KIRKWOOD PUBLIC WORKS RENOVATION

545 LEFFINGWELL AVE.

KIRKWOOD, MO 63122

BID SET 03/30/2026

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C2.0	SPECIFICATION SHEET	■			
C3.0	EXISTING CONDITIONS & FACILITIES REMOVAL PLAN	■			
C3.1	EXISTING CONDITIONS & FACILITIES REMOVAL PLAN	■			
C4.0	OVERALL SITE PLAN	■			
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AD105	OFFICE DEMOLITION REFLECTED CEILING PLAN	■			
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M202	MECH PLAN-S WAREHOUSE L01				
M203	MECH PLAN-OFFICE L01 & L02				
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E603	EQUIPMENT DATA SCHEDULES				
E604	ONE-LINE DIAGRAM (DEMOLITION)				
E605	ONE-LINE DIAGRAM (BASEB BID)				
E606	ELEC SCHEDULES AND ONE-LINE (ALT)				

ARCHITECTURAL

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143 WEST CLINTON PLACE
SAINT LOUIS, MISSOURI 63122
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www.archimages-stl.com

MEP/FP

HORNER & SHIFRIN
401 S. 18TH STREET, SUITE 400
ST. LOUIS, MO 63103
T: 314-531-4321

STRUCTURAL ENGINEER

KPFF
1630 DES PERES ROAD, SUITE 100
ST. LOUIS, MO 63131
T: 314-835-0524

CIVIL ENGINEER

CEDC
10820 SUNSET OFFICE DRIVE, SUITE 200
ST. LOUIS, MO 63127
T: 314-729-1400 F: 314-729-1404

OWNER

CITY OF KIRKWOOD
212 S. TAYLOR AVE
KIRKWOOD, MO 63122
T: 000 F: 000

OWNER REPRESENTATIVE

NAVIGATE
8419 MANCHESTER
SAINT LOUIS, MO 66221
T: 314-710-3040 F: 000

CODE INFORMATION

PROJECT ADDRESS

545 LEFFINGWELL AVE.
KIRKWOOD, MO 63122

PROJECT LOCATION



STATE MAP

MO



Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/2026

Archimages architecture | interiors
MO Architectural Corporation Archimages, Inc. # 000550
143 West Clinton Place St. Louis, Missouri 63122
www.archimages-stl.com | p: [314] 965.7445 | f: [314] 965.7477

[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE. KIRKWOOD, MO 63122

No.	Date	Revision

COVER SHEET

Project No. 24059

Sheet No. G000

Date 03/30/2026

3/30/2026 10:20:13 AM
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SITE IMPROVEMENT PLANS

for

KIRKWOOD PUBLIC WORKS FACILITY

LOT A OF CONSOLIDATION PLAT OF LOTS 66 AND 67 OF EAST KIRKWOOD,
AS RECORDED IN PLAT BOOK 369 PAGE 417–418
CITY OF KIRKWOOD
ST. LOUIS COUNTY, MISSOURI

LEGEND

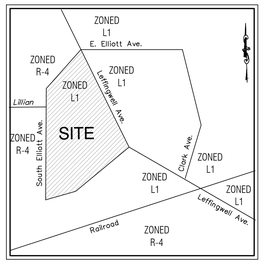
EXISTING CONTOURS	433
PROPOSED CONTOURS	433
EXISTING STORM SEWER	
PROPOSED STORM SEWER	ST ST
EXISTING SANITARY SEWER	
PROPOSED SANITARY SEWER	SAN SAN
RIGHT–OF–WAY	
EASEMENT	
CENTERLINE	
EXISTING TREE	
EXISTING SPOT ELEVATION	× 433.28
PROPOSED SPOT ELEVATION	433.28
SWALE	
TO BE REMOVED	T.B.R.
TO BE REMOVED & RELOCATED	T.B.R.& R.
TO BE USED IN PLACE	U.I.P.
ADJUST TO GRADE	A.T.G.
BACK OF CURB	B.C.
FACE OF CURB	F.C.
WATER MAIN	W W
GAS MAIN	GAS GAS
UNDERGROUND TELEPHONE	T T
OVERHEAD WIRE	OHE OHE
UNDERGROUND ELECTRIC	E E
SILTATION CONTROL	X X
FIRE HYDRANT	
POWER POLE	
WATER VALVE	WV
LIGHT STANDARD	

ABBREVIATIONS

N	NORTH
S	SOUTH
E	EAST
W	WEST
EX.	EXISTING
PR.	PROPOSED
CONC	CONCRETE
ASPH	ASPHALT
PB	PLAT BOOK
DB	DEED BOOK
PG	PAGE
SF	SQUARE FEET
AC	ACRES
ELEV	ELEVATION
FF	FINISH FLOOR
FL	FLOWLINE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
STM	STORM
SAN	SANITARY
(S)	SAVE
(R)	REMOVE
(T.B.R.)	TO BE REMOVED
(U.I.P.)	USE IN PLACE

SYMBOLS

WATER MANHOLE	WMH
TELEPHONE MANHOLE	TMH
BRUSH & SHRUB LINE	
BOLLARD	
SIGN	
ELECTRIC YARD LIGHT	
BORING LOCATION	
MAIL BOX	MB
ELECTRIC BOX	EB
CLEAN OUT	CO
GAS VALVE	GV
GAS METER	GM
GAS DRIP	GD



LOCATION MAP

NOT TO SCALE

PROPERTY DATA

OWNER	= SABADA PROPERTIES LLC
SITE ADDRESS	= 545 LEFFINGWELL AVENUE, KIRKWOOD, MO 63122 & 516 S. ELLIOT AVENUE, KIRKWOOD, MO 63122
LOCATOR NO.	= 24M240172 & 24M240161
AREA	= 5.03± AC. & 3.97± AC.
EXISTING ZONING	= L1 (LIGHT INDUSTRIAL DISTRICT)
FEMA MAP	= 29189C0309K
FIRE DISTRICT	= KIRKWOOD FIRE PROTECTION DISTRICT
SCHOOL DISTRICT	= KIRKWOOD SCHOOL DISTRICT
WATERSHED	= GRAVOIS CREEK

UTILITIES AND REVIEW AGENCIES

ELECTRIC COMPANY = KIRKWOOD ELECTRIC
212 SOUTH TAYLOR
KIRKWOOD, MO 63122
PH. (314) 984–5920
CONTACT: MR. RICK McKINLEY

PHONE COMPANY = AT&T–ROW–CONSTRUCTION & ENGINEERING
12851 MANCHESTER ROAD
DES PERES, MO 63131
PH. (314) 288–1278
ATTENTION: ENGINEERING

GAS COMPANY = SPIRE
4118 SHREWSBURY AVENUE
ST. LOUIS, MO 63119
PH. (314) 768–7767
CONTACT: BRIAN LANGENBACHER, P.E.

BUILDING DEPARTMENT = KIRKWOOD BUILDING DEPARTMENT
139 S KIRKWOOD ROAD
KIRKWOOD, MO 63122
(314) 822–5814
ATTENTION: JACK SCHENCK,
BUILDING COMMISSIONER

ENGINEERING DEPARTMENT = KIRKWOOD BUILDING DEPARTMENT
139 S KIRKWOOD ROAD
KIRKWOOD, MO 63122
(314) 822–5820
ATTENTION: CHRIS KRUEGER, P.E.

WATER COMPANY = CITY OF KIRKWOOD WATER COMPANY
212 SOUTH TAYLOR
KIRKWOOD, MO 63122
PH. (314) 822–5810
CONTACT: MR. CLARENCE PATTERSON

CABLE TELEVISION = CHARTER/SPECTRUM
101 NORTHWEST PLAZA DRIVE
ST. ANN, MISSOURI 63074
PH: (314) 386–1645
CONTACT: SUE SHELDON

FIRE DISTRICT = KIRKWOOD FIRE PROTECTION DISTRICT
11804 BIG BEND ROAD
KIRKWOOD, MO 63122
PH. (314) 984–6970
ATTN: FIRE MARSHAL LEO MEYER

SEWER DISTRICT = METROPOLITAN ST. LOUIS SEWER DISTRICT
2350 MARKET STREET
ST. LOUIS, MO 63103
PH. (314) 768–6200

BENCHMARK

ST. LOUIS COUNTY BENCHMARK #18250

NGVD29 ELEV. = 579.83 FTUS (NAVD88 NOT LISTED)
RM 345 FEMA PANEL 284; CHISELED CROSS ON SOUTHWEST CORNER OF DOWNSTREAM HEADWALL OF CULVERT FOR KIRKWOOD CREEK UNDER ROAD TO MRAZEK VAN AND STORAGE COMPANY.

OBSERVED ELEVATION = 579.57 FTUS

TO CONVERT THE ELEVATION FROM THE NGVD–29 DATUM TO THE NAVD–88 DATUM, APPLY A CORRECTION FACTOR OF –0.26 FEET TO THE NGVD–29 ELEVATION. THIS FACTOR ACCOUNTS FOR THE DIFFERENCE BETWEEN THE TWO DATUMS AT THIS SITE LOCATION.

SURVEYORS NOTES:

FENCES HAVE BEEN DEPICTED FOR INFORMATIONAL PURPOSES BASED UPON A VISUAL INSPECTION BY THE FIELD CREW AND FIELD MEASUREMENTS. THE HISTORY AND OWNERSHIP OF FENCES HAS NOT BEEN INVESTIGATED AND SUCH INFORMATION IS NOT WARRANTED.

UNLESS OTHERWISE NOTED EASEMENTS SHOWN HEREON ARE PLOTTED FROM THE RECORD PLAT AND ARE CONSIDERED TO BE FOR PUBLIC UTILITIES.

BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON A BOUNDARY SURVEY, COMPLETED BY MARLER SURVEYING COMPANY, INC. DURING THE MONTH OF JULY 2014 (JOB #1407–067)

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C5.0–C5.1	SITE AND GRADING PLAN
C6.0–C6.1	SITE GEOMETRY & UTILITY PLAN
C7.0–C7.1	SEWER PROFILES, HYDRAULICS & DETAILS
C8.0	SITE DETAILS
C9.0	BMP
C10.0	DRAINAGE AREA PLAN
C10.1	DRAINAGE AREA PLAN (YEAR 2000)
C11.0	STORMWATER POLLUTION PREVENTION PLAN
C11.1	SWPPP DETAILS

STORMWATER MANAGEMENT NOTE

PROJECT DISTURBANCE: XXX ACRES (26MSD–00041)

SITE DIFFERENTIAL: 0.59 cfs (26MSD–00041)

THE CUMULATIVE LAND DISTURBANCE EXCEEDS 1 ACRE AND THE CUMULATIVE DIFFERENTIAL EXCEEDS 2 CFS.
ANY FUTURE LAND DISTURBANCE AND/OR INCREASE IN IMPERVIOUS AREA ON THIS SITE MAY REQUIRE ADDITIONAL STORM WATER MANAGEMENT PER MSD REGULATIONS IN PLACE AT THAT TIME **(INCLUDING TOTAL LAND DISTURBANCE AND/OR IMPERVIOUSNESS ADDED ON THIS PLAN 26MSD–00041).**

NOTE
CIVIL ENGINEERING DESIGN CONSULTANTS, INC. AND THE UNDERSIGNED ENGINEER HAVE NO RESPONSIBILITY FOR SERVICES PROVIDED BY OTHERS TO IMPLEMENT THE IMPROVEMENTS SHOWN ON THIS PLAN AND ALL OTHER DRAWINGS WHERE THE UNDERSIGNED ENGINEER'S SEAL APPEARS. THE CONSTRUCTION MEANS, METHODS & MATERIALS ARE THE SOLE RESPONSIBILITY OF THE OWNER AND CONTRACTOR. CIVIL ENGINEERING DESIGN CONSULTANTS, INC. HAS NO RESPONSIBILITY TO VERIFY FINAL IMPROVEMENTS AS SHOWN ON THIS PLAN UNLESS SPECIFICALLY ENGAGED AND AUTHORIZED TO DO SO BY THE OWNER OR CONTRACTOR.

UTILITY NOTE
UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS AND INFORMATION, AND, THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON–EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.

NOTE TO CONTRACTOR
CONTRACTOR/SUBCONTRACTOR SHALL INVESTIGATE, ASCERTAIN AND CONFORM TO ANY AND ALL PERMIT REQUIREMENTS OF THE (ANY) VARIOUS AFFECTED UTILITY COMPANIES AND/OR REGULATORY AGENCIES WITH REGARDS TO MAKING CONNECTIONS TO; OR CROSSINGS OF THEIR FACILITIES; WORKING WITHIN THEIR RIGHT–OF–WAY OR EASEMENTS; INSPECTIONS AND ASSOCIATED MONETARY CHARGES; AND/OR SPECIAL BACKFILL REQUIREMENTS. SUCH INVESTIGATION TO INCLUDE BUT NOT LIMITED TO THE MAKING OF NECESSARY APPLICATIONS AND PAYMENTS OF ALL REQUIRED FEES.

THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS OR PROFILES ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR/SUBCONTRACTOR TO VERIFY THE FIELD LOCATIONS, ANTICIPATED CLEARANCES AND THE EXISTENCE OF ANY FACILITIES NOT SHOWN HEREON, AS PART OF THE INVESTIGATIONS IN THE PARAGRAPH ABOVE.

NOTE

THE UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SOURCES AND THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE ACTUAL LOCATIONS OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THIS DRAWING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO GRADING OR CONSTRUCTION OF IMPROVEMENTS.

MISSOURI ONE CALL TICKET NUMBER 243512798 & 243512799

Call BEFORE you DIG
TOLL FREE
1-800-DIG-RITE
MISSOURI ONE-CALL SYSTEM, INC.

UTILITIES CONTACT BY MISSOURI ONE CALL WERE:
AMEREN MISSOURI ELECTRIC, ATT DISTRIBUTION, CHARTER COMMUNICATIONS, CITY OF KIRKWOOD ELECTRIC, CITY OF KIRKWOOD TRAFFIC SIGNAL, CITY OF KIRKWOOD WATER, MCI, SPIRE MO EAST, ST LOUIS METROPOLITAN SEWER

MSD MAP 24M
26MSD-00041

PREPARED FOR:

ARCHIMAGES, INC.
143 WEST CLINTON PLACE
ST. LOUIS, MISSOURI 63122
(314) 965–7445

PREPARED BY:

CEDC CIVIL ENGINEERING DESIGN CONSULTANTS
10820 Sunset Office Drive
Suite 200
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Design Development:

KIRKWOOD PUBLIC WORKS RENOVATION

Kirkwood, MO 63122

545 Leffingwell Avenue

No.	Date	Revision

ISSUE FOR BID

TITLE SHEET

Project No.
CEDC 2522

Sheet No.
C1

Date
03/30/2026

GENERAL NOTES

1. ALL UTILITIES SHOWN HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED. THE CONTRACTOR SHALL BE ON RECORD WITH THE MISSOURI ONE CALL SYSTEM. ALL PROPOSED UTILITIES TO BE UNDERGROUND.
2. ALL ELEVATIONS ARE BASED ON M.S.D. BENCHMARK.
3. PARTIAL BOUNDARY AND TOPOGRAPHIC SURVEY BY MARLER SURVEYING CO.
4. ALL ON-SITE MATERIALS AND METHODS OF CONSTRUCTION TO MEET THE CURRENT STANDARDS AND SPECIFICATIONS OF THE ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC, THE CITY OF KIRKWOOD PUBLIC WORKS & MSD.
5. ALL GRADED AREAS SHALL BE PROTECTED FROM EROSION BY EROSION CONTROL DEVICES AND/OR SEEDING AND MULCHING AS REQUIRED BY THE CITY OF KIRKWOOD.
6. PRIOR TO BEGINNING ANY WORK ON THE SITE, THE SUB-CONTRACTOR SHALL CONTACT THE GENERAL CONTRACTOR FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE SEQUENCING OF WORK.
7. GRADING CONTRACTOR SHALL INSTALL SILTATION CONTROL PRIOR TO STARTING THE GRADING. ADDITIONAL SILTATION CONTROL DEVICES SHALL BE INSTALLED AS DIRECTED BY THE CITY OF KIRKWOOD.
8. ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL, AND DEBRIS.
9. GRADING CONTRACTOR SHALL KEEP EXISTING ROADWAYS CLEAN OF MUD AND DEBRIS AT ALL TIMES.
10. PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS ON PAVED AREAS.
11. ALL GRADING & DRAINAGE TO BE IN CONFORMANCE WITH ST. LOUIS COUNTY, THE CITY OF KIRKWOOD & METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARDS.
12. DRIVE ENTRANCES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF KIRKWOOD.
13. SEEDING, SODDING, MULCHING, AND PLANTINGS FOR ALL DISTURBED AREAS SHALL BE SPECIFIED ON THE LANDSCAPE PLAN.
14. SIDEWALKS ALONG THE ACCESSIBLE ROUTE SHALL NOT HAVE A SLOPE EXCEEDING 1'V:20'H. SLOPES GREATER THAN 1'V:20'H MUST BE DESIGNED AS A RAMP. SIDEWALKS TO BE CONSTRUCTED TO ST. LOUIS COUNTY ADA STANDARDS.
15. SIDEWALKS, CURB RAMPS, RAMPS, AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) ALONG WITH THE REQUIRED GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS AND SIGNAGE. IF ANY CONFLICT OCCURS BETWEEN THE ADAAG AND THE INFORMATION ON THE PLANS, THE ADAAG SHALL TAKE PRECEDENCE AND THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER PRIOR TO ANY CONSTRUCTION.
16. A PERMIT IS REQUIRED BY ST. LOUIS COUNTY DEPARTMENT OF PUBLIC WORKS FOR ALL DOWNSPOUTS AND ROOF DRAINS.
17. A DRAINLAYER PERMIT IS REQUIRED BY ST. LOUIS COUNTY DEPARTMENT OF PUBLIC WORKS FOR ALL PRIVATE STORM SEWERS.
18. NO GRADE SHALL EXCEED 3:1 SLOPE.
19. STORM WATER SHALL BE DISCHARGED AT ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE NATURAL DISCHARGE POINTS.
20. ALL LANDSCAPE AREAS TO BE FILLED WITH A MINIMUM OF 6" OF TOPSOIL.
21. ALL LANDSCAPED AREAS DISTURBED BY OFF-SITE WORK SHALL BE IMMEDIATELY SEEDED OR SODDED, AS DIRECTED BY CITY OF KIRKWOODDEPARTMENT OF PUBLIC WORKS UPON COMPLETION OF WORK IN AREA AFFECTED.
22. ADEQUATE TEMPORARY OFF-STREET PARKING FOR CONSTRUCTION EMPLOYEES SHALL BE PROVIDED. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEES' VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVEWAY CONDITIONS.
23. ALL PUBLIC SEWER CONSTRUCTION MUST CONFORM TO 2023 M.S.D. "STANDARD CONSTRUCTION SPECIFICATION & DETAILS".
24. NO STEP ALLOWED AT ACCESSIBLE ENTRANCE DOORS.

STORM SEWER NOTES

1. ALL CONCRETE PIPE SHALL BE REINFORCED AND CONFORM TO A.S.T.M. DESIGNATION C76-80 CLASS III UNLESS NOTED.
2. ALL SEWER CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH THE METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES, 2009.
3. TYPE "C" BEDDING PER MSD STANDARDS IS REQUIRED FOR PIPES IN ROCK.
4. ALL TRENCHES UNDER AREAS TO BE PAVED AND UNDER EXISTING PAVING SHALL BE GRANULARLY FILLED WITH 3/4" MINUS CRUSHED LIMESTONE ONLY. BACKFILL SHALL BE PLACED IN ACCORDANCE WITH MSD STANDARDS.
5. ALL TRENCH BACKFILLS UNDER PAVEMENT WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILLED. TRENCH BACKFILLS UNDER PAVED AREAS, OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILL IN LIEU OF THE EARTH BACKFILL COMPACTED TO 95 PERCENT OF THE STANDARD AASHTO T-99 COMPACTION TEST A.S.T.M. D-698.
6. JETTING IS NOT AN ACCEPTABLE METHOD OF ACHIEVING BACKFILL COMPACTION. ALL BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED TO AT LEAST 95 PERCENT OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY.
7. FOR SEWER PIPE (STORM, SANITARY AND COMBINED) WITH A DESIGN GRADE LESS THAN ONE PERCENT (1%), VERIFICATION OF THE PIPE GRADE WILL BE REQUIRED FOR EACH INSTALLED REACH OF SEWER, PRIOR TO ANY SURFACE RESTORATION OR INSTALLATION OF ANY SURFACE IMPROVEMENTS. THE CONTRACTOR'S FIELD SUPERVISOR WILL BE REQUIRED TO PROVIDE DAILY DOCUMENTATION VERIFYING THAT THE AS-BUILT PIPE GRADE MEETS THE DESIGN GRADE THROUGH THE SUBMITTAL OF SIGNED CUT SHEETS TO THE MSD INSPECTOR UPON REQUEST.

   FIELD SURVEYED VERIFICATION MUST BE MADE UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR OR REGISTERED ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE AND REPLACE ANY SEWER REACH HAVING AN AS-BUILT GRADE WHICH IS FLATTER THAN THE DESIGN GRADE BY MORE THAN 0.1%. SEWERS WITH GRADES GREATER THAN THE DESIGN GRADE MAY BE LEFT IN PLACE, PROVIDED NO OTHER SEWER GRADE IS REDUCED BY THIS VARIANCE IN THE AS-BUILT GRADE.

   MSD ALSO RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE ANY SEWER (AT ANY TIME PRIOR TO CONSTRUCTION APPROVAL) FOR WHICH THE AS-BUILT GRADE DOES NOT COMPLY WITH THE GRADE TOLERANCE STATED IN THE ABOVE PARAGRAPH.

   THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL AND REPLACEMENT OF THE SEWER PIPE OR ASSOCIATED APPURTENANCES.
8. ADJUSTMENT OF MANHOLE TO GRADE:
   IF A MANHOLE IS TO BE RAISED: MANHOLES MAY BE RAISED USING COURSES OF BRICK OR APPROVED GRADE RING(S), PROVIDED THE TOTAL ADJUSTMENT OF THE MANHOLE DOES NOT EXCEED 12-INCHES (INCLUDING THE EXISTING RINGS OR COURSES OF BRICK). FOR MANHOLES WHICH WILL EXCEED THE MAXIMUM OF 12-INCHES, THE TRANSITION SECTION OF THE STRUCTURE SHALL BE REMOVED AND THE NEW SECTION RAISED USING THE SAME MATERIAL AS THE EXISTING STRUCTURE.

   IF A MANHOLE IS TO BE LOWERED:
   MANHOLES MAY BE LOWERED BY REMOVING THE TRANSITION SECTION, AND LOWERING THE EXISTING BOTTOM SECTION BY SAWCUTTING THE EXISTING CAST-IN-PLACE CONCRETE, REMOVING THE REQUIRED COURSES OF BRICK, OR REMOVING THE PRECAST RISER SECTION AS APPROPRIATE.
9. IF STORM AND SANITARY SEWERS ARE PARALLEL AND IN THE SAME TRENCH, THE UPPER PIPE SHALL BE PLACED ON A SHELF AND THE LOWER PIPE SHALL BE BEDDED IN COMPACTED GRANULAR FILL TO THE FLOW LINE OF THE UPPER PIPE.

MSD NOTES

STANDARD CONSTRUCTION 2023 VERSION:

All storm and sanitary sewer structures and appurtenances to be dedicated to MSD, or to be Private Under MSD Inspection, shall conform to the Metropolitan St. Louis Sewer District, Standard Construction Specifications for Sewers and Drainage Facilities, 2023. That will include Standard Details shown therein, all subsequent changes made thereto, and shall also include the following:

PART 2 -MATERIALS OF CONSTRUCTION

SECTION G PIPE.

12. Corrugated Polypropylene Pipe.

Subparagraphs a and b shall be deleted in their entirety and replaced with the following:

a. For use in Sanitary, Storm and Combined Sewers 12 to 60 inches in diameter it shall conform to the requirements of ASTM F2764 "Standard Specification for 6 to 60 in. Polypropylene (PP) Corrugated Double and Triple Wall Pipe and Fittings for Non-Pressure Sanitary Sewer Applications." Pipe shall have a minimum stiffness of 46 psi when tested in accordance with ASTM D2412.

b. In addition to the joint requirements indicated in Part 2, Sec. H, all polypropylene pipe shall utilize a double gasketed joint.

Paragraphs d. and e. below shall be added:

d. Pipe for gravity sewer installations shall be installed in accordance with ASTM D2321. Consolidation by water (jetting or puddling) shall not be used. Consolidation shall be in accordance with MSD Standard Construction Specifications for trench backfill. Price for compacted backfill shall be included in pipe unit cost.

1. For use in sanitary and combined sewer installations, a representative from the pipe manufacturer shall visit the site within the first 100 feet of pipe installation. Coordination of this site visit shall be arranged by the Contractor. The Contractor shall provide the MSD Inspector at least 24 hours' notice of the planned date and time of the manufacturer's site visit.

2. Following the site visit, the Contractor shall be required to provide a letter from the piping manufacturer summarizing their observations. At a minimum, the letter shall:

a) Indicate the date the initial section of pipe was installed; and

b) Verify that the Installation occurred in accordance with manufacturer's recommended procedures.

e. Trench width shall be in accordance with manufacturer's installation recommendations. District standard payline widths based on the nominal inside pipe diameter shall apply.

STORM SEWER NOTES

ABANDONMENT/PERMITS:
MSD permits are required prior to the abandonment or removal of existing sewers. To receive MSD permits the project must have MSD Plan Approval. Notify MSD 48 hours prior to sewer abandonment and/or removal.

BACKWATER VALVE NOTE:
A Backwater Valve shall be required on all building laterals per local plumbing code.

COMPACTED FILL REQUIREMENTS:
A registered professional geotechnical engineer will verify that all compressible material has been removed prior to fill placement and that all fill, and filled areas, including trench backfills, under buildings and under sanitary and storm sewer lines constructed above the original ground surface, has been compacted to 90% Modified Proctor. Fill is to be placed in a maximum of nine-inch (9') lifts. Tests shall be taken at a maximum of fifty-feet (50') wide intervals along the route of the pipe, at a maximum interval, of two feet (2'), vertically and laterally on each side of the pipe, at a distance equal to the depth of fill over the pipe. A copy of these results will be submitted to MSD prior to placement of the sewer pipe.

DETAIL DRAWINGS:
The detail drawings shown here are only for private construction that is NOT under MSD permits. Refer to MSD specifications and standard details for public sewer construction or private construction under MSD permits.

LIMITS OF DISTURBANCE:
The contractor shall stay within the limits of disturbance as shown on the plans and minimize disturbance within the work area wherever possible.

PUBLIC SEWER MAINTENANCE:
Maintenance of the sewers designated "public" shall be the responsibility of the Metropolitan St. Louis Sewer District upon dedication of the sewers to the District.

SANITARY LATERALS:
Laterals to be 6-inch PVC and constructed at 2.0% minimum slope.

CONSTRUCTION SITE RUNOFF:
Construction site runoff shall not flow into BMP areas. All stormwater flow to BMP areas shall be diverted, plugged or disconnected until the construction site is stable AND the MSD inspector provides approval to place the BMP on-line

DETAIL DRAWINGS:
The detail drawings shown here are only for private construction that is NOT under MSD permits. Refer to MSD specifications and standard details for public sewer construction or private construction under MSD permits.

FILL OR REMOVE ABANDONED SEWER:
Abandoned sewers shall be removed or completely filled with grout

INFILTRATION BED:
To prevent construction sediment from clogging infiltration bed, at no time may construction sediment enter these facilities. Additionally, these facilities shall not be constructed until all surrounding area that drains to them is fully stable/established.

INFILTRATION TESTING – FOR WHEN UTILIZING ONSITE SOILS AND/OR MIXING ONSITE FOR PLANTING SOIL:
The in-place permeability of the planting soil shall be 2.0 to 3.5 ft/day, and verified by and infiltration test performed per the Maryland Stormwater Manual, Appendix D.1, "Infiltration Testing Requirements (Field Testing Required)". A minimum of one percolation test shall be performed per facility. The MSD Field Inspector shall be allowed to select the location of percolation tests. The MSD Field Inspector shall be provided a copy of all test results, signed and sealed by a Missouri Professional Engineer. Test results shall report in units of ft/day. Results shall demonstrate acceptable permeability prior to construction approval. Note these tests are not required if utilizing premixed planting soil supplied by a local MSD approved soils supplier.

LIMITS OF DISTURBANCE:
The contractor shall stay within the limits of disturbance as shown on the plans and minimize disturbance within the work area wherever possible.

PIPE JOINTS WITH ADAPTERS AND COUPLINGS NOTE:

Note – Pipe joints with adapters and couplings shall be supplied and installed with 316 Stainless Steel nut and bolt clamps (T-Bolt) configuration; and with Stainless Steel shear bands, being a minimum of twelve (12) mils (MSD Std. Const. Specs. Pt. 2, subsection H_11). Worm drive hose clamps and concrete backfilling (causticity) will no longer be allowed at those joints. Granular backfill should be used. If flowable fill is required, the contractor shall wrap and tape the adapters and couplings with a six (6) mil polyethylene sheet.

REMOVE REPLACE OR REHAB NOTE:
The removal and replacement, or rehabilitation of the existing structure will be determined by the MSD field inspector. If the structure is determined to remain in place, then the top shall be adjusted to grade, if needed.

SANITARY AND STORM SEWERS IN SAME TRENCH:
If storm and sanitary sewers are parallel and in the same trench, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flowline of the upper pipe.

SANITARY LATERALS:
Laterals to be 6-inch PVC and constructed at 2.0% minimum slope.

SEDIMENTATION BASIN – TEMPORARY:
During construction; if site runoff flows into a temporary sediment basin that will be converted to a permanent BMP area, then after the tributary area is completely stable the sediment basin will need to be cleaned of all silt, sediment, and trash that has accumulated within it. Over excavate as needed to allow full depth of the BMP section. BMP planting, if applicable, can be installed only after this has been done AND the MSD inspector provides approval to place the plantings.

SHOP DRAWINGS:

The project engineer shall provide shop drawings signed and sealed by a Professional Engineer licensed in Missouri for approval to MSD prior to construction of these structures. Structures shall be designed to sustain HS-20 loads. Please contact the District's Construction Management Division at (314) 335-2072 for questions.

SANITARY SEWER NOTES

1. ALL SEWER CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH THE METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES, 2009.
2. 6" AND 8" LATERALS CONSTRUCTED OF PVC SDR-35 THICKWALL PIPE, A.S.T.M. D-3034.
3. 6" AND 8" LATERAL JOINTS TO CONFORM TO A.S.T.M. STANDARD SDR-35 THICKWALL COMPRESSION JOINT FOR PVC.
4. ALL MANHOLE FRAMES AND COVERS SHALL BE MSD STANDARD FRAME AND COVER.
5. ALL LATERAL SEWER CONSTRUCTION METHODS TO CONFORM TO LATEST STANDARDS AND SPECIFICATIONS OF THE ST. LOUIS COUNTY PLUMBING CODE.
6. ALL TRENCHES UNDER AREAS TO BE PAVED SHALL BE GRANULARLY FILLED WITH 3/4" CRUSHED LIMESTONE. BACKFILL SHALL BE PLACED IN ACCORDANCE WITH METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARDS.
7. CONTRACTOR TO START LAYING PIPE AT DOWNSTREAM MANHOLE AND WORK UPSTREAM.
8. CLEANOUTS SHALL BE LOCATED AT ALL HORIZONTAL AND VERTICAL CHANGES IN DIRECTION OF FLOW OF HOUSE LATERALS AND ANY SANITARY LATERAL OF 100 FEET OR LONGER.
9. TYPE "C" BEDDING PER MSD STANDARDS REQUIRED FOR PIPES IN ROCK.
10. VERTICAL CLEARANCE BETWEEN SEWER AND WATER MAINS SHALL BE A MINIMUM OF 2'-0".
11. ALL TRENCH BACKFILLS UNDER PAVEMENT WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILLED. TRENCH BACKFILLS UNDER PAVED AREAS, OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILL IN LIEU OF THE EARTH BACKFILL COMPACTED TO 95 PERCENT OF THE STANDARD AASHTO T-99 COMPACTION TEST A.S.T.M. D-698.
12. JETTING IS NOT AN ACCEPTABLE METHOD OF ACHIEVING BACKFILL COMPACTION. ALL BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED TO AT LEAST 95 PERCENT OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY.
13. FOR SEWER PIPE (STORM, SANITARY AND COMBINED) WITH A DESIGN GRADE LESS THAN ONE PERCENT (1%), VERIFICATION OF THE PIPE GRADE WILL BE REQUIRED FOR EACH INSTALLED REACH OF SEWER, PRIOR TO ANY SURFACE RESTORATION OR INSTALLATION OF ANY SURFACE IMPROVEMENTS. THE CONTRACTOR'S FIELD SUPERVISOR WILL BE REQUIRED TO PROVIDE DAILY DOCUMENTATION VERIFYING THAT THE AS-BUILT PIPE GRADE MEETS THE DESIGN GRADE THROUGH THE SUBMITTAL OF SIGNED CUT SHEETS TO THE MSD INSPECTOR UPON REQUEST.

    FIELD SURVEYED VERIFICATION MUST BE MADE UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR OR REGISTERED ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE AND REPLACE ANY SEWER REACH HAVING AN AS-BUILT GRADE WHICH IS FLATTER THAN THE DESIGN GRADE BY MORE THAN 0.1%. SEWERS WITH GRADES GREATER THAN THE DESIGN GRADE MAY BE LEFT IN PLACE, PROVIDED NO OTHER SEWER GRADE IS REDUCED BY THIS VARIANCE IN THE AS-BUILT GRADE.

    MSD ALSO RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE ANY SEWER (AT ANY TIME PRIOR TO CONSTRUCTION APPROVAL) FOR WHICH THE AS-BUILT GRADE DOES NOT COMPLY WITH THE GRADE TOLERANCE STATED IN THE ABOVE PARAGRAPH.

    THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL AND REPLACEMENT OF THE SEWER PIPE OR ASSOCIATED APPURTENANCES.
14. ADJUSTMENT OF MANHOLE TO GRADE:
    If a manhole is to be raised: Manholes may be raised using courses of brick or approved grade ring(s), provided the total adjustment of the manhole does not exceed 12-inches (including the existing rings or courses of brick). For manholes which will exceed the maximum of 12-inches, the transition section of the structure shall be removed and the bottom section raised using the same material as the existing structure.

    If a manhole is to be lowered: manholes may be lowered by removing the transition section, and lowering the existing bottom section by sawcutting the existing cast-in-place concrete, removing the required courses of brick, or removing the precast riser section as appropriate.
15. MAINTENANCE OF THE SEWERS DESIGNATED AS "PUBLIC" SHALL BE THE RESPONSIBILITY OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT UPON DEDICATION OF THE SEWERS TO THE DISTRICT.
16. FOUNDATION DRAINS, IF INSTALLED, SHALL NOT CONNECT TO THE SANITARY SEWER.
17. IF STORM AND SANITARY SEWERS ARE PARALLEL AND IN THE SAME TRENCH, THE UPPER PIPE SHALL BE PLACED ON A SHELF AND THE LOWER PIPE SHALL BE BEDDED IN COMPACTED GRANULAR FILL TO THE FLOW LINE OF THE UPPER PIPE.

CONSTRUCTION NOTES

1. THE SITE IMPROVEMENT PLANS APPROVED BY THE CITY OF KIRKWOOD DO NOT ALLOW THE REMOVAL OR CONSTRUCTION OF ANY PUBLIC SANITARY OR STORM SEWER LINES WITHOUT THE PRIOR APPROVAL OR CONSENT OF MSD.
2. ALL PUBLIC ROADS MUST BE KEPT CLEAR OF MUD AND DEBRIS AT ALL TIMES. FAILURE TO DO SO WILL BE CAUSE FOR THE CITY OF KIRKWOODTO SUSPEND WORK.
3. ALL NEW SIGNS SHALL CONFORM TO THE CITY OF KIRKWOODSIGN ORDINANCE REQUIREMENTS. SIGN LOCATION AND SIZES CANNOT BE APPROVED WITH THE SITE IMPROVEMENT PLAN, A SEPARATE APPLICATION MUST BE MADE TO THE DEPARTMENT OF PLANNING.
4. THE GENERAL CONTRACTOR SHALL RESTORE OFFSITE CONSTRUCTION AREAS TO AN EQUAL OR BETTER CONDITION THAN EXISTED PRIOR TO THE COMMENCEMENT OF WORK IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION.
5. SAFETY NOTICE TO CONTRACTOR PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RAZING AND REMOVAL OF THE EXISTING STRUCTURES, INCLUDING FOUNDATIONS, RELATED UTILITIES, PAVING, UNDERGROUND FACILITIES AND ANY OTHER EXISTING IMPROVEMENTS.
7. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO ADJACENT PROPERTIES DURING ALL PHASES OF THE CONSTRUCTION PLAN.
8. BURNING ON SITE WILL NOT BE ALLOWED.
9. DISPOSAL OF MATERIAL ON-SITE WILL ONLY BE ALLOWED AS DIRECTED BY THE OWNER AND GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF KIRKWOOD.
10. CONTRACTOR SHALL COORDINATE THE DISCONNECTION, SEALING, AND/OR REMOVAL OF UTILITIES WITH THE RESPECTIVE UTILITY COMPANY.
11. THE GENERAL CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES FOR NEW SERVICE.
12. THE GENERAL CONTRACTOR SHALL FLAG ALL SANITARY AND STORM SEWER STRUCTURES WITH A 2 X 4 PAINTED ORANGE AND MARKED TO READ "STORM SEWER STRUCTURE OR SANITARY SEWER STRUCTURE DO NOT BURY."
13. ALL PRIVATE SEWERS ARE UNDER ST. LOUIS COUNTY INSPECTION.
14. **ALL FILLED PLACES UNDER PROPOSED STORM AND SANITARY SEWER LINES AND/OR PAVED AREAS SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHTO T-180 COMPACTION TEST OR 95% STANDARD PROCTOR TEST AASHTO T-99.** A SEALED COPY OF ALL RESULT REPORTS SHALL BE AVAILABLE FOR REVIEW.
15. ALL EXCAVATIONS, GRADING, OR FILLING SHALL HAVE A FINISHED GRADE NOT TO EXCEED A 3:1 SLOPE (33 PERCENT). STEEPER GRADES MAY BE APPROVED BY THE DESIGNATED OFFICIAL IF THE EXCAVATION IS THROUGH ROCK OR THE EXCAVATION OR THE FILL IS ADEQUATELY PROTECTED (A DESIGNED HEAD WALL OR TOE WALL MAY BE REQUIRED). RETAINING WALLS THAT EXCEED A HEIGHT OF FOUR (4) FEET SHALL REQUIRE THE CONSTRUCTION OF SAFETY GUARDS AS IDENTIFIED IN THE APPROPRIATE SECTION(S) OF THE ADOPTED BUILDING CODES AND MUST BE APPROVED BY THE CITY OF KIRKWOOD. SAFETY GUARDS WILL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE SECTION(S) OF THE ADOPTED BUILDING CODES.
16. SEDIMENT AND EROSION CONTROL PLANS FOR SITES THAT EXCEED 20,000 SQUARE FEET OF GRADING SHALL PROVIDE FOR SEDIMENT OR DEBRIS BASINS, SILT TRAPS OR FILTERS, STAKED STRAW BALES, OR OTHER APPROVED MEASURES TO REMOVE SEDIMENT FROM RUN-OFF WATERS. THE DESIGN TO BE APPROVED BY THE DESIGNATED OFFICIAL. TEMPORARY SILTATION CONTROL MEASURES (STRUCTURAL) SHALL BE MAINTAINED UNTIL VEGETATIVE CONTROL IS ESTABLISHED ON THE SITE, TO BE DETERMINED BY THE DESIGNATED OFFICIAL.
17. WHERE NATURAL VEGETATION IS REMOVED DURING GRADING, VEGETATION SHALL BE REESTABLISHED IN SUCH A DENSITY AS TO PREVENT EROSION. PERMANENT TYPE GRASSES SHALL BE ESTABLISHED AS SOON AS POSSIBLE OR DURING THE NEXT SEEDING PERIOD AFTER GRADING HAS BEEN COMPLETED.
18. WHEN GRADING OPERATIONS ARE COMPLETED OR SUSPENDED FOR MORE THAN 30 DAYS, PERMANENT GRASS MUST BE ESTABLISHED AT SUFFICIENT DENSITY TO PROVIDE EROSION CONTROL ON THE SITE. BETWEEN PERMANENT GRASS SEEDING PERIODS, TEMPORARY COVER SHALL BE PROVIDED ACCORDING TO THE DESIGNATED OFFICIAL'S RECOMMENDATION.
19. ALL FINISHED GRADES (AREAS NOT TO BE DISTURBED BY FUTURE IMPROVEMENT) IN EXCESS OF 20 PERCENT SLOPES (5:1) SHALL BE MULCHED AND TACKED AT THE RATE OF 100 POUNDS PER 1,000 SQUARE FEET WHEN SEEDED.
20. PROVISIONS SHALL BE MADE TO ACCOMMODATE THE INCREASED RUNOFF CAUSED BY CHANGED SOIL AND SURFACE CONDITIONS DURING THE AFTER GRADING. UNVEGETATED OPEN CHANNELS SHALL BE DESIGNED SO THAT GRADIENTS RESULT IN VELOCITIES OF 2 FPS (FEET PER SECOND) OR LESS. OPEN CHANNELS WITH VELOCITIES MORE THAN 2 FPS AND LESS THAN 5 FPS SHALL BE ESTABLISHED IN PERMANENT VEGETATION BY USE OF COMMERCIAL EROSION CONTROL BLANKETS OR LINED WITH ROCK RIPRAP OR CONCRETE OR OTHER SUITABLE MATERIALS AS APPROVED BY THE DESIGNATED OFFICIAL. DETENTION BASINS, DIVERSIONS, OR OTHER APPROPRIATE STRUCTURES SHALL BE CONSTRUCTED TO PREVENT VELOCITIES ABOVE 5 FPS.
21. THE ADJOINING GROUND TO DEVELOPMENT SITES (LOTS) SHALL BE PROVIDED WITH PROTECTION FROM ACCELERATED AND INCREASED SURFACE WATER, SILT FROM EROSION, AND ANY OTHER CONSEQUENCES OR EROSION. RUN-OFF WATER FROM DEVELOPED AREAS (PARKING LOTS, PAVED SITES, AND BUILDINGS) ABOVE THE AREA TO BE DEVELOPED SHALL BE DIRECTED TO DIVERSIONS, DETENTION BASINS, CONCRETE GUTTERS, AND/OR UNDERGROUND OUTLET SYSTEMS. SUFFICIENTLY ANCHORED STRAW BALES MAY BE TEMPORARILY SUBSTITUTED WITH THE APPROVAL OF THE DESIGNATED OFFICIAL.
22. ALL LOTS SHALL BE SEEDED AND MULCHED AT THE RATES DEFINED IN SWPPP DETAILS OR SODDED BEFORE AN OCCUPANCY PERMIT SHALL BE ISSUED EXCEPT THAT A TEMPORARY OCCUPANCY PERMIT MAY BE ISSUED BY THE BUILDING DEPARTMENT IN CASES OF UNDUE HARDSHIP BECAUSE OF UNFAVORABLE GROUND CONDITIONS.
23. INTERIM STORM WATER DRAINAGE CONTROL IN THE FORM OF SILTATION CONTROL MEASURES ARE REQUIRED.
24. THE DEVELOPER IS REQUIRED TO TO PROVIDE ADEQUATE STORM WATER SYSTEMS IN ACCORDANCE WITH THE CITY OF KIRKWOOD, ST. LOUIS COUNTY AND M.S.D. STANDARDS.
25. ADDITIONAL SILTATION CONTROL SHALL BE INSTALLED AS REQUIRED BY THE CITY OF KIRKWOOD.
26. ALL OFFSITE PROPERTY OWNERS SHALL BE GIVEN NOTICE 48 HOURS IN ADVANCE OF ANY WORK THAT POTENTIALLY MAY IMPACT THEIR PROPERTY.
27. ANY DISTURBED PROPERTY (I.E. BUSHES, FENCED, MAILBOXES, ETC.) SHALL BE REPLACED, IN KIND, AT THE DEVELOPER'S EXPENSE.
28. PROVIDE ADEQUATE OFF-STREET PARKING FOR CONSTRUCTION EMPLOYEES. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEE VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVEWAY CONDITIONS.
29. ALL STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT.
30. ALL WORK WITHIN CITY RIGHT-OF-WAY SHALL BE TO CITY STANDARDS.
31. THE DEVELOPER OR MUNICIPALITY IS ADVISED THAT UTILITY COMPANIES WILL REQUIRE COMPENSATION FOR RELOCATION OF THEIR FACILITIES WITHIN THE PUBLIC ROAD RIGHT-OF-WAY. UTILITY RELOCATION COST SHALL BE CONSIDERED THE DEVELOPER'S RESPONSIBILITY. THE DEVELOPER SHOULD ALSO BE AWARE OF EXTENSIVE DELAYS IN UTILITY COMPANY RELOCATION AND ADJUSTMENTS.
32. ALL DISTURBED EARTH AREAS WITHIN THE CITY OF KIRKWOOD RIGHT-OF-WAY SHALL BE SODDED.
33. **ALL FILLED PLACES IN PROPOSED ROADS SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL UP TO 90% MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHTO T-180 COMPACTION TEST OR 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST ASSHTO T-99. (COORDINATE W/ GEOTECH REPORT) A SOIL'S ENGINEER SHALL VERIFY ALL TESTS CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS.**
34. RUNOFF WATER FROM DEVELOPED AREAS (PARKING LOTS, PAVED SITES, AND BUILDINGS) ABOVE THE AREA TO DEVELOP SHALL BE DIRECTED TO DIVERSIONS, DETENTION BASINS, CONCRETE GUTTERS, AND/OR UNDERGROUND OUTLET SYSTEMS. SUFFICIENTLY ANCHORED STRAW BALES MAY BE TEMPORARILY SUBSTITUTED WITH THE APPROVAL OF THE DESIGNATED OFFICIAL.
35. ALL LIGHT STANDARDS SHALL BE SHADED, SHIELDED, OR DIRECTED TO PREVENT DIRECT LIGHT FROM CAUSING TRAFFIC HAZARDS, AND CASTING DIRECT LIGHT UPON ADJACENT PROPERTY CAUSING GLARE OR OTHER OBJECTIONABLE PROBLEMS TO SURROUNDING AREAS.

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Design Development:
KIRKWOOD PUBLIC WORKS RENOVATION
545 Leffingwell Avenue
Kirkwood, MO 63122

No.	Date	Revision

SPECIFICATION SHEET

Project No.
CEDC 2522

S

ISSUE FOR BID

MSD MAP 24M
26MSD-00041

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

LEGEND
PAVEMENT REMOVAL

LEFFINGWELL AVENUE
(60' WIDE) [PUBLIC]

S 36° 53' 28" E 622.12'

407.00'

N 48° 58' 29" E 265.67'

ELLIOTT AVENUE
(60' WIDE) [PUBLIC]

LOT A
LAND AREA
391,889 SQ. FT.
9.00 ± ACRES

FOUND 1/2" IRON PIPE
1.0' NORTHWEST OH—LINE

FOUND MAG SPIKE

REMOVE GATES
FULL DEPTH SAWCUT

FULL DEPTH SAWCUT

EX. CURB (T.B.R.)

EX. STRIPES (T.B.A.)

REMOVE AND REPLACE FAILING COMPONENTS OF GRATE INLET

DESTROY EX. DOMESTIC SERVICE PER CITY OF KIRKWOOD SPECS.

S 38° 19' 00" E 105.32'

MATCHLINE (SEE SHEET C3.1)

CREEK

CONCRETE CURB

ASPHALT

CONCRETE WALL

CHAIN LINK FENCE

BLDG. #447

EXISTING 2 STORY
APPROX. 18,000 SF
CONCRETE BLOCK & STUCCO
WITH ASPHALT ROOF
(NO ADDRESS POSTED)
BUILDING HEIGHT = 630.46

SANITARY MH
TOP = 595.07
F.L. = 585.07

CURB INLET
TOP = 580.28
F.L. = 575.73

GRATE INLET
TOP= 598.61
F.L. = 594.43

STORM MH
TOP = 599.87
F.L. = 595.67

SANITARY MH
TOP = 610.04
F.L. = 604.04

SANITARY MH
TOP 614.35
F.L. 608.35

24M4-1080
TOP 611.36
F.L. 606.36

24M4-1475
TOP 610.96
F.L. 604.61

24M4-0010
TOP 611.36
F.L. 606.77

24M4-1080
TOP 609.77
F.L. 602.47

24M4-1475
TOP 610.96
F.L. 604.61

24M4-0010
TOP 611.36
F.L. 606.71

24M4-1475
TOP 610.96
F.L. 604.61

18" RCP

12" RCP

8" PVC

8" VCP

21" VCP (W/ SLEEVE)

10' WIDE EASEMENT
(BK. 12279 PG. 1222)

REF PLAT I-H ZONE

REF PLAT I-I ZONE

REF PLAT I-J ZONE

10' WIDE EASEMENT
(BK. 12819 PG. 28)

8' WIDE EASEMENT
(BK. 12819 PG. 28)

40' WIDE EASEMENT
(BK. 6804 PG. 106)

REMOTE FDC

FDC

(T.B.R.)

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No.	Date	Revision

EXISTING CONDITIONS & FACILITIES REMOVAL PLAN

Project No.
CEDC 2522

Sheet No.
C3.0

Date
03/30/2026

SCALE: 1/16" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 3" = 1'-0"

ISSUE FOR BID

MSD MAP 24M
26MSP-00041

KIRKWOOD PUBLIC WORKS RENOVATION

Design Development:

545 Leffingwell Avenue
Kirkwood, MO 63122

No.	Date	Revision

EXISTING CONDITIONS & FACILITIES REMOVAL PLAN

Project No.
CEDC 2522

Sheet No.
C3.1

Date
03/30/2026

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GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

LEGEND
PAVEMENT REMOVAL

MATCHLINE (SEE SHEET C3.0)

DESTROY EX. DOMESTIC SERVICE PER CITY OF KIRKWOOD SPECS.

S 38° 19' 06" E 105.32'

FOUND IRON

20' WIDE ESMT (BK. 20289 PG. 327)

STL. COUNTY BM #9250 CROSS ON WALL ELEVATION = 579.57

5' WIDE EASEMENT (BK. 6150 PG. 1987)

10' WIDE ESMT (BK. 6804 PG. 926)

10' WIDE EASEMENT (BK. 6433 PG. 853)

SANITARY MH TOP = 586.54 F.L. = 569.29

ABANDONED SHORT AVENUE
[VACATED BY BK. 6480 PG. 1987]
S 49° 40' 40" W 524.18'

5' WIDE EASEMENT (BK. 20287 PG. 327)

SANITARY MH TOP = 596.95 F.L. = 584.95

SANITARY MH TOP = 596.99 F.L. = 587.99

BURLINGTON NORTHERN RAILROAD
(200' WIDE)

FOUND MAG SPIKE

REMOVE & REPLACE DOCK. SEE ARCH. DWGS. FOR DETAIL

SAWCUT CONC. AS REQUIRED TO REMOVE DOCK LEVELER

REMOVE PAVEMENT AS REQUIRED TO CONSTRUCT NEW CONC. RAMP

FULL DEPTH SAWCUT

LOT A
LAND AREA
391,889 SQ. FT.
9.00 ± ACRES

(U.I.P.)

USE CARE WHEN REMOVING ASPHALT PROTECT SCALE AS NEEDED

S 72° 36' 34" W 217.17'

EX. 10" WATER MAIN (BK. 6433 PG. 853)

REMOVE LIGHT STANDARD

EX. STRIPES (T.B.R.)

SANITARY MH TOP = 612.69 F.L. = 602.69

N 01° 26' 06" E 828.28'

ELLIOTT AVENUE
(60' WIDE) [PUBLIC]

SCALE: 1/16" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 3" = 1'-0"

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No.	Date	Revision

OVERALL SITE PLAN

Project No.
CEDC 2522

Sheet No.
C4.0

Date
03/30/2026

ISSUE FOR BID

MSD MAP 24M
26MSD-00041

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

LEFFINGWELL AVENUE
(66' wide Public)

ELLIOTT AVENUE
(66' wide Public)

MONTGOMERY SHORT AVENUE

BRADDOCKS NORTHERN BLVD
(Private)

LOT A
LAND AREA
XXX,XXX SQ. FT.
X.XX ± ACRES

LOT A
LAND AREA
XXX,XXX SQ. FT.
X.XX ± ACRES

SCALE: 1" = 1'-0"
SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

ISSUE FOR BID

GRAPHIC SCALE
1 inch = 20 ft.
(IN FEET)

LEFFINGWELL AVENUE
(60' WIDE) [PUBLIC]

ELLIOTT AVENUE
(60' WIDE) [PUBLIC]

MATCHLINE (SEE SHEET C5.1)

MSD MAP 24M
26MSD-00041

LOT A
LAND AREA
391,889 SQ. FT.
9.00 ± ACRES

S 36° 53' 28" E 622.12'

S 38° 19' 09" E 105.32'

N 48° 56' 09" E 265.67'

407.00'

FOUND 1/2" IRON PIPE
1.0' NORTHWEST ON-LINE

FOUND MAG SPIKE

P.O.P.
F.C. = 581.00

CREEK

CONCRETE CURB

ASPHALT

TYPE "A" CURB

END OF PIPE
FL. = 580.37

SPIKE
CLOAT
LAST CLEAR
"AMERA CLOAT"
CLEAR

CONCRETE WALL

STORM MH
TOP = 589.70
FL = 582.50

STORM MH
TOP = 587.00
FL = 581.75

STORM MH
TOP = 607.00
FL = 597.72

FL = 592.54

F.E.S.
FL = 588.63

PR. EASEMENT

SANITARY MH
TOP = 614.04
FL = 604.04

SANITARY MH
TOP = 611.35
FL = 601.35

8" VCP

8" PVC

DMP

12" RCP

CURB INLET
TOP = 580.28
F.C. = 575.73

F.E.S.
F.C. = 574.71

REF PLAT R-4 ZONE

REF PLAT I-1 ZONE

6' 10" WIDE EASEMENT
(BK. 12819 PG. 28)

6' 10" WIDE EASEMENT
(BK. 0804 PG. 006)

BLOCK WALL

CONCRETE

SANITARY MH
TOP = 595.07
FL = 585.07

CONCRETE CURB

CONCRETE WALK

GRATE INLET
TOP = 598.10
FL = 594.50

GRATE INLET
WITH 1.58.4
TOP = 598.20
FL = 594.25

GRATE INLET
WITH 1.58.4
TOP = 598.20
FL = 594.00

PUBLIC SEWER
15" RCP

STORM MH
TOP = 598.97
FL = 586.97

STORM MH
TOP = 602.25
FL = 592.25

STORM MH
TOP = 599.67
FL = 590.67

16" RCP

17" RCP

24M4-1980
TOP = 608.77
FL = 598.27

24M4-1475
TOP = 610.66
FL = 604.61

24M4-0030
TOP = 612.19
FL = 608.71

24M4-0031
TOP = 611.38
FL = 606.38

REMOTE FDC

NO STEP
ENTRY

EXISTING 2 STORY
APARTMENT BLDG. &
ATTACHED GARAGE
BUILDING HEIGHT = 459.43
(NO ADDRESS POSTED)

16" WATERLINE
(REC INFO)

6' OF WIDE EASEMENT
BK. 0819 PG. 281

CONCRETE

599.85

599.35

600.10
599.60

599.00
598.50

598.70
597.70

598.20
597.20

598.20
597.20

598.20
597.20

ISSUE FOR BID

MSD MAP 24M
26MSD-00041

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

ABANDONED SHORT AVENUE
[VACATED BY BK 6682 PG. 1987]
S 49° 40' 40" W 524.18'
(60' WIDE)

BURLINGTON NORTHERN RAILROAD (100')

ELLIOTT AVENUE
(60' WIDE) [PUBLIC]

MATCHLINE (SEE SHEET C5.0)

N 01° 26' 06" E 828.28'

S 38° 19' 50" E 105.32'

LOT A
LAND AREA
391,889 SQ. FT.
9.00 ± ACRES

EXISTING 2 STORY CONCRETE BLOCK & BRICK WAREHOUSE BUILDING (NO ADDRESS POSTED)
BUILDING HEIGHT = 635.44

FOUND 1/2" IRON RC

FOUND MAG SPIKE

ST. COUNTY BM #8250
CROSS ON WALL
ELEVATION = 579.57

SANITARY LATERAL TO BE TELEVISED TO CONFIRM DEPTH AND CONDITION

APPROX. LOCATION EX. SAN. LATERAL

OIL SEPARATOR

6"PVC LATERAL (2.00% MIN. SLOPE)

SOLIDS INTERCEPTOR

SAN. C.O.

TRUCK SCALE

DUMPSTER

CONC. RAMP

CONCRETE CURB

BLOCK WALL

CHAIN LINK FENCE (TYPICAL)

6" ROOFDRAIN (REC INFO)

12" ROOFDRAIN (REC INFO)

REMOTE FDC

DRAIN INLET
TOP = 592.01
F.L. = 592.91

SANITARY MH
TOP = 598.99
F.L. = 587.99

SANITARY MH
TOP = 596.54
F.L. = 569.29

SANITARY MH
TOP = 612.89
F.L. = 602.89

SANITARY MH
TOP = 596.77
F.L. = 589.24

SCALE: 1/16" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/2" = 1'-0"
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SCALE: 3" = 1'-0"

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No.	Date	Revision

SITE AND GRADING PLAN

Project No.
CEDC 2522

Sheet No.
C5.1

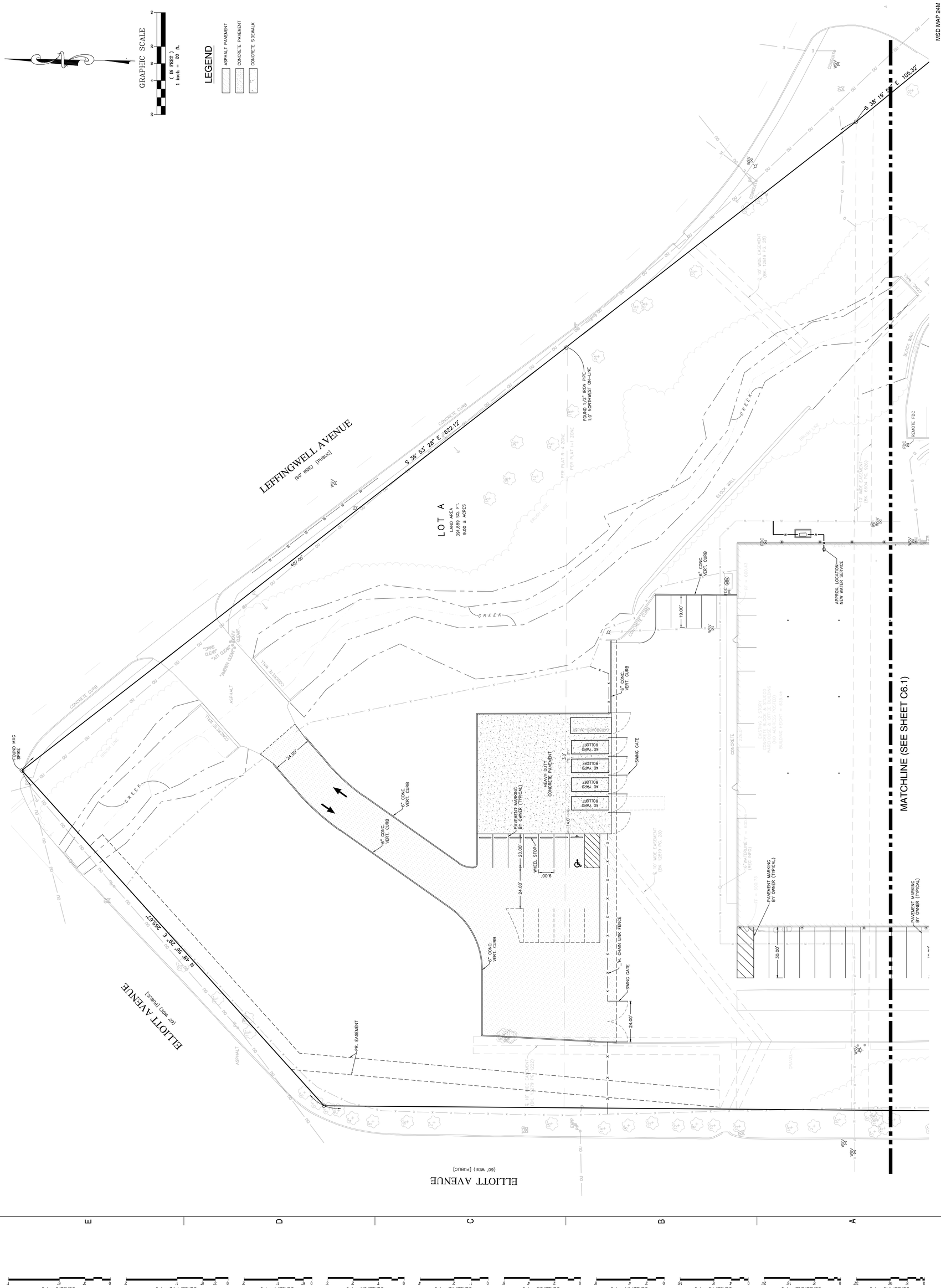
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26MSD-00041



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No.	Date	Revision

Project No.
CEDC 2522

Sheet No.
C6.0

Date
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SITE GEOMETRY AND UTILITY PLAN

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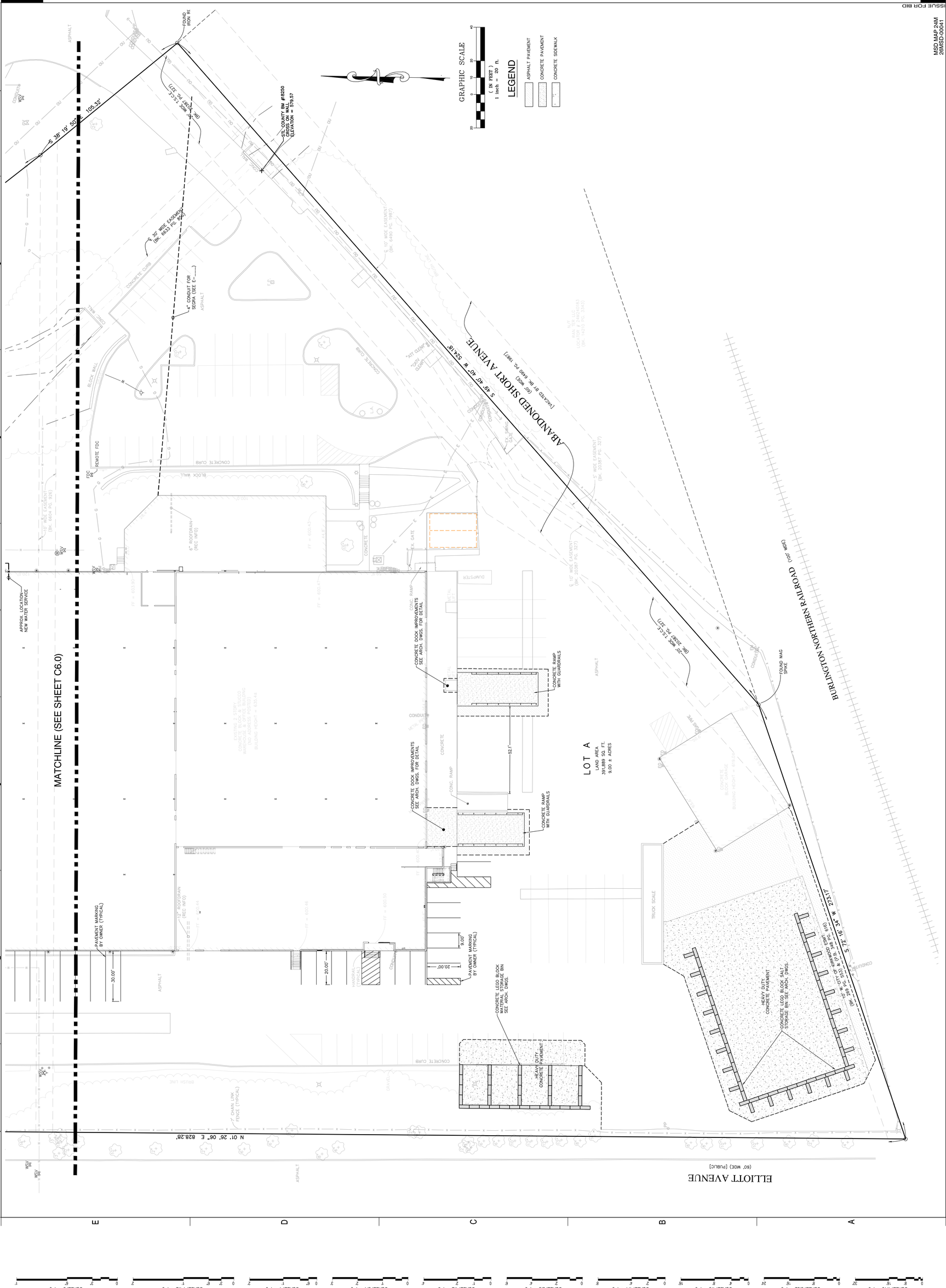
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No.	Date	Revision

SITE GEOMETRY AND UTILITY PLAN

Project No.
CEDC 2522

Sheet No.
C6.1

Date
03/30/2026

15 YR 20 MIN

HYDRAULIC CALCULATION SHEET (SEE DRAINAGE AREA PLAN FOR P.L AND Q (inflow) FOR EACH STRUCTURE)

Project name:	*26MSD-00*	**Calculated By:**	*MFV*
Project number:	*2522*	**Checked By:**	*BAH*
Project Location:	*Kirkwood*	**Date:**	*1/30/2026*

Bend Coefficients :

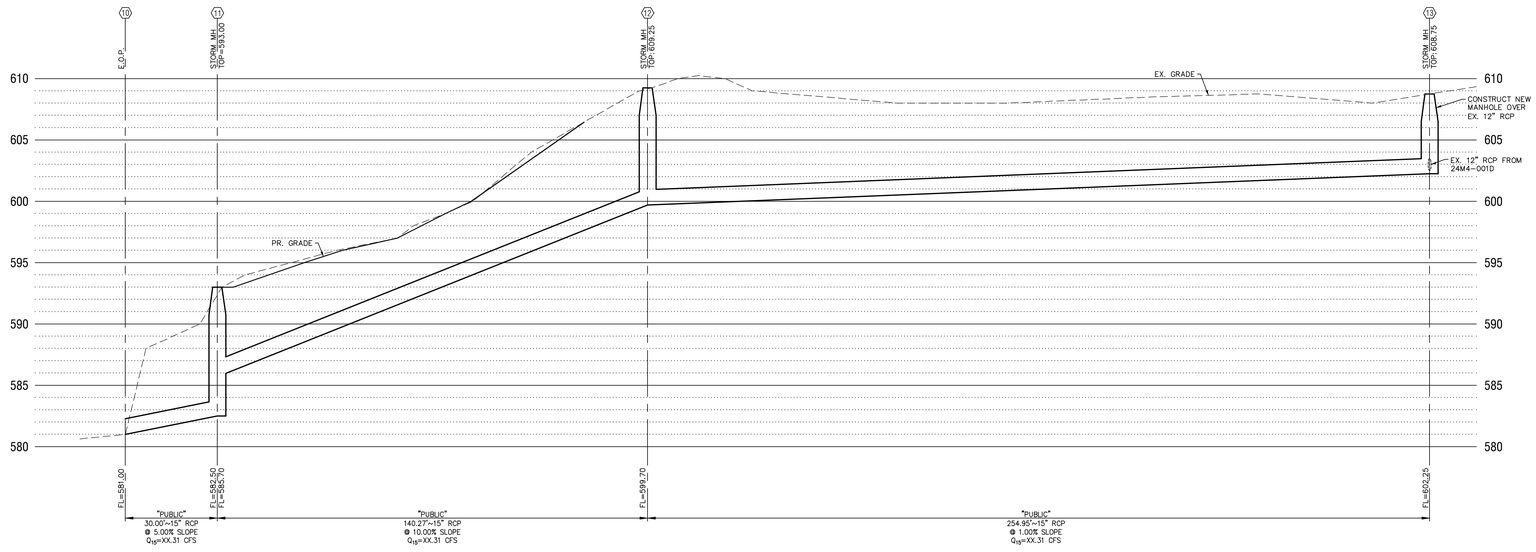
5° = 0.06	20° = 0.24	35° = 0.40	50° = 0.50	65° = 0.57	80° = 0.65
10° = 0.11	25° = 0.30	40° = 0.43	55° = 0.52	70° = 0.60	85° = 0.67
15° = 0.18	30° = 0.35	45° = 0.47	60° = 0.55	75° = 0.62	90° = 0.70

LINE		FLOW LINE ELEVATIONS												HEAD LOSS				Hydraulic Elevations							
Structure Number	Upper structure	Lower structure	Upper structure	Lower Structure	Length (ft)	Flowline Grade ft/ft	Pipe Size (in.)	Full Flow Cap. (cfs)	Total (Q) (cfs)	Mean Full Flow Vel.(V) (ft/s)	Bend Coef.	Velocity Head (V_h) (ft)	QV_h (ft^2/s)	Pipe Coef. (n)	H_L (ft)	Junction (ft)	Bend (ft)	Total H_{tot}	Upper F.L + Dia.	Lower H.E. +H_t	Lower H.E.	Structure Upper H.E. + H_{tot}	TOP/SILL Structure Elevation	Free Board	Structure Number
8	8	7	586.50	586.00	27.30	0.0183	18	14.25	7.61	4.31	0.67	0.29	2.19	0.013	0.14	0.38	0.00	0.38	588.00	590.86	590.72	591.25	595.00	3.75	8
7	7		586.00																						7
6	6	5	591.00	588.00	95.20	0.0315	15	11.50	1.45	1.18	0.00	0.02	0.03	0.013	0.05	0.03	0.00	0.03	592.25	590.90	590.85	592.28	595.00	2.72	6
5	5	4	588.00	586.25	23.00	0.0761	15	17.87	2.51	2.05	0.00	0.06	0.16	0.013	0.03	0.00	0.00	0.00	589.25	590.85	590.82	590.85	592.00	1.15	5
4	4	3	586.25	586.00	12.70	0.0197	15	9.09	3.15	2.57	0.00	0.10	0.32	0.013	0.03	0.07	0.00	0.07	587.50	590.75	590.72	590.82	592.00	1.18	4
3			586.00																						3
13	13	12	602.25	599.70	255.00	0.0100	15	6.48	6.03	4.91	0.00	0.37	2.26	0.013	2.22	0.50	0.00	0.50	603.50	603.35	601.13	604.00	608.75	4.75	13
12	12	11	599.70	585.70	140.30	0.0998	15	20.46	6.03	4.91	0.47	0.37	2.26	0.013	1.22	0.00	0.18	0.18	600.95	588.17	586.95	601.13	609.25	8.12	12
11	11	10	582.50	581.00	30.00	0.0500	15	14.48	6.03	4.91	0.00	0.37	2.26	0.013	0.26	0.00	0.00	0.00	583.75	586.37	586.11	586.37	593.00	6.63	11
10			581.00																						10

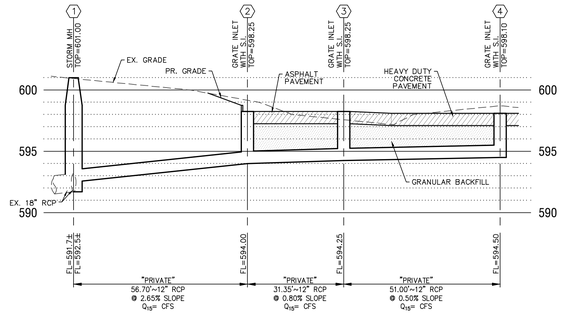
MEAN FULL FLOW VELOCITY V = Q_{apex} /A_{xpeq}
FRICTION LOSS (H_f) : Hf = 2.87 n^2 (LV^2/$d^{1.33}$)
VELOCITY HEAD : $V_h = V^2/2g$

JUNCTION LOSSES (JUNC.) = [$Q_{out}Vh_{out}$ - Sum ($Q_{in}V_{in}$)]x1.33/Q_{out}
BEND LOSSES (BEND) = (V^2_{in}/2g) * ANGLE COEFFICIENT

Note:
1. IF MORE THAN ONE INCOMING LINE, CALCULATE EACH BEND LOSS AND ADD TOGETHER.
2. NO STRUCTURE LOSSES TO BE CALCULATED AT A DROP.
3. IF $QV_{h[in]}$ > $QV_{h[out]}$, NO JUNCTION LOSSES TO BE CALCULATED.



STORM PROFILE
SCALE:
HORIZONTAL: 1"=20'
VERTICAL: 1"=5'



STORM PROFILE
SCALE:
HORIZONTAL: 1"=20'
VERTICAL: 1"=5'

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No.	Date	Revision

SEWER PROFILES AND HYDRAULIC CALCULATIONS

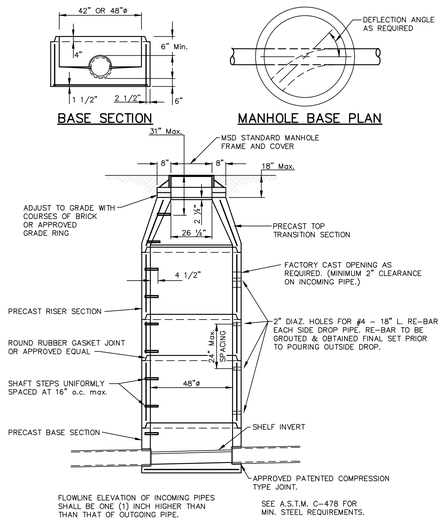
Project No.
CEDC 2522

Sheet No.
C7.0

Date
03/30/2026

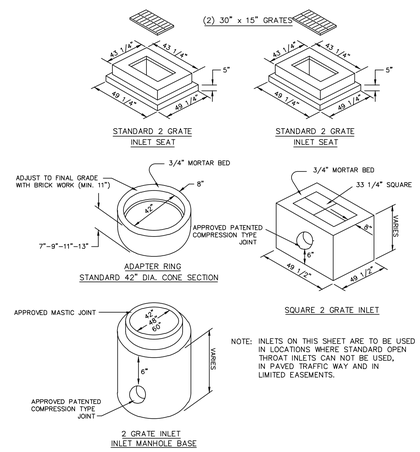
ISSUE FOR BID

MSD MAP 24M
26MSD-00041



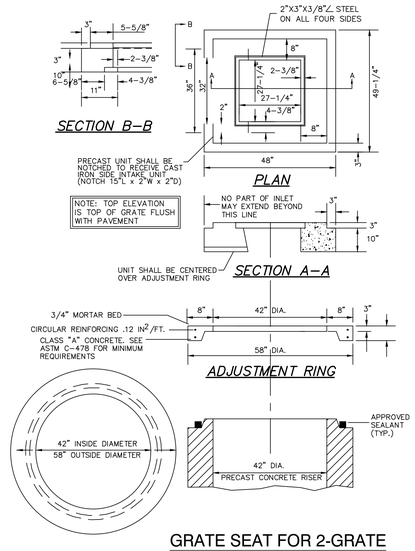
SAMPLING/PRECAST MANHOLE

(FOR PRIVATE USE ONLY)

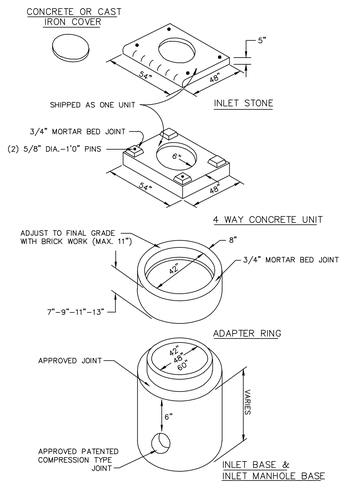


2 GRATE INLET

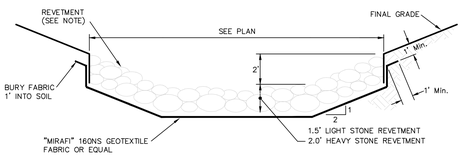
n.t.s.



GRATE SEAT FOR 2-GRATE INLET WITH SIDE INTAKE



PRECAST AREA INLET

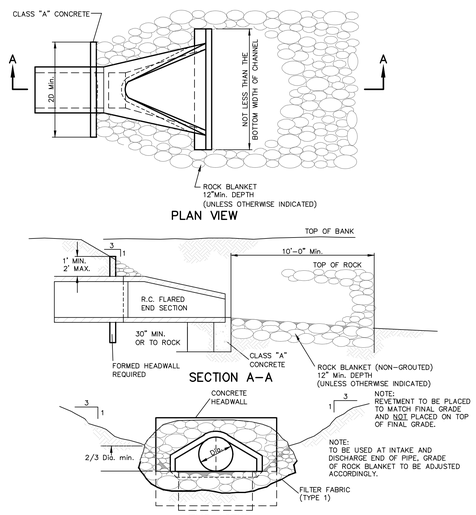


ROCK BLANKET NOTES:

1. STONE FOR LIGHT STONE REVETMENT SHALL BE AT LEAST 6 INCH TO 8 INCH DIAMETER.
2. STONE FOR HEAVY STONE REVETMENT SHALL BE AT LEAST 12 INCH DIAMETER.
3. TOP OF REVETMENT TO BE PLACED TO MATCH PROPOSED GRADE AND NOT PLACED ON TOP OF PROPOSED GRADE.

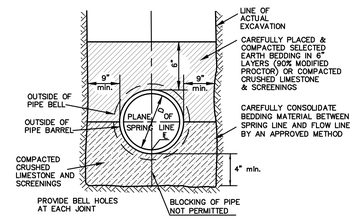
ROCK BLANKET DETAIL

(FOR LOCATIONS SEE PLANS)



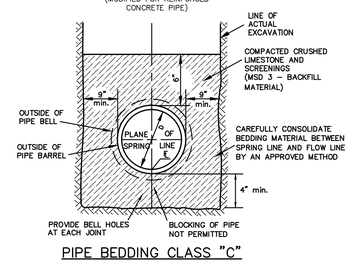
FLARED END SECTION

(FOR ONSITE USE ONLY)



PIPE BEDDING CLASS "C"

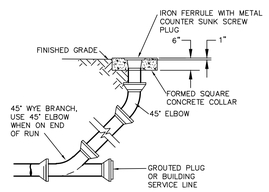
(MODIFIED FOR REINFORCED CONCRETE PIPE)



PIPE BEDDING CLASS "C"

(FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)

PIPE BEDDING DETAILS



DETAIL OF SEWER CLEANOUT

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SEWER DETAILS

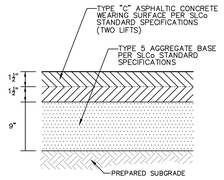
Project No. CEDC 2522

Sheet No. C7.1

Date 03/30/2026

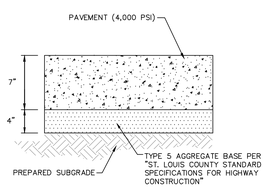
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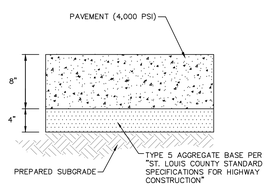
HEAVY DUTY ASPHALT PAVEMENT DETAIL

(NOT FOR USE IN RIGHT-OF-WAY)



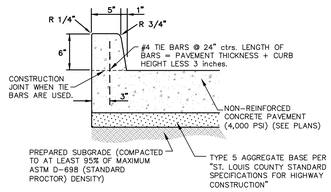
CONCRETE PAVEMENT DETAIL

(NOT FOR USE IN ST. LOUIS COUNTY RIGHT-OF-WAY)



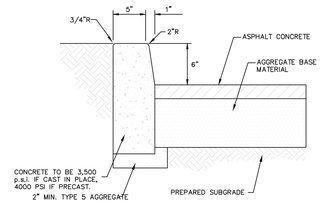
HEAVY DUTY CONCRETE PAVEMENT DETAIL

(NOT FOR USE IN ST. LOUIS COUNTY RIGHT-OF-WAY)



BARRIER CURBING DETAIL

(NOT FOR USE IN ST. LOUIS CITY RIGHT-OF-WAY)

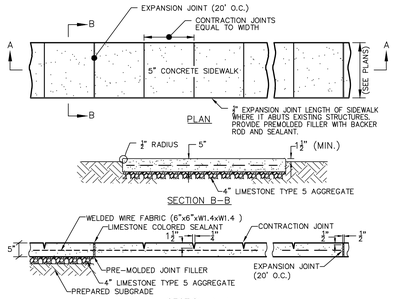


CONCRETE VERTICAL CURB DETAIL

N.T.S.

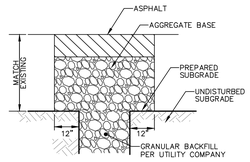
(NOT FOR USE IN RIGHT-OF-WAY)

1. REFER TO SITE PLAN FOR AREAS OF PAVEMENT TYPE AND THICKNESS.
2. EXPANSION MATERIAL SHALL BE INSTALLED EVERY 20' IN CURB. EXPANSION MATERIAL SHALL BE OF A TYPE EQUAL TO THE ASPHALT IMPREGNATED FIBERBOARD CONFORMING TO ASTM C 175 FOR EXTERIOR WORK. EXPANSION MATERIAL SHALL EXTEND FULL DEPTH OF CURB AND GUTTER, LESS 1/4" AT TOP OF CONCRETE.
3. CURBS TO BE PROVIDED WITH SAW CUT OR TOOLED JOINT AT 10' INTERVALS.
4. JOINTS AND SAW CUTS TO BE SEALED WITH LIMESTONE COLORED SEALANT.
5. TYPE 5 AGGREGATE REFERS TO ST. LOUIS COUNTY SPECIFICATION.



DETAIL OF CONCRETE SIDEWALK

(NOT FOR USE IN RIGHT-OF-WAY)

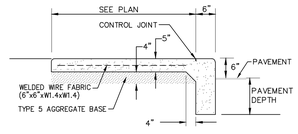


NOTE:
SAW CUT PERIMETER OF PATCH AND EXCAVATE EXISTING PAVEMENT SECTION TO SOUND BASE. EXCAVATE RECTANGULAR OR TRAPEZOIDAL PATCHES, EXTENDING 12 INCHES INTO ADJACENT SOUND PAVEMENT, UNLESS OTHERWISE INDICATED. CUT EXCAVATION FACES VERTICALLY AND REMOVE EXCAVATED MATERIAL. RECOMPACT EXISTING UNBOUND AGGREGATE BASE COURSE TO FORM NEW SUBGRADE.

NEW PAVEMENT SHALL MATCH THE EXISTING PAVEMENT TYPE AND THICKNESS

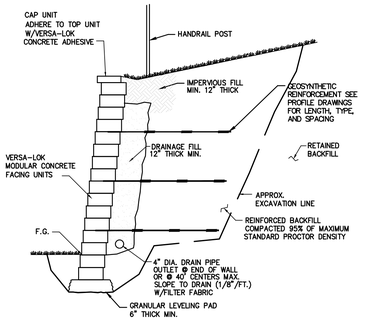
PATCHING ASPHALT TRENCH/PAVEMENT

(N.T.S.)



NOTES:
1. EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN THE WALK FOR ITS FULL WIDTH AND DEPTH AT INTERVALS OF APPROX. 20'.
2. CONTROL JOINTS SHALL BE INSTALLED AT INTERVALS OF 1.0 TIMES ITS WIDTH.
3. JOINTS TO BE SEALED WITH LIMESTONE COLORED SEALANT.

MONOLITHIC SIDEWALK/CURB DETAIL

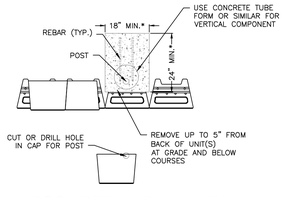


TYPICAL SECTION-REINFORCED RETAINING WALL

MODULAR CONCRETE UNIT

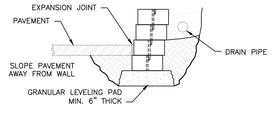
SCALE: NONE

NOTES:
1.) REFER TO THIS DRAWING FOR WALL PROFILE AND HEIGHT ONLY. DESIGN OF WALL SHALL BE BY OTHERS.
2.) TYPE OF WALL TO BE DETERMINED BY OWNER AND ARCHITECT. FENCE TYPE, COLOR/STYLE,ETC. TO BE COORDINATED WITH ARCHITECT.
3.) STRUCTURAL CALCULATIONS TO BE PROVIDED BY WALL MANUFACTURER OR STRUCTURAL ENGINEER. PERMITS FOR WALL TO BE OBTAINED BY CONTRACTOR.
4.) THE WALL MANUFACTURER SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT IF ONE HAS BEEN PREPARED FOR THIS PROJECT AND COMPLY WITH THE REQUIREMENTS OUTLINED IN REPORT.
5.) HORIZONTAL LOCATION OF BASE OF WALL IS SUBJECT TO FINAL WALL DESIGN AND WALL BATTER.
6.) CONTRACTOR TO ACCOUNT FOR WALL BATTER WHEN STAKING OUT WALL AND BUILDING WALL.



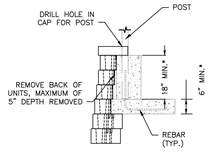
POST DETAIL-PLAN VIEW

SCALE: NONE



PAVEMENT AT BASE OF WALL

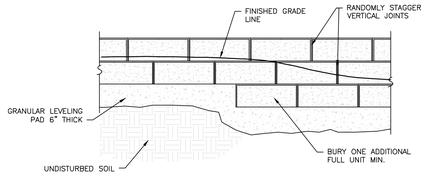
SCALE: NONE



POST DETAIL-SECTION

SCALE: NONE

*NOTE:
ACTUAL DIMENSIONS AND REBAR REQUIREMENTS VARY DEPENDING ON PEDESTRIAN LOADING REQUIREMENTS AND POST SPACING. FINAL DETERMINATION OF SUITABILITY, USE, AND DESIGN SHOULD BE COMPLETED BY A QUALIFIED LICENSED ENGINEER. THIS DETAIL IS NOT SUITABLE FOR FENCE INSTALLATIONS WITH HIGH WIND LOAD REQUIREMENTS.



STEPPING BASE DETAIL

SCALE: NONE

NOTE:

LIMIT CHANGES IN BASE ELEVATION TO 6" PER STEP TO AVOID DIFFERENTIAL SETTLEMENT STEP AS NEEDED TO MINIMIZE BURIED UNITS AND MAINTAIN MINIMUM REQUIRED EMBEDMENT

SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

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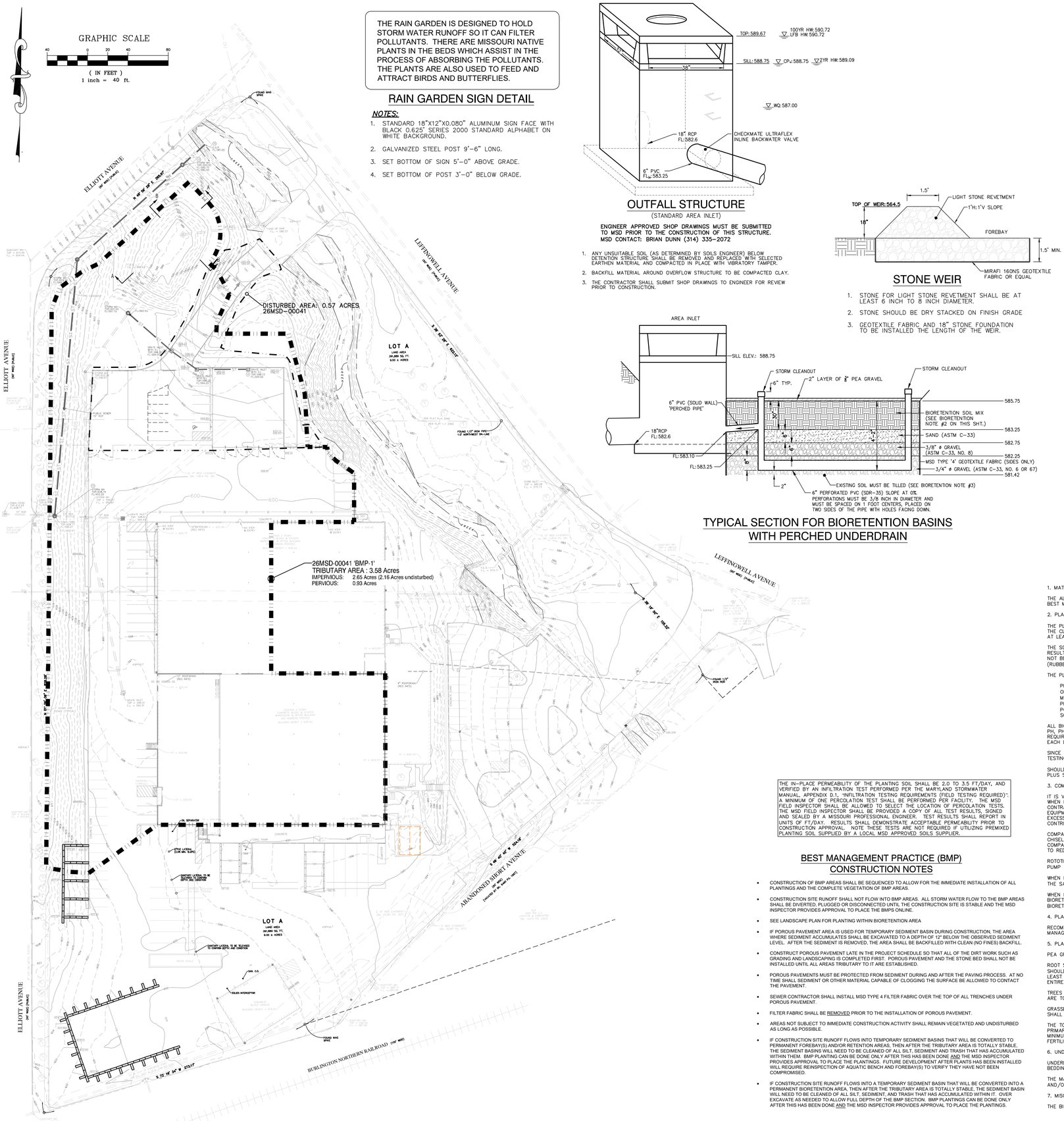
Project No.
CEDC 2522

Sheet No.
C8.0

Date
03/30/2026

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MSD MAP 24M
26MSD-00041



THE RAIN GARDEN IS DESIGNED TO HOLD STORM WATER RUNOFF SO IT CAN FILTER POLLUTANTS. THERE ARE MISSOURI NATIVE PLANTS IN THE BEDS WHICH ASSIST IN THE PROCESS OF ABSORBING THE POLLUTANTS. THE PLANTS ARE ALSO USED TO FEED AND ATTRACT BIRDS AND BUTTERFLIES.

RAIN GARDEN SIGN DETAIL

NOTES:

1. STANDARD 18"X12"X0.080" ALUMINUM SIGN FACE WITH BLACK 0.625" SERIES 2000 STANDARD ALPHABET ON WHITE BACKGROUND.
2. GALVANIZED STEEL POST 9'–6" LONG.
3. SET BOTTOM OF SIGN 5'–0" ABOVE GRADE.
4. SET BOTTOM OF POST 3'–0" BELOW GRADE.

OUTFALL STRUCTURE

(STANDARD AREA INLET)

ENGINEER APPROVED SHOP DRAWINGS MUST BE SUBMITTED TO MSD PRIOR TO THE CONSTRUCTION OF THIS STRUCTURE. MSD CONTACT: BRIAN DUNN (314) 335–2072

1. ANY UNSUITABLE SOIL (AS DETERMINED BY SOILS ENGINEER) BELOW DETENTION STRUCTURE SHALL BE REMOVED AND REPLACED WITH SELECTED EARTHEN MATERIAL AND COMPACTED IN PLACE WITH VIBRATORY TAMPER.
2. BACKFILL MATERIAL AROUND OVERFLOW STRUCTURE TO BE COMPACTED CLAY.
3. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.

STONE WEIR

1. STONE FOR LIGHT STONE REVETMENT SHALL BE AT LEAST 6 INCH TO 8 INCH DIAMETER.
2. STONE SHOULD BE DRY STACKED ON FINISH GRADE
3. GEOTEXTILE FABRIC AND 18" STONE FOUNDATION TO BE INSTALLED THE LENGTH OF THE WEIR.

TYPICAL SECTION FOR BIORETENTION BASINS WITH PERCHED UNDERDRAIN

THE IN–PLACE PERMEABILITY OF THE PLANTING SOIL SHALL BE 2.0 TO 3.5 FT/DAY, AND VERIFIED BY AN INFILTRATION TEST PERFORMED PER THE MARYLAND STORMWATER MANUAL, APPENDIX D.1, "INFILTRATION TESTING REQUIREMENTS (FIELD TESTING REQUIRED)": A MINIMUM OF ONE PERCOLATION TEST SHALL BE PERFORMED PER FACILITY. THE MSD FIELD INSPECTOR SHALL BE ALLOWED TO SELECT THE LOCATION OF PERCOLATION TESTS. THE MSD FIELD INSPECTOR SHALL BE PROVIDED A COPY OF ALL TEST RESULTS, SIGNED AND SEALED BY A MISSOURI PROFESSIONAL ENGINEER. TEST RESULTS SHALL REPORT IN UNITS OF FT/DAY. RESULTS SHALL DEMONSTRATE ACCEPTABLE PERMEABILITY PRIOR TO CONSTRUCTION APPROVAL. NOTE THESE TESTS ARE NOT REQUIRED IF UTILIZING PREMIXED PLANTING SOIL SUPPLIED BY A LOCAL MSD APPROVED SOILS SUPPLIER.

BEST MANAGEMENT PRACTICE (BMP) CONSTRUCTION NOTES

- CONSTRUCTION OF BMP AREAS SHALL BE SEQUENCED TO ALLOW FOR THE IMMEDIATE INSTALLATION OF ALL PLANTINGS AND THE COMPLETE VEGETATION OF BMP AREAS.
- CONSTRUCTION SITE RUNOFF SHALL NOT FLOW INTO BMP AREAS. ALL STORM WATER FLOW TO THE BMP AREAS SHALL BE DIVERTED, PLUGGED OR DISCONNECTED UNTIL THE CONSTRUCTION SITE IS STABLE AND THE MSD INSPECTOR PROVIDES APPROVAL TO PLACE THE BMPS ONLINE.
- SEE LANDSCAPE PLAN FOR PLANTING WITHIN BIORETENTION AREA
- IF POROUS PAVEMENT AREA IS USED FOR TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION, THE AREA WHERE SEDIMENT ACCUMULATES SHALL BE EXCAVATED TO A DEPTH OF 12" BELOW THE OBSERVED SEDIMENT LEVEL. AFTER THE SEDIMENT IS REMOVED, THE AREA SHALL BE BACKFILLED WITH CLEAN (NO FINES) BACKFILL.
- CONSTRUCT POROUS PAVEMENT LATE IN THE PROJECT SCHEDULE SO THAT ALL OF THE DIRT WORK SUCH AS GRADING AND LANDSCAPING IS COMPLETED FIRST. POROUS PAVEMENT AND THE STONE BED SHALL NOT BE INSTALLED UNTIL ALL AREAS TRIBUTARY TO IT ARE ESTABLISHED.
- POROUS PAVEMENTS MUST BE PROTECTED FROM SEDIMENT DURING AND AFTER THE PAVING PROCESS. AT NO TIME SHALL SEDIMENT OR OTHER MATERIAL CAPABLE OF CLOGGING THE SURFACE BE ALLOWED TO CONTACT THE PAVEMENT.
- SEWER CONTRACTOR SHALL INSTALL MSD TYPE 4 FILTER FABRIC OVER THE TOP OF ALL TRENCHES UNDER POROUS PAVEMENT.
- FILTER FABRIC SHALL BE REMOVED PRIOR TO THE INSTALLATION OF POROUS PAVEMENT.
- AREAS NOT SUBJECT TO IMMEDIATE CONSTRUCTION ACTIVITY SHALL REMAIN VEGETATED AND UNDISTURBED AS LONG AS POSSIBLE.
- IF CONSTRUCTION SITE RUNOFF FLOWS INTO TEMPORARY SEDIMENT BASINS THAT WILL BE CONVERTED TO PERMANENT FOREBAY(S) AND/OR RETENTION AREAS, THEN AFTER THE TRIBUTARY AREA IS TOTALLY STABLE, THE SEDIMENT BASINS WILL NEED TO BE CLEANED OF ALL SILT, SEDIMENT AND TRASH THAT HAS ACCUMULATED WITHIN THEM. BMP PLANTING CAN BE DONE ONLY AFTER THIS HAS BEEN DONE AND THE MSD INSPECTOR PROVIDES APPROVAL TO PLACE THE PLANTINGS. FUTURE DEVELOPMENT AFTER PLANTS HAS BEEN INSTALLED WILL REQUIRE REINSPECTION OF AQUATIC BENCH AND FOREBAY(S) TO VERIFY THEY HAVE NOT BEEN COMPROMISED.
- IF CONSTRUCTION SITE RUNOFF FLOWS INTO A TEMPORARY SEDIMENT BASIN THAT WILL BE CONVERTED INTO A PERMANENT BIORETENTION AREA, THEN AFTER THE TRIBUTARY AREA IS TOTALLY STABLE, THE SEDIMENT BASIN WILL NEED TO BE CLEANED OF ALL SILT, SEDIMENT, AND TRASH THAT HAS ACCUMULATED WITHIN IT. OVER EXCAVATE AS NEEDED TO ALLOW FULL DEPTH OF THE BMP SECTION. BMP PLANTINGS CAN BE DONE ONLY AFTER THIS HAS BEEN DONE AND THE MSD INSPECTOR PROVIDES APPROVAL TO PLACE THE PLANTINGS.

BIORETENTION NOTES

1. MATERIAL SPECIFICATIONS

THE ALLOWABLE MATERIALS TO BE USED IN BIORETENTION AREA ARE DETAILED IN THE MSD LANDSCAPE GUIDE FOR STORMWATER BEST MANAGEMENT PRACTICES.

2. PLANTING SOIL

THE PLANTING SOIL SHOULD BE SANDY LOAM OR LOAMY SAND (SHOULD CONTAIN A MINIMUM OF 60 PERCENT SAND, BY VOLUME). THE CLAY CONTENT FOR THESE SOILS SHOULD BE LESS THAN 10 PERCENT BY VOLUME. A SATURATED HYDRAULIC CONDUCTIVITY OF AT LEAST 2.0 FEET PER DAY IS REQUIRED.

THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS OR OTHER WOODY MATERIAL OVER 1 INCH IN DIAMETER. FOR BEST RESULTS, BRUSH OR SEEDS FROM NOXIOUS WEEDS SUCH AS JOHNSON GRASS, MUGWORT, NUTSEDGE AND CANADIAN THISTLE SHOULD NOT BE PRESENT IN THE SOILS. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12 TO 18 INCHES, LOOSELY COMPACTED (RUBBER WHEELED HEAVY EQUIPMENT AND MECHANICAL TAMPING DEVICES ARE NOT RECOMMENDED FOR COMPACTION).

THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:

PHRANGE	5.2–8.0
ORGANIC MATTER	1.5 – 5 PERCENT (BY WEIGHT)
MAGNESIUM	35 LB./AC
PHOSPHORUS (PHOSPHATE – P2O5)	75 LB./AC
POTASSIUM (POTASH – K2O)	85 IB./AC
SOLUBLE SALTS	NOT TO EXCEED 500 PPM

ALL BIORETENTION AREAS SHALL HAVE A MINIMUM OF ONE TEST. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, PHOSPHORUS, AND POTASSIUM AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOP SOIL WAS EXCAVATED.

SINCE DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TESTING RESULTS SHALL COME FROM THE SAME TESTING FACILITY.

SHOULD THE PH FALL OUT OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.

3. COMPACTION

IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF BIORETENTION AREAS ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE.

WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.

WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12 IN. TO 18 IN. DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

4. PLANT MATERIAL

RECOMMENDED PLANT MATERIAL FOR BIORETENTION AREAS CAN BE FOUND IN MSD LANDSCAPE GUIDE FOR STORMWATER BEST MANAGEMENT PRACTICES.

5. PLANT INSTALLATION

PEA GRAVEL SHOULD BE PLACED TO A UNIFORM THICKNESS OF 2 IN. TO 3 IN.

ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON–SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.

TREES SHALL BE BRACED USING 2 IN. BY 2 IN. STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.

GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON–GRASS GROUND COVER PLANTING SPECIFICATIONS.

THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

6. UNDERDRAINS

UNDERDRAINS ARE TO BE PLACED ON A 3 FT. WIDE SECTION OF FILTER CLOTH. PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE ENDS OF UNDERDRAIN PIPES NOT TERMINATING IN AN OBSERVATION WELL SHALL BE CAPPED.

THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A SLOPE OF 0 PERCENT. OBSERVATION WELLS AND/OR CLEAN–OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

7. MISCELLANEOUS

THE BIORETENTION FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

MSD MAP 24M
26MSD-00041

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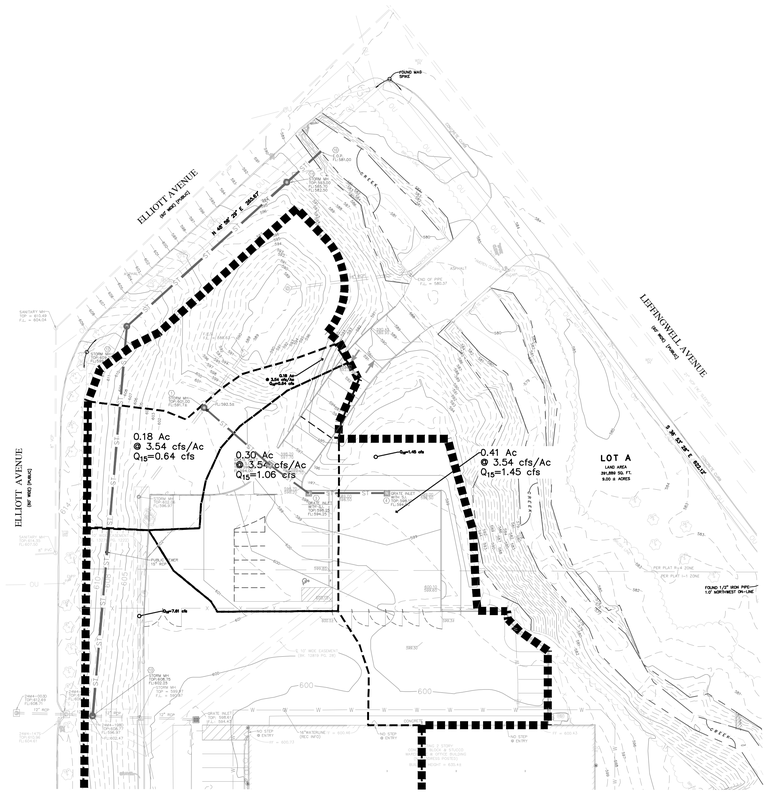
No.	Date	Revision

BMP PLAN AND DETAILS

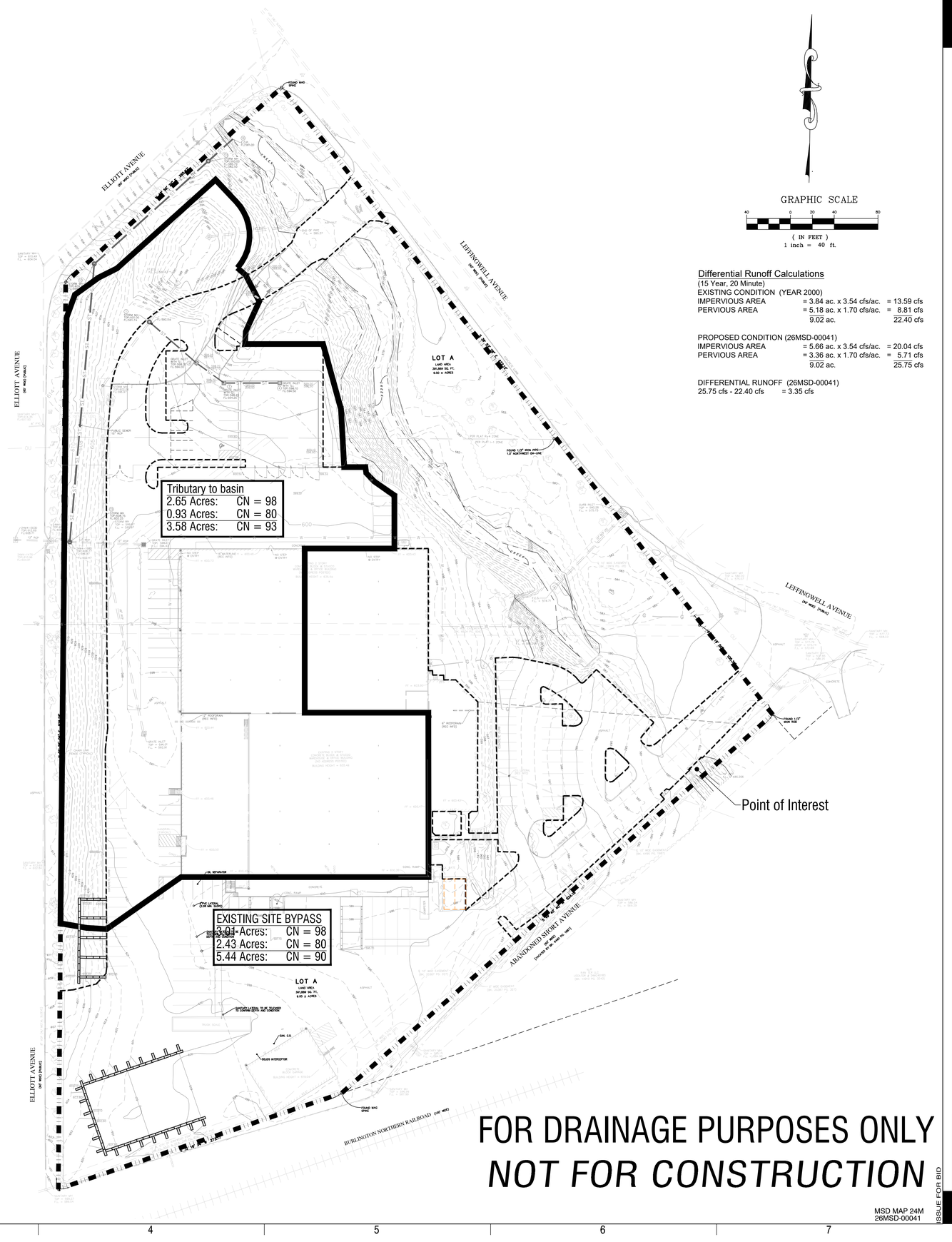
Project No.
CEDC 2522

Sheet No.
C9.0

Date
03/30/2026



DRAINAGE AREA PLAN
STORM SEWERS



GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
1 inch = 40 ft.

Differential Runoff Calculations
(15 Year, 20 Minute)

EXISTING CONDITION (YEAR 2000)

IMPERVIOUS AREA	= 3.84 ac. x 3.54 cfs/ac.	= 13.59 cfs
PERVIOUS AREA	= 5.18 ac. x 1.70 cfs/ac.	= 8.81 cfs
	9.02 ac.	22.40 cfs

PROPOSED CONDITION (26MSD-00041)

IMPERVIOUS AREA	= 5.66 ac. x 3.54 cfs/ac.	= 20.04 cfs
PERVIOUS AREA	= 3.36 ac. x 1.70 cfs/ac.	= 5.71 cfs
	9.02 ac.	25.75 cfs

DIFFERENTIAL RUNOFF (26MSD-00041)
25.75 cfs - 22.40 cfs = 3.35 cfs

FOR DRAINAGE PURPOSES ONLY
NOT FOR CONSTRUCTION

MSD MAP 24M
26MSD-00041

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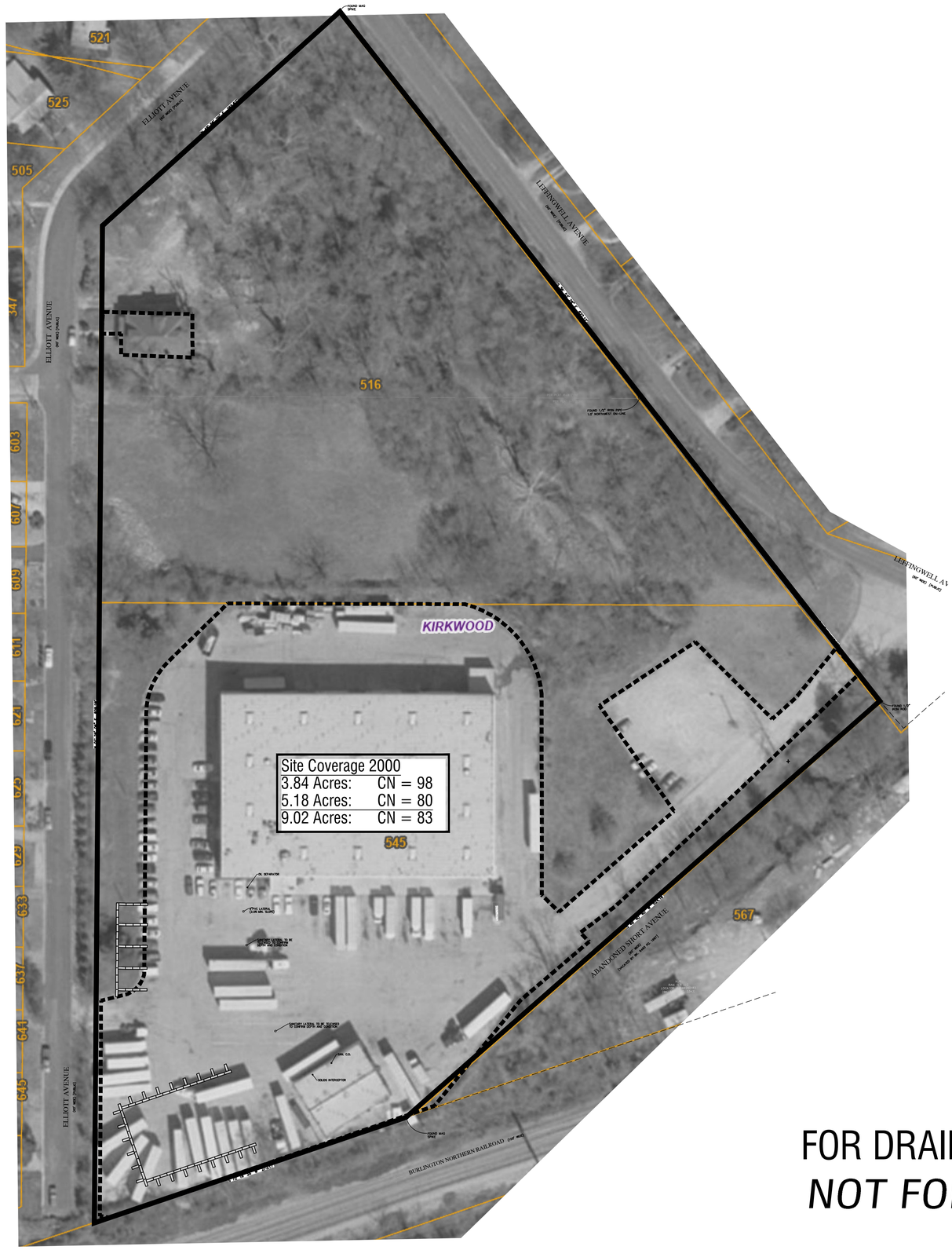
DRAINAGE AREA PLAN

Project No.
CEDC 2522

Sheet No.
C10.0

Date
03/30/2026

SCALE: 3" = 1'-0" 1' 0 3' 6'
SCALE: 1 1/2" = 1'-0" 1' 0 3' 6'
SCALE: 1" = 1'-0" 1' 0 6" 3'
SCALE: 3/4" = 1'-0" 1' 0 3" 6"
SCALE: 1/2" = 1'-0" 1' 0 3" 6"
SCALE: 3/8" = 1'-0" 2' 0 3" 6"
SCALE: 1/4" = 1'-0" 2' 0 4" 8"
SCALE: 1/8" = 1'-0" 4' 0 8" 16'
SCALE: 3/32" = 1'-0" 8' 0 16" 24'
SCALE: 1/16" = 1'-0" 8' 0 16" 32'



GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
1 inch = 40 ft.

YEAR 2000 IMAGERY
(St. Louis County GIS)

FOR DRAINAGE PURPOSES ONLY
NOT FOR CONSTRUCTION

MSD MAP 24M
26MSD-00041

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DRAINAGE AREA PLAN
(YEAR 2000)

Project No.
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Sheet No.
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Date
03/30/2026

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MSD MAP 24M
26MSD-00041

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.
0 20 40 80

LEFFINGWELL AVENUE
(66' wide Public)

ELLIOTT AVENUE
(66' wide Public)

ABANDONED SEWER AVENUE

BRIDGETOWN NORTHERN RAILROAD (100' ROW)

LOT A
Land Area
6.69 Acres
291,500 S.F.

LOT A
Land Area
6.69 Acres
291,500 S.F.

STORMWATER POLLUTION PREVENTION PLAN

No.	Date	Revision

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Sheet No.
C11.0

Date
03/30/2026

SCALE: 1/16" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 3" = 1'-0"

CONSTRUCTION ENTRANCE

PHYSICAL DESCRIPTION - A stabilized entrance to a construction site designed to minimize the amount of sediment tracked from the site on vehicles and equipment. Stabilization generally consists of aggregate over geogrid and geosynthetic material. Mud and sediment fall off of tires as they travel along the stabilized entrance; however, additional measures in the form of a washdown area should also be included on site. The stabilized entrance also distributes the axle load of vehicles over a larger area; thereby mitigating the rutting impact vehicles normally have on unpaved areas. See additional information in the "Construction Site Access Requirements" section of this manual.

WHERE BMP IS TO BE INSTALLED - At locations where it is safe for construction vehicles and equipment to access existing streets – preferably at location of future streets or drives.

CONDITIONS FOR EFFECTIVE USE OF BMPs

Drainage: Ditches or pipes, if needed, sized for 15 year, 20 minute storm; HGL 6" below surface of entrance

WHEN BMP IS TO BE INSTALLED - First order of work, along with washdown area, prior to vehicles or equipment accessing unpaved areas.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Grade and compact area of construction entrance.
- ✓ Install culvert under entrance if needed to maintain positive drainage.
- ✓ Place geosynthetic material next to compacted soil, lay geogrid on top of this, and cover with aggregate, forming diversion across entrance if needed to direct runoff away from roadway.
- ✓ See Washdown Station BMP for additional steps.

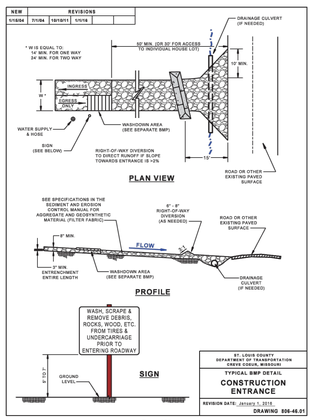
O&M PROCEDURES:

- ✓ Immediately remove any mud or debris tracked onto paved surfaces.
- ✓ Remove sediment and clods of dirt from construction entrance continuously.
- ✓ Replace rock if necessary to maintain clean surface.
- ✓ Repair settled areas.

SITE CONDITIONS FOR REMOVAL - Remove when vehicles and equipment will no longer access unpaved areas.

TYPICAL DETAIL - 806-46.01

NEW	REVISIONS
1/16/04	7/1/04 | 10/10/11 | 1/1/16



WASHDOWN STATION

PHYSICAL DESCRIPTION - An area located at construction entrances designed to wash sediment from the tires and undercarriage of exiting vehicles and prevent sediment from being tracked onto existing roadways.

WHERE BMP IS TO BE INSTALLED - Across or immediately adjacent to exit paths from unpaved construction sites.

CONDITIONS FOR EFFECTIVE USE OF BMPs

Drainage: Downstream BMPs sized to treat dirty runoff from washdown station

WHEN BMP IS TO BE INSTALLED - First order of work, along with construction entrance, prior to vehicles or equipment accessing unpaved areas.

INSTALLATION/CONSTRUCTION PROCEDURES

- ✓ Grade and compact area for drainage under washdown pad.
- ✓ Install steel=ribbed plate on frame or other support to allow a 2" drain space.
- ✓ Grade and vegetate downstream BMPs (V-ditch shown on detail).
- ✓ Install water supply and hose.
- ✓ Post sign in advance of station indicating that all exiting vehicles and equipment must use station prior to exiting site.

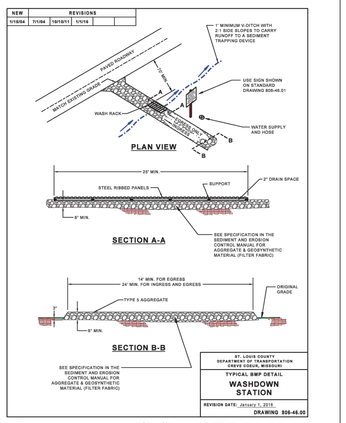
O&M PROCEDURES:

- ✓ Remove sediment daily.
- ✓ Repair settled areas.
- ✓ Replace rock if necessary to maintain clean surface.

SITE CONDITIONS FOR REMOVAL - Remove when vehicles and equipment will no longer access unpaved areas.

TYPICAL DETAIL - 806-46.00

NEW	REVISIONS
1/16/04	7/1/04 | 10/10/11 | 1/1/16



INLET PROTECTION - FABRIC DROP AND DROP IN FILTER

PHYSICAL DESCRIPTION - A woven fabric barrier braced around an area inlet or drop in type filter designed to prevent sediment from entering the storm sewer. Shallow temporary ponding during and after rainfall should be expected. Use an alternate method if flooding of driving lanes, adjacent property, etc. is possible.

WHERE BMP IS TO BE INSTALLED - At inlets designed to drain a small gently sloping area with maximum grade of 5%. Overflow capacity is limited on standard area inlets.

CONDITIONS FOR EFFECTIVE USE OF BMPs

Type of Flow: Shallow sheet flow.
Contributing Area: Maximum of 2 c.f.s flowing to inlet.

WHEN BMP IS TO BE INSTALLED - Immediately after placement of inlet and before construction starts on existing inlets.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Backfill, compact and uniformly grade area around inlet.
- ✓ Construct downstream berm, if required. Rock bags or sand bags may be used to construct berm.
- ✓ Drive posts or wood frame close to inlet sill so overflow will fall directly on the structure and not on unprotected soil.
- ✓ Dig trench around inlet for fabric to be buried.
- ✓ Cut required length of fabric from one roll to eliminate joints. Fasten fabric tightly around posts / frame to enhance stability.
- ✓ Backfill and compact trench.
- ✓ Install drop in type filter per manufacturer specifications.

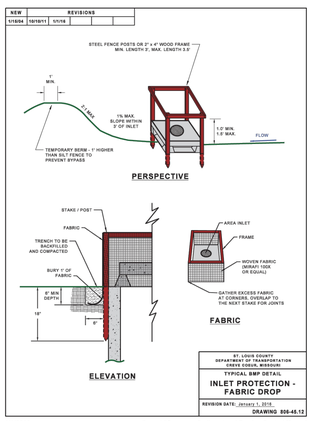
O&M PROCEDURES

- ✓ Inspect every week and after every storm.
- ✓ Remove trash accumulation and sediment once it reaches depth of 6" at inlet.
- ✓ Replace loose, torn or clogged fabric.
- ✓ Repair any erosion or settlement of temporary berm downstream of inlet.
- ✓ Maintain drop in type filter per manufacturer specifications.

SITE CONDITIONS FOR REMOVAL - Remove after contributing drainage areas have been adequately stabilized. Restore area to grade and vegetate.

TYPICAL DETAIL - 806-45.12 (Single Unit)
806-45.13 (Double Unit)

NEW	REVISIONS
1/16/04	1/1/11 | 1/1/16



SILT FENCE

PHYSICAL DESCRIPTION - Silt fences are used as temporary perimeter controls, appropriate to the BMP, at sites where construction activities will disturb the soil. They can also be used on the interior of the site. A silt fence consists of a length of filter fabric stretched between anchoring posts spaced at regular intervals along the site at low and down slope areas. The filter fabric should be entrenched in the ground. When installed correctly and inspected frequently, silt fence can be an effective barrier to silt leaving the site in storm water runoff.

WHERE BMP IS TO BE INSTALLED - Silt fences apply to construction sites with relatively small drainage areas. They are appropriate in areas where runoff will occur as low-level flow, not exceeding 0.5 c.f.s. The drainage area for silt fences should not exceed 0.25 acre per 100-foot fence length (100 square feet per foot of fence). The slope length above the fence should not exceed 100 feet (NAHB, 1995). The fence should be designed to withstand the runoff from a 10-year peak storm event.

CONDITIONS FOR EFFECTIVE USE OF BMPs - Spacing of parallel lengths of silt fence along slopes is relative to slope steepness as follows:

Type of Flow: Sheet flow only.
Contributing Slope Length: 30-foot maximum for 3:1 slopes.
50 foot maximum for slopes between 3:1 and 10:1.
100 foot maximum for slopes under 10%.

For additional information see Section 806.70 of St. Louis County's Standard Specification for Road and Bridge Construction.

WHEN BMP IS TO BE INSTALLED - Prior to disturbance of natural vegetation and at intervals during construction of fill slopes. Install on the perimeter of the site (where storm water exits the site) prior to disturbance of natural vegetation, around material stockpiles and interior to the site along slopes, at the base of slopes and at intervals during construction of slopes.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Drive post for fence line.
- ✓ Dig trench to required dimensions in front of posts for fabric burial.
- ✓ Attach wire mesh to posts.
- ✓ Attach fabric to posts, allowing required length below ground level to run fabric along bottom of trench
- ✓ Backfill and compact soil in trench to protect and anchor fabric.

If a standard-strength fabric is used, it can be reinforced with wire mesh behind the filter fabric. This increases the effective life of the fence. The maximum life expectancy for synthetic fabric silt fences is about 6 months, depending on the amount of rainfall and runoff.

The stakes used to anchor the filter fabric should be wood or metal. Wooden stakes should have minimum dimensions of 2 by 2 inches if a hardwood like oak is used. Stakes from soft woods like No. 2 Southern Pine, should have minimum dimensions of 4 by 4 inches. When using steel (standard U, T, L or C shape sections) posts in place of wooden stakes, they should weigh no less than 1.0 lb/linear foot. If metal posts are used, attachment points are needed for fastening the filter fabric with wire ties. Posts should be least 5 feet long and driven or placed at a slight upstream angle into the ground to a

minimum depth of 18 inches. Depth shall be increased to a minimum of 22 inches if fence is placed on a slope of 3:1 or greater. When the post embezzlement depth is impossible to obtain, the posts shall be adequately secured to prevent overturning of the fence due to sediment loading.

Erect silt fence in a continuous fashion from a single roll of fabric to eliminate gaps in the fence. If a continuous roll of fabric is not available, overlap the fabric from both directions only at stakes or posts. Overlap at least 6 inches.

The Geosynthetic filter fabric and wire mesh (when applicable) shall be no less than 30 inches above ground and are stapled or wired to the upslope side of the post. Staples should be a 17-gauge wire and ½ inch long. Excavate a trench to bury the bottom of the fabric fence in a "J" configuration at least 6 inches below the ground surface. The trench shall be backfilled with native soil and the soil compacted over the geotextile. This helps to prevent gaps from forming near the ground surface. Gaps would make the fencing useless as a sediment barrier.

The height of the fence posts should be 38 inches (22-inch embedment) to 42 inches (18-inch embedment) above the original ground surface. If standard-strength fabric is used with 14-gauge steel wire with a mesh spacing of 6 inches by 6 inches (or a prefabricated polymeric mesh of equivalent strength), space the posts no more than 4 feet apart. If extra-strength fabric is used without wire mesh reinforcement, space the posts no more than 6 feet apart with woven or 6 feet apart with non-woven geosynthetic.

Alternate Construction: Install fence by slicing it into ground with specialized equipment.
Install posts at reduced spacing indicated on detail.

LIMITATIONS - Do not install silt fences along areas where rocks or other hard surfaces will prevent you from uniformly anchoring the fence posts and entrenching the filter fabric. Installing fences in such an area greatly reduces their effectiveness and can create runoff channels leading offsite. Silt fences are not suitable for areas where large amounts of concentrated runoff are likely. Fence shall not be used when slope is 1:1 or greater and water flow rates exceed 2 cubic feet per minute. Open, windy areas present a maintenance challenge, too, because high winds can make the filter fabric deteriorate faster. Do not install silt fences across streams, ditches, or waterways (Smolen et al., 1988).

When the pores of the fence fabric become clogged with sediment, pools of water are likely to form on the uphill side of the fence. Setting and design of the silt fence should account for this. Take care to avoid unnecessarily diverting stormwater from these pools, causing further erosion damage.

MAINTENANCE CONSIDERATIONS - Inspect silt fences regularly and frequently, as well as after each rainfall event, to make sure that they are intact and that there are no gaps where the fence meets the ground or tears along the length of the fence. If you find gaps or tears, repair or replace the fabric immediately. Remove accumulated sediments from the fence base when the sediment reaches one-third to one-half the fence height. Remove sediment more frequently if accumulated sediment is creating noticeable strain on the fabric and the fence might fall from a sudden storm event. When you remove the silt fence, remove the accumulated sediment; dress the area disturbed to give it a pleasing appearance and vegetate all bare areas as well.

O&M PROCEDURES

- ✓ Inspect every week and after every storm.
- ✓ Remove sediment buildup deeper than ½ the fence height or 12", whichever is less.
- ✓ Replace torn of clogged fabric; repair loose fabric.

- ✓ Repair unstable or broken posts.
- ✓ Stabilize any areas susceptible to undermining.
- ✓ Extend fence or add additional row(s) of fence if necessary to provide adequate protection.

SILTING AND DESIGN CONSIDERATIONS - The material for silt fences should be a pervious sheet of synthetic fabric such as polypropylene, nylon, and polyester or polyethylene yarn. Choose the material based on the minimum synthetic fabric requirements shown in **Table 1** below.

Table 1 - Temporary Silt Fence Property Requirements

Physical Property	Test Method	Units	MARV Geotextile Requirements: Supported Silt Fence [2]	MARV Geotextile Requirements: Unsupported Silt Fence Woven Elongation ≤ 50% [1]	MARV Geotextile Requirements: Unsupported Silt Fence Non-Woven Elongation ≤ 50% [1]
Post Spacing (Maximum)		feet	4	4	6
Height of Wire / Polymer Fence (Minimum)		inches	30	---	---
Grab Strength (Minimum): Machine Direction / Cross Machine Direction	ASTM D 4632	pounds	90 / 90	125 / 100	125 / 100
Permittivity (Minimum)	ASTM D 4491	sec^{-1}	0.05	0.05	0.05
Apparent Opening Size (AOS) [3]	ASTM D 4751	Sieve Number	30	30	30
Ultraviolet Stability (Minimum) (retained strength)	ASTM D 4355	70% after 500 h of exposure			

Notes:

MARV Minimum Average Roll Value

[1] Elongation measured in accordance with ASTM D 4632

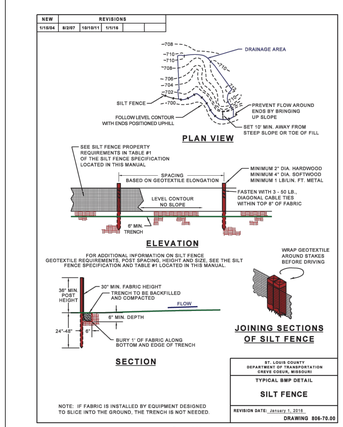
[2] **Silt Fence Support** - 14-gauge steel wire with a mesh spacing of 6 inches by 6 inches (or a prefabricated polymeric mesh of equivalent strength)

[3] Maximum Average Roll Value

SITE CONDITIONS FOR REMOVAL - After permanent vegetation of slope is established. Remove fence and post, re-grade trench area and vegetate.

TYPICAL DETAIL - 806-70.0

NEW	REVISIONS
1/16/04	8/2/07 | 10/10/11 | 1/1/16



SODDING

PHYSICAL DESCRIPTION - A ¾ inch to 1-inch thick mat of vigorous turf, free of disease, insects and weeds. Sod prevents raindrops from disrupting the soil structure and causing erosion. Sod slows water runoff and acts as a filter when sediment-laden runoff crosses over the sodded area.

WHERE BMP IS TO BE INSTALLED - Typically installed in areas requiring immediate erosion protection, such as swales or detention ponds and as filter strips, around inlets, and adjacent to curbs. Also installed in areas requiring immediate aesthetic appearance or function such as entrances to new subdivision and off site construction areas.

CONDITIONS FOR EFFECTIVE USE OF BMPs - Type of Flow: Sheet flow and low concentrated flows with velocities less than 5 fps.

WHEN BMP IS TO BE INSTALLED - Immediately after finish grading, installation of area inlets, and installation of underground services and foundations of new homes.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Finish grade area and remove all debris larger than ½ inch in diameter and concentrated areas of smaller debris.
- ✓ Soil preparation of area to be sodded shall be determined by tests to determine lime and fertilizer requirements. Soil amendments shall be mixed into top 3 to 6 inches of soil by disking or other means.
- ✓ Level and roll soil lightly to provide an even grade and firm the surface. Soil should not be excessively wet or dry.
- ✓ Lay first row of sod perpendicular to the slope or direction of flow. Butt subsequent rows tight against previous rows with strips staggered in brick-like pattern. Fill minor gaps with good soil and roll entire surface to ensure contact.
- ✓ Stake, staple and / or net corners and centers of sod strips as required.
- ✓ Water immediately after installation enough to soak 4 inches into soil without causing runoff.
- ✓ For additional information see Section 803 of St. Louis County's Standard Specification for Road and Bridge Construction.
- ✓ Type of sod shall be as specified in the contract or on the approved plans.

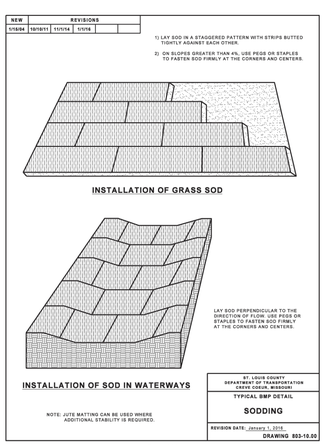
O&M PROCEDURES:

- ✓ Water sod daily for 3 weeks - enough to soak 4-inches into soil without causing runoff.
- ✓ Reposition areas of sod that has moved along the slope.
- ✓ Remove sediment accumulations - replace sod if necessary.
- ✓ Repair any eroded areas, replace sod, and stabilize as needed.
- ✓ Do not mow until 3-inches of new growth occur. During the first 4 months, mow no more than ⅓ the grass height.

SITE CONDITIONS FOR REMOVAL - Not applicable.

TYPICAL DETAIL - 803-10.00

NEW	REVISIONS
1/16/04	10/10/11 | 11/1/14 | 1/1/16



SEEDING

PHYSICAL DESCRIPTION - Establishment of vegetation by spreading grass seed designed to protect exposed soil from erosion by eliminating direct impact of precipitation and slowing overland flow rates. Once established, the vegetative cover will also filter pollutants from the runoff. Use only perennial vegetation for final stabilization.

WHERE BMP IS TO BE INSTALLED - To exposed soil after a phase of rough or finish grading has been completed, or areas where no activity will occur for 30 days.

CONDITIONS FOR EFFECTIVE USE OF BMPs

Type of Flow: Sheet flow
Contributing Slope Length: 30 foot maximum for 3:1 slopes
50 foot maximum for slope between 3:1 and 10:1
100 foot maximum for slopes under 10%
Minimum Rates: See attached chart(s)
Acceptable Dates: See attached chart

WHEN BMP IS TO BE INSTALLED - Immediately after rough or finished grading is completed.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Install upstream BMPs to protect area to be seeded.
- ✓ Rough grade area and remove all debris larger than 1-inch in diameter and concentrated areas of smaller debris.
- ✓ Install stabilization grids, if needed.
- ✓ Mix soil amendments (lime, fertilizer, etc.) into top 3 to 6 inches of soil as needed.
- ✓ Plant seed ½ to ½ inch deep.
- ✓ Roll lightly to firm surface.
- ✓ Cover seeded area with mulch unless seeding completed during optimum spring and summer dates.
- ✓ Install additional stabilization (netting, bonded fiber matrix, etc.) as required.
- ✓ Water immediately - enough to soak 4 inches into soil without causing runoff.
- ✓ If contract / permit allows seeding to be used for final stabilization, only perennial vegetation seeds shall be used.
- ✓ For additional information see Sections 805 and 806.50 of St. Louis County's Standard Specification for Road and Bridge Construction.

O&M PROCEDURES:

- ✓ Inspect every week and after every storm
- ✓ Protect area from vehicular and foot traffic.
- ✓ Reseed areas that have not sprouted within 21 days of planting.
- ✓ Repair damaged or eroded areas and reseed and stabilize as needed
- ✓ Do not mow until 4 inches of growth occurs
- ✓ During the first 4 months, mow no more than ⅓ the grass height
- ✓ Re-fertilize during 2nd growing season

SITE CONDITIONS FOR REMOVAL - Does not require removal, but temporary seeding can be removed immediately prior to work returning to an area

SEEDING REQUIREMENTS

Dates for Seeding

Permanent Seeding	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Tall Fescue			O	O	O				O	O		
Smooth Brome			O	O	O				O	O		
Fescue & Brome			O	O	O	O			O	O		
Fescue, Rye & Bluegrass	A	A	O	O	O	P	P	O	O	P	P	A

Temporary Seeding	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Rye or Sudan	A	A	O	O	O	O	O	O	O	O	A	A
Oats		A	O	O	O	O	O	O	O			

O = Optimum seeding dates
A = Acceptable seeding dates
P = Permitted seeding dates with reseeding 2 months later - Initially use 50% of seed and 75% of fertilizer. Reseed with additional 75% seed and remaining fertilizer.

Minimum Fertilizer and Seeding Rates

Permanent Seeding*	Pounds per acre	Pounds Per 1000 sq. ft.
Tall Fescue	300	7.0
Smooth Brome	200	4.6
Mixture # 1	250	5.7
Mixture # 2	210	4.8

Mixture # 1 = Tall Fescue @ 150 pounds per acre and Brome @ 100 pounds per acre.
Mixture # 2 = Tall Fescue @ 100 pounds per acre; Perennial Rye grass @ 100 pounds per acre; and Kentucky Blue grass @ 10 pounds per acre.
* = Seeding rate for slopes in excess of 20% (5:1), shall be 10 pounds per 1000 sq. ft.

Temporary Seeding	Pounds per acre	Pounds Per 1000 sq. ft.
Rye or Sudan	150	3.5
Oats	200	2.5

Fertilizer	Permanent Seeding (pounds per acre)	Temporary Seeding (pounds per acre)
Nitrogen	45	30
Phosphate	65	30
Potassium	65	30
Lime - ENM	600	600

ENM = Effective neutralizing material per State evaluation of quarried rock.

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Design Development:
KIRKWOOD PUBLIC WORKS
STORMWATER POLLUTION PREVENTION PLAN DETAILS
RENOVATION
545 Leffingwell Avenue Kirkwood, MO 63122

No.	Date	Revision

Project No. CEDC 2522
Sheet No. C11.1
Date 03/30/2026

ISSUE FOR BID

MSD MAP 24M
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ARCHITECTURAL ABBREVIATIONS

&	AND
<	ANGLE
@	AT
AACP	ACOUSTICAL CEILING PANEL
AB	ANCHOR BOLT
ACCS PL	ACCESS PANEL
ACOUS, ACS	ACOUSTIC(AL)
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN, ADHESIVE
ADDL	ADDITIONAL
ADJ	ADJUSTABLE, ADJACENT
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AFS	ABOVE FINISH SLAB
AGGREGATE	AGGREGATE
ALT	ALTERNATE
ALUM, AL	ALUMINIUM
AND	ANODIZED
APPROX	APPROXIMAGE(LY)
ARCH	ARCHITECT(URAL)
ASPH	ASPHALT
AVG	AVERAGE

BB	BULLETIN BOARD
BD	BOARD
BITUM	BITUMINOUS
BLDG	BUILDING
BLK, BLKG	BLOCK, BLOCKING
BM	BENCHMARK
BMD	BOTTOM OF METAL DECK
BO	BOTTOM OF. BY OTHERS
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT UP ROOFING SYSTEM

[	CHANNEL
CAB	CABINET
CB	CATCH BASIN,
CCR	CARD CONTROL READER
CCT	CUBICLE CURTIAIN TRACK
CCTV	CLOSED CIRCUIT TELEVISION
CEM	CEMENT, CEMENTITIOUS
CER	CERAMIC
CFCI	CONTRACTOR FURNISHED-CONTRACTOR INSTALLED
CG	CORNER GUARD
CH BD	CHALKBOARD
CI	CAST IRON
CJ	CONTROL JOINT
CL, ℄	CENTER LINE
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
COL	COLUMN
CONC	CONCRETE
CONF	CONFERENCE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORR	CORRUGATED, CORRIDOR
CPT	CARPET
CRSC	COLD ROLLED STEEL CHANNEL
CSK	COUNTERSUNK
CSP	COMBINATION STANDPIPE
CSWK	CASEWORK
CT	CERAMIC TILE
CU	CUBIC
CW	COLD WATER

D	DEPTH
DBL	DOUBLE
DBL ACT	DOUBLE ACTING
DEG	DEGREE
DEMO	DEMOLISH
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIFF	DIFFUSER
DIM	DIMENSION
DIM PT	DIMENTION POINT
DISP	DISPENSER
DIST	DISTANCE
DK	DECK
DN	DOWN
DR	DRAIN, DOOR
DS	DOWNSPOUT
DSP	DRY STANDPIPE
DT	DRAPERY TRACK
DTL	DETAIL
DW	DISHWASHER
DWG, DWGS	DRAWING, DRAWINGS

E	EAST
EA	EACH
EDR	EQUIMPENT DRAWING
EG	EDGE GUARD
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELAST	ELASTOMERIC
ELEC	ELECTRICAL
ELEV	ELEVATOR
ENCL	ENCLOSURE
EMER	EMERGENCY
ENGR	ENGINEER
EOS	EDGE OF SLAB
EP	ELECTRICAL PANEL
EPB	ELECTRICAL PANEL BOARD
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ	EQUAL
EQLS P	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ESCAL	ESCALATOR
EST	ESTIMATE(D)
EWC	ELECTRIC WATER COOLER
EXC	EXCAVATED
EXH	EXHAUST
EXIST, (E)	EXISTING
EXP	EXPANSION JOINT
EXT	EXTERIOR
EX-BR	EXISTING BRICK

F	FACE TO FACE
FA	FIRE ALARM
FAS	FIRE ALARM STATION
FB	FLAT BAR
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FEC	FIRE EXTINGUISHER CABINET
FE	FIRE EXTINGUISHER
FF	FINISH FACE
FG	FINISH GRADE
FHC	FIRE HOSE CABINET
FHFEC	FIRE HOSE / FIRE EXTINGUSHER CABINET
FHMS	FLAT HEAD MACHINE SCREW
FHWS	FLAT HEAD WOOD SCREW
FHY	FIRE HYDRANT
FIN	FINISH, FINISHED
FLAM	FLAMMABLE
FLASH	FLASHING
FLEX	FLEXIBLE
FLR	FLOOR
FLUOR	FLUORESCENT
FO	FACE OF
FRT	FIRE RETARDANT TREATMENT
FRZ	FREEZER
FSB	FOLDING SHOWER BENCH
FSTNR	FASTENER
FT	FOOT, FEET
FTG	FOOTING
FURN	FURNITURE
FXTR	FIXTURE

G	GAS
GA	GAUGE, GAGE
GAL	GALLON
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFRC	GLASS FIBER REINFORCED CONCRETE
GFRG	GLASS FIBER REINFORCED GYPSUM
GL	GLASS
GLU LAM	GLUE LAMINATED
GLZ	GLAZING
GR	GRADE, GRADING
GVL	GRAVEL
GYP	GYPSUM
GYP BD	GYPSUM BOARD
GYP PLAS	GYPSUM PLASTER

H	HIGH
HB	HOSE BIB
HC	HOLLOW CORE
HD	HEAD
HDBD	HARDBOARD
HDW	HARDWARE
HDWD	HARDWOOD
HGT, HT	HEIGHT
HM	HOLLOW METAL
HNDRL	HANDRAIL
HORIZ	HORIZONTAL
HPT	HIGH POINT
HR	HOUR
HSKP	HOUSEKEEPING
HVAC	HEATING-VENTILATION-AIR CONDITIONING
HW	HOT WATER

ID	INSIDE DIAMETER
IN	INCH
INCAND	INCANDESCENT
INCL	INCLUDE, INCLUDING
INFO	INFORMATION
INSUL	INSULATION
INTR	INTERIOR
INV	INVERT
IVT	INTRAVENOUS TRACK

JAN	JANITOR
JST	JOIST
JT	JOINT

KG	KILOGRAM
KIT	KITCHEN
KPL	KICK PLATE
KS	KNEE SPACE

L	LENGTH, LONG
LAB	LABORATORY
LAM	LAMINATE, LAMINATION
LAV	LAVATORY
LB	POUND
LED	LIGHT EMITTING DIODE
LF	LINEAR FOOT
LG	LENGTH
LIN	LINEAR
LL	LEAD LINED
LPT	LOW POINT
LT	LIGHT
LT WT	LIGHT WEIGHT
LTG	LIGHTING
LVR	LOUVER

M	METERS
MACH	MACHINE
MATL	MATERIAL
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MEDICINE CABINET
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MED	MEDIUM
MET, MTL	METAL
MEMB	MEMBRANE
MFR, MFGR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLDG	MOLDING
MM	MILLIMETERS
MO	MASONRY OPENING
MOD	MODULE, MODULAR
MTD	MOUNTED
MTG	MOUNTING
MULL	MULLION
MVBL	MOVEABLE
MW	MICROWAVE

(N)	NEW
N	NORTH
NA, N/A	NOT APPLICABLE
NAT	NATURAL
NE	NORTHEAST
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
NW	NORTHWEST

OC	ON CENTER
OA	OVERALL
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISH-CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED-OWNER INSTALLED
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
OVHD	OVERHEAD
OZ	OUNCE

PA	PUBLIC ADDRESS
PART	PARTIAL
PBD	PARTICLEBOARD
PBX	PRIVATE TELEPHONE EXCHANGE
PCF	POUNDS PER CUBIC FOOT
PCI	POUNDS PER CUBIC INCH
PERF	PERFORATED
PERIM	PERIMETER
PERM	PERMANENT
PERP	PERPENDICULAR
PI	POINT OF INTERSECTION
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER, PLASTIC
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PLYWD	PLYWOOD
PNEU	PNEUMATIC
PNL	PANEL
PNL BD	PANEL BOARD
PNT, P	PAINT
PORT	PORTABLE
PP	PUSH PLATE
PPM	PARTS PER MILLION
PR	PAIR
PRCST	PRECAST
PREP	PREPARATION
PREFAB	PREFABRICATION
PRKG	PARKING
PROJ	PROJECT
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
PT, PTD	PAINT, PAINTED
PTN	PARTITTION
PTS	PNEUMATIC TUBE STATION
PVC	POLYVINYL CHLORIDE
PVG	PAVING
PVMT	PAVEMENT
PWR	POWER

QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY

R	RISER
RA	RETURN AIR
RAD	RADIUS
RB	RESILIENT BASE
RCP	REFLECTED CEILING PLAN
RCPT	RECEPTACLE
RD	ROOF DRAIN
RECT	RECTANGULAR
REF	REFERENCE
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCE(D)(ING)(MENT)
REQD	REQUIRED
REQT	REQUIREMENT
RESIL	RESILIENT
RET	RETURN
REV	REVISION
RF	RESILIENT FLOORING
RH	RIGHT HAND
RHMS	ROUND HEAD MACHINE SCREW
RHWS	ROUND HEAD WOOD SCREW
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RWL	RAIN WATER LEADER

S	SOUTH
SA	SUPPLY AIR
SB	SPLASHBLOCK
SC	SOLID CORE
SCHED	SCHEDULE
SCRN	SCREEN
SD	STORM DRAIN
SECT	SECTION
SEG	SEGMENT
SEP	SEPARATION, SEPARATE
SEP JT	SEPARATION JOINT
SHT	SHET, SHEETING
SHWR	SHOWER
SHV	SHELVES, SHELVING
SIM	SIMILAR
SK	SINK
SMS	SHEET METAL SCREW
SP	SPACE, SPACED, SPACING
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SPKR	SPEAKER
SQ	SQUARE
SS	SANITARY SEWER
SSK	SERVICE SINK
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STAG	STAGGERED
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
STS	SELF-TAPPING STEEL
SUSP	SUSPENDED
SUSP CLG	SUSPENDED CEILING
SVCE	SERVICE
SYMM	SYMMETRICAL
SYST	SYSTEM

T	TREAD
T&B	TOP AND BOTTOM
T&G	TOUNGE AND GROOVE
TC	TOP OF CONCRETE, TOP OF CURB
TD	TRENCH DRAIN
TEL	TELEPHONE
TEMP	TEMPORARY
THERM	THERMAL
THK	THICK, THICKNESS
THRES	THRESHOLD
THRU	THROUGH
TMPD GL	TEMPERED GLASS
TO	TOP OF
TOR	TOP OF RAILING
TOS	TOP OF STEEL
TOT	TOTAL
TOW	TOP OF WALL
TP	TOP OF PAVEMENT
TPH	TOILET PAPER HOLDER
TRANS	TRANSPARENT
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
TW	TOP OF WALL

UC	UNDER COUNTER
UL	UNDERWRITERS LABORATORY
UNF	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTABLE POWER SUPPLY
UR	URINAL
UTIL	UTILITY

VAC	VACUUM
VB	VALVE BOX
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIT	VITREOUS
VP	VENT PIPE
VOL	VOLUME
VWC	VINYL WALL COVERING

W	WEST
WI	WITH
W/W	WALL TO WALL
WAINS	WAINSCOT
WC	WATER CLOSET, WALL COVERING
WD	WOOD
WDW	WINDOW
WGL	WIRE GLASS
WCHR	WHEELCHAIR
WM	WIRE MESH
WO	WHERE OCCURS
W/O	WITHOUT
WP	WATERPROOF
WPT	WORKING POINT
WR	WATER RESISTANT
WSCT	WAINSCOT
WSP	WET STANDPIPE
WT	WEIGHT
WTHPRF	WEATHERPROOF
WTRPRF	WATERPROOF
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

XFMR	TRANSFORMER

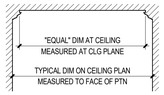
YD	YARD
YR	YEAR

ARCHITECTURAL DIMENSIONING CONVENTIONS

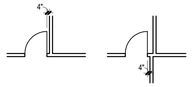
1. EXCEPT WHERE DIRECTED TO PLACE ITEMS OF THE WORK AT THE "APPROXIMATE LOCATION SHOWN," DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION.
2. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN (OR MAY BE DERIVED FROM THOSE SHOWN OR NOTED) ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, SCHEDULES, CONFIGURATION DETAILS, AND SPECIFICATIONS. SEE THE NOTES BELOW FOR DIMENSIONING CONVENTIONS USED ON THIS PROJECT.
3. EXCEPT WHERE SPECIFICALLY NOTED TO THE CONTRARY, ALL DIMENSIONS SHOWN ON THE ARCHITECTURAL DRAWINGS CONFORM TO THE FOLLOWING CONVENTIONS:
   A. DIMENSIONS UTILIZING THE "CENTERLINE" SYMBOL ARE MEASURED TO:
      - STRUCTURAL OR DIMENSIONAL GRID LINES
      - CENTERLINE OF CONCRETE OR CONC MASONRY UNIT WALLS (EXCLUSIVE OF FURRING OR APPLIED FINISHES HAVING THICKNESS). REFER TO THE ARCH PLANS AND SECTIONS, THE STRUCT DRAWINGS, OR PARTITION SCHEDULE TO DETERMINE THE THICKNESS OF CONCRETE OR CONC MASONRY UNIT WALLS.
      - CENTERLINE OF PARTITION ASSEMBLY (EXCLUSIVE OF ANY APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALLS) AT PARTITIONS FRAMED WITH METAL STUDS. REFER TO "PARTITION SCHEDULE" TO DETERMINE THICKNESS OF EACH PARTITION TYPE.
      - CENTERLINE OF DOOR, WINDOW, OR LOUVER OPENING.
      - CENTERLINE OF EQUIPMENT OR FURNISHING
      - CENTERLINE OF OTHER FEATURES AS INDICATED.
   B. REFER TO ABBREVIATIONS LEGEND FOR SYMBOL USED TO INDICATE CENTERLINE DIMENSION.
   C. DIMENSIONS UTILIZING THE "FACE OF" SYMBOL ARE MEASURED TO
      - FACE OF CONCRETE OR CONC MASONRY UNIT WALL (EXCLUSIVE OF APPLIED FINISHES HAVING THICKNESS OR FURRING WHICH MAY BE ADDED TO THE FACE OF SUCH WALLS).
      - FACE OF PARTITION ASSEMBLY (EXCLUSIVE OF ANY APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALL) AS DEFINED BY THE PARTITION SCHEDULE. UNLESS NOTED AS A "FACE OF FINISH" OR "CLEAR" DIMENSION (SEE NOTE 'E' BELOW), DIMENSIONS ARE NOT MEASURED TO THE FACE OF APPLIED FINISH. REFER TO THE "PARTITION SCHEDULE" TO DETERMINE THE THICKNESS OF EACH PARTITION TYPE.
      - INSIDE EDGE OF FINISHED DOOR OPENING. REFER TO THE DOOR SCHEDULE FOR ADDITIONAL DIMENSIONAL INFORMATION.
   D. REFER TO ABBREVIATIONS LEGEND FOR SYMBOL USED TO INDICATE "FACE OF" DIMENSION.
   E. WHERE "FACE OF FINISH" OR "CLEAR" DIMENSIONS ARE SPECIFICALLY NOTED, THE DIM IS MEASURED TO:
      - FINISH FACES AT THE MOST NARROW OR CONSTRICTED POINTS OF SECTION WHERE DIMENSION IS SHOWN. WHEN THE DIMENSION OCCURS ACROSS AN OPEN SPACE. THIS CASE, A "FACE OF FINISH" DIMENSION IS EQUIVALENT TO A "CLEAR" DIMENSION.
      - FINISH FACES AT THE WIDEST OR MOST EXPANSIVE POINTS OF THE SECTION THE DIMENSION IS SHOWN WHEN THE DIMENSION OCCURS ACROSS AN OBJECT OR GROUP OF OBJECTS.
   F. WHERE "EQUAL" DIMENSIONS ARE USED ON REFLECTED CEILING PLANS TO LOCATE CEILING GRID WORK POINTS, MEASURE DIMENSIONS TO:
      - EDGE OF THE INDICATED CEILING AT THE FACE OF THE ADJACENT APPLIED FINISH MEASURED AT THE PLANE OF THE CEILING.

NOTE NO 3 CONTINUED:

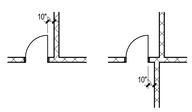
- CAUTION: DUE TO THE POSSIBLE APPLICATION OF APPLIED FINISHES - THICKNESS OF WHICH MAY VARY BETWEEN FLOOR AND CEILING AND IS NOT ACCOUNTED FOR (EXCEPT AS INDICATED BY "FOF" OR "CLEAR") BY THE DIMENSION SHOWN ON THE FLOOR PLANS - THE CONTRACTOR MUST ADJUST, AS NECESSARY, THE FLOOR PLAN DIMENSIONS TO REFLECT THE ACTUAL DIMENSIONS FOUND AT PLANE OF THE CEILING.



4. WHERE DIMENSIONS ARE NOT PROVIDED ON FLOOR PLANS TO LOCATE DOOR OPENINGS, APPLY THE FOLLOWING RULES, **IN ORDER**, TO DETERMINE THE LOCATION OF DOOR OPENINGS:
   A. DOOR OPENINGS MAY BE DIMENSIONED ON DRAWINGS OTHER THAN THE FLOOR PLANS. REFER TO THE SECTIONS, ELEVATIONS, DETAILS, AND DOOR SCHEDULE NOTES FOR ADDITIONAL DIMENSIONAL INFORMATION.
   B. WHERE THE HINGE-SIDE OF A DOOR IS SHOWN ADJACENT TO A WALL - OR WALLS - PERPENDICULAR TO THE WALL IN WHICH THE DOOR OPENING OCCURS:
      - AT DOORS OCCURRING IN METAL FRAMED GYPSUM BOARD PARTITIONS, LOCATE THE HINGE-SIDE OF THE DOOR FINISHED OPENING 4 INCHES FROM THE FACE (EXCLUSIVE OF APPLIED FINISHES) OF THE CLOSEST PERPENDICULAR WALL OR PARTITION ASSEMBLY.

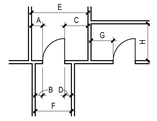


      - AT DOORS OCCURRING IN WALLS OF CONC MASONRY UNIT CONSTRUCTION, LOCATE THE HINGE-SIDE OF THE DOOR FINISHED OPENING 4 INCHES FROM THE FACE (EXCLUSIVE OF APPLIED FINISHES) OF THE CLOSEST PERPENDICULAR WALL OR PARTITION ASSEMBLY.



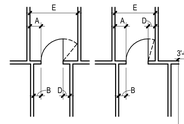
NOTE NO 4 CONTINUED:

   C. WHERE DOOR OCCURS NOT ADJACENT TO A PERPENDICULAR WALL AND EITHER "DIM E" OR "DIM F" IN DIAGRAM BELOW IS 16'-0" OR LESS, LOCATE DOOR UTILIZING THE FOLLOWING MINIMUM DIMENSIONS:
      - DIMENSION A = 18 INCHES MIN
      - DIMENSION B = 12 INCHES MIN
      - DIMENSION C = DOOR WIDTH + 2 INCHES MINIMUM
      - DIMENSION D = 4 INCHES MIN AT METAL FRAMED GYP BD PARTITIONS OR - EVEN MULTIPLE OF 1/2 CMU MODULE PLUS 2 INCHES AT CONC MASONRY UNIT WALLS
      - DIMENSIONS E AND F = AS SHOWN ON PLANS
      - DIMENSION G = 36 INCHES MIN
      - DIMENSION H = 60 INCHES MIN

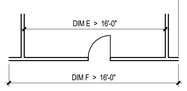


      - IF SPACE ALLOWS, CENTER DOOR IN WALL SHOWN ON THE DRAWINGS SO THAT EITHER "DIM A" EQUALS "DIM C" OR "DIM B" EQUALS "DIM D".

   D. IF "DIM E" IN DIAGRAMS BELOW IS LESS THAN THE SUM OF 2 TIMES THE DOOR WIDTH PLUS 20 INCHES, LOCATE DOOR SO THAT MINIMUMS STATED BY NOTE NO 4C ABOVE FOR "DIM A", "DIM B," AND "DIM D" ARE MET - MAXIMIZING "DIM A" AND MINIMIZING "DIM D" TO THE EXTENT POSSIBLE



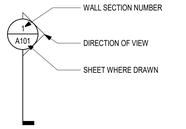
   E. WHERE DOOR IS SHOWN LOCATED IN A LARGE EXPANSE OF OPEN WALL ("DIM E" AND "DIM F" IN DIAGRAM BELOW BOTH EXCEED 16'-0"), PLACE DOOR AT APPROXIMATE LOCATION SHOWN ON THE PLANS. WHERE DOOR OCCURS IN CMU WALL, PLACE DOOR AT APPROXIMATE LOCATION SHOWN WHILE MINIMIZING "CUT" OR PARTIAL CMU MODULES ADJACENT TO THE JAMBS.



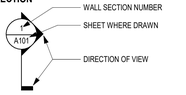
5. WHERE WALLS AND/OR PARTITIONS OF UNEQUAL THICKNESS ABUT, ALIGN EXPOSED FACES, UNLESS OTHERWISE NOTED.

TYPICAL ARCHITECTURAL REFERENCE SYMBOLS

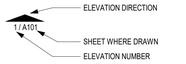
WALL SECTION



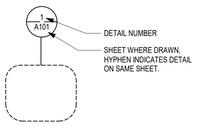
BUILDING SECTION



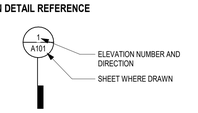
EXTERIOR ELEVATION



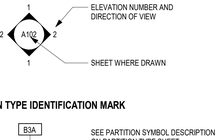
DETAIL REFERENCE



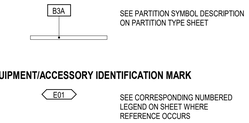
SECTION DETAIL REFERENCE



INTERIOR ELEVATION REFERENCE



PARTITION TYPE IDENTIFICATION MARK



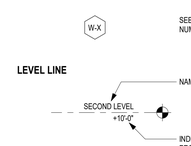
EQUIPMENT/ACCESSORY IDENTIFICATION MARK



DOOR IDENTIFICATION MARK



WINDOW AND LOUVER TYPE MARK



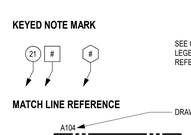
LEVEL LINE



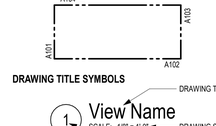
ROOM NAME AND NUMBER



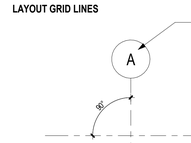
REVISION EXTENT



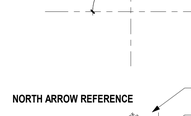
KEYED NOTE MARK



MATCH LINE REFERENCE



DRAWING TITLE SYMBOLS



LAYOUT GRID LINES



NORTH ARROW REFERENCE

TYPICAL RULES FOR DETERMINING REFLECTED CEILING PLAN LOCATIONS, DIMENSIONS, AND CONFIGURATIONS

GENERAL NOTES

A. THE A-SERIES DRAWINGS ESTABLISH AND COORDINATE THE FINISHED APPEARANCE AND LOCATION OF ALL EXPOSED ELEMENTS. THE A-SERIES DRAWINGS TAKE PRECEDENCE FOR THE FINISHED APPEARANCE AND LOCATION OF ALL PARTS OF THE **EXCEPTION:** DIMENSIONED LOCATIONS SHOWN ON ON DRAWINGS OF OTHER DISCIPLINES SHALL GOVERN ONLY WHERE:
   1. SPECIFICALLY AND INDIVIDUALLY INDICATED BY SYMBOL, KEYED NOTE, OR NOTATION ON THE ARCHITECTURAL DRAWINGS.
   2. OCCURRING WITH A ROOM OR OTHER IDENTIFIABLE SPACE FOR WHICH ARCH SHEET OR SCHEDULE NOTES INDICATE THAT DIMENSIONS PROVIDED ELSEWHERE SHALL GOVERN.

B. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE THE TYPICAL RULES WHICH GOVERN THE LOCATION, CONFIGURATION IN RELATIONSHIP TO OTHER ELEMENTS OF THE WORK, AND FINISHED ALIGNMENT OF ALL ITEMS OCCURRING ON REFLECTED CEILING PLANS OF THE PROJECT.

C. THE A-SERIES FLOOR PLANS, REFLECTED CEILING PLANS, SECTIONS, ELEVATIONS, AND DETAILS ILLUSTRATE THE DIMENSIONED LOCATION OF MANY - BUT NOT ALL - EXPOSED PARTS OF THE WORK. APPLY THE RULES ON THIS SHEET - **IN ORDER** - TO DETERMINE THE LOCATION OF EXPOSED PART OF THE WORK.
   1. WHEN UNIQUELY AND SPECIFICALLY DIMENSIONED ON THE A-SERIES PLANS, SECTIONS, OR ELEVATIONS (OR COMBINATION THEREOF), LOCATE AS DIMENSIONED.
   2. IF NOT SHOWN, OR IF SHOWN BUT NOT DIMENSIONED, BY THE A-SERIES PLANS OR ELEVATIONS, LOCATE AS INDICATED BY THE APPLICABLE RULE.

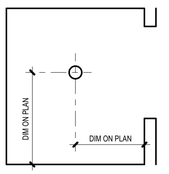
D. REFER TO THE "ARCHITECTURAL GENERAL NOTES" FOR ADDITIONAL NOTES WHICH MAY BE APPLICABLE TO THE WORK SHOWN ON THIS SHEET.

E. FOR MANY SPACES, THE ARCHITECTURAL REFLECTED CEILING PLANS ESTABLISH AN IDEAL PATTERN FOR LOCATING SPRINKLER HEADS. IN SPACES WHERE HEADS ARE SHOWN, FOLLOW PATTERN ESTABLISHED BY THE DRAWINGS. WHERE ADDL HEADS ARE REQUIRED TO CONFORM WITH CODE, PROVIDE HEADS IN GENERAL CONFORMITY WITH PATTERN ESTABLISHED BY THE DRAWINGS.

F. IN SPACES WHERE SPRINKLER HEADS ARE NOT SHOWN BY THE ARCHITECTURAL REFLECTED CEILING PLANS, PROVIDE HEADS AS REQUIRED BY CODE.

RULE 1

WHEN COMPLETELY DIMENSIONED ON REFLECTED CEILING PLAN

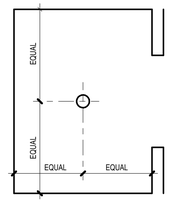


LOCATE ITEMS AS INDICATED WHEN SHOWN DIMENSIONED BY A REFLECTED CEILING PLAN, ENLARGED REFLECTED CEILING PLAN, OR DETAIL.

SPECIFIC DIMENSIONS SHOWN BY REFLECTED CEILING PLANS, ELEVATIONS, OR DETAILS TAKE PRECEDENCE OVER TYPICAL LOCATION RULES.

RULE 2

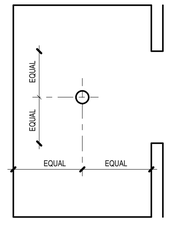
WHEN NOT DIMENSIONED BUT SHOWN CENTERED



LOCATE ITEMS CENTERED IN SPACE (OR CEILING PLANE) WHEN SHOWN (BUT NOT DIMENSIONED) VISUALLY AT APPROXIMATE CENTER OF SPACE.

RULE 3

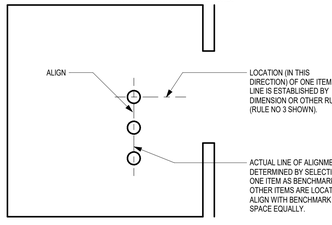
WHEN OFF-CENTER IN SPACE BUT CENTERED ON ADJACENT FEATURE



LOCATE ITEMS CENTERED ON ADJACENT OPENING OR FEATURE WHEN SHOWN (BUT NOT DIMENSIONED) OFF-CENTER IN OVERALL SPACE BUT CENTERED AGAINST ADJACENT FEATURE.

RULE 4

WHEN ALIGNED WITH OTHER FEATURES



LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, DEVICES, ETC) ALIGNED WITH ADJACENT ITEMS FOR WHICH DIMENSIONS OR R

ACCESSORY & FIXTURE MOUNTING GENERAL NOTES

1. NOT ALL ACCESSORIES OR FIXTURES SHOWN HERE MAY BE USED IN THIS PROJECT.
2. APPLY TYPICAL MOUNTING HEIGHTS UNLESS NOTED OTHERWISE.
3. PROVIDE FIRE-TREATED WOOD BLOCKING OR STEEL SHEET BACKING AS APPROPRIATE FOR THE CONSTRUCTION TYPE AND ACCESSORY INSTALLATION REQUIREMENTS.
4. BLOCKING TO BE INSTALLED AT ALL GRAB BAR LOCATIONS.
5. SOLID WOOD BLOCKING SHALL BE LET-IN AND/OR OVERLAID AND SECURELY ANCHORED TO STUDS. BLOCKING MUST FIT SNUGLY AND FILL THE DESIGNATED SPACE.
6. GRAB BARS ARE TO BE MOUNTED WITH CONCEALED FASTENERS TO BLOCKING IN WALL. BLOCKING SHALL SUPPORT 800 LB STATIC LOAD AND 1,000 LB DYNAMIC LOAD. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.
7. ALL EXPOSED WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISED CONFIGURED TO PROTECT AGAINST CONTACT.

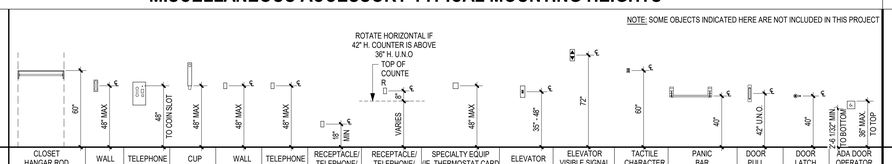
MISCELLANEOUS ACCESSORY TYPICAL MOUNTING HEIGHTS

NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT

FINISH FLOOR															
ACCESSORY TYPE	FIRE EXTINGUISHER CABINET	MANUAL FIRE PULL	FIRE STROBELIGHT/ AUDIBLE ALARM	WALL MOUNTED EXIT SIGN	WALL MOUNTED HANDRAIL	WALL CLOCK	FABRIC COVERED TACK BOARD	MARKER BOARD	MOP & BROOM HOLDER	ROBE HOOK	ELAPSED TIME CLOCK	SOAP DISPENSER	PAPER TOWEL DISPENSER	ALCOHOL DISPENSER
COMMENTS	SEMI RECESSED	SURFACE MOUNTED	SURFACE MOUNTED	WALL MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED

MISCELLANEOUS ACCESSORY TYPICAL MOUNTING HEIGHTS

NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



FINISH FLOOR															
ACCESSORY TYPE	CLOSET HANGAR ROD & SHELF	WALL PHONE	TELEPHONE HOUSING	CUP DISPENSER	WALL SWITCH	TELEPHONE OUTLET	RECEPTACLE/ TELEPHONE/ DATA	RECEPTACLE/ TELEPHONE/ DATA	SPECIALTY EQUIP (IE. THERMOSTAT,CARD READER,INTERCOM)	ELEVATOR CALL BUTTON	ELEVATOR VISIBLE SIGNAL INDICATOR	TACTILE CHARACTER INDICATOR	PANIC BAR	DOOR PULL	DOOR LATCH	ADA DOOR OPERATOR
COMMENTS	WALL MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	VARIES

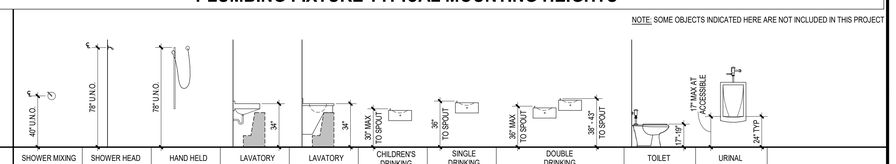
TOILET ACCESSORY TYPICAL MOUNTING HEIGHTS

NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT

FINISH FLOOR													
ACCESSORY TYPE	PAPER TOWEL DISPENSER	POWER HAND DRYER	PAPER TOWEL DISPENSER & TRASH	TOILET TISSUE DISPENSER	SANITARY NAPKIN DISPOSAL	SANITARY NAPKIN DISPENSER	VANITY SOAP DISPENSER	FRAMED VANITY MIRROR	DIAPER CHANGING STATION	SOAP DISPENSER	FOLDING SHOWER SEAT	TOILET PARTITION	URINAL SCREEN
COMMENTS	SURFACE MOUNTED	SURFACE MOUNTED	RECEPTACLE SEMI RECESSED	SURFACE MOUNTED	SURFACE MOUNTED	RECESSED & SURFACE	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	COUNTERTOP MOUNTED	SURFACE MOUNTED	WALL MOUNTED	WALL MOUNTED

PLUMBING FIXTURE TYPICAL MOUNTING HEIGHTS

NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



FINISH FLOOR										
ACCESSORY TYPE	SHOWER MIXING VALVE	SHOWER HEAD	HAND HELD SHOWER	LAVATORY	LAVATORY	CHILDREN'S DRINKING FOUNTAIN	SINGLE DRINKING FOUNTAIN	DOUBLE DRINKING FOUNTAIN	TOILET	URINAL
COMMENTS	WALL MOUNTED	WALL MOUNTED	WALL MOUNTED	WALL MOUNTED	COUNTER MOUNTED	WALL MOUNTED	WALL MOUNTED	WALL MOUNTED	WALL/FLOOR MOUNTED	WALL MOUNTED

GRAB BAR TYPICAL MOUNTING HEIGHTS & TOILET ACCESSORY PLANS

NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



FINISH FLOOR						
ACCESSORY TYPE	ADA TOILET GRAB BAR	SHOWER STALL GRAB BAR	ROLL-IN SHOWER STALL GRAB BAR	TYPICAL ACCESSORIES AT ACCESSIBLE TOILET	REQUIRED FRONT APPROACH KNEE CLEARANCE	OBSTRUCTED FORWARD REACH / UNOBSTRUCTED FORWARD/SIDE REACH
COMMENTS	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	NOTE: SANITARY NAPKIN DISPOSAL AT WOMEN'S & UNISEX ONLY	TYPICAL AT ALL VANITIES, DRINKING FOUNTAINS, ETC.	ADA REACH RANGES

Roy A. Marsden
MO Architect License No: A-6661
Expires: 12/31/2026
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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

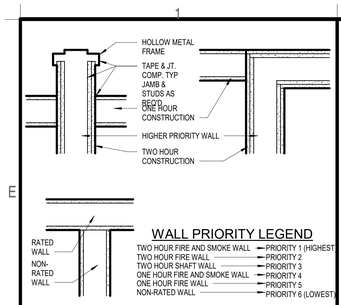
[Consultants]

No.	Date	Revision

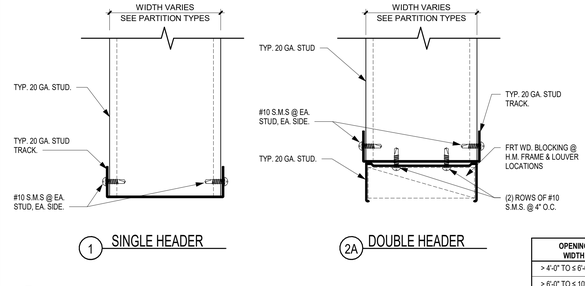
TYPICAL MOUNTING HEIGHTS

Project No. 24059
Sheet No. A002
Date 03/30/2026

3/30/2026 8:45:01 AM
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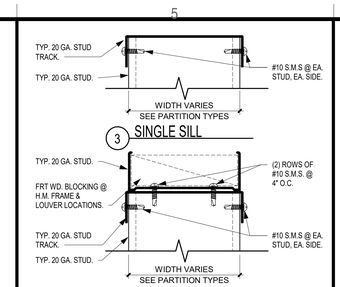


E1 WALL PRIORITIES (RATED WALLS)
N.T.S.
09.21.06.00A WALL PRIORITIES

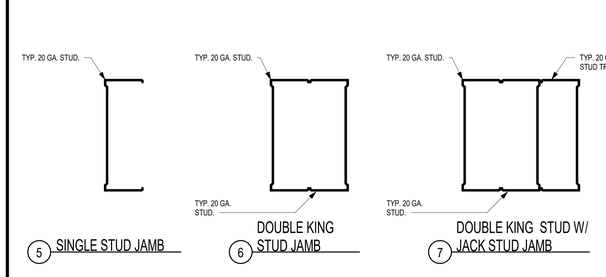


OPENING WIDTH	HEAD DETAIL
> 4'-0" TO ≤ 6'-0"	2A
> 6'-0" TO ≤ 10'-0"	2B

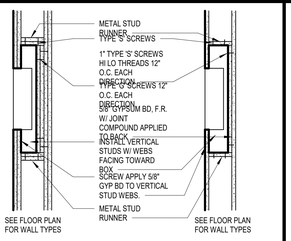
E2 TYP. FRAMING HEAD DETAILS
HALF SCALE
09.22.16 TYP. HEAD DETAILS_2W X 1H



E5 TYP. FRAMING SILL DETAILS
HALF SCALE
09.22.16 TYP. SILL DETAILS_1W X 1H

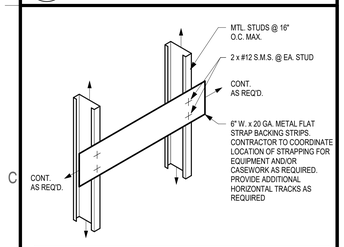


E6 TYP. FRAMING JAMB DETAILS
HALF SCALE
09.22.16 TYP. JAMB DETAILS_2W X 1H



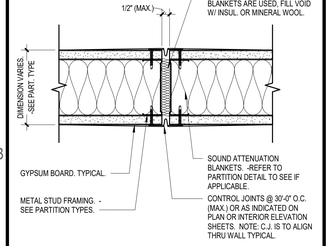
NOTE:
1. TYPICAL FOR FIRE EXTINGUISHER CABINETS, RECESSED TOILET ACCESSORIES & MECH/ ELECTRICAL RECESSED SERVICE BOXES AT RATED WALLS.
2. TYP AT ALL FIXTURES AND BOXES OVER 100 SQUARE INCHES AT RATED WALLS.

D1 RATED WALL FIXTURE/BOX RECESS
N.T.S.
09.21.16.00B RTD WALL OPNG

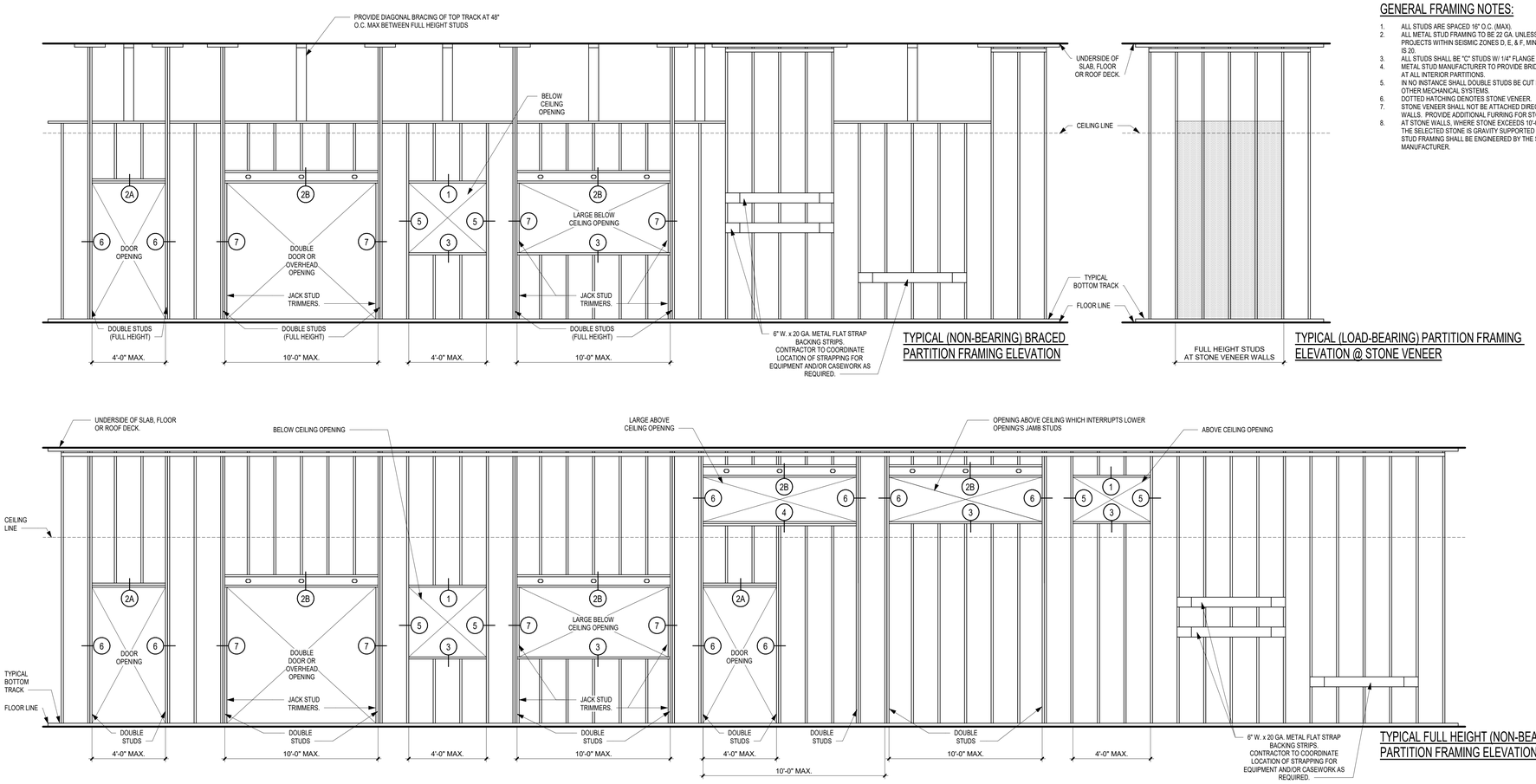


NOTE:
PROVIDE ANCHOR STRIPS AT MILLWORK/CASEWORK, CORRIDOR WALL GUARDS, TACKBOARDS, MARKERBOARDS, HANDRAILS, TOILET ACCESSORIES, ETC. FOR ATTACHEMENT TO WALL. (F.R.T. 2X WOOD BACKING IS ALSO ACCEPTABLE IN LIEU OF 20 GA. MTL. STRAPPING).

C1 TYPICAL WALL BACKING DETAIL
N.T.S.
09 41 00.01 WALL BACKING DET_1W X 1H



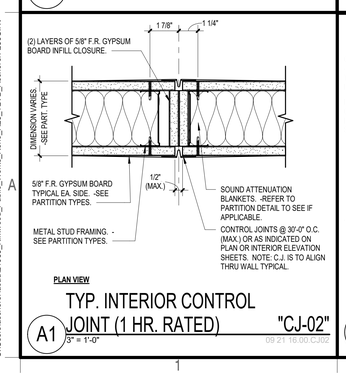
B1 TYP. INTERIOR CONTROL JOINT (NON-RATED) "CJ-01"
3" = 1'-0"
09.21.16.00 CJ01



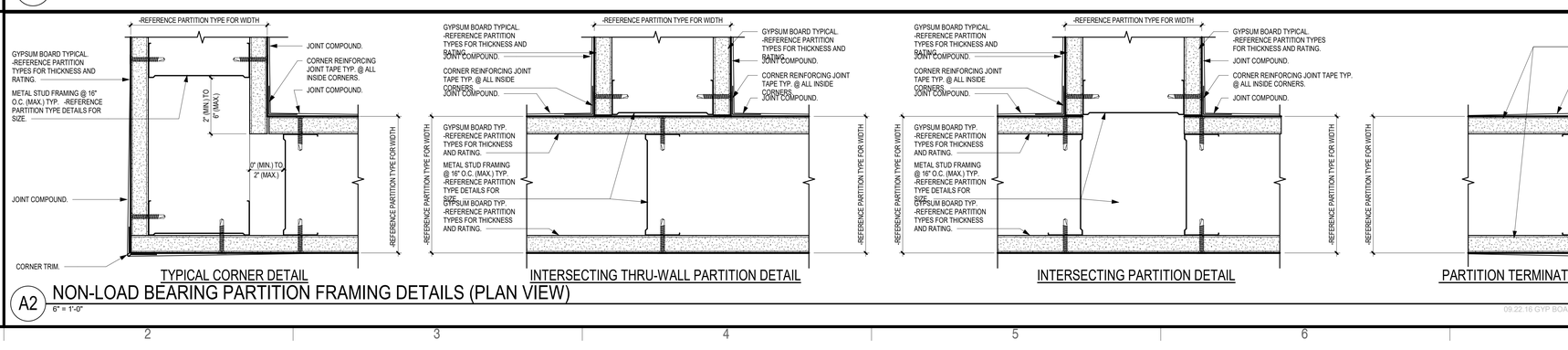
B2 TYPICAL INTERIOR PARTITION FRAMING ELEVATIONS
3/8" = 1'-0"
09.22.16 TYP INT PARTITION FRAMING ELEV_6W X 3H

GENERAL FRAMING NOTES:

1. ALL STUDS ARE SPACED 16" O.C. (MAX).
2. ALL METAL STUD FRAMING TO BE 22 GA. UNLESS NOTED OTHERWISE. PROJECTS WITHIN SEISMIC ZONES D, E, & F, MINIMUM STUD GUAGE IS 20.
3. ALL STUDS SHALL BE "C" STUDS W/ 1/4" FLANGE MINIMUM
4. METAL STUD MANUFACTURER TO PROVIDE BRIDGING AS REQUIRED AT ALL INTERIOR PARTITIONS.
5. IN NO INSTANCE SHALL DOUBLE STUDS BE CUT FOR DUCTWORK OR OTHER MECHANICAL SYSTEMS.
6. DOTTED HATCHING DENOTES STONE VENEER.
7. STONE VENEER SHALL NOT BE ATTACHED DIRECTLY TO SHAFT WALLS. PROVIDE ADDITIONAL FURRING FOR STONE BACK-UP.
8. AT STONE WALLS, WHERE STONE EXCEEDS 10'-0" IN HEIGHT, OR IF THE SELECTED STONE IS GRAVITY SUPPORTED BY THE STUDS, THE STUD FRAMING SHALL BE ENGINEERED BY THE STUD MANUFACTURER.



A1 TYP. INTERIOR CONTROL JOINT (1 HR. RATED) "CJ-02"
3" = 1'-0"
09 21 16.00 CJ02



A2 NON-LOAD BEARING PARTITION FRAMING DETAILS (PLAN VIEW)
6" = 1'-0"
09.22.16 GYP BOARD PARTITION TERMINATION DET. 6W X 1H

3/30/2026 8:45:02 AM
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ARCHITECT
R. Gregory Garner 3/30/2026
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Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.
City, State xxxxx

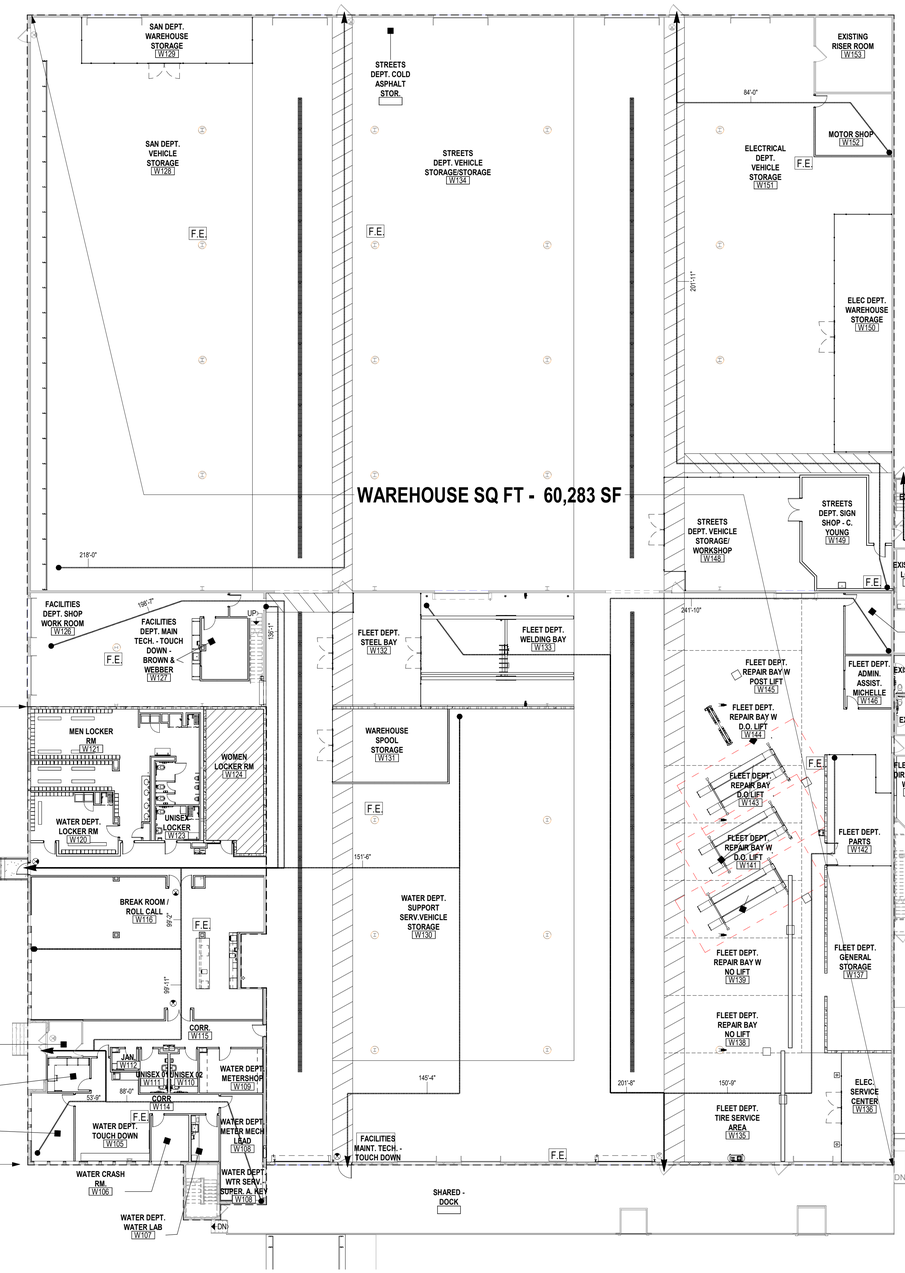
No.	Date	Revision

INT. PARTITION FRAMING DETAILS

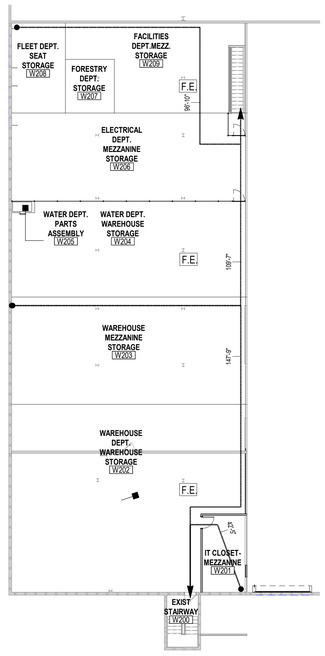
Project No.
24059

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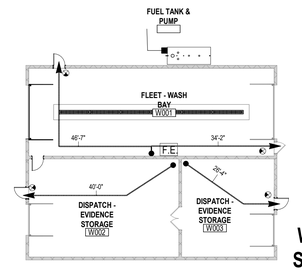
Date
03/30/2026



A1 WAREHOUSE LIFE SAFETY PLAN
1/16" = 1'-0"



B4 MEZZANINE LIFE SAFETY PLAN
1/16" = 1'-0"



WAREHOUSE AUXILIARY SQ FT - 3,319 SF

A4 AUXILIARY BLDG LIFE SAFETY PLAN
1/16" = 1'-0"

ICC 500-2014 : STORM SHELTER - TORNADO

SEC. 501.1 - OCCUPANT LOAD > 16 PERSONS

OCCUPANT LOAD ACTUAL = 16

TABLE 501.1.1 - OCCUPANT DENSITY
MINIMUM SQ/FT PER PERSON = 5 SQ/FT
WHEELCHAIR SPACE = 10 SQ/FT PER 200 PERSONS

SEC. 501.1.2.2 ALERNATIVE CALCULATIONS OF USABLE FLOOR AREA
THE USABLE FLOOR AREA SHALL BE DETERMINED BY SUBTRACTING FROM THE GROSS FLOOR AREA, THE FLOOR PARTITIONS & WALLS, COLUMNS, FIXED OR MOVABLE OBJECTS, FURNITURE, EQUIPMENT OF OTHER FEATURES THAT UNDER PROBABLE CONDITIONS CANNOT BE MOVED.

NET AREA OF SHELTER = 538 SQ/FT (PER SEC. 501.1.2.2)

MAX. OCCUPANT LOAD FOR SHELTER -
538 SQ/FT - 10 SQ/FT (FOR WHEELCHAIR) = 528 SQ/FT / 5 SQ/FT PER PERSON = 105 + 1 = 106 PERSONS

SEC. 501.2 NUMBER OF DOORS
AS REQUIRED FOR NORMAL OCCUPANCY. WHERE THE APPLICABLE CODE REQUIRES ONLY ONE MEANS OF EGRESS DOOR, AN EMERGENCY ESCAPE OPENING SHALL BE PROVIDED IN ACCORDANCE WITH SEC. 501.4

SEC. 501.3 DIRECTION OF SWING
AS REQUIRED FOR NORMAL OCCUPANCY

SEC. 501.4 EMERGENCY ESCAPE OPENING
THE EMERGENCY ESCAPE OPENING SHALL BE AN ADDITIONAL DOOR OR OPENING THAT IS A MIN. OF 5.7 SQ/FT. THE EMERGENCY ESCAPE OPENING SHALL BE LOCATED AWAY FROM THE MEANS OF EGRESS DOOR BY A MIN. DISTANCE OF ONE-THIRD TH ELENGTH OF THE MAX. OVERALL DIAGONAL DIM. OF THE AREA TO BE SERVED.

SEC. 601.1 FIRE SEPERATION
FIRE BARRIERS AND HORIZONTAL ASSEMBLIES SEPARATION SPACES OR AREAS DESIGNATED AS STORM SHELTERS FROM OTHER BUILDING AREAS SHALL HAVE A MIN. FIRE-RESISTIVE RATING OF 2 HOURS

TABLE 702.1.1 - VENTING AREA REQUIRED FOR TORNADO SHELTERS
COMMUNITY (≤ 50 OCC.) 5 SQ/IN PER PERSON

TABLE 702.2 - REQ. SANITATION FACILITIES - TORNADO SHELTERS

COMMUNITY (<50 OCC.)	1 TOILET	LAVATORY - NOT REQ
(>50 OCC.)	2 TOILET	LAVATORY - 1 PER 1000

2015 IECC TABLE

OPAQUE ASSEMBLIES - ZONE 4	REQUIRED	PROVIDED
ROOF - INSULATION ENTIRELY ABOVE DECK	R30 CI	N/A
WALLS - METAL FRAMED	R13 + R7.5 CI	R13 + R7.5 CI
METAL BUILDING	R19 + R13 CI	N/A
BELOW GRADE WALLS	R 7.5 CI	N/A
MASS WALLS	R 9.5 CI	N/A
UNHEATED SLABS	R10 FOR 24" BELOW	N/A
OPAQUE DOORS	U-0.61 MAX	U-0.61 MAX
NONSWINGING DOORS	R4.75	N/A
FENESTRATION ASSEMBLIES - ZONE 4	REQUIRED	PROVIDED
CURTAINWALL / STOREFRONT	U-0.38 MAX	U-0.38 MAX
ENTRANCE DOOR	U-0.77 MAX	U-0.77 MAX
SHGC	0.40 MAX	0.40 MAX

LIFE SAFETY PLAN LEGEND

SYMBOL	DESCRIPTION
XXXX XX OCC W XX" P XX"	**DOOR EGRESS TAG** # OF OCCUPANTS ALLOWED TO EGRESS THRU OPENING PER CODE WIDTH REQUIRED WIDTH PROVIDED
F.E.	FIRE EXTINGUISHER ON WALL MOUNTED BRACKET.
F.E.C.	FIRE EXTINGUISHER IN CABINET.
	EXIT SIGN - SEE ELECTRICAL DRAWINGS.
	EXIT SIGN WITH EMERGENCY LIGHTS - SEE ELECTRICAL DRAWINGS.
	EMERGENCY LIGHT - SEE ELECTRICAL DRAWINGS.
8'-8"	**EGRESS PATH** DISTANCE OF PATH

EMERGENCY LIGHTS ARE LOCATED OVER ALL EXTERIOR EXIT DOORS - SEE ELEC. DRAWINGS.

CODE INFORMATION

APPLICABLE CODES

- 2015 INTERNATIONAL BUILDING CODE
- 2015 INTERNATIONAL EXISTING BUILDING CODE
- 2015 INTERNATIONAL MECHANICAL CODE
- 2014 INTERNATIONAL CODE COUNCIL
- 2014 NATIONAL ELECTRICAL CODE
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- 2015 INTERNATIONAL PROPERTY MAINTENANCE CODE
- 2015 INTERNATIONAL ENERGY CONSERVATION CODE
- 2015 NFPA 101 (SPRINKLERS)
- 2017 ICC/ANSI A117.1 ACCESSIBILITY CODE

ALLOWABLE BUILDING HEIGHTS & AREAS

USE GROUP: B (PER IBC SECTION 304.1)
S-1 (PER IBC SECTION 311.3)

- CONSTRUCTION TYPE: IIB (PER IBC SECTION 602.2)

EXISTING WAREHOUSE: B, S-1

ALLOWABLE STORIES: 3 (PER IBC TABLE 504.4)
ACTUAL STORIES: 1

ALLOWABLE AREA: 70,000 SF (PER IBC TABLE 506.2)
ACTUAL AREA: 7517 SF, 60,283 SF

ALLOWABLE HEIGHT: 75' - 0" (PER IBC TABLE 504.3)
ACTUAL HEIGHT: 40' - 0"

EXISTING AUXILIARY WAREHOUSE: S-1

ALLOWABLE STORIES: 2 (PER IBC TABLE 504.4)
ACTUAL STORIES: 1

ALLOWABLE AREA: 17,500 SF (PER IBC TABLE 506.2)
ACTUAL AREA: 3,319 SF

ALLOWABLE HEIGHT: 55' - 0" (PER IBC TABLE 504.3)
ACTUAL HEIGHT: 25' - 0"

EXISTING BUSINESS OFFICE: B

ALLOWABLE STORIES: 4 (PER IBC TABLE 504.4)
ACTUAL STORIES: 3

ALLOWABLE AREA: 69,000 SF (PER IBC TABLE 506.2)
ACTUAL AREA: 15,300 SF

ALLOWABLE HEIGHT: 75' - 0" (PER IBC TABLE 504.3)
ACTUAL HEIGHT: 35' - 0"

FIRE RESISTANCE RATING REQUIREMENTS

TYPE IB CONSTRUCTION (PER IBC TABLE 601)

STRUCTURAL FRAME: 0 HR
BEARING WALLS
EXTERIOR: 0 HR
INTERIOR: 0 HR
NON-BEARING WALL & PARTITION
INTERIOR: 0 HR
FLOOR CONSTRUCTION
INCLUDING SUPPORTING BEAMS & JOISTS: 0 HR
ROOF CONSTRUCTION
INCLUDING SUPPORTING BEAMS & JOISTS: 0 HR

WAREHOUSE AND BUSINESS OFFICE ARE FULLY SPRINKLERED THROUGHOUT IN ACCORDANCE WITH SECTION 903.3.1.1 (NFPA 13 SPRINKLER SYSTEM) AND 903.2.10.1

REQUIRED SEPARATION OF OCCUPANCIES (PER IBC TABLE 508.4)
NO SEPARATION AMONGST B AND S-1 OCCUPANCIES

MEANS OF EGRESS

OCCUPANT LOADS: (IBC 2015TABLE 1004.1.2)
EXISTING WAREHOUSE

100 SF PER OCCUPANT (B)
7517 SF / 100 = 76 'B' OCCUPANTS
300 SF PER OCCUPANT (S-1)
60,283 SF / 300 = 201 'S-1' OCCUPANTS
TOTAL: 277 OCCUPANTS

EXISTING WAREHOUSE AUXILIARY
300 SF PER OCCUPANT (S-1)
3319 SF / 300 = 12 'S-1' OCCUPANTS
TOTAL: 12 OCCUPANTS

EXISTING BUSINESS OFFICE
100 SF PER OCCUPANT (B)
15, 300 SF / 100 = 153 'B' OCCUPANTS
TOTAL: 153 OCCUPANTS

EXIT TRAVEL DISTANCE: (IBC 2015 TABLE 1017.2)
(B) 200 FT MAX (WITH SPRINKLER SYSTEM)
(S-1) 400 FT MAX (WITH SPRINKLER SYSTEM)(PER 1017.2.2)

CORRIDOR RATING: (IBC 2015 TABLE 1020.1)
NOT REQUIRED WITH A (NFPA 13) SPRINKLER SYSTEM

DEAD END CORRIDOR: (IBC 2015 SECTION 1020.4)
EXIT ACCESS SHALL BE ARRANGED SUCH THAT THERE ARE NO DEAD ENDS IN CORRIDORS MORE THAN 20 FEET IN LENGTH.

MINIMUM EXIT REQUIREMENTS: (IBC 2015 TABLE 1006.3.1)
2 REQUIRED

MINIMUM PLUMBING FIXTURES: (IBC 2015 TABLE 2902.1)
EXISTING WAREHOUSE
3 TOILET REQUIRED, 4 PROVIDED
3 LAVATORY REQUIRED, 4 PROVIDED
1 DRINKING FOUNTAIN REQUIRED, 3 PROVIDED

EXISTING WAREHOUSE AUXILIARY
1 TOILET REQUIRED, 0 PROVIDED *
1 LAVATORY REQUIRED, 0 PROVIDED
1 DRINKING FOUNTAIN REQUIRED, 0 PROVIDED **

EXISTING BUSINESS OFFICE
3 TOILET REQUIRED, 10 PROVIDED
2 LAVATORY REQUIRED, 6 PROVIDED
1 DRINKING FOUNTAIN REQUIRED, 1 PROVIDED

* (IBC 2015 2902.3.3) EXISTING TOILET FACILITIES DO NOT EXCEED A TRAVEL DISTANCE OF 500 FT.

** (IBC 2015 2902.5) EXISTING DRINKING FOUNTAIN DOES NOT EXCEED A TRAVEL DISTANCE OF 500 FT.

STATE OF MISSOURI
ROY A. MARSAN
NUMBER A-6661
ARCHITECT
Roy A. Marsan 3/30/2026
MO Architect License No: A-6661
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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

LIFE SAFETY PLAN

Project No. 24059
Sheet No. A010
Date 03/30/2026

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ICC 500-2014 : STORM SHELTER - TORNADO

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LIFE SAFETY PLAN LEGEND

SYMBOL	DESCRIPTION
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CODE INFORMATION

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NON-BEARING WALL & PARTITION
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FLOOR CONSTRUCTION
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WAREHOUSE AND BUSINESS OFFICE ARE FULLY SPRINKLERED THROUGHOUT IN ACCORDANCE WITH SECTION 903.3.1.1 (NFPA 13 SPRINKLER SYSTEM) AND 903.2.10.1

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NOT REQUIRED WITH A (NFPA 13) SPRINKLER SYSTEM

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MINIMUM EXIT REQUIREMENTS: (IBC 2015 TABLE 1006.3.1)
2 REQUIRED

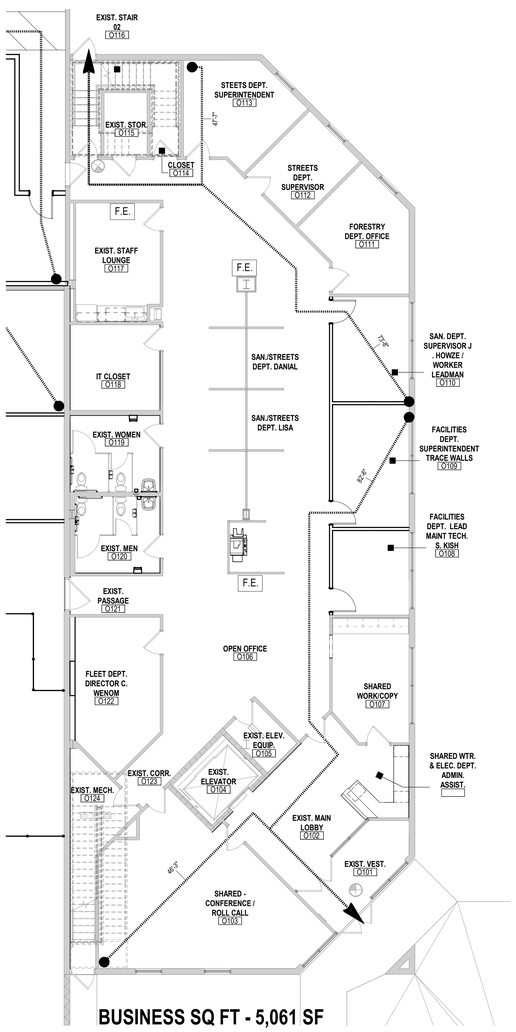
MINIMUM PLUMBING FIXTURES: (IBC 2015 TABLE 2902.1)
EXISTING WAREHOUSE
3 TOILET REQUIRED, 4 PROVIDED
3 LAVATORY REQUIRED, 4 PROVIDED
1 DRINKING FOUNTAIN REQUIRED, 3 PROVIDED

EXISTING WAREHOUSE AUXILIARY
1 TOILET REQUIRED, 0 PROVIDED *
1 LAVATORY REQUIRED, 0 PROVIDED
1 DRINKING FOUNTAIN REQUIRED, 0 PROVIDED **

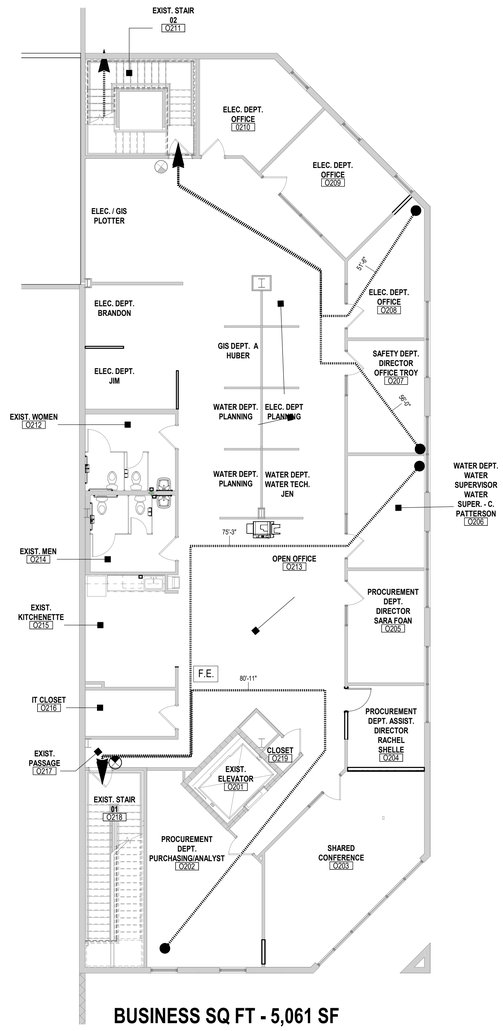
EXISTING BUSINESS OFFICE
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2 LAVATORY REQUIRED, 6 PROVIDED
1 DRINKING FOUNTAIN REQUIRED, 1 PROVIDED

*= (IBC 2015 2902.3.3) EXISTING TOILET FACILITIES DO NOT EXCEED A TRAVEL DISTANCE OF 500 FT.

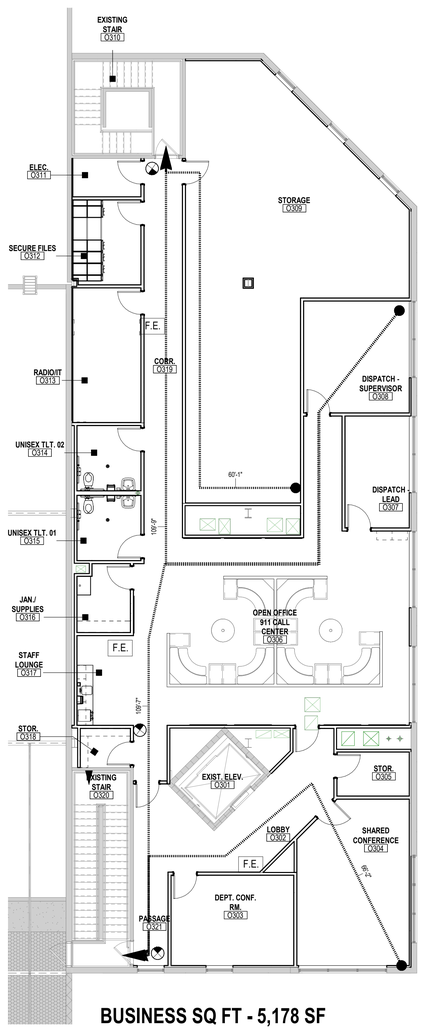
**= (IBC 2015 2902.5) EXISTING DRINKING FOUNTAIN DOES NOT EXCEED A TRAVEL DISTANCE OF 500 FT.



BUSINESS SQ FT - 5,061 SF



BUSINESS SQ FT - 5,061 SF



BUSINESS SQ FT - 5,178 SF

BUSINESS OFFICE SQ FT TOTAL - 15,300 SF

A1 BUSINESS OFFICE LIFE SAFETY PLAN - L01
1/8" = 1'-0"

A3 BUSINESS OFFICE LIFE SAFETY PLAN -L02
1/8" = 1'-0"

A5 BUSINESS OFFICE LIFE SAFETY PLAN - L03
1/8" = 1'-0"

SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

3/30/2026 8:45:12 AM
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STATE OF MISSOURI
ROY A. MARSDEN
NUMBER A-6661
ARCHITECT
Roy A. Marsden 3/30/2026
MO Architect License No: A-6661
Expires: 12/31/2026

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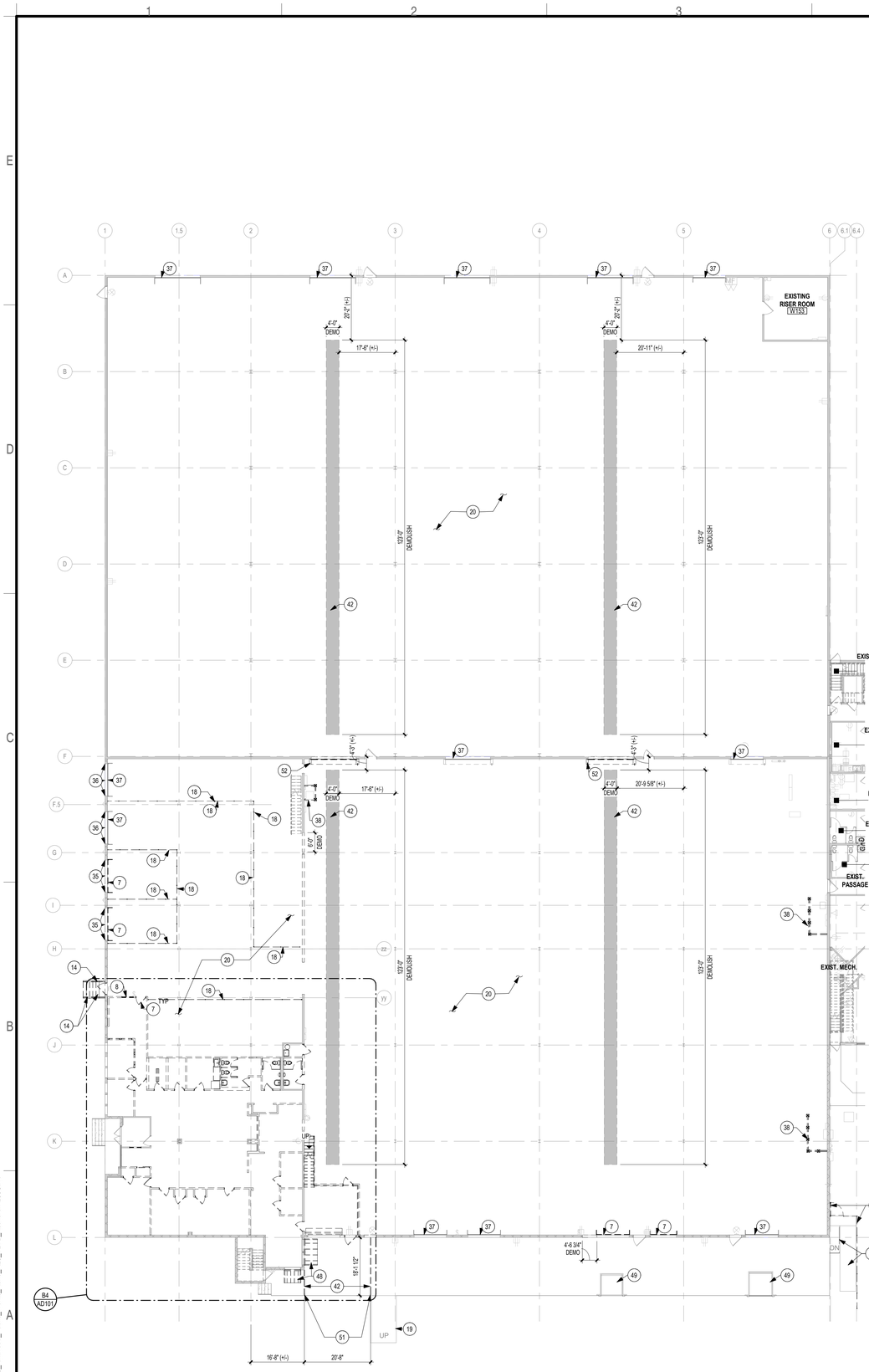
[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

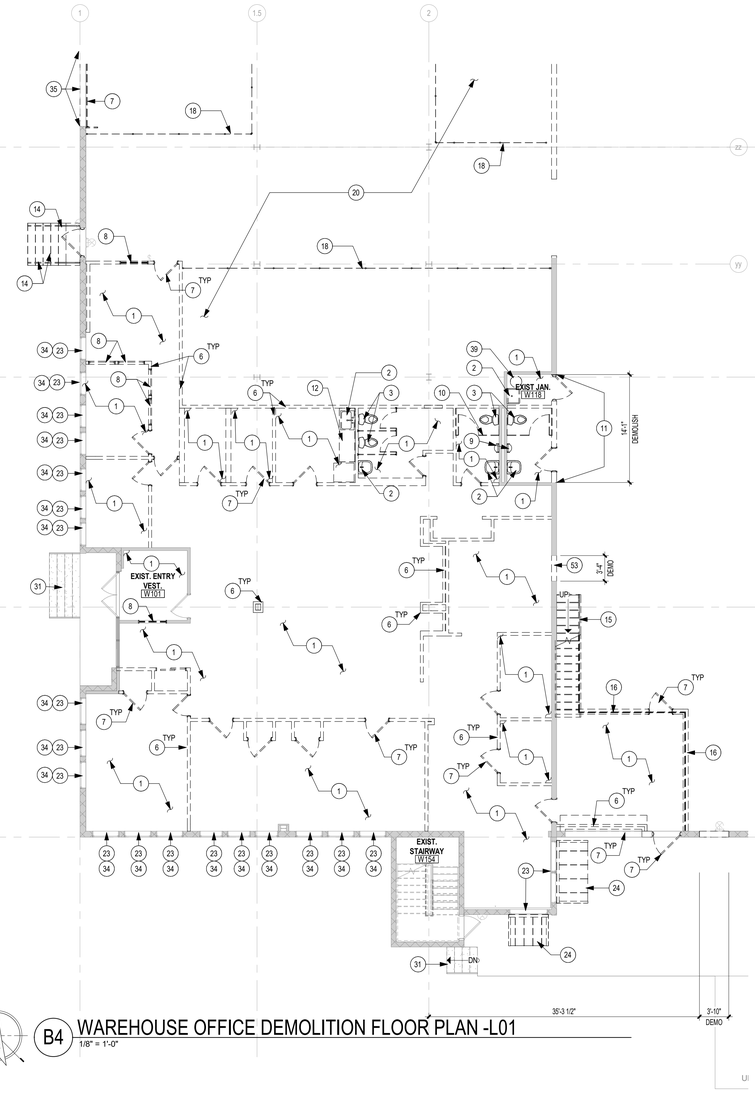
LIFE SAFETY PLAN

Project No. 24059
Sheet No. A011
Date 03/30/2026



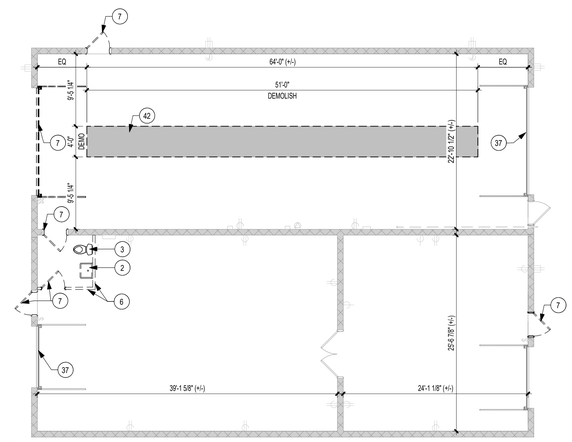
A1 WAREHOUSE DEMOLITION FLOOR PLAN - LEVEL 01

1/16" = 1'-0"



B4 WAREHOUSE OFFICE DEMOLITION FLOOR PLAN -L01

1/8" = 1'-0"



A4 AUXILIARY BUILDING FLOOR PLAN

1/8" = 1'-0"

DEMOLITION GENERAL NOTES

1. COORDINATE ALL DEMOLITION AND NEW CONSTRUCTION BEFORE BEGINNING WORK. SUBMIT PROPOSED WORK SCHEDULE TO OWNER FOR APPROVAL.
2. SCHEDULE ACCESS TIMES TO WORK WITH OWNER.
3. COORDINATE TIMES FOR DELIVERY OF MATERIALS AND REMOVAL OF DEBRIS WITH OWNER.
4. RESTRICT WORK IN BUILDING INTERIOR TO AREAS INDICATED ON PLAN. PROTECT ADJACENT AREAS FROM DUST, DIRT, AND NOISE. PROTECT EXISTING FINISHES AND REPAIR ANY DAMAGE INCURRED DURING THE COURSE OF CONSTRUCTION TO MATCH EXISTING CONDITION.
5. ALL EXISTING FINISHES AND FIXTURES OUTSIDE OF DESIGNATED WORK AREAS ARE TO REMAIN EXCEPT FOR REMOVAL OR CUTTING AS MAY BE REQUIRED TO ACCOMMODATE NEW WORK.
6. CARE IS TO BE EXERCISED IN DEMOLITION OPERATIONS. EXISTING SURFACES TO REMAIN SHALL BE PROTECTED. ANY DAMAGE INCURRED AS A RESULT OF CARELESS INSTALLATION OF NEW WORKS SHALL BE CONTRACTORS RESPONSIBILITY. CONTRACTOR SHALL BEAR THE COST OF REPAIRING SUCH DAMAGE.
7. OWNER RESERVES THE RIGHT OF REFUSAL FOR POSSESSION OF ALL EXISTING ITEMS INCLUDING DOORS, HARDWARE, LIGHT FIXTURES, ETC. TO BE REMOVED BUT NOT REUSED. COORDINATE DELIVERY TIMES WITH OWNER.
8. REFER TO REFLECTED CEILING DEMOLITION PLAN FOR ADDITIONAL INFORMATION.
9. REFER TO MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DEMOLITION DRAWINGS FOR ADDITIONAL INFORMATION.
10. REFER TO STRUCTURAL DEMOLITION DRAWINGS FOR ADDITIONAL INFORMATION.
11. REMOVE FLOOR FINISHES ENTIRELY WHERE NOTED AND MECHANICALLY SAND, GRID, OR BEAD-BLAST EXISTING CONCRETE SLAB TO REMOVE ALL SEALERS, CHEMICAL COMPOUNDS, FOREIGN MATERIALS, EXISTING ADHESIVES, FLOOR COATINGS AND COMPOUNDS, CHEMICALS AND SOLVENTS ARE NOT PERMITTED FOR REMOVAL OF COATINGS AND COMPOUNDS. CLEAN SLAB AND PREPARE TO RECEIVE NEW FLOORING. SUBSTRATES TO RECEIVE FLOOR FINISHES SHALL BE CLEAN, DRY, SOUND, AND CAPABLE OF ACCEPTING FLOORING MATERIALS PER FLOORING MANUFACTURER SPECIFICATIONS.
12. PERFORM THE FOLLOWING MOISTURE TESTS OF ALL CONCRETE SLABS. IF ANY OF THE TESTS ARE BEYOND THE REQUIRED LIMITS, INSTALL TOPICAL MOISTURE MITIGATION SYSTEM.
    - ASTM F710. 9.0 PH OR LESS REQUIRED
    - ASTM F1869. MAXIMUM PERMISSIBLE RATE IS 3 LBS/1,000 SF/24 HOURS
    - ASTM F2170. MAXIMUM PERMISSIBLE RELATIVE HUMIDITY LEVEL IS 75%
13. FILL CRACKS AND HOLES IN FLOOR SUBSTRATE WITH CEMENTITIOUS PATCHING COMPOUND AS REQUIRED. PROVIDE CEMENTITIOUS FLOOR LEVELING TO AREAS THAT EXCEED FLOOR FLATNESS/LEVELNESS REQUIREMENTS. BASE BID SHALL ACCOUNT FOR 1/4" THICK LEVELING MATERIAL TO BE APPLIED TO LOW SPOTS AND AREAS OUT OF LEVEL. UNIT PRICE SHALL BE PROVIDED FOR AREAS EXCEEDING 1/4" THICK.
14. ALL OPENINGS IN WALLS, FLOORS, AND CEILINGS RESULTING FROM EQUIPMENT AND/OR PIPE REMOVAL SHALL BE INFILLED TO MATCH EXISTING SURROUNDING WALLS, FLOOR & CEILINGS AND TO MAINTAIN ANY APPLICABLE FIRE RATING REQUIREMENTS.
15. DISASSEMBLE AND SALVAGE ALL PALLET RACKS AND SHELVING IN WAREHOUSE AREA FOR RE-USE
16. COORDINATE EXISTING ROOF ASSYMBLY DEMOLISION LOCATIONS FOR NEW RTU /CU WITH WITH STRUCTURAL AND MECHANICAL DRAWINGS.
17. GENERAL CONTRACTOR TO REMOVE ALL EXISTING FURNITURE, TOOLS, MACHINERY, AND MATERIALS UNLESS NOTED OTHERWISE. PROVIDE OWNER WITH FIRST RIGHTS OF REFUSAL.

KEYED NOTES DEMO PLAN

MARK	DESCRIPTION
1	REMOVE EXISTING RESILIENT BASE AND FLOORING IN THIS SPACE.
2	REMOVE EXISTING LAVATORY, FAUCET AND VANITY. -SEE PLUMBING DWGS. FOR ADDITIONAL INFORMATION.
3	REMOVE EXISTING WATERCLOSET. -SEE PLUMBING DWGS. FOR ADDITIONAL INFORMATION.
4	REMOVE EXISTING SHOWER, SHOWER CONTROLS AND DRAIN. -SEE PLUMBING DWG'S. FOR ADDITIONAL INFORMATION.
5	REMOVE EXISTING SOILED CARPET TILE THIS AREA. DESIGN INTENT IS TO REPLACE SOILED TILES USING OWNERS 24 BOXES OF CARPET TILE STORED ON THE THIRD FLOOR. CONFIRM QUANTITIES. RETAIN ANY "CLEAN" TILES TO BE SHUFFLED INTO AREAS TO REPLACE OTHER VISIBLY SOILED CARPET TILES.
6	REMOVE EXISTING INTERIOR PARTITION (TYP.).
7	REMOVE EXISTING DOOR, DOOR FRAME AND DOOR HARDWARE.
8	REMOVE EXISTING INTERIOR GLAZING AND FRAME.
9	REMOVE EXISTING URINAL. -SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
10	REMOVE EXISTING TOILET PARTITION.
11	DEMOLISH PORTION OF CMU PARTITION FOR 10'-0 X 14" - 1" OPNG.
12	REMOVE ALL EXISTING CASEWORK AND COUNTERTOP.
13	REMOVE EXISTING REFRIGERATOR.
14	REMOVE EXISTING CONCRETE STAIR AND HANDRAILS.
15	REMOVE EXISTING WOOD STAIR, GUARDRAIL AND HANDRAILS.
16	REMOVE EXISTING INTERIOR PARTITION, AND FLOOR SYSTEM ABOVE INCLUDING DECKING AND SUPPORTING JOIST/FRAMING ABOVE.
17	REMOVE EXISTING FLOOR, FLOOR STRUCTURE & CEILING BELOW.
18	REMOVE ALL EXISTING WIRE MESH PARTITION, GATES AND POSTS.
19	EXISTING CONCRETE RAMP TO REMAIN.
20	CC TO CLEAN AND REMOVE ALL STRIPING FROM EXISTING WAREHOUSE CONCRETE SLAB.
21	REMOVE ALL FLOORING WALLS CEILINGS AND LIGHTING THIS AREA. -REFERENCE M.E.P./FP FOR ADDITIONAL INFORMATION.
22	EXISTING ROOF HATCH AND LADDER TO REMAIN.
23	EXISTING INTERIOR WINDOW SILL TO REMAIN
24	REMOVE EXISTING FABRIC AWNING AND ALUMINUM FRAME.
26	EXISTING WORKSTATION PARTITIONS, OFFICE FURNITURE, AND CASEWORK TO REMAIN.
27	CLEAN AND PREP FLOOR TO RECEIVE NEW FLOOR FINISHES AS SCHEDULED.
28	CUT AND REMOVE EXISTING PIPING. PATCH AND REPAIR EXISTING SLAB AND METAL DECKING WHERE THIS OCCURS. -SEE PLUMBING DRAWINGS FOR ADDITIONAL PLUMBING INFORMATION.
30	EXISTING DUCTWORK TO REMAIN. -SEE MECHANICAL DRAWINGS
31	EXISTING STAIR, GUARDRAIL, AND HANDRAILS TO REMAIN.
32	EXISTING ELEVATOR AND DOOR TO REMAIN.
33	EXISTING STEEL COLUMN TO REMAIN.
34	EXISTING STOREFRONT AND GLAZING TO REMAIN.
35	DEMOLISH EXISTING METAL DOCK PROTECTOR GUARDS.
36	EXISTING METAL DOCK PROTECTOR GUARDS TO REMAIN.
37	EXISTING OVERHEAD DOOR AND TRACK TO REMAIN.
38	DEMOLISH EXISTING GUARDRAILS, POSTS, PLATES, AND FASTENERS. PATCH AND REPAIR CONCRETE SLAB AND MASONRY PARTITION OF EFFECTED AREA AFTER REMOVAL.
39	REMOVE EXISTING WATER HEATER. REFERENCE PLUMBING DRAWINGS.
40	EXISTING UPPER CABINETS, COUNTER TOP, AND BASE FILE CABINETS TO REMAIN.
41	REMOVAL OF EXISTING WORKSTATION PARTITION BY OWNER.
42	DEMOLISH PORTION OF EXISTING CONCRETE SLAB AS INDICATED. REFERENCE STRUCTURAL DRAWINGS.
43	EXISTING VCT & VINYL BASE TO REMAIN. SEE FLOOR FINISH PLAN FOR EXTENT OF NEW WORK.
44	PUBLIC RESTROOMS: REMOVE EXISTING TOILET PARTITION, ALL BRACING, URINAL SCREENS, GRAB BARS, & TOILET ACCESSORIES. RETAIN FOR REINSTALLATION. CARE IS TO BE EXERCISED NOT TO DAMAGE THESE ITEMS DURING CONSTRUCTION.
45	PUBLIC RESTROOMS: DEMO EXISTING FLOOR AND WALL TILE
46	LOBBY: REMOVE EXISTING CARPET TILE & VINYL BASE THIS AREA. PREP FLOOR FOR NEW TILE & TILE BASE
47	REMOVE DAMAGED VCT FLOORING & BASE ON STAIR LANDING, PREP FOR NEW TILE.
48	DEMO EXISTING AWNG STEEL SUPPORTS AND FABRIC WRAP. PATCH ANY OPENINGS ON CMU WALL CAUSED BY REMOVAL.
49	EXISTING DOCK LEVELER TO REMAIN.
50	EXISTING CONCRETE RAMP AND GUARD RAIL TO REMAIN.
51	REMOVE EXISTING DOCK BUMPERS AND METAL GUARDS. PREPARE SURFACE TO RECEIVE CONCRETE RAMP.
52	REMOVE EXISTING OVERHEAD DOOR, HOOD, AND HARDWARE. CARE IS TO BE EXERCISED NOT TO DAMAGE THESE ITEMS DURING CONSTRUCTION FOR RE-INSTALLATION.
53	DEMOLISH PORTION OF CMU PARTITION FOR 7'-0" x 3'-4" OPNG.

STATE OF MISSOURI
ROY A. MARDIAN
NUMBER A-6661
ARCHITECT
Roy A. Mardian 3/30/2026

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Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

WAREHOUSE DEMO PLAN -L01

Project No.
24059

Sheet No.
AD101

Date
03/30/2026

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A1 WAREHOUSE DEMOLITION FLOOR PLAN -MEZZANINE
1/8" = 1'-0"

A3 WAREHOUSE DEMOLITION REFLECTED CEILING PLAN -MEZZANINE
1/8" = 1'-0"

KEYED NOTES DEMO PLAN

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2	REMOVE EXISTING LAVATORY, FAUCET AND VANITY. -SEE PLUMBING DWG'S. FOR ADDITIONAL INFORMATION.
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20	GC TO CLEAN AND REMOVE ALL STRIPING FROM EXISTING WAREHOUSE CONCRETE SLAB.
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53	DEMOLISH PORTION OF CMU PARTITION FOR 7'-0" X 14'-0" OPNG.

KEYED NOTES DEMO REF. CLG. PLAN

MARK	DESCRIPTION
1	EXISTING CEILING TILES, LIGHT FIXTURES, GRILLES, GRID, AND, IF APPLICABLE, FIRE SPRINKLER TO REMAIN.
2	EXISTING GYP CEILING , LIGHT FIXTURES, GRILLES, AND, IF APPLICABLE, FIRE SPRINKLER TO REMAIN.
3	REMOVE EXISTING LAY-IN PANEL CEILING, CEILING GRID, LIGHTING AND MECH. DIFFUSERS & RETURN AIR GRILLES, AND SPRINKLER HEADS IF APPLICABLE., TYP. THIS SPACE. -REFERNCE M.E.P./FP DWG'S FOR ADDITIONAL INFORMATION.
4	REMOVE GYPSUM BOARD CEILING, CEILING FRAMING AND/OR CEILING SUPENSION GRID, ALL LIGHTING, MECHANICAL SUPPLY & RETURN DIFUSSER AND SPRINKLERHEADS IF APPLICABLE. -REFERENCE M.E.P. /FP SWG'S FOR ADDITIONAL INFORMATION.
5	EXISTING ROOF HATCH AND LADDER TO REMAIN.
6	REMOVE EXISTING LIGHTING. -REFERENCE ELECTRICAL. DWG'S FOR ADDITIONAL INFORMATION.
7	REMOVE ALL LIGHT FIXTURES UNDER MEZZANINE THIS AREA. -REFERNCE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
8	REMOVE AND SALVAGE EXISTING OVERHEAD DOOR AND HOOD. RE-INSTALL OVERHEAD DOOR AND HOOD AT LOCATIONS INDICATED ON XXX
9	REMOVE EXISTING CEILING AND LIGHTING. -SEE ELECTRICAL DRAWINGS FOR ADDITONAL INFORMATION.
10	REMOVE EXISTING WOOD STAIR AND RAIL IN ITS ENTIRETY.
11	REMOVE EXISTING LIGHTING AND HVAC EQUIPMENT. REFERENCE ELECTRICAL AND MECHANICAL DRAWINGS.
12	REMOVE AND SALVAGE EXISTING MECH. SUPPLY AND RETURN AIR GRILLE. CLEAN AND RE-INSTALLATION INTO NEW METAL GRID. REF MECH. DWG'S FOR ADDITIONAL INFORMATION.
13	REMOVE AND SALVAGE EXISTING LIGHT FIXTURE FOR REINSTALLATION DURING CONSTRUCTION.
14	REMOVE ALL LIGHT FIXTURES IN WAREHOUSE AUXILIURY BLUILDING. REFERNCE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
15	DEMOLISH PORTION OF CMU PARTITION FOR 6'-0" WIDE, 9'-0" HIGH OPENING.
16	REMOVE EXISTING UNIT HEATER. REFERENCE MECHANICAL DRAWINGS.
17	EXISTING DUCKWORK TO REMAIN. REFERENCE MECHANICAL DRAWINGS.

STATE OF MISSOURI
ROY A. MARDIAN
NUMBER A-6661
ARCHITECT
Roy A. Mardian 3/30/2026
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KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

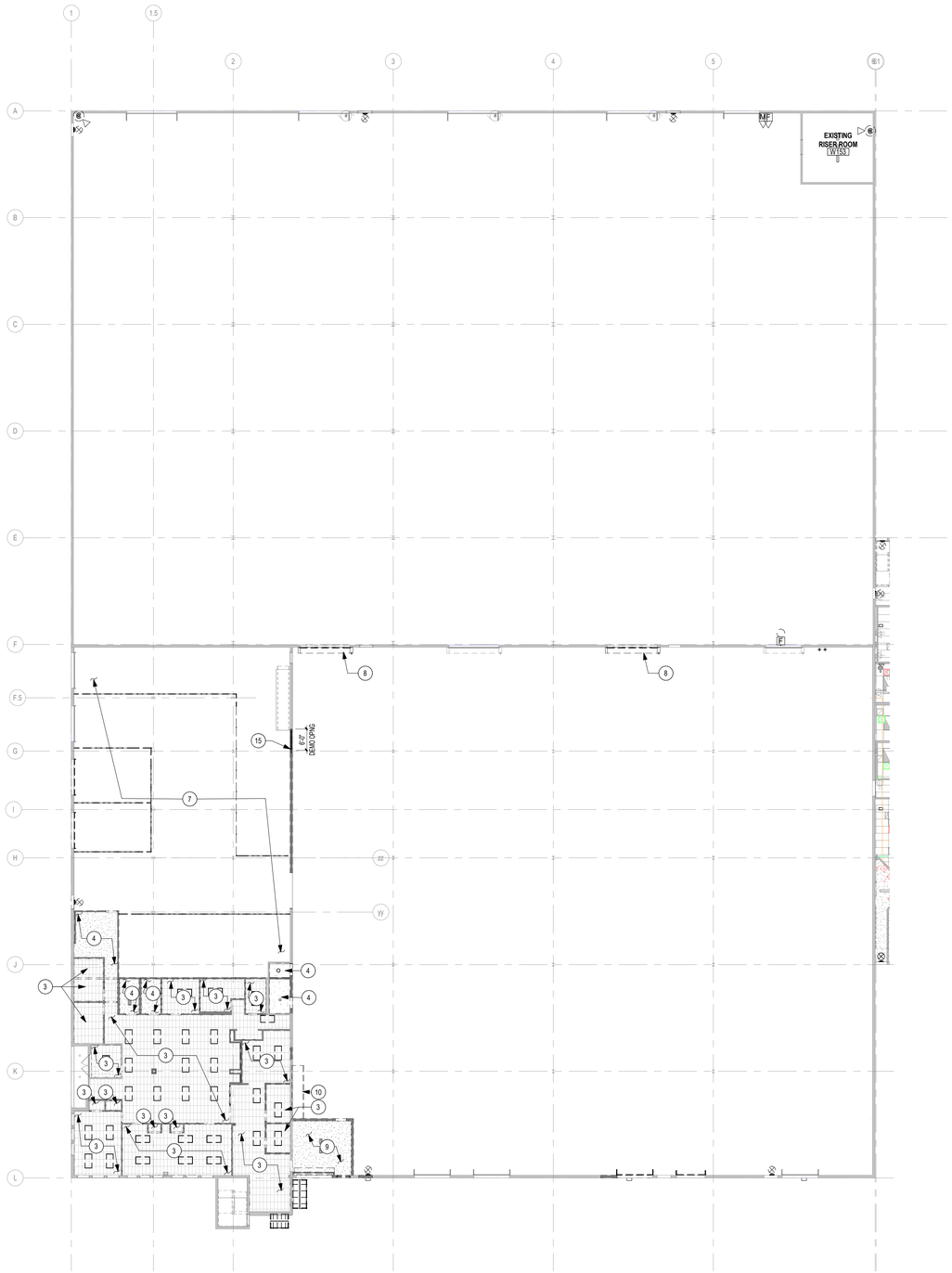
WAREHOUSE DEMO PLANS -MEZZ.

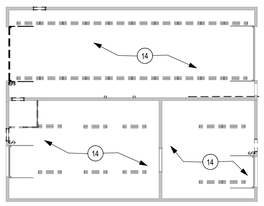
Project No.
24059

Sheet No.
AD102

Date
03/30/2026

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KEYED NOTES DEMO REF. CLG. PLAN

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A1 WAREHOUSE DEMO REFECTED CEILING PLAN
1/16" = 1'-0"

A4 AUXILIARY BUILDING DEMO REFLECTED CEILING PLAN
1/16" = 1'-0"

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No.	Date	Revision

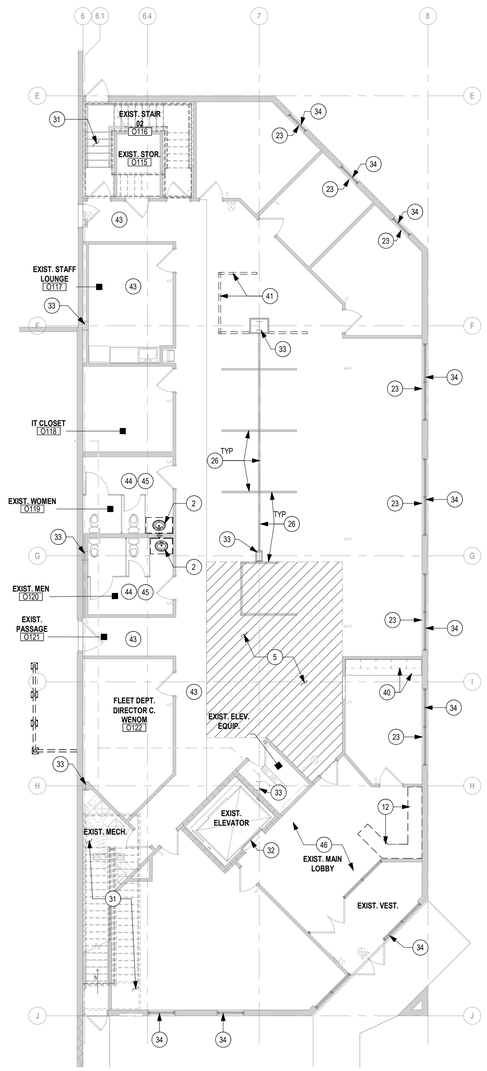
WAREHOUSE DEMO RCP

Project No. 24059
Sheet No. AD103
Date 03/30/2026

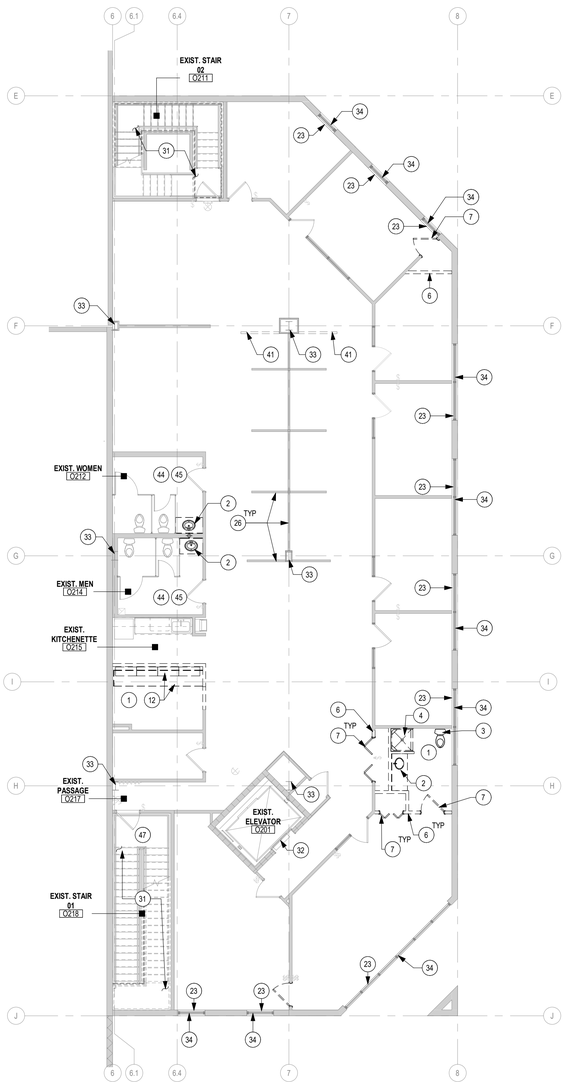
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KEYED NOTES DEMO PLAN

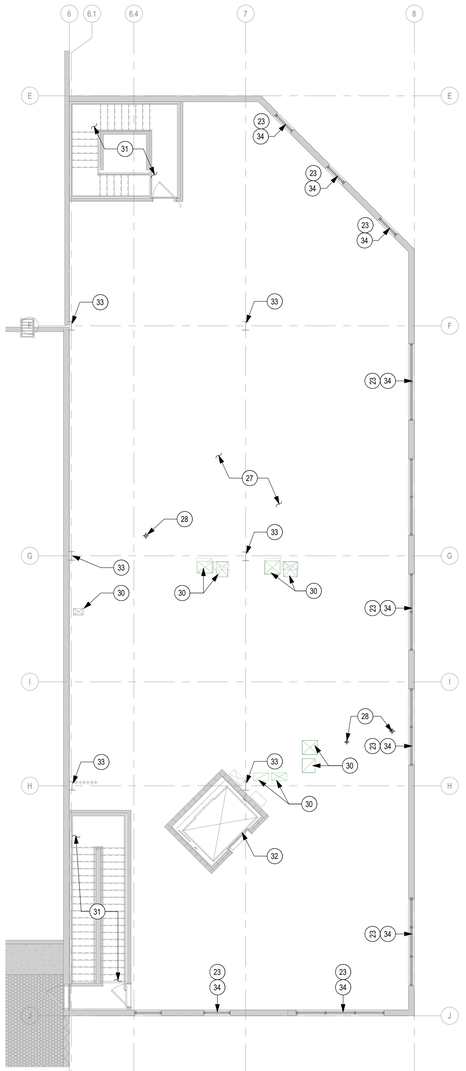
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42	DEMOLISH PORTION OF EXISTING CONCRETE SLAB AS INDICATED. REFERENCE STRUCTURAL DRAWINGS.
43	EXISTING VCT & VINYL BASE TO REMAIN. SEE FLOOR FINISH PLAN FOR EXTENT OF NEW WORK.
44	PUBLIC RESTROOMS: REMOVE EXISTING TOILET PARTITION, ALL BRACING, URINAL SCREENS, GRAB BARS, & TOILET ACCESSORIES. RETAIN FOR REINSTALLATION. CARE IS TO BE EXERCISED NOT TO DAMAGE THESE ITEMS DURING CONSTRUCTION.
45	PUBLIC RESTROOMS: DEMO EXISTING FLOOR AND WALL TILE
46	LOBBY: REMOVE EXISTING CARPET TILE & VINYL BASE THIS AREA. PREP FLOOR FOR NEW TILE & TILE BASE
47	REMOVE DAMAGED VCT FLOORING & BASE ON STAIR LANDING, PREP FOR NEW TILE.
48	DEMO EXISTING AWING STEEL SUPPORTS AND FABRIC WRAP. PATCH ANY OPENINGS ON CMU WALL CAUSED BY REMOVAL.
49	EXISTING DOCK LEVELER TO REMAIN.
50	EXISTING CONCRETE RAMP AND GUARD RAIL TO REMAIN.
51	REMOVE EXISTING DOCK BUMPERS AND METAL GUARDS. PREPARE SURFACE TO RECEIVE CONCRETE RAMP.
52	REMOVE EXISTING OVERHEAD DOOR, HOOD, AND HARDWARE. CARE IS TO BE EXERCISED NOT TO DAMAGE THESE ITEMS DURING CONSTRUCTION FOR RE-INSTALLATION.
53	DEMOLISH PORTION OF CMU PARTITION FOR 7'-0" x 3'-4" OPNG.



A1 BUSINESS OFFICE DEMOLITION FLOOR PLAN - LEVEL 01
1/8" = 1'-0"



A3 BUSINESS OFFICE DEMOLITION FLOOR PLAN - LEVEL 02
1/8" = 1'-0"



A5 BUSINESS OFFICE DEMOLITION FLOOR PLAN - LEVEL 03
1/8" = 1'-0"

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Roy A. Manjan 3/30/2026
MO Architect License No: A-6661
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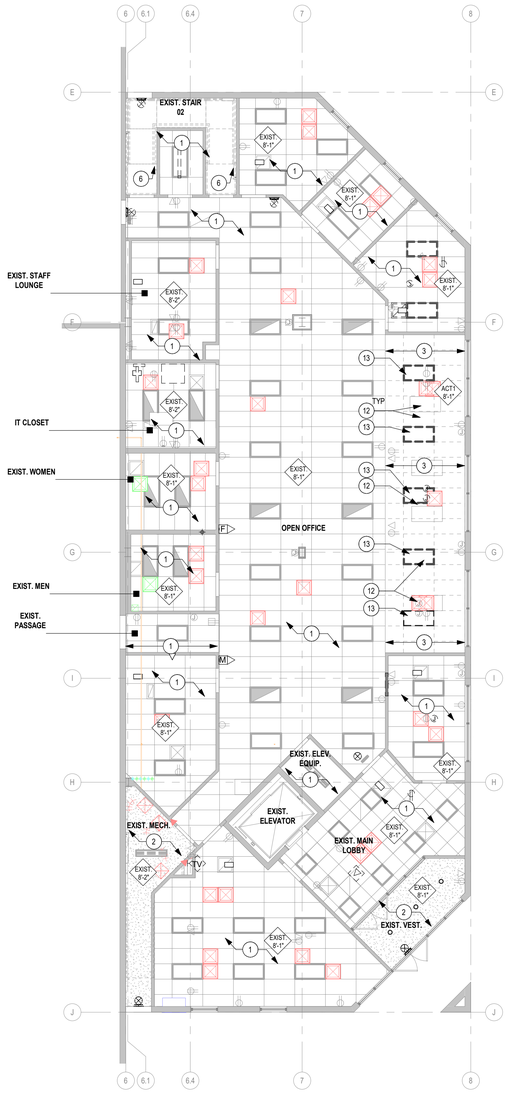
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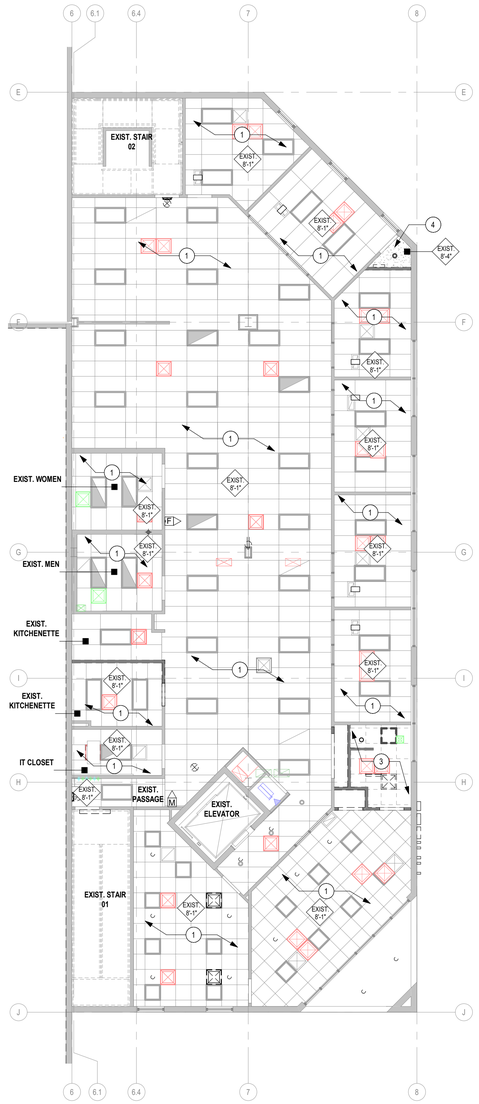
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KEYED NOTES DEMO REF. CLG. PLAN

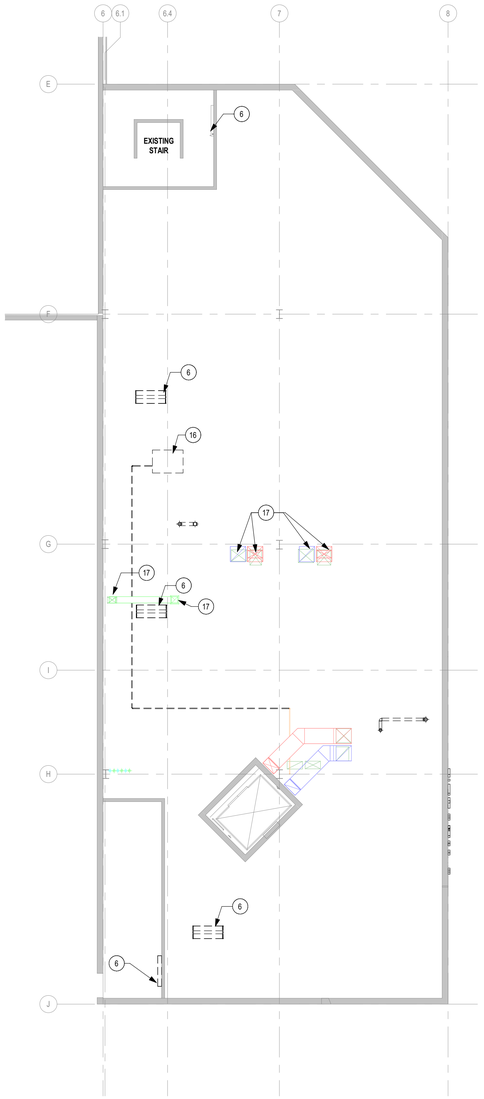
MARK	DESCRIPTION
1	EXISTING CEILING TILES, LIGHT FIXTURES, GRILLES, GRID, AND, IF APPLICABLE, FIRE SPRINKLER TO REMAIN.
2	EXISTING GYP CEILING , LIGHT FIXTURES, GRILLES, AND, IF APPLICABLE, FIRE SPRINKLER TO REMAIN.
3	REMOVE EXISTING LAY-IN PANEL CEILING, CEILING GRID, LIGHTING AND MECH. DIFFUSERS & RETURN AIR GRILLES, AND SPRINKLER HEADS IF APPLICABLE., TYP. THIS SPACE. -REFERNCE M.E.P./FP DWG'S FOR ADDITIONAL INFORMATION.
4	REMOVE GYPSUM BOARD CEILING, CEILING FRAMING AND/OR CEILING SUPENSION GRID, ALL LIGHTING, MECHANICAL SUPPLY & RETURN DFUSSER AND SPRINKLERHEADS IF APPLICABLE. -REFERENCE M.E.P. /FP SWG'S FOR ADDITIONAL INFORMATION.
5	EXISTING ROOF HATCH AND LADDER TO REMAIN.
6	REMOVE EXISTING LIGHTING. -REFERENCE ELECTRICAL. DWG'S FOR ADDITIONAL INFORMATION.
7	REMOVE ALL LIGHT FIXTURES UNDER MEZZANINE THIS AREA. -REFERNCE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
8	REMOVE AND SALVAGE EXISTING OVERHEAD DOOR AND HOOD. RE-INSTALL OVERHEAD DOOR AND HOOD AT LOCATIONS INDICATED ON XXX
9	REMOVE EXISTING CEILING AND LIGHTING. -SEE ELECTRICAL DRAWINGS FOR ADDITONAL INFORMATION.
10	REMOVE EXISTING WOOD STAIR AND RAIL IN ITS ENTIRETY.
11	REMOVE EXISTING LIGHTING AND HVAC EQUIPMENT. REFERENCE ELECTRICAL AND MECHANICAL DRAWINGS.
12	REMOVE AND SALVAGE EXISTING MECH. SUPPLY AND RETURN AIR GRILLE. CLEAN AND RE-INSTALLATION INTO NEW METAL GRID. REF MECH. DWG'S FOR ADDITIONAL INFORMATION.
13	REMOVE AND SALVAGE EXISTING LIGHT FIXTURE FOR REINSTALLATION DURING CONSTRUCTION.
14	REMOVE ALL LIGHT FIXTURES IN WAREHOUSE AUXILIURY BLUILDING. REFERNCE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
15	DEMOLISH PORTION OF CMU PARTITION FOR 6'-0" WIDE, 9'-0" HIGH OPENING.
16	REMOVE EXISTING UNIT HEATER. REFERENCE MECHANICAL DRAWINGS.
17	EXISTING DUCKWORK TO REMAIN. REFERENCE MECHANICAL DRAWINGS.



A1 BUSINESS OFFICE DEMO. REFLECTED CEILING PLAN - LEVEL 01
1/8" = 1'-0"



A3 BUSINESS OFFICE DEMO. REFLECTED CEILING PLAN -LEVEL 02
1/8" = 1'-0"



A5 BUSINES SOFFICE DEMO. REFLECTED FLOOR PLAN - LEVEL 03
1/8" = 1'-0"

STATE OF MISSOURI
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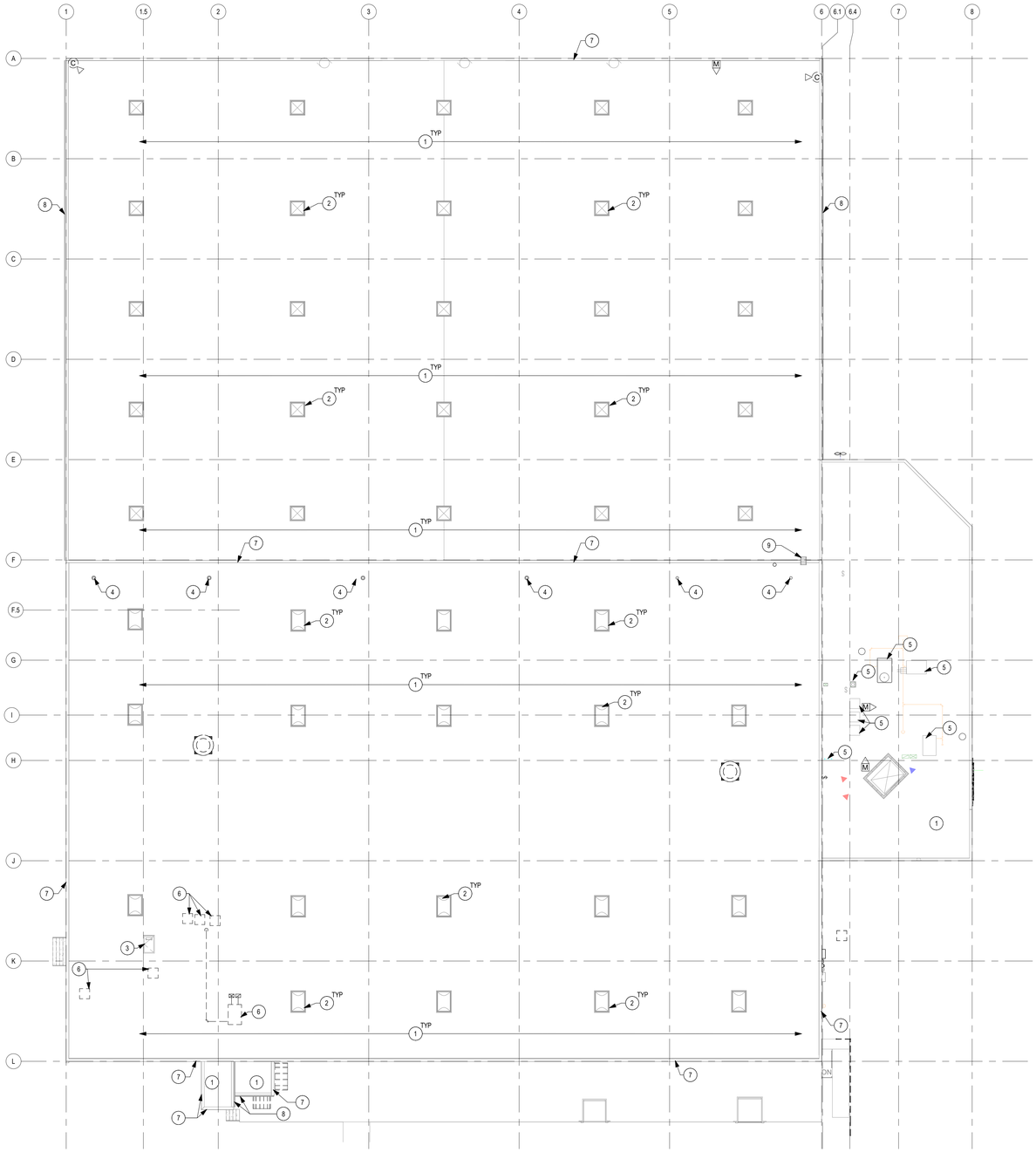
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KEYED NOTES DEMO ROOF PLAN

MARK	DESCRIPTION
1	EXISTING ROOFING ASSEMBLY TO REMAIN.
2	EXISTING SKYLIGHT TO REMAIN.
3	EXISTING ROOF HATCH AND LADDER TO REMAIN.
4	EXISTING ROOF DRAIN TO REMAIN. REFERENCE PLUMBING DRAWINGS.
5	EXISTING RTU , CU, EXHAUST FAN, AND AHU FLUES TO REMAIN. REFERENCE MECHANICAL DRAWINGS.
6	REMOVE EXISTING RTU. REFERENCE MECHANICAL DRAWINGS.
7	EXISTING METAL COPING TO REMAIN.
8	EXISTING METAL GUTTER AND DOWNSPOUT.
9	EXISTING SHIP LADDER WITH PLATFORM AND RETURN TO REMAIN.



A1 WAREHOUSE ROOF DEMOLITION PLAN
1/16" = 1'-0"

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ROOF DEMOLITION PLAN

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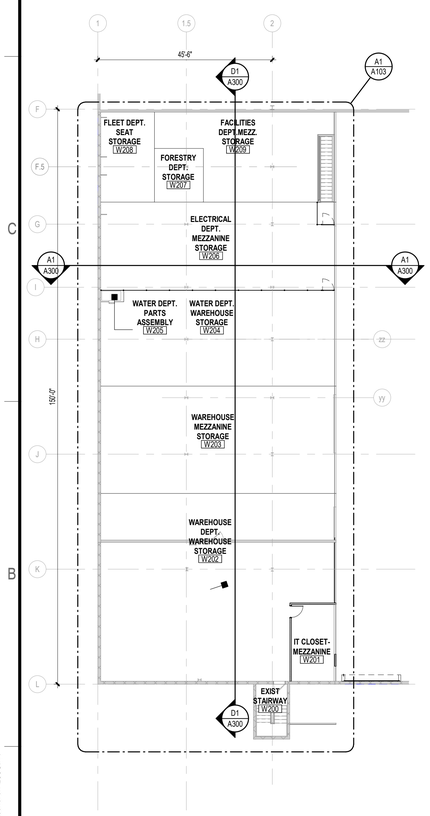
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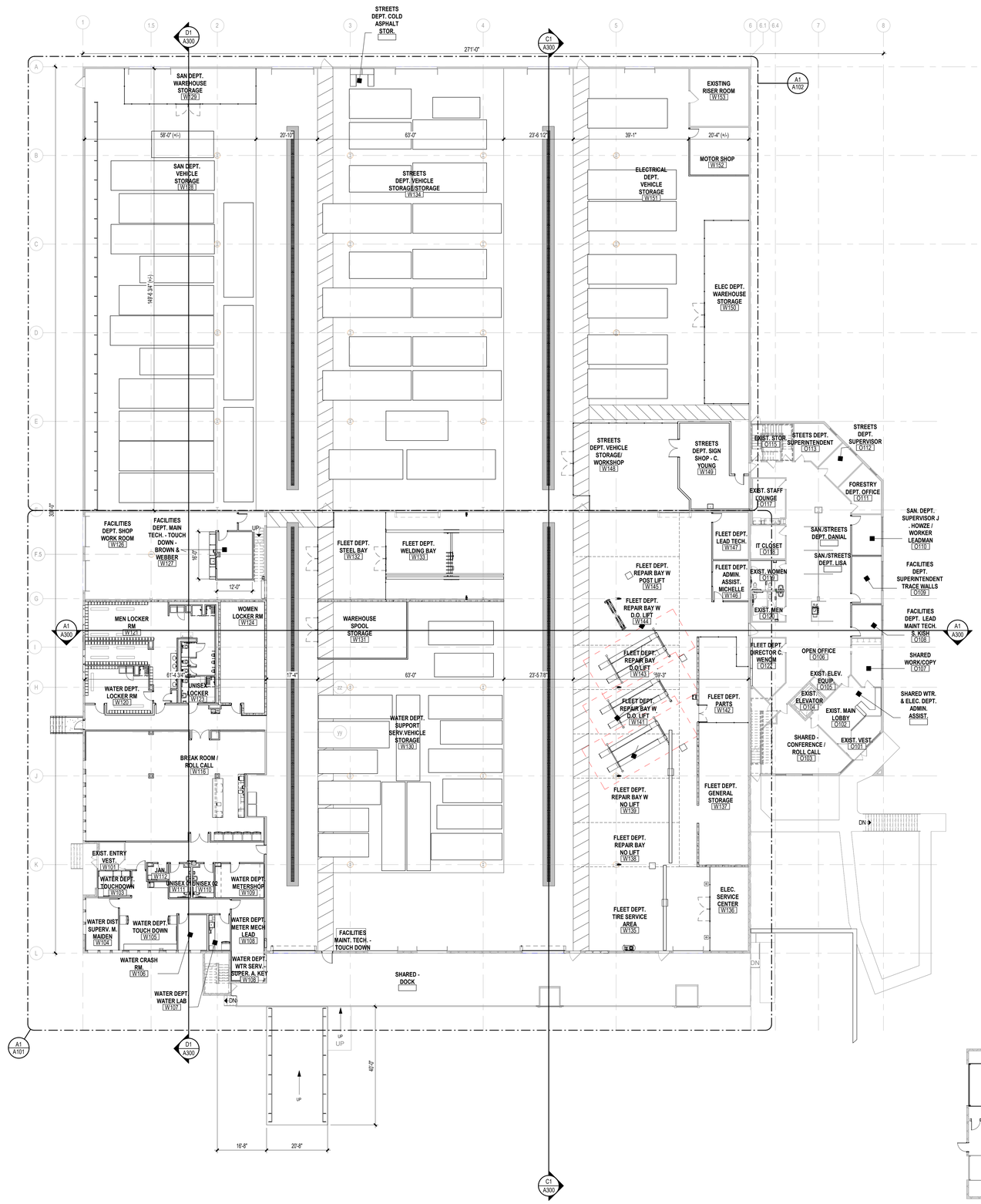
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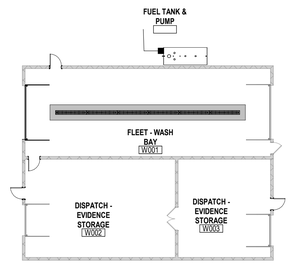
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FLOOR PLAN GENERAL NOTES

1. REFERENCE GENERAL NOTES FOR ADDITIONAL APPLICABLE INFORMATION.
2. THE GENERAL CONTRACTOR SHALL INSTALL REQUIRED WALL BLOCKING FOR ALL CASEWORK, SHELVING, AND EQUIPMENT. SEE DRAWINGS FOR EXACT LOCATIONS. ANY WOOD BLOCKING SHALL BE FIRE TREATED.
3. THE GENERAL CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND DIMENSIONS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES THAT MAY AFFECT THE WORK PRIOR TO COMMENCING CONSTRUCTION.
4. ALL DIMENSIONS ARE TO THE FINISH FACE OF NEW PARTITIONS AND TO FINISH FACE OF EXISTING INTERIOR PARTITIONS AND PERIMETER WALLS TO REMAIN UNLESS NOTED OTHERWISE.
5. PATCH ALL FLOORS AFFECTED BY THE REMOVAL OF EXISTING FINISHES AND DEMOLITION OF PARTITIONS, EQUIPMENT, CASEWORK, ETC. AS REQUIRED FOR REFINISHING.
6. PATCH, LEVEL, AND/OR FEATHER THE EXISTING FLOOR SUCH THAT THE NEW FLOOR IS LEVEL AND ALL TRANSITIONS ARE LEVEL AND SMOOTH.
7. INSTALL REDUCER STRIPS BETWEEN DIFFERENT FLOOR FINISH LEVELS AND FINISHES AS REQUIRED.
8. PATCH ALL PARTITIONS AFFECTED BY THE DEMOLITION OF INTERSECTING PARTITIONS AS REQUIRED FOR REFINISHING.
9. PATCH/INFILL ALL HOLES WITHIN EXISTING WALLS AS REQUIRED FOR REFINISHING.
10. UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT SHOWN ON THE DRAWINGS OTHER THAN THE EXISTING IS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
11. ALL ITEMS TO BE RELOCATED AND REUSED ARE TO BE STORED BY THE CONTRACTOR UNTIL REINSTALLATION. PROTECT FROM DAMAGE THROUGHOUT CONSTRUCTION.
12. PROVIDE PLASTIC DUST COVER TO PROTECT EXISTING EQUIPMENT, FILES, ETC. WHERE REQUIRED.
13. MAINTAIN ALL NECESSARY COMMUNICATIONS AND FIRE PROTECTION SYSTEMS, EXISTING REQUIRED EXITS, EXIT CORRIDORS, AND ITEMS AFFECTING THE HEALTH AND SAFETY OF ALL OCCUPANTS AT ALL TIMES THROUGHOUT CONSTRUCTION.
14. INTENT OF MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION WORK IS REFLECTED ON THE DRAWINGS. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR FULL EXTENT OF WORK.
15. IF MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION WORK IS OUTSIDE OF THE PROJECT AREA, CONTACT THE OWNER FOR RESTRICTIONS THAT MAY APPLY TO THOSE AREAS AND COORDINATE AND SCHEDULE ALL WORK. PROTECT ADJACENT AREAS, EQUIPMENT, ETC.
16. GENERAL CONTRACTOR TO VERIFY EXISTING PARTITION WIDTH. IF EXISTING PARTITION WIDTH DOES NOT MATCH THE WIDTH OF THE PROPOSED PARTITION, THE G.C. MAY SUBSTITUTE 1/2" GYPSUM BOARD IN LIEU OF PROPOSED 5/8". THIS SUBSTITUTION IS ONLY PERMISSIBLE FOR WORK IN THE 3 STORY OFFICE PORTION OF THE BUILDING AND IS NOT APPLICABLE FOR ANY WORK IN THE WAREHOUSE PORTION.







A1 MEZZANINE FLOOR PLAN
1/16" = 1'-0"

A2 OVERALL FLOOR PLAN
1/16" = 1'-0"

A6 AUXILIARY BLDG FLOOR PLAN
1/16" = 1'-0"

STATE OF MISSOURI
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OVERALL FLOOR PLAN

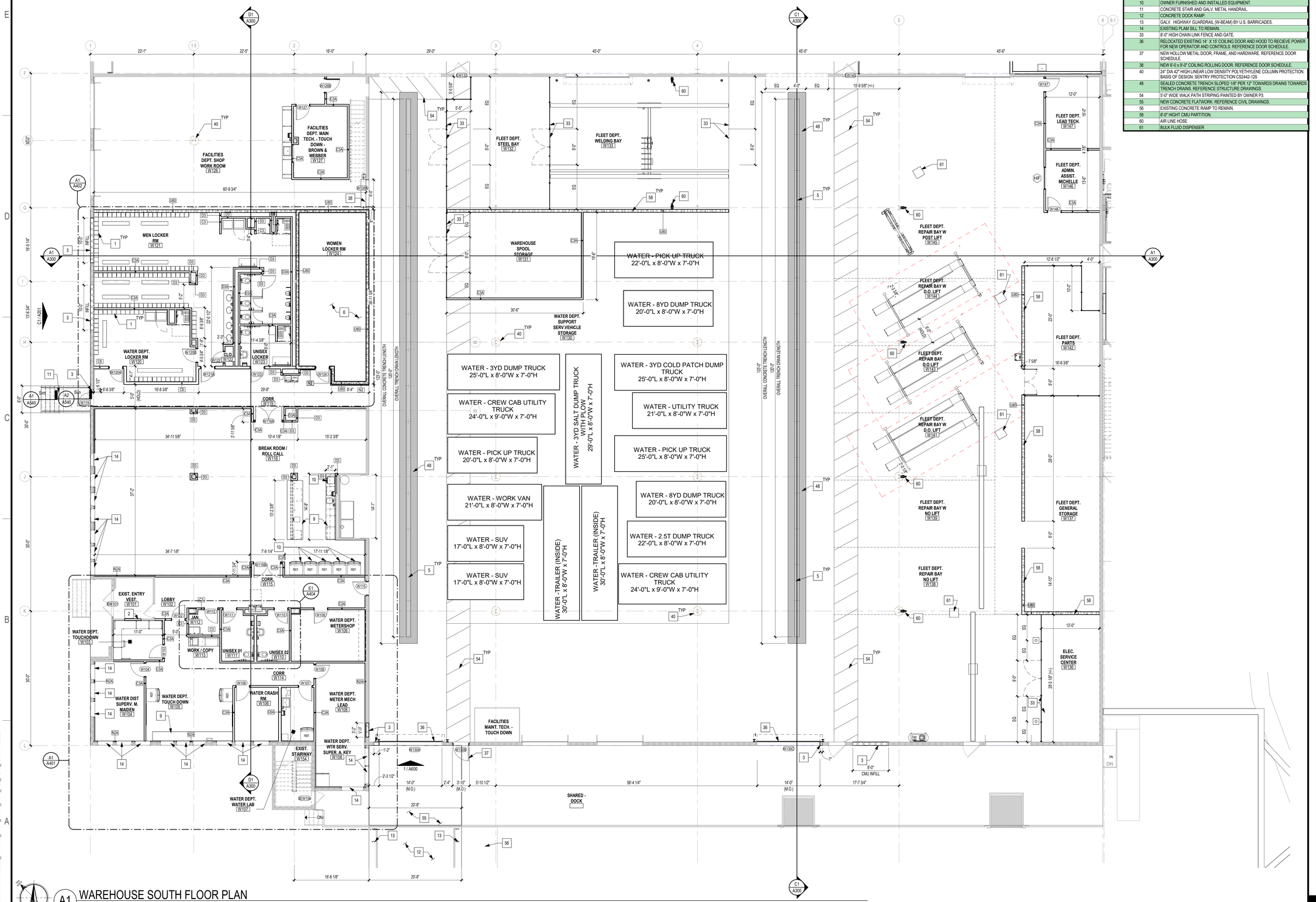
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ALTERNATE #6 – STORM SHELTER. THE SCOPE OF THIS ALTERNATE SHALL INCLUDE BUT MAY NOT BE LIMITED TO IMPROVEMENTS REQUIRED TO UPGRADE AN AREA AT AND BELOW THE EXISTING WAREHOUSE MEZZANINE ALONG THE WEST EDGE OF THE WAREHOUSE IN THE LOCKER ROOM AREA INTO A STORM SHELTER AS WELL. IT WILL INCLUDE SELECTIVE DEMOLITION, STRUCTURAL UPGRADES, MEP/FPS AND FINISHES.

KEYED NOTES FLOOR PLAN

MARK	DESCRIPTION
1	METAL LOCKERS - REF. FINISH FLOOR PLAN.
2	CFMF PARTITION INFILL. GC TO VIF. OPNG SIZE.
3	8"CMU BLOCK INFILL. VERIFY IN FIELD MEASUREMENTS.
5	12" WIDE X 98" LONG HEAVY DUTY METAL GRATE AND TRENCH DRAIN. CENTER DRAINS WITHIN CONCRETE TRENCH. REFERENCE PLUMBING DRAWINGS FOR DRAIN INFORMATION.
6	ALTERNATE #6 STORM SHELTER WITH ICC 500 DOOR. COORDINATE WITH PLUMBING DRAWINGS FOR PLUMBING ROUGH IN LOCATIONS. COORDINATE STRUCTURAL DRAWINGS FOR STRUCTURAL CMU LAYOUT.
9	BUILT IN CASEWORK. REF. FINISH PLAN AND ELEVATIONS.
10	OWNER FURNISHED AND INSTALLED EQUIPMENT.
11	CONCRETE STAIR AND GALV. METAL HANDRAIL.
12	CONCRETE DOCK RAMP.
13	GALV. HIGHWAY GUARDRAIL (W-BEAM) BY U.S. BARRICADES.
14	EXISTING PLAM SILL TO REMAIN.
33	6'-0" HIGH CHAIN LINK FENCE AND GATE.
36	RELOCATED EXISTING 14' X 15' COILING DOOR AND HOOD TO RECIEVE POWER FOR NEW OPERATOR AND CONTROLS. REFERENCE DOOR SCHEDULE.
37	NEW HOLLOW METAL DOOR, FRAME, AND HARDWARE. REFERENCE DOOR SCHEDULE.
38	NEW 6'-0 x 9'-0" COILING ROLLING DOOR. REFERENCE DOOR SCHEDULE.
40	24" DIA 42" HIGH LINEAR LOW DENSITY POLYETHYLENE COLUMN PROTECTION. BASIS OF DESIGN: SENTRY PROTECTION CS2442-12S
48	SEALED CONCRETE TRENCH SLOPED 1/8" PER 12" TOWARDS DRAINS TOWARDS TRENCH DRAINS. REFERENCE STRUCTURE DRAWINGS.
54	5'-0" WIDE WALK PATH STRIPING PAINTED BY OWNER P3.
55	NEW CONCRETE FLATWORK. REFERENCE CIVIL DRAWINGS.
56	EXISTING CONCRETE RAMP TO REMAIN.
58	8'-0" HIGHT CMU PARTITION.
60	AIR LINE HOSE
61	BULK FLUID DISPENSER



A1 WAREHOUSE SOUTH FLOOR PLAN
1/8" = 1'-0"

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WAREHOUSE SOUTH FLOOR PLAN

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KEYED NOTES FLOOR PLAN

MARK	DESCRIPTION
5	12" WIDE X 96" LONG HEAVY DUTY METAL GRATE AND TRENCH DRAIN. CENTER DRAINS WITHIN CONCRETE TRENCH. REFERENCE PLUBMING DRAWINGS FOR DRAIN INFORMATION.
33	8'-0" HIGH CHAIN LINK FENCE AND GATE.
37	NEW HOLLOW METAL DOOR, FRAME, AND HARDWARE. REFERENCE DOOR SCHEDULE.
39	NEW HOLLOW METAL DOUBLE DOOR, FRAME, AND HARDWARE. REFERENCE DOOR SCHEDULE.
40	24" DIA 42" HIGH LINEAR LOW DENSITY POLYETHYLENE COLUMN PROTECTION. BASIS OF DESIGN: SENTRY PROTECTION CS2442-12S.
45	25 FT. GALV. METAL HIGHWAY GUARDRAIL (W-BEAM). BASIS OF DESIGN GWB25G U.S. BARRICADES.
46	OWNER SUPPLIED, CONTRACTOR INSTALLED EXISTING CONCRETE LEGO BLOCK.
48	SEALED CONCRETE TRENCH SLOPED 1/8" PER 12" TOWARDS DRAINS TOWARDS TRENCH DRAINS. REFERENCE STRUCTURE DRAWINGS.
50	EXHAUST HOOD SYSTEM. REFERENCE MECHANICAL DRAWINGS.
54	5'-0" WIDE WALK PATH STRIPING PAINTED BY OWNER P3.

SAN DEPT. WAREHOUSE STORAGE [W129]
STREETS DEPT. COLD ASPHALT STOR.
EXISTING RISER ROOM [W153]
MOTOR SHOP [W156]
SAN DEPT. VEHICLE STORAGE [W128]
STREETS DEPT. VEHICLE STORAGE/STORAGE [W134]
ELECTRICAL DEPT. VEHICLE STORAGE [W151]
ELEC DEPT. WAREHOUSE STORAGE [W150]
STREETS DEPT. VEHICLE STORAGE/ WORKSHOP [W148]
STREETS DEPT. SIGN SHOP - C. YOUNG [W149]
FACILITIES DEPT. SHOP WORK ROOM [W126]
FACILITIES DEPT. MAIN TECH. - TOUCH DOWN - BROWN & WEBBER [W127]
FLEET DEPT. STEEL BAY [W132]
FLEET DEPT. WELDING BAY [W133]
FLEET DEPT. LEAD TECH. [W147]

A1 WAREHOUSE NORTH FLOOR PLAN
1/8" = 1'-0"

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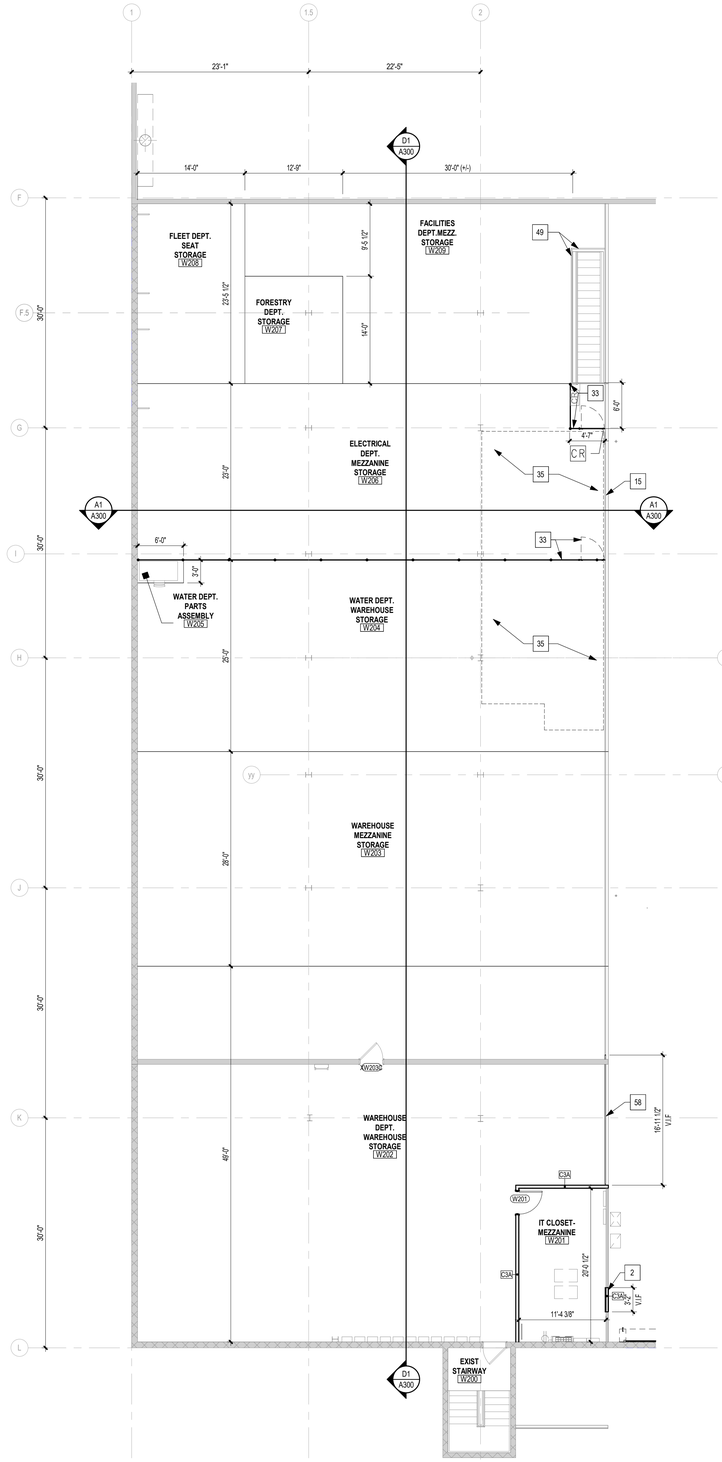
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WAREHOUSE NORTH FLOOR PLAN

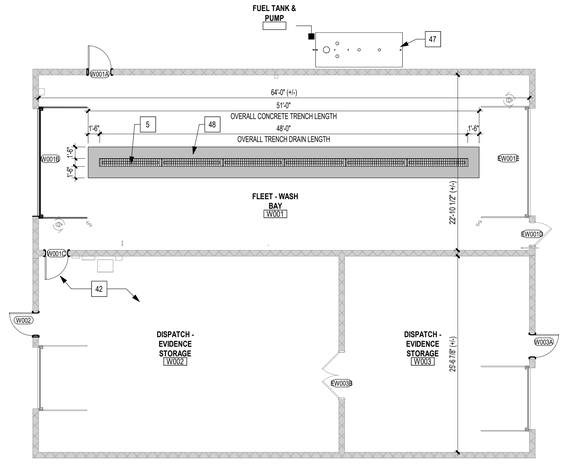
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KEYED NOTES FLOOR PLAN

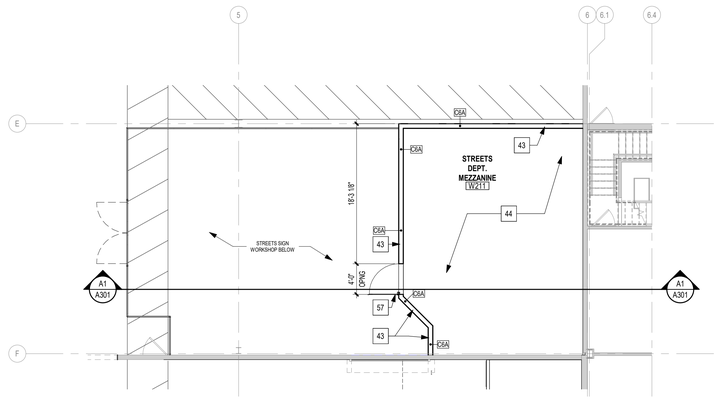
MARK	DESCRIPTION
2	CFMF PARTITION INFILL. GC TO VIF. OPNG SIZE.
5	12" WIDE X 96" LONG HEAVY DUTY METAL GRATE AND TRENCH DRAIN. CENTER DRAINS WITHIN CONCRETE TRENCH. REFERENCE PLUMBING DRAWINGS FOR DRAIN INFORMATION.
15	PAINTED EXISTING REMOVABLE GUARDRAIL.
33	8'-0" HIGH CHAIN LINK FENCE AND GATE.
35	CONCRETE ICC 500 STORM SHELTER LID UNDERNEATH MEZZANINE. SEE STRUCT. DWGS.
42	PATCH EXISTING CONCRTE FLOOR AND APPLY SC FINISH. REFERENCE FINISH SCHEDULE.
43	PARTITION GUARDRAIL 42" HIGH AT STREETS DEPT MEZZZANINE.
44	3/4" SHEATHING OVER NORTH/SOUTH SPANNING 10" MTL STUD @ 16" OC WITH BATT INSULATION BETWEEN STUDS AND PAINTED 5/8" ABUSE RESISTANT (VHI) GYP BD. UNDERNEATH.
47	OWNER SUPPLIED, CONTRACTOR INSTALLED EXISTING FUEL TANK AND PUMP.
48	SEALED CONCRETE TRENCH SLOPED 1/8" PER 12" TOWARDS DRAINS TOWARDS TRENCH DRAINS. REFERENCE STRUCTURE DRAWINGS.
49	EXISTING FIXED METAL GUARDRAIL TO REMAIN.
57	PARALLEL MOUNTED ALUM SELF-CLOSING SAFETY GATE. BASIS OF DESIGN: YELLOW GATE INDUSTRIAL SAFETY SWING GATE.
58	NEW GUARDRAIL INSTALLED ON TO EXISTING MEZZANINE CONCRETE SLAB. GC TO V.I.F. MEASUREMENTS.



A1 WAREHOUSE MEZZANINE FLOOR PLAN
1/8" = 1'-0"



B4 AUXILIARY BLDG FLOOR PLAN
1/8" = 1'-0"



A4 STREET MEZZANINE
1/8" = 1'-0"

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WAREHOUSE MEZZANINE & AUXILIARY

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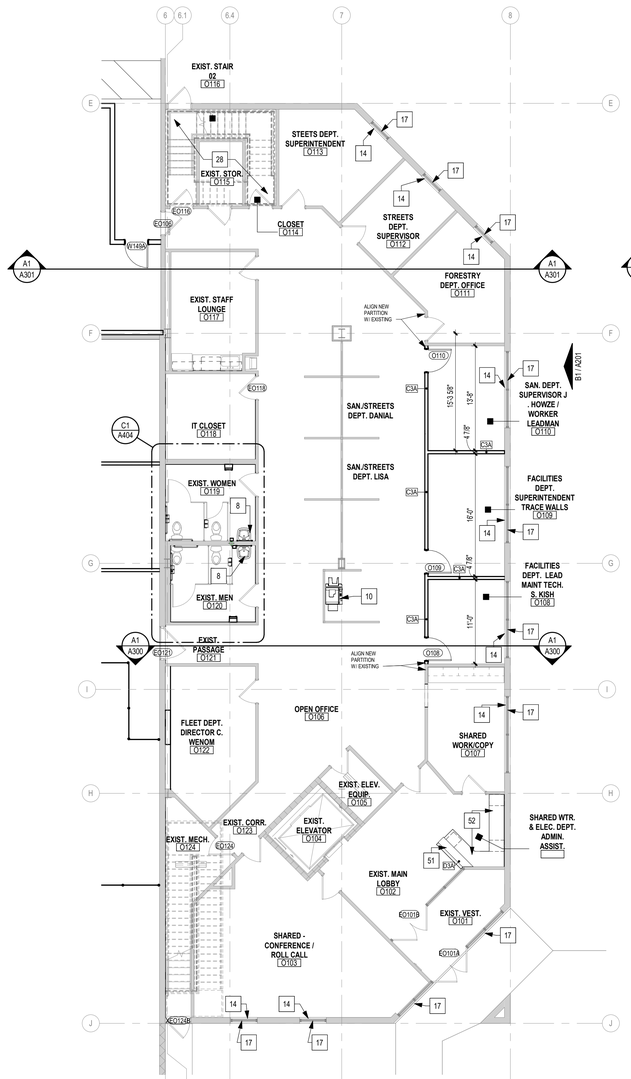
KEYED NOTES FLOOR PLAN

MARK	DESCRIPTION
2	CFMF PARTITION INFILL. GC TO VIF. OPNG SIZE.
7	FULL HT. ACCOUSTIC PARTITION.
8	NEW LAVATORY VANITY. REF. FINISH FLOOR PLAN.
10	OWNER FURNISHED AND INSTALLED EQUIPMENT.
14	EXISTING PLAM SILL TO REMAIN.
17	EXISTING STOREFRONT AND GLAZING TO REMAIN.
18	SPECIAL RECORDS HIGH DENSITY STORAGE UNITS.
19	NEW ADA GRAB BARS. G.C. TO PROVIDE BLOCKING AS REQ'D. -REFERENCE GRAB BAR TYPICAL MOUNTING HEIGHTS & TOILET ACCESSORY PLANS SHT A0020 AND TOILET ROOM FIXTURE SCHEDULE.
20	NEW FLOOR DRAIN. -SEE PLUMBING DRAWINGS.
21	NEW WATER CLOSET. -SEE PLUMBING DRAWINGS.
22	NEW WALL HUNG LAVATORY. -SEE PLUMBING DRAWINGS.
23	RELOCATED & RE-WORKED PLUMBING PIPING. -SEE PLUMBING DRAWINGS.
24	EXISTING DUCTWORK TO REMAIN. - SEE MECHANICAL DRAWINGS.
25	RE-WORKED/NEW DUCTWORK. -SEE MECHANICAL DRAWINGS.
26	EXISTING STEEL COLUMN TO REMAIN.
27	EXISTING ELEVATOR AND ELEVATOR DOOR TO REMAIN.
28	EXISTING STAIR, GUARDRAILS & HANDRAILS TO REMAIN.
29	(5) ROWS OF 12" DEEP X 3/4" THK. LAMINATE FACED SHELVING W/ HEAVY DUTY SHELF STANDARDS AND BRACKETS. G.C. TO PROVIDE BLOCKING @ ALL STANDARD LOCATIONS.
30	(5) ROWS OF 18" DEEP X 3/4" THK. LAMINATE FACED SHELVING W/ HEAVY DUTY SHELF STANDARDS AND BRACKETS. G.C. TO PROVIDE BLOCKING @ ALL STANDARD LOCATIONS.
31	FLOOR MOUNTED JANITORS SINK AND FAUCET. -SEE PLUMBING DRAWINGS.
32	INFILL OPENINGS IN FLOOR SLAB W/ LIKE MATERIALS. -SEE STRUCTURAL DRAWINGS.
51	KNEE WALL WITH PAINTED 5/8" TYPE-X ABUSE & IMPACT RESISTANT GYP. BD. ON EACH SIDE AND 2X4 WOOD STUD @ 16" O.C.. ANCHOR WALL INTO FLOOR JOIST. TOP OF WALL TO RECEIVE 12" D PLAM. TRANSACTION LEDGE. PROVIDE STEEL ANGLE SUPPORTS FOR VERTICAL RIDGED SUPPORT AS REQUIRED. LAMINATE PANELS ON OUTSIDE OF DESK CHASSIS.
52	25" DEEP PLAM COUNTER WITH METAL SUPPORT BRACKETS ATTACHED TO EXISTING PARTITION. PROVIDE BLOCKING WHERE REQ'D.
53	RELOCATED EXISTING WORKSTATION PARTITION BY OWNER.

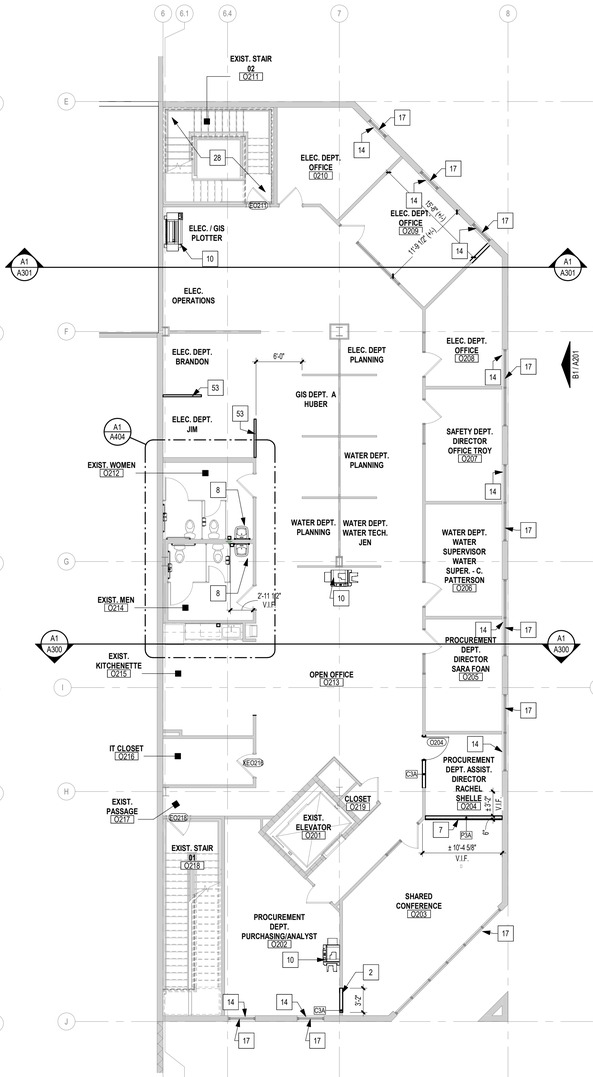
ALTERNATE #1A – POLICE DISPATCH. THE SCOPE OF THIS ALTERNATE IS TO PREPARE THE CURRENTLY UNFINISHED 3RD FLOOR AREA OF THE OFFICE BUILDING ON THE EAST SIDE OF THE WAREHOUSE BUILDING TO ACCEPT THE RELOCATION OF THE EXISTING POLICE DISPATCH CENTER.

THIS SCOPE SHALL INCLUDE BUT MAY NOT BE LIMITED TO THE BUILD-OUT OF THE UNFINISHED SPACE AND SHALL INCLUDE ALL FIRE PROTECTION, PLUMBING, HV/AC, ELECTRICAL AND SYSTEMS. AN EXTERIOR PORTABLE ENGINE GENERATOR DOCKING STATION. REFER TO THE ELECTRICAL ONE-LINE DRAWING AND OTHER ELECTRIC DRAWINGS.
FIRE ALARM, SURVEILLANCE, DATA & ACCESS CONTROL AS DEPICTED IN THE DRAWINGS AND SPECIFICATIONS AND CONSISTENT WITH THE DIVISION OF RESPONSIBILITY IN THE DOCUMENTS. IT SHALL ALSO INCLUDE ALL FINISHES AS OUTLINED IN THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

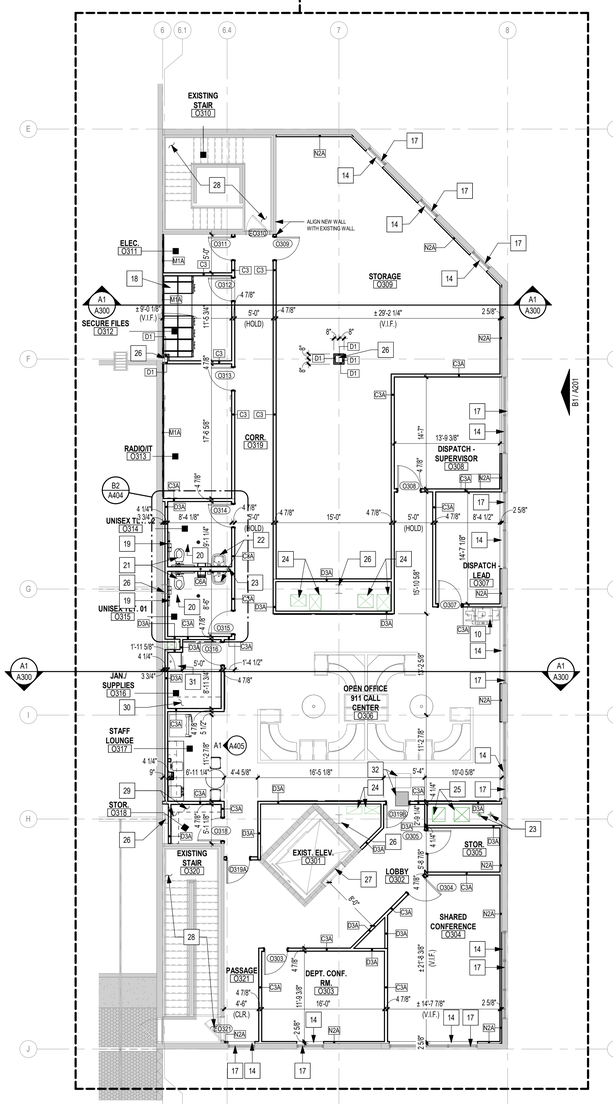
ALL WORK ASSOCIATED WITH THE RELOCATION ON THE EXISTING DISPATCH CENTER OPERATIONS CONTENT, INCLUDING ST. LOUS COUNTY EEC EQUIPMENT, DISPATCH FURNITURE AND CITY DISPATCH EQUIPMENT SHALL BE RELOCATED BY THE CITY OF KIRKWOOD.



A1 BUSINESS OFFICE FLOOR PLAN - LEVEL 01
1/8" = 1'-0"



A3 BUSINESS OFFICE FLOOR PLAN -L02
1/8" = 1'-0"



A5 BUSINESS OFFICE FLOOR PLAN -L03
1/8" = 1'-0"

STATE OF MISSOURI
ROY A. MARSHAN
NUMBER A-6661
ARCHITECT
Roy A. Marshan 3/30/2026
MO Architect License No: A-6661
Expires: 12/31/2026

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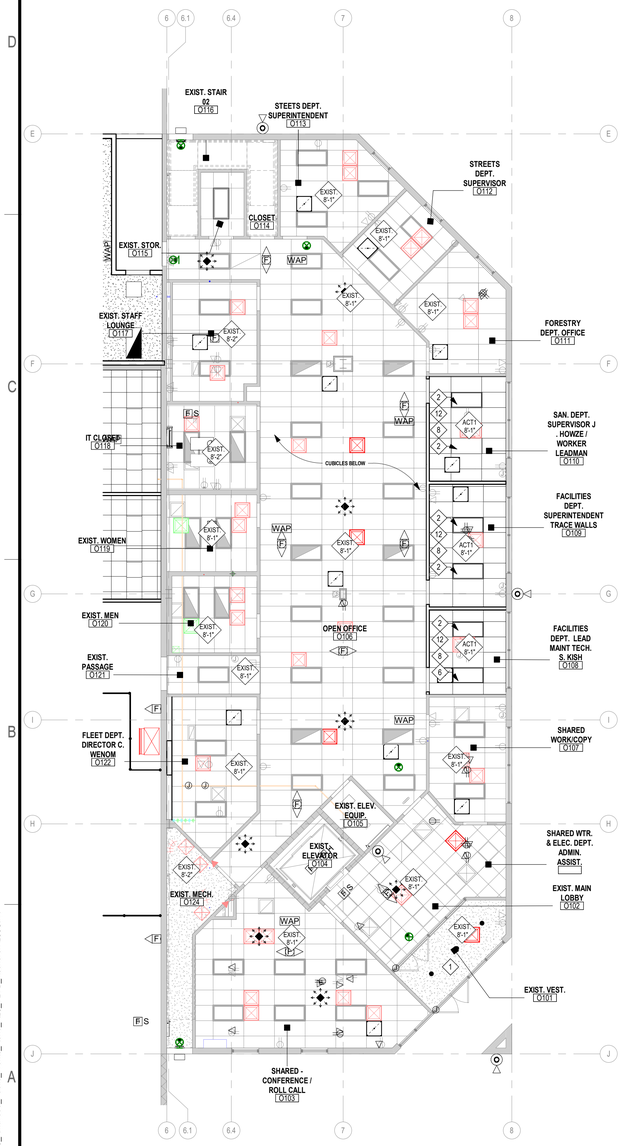
Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

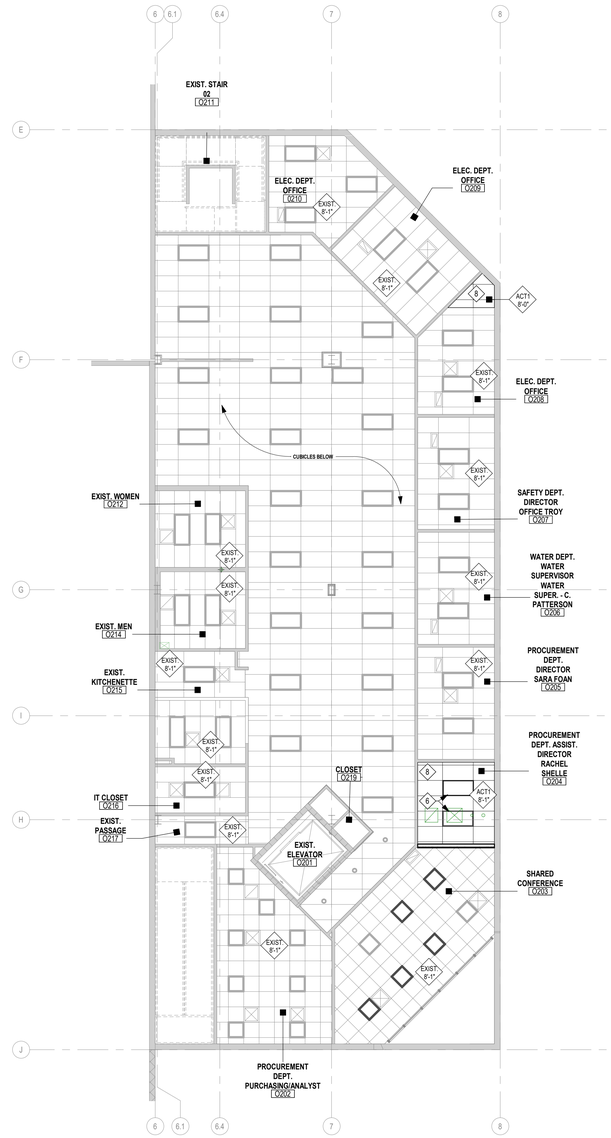
No.	Date	Revision

OFFICE FLOOR PLANS - L01, L02, L03

Project No. 24059
Sheet No. A104
Date 03/30/2026

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A1 BUSINESS OFFICE REFLECTED CEILING PLAN -L01
1/8" = 1'-0"

A3 BUSINESS OFFICE REFLECTED CEILING PLAN -L02
1/8" = 1'-0"

A5 BUSINESS OFFICE REFLECTED CEILING PLAN -L03
1/8" = 1'-0"

KEYED NOTES REF. CLG. PLAN

MARK	DESCRIPTION
1	EXISTING GYP. BOARD CEILINGS, PAINT P4
2	CLEAN AND PLACE RELOCATED EXISTING 2'X4' LIGHT FIXTURE FLUSH IN NEW METAL CEILING GRID. REFERENCE ELECTRICAL DRAWINGS.
6	NEW 2'X 4' LAY-IN LIGHT FIXTURE. -SEE ELECTRICAL DWG'S.
7	NEW 2' X 2' LAY-IN LIGHT FIXTURE. -SEE ELECTRICAL DWG'S.
8	NEW LAY-IN ACOUSTICAL CEILING TILE AND METAL GRID.
9	PROVIDE & INSTALL NEW GRID AND ACT1
12	CLEAN AND PLACE RELOCATED SALVAGED HVAC GRILLES FLUSH IN NEW METAL CEILING GRID. REFERENCE MECHANICAL DRAWINGS.
13	NEW SUSPENDED LIGHT FIXTURE.

REF. CLG. PLAN GENERAL NOTES

1. INSTALL ACOUSTIC SOUND BATT INSULATION OVER ALL PARTITIONS ABOVE CEILING TO 24" EA. SIDE OF PARTITION, TYP.
2. LIGHT FIXTURES, EXIT SIGNS, FIRE STROBES/CHIMES, ETC. TO MATCH BUILDING STANDARD UNLESS NOTED OTHERWISE.
3. NO COMBUSTIBLE MATERIAL SHALL BE INSTALLED IN A RETURN AIR PLENUM.
4. ALL CEILING, BULKHEAD, AND SOFFIT HEIGHTS ARE TAKEN FROM REFERENCED FINISH FLOOR.
5. PAINT ALL GYPSUM BOARD SOFFITS AND CEILINGS. REFERENCE REFLECTED CEILING PLAN.
6. SUPPLY AND INSTALL SOUND BOOTS ON ALL DIFFUSERS OPEN TO THE CEILING PLENUM, TYP.
7. SHOULD ANY CONFLICT ARISE BETWEEN MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION SYSTEMS, REQUEST CLARIFICATION FROM ARCHITECT PRIOR TO INSTALLATION.
8. REFERENCE MECHANICAL DRAWINGS FOR BALANCE OF MECHANICAL INFORMATION (i.e. SUPPLY DIFFUSERS, RETURN AIR GRILLES, ETC.).
9. REFERENCE ELECTRICAL DRAWINGS FOR BALANCE OF LIGHTING INFORMATION. NOTE: ALL FIXTURES LOCATED IN LAY-IN ACOUSTICAL PANELS SHALL BE CENTERED IN CEILING PANELS UNLESS NOTED OTHERWISE.
10. WHERE SPRINKLERS ARE USED, REFERENCE FIRE PROTECTION DRAWINGS FOR LOCATION OF SPRINKLER HEADS. THIS DRAWING IS FOR COORDINATION CONCEPTS ONLY. **NOTE:** ALL SPRINKLER HEADS LOCATED IN LAY-IN ACOUSTICAL PANELS SHALL BE CENTERED IN CEILING PANELS UNLESS NOTED OTHERWISE.
11. WHERE SPRINKLER SYSTEMS ARE USED PROVIDE CONCEALED WHITE SPRINKLERS AT ALL GYPSUM BOARD CEILINGS AND SOFFITS UNLESS NOTED OTHERWISE
12. MECHANICAL DESIGN-BUILD CONTRACTOR TO REWORK EXISTING/INSTALL NEW SYSTEM AND DIFFUSERS AS REQUIRED TO PROVIDE PROPER CONDITIONING OF THE NEW PLAN. RESEARCH EXISTING CONDITIONS AND VERIFY WORK REQUIRED. INSTALL DAMPERS AT ANY FIRE RATED ASSEMBLIES TO MATCH EXISTING.
13. FIRE PROTECTION DESIGN-BUILD CONTRACTOR TO REWORK EXISTING/INSTALL NEW SPRINKLER LINES AND DEVICES IN THE AREA OF WORK TO PROVIDE PROPER COVERAGE PER GOVERNING CODES. SPRINKLER HEADS TO MATCH BUILDING STANDARD. VERIFY WORK REQUIRED.

LIGHT FIXTURE GENERAL NOTES

1. ALL LIGHT FIXTURES SHALL HAVE A U.L. LABEL.
2. REFER TO ARCHITECTURAL DOCUMENTS FOR EXACT MOUNTING LOCATIONS OF LIGHT FIXTURES.
3. WHEN INSTALLING LIGHT FIXTURES THE CONTRACTOR SHALL USE THE LIGHT FIXTURE MANUFACTURER'S MOUNTING HARDWARE AND FOLLOW ALL MANUFACTURER INSTALLATION DIRECTIONS.
4. CONTRACTOR IS RESPONSIBLE FOR ALL MISCELLANEOUS HARDWARE, CLIPS, ANGLES, FRAMES, ETC. AS REQUIRED TO MOUNT THE FIXTURES IN OR ON THE SURFACES THEY ARE TO BE INSTALLED.
5. ALL RECESSED DOWNLIGHTS MUST BE INSTALLED SO THAT THE BOTTOM OF THE THROAT IS EVEN WITH THE FINISHED CEILING PLANE UNLESS NOTED OTHERWISE. THE OVERLAPPING FLANGE MUST FIT FLUSH TO THE CEILING PLANE/THROAT. NO LIGHT LEAK MAY BE VISIBLE. ALL MISCELLANEOUS HARDWARE ABOVE THE CEILING PLANE TO ACCOMPLISH THE ABOVE SHALL BE INCLUDED IN THE BASE BID.
6. ALL RECESSED DOWNLIGHTS SHALL HAVE SELF-FLANGED REFLECTORS UNLESS NOTED OTHERWISE.
7. WHEN INSTALLING COMPACT FLUORESCENT LAMP LUMINARIES, CONSISTENT LAMP ORIENTATION SHALL BE MAINTAINED IN A CONTIGUOUS AREA.

REF. CEILING PLAN LEGEND

NOTES:
- SEE INTERIOR ELEVATIONS FOR LOCATIONS OF UNDERCABINET LIGHT FIXTURES.

	SUSPENDED ACOUSTICAL LAY-IN CEILING, 2' x 2' OR 2' x 4' AS SHOWN
	SUSPENDED GYPSUM BOARD CEILING OR SOFFIT
	RECESSED LAY-IN LIGHT FIXTURE 2' x 2' OR 2' x 4' AS SHOWN
	RECESSED LINEAR LIGHT FIXTURE
	RECESSED DOWNLIGHT FIXTURE
	CEILING MOUNTED EXIT SIGN SHADED AREAS INDICATE FACES ARROWS INDICATE DIRECTION OF EGRESS
	CEILING MOUNTED EXIT SIGN / EMERGENCY LIGHT SHADED AREAS INDICATE FACES ARROWS INDICATE DIRECTION OF EGRESS
	WIRELESS ACCESS POINT - CEILING MOUNTED
$ "X"	SWITCH HEIGHT AS NOTED
$3 "X"	3-WAY SWITCH HEIGHT AS NOTED
$4 "X"	4-WAY SWITCH HEIGHT AS NOTED
$D "X"	DIMMER SWITCH HEIGHT AS NOTED
T "X"	THERMOSTAT HEIGHT AS NOTED
	EXHAUST FAN
	WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL
	SPRINKLER HEAD
S	CEILING SPEAKER

STATE OF MISSOURI
ROY A. MANDAN
NUMBER A-6661
ARCHITECT
Roy A. Mandan 3/30/2026
MO Architect License No: A-6661
Expires: 12/31/2026

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KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Revision	Date

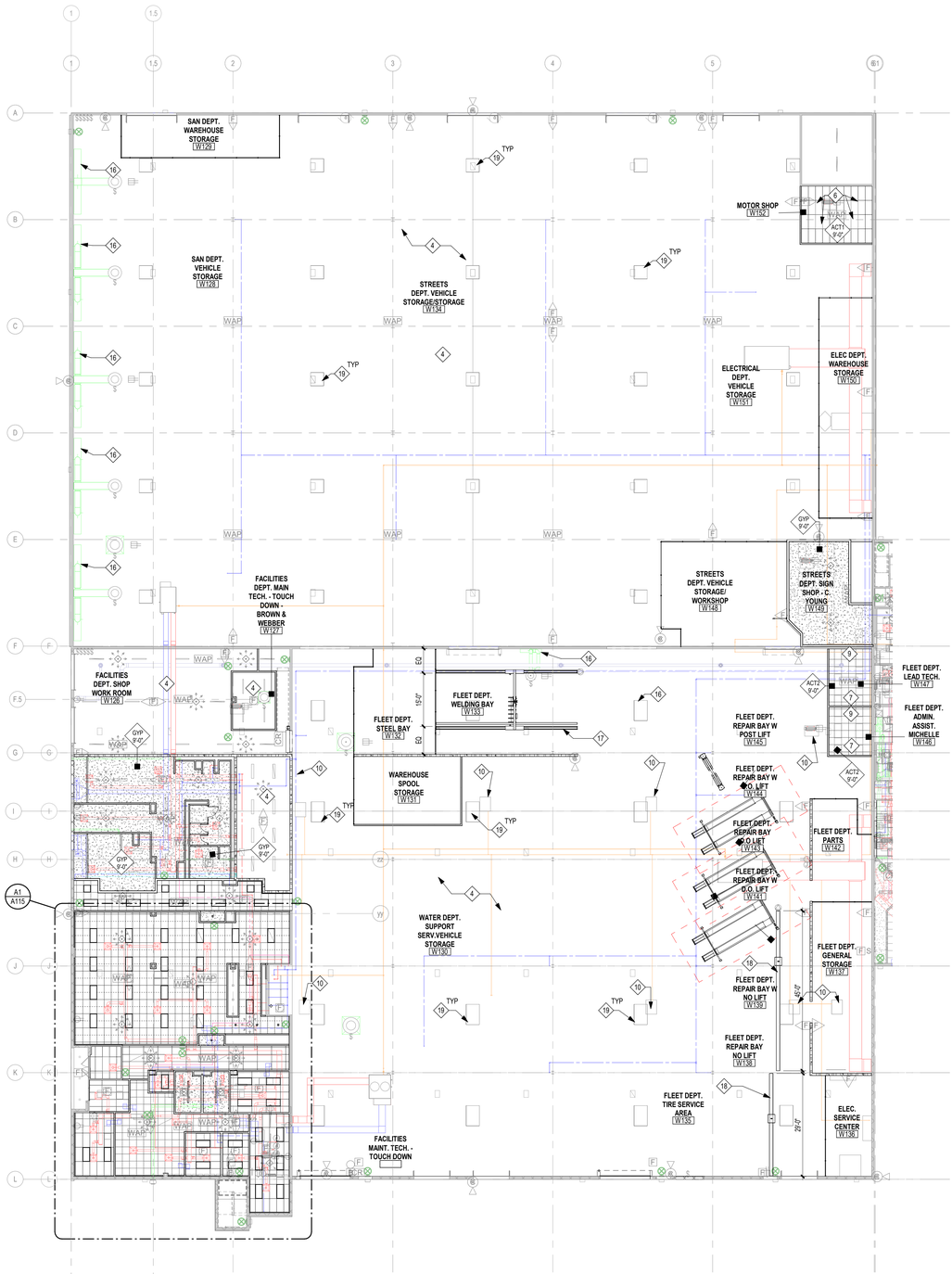
OFFICE REFLECTED CEILING PLANS

Project No. 24059

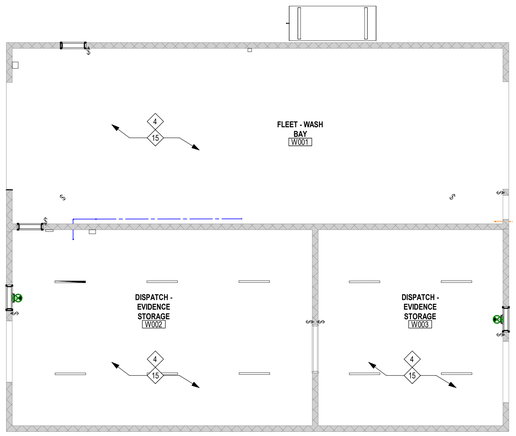
Sheet No. A113

Date 03/30/2026

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A1 WAREHOUSE REFLECTED CEILING PLAN
1/16" = 1'-0"



A4 AUXILIARY BUILDING REFLECTED CEILING PLAN
1/8" = 1'-0"

KEYED NOTES REF. CLG. PLAN

MARK	DESCRIPTION
4	EXPOSED CEILING TO REMAIN.
6	NEW 2'X 4' LAY-IN LIGHT FIXTURE. -SEE ELECTRICAL DWG'S.
7	NEW 2' X 2' LAY-IN LIGHT FIXTURE. -SEE ELECTRICAL DWG'S.
9	PROVIDE & INSTALL NEW GRID AND ACT1
10	EXISTING UNIT HEATER TO REMAIN. REFERENCE MECHANICAL DRAWINGS.
15	NEW LIGHTING IN AUXILIARY BUILDING CEILING. REFERENCE ELECTRICAL DRAWINGS.
16	NEW EXHAUST SYSTEM. REFERENCE MECHANICAL DRAWINGS.
17	OWNER PROVIDED, GC INSTALLED 2 TON DOUBLE RAIL CRANE AND HOIST. REFERENCE STRUCTURAL DRAWINGS FOR SUPPORT INFORMATION.
18	OWNER PROVIDED, GC INSTALLED 1 TON SINGLE RAIL CRANE AND HOIST. REFERENCE STRUCTURAL DRAWINGS FOR SUPPORT INFORMATION.
19	EXISTING SKYLIGHT TO REMAIN

REF. CLG. PLAN GENERAL NOTES

1. INSTALL ACOUSTIC SOUND BATT INSULATION OVER ALL PARTITIONS ABOVE CEILING TO 24" EA. SIDE OF PARTITION, TYP.
2. LIGHT FIXTURES, EXIT SIGNS, FIRE STROBES/CHIMES, ETC. TO MATCH BUILDING STANDARD UNLESS NOTED OTHERWISE.
3. NO COMBUSTIBLE MATERIAL SHALL BE INSTALLED IN A RETURN AIR PLENUM.
4. ALL CEILING, BULKHEAD, AND SOFFIT HEIGHTS ARE TAKEN FROM REFERENCED FINISH FLOOR.
5. PAINT ALL GYPSUM BOARD SOFFITS AND CEILINGS. REFERENCE REFLECTED CEILING PLAN.
6. SUPPLY AND INSTALL SOUND BOOTS ON ALL DIFFUSERS OPEN TO THE CEILING PLENUM, TYP.
7. SHOULD ANY CONFLICT ARISE BETWEEN MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION SYSTEMS, REQUEST CLARIFICATION FROM ARCHITECT PRIOR TO INSTALLATION.
8. REFERENCE MECHANICAL DRAWINGS FOR BALANCE OF MECHANICAL INFORMATION (i.e. SUPPLY DIFFUSERS, RETURN AIR GRILLES, ETC.).
9. REFERENCE ELECTRICAL DRAWINGS FOR BALANCE OF LIGHTING INFORMATION. NOTE: ALL FIXTURES LOCATED IN LAY-IN ACOUSTICAL PANELS SHALL BE CENTERED IN CEILING PANELS UNLESS NOTED OTHERWISE.
10. WHERE SPRINKLERS ARE USED, REFERENCE FIRE PROTECTION DRAWINGS FOR LOCATION OF SPRINKLER HEADS. THIS DRAWING IS FOR COORDINATION CONCEPTS ONLY. **NOTE:** ALL SPRINKLER HEADS LOCATED IN LAY-IN ACOUSTICAL PANELS SHALL BE CENTERED IN CEILING PANELS UNLESS NOTED OTHERWISE.
11. WHERE SPRINKLER SYSTEMS ARE USED PROVIDE CONCEALED WHITE SPRINKLERS AT ALL GYPSUM BOARD CEILINGS AND SOFFITS UNLESS NOTED OTHERWISE
12. MECHANICAL DESIGN-BUILD CONTRACTOR TO REWORK EXISTING/INSTALL NEW SYSTEM AND DIFFUSERS AS REQUIRED TO PROVIDE PROPER CONDITIONING OF THE NEW PLAN. RESEARCH EXISTING CONDITIONS AND VERIFY WORK REQUIRED. INSTALL DAMPERS AT ANY FIRE RATED ASSEMBLIES TO MATCH EXISTING.
13. FIRE PROTECTION DESIGN-BUILD CONTRACTOR TO REWORK EXISTING/INSTALL NEW SPRINKLER LINES AND DEVICES IN THE AREA OF WORK TO PROVIDE PROPER COVERAGE PER GOVERNING CODES. SPRINKLER HEADS TO MATCH BUILDING STANDARD. VERIFY WORK REQUIRED.

LIGHT FIXTURE GENERAL NOTES

1. ALL LIGHT FIXTURES SHALL HAVE A U.L. LABEL.
2. REFER TO ARCHITECTURAL DOCUMENTS FOR EXACT MOUNTING LOCATIONS OF LIGHT FIXTURES.
3. WHEN INSTALLING LIGHT FIXTURES THE CONTRACTOR SHALL USE THE LIGHT FIXTURE MANUFACTURER'S MOUNTING HARDWARE AND FOLLOW ALL MANUFACTURER INSTALLATION DIRECTIONS.
4. CONTRACTOR IS RESPONSIBLE FOR ALL MISCELLANEOUS HARDWARE, CLIPS, ANGLES, FRAMES, ETC. AS REQUIRED TO MOUNT THE FIXTURES IN OR ON THE SURFACES THEY ARE TO BE INSTALLED.
5. ALL RECESSED DOWNLIGHTS MUST BE INSTALLED SO THAT THE BOTTOM OF THE THROAT IS EVEN WITH THE FINISHED CEILING PLANE UNLESS NOTED OTHERWISE. THE OVERLAPPING FLANGE MUST FIT FLUSH TO THE CEILING PLANE/THROAT. NO LIGHT LEAK MAY BE VISIBLE. ALL MISCELLANEOUS HARDWARE ABOVE THE CEILING PLANE TO ACCOMPLISH THE ABOVE SHALL BE INCLUDED IN THE BASE BID.
6. ALL RECESSED DOWNLIGHTS SHALL HAVE SELF-FLANGED REFLECTORS UNLESS NOTED OTHERWISE.
7. WHEN INSTALLING COMPACT FLUORESCENT LAMP LUMINARIES, CONSISTENT LAMP ORIENTATION SHALL BE MAINTAINED IN A CONTIGUOUS AREA.

REF. CEILING PLAN LEGEND

NOTES:
- SEE INTERIOR ELEVATIONS FOR LOCATIONS OF UNDERCABINET LIGHT FIXTURES.

	SUSPENDED ACOUSTICAL LAY-IN CEILING, 2' x 2' OR 2' x 4' AS SHOWN
	SUSPENDED GYPSUM BOARD CEILING OR SOFFIT
	RECESSED LAY-IN LIGHT FIXTURE 2' x 2' OR 2' x 4' AS SHOWN
	RECESSED LINEAR LIGHT FIXTURE
	RECESSED DOWNLIGHT FIXTURE
EXIT	CEILING MOUNTED EXIT SIGN SHADED AREAS INDICATE FACES ARROWS INDICATE DIRECTION OF EGRESS
EXIT	CEILING MOUNTED EXIT SIGN / EMERGENCY LIGHT SHADED AREAS INDICATE FACES ARROWS INDICATE DIRECTION OF EGRESS
	WIRELESS ACCESS POINT - CEILING MOUNTED
$ +"X"	SWITCH HEIGHT AS NOTED
$3 +"X"	3-WAY SWITCH HEIGHT AS NOTED
$4 +"X"	4-WAY SWITCH HEIGHT AS NOTED
$D +"X"	DIMMER SWITCH HEIGHT AS NOTED
T +"X"	THERMOSTAT HEIGHT AS NOTED
	EXHAUST FAN
	WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL
	SPRINKLER HEAD
S	CEILING SPEAKER

STATE OF MISSOURI
ROY A. MARDIAN
NUMBER A-6661
ARCHITECT
Roy A. Mardian 3/30/2026
MO Architect License No: A-6661
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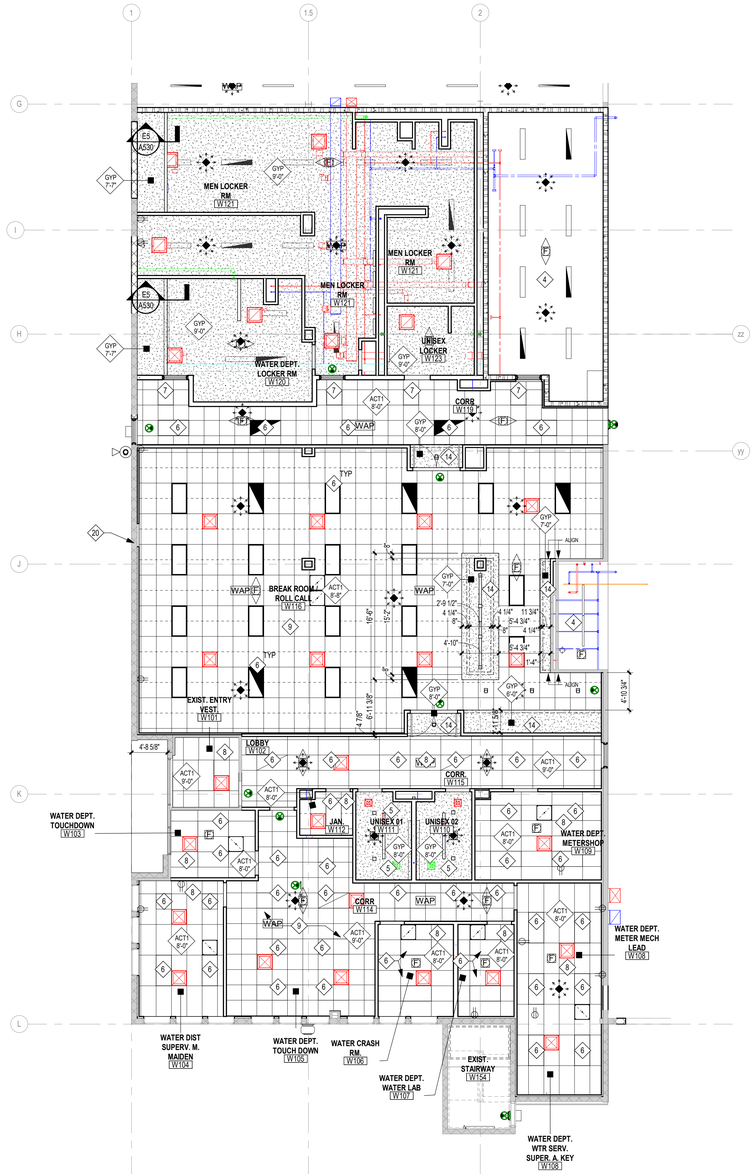
Proposed:
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RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

WAREHOUSE OVERALL REFLECTED CE

Project No. 24059
Sheet No. A114
Date 03/30/2026

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A1 WAREHOUSE SOUTHEAST OFFICE REFLECTED CEILING PLAN

1/8" = 1'-0"

KEYED NOTES REF. CLG. PLAN

MARK	DESCRIPTION
4	EXPOSED CEILING TO REMAIN.
5	NEW GYP. BOARD CEILINGS TLT ROOM, PAINT P4
6	NEW 2'X 4' LAY-IN LIGHT FIXTURE. -SEE ELECTRICAL DWGS.
7	NEW 2' X 2' LAY-IN LIGHT FIXTURE. -SEE ELECTRICAL DWG'S.
8	NEW LAY-IN ACOUSTICAL CEILING TILE AND METAL GRID.
9	PROVIDE & INSTALL NEW GRID AND ACT1
14	NEW GYP. BOARD SOFFIT, PAINT P4
20	REPOINT EXISTING MASONRY ABOVE EXISTING HOLLOW METAL DOOR FRAME. GC TO PROVIDE A WATER PROOF BARRIER AT LOCATION TO PREVENT WATER INFILTRATION.

REF. CLG. PLAN GENERAL NOTES

1. INSTALL ACOUSTIC SOUND BATT INSULATION OVER ALL PARTITIONS ABOVE CEILING TO 24" EA. SIDE OF PARTITION, TYP.
2. LIGHT FIXTURES, EXIT SIGNS, FIRE STROBES/CHIMES, ETC. TO MATCH BUILDING STANDARD UNLESS NOTED OTHERWISE.
3. NO COMBUSTIBLE MATERIAL SHALL BE INSTALLED IN A RETURN AIR PLENUM.
4. ALL CEILING, BULKHEAD, AND SOFFIT HEIGHTS ARE TAKEN FROM REFERENCED FINISH FLOOR.
5. PAINT ALL GYPSUM BOARD SOFFITS AND CEILINGS. REFERENCE REFLECTED CEILING PLAN.
6. SUPPLY AND INSTALL SOUND BOOTS ON ALL DIFFUSERS OPEN TO THE CEILING PLENUM, TYP.
7. SHOULD ANY CONFLICT ARISE BETWEEN MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION SYSTEMS, REQUEST CLARIFICATION FROM ARCHITECT PRIOR TO INSTALLATION.
8. REFERENCE MECHANICAL DRAWINGS FOR BALANCE OF MECHANICAL INFORMATION (i.e. SUPPLY DIFFUSERS, RETURN AIR GRILLES, ETC.).
9. REFERENCE ELECTRICAL DRAWINGS FOR BALANCE OF LIGHTING INFORMATION. NOTE: ALL FIXTURES LOCATED IN LAY-IN ACOUSTICAL PANELS SHALL BE CENTERED IN CEILING PANELS UNLESS NOTED OTHERWISE.
10. WHERE SPRINKLERS ARE USED, REFERENCE FIRE PROTECTION DRAWINGS FOR LOCATION OF SPRINKLER HEADS. THIS DRAWING IS FOR COORDINATION CONCEPTS ONLY. **NOTE:** ALL SPRINKLER HEADS LOCATED IN LAY-IN ACOUSTICAL PANELS SHALL BE CENTERED IN CEILING PANELS UNLESS NOTED OTHERWISE.
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12. MECHANICAL DESIGN-BUILD CONTRACTOR TO REWORK EXISTING/INSTALL NEW SYSTEM AND DIFFUSERS AS REQUIRED TO PROVIDE PROPER CONDITIONING OF THE NEW PLAN. RESEARCH EXISTING CONDITIONS AND VERIFY WORK REQUIRED. INSTALL DAMPERS AT ANY FIRE RATED ASSEMBLIES TO MATCH EXISTING.
13. FIRE PROTECTION DESIGN-BUILD CONTRACTOR TO REWORK EXISTING/INSTALL NEW SPRINKLER LINES AND DEVICES IN THE AREA OF WORK TO PROVIDE PROPER COVERAGE PER GOVERNING CODES. SPRINKLER HEADS TO MATCH BUILDING STANDARD. VERIFY WORK REQUIRED.

LIGHT FIXTURE GENERAL NOTES

1. ALL LIGHT FIXTURES SHALL HAVE A U.L. LABEL.
2. REFER TO ARCHITECTURAL DOCUMENTS FOR EXACT MOUNTING LOCATIONS OF LIGHT FIXTURES.
3. WHEN INSTALLING LIGHT FIXTURES THE CONTRACTOR SHALL USE THE LIGHT FIXTURE MANUFACTURER'S MOUNTING HARDWARE AND FOLLOW ALL MANUFACTURER INSTALLATION DIRECTIONS.
4. CONTRACTOR IS RESPONSIBLE FOR ALL MISCELLANEOUS HARDWARE, CLIPS, ANGLES, FRAMES, ETC. AS REQUIRED TO MOUNT THE FIXTURES IN OR ON THE SURFACES THEY ARE TO BE INSTALLED.
5. ALL RECESSED DOWNLIGHTS MUST BE INSTALLED SO THAT THE BOTTOM OF THE THROAT IS EVEN WITH THE FINISHED CEILING PLANE UNLESS NOTED OTHERWISE. THE OVERLAPPING FLANGE MUST FIT FLUSH TO THE CEILING PLANE/THROAT. NO LIGHT LEAK MAY BE VISIBLE. ALL MISCELLANEOUS HARDWARE ABOVE THE CEILING PLANE TO ACCOMPLISH THE ABOVE SHALL BE INCLUDED IN THE BASE BID.
6. ALL RECESSED DOWNLIGHTS SHALL HAVE SELF-FLANGED REFLECTORS UNLESS NOTED OTHERWISE.
7. WHEN INSTALLING COMPACT FLUORESCENT LAMP LUMINARIES, CONSISTENT LAMP ORIENTATION SHALL BE MAINTAINED IN A CONTIGUOUS AREA.

REF. CEILING PLAN LEGEND

NOTES:
- SEE INTERIOR ELEVATIONS FOR LOCATIONS OF UNDERCABINET LIGHT FIXTURES.

	SUSPENDED ACOUSTICAL LAY-IN CEILING, 2' x 2' OR 2' x 4' AS SHOWN
	SUSPENDED GYPSUM BOARD CEILING OR SOFFIT
	RECESSED LAY-IN LIGHT FIXTURE 2' x 2' OR 2' x 4' AS SHOWN
	RECESSED LINEAR LIGHT FIXTURE
	RECESSED DOWNLIGHT FIXTURE
	CEILING MOUNTED EXIT SIGN SHADED AREAS INDICATE FACES ARROWS INDICATE DIRECTION OF EGRESS
	CEILING MOUNTED EXIT SIGN / EMERGENCY LIGHT SHADED AREAS INDICATE FACES ARROWS INDICATE DIRECTION OF EGRESS
	WIRELESS ACCESS POINT - CEILING MOUNTED
$ "X"	SWITCH HEIGHT AS NOTED
$3 "X"	3-WAY SWITCH HEIGHT AS NOTED
$4 "X"	4-WAY SWITCH HEIGHT AS NOTED
$D "X"	DIMMER SWITCH HEIGHT AS NOTED
T "X"	THERMOSTAT HEIGHT AS NOTED
	EXHAUST FAN
	WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL
	SPRINKLER HEAD
S	CEILING SPEAKER

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WAREHOUSE OFFICE REFLECTED CEILING PLAN

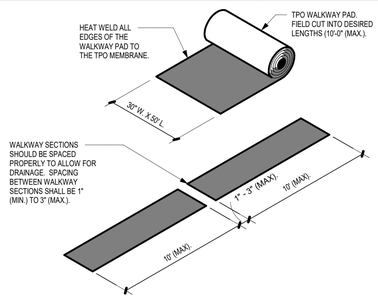
No.	Revision	Date

Project No. 24059

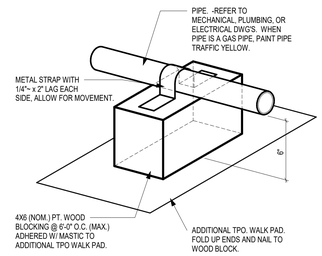
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Date 03/30/2026

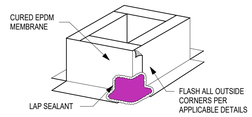
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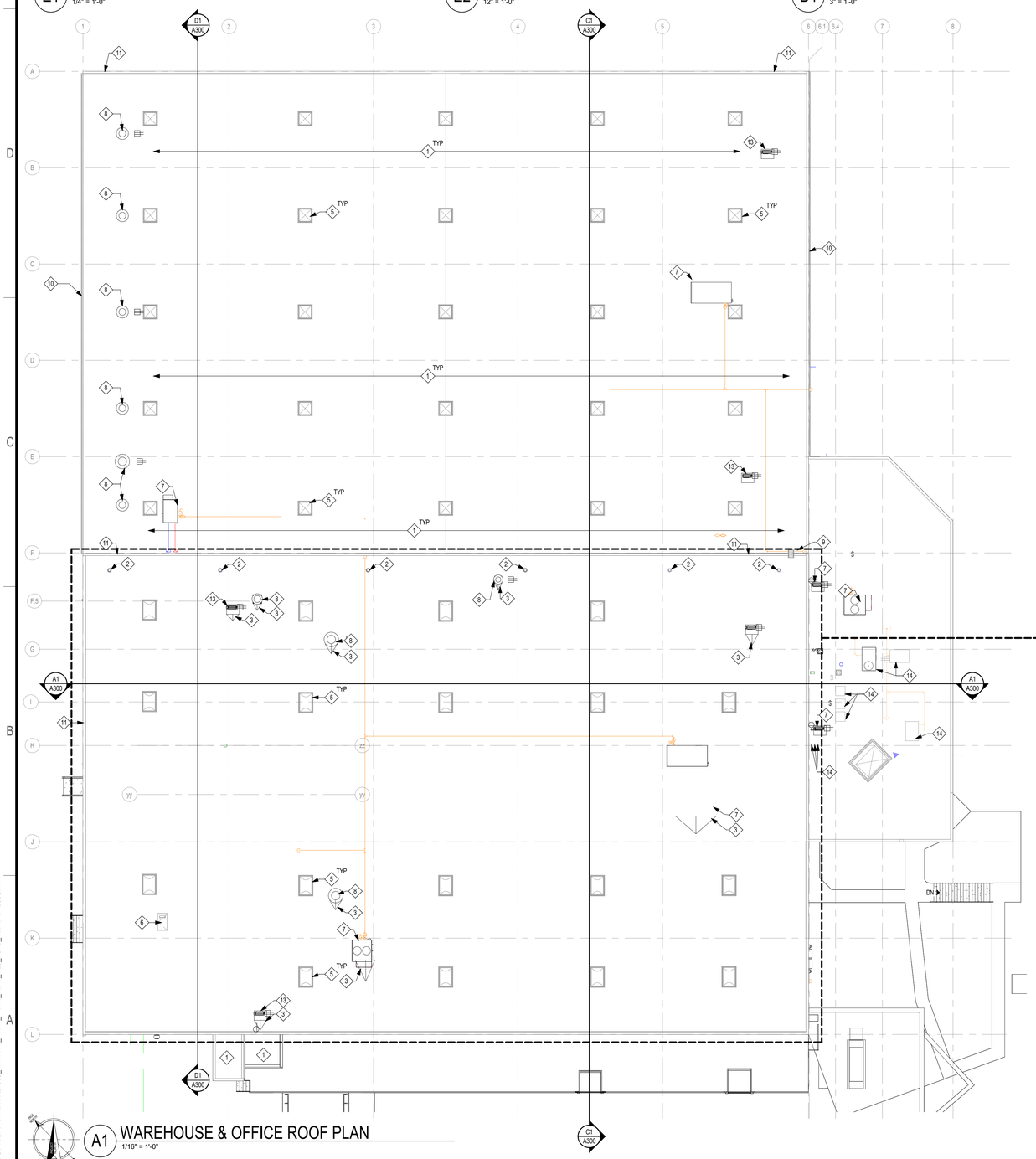
E1 TPO WALKWAY PAD DETAIL
1/4" = 1'-0"



E2 ROOF PIPE SUPPORT DETAIL
12" = 1'-0"



B4 TYP. RTU CURB FLASHING
3" = 1'-0"



A1 WAREHOUSE & OFFICE ROOF PLAN
1/16" = 1'-0"

BASE SCOPE IS SHOWN. NOT SHOWN - ALTERNATE #5 – SOUTH ROOF REPLACEMENT. THE SCOPE OF THIS ALTERNATE IS TO REMOVE AND REPLACE THE ROOF ON THE SOUTH WAREHOUSE SECTION OF BUILDING. THIS WOULD INCLUDE THE OVERFLOW DRAINS AND ASSOCIATED PIPING. ALL MISCELLANEOUS PATCHING FOR NEW PENETRATIONS SHALL BE IN THE BASE SCOPE.

KEYED NOTES ROOF PLAN

MARK	DESCRIPTION
1	EXISTING ROOFING ASSEMBLY TO REMAIN.
2	EXISTING ROOF DRAIN TO REMAIN. REFERENCE PLUMBING DRAWINGS.
3	ROOF CRICKET.SLOPE 1/2" PER FOOT.
5	EXISTING SKYLIGHT TO REMAIN.
6	EXISTING ROOF HATCH AND LADDER TO REMAIN.
7	NEW RTU. REFERENCE MECHANICAL DRAWINGS.
8	NEW EXHAUST AIR HOOD. REFERENCE MECHANICAL DRAWINGS.
9	EXISTING SHIP LADDER WITH PLATFORM AND RETURN TO REMAIN.
10	EXISTING PRE-ENGINEERED GUTTER AND DOWNSPOUT TO REMAIN.
11	EXISTING METAL COPING TO REMAIN.
13	NEW CONDENSING UNIT. REFERENCE MECHANICAL DRAWINGS.
14	EXISTING RTU , CU, EXHAUST FAN, AND AHU FLUES TO REMAIN. REFERENCE MECHANICAL DRAWINGS.

ROOF PLAN GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL PENETRATIONS WITH ALL MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT AND TRADES.
2. CONTRACTOR SHALL COORDINATE LOCATION OF DOWNSPOUTS WITH CIVIL PLANS.
3. IN THE EVENT OF CONFLICT, ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER CIVIL DRAWINGS FOR LOCATION AND QUANTITY OF DOWNSPOUTS.
4. REFER TO STRUCTURAL DRAWINGS FOR MINIMUM ROOF SHEATHING REQUIREMENTS.
5. SEE APPLICABLE UL ASSEMBLIES AS DESCRIBED ELSEWHERE IN THESE DRAWINGS FOR REQUIREMENTS DESCRIBED THEREIN. UL REQUIREMENTS OR DETAILING SHALL TAKE PRECEDENCE SHOULD ANY DISCREPANCIES ARISE.
6. GENERAL CONTRACTOR SHALL ENSURE DESIGN VENTILATION REQUIREMENT DESCRIBED HEREIN TO BE MET IF SUBSTITUTIONS OF MATERIAL TYPES AND QUANTITIES ARE SUBMITTED AND APPROVED BY THE ARCHITECT. GC ASSUMES RESPONSIBILITY FOR TYPE, LOCATION, ARRANGEMENT AND QUANTITIES FOR MEETING THESE REQUIREMENTS.
7. SEE REFLECTED CEILING PLAN FOR EXTENT OF SOFFIT AREAS. GC TO PROVIDE LAYOUT OF SOFFIT AREA FOR INTAKE AIR, SIZED AND EQUALLY DISTRIBUTED PER CALCULATIONS DESCRIBED ELSEWHERE IN THESE DOCUMENTS.UMBING AND FIRE PROTECTION SYSTEMS, REQUEST CLARIFICATION FROM ARCHITECT PRIOR TO INSTALLATION.
8. EXISTING EXTERIOR LIGHTING IS TO REMAIN.

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WAREHOUSE AND OFFICE ROOF PLAN

Project No. 24059
Sheet No. A120
Date 03/30/2026

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ALTERNATE #1B – WHOLE BUILDING GENERATOR. THE ADDITION OF AN EXTERIOR FULL-BUILDING GENERATOR THAT WILL REPLACE THE BASE SCOPE EXTERIOR PORTABLE ENGINE GENERATOR DOCKING STATION. REFER TO THE ELECTRICAL ONE-LINE DRAWING AND OTHER ELECTRIC DRAWINGS.

ALTERNATE #4 – PAINT EXTERIOR. THE SCOPE SHALL INCLUDE BUT MAY NOT BE LIMITED TO PAINTING THE ENTIRE EXTERIOR OF THE BUILDING AS INDICATED IN THE DOCUMENTS. BASE SCOPE SHALL INCLUDE ANY PATCHING OF EXISTING PAINT DUE TO SCHEDULED IMPROVEMENTS.

KEYED NOTES EXTERIOR ELEV.

MARK	DESCRIPTION
1	EXISTING CMU PARTITION TO REMAIN. SURFACE TO RECEIVE ALTERNATE # 4.
2	EXISTING TILT-UP CONCRETE PARTITION TO REMAIN. SURFACE TO RECIEVE ALTERNATE # 4.
3	EXISTING HOLLOW METAL DOOR TO REMAIN.
4	EXISTING OVERHEAD DOOR TO REMAIN.
5	EXISTING WINDOW TO REMAIN.
6	NEW HOLLOW METAL DOOR, FRAME, AND HARDWARE. REFERENCE DOOR SCHEDULE.
7	NEW RTU ON EXISTTING ROOF. REFERENCE MECHANCIAL DRAWINGS FOR MORE INFORMATION.
8	NEW EXHAUST AIR HOOD ON EXISTTING ROOF. REFERENCE MECHANICAL DRAWINGS FOR MORE INFORMATION.
9	NEW CMU INFILL. GC TO VERIFY IN FIELD MEASUREMENTS.
10	NEW CONDENSER UNIT ON EXISTTING ROOF. REFERENCE MECHANCIAL DRAWINGS FOR MORE INFORMATION.
11	NEW MAU ON EXISTTING ROOF. REFERENCE MECHANCIAL DRAWINGS FOR MORE INFORMATION.
12	NEW OUTSIDE AIR ON EXISTTING ROOF. REFERENCE MECHANCIAL DRAWINGS FOR MORE INFORMATION.
13	EXISTING SHIP LADDER WITH PLATFORM AND RETURN TO REMAIN.
14	EXISTING SKYLIGHT TO REMAIN.
15	NEW WALL PACK LIGHT FIXTURE. REFERENCE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
16	NEW SECURITY CAMERA BY OWNER ACCESS CONTROL VENDOR. GC TO PROVIDE ROUGH-IN WIRING FOR DEVICE. COORDINATE WITH OWNER ACCESS CONTROL VENDOR AND ELECTRICAL DRAWINGS.
17	GALV. METAL HIGHWAY GUARDRAIL (W-BEAM) WITH POST AND SUPPORTING HARDWARE. BASIS OF DESIGN GWB25G U.S. BARRICADES.
18	NEW CONCRETE DOCK RAMP. REFERENCE CIVIL DRAWINGS.
19	NEW CONCRETE STAIR, METAL GUARDRAIL AND HANDRAIL. REFERENCE DETAILS.
20	EXISTING CONCRETE STAIR AND HANDRAIL TO REMAIN.
21	NEW METAL LOUVERS. PROVIDE ARCHITECT WITH COLOR SELECTION OPTIONS PRIOR TO EXECUTION. REFRENCE MECHANICAL DRAWINGS FOR MORE INFORMATION.
22	EXISTING PRE-ENGINEERED METAL COPING / GUTTER TO REMAIN.
23	EXISTING MECHANICAL SYSTEMS ON EXISTTING ROOF. REFERENCE MECHANICAL DRAWINGS FOR MORE INFORMATION.
24	EXISTING RTU TO REMAIN. REFERENCE MECHANICAL DRAWINGS FOR MORE INFORMATION.
25	EXISTING WALL PACK TO REMAIN. REFERENCE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
26	EXISTING STOREFRONT DOOR TO REMAIN.
27	EXISTING CT CABINET. REFERENCE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
28	NEW CT CABINET. REFERENCE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
29	NEW ELECTRICAL PANEL. REFERENCE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
30	ALTERNATE# 1B: NEW WHOLE BUILDING GENERATOR. REFERENCE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
31	RELOCATED EXISTING 16' X 5'6" COILING DOOR AND HOOD TO RECIEVE POWER FOR NEW OPERATOR AND CONTROLS. REFERENCE DOOR SCHEDULE.
32	EXISTING DOCK LEVELER TO REMAIN.
33	OWNER PROVIDED AND FURNISHED DUMPSTER.
34	EXISTING CONCRETE RAMP AND GUARDRAIL TO REMAIN.
35	THICKEN CONCRETE WALL. REFERENCE CIVIL DRAWINGS.
36	NEW CONCRETE STAIR, METAL GUARDRAIL, AND HANDRAIL. REFERENCE DETAILS AND A101.
37	NEW 4'-0" HIGH METAL CORNER GUARDS.
38	EXISTING CONCRETE RAMP TO REMAIN.

D1 NORTH EXTERIOR ELEVATION
3/32" = 1'-0"

C1 WEST EXTERIOR ELEVATION
3/32" = 1'-0"

B1 EAST EXTERIOR ELEVATION
3/32" = 1'-0"

A1 SOUTH EXTERIOR ELEVATION
3/32" = 1'-0"

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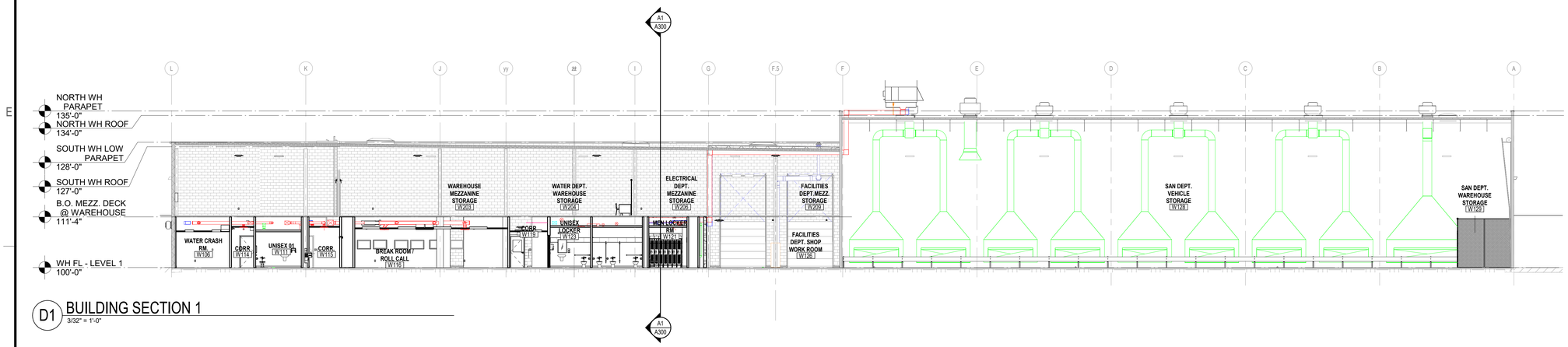
EXTERIOR ELEVATIONS

Project No. 24059

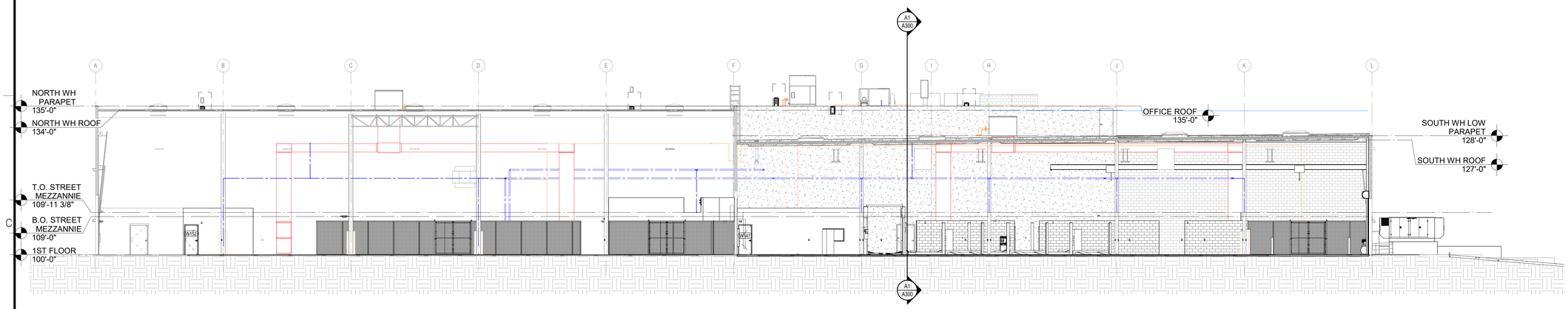
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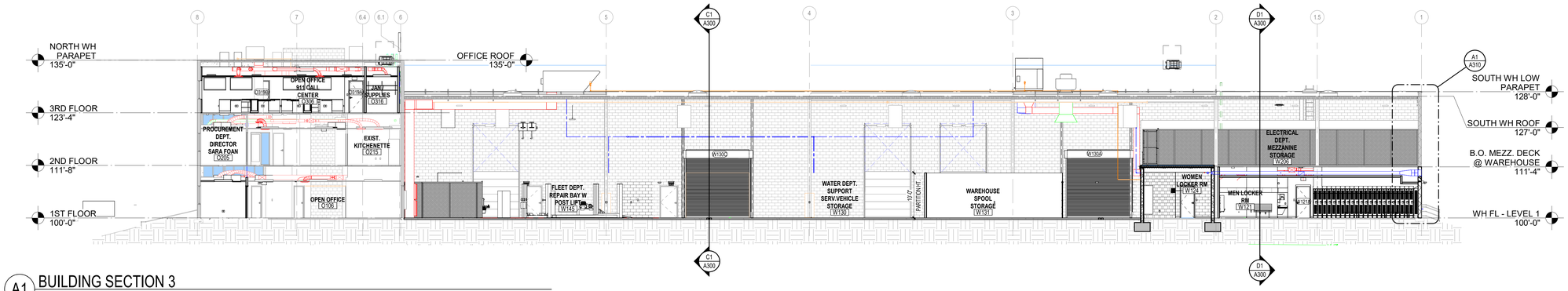
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D1 BUILDING SECTION 1
3/32" = 1'-0"



C1 BUILDING SECTION 2
3/32" = 1'-0"



A1 BUILDING SECTION 3
3/32" = 1'-0"

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SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

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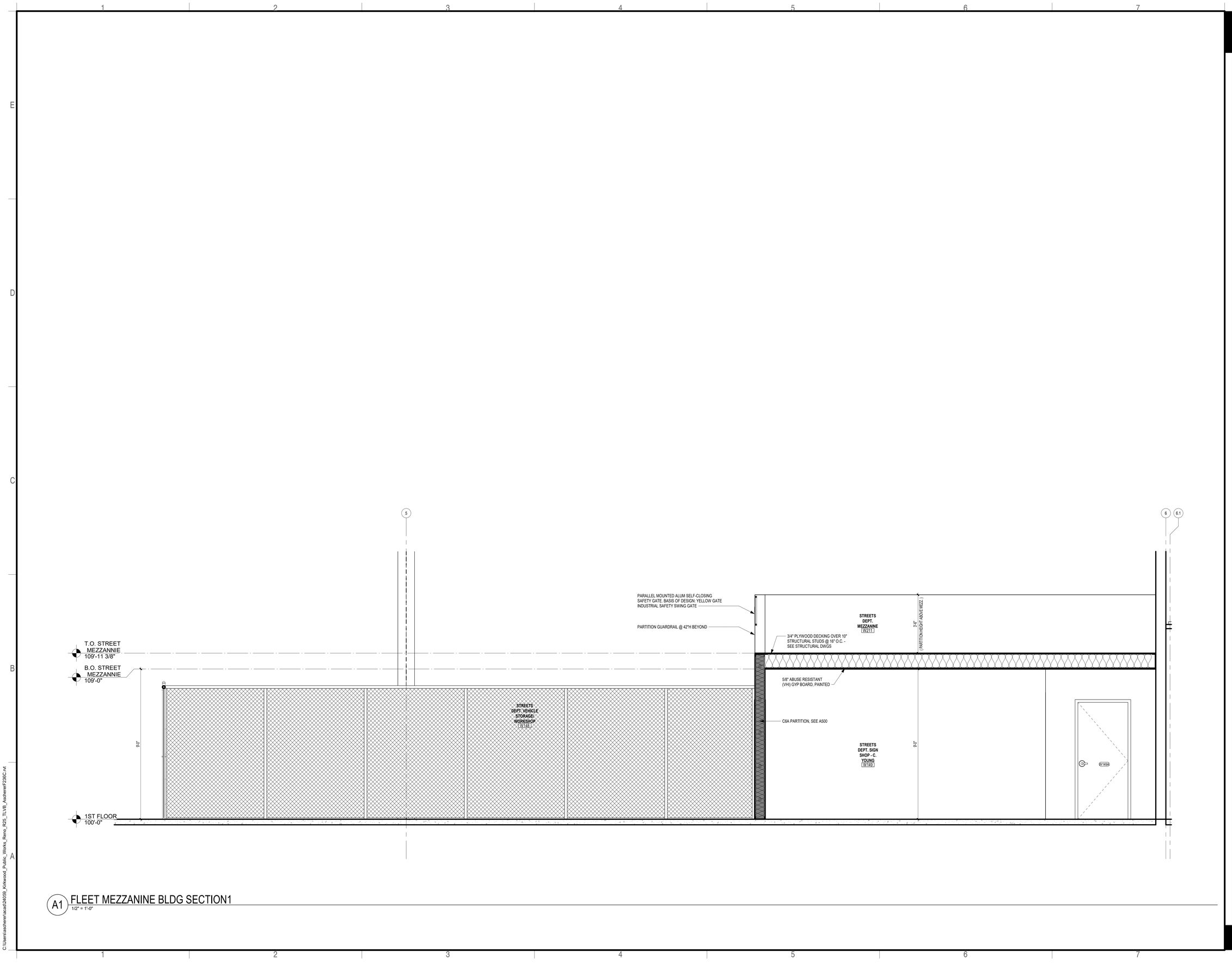
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BUILDING SECTIONS

Project No. 24059
Sheet No. A300
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A1 FLEET MEZZANINE BLDG SECTION1
1/2" = 1'-0"

SCALE: 3" = 1'-0" SCALE: 1 1/2" = 1'-0" SCALE: 1" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 3/32" = 1'-0" SCALE: 1/16" = 1'-0"

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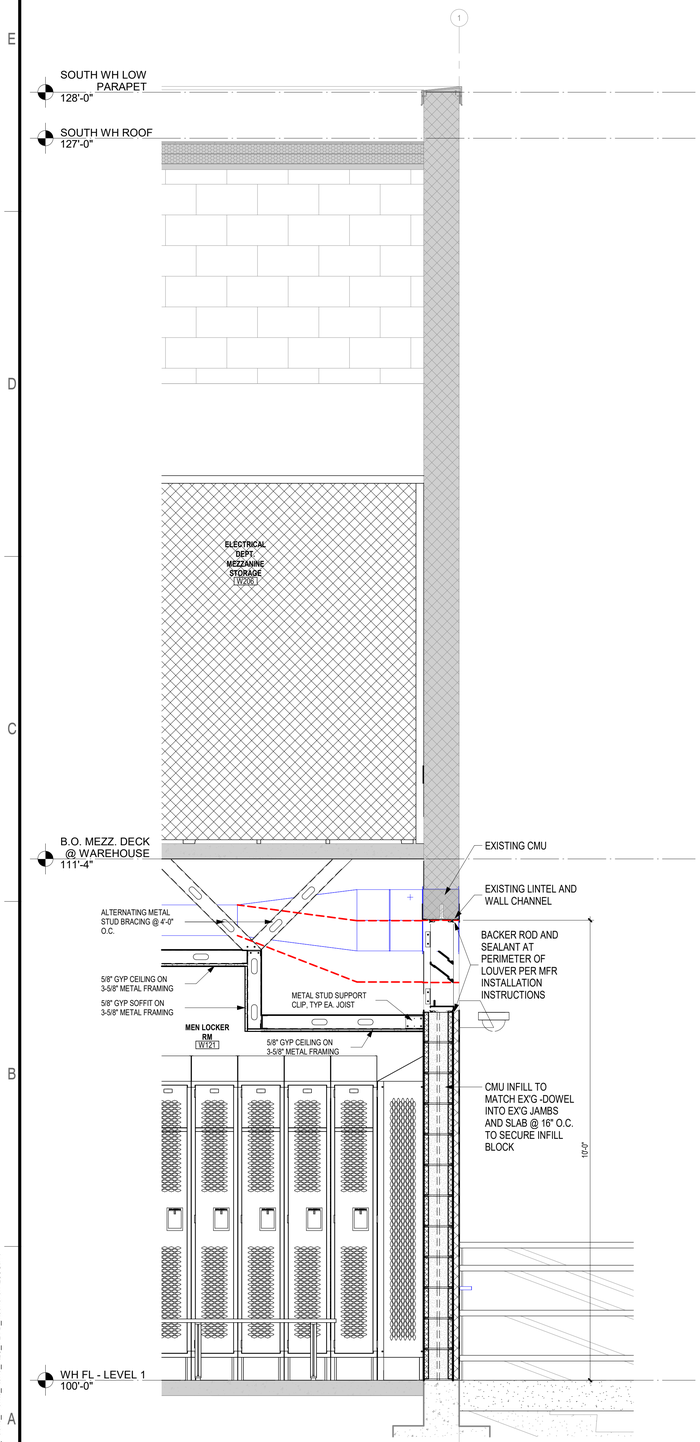
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ENLARGED BUILDING SECTION

Project No. 24059
Sheet No. A301
Date 03/30/2026



A1 WALL SECTION 1
3/4" = 1'-0"

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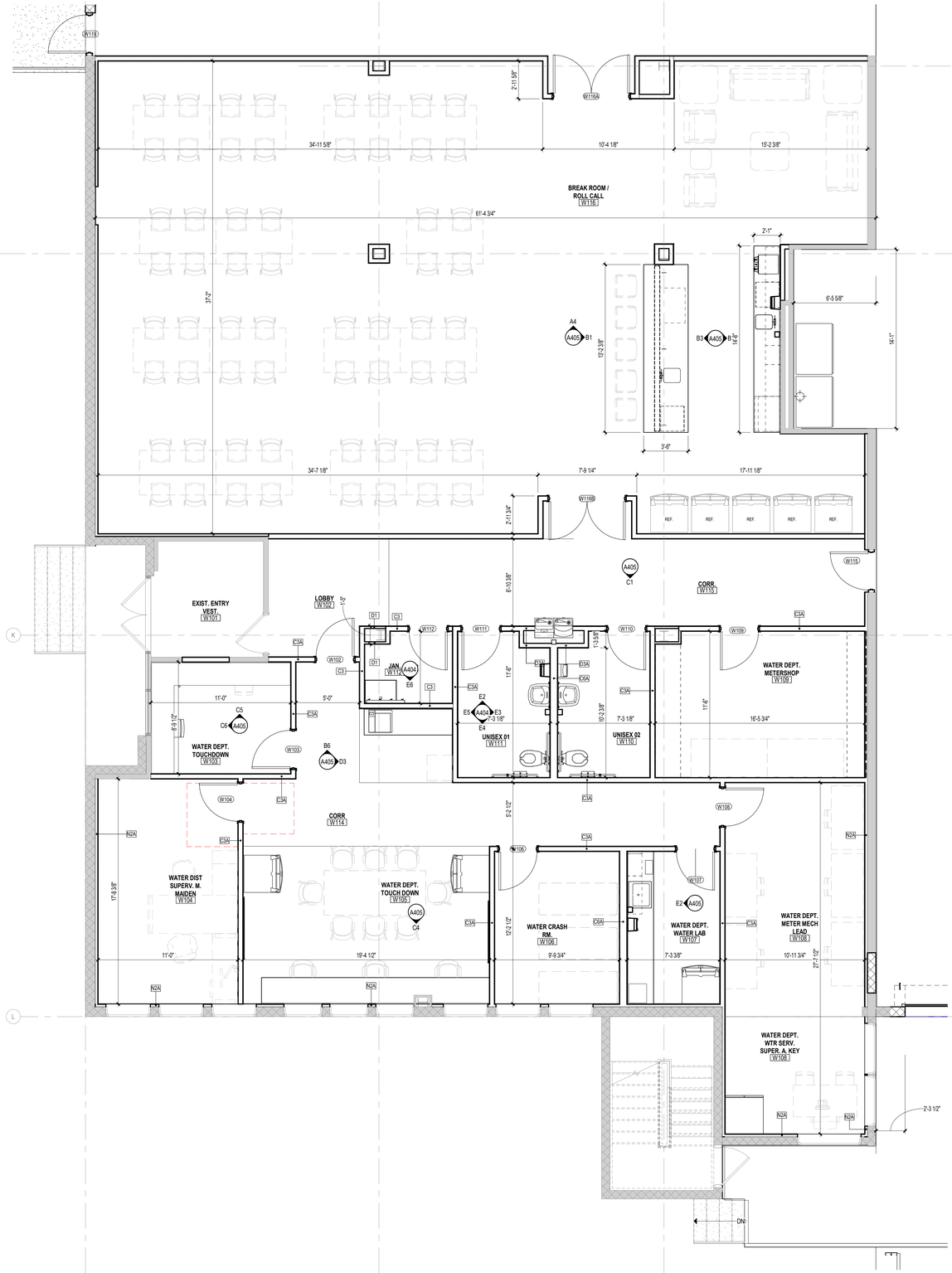
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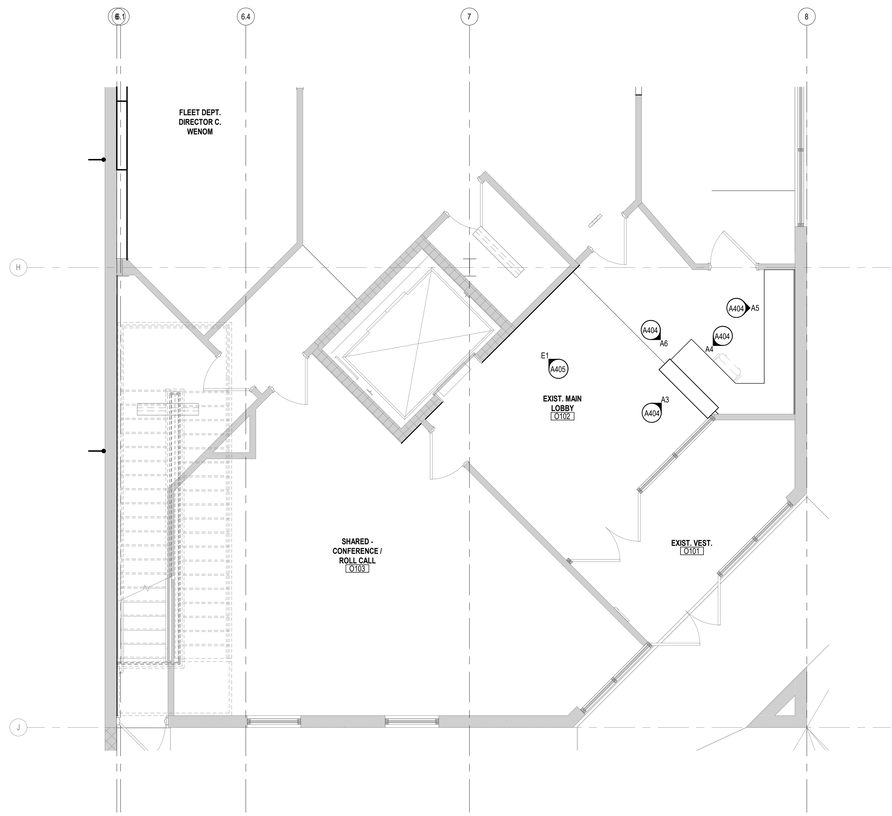
WALL SECTIONS

Project No.
24059

Sheet No.
A310

Date
03/30/2026





A1 ENLARGED WAREHOUSE FLOOR PLAN
1/4" = 1'-0"

A5 ENLARGED WAREHOUSE FLOOR PLAN
1/4" = 1'-0"

SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

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ENLARGED FLOOR PLANS

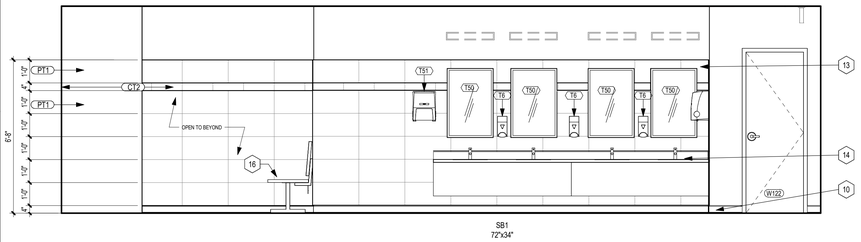
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Date 03/30/2026

TOILET ACCESSORY SCHEDULE

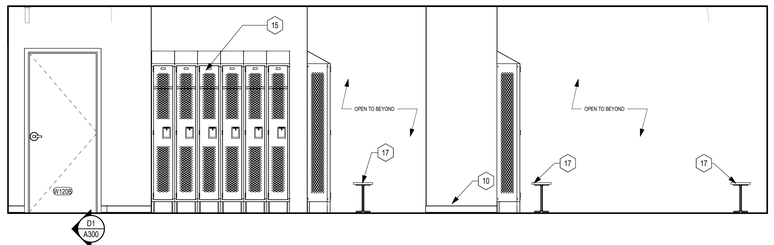
TYPE MARK	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	FINISH	REMARKS
T6	SOAP DISPENSER				
T9	URINAL				
T11	REVERSEIBLE FOLDING SHOWER SEAT	BOBRICK	B-5181		WHITE PHENOLIC
T12	MOP BROOM HOLDER	BOBRICK	B-223		
T20	1 1/2" DIAMETER STAINLESS STEELGRAB BARS WITH FLANGE	BOBRICK	B-6806	SS	STAINLESS
T21	RESTROOM TOILET PARTITIONS, URINAL SCREENS	BRADLEY	PHENOLIC		
T50	MIRROR W/ S.S. CHANNEL FRAME	BOBRICK	B165 2426		STAINLESS
T51	SURFACE-MOUNTED ROLL PAPER TOWEL DISPENSER	GLOBAL	WB641289		
T52	VINYL SHOWER CURTAIN	BOBRICK	B-204-2		

KEYED NOTES INT. ELEV.

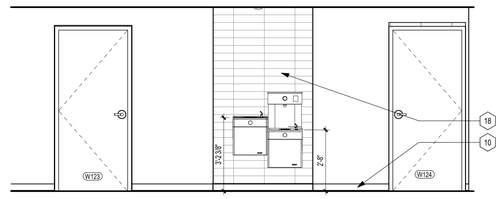
MARK	DESCRIPTION
10	BASE AS SCHEDULED, SEE FINISH SCHEDULE
12	SOLID SURFACE SHOWER SURROUNDS. SOLID SURFACE ON WING WALLS. PROVIDE BEAD OF CLEAR SEALANT TOP OF PANELS TO CEILING
13	TILE WAINSCOT HEIGHT AS INDICATED, PAINTED WALL ABOVE. SEE FINISH SCHEDULE.
14	CUSTOM BUILT IN RESTROOM VANITY WITH SOLID SURFACE TOPS, INTEGRAL SOLID SURFACE SINK, PLASTIC LAMINATE ANGLED REMOVEABLE ADA PANELS. SEE FINISH SCHEDULE
15	NEW METAL LOCKERS, SEE FLOOR FINISH PLAN
16	PROVIDE & INSTALL ADA BENCH W/BACK, PAINTED STEEL PEDESTALS, BOLT TO FLOOR
17	NEW LOCKER ROOM BENCHES, SEE FINISH SCHEDULE
18	FULL HEIGHT CERAMIC TILE BACKSPLASH BEHIND DRINKING FOUNTAIN, SEE FINISH SCHEDULE
22	OWNER FURNISHED AND INSTALLED EQUIPMENT.



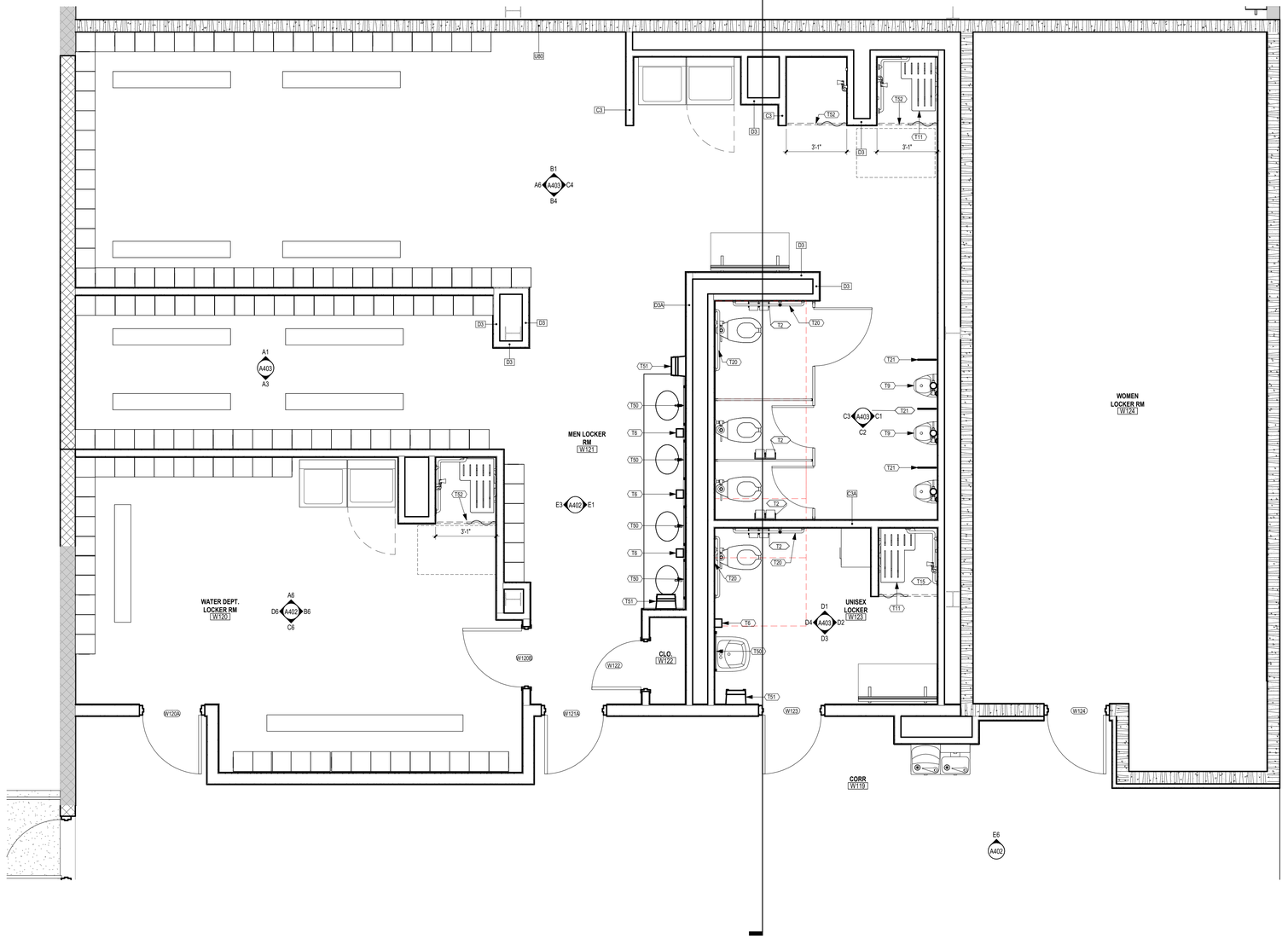
E1 MEN LOCKER RM/W121 E
3/8" = 1'-0"



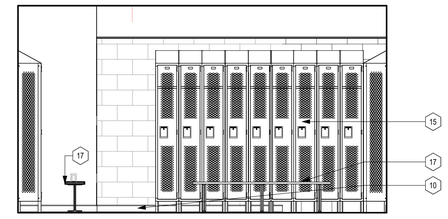
E3 MEN LOCKER RM/W121 W
3/8" = 1'-0"



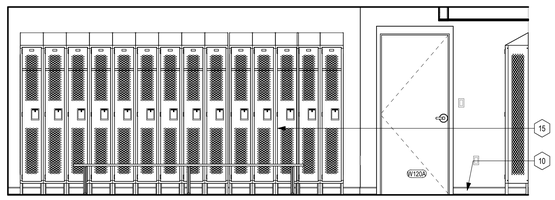
E6 CORR/W119
3/8" = 1'-0"



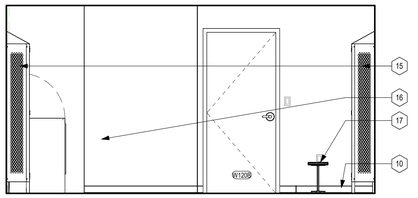
A1 ENLARGED_WAREHOUSE_L01_LOCKER ROOM
3/8" = 1'-0"



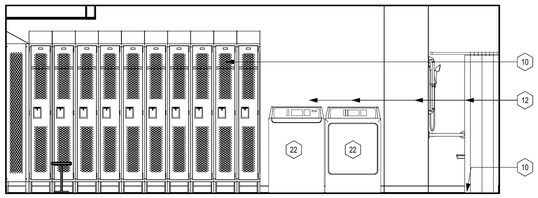
D6 LOCKER RM/W120 W
3/8" = 1'-0"



C6 LOCKER RM/ W120 S
3/8" = 1'-0"



B6 LOCKER RM/W120 E
3/8" = 1'-0"



A6 LOCKER RM/W120 N
3/8" = 1'-0"

STATE OF MISSOURI
ROY A. MANGAN
NUMBER A-6661
ARCHITECT
Roy A. Mangan 3/30/2026
MO Architect License No: A-6661
Expires: 12/31/2026

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[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

No.	Revision	Date

ENLARGED LOCKER RMS/ELEVATIONS

Project No. 24059
Sheet No. A402
Date 03/30/2026

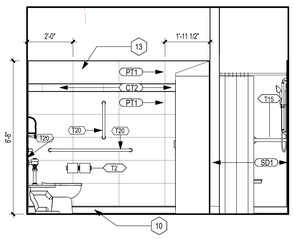
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TOILET ACCESSORY SCHEDULE

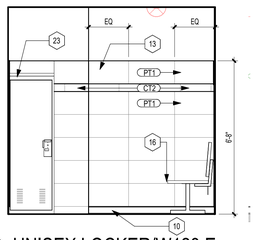
TYPE MARK	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	FINISH	REMARKS
T6	SOAP DISPENSER				
T9	URINAL				
T11	REVERSEIBLE FOLDING SHOWER SEAT	BOBRICK	B-5181		WHITE PHENOLIC
T12	MOP BROOM HOLDER	BOBRICK	B-223		
T20	1 1/2" DIAMETER STAINLESS STEELGRAB BARS WITH FLANGE	BOBRICK	B-6806	SS	STAINLESS
T21	RESTROOM TOILET PARTITIONS, URINAL SCREENS	BRADLEY	PHENOLIC		
T50	MIRROR W/ S.S. CHANNEL FRAME	BOBRICK	B165 2426		STAINLESS
T51	SURFACE-MOUNTED ROLL PAPER TOWEL DISPENSER	GLOBAL	WB641289		
T52	VINYL SHOWER CURTAIN	BOBRICK	B-204-2		

KEYED NOTES INT. ELEV.

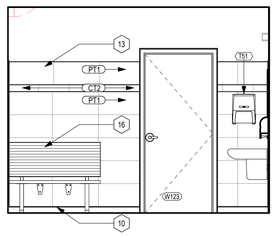
MARK	DESCRIPTION
10	BASE AS SCHEDULED, SEE FINISH SCHEDULE
12	SOLID SURFACE SHOWER SURROUNDS. SOLID SURFACE ON WING WALLS. PROVIDE BEAD OF CLEAR SEALANT TOP OF PANELS TO CEILING
13	TILE WAINSCOT HEIGHT AS INDICATED, PAINTED WALL ABOVE. SEE FINISH SCHEDULE.
15	NEW METAL LOCKERS, SEE FLOOR FINISH PLAN
16	PROVIDE & INSTALL ADA BENCH W/BACK, PAINTED STEEL PEDESTALS, BOLT TO FLOOR
22	OWNER FURNISHED AND INSTALLED EQUIPMENT.
23	PROVIDE & INSTALL NEW METAL LOCKERS, SEE FINISH SCHEDULE



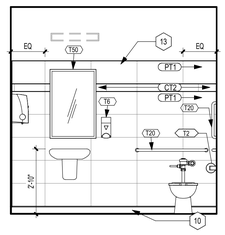
D1 UNISEX LOCKER/W123 N
3/8" = 1'-0"



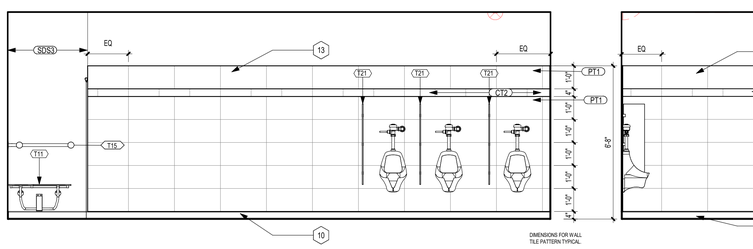
D2 UNISEX LOCKER/W123 E
3/8" = 1'-0"



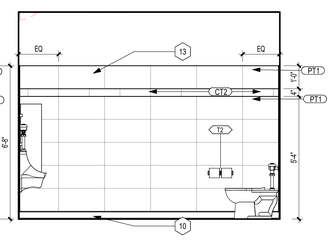
D3 UNISEX LOCKER/W123 S
3/8" = 1'-0"



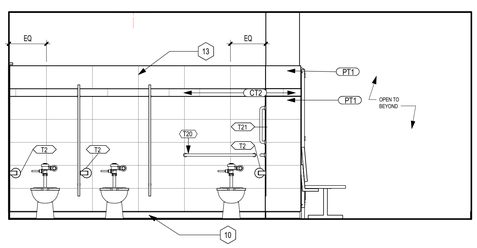
D4 UNISEX LOCKER/W123 W
3/8" = 1'-0"



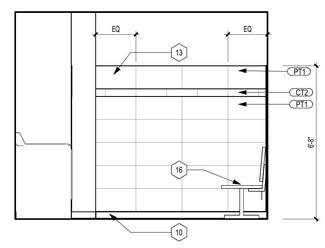
C1 MEN LOCKER RM/W121 E2
3/8" = 1'-0"



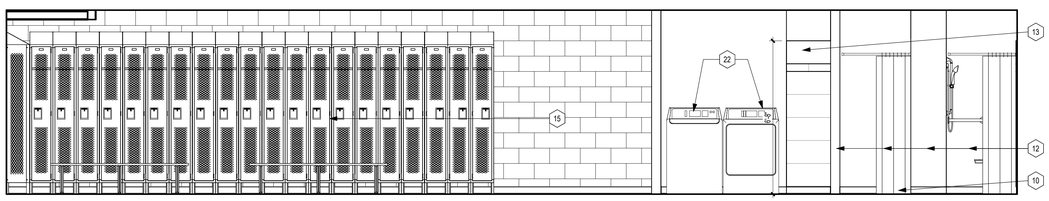
C2 MEN LOCKER RM/W121 S3
3/8" = 1'-0"



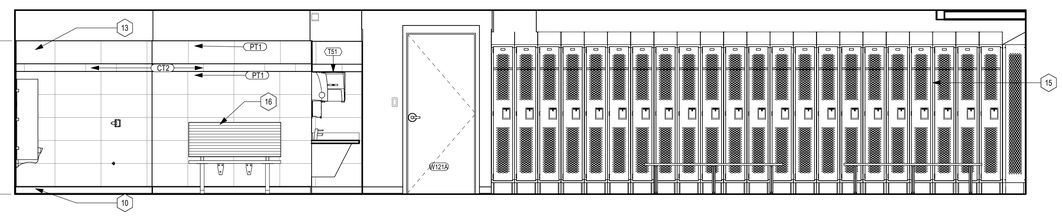
C3 MEN LOCKER ROOM/W121 W3
3/8" = 1'-0"



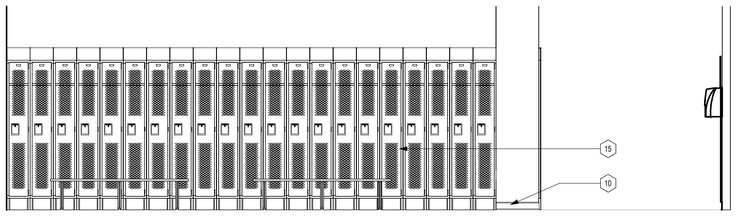
C4 MEN LOCKER RM/W121
3/8" = 1'-0"



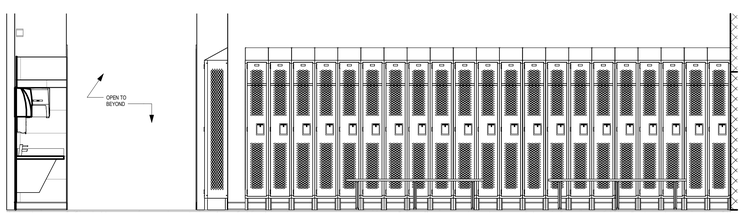
B1 MEN LOCKER RM/W121 N2
3/8" = 1'-0"



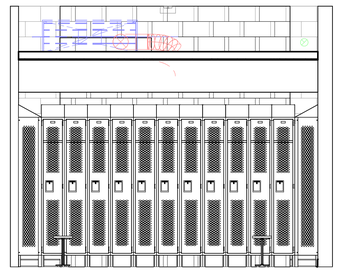
B4 MEN LOCKER RM/W121 S2
3/8" = 1'-0"



A1 MEN LOCKER RM/W121 N1
3/8" = 1'-0"



A3 MEN LOCKER RM/W121 S1
3/8" = 1'-0"



A6 MEN LOCKER RM/W121 W2
3/8" = 1'-0"

SCALE: 3" = 1'-0" 1" 6" 3" 0
SCALE: 1 1/2" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1" = 1'-0" 2" 1" 6" 0
SCALE: 3/4" = 1'-0" 3" 2" 1" 0
SCALE: 1/2" = 1'-0" 4" 2" 1" 0
SCALE: 3/8" = 1'-0" 6" 4" 2" 0
SCALE: 1/4" = 1'-0" 8" 4" 2" 0
SCALE: 1/8" = 1'-0" 16" 8" 4" 0
SCALE: 3/32" = 1'-0" 24" 16" 8" 0
SCALE: 1/16" = 1'-0" 32" 16" 8" 0

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STATE OF MISSOURI
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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

LOCKER RMS ELEVATIONS

Project No.
24059

Sheet No.
A403

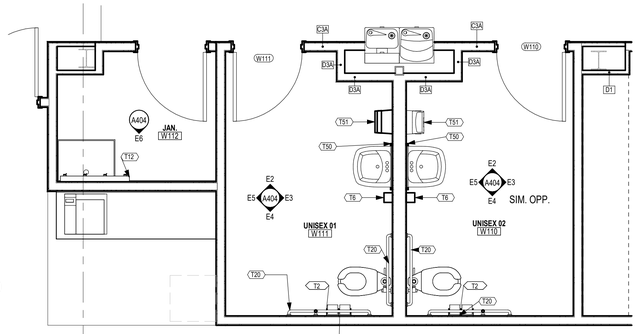
Date
03/30/2026

TOILET ACCESSORY SCHEDULE

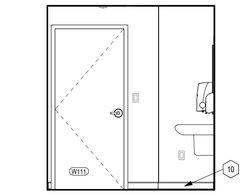
TYPE MARK	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	FINISH	REMARKS
T6	SOAP DISPENSER				
T9	URINAL				
T11	REVERSEIBLE FOLDING SHOWER SEAT	BOBRICK	B-5181		WHITE PHENOLIC
T12	MOP BROOM HOLDER	BOBRICK	B-223		
T20	1 1/2" DIAMETER STAINLESS STEELGRAB BARS WITH FLANGE	BOBRICK	B-6806	SS	STAINLESS
T21	RESTROOM TOILET PARTITIONS, URINAL SCREENS	BRADLEY	PHENOLIC		
T50	MIRROR W/ S.S. CHANNEL FRAME	BOBRICK	B165 2426		STAINLESS
T51	SURFACE-MOUNTED ROLL PAPER TOWEL DISPENSER	GLOBAL	WB641289		
T52	VINYL SHOWER CURTAIN	BOBRICK	B-204-2		

KEYED NOTES INT. ELEV.

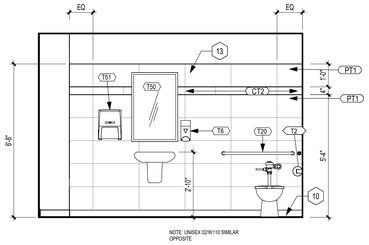
MARK	DESCRIPTION
7	25"D PLASTIC LAMINATE COUNTERTOP WITH 4"H BACKSPLASH AS INDICATED, ANGLED METAL SUPPORTS AS REQUIRED.
10	BASE AS SCHEDULED, SEE FINISH SCHEDULE
13	TILE WAINSCOT HEIGHT AS INDICATED, PAINTED WALL ABOVE. SEE FINISH SCHEDULE.
21	FRP WAINSCOT, SEAMS LOCATION AS INDICATED, SEE FINISH SCHEDULE



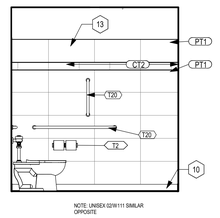
E1 ENLARGED WAREHOUSE_L01_WATER ADMIN RR
3/8" = 1'-0"



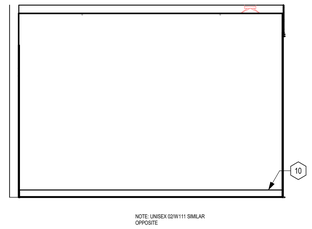
E2 UNISEX 01/W111 N
3/8" = 1'-0"



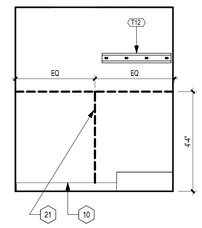
E3 UNISEX 01/W111 E
3/8" = 1'-0"



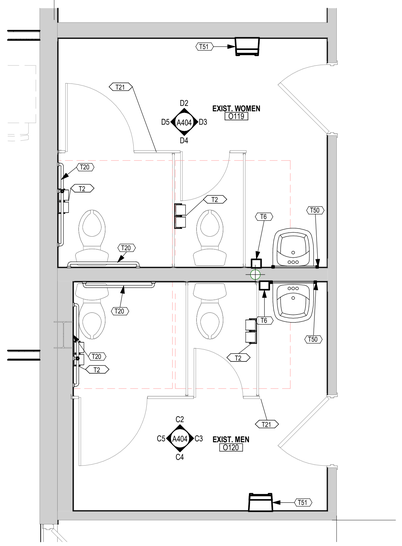
E4 UNISEX 01/W111 S
3/8" = 1'-0"



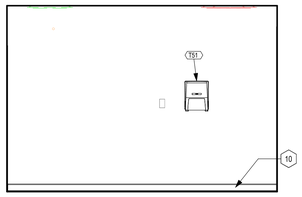
E5 UNISEX 01/W111 W
3/8" = 1'-0"



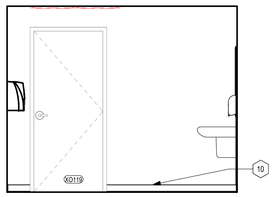
E6 JANITOR W112
3/8" = 1'-0"



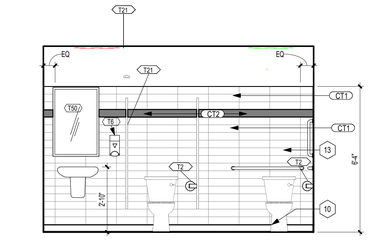
C1 ENLARGED_OFFICE_L01_RR
3/8" = 1'-0"



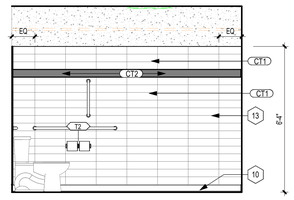
D2 EXIST.WOMEN/0119 & 0212 N
3/8" = 1'-0"



D3 EXIST. WOMEN/0113 & 0213 E
3/8" = 1'-0"

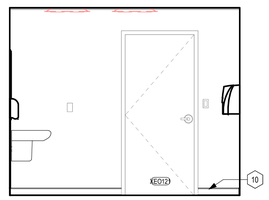


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3/8" = 1'-0"

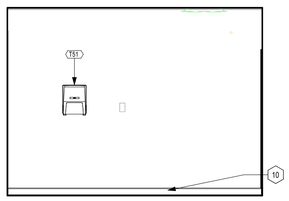


D5 EXIST.WOMEN/0113 & 0213 W
3/8" = 1'-0"

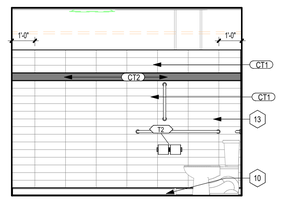
C2 EXIST.MEN/0120 & 0214 N
3/8" = 1'-0"



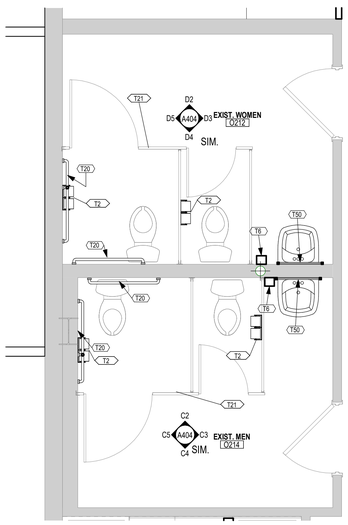
C3 EXIST.MEN/0120 & 0214 E
3/8" = 1'-0"



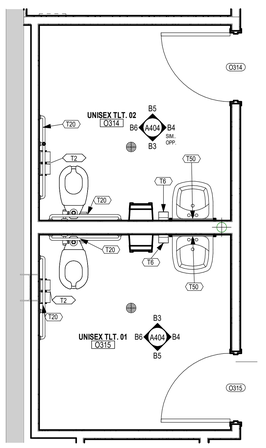
C4 EXIST.MEN/0120 & 0214 S
3/8" = 1'-0"



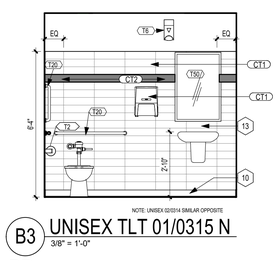
C5 EXIST.MEN/0120 & 0214 W
3/8" = 1'-0"



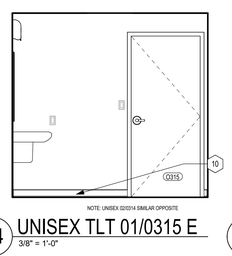
A1 ENLARGED_OFFICE_L02_RR
3/8" = 1'-0"



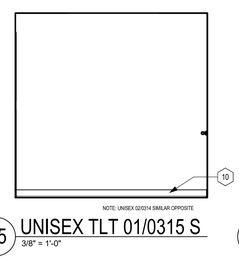
B2 ENLARGED_OFFICE_L03_FLOOR PLAN_RR
3/8" = 1'-0"



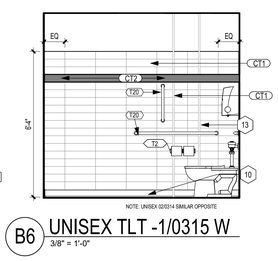
B3 UNISEX TLT 01/0315 N
3/8" = 1'-0"



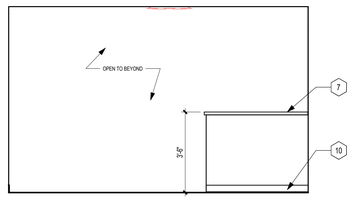
B4 UNISEX TLT 01/0315 E
3/8" = 1'-0"



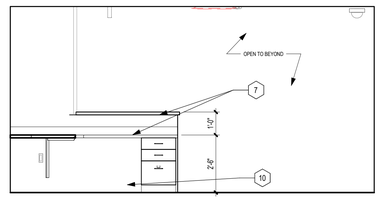
B5 UNISEX TLT 01/0315 S
3/8" = 1'-0"



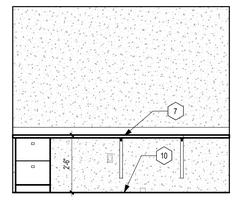
B6 UNISEX TLT -1/0315 W
3/8" = 1'-0"



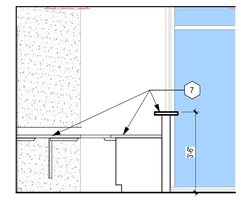
A3 LOBBY O012 RECEPTION
3/8" = 1'-0"



A4 LOBBY O102 RECEPTION 2
3/8" = 1'-0"



A5 LOBBY O102 RECEPTION 3
3/8" = 1'-0"



A6 LOBBY O102 RECEPTION 4
3/8" = 1'-0"

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MO Architect License No: A-6661
Expires: 12/31/2026

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[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

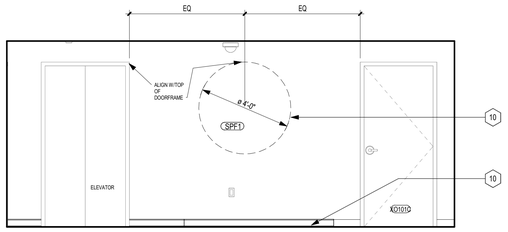
No.	Date	Revision

INTERIOR ELEVATIONS

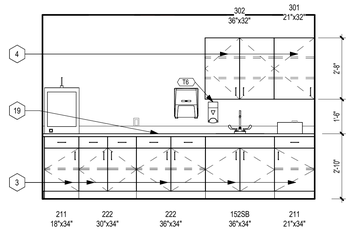
Project No. 24059
Sheet No. A404
Date 03/30/2026

SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

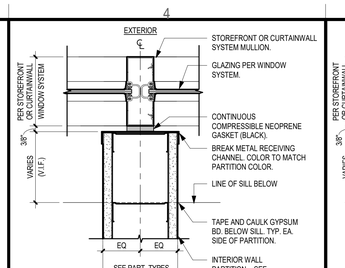
3/30/2026 8:46:14 AM
C:\Users\aschererracad\24059_Kirkwood_Public_Works_Reno_R25_TLVB_AschererF236C.rvt



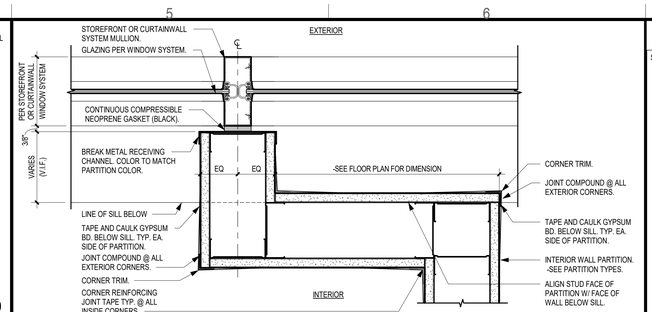
E1 MAIN LOBBY/0102
3/8" = 1'-0"



E2 WATER LAB WEST
3/8" = 1'-0"

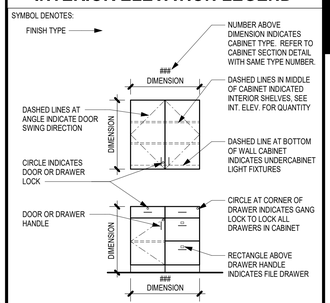


E4 PARTITION TRANSITION DETAIL @ MULLION (ALIGNED)
3" = 1'-0"
08.43.13.03 PART-MULLION TRANS DET 01



E5 PARTITION TRANSITION DETAIL @ MULLION (OFFSET)
3" = 1'-0"
08.43.13.03 PART-MULLION TRANS DET 02

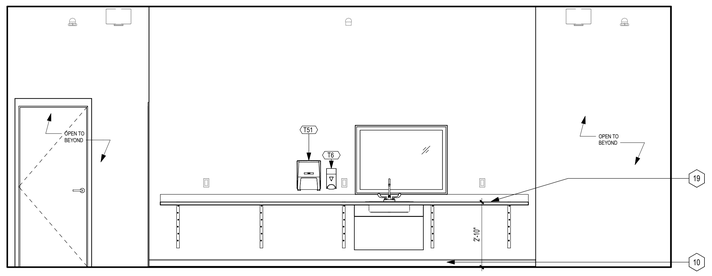
INTERIOR ELEVATION LEGEND



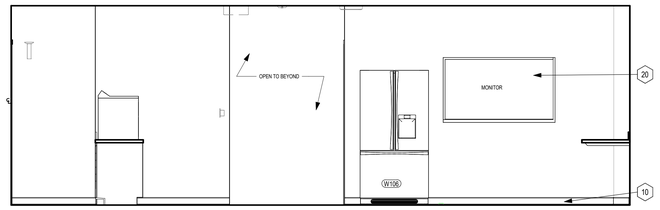
SEE CABINET TYPE SECTION DETAIL FOR CABINET DEPTH UNLESS OTHERWISE NOTED.

KEYED NOTES INT. ELEV.

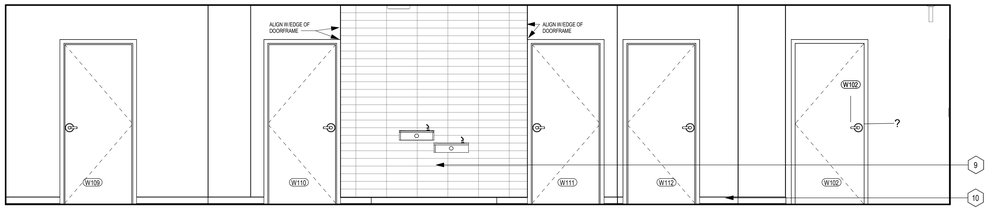
MARK	DESCRIPTION
1	PROVIDE & INSTALL DIAMOND PLATE KICKPLATE SPF2 ENTIRE FRONT FACADE OF ISLAND
2	ISLAND COUNTERTOP 42" DEEP PLASTIC LAMINATE PL2, DROP IN STAINLESS STEEL SINK
3	PLASTIC LAMINATE BASE CABINETS WITH WHITE MELAMINE INTERIOR
4	14" D PLASTIC LAMINATE WALL CABINETS WITH WHITE MELAMINE INTERIOR
5	25"D PLASTIC LAMINATE COUNTERTOP PL2 WITH 4"H BACKSPLASH, DROP IN STAINESS STEEL SINK
7	25"D PLASTIC LAMINATE COUNTERTOP WITH 4"H BACKSPLASH AS INDICATED, ANGLED METAL SUPPORTS AS REQUIRED.
8	GYP. BOARD SOFFIT, PAINT HIGHLIGHT COLOR
9	NEW CERAMIC WALL TILE BACKSPLASH
10	BASE AS SCHEDULED, SEE FINISH SCHEDULE
11	25"D PLASTIC LAMINATE COUNTERTOP & BACKSPLASH. PROVIDE BEAD OF CLEAR SEALANT TOP OF BACKSPLASH TO WALL. PROVIDE ANGLED SUPPORT BRACKETS - BLACK - AS REQUIRED
19	25"D PLASTIC LAMINATE COUNTERTOP & BACKSPLASH PL2. PROVIDE BEAD OF CLEAR SEALANT TOP OF BACKSPLASH TO WALL. PLASTIC LAMINATE BASE CABINET AS INDICATED. PROVIDE ANGLED SUPPORT BRACKETS - BLACK - AS REQUIRED. PLASTIC LAMINATE WALL AND BASE CABINETS AS INDICATED.
20	PROVIDE BLOCKING ALL MONITOR LOCATIONS, TYP.



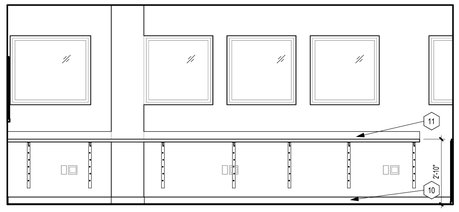
D1 FACALITIES/W124
3/8" = 1'-0"



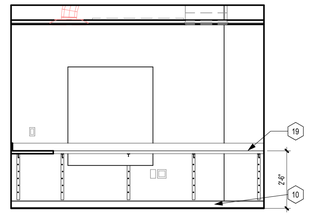
D3 CORR/W114
3/8" = 1'-0"



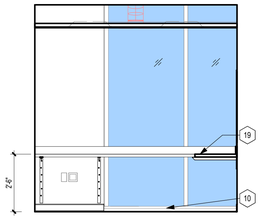
C1 CORR/W115
3/8" = 1'-0"



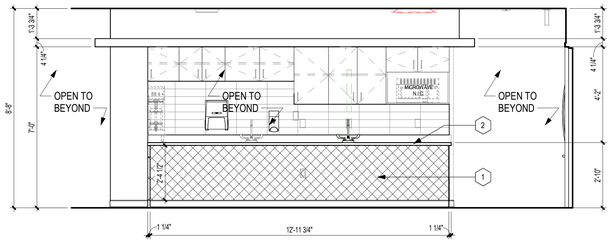
C4 WATER DEPT TOUCHDOWN/W105
3/8" = 1'-0"



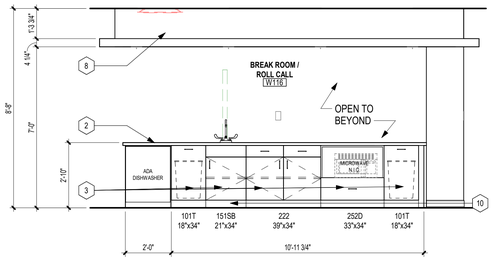
C5 WATER DEPT/W103 NORTH
3/8" = 1'-0"



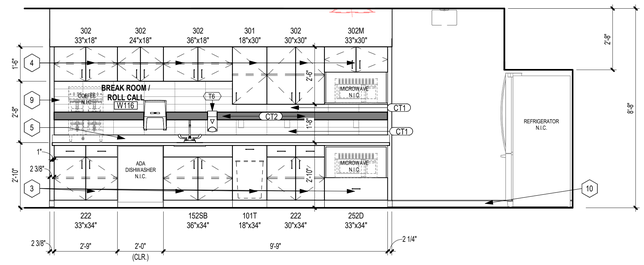
C6 WATER DEPT/W103 WEST
3/8" = 1'-0"



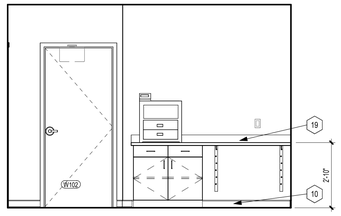
B1 BREAK ROOM / ROLL CALL - W116 (ISLAND SEATING SIDE)
3/8" = 1'-0"



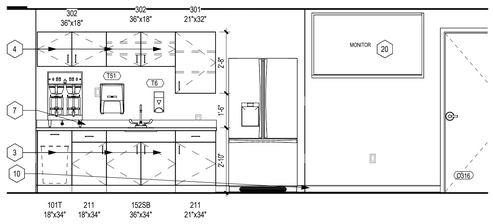
B3 BREAK ROOM / ROLL CALL - W116 (ISLAND SERVICE SIDE)
3/8" = 1'-0"



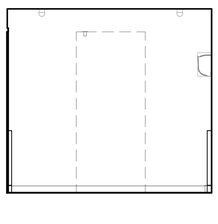
B5 BREAK ROOM / ROLL CALL - W116
3/8" = 1'-0"



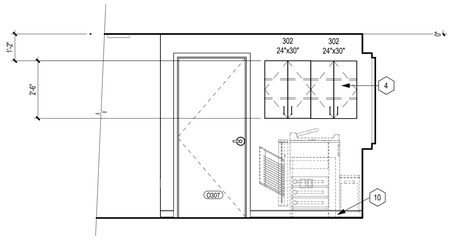
B6 CORR/W1/6
3/8" = 1'-0"



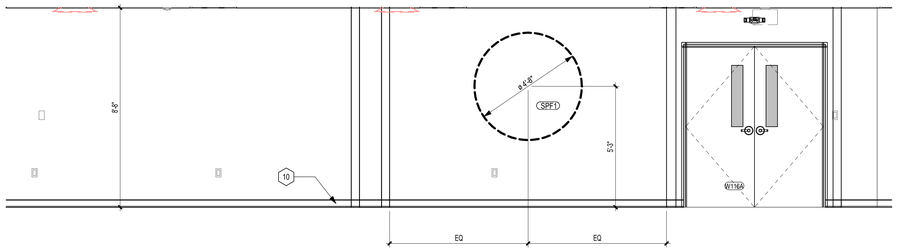
A1 STAFF LOUNGE 0317 WEST
3/8" = 1'-0"



A2 SECURE FILES -O311
3/8" = 1'-0"



A3 WORK/COPY -O321
3/8" = 1'-0"



A4 BREAK ROOM/ROLL CALL - W116 N
3/8" = 1'-0"

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STATE OF MISSOURI ROY A. MARSAN NUMBER A-6661 ARCHITECT
Roy A. Marsan 3/30/2026
MO Architect License No: A-6661
Expires: 12/31/2026

[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

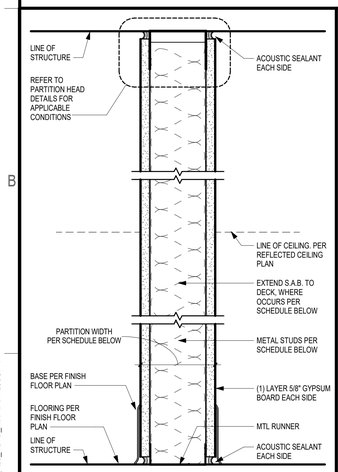
INTERIOR ELEVATIONS/DETAILS

Project No. 24059
Sheet No. A405
Date 03/30/2026

3/30/2026 8:46:18 AM
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SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 1/16" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 3/8" = 1'-0"

3/30/2026 8:46:19 AM
C:\Users\aschen\acad\24059_Kirkwood_Public_Works_Reno_R25_TLVB_AschenFC25C.rvt



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
C3	3 5/8"	4 7/8"	-	-	A,B
C3A	3 5/8"	4 7/8"	3 1/2"	-	A
C3A.S	3 5/8"	4 7/8"	3 1/2"	-	A, C
C6	6"	7 1/4"	-	-	A,B
C6A	6"	7 1/4"	3 1/2"	-	A

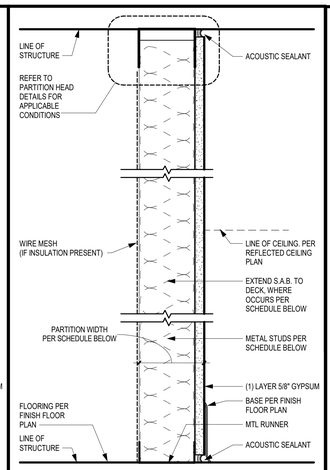
FIRE RATING: N/A

BASIS OF DESIGN: N/A

REMARKS:

A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT
C. PROVIDE SMOKE SEALANT IN LIEU OF ACOUSTIC SEALANT SHOWN

C NON-RATED PARTITION
SCALE: 3" = 1'-0"
PART_C NR PARTITION + SMOKE



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
D1	1 5/8"	2 1/4"	-	-	A,B
D3	3 5/8"	4 1/4"	-	-	A,B
D3A	3 5/8"	4 1/4"	3 1/2"	-	A
D3L	3 5/8"	4 1/4"	3 1/2"	-	A, D
D3S	3 5/8"	4 1/4"	3 1/2"	-	A, C
D6	6"	6 5/8"	-	-	A,B
D6A	6"	6 5/8"	3 1/2"	-	A

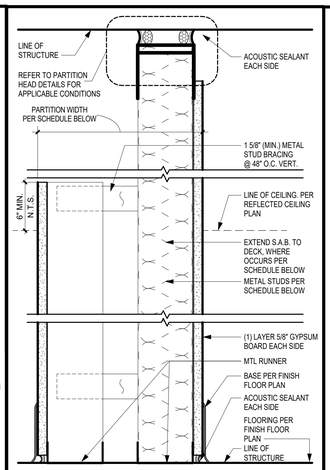
FIRE RATING: N/A

BASIS OF DESIGN: N/A

REMARKS:

A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT
C. PROVIDE SMOKE SEALANT IN LIEU OF ACOUSTIC SEALANT SHOWN
D. LEAD LINED GYP. BD. UP TO 7'-0" A.F.F. ON ONE SIDE OF PARTITION. SEE FLOOR PLAN FOR LOCATION AND LEAD THICKNESS.

D NON-RATED PARTITION
SCALE: 3" = 1'-0"
PART_D NR PARTITION + SMOKE



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
H14	3 5/8"	14"	-	-	A,B
H14A	3 5/8"	14"	3 1/2"	-	A
H16	3 5/8"	16"	-	-	A,B
H16A	3 5/8"	16"	3 1/2"	-	A
H18	6"	18"	-	-	A,B
H18A	6"	18"	3 1/2"	-	A

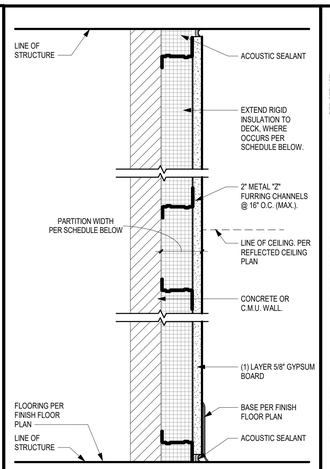
FIRE RATING: N/A

BASIS OF DESIGN: N/A

REMARKS:

A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT

H NON-RATED CHASE PARTITION
SCALE: 3" = 1'-0"
PART_H NR CHASE PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
N2	2"	2 5/8"	-	-	A,B,D
N2A	2"	2 5/8"	2"	-	A,C,D

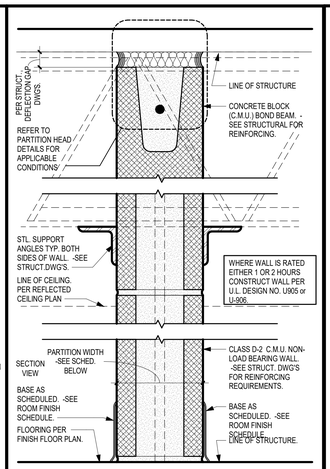
FIRE RATING: N/A

BASIS OF DESIGN: N/A

REMARKS:

A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT
C. RIGID INSULATION
D. EXIST. WALL NOT INCLUDED IN PART THICK

N 2 5/8" FULL HT. FURRED PART.
SCALE: 3" = 1'-0"
PART_N FURRED PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
U80	7 5/8"	7 5/8"	-	-	A

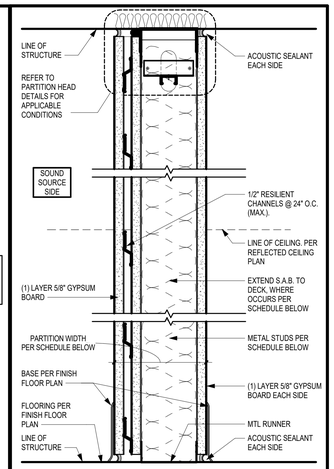
FIRE RATING: ?

BASIS OF DESIGN: U-XXX

REMARKS:

A. NON RATED ASSEMBLY
B. 1HR RATED
C. 2 HR RATED

U C.M.U. NON-LOAD BRG. PART.
SCALE: 3" = 1'-0"
PART_U CMU NON-LOAD BRG PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
P3A	3 5/8"	6"	3 1/2"	-	A

FIRE RATING: N/A

BASIS OF DESIGN: N/A

REMARKS:

A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT

P FULL HT. ACCOUSTIC PART.
SCALE: 3" = 1'-0"
PART_P NR ACOUSTIC PARTITION

1 2 3 4 5 6 7

A B C D E

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STATE OF MISSOURI
ROY A. MANDAN
NUMBER A-6661
ARCHITECT

Roy A. Mandan 3/30/2026

MO Architect License No: A-6661
Expires: 12/31/2026

[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

PARTITION TYPES

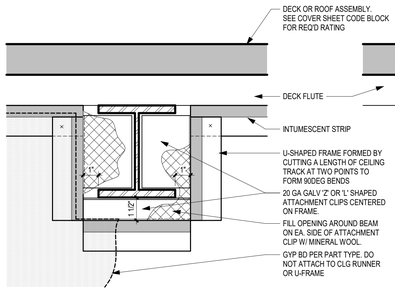
Project No. 24059

Sheet No. A500

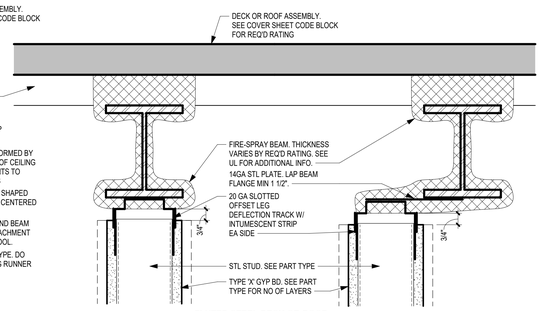
Date 03/30/2026

GEN. HEAD OF WALL NOTES

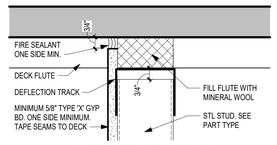
1. PARTITION HEAD DETAILS ARE INTENDED AS GENERAL REFERENCE ONLY.
2. LISTED UL (UNDERWRITERS LABORATORIES) ASSEMBLIES ARE BASIS OF DESIGN ONLY AND NOT ALL REQUIREMENTS ARE SHOWN. REFERENCE UL FOR ADDITIONAL INFORMATION.
3. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND RESEARCH APPLICABLE UL ASSEMBLIES INCLUDING ADDITIONAL ASSEMBLIES THAT MAY BE REQUIRED TO MAINTAIN THE INTEGRITY OF A RATED ASSEMBLY. ADDITIONAL AND ALTERNATE ASSEMBLIES SHOULD BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.
4. FASTEN TRACKS TO SUBSTRATE ABOVE AT 24" O.C. (U.N.O.)
5. DO NOT FASTEN GYP BD TO DEFLECTION TRACK. FASTEN TO EACH VERTICAL STUD 2" MAXIMUM BELOW THE BOTTOM LEG OF THE DEFLECTION TRACK. (U.N.O.)



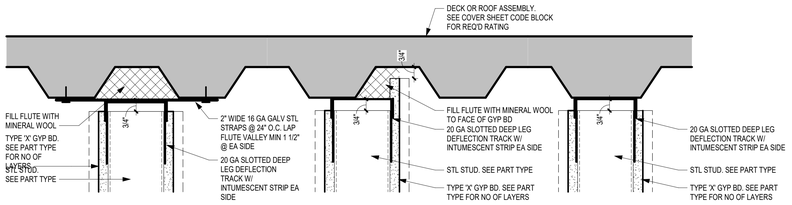
FLUTED STEEL DECK OR ROOF
STEEL BEAM/JOIST PENETRATION
1 & 2 HR
UL-HW-D-0495



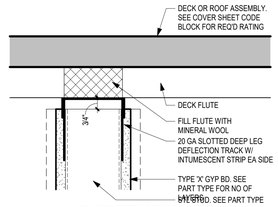
FLUTED STEEL DECK OR ROOF
PARALLEL UNDER STEEL BEAM/JOIST
1 & 2 HR
UL-HW-D-0502



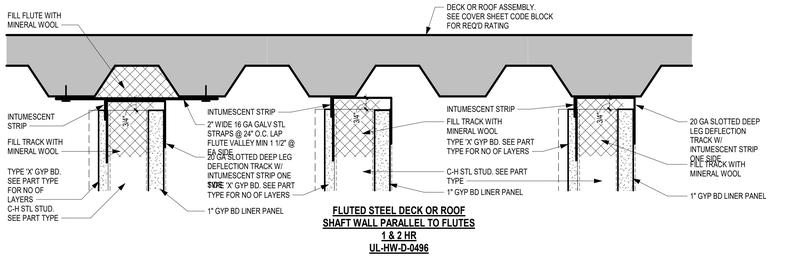
FLUTED STEEL DECK OR ROOF
PERPENDICULAR TO FLUTES
PARALLEL SIMILAR
SMOKE PARTITION



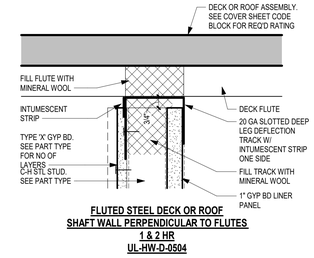
FLUTED STEEL DECK OR ROOF
PARALLEL TO FLUTES
1 & 2 HR
UL-HW-D-0499



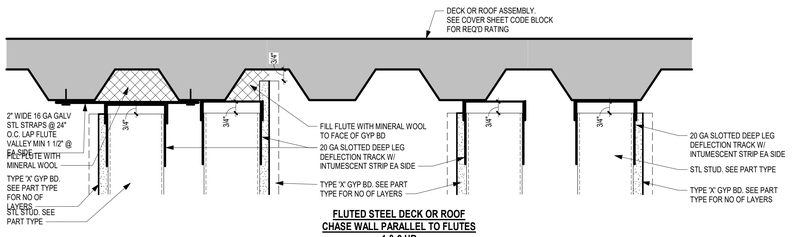
FLUTED STEEL DECK OR ROOF
PERPENDICULAR TO FLUTES
1,2, & 3 HR
UL-HW-D-0513



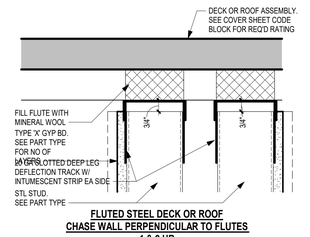
FLUTED STEEL DECK OR ROOF
SHAFT WALL PARALLEL TO FLUTES
1 & 2 HR
UL-HW-D-0496



FLUTED STEEL DECK OR ROOF
SHAFT WALL PERPENDICULAR TO FLUTES
1 & 2 HR
UL-HW-D-0504



FLUTED STEEL DECK OR ROOF
CHASE WALL PARALLEL TO FLUTES
1 & 2 HR
UL-HW-D-0544

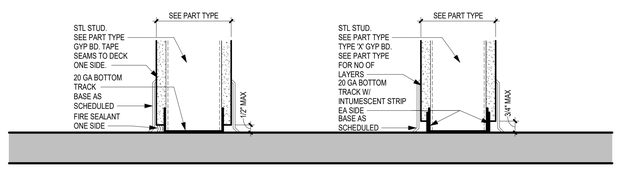


FLUTED STEEL DECK OR ROOF
CHASE WALL PERPENDICULAR TO FLUTES
1 & 2 HR
UL-HW-D-0506

B1 FIRE RATED HEAD OF WALL DETAILS

3" = 1'-0"

PART_RATED HEAD DTLS



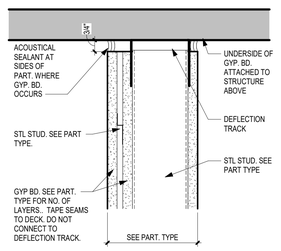
FIRE RATED BASE OF WALL
1 & 2 HR
UL-BW-S-0021

FIRE RATED BASE OF WALL
1 & 2 HR
UL-BW-S-0021

A1 FIRE RATED BASE OF WALL DETAILS

3" = 1'-0"

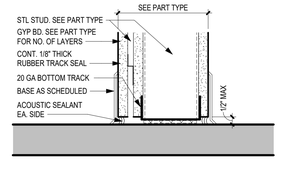
PART_RATED BASE DTLS



A3 HEAD OF WALL - ACOUSTICAL (NON-RATED)

3" = 1'-0"

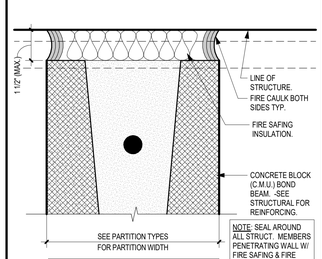
PART_ACOUSTICAL HEAD DTL



A4 BASE OF WALL - ACOUSTICAL (NON-RATED)

3" = 1'-0"

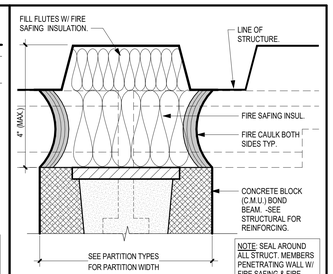
PART_ACOUSTICAL BASE DTL



A5 TYPE U HEAD OF WALL DTL

6" = 1'-0"

PART_TYPE U HEAD DTL



A6 TYPE V HEAD OF WALL DTL

6" = 1'-0"

PART_TYPE V HEAD DTL

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STATE OF MISSOURI
ROY A. MANDAN
NUMBER A-6661
ARCHITECT
Roy A. Mandan 3/30/2026
MO Architect License No: A-6661
Expires: 12/31/2026

[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

INTERIOR PARTITION DETAILS

Project No. 24059
Sheet No. A503
Date 03/30/2026

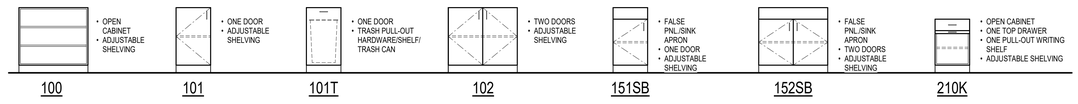
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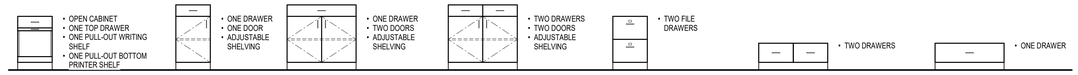
TYPICAL CABINETRY TYPES ELEVATIONS

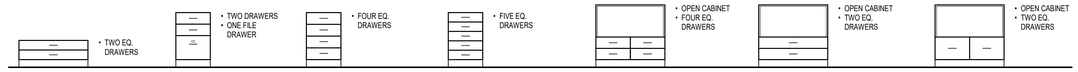
CABINETRY TYPES ELEVATIONS_30X42_6WX2H

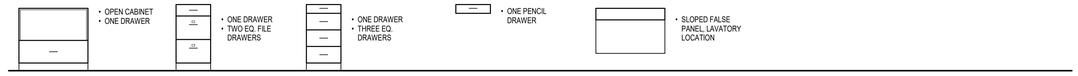
BASE CABINETS

NOTE: NOT ALL BASE CABINETRY TYPES SHOWN MAY BE APPLICABLE AND/OR USED IN THIS PARTICULAR PROJECT.



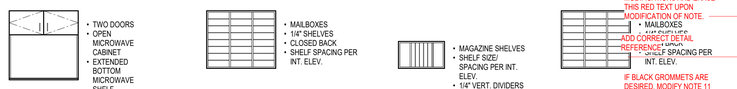






WALL HUNG CABINETS

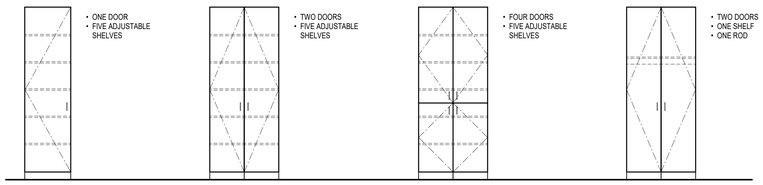




NOTE: NOT ALL WALL HUNG CABINETRY TYPES SHOWN MAY BE APPLICABLE AND/OR USED IN THIS PARTICULAR PROJECT.

TALL CABINETS

NOTE: NOT ALL TALL CABINETRY TYPES SHOWN MAY BE APPLICABLE AND/OR USED IN THIS PARTICULAR PROJECT.



CASEWORK GENERAL NOTES

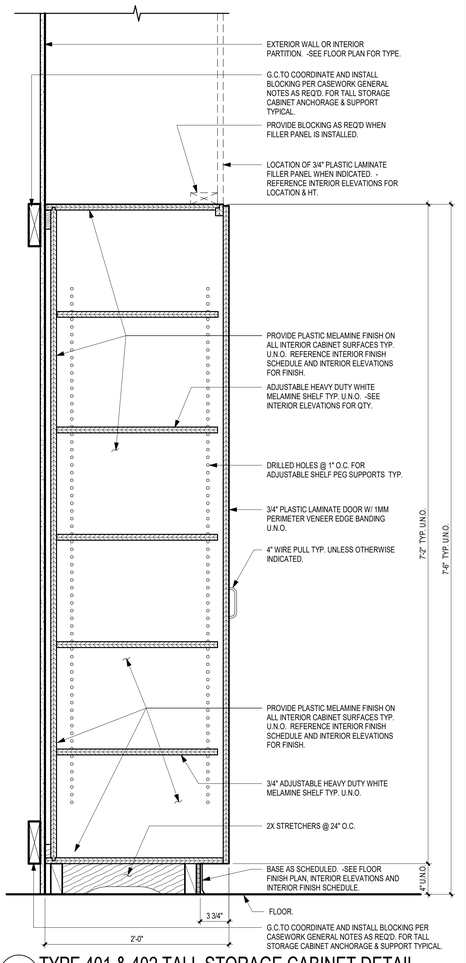
1. CONTRACTOR TO SUBMIT CASEWORK SHOP DRAWINGS TO DESIGNER FOR APPROVAL PRIOR TO FABRICATION AND ORDERING OF MATERIALS.
2. ALL CASEWORK TO BE CONSTRUCTED PER ARCHITECTURAL WOODWORKING INSTITUTE (AWI) QUALITY STANDARDS, 8TH EDITION, VERSION 1.0, 2003 CUSTOM GRADE, UNLESS NOTED OTHERWISE.
3. ALL COUNTERTOPS TO HAVE A 4" H. BACKSPLASH AND ENDSPLASHES UNLESS INDICATED OTHERWISE (REFERENCE INTERIOR ELEVATIONS). BACK AND ENDSPLASHES TO BE FULLY BEDDED IN (NON-YELLOWING) CLEAR SILICONE SEALANT TO FULLY SEAL ALL PERIMETER JOINTS. CAULK THE BACK AND ENDSPLASHES WITH CLEAR SEALANT ALONG THE ENTIRE TOP EDGE WHERE SPLASHES ADJOIN WALLS. ALL EXPOSED ENDS & RETURNS TO BE FINISHED.
4. ALL LAMINATE AND VENEER SHALL BE APPLIED TO SUBSTRATE OF NOT LESS THAN 3/4" THICKNESS.
5. ALL EXPOSED EXTERIOR SURFACES OF CASEWORK TO BE PLASTIC LAMINATE UNLESS NOTED OTHERWISE.
6. AT ALL WET LOCATIONS, WHERE PLASTIC LAMINATE IS SPECIFIED, BOTH COUNTERTOP AND BACKSPLASH ARE TO BE MADE OF MOISTURE RESISTANT PARTICLE BOARD.
7. INTERIOR OF ALL CASEWORK TO BE WHITE MELAMINE UNLESS NOTED OTHERWISE. EXCEPTION: CASEWORK WITH OPEN FRONTS TO HAVE PLASTIC LAMINATE INTERIOR U.N.O.
8. CONTRACTOR TO PROVIDE, COORDINATE AND INSTALL ALL REQUIRED BLOCKING FOR CASEWORK. -SEE TYPICAL WALL BACKING DETAIL.
9. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR CASEWORK PRIOR TO FABRICATION.
10. CONTRACTOR TO VERIFY ALL SEALANT COLORS WITH ARCHITECT PRIOR TO ORDERING AND INSTALLATION.
11. CONTRACTOR SHALL DRILL 2 3/8" DIA. HOLES FOR HAFELE 429.93.XXX GROMMETS THRU COUNTERTOPS AT LOCATIONS AS DIRECTED BY THE OWNER/TENANT. PROVIDE GROMMET COVERS TO MATCH COUNTERTOP COLOR. PROVIDE COLOR SAMPLES OF COUNTERTOP FINISH AND COLORED GROMMET TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO ORDERING.
12. CABINET DOOR PULLS TO BE 4" HIGH WIRE PULLS, FINISH TO BE BRUSHED CHROME OR APPROVED EQUAL, UNLESS NOTED OTHERWISE.
13. ALL OUTSIDE CORNERS OF COUNTERTOPS ON PLANS NOT AGAINST AN ADJACENT WALL SHALL HAVE 3/4" RADIUS, UNLESS NOTED OTHERWISE. ALL EXPOSED ENDS & RETURNS TO BE FINISHED.
14. ALL LAMINATE DOORS TO BE FINISHED ON ALL SIDES.
15. ALL COUNTERTOP METAL ANGLE SUPPORT BRACKETS TO BE A&M HARDWARE 18"X24" W/ BLACK POWDER COATED FINISH (OR APPROVED EQUAL) UNLESS NOTED OTHERWISE.
16. ALL UNDER CABINET LIGHTING SHALL BE CONTINUOUS LOW-PROFILE LED FIXTURES, EVENLY SPACED, COLOR WHITE U.N.O. FIXTURES CONCEALED FROM FRONT AND FINISHED ENDS. FACE OF FRONT LIGHTRAIL SHALL ALIGN FLUSH WITH FRONT FACE OF CABINET BODY. BOTTOM EDGE OF CABINET FINISHED END PANELS SHALL ALIGN WITH BOTTOM EDGE OF LIGHT RAIL. ALL UNDERCOUNTER LIGHTS SHALL BE DIRECT WIRED AND SWITCHED (-SEE INT. ELEV. & ELECT. DWG'S.) SEE TYPICAL WALL CABINET DETAIL AS NOTED. NO OFFSET LIGHTRAILS ON FRONT OR ENDS OF CABINETS SHALL BE PERMITTED.
17. ALL OUTSIDE CORNERS OF CABINETS, APRONS, LIGHT RAILS, SINK ENCLOSURE PANELS, ETC. SHALL BE ALIGNED TO FORM A 90 DEGREE ANGLE UNLESS NOTED OTHERWISE. NO OFFSET OR STAGGERED CORNERS SHALL BE PERMITTED.
18. THE MAXIMUM PERMITTED GAP BETWEEN ADJACENT DOOR & DRAWER FRONTS FOR FLUSH OVERLAY CABINETS SHALL NOT EXCEED 1/8".
19. ALL FILE DRAWERS SHALL BE SUPPLIED WITH BUILT-IN ADJUSTABLE HANGING FILE FRAME SYSTEM. INCLUDE (1) REMOVABLE INTERMEDIATE RAIL PER DRAWER FOR CONVERTING FROM LETTER TO LATERAL FILES.
20. ALL FINISHED SIDES OF BASE CABINETS SHALL HAVE VINYL BASE APPLIED TO THEM UNLESS NOTED OTHERWISE.
21. FRONT FACE OF ALL PLASTIC LAMINATE PENCIL DRAWER FRONTS SHALL ALIGN WITH FRONT FACE OF ANY ADJACENT PLASTIC LAMINATE APRON.
22. ALL PLASTIC LAMINATE DOOR AND DRAWERS TO RECEIVE 1MM PVC EDGEBAND AND ALL COUNTERTOPS TO RECEIVE 3MM EDGE BAND OR T-MOLD EDGEBAND. REFER TO FINISH SCHEDULE FOR EDGEBAND COLORS.

COORDINATE THIS NOTE WITH THE SPECWRITER. PREMIUM GRADE VS. CUSTOM GRADE - AWI VERSION STANDARD, ETC MAKE APPLICABLE MODIFICATIONS AND ERASE THIS RED TEXT UPON MODIFICATION OF NOTE.

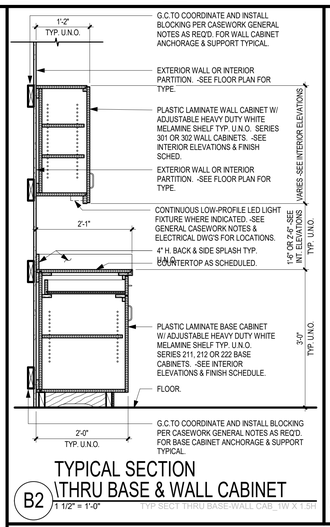
VERIFY INTERIOR FINISH COLOR MAKE APPLICABLE MODIFICATIONS AND ERASE THIS RED TEXT UPON MODIFICATION OF NOTE.

ADD CORRECT DETAIL REFERENCE HERE.

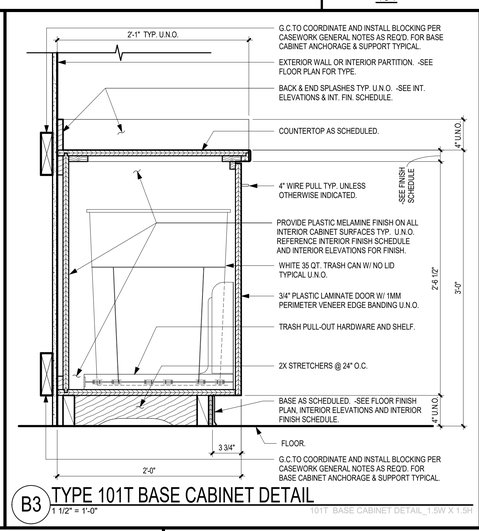
IF BLACK GROMMETS ARE DESIRED, MODIFY NOTE 11 AND ERASE THIS RED TEXT UPON COMPLETION.



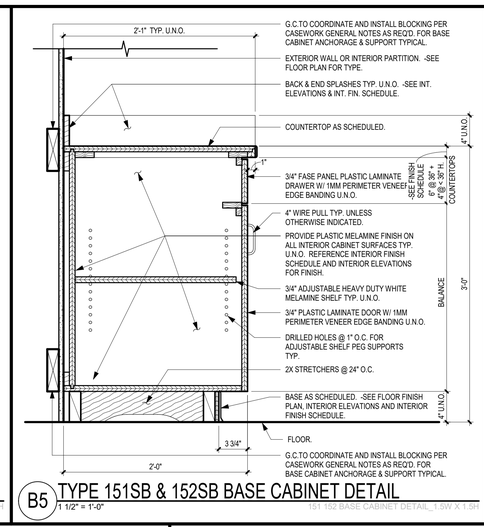
A1 TYPE 401 & 402 TALL STORAGE CABINET DETAIL
1 1/2" = 1'-0"
401 & 402 TALL STORAGE CABINET DET_1.5W X 3H



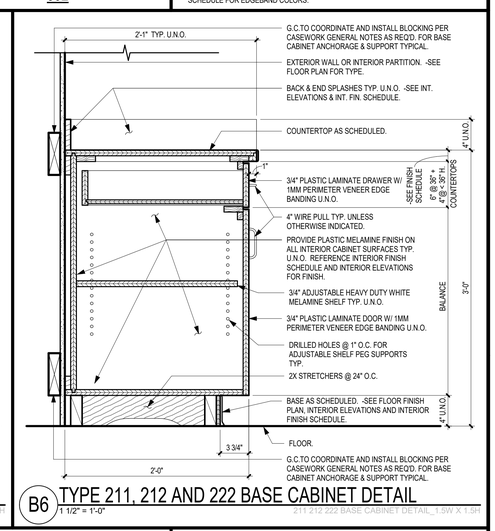
B2 TYPICAL SECTION THRU BASE & WALL CABINET
1 1/2" = 1'-0"
TYP SECT THRU BASE WALL CAB_1W X 1.5H



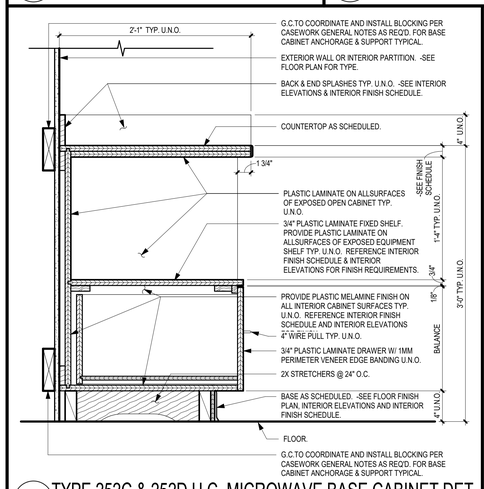
B3 TYPE 101T BASE CABINET DETAIL
1 1/2" = 1'-0"
101T BASE CABINET DETAIL_1.5W X 1.5H



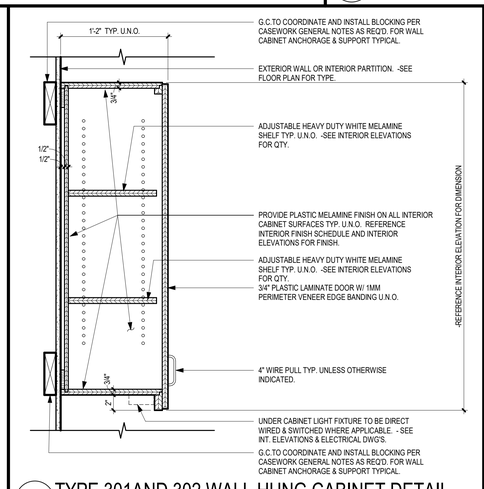
B5 TYPE 151SB & 152SB BASE CABINET DETAIL
1 1/2" = 1'-0"
151 152 BASE CABINET DETAIL_1.5W X 1.5H



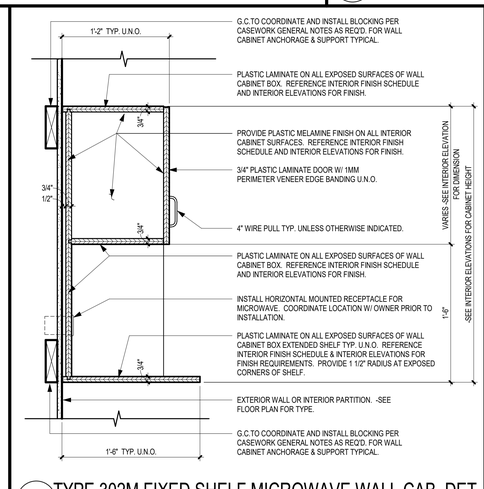
B6 TYPE 211, 212 AND 222 BASE CABINET DETAIL
1 1/2" = 1'-0"
211 212 222 BASE CABINET DETAIL_1.5W X 1.5H



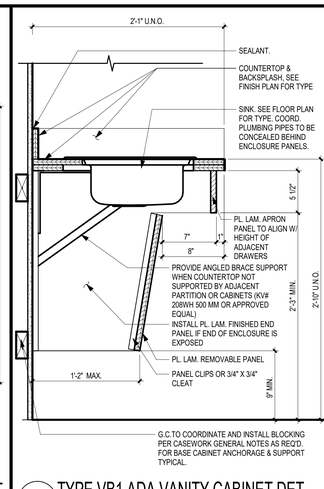
A2 TYPE 252C & 252D U.C. MICROWAVE BASE CABINET DET.
1 1/2" = 1'-0"
252C & 252D U.C. MICROWAVE BASE CABINET DET_1.5W X 1.5H



A4 TYPE 301AND 302 WALL HUNG CABINET DETAIL
1 1/2" = 1'-0"
301 & 302 WALL CABINET DETAIL_1.5W X 1.5H



A5 TYPE 302M FIXED SHELF MICROWAVE WALL CAB. DET.
1 1/2" = 1'-0"
302M MICROWAVE WALL CABINET DETAIL_FIXED_1.5W X 1.5H



A7 TYPE VB1 ADA VANITY CABINET DET.
1 1/2" = 1'-0"
VB1 CABINET DETAIL_01W X 1.5H

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STATE OF MISSOURI — ROY A. MARSTON — NUMBER A-6661 — ARCHITECT

Roy A. Marston 3/30/2026

MO Architect License No: A-6661
Expires: 12/31/2026

[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

CASEWORK DETAILS

Project No. 24059

Sheet No. A520

Date 03/30/2026

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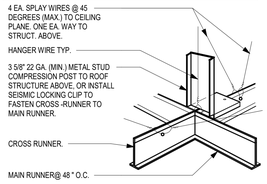
SEISMIC BRACING NOTES:

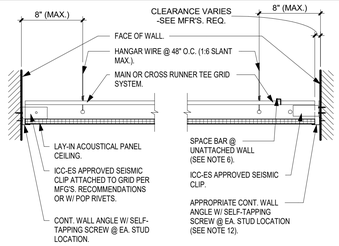
1. ALL SUSPENSION SYSTEM COMPONENTS TO PROVIDED FROM A SINGLE ICC-ES APPROVED MANUFACTURER.
2. ALL BRACING WIRE TO BE ATTACHED PARALLEL TO THE COMPONENT AND AT MAX. OF 45 DEGREES TO THE PLANE OF THE CEILING.
3. ALL BRACING WIRES TO BE TAUT AND TIED BOTH ENDS W/ A MIN. OF 3 TURNS.
4. SECURE ALL WIRES TO STRUCTURE ABOVE. DO NOT SECURE TO PIPES,DUCTS, CONDUITS, ETC.
5. RING NAILS SHALL BE INSTALLED AT ALL COMPONENT INTERSECTIONS W/ THE HORIZONTAL STRUT AT UNATTACHED WALLS.
6. THE HORIZONTAL SPACER BAR SHALL RUN CONTINUOUS AT ALL PERIMETERS NOT ATTACHED TO THE WALL ANGLE.
7. INSTALLATION MUST CONFORM TO CISCA RECOMMENDATIONS.
8. MIN. HEAVY DUTY GRID SYSTEM.
9. SEE CEILING SYSTEM SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
10. WHERE WIRE MUST BEAR AGAINST PIPES AND DUCTS, APPLY TAPE TO PIPES AND DUCTS.
11. SEISMICALLY BRACE LIGHT FIXTURES, DIFFUSERS, ETC. IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.
12. WALL ANGLE TO BE MIN. 7/8"x 7/8" OR 15/16" X15/16" AND PROVIDE ICC-ES APPROVED SEISMIC CLIP IN ALL ROOM AREAS.

NOTE: PANEL POINTS OCCUR 6'-0" (MAX.) FROM PERIMETER AND 12'-0" O.C. EACH WAY.

ALL SEISMIC RESTRAINT BRACING SHALL COMPLY WITH ASTM E 580.

APPROVED ICC-ES MANUFACTURER'S AMD TESTS:
ARMSTRONG - ICC ESR-1308
CHICAGO METALLIC - ICC ESR-2728
USG - ICC ESXR-1222



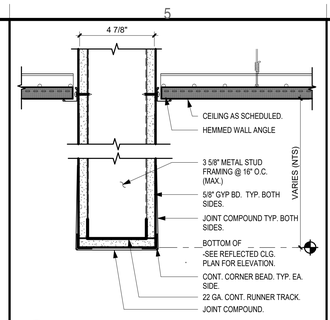


ATTACHED WALLS

(MIN. 2 ADJACENT WALLS) (OPPOSITE ATTACHED WALLS)

NOTE:
COMPLY WITH IBC 2009 SECTION 1613 (CATEGORY D) AND CISCA RECOMMENDATIONS FOR DIRECT HUNG ACOUSTICAL TILE AND LAY IN PANELS. NOTE THAT THE FOLLOWING DOES NOT APPLY TO CEILING AREAS OFF 144SF OR LESS SURROUNDED BY PARTITIONS THAT CONNECT DIRECTLY TO THE STRUCTURE ABOVE. NOTE THAT REQUIREMENTS FOR SECSMIC DESIGN D PROHIBIT THE USE OF POWER DRIVER FASTENERS FOR BRACING COMPONETS PULL OUT TESTING OF FASTENERS IS REQUIRED.

E1 TYPICAL SEISMIC RESTRAINT DETAIL FOR ACOUSTICAL LAY-IN CEILINGS AT ZONES D, E, AND F
N.T.S.



E5 TYP. BULKHEAD DTL.
3" = 1'-0"

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STATE OF MISSOURI
ROY A. MARDIAN
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[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

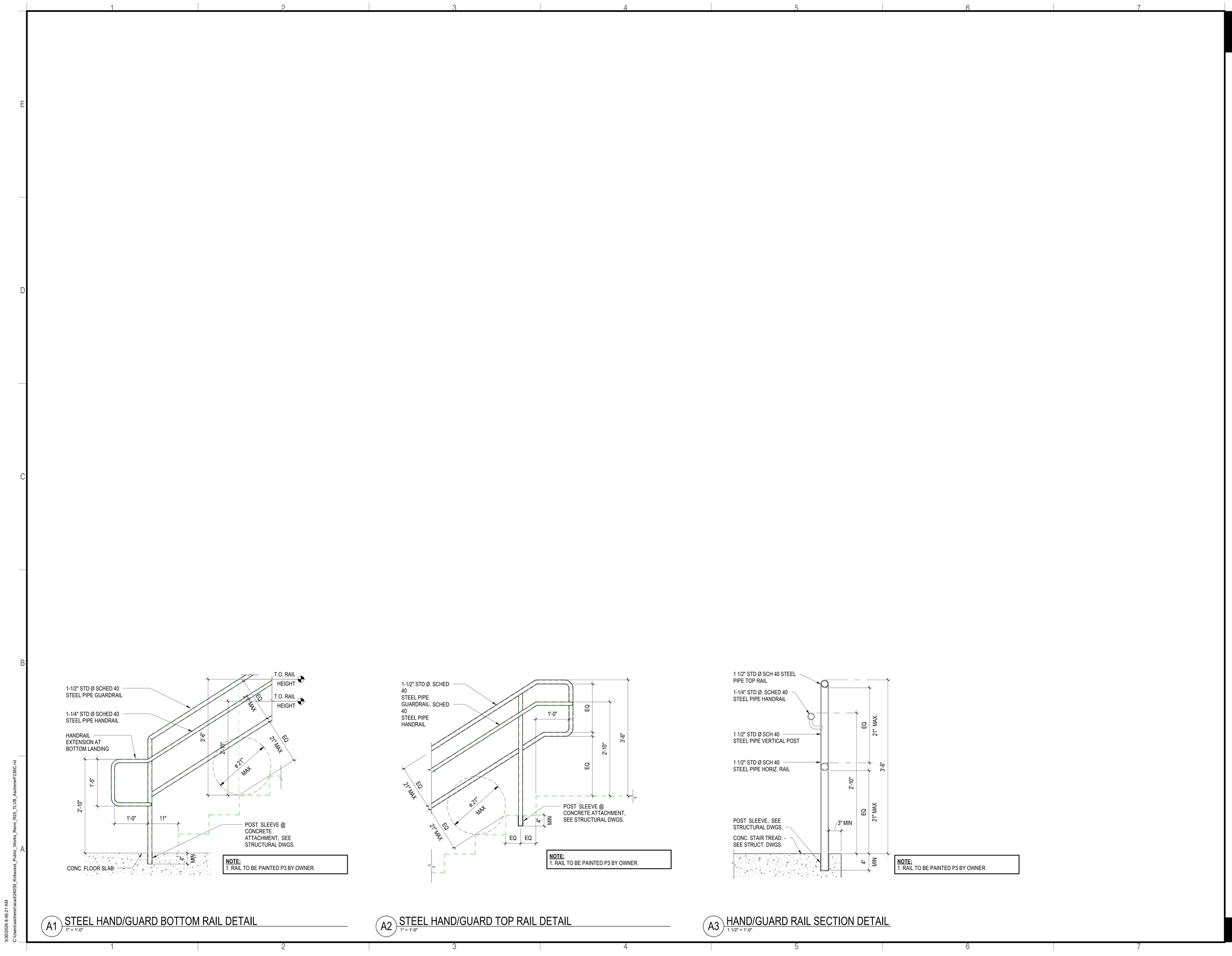
No.	Date	Revision

CEILING DETAILS

Project No. 24059
Sheet No. A530
Date 03/30/2026

3/30/2026 8:46:20 AM
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SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"



A1 STEEL HAND/GUARD BOTTOM RAIL DETAIL
1" = 1'-0"

A2 STEEL HAND/GUARD TOP RAIL DETAIL
1" = 1'-0"

A3 HAND/GUARD RAIL SECTION DETAIL
1 1/2" = 1'-0"

SCALE: 3" = 1'-0" 0 3" 6" 1'
SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2'
SCALE: 1" = 1'-0" 0 6" 1' 2'
SCALE: 3/4" = 1'-0" 0 1' 3'
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 3/8" = 1'-0" 0 2' 4' 6'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 3/32" = 1'-0" 0 8' 16' 24'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

3/30/2026 8:46:21 AM
C:\Users\aschene\acad\24059_Kirkwood_Public_Works_Reno_R25_TLVB_AschetierF236C.rvt

STATE OF MISSOURI
ROY A. MANDAN
NUMBER A-6661
ARCHITECT
Roy A. Mandan 3/30/2026
MO Architect License No: A-6661
Expires: 12/31/2026

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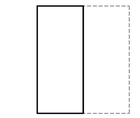
[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

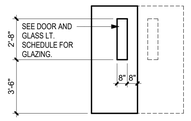
DETAILS

Project No. 24059
Sheet No. A540
Date 03/30/2026



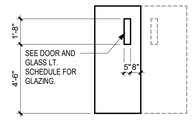
F

FLUSH S.C. WD. OR H.M. DOOR. -SEE DOOR SCHEDULE.



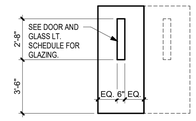
N-1

FLUSH S.C. WD. OR H.M. DOOR W/ GL. LT. - SEE DOOR SCHEDULE.



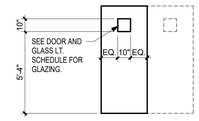
N-2

FLUSH S.C. WD. OR H.M. DOOR W/ GL. LT. - SEE DOOR SCHEDULE.



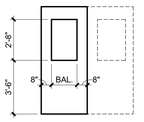
NV

FLUSH S.C. WD. OR H.M. DOOR W/ GL. LT. -SEE DOOR SCHEDULE.



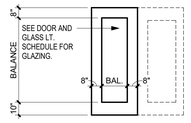
V

FLUSH S.C. WD. OR H.M. DOOR W/ GL. LT. - SEE DOOR SCHEDULE.



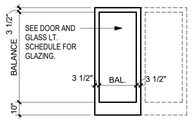
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FLUSH S.C. WD. OR H.M. DOOR W/ TEMP. GL. LT. -SEE DOOR SCHEDULE.



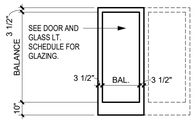
FG1

STILE & RAIL WD. DOOR W/ TEMP. GL. LT. -SEE DOOR SCHEDULE



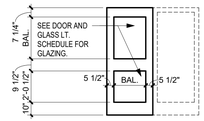
FG2

H.M. NARROW STILE DOOR W/ TEMP. GL. LT. -SEE DOOR SCHEDULE.



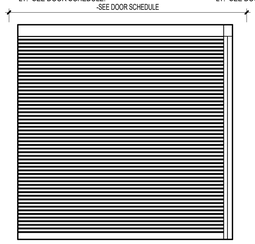
FG3

ALUM. MED. STILE DOOR W/ TEMP. GL. LT. -SEE DOOR SCHEDULE.



FG4

ALUM. WIDE. STILE DOOR W/ TEMP. GL. LT. -SEE DOOR SCHEDULE.



OH-A

OVERHEAD INSUL. STEEL SECTIONAL DOOR W/ GLAZING -SEE DOOR SCHEDULE.



CD

COILING DOOR -SEE DR. SCHEDULE.

NOTE:

1. SOME DOOR TYPES MAY NOT BE USED ON THIS PARTICULAR PROJECT.
2. DOORS TO BE 1 3/4" THK. UNLESS OTHERWISE NOTED ON DOOR. SCHEDULE.
3. REFER TO DOOR SCHEDULE FOR GLASS TYPE AND THICKNESS.

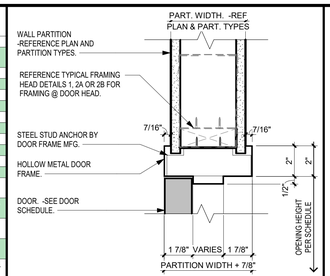
D1 DOOR TYPES ELEVATIONS

1/4" = 1'-0"

OPNG_DOOR TYPES ELEVS

GLAZING TYPE SCHEDULE

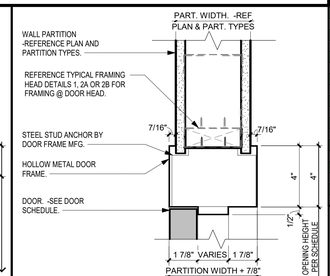
GLAZING TYPE	DESCRIPTION
-NOTE:	NOT ALL GLASS USED IN PROJECT. REFER TO DOOR SCHEDULE & WINDOW FRAME TYPES
G1	1/4" CLEAR GLAZING
G2	1/4" TEMPERED CLEAR GLAZING
G3	1/2" TEMPERED CLEAR GLAZING
G4	3/16" PREMIUM GRADE FIRE RATED GLASS CERAMIC SAFETY GLAZING
G5	1" INSULATED GLAZING
G6	1" TEMPERED INSULATED GLAZING
G7	1" INSULATED SPANDREL GLAZING
G8	1" INSULATED TEMPERED SPANDREL GLAZING
G9	3/4" PREMIUM GRADE 45 MIN. FIRE RATED SAFETY GLAZING
G10	1/4" CLEAR LAMINATED GLAZING
G11	1" INSULATED GLAZING W/ SATIN OPAQUE (LEVEL 4) ACID ETCHING ON SURFACE 3
G12	1" TEMPERED INSULATED GLAZING W/ SATIN OPAQUE (LEVEL 4) ACID ETCHING ON SURFACE 3
G13	1 3/16" BULLET RESISTANT POLYCARBONATE COMPOSITE CLEAR GLAZING (LEVEL 3)
G13A	1 1/4" BULLET RESISTANT POLYCARBONATE COMPOSITE CLEAR GLAZING (LEVEL 4)
G13B	3/4" BULLET RESISTANT POLYCARBONATE COMPOSITE CLEAR GLAZING (LEVEL 1)
G13C	REFERENCE SPECIFICATION GLAZING UNITS TYPE "G13C"
G14	1 1/4" RADIATION SHIELDING GLAZING
G15	OKALUX + 1" INSULATED GLAZING W/ CAPILLARY SLABS ENCASED IN FIBER TISSUE



C2 TYP. HOLLOW METAL FRAME DOOR HEAD DTL.

3" = 1'-0"

OPNG_HM FRAME 2" DOOR HEAD DTL.



C3 TYP. HOLLOW METAL FRAME (4') DOOR HEAD DTL.

3" = 1'-0"

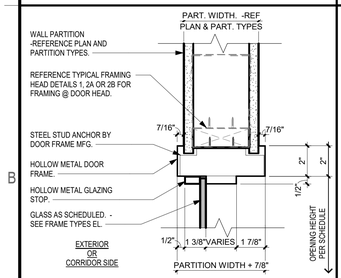
OPNG_HM FRAME 4" DOOR HEAD DTL

DOOR SCHEDULE

MARK	PAIR	WIDTH	HEIGHT	THICK	FRAME PROPERTIES			DOOR PROPERTIES			COMMENTS
					FRAME TYPE	FRAME MATERIAL	FRAME FINISH	TYPE	DOOR MATERIAL	DOOR FINISH	
		3'-0"	7'-0"	1 3/4"	F01-M	HM	P2	-F-	HM	P2	
		3'-0"	7'-0"	1 3/4"	F01-M	HM	P2	-F-	HM	P2	
		14'-0"	18'-0"	2"		STL	-		STL	-	
E0101A	X	3'-2 3/8"	6'-1 95/256"	1 3/4"		ALUM	ANOD	-FG3-	ALUM	ANOD	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
E0101B	X	3'-2 3/8"	7'-1 95/256"	1 3/4"		ALUM	ANOD	-FG3-	ALUM	ANOD	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
E0106		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
E0116		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
E0118		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD	-	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
E0121		4'-0"	7'-0"	1 3/4"	F01	HM	-	-F-	WD	-	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
E0124		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
E0211		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
E0218		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
E0310		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD	-	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
E0321		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD	-	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
EW001D		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	EXISTING DOOR TO RECEIVE NEW DOOR HARDWARE.
EW001E		14'-0"	18'-0"	2"		STL	-		ALUM		EXISTING DOOR TO RECEIVE POWER, AND OPERATOR CONTROLS.
EW003B	X	3'-0"	7'-0"	1 3/4"	F01-M	HM	P2	-F-	HM	P2	EXISTING DOOR TO RECEIVE NEW DOOR HARDWARE.
EW101	X	2'-10 7/8"	8'-1 23/256"	1 3/4"		ALUM	ANOD	-FG3-	ALUM	ANOD	EXISTING DOOR TO RECEIVE CARD ACCESS SYSTEMS. *
EW132		3'-6 1/2"	7'-0"	1 3/4"	F01-M	HM	P2	-F-	HW	P2	EXISTING DOOR TO RECEIVE NEW DOOR HARDWARE.
EW145		3'-2 1/2"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	EXISTING DOOR TO RECEIVE DOOR HARDWARE.
O108		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O109		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O110		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O204		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O303		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O304		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O305		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O307		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O308		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O309		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O311		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O312		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O313		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O314		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O315		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O316		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O318		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O319A		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
O319B		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	WD1	STAIN	NEW DOOR, FRAME, AND HARDWARE.
W001A		3'-0"	7'-0"	1 3/4"	F01-M	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W001B		14'-0"	18'-0"	2"		STL	-		ALUM		NEW OVERHEAD DOOR TO RECIEVE POWER, AND OPERATOR CONTROLS.
W001C		3'-0"	7'-0"	1 3/4"	F01-M		P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W002		3'-0"	7'-0"	1 3/4"	F01-M		P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W003A		3'-0"	7'-0"	1 3/4"	F01-M	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W102		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W103		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W104		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W106		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W107		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W108		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W109		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W110		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W111		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W112		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W115		3'-0"	7'-0"	1 3/4"	F01-M	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W116A	X	3'-0"	7'-0"	1 3/4"	F01	HM	P2	-N1-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W116B	X	3'-0"	7'-0"	1 3/4"	F01	HM	P2	-N1-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W119		3'-0"	7'-0"	1 3/4"	F01-M	HM	P2	-G-	HM	P2	NEW DOOR TO RECEIVE DOOR FRAME, HARD WARE, AND CARD ACCESS SYSTEMS. *
W120A		3'-0"	7'-0"	1 3/4"	F01-M	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W120B		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W121A		3'-0"	7'-0"	1 3/4"	F01-M	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W122		2'-6"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W123		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W124		3'-0"	7'-0"	1 3/4"	F01-M	HM	P2	-F-	HM	P2	ICC 500 STORM RATED H.M. FRAME, DOOR, AND HARDWARE.
W126A											
W126B											
W127		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W130A											RELOCATED EXISTING COILING DOOR AND HOOD TO RECIEVE POWER AND NEW OPERATOR CONTROLS.
W130B		3'-6"	7'-0"	1 3/4"	F01-M	HM	P2	-F-	HM	P2	NEW DOOR TO RECEIVE DOOR FRAME, HARD WARE, AND CARD ACCESS SYSTEMS. *
W130C											RELOCATED EXISTING COILING DOOR AND HOOD TO RECIEVE POWER AND NEW OPERATOR CONTROLS.
W146		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W147		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W149A		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W149B	X	3'-0"	7'-0"	1 3/4"	F01	HM	P2	-N1-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W152		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.
W201		3'-0"	7'-0"	1 3/4"	F01	HM	P2	-F-	HM	P2	NEW DOOR, FRAME, AND HARDWARE.

COMMENTS

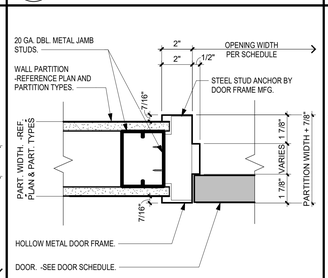
*** CARD ACCESS SYSTEMS PROVIDED AND INSTALLED BY OWNER VENDOR. ELECTRONIC STRIKE PROVISIONS AND INSTALLATIONS BY GC.**



B1 TYP. HOLLOW METAL FRAME GLAZED HEAD DTL

3" = 1'-0"

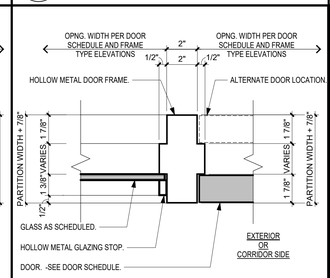
OPNG_HM FRAME 2" GLAZED HEAD DTL.



B2 TYP. HOLLOW METAL FRAME DOOR JAMB DTL.

3" = 1'-0"

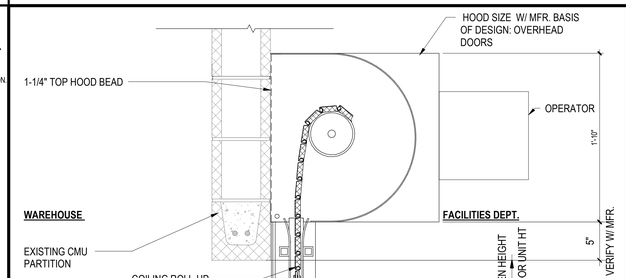
OPNG_HM FRAME 2" DOOR JAMB DTL.



B3 TYP. HOLLOW METAL FRAME DOOR JAMB W/ SIDELITE DTL

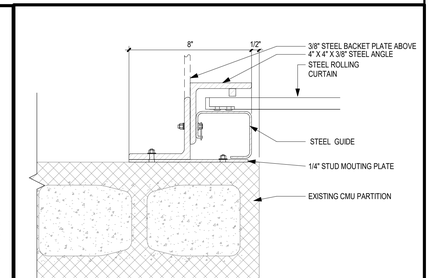
3" = 1'-0"

OPNG_HM FRAME 2 DOOR JAMB @ SIDELITE DTL.



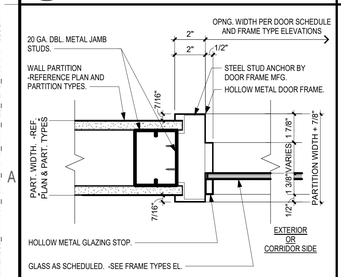
B4 COILING DOOR HEAD DETAIL

1 1/2" = 1'-0"



B6 COILING DOOR JAMB DETAIL

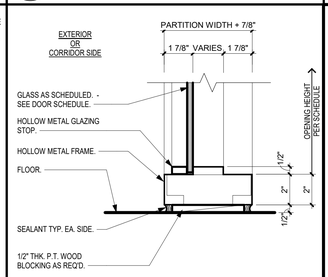
3" = 1'-0"



A1 TYP. HOLLOW METAL FRAME GLAZED JAMB DTL

3" = 1'-0"

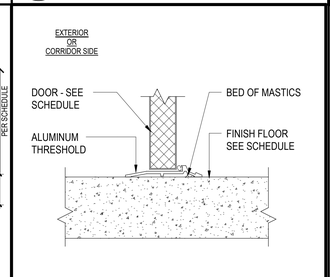
OPNG_HM FRAME 2" GLAZED JAMB DTL.



A2 TYP. HOLLOW METAL FRAME GLAZED SILL DTL.

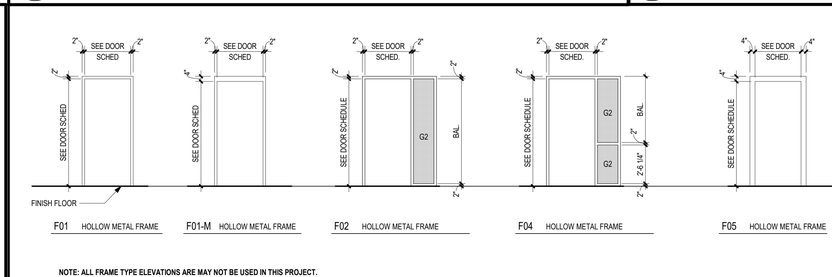
3" = 1'-0"

OPNG_HM FRAME 2" GLAZED SILL DTL.



A3 TYP HM DOOR SILL DETAIL

3" = 1'-0"



NOTE: ALL FRAME TYPE ELEVATIONS ARE MAY NOT BE USED IN THIS PROJECT.

A4 HOLLOW METAL FRAME TYPE ELEVATIONS

1/4" = 1'-0"

OPNG_HM FRAME TYPE ELEVS.

STATE OF MISSOURI
ROY A. MANSAN
NUMBER A-6661
ARCHITECT
Roy A. Mansan 3/30/2026
MO Architect License No: A-6661
Expires: 12/31/2024

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Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

DOOR SCHEDULE & DETAILS

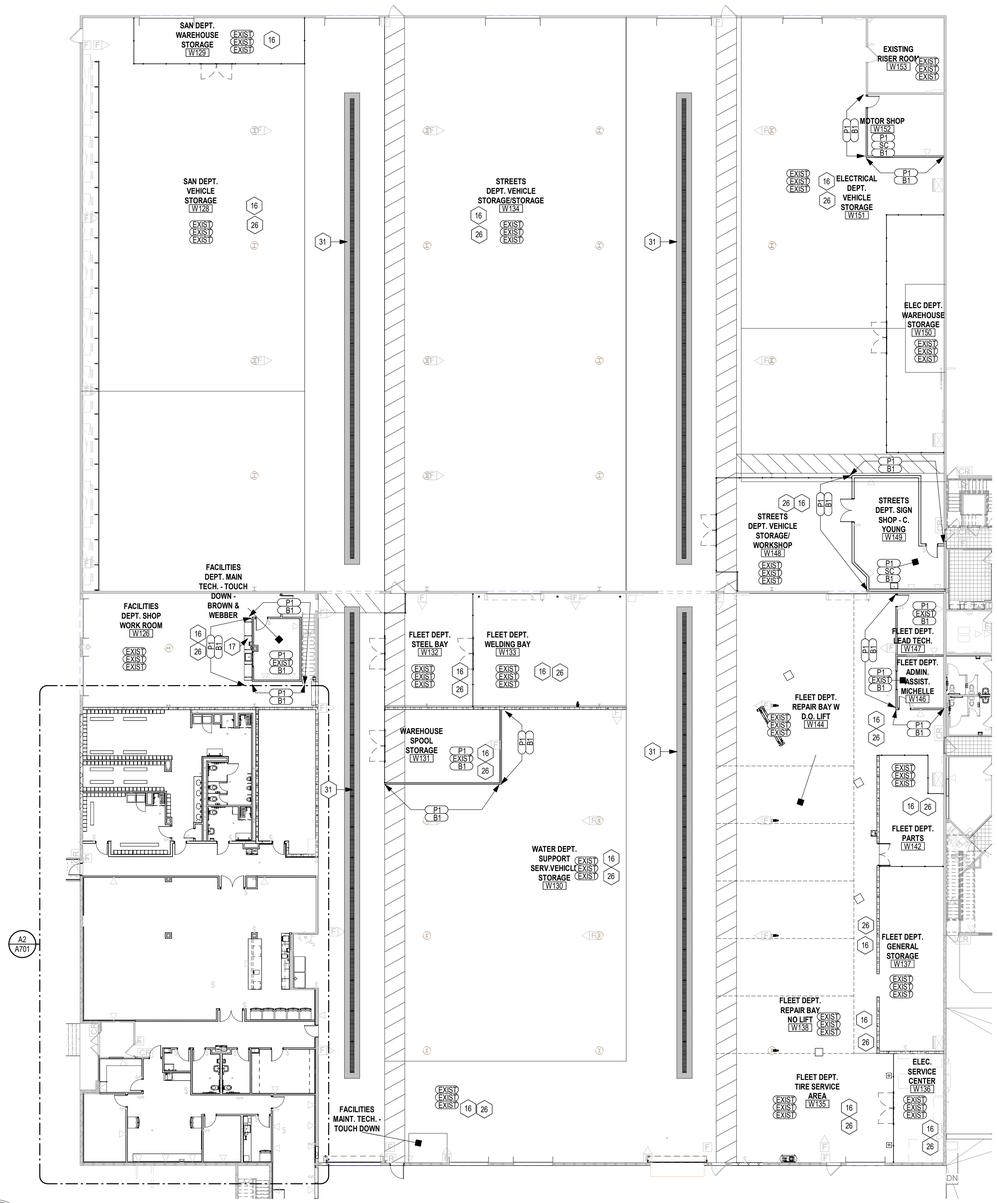
Project No. 24059

Sheet No. A600

Date 03/30/2026

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SCALE: 1 1/2" = 1'-0" 1" 6" 3" 0
SCALE: 1" = 1'-0" 1" 6" 3" 0
SCALE: 3/4" = 1'-0" 2" 1" 0
SCALE: 1/2" = 1'-0" 4" 2" 1" 0
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SCALE: 1/4" = 1'-0" 8" 4" 2" 0
SCALE: 1/8" = 1'-0" 16" 8" 4" 0
SCALE: 3/32" = 1'-0" 24" 16" 8" 0
SCALE: 1/16" = 1'-0" 32" 16" 8" 0



A1 WAREHOUSE FINISH FLOOR PLAN -LEVEL 01
1/16" = 1'-0"

INTERIOR FINISH GENERAL NOTES

1. INTERIOR FINISH MATERIALS SHALL COMPLY WITH THE FLAME SPREAD & SMOKE DEVELOPMENT LIMITATION USED IN CHAPTER 8 OF THE INTERNATIONAL BUILDING CODE.
2. ALL INTERIOR WALL COVERINGS MUST COMPLY WITH THE FOLLOWING: CLASS 1, FLAME SPREAD RATING 0-25 ASTM-E-84 PER FINISH SHEET.
3. G.C. TO SUBMIT ALL FINISHES IN MATERIAL SAMPLE FORM TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS - NO INTERNET OR COPY FORM SUBMITTALS WILL BE APPROVED.
4. ALL WALLS TO BE PAINTED P1 AND ALL INTERIOR DOOR FRAMES TO BE PAINTED P2 UNLESS NOTED OTHERWISE. ALL PAINTED SURFACES TO RECEIVE (1) PRIME COAT AND A MINIMUM OF (2) FINISH COATS PER PAINT COLOR
5. REFER TO REFLECTED CEILING PLAN FOR CEILING SYSTEM TYPES AND SOFFIT ACCENT PAINT COLOR LOCATIONS. ALL EXPOSED FACES OF SOFFITS TO BE PAINTED INCLUDING UNDERSIDE. ALL GYP. BD. CEILINGS TO BE PAINTED P4 UNLESS NOTED OTHERWISE.
6. REFER TO FLOOR PLAN FOR ADJUSTABLE SHELVING LOCATIONS. ADJUSTABLE SHELVING SHALL BE HEAVY DUTY WHITE MELAMINE SHELVES WITH WHITE PVC EDGES MOUNTED ON WHITE HEAVY DUTY WALL MOUNTED STANDARDS WITH WHITE ADJUSTABLE HEAVY DUTY BRACKETS UNLESS NOTED OTHERWISE.
7. ALL BUILT-IN CASEWORK TO BE VERIFIED AND COORDINATED WITH OWNER. G.C. TO SUBMIT SHOP DRAWINGS TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS.
8. ALL HARDWARE TO BE BRUSHED STAINLESS STEEL FINISH UNLESS NOTED OTHERWISE.
9. ALL FLOORING TO RUN FROM PARTITION TO PARTITION AND CENTER FLOORING IN DOOR OPENINGS AS REQUIRED, TYPICAL THROUGHOUT.
10. PROVIDE APPROPRIATE ADA COMPLIANT TRANSITION/REDUCER STRIPS TO MATCH FLOORING AT ALL FLOORING MATERIAL TRANSITIONS AS NEEDED UNLESS NOTED OTHERWISE.
11. ALL FLOORING PATTERN/GRAIN TO RUN IN THE SAME DIRECTION THROUGHOUT UNLESS NOTED OTHERWISE. SEE FINISH FLOOR PLAN.
12. SEE FINISH FLOOR PLAN FOR WALL PROTECTION LOCATIONS. WAINSCOTS AND CORNER GUARDS WHERE NOTED TO BE INSTALLED SO THAT BOTTOM EDGE ALIGNS WITH TOP EDGE OF SPECIFIED BASE, TYPICAL THROUGHOUT.
13. SUBMIT SHOP DRAWINGS FOR ALL WINDOW TREATMENTS TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS.
14. PROVIDE (2) BOXES OF EACH CARPET TILE FOR OWNER'S FUTURE MAINTENANCE.

FINISH PLAN LEGEND

SYMBOL DENOTES:

WALL FINISH
FLOOR FINISH
BASE FINISH

FLOOR MATERIAL CHANGE

CARPET PATTERN / TILE / LVT DIRECTION

NOTE: * INDICATES THAT FINISH VARIES. REF. ELEVATIONS AND FINISH PLAN FOR ADD'L INFO

EACH ROOM SHALL HAVE A ROOM FINISH TAG. SEE FLOOR FINISH PLAN. REFER TO FINISH PLAN KEYNOTES FOR CASEWORK FINISHE AND REFLECTED CEILING PLAN FOR CEILING FINISHES.

KEYED NOTES FINISH FLOOR PLAN

MARK	DESCRIPTION
16	WAREHOUSE & MEZZANINE AREAS: OWNER PROVIDED NEW SAFETY STRIPING P3 ON CONCRETE FLOOR AND SAFETY RAILINGS PAINT P3
17	25"D PLASTIC LAMINATE COUNTERS & 4"H BACK & SIDE SPLASHES PL2, BASE/WALL CABINETS PL1, ANGLED SUPPORT BRACKETS AS REQUIRED
26	WAREHOUSE AREA: NEW GYP.BOARD WALLS TO BE PAINTED P1, NEW CMU WALLS ARE NOT TO BE PAINTED, EXISTING WALLS TO REMAIN AS IS. VERIFY ALL WORK REQUIRED
31	WAREHOUSE AREA: NEW SEALED CONCRETE FLOOR SC AT NEW TRENCH DRAINS TYPICAL.

STATE OF MISSOURI
ROY A. MANGAN
NUMBER A-6661
ARCHITECT
Roy A. Mangan 3/30/2026
MO Architect License No: A-6661
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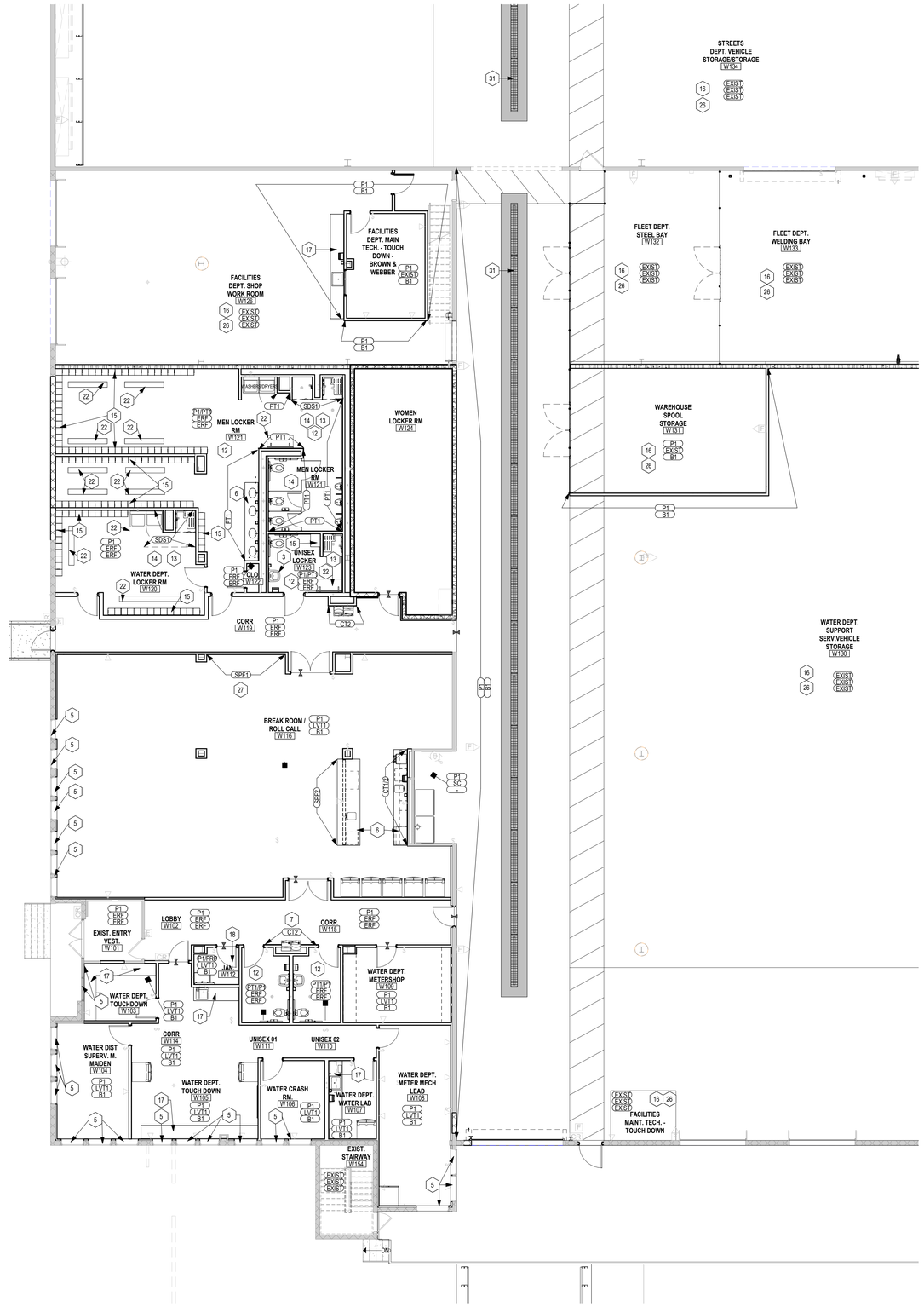
Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

WAREHOUSE FIN. FLOOR PLAN -L01

Project No. 24059
Sheet No. A700
Date 03/30/2026

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A2 ENLARGED WAREHOUSE OFFICE FINISH FLOOR PLAN - LEVEL 01
1/8" = 1'-0"

INTERIOR FINISH GENERAL NOTES

1. INTERIOR FINISH MATERIALS SHALL COMPLY WITH THE FLAME SPREAD & SMOKE DEVELOPMENT LIMITATION USED IN CHAPTER 8 OF THE INTERNATIONAL BUILDING CODE.
2. ALL INTERIOR WALL COVERINGS MUST COMPLY WITH THE FOLLOWING: CLASS 1, FLAME SPREAD RATING 0-25 ASTM-E-84 PER FINISH SHEET.
3. G.C. TO SUBMIT ALL FINISHES IN MATERIAL SAMPLE FORM TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS - NO INTERNET OR COPY FORM SUBMITTALS WILL BE APPROVED.
4. ALL WALLS TO BE PAINTED P1 AND ALL INTERIOR DOOR FRAMES TO BE PAINTED P2 UNLESS NOTED OTHERWISE. ALL PAINTED SURFACES TO RECEIVE (1) PRIME COAT AND A MINIMUM OF (2) FINISH COATS PER PAINT COLOR
5. REFER TO REFLECTED CEILING PLAN FOR CEILING SYSTEM TYPES AND SOFFIT ACCENT PAINT COLOR LOCATIONS. ALL EXPOSED FACES OF SOFFITS TO BE PAINTED INCLUDING UNDERSIDE. ALL GYP. BD. CEILINGS TO BE PAINTED P4 UNLESS NOTED OTHERWISE.
6. REFER TO FLOOR PLAN FOR ADJUSTABLE SHELVING LOCATIONS. ADJUSTABLE SHELVING SHALL BE HEAVY DUTY WHITE MELAMINE SHELVES WITH WHITE PVC EDGES MOUNTED ON WHITE HEAVY DUTY WALL MOUNTED STANDARDS WITH WHITE ADJUSTABLE HEAVY DUTY BRACKETS UNLESS NOTED OTHERWISE.
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10. PROVIDE APPROPRIATE ADA COMPLIANT TRANSITION/REDUCER STRIPS TO MATCH FLOORING AT ALL FLOORING MATERIAL TRANSITIONS AS NEEDED UNLESS NOTED OTHERWISE.
11. ALL FLOORING PATTERN/GRAIN TO RUN IN THE SAME DIRECTION THROUGHOUT UNLESS NOTED OTHERWISE. SEE FINISH FLOOR PLAN.
12. SEE FINISH FLOOR PLAN FOR WALL PROTECTION LOCATIONS. WAINSCOTS AND CORNER GUARDS WHERE NOTED TO BE INSTALLED SO THAT BOTTOM EDGE ALIGNS WITH TOP EDGE OF SPECIFIED BASE, TYPICAL THROUGHOUT.
13. SUBMIT SHOP DRAWINGS FOR ALL WINDOW TREATMENTS TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS.
14. PROVIDE (2) BOXES OF EACH CARPET TILE FOR OWNER'S FUTURE MAINTENANCE.

FINISH PLAN LEGEND

SYMBOL DENOTES:

WALL FINISH
FLOOR FINISH
BASE FINISH

FLOOR MATERIAL CHANGE

CARPET PATTERN / TILE / LVT DIRECTION

NOTE: * INDICATES THAT FINISH VARIES. REF. ELEVATIONS AND FINISH PLAN FOR ADD'L INFO

EACH ROOM SHALL HAVE A ROOM FINISH TAG. SEE FLOOR FINISH PLAN. REFER TO FINISH PLAN KEYNOTES FOR CASEWORK FINISHE AND REFLECTED CEILING PLAN FOR CEILING FINISHES.

KEYED NOTES FINISH FLOOR PLAN

MARK	DESCRIPTION
3	RESTROOM NEW WALL MOUNTED PORCELAIN SINK INCLUDE COORDINATING ACRYLIC PIPE SHROUD
5	WINDOW TREATMENTS: MINI BLINDS TO REMAIN. ASSESS CONDITION - IF DAMAGED REPLACE TO MATCH EXISTING. AT AREAS OF NEW WORK PROVIDE HORIZ. MINI BLINDS TO MATCH EXISTING WT1, SEE FINISH SCHEDULE
6	25"D PLASTIC LAMINATE COUNTERS & 4"H BACK & SIDE SPLASHES PL2, BASE/WALL CABINETS PL1
7	DRINKING FOUNTAIN TILE WALL ACCENT CT2, FULL HEIGHT. SEE ELEVATIONS
12	WAREHOUSE & LOCKER ROOMS: INSTALL PORCELAIN TILE WAINSCOT PT1 WET WALLS SINK WALL & SIDE WALLS AT TOILET & URINALS, 6'-6" HEIGHT AS INDICATED. CAP EXPOSED EDGES WITH SCHLUTER TR1. INCLUDE ACCENT RIBBON OF WALL TILE CT2, PAINT ABOVE TILE ALL WALLS. CONCRETE BACKER BOARD AT TILE AND MOISTURE RESISTANT GYP BOARD ALL WALLS. REFER TO ELEVATIONS FOR ADD'L INFORMATION
13	LOCKER ROOM SHOWERS: PROVIDE BLOCKING AT ALL ADA WALL MOUNTED ACCESSORIES. FULL HEIGHT VERTICAL WALL PANELS SDS1 ALL WALLS & OUTSIDE FACE OF WING WALLS. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLING WALL PANELS. SEAL ALL PERIMETER EDGES W/CLEAR SEALANT. SHOWER FLOORS: CONTINUE ERF-1 & INTEGRAL BASE INTO SHOWER AREA. ASSURE SLOPE TO DRAIN AND ERF TO HAVE ADDED NO SLIP TEXTURE IN THIS AREA. AT SHOWER ENCLOSURE: PROVIDE & INSTALL HEAVY DUTY SHOWER CURTAIN ROD, RINGS AND ANTIMICROBIAL CURTAIN. (68"VINYL BOBRICK OR APPROVED EQUAL INSIDE THE SHOWER ENCLOSURE DOOR TLT1.
14	TOILET PARTITIONS, URINAL SCREENS, SHOWER ENCLOSURE DOORS: PAINTED STEEL FLOOR MOUNTED OVERHEAD BRACED TLT1, SEE FINISH SCHEDULE
15	PROVIDE & INSTALL SINGLE TIER STEEL LOCKERS, SIZE 12"W,12"D,72"H, SLOPED TOP, CONTINUOUS Z BASES, RECESSED HANDLE WITH LIFT HANDLE WITH HASP FOR PADLOCK, FULL HEIGHT VENTILATED DOOR, LYON COLLEGIATE OR APPROVED EQUAL. PROVIDE STANDARD PAINTED COLOR CHART FOR APPROVAL.
16	WAREHOUSE & MEZZANINE AREAS: OWNER PROVIDED NEW SAFETY STRIPING P3 ON CONCRETE FLOOR AND SAFETY RAILINGS PAINT P3
17	25"D PLASTIC LAMINATE COUNTERS & 4"H BACK & SIDE SPLASHES PL2, BASE/WALL CABINETS PL1, ANGLED SUPPORT BRACKETS AS REQUIRED
18	JANITOR: INSTALL FRP 52" OAH WAINSCOT AROUND ROOM ALL WALLS (48"H FRP INSTALL ALONG TOP OF A 4" H VINYL BASE) USE ALL COORDINATING PVC TRIM TOP, BOTTOM, & INSIDE CORNER PIECES. CLEAR BEAD OF SEALANT ALONG ALL EDGES OF MOP SINK.
22	PROVIDE & INSTALL NEW LOCKER ROOM BENCHES, STYLES VARY: NARROW STYLE HARDWOOD TOPS W/STEEL PEDESTALS BOLT DOWN POWDERCOATED , ADA W/BACK STYLE: HARDWOOD TOP & BACK W/STEEL PEDESTALS BOLT DOWN POWDERCOATED. LYON OR APPROVED EQUAL
26	WAREHOUSE AREA: NEW GYP BOARD WALLS TO BE PAINTED P1. NEW CMU WALLS ARE NOT TO BE PAINTED. EXISTING WALLS TO REMAIN AS IS. VERIFY ALL WORK REQUIRED
27	WALL GRAPHICS, WALL FINISHED TO LEVEL 5 FINISH, SEE FINISH SCHEDULE & ELEVATIONS
31	WAREHOUSE AREA: NEW SEALED CONCRETE FLOOR SC AT NEW TRENCH DRAINS TYPICAL.

STATE OF MISSOURI ROY A. MANDAN NUMBER A-6661 ARCHITECT
Roy A. Mandan 3/30/2026
MO Architect License No: A-6661
Expires: 12/31/2024

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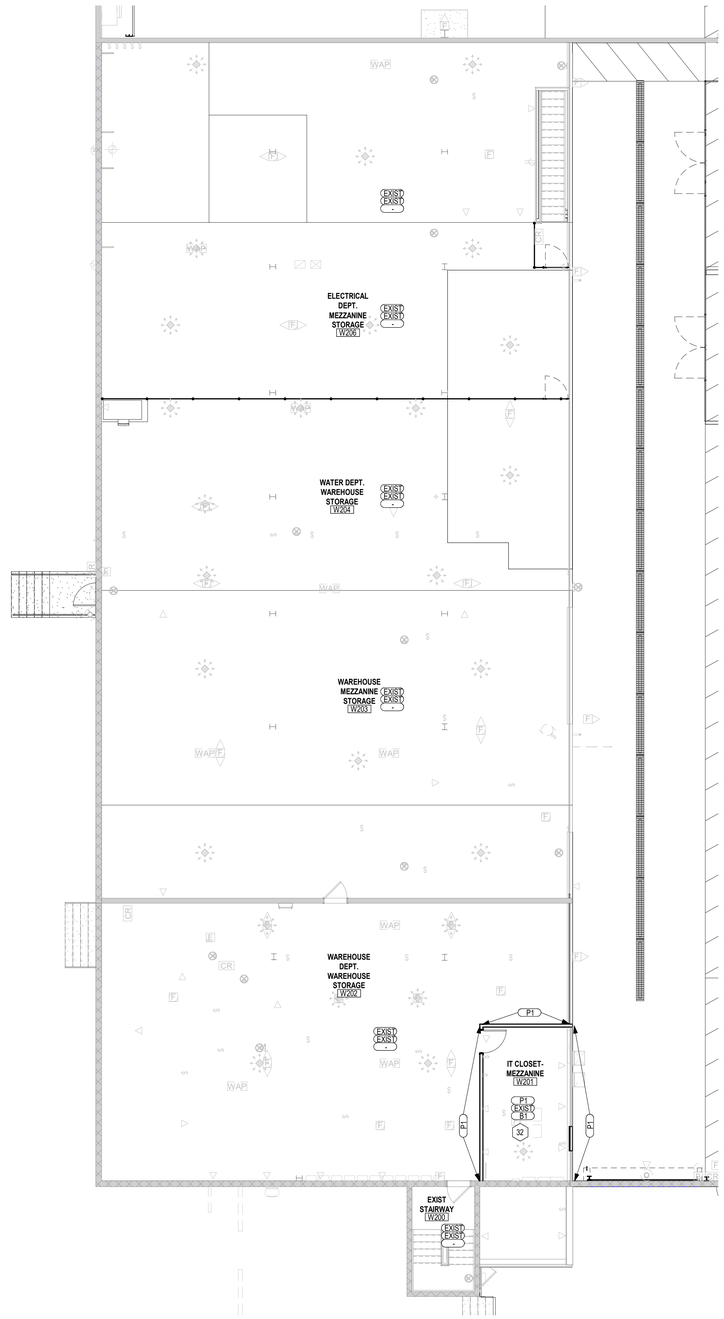
Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

WAREHOUSE OFF. FIN. FL. PLAN -LVL01

Project No. 24059
Sheet No. A701
Date 03/30/2026

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A4 WAREHOUSE FINISH FLOOR PLAN - MEZZANINE
1/8" = 1'-0"

INTERIOR FINISH GENERAL NOTES

1. INTERIOR FINISH MATERIALS SHALL COMPLY WITH THE FLAME SPREAD & SMOKE DEVELOPMENT LIMITATION USED IN CHAPTER 8 OF THE INTERNATIONAL BUILDING CODE.
2. ALL INTERIOR WALL COVERINGS MUST COMPLY WITH THE FOLLOWING: CLASS 1, FLAME SPREAD RATING 0-25 ASTM-E-84 PER FINISH SHEET.
3. G.C. TO SUBMIT ALL FINISHES IN MATERIAL SAMPLE FORM TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS - NO INTERNET OR COPY FORM SUBMITTALS WILL BE APPROVED.
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5. REFER TO REFLECTED CEILING PLAN FOR CEILING SYSTEM TYPES AND SOFFIT ACCENT PAINT COLOR LOCATIONS. ALL EXPOSED FACES OF SOFFITS TO BE PAINTED INCLUDING UNDERSIDE. ALL GYP. BD. CEILINGS TO BE PAINTED P4 UNLESS NOTED OTHERWISE.
6. REFER TO FLOOR PLAN FOR ADJUSTABLE SHELVING LOCATIONS. ADJUSTABLE SHELVING SHALL BE HEAVY DUTY WHITE MELAMINE SHELVES WITH WHITE PVC EDGES MOUNTED ON WHITE HEAVY DUTY WALL MOUNTED STANDARDS WITH WHITE ADJUSTABLE HEAVY DUTY BRACKETS UNLESS NOTED OTHERWISE.
7. ALL BUILT-IN CASEWORK TO BE VERIFIED AND COORDINATED WITH OWNER. G.C. TO SUBMIT SHOP DRAWINGS TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS.
8. ALL HARDWARE TO BE BRUSHED STAINLESS STEEL FINISH UNLESS NOTED OTHERWISE.
9. ALL FLOORING TO RUN FROM PARTITION TO PARTITION AND CENTER FLOORING IN DOOR OPENINGS AS REQUIRED, TYPICAL THROUGHOUT.
10. PROVIDE APPROPRIATE ADA COMPLIANT TRANSITION/REDUCER STRIPS TO MATCH FLOORING AT ALL FLOORING MATERIAL TRANSITIONS AS NEEDED UNLESS NOTED OTHERWISE.
11. ALL FLOORING PATTERN/GRAIN TO RUN IN THE SAME DIRECTION THROUGHOUT UNLESS NOTED OTHERWISE. SEE FINISH FLOOR PLAN.
12. SEE FINISH FLOOR PLAN FOR WALL PROTECTION LOCATIONS. WAINSCOTS AND CORNER GUARDS WHERE NOTED TO BE INSTALLED SO THAT BOTTOM EDGE ALIGNS WITH TOP EDGE OF SPECIFIED BASE, TYPICAL THROUGHOUT.
13. SUBMIT SHOP DRAWINGS FOR ALL WINDOW TREATMENTS TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS.
14. PROVIDE (2) BOXES OF EACH CARPET TILE FOR OWNER'S FUTURE MAINTENANCE.

FINISH PLAN LEGEND

SYMBOL DENOTES:

WALL FINISH →
FLOOR FINISH →
BASE FINISH →

FLOOR MATERIAL CHANGE

CARPET PATTERN / TILE / LVT DIRECTION

NOTE: * INDICATES THAT FINISH VARIES. REF. ELEVATIONS AND FINISH PLAN FOR ADD'L INFO

EACH ROOM SHALL HAVE A ROOM FINISH TAG. SEE FLOOR FINISH PLAN. REFER TO FINISH PLAN KEYNOTES FOR CASEWORK FINISHE AND REFLECTED CEILING PLAN FOR CEILING FINISHES.

KEYED NOTES FINISH FLOOR PLAN

MARK	DESCRIPTION
32	PROVIDE & INSTALL BLOCKING FOR OWNER PROVIDED SERVER RACKS - CONFIRM LOCATIONS WITH OWNER.

STATE OF MISSOURI
ROY A. MANSIAN
NUMBER A-6661
ARCHITECT
Roy A. Mansian 3/30/2026
MO Architect License No: A-6661
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Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

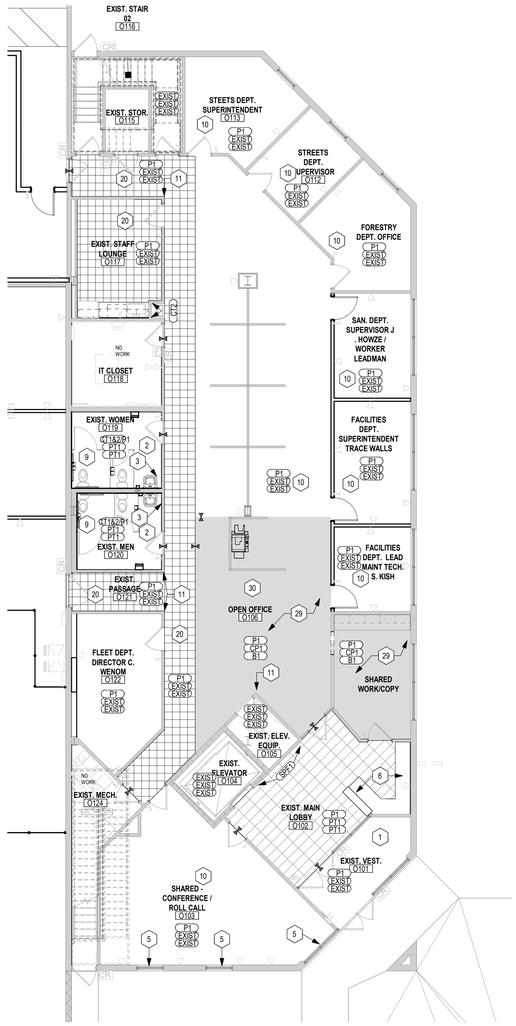
No.	Date	Revision

WAREHOUSE FIN. FLR. PLAN - MEZZ.

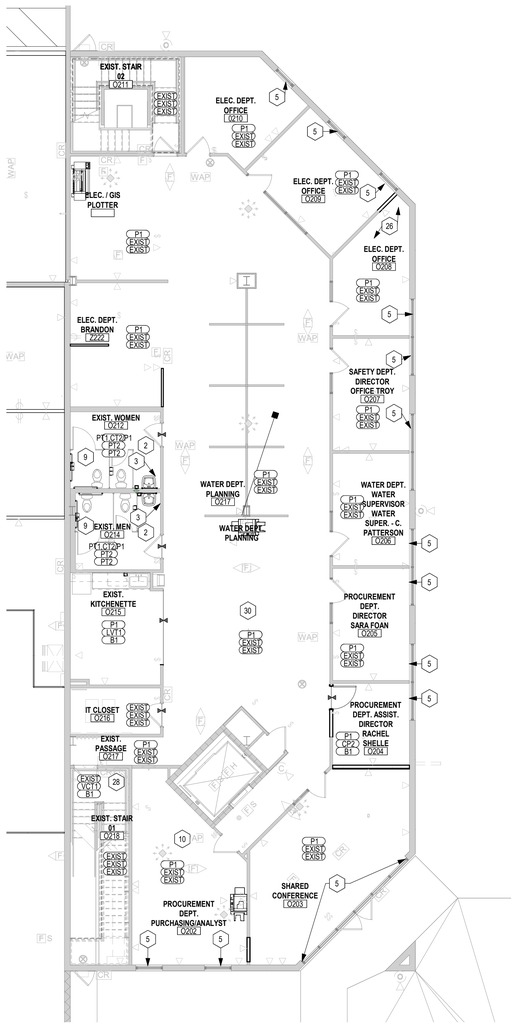
Project No. 24059
Sheet No. A702
Date 03/30/2026

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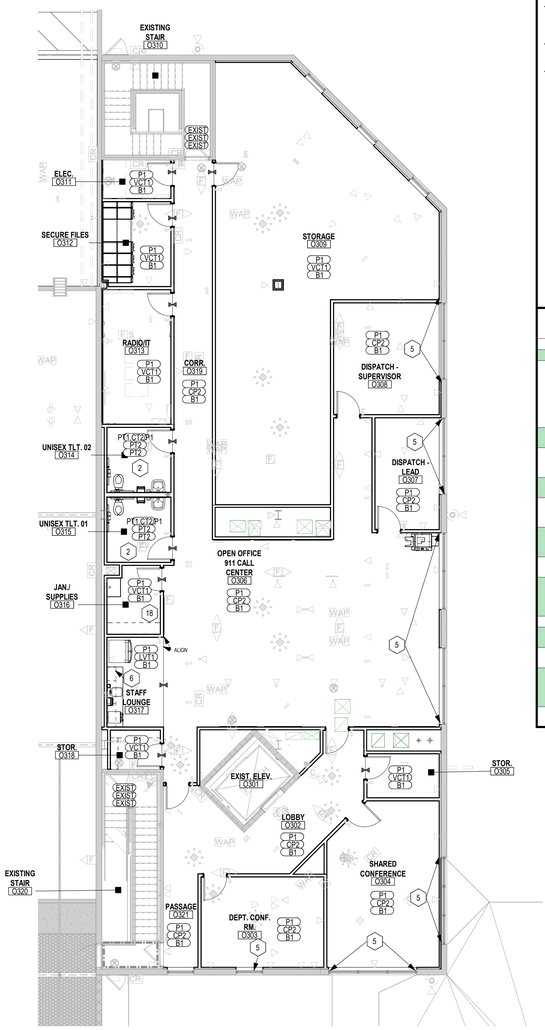
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A1 BUSINESS OFFICE FINISH FLOOR PLAN - LEVEL 01
1/8" = 1'-0"



A3 BUSINESS OFFICE FLOOR FINISH PLAN - LEVEL 02
1/8" = 1'-0"



A5 BUSININESS OFFICE FINISH FLOOR PLAN - LEVEL 03
1/8" = 1'-0"

FINISH PLAN LEGEND

SYMBOL DENOTES:

WALL FINISH
FLOOR FINISH
BASE FINISH

FLOOR MATERIAL CHANGE

CARPET PATTERN / TILE / LVT DIRECTION

NOTE: * INDICATES THAT FINISH VARIES. REF. ELEVATIONS AND FINISH PLAN FOR ADD'L INFO

EACH ROOM SHALL HAVE A ROOM FINISH TAG. SEE FLOOR FINISH PLAN. REFER TO FINISH PLAN KEYNOTES FOR CASEWORK FINISHE AND REFLECTED CEILING PLAN FOR CEILING FINISHES.

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12. SEE FINISH FLOOR PLAN FOR WALL PROTECTION LOCATIONS. WAINSCOTS AND CORNER GUARDS WHERE NOTED TO BE INSTALLED SO THAT BOTTOM EDGE ALIGNS WITH TOP EDGE OF SPECIFIED BASE, TYPICAL THROUGHOUT.
13. SUBMIT SHOP DRAWINGS FOR ALL WINDOW TREATMENTS TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS.
14. PROVIDE (2) BOXES OF EACH CARPET TILE FOR OWNER'S FUTURE MAINTENANCE.

KEYED NOTES FINISH FLOOR PLAN

MARK	DESCRIPTION
1	EXISTING FLOOR TILE & BASE TO REMAIN. PAINT ALL WALLS AND CEILING.
2	EXISTING PUBLIC & INDIVIDUAL RESTROOMS: INSTALL CERAMIC TILE WAINSCOT CT1 WET WALL & SIDE WALLS AT TOILET, 6'-4" HEIGHT AS INDICATED, CAP EXPOSED EDGES WITH SCHLUTER TR1. INCLUDE ACCENT RIBBON OF WALL TILE CT2. NOTE: WALLS WITHOUT WAINSCOT, BASE TO MATCH FLOOR TILE. CUT TO 4" H X 24"L WITH TOP CAP SCHLUTER TRIM TR1. PAINT ABOVE TILE ALL WALLS. CONCRETE BACKER BOARD AT TILE AND MOISTURE RESISTANT GYP.BOARD ALL WALLS. REFER TO ELEVATIONS FOR ADD'L INFORMATION
3	RESTROOM NEW WALL MOUNTED PORCELAIN SINK INCLUDE COORDINATING ACRYLIC PIPE SHROUD
5	WINDOW TREATMENTS: MINI BLINDS TO REMAIN. ASSESS CONDITION - IF DAMAGED REPLACE TO MATCH EXISTING. AT AREAS OF NEW WORK PROVIDE HORIZ. MINI BLINDS TO MATCH EXISTING WT1. SEE FINISH SCHEDULE
6	25"D PLASTIC LAMINATE COUNTERS & 4"H BACK & SIDE SPLASHES PL2, BASE/WALL CABINETS PL1
9	PUBLIC RESTROOMS: EXISTING TOILET PARTITIONS AND ALL TOILET ACCESSORIES TO REMAIN. CARE IS TO BE EXERCISED NOT TO DAMAGE PARTITIONS WITH REMOVAL OF FLOOR & WALL TILE
10	EXISTING CARPET TILE TO BE PROFESSIONALLY CLEANED WITH HOT WATER EXTRACTION AND THEN PROTECTIVE FINISH. CONTACT WOODARD REP: ERICA DENNISON 314.347.2414
11	INSTALL CORNER GUARDS WP1 ALL OUTSIDE GYP.BOARD CORNERS THRU-OUT PROJECT TYPICAL. GC TO CONFIRM QUANTITIES.
18	JANITOR: INSTALL FRP 52" OAH WAINSCOT AROUND ROOM ALL WALLS (48"H FRP INSTALL ALONG TOP OF A 4" H VINYL BASE) USE ALL COORDINATING PVC TRIM TOP, BOTTOM, & INSIDE CORNER PIECES. CLEAR BEAD OF SEALANT ALONG ALL EDGES OF MOP SINK.
20	EXISITNG VCT TO BE STRIPPED,CLEANED & REWAXED
26	INFILL CARPET WITH OWNERS ATTIC STOCK TO MATCH EXISTING AT REMOVED PARTITION.
28	STAIR LANDING REPLACE DAMAGED VCT FLOOR WITH NEW VCT AND VINYL BASE
29	DESIGN INTENT IS TO REPLACE SOILED TILES USING OWNERS 24 BOXES OF CARPET TILE STORED ON THE THIRD FLOOR. CONFIRM QUANTITIES. RETAIN ANY "CLEAN" TILES. ANY EXTRA "CLEAN TILES" TO BE SHUFFLED INTO AREAS TO REPLACE OTHER VISIBLY SOILED CARPET TILES.
30	TOUCH UP DOOR/FRAME PAINT P2 ONLY AS REQUIRED TO CONCEAL ANY VISIBLE SCRATCHES. CONFIRM EXTENT OF WORK NEEDED

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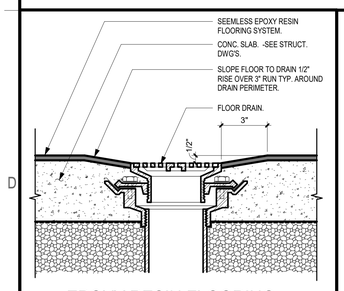
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BUSINESS OFFICE FINISH FLR. PLANS

Project No. 24059
Sheet No. A703
Date 03/30/2026

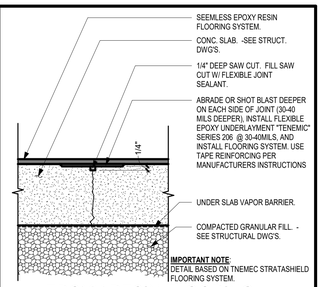
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EPOXY RESIN FLOORING FLOOR DRAIN DETAIL

D1 3" = 1'-0"

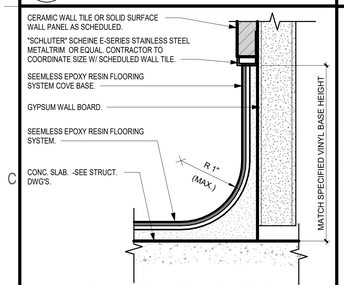
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EPOXY RESIN FLOORING CONTROL JOINT DETAIL

D2 3" = 1'-0"

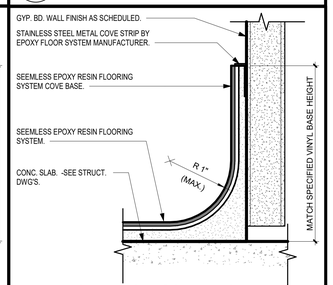
09.67.26.01 FLOORING CJ DET



EPOXY RESIN COVE BASE TRANSITION TO CER. WALL TILE DET.

C1 FULL SCALE

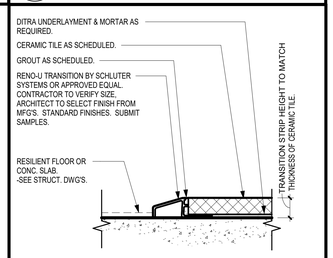
09.67.26.02 FLOORING TRANSITION 12



EPOXY RESIN COVE BASE TRANSITION TO GYP. BD. WALL DET.

C2 FULL SCALE

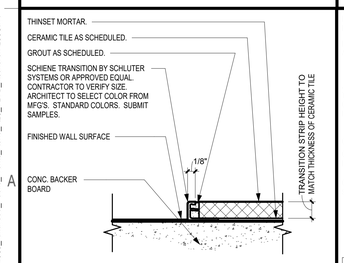
09.67.26.01 FLOORING TRANSITION 13



CERAMIC TILE TO VCT/CONC TRANSITION DETAIL "TR4"

B2 FULL SCALE

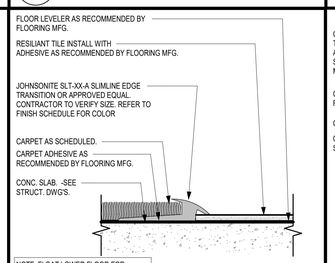
09.65.13.33 FLOORING TRANSITION 11



CERAMIC TILE PERIMITER TRANSITION DETAIL "TR1"

A1 FULL SCALE

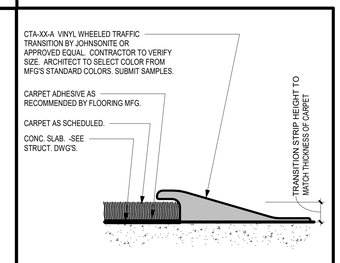
09.65.13.33 FLOORING TRANSITION 07



CARPET TO VINYL FLOORING TRANSITION DETAIL "TR2"

A2 FULL SCALE

09.65.13.33 FLOORING TRANSITION 09



CARPET TO VCT OR CONC. SLAB TRANSITION DET. TR3"

A3 FULL SCALE

09.65.13.33 FLOORING TRANSITION 10

INTERIOR FINISH SCHEDULE

ACOUSTICAL CEILINGS

ACT1	NEW ACOUSTICAL CEILING MFGR: USG PATTERN: RADAR MODEL: 2410, SIZE: 2'-0" X 4'-0", 15/16" GRID COLOR: WHITE NOTE: USE OWNERS ATTIC STOCK FOR ANY REPLACEMENT OF STAINED CEILING TILES FLOOR 1ST & 2ND FLOOR - USG OMNI TILE PATTERN HAS BEEN DISCONTINUED. ANY NEW OFFICES TO RECEIVE RADAR PATTERN.

BASE

B1	VINYL BASE - FIELD MFGR: TARKETT JOHNSONITE STYLE/SIZE: 4" HIGH COVE PROFILE, 1/8" GAUGE, 4'-0" LENGTHS COLOR: 63 BURNT UMBER

CARPET

CP1	CARPET - OWNERS ATTIC STOCK LOCATED ON 3RD FL: 24 BOXES, 7 TILES PER BOX, 24"X24" SIZE
CP2	CARPET - MODULAR CARPET TILES MFGR: MILLIKEN STYLE: NORDIC STORIES - AMERICAS DESIGN NAME: ISOGRAD COLOR: IGD13-119 ESKER INSTALL METHOD: MONOLITHIC CONTACT: NICK JANNETT 314-912-8000

CERAMIC WALL TILE

CT1	CERAMIC WALL TILE - TLT RM MFGR: DAL TILE COLOR WHEEL PATTERN: GLAZED CERAMIC WALL SUBWAY TILE COLOR: ARCTIC WHITE, SIZE: 4" X 16" TILE INSTALL METHOD: STACK BOND. USE SCHLUTER SCHIENE TRIM ALL OUTSIDE EXPOSED EDGES, TYP. INSTALL WITH GROUT GT1 CONTACT: JILL PATTERSON 314-208-7962
CT2	CERAMIC WALL TILE - TLT RM ACCENT MFGR: DAL TILE COLOR WHEEL PATTERN: GLAZED CERAMIC WALL SUBWAY TILE COLOR: CHALKBOARD MATTE, SIZE: 4" X 16" TILE INSTALL METHOD: STACK BOND. USE SCHLUTER SCHIENE TRIM ALL OUTSIDE EXPOSED EDGES, TYP. INSTALL WITH GROUT GT1 CONTACT: JILL PATTERSON 314-208-7962

EPOXY RESIN FLOORING

ERF1	EPOXY RESIN FLOORING & 4" INTEGRAL COVE BASE - LOCKER RMS MFGR: TNEMEC OR APPROVED EQUAL STYLE: STRATASHIELD DECOFLECK W/EXTRA COAT SEALER, PRIMER/BROADCAST 237 POWER TREAD, INTERMEDIATE 224 DECO FLECK, GROUT COAT 224 DECO FLECK, FINISH COAT 248 EVERTHANE COLOR: CUSTOM 4-COLOR MIX 1/4" FLAKE SIZE, "COOL GRAY". CONTACT DESIGNER FOR COLOR RENDERING. NOTE: SHOWER FLOORS ONLY TO HAVE NON SKID ADDITIVE (FINE) CONTACT: MIKE CERUTTI 314.703.8042 NOTE: PROVIDE MOCKUP PANELS FOR COLOR & TEXTURE & APPROVAL FOR SHOWER FLOORS. CLEAR TOPCOAT.

FIBERGLASS REINFORCED PANELS

FRP	FRP PANELS MFGR: CRANE COMPOSITES STYLE: GLASBORD W/SURFASEAL, PEBBLE EMBOSSED TEXTURE COLOR: WHITE SIZE: CLASS A, GAUGE: 0.09" INCLUDE ALL TRIM CAPS & CORNER BEADS.

GROUT

GT1	WALL GROUT MFGR: MAPEI STYLE: KERAPOXY CQ COLOR: 38 AVALANCHE NOTE: KNIFE GROUT JOINT
GT2	FLOOR GROUT MFGR: MAPEI STYLE: KERAPOXY CQ COLOR: 5019 PEARL GRAY NOTE: KNIFE GROUT JOINT

LUXURY VINYL TILE

LVT1	LUXURY VINYL TILE FLOOR MFGR: TARKETT EVENT ABSTRACT, STYLE: PEME MELANGE COLOR:11188 PIETRO SIZE 18"X18" INSTALL METHOD: MONOLITHIC CONTACT: AMY ELLIS 1.314.348.7677

PAINT

P1	PAINT – WALLS – OFFICE FIELD COLOR MFGR: SHERWIN WILLIAMS FINISH: PROMAR ZERO VOC, EGGSHELL COLOR: SW7064 PASSIVE
P2	PAINT – HM DOORS & DOOR FRAMES INDICATED AS "PAINT" ON DOOR - TOUCH UP VISIBLE SCRATCHES - COLOR TO MATCH EXISTING MFGR: SHERWIN WILLIAMS SERIES: PRECATALYZED WATERBASED EPOXY SINGLE COMPONENT, FINISH: SEMI GLOSS COLOR: VERIFY IN FIELD
P3	PAINT – WAREHOUSE SAFETY STRIPES & COLUMNS BY OWNER MFGR: SHERWIN WILLIAMS SERIES: GENERAL POLYMERS SERIES:4944 PACECOTE POLYASOARTIC TOPCOAT COLOR: CUSTOM MATCH SW6911 CONFIDENT YELLOW STRIPES LOCATIONS PER OWNER DIRECTION
P4	PAINT – GYP. CEILINGS MFGR: SHERWIN WILLIAMS FINISH: PROMAR ZERO VOC, FLAT FINISH COLOR: SW7005 PURE WHITE

PLASTIC LAMINATE

PL1	PLASTIC LAMINATE – VERTICAL DOORS & DRAWERS MFGR: FORMICA HPL STYLE: STORM SOLIDZ 3506-SP INCLUDE MATCHING 1MM PVC EDGEBANDING, HORIZONTAL GRAIN DIRECTION TYPICAL
PL2	PLASTIC LAMINATE – COUNTERTOPS MFGR: FORMICA HPL STYLE: 8129-58 GRAY FABRIC INCLUDE MATCHING 3MM PVC EDGEBANDING

PORCELAIN TILE

PT1	PORCELAIN TILE - WALLS LOCKER RM, TLT ROOMS STYLE: LANDMARK, STYLE: MILESTONE COLOR: NORTH WHITE SIZE: 12X24", INSTALL STACK BOND W/KNIFE JOINTS INCLUDE CRACK ISOLATION MEMBRANE ALL CONTROL JOINTS. NO CUTTERS LESS THAN 3". INSTALL WITH GROUT GT2 & SCHLUTER TRIM ALL PERIMETER EDGES. LOBBY BASE CUT TILE 4"HX24" CAP WITH SCHLUTER TRIM. CONTACT: JILL PATTERSON 314-208-7962
PT2	PORCELAIN TILE - LOBBY FLOOR, TLT RM FLOOR STYLE: LANDMARK, STYLE: MILESTONE COLOR: WEST BLACK SIZE: 12X24", INSTALL STACK BOND W/KNIFE JOINTS. INCLUDE CRACK ISOLATION MEMBRANE ALL CONTROL JOINTS. NO CUTTERS LESS THAN 3". INSTALL WITH GROUT GT2 & SCHLUTER TRIM ALL PERIMETER EDGES. LOBBY BASE CUT TILE 4"HX24" CAP WITH SCHLUTER TRIM. CONTACT: JILL PATTERSON 314-208-7962

SEALED CONCRETE

SC	SEALED CONCRETE FLOOR WITH DENSIFIERS REFER TO ARCHITECTURAL SPECIFICATIONS

SOLID SURFACE

SDS1	SOLID SURFACE - SHOWER WALL SURROUNDS, LOCKER RM VANITY MFGR: WILSONART COLOR: DUSK ICE 9203CE GAUGE:1/2", EASED EDGES

SPECIALTY FINISH

SPF1	SPECIALTY FINISH - CUSTOM VINYL WALL APPLIQUE ROLL CALL & LOBBY MFGR: INFINITE OPTIKS QUALITY GLASS STYLE: CUSTOM DIGITALLY PRINTED DESIGNS, MULTI COLOR SEE ELEVATIONS; MULTI-COLOR CUSTOM DESIGNS TO BE DETERMINED BY ARCHITECT. WALL TO BE FINISHED TO LEVEL 5 FINISH PRIOR TO INSTALL. CONTACT: KELLY FORD 636.391.3888
SPF2	SPECIALTY FINISH - DIAMOND PLATE WALL PROTECTION - ISLAND MFGR: KOEFFLER SALES OR APPROVED EQUAL ALUMINUM CHROME FINISH, GAUGE: .045" INCLUDE ALUMINUM EDGE TRIM BOTH OUTSIDE CORNERS PROVIDE SEAMING DIAGRAM FOR MOST COST EFFECTIVE LAYOUT

TOILET PARTITIONS

TLT1	TOILET PARTITIONS, URINAL SCREENS, SHOWER/DRESSING ENCLOSURE ACCURATE OR APPROVED EQUAL FLOOR MOUNTED, OVERHEAD BRACED, PAINTED STEEL, HINGE STAINLESS STEEL, STANDARD HEIGHT, SHOWER DRESSING AREA PARTITION EXTENDED PRIVACY HEIGHT COLOR: 921 BLACK WHITE SPECKLE

TRANSITIONS/FLOORING ACCESSORIES

TR1	TRANSITION CERAMIC TILE & PORCELAIN TILE PERIMETER EDGES MFGR: SCHLUTER PATTERN: SCHIENE, NOTE SIZES VARY FOR FLOOR & WALLS COLOR: SATIN ANODIZED ALUMINUM
TR2	TRANSITION - CARPET TO LVT MFGR: JOHNSONITE SLIMLINE PATTERN: SLT-63-A COLOR: BURNT UMBER
TR3	TRANSITION - CARPET TO CONCRETE MFGR: JOHNSONITE PATTERN: CTA-63-J COLOR: BURNT UMBER
TR4	TRANSITION PORCELAIN TILE TO VCT OR ERF MFGR: SCHLUTER PATTERN: RENO SLOPED COLOR: SATIN ANODIZED ALUMINUM

VINYL COMPOSITION TILE

VCT1	VCT - AHF MFGR: ARMSTRONG STYLE: IMPERIAL TEXTURE, SIZE: 12X12", GAUGE: 1/8" COLOR: 51911 CLASSIC WHITE CONTACT: SARA MCCOY 314.349.7771

WINDOW TREATMENTS

WT1	WINDOW TREATMENTS - MINI BLINDS MFGR: SWF CONTRACT STYLE: 1" ALUMINUM HORIZONTAL BLINDS, S3000 CORDLESS BLINDS COLOR: 005 WHITE GLOSS CONTACT: DUSTIN PALMER GOLTERMAN & SABO 314.336.2142

WOOD

WD1	WOOD DOORS MFGR: MASONITE SPECIES: RED OAK TO MATCH EXISTING DOORS, FIELD VERIFY COLOR: MATCH BUILDING STANDARD

STATE OF MISSOURI — ROY A. MARDAN — NUMBER A-6661 — ARCHITECT

Roy A. Mardan 3/30/2026

MO Architect License No: A-6661
Expires: 12/31/2026

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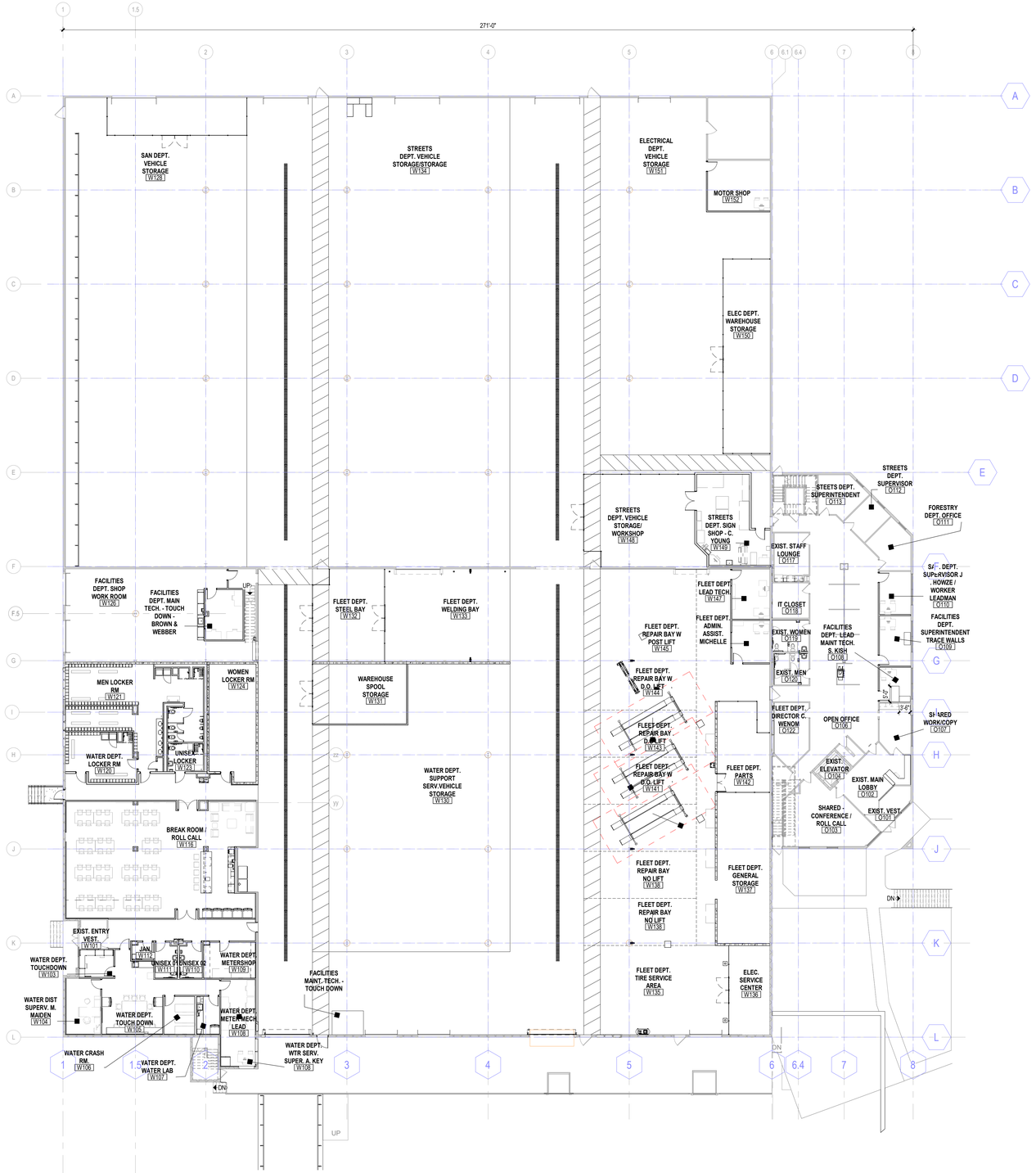
FINISH SCHEDULE & FLOOR DETAILS

Project No. 24059

Sheet No. A760

Date 03/30/2026

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A1 OVERALL FLOOR PLAN - FURNITURE FOR REFERENCE ONLY N.I.C.
1/16" = 1'-0"

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Roy A. Mangan 3/30/2026
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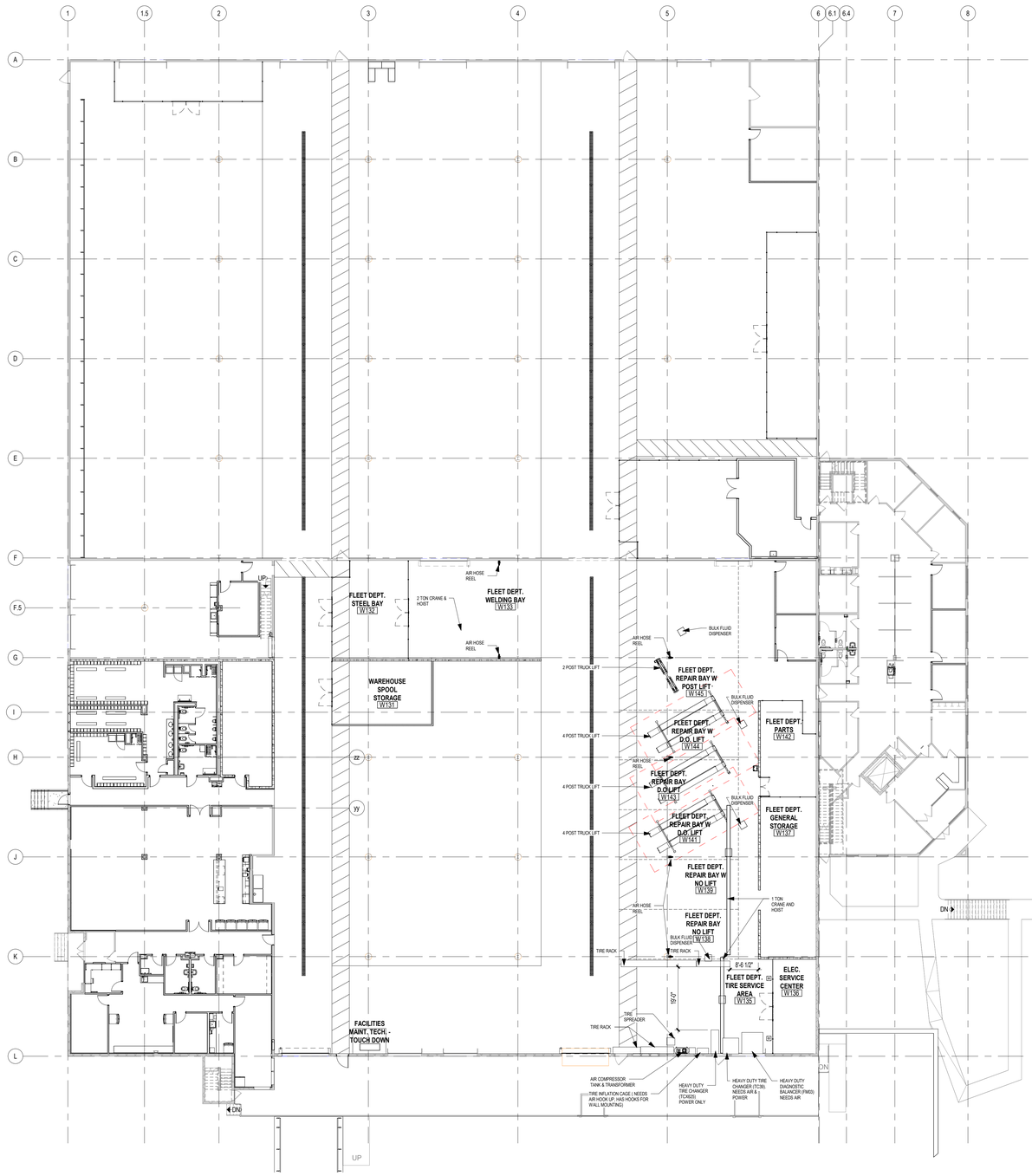
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No.	Date	Revision

FURNITURE PLAN

Project No.
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Sheet No.
A770
Date
03/30/2026



A1 EQUIPMENT PLAN - LEVEL 1
1/16" = 1'-0"

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NUMBER A-6661
ARCHITECT
Roy A. Mangan 3/30/2026
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EQUIPMENT PLAN

Project No. 24059
Sheet No. A800
Date 03/30/2026

STRUCTURAL GENERAL NOTES

DIVISION 1 - GENERAL REQUIREMENTS

1. CONSTRUCTION MEANS AND METHODS
   A. CONTRACTOR AND SUBS SHALL NOT SCALE DRAWINGS FOR PURPOSES OF CONSTRUCTION. NOTIFY ARCHITECT OF ANY DIMENSIONAL DISCREPANCIES FOUND BETWEEN DISCIPLINES.
   B. CONTRACTOR AGREES THAT CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE WORK, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD OWNER AND STRUCTURAL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF OWNER OR STRUCTURAL ENGINEER.
   C. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INCLUDE THE METHOD OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: PROTECTION OF SUBGRADE FROM FREEZING CONDITIONS, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, TEMPORARY STRUCTURES, AND PARTIALLY COMPLETED WORK. OBSERVATION VISITS TO THE SITE BY STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
   D. KPFF CONSULTING ENGINEERS SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE IN ANY WAY FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH ANY CONSTRUCTION ACTIVITIES, SINCE THESE ARE SOLELY CONTRACTOR'S RESPONSIBILITY UNDER THE CONTRACT.
   E. KPFF CONSULTING ENGINEERS SHALL NOT BE RESPONSIBLE FOR CONTRACTOR'S SCHEDULE OR FAILURES TO CARRY OUT ANY CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. KPFF CONSULTING ENGINEERS SHALL NOT HAVE CONTROL OVER OR CHARGE OF ACTIONS OF CONTRACTOR, SUBCONTRACTOR, OR ANY OF THEIR AGENTS, OR EMPLOYEES, OR ANY OTHER PERSONS PERFORMING PORTIONS OF ANY CONSTRUCTION ACTIVITIES.
   F. THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS WHICH MAY BE REQUIRED FOR STABILITY OF THE STRUCTURE DURING INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DETERMINED, FURNISHED, AND INSTALLED BY THE CONTRACTOR.

2. SUBMITTALS
   A. SUBMITTALS PREPARED BY SUBCONTRACTORS SHALL BE REVIEWED BY CONTRACTOR PRIOR TO SUBMITTING TO ARCHITECT.
   B. REPRODUCTION OF STRUCTURAL DRAWINGS SHALL BE IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE.
   C. CONTRACTOR SHALL VERIFY THE STRUCTURALLY SUPPORTED EQUIPMENT WEIGHTS, OPENING SIZES, AND LOCATIONS INDICATED ON THE STRUCTURAL DRAWINGS WITH DOCUMENTS FROM OTHER DISCIPLINES AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
   D. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING SIZE, METHOD OF ANCHORAGE, WEIGHT, OPENINGS, AND LOCATIONS OF EQUIPMENT SUPPORTED ON THE STRUCTURAL DRAWINGS PRIOR TO ORDERING FOR REVIEW BY STRUCTURAL ENGINEER TO DETERMINE ADEQUACY OF THE STRUCTURE.
   E. ALL SUBMITTALS REVIEWED BY STRUCTURAL ENGINEER ARE REVIEWED FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT ONLY AND DOES NOT RELIEVE THE FABRICATOR/VENDOR OF RESPONSIBILITY FOR CONFORMANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS, ALL OF WHICH HAVE PRIORITY OVER SUBMITTALS.
   F. SUBMITTALS SHALL BE REVIEWED WITHIN 10 WORKING DAYS AFTER BEING RECEIVED BY STRUCTURAL ENGINEER.

3. QUALITY REQUIREMENTS
   A. REFERENCE TO STANDARD SPECIFICATIONS OR CODES OF ANY TECHNICAL SOCIETY, ORGANIZATION, OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE STANDARDS IN EFFECT AS OF DATE OF THE CONTRACT DOCUMENTS, UNLESS OTHERWISE NOTED.
   B. CONTRACT DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH STANDARD SPECIFICATIONS OR CODES OF ANY TECHNICAL SOCIETY, ORGANIZATION, OR ASSOCIATION.
   C. NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION OR CODE, WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONTRACT DOCUMENTS, SHALL BE EFFECTIVE TO CHANGE THE DUTIES AND RESPONSIBILITIES OF OWNER, ARCHITECT, STRUCTURAL ENGINEER, CONTRACTOR, OR ANY OF THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE SET FORTH IN THE CONTRACT DOCUMENTS, NOR SHALL IT BE EFFECTIVE TO ASSIGN TO STRUCTURAL ENGINEER OR ANY OF STRUCTURAL ENGINEER'S CONSULTANTS, AGENTS, OR EMPLOYEES ANY DUTY OR AUTHORITY TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE OF THE WORK OR ANY DUTY OR AUTHORITY TO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OF THE CONTRACT DOCUMENTS.
   D. ALL OMISSIONS AND CONFLICTS WITHIN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
   E. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS AT THE JOB SITE. ANY DISCREPANCIES BETWEEN THE CONDITIONS FOUND AND THOSE INDICATED IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
   F. SEE DOCUMENTS BY OTHER DISCIPLINES FOR FLOOR, WALL, AND ROOF OPENINGS, TRENCHES, PITS, PIPE SLEEVES, EQUIPMENT PADS, METAL PAN STAIRS, MISCELLANEOUS IRON, ETC.
   G. NO PIPES, CONDUITS, SLEEVES, DUCTS, CHASES, ETC. SHALL BE PLACED WITHIN STRUCTURAL WALLS, BEAMS, SLABS OR COLUMNS NOR SHALL ANY STRUCTURAL MEMBERS BE CUT FOR PIPES, DUCTS, ETC., UNLESS SPECIFICALLY NOTED. NOTIFY STRUCTURAL ENGINEER WHEN DOCUMENTS BY OTHER DISCIPLINES SHOW OPENINGS, POCKETS, CONDUITS, PIPES, SLEEVES, ETC. NOT INDICATED IN THE STRUCTURAL DRAWINGS, BUT ARE LOCATED IN STRUCTURAL MEMBERS. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM STRUCTURAL ENGINEER FOR INSTALLATION OF SUCH PIPES, DUCTS, CHASES, ETC.
   H. DETAILS LABELED "TYPICAL" ON THE STRUCTURAL DRAWINGS APPLY TO ALL SITUATIONS OCCURRING ON PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE LOCATIONS SPECIFICALLY INDICATED. WHERE A DETAIL IS NOT INDICATED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR CONDITIONS.
   I. THE DESIGN RESPONSIBILITY OF THE ELEMENTS LISTED BELOW IS BEING DELEGATED TO A SPECIALTY STRUCTURAL ENGINEER HIRED BY THE CONTRACTOR. THE DESIGNATED ELEMENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE GOVERNING BUILDING CODE, LOCAL AMENDMENTS, AND SPECIFIC REQUIREMENTS IN THE CONTRACT DOCUMENTS BY AN ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. SUBMITTALS SHALL BE SEALED BY THE RESPONSIBLE LICENSED ENGINEER. THE FOLLOWING ELEMENTS AND THEIR CONNECTIONS TO PRIMARY STRUCTURE SHALL BE DESIGNED BY A SPECIALTY STRUCTURAL ENGINEER:
      1. TEMPORARY BRACING AND SHORING
      2. STRUCTURAL STEEL CONNECTIONS, IF ALTERING DESIGN SHOWN ON THE STRUCTURAL DRAWINGS
      3. SUPPORT AND SEISMIC BRACING OF MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION (M/E/P/FP) SYSTEMS COMPONENTS
         a. DO NOT SUPPORT SYSTEMS FROM STEEL ROOF DECK
         b. POWDER ACTUATED FASTENERS INSTALLED IN CONCRETE SHALL NOT BE USED TO RESIST SEISMIC LOADS
      4. ROOFTOP EQUIPMENT SUPPORT CURBS AND THEIR CONNECTIONS TO SUPPORTING STRUCTURE

4. STRUCTURAL SPECIAL INSPECTIONS
   A. SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH THE GOVERNING BUILDING CODE AND THE STATEMENT OF SPECIAL INSPECTIONS ON SHEET S002.

5. DESIGN CRITERIA:
   A. THE STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE ICC INTERNATIONAL EXISTING BUILDING CODE, 2015 EDITION.
      1. BUILDING RISK CATEGORY IV.
   B. NO PROVISIONS HAVE BEEN MADE FOR FUTURE HORIZONTAL OR VERTICAL EXPANSION.
   C. GRAVITY LOADS:
      1. UNIFORM ROOF LIVE LOADS:
         a. LIVE LOAD: 20 PSF
         b. SNOW LOAD:
            1. GROUND SNOW LOAD: 20 PSF
            2. FLAT ROOF SNOW LOAD: 22 PSF, MIN WITH RAIN SURCHARGE
            3. SNOW EXPOSURE FACTOR: 1.0
            4. SNOW IMPORTANCE FACTOR: 1.2
            5. SNOW THERMAL FACTOR: 1.0
      2. RAIN INTENSITY: 3.91 IN/HR (100 YEAR - 60 MINUTE DURATION)
      3. UNIFORM FLOOR LIVE LOADS :

CORRIDORS - 1ST FLOOR	100 PSF
GARAGE - PASSENGER	40 PSF
MECHANICAL ROOMS	150 PSF
OFFICES	80 PSF
SIDEWALKS SUBJECT TO TRUCKING	250 PSF
STAIRS	100 PSF
STORAGE (LIGHT)	125 PSF
STORAGE (HEAVY)	250 PSF

      4. CONCENTRATED FLOOR LIVE LOADS
         a. LOADS ARE DISTRIBUTED OVER AN AREA OF 2-1/2 SQ. FT., UNLESS NOTED OTHERWISE.

GARAGE - PASSENGER	2000 LB (OVER 20 SQ. IN.)
OFFICES BUILDINGS	2000 LB
SIDEWALKS SUBJECT TO TRUCKING	8000 LB
STAIRS	300 LB (OVER 4 SQ. IN.)

      5. CONCENTRATED LATERAL LIVE LOADS
         a. HANDRAIL ASSEMBLIES:
            1. TOP RAIL: 200 LB. OR 50 LB/FT APPLIED NON-CONCURRENTLY IN ANY DIRECTION.
            2. INTERMEDIATE RAILS, BALUSTERS, FILLER PANELS, ETC.: 50 PSF APPLIED NON-CONCURRENTLY WITH THE TOP RAIL LOAD.
         b. VEHICLE BARRIER SYSTEMS: 6,000 LB. APPLIED IN ANY DIRECTION AT 18 INCHES TO 27 INCHES ABOVE THE DRIVING SURFACE.
   D. LATERAL LOADS:
      1. WIND DESIGN DATA
         a. BASIC WIND SPEED:
            1. ULTIMATE DESIGN WIND SPEED, V_{ULT}: 120 MPH
            2. NOMINAL DESIGN WIND SPEED, V_{ASD}: 93 MPH
         b. EXPOSURE: B
         c. ENCLOSURE CLASSIFICATION: ENCLOSED BUILDING
         d. INTERNAL PRESSURE COEFFICIENT: +/-0.18
         e. COMPONENTS AND CLADDING DESIGN WIND PRESSURE
            1. POSITIVE WIND PRESSURE = 18 PSF (ALL ZONES), NEGATIVE WIND PRESSURE AS INDICATED BELOW:

	EFFECTIVE WIND AREA		
	10 SF	100 SF	500 SF
ZONE 1	-27 PSF	-25 PSF	-25 PSF
ZONE 2	-45 PSF	-29 PSF	-29 PSF
ZONE 3	-67 PSF	-29 PSF	-29 PSF

      2. EARTHQUAKE DESIGN DATA
         a. SEISMIC IMPORTANCE FACTOR: 1.5
         b. MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS: S_S=0.48, S_1=0.18
         c. SITE CLASSIFICATION: D
         d. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS: S_{DS}=0.453, S_{D1}=0.25
         e. SEISMIC DESIGN CATEGORY: D

6. M/E/P/FP AND SYSTEM SUPPORTS
   A. UNLESS SHOWN ON THE STRUCTURAL DRAWINGS, THE CONTRACTOR'S DELEGATED SPECIALTY STRUCTURAL ENGINEER SHALL DESIGN ALL VERTICAL AND LATERAL SUPPORTS FOR M/E/P/FP AND MISCELLANEOUS SYSTEMS.
   B. CONNECTIONS TO THE PRIMARY STRUCTURE SHALL BE TO THE STEEL BEAMS OR COMPOSITE SLAB.
      1. CONNECTIONS TO THE STEEL BEAMS SHALL ONLY APPLY CONCENTRIC VERTICAL LOADS TO THE BEAMS. THE CONTRACTOR SHALL SUPPLY ADDITIONAL MISCELLANEOUS METALS AS NECESSARY TO RESOLVE ANY ECCENTRIC, TORSIONAL, OR HORIZONTAL LOADS APPLIED TO THE BEAMS.
      2. CONNECTIONS TO STEEL BEAMS SHALL NOT IMPART ADVERSE LOCAL STRESSES WITHIN THE FLANGES OR WEBS OF THE BEAMS.
      3. CONNECTIONS TO THE COMPOSITE SLAB ON METAL DECK SHALL BE MADE THROUGH THE DECK AND DIRECTLY TO THE CONCRETE. A MAXIMUM OF 400 POUNDS MAY BE HUNG FROM THE COMPOSITE SLAB ON METAL DECK. LOADS TO THE SLAB ON DECK SHALL NOT BE CLOSER THAN 5 FEET TO ANY OTHER LOAD. IF LOADING OR SPACING REQUIREMENTS ARE NOT SATISFIED, CONNECT DIRECTLY TO THE STEEL BEAMS PER THE REQUIREMENTS ABOVE.
      4. CONNECTIONS SHALL NOT BE MADE TO STEEL ROOF DECK.

7. EXISTING STRUCTURE
   A. SIZES AND LOCATIONS OF EXISTING STRUCTURE HAVE BEEN PROVIDED FOR REFERENCE ONLY. ALL EXISTING SIZES AND LOCATIONS ARE TAKEN FROM THE EXISTING DESIGN DRAWINGS THAT WERE PROVIDED TO THE DESIGN TEAM AND DO NOT REPRESENT AS-BUILT CONDITIONS.
   B. THE CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS OF THE EXISTING STRUCTURE PRIOR TO STARTING FABRICATION.
   C. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE DESIGN TEAM OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION.
   D. THE EXISTING STRUCTURE MAY REQUIRE TEMPORARY SHORING AND BRACING WHILE PERFORMING MODIFICATIONS ON THE EXISTING STRUCTURE.
      1. THE CONTRACTOR SHALL HIRE AN ENGINEER TO INVESTIGATE WHERE ANY TEMPORARY SHORING/BRACING IS REQUIRED AND TO DESIGN THIS SHORING/BRACING.
      2. THE ENGINEER SHALL BE LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE WORK IS TO BE PERFORMED.

DIVISION 2 - FOUNDATIONS

1. GENERAL
   A. FOUNDATION DESIGN IS BASED UPON INFORMATION PROVIDED IN THE STRUCTURAL GENERAL NOTES FOR THE ADDITION TO 545 LEFFINGWELL AVE IN JULY 2000. STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR SUBSURFACE CONDITIONS ENCOUNTERED IN THE FIELD THAT ARE DIFFERENT FROM THOSE ASSUMED IN DESIGN.
   B. OWNER'S GEOTECHNICAL REPRESENTATIVE SHALL CERTIFY THE BEARING MEDIUM.
   C. EXCAVATIONS SHALL BE KEPT FREE OF LOOSE MATERIAL AND STANDING WATER.
   D. BOTTOM OF EXTERIOR FOUNDATIONS SHALL BE A MINIMUM OF 30 INCHES BELOW THE LOWEST FINISHED ELEVATION FOR FROST PROTECTION.

2. BRACING AND SHORING
   A. FOUNDATION WALLS SHALL BE BRACED LATERALLY UNTIL COMPLETE FLOOR AND ROOF SYSTEMS ARE IN PLACE.
   B. CONTRACTOR'S DELEGATED SPECIALTY STRUCTURAL ENGINEER SHALL DESIGN TEMPORARY BRACING FOR BACKFILL AGAINST THE FOUNDATION WALL.
   C. CONTRACTOR'S DELEGATED SPECIALTY STRUCTURAL ENGINEER SHALL DESIGN SHORING OF EXISTING CONSTRUCTION.

3. FOOTINGS
   A. INDIVIDUAL SPREAD FOOTINGS AND CONTINUOUS FOOTINGS SHALL BEAR ON AND BE FORMED BY CLEAN, UNDISTURBED, VIRGIN, SUB-SOIL OR COMPACTED ENGINEERED FILL WITH AN ALLOWABLE BEARING PRESSURE OF 2400 PSF AND 2000 PSF, RESPECTIVELY.
      1. NO FOOTING SHALL BEAR ON ROCK. UNDERCUT ROCK A MINIMUM OF 2 FEET BELOW THE BOTTOM OF FOOTING AND REPLACE WITH COMPACTED ENGINEERED FILL.

DIVISION 3 - CONCRETE

1. REINFORCING
   A. GENERAL
      1. REINFORCING STEEL SHALL BE ASTM A615, GRADE 60, DEFORMED BARS, UNLESS NOTED OTHERWISE. WELDING OF ASTM A615, GRADE 60 REINFORCING IS NOT ALLOWED.
      2. REINFORCING STEEL TO BE WELDED SHALL BE ASTM A706, DEFORMED BARS.
      3. EPOXY-COATED REINFORCING STEEL SHALL BE ASTM A775.
      4. WELDED WIRE REINFORCING SHALL BE ASTM A1064, CONTACT LAP SPLICED 12 INCHES MINIMUM.
      5. ALL REINFORCING BARS SHALL BE DETAILED, FABRICATED, SUPPORTED, AND PLACED IN ACCORDANCE WITH ACI 301 AND CRSI'S "MANUAL OF STANDARD PRACTICE", UNLESS NOTED OTHERWISE.
      6. REINFORCING, INCLUDING DOWELS, SHALL BE SECURELY TIED AND CAST WITH THE LOWER MEMBER. PLACING REINFORCING AFTER CONCRETE HAS BEEN PLACED IS NOT PERMITTED.
      7. FIELD BENDING OF REINFORCING PARTIALLY EMBEDDED IN CONCRETE IS NOT ALLOWED UNLESS SPECIFICALLY NOTED IN THE STRUCTURAL DOCUMENTS OR APPROVED BY STRUCTURAL ENGINEER.
      8. PROVIDE DOWELS FROM FOUNDATION THE SAME GRADE, SIZE, AND NUMBER AS VERTICAL WALL OR COLUMN REINFORCING, UNLESS NOTED OTHERWISE.
      9. PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCING AT CORNERS AND INTERSECTIONS.
      10. ADHESIVE FOR REINFORCING DOWELS INTO EXISTING CONCRETE SHALL BE HILTI HIT-HY 200 V3 SYSTEM (ICC-ESR 4868). MINIMUM EMBEDMENT LENGTH SHALL BE 12 BAR DIAMETERS UNLESS NOTED OTHERWISE. ALTERNATE WILL BE ACCEPTED ONLY IF A SIGNED AND SEALED ENGINEERING ANALYSIS IS PROVIDED FOR THE ALTERNATE. REINFORCING STEEL USED WITH THE ADHESIVE SYSTEM SHALL CONFORM TO ASTM A615, UNLESS NOTED OTHERWISE. ALL REINFORCING SHALL BE CLEAN, OIL FREE, AND CLEAN OF ALL LOOSE MATERIALS. SEE POST INSTALLED ANCHOR NOTES BELOW FOR ADDITIONAL CONCRETE REQUIREMENTS.
      11. MECHANICAL COUPLERS SHALL BE UNI-AXIAL TYPE CAPABLE OF DEVELOPING 125% OF THE SPECIFIED YIELD STRENGTH OF THE BAR IN TENSION. SPLICES MADE USING MECHANICAL COUPLERS SHALL BE STAGGERED BY TWICE THE LENGTH OF THE COUPLER.
      12. ALL REINFORCING SHALL BE CONTACT LAP SPLICED OR DOWELED AS FOLLOWS:

#3 BARS	25"	#7 BARS	71"
#4 BARS	33"	#8 BARS	81"
#5 BARS	41"	#9 BARS	91"
#6 BARS	49"	#10 BARS	102"

   B. SLABS
      1. PROVIDE SLAB BOLSTERS, HIGH CHAIRS, AND #5 SUPPORT BARS AS NECESSARY TO MAINTAIN PROPER PLACEMENT OF REINFORCING.
      2. PROVIDE 2 #5 BARS OR DIAGONALS AT CORNERS OF OPENINGS AND RE-ENTRANT CORNERS, UNLESS NOTED OTHERWISE.

2. CAST-IN-PLACE CONCRETE
   A. REINFORCED CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI.
   B. ALL CONCRETE TO HAVE THE FOLLOWING UNIT WEIGHTS (+/- 3 PCF):
      1. NORMAL WEIGHT CONCRETE: P_C (LBS/FT^3) = 145 PCF
   C. ALL CONCRETE EXPOSED TO FREEZING AND THAWING AND DEICER CHEMICALS SHALL HAVE 6% (+1%/-1.5%) AIR ENTRAINMENT. DO NOT AIR ENTRAIN CONCRETE TO BE TROWEL FINISHED.
   D. PROVIDE CONCRETE COVER FOR REINFORCING AS FOLLOWS:

1. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
2. CONCRETE EXPOSED TO EARTH OR WEATHER	2"
3. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
a. SLABS AND WALLS	3/4"
b. BEAMS AND COLUMNS	1-1/2"

   E. FOR CONCRETE CAST ON METAL DECK, CONCRETE THICKNESS INDICATED IS NOMINAL. CONTRACTOR SHALL ALLOW FOR THE DEFLECTION OF THE FLOOR ASSEMBLY DUE TO THE WET WEIGHT OF THE CONCRETE WHEN CALCULATING CONCRETE QUANTITY AND SHALL PROVIDE A LEVEL, FINISHED SLAB ELEVATION.
   F. PROVIDE CONSTRUCTION OR CONTROL JOINTS IN SLAB-ON-GRADE AS INDICATED IN THE STRUCTURAL DRAWINGS. IF JOINT PATTERN IS NOT INDICATED, PROVIDE JOINTS AT 12 FEET (+/-) IN BOTH DIRECTIONS AND LOCATED TO CONFORM TO BAY SPACING WHEREVER POSSIBLE (AT COLUMN CENTERLINES, HALF BAYS, THIRD BAYS, ETC.).
   G. INTERFACE OF CONSTRUCTION JOINTS SHALL BE ROUGHENED TO A FULL AMPLITUDE OF 1/4". SURFACE OF CONSTRUCTION JOINTS SHALL BE CLEAN AND FREE OF LAITANCE. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, CONSTRUCTION JOINTS SHALL BE WETTED AND STANDING WATER REMOVED.
   H. SEE ARCHITECTURAL DRAWINGS FOR WATERSTOPS.
   I. PROVIDE WATERSTOPS IN BELOW GRADE CONSTRUCTION JOINTS AND AT OTHER LOCATIONS AS INDICATED.
   J. PROVIDE COMPRESSIBLE FILLER AND SEALANT IN SLAB-ON-GRADE AND WALL AND COLUMN INTERFACES THAT ARE NOT DOWELED TOGETHER.
   K. NON-STRUCTURAL EMBEDMENTS (CONDUIT, PIPES, SLEEVES, ETC.)WITHIN WALLS, BEAMS, OR SLABS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER AND ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. ALL EMBEDMENTS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH ACI STANDARDS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
      1. ALUMINUM MATERIALS SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE.
      2. OVERALL OUTSIDE DIMENSION OF EMBEDMENTS SHALL NOT EXCEED 1/3 THE CONCRETE MEMBER THICKNESS UP TO 2 INCH MAXIMUM.
         a. FOR CONCRETE SLABS ON METAL DECK THE MEMBER THICKNESS SHALL BE THE CONTINUOUS SLAB THICKNESS ABOVE THE DECK.
      3. EMBEDMENTS SHALL BE SPACED A MINIMUM OF 6 INCHES ON CENTER.
      4. EMBEDMENTS SHALL NOT ALTER OR DISPLACE REINFORCING.
      5. EMBEDMENTS WITHIN COLUMNS SHALL NOT DISPLACE MORE THAN 4 PERCENT OF THE AREA OF THE COLUMN CROSS SECTION.
   L. PROVIDE 4" HIGH CONCRETE HOUSEKEEPING PADS UNDER EQUIPMENT, UNLESS NOTED OTHERWISE. PADS SHALL EXTEND BEYOND EQUIPMENT 6" NOMINAL ON ALL SIDES. APPLY BONDING AGENT TO EXISTING CONCRETE SLAB PRIOR TO PLACING HOUSEKEEPING PAD. SEE DOCUMENTS FROM OTHER DISCIPLINES FOR EQUIPMENT LOCATIONS.
   M. AT FLOOR DRAINS, LOCALLY SLOPE FLOOR TOWARDS DRAIN. SEE DOCUMENTS FROM OTHER DISCIPLINES FOR DRAIN LOCATIONS.
   N. UNLESS NOTED OTHERWISE, STRUCTURAL SLABS EXPOSED TO WEATHER SHALL BE SLOPED APPROXIMATELY 1/4 INCH PER FOOT AWAY FROM OCCUPIED SPACE TOWARD FLOOR DRAINS, SCUPPERS, GUTTERS, ETC. FOR EXTERIOR NON-STRUCTURAL FLATWORK (E.G., SIDEWALKS, PAVEMENT) REFERENCE CIVIL DOCUMENTS.
   O. SEE ARCHITECTURAL DOCUMENTS FOR MOLDS, GROOVES, ORNAMENTS, CLIPS, ETC. REQUIRED TO BE ENCASED IN CONCRETE AND FOR LOCATION OF FLOOR FINISHES AND SLAB DEPRESSIONS.

DIVISION 4 - MASONRY

1. CONCRETE MASONRY
   A. CONCRETE MASONRY UNITS SHALL BE ASTM C90, NORMAL WEIGHT (135 PCF).
   B. PROVIDE CONCRETE UNIT MASONRY THAT DEVELOPS THE FOLLOWING MINIMUM NET-AREA COMPRESSIVE STRENGTH (F'M) AT 28-DAYS: 2500 PSI.
   C. MORTAR SHALL BE OF THE FOLLOWING TYPES:
      1. WALLS BELOW GRADE: TYPE M
      2. BEARING WALLS: TYPE M OR S
   D. GROUT SHALL CONFORM TO ASTM C476. GROUT SHALL BE PROPORTIONED WITH A SLUMP OF 8" TO 11" USING 3/8" NOMINAL MAXIMUM SIZE COARSE AGGREGATE.
   E. GROUT VERTICAL REINFORCED CELLS AND BOND BEAMS SOLID.
   F. CONTROL JOINTS SHALL BE PROVIDED AT 25'-0" ON CENTER OR 1.5 TIMES THE HEIGHT OF THE WALL, WHICHEVER IS LESS, UNLESS NOTED OTHERWISE IN THE DRAWINGS.
   G. INSULATION SHALL NOT BE PERMITTED IN REINFORCED CELLS.
   H. GROUT CONCRETE MASONRY BELOW GRADE SOLID. GROUT CAVITIES OF MULTI-WYTHE WALLS BELOW GRADE.
   I. ALL VERTICAL CELLS TO BE GROUTED SHALL HAVE VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 2" X 3".
   J. GROUT THREE COURSES OF CONCRETE MASONRY SUPPORTING STEEL BOTTOM COURSE SHALL BE A BOND BEAM.
   K. GROUT SOLID UNDER BEAMS AND LINTELS FOR FULL HEIGHT OF WALL.
   L. CONDUITS, PIPES, AND SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETERS ON CENTER.
   M. MAXIMUM AREA OF VERTICAL CONDUITS, PIPES, OR SLEEVES PLACED IN COLUMNS OR PILASTERS SHALL NOT DISPLACE MORE THAN 2 PERCENT OF THE NET CROSS SECTION.

2. REINFORCING
   A. REINFORCING STEEL SHALL BE ASTM A615, GRADE 60, DEFORMED BARS, UNLESS NOTED OTHERWISE. WELDING OF ASTM A615, GRADE 60 REINFORCING IS NOT ALLOWED.
   B. REINFORCING STEEL TO BE WELDED SHALL BE ASTM A706, DEFORMED BARS.
   C. JOINT REINFORCING SHALL BE LADDER TYPE CONFORMING TO ASTM A951, WITH PREFABRICATED CORNER AND TEE UNITS AT CORNERS AND INTERSECTIONS.
   D. DOWELS TO SUPPORTING STRUCTURE SHALL BE SAME GRADE, SIZE, AND NUMBER AS VERTICAL REINFORCING.
   E. PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCING AT CORNERS AND INTERSECTIONS.
   F. VERTICAL REINFORCING SHALL BE CENTERED IN WALL, UNLESS NOTED OTHERWISE.
   G. ALL VERTICAL REINFORCING CENTERED IN CMU SHALL BE CONTACT LAP SPLICED OR DOWELED AS FOLLOWS:

#4 BARS	30"
#5 BARS	45"
#6 BARS	54"
#7 BARS	63"
#8 BARS	72"

   H. ALL OTHER REINFORCING (HORIZONTAL REINFORCING, VERTICAL REINFORCING AT FACE, ETC.) SHALL BE CONTACT LAP SPLICED OR DOWELED AS FOLLOWS:

#4 BARS	30"
#5 BARS	45"
#6 BARS	54"
#7 BARS	63"
#8 BARS	72"

   I. JOINT REINFORCING SHALL BE LAPPED 6".
   J. PROVIDE MASONRY COVER FOR REINFORCING NOT LESS THAN THE FOLLOWING:
      1. MASONRY FACE EXPOSED TO EARTH OR WEATHER 2"
      2. MASONRY NOT EXPOSED TO EARTH OR WEATHER 1-1/2"
   K. REINFORCE CONCRETE MASONRY VERTICALLY AS INDICATED IN THE STRUCTURAL DRAWINGS.
   L. AT INTERIOR NON-LOAD BEARING MASONRY WALL PARTITIONS NOT SHOWN ON ARCHITECTURAL DRAWINGS, REINFORCE CONCRETE MASONRY VERTICALLY WITH #5 REBAR FULL HEIGHT AT 32" O.C.
   M. SPACE JOINT REINFORCEMENT AT 16" O.C. VERTICALLY TYPICAL AND AT 8" O.C. VERTICALLY AT PARAPETS AND AT CANTILEVERED WALLS, UNLESS NOTED OTHERWISE.
   N. REINFORCE BOND BEAMS WITH 2-#5 REBARS CONTINUOUS, UNLESS NOTED OTHERWISE.
   O. PROVIDE #5 REBAR AT ALL SIDES OF OPENINGS, TO EXTEND A MINIMUM OF 30" BEYOND THE OPENING, UNLESS NOTED OTHERWISE.

DIVISION 5 - METALS

1. STRUCTURAL STEEL
   A. GENERAL
      1. STRUCTURAL STEEL FABRICATION AND ERECTION SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF THE FOLLOWING:
         a. AISC 360 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
         b. AISC 303 CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES
         c. SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS
      2. ALL EXPOSED EXTERIOR STEEL SHALL BE GALVANIZED.
      3. MATERIALS SHALL CONFORM TO THE FOLLOWING, UNLESS NOTED OTHERWISE.

a. W'S, WT'S, C'S, & MC'S	ASTM A992
b. PLATES, ROUND BAR, & OTHER SHAPES	ASTM A572, GRADE 50
c. HSS	ASTM A500, GRADE C
d. PIPE	ASTM A53, GRADE B
e. BOLTS	ASTM F3125, GRADE A325 HEAVY HEX HEAD OR HEADE F1852 TWIST-OFF, 3/4" DIAMETER (MIN.)
f. ANCHOR RODS	ASTM F1554, GRADE 36 WITH A36 WASHERS AND HEAVY HEX NUTS
g. THREADED ROD	ASTM A36
h. HEADED STUDS	AWS D1.1, TYPE B
i. ELECTRODES	MATCHING STRENGTH, 70 KSI MIN.

   4. GENERAL NOTES FOR STEEL CONNECTIONS SHALL APPLY TO ALL STEEL CONNECTIONS UNLESS NOTED OTHERWISE.
   5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAILING, AND FABRICATION OF ALL STEEL FRAMING CONNECTIONS UNLESS SPECIFICALLY DETAILED

SPECIAL INSPECTION TABLES

LIST OF ABBREVIATIONS

ABOVE FINISH FLOOR	AFF
ADDITIONAL	ADDNL
ALTERNATE	ALT
ANCHOR, ANCHORAGE	ANCH
ANCHOR ROD	AR
ANTHONY POWER BEAM	APB
APPROXIMATE	APPROX
ARCHITECT	ARCH
ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	AESS
BACK TO BACK	BB
BALANCE	BAL
BASEMENT	BSMT
BEAM	BM
BEARING	BRG
BENT	BT
BETWEEN	BTWN
BLOCKING	BLKG
BOTTOM	BOT
BOTTOM OF	B/
BOTTOM OF CONCRETE	BC
BOTTOM OF METAL DECK	BMD
BOTTOM OF PIER	BP
BOTTOM OF WALL	BW
BRICKLEDGE	BL
BRIDGING	BRDG
BUILDING	BLDG
CAMBER	c OR C
CANTILEVER	CANT
CAST IN PLACE	CIP
CENTER	CTR
CENTER TO CENTER	CC
CENTERLINE	CL
CLEAR	CLR
COLD-FORMED	CF
COLD-FORMED METAL FRAMING	CFMF
COLD-FORMED STEEL	CFS
COLUMN, COLUMNS	COL
COLUMN STRIP	CS
CONCRETE	CONC
CONCRETE MASONRY UNIT	CMU
CONNECT	CONN
CONNECTION	CONX
CONSTRUCTION	CONST
CONSTRUCTION JOINT OR CONTROL JOINT	CJ
CONTINUE, CONTINUOUS	CONT
CONTRACTOR	CONTR
COORDINATE	COORD
CURTAIN WALL	CW
DEAD LOAD	DL
DEGREE	DEG
DETAIL	DTL
DIAGONAL	DIAG
DIAMETER	DIA
DIAMETER OF REBAR	DB
DOWEL	DWL
DOWN	DN
DRAWING	DWG
EACH	EA
EACH END	EE
EACH FACE	EF
EACH SIDE	ES
EACH WAY	EW
ECCENTRICALLY BRACED FRAME	EBF
EDGE NAILING	EN
EDGE OF SLAB	EOS
ELECTRICAL	ELEC
ELEVATION	EL
ELEVATOR	ELEV
EMBEDMENT	EMBED, EMB
ENGINEER	ENG
ENGINEER OF RECORD	EOR
EQUAL	EQ
EXISTING	EXIST OR (E)
EXPANSION	EXP
EXPANSION JOINT	EJ
EXTERIOR	EXT
FABRICATOR	FAB
FACE OF BRICK	FOB
FAR FACE	FF
FAR SIDE	FS
FIELD VERIFY	FV
FINISH, FINISHED	FIN
FINISH FLOOR ELEVATION	FFE
FIRE TREATED	F.T.
FLANGE	FLG
FLOOR	FLR
FLOOR DRAIN	FD
FOOTING	FTG
FOUNDATION	FDN
FUTURE	FUT OR (F)
GALVANIZED	GALV
GAUGE	ga, GA
GENERAL	GEN
GIRDER TRUSS	GT
GLUE-LAMINATED BEAM	GLB
GRADE	GR
GRADE BEAM	GB
HANGER	HGR
HEADED	HD
HEADER	HDR
HEIGHT	HT
HIGH POINT	HP
HOLLOW CLAY TILE	HCT
HOOK	HK
HORIZONTAL	HOR
INFORMATION	INFO
INSIDE DIAMETER	ID
INSIDE FACE	I.F.
INTERIOR	INT
INTERMEDIATE MOMENT FRAME	IMF
JOINT	JT
JOIST	JST
JOIST SUBSTITUTE	JS
KIP, KIPS	k OR K
KNEE BRACE	KB
LAMINATED STRAND LUMBER	LSL
LAMINATED VENEER LUMBER	LVL
LIGHT	LT
LIVE LOAD	LL
LOCATION	LOC
LONG	LG
LONG LEG HORIZONTAL	LLH
LONG LEG OUT	LLO
LONG LEG VERTICAL	LLV
LONG SIDE VERTICAL	LSV
LONG SIDE HORIZONTAL OR LONG SLOTTED HOLE(S)	LSH
LOW POINT	LP
MANUFACTURER	MFR
MASONRY	MAS
MAXIMUM	MAX
MECHANICAL	MECH
MEZZANINE	MEZZ
MIDDLE	MID
MIDDLE STRIP	MS
MINIMUM	MIN
MISCELLANEOUS	MISC
NEAR FACE	NF
NEAR SIDE	NS
NEW	(N)
NOT IN CONTRACT	NIC
NOT TO SCALE	NTS
ON CENTER	oc
OPENING	OPNG
OPEN WEB TRUSS	OWT
OPPOSITE	OPP
OPPOSITE HAND	OPPHD
ORDINARY CONCENTRICALLY BRACED FRAME	OCBF
ORDINARY MOMENT FRAME	OMF
OUT TO OUT	OO
OUT OF PLANE	OOP
OUTSIDE DIAMETER	OD
OUTSIDE FACE	O.F.
OVERHEAD DOOR	OHD
OVERSIZED HOLE(S)	OVH
PARALLEL STRANDED LUMBER	PSL
PIER CAP, PILE CAP	PC
PILASTER	PIL
PLACES	PLCS
PLATE	PL
PLUMBING	PLMB
PLYWOOD	PLYWD
POINT	PT
POST-TENSIONED	P-T
POUND PER SQUARE FOOT	PSF
POUND PER SQUARE INCH	PSI
POWDER ACTUATED FASTENER	PAF
PRECAST	P/C
PRE-ENGINEERED METAL BUILDING	PEMB
PRE-ENGINEERED WOOD TRUSS	PWT
PREFABRICATED	PREFAB
PRESSURE TREATED LUMBER	PTL
QUANTITY	QTY
RADIUS	RAD
REFER, REFERENCE	REF
REINFORCING OR REINFORCEMENT	REINF
REQUIRED	REQD
ROOF TOP UNIT	RTU
SCHEDULE	SCHED
SECTION	SECT
SEISMIC LOAD RESISTING SYSTEM	SLRS
SHEAR WALL	SW
SHEATHING	SHTHG
SHEET	SHT
SHEET METAL	SHTMTL
SHORT LEG OUT	SLO
SHORT SIDE HORIZONTAL OR SHORT SLOTTED HOLE(S)	SSH
SIMILAR	SIM
SLAB ON GROUND	SOG
SLIP CRITICAL	SC
SPACE	SPA
SPECIAL	SP
SPECIAL CONCENTRICALLY BRACED FRAME	SCBF
SPECIAL MOMENT FRAME	SMF
SPECIFICATIONS	SPEC
SQUARE	SQ
STAINLESS STEEL	SS
STANDARD	STD
STEEL	STL
STIFFENER	STIFF
STRUCTURAL	STRUC
STRUCTURAL ENGINEER OF RECORD	SEOR
SYMMETRICAL	SYM
THICK, THICKNESS	THK OR T
THREAD, THREADED	THD
TIE BEAM	TB
TO BE REMOVED	TBR
TOP & BOTTOM	T&B
TOP OF	T/
TOP OF CONCRETE	TC
TOP OF FOOTING	TF
TOP OF MASONRY	TM
TOP OF PIER, PILASTER	TP
TOP OF PIER CAP, PILE CAP	TPC
TOP OF STEEL	TS
TOP OF WALL	TW
TREAD	T OR TR
TYPICAL	TYP
UNLESS NOTED OTHERWISE	UNO
VERTICAL BRACE	VB
VERTICAL, VERTICALLY	VT OR VERT
VERIFY IN FIELD	VIF
WELDED WIRE REINFORCING	WWR
WINDOW	WDW
WITH	w/
WOOD	WD
WORKING POINT	WP
WATERSTOP, WATERSEAL	WS
X-BRACING	X-BR

STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS

GENERAL
The Owner shall engage and employ a qualified special inspection agency or agencies to conduct special inspections of structural work as required by chapter 17 of the 2015 International Building Code and as delineated below. Agencies that are considered qualified and acceptable to act as special inspectors will be those acceptable to the building official of the jurisdiction that grants the building permit and the owner.

SPECIAL INSPECTION REPORT REQUIREMENTS
Special Inspectors shall keep records of inspections. The special inspector shall furnish inspection reports to the Building Official, Owner, Architect, Structural Engineer, and Contractor. Reports shall indicate that the structural work inspected was done in conformance to approved Contract Documents. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official, Owner, Architect, and Structural Engineer prior to the completion of that phase of work. A final report of inspections documenting required special inspections of structural work and correction of any discrepancies noted in the inspections shall be submitted at a point in time agreed upon by the Owner and the Building Official prior to the start of work.

REQUIRED SPECIAL INSPECTIONS
The following types of structural work require special inspections. Refer to individual Specification Sections for specific testing and inspecting requirements. Continuous inspection is the full-time observation of work by a qualified special inspector who is present in the area where the work is being performed. Periodic special inspection is the part-time or intermittent observation of work by a qualified special inspector who is present in the area where the work has been or is being performed and at the completion of the work.

CONCRETE CONSTRUCTION

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Inspection of steel reinforcement, including size, quantity and placement.		X	
2. Reinforcing bar welding:			
a. Verify weldability of reinforcing bars other than ASTM A706.		X	
b. Inspect single-pass fillet welds, maximum 5/16"; and		X	
c. Inspect all other welds.	X		
3. Inspection of anchor rods, headed bolts, headed studs, shear stud shear reinforcing and other embedded items prior to and during placement of concrete.	X		
4. Inspection of anchors installed in hardened concrete.			See "Post Installed Anchors" table
5. Verification of use of required design mixture.		X	
6. Testing of slump, air content, and temperature of concrete at the time fresh concrete is sampled to fabricate specimens for strength tests.	X		Frequency of test per specifications.
7. Inspection of concrete placement, including conveying and depositing.	X		
8. Inspection of curing procedures and maintenance of curing temperatures.		X	
9. Inspection of prestressed concrete:			
a. Application of prestressing forces.	X		
b. Grouting of bonded prestressing tendons in the seismic force resisting system.	X		
10. Erection of precast concrete members.		X	
11. Verification of concrete strength before removal of shores and forms from beams and slabs.		X	
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.		X	
13. Verification that approved shop drawings are being used on site.		X	

SOILS

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		X	
2. Verify excavations are extended to proper depth and have reached proper material.		X	
3. Perform classification and testing of compacted fill materials.		X	
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X		
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.		X	

POST INSTALLED ANCHORS TO CONCRETE AND MASONRY

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Use of proper anchor system and manufacturer.		X	
2. Review of installer's qualifications including certification by anchor manufacturer.		X	* See Note 1
3. Anchor installation process as noted in general notes.			* See Note 2
4. Verification of supporting material's condition.		X	
5. Proof testing as outlined in general notes.		X	
6. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X		
7. Mechanical anchors and adhesive anchors not defined in Note 6.		X	

* Remark Notes:
1. Inspector shall be familiar with anchor manufacturer's written installation procedure and ESR report.
2. Refer to manufacturer's ESR for type of inspection periodic vs. continuous.

MASONRY CONSTRUCTION LEVEL B QUALITY ASSURANCE

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.		X	
2. Verification of compressive strength of masonry prior to construction and for every 5,000 square feet during construction.		X	
3. Verification of proportions of materials in premixed or preblended mortar and grout as delivered to the site.		X	
4. As masonry construction begins, verify that the following are in compliance:			
a. Proportions of site-prepared mortar and grout.		X	
b. Placement of masonry units and construction of mortar joints.		X	
c. Location of reinforcement and control joints.		X	
5. Prior to grouting, verify that the following are in compliance:			
a. Grout space.	X		
b. Grade, type and size of reinforcement and anchor bolts.		X	
c. Placement of reinforcement.		X	
d. Proportions of site-prepared grout.		X	
e. Construction of mortar joints.		X	
6. Verify during construction:			
a. Size and location of structural elements.		X	
b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.	X		
c. Welding of reinforcement (if permitted).	X		
d. Preparation, construction and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F)		X	
e. Placement of grout.	X		
7. Preparation of any required grout specimens and/or prisms shall be observed.	X		

WELDED STEEL CONSTRUCTION

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	PERFORM FOR EACH STEEL ELEMENT	OBSERVE ON A RANDOM BASIS	
1. Inspection tasks prior to welding:			
a. Welding procedure specifications (WPS) available.	X		
b. Manufacturer certifications for welding consumables available.	X		
c. Material identification (type/grade).		X	
d. Welder identification system.		X	
e. Fit-up of groove welds (including joint geometry): • Joint preparation • Dimensions (alignment, root opening, root face, bevel) • Cleanliness (condition of steel surfaces) • Tacking (tack weld quality and location) • Backing type and fit (if applicable)		X	
f. Configuration and finish of access holes.		X	
g. Fit-up of fillet welds: • Dimensions (alignment, gaps at root) • Cleanliness (condition of steel surfaces) • Tacking (tack weld quality and location)		X	
h. Check welding equipment.		X	
2. Inspection tasks during welding:			
a. Use of qualified welders.		X	
b. Control and handling of welding consumables: • Packaging • Exposure control		X	
c. No welding over cracked tack welds.		X	
d. Environmental conditions: • Wind speed within limits • Precipitation and temperature		X	
e. WPS followed: • Settings on welding equipment • Travel speed • Selected welding materials • Shielding gas type/flow rate • Preheat applied • Interpass temperature maintained (min/max) • Proper position (F, V, H, OH)		X	
f. Welding techniques: • Interpass and final cleaning • Each pass within profile limitations • Each pass meets quality requirements		X	
3. Inspection tasks after welding:			
a. Welds cleaned.		X	
b. Size, length and location of welds.	X		
c. Welds meet visual acceptance criteria: • Crack prohibition • Weld/base-metal fusion • Crater cross section • Weld profiles • Weld size • Undercut • Porosity	X		
d. Arc strikes.	X		
e. Visually inspect the web k-area for cracks within 3" of doubler plates, continuity plates and stiffeners welded in the k-area.	X		
f. Placement of reinforcing or contouring fillet welds (if required).	X		
g. Backing removed and weld tabs removed (if required).	X		
h. Repair activities.	X		
i. Document acceptance or rejection of welded joint or member.	X		

STEEL DECKING CONSTRUCTION

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	PERFORM FOR EACH STEEL ELEMENT	OBSERVE ON A RANDOM BASIS	
1. Inspection or execution tasks prior to deck placement:			
a. Verify compliance of materials (deck and all deck accessories) with construction documents, including profiles, material properties, and base metal thickness.		X	
b. Document acceptance or rejection of deck & deck accessories.		X	
c. Confirm approved shop drawings are being used in field.	X		
2. Inspection or execution tasks after deck placement:			
a. Verify compliance of deck and all deck accessories installation with construction documents.		X	
b. Verify deck materials are represented by the mill certifications that comply with the construction documents.		X	
c. Document acceptance or rejection of installation of deck and deck accessories.		X	
3. Inspection or execution tasks prior to welding:			
a. Welding procedure specifications (WPS) available.		X	
b. Manufacturer certifications for welding consumables available.		X	
c. Material identification (type/grade).		X	
d. Check welding equipment.		X	
4. Inspection or execution tasks during welding:			
a. Use of qualified welders.		X	
b. Control and handling of welding consumables.		X	
c. Environmental conditions (wind speed, moisture, temperature)		X	
d. WPS followed.		X	
5. Inspection or execution tasks after welding:			
a. Verify size and location of welds, including support, sidelap, and perimeter welds.		X	
b. Welds meet visual acceptance criteria.		X	
c. Verify repair activities.		X	
d. Document acceptance or rejection of welds.		X	
6. Inspection or execution tasks prior to mechanical fastening:			
a. Manufacturer installation instructions available for mechanical fasteners.		X	
b. Proper tools available for fastener installation.		X	
c. Proper storage for mechanical fasteners.		X	
7. Inspection or execution tasks during mechanical fastening:			
a. Fasteners are positioned as required.		X	
b. Fasteners are installed in accordance with manufacturer's instructions.		X	
8. Inspection or execution tasks after mechanical fastening:			
a. Check spacing, type, and installation of support fasteners.		X	
b. Check spacing, type, and installation of sidelap fasteners.		X	
c. Check spacing, type, and installation of perimeter fasteners.		X	
d. Verify repair activities.		X	
e. Document acceptance or rejection of mechanical fasteners.		X	

BOLTED STEEL CONSTRUCTION

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	PERFORM FOR EACH STEEL ELEMENT	OBSERVE ON A RANDOM BASIS	
1. Inspection tasks prior to bolting:			
a. Manufacturer's certifications available for fastener material.	X		
b. Fasteners marked in accordance with ASTM requirements.		X	
c. Proper fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane).		X	
d. Proper bolting procedure selected for joint detail.		X	
e. Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements.		X	
f. Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used.		X	
g. Proper storage provided for bolts, nuts, washers and other fastener components.		X	
2. Inspection tasks during bolting:			
a. Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required.		X	
b. Joint brought to the snug-tight condition prior to the pretensioning operation.		X	
c. Fastener component not turned by the wrench prevented from rotating.		X	
d. Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges.		X	
3. Inspection tasks after bolting:			
a. Document acceptance or rejection of bolted connections.	X		

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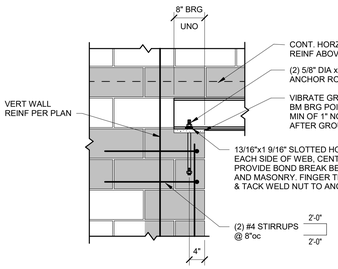
Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.
Kirkwood, MO

No.	Date	Revision
	03/30/26	ISSUED FOR CONSTRUCTION

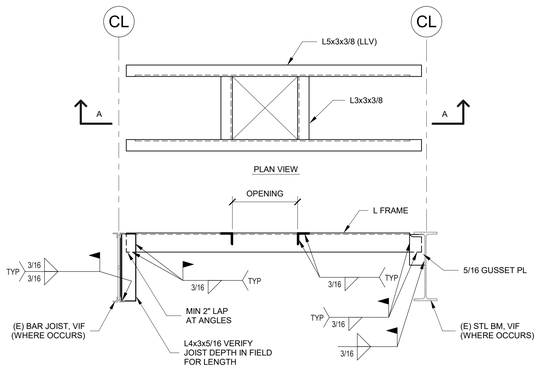
SPECIAL INSPECTIONS

Project No.
2500232
Sheet No.
S002
Date
03/30/2026

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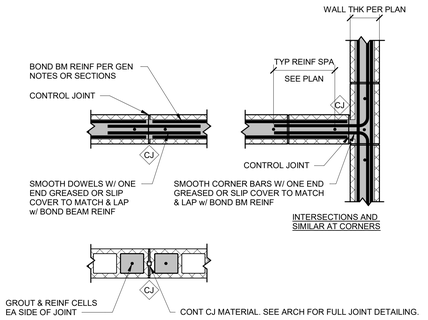
3 S003 TYPICAL STEEL BEAM OR LINTEL BEARING DETAIL PARALLEL TO WALL
NTS



SECTION A-A

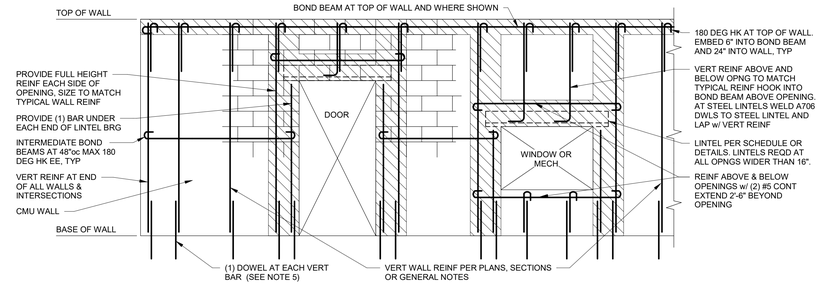
1. COORDINATE SIZE AND LOCATION OF OPENINGS WITH ALL OTHER DISCIPLINES AND DRAWINGS.
2. PROVIDE L FRAME FOR ALL OPENINGS OVER 12".

6 S003 TYPICAL ROOF OPENING DETAIL
NTS



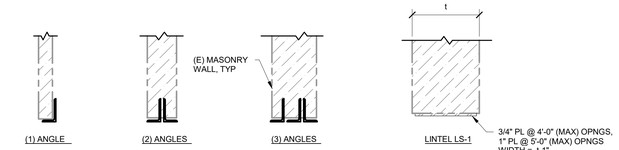
NOTES:
1. CMU WALL CONTROL JOINTS INDICATED ON PLAN AS CJ
2. CONTROL JOINT AT STORM SHELTER SHALL NOT EXCEED 3/8" IN WIDTH.
3. SEE ARCHITECT FOR CONTROL JOINTS IN MASONRY VENEERS.
4. CONTROL JOINTS IN MASONRY VENEERS DO NOT NEED TO ALIGN WITH CONTROL JOINTS IN LOAD BEARING CMU WALLS.
5. JOINT REINFORCING TO BE DISCONTINUOUS AT CONTROL JOINTS.
6. CONTROL JOINTS SHOWN IN STRUCTURAL DRAWINGS ARE FOR LOAD BEARING WALLS. SEE ARCHITECTURAL DRAWINGS FOR NON-LOAD BEARING WALLS. IF JOINTS ARE NOT SHOWN IN NON-LOAD BEARING WALLS, SPACE JOINTS AT A MAXIMUM OF 20'-0"oc. COORDINATE FINAL JOINT LOCATIONS WITH ARCHITECT.
7. DO NOT INSTALL CONTROL JOINTS THROUGH LINTELS OR LINTEL BEARING POINTS.
8. DO NOT BREAK BOND BEAM REINFORCING AT FLOOR AND ROOF LINES.
9. CONTINUE CONTROL JOINT TO BASE OF CMU WALL.

2 S003 TYPICAL CMU WALL CONTROL JOINT DETAIL
NTS



1. LOCATE REINFORCING AS SHOWN ON TYPICAL CMU WALL REINFORCING DETAIL.
2. FOR HORIZONTAL JOINT REINF AND SPLICES FOR VERT REINF, SEE GENERAL NOTES.
3. SEE ARCH DRAWINGS FOR SIZE AND LOCATION OF NON-STRUCTURAL CMU WALLS NOT SHOWN ON STRUCTURAL DRAWINGS.
4. GROUT CELLS SOLID FULL HEIGHT AT ALL VERTICAL REINFORCING AND AS NOTED IN WALL REINFORCING SCHEDULES.
5. HOOK DOWELS INTO FOUNDATION IF AVAILABLE EMBEDMENT LENGTH IS LESS THAN STRAIGHT BAR DEVELOPMENT LENGTH. CONTRACTOR OPTION: EMBED DOWELS IN EPOXY ADHESIVE PER GENERAL NOTES.
6. SHADED AREAS INDICATE LOCATIONS WHERE PENETRATIONS OF ANY KIND ARE PROHIBITED WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER.
7. ALL HORIZONTAL REINFORCEMENT TERMINATE IN 180 DEGREE HOOKS.

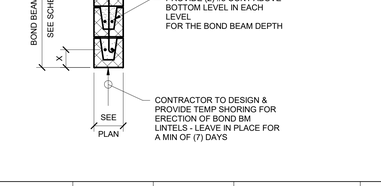
1 S003 TYPICAL CMU WALL REINFORCING ELEVATION - SPECIAL REINF CMU
NTS



ROUGH OPENING SIZE	BRICK VENEER	CMU WALL	HOLLOW CLAY TILE
	ANGLE SIZE	ANGLE SIZE	ANGLE SIZE
UP TO 1'-0"	NONE	NONE	NONE
1'-1" TO 3'-4"	L4x4x1/4	L3 1/2x3 1/2x1/4	L5x5x5/16
3'-5" TO 4'-8"	L4x4x5/16	L4x3 1/2x1/4	L5x5x5/16
4'-9" TO 6'-8"	L6x4x5/16	L6x3 1/2x5/16	L5x5x3/8
6'-9" TO 9'-4"	L6x4x3/8	L6x3 1/2x3/8	L5x5x3/8
ALL ANGLES MUST HAVE 8" OF BEARING AT EACH END ALL ANGLES ORIENTATED LONG LEG VERTICAL FOR MASONRY WALLS USE (1) ANGLE TO EACH 4" WIDTH OF WALL FOR HOLLOW CLAY TILE WALLS, USE (1) ANGLE TO EACH 6" WIDTH OF WALL			

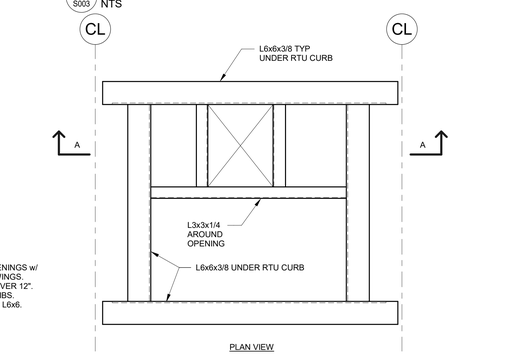
1. FOR OPENINGS LESS THAN 5'-0", AT CONTRACTORS OPTION, USE LINTEL PER LS-1
2. PLATES AND ANGLES SHALL BE GALVANIZED; CONFIRM WITH ARCH.
3. AT EXTERIOR BRICK EDGE, PROVIDE 1/2" DRIP EDGE AT EXTERIOR ANGLE.
4. DOUBLE ANGLES BACK TO BACK SHALL BE BOLTED AT 32" oc MAX SPACING, WITH 5/8" DIA A307 BOLTS, MINIMUM OF (2) BOLTS PER SPAN.

4 S003 TYPICAL STEEL LINTEL SCHEDULE
NTS



MARK	BOND BEAM DEPTH	COVER "X"	BOND BEAM B/REINF	VERTICAL REINF EA END OF LINTEL	COMMENTS
L-1	8" DEEP BOND BEAM	3"	(2) #5		

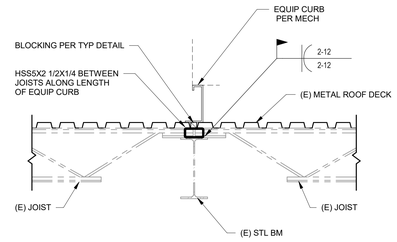
5 S003 TYPICAL LOAD BEARING CMU WALL LINTEL SCHEDULE
N.T.S.



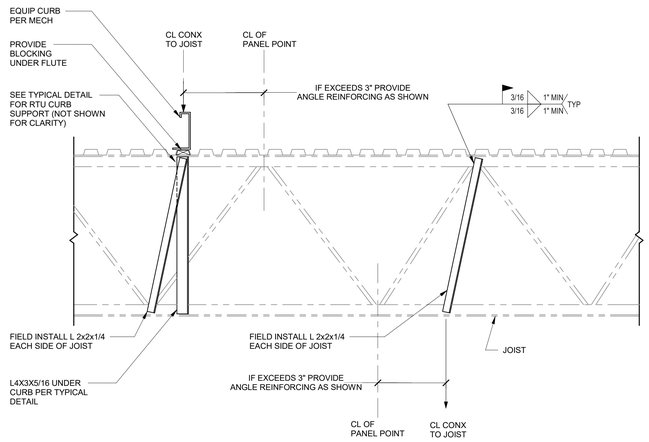
1. COORDINATE SIZE & LOCATION OF OPENINGS w/ ARCHITECTURAL & MECHANICAL DRAWINGS.
2. PROVIDE FRAME FOR ALL OPENINGS OVER 12".
3. PROVIDE BLOCKING BETWEEN DECK RIBS.
4. LOCATE CURB OVER VERTICAL LEG OF L6x6.
5. CENTER RTU BETWEEN JOISTS.

SECTION A-A

7 S003 TYPICAL ROOFTOP MECHANICAL UNIT SUPPORT
3/4" = 1'-0"



9 S003 BLOCKING BETWEEN JOISTS AT MECH CURB
3/4" = 1'-0"



NOTE:
1. L2x2 STRUT REQD WHERE THE SUM OF CONCENTRATED LOADS WITHIN A CHORD PANEL EXCEEDS 100 POUNDS AND/OR THE LOAD IS NOT APPLIED CONCENTRIC TO THE CHORD.

8 S003 TYPICAL JOIST REINFORCING AT CONCENTRATED LOADS
NTS

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Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.
Kirkwood, MO

No.	Date	Revision
	03/30/26	ISSUED FOR CONSTRUCTION

TYPICAL DETAILS

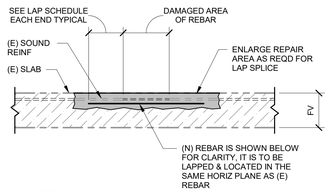
Project No.
2500232
Sheet No.
S003
Date
03/30/2026

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NOTES:
1) Remove all loose and all deteriorated concrete on surface.
2) Chip out perimeter of patch area 3/4" beyond spalled surface. Do not cut existing reinforcing steel.
3) If rebar is exposed remove concrete a minimum of 3/4" behind existing reinforcing steel.
4) Mechanically clean steel (Sandblast or wire brush) to white metal condition to remove corrosion.
5) After cleaning rebar, measure diameter at narrowest point. If section loss is greater than 25% add new reinforcing to match original, see BAR DIAMETER TABLE on this sheet.
6) Chip concrete surface to obtain a fractured surface profile of +/- 1/4".
7) Minimum depth of patch to be 3/4".
8) Substrate should be saturated surface dry (SSD) with no standing water during application.
9) Apply Sika ARMATEC 110 to substrate, per Sika's specifications.
10) While ARMATEC 110 is still wet, apply SIKAQUICK VOH 123 PLUS. For applications greater than 1 1/2" in depth, apply SIKAQUICK VOH 123 PLUS in lifts. Score the top surface of each lift. Allow preceding lift to reach a final set. Repeat step 7.
11) Work shall include furnishing all materials, labor, tools and equipment to patch Horizontal, Vertical, and Overhead surfaces.

TYPICAL HAND APPLIED METHOD

3 / S004 TYPICAL CONCRETE REPAIR NOTES
3/4" = 1'-0"



NOTE:
1) SPLICE IN NEW REBAR TO MATCH SIZE OF EXISTING, WHERE SECTION LOSS IS GREATER THAN 25% SEE BAR DIAMETER TABLE THIS SHEET.

2 / S004 TYPICAL SLAB TOP REPAIR DETAIL AT DAMAGED REINFORCING STEEL
3/4" = 1'-0"

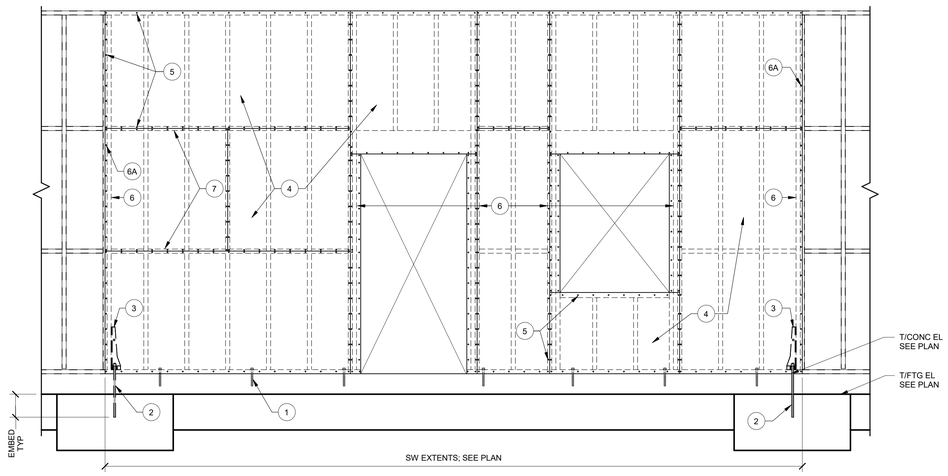
LAP SPLICE SCHEDULE			
BAR SIZE	f'c = 4,000 PSI		
	TOP BARS (IN)	BOTTOM BARS (IN)	COLUMN BARS (IN)
#3	24	19	15
#4	32	25	20
#5	40	31	25
#6	48	37	30
#7	70	54	42
#8	80	62	48
#9	91	70	54
#10	102	79	60
#11	113	87	66

NOTES:
1) LAP SPLICE LENGTHS ARE BASED ON CHAPTER 12 OF ACI 318-95.
2) FOR BEAMS AND COLUMNS:
CONCRETE COVER TO BE GREATER THAN OR EQUAL TO THE BAR DIAMETER.
BAR SPACING TO BE GREATER THAN OR EQUAL TO TWO TIMES THE BAR DIAMETER.
STIRRUPS OR TIES THROUGHOUT THE SPLICE LENGTH GREATER THAN CODE MINIMUM.
3) FOR ALL OTHER ELEMENTS:
CONCRETE COVER GREATER THAN OR EQUAL TO THE BAR DIAMETER.
BAR SPACING GREATER THAN OR EQUAL TO THREE TIMES THE BAR DIAMETER.
4) COLUMN BAR SPLICE ACCEPTABLE WHEN REPLACING LESS THAN 1/2 OF EXISTING BARS.
FOR COLUMNS REQUIRING MORE THAN 1/2 OF EXISTING OF BARS TO BE REPLACED OR SUPPLEMENTED, USE FULL CLASS B SPLICES GIVEN UNDER "BOTTOM BARS".

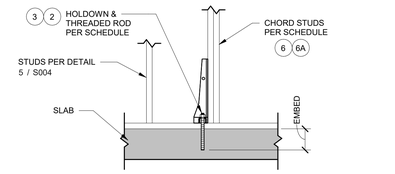
4 / S004 TYPICAL REINFORCING BAR LAP SPLICE SCHEDULE
3/4" = 1'-0"

COLD FORMED METAL STUD SHEAR WALL SCHEDULE		
SHEARWALL COMPONENT (SEE DETAIL)	SHEAR WALL MARK SW (SEE PLAN)	SW-1
1	ANCHOR RODS BOTTOM TRACK	5/8" DIA ADHESIVE ANCHORS @ 32"oc w/ 4" EMBED
2	HOLD DOWN ANCHOR	5/8" DIA ADHESIVE ANCHOR w/ MIN 4" EMBED SEE DETAIL 8 / S004
3	HOLD DOWN	HTT4
4	PLYWOOD SHEATHING	15/32" (OR 1/2") MIN
5	SHEATHING FASTENERS	#10 @ 6"oc
6	END CHORDS	(2) 600S162-54
6A	END CHORDS	#10 @ 6"oc
7	BLOCKING	MATCH WALL STUDS

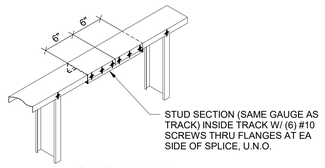
TYPICAL NOTES:
1. TOP & BOTT TRACKS TO BE 54 MIL, MIN 1 1/4" LEG TRACK MATCHING WALL STUDS DEPTH.
2. FASTENING OF CONX HARDWARE TO BE PER MFR RECOMMENDATIONS.
3. REFER TO TYP DETAILS FOR BUILT UP STUD CONSTRUCTION.
4. SEE SECTIONS & TYPICAL DETAILS FOR LOCATION AND LOADING FOR BLOCKING TRUSSES TO TRANSFER SHEAR LOADS TO SHEAR WALL.



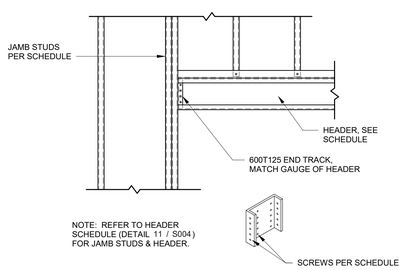
1 / S004 TYPICAL LIGHT GAUGE METAL STUD SHEAR WALL DETAIL
1/2" = 1'-0"



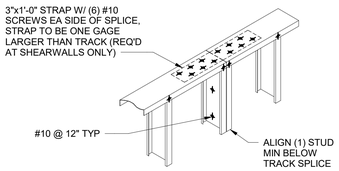
8 / S004 TYPICAL SHEAR WALL HOLD DOWN DETAIL
3/4" = 1'-0"



A SPLICE BETWEEN STUDS

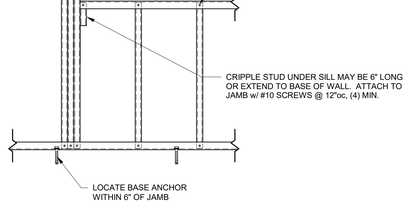


9 / S004 TYPICAL COLD FORMED METAL STUD WALL OPENING DETAIL
NTS

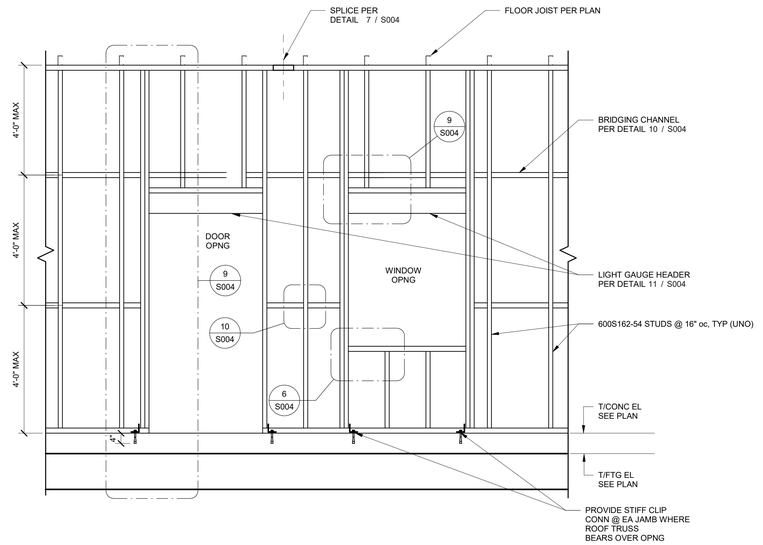


B SPLICE AT STUD OR PANEL JOINT

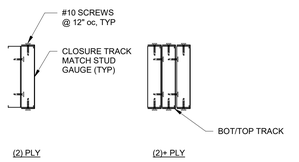
7 / S004 TYPICAL COLD FORMED METAL TOP TRACK SPLICE DETAIL
1" = 1'-0"



6 / S004 TYPICAL COLD FORMED METAL SILL ATTACHMENT TO JAMB DETAIL
NTS

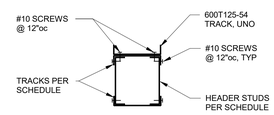


5 / S004 TYPICAL COLD FORMED METAL STUD BEARING WALL DETAIL
1/2" = 1'-0"



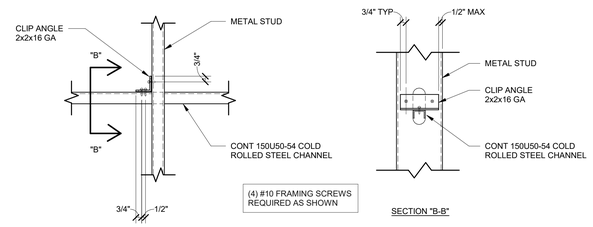
12 / S004 TYPICAL BUILT-UP COLD FORMED METAL STUDS
1 1/2" = 1'-0"

COLD FORMED METAL FRAMING HEADER SCHEDULE				
MARK	HEADER MEMBERS	JAMB MEMBERS	CONNECTION TO END TRACK	CONNECTION OF END TRACK TO JAMB
H-1	(2) 600S162-54 / (2) 600T125-54	(2) 600S162-54	(8) #10 (HALF EA SIDE)	(8) #10
H-2	(2) 1000S162-68 / (2) 1000T125-68	(3) 600S162-68	(12) #10 (HALF EA SIDE)	(12) #10



NOTES:
1. HEADER MEMBERS SHALL BE UNPUNCHED.
2. PROVIDE WEB STIFFENERS EACH END OF ALL HEADERS.

11 / S004 TYPICAL LIGHT GAUGE HEADER SCHEDULE
NTS



NOTES:
1. ALL BRIDGING SHALL BE TERMINATED AT JAMBS OR CORNER STUDS. BRIDGING SHALL NOT HANG LOOSE
2. SPLICE CHANNELS TOGETHER w/ 150U50-54 x 1'-0" LG w/ (6) #10 SCREWS ((3) EA SIDE OF SPLICE).
3. CONTRACTOR'S OPTION TO USE SIMPSON MSUBH3.25 IN LIEU OF CLIP ANGLE.

10 / S004 TYPICAL COLD FORMED METAL STUD WALL BRIDGING CHANNEL DETAILS
NTS

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Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.
Kirkwood, MO

No.	Date	Revision
	03/30/26	ISSUED FOR CONSTRUCTION

TYPICAL DETAILS

Project No.
2500232

Sheet No.
S004

Date
03/30/2026

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SPECIAL INSPECTIONS AT STORM SHELTERS

MASONRY CONSTRUCTION LEVEL C QUALITY ASSURANCE

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.		X	
2. Verification of compressive strength of masonry prior to construction and for every 5,000 square feet during construction.		X	
3. Verification of proportions of materials in premixed or preblended mortar and grout as delivered to the site.		X	
4. As masonry construction begins, verify that the following are in compliance:			
a. Proportions of site-prepared mortar and grout.		X	
b. Placement of masonry units and construction of mortar joints.		X	
c. Location of reinforcement and control joints.	X		
5. Prior to grouting, verify that the following are in compliance:			
a. Grout space.	X		
b. Grade, type and size of reinforcement and anchor bolts.		X	
c. Placement of reinforcement.	X		
d. Proportions of site-prepared grout.		X	
e. Construction of mortar joints.		X	
6. Verify during construction:			
a. Size and location of structural elements.		X	
b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.	X		
c. Welding of reinforcement (if permitted).	X		
d. Preparation, construction and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F)		X	
e. Placement of grout.	X		
7. Preparation of any required grout specimens and/or prisms shall be observed.	X		

CONCRETE CONSTRUCTION

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Inspection of steel reinforcement, including size, quantity and placement.	X		
2. Reinforcing bar welding:			
a. Verify weldability of reinforcing bars other than ASTM A706.	X		
b. Inspect single-pass fillet welds, maximum 5/16"; and	X		
c. Inspect all other welds.	X		
3. Inspection of anchor rods, headed bolts, headed studs, shear stud shear reinforcing and other embedded items prior to and during placement of concrete.	X		
4. Inspection of anchors installed in hardened concrete.			See "Post Installed Anchors" table
5. Verification of use of required design mixture.		X	
6. Testing of slump, air content, and temperature of concrete at the time fresh concrete is sampled to fabricate specimens for strength tests.	X		Frequency of test per specifications.
7. Inspection of concrete placement, including conveying and depositing.	X		
8. Inspection of curing procedures and maintenance of curing temperatures.		X	
9. Inspection of prestressed concrete:			
a. Application of prestressing forces.	X		
b. Grouting of bonded prestressing tendons in the seismic force resisting system.	X		
10. Erection of precast concrete members.		X	
11. Verification of concrete strength before removal of shores and forms from beams and slabs.		X	
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.		X	
13. Verification that approved shop drawings are being used on site.		X	

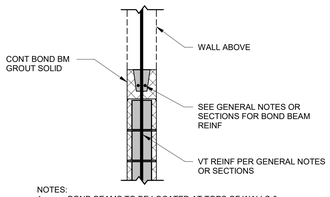
POST INSTALLED ANCHORS TO CONCRETE AND MASONRY

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Use of proper anchor system and manufacturer.	X		
2. Review of installer's qualifications including certification by anchor manufacturer.	X		* See Note 1
3. Anchor installation process as noted in general notes.			* See Note 2
4. Verification of supporting material's condition.	X		
5. Proof testing as outlined in general notes.	X		
6. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X		
7. Mechanical anchors and adhesive anchors not defined in Note 6.	X		

* Remark Notes:
1. Inspector shall be familiar with anchor manufacturer's written installation procedure and ESR report.
2. Refer to manufacturer's ESR for type of inspection periodic vs. continuous.

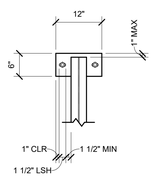
WIND-RESISTING COMPONENTS

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Roof covering, roof deck and roof framing connections.		X	
2. Exterior wall covering and wall connections to roof and floor diaphragms and framing.		X	

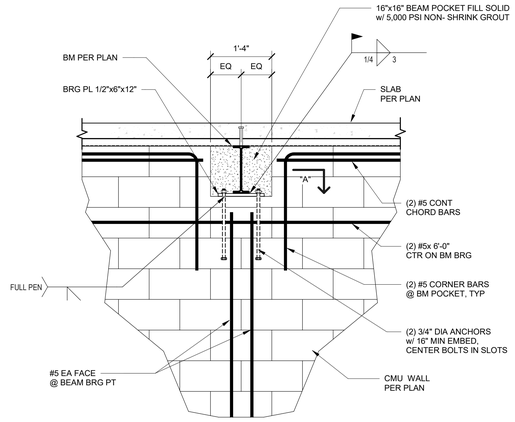


NOTES:
1. BOND BEAMS TO BE LOCATED AT TOPS OF WALLS & LOCATIONS AS INDICATED IN SECTIONS & DETAILS
2. PROVIDE CORNER BARS AT CORNERS AND INTERSECTIONS OF WALLS. CORNER BARS SHALL ACHIEVE LAP SPLICES NOTED IN GENERAL NOTES.
3. EXTEND BOND BEAM AROUND CORNERS WHERE REQUIRED TO ACCOMMODATE CORNER BARS.

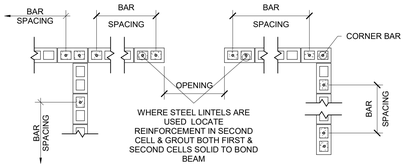
3 / S005 TYPICAL CMU BOND BEAM DETAIL
NTS



SECTION "A"



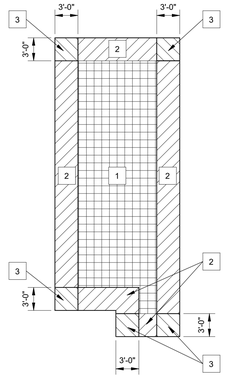
2 / S005 TYPICAL BEAM BEARING WALL POCKET
NTS



AT INTERSECTION AT CORNER END

NOTE: SEE PLAN AND DETAILS FOR REINFORCEMENT

1 / S005 TYPICAL CMU WALL REINFORCEMENT DETAILS
3/4" = 1'-0"



5 / S005 STORM SHELTER LOADING DIAGRAM
1/8" = 1'-0"

STORM SHELTER COMPONENTS AND CLADDING WIND PRESSURES

ZONE	W- (PSF)	W+ (PSF)
1	-210	115
2	-320	115
3	-455	115

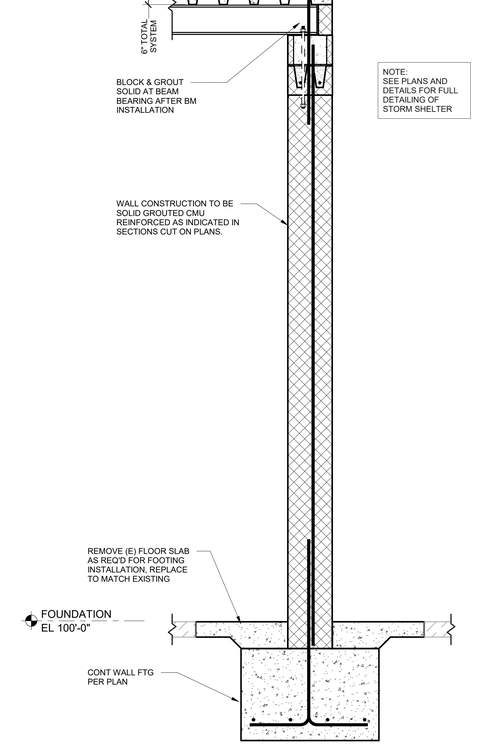
NOTES:
1. + INDICATES FORCE ACTING TOWARDS STRUCTURE.
2. - INDICATES FORCE ACTING AWAY FROM STRUCTURE.
3. ALL LOADS ARE ULTIMATE LEVEL, C&C WIND LOADS BASED ON AN EFFECTIVE AREA OF 10 SF.

GENERAL STORM SHELTER NOTES:

1. STORM SHELTER DESIGN CONFORMS TO THE PROVISIONS OF THE ICC/NSSA STANDARD FOR DESIGN AND CONSTRUCTION OF STORM SHELTERS - ICC-500, 2014.
2. TYPE OF STORM SHELTER: COMMUNITY; TORNADO ONLY.
3. USE OF COMMUNITY STORM SHELTER: BUILDING OCCUPANTS ONLY.
4. SHELTER DESIGN WIND SPEED V_t = 250 MPH
5. WIND EXPOSURE CATEGORY C
6. INTERNAL PRESSURE COEFFICIENT GC_{pi} = +/- 0.55
7. TOPOGRAPHIC FACTOR Kzt = 1.0
8. DIRECTIONAL FACTOR Kd = 1.0
9. DEBRIS IMPACT CRITERIA:
   A. MISSILE SIZE 15 LB 2x4
   B. MISSILE SPEEDS AT HORIZONTAL SURFACES 67 MPH
   C. MISSILE SPEEDS AT VERTICAL SURFACES 100 MPH
10. FOR ALL DOORS, WINDOWS, LOUVERS, AND OTHER COMPONENTS PENETRATING OR CONNECTING TO THE STORM SHELTER, CONTRACTOR SHALL DESIGN THESE ELEMENTS OR PROVIDE QUALIFIED IMPACT TESTING RESULTS. ADDITIONALLY, THE CONTRACTOR SHALL INCLUDE THE DESIGN OF ALL CONNECTIONS OF THESE ELEMENTS TO THE SUPPORTING STRUCTURE. ALL DESIGNS SHALL REFLECT STORM SHELTER LOADING AND IMPACT REQUIREMENTS AND FOLLOW THE STORM SHELTER DESIGN GUIDELINES PER ICC-500, 2014.
11. IN ADDITION TO THOSE ITEMS LISTED ON SHEET S002, CONTINUOUS SPECIAL INSPECTIONS SHALL OCCUR AT ALL ELEMENTS OF THE STORM SHELTER PER INSPECTION TABLES ON S005 AND INCLUDING BUT NOT LIMITED TO:
    A. ALL CONNECTIONS OF STRUCTURAL MEMBERS
    B. ALL DOOR, WINDOW, AND OTHER HARDWARE CONNECTIONS
    C. ALL PLACEMENT OF REINFORCING STEEL IN CONCRETE
    D. ALL WELDING
12. SPECIAL INSPECTOR SHALL PROVIDE WRITTEN REPORTS DETAILING PLACEMENT OF EACH ITEM.
13. CONTRACTOR SHALL COORDINATE AND SCHEDULE WITH EOR FOR STRUCTURAL FIELD OBSERVATIONS TO OCCUR AT SIGNIFICANT STAGES OF CONSTRUCTION, SPECIFICALLY DURING:
    A. CONSTRUCTION OF FOUNDATIONS: DURING PLACEMENT OF REINFORCEMENT AND CONCRETE.

    NOTE: STRUCTURAL FIELD OBSERVATIONS DO NOT REPLACE THE REQUIREMENTS OF SPECIAL INSPECTIONS.

14. STORM SHELTER LID DESIGN LOADS:
    A. DEAD 85 PSF
    B. LIVE 250 PSF
    C. LIVE ROOF 100 PSF (ICC 500, MIN)
    D. WIND S/S005



4 / S005 DEBRIS LOAD ON STORM SHELTER MASONRY WALL SECTION
3/4" = 1'-0"

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KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE. Kirkwood, MO

No.	Date	Revision
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STORM SHELTER DETAILS

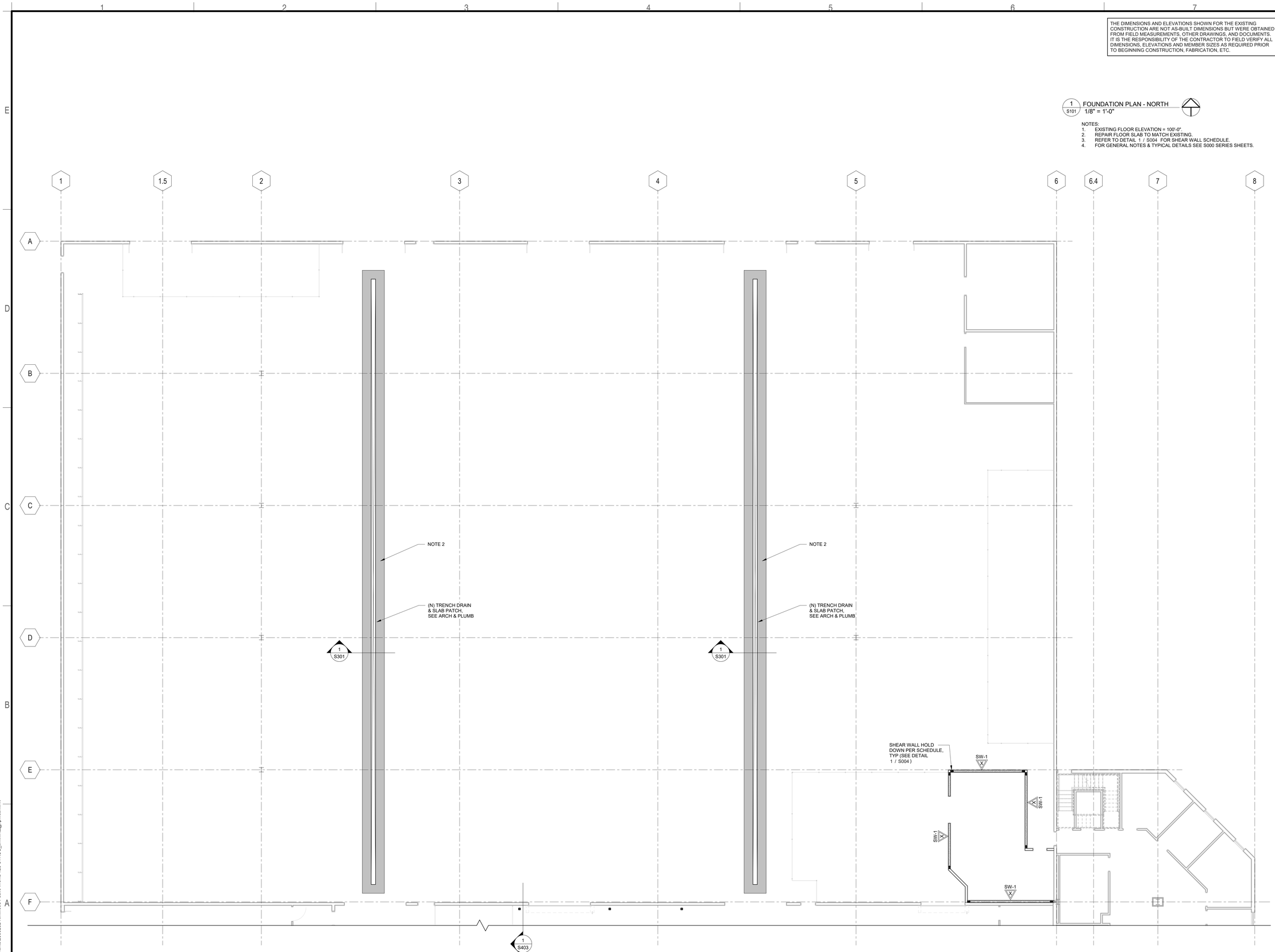
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Sheet No. S005
Date 03/30/2026

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THE DIMENSIONS AND ELEVATIONS SHOWN FOR THE EXISTING CONSTRUCTION ARE NOT AS-BUILT DIMENSIONS BUT WERE OBTAINED FROM FIELD MEASUREMENTS, OTHER DRAWINGS, AND DOCUMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS, ELEVATIONS AND MEMBER SIZES AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION, FABRICATION, ETC.

1 / S101 FOUNDATION PLAN - NORTH
1/8" = 1'-0"

NOTES:
1. EXISTING FLOOR ELEVATION = 100'-0".
2. REPAIR FLOOR SLAB TO MATCH EXISTING.
3. REFER TO DETAIL 1 / S004 FOR SHEAR WALL SCHEDULE.
4. FOR GENERAL NOTES & TYPICAL DETAILS SEE S000 SERIES SHEETS.



SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
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SCALE: 1/4" = 1'-0"
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Proposed:
KIRKWOOD PUBLIC WORKS
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545 LEFFINGWELL AVE.
Kirkwood, MO

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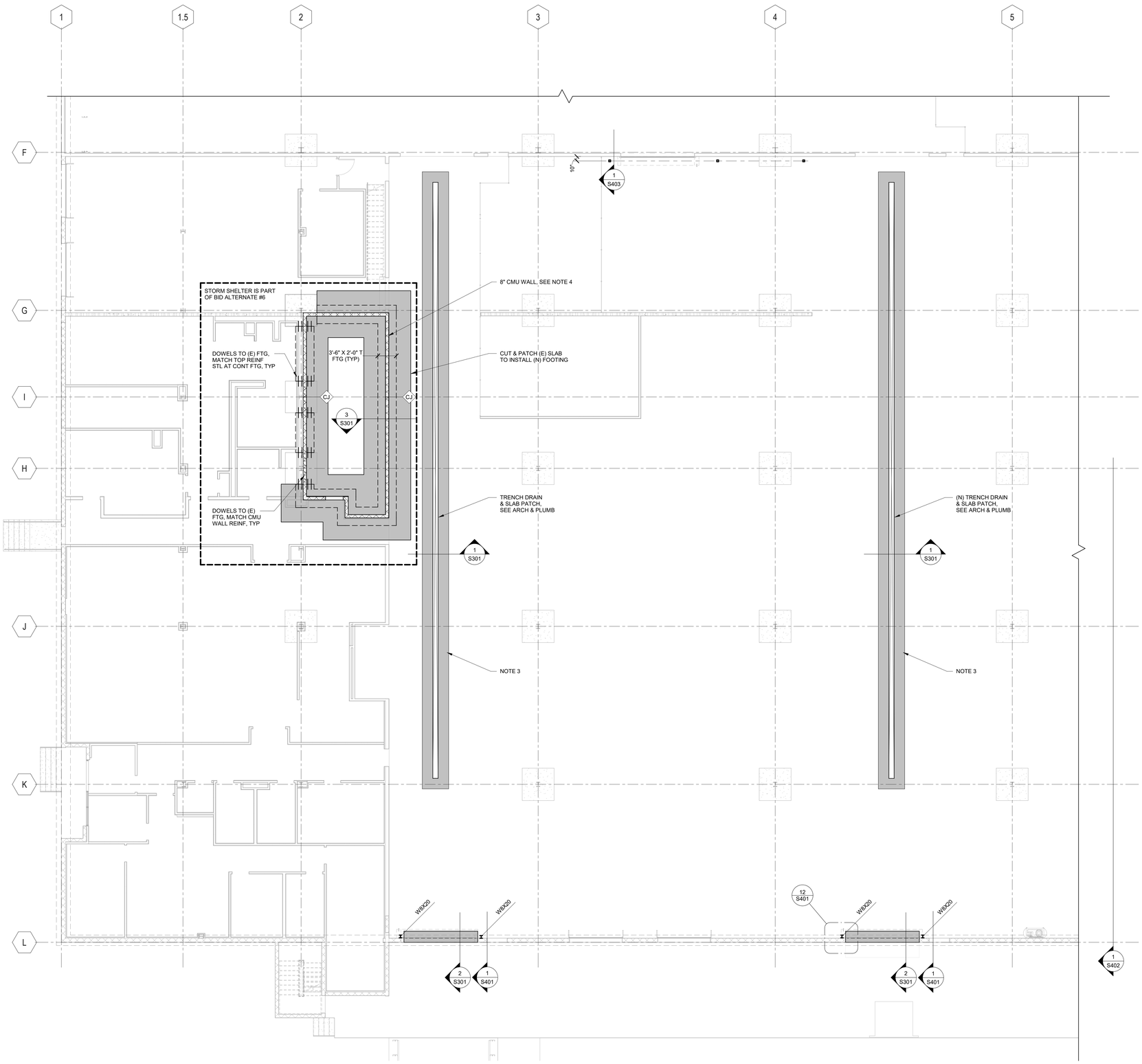
FOUNDATION PLAN - NORTH

Project No.
2500232

Sheet No.
S101

Date
03/30/2026

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1 S102 PARTIAL FOUNDATION PLAN
1/8" = 1'-0"

NOTES:
1. EXISTING FLOOR ELEVATION = 100'-0".
2. TOP OF NEW FOOTING ELEVATION (TF) = 99'-0", UNO.
3. REPAIR FLOOR SLAB TO MATCH EXISTING.
4. FULLY GROUTED, REINFORCED MASONRY WALLS WITH #5 VERTICAL BARS IN EACH CELL, BOND BEAMS @ 48"oc, LADDER REINFORCING @ 16"oc.
5. FOR GENERAL NOTES & TYPICAL DETAILS SEE S000 SERIES SHEETS.
6. C.J. INDICATES CONTROL JOINT IN LOAD BEARING CMU WALL. SEE ARCH FOR DETAILING OF JOINT AND REFERENCE DETAIL 2 / S003. CONTROL JOINT EXTENDS FULL HEIGHT OF WALL, UNO.

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FOUNDATION PLAN - SOUTH

Project No.
2500232

Sheet No.
S102

Date
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1 S103 PARTIAL MEZZANINE FRAMING PLAN
1/8" = 1'-0"

NOTES:
1. EXISTING FLOOR ELEVATION = 111'-8" (+/-).
2. TOP OF STORM SHELTER SLAB TO MATCH ELEVATION OF EXISTING MEZZANINE FLOOR CONSTRUCTION.
3. EXISTING JOISTS SHOWN FOR REFERENCE ONLY. CONTRACTOR TO VERIFY ACTUAL LOCATIONS.
4. (N) STORM SHELTER SLAB CONSTRUCTION: 4" NORMAL WEIGHT CONCRETE OVER 2" X 20 GA GALVANIZED METAL DECK . REINFORCE w/ #4 @ 12"oc.
5. FLOOR DESIGNED FOR LIVE LOAD = 250 PSF.
6. FOR GENERAL NOTES & TYPICAL DETAILS SEE S000 SERIES SHEETS.

HSS POST, (3) LOCATIONS

(N) STL LINTEL PER 4 / S003

STORM SHELTER IS PART OF BID ALTERNATE #6

4 S401

W12X19 [16]

NOTE 4 & 5

3 S401

(5) SPA @ 5'-6" = 27'-6"

6 S401

L-1 W12X19 [8]

5 S401

4 S401

(N) STL LINTEL PER 4 / S003

(E) STL JOIST @ 2'-0" (+/-)

W8X48 LINTEL

2 S401

1 S401

(N) STL LINTEL PER 4 / S003

W8X48 LINTEL

2 S401

1 S401

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PARTIAL MEZZANINE FRAMING PLAN

Project No.
2500232

Sheet No.
S103

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SCALE: 3" = 1'-0" 1" 6" 3" 0
SCALE: 1 1/2" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1" = 1'-0" 2" 1" 6" 3" 0
SCALE: 3/4" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1/2" = 1'-0" 2" 1" 6" 3" 0
SCALE: 3/8" = 1'-0" 4" 2" 8" 4" 0
SCALE: 1/4" = 1'-0" 4" 2" 8" 4" 0
SCALE: 1/8" = 1'-0" 8" 4" 16" 8" 0
SCALE: 3/32" = 1'-0" 8" 4" 16" 8" 0
SCALE: 1/16" = 1'-0" 16" 8" 32" 16" 0

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1 S104 ROOF FRAMING PLAN - NORTH
1/8" = 1'-0"

NOTES:
1. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS.
2. ALL ROOF OPENINGS TO RECEIVE ANGLE FRAME PER TYPICAL DETAILS. SOME OPENINGS MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS. COORDINATE SIZE & LOCATION OF OPENINGS w/ MECHANICAL CONTRACTOR.
3. FOR GENERAL NOTES & TYPICAL DETAILS SEE S100 SERIES SHEETS.

EF 01, 150 LBS
EF 02, 200 LBS
EF 03, 200 LBS
EF 04, 200 LBS
EF 05, 200 LBS
EF 06, 350 LBS
DOAS 01, 1300 LBS
CU 04, 250 LBS
CU 07, 175 LBS
MAU 01, 3200 LBS
(E) 32" JOIST GIRDER
(E) 30" JOISTS @ 6'-0"oc
(E) 6" DIA FP PIPE
(E) 8" DIA FP PIPE

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ROOF FRAMING PLAN - NORTH

Project No. 2500232
Sheet No. S104
Date 03/30/2026

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1 S105 ROOF FRAMING PLAN - SOUTH
1/8" = 1'-0"

NOTES:
1. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS.
2. MONORAIL CRANE AND BRIDGE CRANE TO BE RELOCATED FROM EXISTING FACILITY. CONTRACTOR TO REUSE EXISTING RUNWAY BEAMS AND HANGER RODS WHEREVER POSSIBLE.
3. STEEL ANGLE BRACE AT CRANE HANGER POINT.
4. ALL ROOF OPENINGS TO RECEIVE ANGLE FRAME PER TYPICAL DETAILS. SOME OPENINGS MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS. COORDINATE SIZE & LOCATION OF OPENINGS w/ MECHANICAL CONTRACTOR.
5. FOR GENERAL NOTES & TYPICAL DETAILS SEE S100 SERIES SHEETS.

EF 10, 100 LBS
CU 01, 175 LBS
NOTE 3, TYP
EF 09, 141 LBS
NOTE 3, TYP
15'-6" PER MFR
PER ARCH
W12X40
W12X40
W12X40
6 S402
EF 07, 350 LBS
RELOCATED 2-TON BRIDGE CRANE (SEE NOTE 1)
HANGER ROD, 6 PLACES, TYP
2 S402
1'-6" (+/-)
13'-8" (+/-)
20'-6" (+/-)
16'-4" (+/-)
(E) W21
CU 05, 250 LBS
18'-5" COORD w/ ARCH
4 S402
5 S402
MAU 02, 3200 LBS
JOIST STRENGTHENING PER DETAIL 4/S201
JOIST STRENGTHENING PER DETAIL 5/S201 (2 JOISTS)
(E) 6" DIA FP PIPE
W12X26
9'-6"
17'-0" (+/-)
17'-0" (+/-)
RELOCATED 1-TON HOIST & MONORAIL RUNWAY (SEE NOTE 1)
NOTE 3
1'-0"
1'-0"
RUNWAY HANGER PT, TYP
3 S402
C15X33.9
16'-6" +/- COORD w/ ARCH
1 S402
ROOF HATCH, COORD LOCATION w/ ARCH
EF 08, 350 LBS
RTU 01 1800 LBS
CU 06, 250 LBS

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ROOF FRAMING PLAN - SOUTH

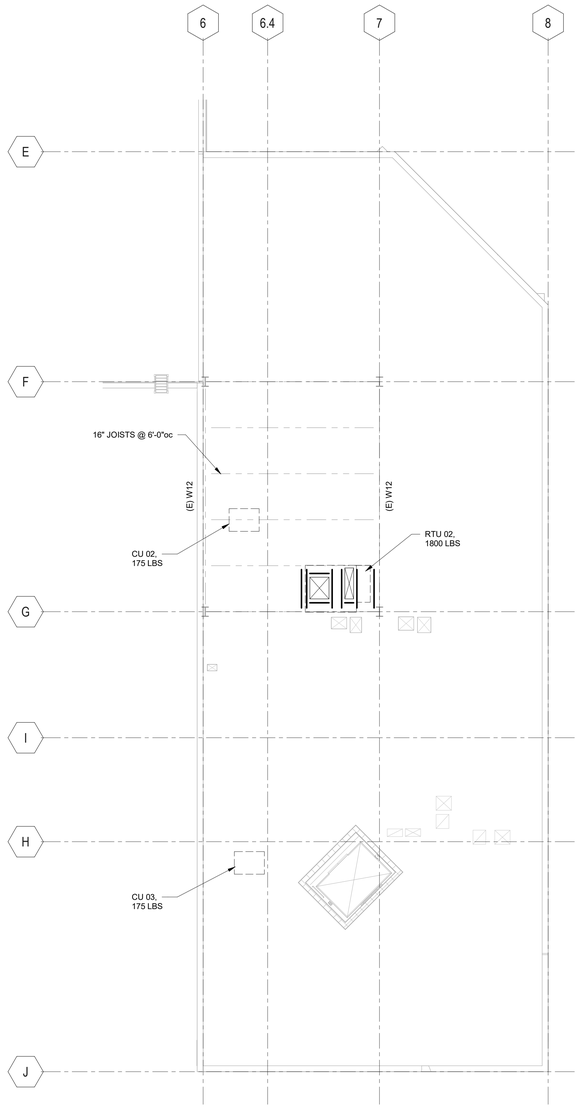
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1 S106 ROOF FRAMING PLAN - OFFICE BUILDING
1/8" = 1'-0"

NOTES:
1. ALL ROOF OPENINGS TO RECEIVE ANGLE FRAME PER TYPICAL DETAILS. SOME OPENINGS MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS. COORDINATE SIZE AND LOCATION OF OPENINGS WITH MECHANICAL CONTRACTOR.
2. FOR GENERAL NOTES AND TYPICAL DETAILS SEE S100 SERIES SHEETS.

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ROOF FRAMING PLAN - OFFICE BUILDIN

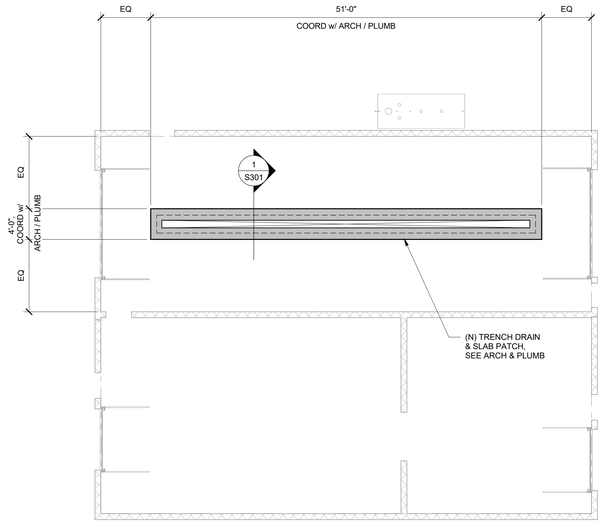
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S106

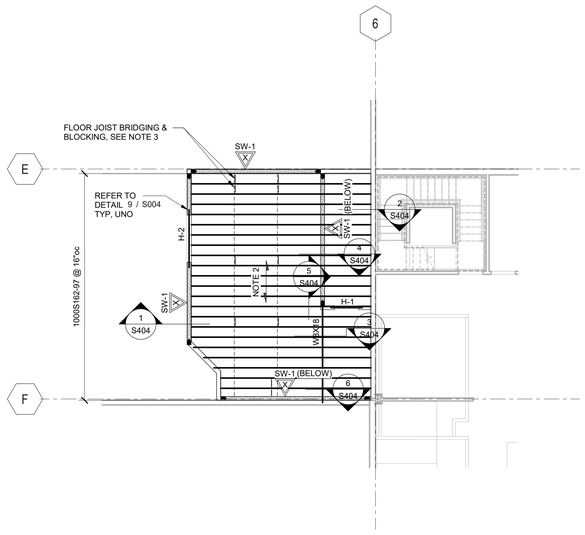
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1 S107 AUXILARY BUILDING FOUNDATION PLAN
1/8" = 1'-0"



2 S107 FLEET MEZZANINE FRAMING PLAN (LIGHT STORAGE ONLY)
1/8" = 1'-0"

NOTES:

1. TOP OF FINISHED FLOOR = 109'-11 3/8".
   TOP OF MEZZANINE PARTITION = 113'-5 3/8".
2. FLOOR CONSTRUCTION TO BE 23/32" (OR 3/4") MIN STRUCTURAL 1 PLYWOOD SHEATHING, EXPOSURE 1.
3. BRIDGING (1 1/2" x 20 GA STRAP @ BOT) REQUIRED AT 8'-0" MAX SPACING. PROVIDE SOLID BLOCKING AT (2) BAYS AT ENDS OF FLOOR DIAPHRAGM AND AT MAX 10 FT SPACING. ATTACH BRIDGING TO EACH STUD AND TO SOLID BLOCKING.
4. MEZZANINE DESIGNED FOR 125 PSF LIVE LOAD.

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WAREHOUSE MEZZANINE & AUXILARY

Project No.
2500232

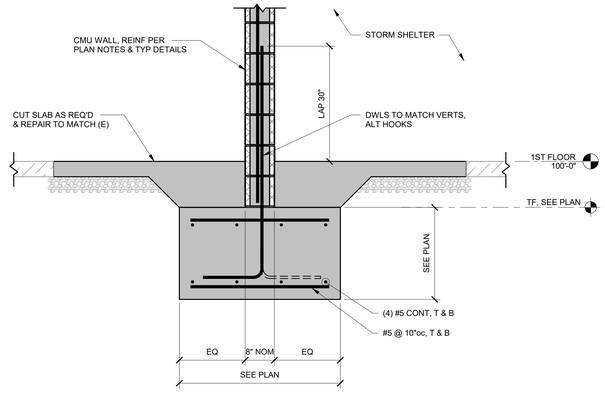
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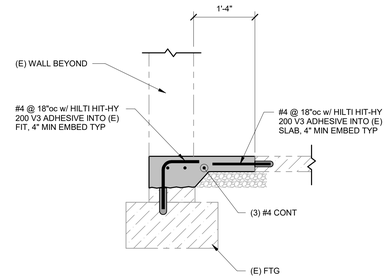
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SCALE: 1" = 1'-0" 0 6" 1' 2'
SCALE: 3/4" = 1'-0" 0 1' 3'
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 3/8" = 1'-0" 0 2' 4' 6'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 3/32" = 1'-0" 0 8' 16' 24'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

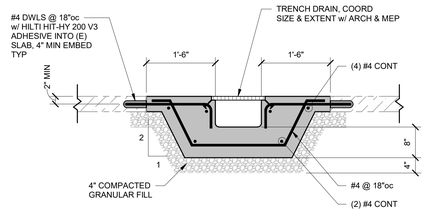
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3 S301 SECTION
3/4" = 1'-0"



2 S301 SECTION AT NEW OVERHEAD DOOR
3/4" = 1'-0"



1 S301 TRENCH DRAIN DETAIL
3/4" = 1'-0"

SCALE: 3" = 1'-0" 0 3" 6" 1'
SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2'
SCALE: 1" = 1'-0" 0 6" 1' 2'
SCALE: 3/4" = 1'-0" 0 1' 2' 3'
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 3/8" = 1'-0" 0 2' 4' 6'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
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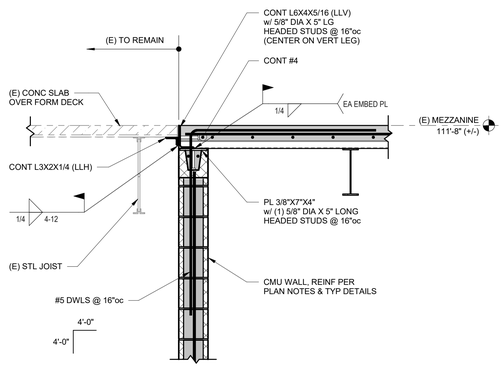
SECTIONS AND DETAILS

Project No.
2500232

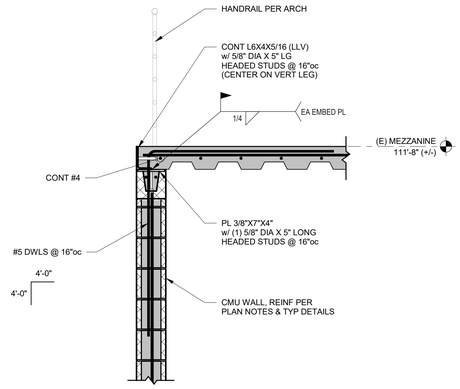
Sheet No.
S301

Date
03/30/2026

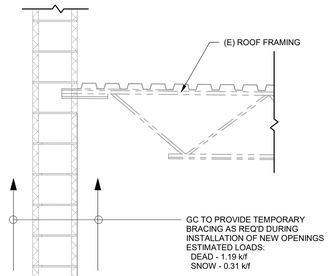
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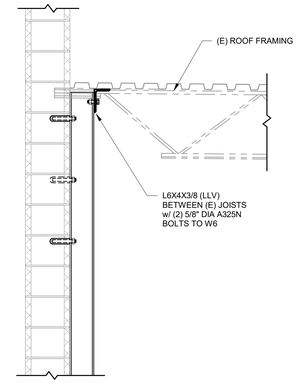


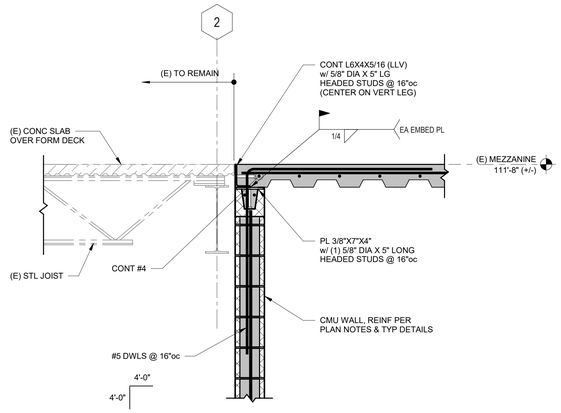
4 S401 SECTIOB
3/4" = 1'-0"



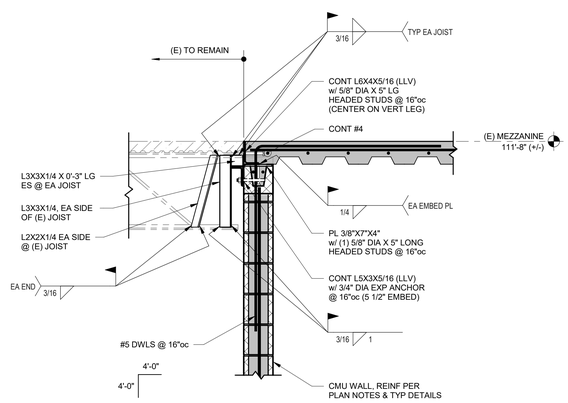
3 S401 SECTION
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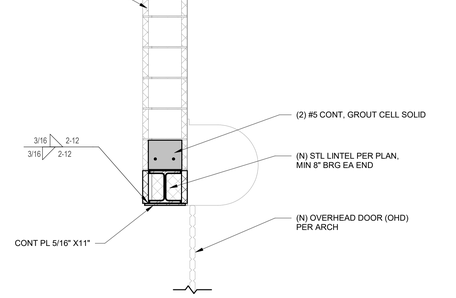




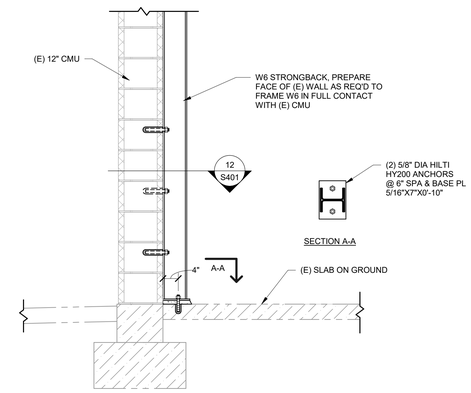
6 S401 SECTION
3/4" = 1'-0"



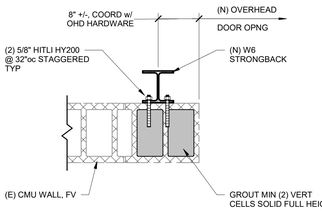
5 S401 SECTION
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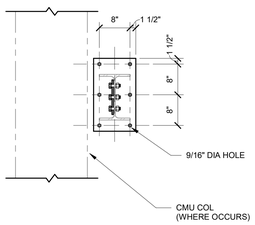
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3/4" = 1'-0"



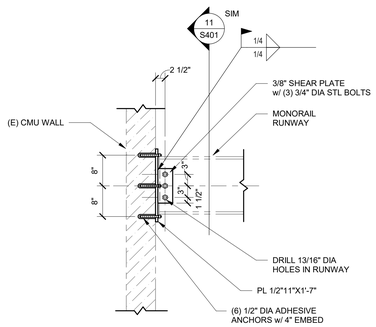
1 S401 SECTION
3/4" = 1'-0"



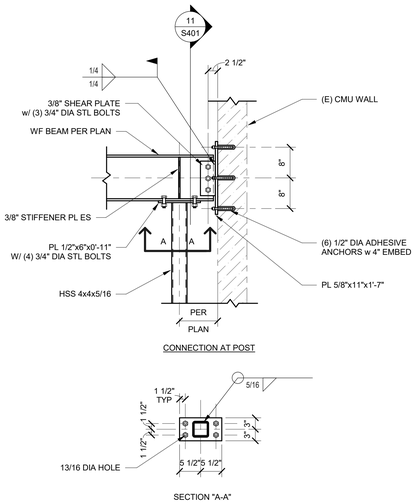
12 S401 DETAIL AT NEW DOOR OPENING
1" = 1'-0"



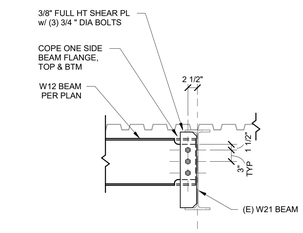
11 S401 CMU CONNECTION DETAIL
3/4" = 1'-0"



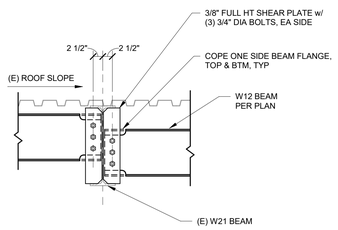
10 S401 RUNWAY SUPPORT BEAM AT CMU WALL
3/4" = 1'-0"



9 S401 CRANE SUPPORT BEAM AT CMU WALL
3/4" = 1'-0"



7 S401 CRANE SUPPORT BEAM TO GIRDER CONNECTION
3/4" = 1'-0"



8 S401 CRANE SUPPORT BEAM TO GIRDER CONNECTION BOTH SIDES
3/4" = 1'-0"

SCALE: 3" = 1'-0" 0 3" 6" 1'
SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2'
SCALE: 1" = 1'-0" 0 6" 1' 2'
SCALE: 3/4" = 1'-0" 0 3" 1' 2'
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 3/8" = 1'-0" 0 2' 4' 6'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 3/32" = 1'-0" 0 8' 16' 24'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

3/30/2026 10:20:16 AM
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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE. Kirkwood, MO

No.	Date	Revision
	03/30/26	ISSUED FOR CONSTRUCTION

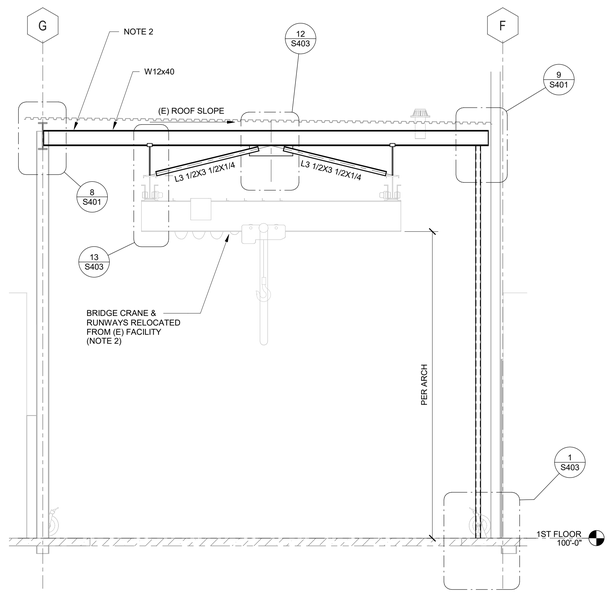
FRAMING SECTIONS AND DETAILS

Project No.
2500232

Sheet No.
S401

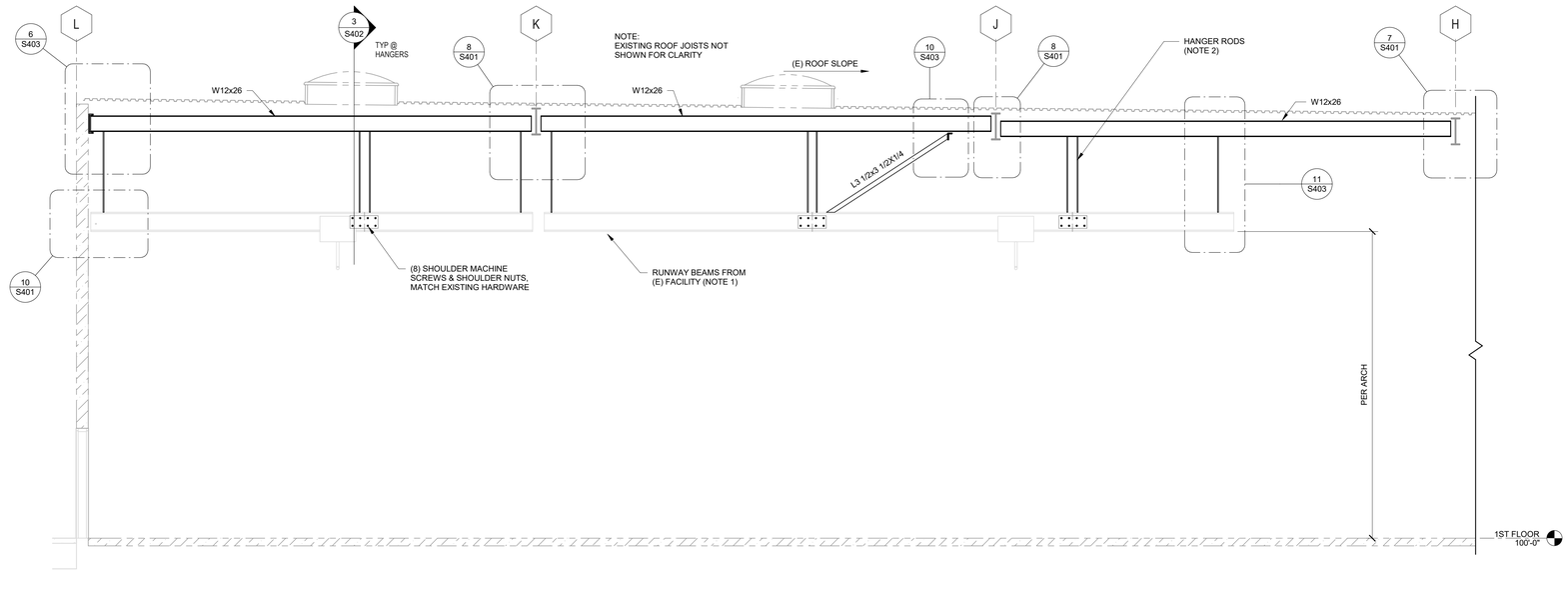
Date
03/30/2026

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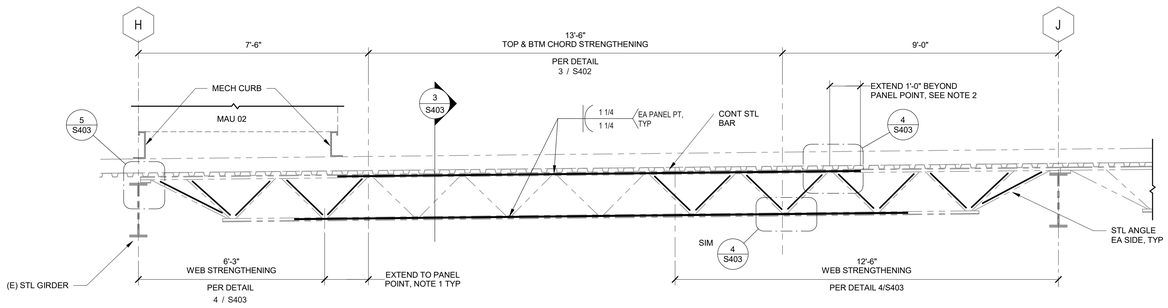
2 S402 BRIDGE CRANE ELEVATION
1/4" = 1'-0"

NOTES:
1. NEW BEAMS TO BE LOCATED TO MATCH (E) RUNWAY HANGER LOCATIONS. CONTRACTOR TO FIELD VERIFY REQUIRED SPACING.
2. NEW W12 BEAMS INSTALLED PARALLEL TO FLOOR. CONTRACTOR TO LOCATE BEAM ELEVATIONS AS REQUIRED TO INSTALL CONNECTIONS TO EXISTING STRUCTURE.
3. INSTALL RUNWAY WITHIN MFG SPECIFIED TOLERANCES FOR STRAIGHTNESS AND LEVELNESS.
4. RUNWAYS TO BE ADJUSTED TO PROPER HEIGHT, LEVELED & ALIGNED PRIOR TO THE INSTALLATION OF BRACING.



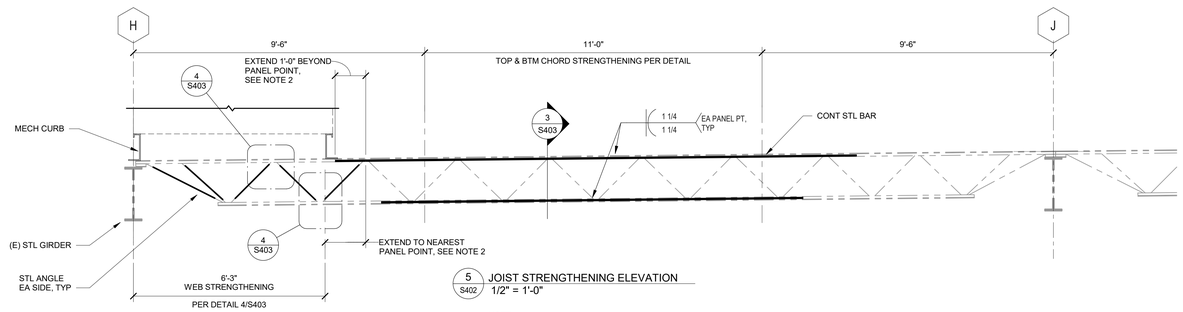
1 S402 1-TON MONORAIL CRANES ELEVATIONS
1/4" = 1'-0"

NOTES:
1. EXIST RUNWAY SECTIONS ARE APPROX 17 FT LONG AND ARE SPLICED AT SUPPORT LOCATIONS. CONTRACTOR TO MATCH EXISTING SUPPORT LOCATIONS AND ADD NEW HANGERS AT THE LOCATIONS SHOWN IN PLAN.
2. RE-USE (E) HANGERS & ATTACHMENT HARDWARE (LOUDEN GIMBAL SUSPENSION SYSTEM ASSUMED).
3. NEW W12 BEAMS INSTALLED PARALLEL TO FLOOR. CONTRACTOR TO LOCATE BEAM ELEVATION AS REQUIRED TO INSTALL CONNECTIONS TO EXISTING STRUCTURE.
4. INSTALL RUNWAY WITHIN MFG SPECIFIED TOLERANCES FOR STRAIGHTNESS AND LEVELNESS.
5. RUNWAYS TO BE ADJUSTED TO PROPER HEIGHT, LEVELED & ALIGNED PRIOR TO THE INSTALLATION OF BRACING.
6. LATERAL BRACING NOT SHOWN FOR CLARITY. REFER TO DETAIL 3 / S402 .



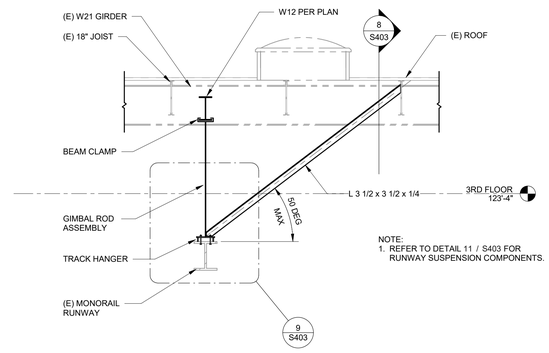
4 S402 JOIST STRENGTHENING ELEVATION
1/2" = 1'-0"

NOTE:
1. WEB REINFORCING TO EXTEND TO THE NEAREST PANEL POINT BEYOND WHICH STRENGTHENING IS REQUIRED.
2. FLEXURAL REINFORCEMENT AT TOP & BOTTOM CHORD TO EXTEND 1'-0" BEYOND THE NEAREST PANEL POINT BEYOND WHICH STRENTHENING IS REQUIRED.
2. REINFORCING AT MAU CURB LOCATIONS (REF TYPICAL DETAILS) IS IN ADDITION TO THE STRENGTHENING SHOWN.



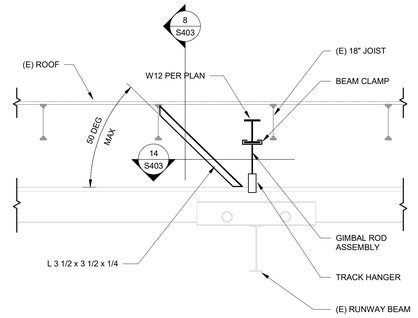
5 S402 JOIST STRENGTHENING ELEVATION
1/2" = 1'-0"

NOTE:
1. WEB REINFORCING TO EXTEND TO THE NEAREST PANEL POINT BEYOND WHICH STRENGTHENING IS REQUIRED.
2. FLEXURAL REINFORCEMENT AT TOP & BOTTOM CHORD TO EXTEND 1'-0" BEYOND THE NEAREST PANEL POINT BEYOND WHICH STRENTHENING IS REQUIRED.
2. REINFORCING AT MAU CURB LOCATIONS (REF TYPICAL DETAILS) IS IN ADDITION TO THE STRENGTHENING SHOWN.



NOTE:
1. REFER TO DETAIL 11 / S403 FOR RUNWAY SUSPENSION COMPONENTS.

3 S402 TRANSVERSE RUNWAY BRACING DETAIL
3/8" = 1'-0"



NOTE:
1. REFER TO DETAIL 13 / S403 FOR RUNWAY SUSPENSION COMPONENTS.

6 S402 LONGITUDINAL RUNWAY BRACING
3/8" = 1'-0"

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Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
Kirkwood, MO
545 LEFFINGWELL AVE.

No.	Date	Revision
	03/30/26	ISSUED FOR CONSTRUCTION

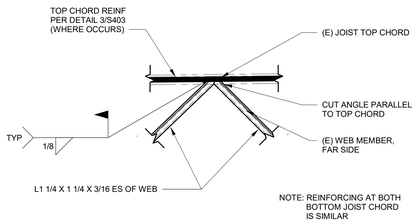
FRAMING SECTIONS AND DETAILS

Project No.
2500232

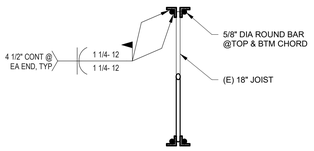
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Date
03/30/2026

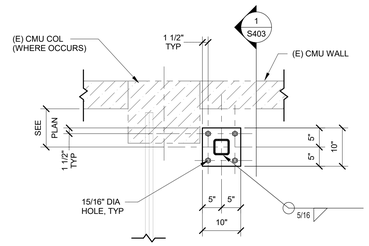
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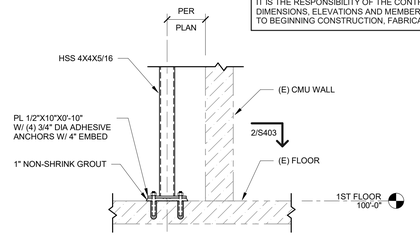
4 S403 JOIST SHEAR STRENGTHENING
1 1/2" = 1'-0"



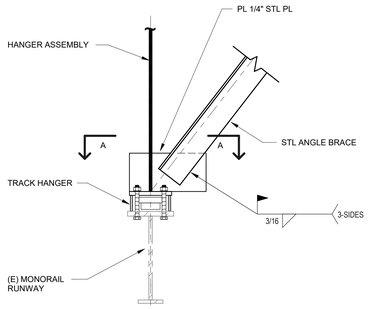
3 S403 JOIST FLEXURAL STRENGTHENING DETAIL
1 1/2" = 1'-0"

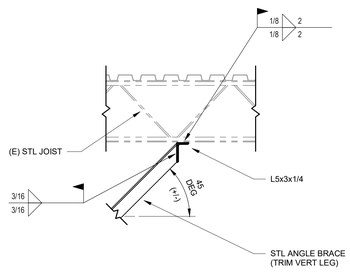


2 S403 BASE PLATE DETAIL
3/4" = 1'-0"



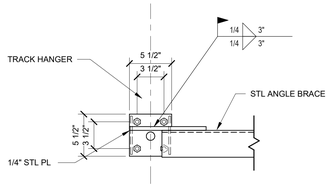
1 S403 CRANE SUPPORT POST DETAIL
3/4" = 1'-0"





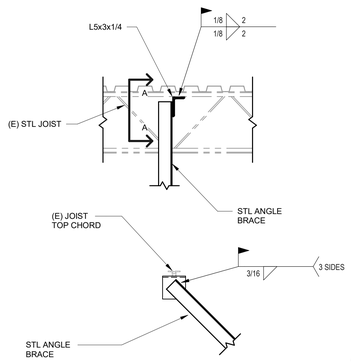
NOTE: LOCATE BRACE ALONG C/L OF JOIST.

10 S403 MONORAIL LONGITUDINAL BRACING
3/4" = 1'-0"



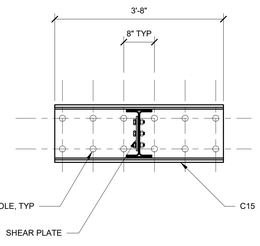
SECTION A-A

9 S403 MONORAIL LATERAL BRACING
1 1/2" = 1'-0"

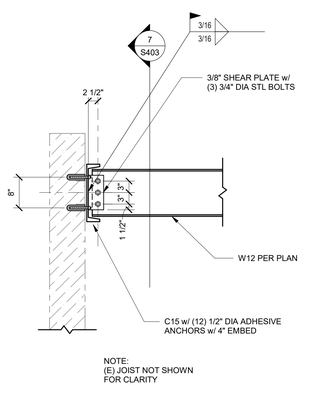


SECTION A-A

8 S403 MONORAIL LATERAL BRACING
3/4" = 1'-0"

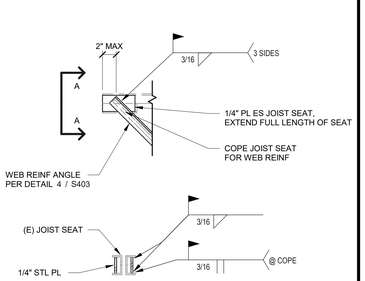


7 S403 SECTION
3/4" = 1'-0"



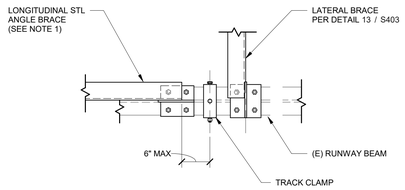
NOTE:
(E) JOIST NOT SHOWN
FOR CLARITY

6 S403 CRANE SUPPORT BEAM AT CMU DETAIL
3/4" = 1'-0"



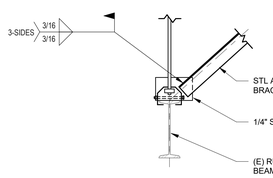
SECTION A-A

5 S403 JOIST SEAT STRENGTHENING
1 1/2" = 1'-0"

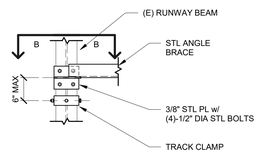


NOTE:
1. CONX AT LONGITUDINAL BRACE SIMILAR TO LATERAL BRACING PER 13 / S403 .
2. SEE DETAILS 8 / S403 & 10 / S403 FOR BRACE ATTACHMENT TO STRUCTURE.

14 S403 BRIDGE CRANE RUNWAY LONGITUDINAL BRACING
1" = 1'-0"

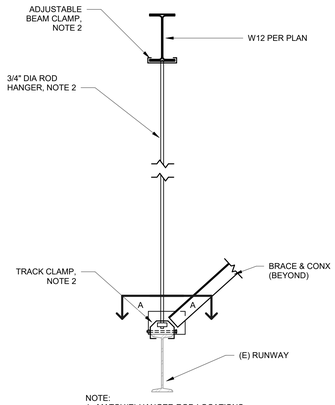


SECTION B-B

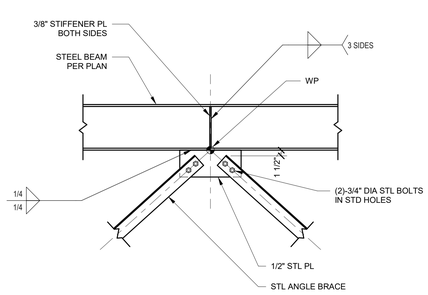


SECTION A-A

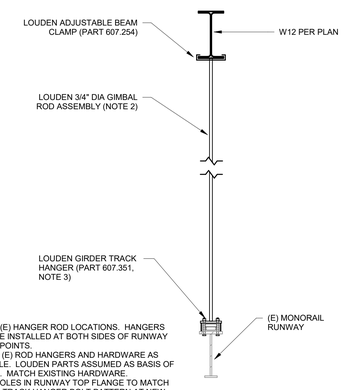
13 S403 BRIDGE CRANE RUNWAY SUSPENSION AND LATERAL BRACING
3/4" = 1'-0"



NOTE:
1. MATCH(E) HANGER ROD LOCATIONS.
2. RE-USE (E) ROD HANGERS AND HARDWARE AS POSSIBLE. NEW HARDWARE TO MATCH EXISTING.
3. SEE DETAILS 8 / S403 & 10 / S403 FOR BRACE ATTACHMENT TO STRUCTURE.



12 S403 BRIDGE CRANE LATERAL BRACING
3/4" = 1'-0"



NOTE:
1. MATCH (E) HANGER ROD LOCATIONS. HANGERS MUST BE INSTALLED AT BOTH SIDES OF RUNWAY SPLICE POINTS.
2. RE-USE (E) ROD HANGERS AND HARDWARE AS POSSIBLE. LOUDEN PARTS ASSUMED AS BASIS OF DESIGN. MATCH EXISTING HARDWARE.
3. DRILL HOLES IN RUNWAY TOP FLANGE TO MATCH GIRDER TRACK HANGER BOLT PATTERN AT NEW HANGER ROD LOCATIONS.

11 S403 MONORAIL RUNWAY SUSPENSION SYSTEM
3/4" = 1'-0"

THE DIMENSIONS AND ELEVATIONS SHOWN FOR THE EXISTING CONSTRUCTION ARE NOT AS-BUILT DIMENSIONS BUT WERE OBTAINED FROM FIELD MEASUREMENTS, OTHER DRAWINGS, AND DOCUMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS, ELEVATIONS AND MEMBER SIZES AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION, FABRICATION, ETC.

STATE OF MISSOURI
JASON N. RICHARDS
NUMBER E-2000162164
REGISTERED PROFESSIONAL ENGINEER
03/30/2026

Jason N. Richards
MO License 2000162164
Expires: 12/31/2026

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Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.
Kirkwood, MO

No.	Revision	Date
	ISSUED FOR CONSTRUCTION	03/30/26

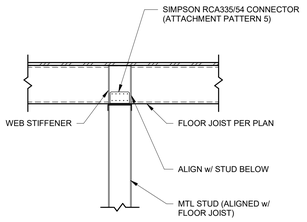
SECTIONS AND DETAILS

Project No.
2500232

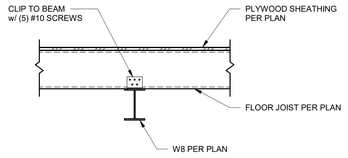
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S403

Date
03/30/2026

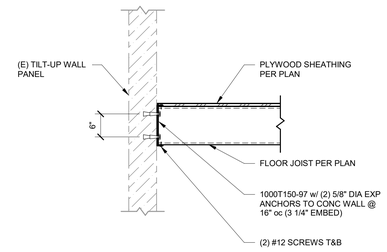
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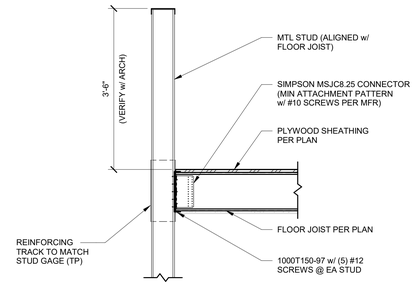
4 S404 MEZZANINE FLOOR SECTION
3/4" = 1'-0"



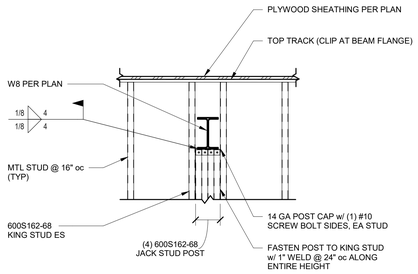
3 S404 MEZZANINE FLOOR SECTION
3/4" = 1'-0"



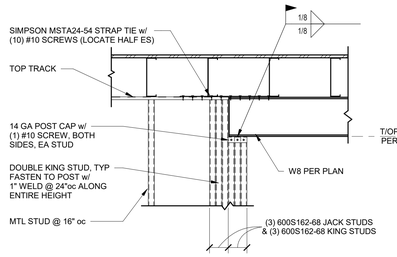
2 S404 MEZZANINE FLOOR SECTION
3/4" = 1'-0"



1 S404 MEZZANINE FLOOR SECTION
3/4" = 1'-0"



6 S404 MEZZANINE SECTION
3/4" = 1'-0"



5 S404 MEZZANINE SECTION
3/4" = 1'-0"

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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.
Kirkwood, MO

No.	Date	Revision
	03/30/26	ISSUED FOR CONSTRUCTION

SECTIONS AND DETAILS

Project No.
2500232

Sheet No.
S404

Date
03/30/2026

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SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

GENERAL SYMBOLS:

- THERMOSTAT
- CO — CARBON MONOXIDE SENSOR
- CO_2 — CARBON DIOXIDE SENSOR
- H — HUMIDISTAT
- S (T OR H) — SENSOR (T = TEMPERATURE H = HUMIDITY)
- S-1 / 100 — TYPE OF SERVICE, SCHEDULE, DEVICE NO; S = SUPPLY, R = RETURN, E = EXHAUST, T = TRANSFER
- AIR QUANTITY IN CFM
- 1 OR 1 — KEYED NOTE (NEW CONSTRUCTION OR DEMOLITION)
- 1 — REVISION
- INTERFACE, EXISTING TO NEW
- X / M-X — SECTION NUMBER / SHEET WHERE LOCATED
- AHU-1 — EQUIPMENT DESIGNATION
- UNIT NUMBER

DUCTWORK SYMBOLS:

- # x # — DUCT SIZE, FIRST FIGURE IS SIDE SHOWN (ACTUAL SIZE INDICATED)
- # x # Ø — SPIRAL FLAT - OVAL DUCT SIZE, FIRST FIGURE IS SIDE SHOWN (ACTUAL SIZE INDICATED)
- AP — ACCESS PANEL, TOP OR SIDE
- FLEXIBLE DUCT CONNECTION
- R — CHANGE OF ELEVATION - RISE (R) OR DROP (D)
- TURNING VANES
- LIGHT LINETYPE INDICATES EXISTING ITEMS TO REMAIN
- DASHED LINETYPE INDICATES EXISTING ITEMS TO BE REMOVED
- M — MOTORIZED DAMPER
- GRAVITY BACK DRAFT
- MANUAL VOLUME DAMPER
- FIRE DAMPER
- SMOKE DAMPER
- FIRE/SMOKE DAMPER
- VENTURI AIR VALVE
- FLEXIBLE DUCT
- SUPPLY AIR SECTION UP
- RETURN AIR SECTION UP
- EXHAUST AIR SECTION UP
- OUTSIDE AIR SECTION UP
- SUPPLY AIR DOWN OR AWAY
- RETURN AIR DOWN OR AWAY
- EXHAUST AIR DOWN OR AWAY
- OUTSIDE AIR DOWN OR AWAY
- SUPPLY AIR FLOW ARROW
- RETURN OR EXHAUST AIR FLOW ARROW
- SUPPLY DIFFUSER, REGISTER OR GRILLE AS SCHEDULED
- RETURN OR EXHAUST GRILLE OR REGISTER AS SCHEDULED
- SLOT DIFFUSER AS SCHEDULED
- SIDEWALL GRILLE OR REGISTER AS SCHEDULED
- ARROWS INDICATE DIRECTION OF AIR DISCHARGE. IF NO ARROWS ARE SHOWN ON PLAN, DEFAULT IS 2-WAY HORIZONTAL FOR SLOT DIFFUSERS, 4-WAY HORIZONTAL FOR SQUARE DIFFUSERS

PIPING SYMBOLS:

- CA — COMPRESSED AIR
- CHR — CHILLED/HOT WATER RETURN
- CHS — CHILLED/HOT WATER SUPPLY
- CF — CHEMICAL FEED
- GLR — GLYCOL RETURN
- GLS — GLYCOL SUPPLY
- CR — CONDENSER WATER RETURN
- CS — CONDENSER WATER SUPPLY
- CWR — CHILLED WATER RETURN
- CWS — CHILLED WATER SUPPLY
- CD — CONDENSATE DRAIN
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- RV — REFRIGERANT VENT
- RHG — REFRIGERANT HOT GAS
- HWR — HEATING WATER RETURN
- HWS — HEATING WATER SUPPLY
- HPR — HIGH PRESSURE CONDENSATE RETURN
- HPS — HIGH PRESSURE STEAM SUPPLY
- LPR — LOW PRESSURE CONDENSATE RETURN
- LPS — LOW PRESSURE STEAM SUPPLY
- NP — MAKE-UP WATER (NON-POTABLE)
- PC — PUMPED CONDENSATE
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- FOR — FUEL OIL RETURN
- FOS — FUEL OIL SUPPLY
- G — NATURAL GAS
- LP — LIQUEFIED PRETROLEUM

PIPELINE EQUIPMENT:

- BALL VALVE
- BLOWDOWN VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- GATE VALVE
- GLOBE VALVE
- PRESSURE REGULATING VALVE
- RELIEF VALVE (TEMP/PRESS)
- STOP CHECK VALVE
- PRESSURE TEST VALVE
- SOLENOID VALVE
- TWO-WAY CONTROL VALVE
- THREE-WAY CONTROL VALVE
- TRIPLE DUTY/MULTIPURPOSE VALVE
- FLOW CONTROL VALVE
- LUBRICATED PLUG COCK
- IN-LINE PUMP
- STRAINER
- STRAINER WITH BLOWDOWN
- UNION
- FLANGE
- ECCENTRIC REDUCER/INCREASER
- CONCENTRIC REDUCER/INCREASER
- AIR VENT (M-MANUAL, A-AUTO)
- THERMOMETER W/THERMAL WELL
- PRESSURE GAUGE W/GAUGE COCK
- CAP
- CALIBRATED PLUG VALVE/CIRCUIT SETTER
- FLEXIBLE PIPE COUPLING
- GAUGE COCK
- THERMOSTATIC EXPANSION VALVE
- SIGHT GLASS
- ELBOW DOWN
- ELBOW UP
- TEE DOWN
- TEE UP
- EXPANSION JOINT
- PIPE ANCHOR
- PIPE GUIDE
- PITCH DOWN IN DIRECTION OF ARROW
- PRESSURE/TEMPERATURE TEST PORT
- FLOW ARROW

EQUIPMENT ABBREVIATIONS:

AC	AIR CURTAIN
ACC	AIR COOLED CONDENSER
ACU	AIR CONDITIONING UNIT
AF	AIR FILTER
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
AS	AUTOMATIC SPRINKLER
AV	AUTOMATIC VENT
B	BOILER
BFP	BACKFLOW PREVENTER
BCU	BLOWER COIL UNIT
C	CHILLER
CAV	CONSTANT AIR VOLUME
CC	COOLING COIL
CFP	CHEMICAL FEED PUMP
CO	CLEANOUT
CP	CONDENSER WATER PUMP
CRP	CONDENSATE RETURN PUMP
CRU	COMPUTER ROOM AIR CONDITIONING UNIT
CT	COOLING TOWER
CTF	COOLING TOWER FILTER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CVAV	CONSTANT VOLUME AIR VALVE
CWP	CHILLED WATER PUMP
DOAS	DEDICATED OUTSIDE AIR SYSTEM
DC	DUCT COIL
DFH	DEAERATING FEEDWATER HEATER
DG	DOOR GRILLE
DP	DIFFERENTIAL PRESSURE SWITCH
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EH	EXHAUST HOOD
EJ	EXPANSION JOINT
ER	EXHAUST REGISTER
ERH	ELECTRIC RADIANT HEATER
ERV	ENERGY RECOVERY VENTILATOR
ET	EXPANSION TANK
EVC	EVAPORATIVE COOLER
FC	FLEXIBLE DUCT CONNECTION
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FLDR	FLOOR DRAIN
FS	FLOW SWITCH
FSD	COMBINATION FIRE/SMOKE DAMPER
FT	FLASH TANK
FTR	FIN-TUBE RADIATION
FTU	FAN TERMINAL UNIT
FVAV	FAN POWERED VARIABLE AIR VOLUME BOX
FVI	FLOOR VACUUM INLET
GP	GLYCOL PUMP
H	HUMIDIFIER
HC	HEATING COIL
HEV	HOSE END VALVE
HPU	HEAT PUMP UNIT
HRP	HEAT RECOVERY LOOP PUMP
HRU	HEAT RECOVERY UNIT
HWP	HEATING WATER PUMP
HX	HEAT EXCHANGER
IH	INTAKE HOOD
KEH	KITCHEN EXHAUST HOOD
L	LOUVER
LD	LINEAR DIFFUSER
MAU	MAKE-UP AIR UNIT
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MV	MANUAL VENT
OBD	OPPOSED BLADE DAMPER
PA	PIPE ANCHOR
PAC	PACKAGED AIR CONDITIONING UNIT
PBD	PARALLEL BLADE DAMPER
PCWP	PRIMARY CHILLED WATER PUMP
PG	PIPE GUIDE
PHC	PREHEAT COIL
PHWP	PRIMARY HEATING WATER PUMP
PHX	PLATE HEAT EXCHANGER
PI	PRESSURE INDICATOR
PIV	POST INDICATOR VALVE
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
RF	RETURN FAN
RG	RETURN GRILLE
RR	RETURN REGISTER
RTU	ROOFTOP UNIT
SAC	SURGICAL AIR COMPRESSOR
SCBA	SELF CONTAINED BREATHING APPARATUS
SCD	SMOKE CONTROL DAMPER
SCWP	SECONDARY CHILLED WATER PUMP
SD	SMOKE DAMPER
SF	SUPPLY FAN
SG	SUPPLY GRILLE
SHWP	SECONDARY HEATING WATER PUMP
SMS	SNOW MELTING SYSTEM
SR	SUPPLY REGISTER
ST	STERILIZER
SVV	SAFETY VALVE VENT
TG	TRANSFER GRILLE
TMV	THERMOSTATIC MIXING VALVE
TRC	TERMINAL REHEAT COIL
UH	UNIT HEATER
VAV	VARIABLE AIR VOLUME BOX
VD	MANUAL VOLUME DAMPER
VE	VIBRATION ELIMINATOR

GENERAL ABBREVIATIONS:

A	AIR
ACC	ACCESSORIES
AFF	ABOVE FINISHED FLOOR
AI	ANALOG SIGNAL INPUT
AO	ANALOG SIGNAL OUTPUT
APD	AIR PRESSURE DROP
APLV	APPLICATION PART LOAD VALUE
ARCH	ARCHITECTURE / ARCHITECT
AUX	AUXILIARY
AVG	AVERAGE
BDD	BACK DRAFT DAMPER
BFC	BELOW FINISHED CEILING
BHP	BRAKE HORSEPOWER
BI	BINARY SIGNAL INPUT
BM	BEAM
BO	BINARY SIGNAL OUTPUT
BOB	BOTTOM OF BEAM
BOD	BOTTOM OF DUCT
BOF	BOTTOM OF FOOTING
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BS	BEAM SPACE
BTUH	BRITISH THERMAL UNITS PER HOUR
CAP	CAPACITY
CAV	CONSTANT AIR VOLUME
CCD	CONTROLLED CLOSURE DEVICE
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CL	CENTERLINE
CLG	COOLING DUCT (COLD DUCT)
CONC	CONCRETE
COND	CONDENSATE
CONN	CONNECTION
CORR	CORRIDOR
CV	CONTROL VALVE
DB	DRY BULB
DBA	A-WEIGHTED DECIBELS
DEFL	DEFLECTION
DEG	DEGREES
DEG F	DEGREES FAHRENHEIT
DIA	DIAMETER
DIM	DIMENSION
DISCH	DISCHARGE
DIV	DIVISION
DN	DOWN
DTL	DETAIL
DWG(S)	DRAWING(S)
EA	EXHAUST AIR OR EACH (PER CONTEXT)
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRIC CONTRACTOR
EER	ENERGY EFFICIENT RATIO
EFF	EFFICIENCY
ELEC	ELECTRIC
ELEV	ELEVATION
EQ	EQUAL
ESP	EXTERNAL STATIC PRESSURE
EWB	ENTERING AIR WET BULB TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXIST, EX	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FIN	FINISHED
FLR	FLOOR
FPC	FIRE PROTECTION CONTRACTOR
FPM	FEET PER MINUTE
FT	FEET
FT-HD	HEAD IN FEET
GA	GAUGE
GAL	GALLONS
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
H	HEIGHT
HS	HEAD
HORIZ	HORIZONTAL
HP	HORSEPOWER
HR	HOUR
HTG	HEATING DUCT (HOT DECK)
HVAC	HEATING, VENTILATION AND AIR CONDITION
HW	HOT WATER
HZ	HERTZ
IE	INVERT ELEVATION
IN	INCH/INCHES
INDIC	INDICATOR
ISP	INTERNAL STATIC PRESSURE
JS	JOIST SPACE
KEC	KITCHEN EQUIPMENT CONTRACTOR
KW	KILOWATTS
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LB(S)	POUND(S)

GENERAL ABBREVIATIONS:

LF	LINEAR FEET
LS	LIGHT SPACE
LVL	LEVEL
LWT	LEAVING WATER TEMPERATURE
MAN	MANUAL
MAX	MAXIMUM
MBH	THOUSANDS BRITISH THERMAL UNITS PER HOUR
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MTL	METAL
NC	NORMALLY CLOSED OR NOISE CRITERIA (PER CONTEXT)
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN OR NUMBER (PER CONTEXT)
NOM	NOMINAL
NPLV	NON-STANDARD PART LOAD VALUE
NPS	NOMINAL PIPE SIZE
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED / CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED / OWNER INSTALLED
OT	OIL TRAP
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PENT	PENTHOUSE
PH	PHASE
PNEU	PNEUMATIC
PPH	POUNDS PER HOUR
PRESS	PRESSURE
PRV	PRESSURE REGULATING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	PSI ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
QTY	QUANTITY
RA	RETURN AIR
RAD	RADIATED
RH	RELATIVE HUMIDITY
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SAN	SANITARY
SEC'N	SECTION
SENS	SENSIBLE
SF	SQUARE FOOT
SH	SENSIBLE HEAT
SHT	SHEET
SOL	SOLENOID
SP	STATIC PRESSURE
SPD	STATIC PRESSURE DIFFERENTIAL
SPT	STATIC PRESSURE TRANSMITTER
SQ	SQUARE
SST	STAINLESS STEEL
STL	STEEL
STM	STEAM
SW	SOFTENED WATER
T&P	TEMPERATURE AND PRESSURE
TC	TEMPERATURE CONTROL
TD	THERMODYNAMIC
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TOF	TOP OF FOOTING
TOS	TOP OF SLAB
TOT	TOTAL
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UC	UNDER CUT DOOR
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
VAC	VACUUM
VB	VACUUM BREAKER
VD	VOLUME DAMPER (MANUAL)
VE	VIBRATION ELIMINATOR OR ISOLATOR
VEL	VELOCITY
VERT	VERTICAL
VOL	VOLUME
VRF	VARIABLE REFRIGERANT FLOW
VTR	VENT THRU ROOF
W	WATT OR WIDTH (PER CONTEXT)
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN
WG	WATER GAUGE
WPD	WATER PRESSURE DIFFERENTIAL
WT	WEIGHT

ROOF PROTECTION NOTES:

1. THE CONTRACTOR SHALL WALK ROOF WITH THE OWNER PRIOR TO START OF CONSTRUCTION AND DOCUMENT CONDITIONS. ANY DAMAGE DISCOVERED SHALL BE DOCUMENTED WITH PHOTOGRAPHS, REPORT SHALL BE SIGNED BY THE OWNER AND THE CONTRACTOR.
2. PROVIDE A LAYER OF 3/4" PLYWOOD OVER ALL WALKING PATHS AND AT ALL LOCATIONS WHERE EQUIPMENT, TOOLS, ETC. ARE LAID DOWN. NO MATERIALS, TOOLS, ETC. SHALL BE LEFT ON THE ROOF OVERNIGHT.

DEMOLITION NOTES:

1. THESE PLANS ARE DIAGRAMMATIC IN NATURE SINCE THEY REFLECT ONLY THE AVAILABLE INFORMATION OBTAINED FROM EXISTING PLANS, SPECIFICATIONS AND FIELD OBSERVATIONS. THE EXACT LOCATION OF EXISTING DUCTWORK, PIPING AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THESE DRAWINGS.
2. ALL ELBOWS, FITTINGS, ETC. IN PIPING AND DUCTWORK ARE NOT NECESSARILY INDICATED TO CLEAR ALL EXISTING AND NEW JOB OBSTRUCTIONS.
3. IF THE CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS, OR IS NOT SURE OF THEIR MEANING, THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S WRITTEN EXPLANATION AND INTERPRETATION, PRIOR TO SUBMITTING THE BID, SINCE THE CONTRACTOR SHALL BE HELD RIGIDLY TO THE INTERPRETATION OF THE ENGINEER.
4. DASHED LINETYPE INDICATES ITEMS TO BE REMOVED.
5. THE OWNER SHALL MAINTAIN ALL SALVAGE RIGHTS OF EQUIPMENT AND MATERIALS REMOVED. ALL EQUIPMENT AND MATERIALS NOT CLAIMED BY THE OWNER SHALL BE REMOVED FROM THE PREMISES BY THE CONTRACTOR.
6. THE CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING AND PATCHING OF FLOOR(S), WALL(S), ROOF AND/OR CEILING REMOVAL AND REPLACEMENT IN AREAS WHERE THE ONLY WORK IS MECHANICAL.
7. THE CONTRACTOR SHALL USE CAUTION WHEN REMOVING DUCTS, PIPING, EQUIPMENT, ETC. TO AVOID DAMAGE TO ELECTRICAL WIRING, CONTROL WIRING, PIPING, ETC. THAT IS TO REMAIN. NOTIFY THE GC AND THE EC IF WIRING IS FOUND ATTACHED TO DUCTWORK.
8. WHEREVER EXISTING EQUIPMENT, PIPING, DUCTS, ETC. ARE TO BE REMOVED, SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, HANGERS, FOUNDATIONS, ETC. UNLESS NOTED OTHERWISE AFTER REMOVAL; FLOORS, WALLS AND CEILINGS SHALL BE PATCHED AND FINISHED TO MATCH ADJOINING AREAS.
9. WHERE ITEMS ARE REMOVED, UTILITIES AND THE AREA FROM WHICH THE ITEMS HAVE BEEN REMOVED SHALL BE LEFT IN SUCH A MANNER THAT IS SAFE FOR BOTH PEOPLE AND PROPERTY ON A DAILY BASIS.
10. WHERE POWERED AND/OR CONTROLLED EQUIPMENT OR ACCESSORIES ARE REMOVED AND WIRING IS NOT TO BE REUSED, REMOVE ALL WIRING BACK TO PANEL UNLESS NOTED OTHERWISE. MODIFY CONTROLS SYSTEM WHERE APPLICABLE TO REMOVE DEMOLISHED ITEM.

GENERAL NOTES:

1. THESE PLANS ARE DIAGRAMMATIC IN NATURE SINCE THEY REFLECT ONLY THE AVAILABLE INFORMATION OBTAINED FROM EXISTING PLANS, SPECIFICATIONS AND FIELD OBSERVATIONS. THE EXACT LOCATION OF EXISTING DUCTWORK, PIPING AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THESE DRAWINGS. THE CONTRACTOR SHALL BE PREPARED TO MAKE ALTERATIONS TO NEW AND/OR EXISTING SERVICES TO FIT ACTUAL JOB CONDITIONS.
2. ALL ELBOWS, FITTINGS, ETC. IN PIPING AND DUCTWORK ARE NOT NECESSARILY INDICATED TO CLEAR ALL EXISTING AND NEW JOB OBSTRUCTIONS.
3. BECAUSE OF THE LIMITED SPACE AVAILABLE TO INSTALL ALL OF THE MECHANICAL WORK, COORDINATION BETWEEN THE VARIOUS TRADES IS OF THE UTMOST IMPORTANCE.
4. IF THE CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS, OR IS NOT SURE OF THEIR MEANING, THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S WRITTEN EXPLANATION AND INTERPRETATION, PRIOR TO SUBMITTING THE BID, SINCE THE CONTRACTOR SHALL BE HELD RIGIDLY TO THE INTERPRETATION OF THE ENGINEER.
5. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR ALL CEILING AIR DEVICE LOCATIONS.
6. REFER TO THE ARCHITECTURAL ELEVATION DRAWINGS FOR LOCATION OF WALL MOUNTED MECHANICAL ITEMS.
7. ROUND AND/OR RECTANGULAR DUCT RUN-OUTS TO AIR DEVICES, SHALL BE SIZED PER THE AIR DEVICE SCHEDULE.
8. DUCT SIZES SHOWN ARE FREE AREA. IF DUCT LINER IS USED, INCREASE THE SHEETMETAL SIZE TO MAINTAIN THE SAME FREE AREA SHOWN ON THE PLANS.
9. LOCATE ALL DUCT BALANCING DAMPERS ABOVE ACCESSIBLE CEILINGS, OR PROVIDE ACCESS DOORS. MINIMUM ACCESS DOOR SIZE SHALL BE 18x18 UNLESS OTHERWISE APPROVED BY ENGINEER.
10. PROVIDE VOLUME DAMPERS IN ACCESSIBLE LOCATION IN BRANCH DUCTWORK FOR ALL SUPPLY, RETURN, AND EXHAUST AIR DEVICES WHETHER SHOWN ON THE DRAWINGS OR NOT. REFER TO THE AIR DEVICE SCHEDULE FOR DEVICES WITH BUILT IN DAMPERS.
11. BLANK-OFF AREAS OF LOUVERS NOT USED WITH 20 GAGE SHEET METAL DOUBLE WALL BLANK-OFF PANEL INSULATED WITH 2" RIGID FIBERBOARD, SEAL AIR TIGHT.
12. INSTALL RIGID 1"x1" GALVANIZED STEEL WIRE MESH AT ALL OPEN ENDED DUCTS IN OCCUPIED AREAS OR EXPOSED TO VIEW.
13. COORDINATE SCHEDULE FOR HOOKUPS TO EXISTING SYSTEM AND REMOVAL OR RELOCATION OF EQUIPMENT WITH THE OWNER. PERFORM THIS WORK AT SUCH TIMES TO ENSURE THAT PERIODS OF SHUTDOWN WILL BE ACCEPTABLE TO THE OWNER.
14. VERIFY EXACT LOCATION OF CONNECTION POINTS (NEW TO EXISTING) IN FIELD PRIOR TO CONSTRUCTION.
15. COORDINATE INSTALLATION OF NEW DUCTWORK AND PIPING WITH EXISTING BUILDING STRUCTURE, DUCTWORK, PIPING, ELECTRICAL CONDUIT, LIGHTING, ETC.
16. TAKE DOWN AND REINSTALL EXISTING CEILINGS IN ALL AREAS WHERE MECHANICAL WORK IS INDICATED AND EXISTING CEILINGS REMAIN. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN DRAWINGS FOR LOCATIONS WHERE EXISTING CEILINGS REMAIN. REPLACE CEILING TILES DAMAGED DURING WORK.
17. INSTALL ALL FLOOR MOUNTED HVAC EQUIPMENT, INCLUDING AHUS, CUS, ETC. ON 4" MINIMUM HEIGHT CONCRETE HOUSEKEEPING PAD. EXTEND PAD MINIMUM 4" BEYOND EQUIPMENT AT ALL SIDES. REFER TO STRUCTURAL PLANS FOR LOCATION.
18. PATCH ALL WALLS, FLOORS, CEILINGS AND ROOFS TO MATCH EXISTING IN ALL CASES WHERE EXISTING WALLS, FLOORS, CEILINGS AND ROOFS REMAIN AND HVAC DEMOLITION IS INDICATED.
19. PROVIDE POSITIVE DRAINAGE OF ALL PLENUMS CONNECTED TO OUTSIDE LOUVERS. WATERPROOF BOTTOM OF PLENUMS. SLOPE PLENUM BOTTOM TO LOUVER OR PROVIDE DRAIN POINTS WITH DISCHARGE TO DRAIN.
20. REFRIGERANT PIPING TO BE SIZED BY THE EQUIPMENT MANUFACTURER.
21. ROUTE CONDENSATE PIPING FROM ALL EQUIPMENT TO NEAREST FLOOR DRAIN UNLESS NOTED OTHERWISE ON THE FLOOR PLANS. DRAINS SHALL BE DWV COPPER IN ALL RETURN AIR PLENUMS AND WHERE HIDDEN IN INACCESSIBLE WALLS, FLOORS, CEILINGS, ETC. UNLESS SPECIFICALLY NOTED OTHERWISE.
22. DETAILS SHOWN IN THESE DRAWINGS APPLY TO INSTALLATIONS INDICATED REGARDLESS AS TO IF THEY ARE SPECIFICALLY REFERENCED ELSE WHERE IN THE DRAWING SET. ANY QUESTIONS ON THEIR APPLICABILITY SHOULD BE SENT TO THE ENGINEER PRIOR TO BIDDING.

MECHANICAL SYSTEM COMPONENTS EARTHQUAKE LOAD RESISTANCE

OCCUPANCY CATEGORY (IV) — **SEISMIC DESIGN CATEGORY (D)**

LISTING OF EQUIPMENT & SYSTEM COMPONENTS	ANCHORAGE TO FLOORS, ROOF, ETC.		SWAY BRACING		LOCATION OF PROFESSIONALLY-SEALED ANCHORAGE AND SWAY BRACING DETAILS		COMMENTS
					ON CONSTRUCTION DOCUMENTS	SUBSEQUENT SUBMITTAL SEPARATE PERMIT AND PLANS	
	NOT PROVIDED	PROVIDED	NOT PROVIDED	PROVIDED	DRAWING NO. OR SPEC. SECTION		
HAZARDOUS EQUIPMENT AND SYSTEM COMPONENTS Ip=1.5							
GAS PIPING 1" OR LESS (INTERIOR & EXTERIOR)	X		X			X	
GAS PIPING > 1" OR NON-DUCTILE (INTERIOR)		X		X		X	
EXTERIOR NATURAL GAS PIPING > 1"		X		X		X	
OTHER EQUIPMENT & SYSTEM COMPONENTS NEEDED FOR CONTINUED OPERATION OF OCCUPANCY CATEGORY IV FACILITIES OR WHOSE FAILURE COULD IMPAIR THEIR CONTINUED OPERATION							
OTHER GENERAL EQUIPMENT & SYSTEM COMPONENTS Ip=1.0							
ROOFTOP: RTU, EF, MUA, AHU, CU > 400 LBS		X		X		X	
ROOFTOP: RTU, EF, MUA, AHU, CU <= 400 LBS	X		X				
SUSPENDED FROM STRUCTURE: EF, FCU, VAV > 20 LBS		X		X		X	
SUSPENDED FROM STRUCTURE: EF, FCU, VAV <= 20 LBS	X		X				
WALL MOUNTED: UH, FCU, ETC.	X		X				
DUCTWORK		X		X			
PIPING	X		X				
DIFFUSER, REGISTERS, & GRILLES	X		X				NOTE 7
FIRE DAMPERS, LOUVERS	X		X				NOTE 7

EXPLANATORY NOTES:
1. PLANS SIGNED AND SEALED BY A MISSOURI PROFESSIONAL ENGINEER ALONG WITH A SEPARATE PERMIT APPLICATION NEED TO BE SUBMITTED TO THE AHJ A MINIMUM OF TWO WEEKS PRIOR TO THE PLANNED INSTALLATION TO ALLOW FOR PLAN REVIEW AND DISTRIBUTION TO THE INSPECTOR. ADDITIONAL TIME MAY BE NEEDED IF SUCH SUBMISSIONS ARE DEFICIENT.
2. SWAY BRACING REQUIRED FOR ITEMS SUSPENDED FROM STRUCTURE, UNLESS EXEMPT.
3. ANCHORAGE & BRACING CONTRACTOR SHALL REFER TO SPECIFICATIONS AS WELL AS TO ST. LOUIS COUNTY RULES & REGULATIONS ON SEISMIC ANCHORAGE & SWAY BRACING (DATED 7/01/2020).
4. ALL SEISMIC SHOP DRAWINGS SHALL BE REVIEWED BY THE ENGINEER OF RECORD PRIOR TO SUBMITTAL TO THE CODE REVIEWER.
5. CONTRACTOR SHALL ADHERE TO REQUIREMENTS FOR EXEMPTION, WHERE NOTED, OR PROVIDE SEISMIC BRACING DESIGNED BY A QUALIFIED ENGINEER LICENSED IN THE PROJECT'S STATE.

EXEMPTION NOTES:
1. SEISMIC DESIGN CATEGORY B - TABLE 4.4 GENERAL EXEMPTION
2. SEISMIC DESIGN CATEGORY C, THE COMPONENT IMPORTANCE FACTOR Ip=1.0, TABLE 4.4 GENERAL EXEMPTION
3. SEISMIC DESIGN CATEGORY D, E OR F, AND THE COMPONENT IMPORTANCE FACTOR Ip=1.0, AND COMPONENTS HAVE APPROVED FLEXIBLE CONNECTIONS AND LESS THAN 3 FEET IN LENGTH AND ARE
   a. EITHER MOUNTED 4 FEET OR LESS ABOVE THE FLOOR LEVEL AND WEIGH 400 POUNDS OR LESS. TABLE 4.4 EXCEPTION 1a.
   b. WEIGH 20 LBS OR LESS. OR IN THE CASE OF A DISTRIBUTED SYSTEM, 5 LB/FT OR LESS. TABLE 4.4 EXCEPTION 1b.
4. EXEMPT: TABLE 4.4, EXCEPTION FOR DUCTWORK "-" - DUCTWORK HAS A CROSS-SECTION AREA OF LESS THAN 6 FT. SQ.
5A. EXEMPT: TABLE 4.4, EXCEPTION FOR HIGH-OR-LIMITED-DEFORMABILITY MATERIALS: PIPING 4.A - NOMINAL PIPE SIZE OF 1 IN. OR LESS, SEISMIC DESIGN CATEGORY D, E OR F, AND Ip>1.0.
5B. EXEMPT: TABLE 4.4, EXCEPTION FOR PIPING 4.B - NOMINAL PIPE SIZE OF 2 IN. OR LESS, SEISMIC DESIGN CATEGORY C AND Ip>1.0.
5C. EXEMPT: TABLE 4.4, EXCEPTION FOR PIPING 4.C - NOMINAL PIPE SIZE OF 3 IN. OR LESS, SEISMIC DESIGN CATEGORY D, E OR F, AND Ip=1.0.
6. ALL TYPES OF EXTERIOR GAS PIPING INSTALLED ON ROOFS IN SEISMIC DESIGN CATEGORY C, D, E OR , WHEN SUCH PIPING WILL SUPPLY GAS AT 2 PSI OR LESS AND IS PROTECTED BY ONE OF THE TWO FOLLOWING METHODS:
   a. AN APPROVED SEISMIC SHUT-OFF VALVE IS INSTALLED WITHIN 5 FEET OF THE BEGINNING OF THE RUN OF GAS PIPING ON THE ROOF. OR OTHER APPROVED LOCATION TABLE 4.4 EXCEPTION 5a. OR
   b. APPROVED FLEXIBLE PIPING NO LESS THAN 3 FEET IN LENGTH IS INSTALLED WITHIN 5 FEET OF THE BEGINNING OF THE RUN OF GAS PIPE ON THE ROOF AND AT THE CONNECTION TO THE EQUIPMENT SERVED BY THE PIPE AND AT INTERVALS ALONG THE RUN OF NO MORE THAN 42 FEET. TABLE 4.4 EXCEPTION 5b
7. COMPONENT SHALL BE POSITIVELY ATTACHED WITH MECHANICAL FASTENERS.

MECHANICAL LEGEND

NOT ALL SYMBOLS AND ABBREVIATIONS ARE USED

SCALE: 3" = 1'-0" / 1" / 0
SCALE: 1 1/2" = 1'-0" / 1" / 0
SCALE: 1" = 1'-0" / 1" / 0
SCALE: 3/4" = 1'-0" / 1" / 0
SCALE: 1/2" = 1'-0" / 1" / 0
SCALE: 3/8" = 1'-0" / 4" / 2" / 0
SCALE: 1/4" = 1'-0" / 4" / 2" / 0
SCALE: 1/8" = 1'-0" / 8" / 4" / 0
SCALE: 3/32" = 1'-0" / 16" / 8" / 0
SCALE: 1/16" = 1'-0" / 16" / 8" / 0

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MECH SYMBOLS AND ABBREVIATIONS

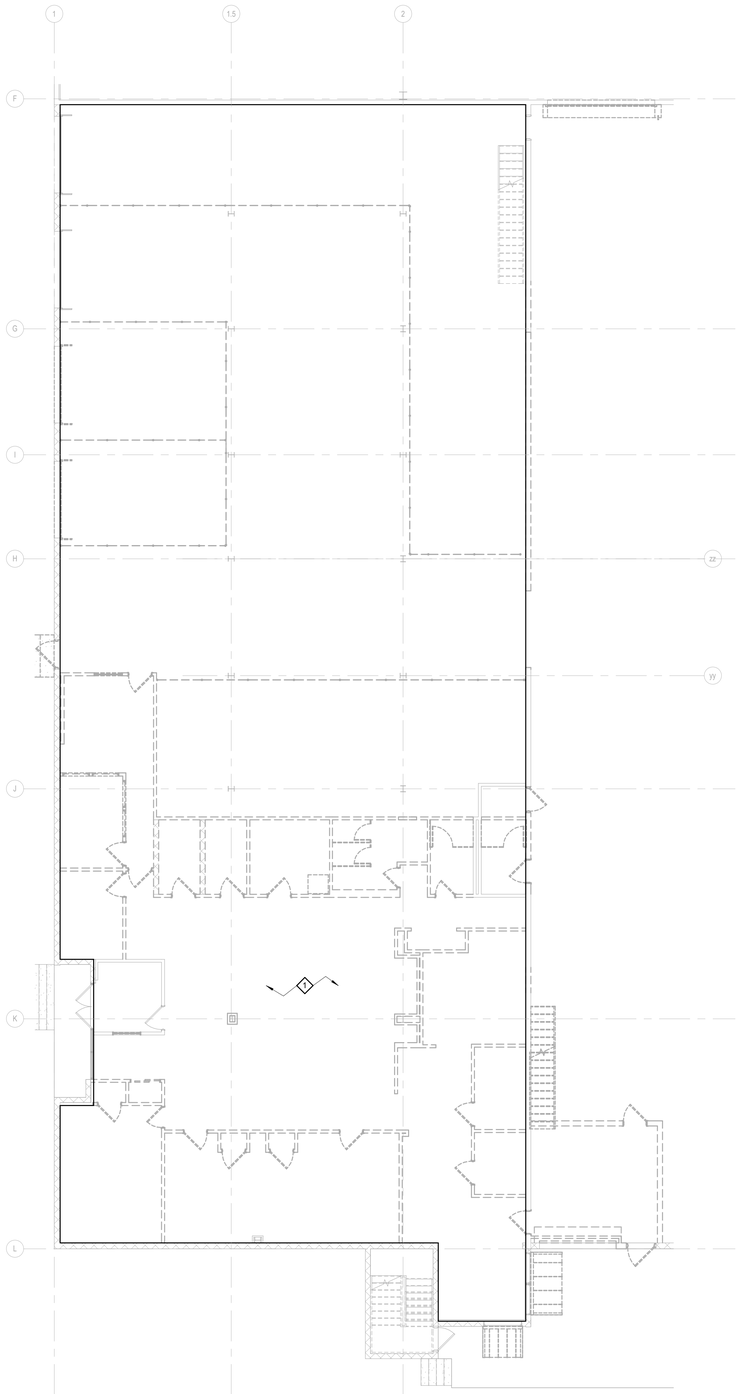
STATE OF MISSOURI — RICHARD W. HALTEMAN — NUMBER PE-25112 — PROFESSIONAL ENGINEER
5/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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M101 DEMO KEYED NOTES

1 DEMOLISH ALL MECHANICAL EQUIPMENT, DUCTWORK, AIR DEVICES, DAMPERS, CONTROLS, GAS PIPING, ETC.



1 PARTIAL MECHANICAL DEMO PLAN - FIRST FLOOR SOUTH WAREHOUSE

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

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MECH DEMO PLAN - S WAREHOUSE L01

Project No.
24059

Sheet No.
M101

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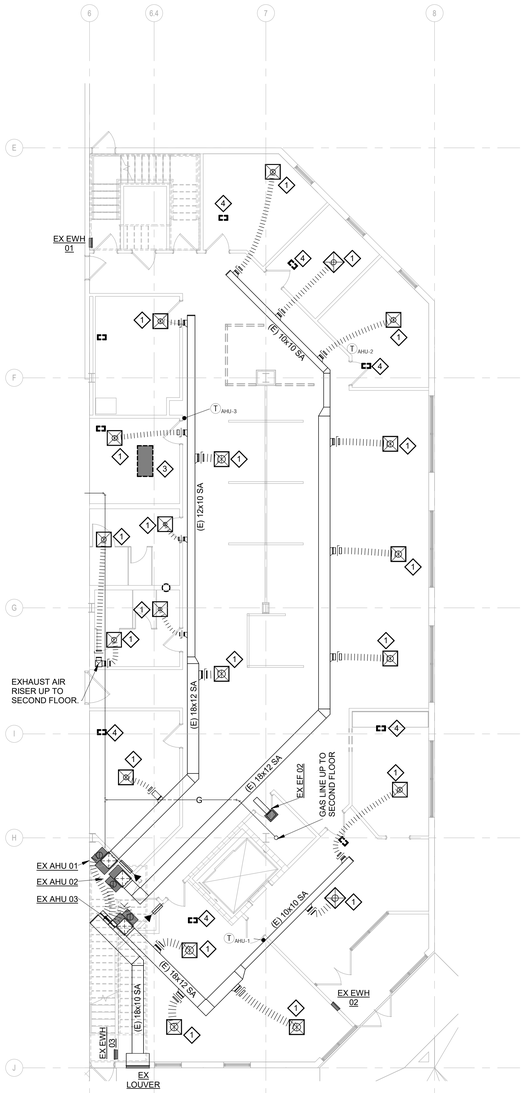
STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

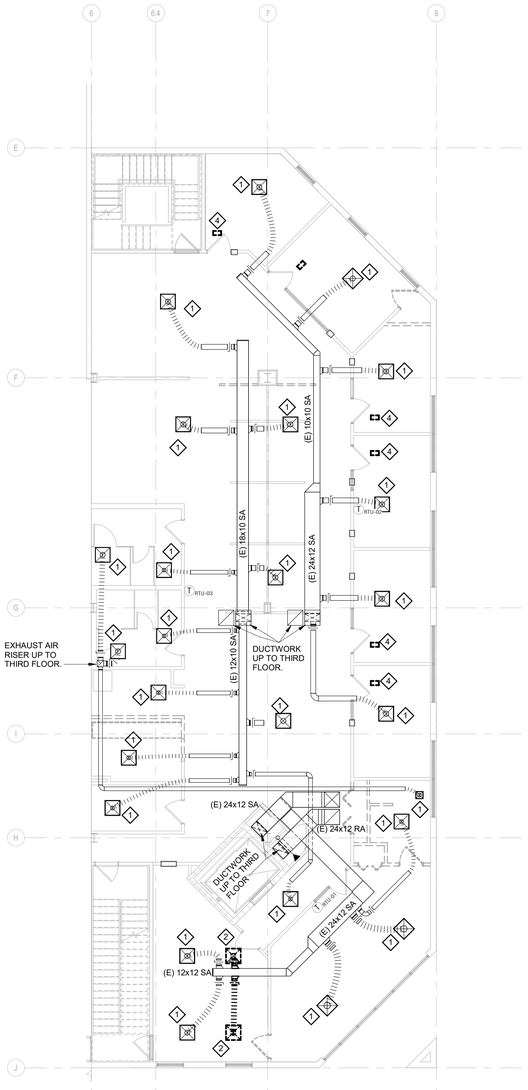
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M102 DEMO KEYED NOTES

1. REMOVE AIR DEVICE FROM EXISTING CEILING, CLEAN AND PREPARE FOR RELOCATION AND REBALANCING.
2. REMOVE EXISTING AIR DEVICE, ASSOCIATED FLEXIBLE DUCTWORK AND BRANCH DUCT BACK TO MAIN. PATCH MAIN AIR TIGHT, PATCH INSULATION TO MATCH EXISTING.
3. DEMOLISH EXISTING SPLIT SYSTEM AND RELATED PIPING.
4. DEMOLISH EXISTING RETURN AIR DEVICE. TYPICAL





1 PARTIAL MECHANICAL DEMO PLAN - FIRST FLOOR OFFICE

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

2 PARTIAL MECHANICAL DEMO PLAN - SECOND FLOOR OFFICE

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

SCALE: 3" = 1'-0" 0 3" 6" 1'

SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2'

SCALE: 1" = 1'-0" 0 6" 1' 2'

SCALE: 3/4" = 1'-0" 0 1' 3'

SCALE: 1/2" = 1'-0" 0 1' 2' 4'

SCALE: 3/8" = 1'-0" 0 2' 4' 8'

SCALE: 1/4" = 1'-0" 0 2' 4' 8'

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

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MECH DEMO PLAN - OFFICE L01 & L02

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
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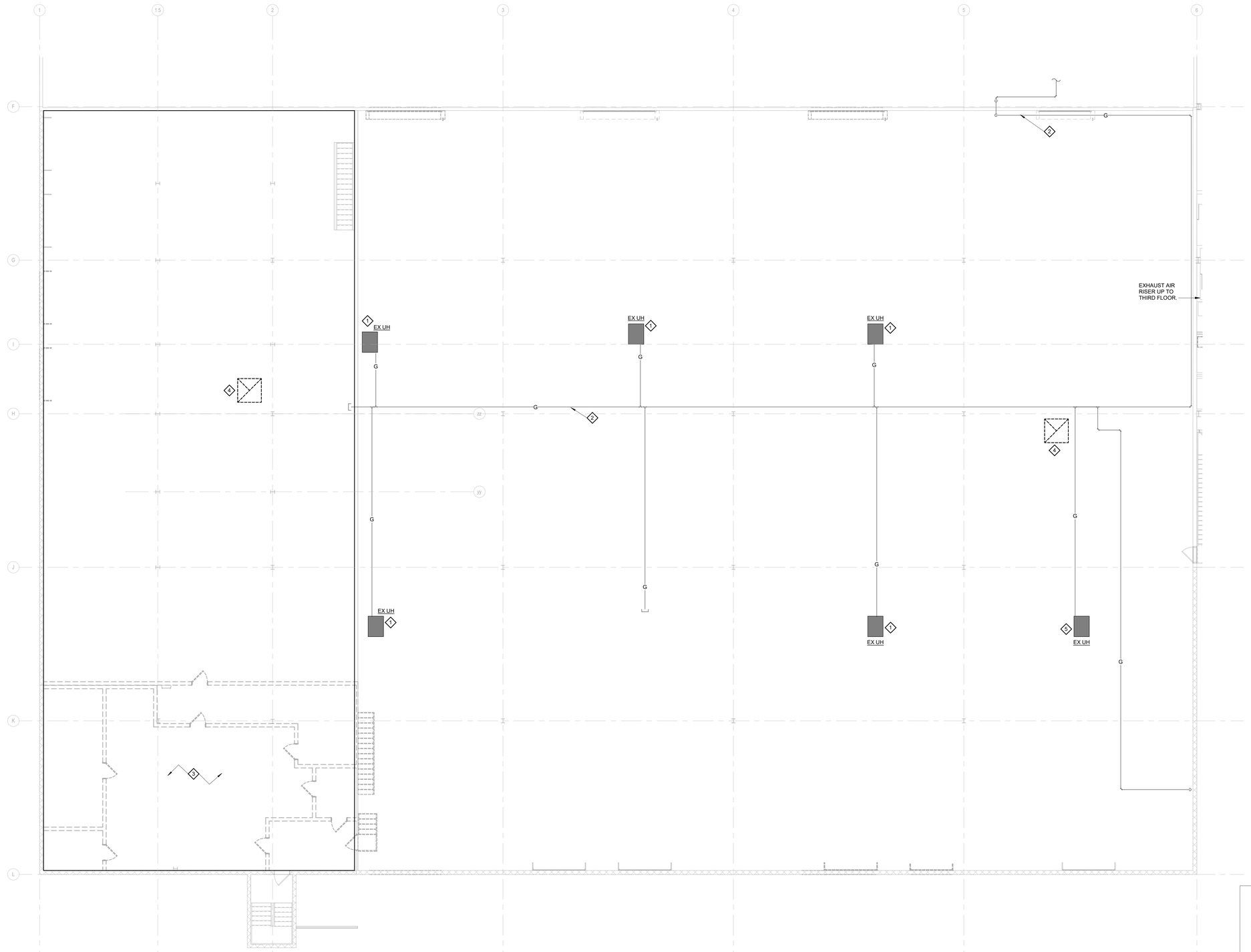
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Sheet No.
M102

Date
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M103 DEMO KEYED NOTES

1. EXISTING UNIT HEATER AND ASSOCIATED GAS PIPING AND CONTROLS TO REMAIN.
2. EXISTING NATURAL GAS PIPING TO REMAIN.
3. DEMOLISH ALL MECHANICAL EQUIPMENT, DUCTWORK, AIR DEVICES, DAMPERS, CONTROLS, GAS PIPING, ETC.
4. DEMOLISH EXISTING DUCTWORK UP THROUGH ROOF TO ROOF CAP.
5. REMOVE EXISTING UNIT HEATER AND PREPARE FOR RELOCATION.



2 PARTIAL MECHANICAL DEMO PLAN - SECOND FLOOR SOUTH WAREHOUSE

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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MECH DEMO PLAN - S WAREHOUSE MEZZ

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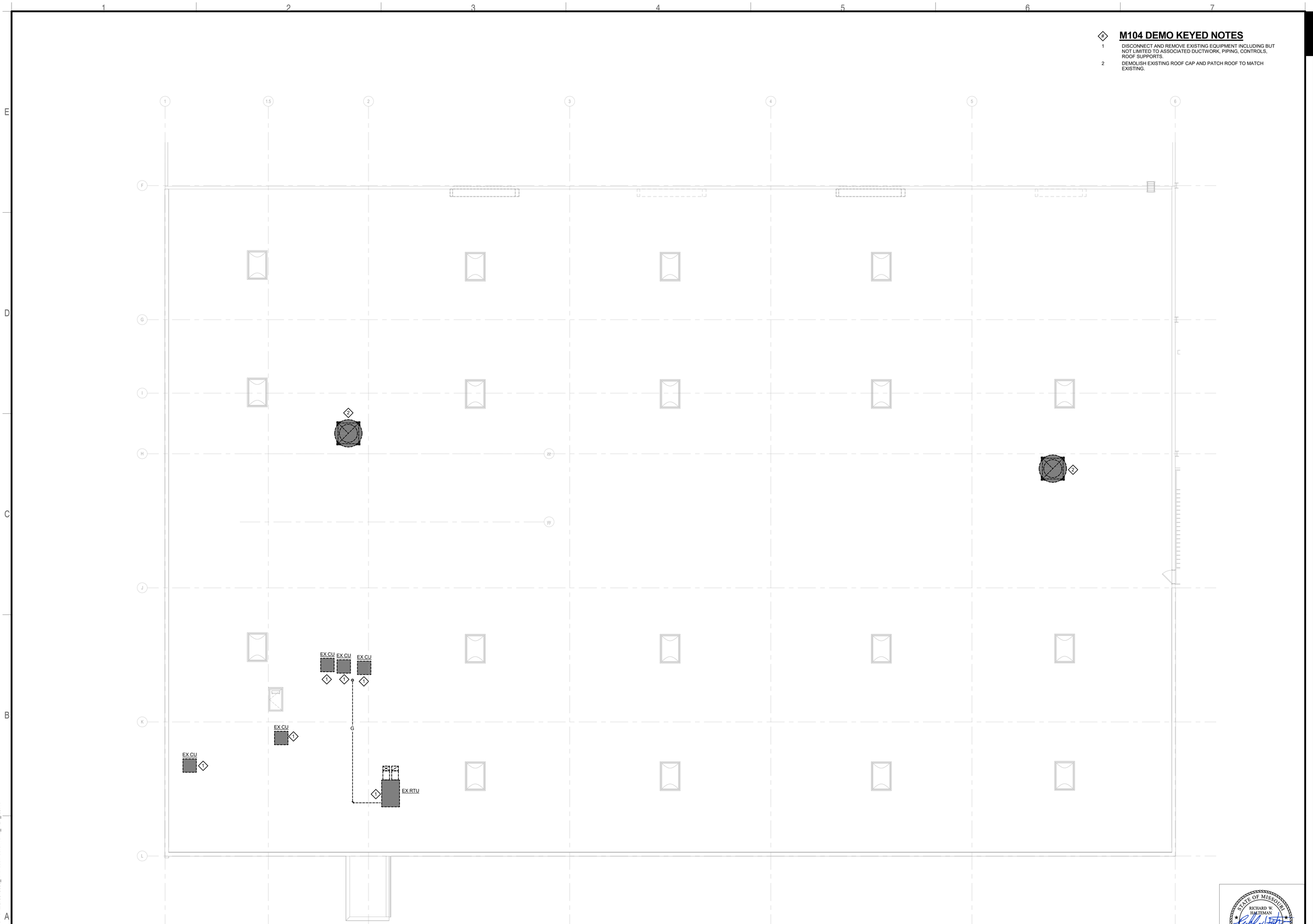
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M104 DEMO KEYED NOTES

1. DISCONNECT AND REMOVE EXISTING EQUIPMENT INCLUDING BUT NOT LIMITED TO ASSOCIATED DUCTWORK, PIPING, CONTROLS, ROOF SUPPORTS.
2. DEMOLISH EXISTING ROOF CAP AND PATCH ROOF TO MATCH EXISTING.



1 SOUTH WAREHOUSE MECHANICAL ROOF DEMO PLAN
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

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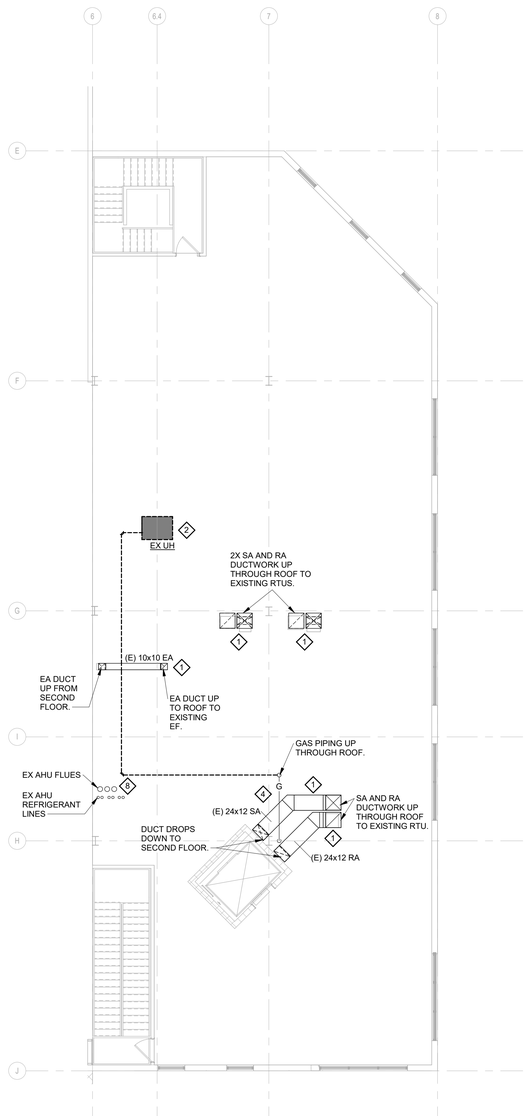
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NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
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Expiration Date: 12/31/2026

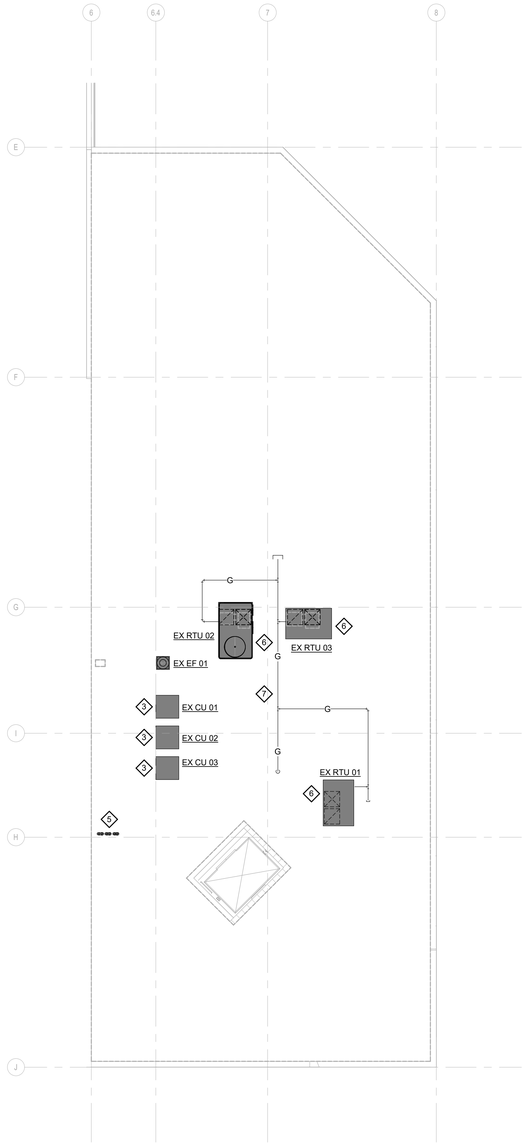
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M105 DEMO KEYED NOTES

1. EXISTING DUCTWORK TO REMAIN.
2. DEMOLISH EXISTING UNIT HEATER, GAS PIPING AND CONTROLS.
3. EXISTING CONDENSING UNIT TO REMAIN.
4. EXISTING GAS PIPING UP TO ROOF TO REMAIN. CAP DEMOED GAS LINE TO UNIT HEATER.
5. EXISTING AHU FLUES TO REMAIN.
6. EXISTING RTU AND RELATED GAS PIPING, CONTROLS, ETC TO REMAIN.
7. EXISTING GAS PIPING TO REMAIN.
8. RELOCATE AHU REFRIGERANT LINES AND FLUES TO RUN ALONG WALL AS NEEDED FOR NEW WALL CONSTRUCTION.



1 3RD FLOOR MECHANICAL DEMO
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"



2 ROOF MECHANICAL DEMO PLAN
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"

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MECH DEMO PLAN - OFFICE L03 & ROOF

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PROFESSIONAL ENGINEER
3/30/26

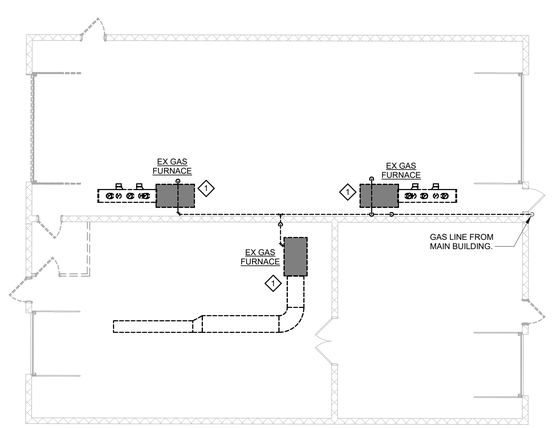
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Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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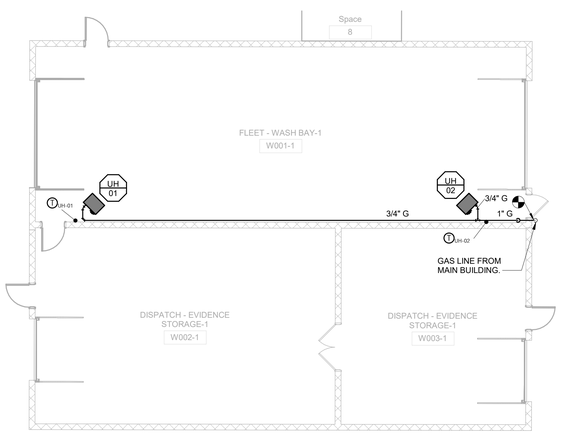
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M106 DEMO KEYED NOTES

1 DEMOLISH EXISTING MECHANICAL EQUIPMENT, GAS PIPING, DUCTWORK, CONTROLS, ETC.



1 PARTIAL MECHANICAL DEMO PLAN - WASH BAY
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



2 PARTIAL MECHANICAL NEW WORK PLAN - WASH BAY
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

MECH PLAN - AUXILIARY BUILDING

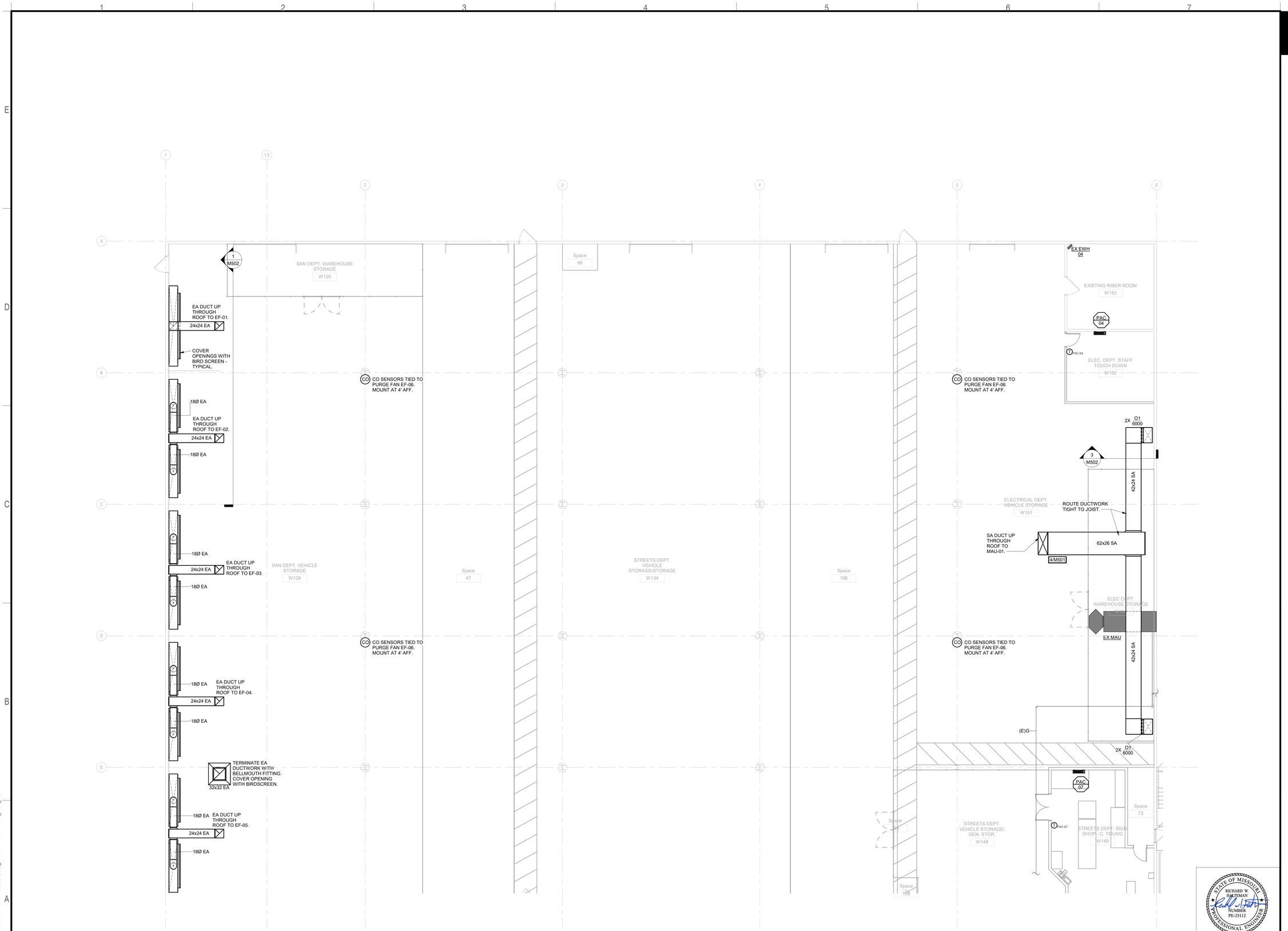
STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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1 PARTIAL MECHANICAL PLAN - FIRST FLOOR NORTH WAREHOUSE

1/8" = 1'-0"

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

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MECH PLAN - N WAREHOUSE L01

Project No.
24059

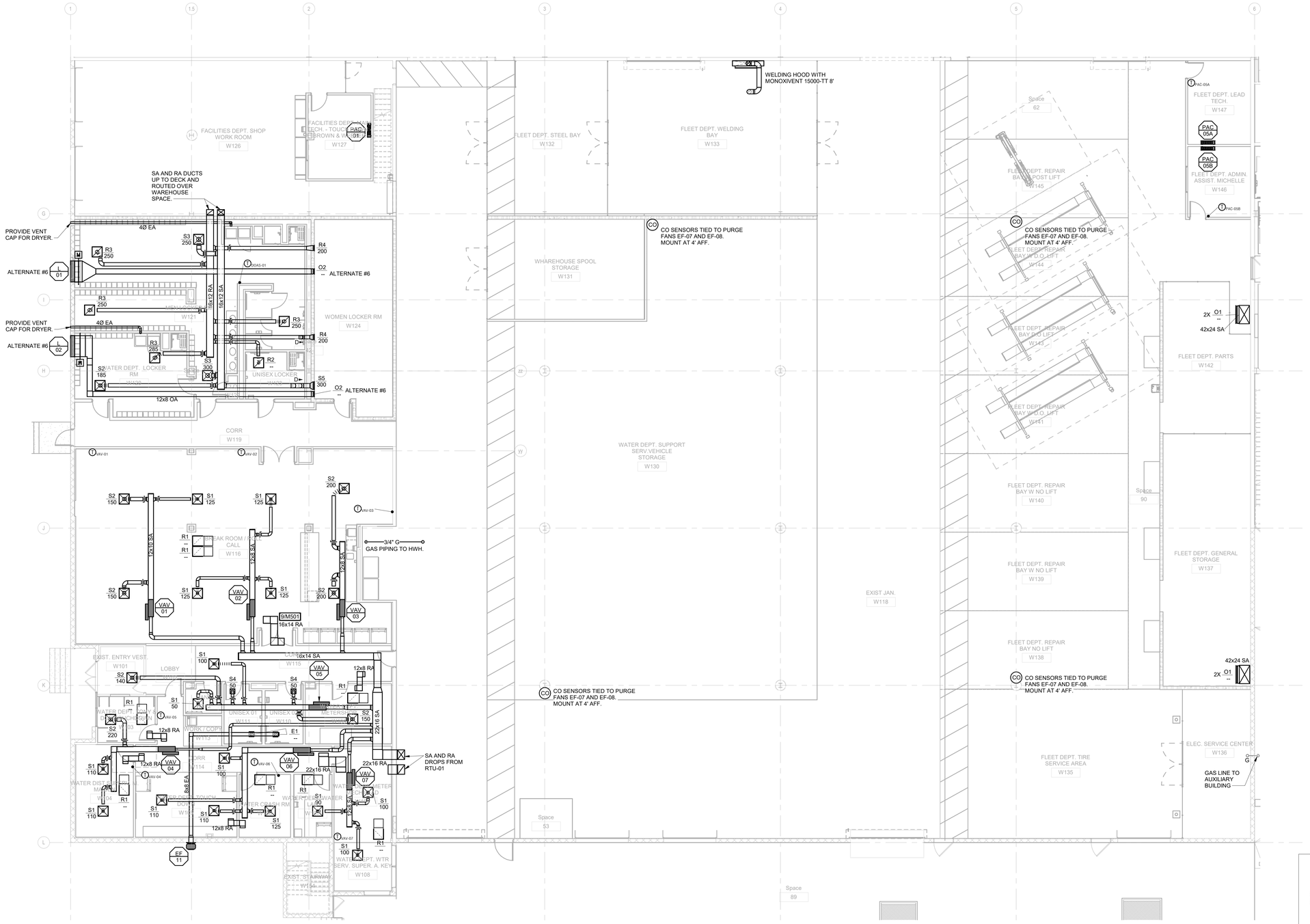
Sheet No.
M201

Date
03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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1 PARTIAL MECHANICAL PLAN - FIRST FLOOR SOUTH WAREHOUSE

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

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MO Architect License No: A-6661
Expires: 12/31/2026

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Proposed:
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MECH PLAN - S WAREHOUSE L01

Project No. 24059

Sheet No. M202

Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

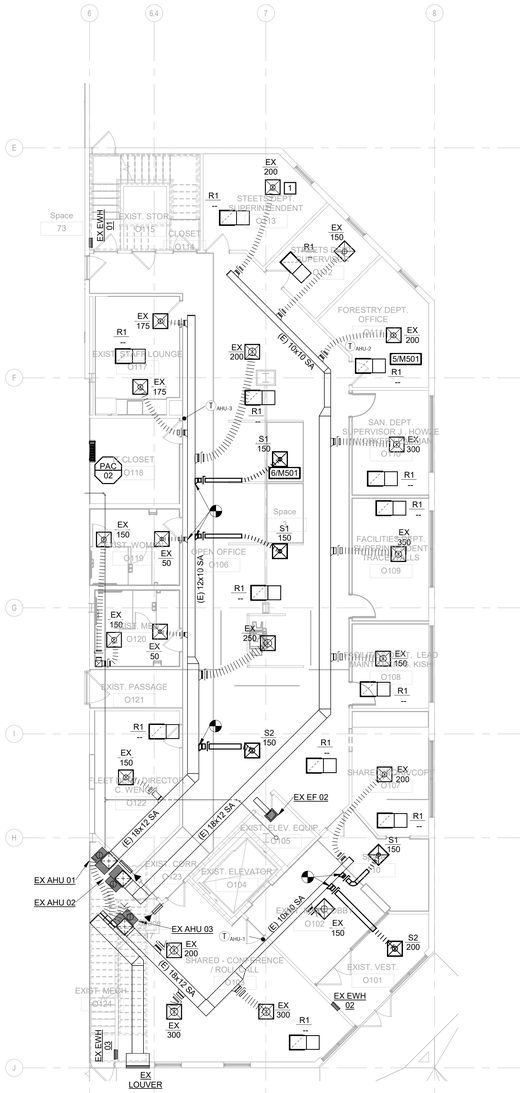
Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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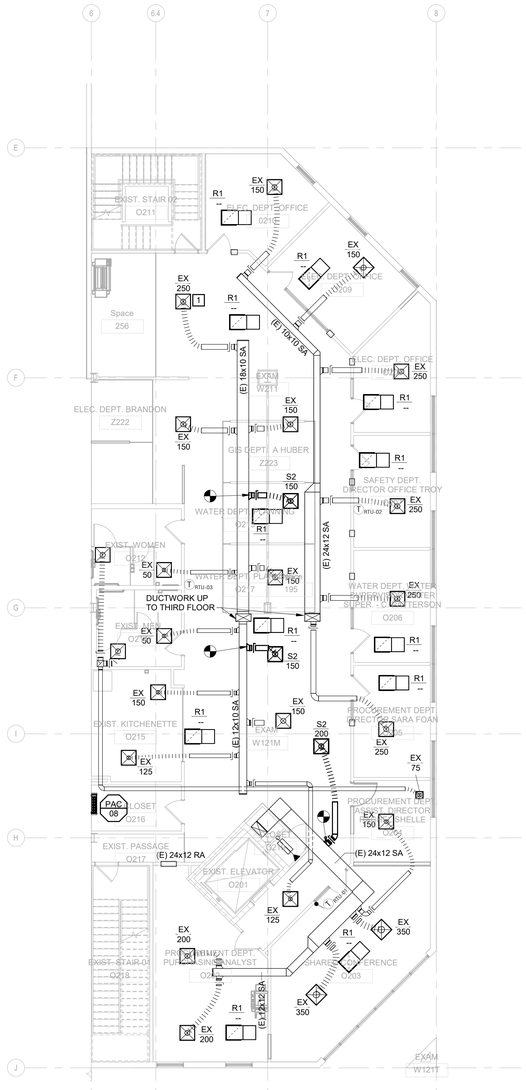
M203 KEYED NOTES

1 INSTALL EXISTING AIR DEVICE INTO EXISTING CEILING AND RECONNECT TO FLEXIBLE DUCTWORK. REPLACE AS INDICATED. ADD NEW FLEX DUCT AS NEEDED TO REACH NEW AIR DEVICE LOCATION. TYPICAL.



1 PARTIAL MECHANICAL PLAN - FIRST FLOOR OFFICE

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



2 PARTIAL MECHANICAL PLAN - SECOND FLOOR OFFICE

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

Roy A. Mangan
MO Architect License No: A-6661
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545 LEFFINGWELL AVE.

No.	Date	Revision
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MECH PLAN - OFFICE L01 & L02

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

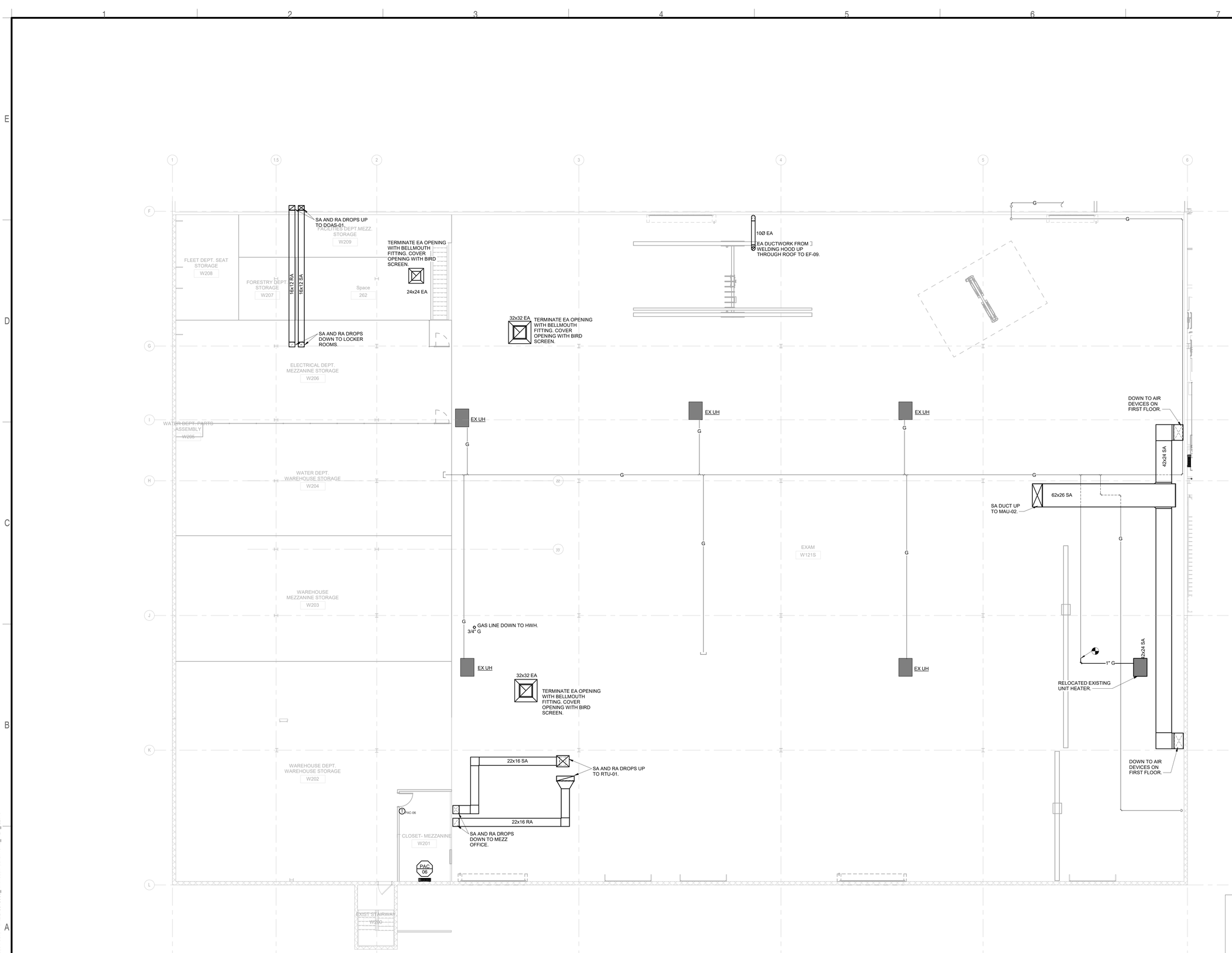
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Sheet No. M203

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2 PARTIAL MECHANICAL PLAN - SECOND FLOOR SOUTH WAREHOUSE

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

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MECH PLAN - S WAREHOUSE L02

Project No.
24059

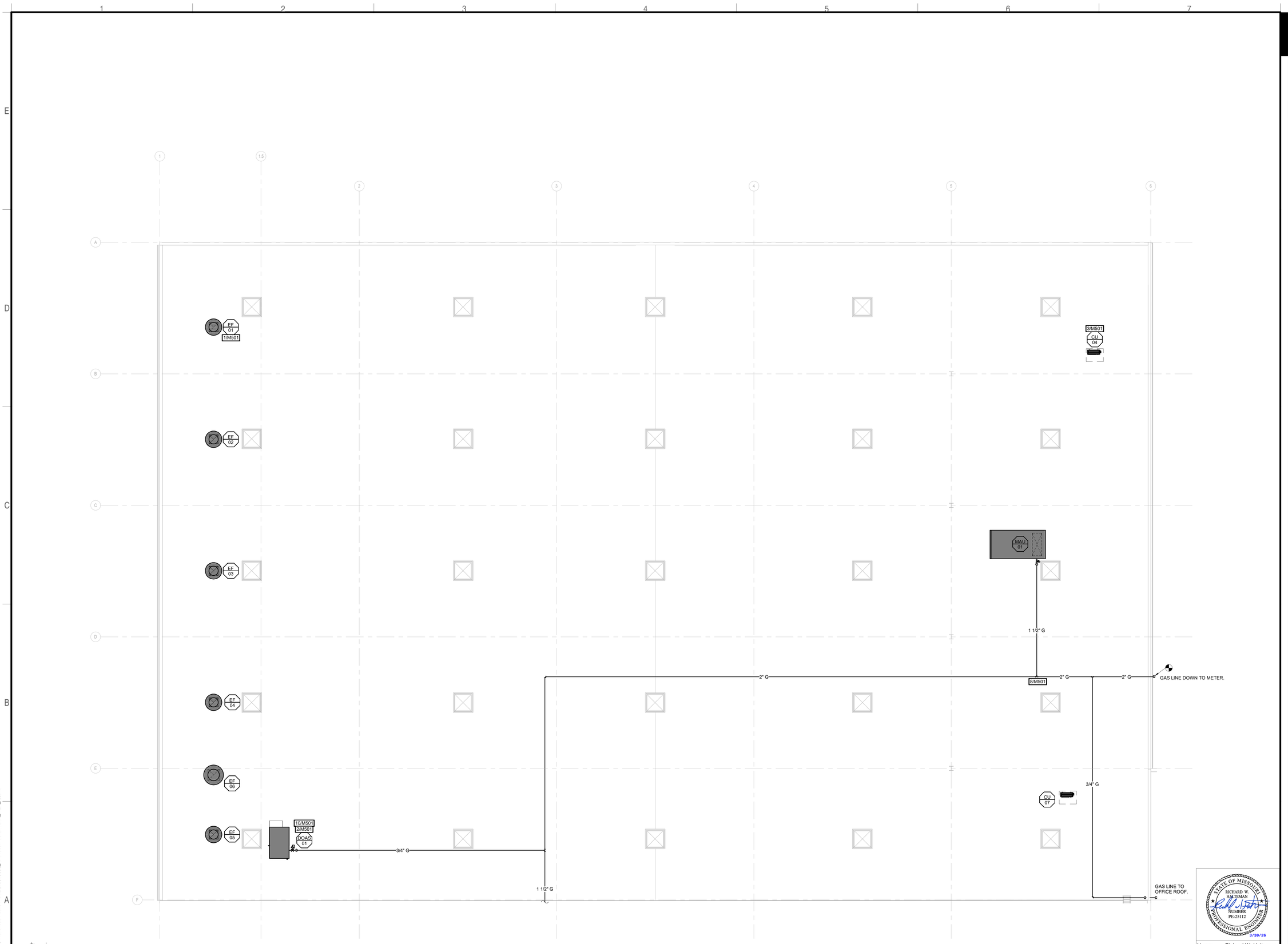
Sheet No.
M204

Date
03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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1 NORTH WAREHOUSE MECHANICAL ROOF PLAN

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

SCALE: 3" = 1'-0" 0 3" 6" 1'

SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2'

SCALE: 1" = 1'-0" 0 6" 1' 2'

SCALE: 3/4" = 1'-0" 0 1' 2' 3'

SCALE: 1/2" = 1'-0" 0 1' 2' 4'

SCALE: 3/8" = 1'-0" 0 2' 4' 6'

SCALE: 1/4" = 1'-0" 0 2' 4' 8'

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

SCALE: 3/32" = 1'-0" 0 8' 16' 24'

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

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RENOVATION
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MECH PLAN - N WAREHOUSE ROOF

Project No.
24059

Sheet No.
M205

Date
03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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SCALE: 1/16" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 3" = 1'-0"

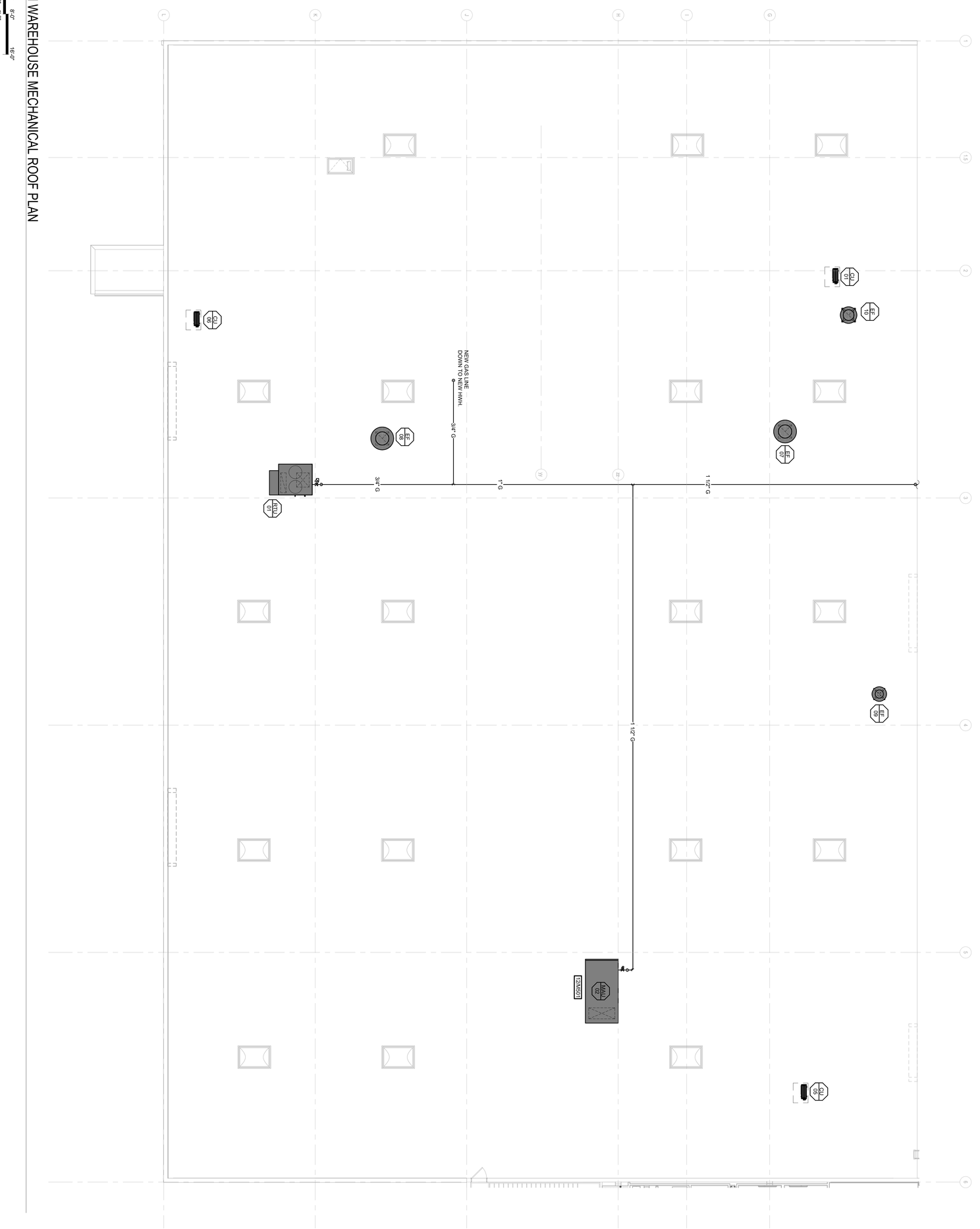
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1 SOUTH WAREHOUSE MECHANICAL ROOF PLAN

1/8" = 1'-0"

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



Name: Richard W. Halleman
Discipline: Professional Engineer
License No: PE-2012013012
Expiration Date: 12/31/2026

RICHARD W. HALLEMAN NUMBER PE-2012013012

STATE OF MISSOURI PROFESSIONAL ENGINEER

3/26/26

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Date: 03/27/2026

Sheet No.: M206

Project No.: 24059

MECH PLAN - S WAREHOUSE ROOF

Proposed:

KIRKWOOD PUBLIC WORKS RENOVATION

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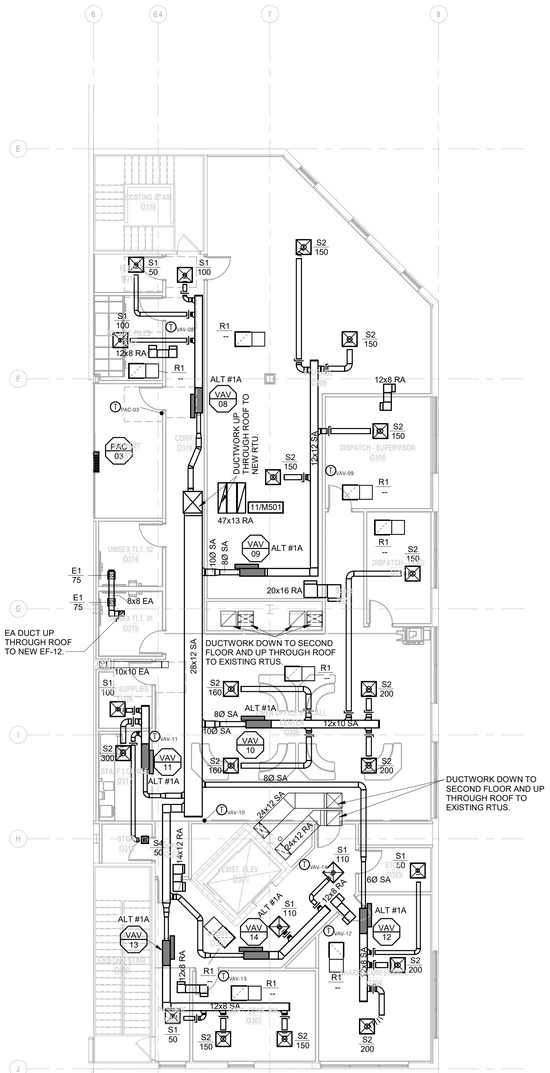
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Roy A. Mangin
MO Architect License No: A-6661
Expires: 12/31/2026

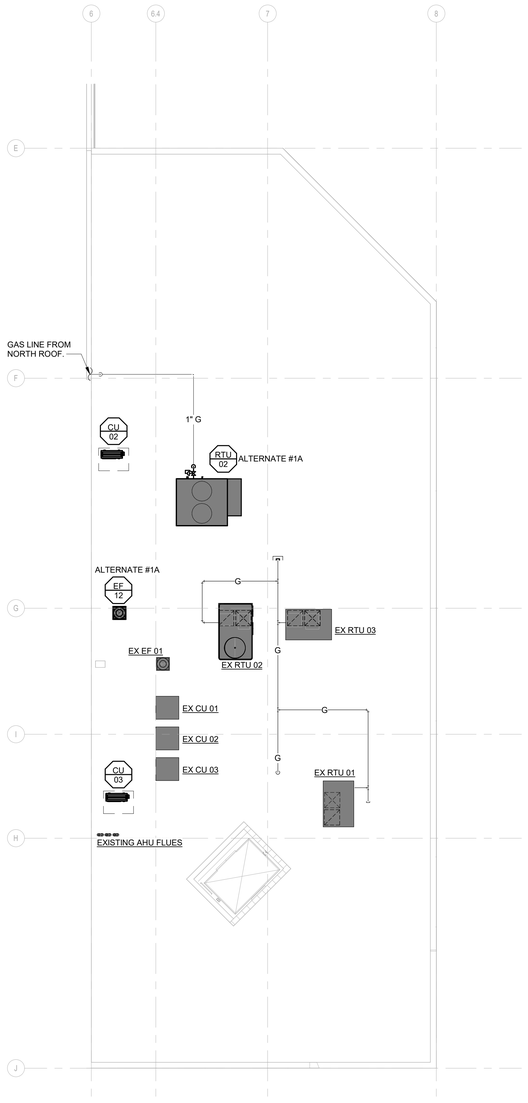


2 3RD FLOOR MECHANICAL PLAN

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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



1 ROOF MECHANICAL PLAN

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

Roy A. Mangan

MO Architect License No: A-6661

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KIRKWOOD PUBLIC WORKS RENOVATION

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No.	Date	Revision
0		

MECH PLAN - OFFICE L03 & ROOF

STATE OF MISSOURI RICHARD W. HALTEMAN NUMBER PE-25112 PROFESSIONAL ENGINEER

3/30/26

Name: Richard W. Halteman

Discipline: Professional Engineer

License No: PE-25112

Expiration Date: 12/31/2026

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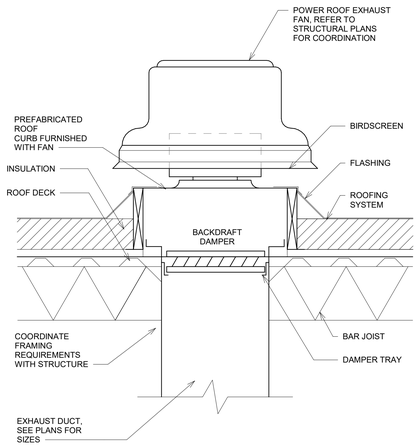
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Sheet No. M207

Date 03/27/2026

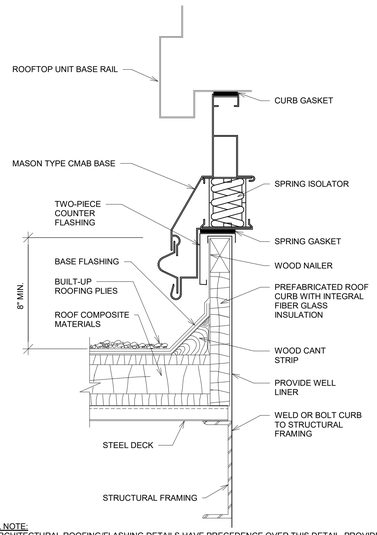
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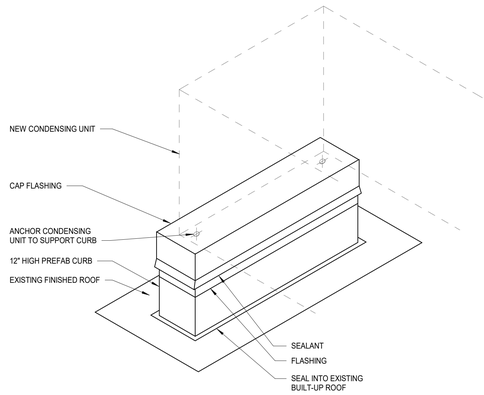
NOTE:
REFER TO ARCHITECTURAL DRAWINGS FOR ROOF PENETRATION DETAIL. COORDINATE ALL PENETRATIONS WITH ROOF SUB-CONTRACTOR.

1 EXHAUST FAN DETAIL
N.T.S.



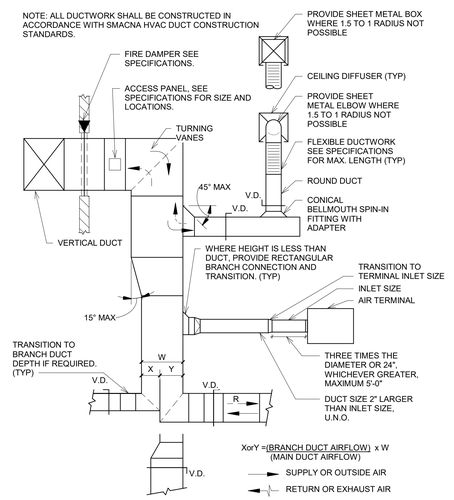
GENERAL NOTE:
1. ARCHITECTURAL ROOFING/FLASHING DETAILS HAVE PRECEDENCE OVER THIS DETAIL. PROVIDE ALL ADDITIONAL BLOCKING AS REQUIRED BY DELEGATED SEISMIC DESIGN REQUIREMENTS.

2 ROOF CURB SPRING ISOLATOR DETAIL
N.T.S.

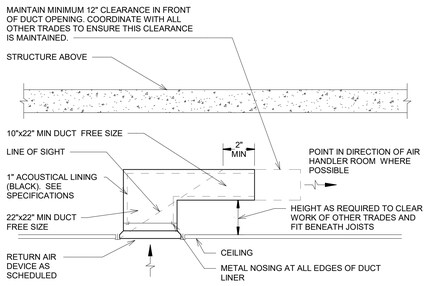


NOTES:
1. BASIS OF DESIGN SIMILAR TO THYCURB MANUFACTURER MODEL "TEMS-3".
2. WELDED 18 GAUGE GALVANIZED STEEL SHELL, BASE PLATE AND COUNTERFLASHING.
3. FULLY MITERED END SECTIONS WITH INTERNAL BULKHEAD REINFORCEMENT.
4. CONTRACTOR SHALL VERIFY LENGTH OF ROOF CURB PRIOR TO ORDERING.

3 EQUIPMENT RAIL SUPPORT DETAIL
N.T.S.

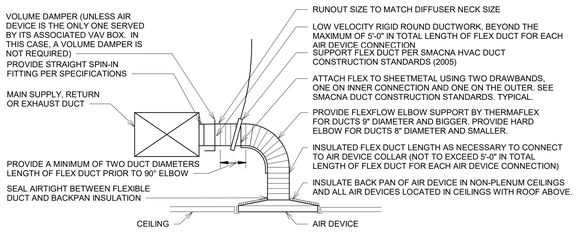


4 TYPICAL DUCTWORK INSTALLATION DETAIL
N.T.S.



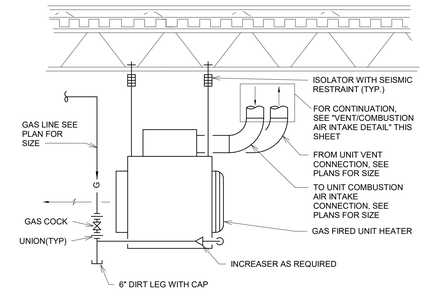
NOTE: ALL SURFACES VISIBLE THROUGH GRILLE, INCLUDING SHEET METAL, NOSINGS, PINS, FASTENERS, ETC, SHALL BE PAINTED FLAT BLACK PER SECTION 09900.

5 RETURN AIR BOOT DETAIL
N.T.S.

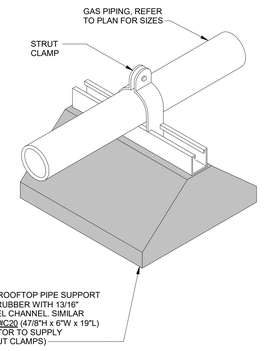


NOTE:
IF CEILING IS GYPSUM BOARD, PROVIDE OPPOSED BLADE DAMPER AT AIR DEVICE.

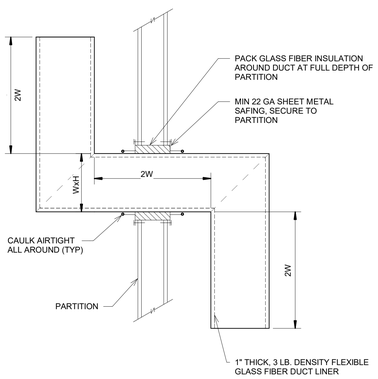
6 BRANCH TAKE OFF TO AIR DEVICE DETAIL
N.T.S.



7 UNIT HEATER DETAIL
N.T.S.

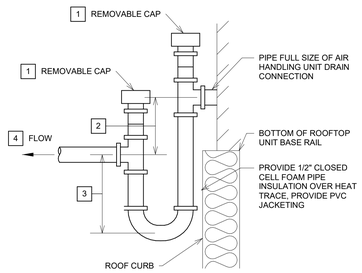


8 PIPE SUPPORT DETAIL
N.T.S.



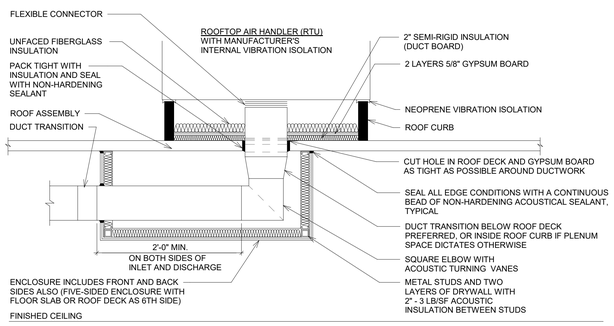
PLAN VIEW

9 AIR TRANSFER DUCT DETAIL
N.T.S.

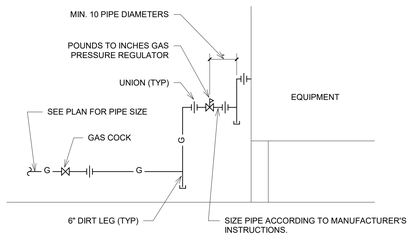


NOTES:
1. LOCATE TRAPS SO AS TO BE ACCESSIBLE FOR CLEANING.
2. DRAW-THRU: SUBTRACT SCHEDULED E.S.P. FROM T.S.P. THEN ADD 1". BLOW-THRU: 1"
3. DRAW-THRU: 1/2 OF NOTE 2 DIMENSION BUT NOT LESS THAN 2" BLOW-THRU: SUBTRACT SCHEDULED E.S.P. FROM T.S.P. THEN ADD 1".
4. ROUTE TO NEAREST ROOF DRAIN.

10 CONDENSATE DRAIN TRAP DETAIL
N.T.S.



11 RTU SOUND CONTROL PENETRATION DETAIL
N.T.S.



12 EQUIPMENT GAS PIPING CONNECTION DETAIL
N.T.S.

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MO Architect License No: A-6661
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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

MECH DETAILS

Project No. 24059

Sheet No. M501

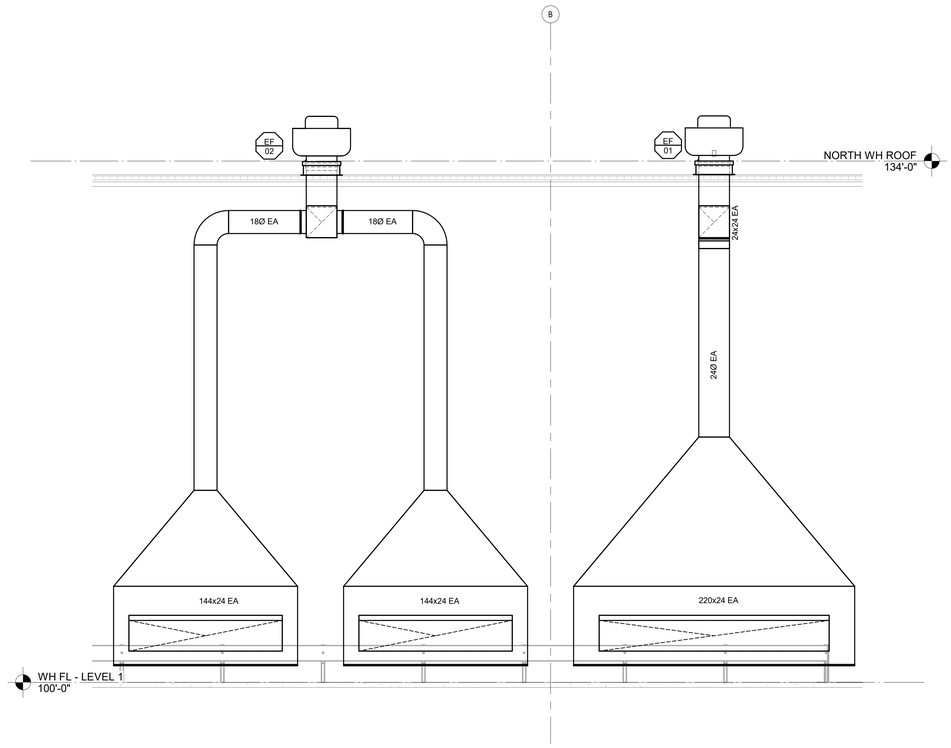
Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

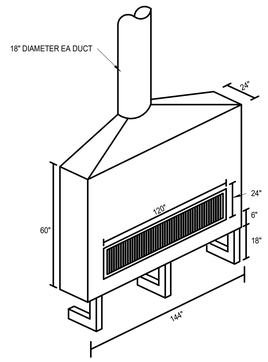
Name: Richard W. Halteman
Discipline: Professional Engineer
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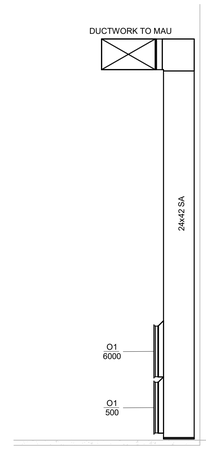
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Autodesk Docs://240543000 - Kirkwood Public Works/240543000_Kirkwood-Public-Works_MEP_r25.rvt



1 SANITATION DEPARTMENT EXHAUST HOOD SECTION
1/4" = 1'-0"



2 EXHAUST HOOD DETAIL
N.T.S.



3 MAKE-UP AIR DUCTWORK SECTION
1/4" = 1'-0"

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

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[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

MECH DETAILS

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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Project No.
24059

Sheet No.
M502

Date
03/27/2026

AIR DEVICE SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	DESCRIPTION	MAX FLOW CFM	CONNECTION SIZE		MODULE SIZE	MAX NC	MATERIAL	BORDER TYPE	MAX PRESSURE DROP IN-WG	FINISH	ACCESSORIES
					WIDTH OR DIAMETER	LENGTH							
S1	TITUS	OMNI	SQUARE PLAQUE	125	6"		24X24	25	STEEL	LAY-IN	0.1	BWE	
S2	TITUS	OMNI	SQUARE PLAQUE	250	8"		24X24	25	STEEL	LAY-IN	0.1	BWE	
S3	TITUS	OMNI	SQUARE PLAQUE	400	10"		24x24	25	STEEL	LAY-IN	0.1	BWE	
S4	TITUS	OMNI	SQUARE PLAQUE	100	6"		12X12	25	STEEL	LAY-IN	0.1	BWE	
S5	TITUS	300RS	LOUVERED SUPPLY	400	18"	6"	19.75"x7.75"	25	STEEL	LAY-IN	0.1	BWE	BALANCING DAMPER
R1	TITUS	PAR	PERFORATED CEILING DIFFUSERS	1000	22"	22"	23.75"x23.75"	25	STEEL	LAY-IN	0.1	BWE	BALANCING DAMPER
R2	TITUS	350RS	LOUVERED RETURN	100	6"		24X24	25	STEEL	LAY-IN	0.1	BWE	
R3	TITUS	350RS	LOUVERED RETURN	250	8"		24X24	25	STEEL	LAY-IN	0.1	BWE	
R4	TITUS	350RS	LOUVERED RETURN	250	6"	12"	7.75"x13.75"	25	STEEL	LAY-IN	0.1	BWE	BALANCING DAMPER
E1	TITUS	350RS	LOUVERED RETURN	125	6"		12X12	25	STEEL	SURFACE	0.1	BWE	
E2	TITUS	350RS	LOUVERED RETURN	220	8"		24X24	25	STEEL	LAY-IN	0.1	BWE	
O1	TITUS	300RS	LOUVERED SUPPLY	6000	40"	40"	41.75"x41.75"	25	STEEL	SURFACE	0.1	BWE	BALANCING DAMPER
O2	TITUS	300RS	LOUVERED SUPPLY	400	12"	6"	13.75"x7.75"	25	STEEL	LAY-IN	0.1	BWE	BALANCING DAMPER

100% OUTSIDE AIR UNIT SCHEDULE

UNIT NO.	BASIS OF DESIGN		SA CFM	EA CFM	SUPPLY & EXHAUST ESP (IN. WC)	ENERGY WHEEL						COOLING COIL SECTION				HOT GAS REHEAT CAPACITY MBH	GAS HEATING SECTION			AHU ELECTRICAL DATA				WEIGHT (LBS)	NOTES
	MANUFACTURER	MODEL				SUMMER MBH	OAT (°F) DB/WB	LAT (°F) DB/WB	WINTER MBH	OAT (°F) DB/WB	LAT (°F) DB/WB	TOTAL MBH	SENSIBLE MBH	EAT (°F) DB/WB	LAT (°F) DB/WB		EAT/LAT (°F)	INPUT MBH	OUTPUT MBH	V/PH/HZ	FLA	MCA	MOP		
DOAS 01	DAIKIN	DPSC06B	1100	1400	1.5"	43.2	95.0/78.0	80.7/71.8	69.3	0.0/0.0	48.5/25.7	66.8	32.3	80.7/71.8	51.7/51.7	21.8	48.5/103.8	80	64	460/3/60	17.5	19.8	25.0	1246	1,2,3

NOTES:
1. PROVIDE WITH UNIT MOUNTED DISCONNECT SWITCH, CONVENIENCE OUTLET, HOT GAS REHEAT, ENTHALPY ECONOMIZER AND ENERGY RECOVERY WHEEL..
2. PROVIDE WITH 14" ROOF CURB. COORDINATE ANY SLOPPING WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS.
3. PROVIDE WITH BACKNET CARD.

ROOFTOP UNIT SCHEDULE

UNIT NO.	BASIS OF DESIGN		AREA SERVED	SUPPLY FAN						COOLING COIL					MBH INPUT	MBH OUTPUT	EAT (DB - °F)	LAT (DB - °F)	FILTERS	ELECTRICAL CHARACTERISTICS				UNIT WEIGHT (LBS)	NOTES
	MANUFACTURER	MODEL		TOTAL CFM	OA CFM	HEATING CFM	EXT. S.P. (IN WC)	BHP	HP	TOTAL MBH	SENSIBLE MBH	EAT DB/WB (°F)	LAT DB/WB (°F)	AMBIENT TEMP					MERV	FLA	MCA	MOCP	V/PH/HZ		
RTU 01	DAIKIN	DPSC10B	3RD FLOOR OFFICE	3200	500	3200	2"	1.55	3.0	122.1	85.2	78.1/65.6	53.5/52.6	95.0	200	160	60.0	107.5	8	26.0	29.9	45	460/3/60	1773	1,2,3
RTU 02	DAIKIN	DPSC10B	ROLL CALL/OFFICES	2460	1200	2460	2"	1.39	3.0	124.8	76.2	84.8/70.8	55.6/54.6	95.0	200	160	60.0	121.8	8	26.0	29.9	45	460/3/60	1773	1,2,3

NOTES:
1. PROVIDE WITH DISCONNECT SWITCH, CONVENIENCE OUTLET, HOT GAS REHEAT, ENTHALPY ECONOMIZER.
2. PROVIDE WITH 14" ROOF CURB. COORDINATE ANY SLOPPING WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS.
3. PROVIDE WITH BACKNET CARD.

FAN SCHEDULE

PLAN MARK	BASIS OF DESIGN		AREA SERVED	CFM	ESP (IN. WC)	FAN RPM	DRIVE TYPE	ELECTRICAL CHARACTERISTICS			WEIGHT (LBS)	NOTES
	MANUFACTURER	MODEL						BHP	HP	V/PH/HZ		
EF 01	GREENHECK	CUBE-180HP	SANITATION	3,375	1.0	1,426	BELT	1.28	1.5	460/3/60	145	1
EF 02	GREENHECK	CUBE-220HP	SANITATION	4,500	1.0	971	BELT	1.53	2.0	460/3/60	178	1
EF 03	GREENHECK	CUBE-220HP	SANITATION	4,500	1.0	971	BELT	1.53	2.0	460/3/60	178	1
EF 04	GREENHECK	CUBE-220HP	SANITATION	4,500	1.0	971	BELT	1.53	2.0	460/3/60	178	1
EF 05	GREENHECK	CUBE-220HP	SANITATION	4,500	1.0	971	BELT	1.53	2.0	460/3/60	178	1
EF 06	GREENHECK	CUBE-360HP	SOUTH WAREHOUSE	12,000	1.0	701	BELT	4.2	5.0	460/3/60	343	1
EF 07	GREENHECK	CUBE-360HP	SOUTH WAREHOUSE	12,000	1.0	701	BELT	4.2	5.0	460/3/60	343	1
EF 08	GREENHECK	CUBE-360HP	SOUTH WAREHOUSE	12,000	1.0	701	BELT	4.2	5.0	460/3/60	343	1
EF 09	GREENHECK	CUBE-100HP	WELDING STATION	500	2.0	2,435	BELT	0.44	0.5	460/3/60	343	1
EF 10	GREENHECK	CUBE-140HP	FACILITIES WAREHOUSE	1325	1.0	1,960	BELT	0.63	0.75	460/3/60	94	1
EF 11	GREENHECK	CUE-080-VG	SOUTH OFFICE RESTROOMS	150	0.5	1,452	DIRECT	0.04	1/6	208/1/60	48	1
EF 12	GREENHECK	120C3B	3RD OFFICE RESTROOMS	150	0.5	1,452	DIRECT	0.04	1/6	120/1/60	48	1

NOTES:
1. PROVIDE WITH FAN SPEED CONTROLLER, DISCONNECT, BIRD SCREENS, ROOF CURBS AND BACK-DRAFT DAMPER.

MAKE-UP AIR UNIT SCHEDULE

UNIT NO.	BASIS OF DESIGN		SUPPLY FAN					MBH INPUT	MBH OUTPUT	EAT (DB - °F)	LAT (DB - °F)	ELECTRICAL CHARACTERISTICS			UNIT WEIGHT (LBS)	NOTES
	MANUFACTURER	MODEL	TOTAL CFM	OA CFM	EXT. S.P. (IN WC)	BHP	HP					MCA	MOCP	V/PH/HZ		
MAU 01	GREENHECK	GX-P225-H35-D3D	24,000	24,000	0.5	8.28	10.0	1600	1472	0.0	56.8	35.2	45.0	460/3/60	3,037	1,2
MAU 02	GREENHECK	GX-P225-H35-D3D	24,000	24,000	0.5	8.28	10.0	1600	1472	0.0	56.8	35.2	45.0	460/3/60	3,037	1,2

NOTES:
1. PROVIDE WITH DISCONNECT SWITCH AND CONVENIENCE OUTLET.
2. PROVIDE WITH 14" ROOF CURB. COORDINATE ANY SLOPPING WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS.

LOUVER SCHEDULE

PLAN MARK	BASIS OF DESIGN		SERVES/SYSTEM	HEIGHT (IN)	WIDTH (IN)	MATERIAL	FINISH	MAX CFM	FREE AREA VEL (FPM)	FREE AREA (SQ FT)	FREE AREA %	MAX PD (IN WC)	NOTES
	MANUFACTURER	MODEL											
L 01	GREENHECK	ESD-202	LOCKERS INTAKE	24	48	ALUMINUM	MILL	1000	550	2.8	35	0.25	1
L 02	GREENHECK	ESD-202	LOCKERS INTAKE	24	48	ALUMINUM	MILL	1000	550	2.8	35	0.25	1

NOTES:
1. CUSTOM COLOR BY ARCHITECT.

EXISTING EQUIPMENT SCHEDULE

MARK	BASIS OF DESIGN		ELECTRICAL CHARACTERISTICS		
	MANUFACTURER	MODEL	MCA	MOCP	V/PH/HZ
EX AHU 01	LENNOX	G2614/5-100	4.7	10	120/1/60
EX AHU 02	LENNOX	G2614/5-100	4.7	10	120/1/60
EX AHU 03	LENNOX	G2614/5-100	4.7	10	120/1/60
EX CU 01	TRANE	4TTA3060D4	10.3	15	460/3/60
EX CU 02	TRANE	4TTA3060D4	10.3	15	460/3/60
EX CU 03	TRANE	4TTA3060D4	10.3	15	460/3/60
EX EF 01	COOK	120C3B	-	0.25 HP	120/1/60
EX EF 02	COOK	GC640	-	0.08 HP	120/1/60
EX EWH 01	Q-MARK	AWH-4407	14.4	20	277/1/60
EX EWH 02	Q-MARK	AWH-4407	14.4	20	277/1/60
EX EWH 03	Q-MARK	AWH-4407	14.4	20	277/1/60
EX EWH 04	Q-MARK	AWH-4407	14.4	20	277/1/60
EX MAU	ABSOLUTAIRE	AA-4	4.7	10	460/3/60
EX RTU 01	LENNOX	GCS16-048-75-3	12	15	460/3/60
EX RTU 02	TRANE	BC060A4EMB0DG	13	20	460/3/60
EX RTU 03	LENNOX	CS16-036-90-4GG	10	15	460/3/60

VAV SCHEDULE (ELECTRIC)

PLAN MARK	BASIS OF DESIGN		SERVING	UNIT INLET SIZE (DIA)	AIRFLOWS		ELECTRIC HEATING COIL				ELECTRICAL V/P/HZ	NOTES
	MANUFACTURER	MODEL			MAX (CFM)	MIN (CFM)	HEATING	EAT	LAT	KW		
VAV 01	TITUS	DESV	ROLL CALL EAST	7	425	200	400	55.0	90.4	4.5	277/1/60	1,2,3
VAV 02	TITUS	DESV	ROLL CALL CENTER	6	375	100	240	55.0	94.4	3.0	277/1/60	1,2,3
VAV 03	TITUS	DESV	ROLL CALL WEST	6	400	150	320	55.0	94.4	4.0	277/1/60	1,2,3
VAV 04	TITUS	DESV	WATER DIS. SUPERVIS.	4	440	80	80	55.0	94.4	1.0	277/1/60	1,2,3
VAV 05	TITUS	DESV	OFFICE AND LOBBY	8	540	250	320	55.0	94.4	4.0	277/1/60	1,2,3
VAV 06	TITUS	DESV	WATER DEPT. LAB	6	445	150	150	55.0	97.1	2.0	277/1/60	1,2,3
VAV 07	TITUS	DESV	WATER. DEPT. METER	6	290	150	150	55.0	86.6	1.5	277/1/60	1,2,3
VAV 08	TITUS	DESV	SECURE FILES	6	250	50	50	55.0	86.6	0.5	277/1/60	1,2,3
VAV 09	TITUS	DESV	POLICE STORAGE	8	600	150	690	55.0	87.1	7.0	277/1/60	1,2,3
VAV 10	TITUS	DESV	911 CALL CENTER	8	870	250	370	55.0	89.2	4.0	277/1/60	1,2,3
VAV 11	TITUS	DESV	STAFF LOUNGE	6	450	150	150	55.0	86.6	1.5	277/1/60	1,2,3
VAV 12	TITUS	DESV	SHARED CONF. RM.	6	450	125	400	55.0	86.5	4.0	277/1/60	1,2,3
VAV 13	TITUS	DESV	DEPART. CONF. RM.	6	350	150	150	55.0	86.6	1.5	277/1/60	1,2,3
VAV 14	TITUS	DESV	3RD FLR LOBBY	6	220	75	120	55.0	94.4	1.5	277/1/60	1,2,3

NOTES:
1. PROVIDE WITH DISCONNECT.
2. PROVIDE WITH SCR CONTROLS.
3. PROVIDE WITH BACNET CARD.

SPLIT AIR-CONDITIONING UNIT SCHEDULE - INDOOR ONLY

UNIT NO.	BASIS OF DESIGN		SERVING	CONDENSING UNIT	SUPPLY CFM	CAPACITY (MBH)		FILTER	ELECTRICAL CHARACTERISTICS	NOTES
	MANUFACTURER	MODEL				COOLING	HEATING	MERV	V/PH/HZ	
PAC 01	DAIKIN	FTXF24AXVJU	WAREHOUSE OFFICE	CU-01	750	22.4	23.6	8	POWERED BY CU	1,2
PAC 02	DAIKIN	FTXF24AXVJU	1ST FLOOR IT	CU-02	750	22.4	23.6	8	POWERED BY CU	1,2
PAC 03	DAIKIN	FTXF24AXVJU	3RD FLOOR IT	CU-03	750	22.4	23.6	8	POWERED BY CU	1,2
PAC 04	DAIKIN	FTXV12AVJU9	ELEC. DEPT. STAFF TOUCH DOWN	CU-04	400	12.0	12.0	8	POWERED BY CU	1,2
PAC 05A	DAIKIN	FTXV12AVJU9	FLEET DEPT OFFICE	CU-05	400	12.0	12.0	8	POWERED BY CU	1,2
PAC 05B	DAIKIN	FTXV12AVJU9	FLEET DEPT. MECH. SHARED OFFICE	CU-05	400	12.0	12.0	8	POWERED BY CU	1,2
PAC 06	DAIKIN	FTXV12AVJU9	ELEC. OFFICE	CU-06	400	12.0	12.0	8	POWERED BY CU	1,2
PAC 07	DAIKIN	FTXV12AVJU9	STREET DEPT. STORAGE	CU-07	457	12.0	12.0	8	POWERED BY CU	1,2
PAC 08	DAIKIN	FTXF24AXVJU	2ND FLOOR IT	CU-03	750	22.4	23.6	8	POWERED BY CU	1,2

NOTES:
1. POWERED BY CONDENSING UNIT.
2. PROVIDE WITH CONDENSATE PUMP.

CONDENSER SCHEDULE

UNIT NO.	BASIS OF DESIGN		AREA SERVED	FAN QUANTITY	CAPACITY (MBH)		ELECTRICAL CHARACTERISTICS			NOTES
	MANUFACTURER	MODEL			COOLING	HEATING	V/PH/HZ	MCA	MOCP	
CU 01	DAIKIN	RXF24AXVJU	WAREHOUSE OFFICE	1	22.4	23.6	208/1/60	16.4	20.0	
CU 02	DAIKIN	RXF24AXVJU	1ST FLOOR IT	1	22.4	23.6	208/1/60	16.4	20.0	
CU 03	DAIKIN	RXF24AXVJU	2ND & 3RD FLOOR IT	1	22.4	23.6	208/1/60	16.4	20.0	
CU 04	DAIKIN	3MXT24AVJU9	ELEC. DEPT. OFFICES	1	24.0	24.0	208/1/60	33.6	35.0	
CU 05	DAIKIN	3MXT24AVJU9	FLEET DEPT. OFFICES	1	24.0	24.0	208/1/60	33.6	35.0	
CU 06	DAIKIN	3MXT24AVJU9	ELEC. OFFICE	1	24.0	24.0	208/1/60	33.6	35.0	
CU 07	DAIKIN	RXF24AXVJU	STREET DEPT. STORAGE	1	22.4	23.6	208/1/60	16.4	20.0	

NOTES:
1. PROVIDE WITH WIND BAFFLES, HAIL GUARDS, PRECHARGED REFRIGERANT LINE SET.
2. UNIT RATED FOR LOW AMBIENT DOWN TO -40 DEG F.

GAS FIRED UNIT HEATER SCHEDULE

UNIT NO.	BASIS OF DESIGN		AREA SERVED	CAPACITY (MBH)		AIRFLOW (CFM)	HP	ELECTRICAL CHARACTERISTICS		NOTES
	MANUFACTURER	MODEL		INPUT	OUTPUT			FLA	V/PH/HZ	
UH 01	TRANE	GTNE	WASH BAY	60	49	740	1/30	1.3	115/1/60	1,2,3
UH 02	TRANE	GTNE	WASH BAY	60	49	740	1/30	1.3	115/1/60	1,2,3

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EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

MECH SCHEDULES

Project No.
24059

Sheet No.
M601

Date
03/27/2026

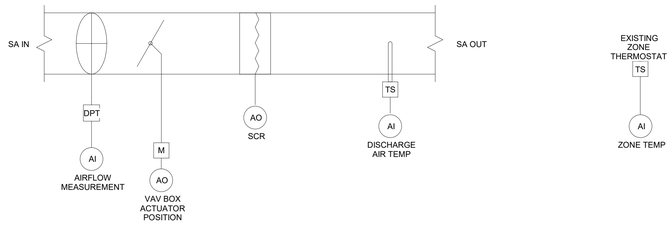
STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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SCALE: 3" = 1'-0" 1" 6" 3" 0
SCALE: 1 1/2" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1" = 1'-0" 2" 1" 6" 3" 0
SCALE: 3/4" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1/2" = 1'-0" 4" 2" 1" 6" 3" 0
SCALE: 3/8" = 1'-0" 6" 4" 2" 1" 6" 3" 0
SCALE: 1/4" = 1'-0" 8" 4" 2" 1" 6" 3" 0
SCALE: 1/8" = 1'-0" 16" 8" 4" 2" 1" 6" 3" 0
SCALE: 3/32" = 1'-0" 24" 16" 8" 4" 2" 1" 6" 3" 0
SCALE: 1/16" = 1'-0" 32" 16" 8" 4" 2" 1" 6" 3" 0

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VARIABLE AIR VOLUME (VAV) TERMINALS

Occupied Mode
•All VAV boxes shall switch to Occupied Mode as directed by the BAS.

•Cooling: If the space temperature is above the desired setpoint, the VAV damper shall modulate towards the maximum position, with the electric coil deenergizing, until the desired setpoint of 72° F (adj) is achieved. Once the temperature setpoint is achieved, the damper shall modulate towards the minimum air flow setting and the hot water heating coil shall modulate on to deliver 72°F (adj) supply air.

•Heating: If the space temperature is below the desired setpoint of 70°F (adj), the VAV damper shall modulate towards the minimum position until either the desired room temperature setpoint is achieved or the VAV damper reaches minimum air flow position. If the desired room temperature setpoint is still not achieved, the electric heater shall energize, and the damper shall modulate to the Heating CFM value.

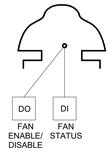
Unoccupied Mode
•All VAV boxes shall switch to Unoccupied Mode as directed by the BAS.

•Heating: If the space temperature is below the desired setback setpoint of 60°F (adj), the VAV damper shall modulate towards the minimum position until either the desired room temperature setpoint is achieved or the VAV damper reaches minimum air flow position. If the desired room temperature setpoint is still not achieved, the hot water heating coil shall modulate open, and the damper shall modulate to the Heating CFM value.

Cooling: If the space temperature is above the desired setpoint of 80°F (adj), the VAV damper shall modulate towards the maximum position until either the desired room temperature setpoint is achieved or the VAV damper reachest maximum air flow position.

CONTROLS SCHEDULE - VAV TERMINAL UNIT

	HARDWARE POINTS				SOFTWARE POINTS				
POINT NAME	AI	AO	DI	DO	AV	BV	SCHED	TREND	ALARM
AIRFLOW MEASUREMENT	x							x	
DISCHARGE AIR TEMP	x								
SCR		x						x	
VAV BOX ACTUATOR POSITION		x							
ZONE TEMP	x							x	



EXHAUST FANS

Occupied Mode
•All fans shall switch to Occupied Mode as directed by the BAS.

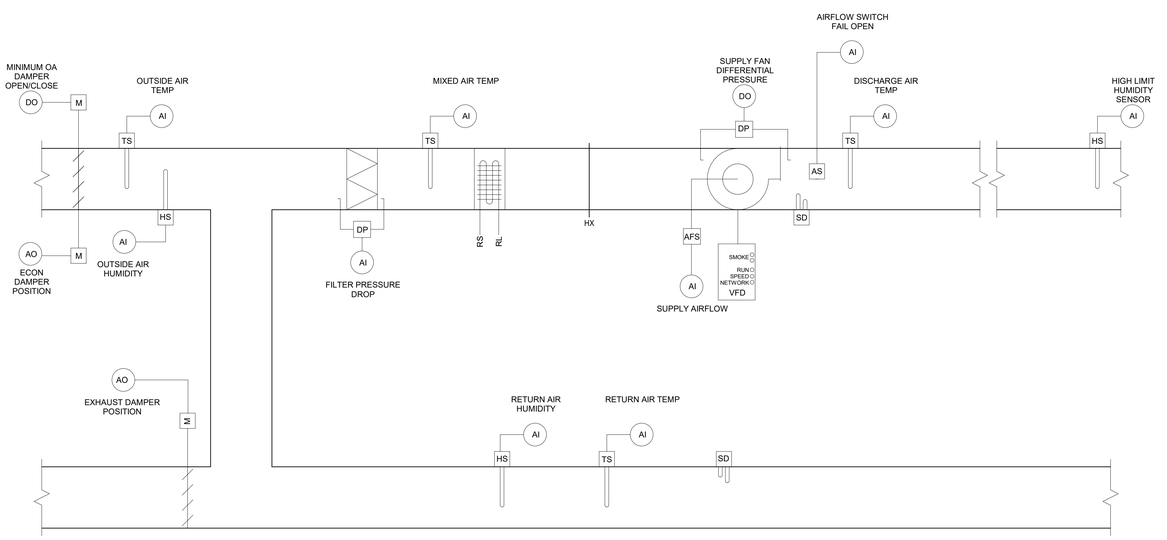
•Fans shall energize and run continuously.

Unoccupied Mode
•All fans shall switch to Unoccupied Mode as directed by the BAS.

•Fans shall de-energize.

CONTROLS SCHEDULE - EXHAUST FAN - CONSTANT VOLUME

	Hardware Points				Software Points				
Point Name	AI	AO	DI	DO	AV	BV	Sched	Trend	Alarm
Exhaust Fan Start/Stop				x				x	
Exhaust Fan Status			x					x	



ROOF TOP UNIT E1 SEQUENCE OF OPERATION

System General Description:
Rooftop unit RTU-e1 shall consist of a supply air fan (SAF), variable frequency drives (VFD), compressors, direct expansion (DX) cooling coil, modulating gas heat, a filter section and an enthalpy economizer with relief fan. In addition, these units shall be equipped with hot gas reheat coils to provide dehumidification to the space. This unit shall operate to provide cooling and heating air as required to meet space temperature setpoint.

Occupied mode:
Programmed operating schedule through bas shall be coordinated with the owner. Upon receiving a single to start the supply fan shall start via the VFD. The outside air damper shall open to its minimum position. Through internal controls the RTUs shall modulate air flow, compressor operation and heat exchanger operation.

Occupied cooling mode:
First stage of cooling (economizer operation): if the outdoor measured enthalpy level is lower than the indoor measured level and the temperature of the outside air is lower than 50°f (adj), the outside air dampers on the RTU shall modulate towards a fully open position and the return air dampers on the RTUs shall modulate to a fully closed position to maintain a 55°f (adj) mixed air condition. The modulating gas heat shall operate to provide neutral air (lat. The modulating exhaust relief dampers shall operate to maintain a positive room pressure of 0.05" w.c. (adj). The compressors and condenser fans shall be deenergized.

Second stage of cooling (dx coil): when the outside air temperature is above 50°f (adj), the outside air dampers on the RTUs shall modulate to the minimum open position and the return air dampers shall modulate to a fully open position. The relief dampers shall operate to maintain a positive building pressure of 0.05" w.c. (adj). The compressors shall stage on and off based on refrigerant temperature. Condenser fans shall remain on.

Dehumidification: when space temperature setpoint is maintained and relative humidity of 55% (adj) is exceeded, the compressors shall be energized with hot gas diverted to the hot gas reheat coil to reheat supply air temperature to space temperature setpoints. Condenser fans shall remain on.

Occupied heating mode with modulating gas heat:
Upon the call for heat the gas heating shall modulate to provide warm air and maintain space temperature setpoint. The compressor(s) and condenser fan(s) shall remain off.

Unoccupied mode:
The unit shall run continuously at a reduced airflow percentage of 50%. The relief air damper shall be fully closed and the outside air damper shall be fully closed. Economizer mode shall override damper positions.

Prefilter differential pressure monitor:
Alarms shall be provided when prefilter differential pressure exceeds a user definable limit (adj).

Mixed air temperature:
Mixed air sensor shall be used as required for economizer control. Alarms shall be provided for the following:
- high mixed air temperature if greater than 90 °f (adj)
- low mixed air temperature if lower than 45 °f (adj)

Return air humidity:
Return air sensor shall be used as required for economizer control. Alarms shall be provided for the following:
- high return air humidity if return air humidity is greater than 60% rh (adj)
- low return air humidity if the return air humidity is lower than 25% rh (adj)

Return air temperature:
Return air sensor shall be used as required for setpoint control or economizer control. Alarms shall be provided for the following:
- high return air temperature if the return air temperature is greater than 90 °f (adj)
- low return air temperature if the return air temperature is lower than 45 °f (adj)

Emergency modes:
RTUs shall deenergize via fire alarm control panel (facp) upon the detection of smoke from the duct detector. The facp shall notify bas.

CONTROLS SCHEDULE - RTU

	HARDWARE POINTS				SOFTWARE POINTS					SHOW ON
POINT NAME	AI	AO	DI	DO	AV	BV	SCHED	TREND	ALARM	GRAPHIC
AIRFLOW SWITCH FAIL OPEN	x									x
DISCHARGE AIR TEMP	x									x
EXHAUST DAMPER POSITION		x						x	x	x
FILTER PRESSURE DROP	x								x	x
HIGH LIMIT HUMIDITY SENSOR	x								x	x
MINIMUM OA DAMPER OPEN/CLOSE				x						x
MIXED AIR TEMP	x							x	x	x
OUTSIDE AIR HUMIDITY	x							x		x
OUTSIDE AIR TEMP	x							x		x
RETURN AIR HUMIDITY	x							x	x	x
RETURN AIR TEMP	x							x	x	x
SUPPLY AIRFLOW	x							x	x	x
SUPPLY FAN DIFFERENTIAL PRESSURE				x					x	x

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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

CONTROLS

Project No.
24059

Sheet No.
M701

Date
03/27/2026

STATE OF MISSOURI
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3/30/26

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License No: PE-25112
Expiration Date: 12/31/2026

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PLUMBING SYSTEMS:

AV	ACID RESISTANT VENT
AW	ACID RESISTANT WASTE LINE
DIR	DEIONIZED WATER RETURN PIPING
DIS	DEIONIZED WATER SUPPLY PIPING
DCW	DOMESTIC COLD WATER (DCW)
DHW	DOMESTIC HOT WATER (DHW)
DHWR	DOMESTIC HOT WATER RETURN (DHWR)
SCW	DOMESTIC SOFT COLD WATER
GW	GREASE WASTE
D	INDIRECT DRAIN OR CONDENSATE
G	NATURAL GAS
NP	NON POTABLE WATER
OD	OVERFLOW DRAIN
LP	PROPANE (PSI)
RO	REVERSE OSMOSIS WATER
SS	SANITARY PIPING
SD	STORM DRAIN
TW	TEMPERED WATER
TWR	TEMPERED WATER RECIRCULATING
V	VENT (V)
	AUTOMATIC AIR VENT
	BACKFLOW PREVENTER
	CHECK VALVE
	BALANCING VALVE (CIRCUIT SETTER)
	FLOW ARROW/DIRECTION
	FLOW CONTROL VALVE
	GLOBE VALVE
	PRESSURE GAUGE AND COCK
	PRESSURE REDUCING VALVE
	PRESSURE REGULATOR
	REDUCER
	SHOCK ABSORBER/WATER HAMMER ARRESTOR
OR	SHUT OFF VALVE
	SOLENOID VALVE
	STRAINER
	TEMP & PRESSURE RELIEF VALVE
	TEST PLUG
	THERMOMETER
	UNION (DIELECTRIC)
	(DASHED) INDICATED PIPING TO BE REMOVED
	CONNECTION TO EXISTING
EQ #	EQUIPMENT NUMBER
P 1	INDICATES PLUMBING RISER
1	KITCHEN EQUIPMENT NUMBER
1	REVISION DELTA
#	KEYED NOTE
#	KEYED DEMOLITION NOTE
	ELBOW DOWN
	ELBOW UP
	TEE DOWN
	TEE UP
	FLOOR DRAIN

ABBREVIATIONS:

AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT COMPLIANT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISH GRADE
AP	ACCESS PANEL
AV	ACID RESISTANT VENT
AVTR	ACID RESISTANT VENT THRU ROOF
AW	ACID RESISTANT WASTE
BFG	BELOW FINISHED GRADE
BGB	BOTTOM OF GRADE BEAM
BM	BEAM
BOB	BOTTOM OF BEAM
BOD	BOTTOM OF DUCT
BOF	BOTTOM OF FOOTING
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF SLAB
BOW	BOTTOM OF WALL
BOT	BOTTOM
BT	BATHTUB
CL	CENTERLINE
CI	CAST IRON
CO	CLEANOUT
CV	CHECK VALVE
DCW	DOMESTIC COLD WATER
DD	DECK DRAIN
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
DI	DUCTILE IRON
DIA	DIAMETER
DIR	DEIONIZED WATER RETURN
DIS	DEIONIZED WATER SUPPLY
DN	DOWN
DR	DRAIN
DS	DOWNSPOUT
DTL	DETAIL
DWG(S)	DRAWING(S)
DWR	DISTILLED WATER RETURN
DWS	DISTILLED WATER SUPPLY
EC	ELECTRICAL CONTRACTOR - DIVISION 26
ELEC	ELECTRIC
ELEV	ELEVATION
EQ	EQUAL
EXIST, EX	EXISTING
FA	FROM ABOVE
FB	FROM BELOW
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDV	FIRE DEPARTMENT VALVE
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHV	FIRE HOSE VALVE
FIN	FINISHED
FS	FLOOR / FIRE LINE
FP	FIRE PUMP
FPC	FIRE PROTECTION CONTRACTOR - DIVISION 21
FS	FLOOR SINK
FT	FEET
FT-HD	FEET IN HEAD
FVC	FIRE VALVE CABINET
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GCO	GRADE CLEANOUT
GPM	GALLONS PER MINUTE
H	HEIGHT
HB	HOSE BIBB
HD	HUB DRAIN

ABBREVIATIONS:

HE	HOSE END
HORIZ	HORIZONTAL
HP	HORSEPOWER
HT	HOUSE TRAP
HW	HOT WATER
HWR	HOT WATER RETURN
HZ	HERTZ
IN	INCH/INCHES
IE	INVERT ELEVATION
INV	INVERT
JP	JOCKEY PUMP
L	LENGTH
LVL	LEVEL
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR - DIVISION 23
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OAI	OUTSIDE AIR INTAKE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED / CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED / OWNER INSTALLED
PC	PLUMBING CONTRACTOR - DIVISION 22
PH	PHASE
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSI	PSI ABSOLUTE
PSIA	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE IN GAUGE
QTY	QUANTITY
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTIONS PER MINUTE
SA	SHOCK ABSORBER
SAN	SANITARY
SF	SQUARE FOOT
SHT	SHEET
SOL	SOLENOID
SP	STANDPIPE
SQ	SQUARE
STL	STEEL
STR	SOIL STACK THRU ROOF
SW	STREET WASHER
T&P	TEMPERATURE & PRESSURE
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF SLAB
TOT	TOTAL
TPC	TOP OF PIER CAP
TW	TEMPERED WATER
TYP	TYPICAL
VL	VALVE
VB	VACUUM BREAKER
V	VENT
VTR	VENT THRU ROOF
VERT	VERTICAL
VCP	VITREOUS CLAY PIPE
VOL	VOLUME
W/O	WALL CLEAN OUT
WH	WALL HYDRANT
WT	WEIGHT
W/O	WITH / WITHOUT
YD	YARD DRAIN

GENERAL NOTES:

1. BECAUSE OF THE LIMITED SPACE AVAILABLE TO INSTALL ALL OF THE PLUMBING WORK, COORDINATION BETWEEN OTHER TRADES IS OF THE UTMOST IMPORTANCE.
2. DRAWINGS INDICATE THE GENERAL LOCATION AND ARRANGEMENT OF FIXTURES, EQUIPMENT AND PIPING SYSTEMS. LOCATION AND ARRANGEMENT OF PIPING LAYOUT TAKES INTO ACCOUNT MANY DESIGN CONSIDERATIONS. SO FAR AS PRACTICAL, INSTALL PIPING AS INDICATED. THE CONTRACTOR SHALL REPORT, IN WRITING, ANY DISCREPANCIES WHICH PREVENT THE INSTALLATION OF WORK AS SHOWN.
3. THE CONTRACTOR SHALL VISIT THE PROJECT SITE, AND VERIFY LOCATIONS, ELEVATIONS AND SIZES OF ALL UTILITIES AT SITE PRIOR TO PROCEEDING WITH WORK. EXISTING SYSTEMS AND STRUCTURE SHALL BE INVESTIGATED FOR BEST POSSIBLE ROUTING OF PLUMBING PIPING.
4. THESE PLANS ARE DIAGRAMMATIC IN NATURE SINCE THE ONLY AVAILABLE INFORMATION HAS BEEN OBTAINED FROM EXISTING PLANS, SPECIFICATIONS, AND FIELD SURVEYS. THE EXACT LOCATION OF PIPING, FIXTURES, AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THESE DRAWINGS, EXTREME ACCURACY IS NOT GUARANTEED. THE CONTRACTOR SHALL BE PREPARED TO MAKE ALTERATIONS TO NEW AND/OR EXISTING SERVICES TO FIT JOB CONDITIONS. THE CONTRACTOR SHALL FURNISH A COMPLETE AND CODE COMPLYING SYSTEM.
5. IF THE CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS OR IS NOT COMPLETELY SURE OF THEIR MEANING, THE CONTRACTOR SHALL OBTAIN THE ENGINEERS WRITTEN EXPLANATION AND/OR INTERPRETATION PRIOR TO SUBMITTING BIDS, SINCE THE CONTRACTOR WILL BE HELD RIGIDLY TO THE INTERPRETATION OF THE ENGINEER.
6. DETAILS SHOWN IN THESE DRAWINGS APPLY TO INSTALLATIONS INDICATED REGARDLESS AS TO IF THEY ARE SPECIFICALLY REFERENCED ELSE WHERE IN THE DRAWING SET. ANY QUESTIONS ON THEIR APPLICABILITY SHOULD BE SENT TO THE ENGINEER PRIOR TO BIDDING.

DEMOLITION NOTES:

1. CUTTING, REMOVING AND PATCHING OF EXISTING FLOOR(S), WALL(S), ROOF ETC., FOR PLUMBING PIPING INSTALLATION SHALL BE BY THE CONTRACTOR. EXCAVATION, REMOVAL, AND BACKFILL FOR PLUMBING PIPING INSTALLATION BELOW GRADE SHALL BE BY THE CONTRACTOR.
2. ALL ELBOWS, FITTINGS, ETC. IN PIPING ARE NOT NECESSARILY INDICATED.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR THE EXISTING SURFACES TO REMAIN WHERE THEIR WORK HAS BEEN COMPLETED. REPAIR SHALL INCLUDE, BUT NOT LIMITED TO, ANY EXISTING WALL, CEILING OR FLOOR THAT IS SCHEDULED TO REMAIN. REPAIR, PAINTING OR PATCHING SHALL BE COMPLETED BY AN APPROPRIATE CONTRACTOR QUALIFIED FOR THIS TYPE OF WORK.
4. THE OWNER SHALL MAINTAIN ALL SALVAGE RIGHTS OF FIXTURES, EQUIPMENT AND MATERIALS REMOVED. HOWEVER ALL FIXTURES, EQUIPMENT AND MATERIALS NOT CLAIMED BY THE OWNER SHALL BE REMOVED FROM THE PREMISES AND PROPERLY DISPOSED OF BY THE DEMOLITION CONTRACTOR.
5. THE CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING AND PATCHING OF FLOOR(S), WALL(S), ROOF AND/OR CEILING REMOVAL AND REPLACEMENT IN AREAS WHERE THE ONLY WORK IS PLUMBING OR FIRE PROTECTION WORK.
6. THE CONTRACTOR SHALL USE CAUTION WHEN REMOVING EXISTING PIPING, EQUIPMENT, ETC. TO AVOID DAMAGE TO ELECTRICAL WIRING, CONTROL WIRING, PIPING, ETC. THAT IS TO REMAIN. NOTIFY THE GC AND THE EC IF WIRING IS FOUND ATTACHED TO PIPING.
7. WHEREVER EXISTING EQUIPMENT, PIPING, ETC. ARE TO BE REMOVED, SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, HANGERS, FOUNDATIONS, ETC. UNLESS NOTED OTHERWISE AFTER REMOVAL; FLOORS, WALLS AND CEILINGS SHALL BE PATCHED AND FINISHED TO MATCH ADJOINING AREAS.
8. WHERE ITEMS ARE REMOVED, UTILITIES AND THE AREA FROM WHICH THE ITEMS HAVE BEEN REMOVED SHALL BE LEFT IN SUCH A MANNER THAT IS SAFE FOR BOTH PEOPLE AND PROPERTY ON A DAILY BASIS.
9. WHERE POWERED AND/OR CONTROLLED EQUIPMENT OR ACCESSORIES ARE REMOVED AND WIRING IS NOT TO BE REUSED, REMOVE ALL WIRING BACK TO PANEL UNLESS NOTED OTHERWISE. MODIFY CONTROLS SYSTEM WHERE APPLICABLE TO REMOVE DEMOLISHED ITEM.
10. ALL UTILITY SHUTDOWNS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND THE OWNER.
11. COORDINATE ALL SYSTEM SHUT DOWNS WITH THE OWNER. MINIMIZE THE DOWNTIME OF SYSTEMS TO THE GREATEST EXTENT AS POSSIBLE.

PLUMBING SYSTEM COMPONENTS EARTHQUAKE LOAD RESISTANCE

OCCUPANCY CATEGORY (IV) **SEISMIC DESIGN CATEGORY (D)**

LISTING OF EQUIPMENT & SYSTEM COMPONENTS	ANCHORAGE TO FLOORS, ROOF, ETC.		SWAY BRACING		LOCATION OF PROFESSIONALLY-SEALED ANCHORAGE AND SWAY BRACING DETAILS		COMMENTS
					ON CONSTRUCTION DOCUMENTS	SUBSEQUENT SUBMITTAL SEPARATE PERMIT AND PLANS	
	NOT PROVIDED	PROVIDED	NOT PROVIDED	PROVIDED	DRAWING NO. OR SPEC. SECTION		
OTHER GENERAL EQUIPMENT & SYSTEM COMPONENTS Ip=1.0							
WASTE PIPING	X		X				
VENT PIPING	X		X				
WATER PIPING	X		X				
STORM PIPING	X		X				
FLOOR MOUNTED: WATER HEATER, PUMPS > 400 LBS		X		X			
FLOOR MOUNTED: WATER HEATER, PUMPS <= 400 LBS	X		X				
SUSPENDED FROM STRUCTURE: WATER HEATER, PUMPS >20 LBS		X		X			
SUSPENDED FROM STRUCTURE: WATER HEATER, PUMPS <= 20 LBS	X		X				

EXPLANATORY NOTES:
1. PLANS SIGNED AND SEALED BY A MISSOURI PROFESSIONAL ENGINEER ALONG WITH A SEPARATE PERMIT APPLICATION NEED TO BE SUBMITTED TO THE AHJ A MINIMUM OF TWO WEEKS PRIOR TO THE PLANNED INSTALLATION TO ALLOW FOR PLAN REVIEW AND DISTRIBUTION TO THE INSPECTOR. ADDITIONAL TIME MAY BE NEEDED IF SUCH SUBMISSIONS ARE DEFICIENT.
2. SWAY BRACING REQUIRED FOR ITEMS SUSPENDED FROM STRUCTURE, UNLESS EXEMPT.
3. ANCHORAGE & BRACING CONTRACTOR SHALL REFER TO SPECIFICATIONS AS WELL AS TO ST. LOUIS COUNTY RULES & REGULATIONS ON SEISMIC ANCHORAGE & SWAY BRACING (DATED 7/01/2020).
4. ALL SEISMIC SHOP DRAWINGS SHALL BE REVIEWED BY THE ENGINEER OF RECORD PRIOR TO SUBMITTAL TO THE CODE REVIEWER.
5. CONTRACTOR SHALL ADHERE TO REQUIREMENTS FOR EXEMPTION, WHERE NOTED, OR PROVIDE SEISMIC BRACING DESIGNED BY A QUALIFIED ENGINEER LICENSED IN THE PROJECT'S STATE.

EXEMPTION NOTES:
1. SEISMIC DESIGN CATEGORY B - TABLE 4.4 GENERAL EXEMPTION
2. SEISMIC DESIGN CATEGORY C, THE COMPONENT IMPORTANCE FACTOR Ip=1.0, TABLE 4.4 GENERAL EXEMPTION
3. SEISMIC DESIGN CATEGORY D, E OR F, AND THE COMPONENT IMPORTANCE FACTOR Ip-1.0, AND COMPONENTS HAVE APPROVED FLEXIBLE CONNECTIONS AND LESS THAN 3 FEET IN LENGTH AND ARE
   a. EITHER MOUNTED 4 FEET OR LESS ABOVE THE FLOOR LEVEL AND WEIGH 400 POUNDS OR LESS. TABLE 4.4 EXCEPTION 1a
   b. WEIGH 20 LBS OR LESS. OR IN THE CASE OF A DISTRIBUTED SYSTEM, 5 LB/FT OR LESS. TABLE 4.4 EXCEPTION 1b
5A. EXEMPT; TABLE 4.4, EXCEPTION FOR HIGH-OR-LIMITED-DEFORMABILITY MATERIALS. PIPING 4-A - NOMINAL PIPE SIZE OF 1 IN. OR LESS, SEISMIC DESIGN CATEGORY D, E OR F, AND Ip=1.0.
5B. EXEMPT; TABLE 4.4, EXCEPTION FOR PIPING 4-B - NOMINAL PIPE SIZE OF 2 IN. OR LESS, SEISMIC DESIGN CATEGORY C AND Ip=1.0.
5C. EXEMPT; TABLE 4.4, EXCEPTION FOR PIPING 4.C - NOMINAL PIPE SIZE OF 3 IN. OR LESS, SEISMIC DESIGN CATEGORY D, E OR F, AND Ip=1.0.
6. ALL TYPES OF EXTERIOR GAS PIPING INSTALLED ON ROOFS IN SEISMIC DESIGN CATEGORY C, D, E OR , WHEN SUCH PIPING WILL SUPPLY GAS AT 2 PSI OR LESS AND IS PROTECTED BY ONE OF THE TWO FOLLOWING METHODS:
   a. AN APPROVED SEISMIC SHUT-OFF VALVE IS INSTALLED WITHIN 5 FEET OF THE BEGINNING OF THE RUN OF GAS PIPING ON THE ROOF, OR OTHER APPROVED LOCATION TABLE 4.4 EXCEPTION 5a; OR
   b. APPROVED FLEXIBLE PIPING NO LESS THAN 3 FEET IN LENGTH IS INSTALLED WITHIN 5 FEET OF THE BEGINNING OF THE RUN OF GAS PIPE ON THE ROOF AND AT THE CONNECTION TO THE EQUIPMENT SERVED BY THE PIPE AND AT INTERVALS ALONG THE RUN OF NO MORE THAN 42 FEET. TABLE 4.4 EXCEPTION 5b
7. COMPONENT SHALL BE POSITIVELY ATTACHED WITH MECHANICAL FASTENERS.

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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

PLBG SYMBOLS AND ABBREVIATIONS

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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Project No. 24059
Sheet No. P001
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P101 SHEET KEYED NOTES

1 THE CONTRACTOR SHALL REMOVE THE EXISTING PLUMBING FIXTURE, ALL ASSOCIATED TRIM, AND ALL ASSOCIATED PIPING.

2 THE CONTRACTOR SHALL REMOVE THE EXISTING WATER HEATER AND ALL ASSOCIATED PIPING.

3 THE CONTRACTOR SHALL TRACE THE EXISTING COLD WATER PIPING TO LOCATE THE PIPE THAT SUPPLIES THE EXISTING WASHBAY BUILDING. THAT PIPE SHALL BE PREPARE FOR A NEW CONNECTION. THE OTHER EXISTING PIPES SHALL BE REMOVED TO BELOW GRADE AND CAPPED.

EX WH

1 PARTIAL PLUMBING DEMO PLAN - FIRST FLOOR SOUTHH WAREHOUSE

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

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MO Architect License No: A-6661
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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2025

[Consultants]

Proposed:
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545 LEFFINGWELL AVE.

No.	Date	Revision
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PLBG DEMO PLAN - S WAREHOUSE L01

Project No. 24059

Sheet No. P101

Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

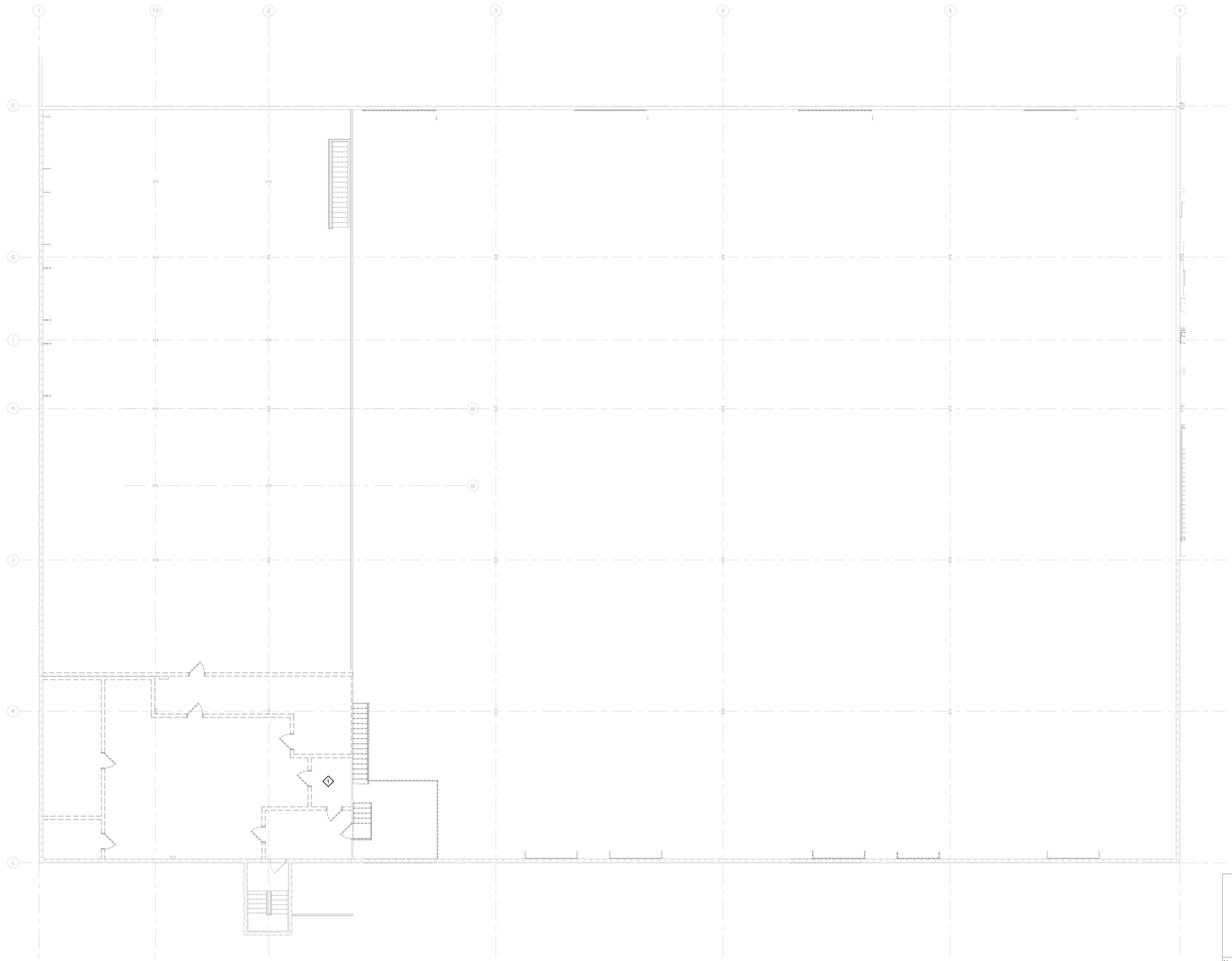
Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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P102 SHEET KEYED NOTES

1 THE CONTRACTOR SHALL REMOVE THE EXISTING PLUMBING FIXTURE, ALL ASSOCIATED TRIM, AND ALL ASSOCIATED PIPING.



1 PARTIAL PLUMBING DEMO PLAN - SECOND FLOOR SOUTH WAREHOUSE
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"

SCALE: 1/16" = 1'-0" 0 8" 16" 32"
SCALE: 3/32" = 1'-0" 0 8" 16" 24"
SCALE: 1/8" = 1'-0" 0 4" 8" 16"
SCALE: 3/16" = 1'-0" 0 4" 8" 16"
SCALE: 1/4" = 1'-0" 0 2" 4" 8"
SCALE: 3/8" = 1'-0" 0 2" 4" 6"
SCALE: 1/2" = 1'-0" 0 1" 2" 4"
SCALE: 3/4" = 1'-0" 0 1" 2" 3"
SCALE: 1" = 1'-0" 0 6" 1' 2"
SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2"
SCALE: 3" = 1'-0" 0 3" 6" 1'

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026
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KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision
0		

PLBG DEMO PLAN - S WAREHOUSE L02

Project No.
24059

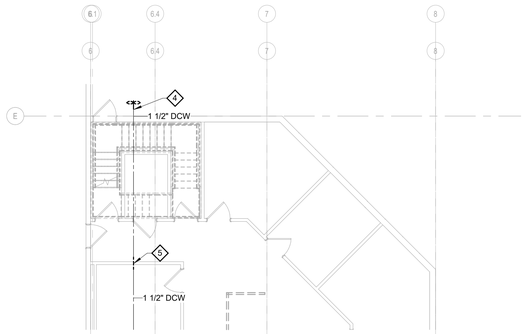
Sheet No.
P102

Date
03/27/2026

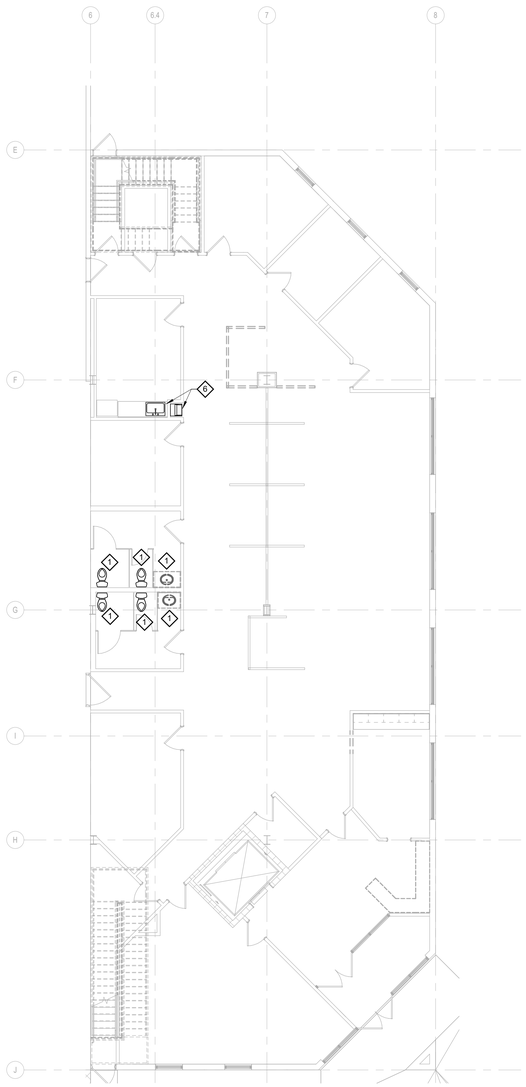
STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

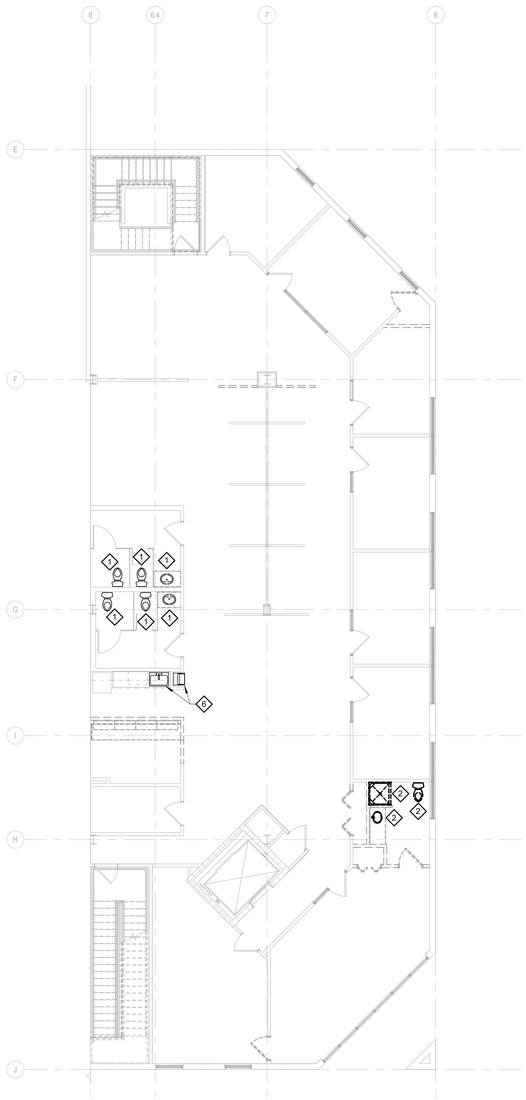
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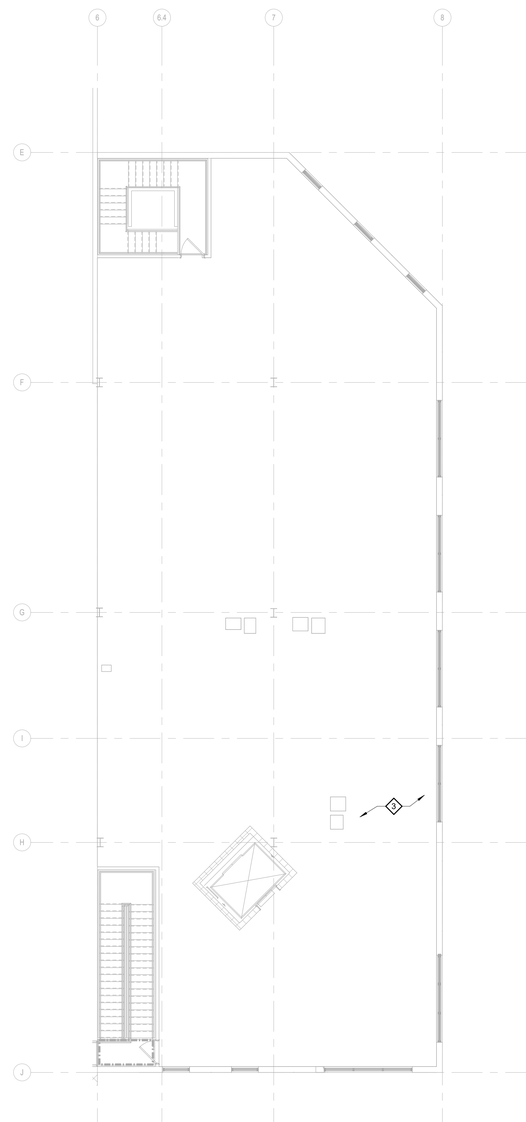
1 PARTIAL PLUMBING DEMO PLAN - UNDERFLOOR OFFICE
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



2 PARTIAL PLUMBING DEMO PLAN - FIRST FLOOR OFFICE
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



3 PARTIAL PLUMBING DEMO PLAN - SECOND FLOOR OFFICE
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



4 PARTIAL PLUMBING DEMO PLAN THIRD FLOOR OFFICE
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

P103 SHEET KEYED NOTES

1 THE CONTRACTOR SHALL REMOVE THE EXISTING PLUMBING FIXTURE AND ALL ASSOCIATED TRIM. REMOVE PIPING BACK AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW PLUMBING FIXTURE.

2 THE CONTRACTOR SHALL REMOVE THE EXISTING PLUMBING FIXTURE AND ALL ASSOCIATED TRIM. THE COLD WATER, HOT WATER, AND WASTE PIPING SHALL BE REMOVED TO BELOW GRADE ON THE FIRST FLOOR AND CAPPED. THE VENT PIPING SHALL ALL BE REMOVED UP TO IMMEDIATELY BELOW THE ROOF LINE ON THE FLOOR ABOVE AND CAPPED.

3 THE CONTRACTOR SHALL REMOVE ALL EXISTING VENT PIPING IN THIS AREA TO IMMEDIATELY BELOW THE ROOF LINE. CAP THE VENT PIPING IMMEDIATELY ABOVE AND BELOW THE ROOF LINE.

4 THE CONTRACTOR SHALL DISCONNECT AND CAP THE PIPING THAT GOES INTO THE BUILDING UNDER THE STAIRWELL. THE UPSTREAM EXTERIROR PIPING SHALL BE REMOVED.

5 THE CONTRACTOR SHALL REMOVE A SECTION OF THE COLD WATER PIPING. THE UPSTREAM SIDE CLOSEST TO THE STAIRWELL SHALL BE CAPPED AND ABANDONED. THE DOWNSTREAM PIPING SHALL BE PREPARE FOR A NEW CONNECTION.

6 EXISTING FIXTURE TO REMAIN.

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Proposed:
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No.	Date	Revision
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PLBG DEMO PLANS - OFFICE

Project No. 24059
Sheet No. P103
Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

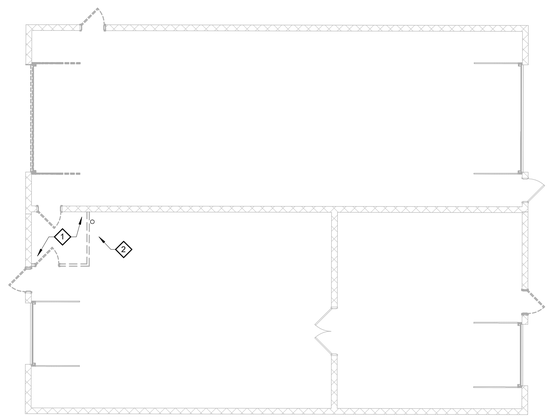
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P104 SHEET KEYED NOTES

1 THE CONTRACTOR SHALL REMOVE ALL EXISTING PLUMBING FIXTURES AND ASSOCIATED TRIM FROM THIS RESTROOM INCLUDING THE FLOOR DRAIN. WASTE PIPING SHALL BE REMOVED TO BELOW THE FLOOR AND CAPPED. VENT PIPING SHALL BE REMOVED TO IMMEDIATELY BELOW THE ROOF LINE AND CAPPED IMMEDIATELY ABOVE AND BELOW THE ROOF LINE. HOT WATER SHALL BE REMOVED ENTIRELY. COLD WATER SHALL BE REMOVED BACK TO WHERE IT ENTERS THE BUILDING AND PREPARED FOR A NEW CONNECTION.

2 THE CONTRACTOR SHALL REMOVE THE EXISTING WATER HEATER AND ALL ASSOCIATED TRIM AND PIPING.



1 PARTIAL PLUMBING DEMO PLAN - FIRST FLOOR WASH BAY
1/8" = 1'-0"

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No.	Date	Revision

PLBG DEMO PLAN - WASH BAY

Project No.
24059

Sheet No.
P104

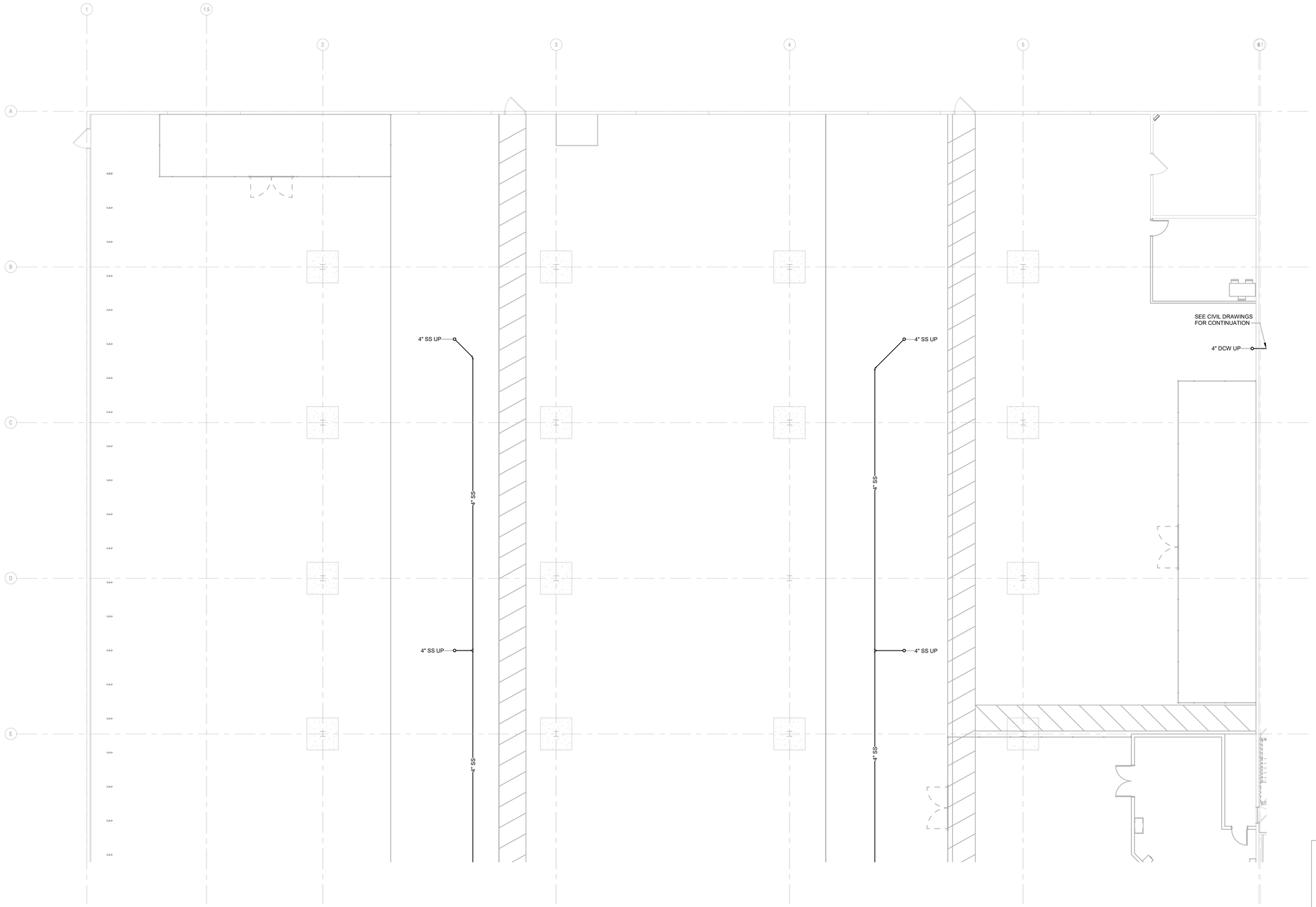
Date
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STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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1 PARTIAL PLUMBING PLAN - UNDERFLOOR NORTH WAREHOUSE
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

SCALE: 1/16" = 1'-0" 0 8" 16" 32"
SCALE: 3/32" = 1'-0" 0 8" 16" 24"
SCALE: 1/8" = 1'-0" 0 8" 16"
SCALE: 1" = 1'-0" 0 6" 1' 2"
SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2"
SCALE: 3" = 1'-0" 0 3" 6" 1'

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No.	Date	Revision
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PLBG PLAN - UNDERFLOOR N WAREHOUSE

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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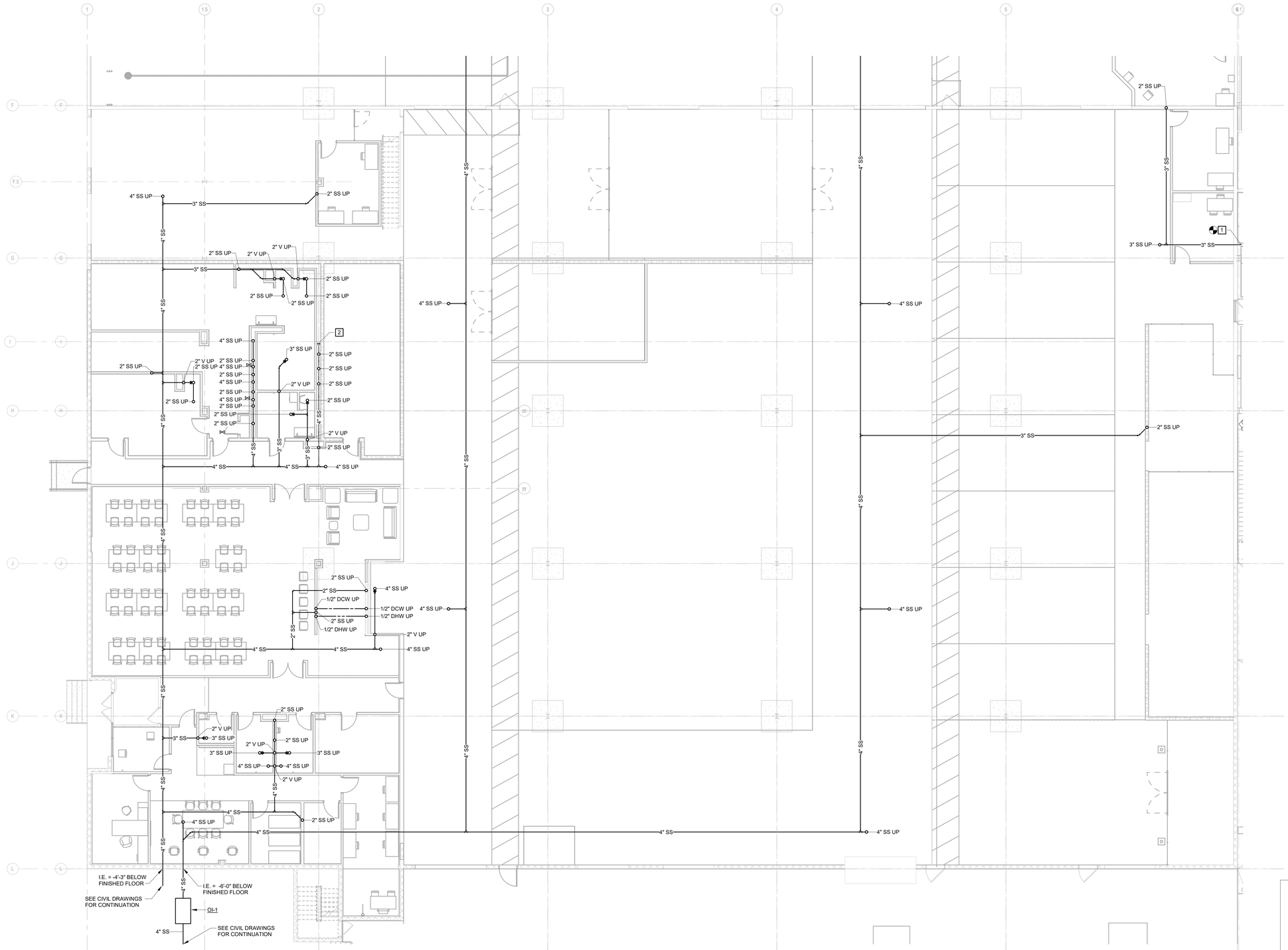
Sheet No.
P200.1

Date
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P200.2 SHEET KEYED NOTES

1 THE CONTRACTOR SHALL CONNECT THE NEW WASTE PIPING TO THE EXISTING WASTE PIPING AT THE EXISTING RESTROOM.

2 4"SS CAPPED AT -2'-0" BELOW FINISHED FLOOR FOR FUTURE CONNECTIONS.



1 PARTIAL PLUMBING PLAN - UNDERFLOOR SOUTH WAREHOUSE

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

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No.	Revision	Date

PLBG PLAN - UNDERFLOOR S WAREHOUSE

Project No. 24059

Sheet No. P200.2

Date 03/27/2026

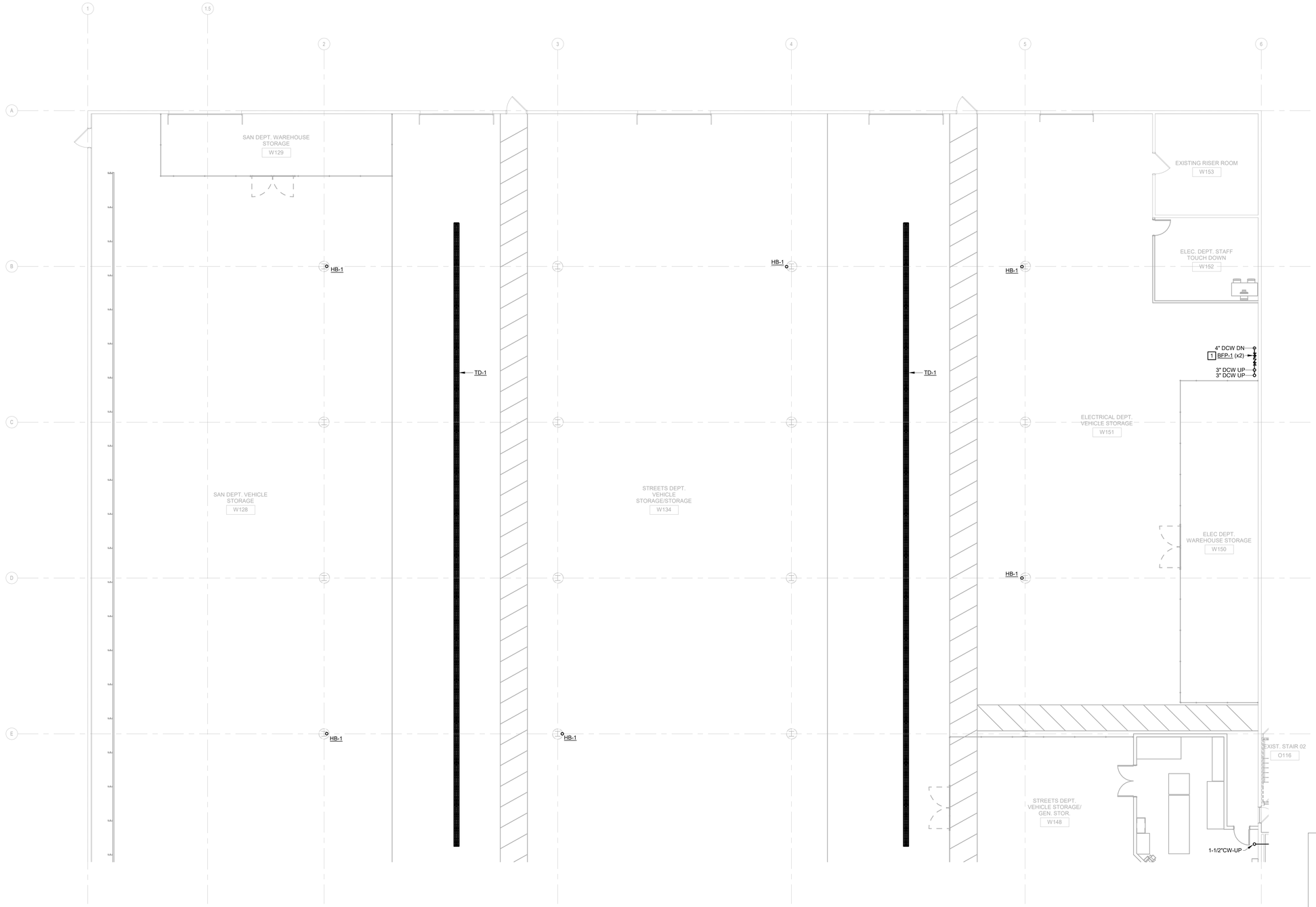
STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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P201 SHEET KEYED NOTES

1 SEE DETAIL 6 ON SHEET P501 FOR ADDITIONAL INFORMATION.



1 PARTIAL PLUMBING PLAN - FIRST FLOOR NORTH WAREHOUSE

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision
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PLBG PLAN - N WAREHOUSE L01

Project No. 24059

Sheet No. P201

Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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P202 SHEET KEYED NOTES

1. SEE DETAIL 8 ON SHEET P501 FOR ADDITIONAL INFORMATION.
2. THE CONTRACTOR SHALL RECONNECT TO THE EXISTING WALL HYDRANT FROM ABOVE AFTER THE EXISTING PIPING WAS DISCONNECTED AND CAPPED BELOW GRADE.
3. THE CONTRACTOR SHALL INSTALL THE OIL LEVEL MONITORING SYSTEM ON THE EXTERIROR WALL AT THIS LOCATION.
4. THE CONTRACTOR SHALL TERMINATE THE COMPRESSED AIR AT THE RELOCATED OWNER FURNISHED CONTRACTOR INSTALLED HOSE REEL. COORDINATE PREFERRED MOUNTING HEIGHT WITH THE OWNER PRIOR TO INSTALLATION.
5. THE CONTRACTOR SHALL CONNECT 3/4"CA TO THE LIFT. COORDINATE EXACT CONNECTION POINT WITH EXISTING OWNER EQUIPMENT TO BE RELOCATED.
6. 3/4"CA TO EQUIPMENT.
7. 1-1/4"CA TO RELOCATED OWNER FURNISHED AIR COMPRESSOR SYSTEM.
8. THE CONTRACTOR SHALL INSTALL THE RELOCATED OIL REELS. COORDINATE EXACT HEIGHT AND LOCATION WITH OWNER PRIOR TO INSTALLATION. EACH REEL SHALL RECEIVE HYDRAULIC FLUID, 0W20, 5W30, AND 15W40 OIL.
9. SEE DETAIL 9 ON SHEET P501 FOR ADDITIONAL INFORMATION.
10. BALANCING VALVE SET AT 0.5GPM. SEE DETAIL 7 ON SHEET P501 FOR ADDITIONAL INFORMATION.
11. THIS SINK SHALL BE ISLAND VENTED.
12. THE CONTRACTOR SHALL COORDINATE THE PREFERRED STYLE OF QUICK CONNECT VALVE AT THE TERMINATION OF THE PIPING WITH THE OWNER PRIOR TO CONSTRUCTION.
13. THE CONTRACTOR SHALL RECONNECT THE 3/4"CW PIPE TO THE EXISTING COLD WATER PIPING THAT SUPPLIES THE WASH BAY.



1 PARTIAL PLUMBING PLAN - FIRST FLOOR SOUTH WAREHOUSE
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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MO Architect License No: A-6661
Expires: 12/31/2026

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

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KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

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PLBG PLAN - S WAREHOUSE L01

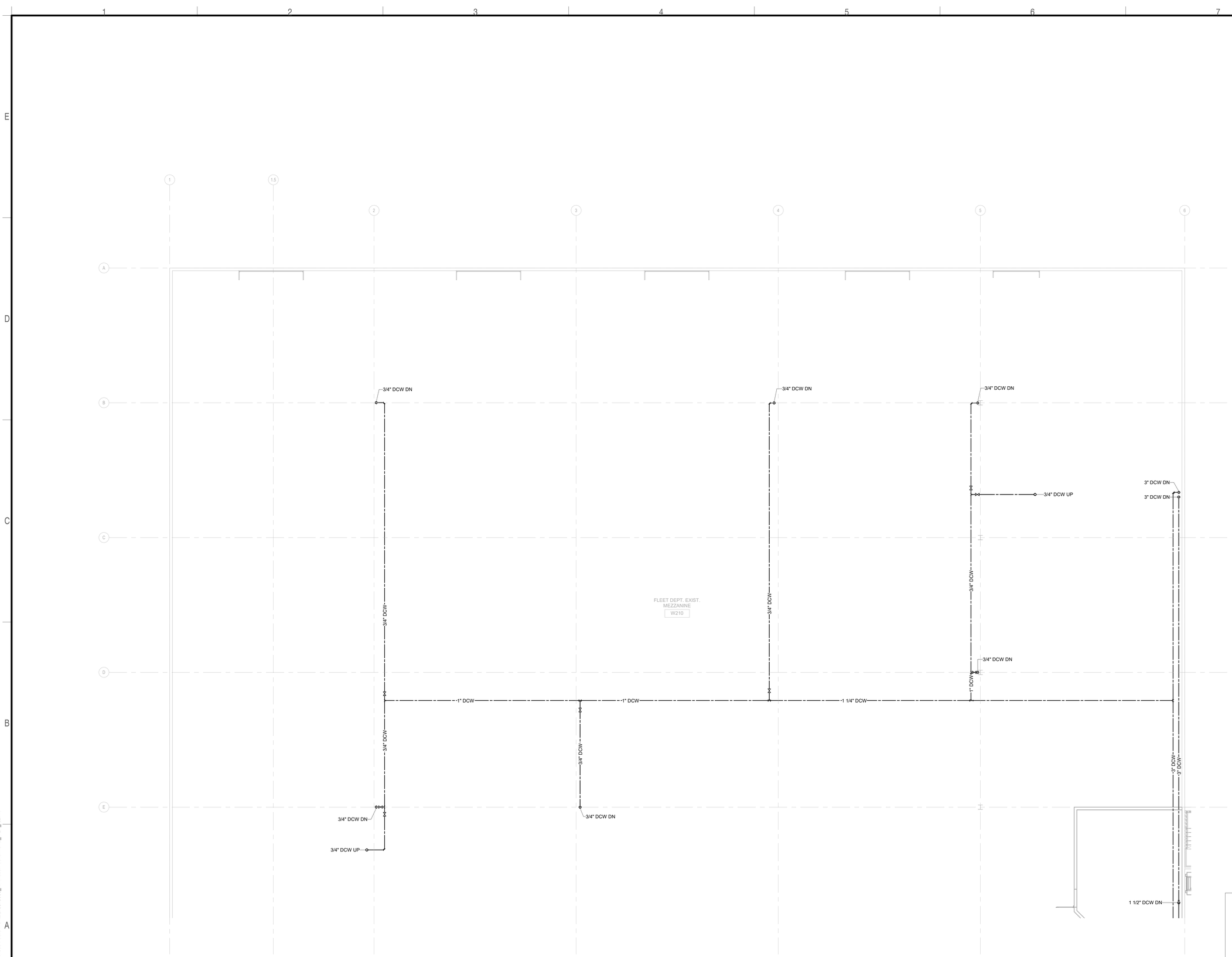
Project No. 24059
Sheet No. P202
Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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1 PARTIAL PLUMBING PLAN - SECOND FLOOR NORTH WAREHOUSE

1/8" = 1'-0"

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

3/30/2026 6:29:47 AM
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[Consultants]

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545 LEFFINGWELL AVE.

No.	Date	Revision
0		

PLBG PLAN - N WAREHOUSE L02

Project No.
24059

Sheet No.
P204

Date
03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

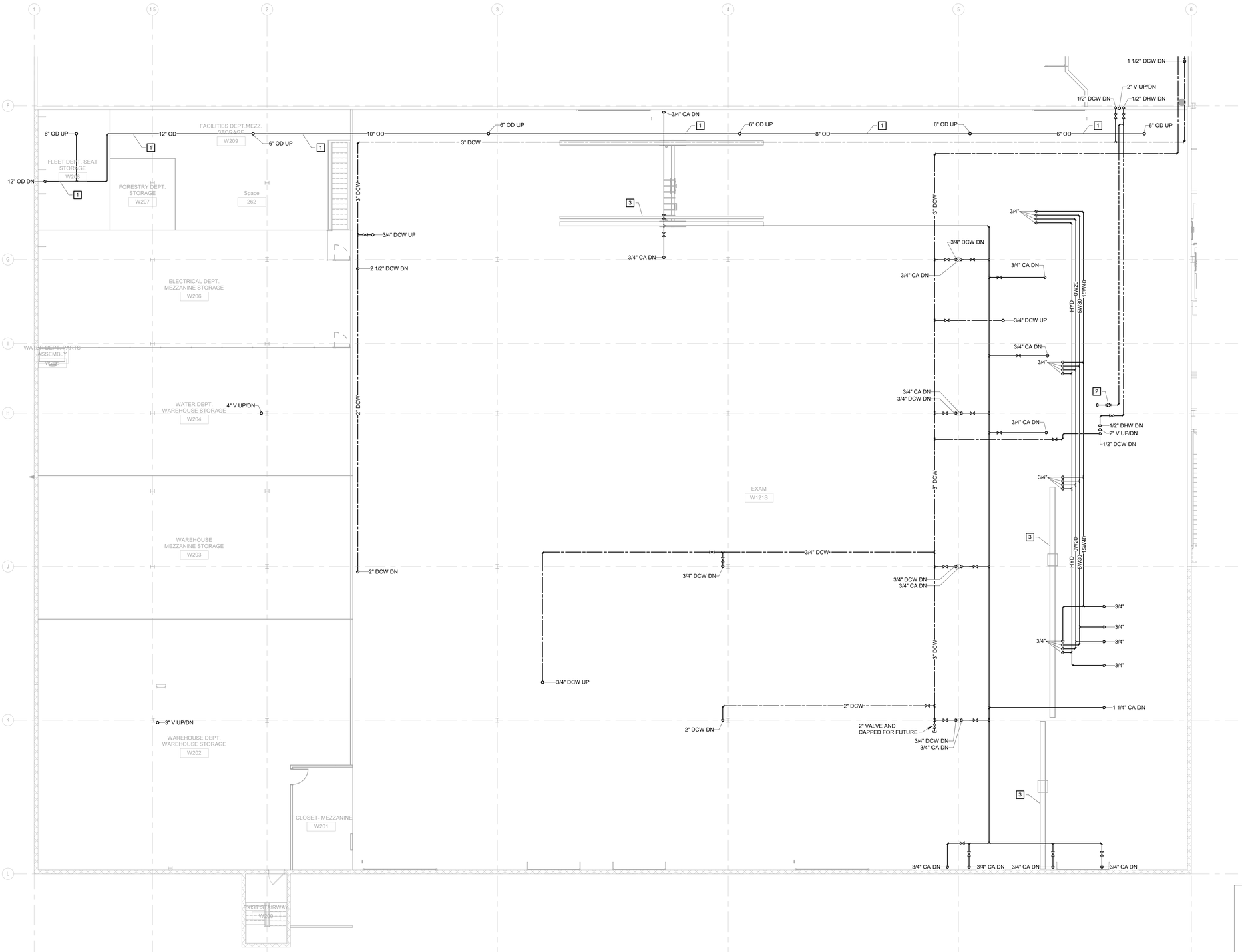
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P205 SHEET KEYED NOTES

1 OVERFLOW PIPING AND ASSOCIATED ROOF DRAINS SHALL BE PART OF ALTERNATE BID PACKAGE #5.

2 BALANCING VALVE SET AT 0.5GPM. SEE DETAIL 7 ON SHEET P501 FOR ADDITIONAL INFORMATION.

3 THE CONTRACTOR SHALL COORDINATE ALL PIPING WITH CRANE CLEARANCES PRIOR TO CONSTRUCTION.



1 PARTIAL PLUMBING PLAN - SECOND FLOOR SOUTH WAREHOUSE

1/8" = 1'-0" 8'-0" 16'-0"

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

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PLBG PLAN - S WAREHOUSE L02

Project No. 24059

Sheet No. P205

Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

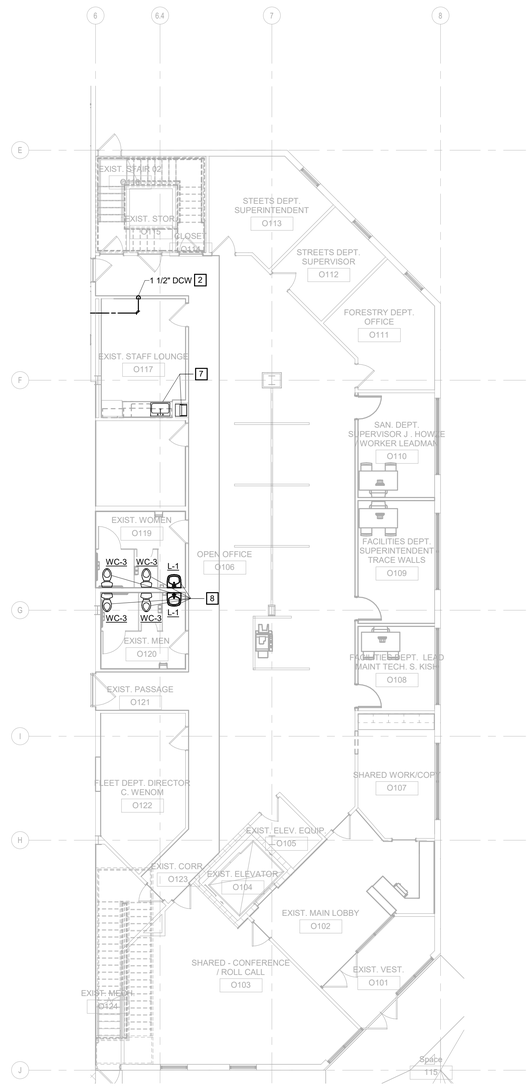
Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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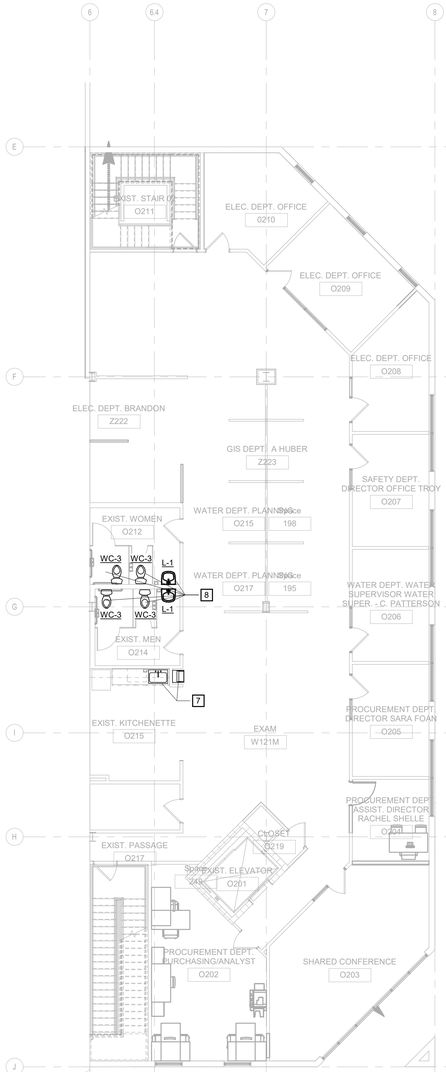
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P206 SHEET KEYED NOTES

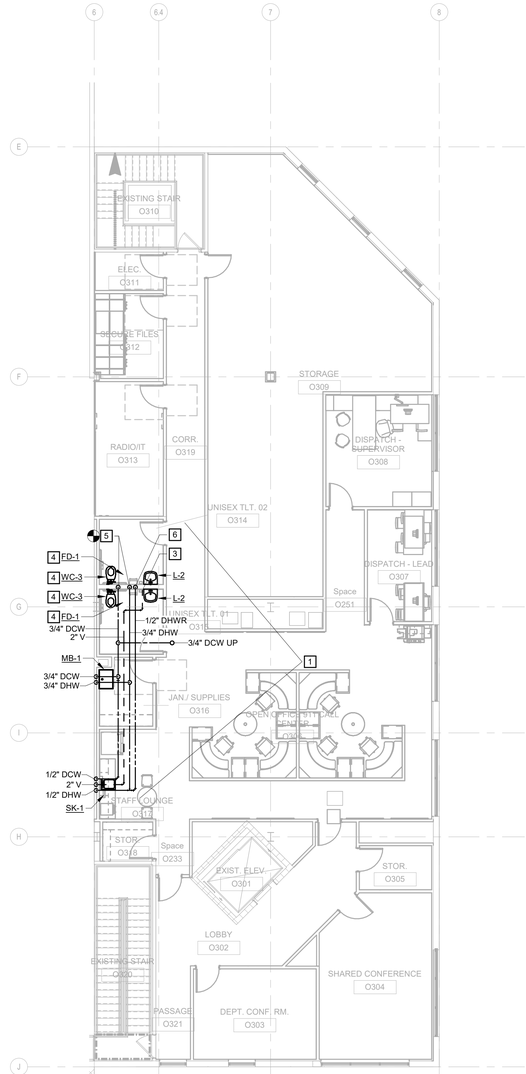
1. ALL NEW PLUMBING WORK ON LEVEL 3 SHALL BE PART OF ALTERNATE BID PACKAGE #1A.
2. THE CONTRACTOR SHALL RECONNECT TO THE EXISTING COLD WATER PIPING BELOW GRADE AT THIS LOCATION.
3. THE CONTRACTOR SHALL CONNECT THE NEW VENT PIPING TO THE EXISTING CAPPED VENT PIPING.
4. THE CONTRACTOR SHALL CONNECT THE NEW FIXTURES TO THE EXISTING WASTE PIPING ROUGH-INS.
5. THE CONTRACTOR SHALL CONNECT THE CW AND HW TO THE EXISTING STUBS AT THE FLOOR LEVEL.
6. THE CONTRACTOR SHALL EXTEND THE HOT WATER RETURN DOWN TO THE FLOOR BELOW AND CONNECT TO THE EXISTING HOT WATER RETURN PIPING.
7. EXISTING FIXTURE TO REMAIN.
8. THE CONTRACTOR SHALL INSTALL NEW PLUMBING FIXTURE AND RECONNECT ALL PIPING TO NEW FIXTURE.



1 PARTIAL PLUMBING PLAN - FIRST FLOOR OFFICE
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"



2 PARTIAL PLUMBING PLAN - SECOND FLOOR OFFICE
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"



3 PARTIAL PLUMBING PLAN - THIRD FLOOR OFFICE
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"

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545 LEFFINGWELL AVE.

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PLBG FLOOR PLANS - OFFICE

Project No. 24059

Sheet No. P206

Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

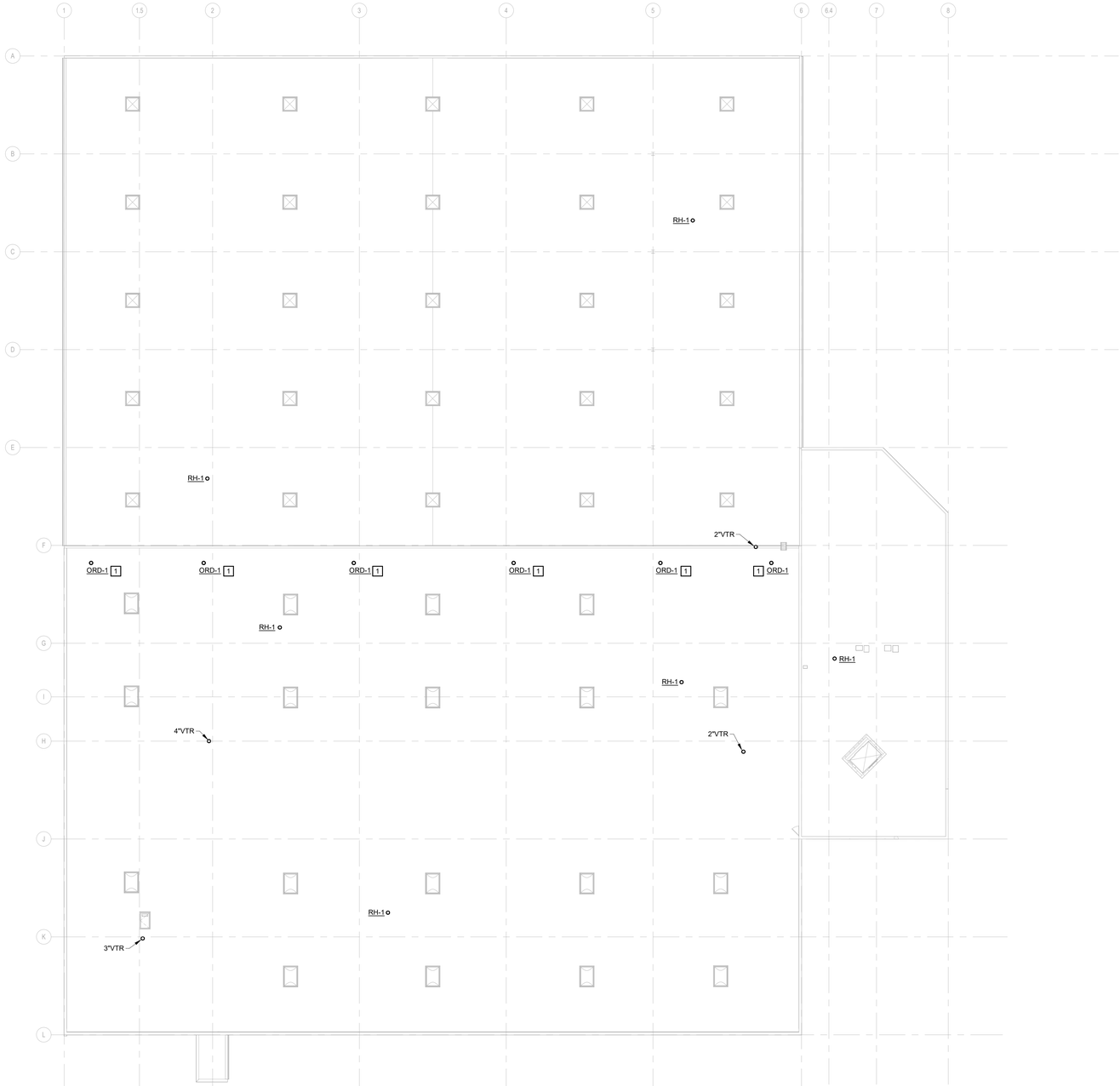
Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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P207 SHEET KEYED NOTES

1 OVERFLOW ROOF DRAINS AND ALL ASSOCIATED PIPING SHALL BE PART OF ALTERNATE BID PACKAGE #5.



1 ROOF - PLUMBING
1/16" = 1'-0"

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

SCALE: 3" = 1'-0" 0 3" 6" 1'
SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2'
SCALE: 1" = 1'-0" 0 6" 1' 2'
SCALE: 3/4" = 1'-0" 0 1' 3'
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 3/8" = 1'-0" 0 2' 4' 6'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 3/32" = 1'-0" 0 8' 16' 24'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

Roy A. Mangan
MO Architect License No: A-6661
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Proposed:
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No.	Date	Revision

PLBG PLAN - OVERALL ROOF

Project No. 24059

Sheet No. P207

Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

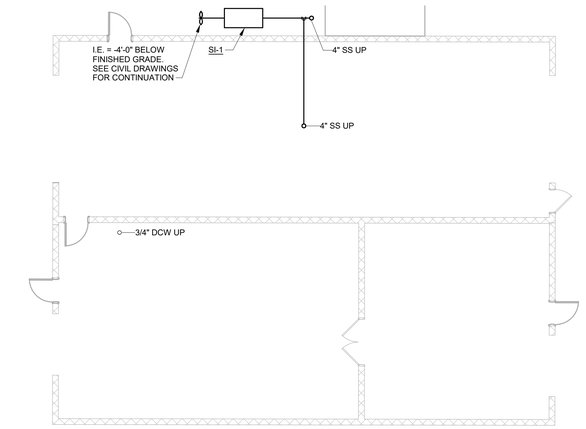
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Discipline: Professional Engineer
License No: PE-25112
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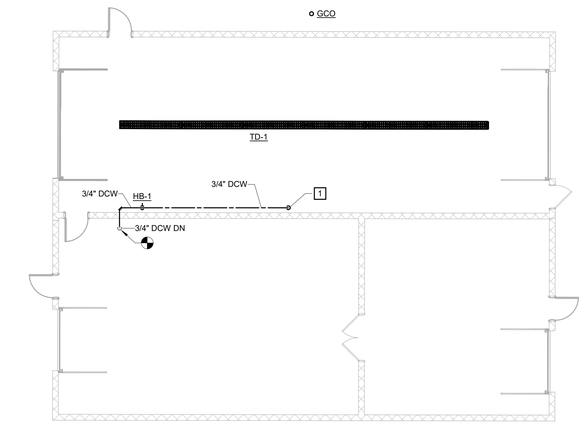
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P208 SHEET KEYED NOTES

1 THE CONTRACTOR SHALL CONNECT THE COLD WATER TO THE HEATED PRESSURE WASHER. CONTRACTOR SHALL CONFIRM EXACT LOCATION OF EQUIPMENT WITH OWNER PRIOR TO CONSTRUCTION.



1 UNDERFLOOR PLUMBING PLAN - WASH BAY
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



2 PARTIAL PLUMBING PLAN - FIRST FLOOR WASH BAY
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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MO Architect License No: A-6661
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EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
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545 LEFFINGWELL AVE.

Revision | Date | No.

PLBG PLAN - WASH BAY

Project No. 24059

Sheet No. P208

Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

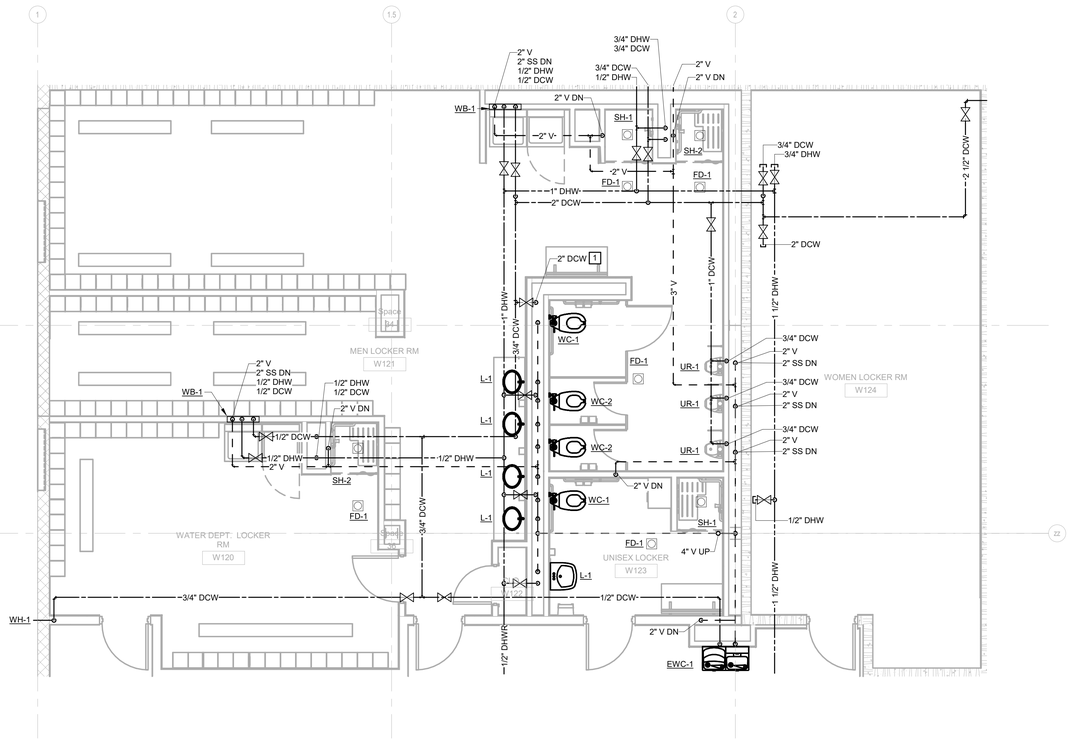
Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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P301 SHEET KEYED NOTES

1 THE CONTRACTOR SHALL EXTEND THE DCW THROUGH THE WALL TO ALL WATER CLOSETS AND LAVATORIES. PIPE SIZE SHALL REMAIN 2" UNTIL THE SECOND TO LAST WATER CLOSET AND REMAIN A 1-1/2" UNTIL THE LAST WATER CLOSET.



1 PARTIAL PLUMBING PLAN - FIRST FLOOR SOUTH WAREHOUSE - Callout 1

1/4" = 1'-0"

0 2'-0" 4'-0" 8'-0"

SCALE: 1/4" = 1'-0"

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MO Architect License No: A-6661
Expires: 12/31/2026

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545 LEFFINGWELL AVE.

No.	Date	Revision

PLBG ENLARGED PLANS

Project No. 24059

Sheet No. P301

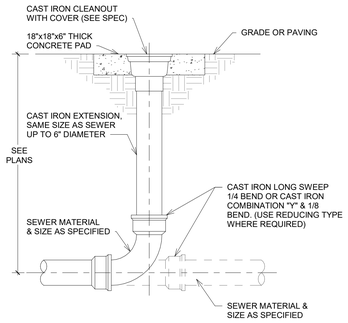
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STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

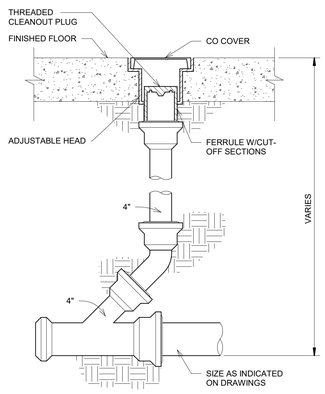
Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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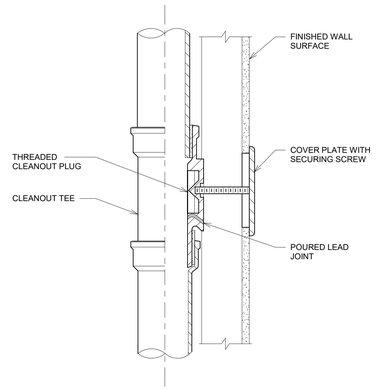
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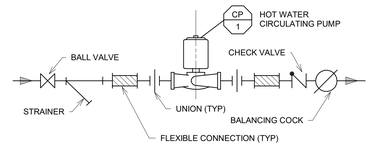
1 EXTERIOR CLEANOUT DETAIL
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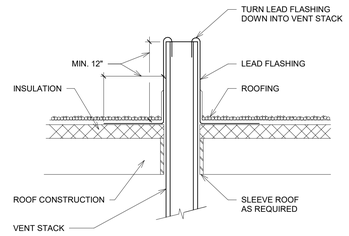
2 FLOOR CLEANOUT DETAIL
N.T.S.



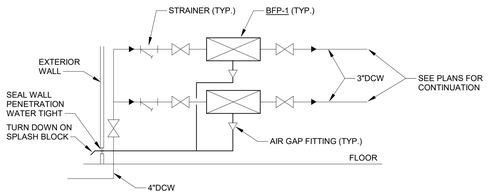
3 WALL CLEANOUT DETAIL
N.T.S.



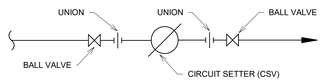
4 HOT WATER CIRCULATING PUMP DETAIL
N.T.S.



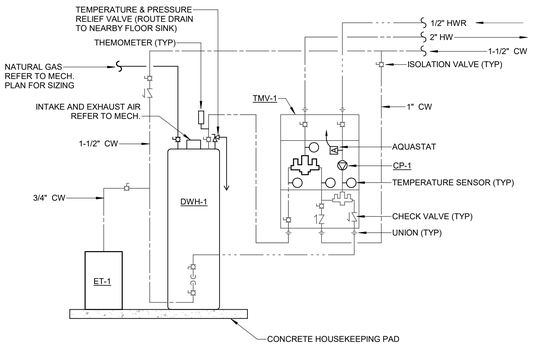
5 VENT THRU FLAT ROOF DETAIL
N.T.S.



6 BACKFLOW PREVENTER DETAIL
N.T.S.

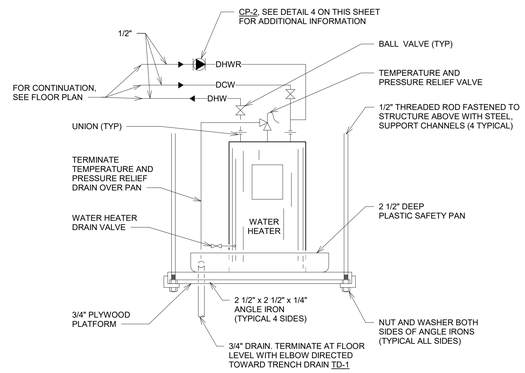


7 CIRCUIT SETTER DETAIL
N.T.S.



NOTES:
1. PIPING CONFIGURATION SHALL BE CONFIRMED WITH MANUFACTURER PRIOR TO INSTALLATION
2. PROVIDE INSTALLATION OF ALL COMPONENTS PER MANUFACTURERS WRITTEN INSTRUCTIONS, COMPLETE AND READY FOR START-UP BY FACTORY REPRESENTATIVE.

8 WATER HEATING SYSTEM DETAIL
N.T.S.



9 ELEVATED WATER HEATER DETAIL
N.T.S.

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MO Architect License No: A-6661
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DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

PLBG DETAILS

Project No. 24059

Sheet No. P501

Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	TRIM	P-TRAP	SUPPLIES	SEAT	CARRIER	ADA MOUNTED	CONNECTIONS				REMARKS
										COLD WATER	HOT WATER	WASTE	VENT	
EWC-1	ELECTRIC WATER COOLER	ELKAY	LZSTL8WSSP	--	--	--	--	--	YES	1/2"	--	2"	2"	--
HB-1	HOSE BIBB	WOODFORD	MODEL 24	--	--	--	--	--	--	3/4"	--	--	--	--
L-1	LAVATORY - WALL-HUNG	KOHLER	K-2196-1	SLOAN SF-2450-BAT-BDM-0.5	DEARBORN BRASS #510-1	DEARBORN BRASS #BCRSR1912A	--	--	YES	1/2"	1/2"	2"	2"	--
L-2	LAVATORY	KOHLER	K-2084	SLOAN SF-2450-BAT-BDM-0.5	DEARBORN BRASS #510-1	DEARBORN BRASS #BCRSR1912A	--	--	YES	1/2"	1/2"	2"	2"	--
MB-1	MOP BASIN	FIAT	TSB100-MSG	CHICAGO FAUCETS 897-RCF	3"	FIAT #899-CC, FIAT #832-AA			--	3/4"	3/4"	3"	2"	PROVIDE WITH MOP HANGER AND HOSE/BRACKET
OB-1	OUTLET BOX	IPS CORP	MIB1AB	--	--	--	--	--	--	1/2"	--	--	--	--
RH-1	ROOF HYDRANT	WOODFORD	SRH-MS	--	--	--	--	--	--	3/4"	--	--	--	--
SH-1	SHOWER	BY ARCHITECT	BY ARCHITECT	SYMMONS 9601-PLR	2"	--	--	--	--	1/2"	1/2"	2"	2"	
SH-2	SHOWER - ADA	BY ARCHITECT	BY ARCHITECT	SYMMONS 9603-P	2"	--	--	--	YES	1/2"	1/2"	2"	2"	--
SK-1	SINK - SINGLE BOWL	ELKAY	ELUHAD131645	MOEN 87932 KITCHEN PULLDOWN FAUCET	DEARBORN BRASS #510-1	DEARBORN BRASS #BCRSR1912A	--	--	YES	1/2"	1/2"	2"	2"	PROVIDE WITH ASSE 1070 MIXING VALVE BELOW THE SINK FOR THE HOT WATER.
SK-2	SINK - SINGLE BOWL	ELKAY	LR2522PD	CHICAGO FAUCETS 201-G8AE35-317XKAB	DEARBORN BRASS #510-1	DEARBORN BRASS #BCRSR1912A	--	--	--	1/2"	1/2"	2"	2"	PROVIDE WITH ASSE 1070 MIXING VALVE BELOW THE SINK FOR THE HOT WATER.
SK-3	SINK - SINGLE BOWL - FREESTANDING	ELKAY	B1C24X24X	CHICAGO FAUCETS W8W-L9E1-317ABCP	DEARBORN BRASS #510-1	DEARBORN BRASS #BCRSR1912A	--	--	--	1/2"	1/2"	2"	2"	PROVIDE WITH ASSE 1070 MIXING VALVE BELOW THE SINK FOR THE HOT WATER.
UR-1	URINAL	KOHLER	K-4989-T	SLOAN G2 8186-0.5	INTEGRAL	--	--	--	YES	3/4"	--	2"	2"	WHITE VITREOUS CHINA, ADA
WB-1	WASHER BOX	IPS CORP	T200 SERIES	--	--	--	--	--	--	1/2"	1/2"	2"	2"	--
WC-1	WATER CLOSET - WALL-HUNG - ADA	KOHLER	K-8425-SS	SLOAN G2 8111-1.6	INTEGRAL	--	CHURCH 2155-SSCT	JAY R. SMITH	YES	1-1/2"	--	4"	2"	--
WC-2	WATER CLOSET - WALL HUNG	KOHLER	K-8425-SS	SLOAN G2 8111-1.6	INTEGRAL	--	CHURCH 2155-SSCT	JAY R. SMITH	YES	1-1/2"	--	4"	2"	--
WC-3	WATER CLOSET - TANK TYPE - ADA	KOHLER	K-25077	--	INTEGRAL	--	CHURCH 2155-SSCT	--	YES	1/2"	--	4"	2"	--
WC-4	WATER CLOSET - FLOOR MOUNT - ADA	KOHLER	K-96057	SLOAN G2 8111-1.6	INTEGRAL	--	CHURCH 2155-SSCT	--	YES	1-1/2"	--	4"	2"	--
WH-1	WALL HYDRANT	JAY R. SMITH	5509QT-NB	--	--	--	--	--	--	3/4"	--	--	--	--

DRAIN SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	SHAPE	BODY MATERIAL	STRAINER		REMARKS
						SIZE	MATERIAL	
DN-1	DOWNSPOUT NOZZLE	JAY R. SMITH	1775	ROUND	STAINLESS STEEL	12"	STAINLESS STEEL	
FCO-1	FLOOR CLEANOUT	JAY R. SMITH	4024S	ROUND	CAST IRON	--	NICKEL BRONZE	
FD-1	FLOOR DRAIN	JAY R. SMITH	2005-A-NB-P050	ROUND	CAST IRON	5"	NICKEL BRONZE	
FS-1	FLOOR SINK	JAY R. SMITH	2405-B	SQUARE	WHITE A.R.E.	12"	DUCTILE IRON	
GCO-1	GRADE CLEANOUT	JAY R. SMITH	4223S	ROUND	CAST IRON	--	NICKEL BRONZE	
ORD-1	OVERFLOW ROOF DRAIN	JAY R. SMITH	1080-G-GCID-C-L	ROUND	CAST IRON	--	GALVANIZED	
TD-1	TRENCH DRAIN	ZURN	Z882-HD-GDE	LINEAR	HDPE	12"	GALVANIZED	
WCO-1	WALL CLEANOUT	JAY R. SMITH	4710	ROUND	--	--	CHROME PLATED	

BACKFLOW PREVENTER SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	SIZE	PEAK FLOW (GPM)	PRESSURE LOSS @ PEAK FLOW (PSI)	REMARKS
BFP-1	REDUCED PRESSURE BACKFLOW PREVENTER	WATTS	LF909	3"	100	12	

WATER HEATER SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	STORAGE (GAL)	RECOVERY @ 100°F RISE (GPH)	GAS (CFH)	GAS CONNECTION SIZE (IN)	STANDARD INPUT (KW)	MAX INPUT (KW)	ELECTRIC (V/PH)	REMARKS
DWH-1	DOMESTIC WATER HEATER	A.O. SMITH	BTH-199	100	256	199	3/4"	--	--	120/1	PROVIDE WITH ET-1.
DWH-2	DOMESTIC WATER HEATER	A.O. SMITH	DEL-10	10	10	--	--	2.5	2.5	120/1	PROVIDE WITH ET-2.

EXPANSION TANK SCHEUDLE

MARK	DESCRIPTION	MANUFACTURER	MODEL	SERVICE	DIAMETER (IN)	HEIGHT (IN)	VOLUME (GAL)	CAPACITY (GAL)	REMARKS
ET-1	EXPANSION TANK	AMTROL	ST-12C-DD	DWH-1	12	1' - 6"	6.4	3.2	--
ET-2	EXPANSION TANK	AMTROL	ST-5	DWH-2	8	1' - 2"	2.0	.9	--

THERMOSTATIC MIXING VALVE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	FLOW @ 10 PSI LOSS (GPM)	MIN. FLOW (GPM)	LEAVING TEMP (°F)	VOLTAGE	REMARKS
TMV-1	THERMOSTATIC MIXING VALVE	MGI CONTROLS	ABMV-2000-1-E0-20-00-00-B-10-T	21	1	127	120	PROVIDE WITH CP-1.

CIRCULATING PUMP SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	FLOW (GPM)	PRESSURE @ FLOW (HEAD FT)	VOLTAGE	REMARKS
CP-1	HOT WATER CIRCULATING PUMP	BELL & GOSSETT	E3-6V/BTPYZ	2	8	120	PROVIDE WITH TMV-1.
CP-2	HOT WATER CIRCULATING PUMP	BELL & GOSSETT	E3-4V/BTPYZ	1	4.5	120	PROVIDE WITH DWH-2.

INTERCEPTOR SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	SERVING	FLOW (GPM)	VOLUME (GAL)	REMARKS
OI-1	OIL INTERCEPTOR	STRIEM	OS-100	WAREHOUSE	100	62.5	PROVIDE WITH STRIEM AVA-3 LIQUID LEVEL MONITORING SYSTEM.
SI-1	SEDIMENT INTERCEPTOR	STRIEM	CB-275-S	WASHBAY	--	200	

Roy A. Mangan
MO Architect License No: A-6661
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Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

Revision | Date | No.

PLBG SCHEDULES

Project No.
24059

Sheet No.
P601

Date
03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

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FIRE PROTECTION SYMBOLS:

- CONTROL VALVE WITH TAMPER SWITCH
- ELECTRIC MOTOR ALARM GONG
- FIRE MAIN
- SPRINKLER MAIN - SIZED BASED ON HYDRAULIC CALCULATIONS
- FIRE PUMP TEST HEADER
- FLOW SWITCH
- ROOF HYDRANT OUTLET
- SIAMESE CONNECTION
- SEMI RECESSED
- CONCEALED
- PENDENT/UPRIGHT
- SIDEWALL
- FIRE PROTECTION ZONE
- AUTOMATIC AIR VENT
- BACKFLOW PREVENTER
- CHECK VALVE
- BALANCING VALVE (CIRCUIT SETTER)
- FLOW ARROW/DIRECTION
- FLOW CONTROL VALVE
- GLOBE VALVE
- PRESSURE GAUGE AND COCK
- PRESSURE REDUCING VALVE
- PRESSURE REGULATOR
- REDUCER
- SHOCK ABSORBER/WATER HAMMER ARRESTOR
- SHUT OFF VALVE
- SOLENOID VALVE
- STRAINER
- TEMP & PRESSURE RELIEF VALVE
- TEST PLUG
- THERMOMETER
- UNION (DIELECTRIC)
- (DASHED) INDICATED PIPING TO BE REMOVED
- CONNECTION TO EXISTING
- EQUIPMENT NUMBER
- INDICATES PLUMBING RISER
- KITCHEN EQUIPMENT NUMBER
- REVISION DELTA
- KEYED NOTE
- KEYED DEMOLITION NOTE
- ELBOW DOWN
- ELBOW UP
- TEE DOWN
- TEE UP
- FLOOR DRAIN

ABBREVIATIONS:

AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT COMPLIANT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISH GRADE
AP	ACCESS PANEL
BFG	BELOW FINISHED GRADE
BGB	BOTTOM OF GRADE BEAM
BM	BEAM
BOB	BOTTOM OF BEAM
BOF	BOTTOM OF FOOTING
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF SLAB
BOT	BOTTOM
BT	BATHTUB
BOW	BOTTOM OF WALL
CL	CENTERLINE
CI	CAST IRON
CO	CLEANOUT
CV	CHECK VALVE
DD	DECK DRAIN
DI	DUCTILE IRON
DIA	DIAMETER
DN	DOWN
DR	DRAIN
DS	DOWNSPOUT
DTL	DETAIL
DWG(S)	DRAWING(S)
EC	ELECTRICAL CONTRACTOR - DIVISION 26
ELEC	ELECTRIC
ELEV	ELEVATION
EQ	EQUAL
EXIST, EX	EXISTING
FA	FROM ABOVE
FB	FROM BELOW
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDV	FIRE DEPARTMENT VALVE
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHV	FIRE HOSE VALVE
FIN	FINISHED
FL	FLOOR . FIRE LINE
FP	FIRE PUMP
FPC	FIRE PROTECTION CONTRACTOR - DIVISION 21
FS	FLOOR SINK
FT	FEET
FT-HD	FEET IN HEAD
FVC	FIRE VALVE CABINET
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GCO	GRADE CLEANOUT
GPM	GALLONS PER MINUTE
H	HEIGHT
HB	HOSE BIBB
HD	HUB DRAIN
HE	HOSE END
HORIZ	HORIZONTAL
HP	HORSEPOWER
HT	HOUSE TRAP
HZ	HERTZ
IE	INVERT ELEVATION
IN	INCH/INCHES
INV	INVERT
JP	JOCKEY PUMP
L	LENGTH
LVL	LEVEL
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR - DIVISION 23
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED / CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED / OWNER INSTALLED
PC	PLUMBING CONTRACTOR - DIVISION 22
PH	PHASE
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSI	PSI ABSOLUTE
PSIA	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE IN GAUGE
QTY	QUANTITY
RCP	REINFORCED CONCRETE PIPIE
RD	ROOF DRAIN
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTIONS PER MINUTE
SA	SHOCK ABSORBER
SF	SQUARE FOOT
SHT	SHEET
SOL	SOLENOID
SP	STANDPIPE
SQ	SQUARE
STL	STEEL
STR	SOIL STACK THRU ROOF
SW	STREET WASHER
T&P	TEMPERATURE & PRESSURE
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF SLAB
TOT	TOTAL
TPC	TOP OF PIER CAP
TYP	TYPICAL
VB	VACUUM BREAKER
VCP	VITREOUS CLAY PIPE
VERT	VERTICAL
VL	VALVE
VOL	VOLUME
VTR	VENT THRU ROOF
W/O	WITH / WITHOUT
WH	WALL HYDRANT
WT	WEIGHT
YD	YARD DRAIN

HYDRANT FLOW TEST

DATE OF TEST:	DECEMBER 3, 2025
FLOW:	[974] GPM (+/- 100 GPM)
STATIC PRESSURE:	[70] PSIG
RESIDUAL PRESSURE:	[66] PSIG

DEMOLITION NOTES:

1. THESE PLANS ARE DIAGRAMMATIC IN NATURE SINCE THEY REFLECT ONLY THE AVAILABLE INFORMATION OBTAINED FROM EXISTING PLANS, SPECIFICATIONS AND FIELD SURVEYS. THE EXACT LOCATION OF EXISTING PIPING AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THESE DRAWINGS.
2. ALL ELBOWS, FITTINGS, ETC. IN PIPING ARE NOT NECESSARILY INDICATED.
3. IF THE CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS, OR IS NOT SURE OF THEIR MEANING, THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S WRITTEN EXPLANATION AND INTERPRETATION, PRIOR TO SUBMITTING THE BID, SINCE THE CONTRACTOR SHALL BE HELD RIGIDLY TO THE INTERPRETATION OF THE ENGINEER.
4. THE OWNER SHALL MAINTAIN ALL SALVAGE RIGHTS OF EQUIPMENT AND MATERIALS REMOVED. ALL EQUIPMENT AND MATERIALS NOT CLAIMED BY THE OWNER SHALL BE REMOVED FROM THE PREMISES AND DISPOSED OF BY THE CONTRACTOR.
5. THE CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING AND PATCHING OF FLOOR(S), WALL(S), ROOF AND/OR CEILING REMOVAL AND REPLACEMENT IN AREAS WHERE THE ONLY WORK IS FIRE PROTECTION.
6. THE CONTRACTOR SHALL USE CAUTION WHEN REMOVING EXISTING PIPING, EQUIPMENT, ETC. TO AVOID DAMAGE TO ELECTRICAL WIRING, CONTROL WIRING, PIPING, ETC. THAT IS TO REMAIN. NOTIFY THE GC AND THE EC IF WIRING IS FOUND ATTACHED TO PIPING.
7. WHEREVER EXISTING EQUIPMENT, PIPING, ETC. ARE TO BE REMOVED, SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, HANGERS, FOUNDATIONS, ETC. UNLESS NOTED OTHERWISE AFTER REMOVAL, FLOORS, WALLS AND CEILINGS SHALL BE PATCHED AND FINISHED TO MATCH ADJOINING AREAS.
8. WHERE ITEMS ARE REMOVED, UTILITIES AND THE AREA FROM WHICH THE ITEMS HAVE BEEN REMOVED SHALL BE LEFT IN SUCH A MANNER THAT IS SAFE FOR BOTH PEOPLE AND PROPERTY ON A DAILY BASIS.
9. WHERE POWERED AND/OR CONTROLLED EQUIPMENT OR ACCESSORIES ARE REMOVED AND WIRING IS NOT TO BE REUSED, REMOVE ALL WIRING BACK TO PANEL UNLESS NOTED OTHERWISE. MODIFY CONTROLS SYSTEM WHERE APPLICABLE TO REMOVE DEMOLISHED ITEM.
10. ALL UTILITY SHUTDOWNS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND THE OWNER.
11. COORDINATE ALL SYSTEM SHUT DOWNS WITH THE OWNER. MINIMIZE THE DOWNTIME OF SYSTEMS TO THE GREATEST EXTENT AS POSSIBLE.

GENERAL NOTES:

1. BECAUSE OF THE LIMITED SPACE AVAILABLE TO INSTALL ALL OF THE FIRE PROTECTION WORK, COORDINATION BETWEEN OTHER TRADES IS OF THE UTMOST IMPORTANCE.
2. DRAWINGS INDICATE THE GENERAL LOCATION AND ARRANGEMENT OF FIXTURES, EQUIPMENT AND PIPING SYSTEMS. LOCATION AND ARRANGEMENT OF PIPING LAYOUT TAKE INTO ACCOUNT MANY DESIGN CONSIDERATIONS. SO FAR AS PRACTICAL, INSTALL PIPING AS INDICATED. THIS CONTRACTOR SHALL REPORT, IN WRITING, ANY DISCREPANCIES WHICH PREVENT THE INSTALLATION OF WORK AS SHOWN.
3. THE CONTRACTOR SHALL VISIT THE PROJECT SITE, AND VERIFY LOCATIONS, ELEVATIONS AND SIZES OF ALL UTILITIES AT SITE PRIOR TO PROCEEDING WITH WORK. EXISTING SYSTEMS AND STRUCTURE SHALL BE INVESTIGATED FOR BEST POSSIBLE ROUTING OF FIRE PROTECTION PIPING.
4. THESE PLANS ARE DIAGRAMMATIC IN NATURE SINCE THE ONLY AVAILABLE INFORMATION HAS BEEN OBTAINED FROM EXISTING PLANS, SPECIFICATIONS, AND FIELD SURVEYS. THE EXACT LOCATION OF PIPING, FIXTURES, AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THESE DRAWINGS. EXTREME ACCURACY IS NOT GUARANTEED. THE CONTRACTOR SHALL BE PREPARED TO MAKE ALTERATIONS TO NEW AND/OR EXISTING SERVICES TO FIT JOB CONDITIONS. THE CONTRACTOR SHALL FURNISH A COMPLETE AND CODE COMPLYING SYSTEM.
5. IF THE CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS OR IS NOT COMPLETELY SURE OF THEIR MEANING, THE CONTRACTOR SHALL OBTAIN THE ENGINEERS WRITTEN EXPLANATION AND/OR INTERPRETATION PRIOR TO SUBMITTING BIDS, SINCE THE CONTRACTOR WILL BE HELD RIGIDLY TO THE INTERPRETATION OF THE ENGINEER.
6. CUTTING, REMOVING AND PATCHING OF EXISTING FLOOR(S), WALL(S), ROOF ETC., FOR PLUMBING AND FIRE PROTECTION PIPING INSTALLATION SHALL BE BY THE CONTRACTOR.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR THE EXISTING SURFACES TO REMAIN WHERE THEIR WORK HAS BEEN COMPLETED. REPAIR SHALL INCLUDE, BUT NOT LIMITED TO, ANY EXISTING WALL, CEILING OR FLOOR THAT IS SCHEDULED TO REMAIN. REPAIR, PAINTING OR PATCHING SHALL BE COMPLETED BY AN APPROPRIATE CONTRACTOR QUALIFIED FOR THIS TYPE OF WORK.
8. THE OWNER SHALL MAINTAIN ALL SALVAGE RIGHTS OF FIXTURES, EQUIPMENT AND MATERIALS REMOVED. HOWEVER ALL FIXTURES, EQUIPMENT AND MATERIALS NOT CLAIMED BY THE OWNER SHALL BE REMOVED FROM THE PREMISES AND PROPERLY DISPOSED OF BY THE DEMOLITION CONTRACTOR.
9. DETAILS SHOWN IN THESE DRAWINGS APPLY TO INSTALLATIONS INDICATED REGARDLESS AS TO IF THEY ARE SPECIFICALLY REFERENCED ELSE WHERE IN THE DRAWING SET. ANY QUESTIONS ON THEIR APPLICABILITY SHOULD BE SENT TO THE ENGINEER PRIOR TO BIDDING.

FIRE PROTECTION SYSTEM COMPONENTS EARTHQUAKE LOAD RESISTANCE

OCCUPANCY CATEGORY (IV) — **SEISMIC DESIGN CATEGORY (D)**

LISTING OF EQUIPMENT & SYSTEM COMPONENTS	ANCHORAGE TO FLOORS, ROOF, ETC.		SWAY BRACING		LOCATION OF PROFESSIONALLY-SEALED ANCHORAGE AND SWAY BRACING DETAILS		COMMENTS
					ON CONSTRUCTION DOCUMENTS	SUBSEQUENT SUBMITTAL SEPARATE PERMIT AND PLANS	
	NOT PROVIDED	PROVIDED	NOT PROVIDED	PROVIDED	DRAWING NO. OR SPEC. SECTION		
FIRE PROTECTION, DETECTION & ALARM EQUIPMENT AND SYSTEM COMPONENTS Ip=1.5							
FIRE SYSTEM EQUIPMENT		X		X		X	
FIRE SPRINKLER SYSTEM PIPING / VALVES		X		X		X	
FIRE MAIN PIPING / VALVES		X		X		X	
						X	

EXPLANATORY NOTES:
1. ALL FIRE PROTECTION SYSTEMS SHALL CONFORM TO NFPA 13 LATEST EDITION FOR ANCHORAGE AND SWAY BRACING.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE PLANS SIGNED AND SEALED BY A MISSOURI PROFESSIONAL ENGINEER ALONG WITH A SEPARATE APPLICATION NEED TO BE SUBMITTED TO THE AHJ A MINIMUM OF TWO WEEKS PRIOR TO THE PLANNED INSTALLATION TO ALLOW FOR PLAN REVIEW AND DISTRIBUTION TO THE INSPECTOR. ADDITIONAL TIME MAY BE NEEDED IF SUCH SUBMISSIONS ARE DEFICIENT.
3. SWAY BRACING REQUIRED FOR ITEMS SUSPENDED FROM STRUCTURE , UNLESS EXEMPT.
4. ANCHORAGE & BRACING CONTRACTOR SHALL REFER TO SPECIFICATIONS AS WELL AS TO ST. LOUIS COUNTY RULES & REGULATIONS ON SEISMIC ANCHORAGE & SWAY BRACING (DATED 6/30/2020).
5. ALL SEISMIC SHOP DRAWINGS SHALL BE REVIEWED BY THE ENGINEER OF RECORD PRIOR TO SUBMITTAL TO THE CODE REVIEWER.
6. CONTRACTOR SHALL ADHERE TO REQUIREMENTS FOR EXEMPTION, WHERE NOTED, OR PROVIDE SEISMIC BRACING DESIGNED BY A QUALIFIED ENGINEER LICENSED IN THE PROJECT'S STATE.

SPRINKLER HEAD SCHEDULE

MARK	STYLE	ELEMENT BULB		COVERAGE	OCCUPANCY RATING	FINISH	ESCUTCHEON	SPECIALS	VIKING MODEL NO.	REMARKS
		RESPONSE	TEMP CLASS							
A	RP	QR	ORDINARY	SC	LH	W	R	-	VK302	SEMI-RECESSED
B	RP	QR	ORDINARY	SC	OHG1	W	R	-	VK302	SEMI-RECESSED
C	U	QR	ORDINARY	SC	OHG1	U	X	-	VK300	NON-CEILING AREAS
D	P	QR	ORDINARY	SC	LH	W	F	-	VK158	DRY BARREL
E	U	ESFR	ORDINARY	SC	OHG2	U	X	-	--	HEAD TYPE TO MATCH EXISTING SYSTEM

STYLE	RESPONSE	COVERAGE	FINISH	OCCUPANCY RATING	ESCUTCHEON
C- CONCEALED PENDANT	QR- QUICK RESPONSE 3MM	EC- EXTENDED	B- POLISHED BRASS	LH - LIGHT HAZARD	C- CONCEALED COVERPLATE
P- PENDANT	SR- STANDARD 5MM	SC- STANDARD	C- CHROME	OHG1 - ORDINARY HAZARD GROUP 1	E- 2 PIECE EXTENDED
RP- RECESSED PENDANT	ESFR- EARLY SUPP. FAST RESPONSE		OW- OFF WHITE	OHG2 - ORDINARY HAZARD GROUP 2	F- FLAT
RSW- RECESSED SIDEWALL			U- UNFINISHED	EHG1 - EXTRA HAZARD GROUP 1	R- RECESSED
FSW- FLUSH SIDEWALL			W- WHITE	EHG2 - EXTRA HAZARD GROUP 2	X- NO ESCUTCHEON
SW- SIDEWALL					
U- UPRIGHT			* - CUSTOM COLOR		
FP- FLUSH PENDANT					

HYDRAULIC DESIGN CRITERIA

CLASSIFICATION	AREA	DENSITY	APPLICATIONS
LH- LIGHT HAZARD	1500 SF	0.10 GPM	ALL AREAS NOT LISTED BELOW
OH-1 ORDINARY HAZARD GROUP 1	1500 SF	0.15 GPM	STORAGE ROOMS, MECH. ROOMS, ELEC. ROOMS, SHELL SPACES, ACCESSIBLE PIPE CHASES
OH-2 ORDINARY HAZARD CROUP 2	1500 SF	0.20 GPM	
EH-1 EXTRA HAZARD GROUP 1	2500 SF	0.30 GPM	
EH-2 EXTRA HAZARD GROUP 2	2500 SF	0.40 GPM	

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

FP SYMBOLS AND ABBREVIATIONS

Project No. 24059
Sheet No. FP001
Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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NOTE:
NO WORK ON THIS SHEET.
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1 PARTIAL FIRE PROTECTION DEMO PLAN - FIRST FLOOR NORTH WAREHOUSE
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"

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MO Architect License No: A-6661
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Proposed:
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No.	Date	Revision
0		

FP DEMO PLAN - N WAREHOUSE L01

Project No.
24059

Sheet No.
FP101

Date
03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

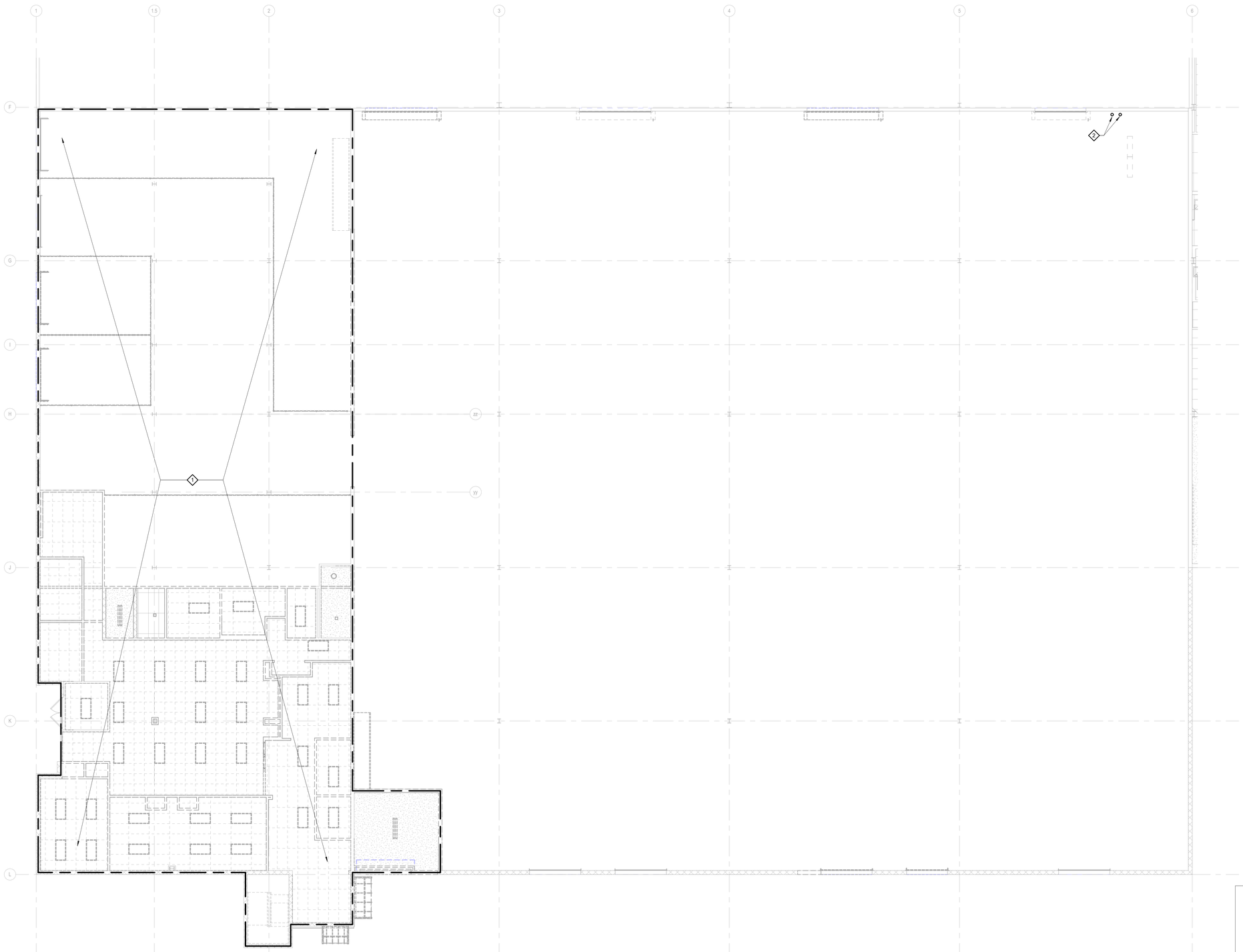
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FP102 SHEET KEYED NOTES

1 THE CONTRACTOR SHALL REMOVE ALL SPRINKLERS AND PIPING IN THE INDICATED AREA AND PREPARE FOR NEW SPRINKLER LAYOUT.

2 THE CONTRACTOR SHALL REMOVE THE ABANDONED FIRE PROTECTION PIPING, VALVES, AND ASSOCIATED TRIM AND HANGERS AT THIS AREA.



1 PARTIAL FIRE PROTECTION DEMO PLAN - FIRST FLOOR SOUTH WAREHOUSE

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

SCALE: 3" = 1'-0" 1" 6" 3" 0
SCALE: 1 1/2" = 1'-0" 1" 6" 3" 0
SCALE: 1" = 1'-0" 1" 6" 3" 0
SCALE: 3/4" = 1'-0" 1" 6" 3" 0
SCALE: 1/2" = 1'-0" 2" 1" 0
SCALE: 3/8" = 1'-0" 6" 4" 2" 0
SCALE: 1/4" = 1'-0" 8" 4" 2" 0
SCALE: 1/8" = 1'-0" 16" 8" 4" 0
SCALE: 3/32" = 1'-0" 24" 16" 8" 0
SCALE: 1/16" = 1'-0" 32" 16" 8" 0

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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision
0		

FP DEMO PLAN - S WAREHOUSE L01

Project No.
24059

Sheet No.
FP102

Date
03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

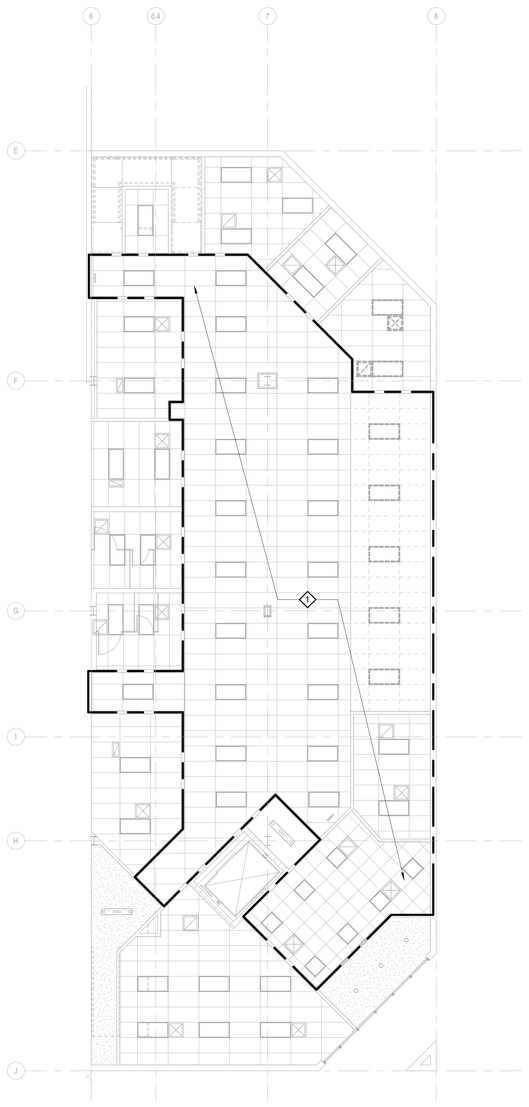
Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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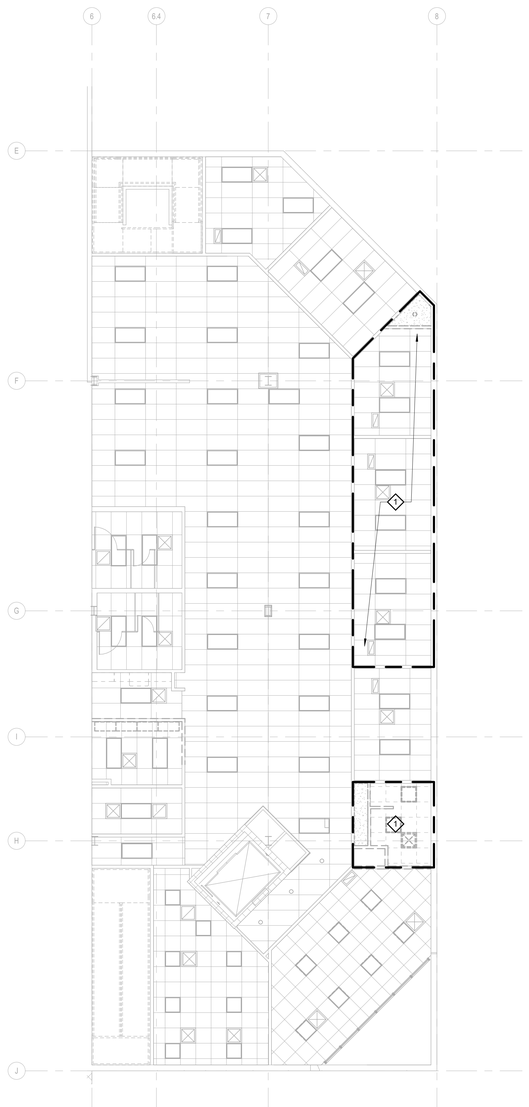
FP103 SHEET KEYED NOTES

1 THE CONTRACTOR SHALL REMOVE ALL SPRINKLERS AND ARM-OVERS IN THE INDICATED AREA. PREPARE PIPING FOR EXTENSION TO NEW SPRINKLER HEADS IN NEW CEILING LAYOUT.

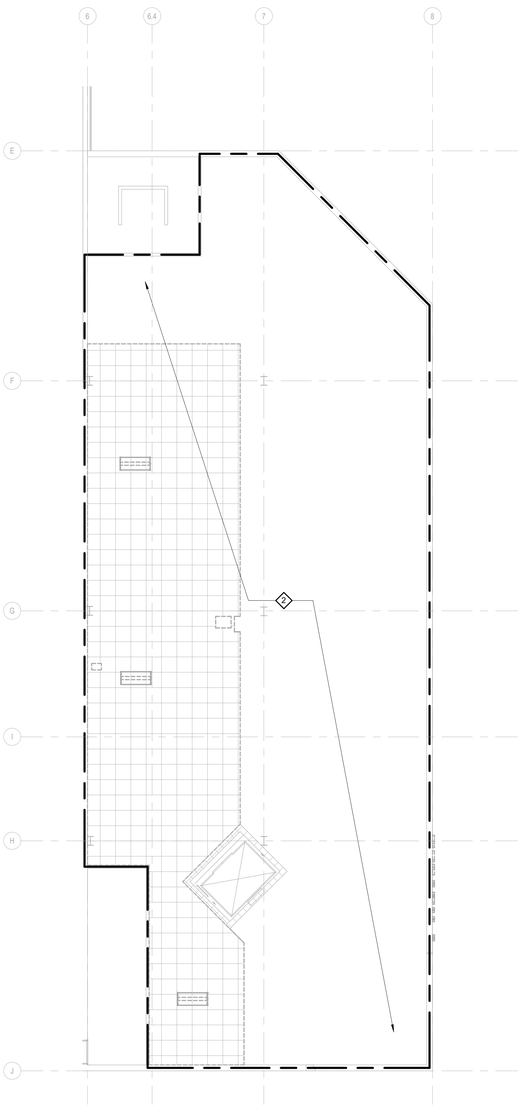
2 THE CONTRACTOR SHALL REMOVE ALL UPRIGHT SPRINKLER AND SPRIGS IN THE INDICATED AREA. PREPARE PIPING FOR EXTENSION TO NEW SPRINKLER HEADS IN NEW CEILING LAYOUT. THIS WORK SHALL BE PART OF ALTERNATE BID PACKAGE #1A.



1 PARTIAL FIRE PROTECTION DEMO PLAN - FIRST FLOOR OFFICE
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"



2 PARTIAL FIRE PROTECTION DEMO PLAN - SECOND FLOOR OFFICE
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"



3 PARTIAL FIRE PROTECTION DEMO PLAN - THIRD FLOOR OFFICE
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"

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KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision
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FP DEMO PLANS - OFFICE

Project No.
24059

Sheet No.
FP103

Date
03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

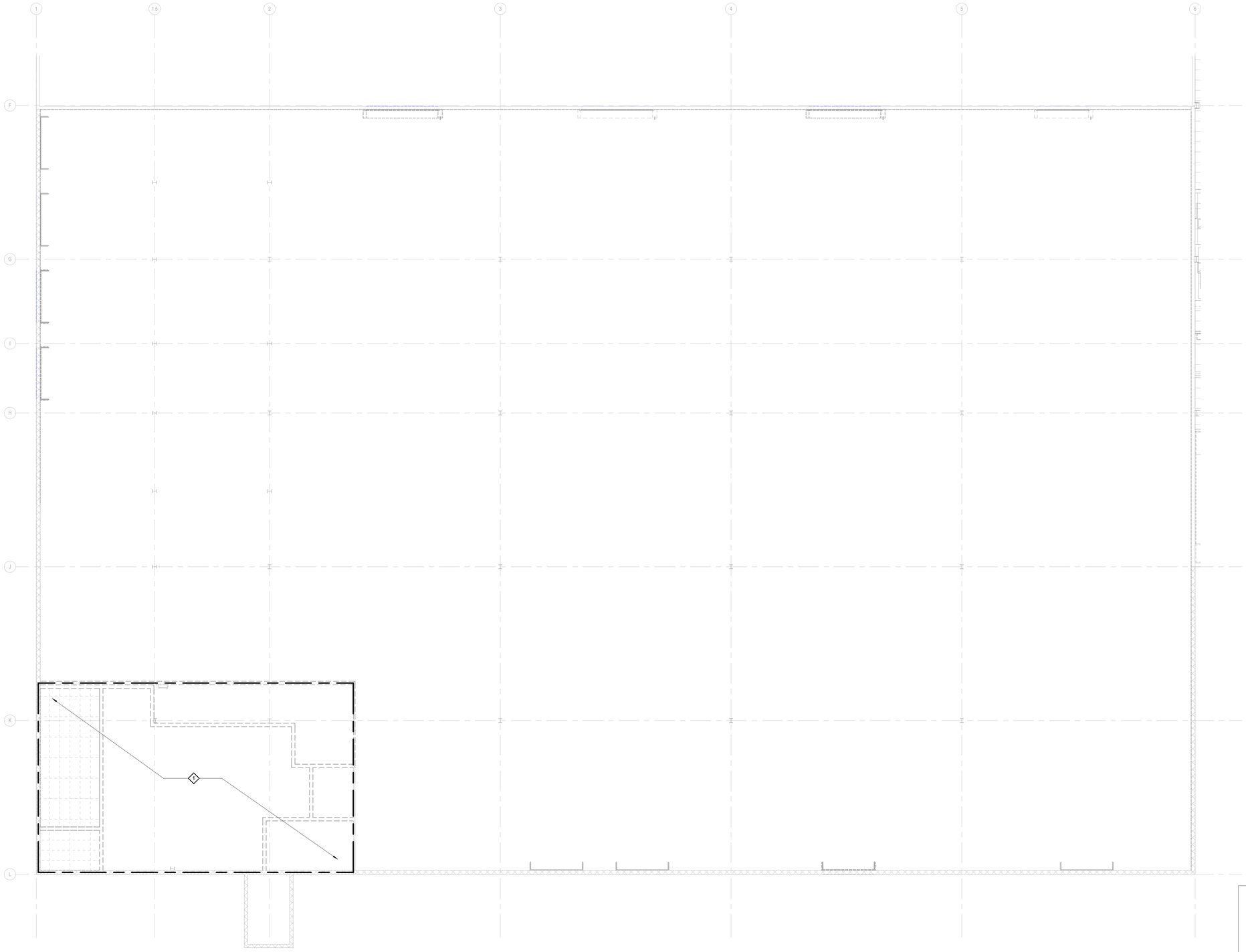
Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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FP104 SHEET KEYED NOTES

1 THE CONTRACTOR SHALL REMOVE ALL SPRINKLERS AND PIPING IN THE INDICATED AREA AND PREPARE FOR NEW SPRINKLER LAYOUT.



2 PARTIAL FIRE PROTECTION DEMO PLAN - SECOND FLOOR SOUTH WAREHOUSE
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

SCALE: 1" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 3/32" = 1'-0" SCALE: 1/16" = 1'-0"

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision
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FP DEMO PLAN - S WAREHOUSE L02

Project No.
24059

Sheet No.
FP104

Date
03/27/2026

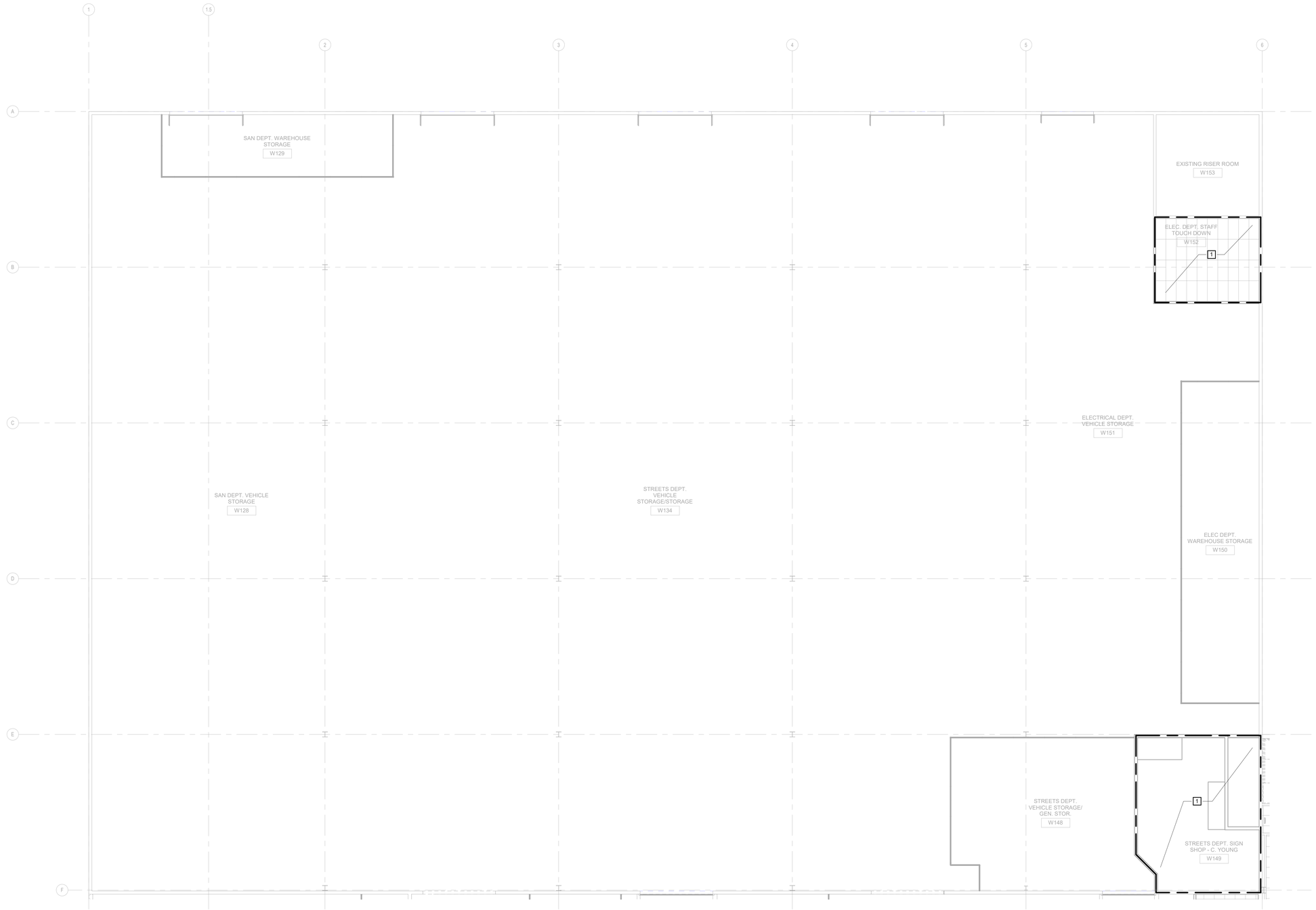
STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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FP201 SHEET KEYED NOTES

1 TYPE A HEADS TO BE INSTALLED.



1 PARTIAL FIRE PROTECTION PLAN - FIRST FLOOR NORTH WAREHOUSE

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

SCALE: 1"=1'-0" SCALE: 3/4"=1'-0" SCALE: 1/2"=1'-0" SCALE: 3/8"=1'-0" SCALE: 1/4"=1'-0" SCALE: 1/8"=1'-0" SCALE: 3/32"=1'-0" SCALE: 1/16"=1'-0"

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FP PLAN - N WAREHOUSE L01

Project No. 24059

Sheet No. FP201

Date 03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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FP202 SHEET KEYED NOTES

1 TYPE A HEADS TO BE INSTALLED.
2 TYPE B HEADS TO BE INSTALLED.
3 TYPE D HEADS TO BE INSTALLED.
4 TYPE C HEADS TO BE INSTALLED.
5 AREA EXPOSED TO ABOVE.



1 PARTIAL FIRE PROTECTION PLAN - FIRST FLOOR SOUTH WAREHOUSE
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

SCALE: 3" = 1'-0" 0 3" 6" 1'
SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2'
SCALE: 1" = 1'-0" 0 6" 1' 2'
SCALE: 3/4" = 1'-0" 0 1' 2' 3'
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 3/8" = 1'-0" 0 2' 4' 6'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 3/32" = 1'-0" 0 8' 16' 24'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

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MO Architect License No: A-6661
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EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

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FP PLAN - S WAREHOUSE L01

Project No. 24059

Sheet No. FP202

Date 03/27/2026

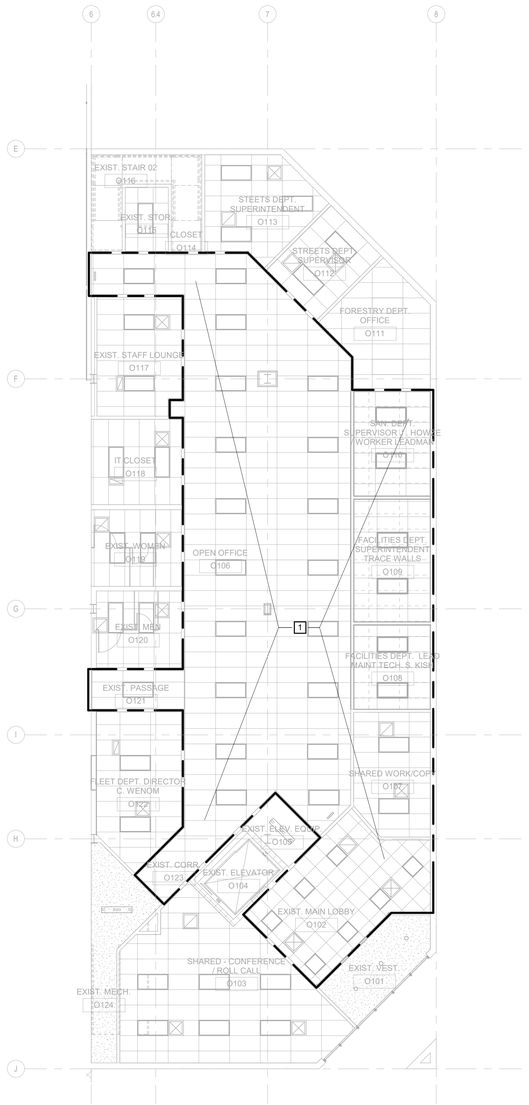
STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

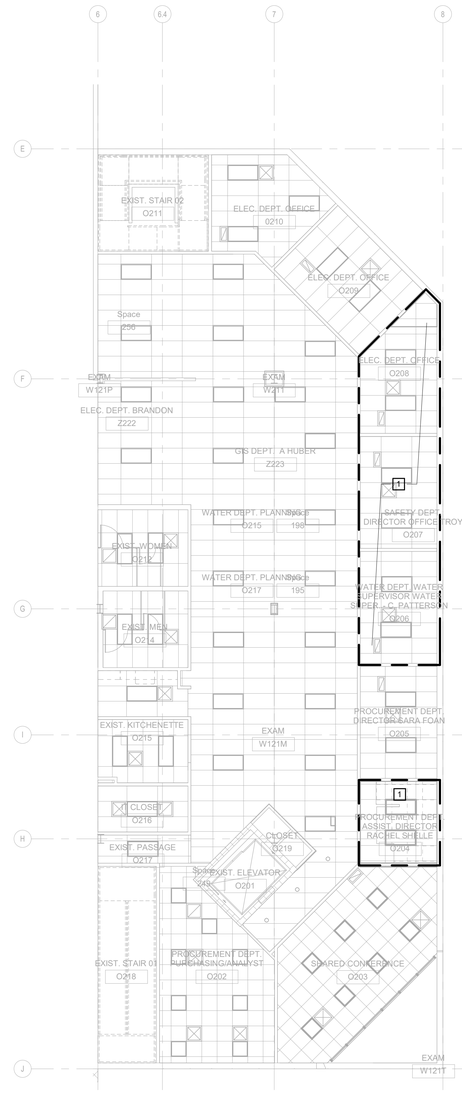
Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

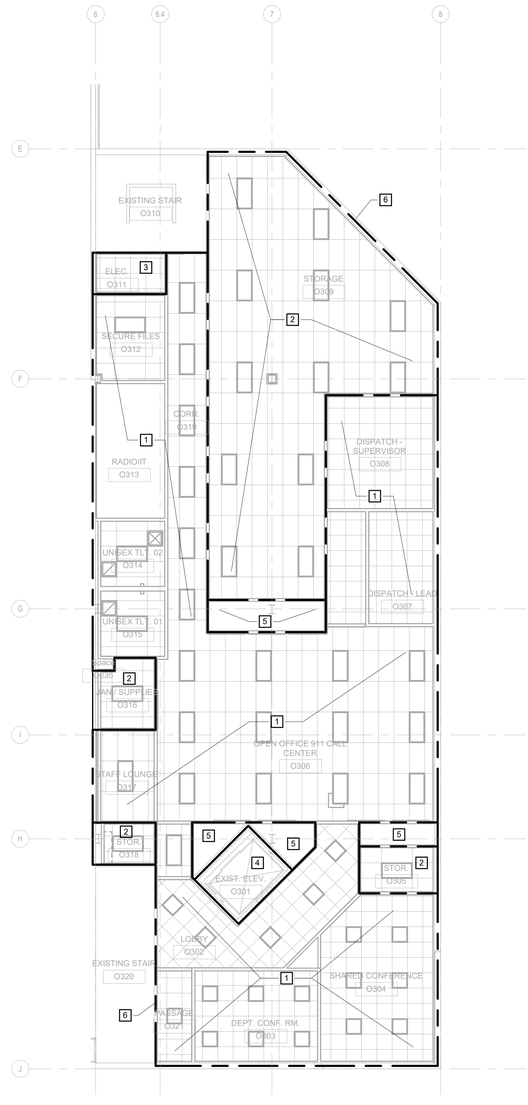
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FP203 SHEET KEYED NOTES

1 TYPE A HEADS TO BE INSTALLED.
2 TYPE B HEADS TO BE INSTALLED.
3 TYPE C HEADS TO BE INSTALLED.
4 EXISTING ELEVATOR TO REMAIN.
5 INACCESSIBLE SPACE.
6 ALL WORK ON LEVEL 3 SHALL BE PRICED AS ADD ALTERNATE #1A.







1 PARTIAL FIRE PROTECTION PLAN - FIRST FLOOR OFFICE
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

2 PARTIAL FIRE PROTECTION PLAN - SECOND FLOOR OFFICE
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

3 PARTIAL FIRE PROTECTION PLAN - THIRD FLOOR OFFICE
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

SCALE: 3" = 1'-0" SCALE: 1 1/2" = 1'-0" SCALE: 1" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 3/32" = 1'-0" SCALE: 1/16" = 1'-0"

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Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/2026

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026
[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision
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FP FLOOR PLANS - OFFICE

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

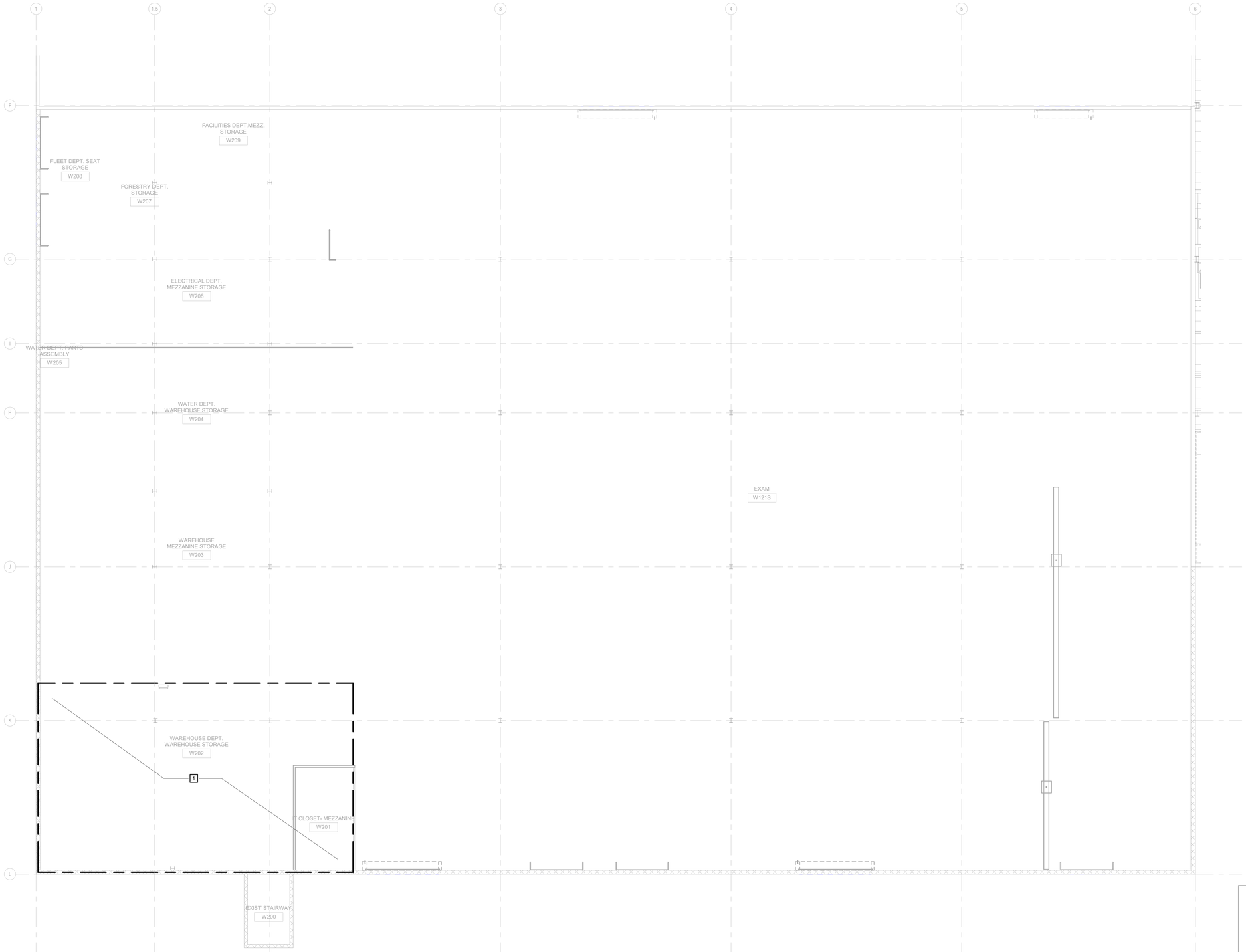
Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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Project No. 24059
Sheet No. FP203
Date 03/27/2026

FP204 SHEET KEYED NOTES

1 TYPE E HEADS TO BE INSTALLED.



1 PARTIAL FIRE PROTECTION PLAN - SECOND FLOOR SOUTH WAREHOUSE

1/8" = 1'-0" 4'-0" 8'-0" 16'-0"

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

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EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
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545 LEFFINGWELL AVE.

No.	Date	Revision
0		

FP PLAN - S WAREHOUSE L02

Project No. 24059

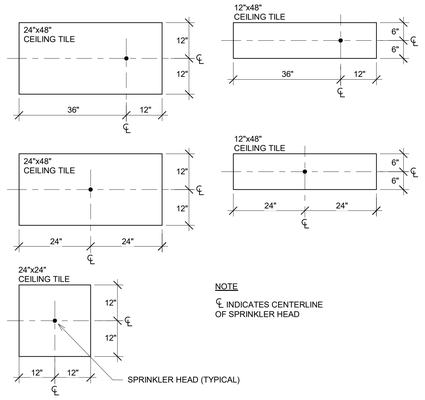
Sheet No. FP204

Date 03/27/2026

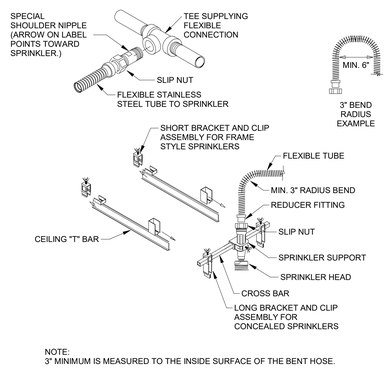
STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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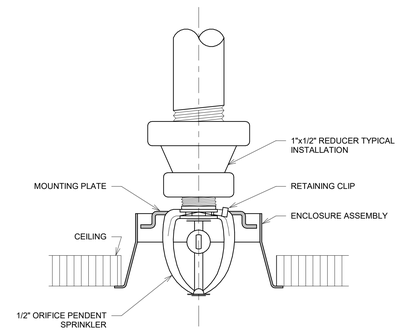


1 SPRINKLER HEAD LOCATION DETAIL
N.T.S.

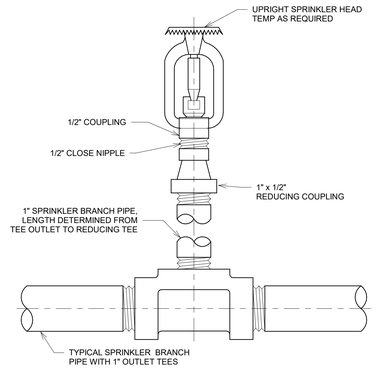


NOTE:
3" MINIMUM IS MEASURED TO THE INSIDE SURFACE OF THE BENT HOSE.

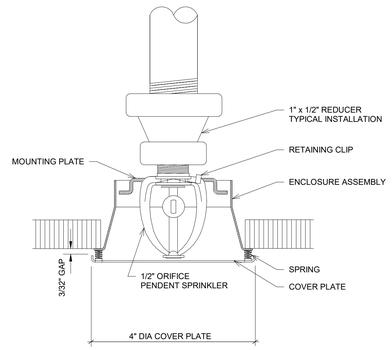
2 FLEXIBLE ARM-OVER DETAIL
N.T.S.



3 SEMI-RECESSED SPRINKLER HEAD DETAIL
N.T.S.



4 UPRIGHT SPRINKLER HEAD DETAIL
N.T.S.



5 CONCEALED SPRINKLER HEAD DETAIL
N.T.S.

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[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

FP DETAILS

Project No.
24059

Sheet No.
FP501

Date
03/27/2026

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
3/30/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
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SCALE: 3" = 1'-0" 1" 6" 3" 0
SCALE: 1 1/2" = 1'-0" 2" 6" 3" 0
SCALE: 1" = 1'-0" 2" 6" 1" 0
SCALE: 3/4" = 1'-0" 3" 2" 1" 0
SCALE: 1/2" = 1'-0" 4" 2" 1" 0
SCALE: 3/8" = 1'-0" 6" 4" 2" 0
SCALE: 1/4" = 1'-0" 8" 4" 2" 0
SCALE: 1/8" = 1'-0" 16" 8" 4" 0
SCALE: 3/32" = 1'-0" 24" 16" 8" 0
SCALE: 1/16" = 1'-0" 32" 16" 8" 0

ELECTRICAL LEGEND

NOT ALL SYMBOLS AND ABBREVIATIONS ARE USED

LIGHT FIXTURES:

- Ab / EL - 1 — A = FIXTURE TYPE; b = SWITCH LEG; LIGHT FIXTURE EL = PANEL, 1 = CIRCUIT NUMBER
- 2x4 LIGHT FIXTURE
- 2x4 LIGHT - EMERGENCY
- 2x4 LIGHT - EMERGENCY UNSWITCHED NIGHTLIGHT
- 2x2 LIGHT FIXTURE
- 2x2 LIGHT - EMERGENCY
- 2x2 LIGHT - EMERGENCY UNSWITCHED NIGHTLIGHT
- CIRCLE DOWNLIGHT FIXTURE
- CIRCLE DOWNLIGHT - EMERGENCY
- CIRCLE DOWNLIGHT - EMERGENCY UNSWITCHED NIGHTLIGHT
- CIRCLE DOWNLIGHT - WALL WASH FIXTURE
- SQUARE DOWNLIGHT FIXTURE
- SQUARE DOWNLIGHT - EMERGENCY
- SQUARE DOWNLIGHT - EMERGENCY UNSWITCHED NIGHTLIGHT
- SQUARE DOWNLIGHT - WALL WASH FIXTURE
- INDUSTRIAL STRIP LIGHT FIXTURE
- EXTERIOR FLOOD LIGHT
- POLE LIGHT FIXTURE
- BOLLARD
- BOLLARD - EMERGENCY
- EXIT SIGN - CEILING MOUNTED (WITH DIRECTIONAL ARROW) (SHADE INDICATES # OF FACES)
- EXIT SIGN - WALL MOUNTED (WITH DIRECTIONAL ARROW) (SHADE INDICATES # OF FACES)
- EMERGENCY LIGHT PACK WITH BATTERY (96" A.F.F.)
- SCONCE
- WALL PACK - EXTERIOR
- TRACK LIGHTING
- CEILING FAN

LIGHTING CONTROLS:

- (V) DAYLIGHT HARVEST SENSOR
- (PC) PHOTOCELL
- ◇ = VS — CEILING OCCUPANCY SENSOR; VS = VACANCY SENSOR; OC = OCCUPANCY SENSOR
- CEILING OCCUPANCY SENSOR MULTI DIRECTION
- $a — TOGGLE SWITCH SINGLE POLE; a = SWITCH LEG (LOWER CASE LETTERS)
- $3 — TOGGLE SWITCH THREE WAY
- $4 — TOGGLE SWITCH FOUR WAY
- $D — DIMMER SWITCH
- $K — KEY OPERATED SWITCH
- $P — SWITCH WITH PILOT LIGHT ON WHEN SWITCH IS ON
- $T — TIMER SWITCH
- $WP — WEATHERPROOF SINGLE POLE SWITCH
- $OC — OCCUPANCY SENSOR WALL MOUNTED WITH OFF-AUTO OVERRIDE SWITCH
- $VS — VACANCY SENSOR WALL MOUNTED
- [$] — LOW VOLTAGE SWITCH (48" A.F.F.)

ABBREVIATIONS:

A.F.F.	ABOVE FINISH FLOOR
C	CONDUIT
c	6" ABOVE COUNTER BACKSPLASH
u	USB OUTLET
GFI	GROUND FAULT INTERRUPTER
WP	WEATHERPROOF
GRS	GALVANIZED RIGID STEEL
EMT	ELECTRICAL METAL TUBING
AC	ALTERNATING CURRENT
MC	METAL CLAD CABLE
PVC	POLYVINYL CHLORIDE CONDUIT
IG	ISOLATED GROUND
E	EXISTING TO REMAIN

CONDUIT:

- CONDUIT EXPOSED
- CONDUIT CONCEALED IN FLOOR, BELOW SLAB OR BELOW GRADE
- CONDUIT CONCEALED IN WALL OR CEILING
- —T— TELEPHONE CONDUIT
- –CATV– TELEVISION CONDUIT
- CONDUIT DOWN
- CONDUIT UP
- CONDUIT SLEEVE INSULATED BUSHING EACH END
- WIRE IN CONDUIT LEFT TO RIGHT; 1 GROUND, 1 NEUTRAL, 3 HOTS
- A - 1,3 — HOME RUN; A = PANEL A; 1,3 = CIRCUITS 1,3
- CABLE TRAY
- (A) FEEDER A
- GROUND JACK
- PB — PULL BOX
- HH — HAND HOLE

ELECTRICAL DEVICES:

- SIMPLEX RECEPTACLE (18" A.F.F.)
- DUPLEX RECEPTACLE (18" A.F.F.)
- GFI DUPLEX RECEPTACLE (18" A.F.F.)
- QUADRUPLEX RECEPTACLE (18" A.F.F.)
- GFI QUADRUPLEX RECEPTACLE (18" A.F.F.)
- EMERGENCY RECEPTACLE (18" A.F.F.)
- COUNTERTOP RECEPTACLE (6" ABOVE COUNTER)
- TAMPER RESISTANT RECEPTACLE (18" A.F.F.)
- FLOOR RECEPTACLE
- SPECIAL PURPOSE RECEPTACLE (18" A.F.F.)
- SPECIAL PURPOSE FLOOR RECEPTACLE
- J — JUNCTION BOX
- J — JUNCTION BOX IN FLOOR
- SURFACE RACEWAY DUPLEX OUTLET 3' ON CENTER
- PP — POWER POLE
- PS — POWER SUPPLY
- P — POWER WHIP

SECURITY DEVICES:

- AC — ACCESS CONTROL HEAD-END
- ARA — AREA OF RESCUE ANNUNCIATOR
- AR — AREA OF RESCUE ASSISTANCE CALL STATION
- C — CAMERA
- CR — CARD READER
- CCTV — CCTV HEAD-END
- MON — CCTV MONITOR
- DC — DOOR CONTACT
- ES — ELECTRIC DOOR STRIKE
- G — GLASS BREAK DETECTOR - WALL MOUNTED
- IG — GLASS BREAK DETECTOR - CEILING MOUNTED
- K — KEYPAD
- ML — MAGNETIC LOCK
- M — MOTION DETECTOR - WALL MOUNTED
- MI — MOTION DETECTOR - CEILING MOUNTED
- PROX — PROXIMITY READER ACCESS CONTROL

DATA DEVICES:

- DATA OUTLET (18" A.F.F.); c = 6" ABOVE COUNTER BACKSPLASH; 2 = NUMBER EQUALS TOTAL NUMBER OF PORTS EACH NEW DATA OUTLET SHALL HAVE TWO CABLES AND TWO JACKS UNLESS NOTED OTHERWISE.
- DATA OUTLET IN FLOOR
- SURFACE RACEWAY DATA OUTLET 3' ON CENTER
- HDMI OUTLET (18" A.F.F.) UNO; c = 6" ABOVE COUNTER BACKSPLASH; 2 = NUMBER EQUALS TOTAL NUMBER OF PORTS; W = MOUNT 48" A.F.F.
- HDMI OUTLET IN FLOOR
- TELEPHONE OUTLET (18" A.F.F.); c = 6" ABOVE COUNTER BACKSPLASH; 2 = NUMBER EQUALS TOTAL NUMBER OF PORTS; W = MOUNT 48" A.F.F.
- TELEPHONE OUTLET IN FLOOR
- TELEPHONE/DATA OUTLET (18" A.F.F.); c = 6" ABOVE COUNTER BACKSPLASH; 2 = NUMBER EQUALS TOTAL NUMBER OF DATA PORTS; 1 = NUMBER EQUALS TOTAL NUMBER OF PHONE PORTS
- TELEPHONE/DATA OUTLET IN FLOOR
- TV — TELEVISION OUTLET (88" A.F.F.)
- WAP — WIRELESS ACCESS POINT

FIRE ALARM DEVICES:

- F 110 — COMBINATION HORN STROBE FIRE ALARM - WALL MOUNTED (90" A.F.F. MINIMUM 6" BELOW CEILING); 110 = CANDELA RATING
- F — HORN FIRE ALARM - WALL MOUNTED (90" A.F.F)
- F CH — BELL ALARM - WALL MOUNTED (1' BELOW CEILING); CH = CHIME; G = GONG
- P 110 — STROBE FIRE ALARM - WALL MOUNTED (90" A.F.F. MINIMUM 6" BELOW CEILING); 110 = CANDELA RATING
- F 110 — COMBINATION HORN STROBE FIRE ALARM - CEILING MOUNTED; 110 = CANDELA RATING
- F — HORN FIRE ALARM - CEILING MOUNTED
- F 95 — STROBE FIRE ALARM - CEILING MOUNTED; 95 = CANDELA RATING
- FACP — FIRE ALARM CONTROL PANEL
- FAA — FIRE ALARM ANNUNCIATOR PANEL (60" A.F.F.)
- FDC — FIRE ALARM DIGITAL COMMUNICATOR
- DH — DOOR HOLDER
- F — MANUAL PULL STATION (48" A.F.F.)
- F D — DUCT DETECTOR
- F DT — DUCT DETECTOR SWITCH
- F H — HEAT DETECTOR
- F S — SMOKE DETECTOR
- B — FIRE SUPPRESSION ALARM
- F — FIREMANS TELEPHONE OUTLET
- FS — FIRE ALARM FLOW SWITCH
- TS — FIRE ALARM TAMPER SWITCH
- MM — FIRE ALARM MONITOR MODULE
- CM — FIRE ALARM CONTROL MODULE
- PIV — POST INDICATING VALVE
- IPGSM — NETWORK / CELL DIGITAL COMMUNICATOR
- CO — CARBON MONOXIDE DETECTOR
- CO^2 — CARBON DIOXIDE DETECTOR
- MGA — GENERATOR ANNUNCIATOR

ELECTRICAL EQUIPMENT:

- ELECTRIC METER
- G — GENERATOR
- PANELBOARD
- DISTRIBUTION PANELBOARD
- T — TRANSFORMER
- ATS — AUTOMATIC TRANSFER SWITCH
- MTS — MANUAL TRANSFER SWITCH
- UPS — UNINTERRUPTIBLE POWER SOURCE
- MM — MULTIMETER
- SPD — SURGE PROTECTOR DEVICE
- UTILITY POLE
- EF 01 — MOTOR WITH DESIGNATION
- $\frac{S}{3}$ m — MANUAL MOTOR STARTER
- DISCONNECT SWITCH
- COMBINATION STARTER
- MOTOR STARTER
- WEATHER HEAD
- SV — SOLENOID VALVE
- VSD — VARIABLE SPEED DRIVE
- ANTENNA - TELEMETRY

ELECTRICAL EQUIPMENT IDENTIFICATION SCHEME:

FIRST CHARACTER - FLOOR OR BUILDING IDENTIFICATION
1 - 1ST FLOOR
2 - 2ND FLOOR
3 - 3RD FLOOR
R - ROOF
RC - RECYCLING CENTER
WB - WASH BAY

SECOND CHARACTER - EQUIPMENT TYPE
SW - SWITCHBOARD
DP - DISTRIBUTION PANELBOARD
P - PANELBOARD

THIRD CHARACTER - VOLTAGE LEVEL
L - 208Y/120V
H - 480Y/277V

FOURTH CHARACTER - SYSTEM
E - EMERGENCY
L - LIGHTING
P - POWER
R - RECEPTACLE
U - UPS

FIFTH CHARACTER - SEQUENCENTIAL
1 - FIRST OF THIS TYPE
2 - SECOND OF THIS TYPE
3 - THIRD OF THIS TYPE

EXAMPLE: RCP-LP1 - RECYCLING CENTER PANELBOARD, 208Y/120V, POWER PANELBOARD, FIRST OF ITS TYPE

GENERAL NOTES:

1. ELECTRICAL INSTALLATION PER 2014 NATIONAL ELECTRICAL CODE.
2. ALL ELECTRICAL EQUIPMENT SHALL BE UL/NRTL LISTED.
3. DETAILS SHOWN IN THESE DRAWINGS APPLY TO INSTALLATIONS INDICATED REGARDLESS AS TO IF THEY ARE SPECIFICALLY REFERENCED ELSE WHERE IN THE DRAWING SET. ANY QUESTIONS ON THEIR APPLICABILITY SHOULD BE SENT TO THE ENGINEER PRIOR TO BIDDING.
4. CONTRACTOR SHALL VISIT JOB SITE PRIOR TO BIDDING AND VERIFY EXISTING CONDITIONS AND REQUIRED WORK TO ACCOMPLISH CONSTRUCTION AS DEPICTED IN DESIGN DRAWINGS.
5. ON NEW WORK PLAN, ALL ITEMS SHOWN LIGHT ARE EXISTING TO REMAIN. ALL ITEMS SHOWN BOLD ARE NEW/RELOCATED.
6. COORDINATE ELECTRICAL DEVICE INSTALLATIONS WITH FINAL ARCHITECTURAL PLANS AND ELEVATIONS.
7. ALL RECEPTACLES, SWITCHES AND JUNCTION BOXES SHALL BE LABELED WITH PANEL NAME AND CIRCUIT NUMBER PER OWNER'S STANDARD.
8. PROVIDE FIRE STOPPING AT ALL CONDUIT PENETRATIONS AND CONDUIT SLEEVES THROUGH EXISTING FLOOR SLABS AND FIRE RATED WALLS TO MAINTAIN REQUIRED FIRE RATING. USE UL LISTED METHODS AND MATERIALS.
9. NOT ALL BRANCH CIRCUIT CONDUIT AND WIRE IS SHOWN. ONLY PANEL NAMES AND CIRCUIT NUMBERS ARE SHOWN ADJACENT TO DEVICES. THE REMAINING BRANCH CIRCUIT CONDUIT AND WIRES SHALL BE INSTALLED ACCORDING TO SPECIFICATIONS.
10. ALL RECEPTACLES WITHIN 6 FT OF SINKS SHALL BE GFI TYPE.
11. ALL DEVICES IN EXISTING WALLS SHALL HAVE WALLS FISHED FOR INSTALLATION OF DEVICE WHERE POSSIBLE. ALL DEVICES ON EXISTING CONCRETE OR BLOCK WALL SHALL BE SURFACE MOUNTED.
12. ALL CONDUIT SHALL BE CONCEALED WHERE POSSIBLE.
13. CONCEAL ALL LOW VOLTAGE CABLE, CONDUIT AND CONDUCTORS IN NEW WALLS WHERE POSSIBLE.

DEMOLITION NOTES:

1. REMOVE ITEMS INDICATED, INCLUDING LIGHT FIXTURES, SWITCHES, RECEPTACLES, EXPOSED CONDUIT, SURFACE AND FLUSH DEVICE BOXES, DEVICE PLATES, ETC. REMOVE ALL WIRING FROM EXISTING CONDUITS. CUT BACK CONDUIT FROM FINISHED SURFACE AND ABANDON ALL CONCEALED CONDUITS. REMOVE CONDUITS ABOVE GRID TYPE CEILINGS.
2. MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS AND CONDUCTORS PASSING THROUGH RENOVATED AREAS AND SERVING UNDISTURBED AREAS. WHEREVER DEVICES OR LIGHT FIXTURES ARE INDICATED TO BE REMOVED, THE CONTRACTOR SHALL MAKE PROVISIONS TO INSURE CONTINUITY OF CIRCUITS REMAINING IN USE. THIS SHALL INCLUDE INSTALLING JUNCTION BOXES, EXTENDING CONDUIT AND WIRE OR OTHER METHODS TO INSURE THIS CONTINUITY.
3. ALL EXISTING CONDUIT, OUTLETS AND WIRE EXPOSED DURING ALTERATIONS, THAT IS NOT SERVING EQUIPMENT TO REMAIN, SHALL BE REMOVED.
4. ALL DEMOLISHED ITEMS NOT RETAINED BY OWNER SHALL BE DISPOSED OF IN A LAW ABIDING MANNER.
5. EXISTING CIRCUITS REMOVED DURING DEMOLITION MUST BE MARKED SPARE, OR IDENTIFIED WITH NEW DESCRIPTION ON CIRCUIT DIRECTORY IF REUSED. EXISTING ACTIVE CIRCUITS MUST BE VERIFIED AND ACCURATELY LABELED ON DIRECTORY. NEW TYPED CIRCUIT DIRECTORY MUST BE PROVIDED AT PROJECT COMPLETION DOCUMENTING ACCURATE NEW CIRCUIT CONDITIONS WHICH REFLECT DEMOLITION AND NEW WORK.
6. COORDINATE ELECTRICAL DEMOLITION WITH WORK OF OTHER DISCIPLINES.
7. SEE ARCHITECTURAL DRAWINGS FOR FURTHER DETAIL ON DEMOLITION SCOPE.
8. ON DEMOLITION PLAN, ALL ITEMS SHOWN BOLD/DASHED SHALL BE REMOVED.

FIRE ALARM SCOPE OF WORK:

1. PROVIDE ELECTRICAL BOXES AND CONDUIT TO ACCOMMODATE THE FIRE ALARM SYSTEM THAT SHALL BE FULLY PROVIDED (DESIGN, FURNISH, INSTALL, TEST, AND DOCUMENT) BY OWNER'S VENDOR (TECH ELECTRONICS).
2. THESE DOCUMENTS INDICATE LOCATION AND TYPES OF FIRE ALARM COMPONENTS PER CURRENT VENDOR DESIGN. ELECTRICAL BOXES SHALL BE PROVIDED AT EACH FIRE ALARM COMPONENT AS REQUIRED IN THE FINAL DESIGN FOR INSTALLATION OF DEVICES BY OWNER'S VENDOR.
3. 1 INCH EMT CONDUIT SHALL BE PROVIDED IN LOCATIONS WHERE FIRE ALARM CABLE IS EXPOSED TO DAMAGE, IN SUCH LOCATIONS AS EXPOSED ON WALLS OR PARTITIONS LOWER THAN 12 FEET ABOVE FINISHED FLOOR OR WHERE AREA ACTIVITIES PRESENT A HAZARD. PROVIDE PULL STRING IN ALL EMPTY CONDUITS FOR INSTALLATION OF CABLE BY OWNER'S VENDOR.

SECURITY (ACCESS CONTROL AND VIDEO SURVEILLANCE) SCOPE OF WORK:

1. PROVIDE ELECTRICAL BOXES AND CONDUIT TO ACCOMMODATE THE ACCESS CONTROL AND VIDEO SURVEILLANCE SYSTEMS THAT SHALL BE PROVIDED (DESIGN, FURNISH, INSTALL, TEST, AND DOCUMENT) BY OWNER'S VENDOR (MURPHY).
2. THESE DOCUMENTS INDICATE LOCATION AND TYPES OF ACCESS CONTROL AND VIDEO SURVEILLANCE COMPONENTS PER CURRENT VENDOR DESIGN. ELECTRICAL BOXES SHALL BE PROVIDED AT EACH COMPONENT AS REQUIRED IN THE FINAL DESIGN FOR INSTALLATION OF DEVICES BY OWNER'S VENDOR.
3. 1 INCH EMT CONDUIT SHALL BE PROVIDED IN LOCATIONS WHERE ACCESS CONTROL OR VIDEO SURVEILLANCE CABLE IS EXPOSED TO DAMAGE, IN SUCH LOCATIONS AS EXPOSED ON WALLS OR PARTITIONS LOWER THAN 12 FEET ABOVE FINISHED FLOOR OR WHERE AREA ACTIVITIES PRESENT A HAZARD.
4. VIDEO SURVEILLANCE CAMERAS SHALL BE PROVIDED WITH CATEGORY 6 COMMUNICATION CABLES AND VENDOR SPECIFIC COMPOSITE CABLE FROM EACH CAMERA LOCATION TO THE IDENTIFIED COMMUNICATION CLOSET CONTAINING VSS NETWORKED EQUIPMENT. CATEGORY 6 CABLES SHALL BE INSTALLED, TESTED, TERMINATED, IDENTIFIED AND DOCUMENTED FOR CONNECTION BY OWNER'S VENDOR. COMPOSITE CABLES (WINDY CITY NJ446100 (18/4-22/3-22/2-22/4)) SHALL BE ROUTED BETWEEN THE LOCATIONS WITH TEN FEET OF CABLE SPOOLED AT EACH END FOR TERMINATION AND TESTING BY OWNER'S VENDOR.
5. TWO STRANDS OF SINGLE MODE, FIBER OPTIC CABLE SHALL BE ROUTED BETWEEN THE MAIN SECURITY PANELS IN THE TWO IT ROOMS. FIBER OPTIC CABLE SHALL BE PROVIDED IN ARMORED JACKET AND TERMINATED IN LC CONNECTORS AT EACH END. CABLES SHALL BE TESTED, IDENTIFIED AND DOCUMENTED FOR USE BY THE OWNER'S VENDOR.
6. ACCESS CONTROL SYSTEM LOCATIONS SHALL BE PROVIDED WITH COMPOSITE CABLES (WINDY CITY NJ446100 (18/4-22/3-22/2-22/4)) SHALL BE ROUTED BETWEEN EACH ACCESS CONTROL LOCATION AND THE DESIGNATED TELECOMMUNICATION CLOSET CONTAINING ACS NETWORKED EQUIPMENT AS DESIGNATED BY THE OWNER'S VENDOR. CABLES SHALL BE INSTALLED, IDENTIFIED AND DOCUMENTED FOR CONNECTION BY OWNER'S VENDOR. TEN FEET OF CABLE SHALL BE SPOOLED AT EACH END FOR TERMINATION AND TESTING BY OWNER'S VENDOR.

LIGHTING NOTES:

1. SWITCHES IN EACH ROOM SHALL CONTROL LIGHTS IN THAT ROOM ONLY UNLESS OTHERWISE NOTED.
2. ALL FIXTURES ON INVERTER BACKUP SHALL BE WIRED FOR SWITCHED OPERATION UNLESS NOTED OTHERWISE.

SYSTEM NOTES:

1. CONTRACTOR SCOPE IS ROUGH-IN ONLY FOR ALL FIRE ALARM, VIDEO SURVEILLANCE, AND ACCESS CONTROL IN THE PROJECT SCOPE.
2. COORDINATE LOW VOLTAGE DEVICE LOCATIONS WITH FINAL ARCHITECTURAL PLANS AND ELEVATIONS.
3. FOR TELECOMMUNICATION (TELEPHONE/DATA/WAP) OUTLETSL ROUGH-IN 4 11/16" SQUARE BOX, 2 1/2" DEEP WITH SINGLE GANG PLASTER RING, 1" CONDUIT TO ABOVE ACCESSIBLE CEILING WITH 90 DEGREE SWEEP AND BUSHING STUBBED TO WITHIN 6" OF J-HOOK PATHWAY.
4. ALL OUTDOOR CABLING SHALL BE GENERAL CABLE "OUTDOOR RATED".
5. DOOR OPERATOR PUSH PLATES SHOWN ARE PROVIDED BY DOOR SUPPLIER AND INSTALLED BY THIS SCOPE OF WORK..

ELECTRICAL SYSTEM COMPONENTS EARTHQUAKE LOAD RESISTANCE

OCCUPANCY CATEGORY (IV) — **SEISMIC DESIGN CATEGORY (D)**

LISTING OF EQUIPMENT & SYSTEM COMPONENTS	ANCHORAGE TO FLOORS, ROOF, ETC.		SWAY BRACING		LOCATION OF PROFESSIONALLY-SEALED ANCHORAGE AND SWAY BRACING DETAILS		COMMENTS
					ON CONSTRUCTION DOCUMENTS	SUBSEQUENT SUBMITTAL SEPARATE PERMIT AND PLANS	
	NOT PROVIDED	PROVIDED	NOT PROVIDED	PROVIDED	DRAWING NO. OR SPEC. SECTION		
EMERGENCY OR STANDBY EQUIPMENT AND SYSTEM COMPONENTS Ip=1.5							
STANDBY GENERATOR		X	X			X	
AUTOMATIC TRANSFER SWITCH		X	X			X	
CENTRAL LIGHTING INVERTERS		X	X			X	
CONDUIT AND WIRING		X		X		X	
OTHER EQUIPMENT AND SYSTEM COMPONENTS NEEDED FOR CONTINUED OPERATION OF SEISMIC USE GROUP IV FACILITIES, OR WHOSE FAILURE COULD IMPAIR THEIR CONTINUED OPERATION Ip=1.5							
OTHER GENERAL EQUIPMENT & SYSTEM COMPONENTS Ip=1.0							
MAIN SWITCHBOARD		X	X			X	
TRANSFORMERS		X	X			X	
DISTRIBUTION PANELBOARDS		X	X			X	
LIGHTING FIXTURES		X		X		X	
CONDUIT AND WIRING		X		X		X	

EXPLANATORY NOTES:
1. IT IS THE RESPONSIBILITY OF THIS CONTRACT TO PROVIDE PLANS SIGNED AND SEALED BY A MISSOURI PROFESSIONAL ENGINEER ALONG WITH A SEPARATE APPLICATION NEED TO BE SUBMITTED TO THE AHJ A MINIMUM OF TWO WEEKS PRIOR TO THE PLANNED INSTALLATION TO ALLOW FOR PLAN REVIEW AND DISTRIBUTION TO THE INSPECTOR. ADDITIONAL TIME MAY BE NEEDED IF SUCH SUBMISSIONS ARE DEFICIENT.
2. SWAY BRACING REQUIRED FOR ITEMS SUSPENDED FROM STRUCTURE , UNLESS EXEMPT.
3. ANCHORAGE & BRACING CONTRACTOR SHALL REFER TO SPECIFICATIONS AS WELL AS TO ST. LOUIS COUNTY RULES & REGULATIONS ON SEISMIC ANCHORAGE & SWAY BRACING (DATED 6/30/2020).
4. ALL SEISMIC SHOP DRAWINGS SHALL BE REVIEWED BY THE ENGINEER OF RECORD PRIOR TO SUBMITTAL TO THE CODE REVIEWER.
5. CONTRACTOR SHALL ADHERE TO REQUIREMENTS FOR EXEMPTION, WHERE NOTED, OR PROVIDE SEISMIC BRACING DESIGNED BY A QUALIFIED ENGINEER LICENSED IN MISSOURI.

EXEMPTION NOTES:
1. SEISMIC DESIGN CATEGORY B - TABLE 4.4 GENERAL EXEMPTION
2. SEISMIC DESIGN CATEGORY C, THE COMPONENT IMPORTANCE FACTOR Ip=1.0, TABLE4.4 GENERAL EXEMPTION
3. SEISMIC DESIGN CATEGORY D, E OR F, AND THE COMPONENT IMPORTANCE FACTOR Ip-1.0, AND COMPONENTS HAVE APPROVED FLEXIBLE CONNECTIONS AND NO LESS THAN 3 FEET IN LENGTH AND ARE
   a. EITHER MOUNTED 4 FEET OR LESS ABOVE THE FLOOR LEVEL AND WEIGH 400 POUNDS OR LESS. TABLE 4.4 EXCEPTION 1a
   b. WEIGH 20 LBS OR LESS OR FOR DISTRIBUTION SYSTEMS WEIGHING SLBFT OR LESS. TABLE 4.4 EXCEPTION 1b
4. LIGHT FIXTURES, SIGN AND CEILING FAN EXEMPTIONS - NOT CONNECTED TO DUCTS OR PIPING, SUPPORTED BY CHAINS OR OTHERWISE SUSPENDED FROM THE STRUCTURE, PROVIDED ALL OF THE FOLLOWING CRITERIA ARE MET (TABLE 4.4 EXEMPTION 2):
   a. THE DESIGN LOAD FOR SUCH ITEMS SHALL BE EQUAL TO 1.4 TIMES THE OPERATING WEIGHT ACTING DOWN WITH SIMULTANEOUS HORIZONTAL LOAD EQUAL TO 1.4 TIMES THE OPERATING WEIGHT. THE HORIZONTAL LOAD SHALL BE APPLIED IN THE DIRECTION THAT RESULTS IN THE MOST CRITICAL LOADING FOR DESIGN.
   b. SEISMIC INTERACTION EFFECTS SHALL BE CONSIDERED PER SECTION 13.2.3 OF ASCE 7-10.
   c. THE CONNECTION TO THE STRUCTURE SHALL ALLOW A 360 DEGREE RANGE OF MOTION IN THE HORIZONTAL PLANE
5. CONTRACTOR SHALL ADHERE TO REQUIREMENTS FOR EXEMPTION, WHERE NOTED, OR PROVIDE SEISMIC BRACING DESIGNED BY A QUALIFIED ENGINEER LICENSED IN MISSOURI.

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Proposed: KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

ELEC SYMBOLS & ABBREVIATIONS

Project No. 24059

Sheet No. E001

Date 03/27/2026

STATE OF MISSOURI — MARY JANE GRIB — NUMBER PE-026961 — PROFESSIONAL ENGINEER

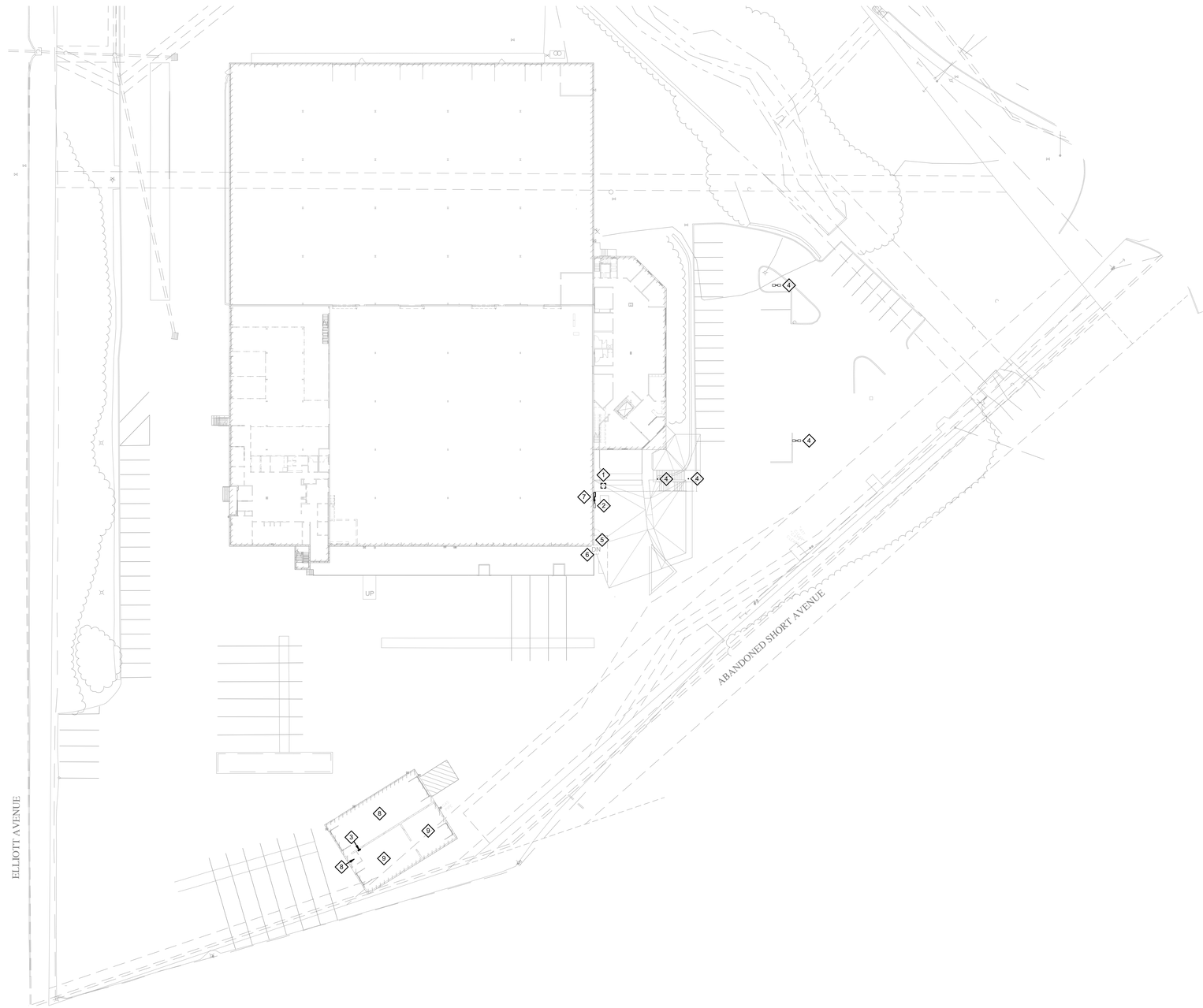
Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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E101 SHEET KEYED NOTES

1. COORDINATE DISCONNECTION OF KPW ELECTRICAL PRIMARY, SERVICE TRANSFORMER AND METERING WITH KPW REPRESENTATIVES. PROVIDE DEMOLITION OF UTILITY EQUIPMENT PAD AND SECONDARY FEEDERS.
2. RETAIN EXISTING FIRE PUMP SERVICE CT CABINET AND METER FOR RECONNECTION TO NEW KPW ELECTRICAL SERVICE TRANSFORMER.
3. DISCONNECT AND REMOVE EXISTING WASHBAY 100A, 208Y/120V PANELBOARD. RETAIN EXISTING FEEDER FROM THE WAREHOUSE BUILDING AND BRANCH CIRCUITS FOR RECONNECTION TO NEW SERVICE ENCLOSED CIRCUIT BREAKER SERVING RELOCATED TRANSFORMER AND REPLACEMENT PANELBOARD IN SAME LOCATION. REFER TO NEW WORK DRAWINGS FOR SCOPE OF WORK ASSOCIATED WITH RE-FEEDING OF REPLACEMENT PANELBOARD.
4. EXISTING POLE MOUNTED LIGHTING FIXTURES AND LIGHTING BOLLARD SHALL REMAIN. EXISTING LIGHTING CIRCUITS SHALL REMAIN WITH RECONNECTION TO NEW EXTERIOR LIGHTING CONTROL SYSTEM.
5. DISCONNECT AND REMOVE ALL ABANDONED EXTERIOR VIDEO SURVEILLANCE AND ACCESS CONTROL EQUIPMENT, INCLUDING ALL COMPONENT SUPPORTS, HANGERS AND CABLING BACK TO SOURCE.
6. DISCONNECT AND REMOVAL ALL ABANDONED SURFACE MOUNTED ELECTRICAL COMPONENTS INCLUDING CONDUITS AND CABLES ON EXTERIOR OF THE ENTIRE BUILDING.
7. RETAIN EXISTING ELECTRICAL BOX WITH PARKING LOT LIGHTING CIRCUITS AT THIS LOCATION FOR EXTENSION TO NEW EXTERIOR LIGHTING CONTROL PANEL.
8. DISCONNECT AND REMOVE EXISTING LIGHTING, RECEPTACLES, AND ASSOCIATED COMPONENTS WITHIN WASHBAY BUILDING UNLESS NOTED OTHERWISE. REMOVE EXISTING CIRCUITING AND CONTROLS BACK TO PANELBOARD LOCATION.
9. EXISTING RECEPTACLES TO REMAIN IN THIS AREA. RE-CIRCUIT AS SHOWN ON NEW WORK PLANS.



1 ELECTRICAL DEMOLITION SITE PLAN
1" = 30'-0"

0 15' 30' 60'
SCALE: 1" = 30'-0"

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ELECTRICAL DEMOLITION SITE PLAN

Project No. 24059

Sheet No. E101

Date 03/27/2026

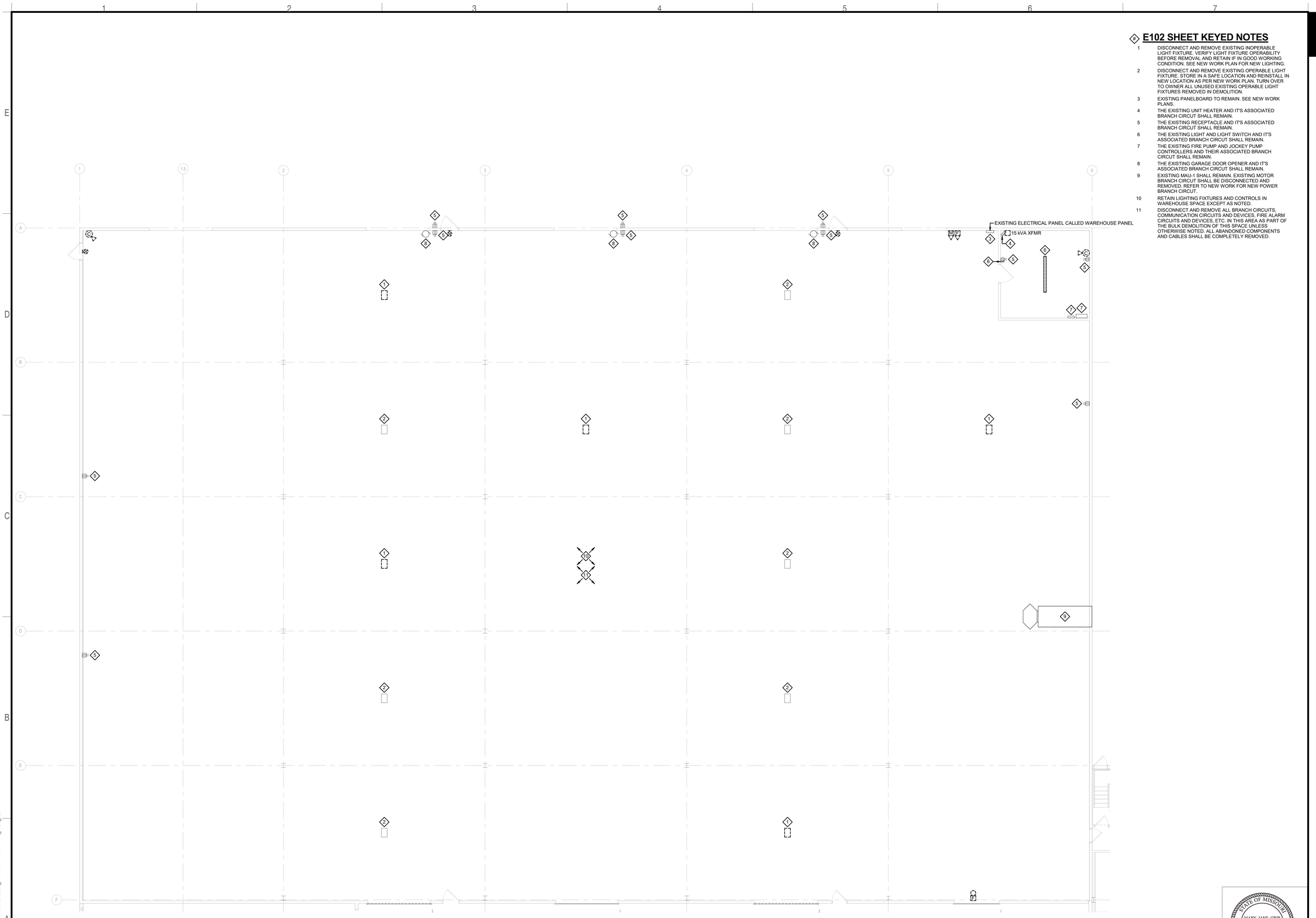
STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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SCALE: 1/16" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/16" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 3" = 1'-0"



E102 SHEET KEYED NOTES

1. DISCONNECT AND REMOVE EXISTING INOPERABLE LIGHT FIXTURE. VERIFY LIGHT FIXTURE OPERABILITY BEFORE REMOVAL AND RETAIN IF IN GOOD WORKING CONDITION. SEE NEW WORK PLAN FOR NEW LIGHTING.
2. DISCONNECT AND REMOVE EXISTING OPERABLE LIGHT FIXTURE. STORE IN A SAFE LOCATION AND REINSTALL IN NEW LOCATION AS PER NEW WORK PLAN. TURN OVER TO OWNER ALL UNUSED EXISTING OPERABLE LIGHT FIXTURES REMOVED IN DEMOLITION.
3. EXISTING PANELBOARD TO REMAIN. SEE NEW WORK PLANS.
4. THE EXISTING UNIT HEATER AND IT'S ASSOCIATED BRANCH CIRCUIT SHALL REMAIN.
5. THE EXISTING RECEPTACLE AND IT'S ASSOCIATED BRANCH CIRCUIT SHALL REMAIN.
6. THE EXISTING LIGHT AND LIGHT SWITCH AND IT'S ASSOCIATED BRANCH CIRCUIT SHALL REMAIN.
7. THE EXISTING FIRE PUMP AND JOCKEY PUMP CONTROLLERS AND THEIR ASSOCIATED BRANCH CIRCUIT SHALL REMAIN.
8. THE EXISTING GARAGE DOOR OPENER AND IT'S ASSOCIATED BRANCH CIRCUIT SHALL REMAIN.
9. EXISTING MAU-1 SHALL REMAIN. EXISTING MOTOR BRANCH CIRCUIT SHALL BE DISCONNECTED AND REMOVED. REFER TO NEW WORK FOR NEW POWER BRANCH CIRCUIT.
10. RETAIN LIGHTING FIXTURES AND CONTROLS IN WAREHOUSE SPACE EXCEPT AS NOTED.
11. DISCONNECT AND REMOVE ALL BRANCH CIRCUITS, COMMUNICATION CIRCUITS AND DEVICES, FIRE ALARM CIRCUITS AND DEVICES, ETC. IN THIS AREA AS PART OF THE BULK DEMOLITION OF THIS SPACE UNLESS OTHERWISE NOTED. ALL ABANDONED COMPONENTS AND CABLES SHALL BE COMPLETELY REMOVED.

1 ELECTRICAL DEMOLITION PLAN - N WAREHOUSE L01
1/8" = 1'-0"

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

SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

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ELEC DEMO PLAN - N WAREHOUSE L01

Project No. 24059

Sheet No. E102

Date 03/27/2026

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NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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E103 SHEET KEYED NOTES

1. EXISTING EXTERIOR MOUNTED CT CABINET AND METER FOR BUILDING ELECTRICAL SERVICE SHALL BE DISCONNECTED AND REMOVED AS PART OF THE SERVICE REPLACEMENT INCLUDED IN THIS PROJECT. COORDINATE WORK ASSOCIATED WITH THIS DISCONNECTION AND DEMOLITION WITH KPW.
2. THE EXISTING ELECTRICAL SERVICE DISTRIBUTION PANELBOARD SHALL BE DISCONNECTED AND REMOVED. DISCONNECT AND REMOVE ALL SERVICE AND LOAD BRANCH CIRCUIT CONDUITS IN THEIR ENTIRETY BACK TO THE SOURCE OR SERVICE PANELBOARD.
3. DISCONNECT AND REMOVE EXISTING PANELBOARD PP2. RETAIN ADJACENT PARKING LOT LIGHTING JUNCTION BOX FOR CONNECTION TO NEW EXTERIOR LIGHTING CONTROL PANEL. RETAIN THREE EXISTING ROOFTOP UNITS CIRCUITS AT THE ROOF FOR CONNECTION TO NEW ROOFTOP POWER PANELBOARD.
4. DISCONNECT AND REMOVE EXISTING FIRE PUMP SERVICE FROM THE EXISTING KPW SERVICE TRANSFORMER TO THE EXTERIOR WALL MOUNTED CT CABINET. RETAIN EXISTING FIRE PUMP EXTERIOR MOUNTED CT CABINET AND METER AND ALL DISTRIBUTION TO THE FIRE PUMP CONTROLLER WITHIN THE BUILDING FOR CONNECTION TO NEW KPW SERVICE TRANSFORMER.
5. DISCONNECT AND REMOVE BRANCH CIRCUT FROM THE ELECTRICAL SERVICE DISTRIBUTION PANELBOARD TO EXISTING PANELBOARD LP3. RETAIN EXISTING PANELBOARD AND RETAIN ALL BRANCH CIRCUITS. RETAIN EXISTING STEP-DOWN TRANSFORMER AND TWO-SECTION PANELBOARDS LABELED LP1 AND LP2.
6. DISCONNECT AND REMOVE BRANCH CIRCUT FROM THE ELECTRICAL SERVICE DISTRIBUTION PANELBOARD TO PANELBOARD PP3. REMOVE PANELBOARD PP3. RETAIN WAREHOUSE LIGHTING CIRCUITS (TYPICAL OF SIX 20A, 277V) AT CEILING FOR EXTENSION TO NEW 480Y/277V PANELBOARD. DISCONNECT AND REMOVE OTHER LOADS (STEP-DOWN TRANSFORMER AND POWER TO MAU-1) COMPLETELY. EXISTING TO REMAIN MAU-1 SHALL BE RECONNECTED AS PART OF THE NEW WORK.
7. DISCONNECT AND REMOVE 200A DISCONNECT SWITCH, 112.5 KVA STEP-DOWN TRANSFORMER, 30A FUSED SWITCH, AND EXISTING 400A DISTRIBUTION PANELBOARD COMPLETELY. REMOVE EXISTING EXPOSED CONDUITS FROM THE 400A DISTRIBUTION PANELBOARD SERVING WAREHOUSE PANELBOARDS TO BE DEMOLISHED. RETAIN EXISTING BRANCH CIRCUIT TO WASHBAY BUILDING PANELBOARD FOR EXTENSION TO NEW POWER SOURCE IN THE NEW WORK. BRANCH CIRCUIT TO THE WAREHOUSE SOUTH PANELBOARDS, WAREHOUSE MIDDLE PANELBOARD AND PANELBOARD Z SHALL BE REMOVED ENTIRELY.
8. DISCONNECT AND REMOVE EXISTING WAREHOUSE PANELBOARDS. REMOVE ALL BRANCH CIRCUITS AND EXPOSED CONDUITS AND CONDUCTORS UNLESS NOTED OTHERWISE.
9. DISCONNECT AND REMOVE ALL BRANCH CIRCUITS, LIGHTING FIXTURES AND CONTROLS, COMMUNICATION CIRCUITS AND DEVICES, FIRE ALARM CIRCUITS AND DEVICES, ETC. IN THIS AREA AS PART OF THE BULK DEMOLITION OF THIS SPACE. ALL ABANDONED COMPONENTS AND CABLES SHALL BE COMPLETELY REMOVED.
10. DISCONNECT AND REMOVE ALL BRANCH CIRCUITS, COMMUNICATION CIRCUITS AND DEVICES, FIRE ALARM CIRCUITS AND DEVICES, ETC. IN THIS AREA AS PART OF THE BULK DEMOLITION OF THIS SPACE UNLESS OTHERWISE NOTED. ALL ABANDONED COMPONENTS AND CABLES SHALL BE COMPLETELY REMOVED.
11. DISCONNECT AND RETAIN EXISTING 75 KVA STEP-DOWN TRANSFORMER FOR RE-INSTALLATION AS PART OF NEW WORK.
12. DISCONNECT AND REMOVE RECEPTACLE LOCATED ON MEZZANINE PLATFORM ABOVE.

1 ELECTRICAL DEMOLITION PLAN - S WAREHOUSE L01
1/8" = 1'-0"

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

SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

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ELEC DEMO PLAN - S WAREHOUSE L01

Project No. 24059

Sheet No. E103

Date 03/27/2026

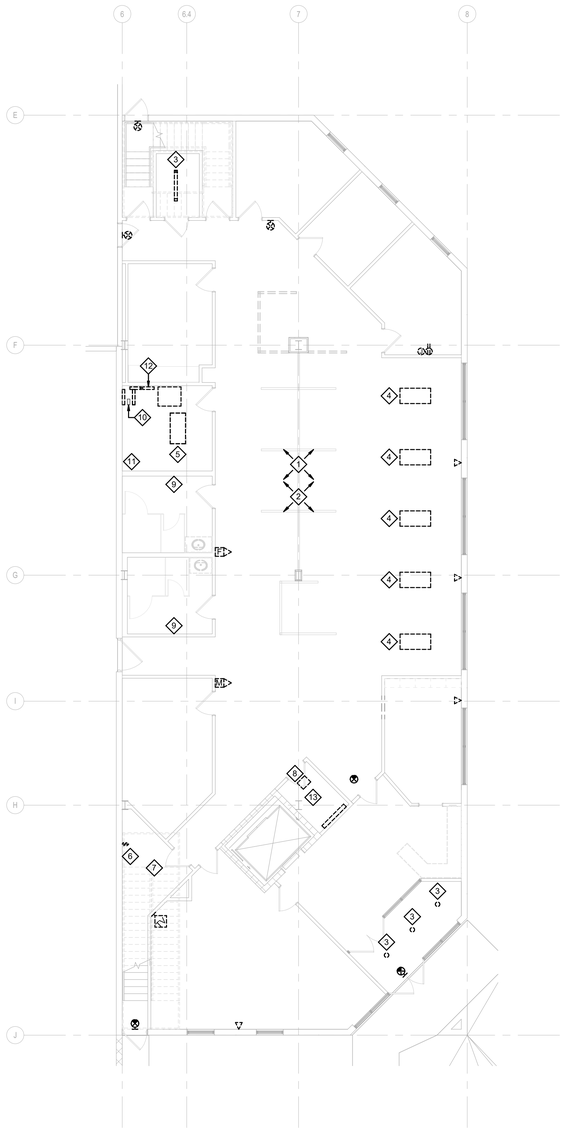
STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

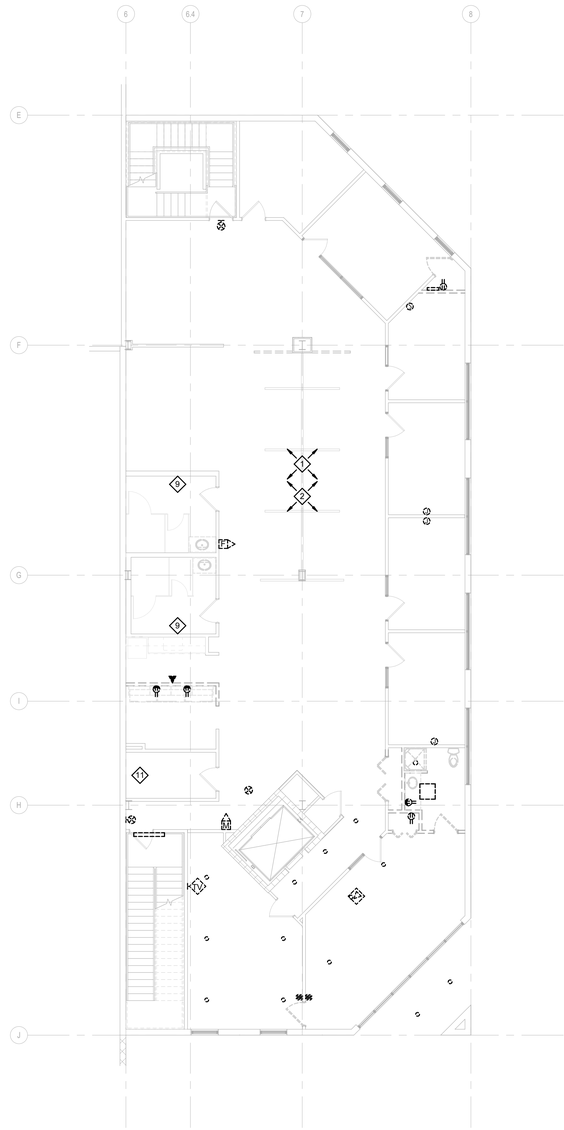
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E104 SHEET KEYED NOTES

1. DISCONNECT AND REMOVE ALL FIRE ALARM CIRCUITS AND DEVICES IN THIS AREA AS PART OF DEMOLITION OF THIS SPACE UNLESS OTHERWISE NOTED. ALL ABANDONED COMPONENTS AND CABLES SHALL BE COMPLETELY REMOVED.
2. RETAIN LIGHTING FIXTURES AND CONTROLS IN OFFICE SPACE EXCEPT AS NOTED.
3. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE. SEE NEW WORK PLAN FOR NEW LIGHTING.
4. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE. STORE AND REUSE FOR NEW WORK. SEE NEW WORK PLAN FOR NEW LIGHTING.
5. EXISTING SPLIT SYSTEM AND ASSOCIATED DISCONNECT SHALL BE REMOVED. REMOVE FEEDER BACK TO SOURCE. COORDINATE WITH MECHANICAL CONTRACTOR.
6. EXISTING CIRCULATING PUMP SHALL REMAIN. REMOVE FEEDER BACK TO SOURCE AND RECONNECT PER NEW WORK PLANS.
7. EXISTING AHU'S SHALL REMAIN. REMOVE BRANCH CIRCUT BACK TO SOURCE AND RECONNECT PER NEW WORK PLANS.
8. EXISTING EXHAUST FAN SHALL REMAIN. REMOVE BRANCH CIRCUT BACK TO SOURCE AND RECONNECT PER NEW WORK PLANS.
9. EXISTING HAND DRYER SHALL REMAIN. EXISTING BRANCH CIRCUIT AND BREAKERS TO REMAIN.
10. EXISTING HYDRAULIC CONTROLLER SHALL REMAIN. EXISTING FEEDERS AND BREAKERS TO REMAIN.
11. EXISTING DATA RACK SHALL REMAIN FOR RE-USE. RETAIN ALL HORIZONTAL CABLES, PATCH PANELS, AND WIRE MANAGEMENT TO MAINTAIN OPERATION OF EXISTING COMMUNICATION OUTLETS TO REMAIN.
12. EXISTING FIRE ALARM EQUIPMENT. COORDINATE REMOVAL WITH OWNER'S VENDOR (TECH ELECTRONICS) SCOPE OF WORK.
13. EXISTING ELEVATOR POWER AND AUXILIARY DISCONNECT SWITCHES SHALL REMAIN WITH NEW POWER FEEDERS PROVIDED AS PART OF NEW WORK.



1 ELECTRICAL DEMOLITION PLAN - OFFICE L01
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



2 ELECTRICAL DEMOLITION PLAN - OFFICE L02
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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ELEC DEMO PLAN - OFFICE L01 & L02

Project No. 24059

Sheet No. E104

Date 03/27/2026



Name: Mary J Grib
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License No: PE-026961
Expiration Date: 12/31/2027

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E105 SHEET KEYED NOTES

1. DISCONNECT AND REMOVE EXISTING INOPERABLE LIGHT FIXTURE. VERIFY LIGHT FIXTURE OPERABILITY BEFORE REMOVAL AND RETAIN IF IN GOOD WORKING CONDITION. SEE NEW WORK PLAN FOR NEW LIGHTING.
2. DISCONNECT AND REMOVE EXISTING OPERABLE LIGHT FIXTURE. STORE IN A SAFE LOCATION AND REINSTALL IN NEW LOCATION AS PER NEW WORK PLAN. TURN OVER TO OWNER ALL UNUSED EXISTING OPERABLE LIGHT FIXTURES REMOVED IN DEMOLITION.
3. EXISTING GAS UNIT HEATER SHALL REMAIN. EXISTING BRANCH CIRCUIT, CONTROL CIRCUITS AND BREAKERS TO REMAIN.
4. DISCONNECT AND REMOVE EXISTING MEZZANINE LOAD CENTER. REMOVE FEEDER BACK TO SOURCE AND ALL BRANCH CIRCUITS AND EXPOSED CONDUITS AND CONDUCTORS UNLESS NOTED OTHERWISE.
5. RETAIN LIGHTING FIXTURES AND CONTROLS IN WAREHOUSE SPACE EXCEPT AS NOTED.
6. DISCONNECT AND REMOVE ALL ABANDONED FLUORESCENT LIGHT FIXTURES AND FIRE ALARM CIRCUITS AND DEVICES IN THIS AREA AS PART OF DEMOLITION OF THIS SPACE UNLESS OTHERWISE NOTED. ALL ABANDONED COMPONENTS AND CABLES SHALL BE COMPLETELY REMOVED.
7. DISCONNECT AND REMOVE ALL BRANCH CIRCUITS, LIGHTING FIXTURES AND CONTROLS, COMMUNICATION CIRCUITS AND DEVICES, FIRE ALARM CIRCUITS AND DEVICES, ETC. IN THIS AREA AS PART OF THE BULK DEMOLITION OF THIS SPACE. ALL ABANDONED COMPONENTS AND CABLES SHALL BE COMPLETELY REMOVED.

2 ELECTRICAL DEMOLITION PLAN - S WAREHOUSE L02

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

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ELEC DEMO PLAN - S WAREHOUSE L02

Project No. 24059

Sheet No. E105

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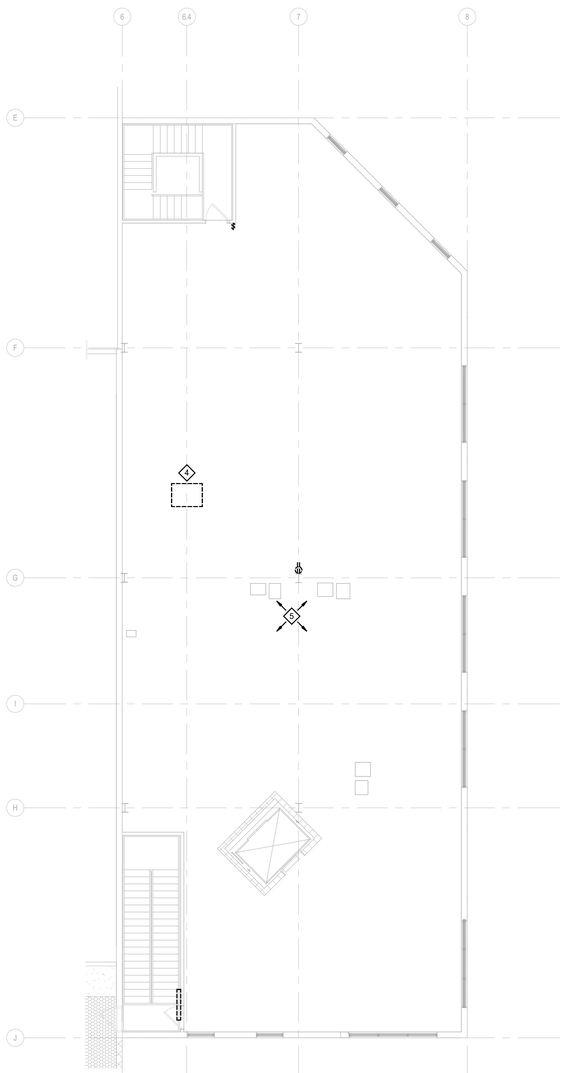
STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

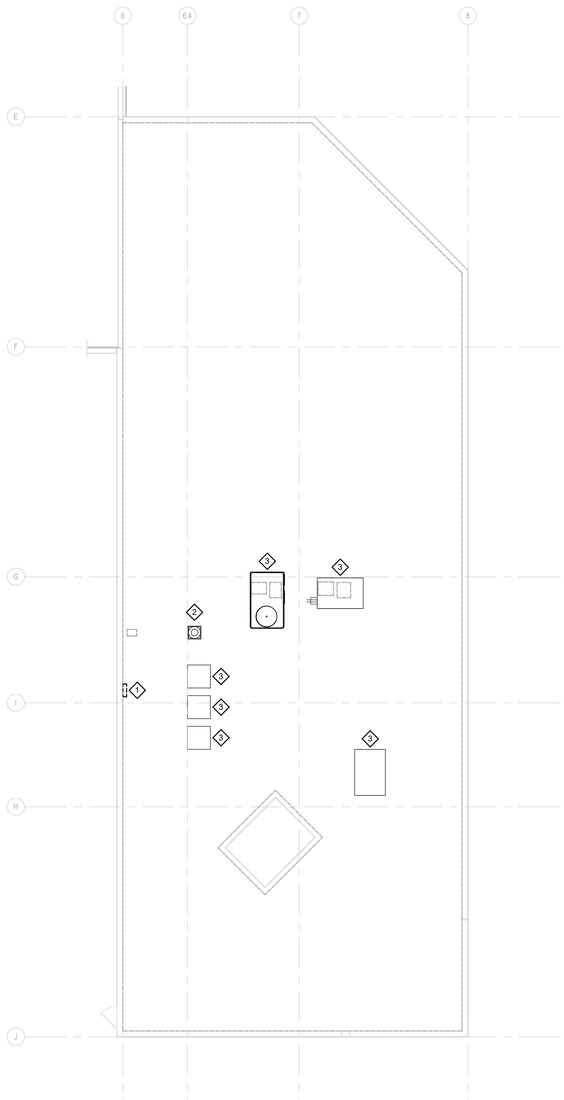
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E106 SHEET KEYED NOTES

1. DISCONNECT AND REMOVE EXISTING ROOF MOUNTED SPLIT SYSTEM PANELBOARD AND ASSOCIATED FEEDER. RETAIN PANELBOARD SUPPORTS AND ALL BRANCH CIRCUITS FOR CONNECTIONS TO REPLACEMENT PANELBOARD AS PART OF NEW WORK.
2. EXISTING EXHAUST FAN SHALL REMAIN. REMOVE BRANCH CIRCUT BACK TO SOURCE AND RECONNECT PER NEW WORK PLANS.
3. RETAIN EXISTING ROOFTOP RTU AND CU BRANCH CIRCUITS FOR EQUIPMENT TO REMAIN. LOCATE ROOFTOP UNIT BRANCH CIRCUT FOR RE-ROUTING TO NEW ROOFTOP PANELBOARD AS PART OF NEW WORK.
4. EXISTING UNIT HEATER AND ASSOCIATED DISCONNECT SHALL BE REMOVED. REMOVE BRANCH CIRCUT BACK TO SOURCE. COORDINATE WITH MECHANICAL CONTRACTOR.
5. AS PART OF ALTERNATE #1A - POLICE DISPATCH, DISCONNECT AND REMOVE ALL BRANCH CIRCUITS, LIGHTING FIXTURES AND CONTROLS, COMMUNICATION CIRCUITS AND DEVICES, FIRE ALARM CIRCUITS AND DEVICES, ETC. IN THIS AREA AS PART OF THE BULK DEMOLITION OF THIS SPACE. ALL ABANDONED COMPONENTS AND CABLES SHALL BE COMPLETELY REMOVED.



1 ELECTRICAL DEMOLITION PLAN - OFFICE L03
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



2 ELECTRICAL DEMOLITION PLAN - OFFICE ROOF
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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ELEC DEMO PLAN - OFFICE L03 & ROOF

Project No.
24059

Sheet No.
E106

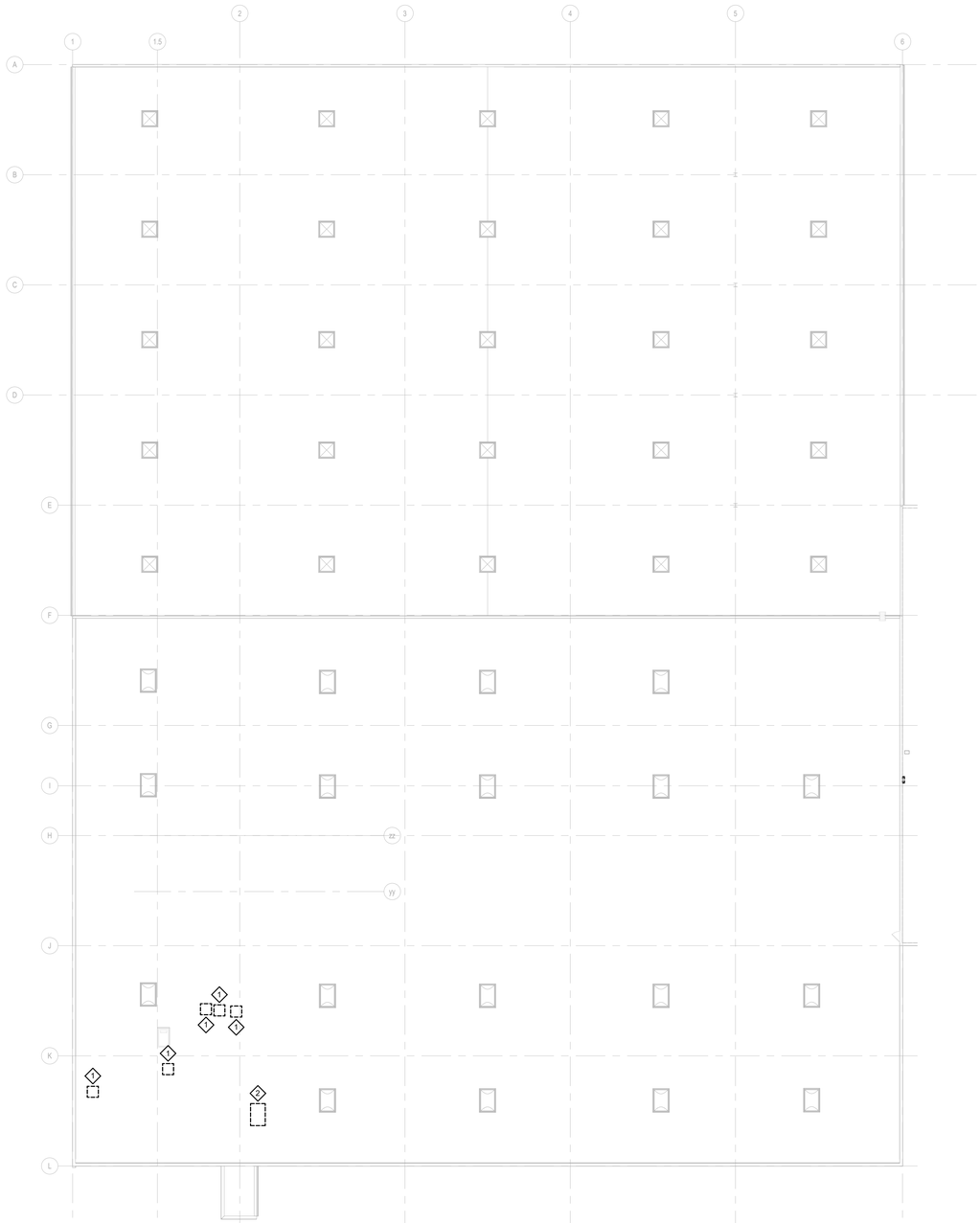
Date
03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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E107 SHEET KEYED NOTES

1. EXISTING CONDENSING UNIT AND ASSOCIATED DISCONNECT SHALL BE REMOVED. REMOVE BRANCH CIRCUIT BACK TO SOURCE. COORDINATE WITH MECHANICAL CONTRACTOR.
2. EXISTING ROOF TOP UNIT AND ASSOCIATED DISCONNECT SHALL BE REMOVED. REMOVE BRANCH CIRCUIT BACK TO SOURCE. COORDINATE WITH MECHANICAL CONTRACTOR.

1 ELECTRICAL DEMOLITION PLAN - WAREHOUSE ROOF
1/16" = 1'-0"

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

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ELEC DEMO PLAN - WAREHOUSE ROOF

Project No. 24059

Sheet No. E107

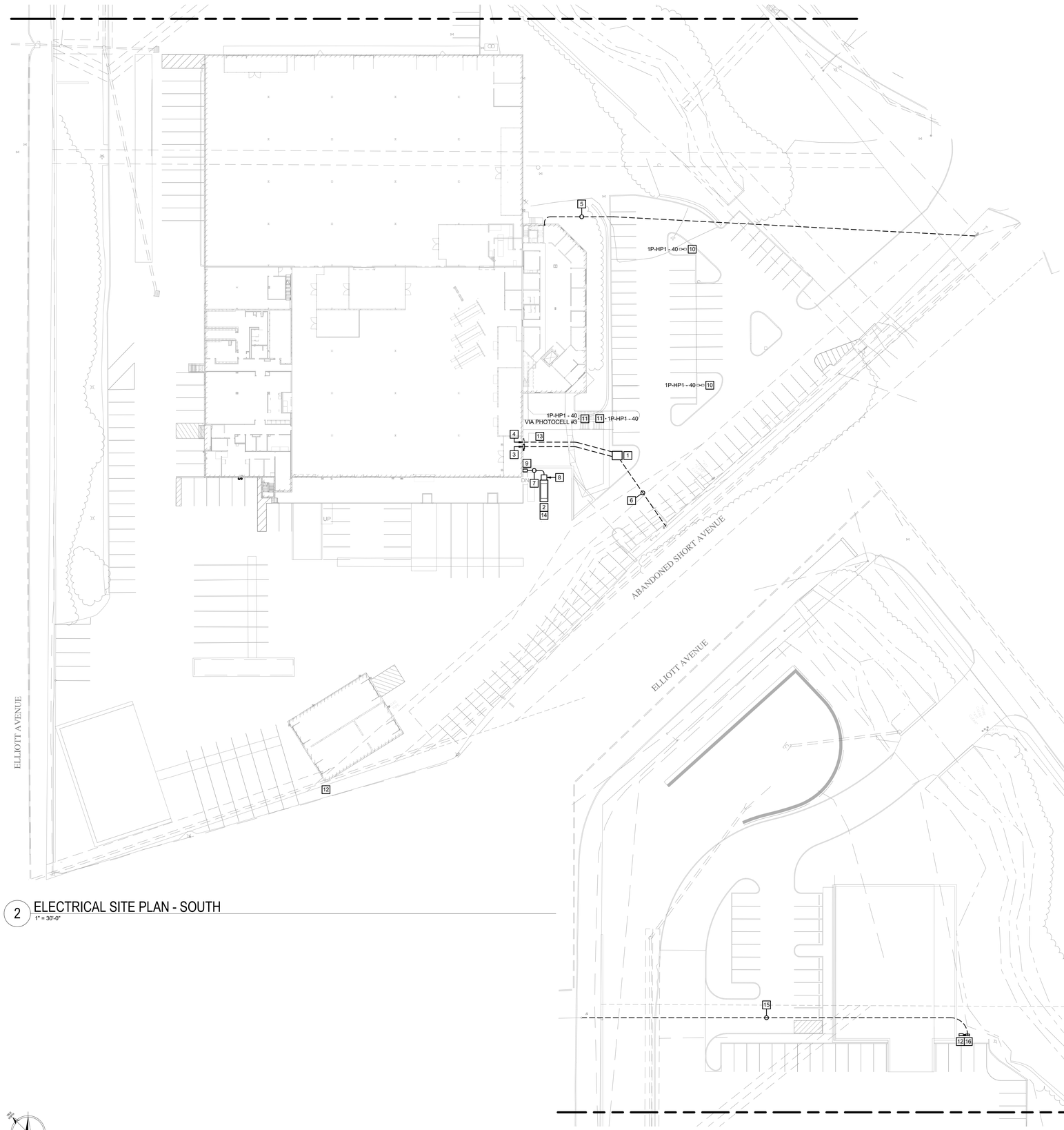
Date 03/27/2026

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2 ELECTRICAL SITE PLAN - SOUTH
1" = 30'-0"

1 ELECTRICAL SITE PLAN - NORTH
1" = 30'-0"

SCALE: 1" = 30'-0"

E201 SHEET KEYED NOTES

1 KPW UTILITY SERVICE TRANSFORMER. COORDINATE TRANSFORMER EQUIPMENT PAD REQUIREMENTS AND ORIENTATION WITH KPW REPRESENTATIVE PRIOR TO INSTALLATION.

2 AS PART OF ALTERNATE #1B - WHOLE BUILDING GENERATOR, PROVIDE EMERGENCY STANDBY GENERATOR (GEN-EH1) 800kW/1000kVA, 480Y/277V WITH SOUND ATTENUATING ENCLOSURE AND 24 HOUR SUB-BASE FUEL TANK SEPARATELY DERIVED SYSTEM. IN PLACE OF THE PORTABLE GENERATOR DOCKING STATION IN THE BASE BID.

3 NEW KPW CT AND METERING CABINET FOR NEW FACILITY ELECTRICAL SERVICE. COORDINATE LOCATION OF CT AND METERING CABINET WITH EXISTING TO REMAIN NATURAL GAS SERVICE IN THIS AREA. PROVIDE NEMA 3R, HINGED CT CABINET (MINIMUM OF 36"x36"x12"D). METER COMPONENTS AND GROUNDING IN COMPLIANCE WITH KIRKWOOD ELECTRICAL SERVICE MANUAL. INSTALL KPW PROVIDED BAR-TYPE CT'S IN CABINET AS REQUIRED.

4 EXISTING KPW CT AND METERING CABINET SERVING THE FIRE PUMP SHALL REMAIN. NEW FIRE PUMP NORMAL SERVICE FEEDER SHALL BE PROVIDED TO THE EXISTING TO REMAIN WALL MOUNTED CT AND METERING CABINET FROM THE KPW SERVICE TRANSFORMER. PROVIDE SERVICE CONDUIT AND CONDUCTORS FROM SERVICE TRANSFORMER SECONDARY TO EXISTING METERING CABINET.

5 APPROXIMATE ROUTE OF UNDERGROUND CONDUIT FOR SEGRA COMMUNICATION SERVICE. EXACT ROUTE TO BE COORDINATED WITH SEGRA. PROVIDE (2) 2" EMPTY CONDUIT WITH PULLSTRING FROM UTILITY POLE TO BUILDING.

6 PROVIDE 4" EMPTY UNDERGROUND CONDUIT WITH PULLSTRING PER KPW REQUIREMENTS FOR UTILITY PROVIDED PRIMARY FEEDER CONDUCTORS FROM OVERHEAD UTILITY POLE TO UTILITY TRANSFORMER. REFER TO DETAIL 1 ON SHEET E501 FOR DUCTBANK DETAIL.

7 AS PART OF ALTERNATE #1B - WHOLE BUILDING GENERATOR, PROVIDE AND ROUTE CONDUITS FROM ENGINE-GENERATOR SET TO BUILDING OVERHEAD AT 7 FEET ABOVE FINISHED GRADE TO EXTERIOR OF BUILDING. PROVIDE SEISMIC RATED CONDUIT SUPPORTS FOR ALL CONDUITS. ROUTE CONDUITS EXPOSED ON BUILDING TO SURFACE MOUNTED PULL BOXES LOCATED ON EXTERIOR WALL. PROVIDE PENETRATION OF EXISTING BUILDING AND SEAL WATERTIGHT ON BOTH SIDES OF THE PENETRATION.

8 AS PART OF BASE BID, EMERGENCY SYSTEM PORTABLE GENERATOR DOCKING STATION SHALL BE PROVIDED FOR STANDBY POWER SYSTEM.

9 NEMA 3R SERVICE FEEDER PULL BOX.

10 EXISTING DUAL HEADED POLE MOUNTED LIGHTING FIXTURE TO REMAIN. RECONNECT TO NEW CIRCUIT AND PANEL AS SHOWN. RECONNECT TO NEW CIRCUIT VIA EXISTING TO REMAIN JUNCTION BOX LOCATED INSIDE BUILDING. NEW EXTERIOR LIGHTING CIRCUITS SHALL BE ROUTED THROUGH PHOTOCELL CONTROLLED LIGHTING CONTROL PANEL.

11 EXISTING LIGHTING BOLLARD TO REMAIN. RECONNECT TO NEW CIRCUIT AND PANEL AS SHOWN. RECONNECT TO NEW CIRCUIT VIA EXISTING TO REMAIN JUNCTION BOX LOCATED INSIDE BUILDING. NEW EXTERIOR LIGHTING CIRCUITS SHALL BE ROUTED THROUGH PHOTOCELL CONTROLLED LIGHTING CONTROL PANEL.

12 PROVIDE TRIPLEX GROUND ROD GROUNDING ELECTRODE SYSTEM WITH #2/0 GROUNDING ELECTRODE CONDUCTOR FOR ELECTRICAL SERVICE.

13 PROVIDE TRIPLEX GROUND ROD GROUNDING ELECTRODE SYSTEM WITH #3/0 GROUNDING ELECTRODE CONDUCTOR FOR ELECTRICAL SERVICE.

14 AS PART OF ALTERNATE #B - WHOLE BUILDING GENERATOR, PROVIDE TRIPLEX GROUND ROD GROUNDING ELECTRODE SYSTEM WITH #3/0 GROUNDING ELECTRODE CONDUCTOR FOR STANDBY POWER SEPARATELY DERIVED POWER SYSTEM.

15 PROVIDE 4" CONDUIT WITH SERVICE FEEDER FROM KPW POWER POLE WITH POLE MOUNT TRANSFORMERS TO NEW KPW CT AND METERING CABINET. COORDINATE LOCATION AND REQUIREMENTS WITH KPW PRIOR TO INSTALLATION.

16 PROVIDE NEW KPW CT AND METERING CABINET FOR NEW RECYCLING CENTER SERVICE. METERING AND GROUNDING SHALL BE IN COMPLIANCE WITH KIRKWOOD ELECTRICAL SERVICE MANUAL AND AS COORDINATED WITH KPW.

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EXPIRATION DATE: DECEMBER 31, 2026

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KIRKWOOD PUBLIC WORKS RENOVATION
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No.	Date	Revision

ELEC SITE PLAN

Project No. 24059

Sheet No. E201

Date 03/27/2026

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E202 SHEET KEYED NOTES

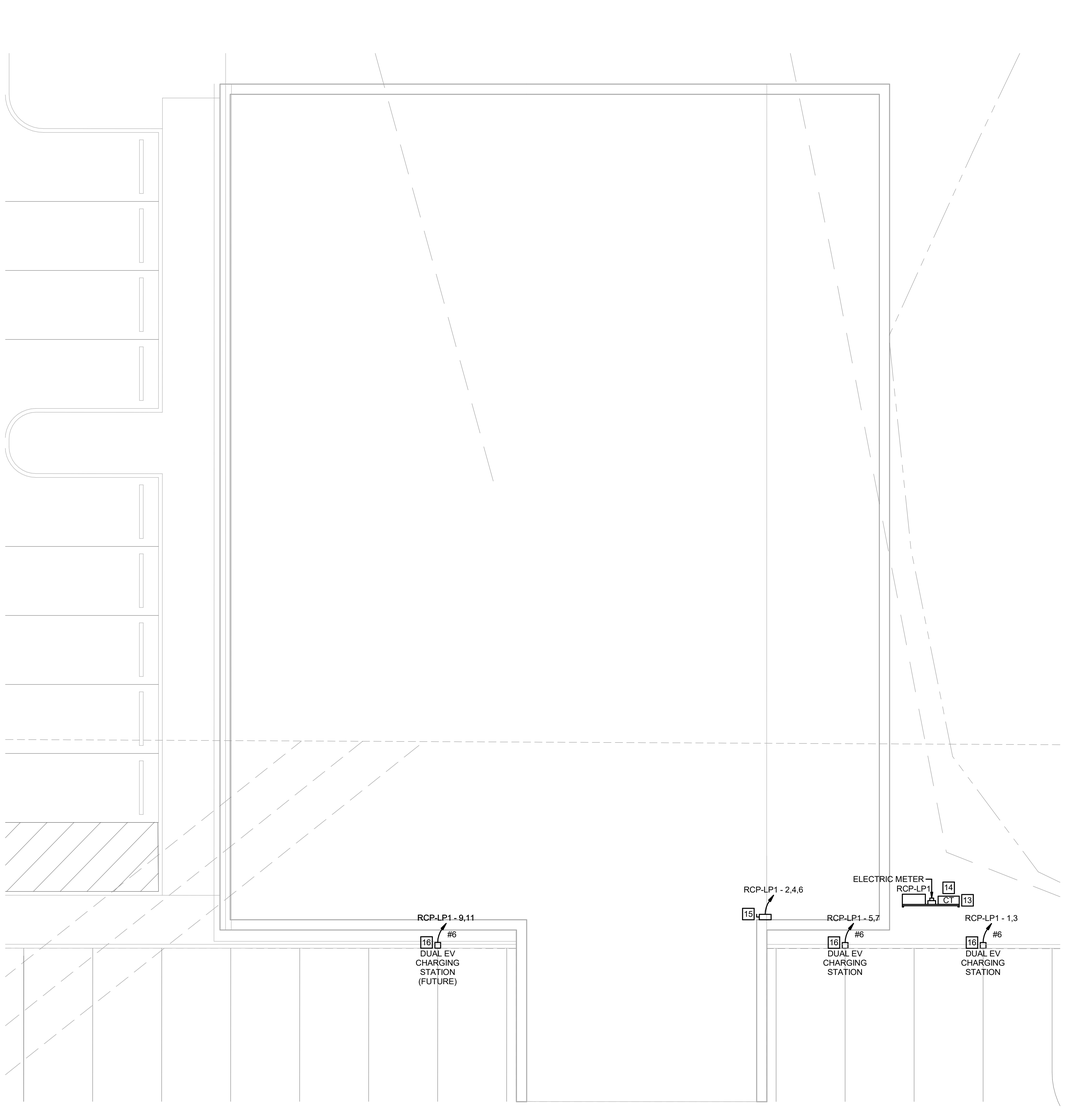
1. 100A, 480V, 3Ø, 4W ENCLOSED CIRCUIT BREAKER FOR PRIMARY OF XFMR.
2. PROVIDE NEMA L6-30R WATERTIGHT TWIST-LOCK RECEPTACLE WITH LIFT COVER.
3. PROVIDE LARSON ELECTRONICS MT-BBT-208V-230V-41.67A BUCK AND BOOST STEP-UP TRANSFORMER OR EQUAL. PROVIDE POWER TO POWER WASHER RECEPTACLE. MOUNT 15' A.F.F..
4. PROVIDE NEMA L15-30R WATERTIGHT TWIST-LOCK RECEPTACLE WITH LIFT COVER.
5. PROVIDE LARSON ELECTRONICS MT-BBT-208D-230D-3P-20.83A BUCK AND BOOST STEP-UP TRANSFORMER OR EQUAL. PROVIDE POWER TO PARTS WASHER RECEPTACLE. MOUNT 15' A.F.F..
6. OVERHEAD DOOR CONTROLLER SUPPLIED WITH DOOR. INSTALLED BY ELECTRICAL CONTRACTOR +54".
7. EXTEND EXISTING TO REMAIN WASHBAY POWER CIRCUITS TO NEW PANELBOARD CIRCUIT BREAKERS.
8. REFER TO DRAWING E103, KEYED NOTE 11, FOR EXISTING TRANSFORMER LOCATION.
9. EXISTING EXTERIOR WALL PACKS AND FLOOD LIGHTS TO REMAIN. RECONNECT TO NEW CIRCUIT AND PANEL AS SHOWN.
10. PROVIDE NEW PHOTOCELL CONTROL FOR EXISTING TO REMAIN EXTERIOR LIGHTING. LOCATE PHOTOCELL ON ROOF.
11. OUTSIDE LIGHTING CONTROL PANEL. PROVIDE PHOTOCELL ON ROOF AND ROUTE CONDUCTORS IN 1/2" CONDUIT TO LIGHTING CONTROL PANEL. ROUTE EXTERIOR LIGHTING CIRCUITS, BOTH EXISTING AND NEW, TO LIGHTING CONTROL PANEL. SEE SHEET E501 FOR DETAIL.
12. PROVIDE WITH BATTERY BACK-UP.
13. REFER TO SITE PLAN DRAWING E201 FOR ELECTRICAL SERVICE GROUNDING REQUIREMENTS.
14. NEW KPW CT AND METERING CABINET FOR NEW FACILITY ELECTRICAL SERVICE. SEE SHEET E201 FOR MORE DETAIL.
15. NEMA 3R, 200 AMP FUSIBLE DISCONNECT. FUSE AT 150 AMP WITH FRS-R FUSES. DISCONNECT IS FOR BAILER. 3 #1/0, 1 #6G IN 1-1/2"C.
16. ROUTE DUAL CHARGING STATION FEEDERS UNDERGROUND FROM PANELBOARD TO CHARGER OUTLET LOCATIONS. EACH FEEDER SHALL BE TWO #6, 1 #10G IN 1"C.
17. PROVIDE NEMA 3R CAST ELECTRICAL BOXES WITH POWER FOR CALCIUM TANK PUMP AND CALCIUM TANK LIGHTING CIRCUITS. EACH CIRCUIT SHALL BE CONNECTED TO A SEPARATE GFCI CIRCUIT BREAKER. EACH CIRCUIT SHALL BE 2 #12, 1 #12G IN 1" C.

1 ELECTRICAL PLAN - WASH BAY

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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



2 ELECTRICAL PLAN - RECYCLING CENTER

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

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ELEC PLANS - RECYCLING & WASH BAY

No.	Date	Revision

STATE OF MISSOURI
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NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
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Project No. 24059

Sheet No. E202

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GENERAL NOTES (THIS SHEET ONLY):

1. ALL 20A, 120V BRANCH CIRCUITS SHALL HAVE MINIMUM CONDUCTOR SIZE OF #12.
2. ALL 20A, 120V BRANCH CIRCUITS WITH CONDUCTOR LENGTH GREATER THAN 75' SHALL BE #10 CONDUCTORS. ALL OTHER 120V BRANCH CIRCUITS SHALL BE INCREASED IN CONDUCTOR SIZE TO LIMIT VOLTAGE DROP TO 3%.
3. ALL BRANCH CIRCUIT CONDUITS AND OUTLETS IN WAREHOUSE TO BE PROVIDED ON EXISTING WALLS AND COLUMNS SHALL BE SURFACE MOUNTED.
4. PROVIDE IDENTIFICATION LABEL FOR POWER SOURCE AND BRANCH CIRCUIT IDENTIFICATION AT EACH RECEPTACLE. DISCONNECT AND POWERED EQUIPMENT TO REMAIN. DOCUMENT EACH ON THE RECORD DRAWINGS FOR THIS PROJECT.

[#] E203 SHEET KEYED NOTES

1 EXISTING FIRE PUMP AND JOCKEY PUMP CONTROL PANELS TO REMAIN. PROVIDE SPLICE BOX IN FIRE PUMP FEEDER WITH LABELED INDIVIDUAL TERMINAL BLOCKS TO EXTEND CIRCUIT TO THE JOCKEY PUMP CONTROL PANEL. PROVIDE HINGED LOCKABLE ENCLOSURE WITH LABEL READING "FIRE AND JOCKEY PUMP FEEDER ENCLOSURE". PROVIDE IDENTIFICATION LABEL FOR POWER SOURCE AND BRANCH CIRCUIT AND DOCUMENT ON RECORD DRAWING.

2 PROVIDE NEW FEEDER TO EXISTING PANELBOARD. PROVIDE NEW IDENTIFICATION NAMEPLATE. PROVIDE AND INSTALL NEW BREAKERS IN EXISTING SPACE IN PANEL 1P-LP3. SEE PANELBOARD DIRECTORY ON SHEET E601 FOR MORE INFORMATION.

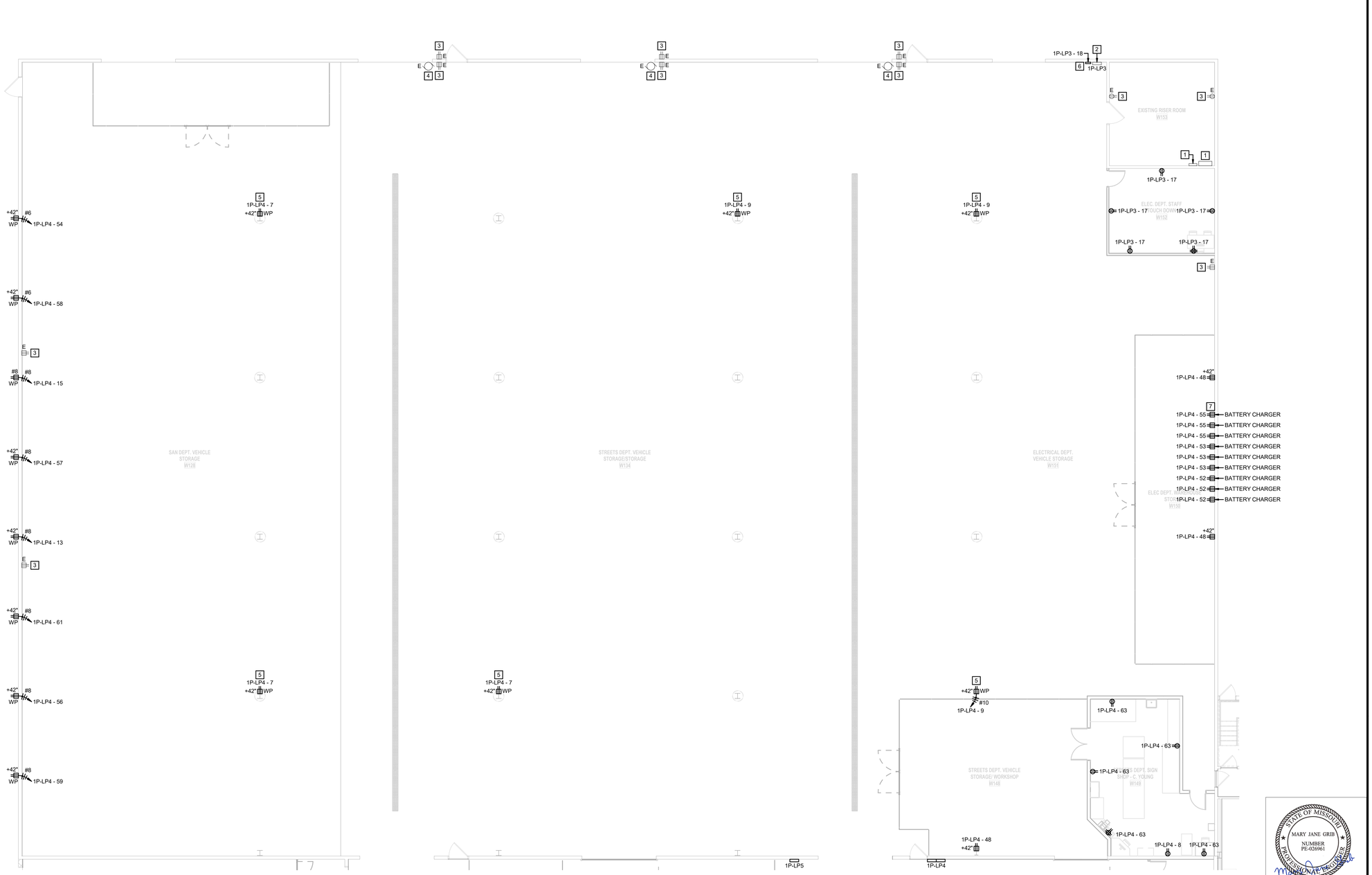
3 EXISTING RECEPTACLE TO REMAIN. EXISTING CIRCUIT TO REMAIN.

4 EXISTING MOTORIZED GARAGE DOOR TO REMAIN. EXISTING CIRCUIT TO REMAIN.

5 PROVIDE SURFACE MOUNTED CONDUIT DOWN COLUMN TO FEED SURFACE MOUNTED RECEPTACLE.

6 PROVIDE NEW OUTSIDE LIGHTING CONTROL PANEL.

7 REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHT OF BATTERY CHARGER RECEPTACLES.



1 POWER PLAN - N WAREHOUSE L01
1/8" = 1'-0"

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

STATE OF MISSOURI
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POWER PLAN - N WAREHOUSE L01

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Sheet No. E203
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GENERAL NOTES (THIS SHEET ONLY):

1. ALL 20A, 120V BRANCH CIRCUITS SHALL HAVE MINIMUM CONDUCTOR SIZE OF #12.
2. ALL 20A, 120V BRANCH CIRCUITS WITH CONDUCTOR LENGTH GREATER THAN 75' SHALL BE #10 CONDUCTORS. ALL OTHER 120V BRANCH CIRCUITS SHALL BE INCREASED IN CONDUCTOR SIZE TO LIMIT VOLTAGE DROP TO 3%.
3. ALL BRANCH CIRCUIT CONDUITS AND OUTLETS IN WAREHOUSE TO BE PROVIDED ON EXISTING WALLS AND COLUMNS SHALL BE SURFACE MOUNTED.
4. PROVIDE IDENTIFICATION LABEL FOR POWER SOURCE AND BRANCH CIRCUIT IDENTIFICATION AT EACH RECEPTACLE, DISCONNECT AND POWERED EQUIPMENT TO REMAIN. DOCUMENT EACH ON THE RECORD DRAWINGS FOR THIS PROJECT.

[#] E204 SHEET KEYED NOTES

1. ELECTRIC WATER COOLER OUTLET. MOUNT OUTLET TO CONCEAL CORD AND PLUG. FOLLOW MANUFACTURERS REQUIREMENTS OF SPECIFIC MODEL INSTALLED.
2. DUPLEX RECEPTACLE FOR TIME CLOCK.
3. DRYER OUTLET.
4. OUTLET FOR UNDER COUNTER MICROWAVE. SEE ARCHITECTURAL PLANS FOR EXACT LOCATION AND ELEVATION.
5. OUTLET FOR ABOVE COUNTER MICROWAVE. SEE ARCHITECTURAL PLANS FOR EXACT LOCATION AND ELEVATION.
6. PROVIDE AND INSTALL (5) GFCI CIRCUIT BREAKERS FOR THE REFRIGERATOR RECEPTACLES.
7. MOUNT TRANSFORMER HIGH ON WALL.
8. 24"x4"x1/2" COPPER GROUND BAR. INSTALL #3/0 BARE CABLE TO SERVICE ENTRANCE GROUND BAR.
9. NEMA 3R FEEDER PULL BOX.
10. EMERGENCY SYSTEM PORTABLE GENERATOR DOCKING STATION. SEE ELECTRICAL SITE PLAN SHEET E201 FOR MORE DETAIL.
11. AS PART OF ALTERNATE #1B - WHOLE BUILDING GENERATOR. SEE ELECTRICAL SITE PLAN SHEET E201 FOR MORE DETAIL.
12. CONNECT START CIRCUIT TO ATS. AS PART OF ALTERNATE #1B - WHOLE BUILDING GENERATOR.
13. CONNECT TO GENNERATOR ANNUNCIATOR. AS PART OF ALTERNATE #1B - WHOLE BUILDING GENERATOR.
14. CONNECT TO JACKET WATER HEATER. AS PART OF ALTERNATE #1B - WHOLE BUILDING GENERATOR.
15. CONNECT TO BATTERY CHARGER. AS PART OF ALTERNATE #1B - WHOLE BUILDING GENERATOR.
16. INSTALL SURE-LITES SELWT-29-NC-WH-SP EMERGENCY LIGHT ABOVE GENERATOR CONTROL PANEL. CONNECT TO SAME CIRCUIT AS BATTERY CHARGER. AS PART OF ALTERNATE #1B - WHOLE BUILDING GENERATOR.
17. PROVIDE NEW FEEDER TO EXISTING PANELBOARD. PROVIDE NEW IDENTIFICATION NAMEPLATE. PROVIDE AND INSTALL NEW BREAKERS IN EXISTING SPACE AND MODIFY EXISTING BREAKERS IN PANEL 1P-HP1. SEE PANELBOARD DIRECTORY ON SHEET E601 FOR MORE INFORMATION.
18. PROVIDE NEW FEEDER TO EXISTING PANELBOARD. PROVIDE NEW IDENTIFICATION NAMEPLATE. PROVIDE AND INSTALL NEW BREAKERS IN EXISTING SPACE IN PANEL 1P-LP1. SEE PANELBOARD DIRECTORY ON SHEET E601 FOR MORE INFORMATION.
19. PROVIDE NEW FEEDER TO EXISTING PANELBOARD. PROVIDE NEW IDENTIFICATION NAMEPLATE. PROVIDE AND INSTALL NEW BREAKERS IN EXISTING SPACE AND MODIFY EXISTING BREAKERS IN PANEL 1P-LP2. SEE PANELBOARD DIRECTORY ON SHEET E601 FOR MORE INFORMATION.
20. SWITCHED POWER FOR GARBAGE DISPOSAL.
21. PROVIDE SURFACE MOUNTED CONDUIT DOWN COLUMN TO FEED SURFACE MOUNTED RECEPTACLE.
22. CENTRAL LIGHTING INVERTER.
23. POWER FOR AIR COMPRESSOR. 2 #10, 1 #12G, 3/4"C TO PANEL 1P-LP4.
24. AIR COMPRESSOR MANUAL MOTOR STARTER (HP RATED TOGGLE SWITCH).
25. POWER FOR OIL PUMP. 2 #10, 1 #12G, 3/4"C TO PANEL 1P-LP4.
26. OIL PUMP MANUAL MOTOR STARTER (TOGGLE DISCONNECT SWITCH).
27. HEAVY DUTY TIRE MACHINE OUTLET.

1 POWER PLAN - S WAREHOUSE L01
1/8" = 1'-0"

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

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POWER PLAN - S WAREHOUSE L01

Project No. 24059

Sheet No. E204

Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
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Name: Mary J Grib
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Expiration Date: 12/31/2027

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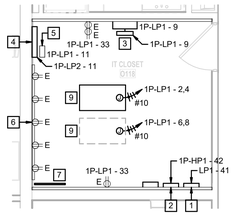
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GENERAL NOTES (THIS SHEET ONLY):

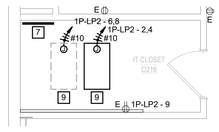
1. EXISTING RECEPTACLES SHALL REMAIN FOR RE-USE UNLESS NOTED OTHERWISE. ALL EXISTING RECEPTACLES AND SWITCHES SHALL BE PROVIDED WITH NEW IDENTIFICATION OF SOURCE OF POWER INCLUDING PANELBOARD AND BRANCH CIRCUIT NUMBER.
2. ALL WORK ASSOCIATED WITH THE THIRD FLOOR DISPATCH OFFICE SHALL BE INCLUDED IN THE ALTERNATE #1A - POLICE DISPATCH PRICING.
3. DOCUMENT THE POWER SOURCE AND CIRCUIT NUMBER FOR EACH EXISTING TO REMAIN RECEPTACLE, DISCONNECT AND POWERED EQUIPMENT ON THE RECORD DRAWINGS FOR THIS PROJECT.

E205 SHEET KEYED NOTES

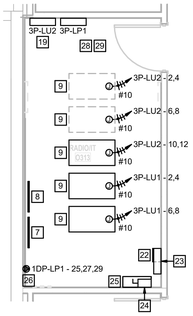
1. BUILDING MANAGEMENT SYSTEM CONTROL PANEL BY MECHANICAL CONTRACTOR. PROVIDE WITH TRIPP LITE SMART1000RM1U 1-HOUR UPS.
2. OUTSIDE LIGHTING CONTROL PANEL.
3. FIRE ALARM CONTROL PANEL AND NETWORK / CELL DIGITAL COMMUNICATOR. PROVIDE A NEW DEDICATED CIRCUIT.
4. PROVIDE AND INSTALL NEW SECURITY CONTROL PANEL.
5. EXISTING HYDRAULIC CONTROLLER.
6. EXISTING PLUGMOLD. EXISTING CIRCUIT TO REMAIN.
7. 24"x4"x1/2" COPPER GROUND BAR. PROVIDE #3/0 BARE CABLE TO SERVICE ENTRANCE GROUND BAR. BOND TO CABINETS., CABLE TRAY AND EQUIPMENT RACKS
8. PROVIDE SECONDARY BONDING BAR IN DISPATCH IT ROOM. PROVIDE INTERNAL PERIMETER BONDING BUS AROUND PERIMETER. PROVIDE ALL GROUNDING AND BONDING FOR DISPATCH ROOM AND ROOFTOP ANTENNA. REFER TO SPECIFICATION SECTION 260526 FOR ADDITIONAL REQUIREMENTS. MOTOROLA R56 GROUNDING REQUIREMENTS SHALL BE COMPLIED WITH.
9. NEMA L6-30R OUTLET MOUNTED ABOVE RACK FOR UPS CONNECTION.
10. EXISTING ELECTRIC WATER COOLER. EXISTING CIRCUIT TO REMAIN.
11. ALL POWER ON THIS WALL HAS EXISTING CIRCUIT TO REMAIN.
12. EXISTING HAND DRYER. EXISTING CIRCUIT TO REMAIN.
13. PROVIDE NEW ELEVATOR POWER FEEDER TO 1DP-HP1 IN ELECTRICAL SERVICE CENTER.
14. PROVIDE NEW ELEVATOR SHUNT TRIP POWER CIRCUIT FROM 1P-HP1 - 42.
15. EXISTING ELEVATOR CAB LIGHTS. EXISTING CIRCUIT TO REMAIN.
16. EXISTING WATER HEATER. EXISTING CIRCUIT TO REMAIN.
17. EXISTING CIRCULATOR PUMP. RECIRCUIT AS SHOWN.
18. EXISTING IRRIGATION CONTROL PANEL
19. PROVIDE 208Y/120V, 100A PANELBOARD AS PART OF ALTERNATE #1A - POLICE DISPATCH.
20. PROVIDE 30kVA, 208V PRIMARY, 120/208V SECONDARY, 3Ø, 4-WIRE UPS AS PART OF ALTERNATE #1A - POLICE DISPATCH.
21. SWITCHED POWER FOR GARBAGE DISPOSER.
22. RELOCATED TVSS PANEL LOCATED UNDER PANEL 3P-LU2.
23. RELOCATED 208Y/120V, 100A UPS PANELBOARD.
24. RELOCATED DISCONNECT SWITCH.
25. RELOCATED APC MAINTENANCE BYPASS PANEL.
26. POWER FEEDER TO SERVE DISPATCH RELOCATED UPS SYSTEM AS PART OF DISPATCH ALTERNATE.
27. EXISTING POWER POINT FOR MODULAR FURNITURE.
28. PROVIDE 2" CONDUIT WITH PULL CORD FROM RADIO/IT ROOM TO ROOF FOR OWNER VENDOR PROVIDED CONNECTIONS TO ROOFTOP ANTENNA. COORDINATE LOCATION OF ANTENNA LOCATION GROUND BAR WITH OWNER'S VENDOR.
29. ROUTE #500 CU FROM ELECTRICAL SERVICE GROUND TO PRIMARY BONDING BAR IN RADIO/IT 0313. ROUTE #4/0 CU FROM PRIMARY BONDING BAR TO DISPATCH AREA SBB. ROUTE #1/0 CU FROM DISPATCH AREA SBB TO EACH OPERATOR POSITION SBB. ROUTE #1/0 CU FROM DISPATCH AREA ABB TO EACH OPERATOR POSITION SBB.
30. POWER FOR DOOR HARDWARE.
31. POWER FOR DOOR CHIME SYSTEM.
32. SEE LARGE SCALE PLAN THIS SHEET FOR MORE INFORMATION.



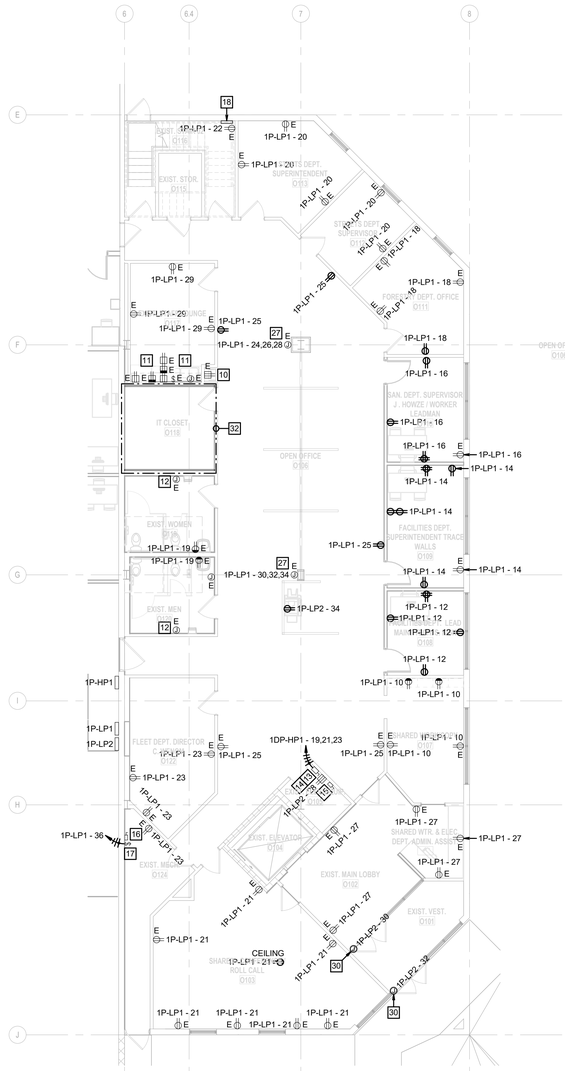
4 LARGE SCALE POWER PLAN - IT CLOSET 0118
1/4" = 1'-0"



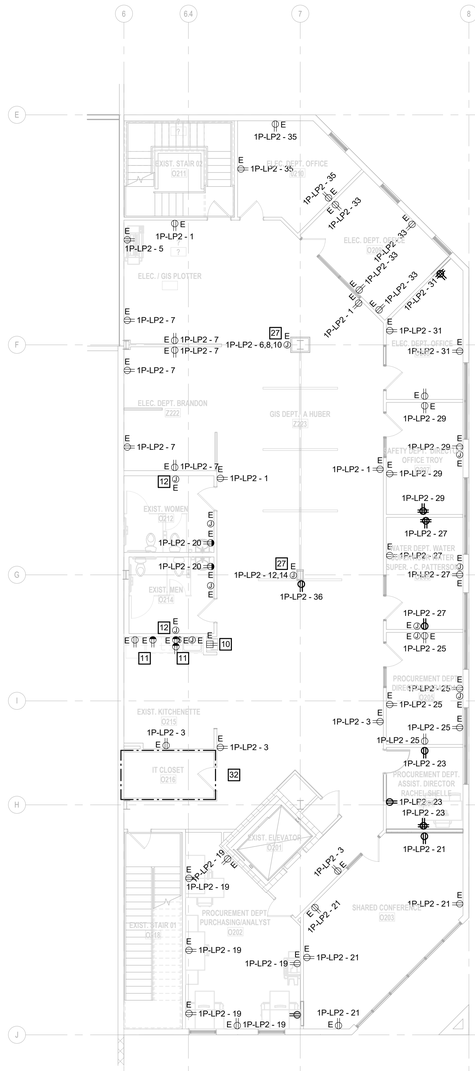
5 LARGE SCALE POWER PLAN - IT CLOSET 0216
1/4" = 1'-0"



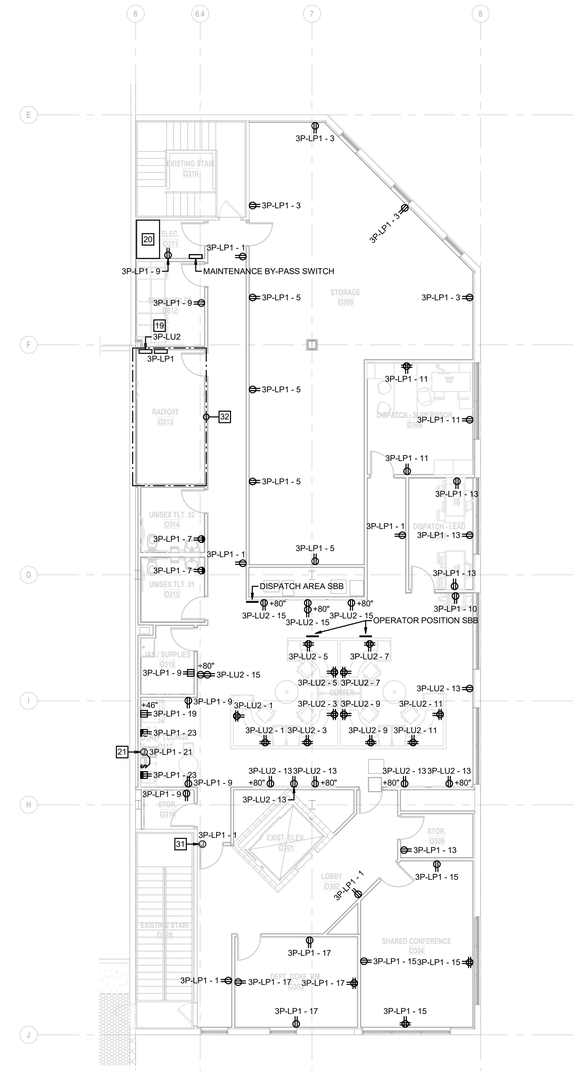
6 LARGE SCALE POWER PLAN - RADIO/IT 0313
1/4" = 1'-0"



1 POWER PLAN - OFFICE L01
1/8" = 1'-0"



2 POWER PLAN - OFFICE L02
1/8" = 1'-0"



3 POWER PLAN - OFFICE L03
1/8" = 1'-0"

Roy A. Mangan
MO Architect License No: A-6661
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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
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No.	Date	Revision
0		

POWER PLAN - OFFICE L01, L02 & L03

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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Sheet No. E205
Date 03/27/2026

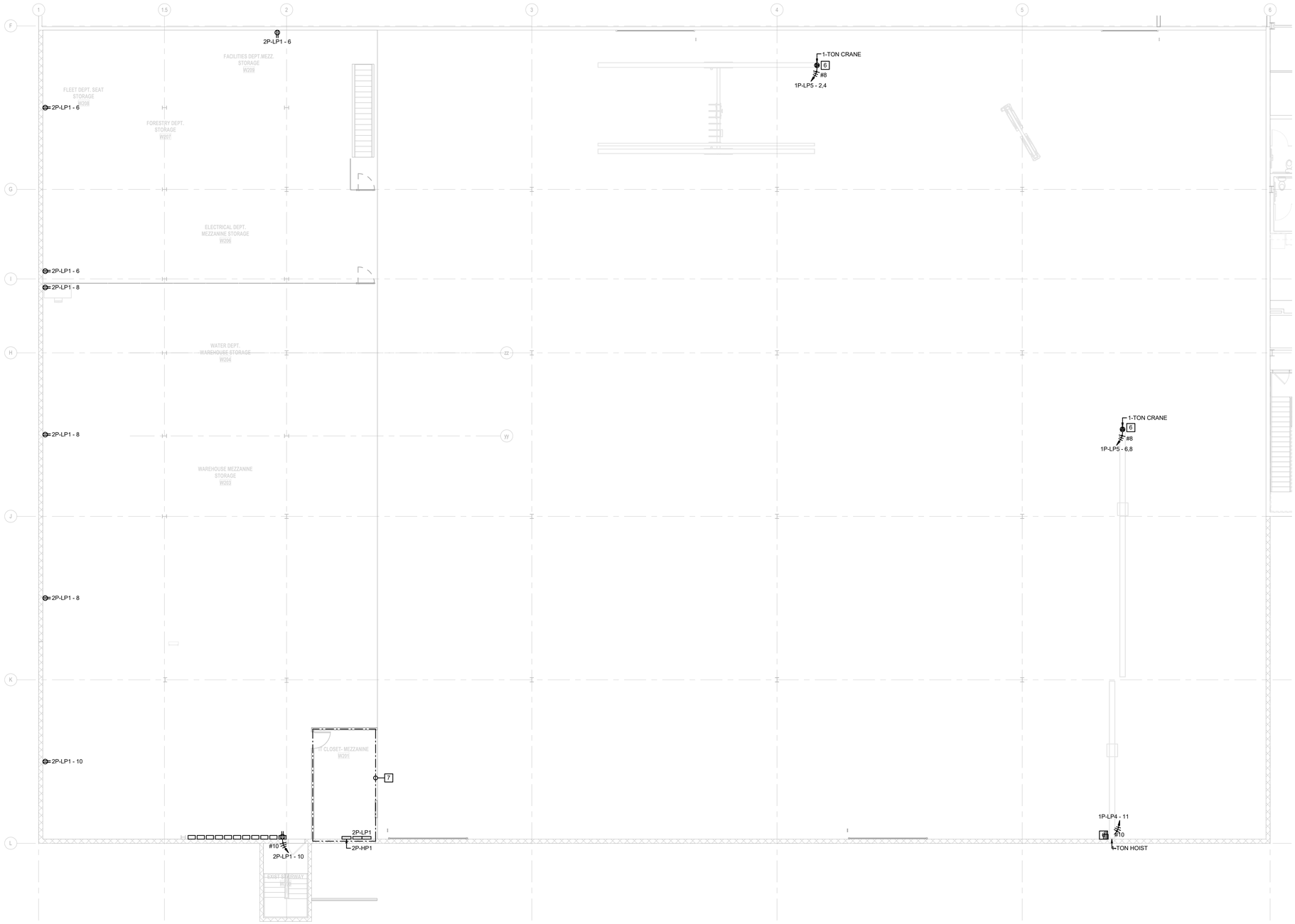
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GENERAL NOTES (THIS SHEET ONLY):

1. ALL 20A, 120V BRANCH CIRCUITS SHALL HAVE MINIMUM CONDUCTOR SIZE OF #12.
2. ALL 20A, 120V BRANCH CIRCUITS WITH CONDUCTOR LENGTH GREATER THAN 75' SHALL BE #10 CONDUCTORS. ALL OTHER 120V BRANCH CIRCUITS SHALL BE INCREASED IN CONDUCTOR SIZE TO LIMIT VOLTAGE DROP TO 3%.
3. ALL BRANCH CIRCUIT CONDUITS AND OUTLETS IN WAREHOUSE TO BE PROVIDED ON EXISTING WALLS AND COLUMNS SHALL BE SURFACE MOUNTED.
4. PROVIDE IDENTIFICATION LABEL FOR POWER SOURCE AND BRANCH CIRCUIT IDENTIFICATION AT EACH RECEPTACLE, DISCONNECT AND POWERED EQUIPMENT TO REMAIN. DOCUMENT EACH ON THE RECORD DRAWINGS FOR THIS PROJECT.

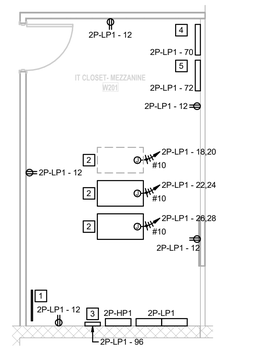
[#] E206 SHEET KEYED NOTES

1. 24"x4"x1/2" COPPER GROUND BAR. PROVIDE #3/0 BARE CABLE TO SERVICE ENTRANCE GROUND BAR. BOND TO CABINETS., CABLE TRAY AND EQUIPMENT RACKS
2. NEMA L6-30R OUTLET MOUNTED ABOVE RACK FOR UPS CONNECTION.
3. OUTSIDE LIGHTING CONTROL PANEL.
4. SECURITY CONTROL PANEL BY OWNER'S VENDOR.
5. VIDEO SURVEILLANCE EQUIPMENT BY OWNER'S VENDOR.
6. COORDINATE EXACT LOCATION WITH EQUIPMENT IN THE FIELD.
7. SEE LARGE SCALE PLAN THIS SHEET FOR MORE INFORMATION.



1 POWER PLAN - S WAREHOUSE L02
1/8" = 1'-0"

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



2 LARGE SCALE AUXILIARY PLAN
1/4" = 1'-0"

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POWER PLAN - S WAREHOUSE L02

Project No. 24059

Sheet No. E206

Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

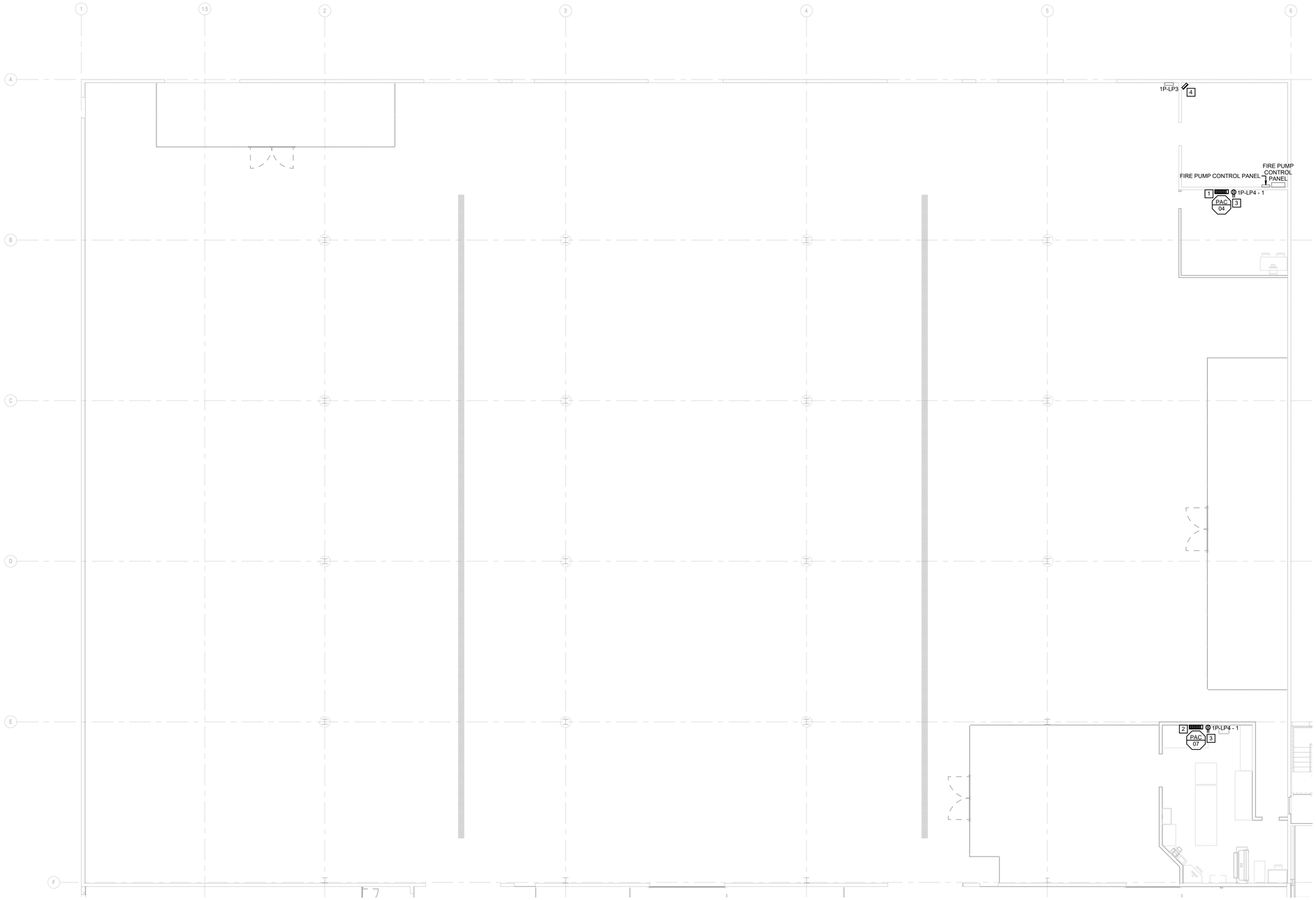
Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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E207 SHEET KEYED NOTES

1 UNIT POWERED FROM CU-04.
2 UNIT POWERED FROM CU-07.
3 SURFACE MOUNTED RECEPTACLE FOR CONDENSATE PUMP. COORDINATE WITH DIVISION 23 CONTRACTOR.
4 EXISTING UNIT HEATER TO REMAIN. EXISTING CIRCUIT TO REMAIN. PROVIDE IDENTIFICATION LABEL FOR POWER SOURCE AND BRANCH CIRCUIT. DOCUMENT ON RECORD DRAWINGS.



1 EQUIP POWER PLAN - N WAREHOUSE L01
1/8" = 1'-0"

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

SCALE: 3" = 1'-0" SCALE: 1 1/2" = 1'-0" SCALE: 1" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 3/32" = 1'-0" SCALE: 1/16" = 1'-0"

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EQUIP POWER PLAN - N WAREHOUSE L01

Project No. 24059
Sheet No. E207
Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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E208 SHEET KEYED NOTES

#	
1	UNIT POWERED FROM CU-05.
2	UNIT POWERED FROM CU-01.
3	OUTLET FOR CONDENSATE PUMP. COORDINATE WITH MECHANICAL.
4	POWER FOR ELECTRIC WATER HEATER. 2 #10, 1 #12G, 3/4"C TO PANEL 1P-LP4. COORDINATE WITH PLUMBING.
5	ELECTRIC WATER HEATER MANUAL MOTOR STARTER (TOGGLE DISCONNECT SWITCH).
6	OUTLET FOR WATER PUMP. COORDINATE WITH PLUMBING.
7	CENTRAL LIGHTING INVERTER.

1P-LP5
50 kVA XFMR 1-T-2
1P-LP4
PAC 01
2
3
2P-LP1 - 58
PAC 05A
PAC 06B
1P-LP4 - 3
1P-LP4 - 3
1P-LP4 - 14
1P-LP4 - 19
6
4
5
2P-HP1 - 3
#10
2P-HP1 - 5
2P-HP1 - 7
VAV 01
VAV 02
VAV 03
VAV 05
2P-HP1 - 11
2P-HP1 - 9
2P-HP1 - 13
VAV 04
VAV 06
VAV 07
2P-HP1 - 15
EF 11
2P-LP1 - 50,52
1DP-LP1
1P-HE1
XFMR 1-T-1
7
CT CABINET
ELECTRIC METER
1SW-HP1
1S-ATS-1
DN

1 EQUIP POWER PLAN - S WAREHOUSE L01
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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EQUIP POWER PLAN - S WAREHOUSE L01

Project No. 24059
Sheet No. E208
Date 03/27/2026

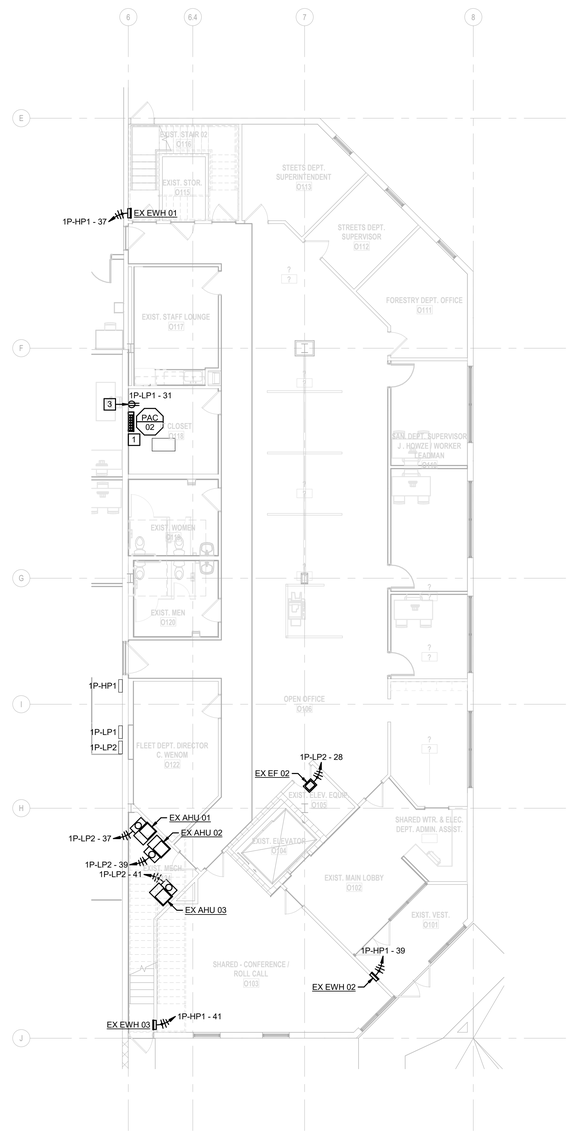
STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

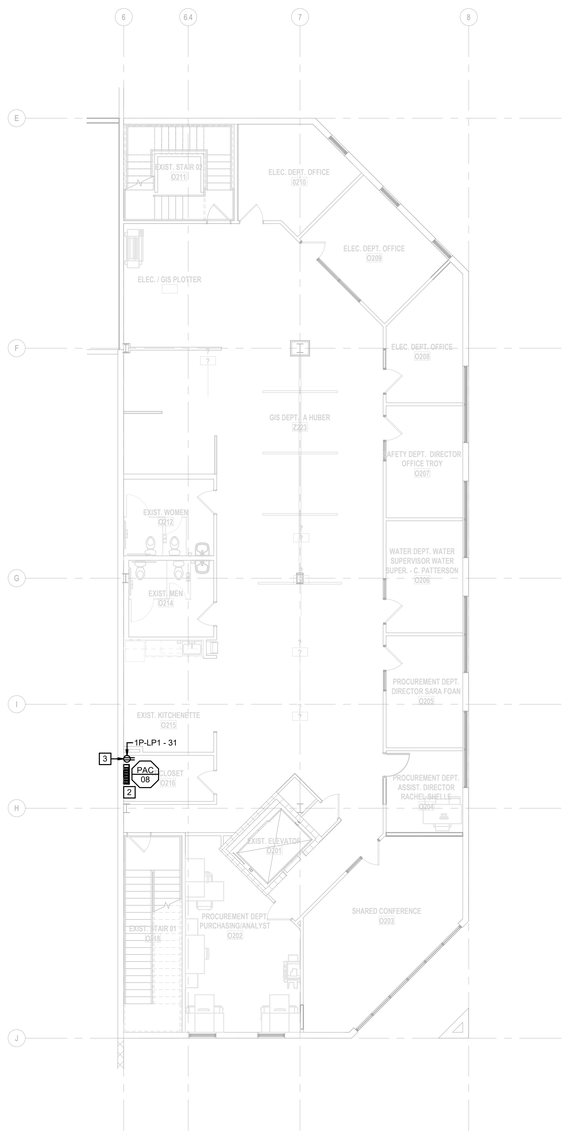
Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

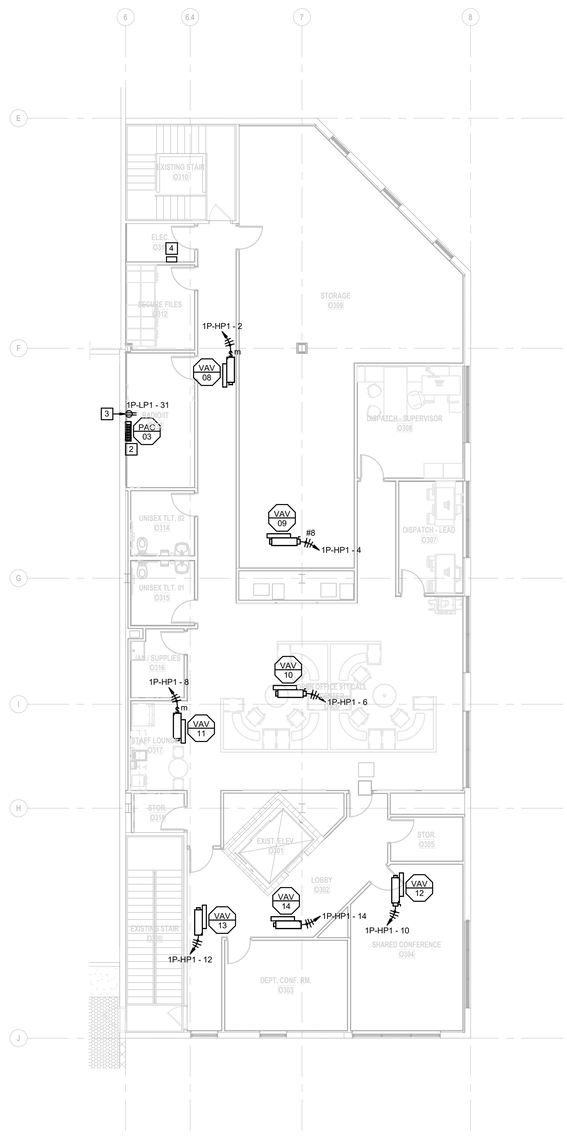
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E209 SHEET KEYED NOTES

1 UNIT POWERED FROM CU-02.
2 UNIT POWERED FROM CU-03.
3 OUTLET FOR CONDENSATE PUMP. COORDINATE WITH MECHANICAL.
4 MOTOR STARTER FOR EXHAUST FAN EF-12.







1 EQUIP POWER PLAN - OFFICE L01
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

2 EQUIP POWER PLAN - OFFICE L02
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

3 EQUIP POWER PLAN - OFFICE L03
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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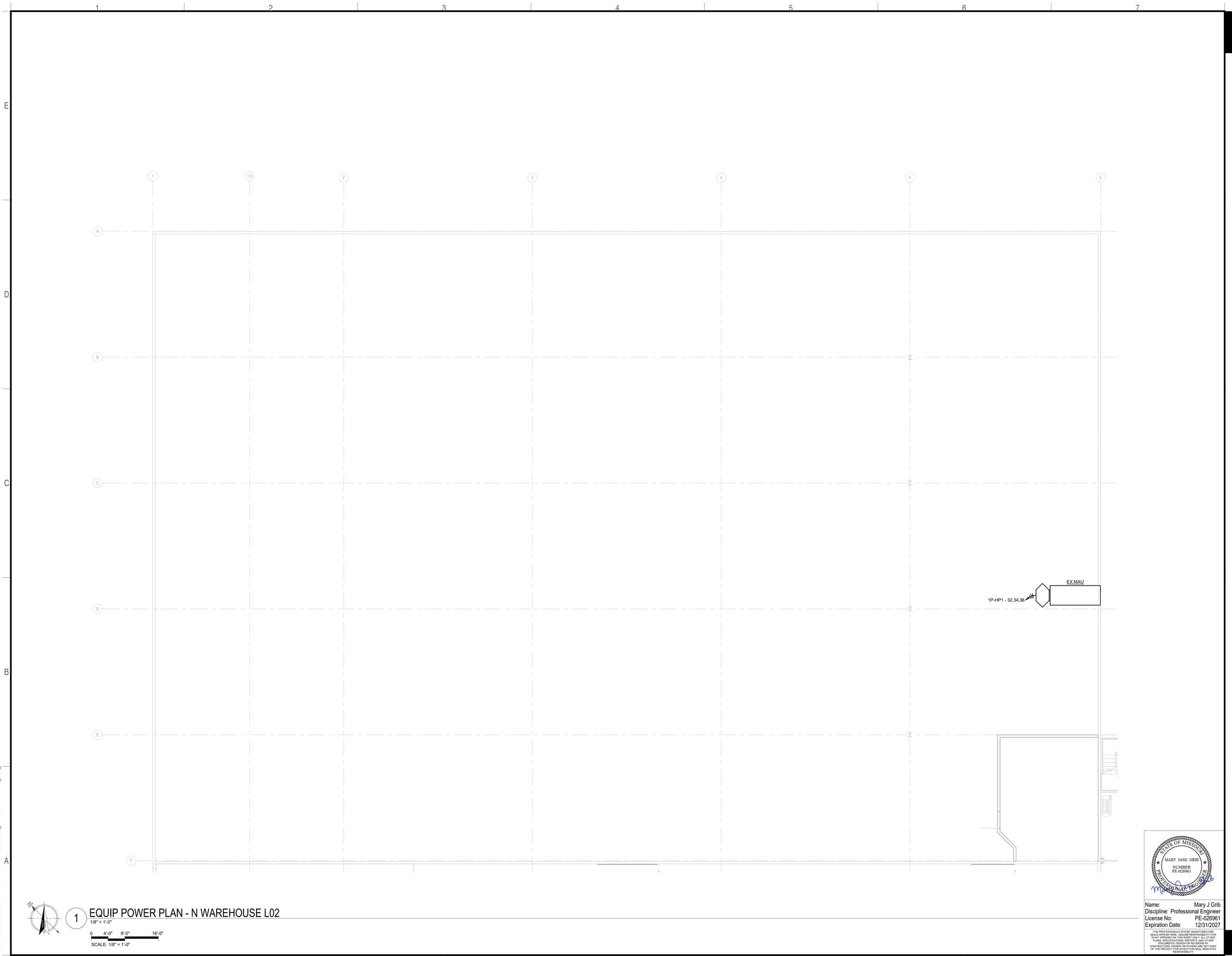
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EQUIP POWER PLAN - OFFICE L01, L02 & L03

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Sheet No. E209
Date 03/27/2026

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1 EQUIP POWER PLAN - N WAREHOUSE L02
1/8" = 1'-0"

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

SCALE: 1/16" = 1'-0" 0 8" 16" 32"
SCALE: 3/32" = 1'-0" 0 8" 16" 24"
SCALE: 1/8" = 1'-0" 0 4" 8" 16"
SCALE: 1/4" = 1'-0" 0 2" 4" 8"
SCALE: 3/8" = 1'-0" 0 2" 4" 6"
SCALE: 1/2" = 1'-0" 0 1" 2" 4"
SCALE: 3/4" = 1'-0" 0 1" 2" 3"
SCALE: 1" = 1'-0" 0 6" 1' 2"
SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2"
SCALE: 3" = 1'-0" 0 3" 6" 1'

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

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EQUIP POWER PLAN - N WAREHOUSE L02

Project No.
24059

Sheet No.
E210

Date
03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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E211 SHEET KEYED NOTES

#	
1	UNIT POWERED FROM CU-06.
2	SURFACE MOUNTED RECEPTACLE FOR CONDENSATE PUMP. COORDINATE LOCATION WITH DIVISION 23 CONTRACTOR.
3	MOTOR STARTER FOR EXHAUST FAN EF-01.
4	MOTOR STARTER FOR EXHAUST FAN EF-02.
5	MOTOR STARTER FOR EXHAUST FAN EF-03.
6	MOTOR STARTER FOR EXHAUST FAN EF-04.
7	MOTOR STARTER FOR EXHAUST FAN EF-05.
8	MOTOR STARTER FOR EXHAUST FAN EF-06.
9	MOTOR STARTER FOR EXHAUST FAN EF-07.
10	MOTOR STARTER FOR EXHAUST FAN EF-08.
11	MOTOR STARTER FOR EXHAUST FAN EF-09.
12	MOTOR STARTER FOR EXHAUST FAN EF-10.
13	MOTOR STARTER FOR EXHAUST FAN EF-11.

FACILITIES DEPT.MEZZ. STORAGE W209

FLEET DEPT. SEAT STORAGE W208

FORESTRY DEPT. STORAGE W207

ELECTRICAL DEPT. MEZZANINE STORAGE W206

WATER DEPT. WAREHOUSE STORAGE W204

WAREHOUSE MEZZANINE STORAGE W203

IT CLOSET- MEZZANINE W201

EASY ACCESSWAY W202

1P-LP4 - 47
EX UH

1P-LP4 - 46
EX UH

1P-LP4 - 49
EX UH

EX UH
2P-LP1 - 60

EX UH
2P-LP1 - 62

EX UH
2P-LP1 - 64

13 12 11 10 9 8 7 6 5 4 3

PAC 06

1

2

2P-LP1 - 58

1 EQUIP POWER PLAN - S WAREHOUSE L02
1/8" = 1'-0"

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

SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

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545 LEFFINGWELL AVE.

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EQUIP POWER PLAN - S WAREHOUSE L02

Project No.
24059

Sheet No.
E211

Date
03/27/2026

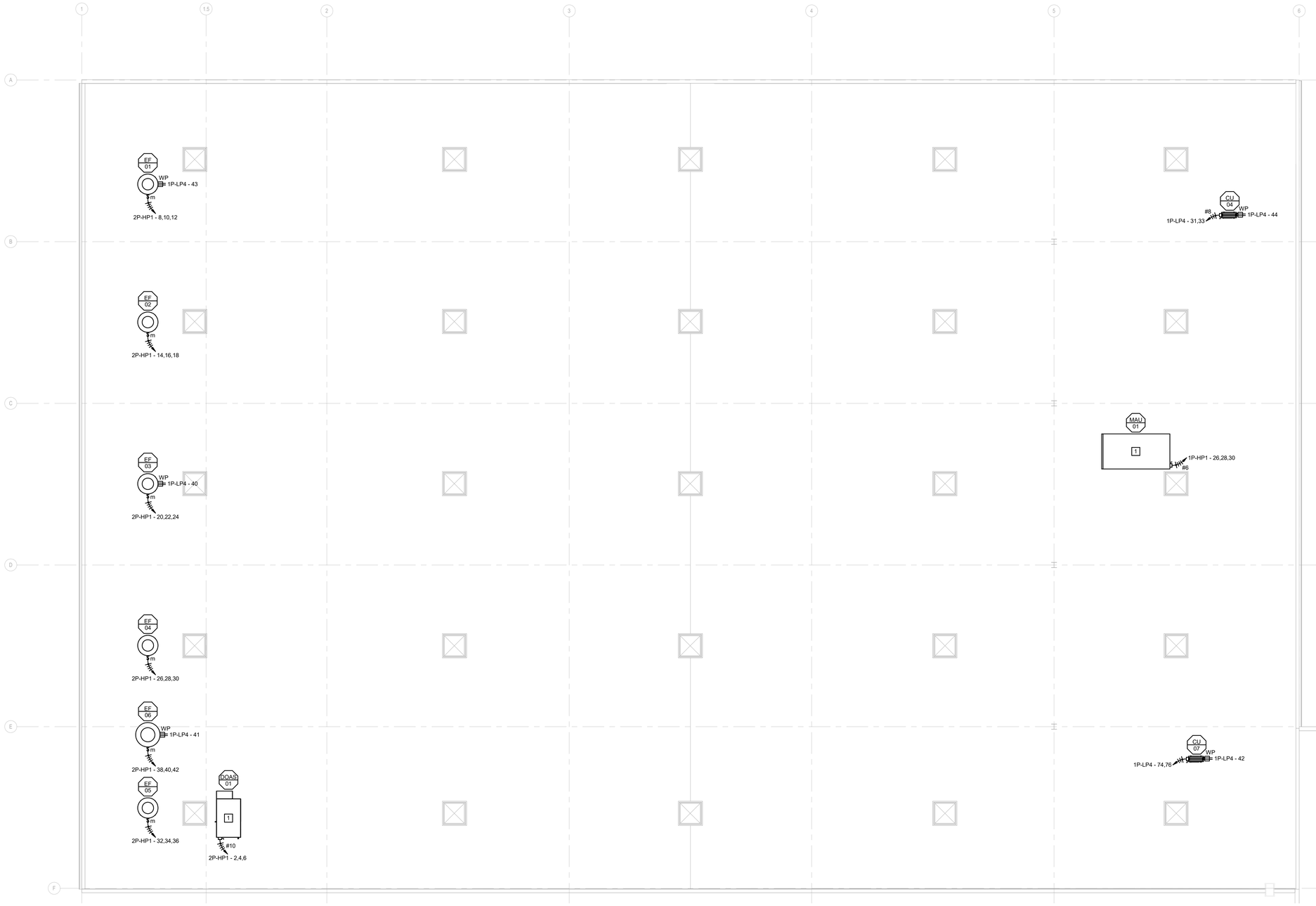
STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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E212 SHEET KEYED NOTES

1 DUPLEX RECEPTACLE IS PROVIDED WITH MECHANICAL EQUIPMENT AND POWERED BY THE UNIT.



1 EQUIP POWER PLAN - N WAREHOUSE ROOF
1/8" = 1'-0"

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

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Proposed:
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545 LEFFINGWELL AVE.

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EQUIP POWER PLAN - N WAREHOUSE ROOF

Project No.
24059

Sheet No.
E212

Date
03/27/2026

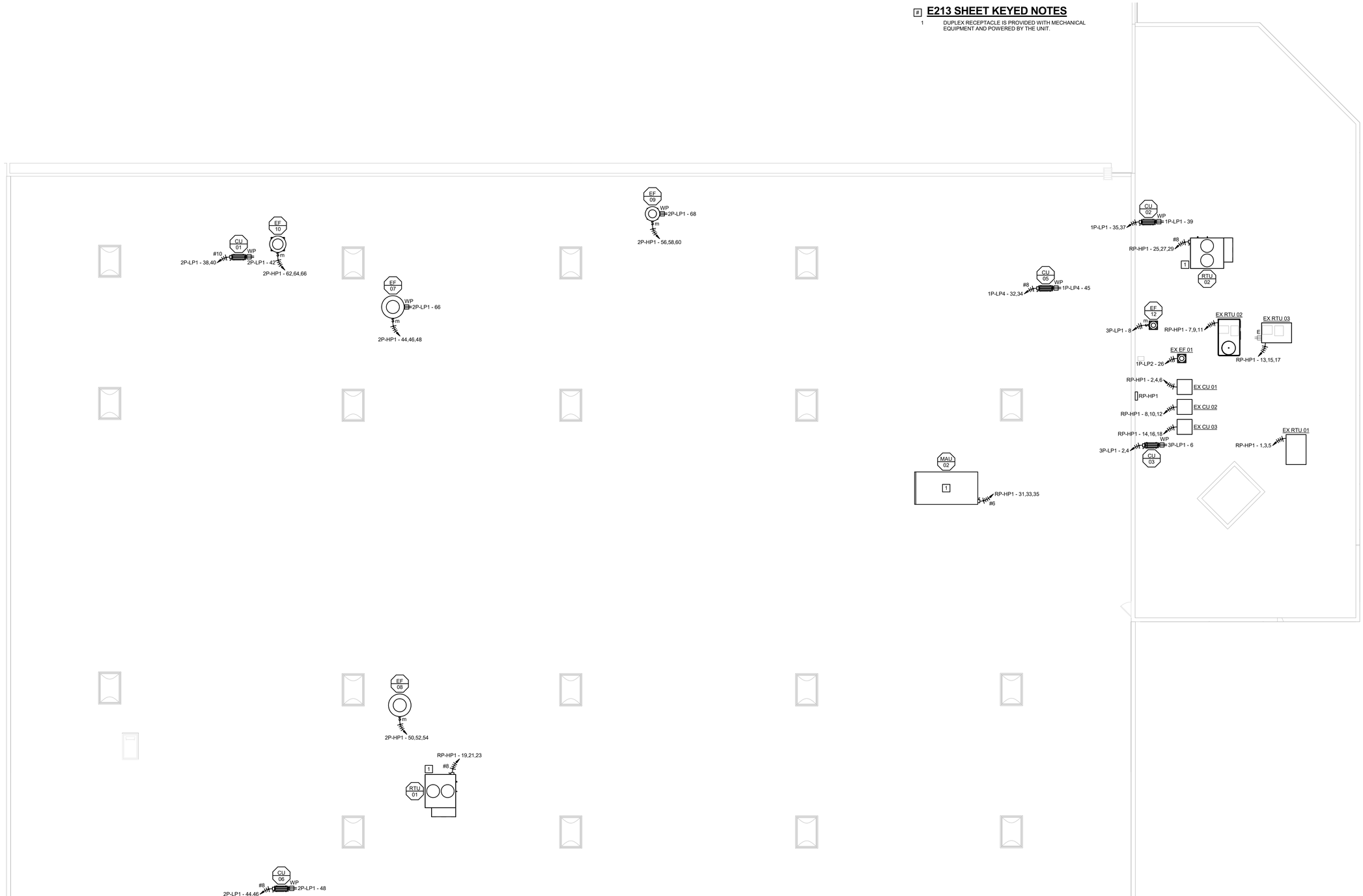
STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
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Expiration Date: 12/31/2027

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E213 SHEET KEYED NOTES

1 DUPLEX RECEPTACLE IS PROVIDED WITH MECHANICAL EQUIPMENT AND POWERED BY THE UNIT.



1 EQUIP POWER PLAN - S WAREHOUSE ROOF & OFFICE ROOF

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

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EQ PWR PLAN - S WAREHOUSE&OFFICE RF

Project No. 24059

Sheet No. E213

Date 03/27/2026

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Discipline: Professional Engineer
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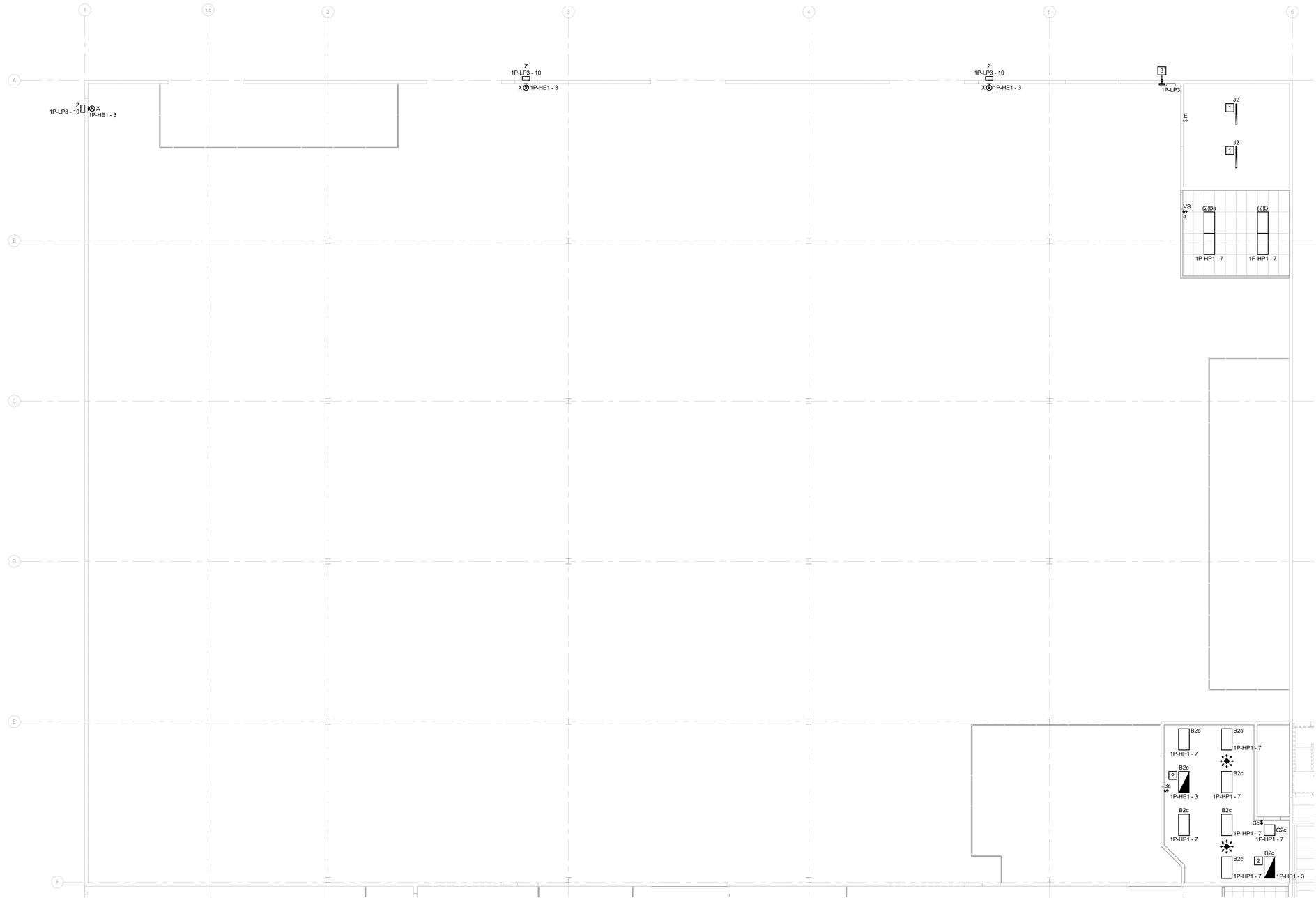
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E301 SHEET KEYED NOTES

1 RECIRCUIT NEW LIGHT FIXTURE TO SAME CIRCUIT AS REMOVED FIXTURE. RECONNECT TO EXISTING SWITCH TO REMAIN.

2 FIXTURE CONTROLLED FROM UL924 RELAY TO SWITCH EMERGENCY LIGHTS WITH NORMAL LIGHTS.

3 OUTSIDE LIGHTING CONTROL PANEL. PROVIDE PHOTOCELL ON ROOF AND ROUTE CONDUCTORS IN 1/2" CONDUIT TO LIGHTING CONTROL PANEL. ROUTE EXTERIOR LIGHTING CIRCUITS, BOTH EXISTING AND NEW, TO LIGHTING CONTROL PANEL. SEE SHEET E501 FOR DETAIL.



1 LIGHTING PLAN - N WAREHOUSE L01
1/8" = 1'-0"

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

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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LIGHTING PLAN - N WAREHOUSE L01

Project No. 24059

Sheet No. E301

Date 03/27/2026

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GENERAL NOTES (THIS SHEET ONLY):

1. ALL WORK ASSOCIATED WITH THE CENTRAL LIGHTING INVERTER AND EMERGENCY LIGHTING WITHIN THE STORM SHELTER SHALL BE INCLUDED IN THE ALTERNATE #3 - STORM SHELTER.

E302 SHEET KEYED NOTES

1. FIXTURE CONTROLLED FROM UL924 RELAY TO SWITCH EMERGENCY LIGHTS WITH NORMAL LIGHTS.
2. STORM SHELTER EMERGENCY LIGHTING INVERTER.
3. AS PART OF ALTERNATE #3 - STORM SHELTER, PROVIDE 3 kVA, SINGLE PHASE UL 924 INTERRUPTIBLE POWER SUPPLY WITH 120 MINUTE RUNTIME AND FOUR 20A OUTPUT CIRCUIT BREAKERS. AS PART OF THIS ALTERNATE, THE EMERGENCY LIGHTING IN THE STORM SHELTER AREA SHALL BE CONNECTED TO THE LIGHTING INVERTER LOCATED WITHIN THE SHELTER.
4. EXISTING EXTERIOR WALL PACK TO REMAIN. RECONNECT TO NEW CIRCUIT AND PANEL AS SHOWN.
5. EXISTING EXTERIOR DOWNLIGHT TO REMAIN. RECONNECT TO NEW CIRCUIT AND PANEL AS SHOWN.
6. SWITCH FOR CONTROL OF LIGHT FIXTURES SHOWN ON SHEET E305 SWITCH LEG x.
7. SWITCH FOR CONTROL OF LIGHT FIXTURES SHOWN ON SHEET E305 SWITCH LEG z.



1 LIGHTING PLAN - S WAREHOUSE L01
1/8" = 1'-0"

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

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LIGHTING PLAN - S WAREHOUSE L01

Project No. 24059

Sheet No. E302

Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

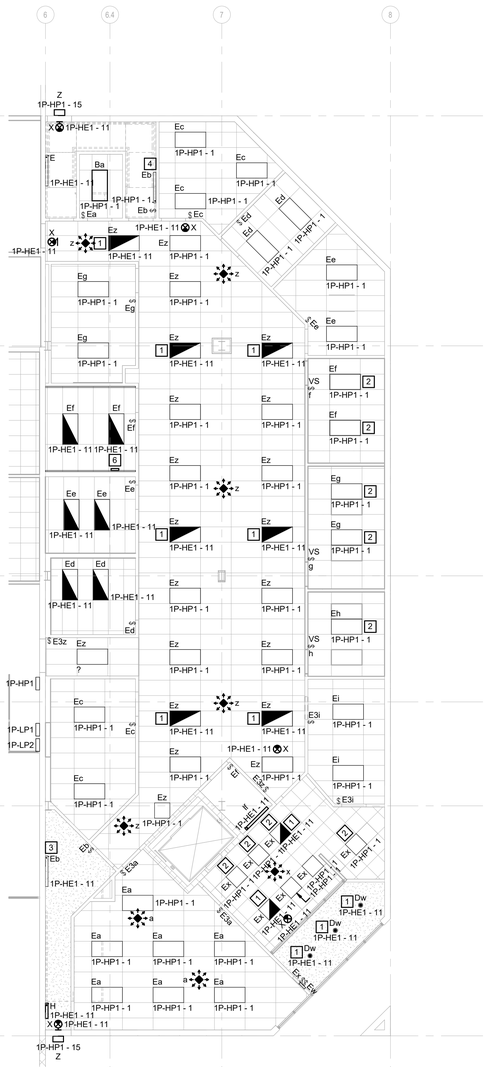
Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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E303 SHEET KEYED NOTES

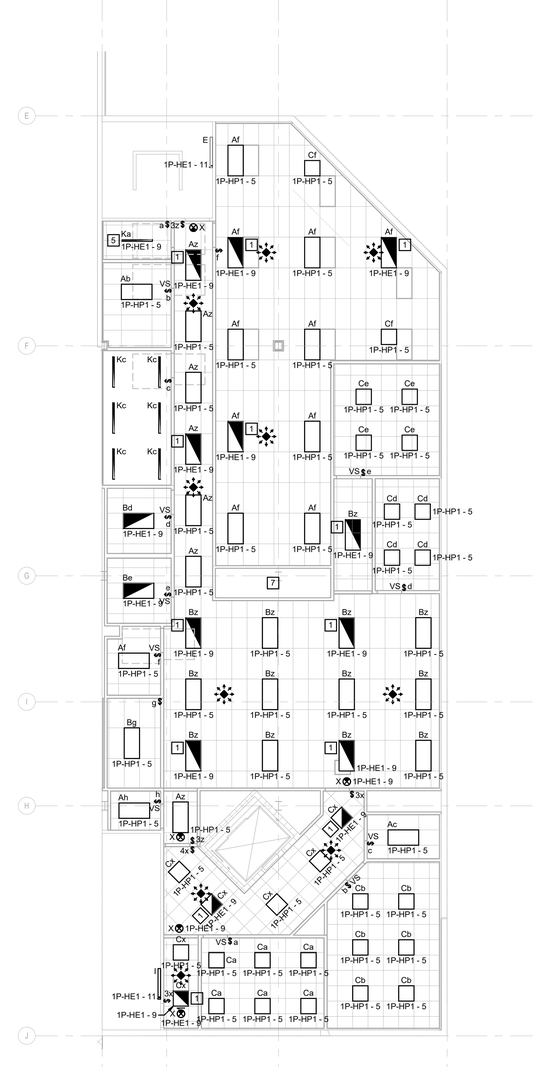
1. FIXTURE CONTROLLED FROM UL924 RELAY TO SWITCH EMERGENCY LIGHTS WITH NORMAL LIGHTS.
2. EXISTING RELOCATED LIGHT FIXTURE.
3. EXISTING WALL MOUNTED LIGHT FIXTURE IN EXISTING MECHANICAL ROOM TO REMAIN.
4. EXISTING WALL MOUNTED LIGHT FIXTURE IN EXISTING STORAGE ROOM TO REMAIN.
5. HANG FIXTURE AT 9' A.F.F..
6. OUTSIDE LIGHTING CONTROL PANEL. PROVIDE PHOTOCELL ON ROOF AND ROUTE CONDUCTORS IN 1/2" CONDUIT TO LIGHTING CONTROL PANEL. ROUTE EXTERIOR LIGHTING CIRCUITS, BOTH EXISTING AND NEW, TO LIGHTING CONTROL PANEL. SEE SHEET E501 FOR DETAIL.
7. ALL WORK ASSOCIATED WITH THE THIRD FLOOR SHALL BE INCLUDED IN ALTERNATE #1A - POLICE DISPATCH.



1 LIGHTING PLAN - OFFICE L01
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



2 LIGHTING PLAN - OFFICE L02
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



3 LIGHTING PLAN - OFFICE L03
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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LIGHTING PLAN - OFFICE L01, L02 & L03

STATE OF MISSOURI
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NUMBER PE-026961
PROFESSIONAL ENGINEER

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Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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E304 SHEET KEYED NOTES

1 FIXTURE CONTROLLED FROM UL924 RELAY TO SWITCH EMERGENCY LIGHTS WITH NORMAL LIGHTS.

2 FIXTURE CONTROLLED FROM INTERNAL OCCUPANCY SENSOR. GROUP ALL LIGHT FIXTURES ON SWITCH LEG a TO TURN ON AS ONE ZONE.

3 FIXTURE CONTROLLED FROM INTERNAL OCCUPANCY SENSOR. GROUP ALL LIGHT FIXTURES ON SWITCH LEG b TO TURN ON AS ONE ZONE.

4 FIXTURE CONTROLLED FROM INTERNAL OCCUPANCY SENSOR. GROUP ALL LIGHT FIXTURES ON SWITCH LEG c TO TURN ON AS ONE ZONE.

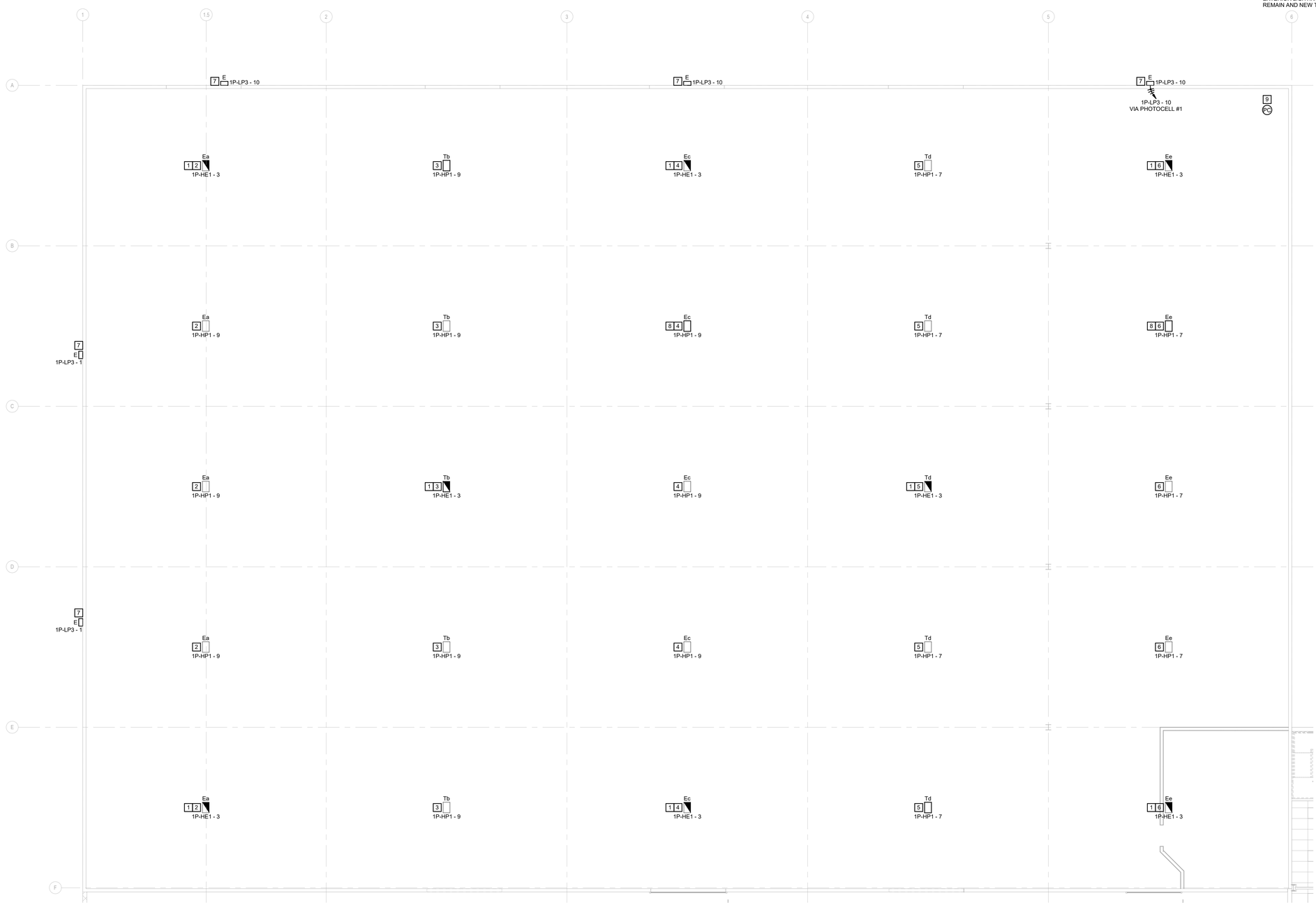
5 FIXTURE CONTROLLED FROM INTERNAL OCCUPANCY SENSOR. GROUP ALL LIGHT FIXTURES ON SWITCH LEG d TO TURN ON AS ONE ZONE.

6 FIXTURE CONTROLLED FROM INTERNAL OCCUPANCY SENSOR. GROUP ALL LIGHT FIXTURES ON SWITCH LEG e TO TURN ON AS ONE ZONE.

7 EXISTING EXTERIOR WALL PACK TO REMAIN. EXISTING CIRCUIT TO REMAIN.

8 REPLACE EXISTING INOPERABLE LIGHT FIXTURE WITH A WORKING LIGHT FIXTURE REMOVED IN DEMOLITION.

9 PROVIDE NEW PHOTOCELL CONTROL FOR EXISTING TO REMAIN EXTERIOR LIGHTING. PROVIDE PHOTOCELL ON ROOF AND ROUTE CONDUCTORS IN 1/2" CONDUIT TO EXTERIOR LIGHTING CONTROL PANEL. ROUTE EXTERIOR LIGHTING CIRCUIT, BOTH EXISTING TO REMAIN AND NEW TO LIGHTING CONTROL PANEL.



1 LIGHTING PLAN - N WAREHOUSE L02
1/8" = 1'-0"

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

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STATE OF MISSOURI
MARY JANE GRIB
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LIGHTING PLAN - N WAREHOUSE L02

Project No. 24059

Sheet No. E304

Date 03/27/2026

E305 SHEET KEYED NOTES

1 FIXTURE CONTROLLED FROM UL924 RELAY TO SWITCH EMERGENCY LIGHTS WITH NORMAL LIGHTS.
2 FIXTURE CONTROLLED FROM INTERNAL OCCUPANCY SENSOR. GROUP ALL LIGHT FIXTURES ON SWITCH LEG a TO TURN ON AS ONE ZONE.
3 FIXTURE CONTROLLED FROM INTERNAL OCCUPANCY SENSOR. GROUP ALL LIGHT FIXTURES ON SWITCH LEG b TO TURN ON AS ONE ZONE.
4 FIXTURE CONTROLLED FROM INTERNAL OCCUPANCY SENSOR. GROUP ALL LIGHT FIXTURES ON SWITCH LEG c TO TURN ON AS ONE ZONE.
5 FIXTURE CONTROLLED FROM INTERNAL OCCUPANCY SENSOR. GROUP ALL LIGHT FIXTURES ON SWITCH LEG d TO TURN ON AS ONE ZONE.
6 FIXTURE CONTROLLED FROM INTERNAL OCCUPANCY SENSOR. GROUP ALL LIGHT FIXTURES ON SWITCH LEG e TO TURN ON AS ONE ZONE.
7 RELOCATE EXISTING LIGHT FIXTURE 5' TO THE RIGHT.
8 RELOCATE EXISTING LIGHT FIXTURE 5' TO THE LEFT.
9 RELOCATE EXISTING LIGHT FIXTURE 10' TO THE LEFT.
10 RELOCATE EXISTING LIGHT FIXTURE 15' TO THE LEFT.
11 HANG FIXTURE AT 9' A.F.F..
12 PROVIDE NEW PHOTOCELL CONTROL FOR EXISTING TO REMAIN EXTERIOR LIGHTING. PROVIDE PHOTOCELL ON ROOF AND ROUTE CONDUCTORS IN 1/2" CONDUIT TO EXTERIOR LIGHTING CONTROL PANEL. ROUTE EXTERIOR LIGHTING CIRCUIT, BOTH EXISTING TO REMAIN AND NEW TO LIGHTING CONTROL PANEL.
13 PROVIDE NEW PHOTOCELL CONTROL FOR EXISTING TO REMAIN EXTERIOR AND PARKING LOT LIGHTING. PROVIDE PHOTOCELL ON ROOF AND ROUTE CONDUCTORS IN 1/2" CONDUIT TO EXTERIOR LIGHTING CONTROL PANEL. ROUTE EXTERIOR LIGHTING CIRCUIT, BOTH EXISTING TO REMAIN AND NEW TO LIGHTING CONTROL PANEL.
14 EXISTING EXTERIOR WALL PACKS AND FLOOD LIGHTS TO REMAIN. RECONNECT TO NEW CIRCUIT AND PANEL AS SHOWN.
15 OUTSIDE LIGHTING CONTROL PANEL. PROVIDE PHOTOCELL ON ROOF AND ROUTE CONDUCTORS IN 1/2" CONDUIT TO LIGHTING CONTROL PANEL. ROUTE EXTERIOR LIGHTING CIRCUITS, BOTH EXISTING AND NEW, TO LIGHTING CONTROL PANEL. SEE SHEET E501 FOR DETAIL.
16 LIGHT FIXTURE CONTROLLED BY SWITCH SHOWN ON SHEET E302.

1 LIGHTING PLAN - S WAREHOUSE L02
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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LIGHTING PLAN - S WAREHOUSE L02

Project No. 24059
Sheet No. E305
Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

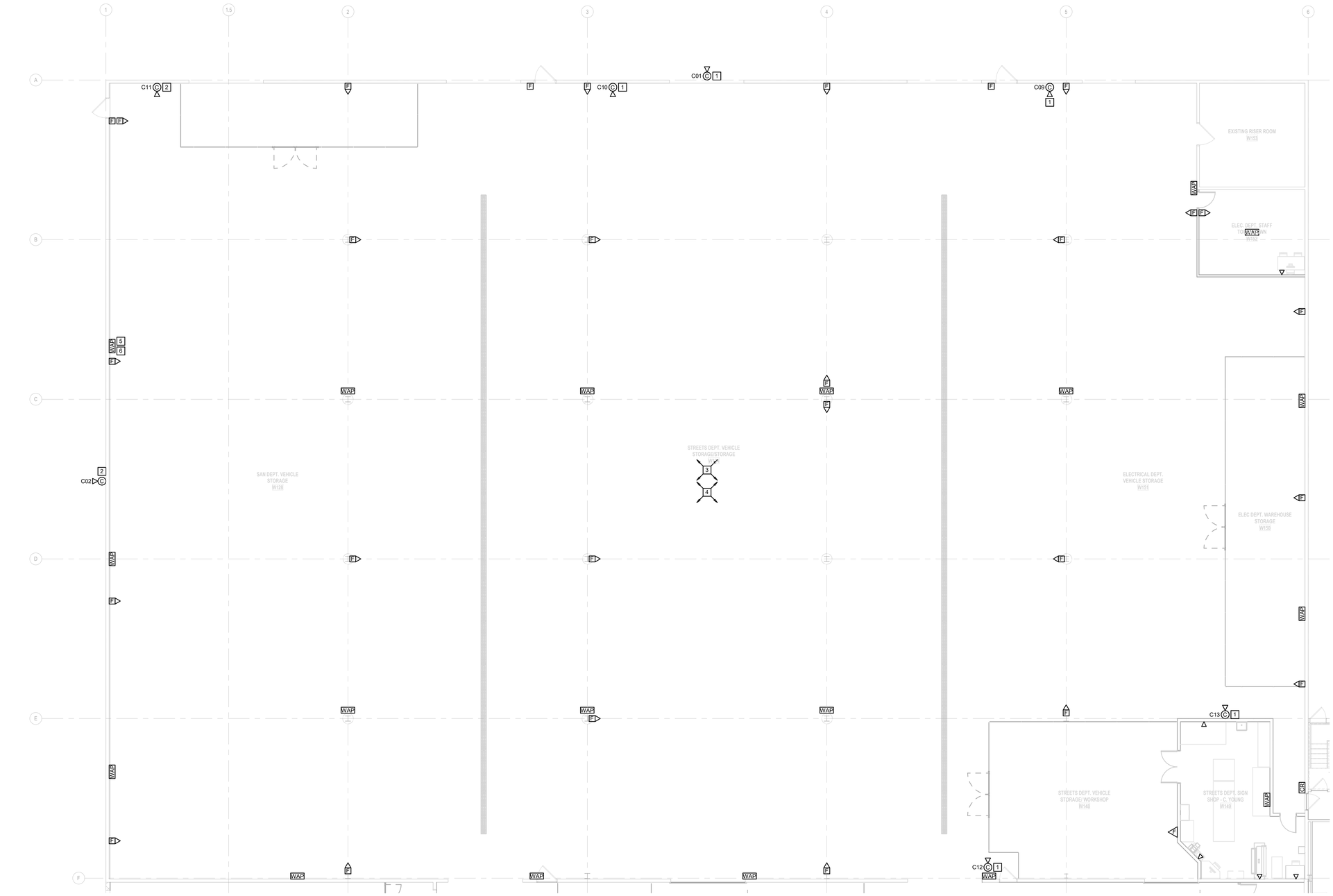
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Expiration Date: 12/31/2027

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E401 SHEET KEYED NOTES

1. PROVIDE CAT 6 CABLE FROM CAMERA TO IT CLOSET 0117. PROVIDE (WINDY CITY WIRE NJ446100 OR EQUAL) COMPOSITE CABLE FROM CAMERA TO IT CLOSET 0117.
2. PROVIDE CAT 6 CABLE FROM CAMERA TO IT CLOSET W201 ON MEZZANINE. PROVIDE (WINDY CITY WIRE NJ446100 OR EQUAL) COMPOSITE CABLE FROM CAMERA TO IT CLOSET W201 ON MEZZANINE.
3. FIRE ALARM DEVICES ARE SHOWN FOR REFERENCE. REFER TO COVER SHEET FOR FIRE ALARM ROUGH-IN REQUIREMENTS.
4. ALL DATA OUTLETS ON THIS SHEET SHALL BE ROUTED TO THE IT CLOSET 0017 SHOWN ON SHEET E403. TERMINATE ON PATCH PANELS FOR KPW IT NETWORK.
5. TYPICAL WALL MOUNTED WAP AT 10'-0" A.F.F..
6. ALL WAP DEVICES ON THIS SHEET SHALL BE ROUTED TO WAREHOUSE MEZZANINE IT CLOSET W201 SHOWN ON SHEET E404. DUE TO DISTANCE TO IT CLOSET, ADD INTERMEDIATE SWITCHES AS NECESSARY.



1 AUXILIARY PLAN - N WAREHOUSE L01
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/2026

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DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

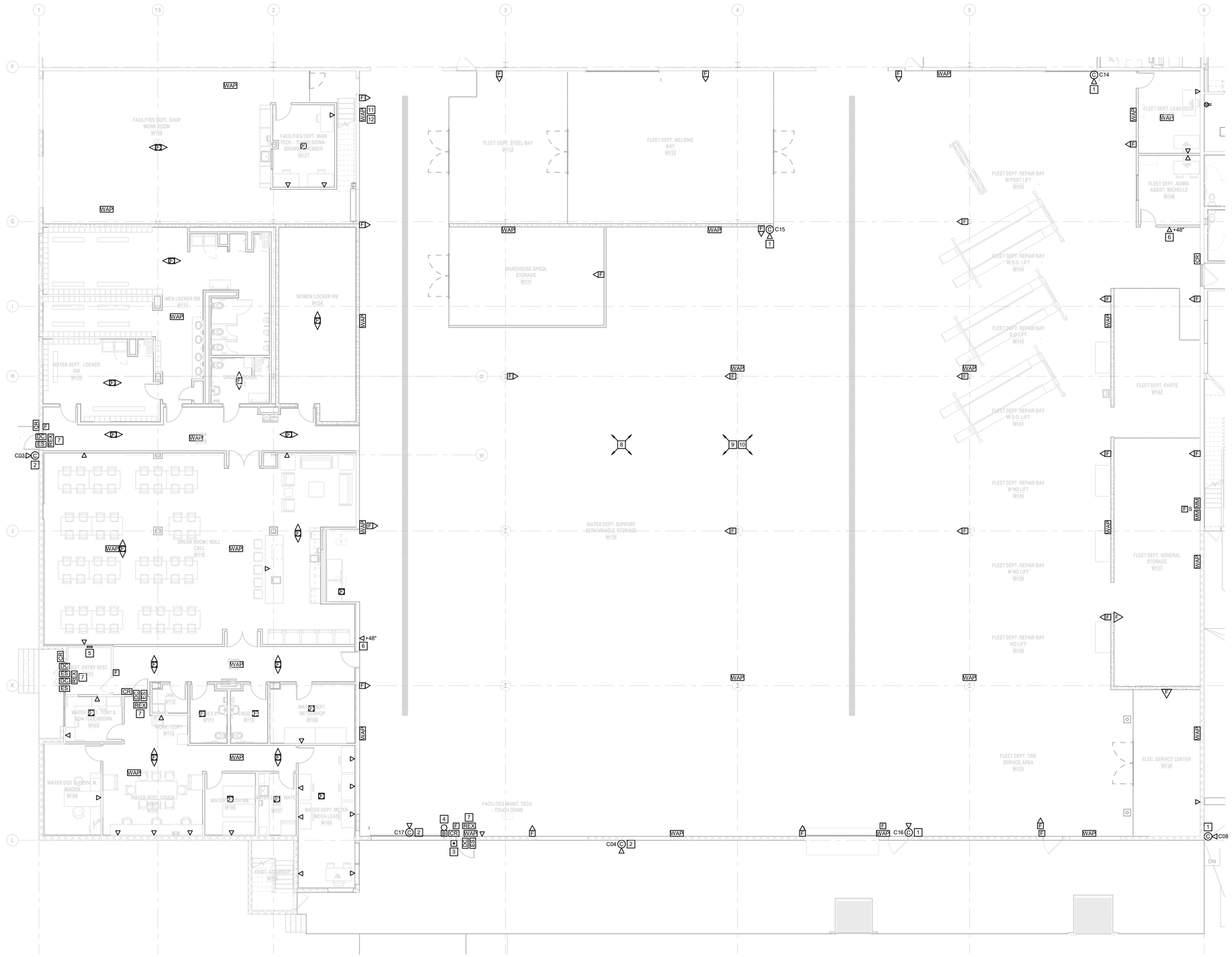
AUXILIARY PLAN - N WAREHOUSE L01

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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Project No. 24059
Sheet No. E401
Date 03/27/2026



E402 SHEET KEYED NOTES

1. PROVIDE CAT 6 CABLE FROM CAMERA TO IT CLOSET 0117. PROVIDE AND INSTALL (WINDY CITY WIRE NJ446100 OR EQUAL) COMPOSITE CABLE FROM CAMERA TO IT CLOSET 0117.
2. PROVIDE CAT 6 CABLE FROM CAMERA TO IT CLOSET W201 ON MEZZANINE. PROVIDE AND INSTALL (WINDY CITY WIRE NJ446100 OR EQUAL) COMPOSITE CABLE FROM CAMERA TO IT CLOSET W201 ON MEZZANINE.
3. PROVIDE ELECTRICAL BOX AND COMPLETE DOORBELL SYSTEM FOR COMMUNICATION INTO WAREHOUSE AREA. SYSTEM SHALL BE FULLY OPERATIONAL WITH BOTH AN AUDIBLE AND VISUAL NOTIFICATION WITHIN THE WAREHOUSE.
4. DOORBELL SYSTEM AUDIBLE CHIME AND VISUAL NOTIFICATION DEVICE.
5. FIRE ALARM ANNUNCIATOR PANEL BY OWNER'S VENDOR.
6. DATA OUTLET FOR TIME CLOCK.
7. PROVIDE (WINDY CITY WIRE NJ446100 OR EQUAL) COMPOSITE CABLE FROM ACCESS CONTROL DEVICES TO IT CLOSET W201 ON MEZZANINE.
8. FIRE ALARM DEVICES ARE SHOWN FOR REFERENCE. REFER TO COVER SHEET FOR FIRE ALARM ROUGH-IN REQUIREMENTS.
9. ALL DATA OUTLETS ON THIS SHEET LOCATED TO THE WEST OF COLUMN LINE 4 SHALL BE ROUTED TO THE IT CLOSET W201 SHOWN ON SHEET E404. TERMINATE ON PATCH PANELS FOR KPW IT NETWORK
10. ALL DATA OUTLETS ON THIS SHEET LOCATED TO THE EAST OF COLUMN LINE 4 SHALL BE ROUTED TO THE IT CLOSET 0017 SHOWN ON SHEET E403. TERMINATE ON PATCH PANELS FOR KPW IT NETWORK.
11. TYPICAL WALL MOUNTED WAP AT 1'0"-0" A.F.F..
12. ALL WAP DEVICES ON THIS SHEET SHALL BE ROUTED TO WAREHOUSE MEZZANINE IT CLOSET W201 SHOWN ON SHEET E404. ANY DEVICE 300' OR MORE FROM IT CLOSET, ADD INTERMEDIATE SWITCHES AS NECESSARY.

1 AUXILIARY PLAN - S WAREHOUSE L01

1/8" = 1'-0"

0 4'-0" 8'-0" 16'-0"

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

Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/2026

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

AUXILIARY PLAN - S WAREHOUSE L01

Project No. 24059

Sheet No. E402

Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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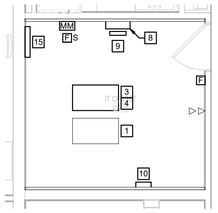
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GENERAL NOTES (THIS SHEET ONLY):

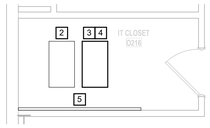
1. ALL WORK ASSOCIATED WITH THE 3RD FLOOR DISPATCH SHALL BE INCLUDED IN ALTERNATE #1A - POLICE DISPATCH.
2. REFER TO DATA NETWORK INFRASTRUCTURE RISER DIAGRAM ON DRAWING E501 FOR DETAILS.

E403 SHEET KEYED NOTES

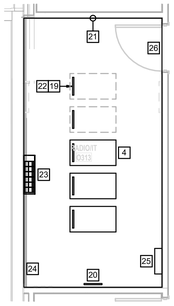
1 RELOCATE EXISTING IT RACK TO PROVIDE 48 INCHES OF CLEARANCE BEHIND RACK TO WALL. PROVIDE ONE PAIR OF FIBER FROM IT CLOSET W201 ON MEZZANINE TO IT CLOSET 0117 FROM OWNER'S VSS SYSTEM.
2 RELOCATED EXISTING IT RACK FROM IT CLOSET 0117.
3 PROVIDE 5kW RACK-MOUNTED UPS.
4 PROVIDE 48 PORT CATEGORY 6 PATCH PANEL.
5 EXISTING VOICE SYSTEM WALL MOUNTED CONNECTING BLOCKS TO REMAIN.
6 PROVIDE CAT 6 CABLE FROM CAMERA TO IT CLOSET 0117. PROVIDE (WINDY CITY WIRE NJ446100 OR EQUAL) COMPOSITE CABLE FROM CAMERA TO IT CLOSET 0117.
7 FIRE ALARM ANNUNCIATOR PANEL (BY OWNER'S VENDOR).
8 FIRE ALARM CONTROL PANEL (BY OWNER'S VENDOR).
9 NETWORK/CELL DIGITAL COMMUNICATOR (BY OWNER'S VENDOR).
10 PROVIDE 24 PORT FIBER OPTIC CABLE ENTRANCE ENCLOSURE. PROVIDE FOUR STRANDS OF SINGLE MODE FIBER OPTIC CABLE FROM ENCLOSURE TO 2ND FLOOR IT ROOM FOR KPW NETWORK. PROVIDE FOUR STRANDS OF SINGLE MODE FIBER OPTIC CABLE FROM ENCLOSURE TO MEZZANINE IT ROOM FOR KPW NETWORK. PROVIDE FOUR STRANDS OF SINGLE MODE FIBER OPTIC CABLE FROM ENCLOSURE TO 3RD FLOOR IT ROOM FOR KPW NETWORK AS PART OF THE DISPATCH ALTERNATE. PROVIDE TWO STRANDS OF SINGLE MODE FIBER OPTIC CABLE FROM ENCLOSURE TO THE MEZZANINE IT ROOM FOR VIDEO SURVEILLANCE CAMERAS. PROVIDE ONE STRAND OF SINGLE MODE FIBER OPTIC CABLE FROM ENCLOSURE TO THE IT ROOMS FOR WAP NETWORK CONNECTION. THIS FIBER OPTIC CABLE WILL CONNECT TO THE SEGRA NETWORK FOR WLAN.
11 PROVIDE (WINDY CITY WIRE NJ446100 OR EQUAL) COMPOSITE CABLE FROM ACCESS CONTROL DEVICES TO IT CLOSET 0117.
12 PROVIDE 2" EMPTY CONDUIT WITH PULLSTRING FROM RADIO/IT ROOM TO ROOF FOR OWNER VENDOR PROVIDED CONNECTIONS TO ROOFTOP ANTENNA. COORDINATE LOCATION OF ANTENNA LOCATION GROUND BAR WITH OWNER'S VENDOR.
13 PROVIDE 2" EMPTY CONDUIT WITH PULLSTRING FROM 2ND FLOOR IT CLOSET TO ROOF FOR OWNER PROVIDED ANTENNA.
14 PROVIDE (10) DATA DROPS AT EACH DISPATCH WORKSTATION TO 3RD FLOOR IT ROOM AS PART OF DISPATCH ALTERNATE. ALL DISPATCH WORKSTATION DATA DROPS SHALL BE ROUTED TO THE SLCO DISPATCH RACK FOR TERMINATION ON THE PATCH PANELS BY THE OWNER'S VENDOR. PROVIDE COMMUNICATION CABLE POWER POLE FROM ABOVE CEILING TO EACH DISPATCH WORKSTATION. COMMUNICATION POWER POLE SHALL HAVE CAPACITY FOR 12 CATEGORY 6A CABLES. EACH DISPATCH STATION SHALL HAVE A DESIGNATED COMMUNICATION CABLE SERVING POLE.
15 ACCESS CONTROL PANEL.
16 FIRE ALARM DEVICES ARE SHOWN FOR REFERENCE. REFER TO COVER SHEET FOR FIRE ALARM ROUGH-IN REQUIREMENTS.
17 ALL DATA OUTLETS ON THIS SHEET SHALL BE ROUTED TO THE ASSOCIATED IT CLOSET ON THAT FLOOR. ALL DATA OUTLETS ON THE 1ST AND 2ND FLOORS SHALL TERMINATE ON PATCH PANELS FOR KPW IT NETWORK.
18 AS PART OF ALTERNATE #1A - POLICE DISPATCH, FOR ALL NON-DISPATCH STATION COMMUNICATION OUTLETS: PROVIDE ALL DATA CABLES, INCLUDING WORKSTATION JACKS, ELECTRICAL BOXES, CONDUIT, TERMINATIONS, TESTING, PATCH PANELS, AND PATCH CORDS FROM THE COMMUNICATION OUTLET TO THE KPW IT NETWORK RACK PATCH PANEL.
19 RACK BONDING BUSBAR (TYPICAL EACH RACK).
20 PRIMARY BONDING BAR.
21 INTERNAL PERIMETER BONDING BUS (IPB).
22 IPB BOND TO EACH RACK BOUNDING BUSBAR (TYPICAL EACH RACK).
23 IPB BOND TO HVAC EQUIPMENT, DUCTWORK AND VENTS.
24 IPB BOND TO UPS.
25 IPB BOND TO PANELBOARD.
26 IPB BOND TO DOOR FRAME.
27 EXISTING DATA ACCESS POINT FOR MODULAR FURNITURE.
28 PROVIDE ELECTRICAL BOXES AND CONDUIT ROUGH-IN FOR OWNER VENDOR PROVIDED AUDIO/VIDEO INTERCOM SYSTEM. SYSTEM SHALL CONSIST OF INTERCOM STATION AT VESTIBULE WITH TWO REMOTE MASTER STATIONS IN LOCATIONS TO BE DETERMINED BY OWNER.
29 PROVIDE CHIME SYSTEM WITH A DOOR BELL AT THIS DOOR WITH A CHIME LOCATED WITHIN THE 911 CALL CENTER. CHIME SHALL CONSIST OF WIRED SYSTEM WITH A WHITE ROUND PUSH BUTTON LOCATED TO THE JAMB SIDE OF THE ENTRY DOOR AT 48" ABOVE FINISHED FLOOR. CHIME SHALL BE ADJUSTABLE FOR TONE AND VOLUME AND LOCATED ON THE PARTITION OUTSIDE THE JAN/SUPPLIES ROOM AT 12" BELOW CEILING. COORDINATE LOCATION WITH OWNER PRIOR TO INSTALLATION.
30 SEE LARGE SCALE PLAN THIS SHEET FOR MORE INFORMATION.



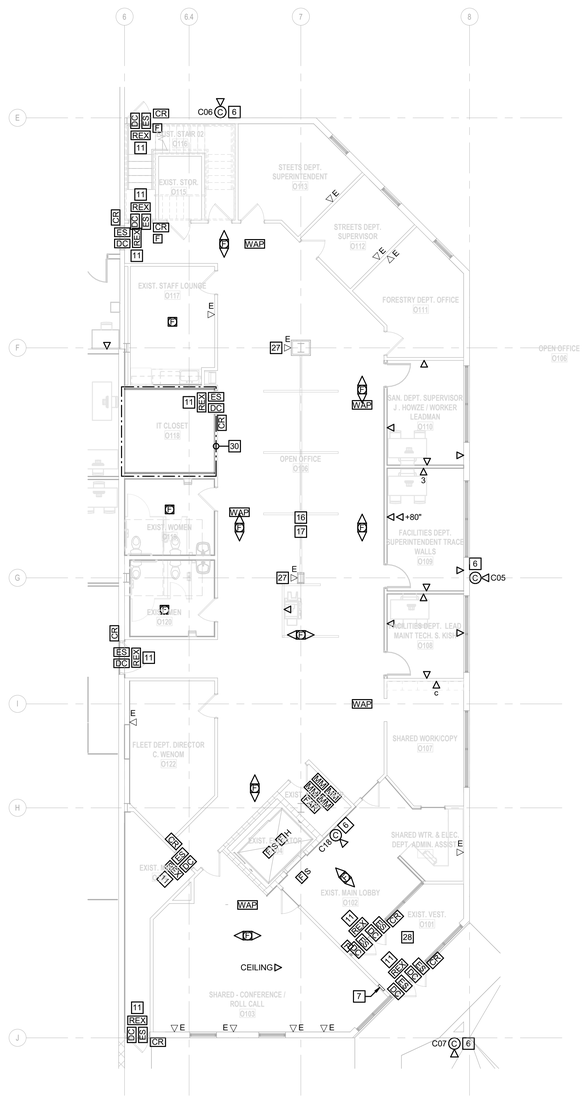
4 LARGE SCALE AUXILIARY PLAN - IT CLOSET 0118
1/4" = 1'-0"



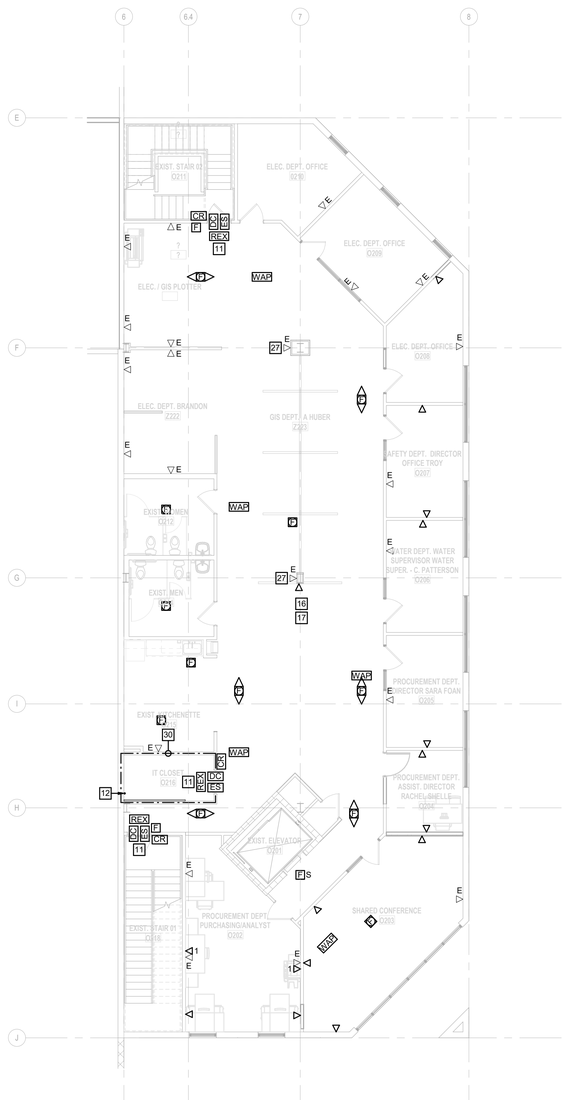
5 LARGE SCALE AUXILIARY PLAN - IT CLOSET 0216
1/4" = 1'-0"



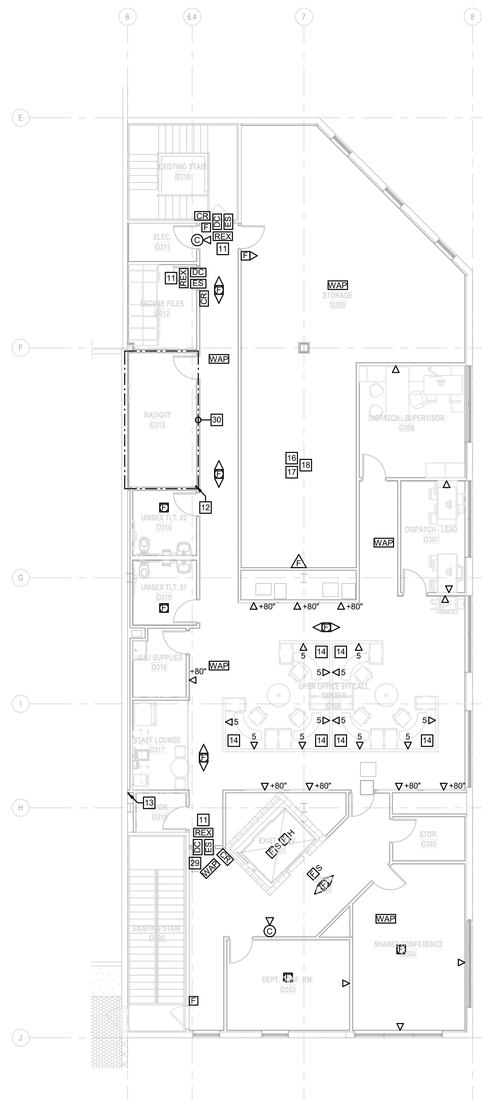
6 LARGE SCALE AUXILIARY PLAN - RADIO/IT 0313
1/4" = 1'-0"



1 AUXILIARY PLAN - OFFICE L01
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



2 AUXILIARY PLAN - OFFICE L02
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



3 AUXILIARY PLAN - OFFICE L03
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

Roy A. Mangan
MO Architect License No: A-6661
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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

AUXILIARY PLAN - OFFICE L01, L02 & L03

Project No. 24059
Sheet No. E403
Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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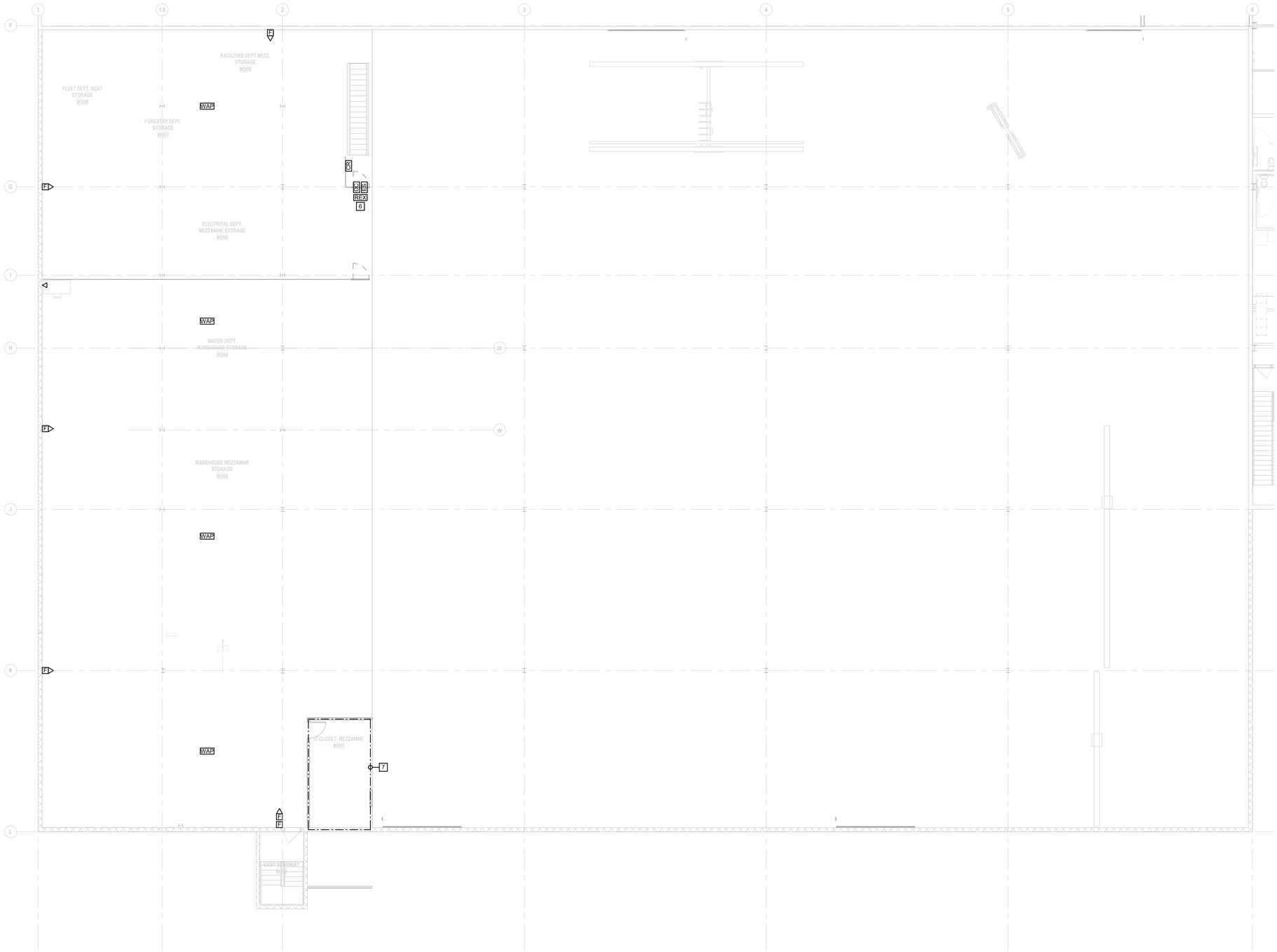
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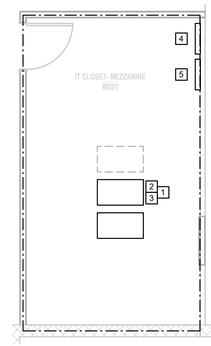
1. REFER TO DATA NETWORK INFRASTRUCTURE RISER DIAGRAM ON DRAWING E501 FOR DETAILS.

E404 SHEET KEYED NOTES

1 PROVIDE 5kW RACK-MOUNTED UPS.
2 PROVIDE 48 PORT CATEGORY 6 PATCH PANEL.
3 PROVIDE ONE PAIR OF FIBER FROM IT CLOSET W201 ON MEZZANINE TO IT CLOSET 0117.
4 SECURITY CONTROL PANEL BY OWNER'S VENDOR.
5 VIDEO SURVEILLANCE EQUIPMENT BY OWNER'S VENDOR.
6 PROVIDE (WINDY CITY WIRE NJ446100 OR EQUAL) COMPOSITE CABLE FROM ACCESS CONTROL DEVICES TO IT CLOSET W201 ON MEZZANINE.
7 SEE LARGE SCALE PLAN THIS SHEET FOR MORE INFORMATION.



1 AUXILIARY PLAN - S WAREHOUSE L02
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"



2 LARGE SCALE AUXILIARY PLAN
1/4" = 1'-0"

SCALE: 3" = 1'-0" 1" 6" 3" 0
SCALE: 1 1/2" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1" = 1'-0" 2" 1" 6" 3" 0
SCALE: 3/4" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1/2" = 1'-0" 4" 2" 1" 6" 3" 0
SCALE: 3/8" = 1'-0" 8" 4" 2" 1" 6" 3" 0
SCALE: 1/4" = 1'-0" 16" 8" 4" 2" 1" 6" 3" 0
SCALE: 1/8" = 1'-0" 24" 16" 8" 4" 2" 1" 6" 3" 0
SCALE: 3/32" = 1'-0" 32" 16" 8" 4" 2" 1" 6" 3" 0
SCALE: 1/16" = 1'-0" 32" 16" 8" 4" 2" 1" 6" 3" 0

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Roy A. Mangan
MO Architect License No: A-6661
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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

AUXILIARY PLAN - S WAREHOUSE L02

Project No. 24059
Sheet No. E404
Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

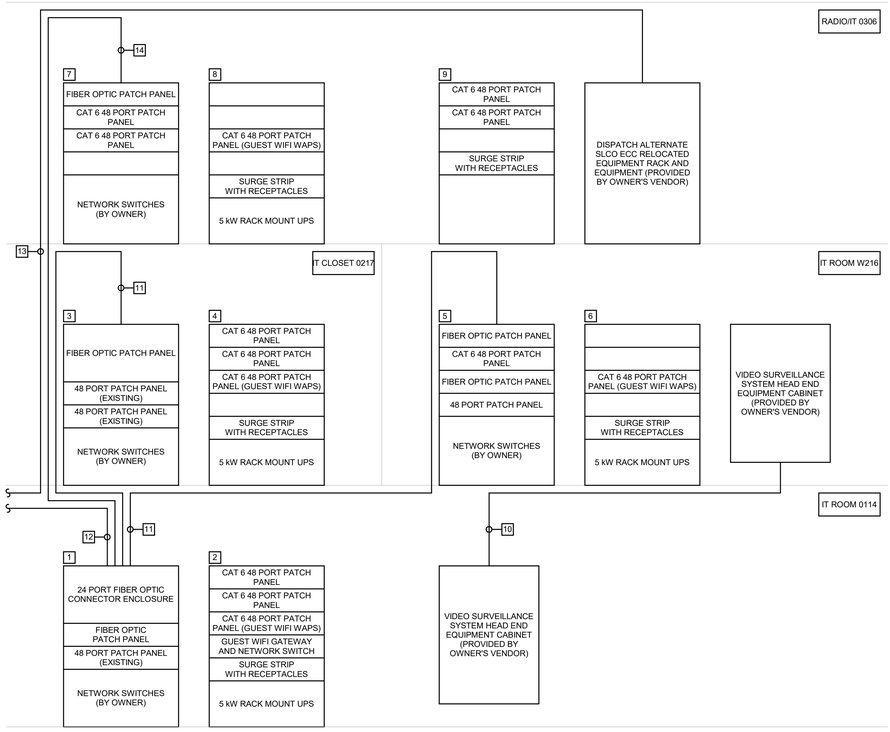
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DATA NETWORK RISER GENERAL NOTES:

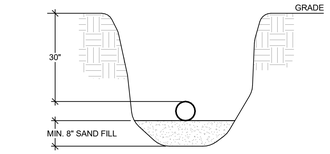
1. EXISTING COPPER AND VOICE SYSTEM COMPONENTS ARE EXISTING TO REMAIN.
2. EACH NEW DATA OUTLET SHALL BE PROVIDED WITH TWO CATEGORY 6 CABLES AND OUTLETS.
3. EACH WAP OUTLET SHALL BE PROVIDED WITH ONE CATEGORY 6 CABLE AND OUTLET.

DATA NETWORK RISER KEYED NOTES:

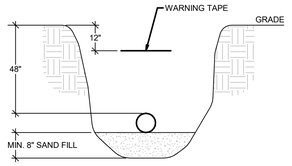
1. EXISTING EQUIPMENT RACK, CABLE MANAGEMENT AND PATCH PANEL TO REMAIN AFTER RELOCATION. KPW SHALL DETERMINE THE EXISTING COMPONENTS FOR RE-USE.
2. NEW EQUIPMENT RACK SHALL BE PROVIDED WITH TWO 48 PORT CAT 6 PATCH PANELS, 5 kW RACK MOUNTED UPS, CABLE MANAGEMENT AND SURGE STRIP. NETWORK SWITCHES, PATCH CORDS AND OTHER ELECTRONICS SHALL BE PROVIDED BY OWNER.
3. EXISTING TO REMAIN AFTER RELOCATION EQUIPMENT RACK WITH PATCH PANELS AND CABLE MANAGEMENT. KPW SHALL DETERMINE THE EXISTING COMPONENTS FOR RE-USE.
4. NEW EQUIPMENT RACK SHALL BE PROVIDED WITH ONE 48 PORT CAT 6 PATCH PANEL FOR GUEST WIFI, TWO 48 PORT CAT 6 PATCH PATCH PANELS, 5 kW RACK MOUNTED UPS, CABLE MANAGEMENT AND SURGE STRIP. NETWORK SWITCHES, PATCH CORDS AND OTHER ELECTRONICS SHALL BE PROVIDED BY OWNER.
5. NEW EQUIPMENT RACK SHALL BE PROVIDED WITH ONE FIBER OPTIC PATCH PANEL, TWO 48 PORT CAT 6 PATCH PATCH PANELS, CABLE MANAGEMENT, NETWORK SWITCHES, PATCH CORDS AND OTHER ELECTRONICS SHALL BE PROVIDED BY OWNER.
6. NEW EQUIPMENT RACK SHALL BE PROVIDED WITH ONE 48 PORT CAT 6 PATCH PANEL FOR GUEST WIFI, 5 kW RACK MOUNTED UPS, CABLE MANAGEMENT AND SURGE STRIP. NETWORK SWITCHES, PATCH CORDS AND OTHER ELECTRONICS SHALL BE PROVIDED BY OWNER.
7. DISPATCH ALTERNATE NEW EQUIPMENT RACK SHALL BE PROVIDED WITH ONE FIBER OPTIC PATCH PANEL, TWO 48 PORT CAT 6 PATCH PANELS, AND CABLE MANAGEMENT. NETWORK SWITCHES, PATCH CORDS AND OTHER ELECTRONICS SHALL BE PROVIDED BY OWNER.
8. DISPATCH ALTERNATE NEW EQUIPMENT RACK SHALL BE PROVIDED WITH ONE 48 PORT CAT 6 PATCH PANEL FOR GUEST WIFI, 5 kW RACK MOUNTED UPS, CABLE MANAGEMENT AND SURGE STRIP. NETWORK SWITCHES, PATCH CORDS AND OTHER ELECTRONICS SHALL BE PROVIDED BY OWNER.
9. DISPATCH ALTERNATE NEW EQUIPMENT RACK SHALL BE PROVIDED WITH TWO 48 PORT CAT 6 PATCH PANELS, AND CABLE MANAGEMENT. NETWORK SWITCHES, PATCH CORDS AND OTHER ELECTRONICS SHALL BE PROVIDED BY SLCO ECC FOR THEIR USE.
10. VIDEO SURVEILLANCE FIBER OPTIC CABLE. TWO STRANDS OF SINGLE MODE FIBER OPTIC CABLE IN ARMORED JACKET.
11. KPW INTERNAL NETWORK. 4 STRANDS OF SINGLE MODE FIBER OPTIC CABLE IN ARMORED JACKET.
12. SEGRA IT SERVICE (ASSUME 24 STRANDS OF SINGLE MODE FIBER OPTIC CABLE).
13. DISPATCH ALTERNATE AT&T IT SERVICE (ASSUME 2 STRANDS OF SINGLE MODE FIBER OPTIC CABLE ROUTED TO DEMARC IN 3RD FLOOR IT ROOM).
14. DISPATCH ALTERNATE KPW INTERNAL NETWORK. 4 STRANDS OF SINGLE MODE FIBER OPTIC CABLE IN ARMORED JACKET.



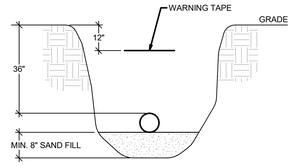
DATA NETWORK INFRASTRUCTURE RISER DIAGRAM
SCALE: N.T.S.



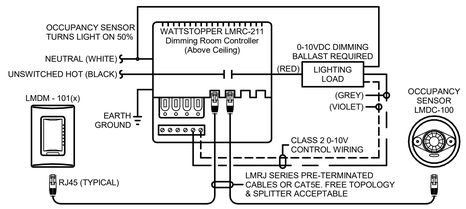
TYPICAL CONDUIT BURIAL DETAIL
SCALE: N.T.S.



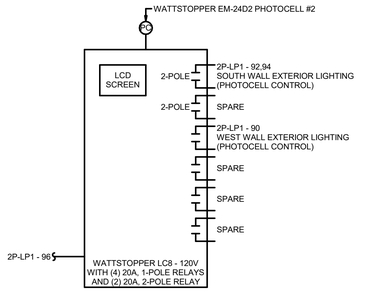
PRIMARY CONDUIT BURIAL DETAIL
SCALE: N.T.S.



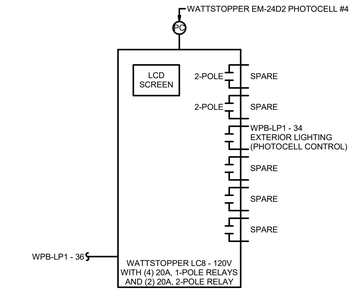
SERVICE ENTRANCE CONDUIT BURIAL DETAIL
SCALE: N.T.S.



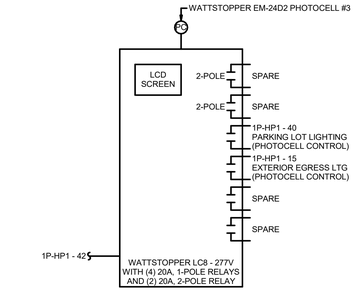
TYPICAL OCCUPANCY SENSOR SCHEMATIC
SCALE: N.T.S.



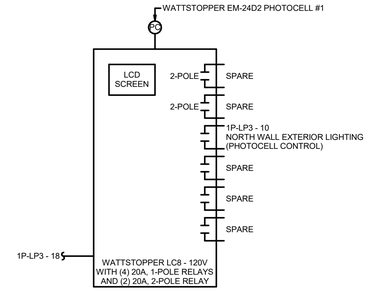
LIGHTING CONTROL PANEL - 2P-LP1
SCALE: N.T.S.



LIGHTING CONTROL PANEL - WPB-LP1
SCALE: N.T.S.



LIGHTING CONTROL PANEL - 1P-HP1
SCALE: N.T.S.



LIGHTING CONTROL PANEL - 1P-LP3
SCALE: N.T.S.

Roy A. Mangan
MO Architect License No: A-6661
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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision
0		

ELEC DETAILS

Project No. 24059

Sheet No. E501

Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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Autodesk Docs://240543000 - Kirkwood Public Works/240543000_Kirkwood-Public-Works_MEP_r25.rvt

Panelboard: 1SW-HP1 | **Mounting: SURFACE** | **Location: ELEC. SERVICE CENTER...** | **AIC Rating: 50 kA**
Volts: 480/277 Wye | **Phases: 3** | **Amps: 1200 A** | **Feed From: KPW XFMR**
Wire: 4 | **Mains: 1200 A LSI MCB SE RATED** | **via 1200A ATS...**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
1DP-LP1 via 300 kVA XFMR 1-T-T (LSIG)	500 A	3	1	133549	2029					2	3	30 A	1P-HE1 vis CENTRAL LIGHTING INVERTER
--	--	--	3			133241	2348			4	--	--	--
--	--	--	5					105263	2234	6	--	--	--
Panel RP-HP1	250 A	3	7	42022	33134					8	3	250 A	Panel 1P-HP1
--	--	--	9			42022	39569			10	--	--	--
--	--	--	11					42022	33463	12	--	--	--
Panel 2P-HP1	250 A	3	13	20539	7308					14	3	100 A	Panel WBP-LP1 via 75 kVA XFMR WB-T-1
--	--	--	15			18112	6278			16	--	--	--
--	--	--	17					18112	3863	18	--	--	--
ELEVATOR SHUNT TRIP CIRCUIT BREAKER	100 A	3	19	20000	0					20	3	30 A	SPD
--	--	--	21			20000	0			22	--	--	--
--	--	--	23					20000	0	24	--	--	--
SPACE	--	3	25	--	--					26	3	--	SPACE
--	--	--	27			--	--			28	--	--	--
--	--	--	29					--	--	30	--	--	--
SPACE	--	3	31	--	--					32	3	--	SPACE
--	--	--	33			--	--			34	--	--	--
--	--	--	35					--	--	36	--	--	--
	Phase Load:			**258.53 kW**		**261.57 kW**		**224.96 kW**					
	Phase Amps:			**952.00 A**		**962.97 A**		**812.12 A**					
	Total Load:			**745.05 kW**									
	Total Amps:			**896.15 A**									

Panelboard: 1P-HE1 | **Mounting: SURFACE** | **Location: ELEC. SERVICE CENTER...** | **AIC Rating: 10 kA**
Volts: 480/277 Wye | **Phases: 3** | **Amps: 30 A** | **Feed From: 1SW-HP1**
Wire: 4 | **Mains: MLO**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
LIGHTING - STORM SHELTER	20 A	1	1	392	500					2	1	30 A	LIGHTING INVERTER (ALTERNATE #6)
LIGHTING - WAREHOUSE NORTH	20 A	1	3			1022	0			4	1	20 A	SPARE
LIGHTING - WAREHOUSE SOUTH	20 A	1	5					1252	0	6	1	20 A	SPARE
LIGHTING - WAREHOUSE OFFICE	20 A	1	7	1164	0					8	1	20 A	SPARE
LIGHTING - 2ND AND 3RD FLOOR OFFICE	20 A	1	9			1327	0			10	1	20 A	SPARE
LIGHTING - 1ST FLOOR OFFICE AND STAIRS	20 A	1	11					982	0	12	1	20 A	SPARE
SPARE	20 A	1	13	0	0					14	1	20 A	SPARE
SPARE	20 A	1	15			0	0			16	1	20 A	SPARE
SPARE	20 A	1	17					0	0	18	1	20 A	SPARE
SPARE	20 A	1	19	0	0					20	1	20 A	SPARE
SPARE	20 A	1	21			0	0			22	1	20 A	SPARE
SPARE	20 A	1	23					0	0	24	1	20 A	SPARE
SPARE	20 A	1	25	0	0					26	1	20 A	SPARE
SPARE	20 A	1	27			0	0			28	1	20 A	SPARE
SPARE	20 A	1	29					0	0	30	1	20 A	SPARE
	Phase Load:			**2.03 kW**		**2.35 kW**		**2.23 kW**					
	Phase Amps:			**7.32 A**		**8.59 A**		**8.18 A**					
	Total Load:			**6.59 kW**									
	Total Amps:			**7.92 A**									

EX Panel: 1P-HP1 | **Mounting: SURFACE** | **Location: Space 90** | **AIC Rating: Ex 14 kA**
Volts: 480/277 Wye | **Phases: 3** | **Amps: 250 A** | **Feed From: 1SW-HP1**
EXISTING | **Wire: 4** | **Mains: 200 A MCB**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
LIGHTING - 1ST FLOOR OFFICE *	20 A	1	1	2162	500					2	1	20 A	VAV-08 *
LIGHTING - 2ND FLOOR OFFICE *	20 A	1	3			2402	7000			4	1	35 A	VAV-09 ●
LIGHTING - 3RD FLOOR OFFICE *	20 A	1	5					1753	4000	6	1	20 A	VAV-10 *
LIGHTING - WAREHOUSE NORTH *	20 A	1	7	1504	1500					8	1	20 A	VAV-11 ●
LIGHTING - WAREHOUSE NORTH *	20 A	1	9			1248	4000			10	1	20 A	VAV-12 ●
LIGHTING - WAREHOUSE SOUTH ●	20 A	1	11					1749	1500	12	1	20 A	VAV-13 ●
LIGHTING - WAREHOUSE SOUTH ●	20 A	1	13	1556	1500					14	1	20 A	VAV-14 ●
LIGHTING - EXTERIOR EGRESS ●	20 A	1	15			68	0			16	1	20 A	SPARE ●
SPARE ●	20 A	1	17					0	0	18	1	20 A	SPARE ●
SPARE ●	20 A	1	19	0	9827					20	3	45 A	ARC WELDER ●
SPARE ●	20 A	1	21			0	9827			22	--	--	--
SPARE ●	20 A	1	23					0	9827	24	--	--	--
SPARE ●	20 A	1	25	0	9348					26	3	45 A	MAU-01 ●
SPARE ●	20 A	1	27			0	9348			28	--	--	--
SPARE ●	20 A	1	29					0	9348	30	--	--	--
SPARE ●	20 A	1	31	0	1248					32	3	15 A	EX MAU ●
SPARE ●	20 A	1	33			0	1248			34	--	--	--
SPARE ●	20 A	1	35					0	1248	36	--	--	--
EX EWH 01 ●	20 A	1	37	3989	0					38	1	20 A	ELEVATOR SHUNT TRIP ●
EX EWH 02 ●	20 A	1	39			3989	494			40	1	20 A	LIGHTING - PARKING LOT ●
EX EWH 03 ●	20 A	1	41					3989	50	42	1	20 A	OUTSIDE LIGHTING CONTROL PANEL ●
				ETR : Existing Circuit and Breaker To Remain									
				*** : New Circuit and Existing Breaker To Remain**									
				● : New Circuit and New Breaker Required									
				○ : New Circuit and Replace Existing Breaker									

EX Panel: 1P-LP1 | **Mounting: SURFACE** | **Location: Space 90** | **AIC Rating: Ex 10 kA**
Volts: 208Y/120V | **Phases: 3** | **Amps: 250 A** | **Feed From: 1DP-LP1**
EXISTING | **Wire: 4** | **Mains: 200 A**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
GARBAGE DISPOSER & DISHWASHER (ETR)	20 A	1	1	1920	2496					2	2	30 A	L6-30R IT RACK UPS RECEPTACLE *
COUNTERTOP RECEPTACLES (ETR)	20 A	1	3			1800	2496			4	--	--	--
REFRIGERATOR (ETR)	20 A	1	5					1000	2496	6	2	30 A	L6-30R IT RACK UPS RECEPTACLE *
PLUGMOLD COMPUTER ROOM (ETR)	20 A	1	7	900	2496					8	--	--	--
FIRE ALARM CONTROL PANEL *	20 A	1	9			500	720			10	1	20 A	RECEPTACLES - ROOM 0107 *
HYDRAULIC PANEL (ETR)	20 A	1	11					0	900	12	1	20 A	RECEPTACLES - ROOM 0108 *
MICROWAVE & WATER COOLER (ETR)	20 A	1	13	1570	1260					14	1	20 A	RECEPTACLES - ROOM 0109 *
1ST FLOOR MENS HAND DRYER (ETR)	20 A	1	15			1500	900			16	1	20 A	RECEPTACLES - ROOM 0110 *
1ST FLOOR WOMENS HAND DRYER (ETR)	20 A	1	17					1500	720	18	1	20 A	RECEPTACLES - ROOM 0111 *
RECEPTACLES - RESTROOMS *	20 A	1	19	360	900					20	1	20 A	RECEPTACLES - ROOMS 0112, 0113 *
RECEPTACLES - ROOM 0103 *	20 A	1	21			1440	180			22	1	20 A	RECEPTACLES - IRRIGATION CONTROL PAN...
RECEPTACLES - ROOMS 0122, 0124 *	20 A	1	23					720	900	24	1	20 A	MODULAR FURNITURE POWER *
RECEPTACLES - CORRIDORS *	20 A	1	25	900	900					26	1	20 A	MODULAR FURNITURE POWER *
RECEPTACLES - LOBBY *	20 A	1	27			900	900			28	1	20 A	MODULAR FURNITURE POWER *
RECEPTACLES - ROOM 0117 *	20 A	1	29					540	900	30	1	20 A	MODULAR FURNITURE POWER *
PAC-02, PAC-03 & PAC-08 CONDENSATE...	20 A	1	31	150	900					32	1	20 A	MODULAR FURNITURE POWER *
RECEPTACLES - IT CLOSET 0118 ●	20 A	1	33			540	900			34	1	20 A	MODULAR FURNITURE POWER *
CU-02 ●	20 A	2	35					1706	50	36	1	20 A	EXISTING CIRCULATOR PUMP *
--	--	--	37	1706	2066					38	2	30 A	WATER HEATER (ETR)
RECEPTACLE ON CU-02 ●	20 A	1	39			180	2066			40	--	--	--
BMS CONTROL PANEL *	20 A	1	41					50	500	42	1	20 A	ELEVATOR CAB LIGHTS (ETR)
				ETR : Existing Circuit and Breaker To Remain									
				*** : New Circuit and Existing Breaker To Remain**									
				● : New Circuit and New Breaker Required									
				○ : New Circuit and Replace Existing Breaker									

EX Panel: 1P-LP3 | **Mounting: SURFACE** | **Location: ELECTRICAL DEPT....** | **AIC Rating: Ex 10 kA**
Volts: 208Y/120V | **Phases: 3** | **Amps: 60 A** | **Feed From: 1DP-LP1**
EXISTING | **Wire: 4** | **Mains: 60 A MCB**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
WALL PACKS (ETR)	20 A	1	1	500	0					2	3	60 A	MAIN (ETR)
GARAGE DOOR (ETR)	20 A	1	3			500	0			4	--	--	--
EM1 CONVENIENCE OUTLET (ETR)	20 A	1	5					0	0	6	--	--	--
EM1 CONVENIENCE OUTLET (ETR)	20 A	1	7	0	500					8	1	20 A	GARAGE DOOR (ETR)
GARAGE DOOR (ETR)	20 A	1	9			500	853			10	1	20 A	WALL PACKS (ETR)
EM1 CONVENIENCE OUTLET (ETR)	20 A	1	11					0	1080	12	1	20 A	CONVENIENCE OUTLETS (ETR)
PUMP HOUSE HEATER - EWH 04 (ETR)	30 A	2	13	1994	360					14	1	20 A	CONVENIENCE OUTLETS (ETR)
--	--	--	15			1994	0			16	1	20 A	PUMP ROOM (ETR)
RECEPTACLES - ELEC DEPT TOUCH DOWN ●	20 A	1	17					1080	50	18	1	20 A	OUTSIDE LIGHTING CONTROL PANEL ●
				ETR : Existing Circuit and Breaker To Remain									
				*** : New Circuit and Existing Breaker To Remain**									
				● : New Circuit and New Breaker Required									
				○ : New Circuit and Replace Existing Breaker									

Panelboard: 1DP-LP1 | **Mounting: SURFACE** | **Location: ELEC. SERVICE CENTER...** | **AIC Rating: 25 kA**
Volts: 208Y/120V | **Phases: 3** | **Amps: 1000 A** | **Feed From: 1-T-1 XFMR**
Wire: 4 | **Mains: 1000 A LSI MCB**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
Panel 1P-LP1	200 A	3	1	18523	13763					2	3	200 A	Panel 1P-LP2
--	--	--	3			15022	12970			4	--	--	--
--	--	--	5					11982	13360	6	--	--	--
Panel 1P-LP3	60 A	3	7	3312	35496					8	3	400 A	Panel 1P-LP4
--	--	--	9			3780	40098			10	--	--	--
--	--	--	11					2210	40074	12	--	--	--
Panel 1P-LP5 via 50 kVA XFMR 1-T-2	250 A	2	13	16140	28768					14	3	400 A	Panel 2P-LP1
--	--	--	15			16140	28656			16	--	--	--
SPACE	--	1	17					--	25210	18	--	--	--
Panel 3P-LP1 (ALTERNATE #1A)	200 A	3	19	5052	7512					20	3	100 A	Panel 3P-LU1 via UPS (ALTERNATE #1A)
--	--	--	21			6586	7512			22	--	--	--
--	--	--	23					3500	6432	24	--	--	--
Panel 3P-LU2 via UPS (ALTERNATE #1A)	100 A	3	25	4992	--					26	3	--	SPACE
--	--	--	27			2496	--			28	--	--	--
--	--	--	29					2496	--	30	--	--	--
SPACE	--	3	31	--	0					32	3	30 A	SPD
--	--	--	33			--	0			34	--	--	--
--	--	--	35					--	0	36	--	--	--
	Phase Load:			**133.55 kW**		**133.24 kW**		**105.26 kW**					
	Phase Amps:			**1148.78 A**		**1146.21 A**		**877.19 A**					
	Total Load:			**372.05 kW**									
	Total Amps:			**1032.71 A**									

EX Panel: 1P-LP2 | **Mounting: SURFACE** | **Location: Space 90** | **AIC Rating: Ex 10 kA**
Volts: 208Y/120V | **Phases: 3** | **Amps: 250 A** | **Feed From: 1DP-LP1**
EXISTING | **Wire: 4** | **Mains: MLO**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
RECEPTACLES - CORRIDORS *	20 A	1	1	720	2496					2	2	30 A	L6-30R IT RACK UPS RECEPTACLE *
RECEPTACLES - CORRIDORS *	20 A	1	3			720	2496			4	--	--	--
PLOTTER - GIS PLOTTER *	20 A	1	5					800	2496	6	2	30 A	L6-30R IT RACK UPS RECEPTACLE *
RECEPTACLES - ELECTRICAL DEPARTMENT *	20 A	1	7	1080	2496					8	--	--	--
RECEPTACLES - ROOM 0216 *	20 A	1	9			180	900			10	1	20 A	MODULAR FURNITURE POWER *
SECURITY PANEL *	20 A	1	11					500	900	12	1	20 A	MODULAR FURNITURE POWER *
GARBAGE DISPOSER & REFRIGERATOR (ETR)	20 A	1	13	1720	900					14	1	20 A	MODULAR FURNITURE POWER *
MICROWAVE & WATER COOLER (ETR)	20 A	1	15			1570	900			16	1	20 A	MODULAR FURNITURE POWER *
COUNTERTOP RECEPTACLES (ETR)	20 A	1	17					1800	900	18	1	20 A	MODULAR FURNITURE POWER *
RECEPTACLES - ROOM 0202 *	20 A	1	19	1080	360					20	1	20 A	RECEPTACLES - RESTROOMS *
RECEPTACLES - ROOM 0203 *	20 A	1	21			900	1500			22	1	20 A	2ND FLOOR WOMENS HAND DRYER (ETR)
RECEPTACLES - ROOM 0204 *	20 A	1	23					720	1500	24	1	20 A	2ND FLOOR MENS HAND DRYER (ETR)
RECEPTACLES - ROOM 0205 *	20 A	1	25	900	187					26	1	20 A	1ST & 2ND FLOOR REST EXHAUST (EX EF 01) *
RECEPTACLES - ROOM 0206 *	20 A	1	27			1080	240			28	1	20 A	ELEVATOR GFI & LIGHT, EX EF 02 ●
RECEPTACLES - ROOM 0207 *	20 A	1	29					1080	180	30	1	20 A	VESTIBULE DOOR HARDWARE ●
RECEPTACLES - ROOM 0208 ●	20 A	1	31	1080	180					32	1	20 A	VESTIBULE DOOR HARDWARE ●
RECEPTACLES - ROOM 0209 ●	20 A	1	33			720	1200			34	1	20 A	1ST FLOOR COPPIER MACHINE ●
RECEPTACLES - ROOM 0210 ●	20 A	1	35					720	1200	36	1	20 A	2ND FLOOR COPPIER MACHINE ●
EX AHU 01 ●	15 A	1	37	564	0					38	1	20 A	BAS/TC POWER ●
EX AHU 02 ●	15 A	1	39			564	0			40	1	20 A	SPARE ●
EX AHU 03 ●	15 A	1	41					564	0	42	1	20 A	SPARE ●
				ETR : Existing Circuit and Breaker To Remain									
				*** : New Circuit and Existing Breaker To Remain**									
				● : New Circuit and New Breaker Required									
				○ : New Circuit and Replace Existing Breaker									

Panelboard: 1P-LP4 | **Mounting: SURFACE** | **Location: Space 62** | **AIC Rating:**
Volts: 208Y/120V | **Phases: 3** | **Amps: 400 A** | **Feed From: 1DP-LP1**
100%... | **Wire: 4** | **Mains: MLO**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
PAC-04 & PAC-07 CONDENSATE PUMPS	20 A	1	1	100	370					2	1	20 A	EWC Receptacle - South Warehouse (GFCI)
PAC-05A & PAC-05B CONDENSATE PUMPS	20 A	1	3			100	500			4	1	20 A	GENERATOR BATTERY CHARGER (ALT #1B)
Column Receptacles - South Warehouse	20 A	1	5					360	525	6	1	20 A	AIR COMPRESSOR DRYER
Column Receptacles - North Warehouse	20 A	1	7	540	800					8	1	20 A	Receptacles - Streets Department Sign Shop...
Column Receptacles - North Warehouse	20 A	1	9			540	900			10	1	20 A	Column Receptacles - South Warehouse
1-TON HOIST	20 A	1	11					750	900	12	1	20 A	Receptacles - Fleet Department Admin Assist...
Receptacles - Exterior Building	20 A	1	13	1000	2500					14	1	30 A	ELECTRIC WATER HEATER
Receptacles - Exterior Building	20 A	1	15			1000	750			16	2	20 A	GENERATOR JACKET WATER HEATER (ALT...
Wall Receptacles - South Warehouse	20 A	1	17					1260	750	18	--	--	--
ELECTRIC WATER HEATER PUMP	20 A	1	19	50	1500					20	2	20 A	OIL PUMP
HD/LD TIRE BALANCER	20 A	2	21			1040	1500			22	--	--	--
--	--	--	23					1040	1560	24	2	20 A	LIGHT DUTY TIRE MACHINE
ICE MACHINE	20 A	2	25	1602	1560					26	--	--	--
--	--	--	27			1602	10816			28	2	150 A	TIG WELDER
TIME CLOCK	20 A	1	29					50	10816	30	--	--	--
CU-04	35 A	2	31	1706	1706					32	2	35 A	CU-05
--	--	--	33			1706	1706			34	--	--	--
HEAVY DUTY TIRE MACHINE	30 A	2	35					1924	2250	36	2	30 A	AIR COMPRESSOR
--	--	--	37	1924	2250					38	--	--	--
TIME CLOCK	20 A	1	39			50	180			40	1	20 A	Receptacle on EF-03
Receptacle on EF-06	20 A	1	41					180	180	42	1	20 A	Receptacle on CU-07
Receptacle on EF-01	20 A	1	43	180	180					44	1	20 A	Receptacle on CU-04
Receptacle on CU-05	20 A	1	45			180	250			46	1	20 A	Warehouse Gas Unit Heater
Warehouse Gas Unit Heater	20 A	1	47					250	540	48	1	20 A	Wall Receptacles - North Warehouse
Warehouse Gas Unit Heater	20 A	1	49	250	540					50	1	20 A	Receptacles - South Warehouse
Receptacles - Warehouse Spool Storage W131	20 A	1	51			540	600			52	1	20 A	Battery Charger Receptacles - North Warehouse
Battery Charger Receptacles - North Warehouse	20 A	1	53					600	1000	54	1	20 A	Receptacles - Exterior Building
Battery Charger Receptacles - North Warehouse	20 A	1	55	600	1000					56	1	20 A	Receptacles - Exterior Building
Receptacles - Exterior Building	20 A	1	57			1000	1000			58	1	20 A	Receptacles - Exterior Building
Receptacles - Exterior Building	20 A	1	59					1000	1080	60	1	20 A	Wall Receptacles - South Warehouse
Receptacles - Exterior Building	20 A	1	61	1000	1080					62	1	20 A	Receptacles - Fleet Department Lead Tech W147
Receptacles - Streets Deptartment Sign Shop...	20 A	1	63			1080	1080			64	1	20 A	Column Receptacles - South Warehouse
Column Receptacles - South Warehouse	20 A	1	65					1080	2200	66	1	30 A	SAND BLAST CABINET
Column Receptacles - South Warehouse	20 A	1	67	1080	2200					68	1	30 A	BENCH GRINDER
DRILL PRESS	30 A	1	69			2200	750			70	2	20 A	VEHICLE LIFT
SPARE	20 A	1	71					0	750	72	--	--	--
VEHICLE LIFT	20 A	2	73	750	1706					74	2	20 A	CU-07
--	--	--	75			750	1706			76	--	--	--
VEHICLE LIFT	20 A	2	77					750	1706	78	2	20 A	VEHICLE LIFT
--	--	--	79	750	1706					80	--	--	--
MIG WELDER	20 A	2	81			1706	1201			82	3	20 A	IRON WORKER
--	--	--	83					1706	1201	84	--	--	--
AIR COMPRESSOR	40 A	3	85	3667	1201					86	--	--	--
--	--	--	87			3667	0			88	1	20 A	SPARE
--	--	--	89					3667	0	90	1	20 A	BAS/TC POWER
SPACE	--	1	91	--	--					92	1	--	SPACE
SPACE	--	1	93			--	--			94	1	--	SPACE
SPACE	--	1	95					--	--	96	1	--	SPACE
SPACE	--	1	97	--	--					98	1	--	SPACE
SPACE	--	1	99			--	--			100	1	--	SPACE
SPACE	--	1	101					--	--	102	1	--	SPACE
SPACE	--	1	103	--	--					104	1	--	SPACE
SPACE	--	1	105			--	--			106	1	--	SPACE
SPACE	--	1	107					--	--	108	1	--	SPACE
SPACE	--	1	109	--	--					110	1	--	SPACE
SPACE	--	1	111			--	--			112	1	--	SPACE
SPACE	--	1	113					--	--	114	1	--	SPACE
SPACE	--	1	115	--	--					116	1	--	SPACE
SPACE	--	1	117			--	--			118	1	--	SPACE
SPACE	--	1	119					--	--	120	1	--	SPACE
	Phase Load:			**35.50 kW**		**40.10 kW**		**40.07 kW**					
	Phase Amps:			**295.80 A**		**340.02 A**		**339.82 A**					
	Total Load:			**115.67 kW**									
	Total Amps:			**321.06 A**									

Panelboard: 1P-LP5 | **Mounting: SURFACE** | **Location: EXIST JAN. W118** | **AIC Rating: 10 kA**
Volts: 120/240V | **Phases: 1** | **Amps: 250 A** | **Feed From: 1-T-2 XFMR**
Wire: 3 | **Mains: 250 A LSI MCB**

Circuit Description	Amps	Poles	CKT	A		B		CKT	Poles	Amps	Circuit Description
PLASMA CUTTER	60 A	2	1	5340	3600			2	2	40 A	1-TON CRANE
--	--	--	3			5340	3600	4	--	--	--
INDUSTRIAL BENCH GRINDER	40 A	2	5	3600	3600			6	2	40 A	1-TON CRANE
--	--	--	7			3600	3600	8	--	--	--
SPARE	20 A	1	9	0	0			10	1	20 A	SPARE
SPARE	20 A	1	11			0	0	12	1	20 A	SPARE
	Phase Load:			**16.14 kW**		**16.14 kW**					
	Phase Amps:			**134.50 A**		**134.50 A**					
	Total Load:			**32.28 kW**							
	Total Amps:			**134.50 A**							

Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/2026

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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision
0		

ELEC SCHEDULES

Project No. 24059

Sheet No. E601

Date 03/27/2026

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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Panelboard: 2P-HP1 | **Mounting: SURFACE** | **Location: IT CLOSET- MEZZANINE...** | **AIC Rating:**
Volts: 480/277 Wye | **Phases: 3** | **Amps: 250 A** | **Feed From: 1SW-HP1**
Wire: 4 | **Mains: MLO**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
LIGHTING - WAREHOUSE OFFICE	20 A	1	1	3497	4711					2	3	25 A	DOAS-01
VAV-01	25 A	1	3			4500	4711			4	--	--	--
VAV-02	15 A	1	5					3000	4711	6	--	--	--
VAV-03	20 A	1	7	4000	373					8	3	15 A	EF-01
VAV-04	15 A	1	9			1000	373			10	--	--	--
VAV-05	20 A	1	11					4000	373	12	--	--	--
VAV-06	15 A	1	13	2000	497					14	3	15 A	EF-02
VAV-07	15 A	1	15			1500	497			16	--	--	--
SPARE	20 A	1	17					0	497	18	--	--	--
SPARE	20 A	1	19	0	497					20	3	15 A	EF-03
SPARE	20 A	1	21			0	497			22	--	--	--
SPARE	20 A	1	23					0	497	24	--	--	--
SPACE	--	1	25	--	497					26	3	15 A	EF-04
SPACE	--	1	27			--	497			28	--	--	--
SPACE	--	1	29					--	497	30	--	--	--
SPACE	--	1	31	--	497					32	3	15 A	EF-05
SPACE	--	1	33			--	497			34	--	--	--
SPACE	--	1	35					--	497	36	--	--	--
SPACE	--	1	37	--	1243					38	3	15 A	EF-06
SPACE	--	1	39			--	1243			40	--	--	--
SPACE	--	1	41					--	1243	42	--	--	--
SPACE	--	1	43	--	1243					44	3	15 A	EF-07
SPACE	--	1	45			--	1243			46	--	--	--
SPACE	--	1	47					--	1243	48	--	--	--
SPACE	--	1	49	--	1243					50	3	15 A	EF-08
SPACE	--	1	51			--	1243			52	--	--	--
SPACE	--	1	53					--	1243	54	--	--	--
SPACE	--	1	55	--	124					56	3	15 A	EF-09
SPACE	--	1	57			--	124			58	--	--	--
SPACE	--	1	59					--	124	60	--	--	--
SPACE	--	1	61	--	186					62	3	15 A	EF-10
SPACE	--	1	63			--	186			64	--	--	--
SPACE	--	1	65					--	186	66	--	--	--
SPACE	--	1	67	--	0					68	1	20 A	SPARE
SPACE	--	1	69			--	0			70	1	20 A	SPARE
SPACE	--	1	71					--	0	72	1	20 A	SPARE
	Phase Load:			**20.54 kW**		**18.11 kW**		**18.11 kW**					
	Phase Amps:			**74.15 A**		**65.39 A**		**65.39 A**					
	Total Load:			**56.75 kW**									
	Total Amps:			**68.26 A**									

Panelboard: 2P-LP1 | **Mounting: SURFACE** | **Location: IT CLOSET- MEZZANINE...** | **AIC Rating:**
Volts: 208Y/120V | **Phases: 3** | **Amps: 400 A** | **Feed From: 1DP-LP1**
Wire: 4 | **Mains: MLO**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
Receptacles - Electric Water Cooler (GFCI)	20 A	1	1	370	900					2	1	20 A	Receptacles - Room W127
Receptacles - Electric Water Cooler (GFCI)	20 A	1	3			370	720			4	1	20 A	Receptacles - Room W127
Receptacles - Room W108	20 A	1	5					540	540	6	1	20 A	Receptacles - South Warehouse Mezzanine
Receptacles - Room W108	20 A	1	7	900	540					8	1	20 A	Receptacles - South Warehouse Mezzanine
SCADA Computer Receptacle - W108	20 A	1	9			500	360			10	1	20 A	Receptacles - South Warehouse Mezzanine
Countertop Receptacles - Room W107	20 A	1	11					360	900	12	1	20 A	Receptacles - South Warehouse Mezzanine IT...
Refrigerator Receptacles - Room W107	20 A	1	13	1000	500					14	1	20 A	Fork Lift Charger Receptacle - South Warehouse
Incubator Receptacles - Room W107	20 A	1	15			180	1440			16	1	20 A	Wall Receptacles - South Warehouse
Receptacles - Meter Department Metershop W109	20 A	1	17					720	2496	18	2	30 A	L6-30R IT RACK UPS RECEPTACLE
Receptacles - Room W106	20 A	1	19	900	2496					20	--	--	--
Receptacles - Corridors	20 A	1	21			900	2496			22	2	30 A	L6-30R IT RACK UPS RECEPTACLE
Refrigerator Receptacles - Room W105 (GFCI)	20 A	1	23					1000	2496	24	--	--	--
Refrigerator Receptacles - Room W105 (GFCI)	20 A	1	25	1000	2496					26	2	30 A	L6-30R IT RACK UPS RECEPTACLE
Receptacles - Rooms W105	20 A	1	27			1080	2496			28	--	--	--
Receptacles - Work/Copy W113	20 A	1	29					1200	1602	30	2	20 A	ICE MACHINE
Receptacles - Room W104	20 A	1	31	900	1602					32	--	--	--
Receptacles - Room W103	20 A	1	33			900	1602			34	2	20 A	ICE MACHINE
Receptacles - Rooms W111, W112, W113	20 A	1	35					540	1602	36	--	--	--
Receptacles - W116	20 A	1	37	1080	1706					38	2	20 A	CU-01
Receptacles - W116	20 A	1	39			1080	1706			40	--	--	--
Microwave Receptacles - W116	20 A	1	41					1200	180	42	1	20 A	Receptacle on CU-01
Microwave Receptacles - W116	20 A	1	43	1200	1706					44	2	35 A	CU-06
Microwave Receptacles - W116	20 A	1	45			1200	1706			46	--	--	--
Countertop Receptacles - W116	20 A	1	47					540	180	48	1	20 A	Receptacle on CU-06
Coffee Receptacles - W116	20 A	1	49	800	0					50	2	15 A	EF-11
Garbage Disposer - W116	20 A	1	51			1200	0			52	--	--	--
Refrigerator Receptacles - Room W105 (GFCI)	20 A	1	53					1000	600	54	1	20 A	DWH-01
Refrigerator Receptacles - Room W105 (GFCI)	20 A	1	55	1000	92					56	1	20 A	HWCP-01
Refrigerator Receptacles - Room W105 (GFCI)	20 A	1	57			1000	100			58	1	20 A	PAC-01 & PAC-06 CONDENSATE PUMPS
Refrigerator Receptacles - Room W105 (GFCI)	20 A	1	59					1000	250	60	1	20 A	Warehouse Gas Unit Heater
Refrigerator Receptacles - Room W105 (GFCI)	20 A	1	61	1000	250					62	1	20 A	Warehouse Gas Unit Heater
Receptacles - Rooms W119, W120, W124	20 A	1	63			1080	250			64	1	20 A	Warehouse Gas Unit Heater
Receptacles - Rooms W120, W121	20 A	1	65					900	180	66	1	20 A	Receptacle on EF-07
Countertop Receptacles - W122	20 A	1	67	180	180					68	1	20 A	Receptacle on EF-09
Countertop Receptacles - W121	20 A	1	69			180	500			70	1	20 A	SECURITY CONTROL PANEL
Washer Receptacles - W120	20 A	1	71					1500	500	72	1	20 A	VIDEO SURVEILLANCE EQUIPMENT
Dryer - W120	30 A	2	73	2400	0					74	1	20 A	SPARE
--	--	--	75			2400	0			76	1	20 A	SPARE
Washer Receptacles - W121	20 A	1	77					1500	0	78	1	20 A	SPARE
Dryer - W121	30 A	2	79	2400	0					80	1	20 A	SPARE
--	--	--	81			2400	0			82	1	20 A	SPARE
Receptacles - W126	20 A	1	83					720	0	84	1	20 A	SPARE
Receptacles - W126	20 A	1	85	360	0					86	1	20 A	SPARE
Dedicated Receptacle - W126	20 A	1	87			180	0			88	1	20 A	BAS/TC POWER
Receptacles - W126	20 A	1	89					360	208	90	1	20 A	WEST WALL EXTERIOR LIGHTING
Receptacles - W126	20 A	1	91	360	500					92	2	20 A	SOUTH WALL EXTERIOR LIGHTING
Dedicated Receptacle - W126	20 A	1	93			180	500			94	--	--	--
Receptacles - W126	20 A	1	95					360	50	96	1	20 A	OUTSIDE LIGHTING CONTROL PANEL
SPACE	--	1	97	--	--					98	1	--	SPACE
SPACE	--	1	99			--	--			100	1	--	SPACE
SPACE	--	1	101					--	--	102	1	--	SPACE
SPACE	--	1	103	--	--					104	1	--	SPACE
SPACE	--	1	105			--	--			106	1	--	SPACE
ALTERNATE #1	--	1	107					--	--	108	1	--	SPACE
SPACE	--	1	109	--	--					110	1	--	SPACE
SPACE	--	1	111			--	--			112	1	--	SPACE
SPACE	--	1	113					--	--	114	1	--	SPACE
SPACE	--	1	115	--	--					116	1	--	SPACE
SPACE	--	1	117			--	--			118	1	--	SPACE
SPACE	--	1	119					--	--	120	1	--	SPACE
	Phase Load:			**28.77 kW**		**28.66 kW**		**25.21 kW**					
	Phase Amps:			**244.15 A**		**243.21 A**		**210.08 A**					
	Total Load:			**82.63 kW**									
	Total Amps:			**229.37 A**									

Panelboard: 3P-LP1 | **Mounting: SURFACE** | **Location: RADIO/IT O313** | **AIC Rating:**
Volts: 208Y/120V | **Phases: 3** | **Amps: 200 A** | **Feed From: 1DP-LP1**
Wire: 4 | **Mains: MLO**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
RECEPTACLES - 3RD FLOOR CORRIDORS	20 A	1	1	1080	1706					2	2	20 A	CU-03
RECEPTACLES - STORAGE 0309	20 A	1	3			720	1706			4	--	--	--
RECEPTACLES - STORAGE 0309	20 A	1	5					720	180	6	1	20 A	RECEPTACLE ON CU-03
RECEPTACLES - RESTROOMS 0314, 0315	20 A	1	7	360	187					8	1	15 A	EF-12
RECEPTACLES - 0311, 0312, 0316, 0317, 0318	20 A	1	9			1080	800			10	1	20 A	COPY MACHINE - 911 CALL CENTER
RECEPTACLES - ROOM 0308	20 A	1	11					720	0	12	1	20 A	BAS/TC POWER
RECEPTACLES - ROOMS 0305, 0307	20 A	1	13	720	0					14	1	20 A	SPARE
RECEPTACLES - ROOM 0304	20 A	1	15			1080	0			16	1	20 A	SPARE
RECEPTACLES - ROOM 0303	20 A	1	17					900	0	18	1	20 A	SPARE
REFRIGERATOR - 3RD STAFF LOUNGE	20 A	1	19	1000	0					20	1	20 A	SPARE
GARBAGE DISPOSER - 3RD STAFF LOUNGE	20 A	1	21			1200	0			22	1	20 A	SPARE
COUINTERTOP REC'S - 3RD STAFF LOUNGE	20 A	1	23					980	0	24	1	20 A	SPARE
SPACE	--	1	25	--	--					26	1	--	SPACE
SPACE	--	1	27			--	--			28	1	--	SPACE
SPACE	--	1	29					--	--	30	1	--	SPACE
SPACE	--	1	31	--	--					32	1	--	SPACE
SPACE	--	1	33			--	--			34	1	--	SPACE
SPACE	--	1	35					--	--	36	1	--	SPACE
SPACE	--	1	37	--	--					38	1	--	SPACE
SPACE	--	1	39			--	--			40	1	--	SPACE
SPACE	--	1	41					--	--	42	1	--	SPACE
	Phase Load:			**5.05 kW**		**6.59 kW**		**3.50 kW**					
	Phase Amps:			**44.09 A**		**56.87 A**		**29.17 A**					
	Total Load:			**15.14 kW**									
	Total Amps:			**42.02 A**									

Panelboard: RCP-LP1 | **Mounting: SURFACE** | **Location:** | **AIC Rating: 25 kA**
Volts: 208Y/120V | **Phases: 3** | **Amps: 400 A** | **Feed From: KPW XFMR**
Wire: 4 | **Mains: 400 A LSI MCB SE RATED**
ALTERNATE #2A

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
VEHICLE CHARGING STATION	60 A	2	1	4150	12369					2	3	150 A	BAILER
--	--	--	3			4150	12369			4	--	--	--
VEHICLE CHARGING STATION	60 A	2	5					4150	12369	6	--	--	--
--	--	--	7	4150	0					8	1	20 A	SPARE
VEHICLE CHARGING STATION (FUTURE)	60 A	2	9			4150	0			10	1	20 A	SPARE
--	--	--	11					4150	0	12	1	20 A	SPARE
SPACE	--	1	13	--	--					14	1	--	SPACE
SPACE	--	1	15			--	--			16	1	--	SPACE
SPACE	--	1	17					--	--	18	1	--	SPACE
SPACE	--	1	19	--	--					20	1	--	SPACE
SPACE	--	1	21			--	--			22	1	--	SPACE
SPACE	--	1	23					--	--	24	1	--	SPACE
SPACE	--	1	25	--	0					26	3	30 A	SPD
SPACE	--	1	27			--	0			28	--	--	--
SPACE	--	1	29					--	0	30	--	--	--
	Phase Load:			**20.67 kW**		**20.67 kW**		**20.67 kW**					
	Phase Amps:			**172.24 A**		**172.24 A**		**172.24 A**					
	Total Load:			**62.01 kW**									
	Total Amps:			**172.12 A**									

NEMA 3R ENCLOSURE

Panelboard: RP-HP1 | **Mounting: SURFACE** | **Location:** | **AIC Rating: 35 kA**
Volts: 480/277 Wye | **Phases: 3** | **Amps: 250 A** | **Feed From: 1SW-HP1**
Wire: 4 | **Mains: 250 A MCB**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
EX RTU 01	15 A	3	1	3326	2854					2	3	15 A	EX CU 01
--	--	--	3			3326	2854			4	--	--	--
--	--	--	5					3326	2854	6	--	--	--
EX RTU 02	20 A	3	7	3603	2854					8	3	15 A	EX CU 02
--	--	--	9			3603	2854			10	--	--	--
--	--	--	11					3603	2854	12	--	--	--
EX RTU 03	15 A	3	13	2771	2854					14	3	15 A	EX CU 03
--	--	--	15			2771	2854			16	--	--	--
--	--	--	17					2771	2854	18	--	--	--
RTU-01	45 A	3	19	7205	0					20	1	20 A	SPARE
--	--	--	21			7205	0			22	1	20 A	SPARE
--	--	--	23					7205	0	24	1	20 A	SPARE
RTU-02	45 A	3	25	7205	--					26	1	--	SPACE
--	--	--	27			7205	--			28	1	--	SPACE
--	--	--	29					7205	--	30	1	--	SPACE
MAU-02	45 A	3	31	9348	--					32	1	--	SPACE
--	--	--	33			9348	--			34	1	--	SPACE
--	--	--	35					9348	--	36	1	--	SPACE
	Phase Load:			**42.02 kW**		**42.02 kW**		**42.02 kW**					
	Phase Amps:			**151.70 A**		**151.70 A**		**151.70 A**					
	Total Load:			**126.07 kW**									
	Total Amps:			**151.63 A**									

NEMA 3R ENCLOSURE

Panelboard: WBP-LP1 | **Mounting: SURFACE** | **Location: DISPATCH - EVIDENCE...** | **AIC Rating: 10 kA**
Volts: 208Y/120V | **Phases: 3** | **Amps: 250 A** | **Feed From: WB-T-1 XFMR**
Wire: 4 | **Mains: 250 A LSI MCB**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
RECEPTACLES - EXTERIOR	20 A	1	1	720	2000					2	3	25 A	PARTS WASHER
DEDICATED RECEPTACLE - SMALL STORAGE	20 A	1	3			180	2000			4	--	--	--
DEDICATED RECEPTACLE - SMALL STORAGE	20 A	1	5					180	2000	6	--	--	--
RECEPTACLES - SMALL STORAGE	20 A	1	7	720	2000					8	2	25 A	POWER WASHER
RECEPTACLES - LARGE STORAGE	20 A	1	9			1080	2000			10	--	--	--
GARAGE DOOR	20 A	1	11					500	633	12	1	20 A	FUEL PUMP
GARAGE DOOR	20 A	1	13	500	156					14	1	20 A	UH-01
CALCIUM TANK	20 A	1	15			500	156			16	1	20 A	UH-02
CALCIUM TANK LIGHTING	20 A	1	17					500	0	18	1	20 A	BAS/TC POWER
SPARE	20 A	1	19	0	1260					20	1	20 A	LIGHTING
SPARE	20 A	1	21			0	400			22	1	20 A	EXTERIOR LIGHTING
SPARE	20 A	1	23					0	50	24	1	20 A	OUTSIDE LIGHTING CONTROL PANEL
SPARE	20 A	1	25	0	0					26	1	20 A	SPARE
SPARE	20 A	1	27			0	0			28	1	20 A	SPARE
SPARE	20 A	1	29					0	0	30	1	20 A	SPARE
SPACE	--	1	31	--	--					32	1	--	SPACE
SPACE	--	1	33			--	--			34	1	--	SPACE
SPACE	--	1	35					--	--	36	1	--	SPACE
SPACE	--	1	37	--	0					38	3	30 A	SPD
SPACE	--	1	39			--	0			40	--	--	--
SPACE	--	1	41					--	0	42	--	--	--
	Phase Load:			**7.31 kW**		**6.28 kW**		**3.86 kW**					
	Phase Amps:			**63.99 A**		**55.42 A**		**32.19 A**					
	Total Load:			**17.44 kW**									
	Total Amps:			**48.42 A**									

Panelboard: 3P-LU1 | **Mounting: SURFACE** | **Location: RADIO/IT O313** | **AIC Rating:**
Volts: 208Y/120V | **Phases: 3** | **Amps: 100 A** | **Feed From: 1DP-LP1**
Wire: 4 | **Mains: 100 A LSI MCB**
ALTERNATE #1

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
SPACE	--	1	1	--	2496					2	2	30 A	L6-30R IT RACK UPS RECEPTACLE
SPACE	--	1	3			--	2496			4	--	--	--
SPACE	--	1	5					--	2496	6	2	30 A	L6-30R IT RACK UPS RECEPTACLE
SPACE	--	1	7	--	2496					8	--	--	--
SPACE	--	1	9			--	0			10	1	20 A	SPARE
SPACE	--	1	11					--	0	12	1	20 A	SPARE
SPACE	--	1	13	--	0					14	1	20 A	SPARE
SPACE	--	1	15			--	--			16	1	--	SPACE
SPACE	--	1	17					--	--	18	1	--	SPACE
SPACE	--	1	19	--	--					20	1	--	SPACE
SPACE	--	1	21			--	--			22	1	--	SPACE
SPACE	--	1	23					--	--	24	1	--	SPACE
SPACE	--	1	25	--	--					26	1	--	SPACE
SPACE	--	1	27			--	--			28	1	--	SPACE
SPACE	--	1	29					--	--	30	1	--	SPACE
	Phase Load:			**4.99 kW**		**2.50 kW**		**2.50 kW**					
	Phase Amps:			**41.60 A**		**20.80 A**		**20.80 A**					
	Total Load:			**9.98 kW**									
	Total Amps:			**27.71 A**									

Panelboard: 3P-LU2 | **Mounting: SURFACE** | **Location: RADIO/IT O313** | **AIC Rating: 10 kA**
Volts: 208Y/120V | **Phases: 3** | **Amps: 100 A** | **Feed From: 1DP-LP1**
Wire: 4 | **Mains: 100 A LSI MCB**
ALTERNATE #1

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
RECEPTACLES - 911 CALL STATION #1	20 A	1	1	720	2496					2	2	30 A	L6-30R IT RACK UPS RECEPTACLE
RECEPTACLES - 911 CALL STATION #2	20 A	1	3			720	2496			4	--	--	--
RECEPTACLES - 911 CALL STATION #3	20 A	1	5					720	2496	6	2	30 A	L6-30R IT RACK UPS RECEPTACLE
RECEPTACLES - 911 CALL STATION #4	20 A	1	7	720	2496					8	--	--	--
RECEPTACLES - 911 CALL STATION #5	20 A	1	9			720	2496			10	2	30 A	L6-30R IT RACK UPS RECEPTACLE
RECEPTACLES - 911 CALL STATION #6	20 A	1	11					720	2496	12	--	--	--
RECEPTACLES - 911 CALL CENTER	20 A	1	13	1080	0					14	1	20 A	SPARE
RECEPTACLES - 911 CALL CENTER	20 A	1	15			1080	0			16	1	20 A	SPARE
SPACE	--	1	17					--	0	18	1	20 A	SPARE
SPACE	--	1	19	--	0					20	1	20 A	SPARE
SPACE	--	1	21			--	0			22	1	20 A	SPARE
SPACE	--	1	23					--	0	24	1	20 A	SPARE
SPACE	--	1	25	--	0					26	3	30 A	SDP
SPACE	--	1	27			--	0			28	--	--	--
SPACE	--	1	29					--	0	30	--	--	--
	Phase Load:			**7.51 kW**		**7.51 kW**		**6.43 kW**					
	Phase Amps:			**63.98 A**		**63.98 A**		**53.60 A**					
	Total Load:			**21.46 kW**									
	Total Amps:			**59.56 A**									

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EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Revision	Date

ELEC SCHEDULES

Project No
24059

Sheet No.
E602

Date
03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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EQUIPMENT DATA SCHEDULE

MARK	EQUIPMENT	LOCATION	MOTOR OR EQUIPMENT DATA			Voltage	Phase	MOTOR OR EQUIPMENT DATA			DISCONNECT SWITCH AT EQUIPMENT				STARTER				REMOTE CONTROL			REMARKS
			FURN. BY	HP/KW/MCA (1)	Panel			FEEDER	SCC CALC	INST. BY / CONN. BY	TYPE (2)	SIZE	FURN. BY	INST. BY / CONN. BY	TYPE (3)	ACCESSORIES (4)	FURN. BY	INST. BY / CONN. BY	TYPE (5)	FURN. BY	INST. BY / CONN. BY	
CU 01	CONDENSER UNIT	SOUTH WAREHOUSE ROOF	23	16.4 MCA	2P-LP1	208 V	1	2#10, #10G, 1/2"C	600	23/26	F	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 30 AMP FUSIBLE DISCONNECT. FUSE AT 20 AMP WITH FRS-R FUSES.
CU 02	CONDENSER UNIT	OFFICE ROOF	23	16.4 MCA	1P-LP1	208 V	1	2#12, #12G, 1/2"C	1,559	23/26	F	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 30 AMP FUSIBLE DISCONNECT. FUSE AT 20 AMP WITH FRS-R FUSES.
CU 03	CONDENSER UNIT	OFFICE ROOF	23	16.4 MCA	3P-LP1	208 V	1	2#12, #12G, 1/2"C	738	23/26	F	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 30 AMP FUSIBLE DISCONNECT. FUSE AT 20 AMP WITH FRS-R FUSES.
CU 04	CONDENSER UNIT	NORTH WAREHOUSE ROOF	23	33.6 MCA	1P-LP4	208 V	1	2#8, #10G, 3/4"C	760	23/26	F	35 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 60 AMP FUSIBLE DISCONNECT. FUSE AT 35 AMP WITH FRS-R FUSES.
CU 05	CONDENSER UNIT	SOUTH WAREHOUSE ROOF	23	33.6 MCA	1P-LP4	208 V	1	2#8, #10G, 3/4"C	1,625	23/26	F	35 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 60 AMP FUSIBLE DISCONNECT. FUSE AT 35 AMP WITH FRS-R FUSES.
CU 06	CONDENSER UNIT	SOUTH WAREHOUSE ROOF	23	33.6 MCA	2P-LP1	208 V	1	2#8, #10G, 3/4"C	3,372	23/26	F	35 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 60 AMP FUSIBLE DISCONNECT. FUSE AT 35 AMP WITH FRS-R FUSES.
CU 07	CONDENSER UNIT	NORTH WAREHOUSE ROOF	23	16.4 MCA	1P-LP4	208 V	1	2#12, #12G, 1/2"C	665	23/26	F	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 30 AMP FUSIBLE DISCONNECT. FUSE AT 20 AMP WITH FRS-R FUSES.
DOAS 01	OUTSIDE AIR UNIT	NORTH WAREHOUSE ROOF	23	19.8 MCA	2P-HP1	480 V	3	3#10, #10G, 1/2"C	952	23/26	F	25 A	23	23/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 30 AMP FUSIBLE DISCONNECT. FUSE AT 25 AMP WITH FRS-R FUSES.
EF 01	EXHAUST FAN	NORTH WAREHOUSE ROOF	23	1.5 HP	2P-HP1	480 V	3	3#12, #12G, 1/2"C	390	23/26	M	15 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EF 02	EXHAUST FAN	NORTH WAREHOUSE ROOF	23	2.0 HP	2P-HP1	480 V	3	3#12, #12G, 1/2"C	420	23/26	M	15 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EF 03	EXHAUST FAN	NORTH WAREHOUSE ROOF	23	2.0 HP	2P-HP1	480 V	3	3#12, #12G, 1/2"C	462	23/26	M	15 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EF 04	EXHAUST FAN	NORTH WAREHOUSE ROOF	23	2.0 HP	2P-HP1	480 V	3	3#12, #12G, 1/2"C	513	23/26	M	15 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EF 05	EXHAUST FAN	NORTH WAREHOUSE ROOF	23	2.0 HP	2P-HP1	480 V	3	3#12, #12G, 1/2"C	576	23/26	M	15 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EF 06	EXHAUST FAN	NORTH WAREHOUSE ROOF	23	5.0 HP	2P-HP1	480 V	3	3#12, #12G, 1/2"C	546	23/26	M	15 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EF 07	EXHAUST FAN	SOUTH WAREHOUSE ROOF	23	5.0 HP	2P-HP1	480 V	3	3#12, #12G, 1/2"C	815	23/26	M	15 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EF 08	EXHAUST FAN	SOUTH WAREHOUSE ROOF	23	5.0 HP	2P-HP1	480 V	3	3#12, #12G, 1/2"C	1,476	23/26	M	15 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EF 09	EXHAUST FAN	SOUTH WAREHOUSE ROOF	23	0.5 HP	2P-HP1	480 V	3	3#12, #12G, 1/2"C	578	23/26	M	15 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EF 10	EXHAUST FAN	SOUTH WAREHOUSE ROOF	23	0.75 HP	2P-HP1	480 V	3	3#12, #12G, 1/2"C	845	23/26	M	15 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EF 11	EXHAUST FAN	SOUTH WAREHOUSE EXTERIOR WALL	23	1/6 HP	2P-LP1	208 V	1	2#12, #12G, 1/2"C	1,234	23/26	M	20 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EF 12	EXHAUST FAN	OFFICE ROOF	23	1/6 HP	3P-LP1	120 V	1	1#12, #12N, #12G, 1/2"C	1,022	23/26	M	20 A	23	23/26	COMB	-	26	26/26	SS	23	23/23	
EX AHU 01	EXISTING AIR HANDLING UNIT	1ST FLOOR OFFICE MECHANICAL ROOM	-	4.7 MCA	1P-LP2	120 V	1	1#12, #12N, #12G, 1/2"C	2,839	-/26	M	15 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX AHU 02	EXISTING AIR HANDLING UNIT	1ST FLOOR OFFICE MECHANICAL ROOM	-	4.7 MCA	1P-LP2	120 V	1	1#12, #12N, #12G, 1/2"C	2,175	-/26	M	15 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX AHU 03	EXISTING AIR HANDLING UNIT	1ST FLOOR OFFICE MECHANICAL ROOM	-	4.7 MCA	1P-LP2	120 V	1	1#12, #12N, #12G, 1/2"C	1,762	-/26	M	15 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX CU 01	EXISTING CONDENSER UNIT	OFFICE ROOF	-	10.3 MCA	RP-HP1	480 V	3	3#12, #12G, 1/2"C	3,744	-/26	F	20 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX CU 02	EXISTING CONDENSER UNIT	OFFICE ROOF	-	10.3 MCA	RP-HP1	480 V	3	3#12, #12G, 1/2"C	3,538	-/26	F	20 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX CU 03	EXISTING CONDENSER UNIT	OFFICE ROOF	-	10.3 MCA	RP-HP1	480 V	3	3#12, #12G, 1/2"C	3,305	-/26	F	20 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX EF 01	EXISTING EXHAUST FAN	OFFICE ROOF	-	0.25 HP	1P-LP2	120 V	1	1#12, #12N, #12G, 1/2"C	864	-/26	M	20 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX EF 02	EXISTING EXHAUST FAN	ELEVATOR EQUIPMENT ROOM	-	0.08 HP	1P-LP2	120 V	1	1#12, #12N, #12G, 1/2"C	1,662	-/26	M	20 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX EWH 01	EXISTING ELECTRIC WALL HEATER	OFFICE NORTH STAIR	-	14.4 MCA	1P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	1,738	-/26	M	20 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX EWH 02	EXISTING ELECTRIC WALL HEATER	OFFICE VESTIBULE	-	14.4 MCA	1P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	1,587	-/26	M	20 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX EWH 03	EXISTING ELECTRIC WALL HEATER	OFFICE SOUTH STAIR	-	14.4 MCA	1P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	2,084	-/26	M	20 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX EWH 04	EXISTING ELECTRIC WALL HEATER	PUMP HOUSE	-	14.4 MCA	1P-LP3	208 V	1	2#10, #10N, #10G, 1/2"C	1,178	-/26	M	30 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX MAU	EXISTING MAKE-UP AIR UNIT	NORTH WAREHOUSE	-	4.7 MCA	1P-HP1	480 V	3	3#12, #12N, #12G, 1/2"C	990	-/26	F	15 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX RTU 01	EXISTING ROOFTOP UNIT	OFFICE ROOF	-	12 MCA	RP-HP1	480 V	3	3#12, #12G, 1/2"C	2,203	-/26	F	20 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX RTU 02	EXISTING ROOFTOP UNIT	OFFICE ROOF	-	13 MCA	RP-HP1	480 V	3	3#12, #12G, 1/2"C	2,537	-/26	F	20 A	-	-/-	-	-	-	-/-	-	-	-/-	
EX RTU 03	EXISTING ROOFTOP UNIT	OFFICE ROOF	-	10 MCA	RP-HP1	480 V	3	3#12, #12G, 1/2"C	2,195	-/26	F	20 A	-	-/-	-	-	-	-/-	-	-	-/-	
MAU 01	MAKE-UP AIR UNIT	NORTH WAREHOUSE ROOF	23	35.2 MCA	1P-HP1	480 V	3	3#6, #10G, 3/4"C	2,207	23/26	F	45 A	23	23/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 60 AMP FUSIBLE DISCONNECT. FUSE AT 45 AMP WITH FRS-R FUSES.
MAU 02	MAKE-UP AIR UNIT	SOUTH WAREHOUSE ROOF	23	35.2 MCA	RP-HP1	480 V	3	3#6, #10G, 3/4"C	3,382	23/26	F	45 A	23	23/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 60 AMP FUSIBLE DISCONNECT. FUSE AT 45 AMP WITH FRS-R FUSES.
PAC 01	SPLIT AIR-CONDITIONING UNIT	WAREHOUSE OFFICE	23	-						23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	UNIT POWERED FROM CU-01
PAC 02	SPLIT AIR-CONDITIONING UNIT	1ST FLOOR IT ROOM	23	-						23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	UNIT POWERED FROM CU-02
PAC 03	SPLIT AIR-CONDITIONING UNIT	3RD FLOOR IT ROOM	23	-						23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	UNIT POWERED FROM CU-03
PAC 04	SPLIT AIR-CONDITIONING UNIT	ELEC DEPARTMENT STAFF TOUCHDOWN	23	-						23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	UNIT POWERED FROM CU-04
PAC 05A	SPLIT AIR-CONDITIONING UNIT	FLEET DEPARTMENT OFFICE	23	-						23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	UNIT POWERED FROM CU-05
PAC 05B	SPLIT AIR-CONDITIONING UNIT	FLEET DEPARTMENT MECH. SHARED OFFICE	23	-						23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	UNIT POWERED FROM CU-05
PAC 06	SPLIT AIR-CONDITIONING UNIT	ELECTRICAL OFFICE	23	-						23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	UNIT POWERED FROM CU-06
PAC 07	SPLIT AIR-CONDITIONING UNIT	STREET DEPARTMENT STORAGE	23	-						23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	UNIT POWERED FROM CU-07
PAC 08	SPLIT AIR-CONDITIONING UNIT	3RD FLOOR IT ROOM	23	-						23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	UNIT POWERED FROM CU-03
RTU 01	ROOFTOP UNIT	SOUTH WAREHOUSE ROOF	23	29.9 MCA	RP-HP1	480 V	3	3#6, #10G, 3/4"C	1,875	23/26	F	45 A	23	23/26	PWCP	-	23	23/23	SS - FAI	23 - 26	23/23 - 26/26	NEMA 3R, 60 AMP FUSIBLE DISCONNECT. FUSE AT 45 AMP WITH FRS-R FUSES.
RTU 02	ROOFTOP UNIT	OFFICE ROOF	23	29.9 MCA	RP-HP1	480 V	3	3#6, #10G, 3/4"C	3,665	23/26	F	45 A	23	23/26	PWCP	-	23	23/23	SS - FAI	23 - 26	23/23 - 26/26	NEMA 3R, 60 AMP FUSIBLE DISCONNECT. FUSE AT 45 AMP WITH FRS-R FUSES.
UH 01	UNIT HEATER	WASH BAY	23	1.3 FLA	WBP-LP1	120 V	1	1#12, #12N, #12G, 1/2"C	2,005	23/26	M	20 A	23	23/26	PWCP	-	23	23/23	SS	23	23/23	
UH 02	UNIT HEATER	WASH BAY	23	1.3 FLA	WBP-LP1	120 V	1	1#12, #12N, #12G, 1/2"C	665	23/26	M	20 A	23	23/26	PWCP	-	23	23/23	SS	23	23/23	
VAV 01	VARIABLE AIR VOLUME	WAREHOUSE OFFICE	23	4.5 kW	2P-HP1	277 V	1	1#10, #10N, #10G, 1/2"C	1,897	23/26	F	25 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 1, 30 AMP FUSIBLE DISCONNECT. FUSE AT 25 AMP WITH FRS-R FUSES.
VAV 02	VARIABLE AIR VOLUME	WAREHOUSE OFFICE	23	3.0 kW	2P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	1,570	23/26	M	15 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
VAV 03	VARIABLE AIR VOLUME	WAREHOUSE OFFICE	23	4.0 kW	2P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	1,915	23/26	F	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 1, 30 AMP FUSIBLE DISCONNECT. FUSE AT 20 AMP WITH FRS-R FUSES.
VAV 04	VARIABLE AIR VOLUME	WAREHOUSE OFFICE	23	1.0 kW	2P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	1,767	23/26	M	15 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
VAV 05	VARIABLE AIR VOLUME	WAREHOUSE OFFICE	23	4.0 kW	2P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	2,318	23/26	F	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 1, 30 AMP FUSIBLE DISCONNECT. FUSE AT 20 AMP WITH FRS-R FUSES.
VAV 06	VARIABLE AIR VOLUME	WAREHOUSE OFFICE	23	2.0 kW	2P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	2,501	23/26	M	15 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
VAV 07	VARIABLE AIR VOLUME	WAREHOUSE OFFICE	23	1.5 kW	2P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	3,174	23/26	M	15 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
VAV 08	VARIABLE AIR VOLUME	3RD FLOOR OFFICE	23	0.5 kW	1P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	1,414	23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
VAV 09	VARIABLE AIR VOLUME	3RD FLOOR OFFICE	23	7.0 kW	1P-HP1	277 V	1	1#8, #8N, #10G, 3/4"C	2,967	23/26	F	35 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 1, 60 AMP FUSIBLE DISCONNECT. FUSE AT 35 AMP WITH FRS-R FUSES.
VAV 10	VARIABLE AIR VOLUME	3RD FLOOR OFFICE	23	4.0 kW	1P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	2,048	23/26	F	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 1, 30 AMP FUSIBLE DISCONNECT. FUSE AT 20 AMP WITH FRS-R FUSES.
VAV 11	VARIABLE AIR VOLUME	3RD FLOOR OFFICE	23	1.5 kW	1P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	2,379	23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
VAV 12	VARIABLE AIR VOLUME	3RD FLOOR OFFICE	23	4.0 kW	1P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	1,324	23/26	F	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 1, 30 AMP FUSIBLE DISCONNECT. FUSE AT 20 AMP WITH FRS-R FUSES.
VAV 13	VARIABLE AIR VOLUME	3RD FLOOR OFFICE	23	1.5 kW	1P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	1,647	23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
VAV 14	VARIABLE AIR VOLUME	3RD FLOOR OFFICE	23	1.5 kW	1P-HP1	277 V	1	1#12, #12N, #12G, 1/2"C	1,450	23/26	M	20 A	26	26/26	PWCP	-	23	23/23	SS	23	23/23	

GENERAL NOTES:
WHEN ELECTRICALLY DRIVEN EQUIPMENT FURNISHED, MATERIALLY DIFFERS FROM THE CONTEMPLATED DESIGN, THE CONTRACTOR SUPPLYING THE DRIVING EQUIPMENT SHALL PAY FOR AND MAKE NECESSARY ADJUSTMENTS TO THE WIRING, DISCONNECT DEVICES AND BRANCH-CIRCUIT PROTECTION TO ACCOMMODATE THE EQUIPMENT ACTUALLY INSTALLED.
11 = EQUIPMENT CONTRACTOR 22 = PLUMBING CONTRACTOR 23 = HVAC CONTRACTOR 26 = ELECTRICAL CONTRACTOR NF = NON-FUSIBLE SWITCH FS = FUSIBLE SWITCH PWCP = PREWIRED CONTROL PANEL
M = MANUAL MOTOR STARTER EC = ELECTRICAL CONTRACTOR MCA = MINIMUM CIRCUIT AMPACITY STCB = SHUNT TRIP CIRCUIT BREAKER

1. MOTOR OR EQUIPMENT DATA HP/KW MCA:
HORSEPOWER (HP) IS SHOWN UNLESS AMPS (A), MINIMUM CIRCUIT AMPACITY (MCA) OR KILOWATTS (KW) ARE CALLED OUT.

2. DISCONNECT SWITCH TYPE:
NF = NON FUSIBLE F = FUSIBLE TS = TOGGLE SWITCH M = MANUAL STARTER

3. STARTER TYPE:
COMB = COMBINATION MAGNETIC FVNR WITH FUSIBLE DISCONNECT SWITCH PWCP = PREWIRED CONTROL PANEL M = MANUAL MOTOR STARTER 2SP = 2 SPEED FVNR = FULL VOLTAGE NON-REVERSIBLE SWITCH
VFD = VARIABLE FREQUENCY DRIVE

4. ACCESSORIES:
HOA = HAND-OFF AUTO SELECTOR SWITCH N.O. = NORMALLY OPEN AUXILIARY CONTACT N.C. = NORMALLY CLOSED AUXILIARY CONTACT P = PILOT LIGHT (GREEN - RUN)

5. REMOTE CONTROL:
AQ = AQUSTSAT FAI = FIRE ALARM INTERLOCK SS = SEE MECHANICAL SPECIFICATIONS SP = SINGLE POLE SINGLE THROW TOGGLE WITH PILOT LIGHT TS = THERMOSTAT (LINE VOLTAGE) TC = TIME CLOCK O/A = ON/AUTO SWITCH
O/A/O = ON/AUTO/OFF SWITCH O/A/O/L = OUTSIDE AIR/AUTO/OFF WITH LAMPS TO SHOW POSITION

[1] E603 SHEET KEYED NOTES

1 SCC CALS ON THIS SCHEDULE ARE FOR REFERENCE ONLY. REFER TO RESULTS OF SHORT CIRCUIT STUDY.

LOW VOLTAGE RESPONSIBILITY MATRIX: BASE BID

LV System	Rough-In Performed By	Cabling Performed By	Terminations Performed by	Equip. Install Performed by	Monitoring Service	Comments
Power	EC	EC	EC	EC	KPW - Electrical Service Meter	
Telephone						
System (Software, Headsets)	---	---	---	Vendor		Owner direct contract with Vendor.
Backbone Wiring	EC	EC	EC	Vendor	---	VOIP system.
Data (KPW/Owner)						
UPS	EC	EC	EC	EC		5 kW Rack Mounted UPS provided in each KPW IT rack by project.
Fiber Optic Service/Backbone	EC	Segra	Segra	EC		Fiber optic service/backbone cable provided by Vendor (Segra) through project provided conduit to Main IT Room. Terminate on project provided fiber optic termination cabinet in rack.
Fiber Optic Distribution	EC	EC	EC	EC		Fiber optic termination cabinet provided at demarc (24 strand single mode minimum). Fiber optic distribution cables from Main IT Room to Telecommunication Rooms/IT Rooms by project unless noted otherwise.
Cable Management	EC	EC	EC	EC		Existing rack cable management to remain. New vertical and horizontal cable management by project for new racks and patch panels.
Racks	EC	EC	EC	EC/ETR		Existing IT racks to remain. New 19" two post racks to be provided per design.
Switches	EC	Owner	Owner	Owner		Owner provided switches and connections to IT room fiber and patch panels.
Patch Panels	EC	EC	EC	GC/ETR		Existing rack mounted patch panels to remain. One 48 port Cat6 patch panel provided in each rack, new and ETR.
WAPs	EC	EC	Owner	Owner		Owner preferred WAP antenna is Basis of Design.
Audio/Visual						
Projectors/Mounts - Meeting Rooms	ETR	ETR	ETR	ETR		
TV Mounts	ETR	ETR	ETR	ETR		
Security						
Security Cameras	EC	EC	EC	Murphy	Murphy	Owner direct contract with Vendor (Murphy).
Access Control	EC	EC	Murphy	Murphy	Murphy	Owner direct contract with Vendor (Murphy). ACS components provided by Murphy. Rough-in and door control cable to above door and 10 feet excess coiled by project.
Fire Alarm	EC	Tech Electronics	Tech Electronics	Tech Electronics	Tech Electronics	Owner direct contract with Vendor (Tech Electronics).
Lighting Control	EC	EC	EC	EC		Stand alone building controls by project.
Intercom (A/V)	EC	Tech Electronics	Tech Electronics	Tech Electronics	Tech Electronics	Owner direct contract with Vendor (Tech Electronics).
Cable TV Service	EC	EC	EC		Spectrum	

LOW VOLTAGE RESPONSIBILITY MATRIX: ALT #1A - POLICE DISPATCH

LV System	Rough-In Performed By	Cabling Performed By	Terminations Performed by	Equip. Install Performed by	Monitoring Service	Comments
Power	EC	EC	EC	EC		Existing ECC UPS, Batteries, ATS, TVSS, Disconnect and 100A Panelboard Serving ECC Rack Equipment
Voice Logging System (Equature)						
System (Cabinet)	---	---	---	Wireless USA		Owner direct contract with Vendor (Wireless USA)
Back Bone Wiring	EC	EC	EC	Vendor	---	
RADIO Communications						
UPS and Panelboard	EC	EC	EC	EC		Existing RADIO Equipment Room UPS and Panelboard to be relocated and installed in 3rd floor IT Room.
Fiber Optic Service/Backbone	EC	AT&T	AT&T	Wireless USA (Relocated Rack)		Fiber optic service/backbone cable provided by AT&T through project provided conduit to Dispatch 3rd Floor IT Room. Terminate on relocated fiber optic termination cabinet in rack.
Fiber Optic Distribution	Wireless USA	Wireless USA	Wireless USA	Wireless USA (Relocated Rack)		Owner direct contract with Wireless UPS for relocation of rack and installation of RADIO system components within 3rd floor IT Room.
Cable Management	Wireless USA	Wireless USA	Wireless USA	Wireless USA (Relocated Rack)		Owner direct contract with Wireless UPS for relocation of rack and installation of RADIO system components within 3rd floor IT Room.
Racks	Wireless USA	Wireless USA	Wireless USA	Wireless USA (Relocated Rack)		Owner direct contract with Wireless UPS for relocation of rack and installation of RADIO system components within 3rd floor IT Room.
Switches	Wireless USA	Wireless USA	Wireless USA	Wireless USA (Relocated Rack)		Owner direct contract with Wireless UPS for relocation of rack and installation of RADIO system components within 3rd floor IT Room.
Patch Panels	Wireless USA	Wireless USA	Wireless USA	Wireless USA (Relocated Rack)		Owner direct contract with Wireless UPS for relocation of rack and installation of RADIO system components within 3rd floor IT Room.
Data (KPW/Owner)						
UPS	EC	EC	EC	EC		5 kW Rack Mounted UPS provided in each KPW IT rack by project.
Fiber Optic Distribution	ETR	ETR	ETR	ETR		Fiber optic distribution cables from Main IT Room to Telecommunication Rooms/IT Rooms by project unless noted otherwise for Dispatch.
Cable Management	ETR	ETR	ETR	ETR		New vertical and horizontal cable management by project for new racks and patch panels.
Racks	EC	EC	EC	EC		New 19" two post racks to be provided per design.
Switches	EC	Owner	Owner	Owner		Owner provided switches and connections to IT room fiber and patch panels.
Patch Panels	EC	EC	EC	EC		One 48 port Cat6 patch panel provided in each rack for KPW network.
WAPs	EC	EC	Owner	Owner		Owner preferred WAP antenna is Basis of Design.
Audio/Visual						
Projectors/Mounts - Meeting Rooms	EC	EC	EC	EC		
TV Mounts	EC	EC	EC	GC		
Security						
Security Cameras	EC	EC	EC	Murphy	Murphy	Owner direct contract with Vendor (Murphy).
Access Control	EC	EC	Murphy	Murphy	Murphy	Owner direct contract with Vendor (Murphy). ACS components provided by Murphy. Rough-in and door control cable to above door and 10 feet excess coiled by project.
Fire Alarm	EC	Tech Electronics	Tech Electronics	Tech Electronics	Tech Electronics	Owner direct contract with Vendor (Tech Electronics).
Lighting Control	EC	EC	EC	EC		Stand alone building controls by project.

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[Consultants]

Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Revision	Date

EQUIPMENT DATA SCHEDULE

Project No. 24059

Sheet No. E603

Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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E604 SHEET KEYED NOTES

1 COORDINATE DISCONNECTION OF KPW ELECTRICAL PRIMARY, SERVICE TRANSFORMER AND METERING WITH KPW REPRESENTATIVES. PROVIDE DEMOLITION OF UTILITY EQUIPMENT PAD AND SECONDARY FEEDERS.

2 RETAIN EXISTING FIRE PUMP SERVICE CT CABINET AND METER FOR RECONNECTION TO NEW KPW ELECTRICAL SERVICE TRANSFORMER.

3 ELECTRICAL DEMOLITION INCLUDES PARTIAL DEMOLITION OF ELECTRICAL DISTRIBUTION IN THIS FACILITY. SERVICE ENTRANCE AND OUTDATED ELECTRICAL DISTRIBUTION EQUIPMENT ARE TO BE DISCONNECTED AND REMOVED. EQUIPMENT IDENTIFIED AS EXISTING TO REMAIN SHALL NOT BE REMOVED AND SHALL REMAIN IN EXISTING CONDITION UNLESS OTHERWISE IDENTIFIED. CAREFULLY REVIEW EQUIPMENT IDENTIFICATION IN THE FIELD WITH DESIGNATIONS ON THIS DEMOLITION ONE-LINE AND ON THE DEMOLITION PLANS. NOTE THAT EXISTING TO REMAIN EQUIPMENT SHALL BE PROVIDED WITH NEW IDENTIFICATION NAMEPLATES.

4 WASHBAY BUILDING PANELBOARD SHALL BE DISCONNECTED AND REPLACED. THE EXISTING FEEDER FROM THE MAIN BUILDING SHALL REMAIN FOR RECONNECTION TO THE REPLACEMENT PANELBOARD AS PART OF NEW WORK. EXISTING FEEDER WITHIN MAIN BUILDING SHALL BE DISCONNECTED FROM DISTRIBUTION PANELBOARD AND REMAIN FOR SPLICING AND EXTENTION TO NEW POWER SOURCE. REFER TO NEW WORK DRAWINGS FOR DETAILS.

5 EXISTING WAREHOUSE PANELBOARD AND ITS BRANCH CIRCUITS SHALL REMAIN FOR RECONNECTION TO A NEW FEEDER CIRCUIT AS PART OF NEW WORK. DISCONNECT EXISTING FEEDER FROM SOURCE.

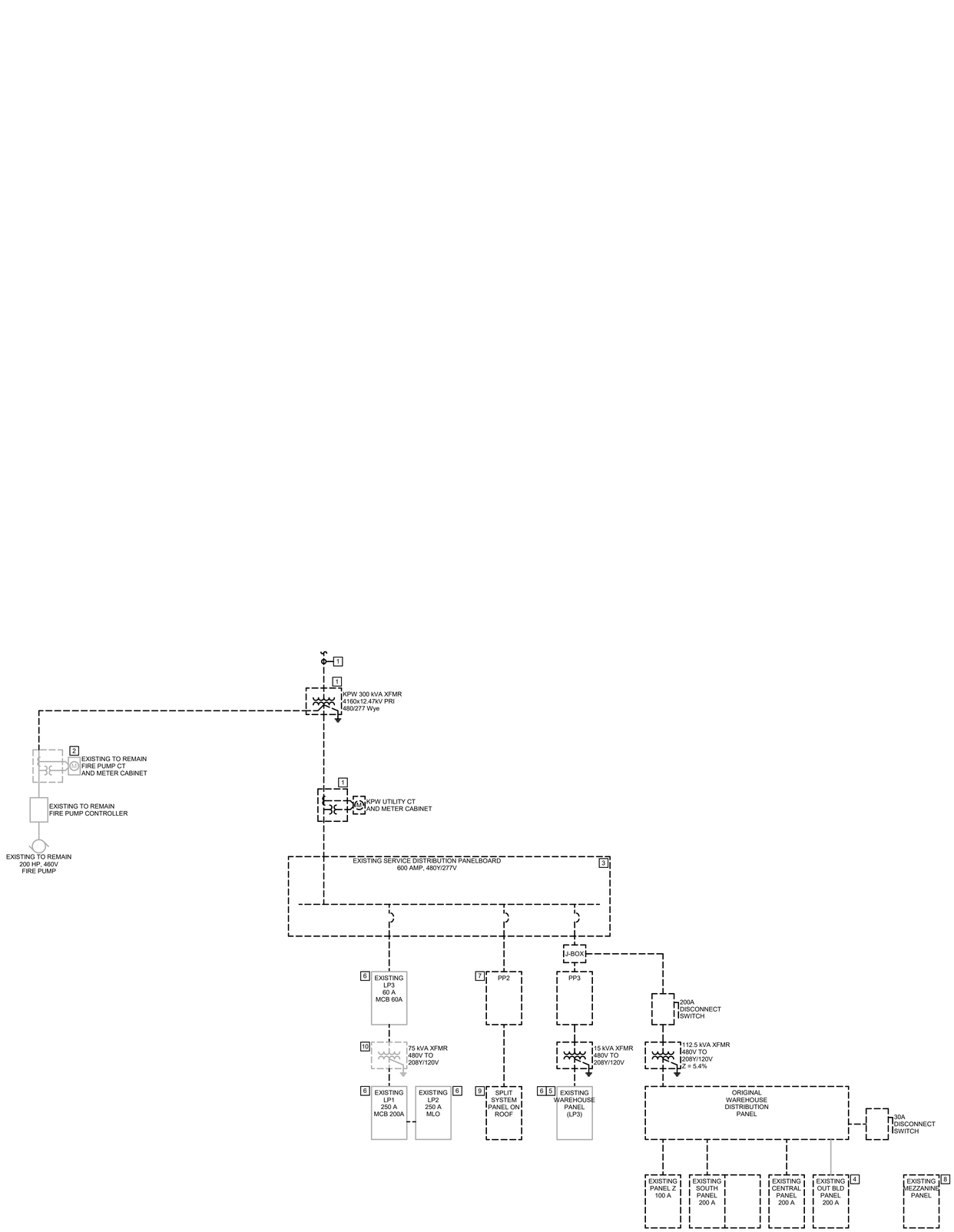
6 REFER TO DRAWING E605 FOR NEW IDENTIFICATION FOR EXISTING PANELBOARDS TO REMAIN. EXISTING IDENTIFICATION LABELS SHALL BE REMOVED AND NEW IDENTIFICATION LABELS PROVIDED TO FOLLOW PROJECT'S NEW IDENTIFICATION STANDARD.

7 DISCONNECT AND REMOVE EXISTING PANELBOARD PP2. RETAIN THREE EXISTING RTU CIRCUITS AT ROOF FOR EXTENTION TO NEW ROOFTOP PANELBOARD.

8 DISCONNECT AND REMOVE EXISTING MEZZANINE PANELBOARD, FEEDER AND BRANCH CIRCUITS. CONFIRM IN FIELD THE LOCATION OF EXISTING POWER SOURCE.

9 DISCONNECT AND REMOVE EXISTING SPLIT SYSTEM PANELBOARD. RETAIN EXISTING CONDENSING UNIT CIRCUITS AT ROOF FOR CONNECTION TO NEW CIRCUIT BREAKERS WITHIN REPLACEMENT PANELBOARD. COORDINATE LOCATION OF CIRCUIT BREAKERS WITHIN PANELBOARD WITH LENGTH OF EXISTING CONDUCTORS FOR RECONNECTION.

10 DISCONNECT AND REMOVE EXISTING 75 KVA TRANSFORMER. RETAIN TRANSFORMER FOR INSTALLATION IN WASH BAY BUILDING IN NEW WORK. REMOVE EXISTING FEEDER TO PANELBOARD LABELED LP1. REMOVE CONNECTION BETWEEN PANELBOARDS LP1 AND LP2 FOR NEW FEEDERS TO THESE TWO PANELBOARDS.



1 ONE-LINE DIAGRAM (DEMOLITION)
3/4" = 1'-0"

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MO Architect License No: A-6661
Expires: 12/31/2026

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EXPIRATION DATE: DECEMBER 31, 2026
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Proposed:
KIRKWOOD PUBLIC WORKS RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

ONE-LINE DIAGRAM (DEMOLITION)

Project No.
24059

Sheet No.
E604

Date
03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER
PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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FEEDER SCHEDULE

MARK	FEEDER
30/3NG	3#10, #10N, #10G, 1/2"C
60/3NG	3#4, #4N, #10G, 1-1/4"C
90/3NG	3#2, #2N, #8G, 1-1/4"C
100/3G	3#2, #2N, #8G, 1-1/4"C
100/3NG	3#1, #1N, #8G, 1-1/2"C
125/3G	3-1/0, 1/0N, #6G, 1-1/2"C
125/3NG	3-1/0, 1/0N, #6G, 1-1/2"C
200/3NG	3-3/0, 3/0N, #6G, 2"C
250/2G	2-250kcmil, #4G, 2-1/2"C
250/2NT	2-250kcmil, 250kcmil N, #2G, 2"C
250/3NG	3-250kcmil, 250kcmil N, #4G, 2-1/2"C
250/3NT	3-250kcmil, 250kcmil N, #2G, 2-1/2"C
350/3G	3#500, #500N, #3G, 3"C
400/3NG	3-600kcmil, 600kcmil N, #2G, 3-1/2"C
400/3NT	3-600kcmil, 600kcmil N, 1/0G, 3-1/2"C
500/3G	(2)3-250kcmil, 250kcmil N, #2G, 2-1/2"C
1000/3NT	(3)3-400kcmil, 400kcmil N, 1/0G, 3"C
1200/3NG	(3)3-600kcmil, 600kcmil N, 3/0G, 3-1/2"C
1200/3NT	(3)3-600kcmil, 600kcmil N, 1/0G, 3-1/2"C
12000/3NT	3#500, #500N, #3G, 3"C

LIGHT FIXTURE SCHEDULE

MARK	MANUFACTURER	APPARENT LOAD	CATALOG	LAMP TYPE	FINISH	MOUNTING	REMARKS
A	Metalux	41 VA	24CZ-LD5-50-UNV-L835-CD1-EQ	LED	White	Recessed	2x4 LED Fixture
B	Metalux	52 VA	24CZ-LD5-60-UNV-L835-CD1-EQ	LED	White	Recessed	2x4 LED Fixture
B2	Metalux	52 VA	24CZ-LD5-60-UNV-L835-CD1-EQ-DF-24W-U	LED	White	Recessed	2x4 LED Fixture
C	Metalux	24 VA	22CZ-LD5-34-UNV-L835-CD1-U-EQCL IP	LED	White	Recessed	2x2 LED Fixture
C2	Metalux	24 VA	22CZ-LD5-34-UNV-L835-CD1-U-DF-22W-U	LED	White	Recessed	2x2 LED Fixture
D	Portfolio	16 VA	LD6C159035D010 EUBC10259035 6LBPS1MW	LED	White	Recessed	6" Recessed LED Downlight
F	Portfolio	16 VA	LD6C159035D010 EUBC10259035 6LBPS1MW LGSKT6IP66	LED	White	Recessed	6" Recessed LED Downlight
G	Halo	15 VA	HCSQ415D010 - HM40525835 - 41SQHWF	LED	White	Recessed	4" Square Recessed LED Downlight
H	Metalux	21 VA	2SWLED-20SL-LW-UNV-L835-CD1-SV PD	LED	White	Wall	2' Commercial LED Striplight
I	Metalux	33 VA	4SWLED-36SL-LW-UNV-L835-CD1-SV PD	LED	White	Wall	4' Commercial LED Striplight
J	Metalux	38 VA	4SNLED-LD5-44SL-LW-UNV-L835-CD 1	LED	White	Surface	4' Commercial LED Striplight
J2	Metalux	38 VA	4SNLED-LD5-44SL-LW-UNV-EL14W-L 835-CD1	LED	White	Surface	4' Commercial LED Striplight
K	Metalux	38 VA	4SNLED-LD5-44SL-LW-UNV-L835-CD 1-AYC-Chain/Set	LED	White	Hung	4' Commercial LED Striplight
L	Metalux	38 VA	4SNLED-LD5-44SL-LW-UNV-L835-CD 1-AYC-Chain/Set WG-SNX/SN-4FT-B	LED	White	Hung	4' Commercial LED Striplight
L2	Metalux	38 VA	4SNLED-LD5-44SL-LW-UNV-EL14W-L 835-CD1-AYC-Chain/Set WG-SNX/SN-4FT-B	LED	White	Hung	4' Commercial LED Striplight
M	Metalux	46 VA	4SNLED-LD5-58SL-LW-UNV-L835-CD 1-AYC-Chain/Set	LED	White	Hung	4' Commercial LED Striplight
N	Kenall	49 VA	MLHA8-48-F-MW-PP-45L35K-DCC-DV	LED	White	Surface	8" LED Linear Surface Mount
NE	Kenall	49 VA	MLHA8-48-F-MW-PP-45L35K-DCC-DV -LEL-EBPLED7W-3H	LED	White	Surface	8" LED Linear Surface Mount. Provide with 2 hour battery backup
P	Kenall	49 VA	MLHA8-48-F-MW-PP-45L35K-DCC-DV -DL	LED	White	Surface	8" LED Linear Surface Mount
Q	Neo-Ray	62 VA	S125DR-S1090D835-GYP4F8-1-UDD-F-W	LED	White	Recessed	Field measure length to inch length. Varies per location.
R	Tech Lighting	25 VA	700BCLYNN25WS-LED930	LED	Satin Nickel	Wall	LED Vanity Light. Mount horizontal above mirrors
S	Metalux	70 VA	OHB-12HE-W-UNV-L835-CD-MS	LED	White	Hung	2' High Bay
T	Metalux	167 VA	OHB-30HE-W-UNV-L835-CD-MS	LED	White	Hung	2' High Bay
T2	Metalux	167 VA	OHB-30HE-W-UNV-L835-CD	LED	White	Hung	2' High Bay
V	Metalux	167 VA	OHB-36HE-W-UNV-L835-CD	LED	White	Hung	2' High Bay
W	Fail-Safe	47 VA	HDF-4-LD4-2LO-35-UNV-EDC1-A1212 5-CMB	LED	White	Hung	4' Commercial Hose Down LED Striplight
X	Sure-Lites	1 VA	CX7XR	LED	Aluminum	Varies	LED Exit Sign. Faces as per drawings
XE	Sure-Lites	1 VA	CX7XR	LED	Aluminum	Varies	LED Exit Sign. Faces as per drawings. Provide with battery back-up.
Z	McGraw Edison	34 VA	IST-SA1C-730-U-T4FT-BK	LED	Black	Wall	

E605 SHEET KEYED NOTES

1 UTILITY TRANSFORMER PROVIDED BY KPW. COORDINATE PROVISION OF EQUIPMENT PAD AND ITS ORIENTATION. CT CABINET, METERING, GROUNDING, ETC. WITH KPW AND KPW ELECTRICAL SERVICE MANUAL.

2 1200A SERVICE ENTRANCE RATED ATS. 3Ø, 4W, WITH MAINTENANCE BY-PASS AND 1200A LSI 4-POLE INPUT CIRCUIT BREAKER ON NORMAL SIDE. MINIMUM 50kA SHORT CIRCUIT RATING.

3 15 kVA CENTRAL LIGHTING INVERTER, 3-PHASE, 480Y/277V. BASIS OF DESIGN MYERS PART NUMBER 2-D-6-S-BF3001-CTZ-BIP.

4 100A, 480V, 3Ø, 4W ENCLOSED CIRCUIT BREAKER ON PRIMARY OF XFMR.

5 INSTALL EXISTING 75 KVA TRANSFORMER REMOVED FROM MAIN BUILDING, FORMERLY SERVING PANELBOARDS LP1 AND LP2.

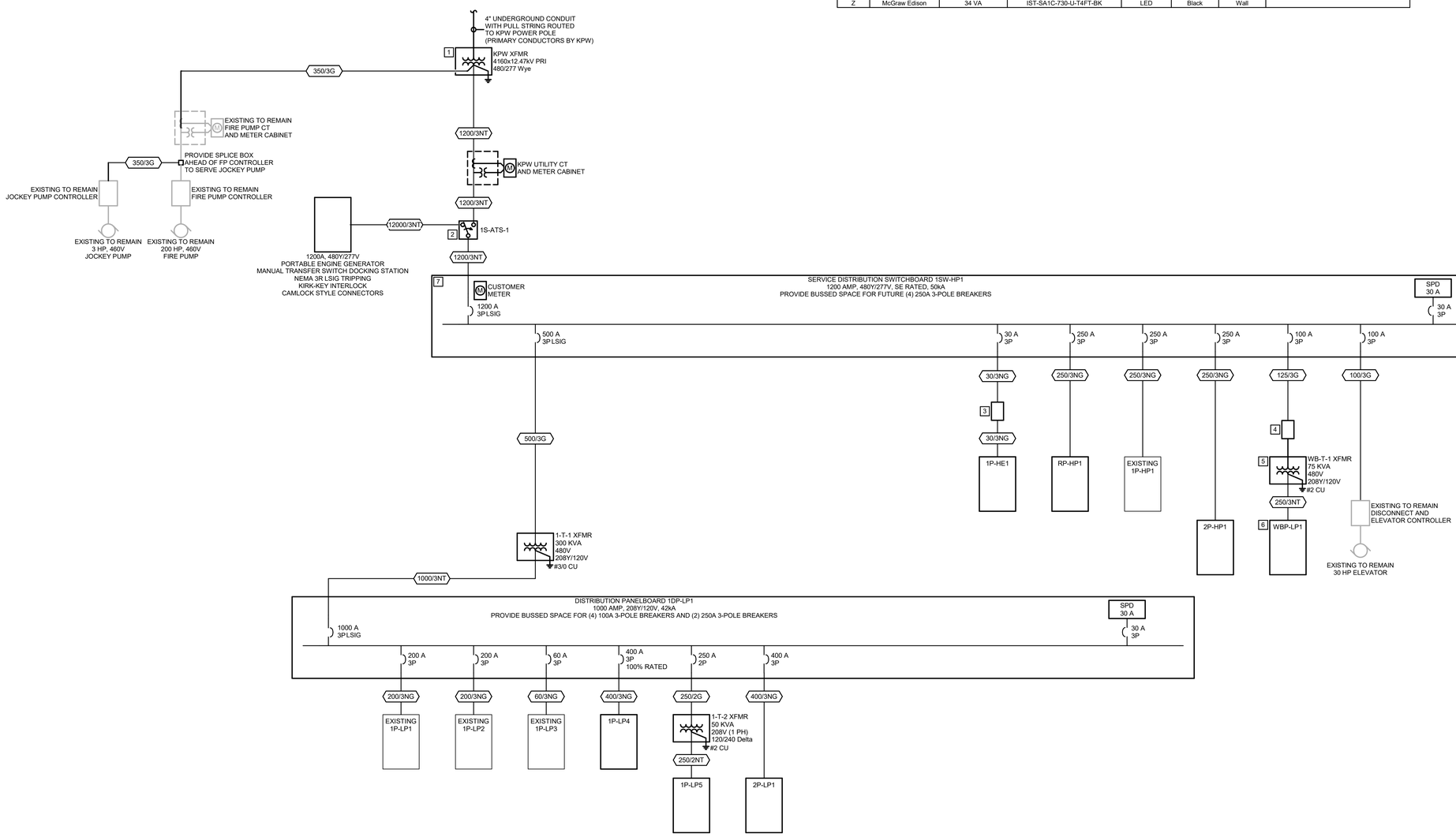
6 PROVIDE COPPER TERMINAL BLOCKS FOR EACH POWER, NEUTRAL OR GROUNDING CONDUCTOR FOR EACH CIRCUIT. LABEL EACH SET OF TERMINAL BLOCKS WITH THE LOAD AND LINE SIDE AS WELL AS IDENTIFICATION OF PHASE, NEUTRAL AND GROUND. PROVIDE CONDUITS AND CONDUCTORS TO EXTEND EACH CIRCUIT TO CIRCUIT BREAKERS IN 1DP-HP1. PROVIDE NEW HINGED PANELBOARD ENCLOSURE COVER. PROVIDE NEW IDENTIFICATION LABEL "SPLICE BOX FOR ELEVATOR, THREE ROOF TOP UNITS, ROOFTOP PANELBOARD RP-HP1, AND PARKING LOT LIGHTING.

7 PROVIDE GROUNDING ELECTRODE SYSTEM. INCLUDING MINIMUM OF THREE GROUND RODS.

8 COORDINATE LOCATION OF SERVICE CONNECTION, CT CABINET, METERING WITH KPW AND KPW ELECTRICAL SERVICE MANUAL.

9 TWO SETS OF 3 #250, 1 #250N, 1 #2G IN 3" CONDUIT.

10 UTILITY PRIMARY OVERHEAD ELECTRICAL SERVICE WITH POLE MOUNTED TRANSFORMER.



1 ONE-LINE DIAGRAM (BASE BID)
3/4" = 1'-0"

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
KIRKWOOD PUBLIC WORKS
RENOVATION
545 LEFFINGWELL AVE.

No.	Date	Revision

ONE-LINE DIAGRAM (BASE BID)

Project No. 24059

Sheet No. E605

Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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FEEDER SCHEDULE

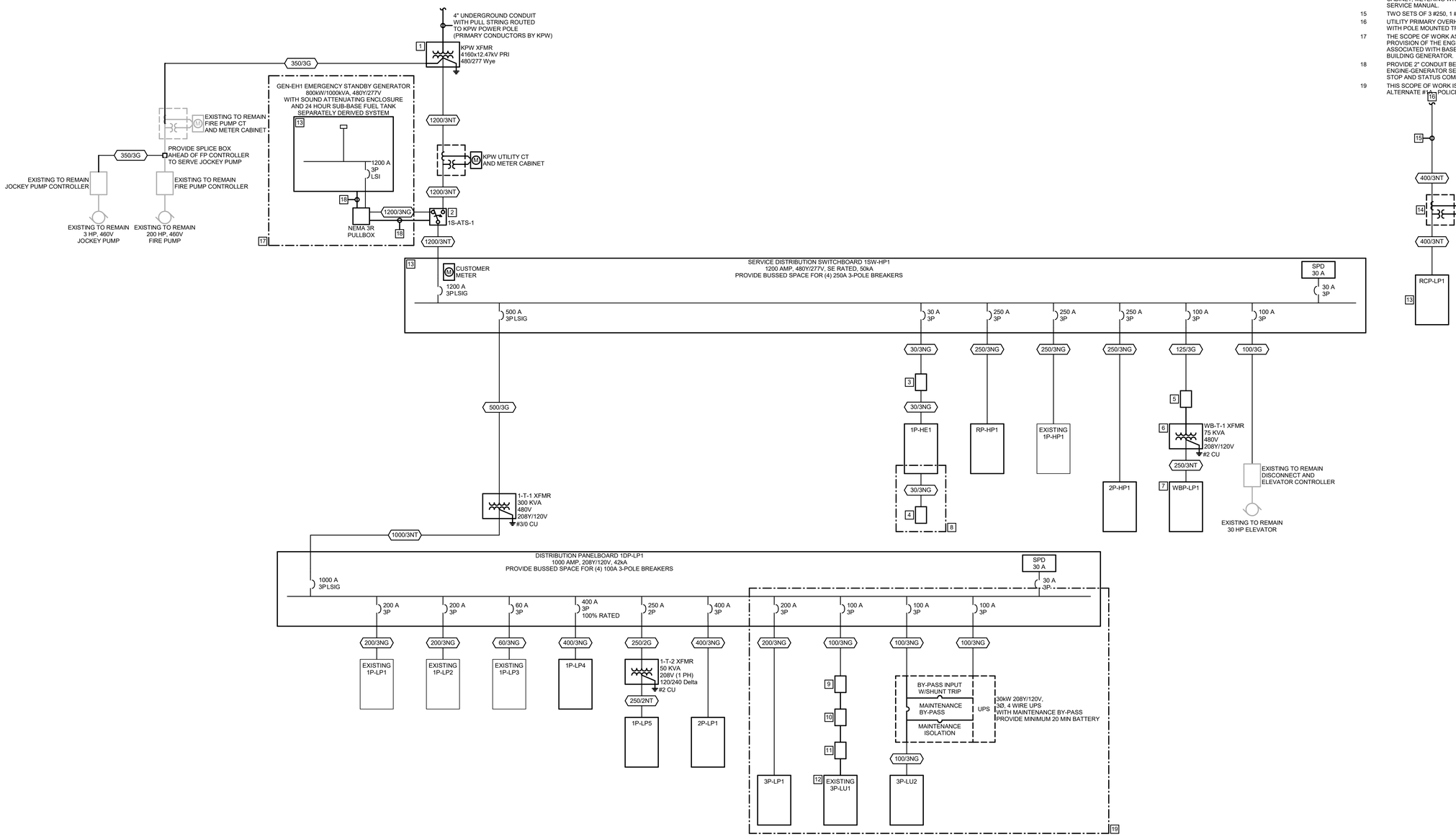
MARK	FEEDER
30/3NG	3#10, #10N, #10G, 1/2"C
60/3NG	3#4, #4N, #10G, 1-1/4"C
90/3NG	3#2, #2N, #8G, 1-1/4"C
100/3G	3#2, #2N, #8G, 1-1/4"C
100/3NG	3#1, #1N, #8G, 1-1/2"C
125/3G	3-1/0, 1/0N, #6G, 1-1/2"C
125/3NG	3-1/0, 1/0N, #6G, 1-1/2"C
200/3NG	3-3/0, 3/0N, #6G, 2"C
250/2G	2-250kcmil, #4G, 2-1/2"C
250/2NT	2-250kcmil, 250kcmil N, #2G, 2"C
250/3NG	3-250kcmil, 250kcmil N, #4G, 2-1/2"C
250/3NT	3-250kcmil, 250kcmil N, #2G, 2-1/2"C
350/3G	3#500, #500N, #3G, 3"C
400/3NG	3-600kcmil, 600kcmil N, #2G, 3-1/2"C
400/3NT	3-600kcmil, 600kcmil N, 1/0G, 3-1/2"C
500/3G	(2)3-250kcmil, 250kcmil N, #2G, 2-1/2"C
1000/3NT	(3)3-400kcmil, 400kcmil N, 1/0G, 3"C
1200/3NG	(3)3-600kcmil, 600kcmil N, 3/0G, 3-1/2"C
1200/3NT	(3)3-600kcmil, 600kcmil N, 1/0G, 3-1/2"C
12000/3NT	3#500, #500N, #3G, 3"C

GENERAL NOTES (THIS SHEET ONLY):

1. THIS ONE-LINE DIAGRAM SHOWS THE BASE BID AND BID ALTERNATE #1A - POLICE DISPATCH. ALTERNATE #1B - WHOLE BUILDING GENERATOR AND ALTERNATE #6 - STORM SHELTER SCOPE OF WORK. REFER TO THE BOXED WORK INDICATED WITH KEYED NOTE 8 FOR SPECIFIC SCOPE OF WORK ASSOCIATED WITH BID ALTERNATE #6 - STORM SHELTER. REFER TO KEYED NOTES 16 AND 17 FOR THE SCOPE OF WORK ASSOCIATED WITH BID ALTERNATE #1B - WHOLE BUILDING GENERATOR. REFER TO KEYED NOTE 18 FOR THE SCOPE OF WORK ASSOCIATED WITH BID ALTERNATE #1A - POLICE DISPATCH.

[#] E606 SHEET KEYED NOTES

1. UTILITY TRANSFORMER PROVIDED BY KPW. COORDINATE PROVISION OF EQUIPMENT PAD AND ITS ORIENTATION, CT CABINET, METERING, GROUNDING, ETC. WITH KPW AND KPW ELECTRICAL SERVICE MANUAL.
2. 1200A SERVICE ENTRANCE RATED ATS. 3Ø, 4W, WITH MAINTENANCE BY-PASS AND 1200A LSI 4-POLE INPUT CIRCUIT BREAKER ON NORMAL SIDE. MINIMUM 50kA SHORT CIRCUIT RATING.
3. 15 kVA CENTRAL LIGHTING INVERTER, 3-PHASE, 480Y/277V. BASIS OF DESIGN MYERS PART NUMBER 2-D-6-S-BF3001-CTZ-BIP.
4. 3 kVA CENTRAL LIGHTING INVERTER, 3-PHASE, 480Y/277V. BASIS OF DESIGN MYERS PART NUMBER 6-IE-3-S-R120-BD2004-CSZ-BIP.
5. 100A, 480V, 3Ø, 4W ENCLOSED CIRCUIT BREAKER ON PRIMARY OF XFMR.
6. INSTALL EXISTING 75 KVA TRANSFORMER REMOVED FROM MAIN BUILDING, FORMERLY SERVING PANELBOARDS LP1 AND LP2.
7. PROVIDE COPPER TERMINAL BLOCKS FOR EACH POWER, NEUTRAL OR GROUNDING CONDUCTOR FOR EACH CIRCUIT. LABEL EACH SET OF TERMINAL BLOCKS WITH THE LOAD AND LINE SIDE AS WELL AS IDENTIFICATION OF PHASE, NEUTRAL AND GROUND. PROVIDE CONDUITS AND CONDUCTORS TO EXTEND EACH CIRCUIT TO CIRCUIT BREAKERS IN 1DP-HP1. PROVIDE NEW HINGED PANELBOARD ENCLOSURE COVER. PROVIDE NEW IDENTIFICATION LABEL "SPLICE BOX FOR ELEVATOR, THREE ROOF TOP UNITS, ROOFTOP PANELBOARD RP-HP1, AND PARKING LOT LIGHTING.
8. THIS SCOPE OF WORK IS ASSOCIATED WITH BID ALTERNATE #8 - STORM SHELTER.
9. RELOCATED DISCONNECT SWITCH.
10. RELOCATED APC MAINTENANCE BYPASS PANEL.
11. RELOCATED TVSS PANEL LOCATED UNDER PANEL 3P-LU2.
12. RELOCATED 208Y/120V, 100A UPS PANELBOARD.
13. PROVIDE GROUNDING ELECTRODE SYSTEM, INCLUDING MINIMUM OF THREE GROUND RODS.
14. COORDINATE LOCATION OF SERVICE CONNECTION, CT CABINET, METERING WITH KPW AND KPW ELECTRICAL SERVICE MANUAL.
15. TWO SETS OF 3 #250, 1 #250N, 1 #2G IN 3" CONDUIT.
16. UTILITY PRIMARY OVERHEAD ELECTRICAL SERVICE WITH POLE MOUNTED TRANSFORMER.
17. THE SCOPE OF WORK ASSOCIATED WITH THE PROVISION OF THE ENGINE-GENERATOR SET IS ASSOCIATED WITH BASE BID ALTERNATE #1B - WHOLE BUILDING GENERATOR.
18. PROVIDE 2" CONDUIT BETWEEN ATS AND ENGINE-GENERATOR SET WITH GENERATOR START AND STOP AND STATUS COMMUNICATION CABLES.
19. THIS SCOPE OF WORK IS ASSOCIATED WITH BID ALTERNATE #1A - POLICE DISPATCH.



1 ONE-LINE DIAGRAM (ALTERNATES)

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KIRKWOOD PUBLIC WORKS RENOVATION
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No.	Date	Revision

ELEC SCHEDULES AND ONE-LINE (ALT)

Project No. 24059

Sheet No. E606

Date 03/27/2026

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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