXISTING CIRCUIT BREAKER FOR NEW/REVISED LOAD.
RC	RECONNECT EXISTING CIRCUIT TO NEW PANELBOARD
RP	CIRCUIT VIA RELAY PANEL.
ST	SHUNT TRIP CIRCUIT BREAKER.
V	VERIFY EXISTING LOAD AND UPDATE DIRECTORY, IF UNUSED, NOTE AS SPARE AND TURN OFF.
VD	BRANCH CIRCUITRY HAS BEEN UPSIZED TO REDUCE VOLTAGE DROP. ADJUST GROUND WIRE SIZE PER CODE. PROVIDE LUG ADAPTORS IF REQUIRED.
Z	CORRECT/REPAIR EXISTING HAZARD TO MAKE CODE COMPLIANT INSTALLATION.
NOT ALL ABBREVIATIONS ARE USED.	

Short-Circuit and Voltage Drop Calculations

Distances are for calculation purposes only and shall not be used for contractor takeoffs nor bidding - Contractor shall notify Engineer of any field condition that results in a change of 10% or greater circuit distance

The following calculations are based on the "Point-by-Point" method where:

$ISC(2) = ISC(1) \times M(1)$

$M = 1 / (1 + f)$

$ISC(1) = \text{short circuit current at fault point 1}$

$ISC(2) = \text{short circuit current at fault point 2}$

$E = \text{Line to line volts}$

$IP = \text{Primary short circuit current}$

$Vp = \text{Primary voltage}$

$IS = \text{Secondary short circuit current}$

$Vs = \text{Secondary voltage}$

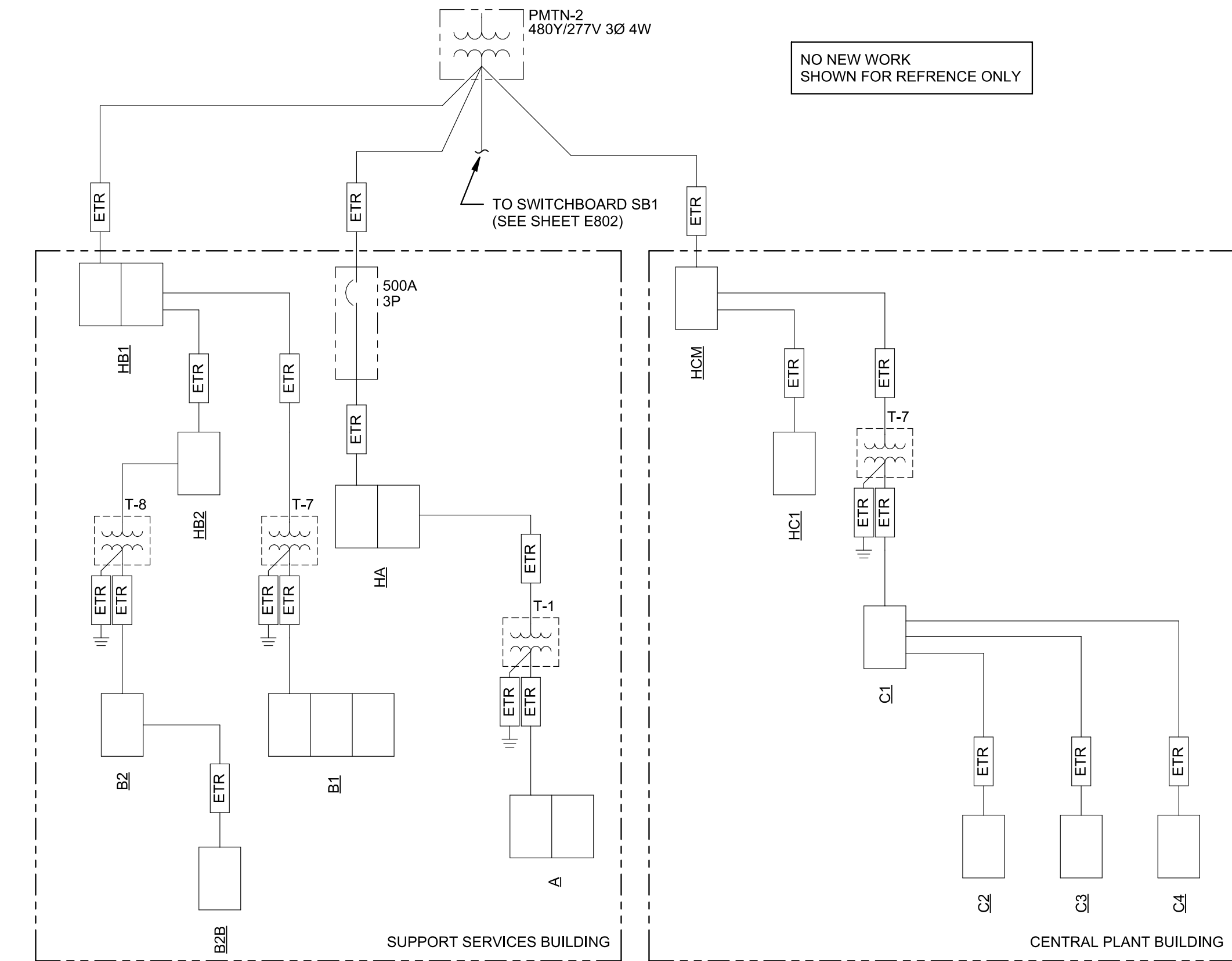
$L = \text{Length of circuit}$

$C = \text{"C" Factor from Bussman table where "C" = 1 / impedance per linear foot}$

Feeder Types: NM - Non Magnetic Conduit, M - Magnetic Conduit, FB - Feeder Busway, PB - Plug-in Busway, TX - Transformer

System Voltage: 480Y/277V - 3 phase

Fault Point (F#)	Bus/Feeder Description	Source (Fault Point)	Phase	Source Isc (amps)	Conduit Type/ TX	Material	Feeder Quantity of Parallel Sets and Bus Phase & Neutral Size	Conductor 'C' Value	Busway 'C' Value	L-L Voltage (E)	Circuit Length (L)	Load Power Factor (pf)	Circuit Load (Amperage)	Resistance (R)	Conductor Reactance (X)	Arccos (pf) (Radians)	Transformer				Type	Degree Rise	kVA	New Xfmr Z	Existing Xfmr Z	Secondary Voltage	Tap Setting	f	M	Fault Current (amps)	Voltage Drop (%VD)	Cumulative Voltage Drop (%VD)	Fault Point (F#)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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1	Pad Mount Transformer Secondary			31,653 at the secondary of the utility transformer																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											



1 NORMAL POWER CENTRAL PLANT & SUPPORT SERVICES BUILDINGS
NTS

ONE-LINE DIAGRAM GENERAL NOTES:

1. THE INFORMATION SHOWN IN THE SHORT-CIRCUIT AND VOLTAGE DROP CALCULATION SCHEDULE(S) ARE SHOWN FOR CALCULATION PURPOSES ONLY. CONTRACTOR SHALL NOT USE THE CONDUIT TYPES, CONDUCTOR TYPES, SIZES, QUANTITIES OR LENGTHS FOR TAKEOFFS OR BIDDING PURPOSES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN THIS SCHEDULE AND OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL NOTIFY ENGINEER OF AS-BUILT CONDITIONS THAT CONSTITUTE A CHANGE FROM WHAT IS SHOWN BELOW; THIS INCLUDES CONDUCTOR LENGTHS DIFFERING BY MORE THAN 10%.
2. REFER TO THE SHORT-CIRCUIT AND VOLTAGE DROP CALCULATIONS TABLE ON SHEET E800. AVAILABLE FAULT CURRENT INFORMATION IS LISTED UNDER THE "FAULT CURRENT" COLUMN. VOLTAGE DROP VALUES ARE LISTED UNDER THE "CUMULATIVE VOLTAGE DROP" COLUMN. THE AIC/SCCR RATING OF THE EQUIPMENT SHALL NOT BE LESS THAN THE AVAILABLE 3-PHASE SYMMETRICAL FAULT CURRENT +10%. ALL SERIES RATED EQUIPMENT SHALL BE PROPERLY LISTED AND LABELED PER CODE.
3. FEEDER NUMBER DESIGNATIONS PRECEDED BY "V" INDICATE THAT THE CONDUCTORS ARE UP-SIZED DUE TO VOLT-DROP CONSIDERATIONS. EQUIPMENT GROUND WIRE SHALL BE INCREASED IN SIZE PER CODE. PROVIDE LUG ADAPTERS AS NEEDED IN ORDER TO PROPERLY LAND CONDUCTORS AT TERMINATION(S).
4. FEEDER SIZES ARE BASED ON COPPER (CU) THHN/THWN-2 INSULATION, UNLESS NOTED OTHERWISE. ALL CONDUCTOR SIZES ARE BASED ON 75 DEG C RATED TERMINATIONS, UNLESS NOTED OTHERWISE. CONDUIT SIZES SHOWN ARE APPROPRIATE FOR SCHEDULE 40 PVC, EMT, GRS, IMC AND RMC; ADJUST SIZE AS NEEDED FOR OTHER RACEWAY TYPES. FOR ANY OTHER CONDITIONS MODIFY SIZES PER CODE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. INSTALL FEEDERS OVERHEAD AS HIGH AS PRACTICABLE AND ORTHOGONALLY ALONG BUILDING STRUCTURE, UNLESS NOTED OTHERWISE. COORDINATE FINAL ROUTING WITH OTHER TRADES.
6. PROVIDE CIRCUIT BREAKER FRAME SIZE AND TERMINATIONS FOR CONDUCTORS SHOWN. TRIP UNIT MODULE RATING SHALL NOT EXCEED RATING SHOWN.
7. CIRCUIT BREAKERS RATED 1200A OR HIGHER SHALL HAVE APPROPRIATE DOCUMENTATION AND METHOD TO REDUCE CLEARING TIME IN ORDER TO REDUCE ARC FLASH ENERGY PER CODE. PROVIDE ELECTRONIC TRIP UNIT WITH INSTANTANEOUS TRIP AND ENERGY-REDUCING MAINTENANCE SWITCH WITH LOCAL STATUS INDICATOR FOR COMPLIANCE, UNLESS NOTED OTHERWISE. PROVIDE PROVISIONS TO INTERFACE WITH OWNER ALARM/MONITORING SYSTEM TO INDICATE STATUS.
8. FUSES RATED 1200A OR HIGHER SHALL HAVE APPROPRIATE DOCUMENTATION AND METHOD TO REDUCE CLEARING TIME IN ORDER TO REDUCE ARC FLASH ENERGY PER CODE. FUSES SHALL HAVE A CLEARING TIME OF .07 SECONDS OR LESS AT THE AVAILABLE ARCING CURRENT, OR ONE OF THE ALTERNATIVE, CODE ALLOWED MEANS SHALL BE PROVIDED TO REDUCE THE AVAILABLE ARCING CURRENT. REFER TO THE ONE-LINE DIAGRAM AND SPECIFICATIONS FOR MORE INFORMATION.
9. PROVIDE PERMANENT LABELS ON FRONT OF ELECTRICAL EQUIPMENT ENCLOSURES PER SPECIFICATIONS, INDUSTRY STANDARDS, AND LOCAL REQUIREMENTS.

ELECTRICAL UTILITY CONTACT NOTE:

UTILITY COMPANY: CITY OF FULTON ELECTRIC UTILITY
UTILITY CONTACT: PAT CRAIGHEAD
PHONE: (573) 592-3170
EMAIL: UTILITIES@FULTONMO.GOV

ONE-LINE DIAGRAM GENERAL NOTES:

1. COORDINATE WORK WITH PHASING AND SCHEDULE TO PROPERLY STAGE TRANSITION TO PROVIDE POWER TO EXISTING, NEW AND TEMPORARY LOADS. MONITOR LOADS ON DISTRIBUTION SYSTEM TO MAKE SURE SHIFTING OF LOADS DOES NOT OVERLOAD ELECTRICAL EQUIPMENT.
2. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXISTING AIC/SCCR RATING OF EACH PANELBOARD/SWITCHBOARD. ALL NEW AND EXISTING OVER-CURRENT PROTECTION DEVICES (CIRCUIT BREAKERS AND FUSES) MUST HAVE AN AIC/SCCR RATING EXCEEDING THE AVAILABLE FAULT CURRENT AT THAT POINT IN THE SYSTEM. NOTIFY THE OWNER AND THE ENGINEER IF THE EXISTING EQUIPMENT DOES NOT COMPLY WITH THIS REQUIREMENT.
3. VERIFY THE INTEGRITY OF THE EXISTING GROUNDING ELECTRODE SYSTEM AND THAT THE NEUTRAL AND GROUND ARE PROPERLY BONDED TOGETHER AT THE POINT OF SERVICE ENTRANCE. NOTIFY THE OWNER AND THE ENGINEER OF ANY EXISTING DEFICIENCIES.
4. VACUUM CLEAN ALL NEW AND EXISTING ELECTRICAL EQUIPMENT ALTERED UNDER THIS PROJECT TO REMOVE FOREIGN DEBRIS AND DUST. ALL OPENINGS SHALL BE SEALED PER CODE. PROVIDE LISTED KNOCKOUT PLUGS AND CIRCUIT BREAKER BLANKS AS NEEDED.
5. AS APPLICABLE, OBTAIN THE FOLLOWING INFORMATION IN REGARD TO THE EXISTING ELECTRICAL SERVICE AND DISTRIBUTION SYSTEM AND REPORT FINDINGS TO THE ENGINEER FOR ANALYSIS PRIOR TO BEGINNING CONSTRUCTION:
 - A. AVAILABLE FAULT CURRENT DELIVERED BY THE UTILITY COMPANY AT THE POINT OF SERVICE.

FAULT CURRENT GENERAL NOTE (ESTIMATED VALUE):

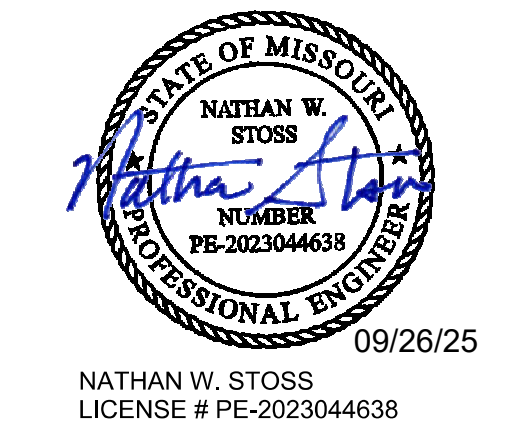
THE MAXIMUM AVAILABLE 3-PHASE SYMMETRICAL FAULT CURRENT AT THE PAD MOUNTED TRANSFORMER SECONDARY/POINT OF SERVICE COULD NOT BE DETERMINED AT THE TIME OF THIS SUBMITTAL. THE ESTIMATED WORST CASE FAULT CURRENT OF 31,653A IS BASED ON AN INFINITE BUS CALCULATION AT THE PAD MOUNT TRANSFORMER. CONTRACTOR SHALL VERIFY ACTUAL UTILITY FAULT CURRENT CONTRIBUTION AND FIELD VERIFY TRANSFORMER IMPEDANCE. NOTIFY ENGINEER IF ACTUAL IMPEDANCE IS LESS THAN THE ESTIMATED VALUE BELOW. ESTIMATED AVAILABLE FAULT CURRENT IS BASED ON THE FOLLOWING:

UTILITY TRANSFORMER SECONDARY VOLTAGE: 480Y/120V, 3Ø, 4W
UTILITY TRANSFORMER SIZE: 1500KVA, Z=5.70%

OVERCURRENT PROTECTIVE DEVICE COORDINATION STUDY GENERAL NOTE:

CONTRACTOR SHALL PROVIDE AN OVERCURRENT PROTECTIVE DEVICE COORDINATION STUDY TO DETERMINE THE CORRECT SETTINGS FOR THE ADJUSTABLE TRIP CIRCUIT BREAKERS. TO ENSURE SELECTIVE COORDINATION AND TO DOCUMENT ARC-FLASH HAZARDS FOR NEW AND REPLACED EQUIPMENT. CODE REQUIRED EMERGENCY AND LEGALLY REQUIRED STANDBY SYSTEMS SHALL BE SELECTIVELY COORDINATED WITH ALL SUPPLY-SIDE OVERCURRENT PROTECTIVE DEVICES (APPLIES TO BOTH THE NORMAL AND EMERGENCY POWER SOURCES). PROVIDE ALL NECESSARY AS-BUILT INFORMATION REQUIRED FOR COMPLETION OF THE STUDY TO THE ENGINEER DOING THE STUDY. PROVIDE SUBMITTALS INDICATED WITHIN THE SPECIFICATIONS TO OWNER AND ARCHITECT/ENGINEER TO CONFIRM STUDY HAS BEEN COMPLETED. CONTRACTOR SHALL INCLUDE THE COST FOR THIS WORK IN THEIR BID. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



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ISSUE DATE: 09/26/2025

CAD DWG FILE:
DRAWN BY: ASM
CHECKED BY: NWS
DESIGNED BY: ASM

SHEET TITLE:
**GENERAL POWER
ONELINE**

SHEET NUMBER:

E800

14 OF 16 SHEETS
09/26/2025

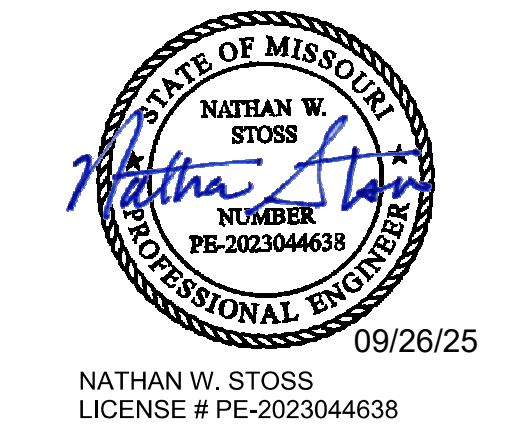
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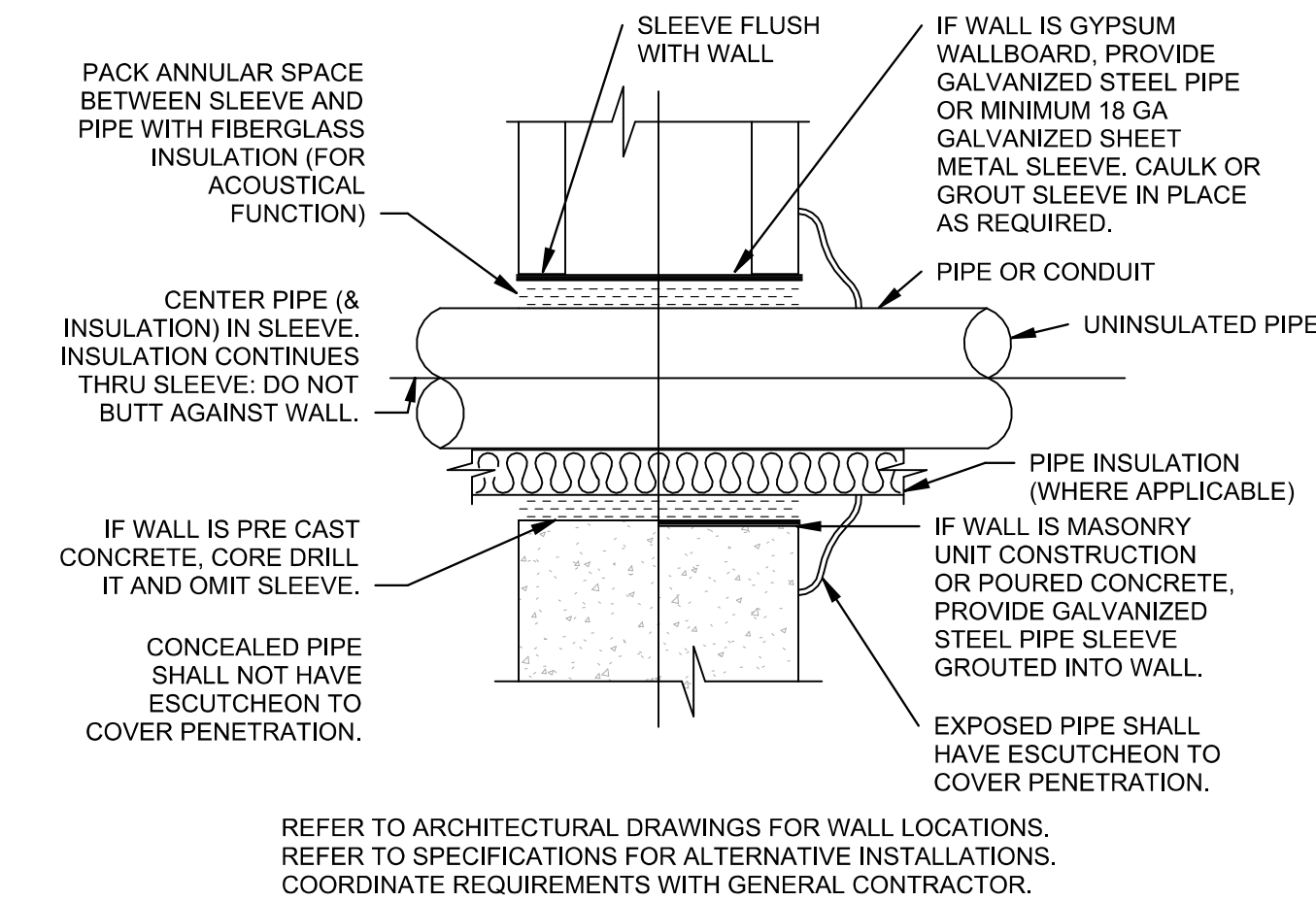
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15 OF 16 SHEETS
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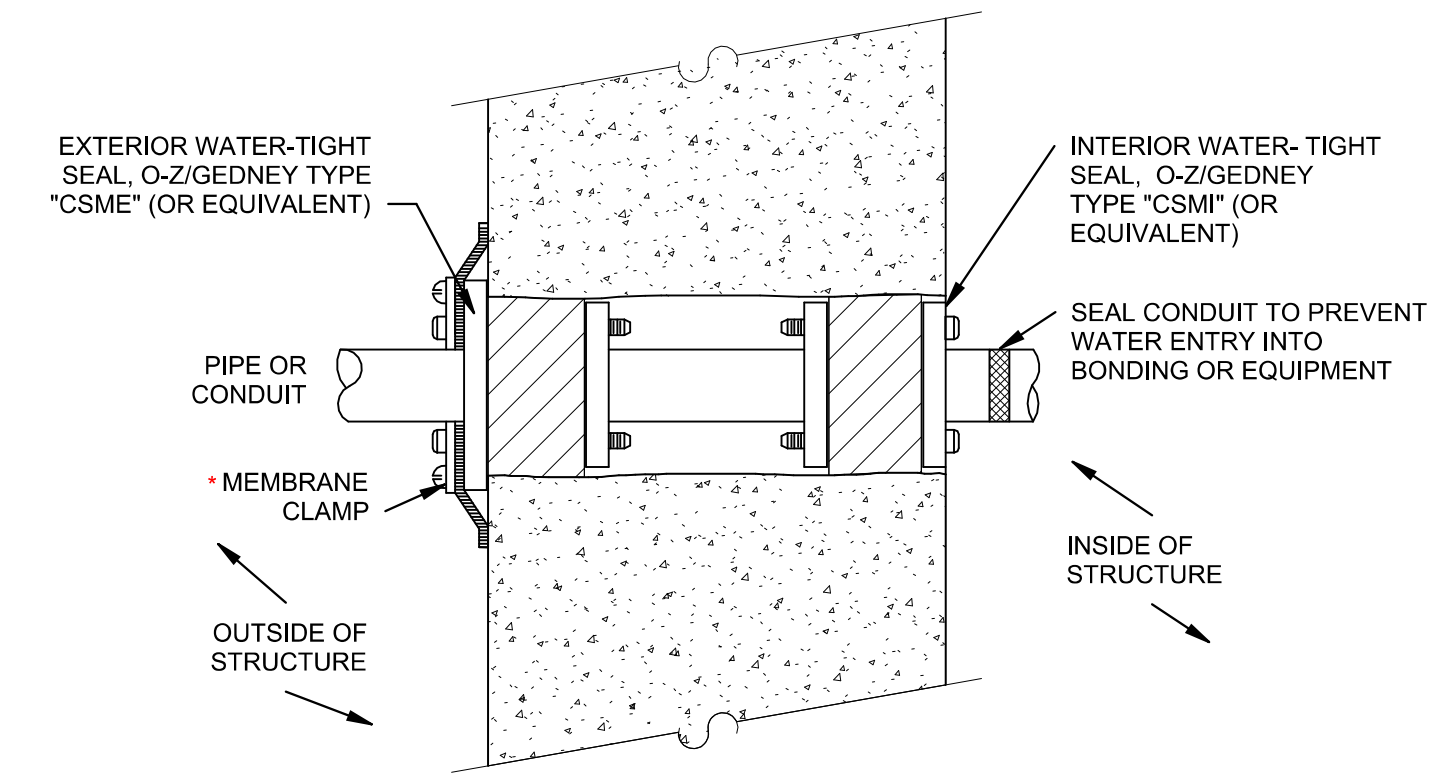




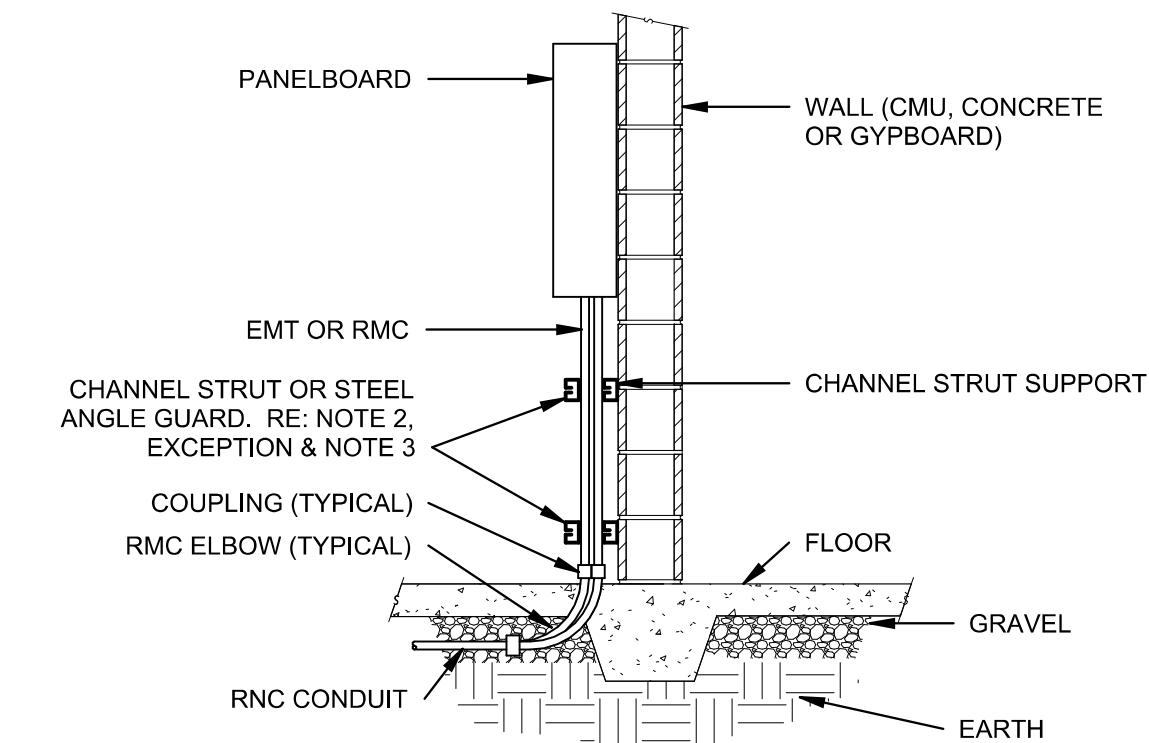
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① CONDUIT PENETRATION THRU NON-FIREWALL
NTS



③ CONDUIT THROUGH EXISTING EXTERIOR WALL
NTS



- NOTES:
- CONDUITS TURNED UP EXPOSED SHALL HAVE AN RMC ELBOW THROUGH THE SLAB. PROTECT THE ENTIRE ELBOW WITH RNC COATING OR MASTIC UP THROUGH THE TOP OF THE SLAB.
 - EXCEPTION: IN LIEU OF RMC ELBOW, CONTRACTOR MAY USE RNC ELBOWS IF A CHANNEL STRUT OR STEEL ANGLE GUARD IS PROVIDED. GUARD SHALL STAND OFF THE WALL INDEPENDENT OF THE CONDUIT.
IN AREAS WITH VEHICULAR ACCESS, USE GALVANIZED RMC ELBOWS AND A STEEL GUARD.
 - APPLIES TO ALL STUB-UP LOCATIONS UNLESS NOTED OTHERWISE ON PLANS.

② CONDUIT STUB-UP AT WALLS
NTS

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CAD DWG FILE:
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SHEET TITLE:
**ELECTRICAL
DETAILS**

SHEET NUMBER:

E900

16 OF 16 SHEETS
09/26/2025