



ORCHARD VIEW SCHOOL DISTRICT
EARLY ELEMENTARY KITCHEN AND
SERVING RENOVATIONS
2820 MACARTHUR RD
MUSKEGON, MI 49442

1/31/2023

PROJECT CONTACT LIST

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DATE	DESCRIPTION
1/24/2023	OWNER REVIEW
1/31/2023	BIDS

PROJECT LOCATION MAP



1/31/2023 9:56:30 AM

DRAWING NUMBER

G000

BUILDING CODE SUMMARY

PROJECT INFORMATION:			
PROJECT NAME:	EARLY ELEMENTARY KITCHEN AND SERVING RENOVATIONS		
PROJECT NUMBER:	22013309A		
PREPARED BY:	E POST	CHECKED BY:	D HOLTROP
DATE:	12/14/2022	DATE:	1/25/2023

OCCUPANCY CLASSIFICATION AND MIXED OCCUPANCIES:		(CHAPTERS 3 & 5)
<input type="checkbox"/> SINGLE	<input type="checkbox"/> ACCESSORY - GROUP	% OF FLOOR AREA
<input checked="" type="checkbox"/> MIXED OCCUPANCY	<input type="checkbox"/> SEPARATED	<input checked="" type="checkbox"/> NON-SEPARATED
IF SEPARATED, FIRE RESISTANCE RATING OF FIRE BARRIER: (TABLE 508.4) _____ HR		
OCCUPANCY CLASSIFICATION(S): E, A-2		
USES: E - EDUCATIONAL, A-2 ASSEMBLY		

AUTOMATIC SPRINKLER SYSTEM PROVIDED THROUGHOUT BUILDING:	
<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
PARTIAL/LIMITED-AREA SPRINKLER SYSTEM:	
<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
NFPA STANDARD:	<input type="checkbox"/> 13 <input type="checkbox"/> 13R ALT. FIRE PROTECTION SYSTEM:

CONSTRUCTION SAFETY COMPLIANCE WITH:	
<input checked="" type="checkbox"/> CHAPTER 33 SAFE GUARDS DURING CONSTRUCTION OF THE IBC	
<input checked="" type="checkbox"/> CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION OF THE IFC	

REHABILITATION OF EXISTING STRUCTURES:	
PER THE 2015 MICHIGAN RAHABILITATION CODE FOR EXISTING BUILDINGS (2015 EIBC)	
<input type="checkbox"/> REPAIRS (CHAPTER 6)	
<input type="checkbox"/> ALTERATIONS - LEVEL 1 (CHAPTER 7)	
<input checked="" type="checkbox"/> ALTERATIONS - LEVEL 2 (CHAPTER 8)	
<input type="checkbox"/> ALTERATIONS - LEVEL 3 (CHAPTER 9)	
<input type="checkbox"/> CHANGE OF OCCUPANCY (CHAPTER 10)	
FORMER OCCUPANCY CLASSIFICATION(S): _____	
NEW OCCUPANCY CLASSIFICATION(S): _____	
PARTIAL CHANGE OF OCCUPANCY: <input type="checkbox"/> YES <input type="checkbox"/> NO	
IF YES: <input type="checkbox"/> SEPARATED <input type="checkbox"/> NOT SEPARATED	
<input type="checkbox"/> ADDITIONS (CHAPTER 11)	
SEPARATED ADDITION: <input type="checkbox"/> YES <input type="checkbox"/> NO	
IF YES, FIRE RESISTENCE RATING: _____ HR	
<input type="checkbox"/> HISTORIC BUILDING (CHAPTER 12)	
<input type="checkbox"/> RELOCATED BUILDING (CHAPTER 13)	
ACCESSIBILITY UPGRADES, COMPLY WITH SECTION 410 AND ADDENDA	

INTERIOR FINISH:		(CHAPTER 8)
WALL AND CEILING		
OCCUPANCY: A-2		
FINISH CLASS	LOCATION	
<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> EXITS	<input checked="" type="checkbox"/> CORRIDORS/ EXIT ACCESS
<input checked="" type="checkbox"/> B	<input type="checkbox"/> EXITS	<input type="checkbox"/> CORRIDORS/ EXIT ACCESS
<input type="checkbox"/> C	<input type="checkbox"/> EXITS	<input type="checkbox"/> CORRIDORS/ EXIT ACCESS
<input type="checkbox"/> ROOMS/ SPACES	<input checked="" type="checkbox"/> ROOMS/ SPACES	<input type="checkbox"/> ROOMS/ SPACES
FLOORING		
FINISH CLASS	OCCUPANCIES	
<input type="checkbox"/> I	<input type="checkbox"/> ALL	<input type="checkbox"/> GROUPS:
<input checked="" type="checkbox"/> II	<input checked="" type="checkbox"/> ALL	<input type="checkbox"/> GROUPS:
<input type="checkbox"/> DOC FF-1	<input type="checkbox"/> ALL	<input type="checkbox"/> GROUPS:

PROJECT SCOPE

INTERIOR RENOVATIONS TO EXISTING EARLY ELEMENTARY SCHOOL KITCHEN, SERVING, AND CAFETERIA. THE EXISTING EXTERIOR FREEZER WILL BE RELOCATED INSIDE TO THE NEW FOOD PREP AREA. THE SERVING AREA WILL BE MOVED INTO THE CAFETERIA, WHERE A NEW CEILING/WALL METAL TRELLIS WILL BE PROVIDED OVER THE EQUIPMENT AND TO CREATE A SEPERATION BETWEEN THE SERVING AND EATING AREAS.

APPLICABLE BUILDING CODES

BUILDING CODE:	2015 MICHIGAN BUILDING CODE
	2015 MICHIGAN REHABILITATION CODE
BUILDING CODE (MI FIRE SAFETY STATE RULES):	NFPA 11-2012
MECHANICAL CODE:	2015 MICHIGAN MECHANICAL CODE
ELECTRICAL CODE:	2015 NATIONAL ELECTRICAL CODE & MICHIGAN PART 8 ELECTRICAL RULES
PLUMBING CODE:	2018 MICHIGAN PLUMBING CODE
ENERGY CODE:	2015 MICHIGAN ENERGY CODE
ACCESSIBILITY:	BARRIER FREE - ICC / ANSI-117

BUILDING DATA

TOTAL BUILDING AREA:	78800 SQ FT
TOTAL RENOVATION AREA:	1228 SQ FT
CONSTRUCTION TYPE =	II-B NON-COMBUSTIBLE NON-SPRINKLERED LEVEL 2 (CHAPTER 8)
ALTERATIONS:	NO CHANGE IN OCCUPANCY

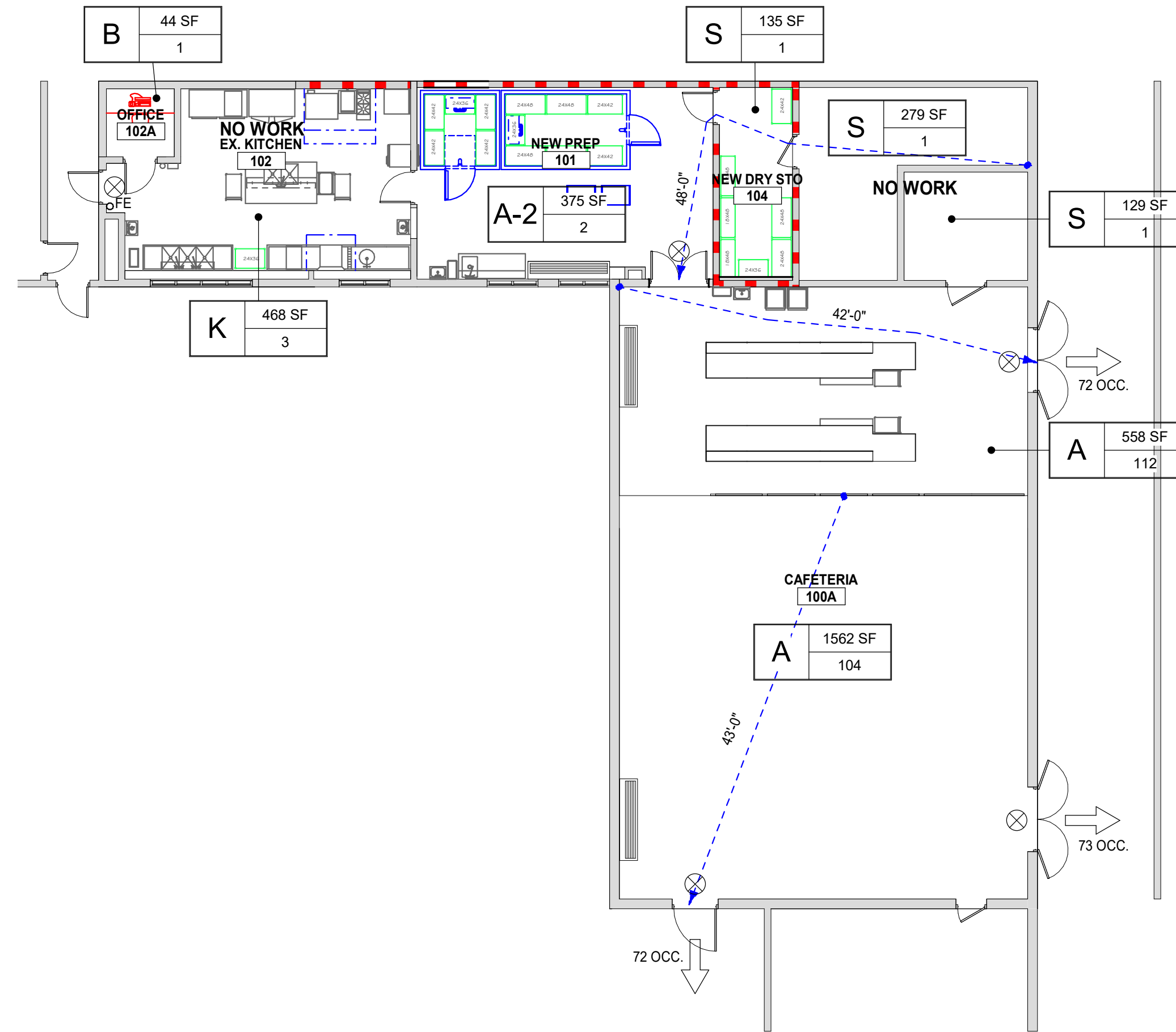
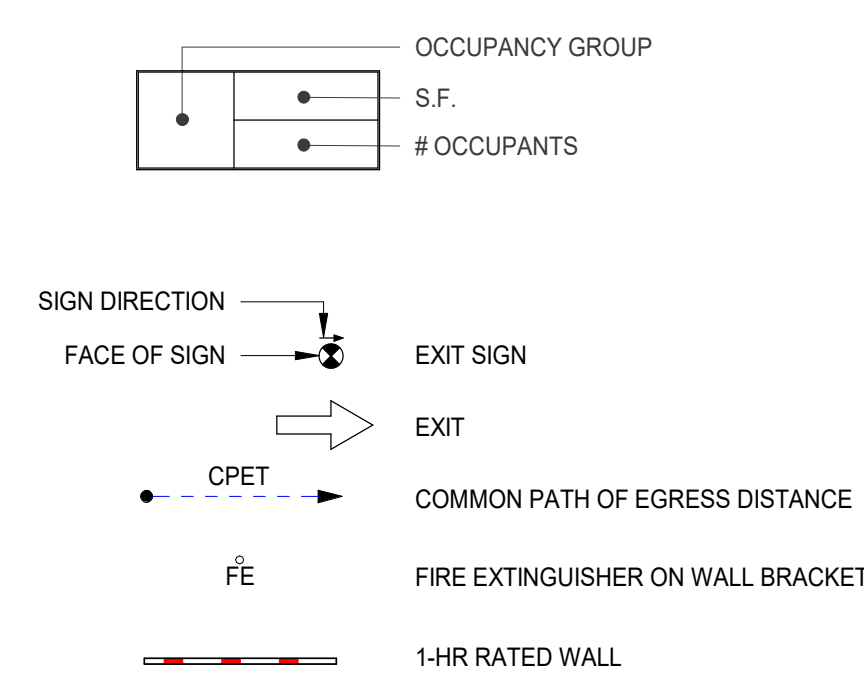
USE AND OCCUPANCY

BUILDING IS CLASSIFIED AS "E" EDUCATIONAL
AREAS OF RENOVATION ARE CLASSIFIED AS "A-2" ASSEMBLY
MBC SECTION 303.3

GENERAL NOTES

1. APPLICABLE CODES:
 - A. WORK SHALL CONFORM TO FEDERAL, STATE AND LOCAL CODES AS INTERPRETED BY THE AUTHORITY HAVING JURISDICTION.
2. COMPLIANCE:
 - A. PROVIDE FIRE EXTINGUISHERS IN CONFORMANCE WITH THE FIRE CODE SECTION 906 AND COORDINATE WITH FIRE MARSHAL PRIOR TO INSTALLATION. DO NOT INSTALL FIRE EXTINGUISHERS UNTIL LOCATIONS HAVE BEEN REVIEWED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.
 - B. OBTAIN ALL REQUIRED PERMITS AND PAYMENT OF PERMIT AND APPLICATION FEES FOR THE WORK.
3. CERTIFICATIONS:
 - A. THE ARCHITECT'S CERTIFICATION IS ONLY FOR THE WORK SHOWN TO BE DONE. IT DOES NOT CONSTITUTE APPROVAL OF PRE-EXISTING CONDITIONS OR REVIEW OF THOSE CONDITIONS FOR CODE COMPLIANCE.
 - B. THE ARCHITECT'S CERTIFICATION IS FOR COMPLIANCE WITH THE BUILDING CODE OF MICHIGAN AND ITS VARIOUS REFERENCE STANDARDS, FOR PURPOSES OF OBTAINING A BUILDING PERMIT THROUGH THE AUTHORITY HAVING JURISDICTION AND TO CONVEY CONSTRUCTION REQUIREMENTS FOR THE PROJECT. CERTIFICATION DOES NOT GUARANTEE COMPLIANCE WITH LOCAL CODES THAT MAY APPLY.

LEGEND



1 CODE COMPLIANCE DIAGRAM - FIRST FLOOR
SCALE: 3/32" = 1'-0"



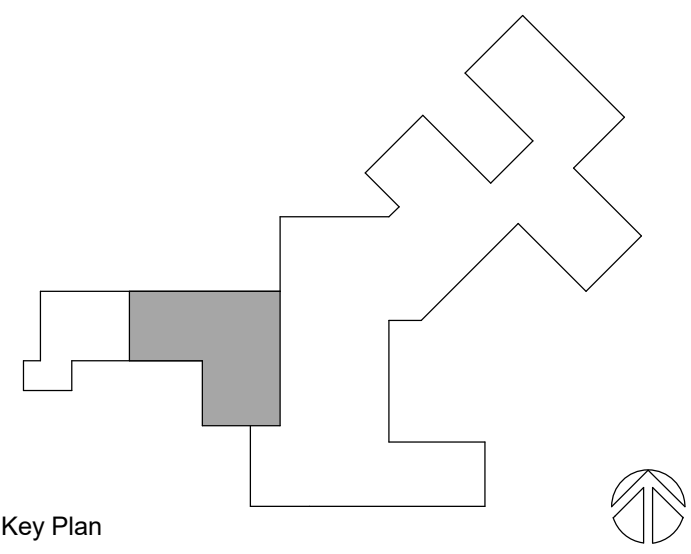
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Date Revised	Description
1-24-2023	OWNER REVIEW
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Project Manager	Discipline Lead
D HOLTROP	B HUYLER
Designer	Reviewer
E POST	R KEUNEKE
Date Issued	Project Number
1/31/2023	22013309A

Sheet Name

CODE COMPLIANCE & LIFE SAFETY PLANS

Drawing Number

G001

STRUCTURAL GENERAL NOTES**FOUNDATION:**

- A GEOTECHNICAL REPORT HAS NOT BEEN PROVIDED FOR THIS SITE. THE CONTRACTOR, THROUGH THE CLIENT, IS RESPONSIBLE FOR OBTAINING A GEOTECHNICAL REPORT TO CONFIRM THE PRESUMPTIVE LOAD BEARING VALUES (BC TABLE 1806-2) UNLESS WAIVED BY THE BUILDING OFFICIAL. BERGMANN ASSOCIATES ASSUMES NO LIABILITY FOR THESE DESIGN ASSUMPTIONS OR FOR ANY FOUNDATION REDESIGN NECESSITATED BY DIFFERING SOIL CONDITIONS.
- PLACE BACKFILL AND FILL MATERIALS IN HORIZONTAL LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 6" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
- BACKFILL AND FILL MATERIALS SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY ACCORDING TO THE MODIFIED PROCTOR TEST (ASTM D-1557).

CAST-IN-PLACE CONCRETE:

- CAST-IN-PLACE CONCRETE WORK SHALL CONFORM TO THE ACI-318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE."
- ALL CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED AND PLACED IN THE PRESENCE OF A REPRESENTATIVE OF AN APPROVED TESTING AGENCY.
- PRIOR TO PLACEMENT OF CONCRETE, A FIELD REPRESENTATIVE SHALL BE INFORMED A MINIMUM OF 24 HOURS IN ADVANCE OF PLACEMENT, TO ALLOW FOR INSPECTION OF REINFORCING STEEL AND PREPARATION FOR TAKING CONCRETE SAMPLES. INDEPENDENT TESTING IS REQUIRED FOR ALL CONCRETE PLACEMENTS. CONCRETE TO BE SAMPLE IN ACCORDANCE WITH ACI 318 AND APPLICABLE ASTM TESTING PROCEDURES. QUANTITY OF SPECIMENS, FREQUENCY OF SAMPLING AND CYLINDER COMPRESSION TESTING SCHEDULE TO BE DETERMINED BY ACI 318, OWNERS REQUIREMENTS, AND /OR LOCAL JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
- UNLESS NOTED OTHERWISE, STRUCTURAL CONCRETE SHALL HAVE THE FOLLOWING STRENGTH, AND DURABILITY REQUIREMENTS:

TYPE	EXPOSURE CLASS			AIR CONTENT	MIN 28 DAY COMP STRENGTH
	F	S	W		
FOOTINGS/PIERS	F0	S1	W0	C1	1.0% - 3.0%

- UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE (144 PCF +/-) WITH ALL CEMENT CONFORMING TO ASTM C150, TYPE I / II, MAXIMUM AGGREGATE SIZE SHALL BE 1-1/2" FOR FOOTINGS.
- CONTRACTOR SHALL SUBMIT A CONCRETE MIX DESIGN IN ACCORDANCE WITH ACI 318 FOR EACH TYPE OF CONCRETE APPLICABLE TO THE PROJECT PRIOR TO THE PLACEMENT OF CONCRETE FOR APPROVAL. THE ADDITION OF WATER AT THE PLANT OR IN THE FIELD GREATER THAN THE SPECIFIED WATER CONTENT IS PROHIBITED. ADMIXTURE PRODUCT DATA SHALL BE SUBMITTED FOR APPROVAL.
- THE USE OF HIGH EARLY STRENGTH CONCRETE MAY BE REQUESTED BY THE CONTRACTOR. MIX DESIGN DATA USING FIELD CURED SPECIMENS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.
- ALL FORMWORK TO BE CONSTRUCTED IN ACCORDANCE WITH ACI-347 "GUIDE TO FORMWORK FOR CONCRETE" WITHIN TOLERANCE LIMITS DEFINED IN ACI-117 "SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS."
- CONCRETE FOR FOOTINGS IS TO BE POURED ON THE SAME DAY AS THE SUBGRADE PREPARATION IS APPROVED BY THE BUILDING INSPECTION AGENCY / GEOTECHNICAL ENGINEER.
- CONCRETE SHALL NOT BE POURED OVER STANDING WATER, SATURATED OR FROZEN SOILS.
- ANY CUTTING/CORING OF CONCRETE IS PROHIBITED UNLESS APPROVED BY THE EOR.
- THE CONTRACTOR SHALL PROTECT THE CONCRETE FROM THE FOLLOWING IMMEDIATELY AFTER PLACEMENT:
 - PREMATURE DRYING
 - HOT WEATHER, REFER TO ACI-305R "HOT WEATHER CONCRETING"
 - COLD WEATHER / FREEZING, REFER TO ACI-306R "COLD WEATHER CONCRETING"

CONCRETE REINFORCEMENT:

- DETAILING, FABRICATION, AND INSTALLATION OF REINFORCEMENT SHALL CONFORM TO ACI-318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE," AND THE MOST RECENT ADDITIONS OF SP-66 "ACI DETAILING MANUAL" AND THE CRSI "MANUAL OF STANDARD PRACTICE."
- STEEL REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL CONFORM TO THE FOLLOWING: BARS, TIES, AND STIRRUPS ASTM A615 GRADE 60 (MIN. YIELD STRESS $F_y = 60$ KSI)
- CONTRACTOR SHALL SUBMIT REBAR SHOP DRAWINGS FOR APPROVAL. PROVIDE AND SCHEDULE ON SHOP DRAWINGS THE NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION.
- ALL REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS, STIRRUPS, OR CHAIRS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL BARS.
- MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
 - UNFORMED SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH 3.0"
 - FORMED SURFACES IN CONTACT WITH EARTH OR EXPOSED TO WEATHER #6 THROUGH #18 BARS 2.0"
 - FORMED SURFACES IN CONTACT WITH EARTH OR EXPOSED TO WEATHER #5 BARS OR SMALLER
- WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE DETAILS AS DETERMINED BY THE ARCHITECT. IN NO CASE SHALL REINFORCEMENT BE LESS THAN THE MINIMUM REINFORCEMENT PERMITTED BY THE APPLICABLE CODES.
- REINFORCEMENT SHALL NOT BE TACK WELDED.
- INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AND A FIELD REPRESENTATIVE SHALL BE INFORMED A MINIMUM OF 24 HOURS IN ADVANCE OF CONCRETE PLACEMENT, TO ALLOW FOR INSPECTION OF THE REINFORCING STEEL.

STRUCTURAL DESIGN CRITERIA

- GOVERNING CODES**
 - BUILDING CODE 2015 INTERNATIONAL BUILDING CODE
 - GENERAL DESIGN LOADS ASCE 7-10
 - CONCRETE ACI 318-14
 - STEEL FRAMING AISC 360-10 & AISC 341-10
 - COLD-FORMED STEEL FRAMING AISI S100-12
 - MASONRY TMS 402-2013
- RISK CATEGORY** II
- DEAD LOADS**
 - ROOF
 - STRUCTURE SELF WEIGHT ----
 - CEILING 5 PSF
 - MEP 5 PSF
 - TOTAL ROOF DEAD LOAD 10 PSF+ STRUCTURE
- LIVE LOADS**
 - SLAB-ON-GROUND 100 PSF
- SEISMIC DESIGN DATA**
 - SEISMIC DESIGN CATEGORY B
 - SEISMIC IMPORTANCE FACTOR 1
 - SEISMIC SITE CLASS (SOILS) D
 - SEISMIC RESISTING SYSTEM
 - STRUCT STEEL SYSTEMS NOT DETAILED FOR SEISMIC
 - RESPONSE MODIFICATION FACTOR 3.0
 - DEFLECTION AMPLIFICATION FACTOR 3.0
 - EARTHQUAKE SPECTRAL RESPONSE
 - ACCELERATION AT SHORT PERIODS $S_s = 0.066$
 - EARTHQUAKE SPECTRAL RESPONSE
 - ACCELERATION PERIOD = 1 SECOND $S_1 = 0.042$
 - DESIGN 5% DAMPED, SPECTRAL RESPONSE
 - ACCELERATION AT SHORT PERIODS $S_{0.5} = 0.07$
 - DESIGN 5% DAMPED, SPECTRAL RESPONSE
 - ACCELERATION PERIOD = 1 SECOND $S_{0.1} = 0.067$
 - SEISMIC BASE SHEAR $V = 0.035W_u$
 - ANALYSIS PROCEDURE EQUIVALENT LATERAL FORCE PROCEDURE

STRUCTURAL STEEL:

- STRUCTURAL STEEL SHALL CONFORM TO AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," AND SHALL COMPLY WITH ALL LOCAL LAWS AND ORDINANCES. WHERE CONFLICTING REQUIREMENTS OCCUR, THE MORE STRINGENT SHALL APPLY.
 - PROVIDE NEW MATERIAL CONFORMING TO THE FOLLOWING REQUIREMENTS FOR ALL STRUCTURAL STEEL
 - SHAPES: ASTM A992 - GRADE 50
 - PLATES, ANGLES, CHANNELS: ASTM A36
 - ANCHOR RODS: ASTM F1554, GRADE 36
 - WELDING ELECTRODE: E70XX
- A QUALITY CONTROL PROGRAM OF SHOP AND FIELD TESTING AND INSPECTION SHALL BE PERFORMED ON STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTIONS IN ACCORDANCE WITH THE SPECIFICATIONS. SCHEDULE WORK AND PROVIDE ACCESS TO ALLOW THE TESTING REQUIREMENTS TO BE COMPLETED.
- PERFORM ALL WELDING USING CERTIFIED WELDERS AND IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE - STEEL" COMPLY WITH AISC SPECIFICATION SECTION J2 FOR MINIMUM FILLET WELD SIZE, BUT DO NOT USE LESS THAN A 3/16 INCH FILLET UNLESS SPECIFICALLY NOTED ON THE DRAWINGS.
- SUBMIT ENGINEERED AND CHECKED SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEW SIGNED AND SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF MICHIGAN. SHOW SHOP FABRICATION DETAILS, FIELD ASSEMBLY DETAILS, AND ERECTION DIAGRAMS FOR ALL STRUCTURAL STEEL. SCHEDULE SUBMISSIONS TO ALLOW 10 WORKING DAYS FOR ENGINEER'S REVIEW PRIOR TO FABRICATION.
- DESIGN AND DETAILING OF THE CONNECTIONS IS THE RESPONSIBILITY OF THE FABRICATOR. USE RATIONAL ENGINEERING DESIGN AND STANDARD PRACTICE FOR THE CRITERIA SET FORTH IN THE CONTRACT DOCUMENTS. THE DETAILS SHOWN ON THE DRAWINGS ARE CONCEPTUAL AND DO NOT INDICATE THE REQUIRED WELD SIZES OR NUMBER OF BOLTS UNLESS SPECIFICALLY NOTED.
- SHOP CONNECTIONS TO BE 3/4" BOLTED OR WELDED. FIELD CONNECTIONS TO BE HIGH STRENGTH BOLTED OR WELDED. BOLTED CONNECTIONS ARE SHEAR-BEARING CONNECTIONS, AND SHALL BE INSTALLED TO THE SUGGESTED CONDITION (REFERENCE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS).
- FABRICATE ALL BEAMS WITH THE NATURAL CAMBER UP. PROVIDE ANY ADDITIONAL CAMBER SHOWN ON THE STRUCTURAL DRAWINGS.
- DO NOT FIELD CUT ANY STRUCTURAL STEEL WITHOUT THE PRIOR REVIEW AND ACCEPTANCE OF THE ARCHITECT/ENGINEER. CLEARLY INDICATE ON THE SHOP DRAWINGS SUBMITTED FOR REVIEW ANY MEMBER OPENINGS REQUIRED BY OTHER TRADES.
- ERECTION PROCEDURES, SEQUENCES AND COORDINATION OF WORK WITH OTHER TRADES IS THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE ANY ADDITIONAL STEEL REQUIRED FOR ERECTION PURPOSES AT NO COST TO THE OWNER. REMOVE THIS ADDITIONAL STEEL UNLESS DIRECTED OTHERWISE BY THE ARCHITECT IN WRITING.
- PROVIDE TEMPORARY BRACING AND SHORING AS REQUIRED FOR THE SAFETY, STABILITY AND ALIGNMENT OF THE STRUCTURE. LEAVE TEMPORARY BRACING IN PLACE FOR AS LONG AS NECESSARY. PERFORM FINAL BOLTING AND WELDING ONLY ON THOSE PORTIONS OF THE STRUCTURE THAT HAVE BEEN ALIGNED AND PLUMBED WITHIN THE SPECIFIED TOLERANCES.
- AFTER FABRICATION, CLEAN STEEL OF ALL RUST, LOOSE MILL SCALE, DIRT, OIL, GREASE OR OTHER FOREIGN MATERIALS.
- STRUCTURAL STEEL CONTRACTOR SHALL VERIFY ALL ROOF OPENINGS AS TO SIZE AND LOCATION WITH HVAC AND PLUMBING CONTRACTOR BEFORE FABRICATION OF SUPPORT FRAMES.
- ALL STEEL SHALL RECEIVE ONE COAT OF PRIMER, UNLESS NOTED OTHERWISE. ALL STEEL EXPOSED TO VIEW IN THE FINISHED WORK SHALL RECEIVE ONE COAT OF PRIMER AND TWO COATS OF FINISH PAINT.
- STEEL ITEMS INDICATED TO BE GALVANIZED SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 OR ASTM A153, AS APPLICABLE. REPAIR DAMAGE AND WELD AREAS WITH ZINC RICH PAINT.
- STRUCTURAL STEEL IN CONTACT WITH SOIL, INCLUDING COLUMN BASES, ANCHOR RODS AND BASE PLATES SHALL BE COATED WITH BITUMINOUS MASTIC.
- GRIND AND BLEND ALL WELD SEAMS FOR SEAMLESS FINISH.

GENERAL

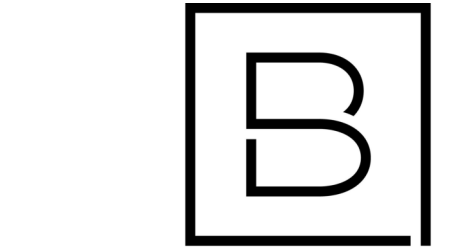
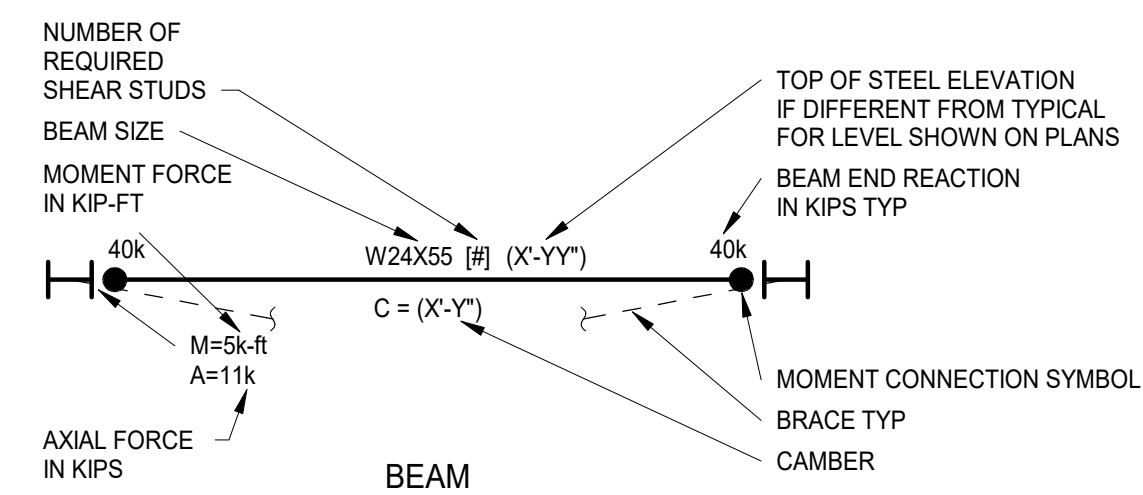
- ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNING LOCAL MUNICIPAL CODES AND SPECIFICATIONS (INCLUDING SUPPLEMENTS) FOR THIS TYPE OF CONSTRUCTION. THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING CODES AND REFERENCED STANDARDS LISTED BELOW.
- THE STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AND ALL OTHER APPLICABLE DISCIPLINE DRAWINGS. ANY CONFLICT BETWEEN NOTES, DETAILS, AND SPECIFICATIONS, THE MOST RIGID REQUIREMENTS SHALL GOVERN.
- THE CONTRACTOR SHALL NOT MAKE DEVIATIONS FROM THE DESIGN DOCUMENTS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER OF RECORD (EOR). CHANGES BY THE CONTRACTOR, DUE TO CONTRACTOR PROPOSED ALTERNATIVES OR TO CORRECT CONTRACTOR ERRORS/OMISSIONS, MUST BE SUBMITTED TO THE EOR FOR APPROVAL. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING ENGINEERING FEES FOR REVIEW, OBSERVATIONS, STRUCTURAL CALCULATIONS, AND REVISIONS. THE CONTRACTOR SHALL ALSO PROCESS THE REVISED PLANS REFLECTING ALL SUBSTITUTIONS THROUGH THE APPROPRIATE OFFICE OF ALL GOVERNING AGENCIES.
- THE STRUCTURE IS DESIGNED AS SELF SUPPORTING AFTER THE BUILDING IS FULLY COMPLETED. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION METHODS, PROCEDURES AND SEQUENCES, UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS. TEMPORARY BRACING, SHEETING, SHORING/ETC., TO ENSURE THE STRUCTURAL STABILITY OF THE NEW STRUCTURE, EXISTING STRUCTURES, SIDEWALKS, AND UTILITIES, IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION. LOADS GREATER THAN THE INDICATED DESIGN LIVE LOADS SHALL NOT BE PLACED ON THE STRUCTURE. ALL CONSTRUCTION PROCESSES SHALL MEET ALL APPLICABLE OSHA REQUIREMENTS.
- CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE ENGINEER FREE AND HARMLESS OF ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE ENGINEER.
- ALL SECTIONS AND DETAILS, WHETHER EXPLICITLY CUT ON PLAN OR NOT, SHALL BE CONSIDERED TYPICAL AND SHALL APPLY AT SIMILAR CONDITIONS. SIGNIFICANT ADJUSTMENTS ACCOUNTING FOR VARYING CONDITIONS IN THE FIELD SHOULD BE SUBMITTED TO EOR FOR APPROVAL AND BE RESOLVED PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND COORDINATION INVOLVED TO PROVIDE OPENINGS, CHASES, EQUIPMENT PADS, HANGERS, INSERTS, SLEEVES, ETC. INDICATED ON ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS. OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE REVISED WITHOUT APPROVAL FROM THE EOR.
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONS AND INFORMATION NOT SHOWN. WORKING DIMENSIONS SHALL NOT BE SCALED FROM STRUCTURAL PLANS, SECTIONS, OR DETAILS. ANY REFERENCE TO WATERPROOFING AND FIREPROOFING ON THE STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS FOR SPECIFIC REQUIREMENTS.
- CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS AND UTILITIES PRIOR TO STARTING ANY CONSTRUCTION. STRUCTURAL MEMBER INFORMATION INDICATED AS EXISTING (EXIST) ON DRAWINGS WAS OBTAINED DURING LIMITED FIELD OBSERVATIONS AND/OR FROM LIMITED DRAWINGS IF AVAILABLE. ACTUAL CONDITIONS MAY DIFFER FROM THAT WHICH IS INDICATED ON PLAN. IF FIELD CONDITIONS VARY FROM THOSE SHOWN ON CONTRACT DOCUMENTS, THE CONTRACTOR IS TO CONTACT THE ARCHITECT IMMEDIATELY. ALL FIELD DIMENSIONS ARE TO BE VERIFIED AND NOTED AS SUCH ON SHOP DRAWING PRIOR TO FABRICATION OF ANY NEW STRUCTURAL MEMBERS.
- THESE DRAWINGS DO NOT DEFINE THE ENTIRE SCOPE OF THE CONTRACTOR OR SUBCONTRACTOR CONTRACTS. REFER TO ALL APPLICABLE ARCHITECTURAL, STRUCTURAL, AND OTHER DISCIPLINE DRAWINGS AS REQUIRED.

SPECIAL INSPECTION SCHEDULE

	CONTINUOUS	PERIODIC
STEEL (MBC 1705.2)		
STRUCTURAL STEEL PER AISC 360 QUALITY ASSURANCE INSPECTION REQUIREMENTS		
STEEL DECK PER SDI QUALITY ASSURANCE INSPECTION REQUIREMENTS		
CONCRETE CONSTRUCTION (MBC TABLE 1705.3)		
INSPECTION OF REINFORCING STEEL		X
REINFORCING STEEL WELDING - SEE MBC TABLE 1705.3		
CAST IN ANCHORS		X
POST INSTALLED ANCHORS, ADHESIVE UPWARD INCLINED	X	
POST INSTALLED ANCHORS, MECHANICAL AND OTHER ADHESIVE		X
VERIFY MIX DESIGN		X
SAMPLING, CYLINDERS, SLUMP, AIR, TEMPERATURE	X	
CURING TEMPERATURE, APPLICATION TECHNIQUES		X
FORMWORK SHAPE, LOCATION, DIMENSIONS		X

NOTES:

- INSPECTION AND TESTING SHALL BE PERFORMED BY AN INDEPENDENT INSPECTION AND TESTING AGENCY AT THE OWNER'S EXPENSE
- ALL TESTING AND INSPECTIONS SHALL CONFORM TO CHAPTER 17 OF THE 2015 MICHIGAN BUILDING CODE (MBC)

BEAM LEGEND

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ORCHARD VIEW SCHOOL DISTRICT

EARLY ELEMENTARY KITCHEN AND SERVING RENOVATIONS

2820 MACARTHUR RD
MUSKEGON, MI

Date Revised	Description
1-24-2023	OWNER REVIEW
1-31-2023	BIDS

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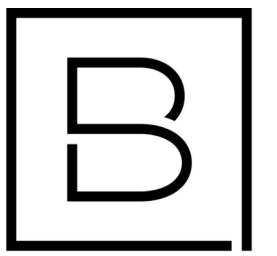
Project Manager	Discipline Lead
D HOLTROP	K TENNES
Designer	Reviewer
A ALSWATI	R KEUNEKE
Date Issued	Project Number
1/31/2023	22013309A

Sheet Name

STRUCTURAL GENERAL
NOTES

Drawing Number

S001

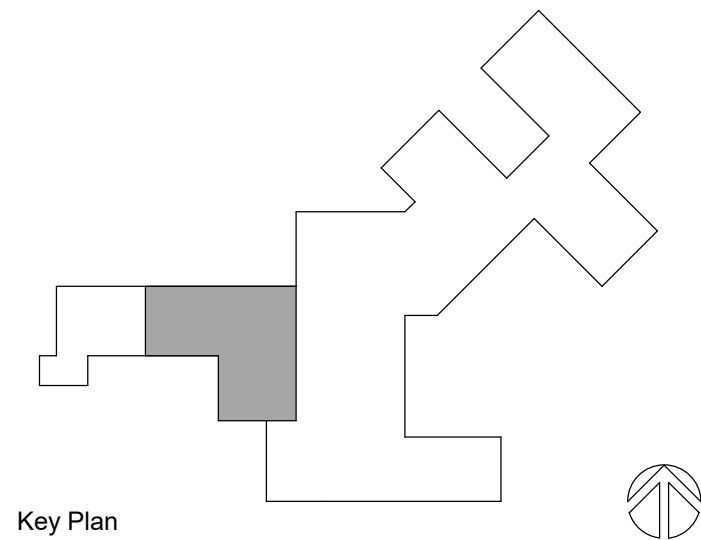


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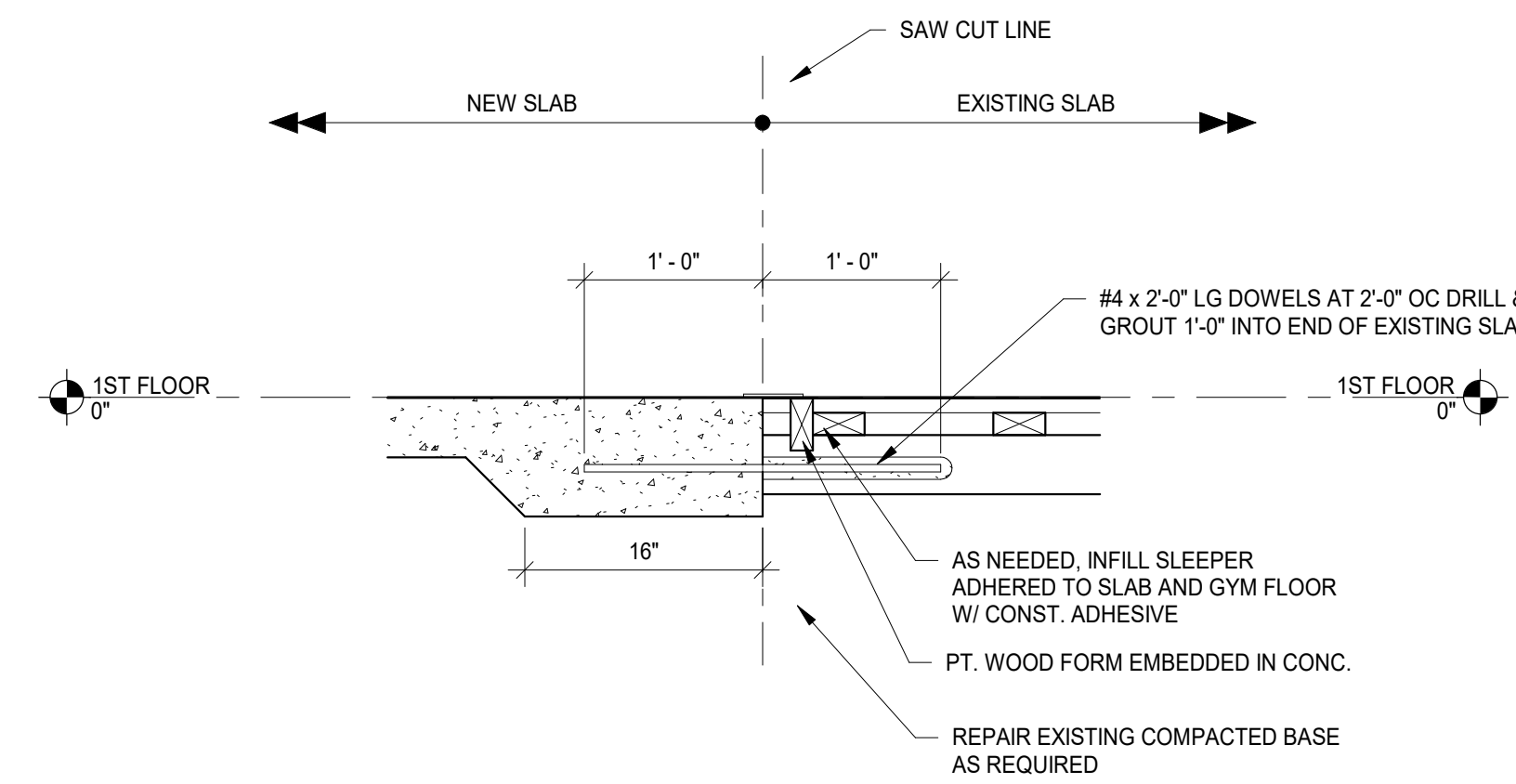
Project Manager D HOLTROP	Discipline Lead K TENNES
Designer A ALSWATI	Reviewer R KEUNEKE
Date Issued 1/31/2023	Project Number 22013309A

Sheet Name

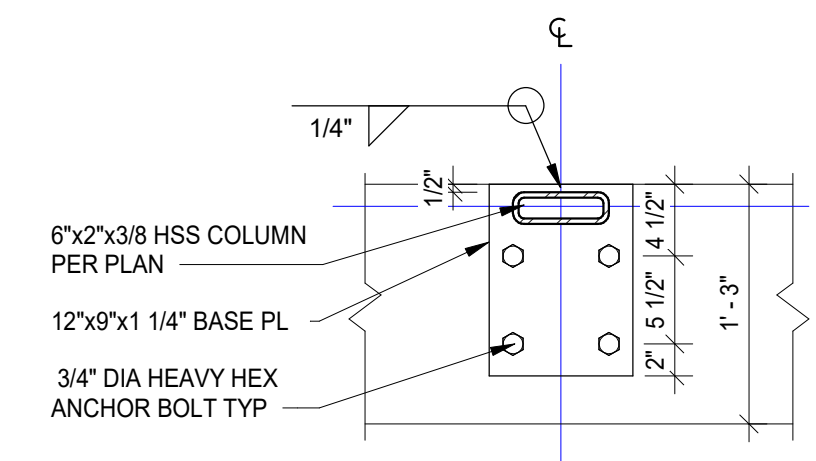
STRUCTURAL DETAILS

Drawing Number

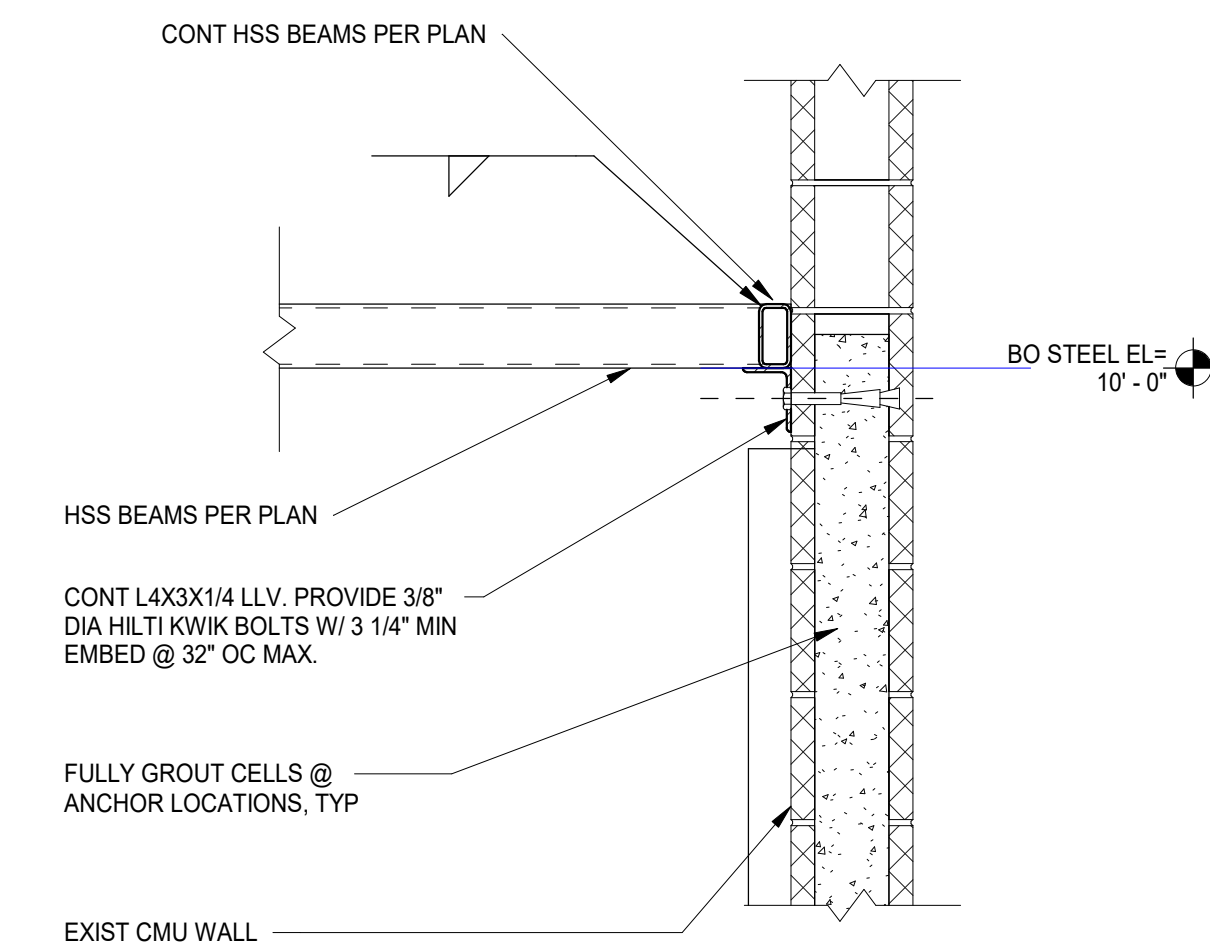
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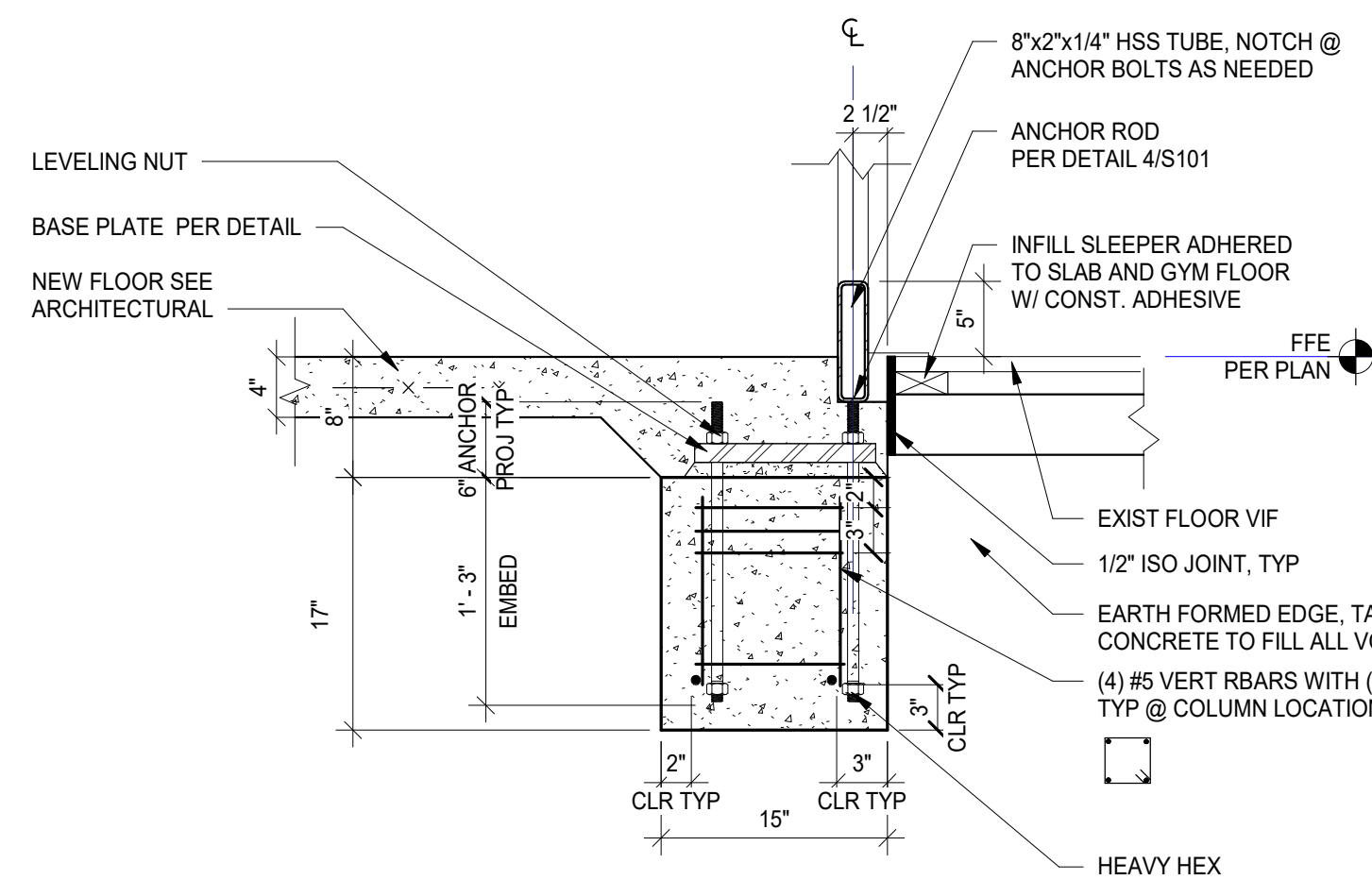
6 FLOOR TRANSITION DETAIL - TYP
SCALE: 1" = 1'-0"



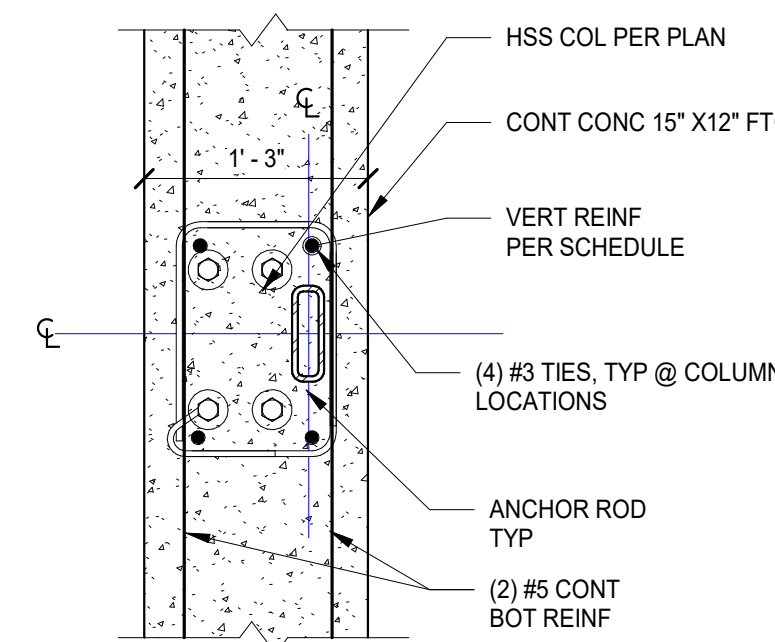
5 BASE PLATE DETAIL
SCALE: 1" = 1'-0"



4 TRELLIS SECTION @ EX CMU WALL
SCALE: 1" = 1'-0"



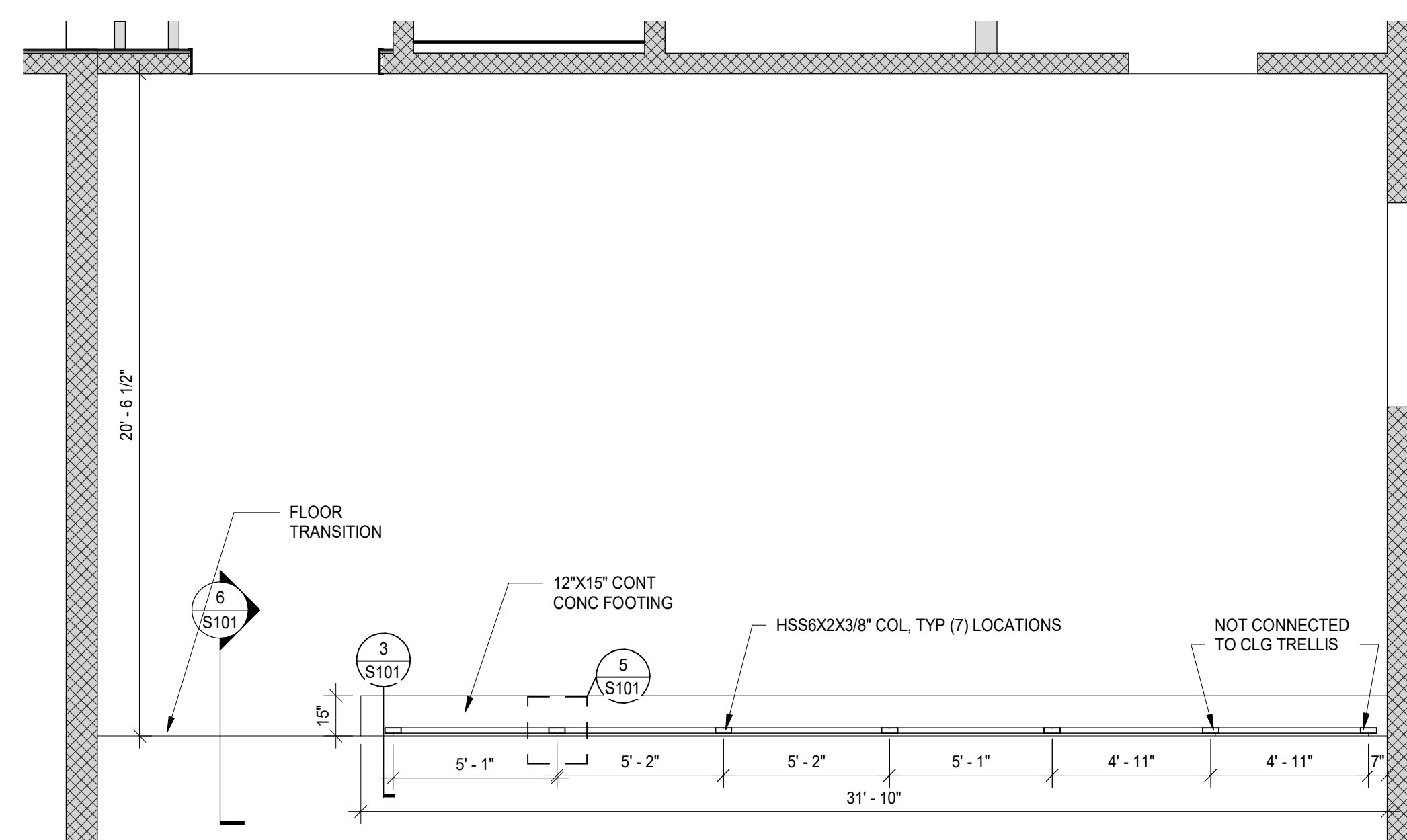
DETAIL A - ELEVATION VIEW



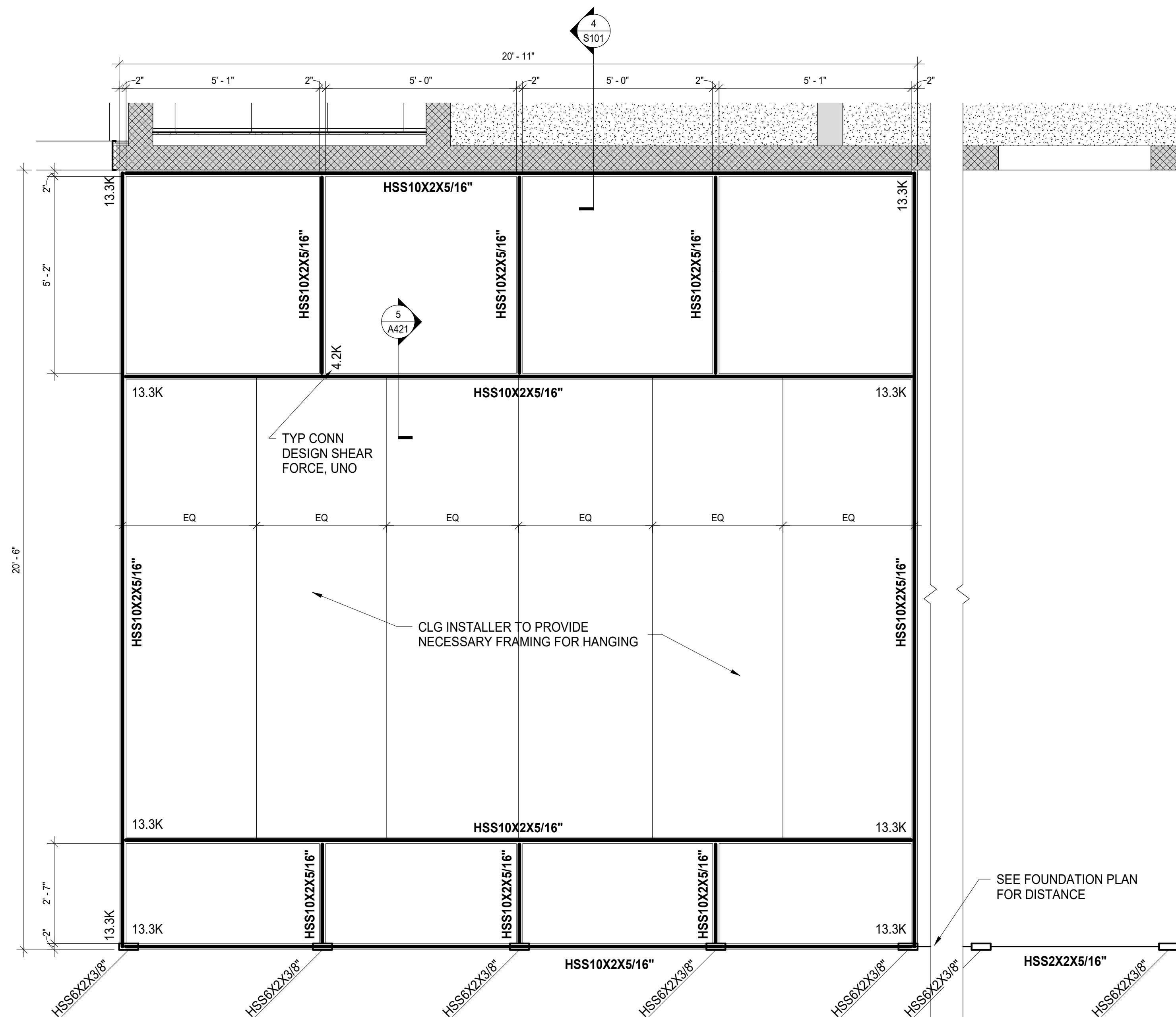
NOTE:
BASE PLATE AND CONC CURB ABOVE NOT SHOWN FOR CLARITY

DETAIL B - PLAN VIEW

3 FOOTING DETAILS
SCALE: 1" = 1'-0"



2 PARTIAL STRUCTURAL FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



STRUCTURAL FRAMING NOTES:

- ALL BOTTOM OF STEEL ELEVATIONS TO BE AT 10'-0" ABOVE FINISHED FLOOR ELEVATION (0'-0") U.N.O.
- SHEAR FORCE VALUES SHOWN REPRESENT THE CONTROLLING LRFD COMBINATIONS.

1 STRUCTURAL FRAMING PLAN
SCALE: 1/2" = 1'-0"

SEE FOUNDATION PLAN FOR DISTANCE

DRAWING SYMBOLS

Table of drawing symbols including View Title, Section Marker, Detail Section, Detail Callout, Elevation Marker, Break Marker, North Arrow, Accessory Marker, Door Marker, Window Type Marker, Room Tag, Scheduled Door, Existing Door, Keynote, Keynote (Removals), Equipment Tag, Elevation Notation, and Ceiling Height.

MATERIAL INDICATORS

Table of material indicators with patterns for Undisturbed Earth, Steel, Finish Wood, Gravel or Crushed Stone, Rigid Insulation, Batt Insulation, Cast Stone, Brick, Wood Framing, Concrete, Plywood, Wood Blocking, Concrete Masonry Unit, Sand or Gypsum Board, and Existing.

WALL STYLES

Table of wall styles including Existing Brick Wall, Brick Wall, Existing CMU Wall, CMU Wall, Existing Stud Wall, and Stud Wall.

ABBREVIATIONS

Large table of abbreviations for architectural elements such as A/C, ADJ, ALUM, BD, BLKG, BO, CG, CJ, CL, CLG, CLR, CM, CMT, CMU, COL, CONC, CONT, CT, CTB, D, DF, DIA, DIM, DWG, EA, EIFS, ELEC, ELEV, EXF, EXP, EXP BT, EXT, F, FCO, FD, FE, FEC, FFE, FLG, FLR, FR, FRP, FT, FTG, GA, GALV, GC, H, HB, HC, HDR, HDWR, HM, HORIZ, HPC, HVAC, HW, HWT, ID, INSUL, INT, INV, JAN CL, JT, L, LAM, LAV, LLV, LMC, LTL, LVL, LVT, MAX, MECH, MEZZ, MFR, MIN, MO, MTL, NIC, NTS, OC, OPP, P, PB, PCC, PCF, PL, PLF, PLM, PP, PSF, PSI, PT, PTWD, QT, R, RB, RCP, RD, REBAR, REINF, RESIL, RF, RM, RO, RTU, SC, SIM, SMS, SPEC, SS, SST, STC, STD, STL, STRUCT, SYS, T, T&G, TEMP, TH, TO, TR, TYP, UNO, UPH, UR, VAR, VB, VCT, VERT, VEST, VIF, VWC, W, WI, WIO, WB, WC, WCV, WD, WDT, WF, WOM, WP, WT.

GENERAL NOTES:

ALL GENERAL NOTES PERTAIN TO ALL ARCHITECTURAL (A-SERIES) DRAWINGS IN THIS SET

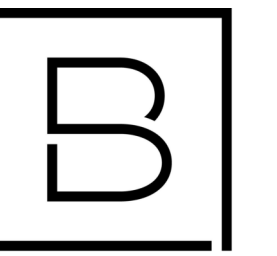
- GENERAL
1. DEFINITIONS: "PROVIDE" MEANS FURNISH AND INSTALL. SUPPLY LABOR AND MATERIALS TO RESULT IN A FINISHED AND/OR OPERABLE SYSTEM.
2. CONTRACTOR RESPONSIBILITIES:
A. MATERIALS, CONSTRUCTION METHODS INCLUDING BUT NOT LIMITED TO LAYOUT, COORDINATION, SCHEDULE AND CONSTRUCTION SITE ACCESS AND WORK.
B. DAILY CLEANING: KEEP SITE FREE FROM WASTE, RUBBISH, AND DEBRIS. REMOVE DAILY. WHEN WORK IS COMPLETE, LEAVE THE PREMISES BROOM CLEAN AND CLEAN FINISHED SURFACES, FIXTURES, GLASS, STOREFRONT, ETC.
C. FINAL CLEANING: PRIOR TO PUNCHLIST INSPECTION BROOM CLEAN ALL HARD SURFACE FLOORS, VACUUM ALL CARPETING AND WIFE DOWN ALL HORIZONTAL AND GLASS SURFACES PROVIDING A DUST FREE SURFACE.
D. TEMPORARY PROTECTION IS REQUIRED TO MAINTAIN ONGOING BUILDING OPERATIONS, EXITING PATHS, DUST CONTROL AND OCCUPANT SAFETY. IDENTIFY THE REQUIREMENTS FOR TEMPORARY PROTECTION AND PROJECT PHASING. COORDINATE WITH OWNER FOR OTHER REQUIREMENTS.
E. COORDINATE STARTUP AND ADJUSTING OF EQUIPMENT AND OPERATING COMPONENTS. START EQUIPMENT AND OPERATING COMPONENTS AND TEST TO CONFIRM PROPER OPERATION AND CONTROL. REMOVE MALFUNCTIONING UNITS, REPLACE WITH NEW UNITS, AND RETEST.
F. CLOSEOUT DOCUMENTS, CERTIFICATE OF RELEASE FROM THE AUTHORITY OF JURISDICTION AND INSURANCE FOR CONTINUING COVERAGE, WARRANTIES, TEST & INSPECTION RESULTS AND OPERATION, EMERGENCY & MAINTENANCE MANUALS.
3. EXISTING CONDITIONS: REVIEW EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING WORK AND REPORT DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.
4. CONTRACT DOCUMENTS:
A. PLANS, ELEVATIONS, SECTIONS, DETAILS AND SCHEDULES ARE COMPLEMENTARY. PLAN DRAWINGS WILL TAKE PRECEDENCE OVER ELEVATION, SECTION AND DETAILS DRAWINGS IN ANY CONFLICTS OF HORIZONTAL DIMENSIONS. DETAIL PLAN DRAWINGS WILL TAKE PRECEDENCE OVER LARGER SCALE PLANS IN ANY CONFLICTS WITH HORIZONTAL DIMENSIONS. WALL AND BUILDING SECTIONS WILL TAKE PRECEDENCE OVER PLAN DRAWING AND DETAILS IN ANY CONFLICTS WITH VERTICAL DIMENSIONS. DETAILS AND WALL SECTIONS WILL TAKE PRECEDENCE OVER ELEVATION AND PLAN DRAWINGS IN ANY CONFLICTS WITH MATERIAL DESCRIPTION. SCHEDULES WILL TAKE PRECEDENCE OVER OTHER ARCHITECTURAL DRAWINGS IN AND CONFLICTS WITH WALL, FLOOR AND CEILING FINISHES AND DOOR, DOOR HARDWARE AND FENESTRATION INFORMATION.
B. DRAWINGS PREPARED BY THE ARCHITECT ARE INSTRUMENTS OF THE ARCHITECT'S SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT AND, UNLESS OTHERWISE PROVIDED, BERGMANN SHALL BE DEEMED THE AUTHOR OF THESE DOCUMENTS AND RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT.
C. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.

FIELD CONDITIONS

- 1. REPAIR: EXISTING SURFACES TO REMAIN IMPACTED BY DEMOLITION TO MATCH EXISTING ADJACENT SURFACES.
A. DISCREPANCIES: NOTIFY ARCHITECT OF EXISTING DAMAGED OR DETERIORATED BUILDING ELEMENTS REVEALED DURING DEMOLITION OR CONSTRUCTION PRIOR TO PROCEEDING WITH ADDITIONAL WORK IN THE AREA. NOTIFY ARCHITECT OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND DRAWINGS BEFORE PROCEEDING WITH SELECTIVE DEMOLITION.
2. HAZARDOUS MATERIALS: A PRE-DEMOLITION ASBESTOS SURVEY IS REQUIRED PRIOR TO DEMOLITION OF SUSPECT BUILDING MATERIALS IN ACCORDANCE WITH OSHA 29 CFR 1926.1101, AND USEPA 40 CFR 61.145. ALL SUSPECT ASBESTOS CONTAINING MATERIALS INCLUDING THERMAL SYSTEMS INSULATIONS AND SURFACING MATERIALS (PACM) UNLESS PROVEN OTHERWISE BY APPROPRIATE BULK SAMPLING AND LABORATORY ANALYSIS CONDUCTED BY APPROVED LICENSED COMPANIES AND PERSONNEL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL REGULATIONS. THE OWNER IS REQUIRED TO PROVIDE COPIES OF ANY ASBESTOS SURVEYS OR ASBESTOS OPERATIONS AND MAINTENANCE PLANS THEY HAVE ON FILE AT THE REQUEST OF THE CONTRACTOR. A COMPLETE ASBESTOS SURVEY FOR THE PROPOSED WORK TO BE PERFORMED IS THE RESPONSIBILITY OF THE BUILDING OWNER. BERGMANN DOES NOT WARRANT THE COMPLETENESS OF DOCUMENTS AND REPORTS PROVIDED BY OTHERS. NO EXEMPTION TO THE REQUIREMENT TO CONDUCT AN ASBESTOS SURVEY SHALL EXEMPT ANY PERSON, ASBESTOS CONTRACTOR, PROPERTY OWNER OR BUSINESS ENTITY FROM THE INSPECTION OR ASBESTOS SURVEY REQUIREMENTS OF EPA AND OSHA.
3. SAFETY: FOLLOW THE OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR 1926.62. LEAD EXPOSURE IN CONSTRUCTION REGULATION. MATERIALS HAVING A CONCENTRATION EQUAL OR GREATER THAN 0.5% BY WEIGHT IN LEAD ARE CONSIDERED TO BE LEAD BASED. HOWEVER, OSHA CONSIDERS ANY AMOUNT OF LEAD ENCOUNTERED DURING CONSTRUCTION TO BE OF CONCERN. THE REGULATION STATES THAT THE EMPLOYER SHALL ASSURE THAT NO EMPLOYEE IS EXPOSED TO LEAD AT CONCENTRATIONS GREATER THAN FIFTY MICROGRAMS PER CUBIC METER OF AIR (50 MG/M^3) AVERAGED OVER AN 8-HOUR PERIOD. CONTRACTORS SHALL DETERMINE AND TAKE APPROPRIATE MEASURES IF THEY SUSPECT THE PRESENCE OF LEAD.

FINISHES

- A. GENERAL: FINISHED FLOORS EXTEND INTO TOE SPACES, UNDER CASEWORK ON LAB PROJECTS, CLOSETS, DOOR REVEALS AND SIMILAR OPENINGS.
B. PRODUCTS:
A. INSTALL MATERIALS USING MANUFACTURER'S APPROVED ADHESIVES AND METHODS, U.N.O.
B. PAINT DESIGNATIONS INDICATE COLOR ONLY, REFER TO SPECIFICATION FOR FINISH TYPE.
C. PROVIDE SELF LEVELING TROWELABLE UNDERLAYMENT WHERE REQUIRED TO OBTAIN FINISH MANUFACTURER'S REQUIRED SUBFLOOR CONDITION.
D. PROVIDE THE REQUIRED TRANSITIONS BASED ON TYPES IDENTIFIED ON DRAWINGS AT EACH FINISH TRANSITION LOCATION.
C. EXECUTION:
A. ADHERE TO MATERIAL OR SYSTEM MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND TOLERANCES. ANY VARIATIONS FROM WRITTEN INSTALLATION AND INSTRUCTIONS MUST RECEIVE WRITTEN APPROVAL FROM THE MANUFACTURER AND MAINTAIN MANUFACTURER'S WARRANTIES.
B. PRIOR TO STARTING THE INSTALLATION OF A MATERIAL OR SYSTEM, VERIFY THE SUBSTRATE IS WITHIN THE MANUFACTURER'S REQUIRED TOLERANCES AND REQUIRED CLEARANCES ARE PROVIDED. NOTIFY THE CONSTRUCTION MANAGER OR GENERAL CONTRACTOR AND DESIGN PROFESSIONAL IN WRITING WHEN THE SUBSTRATE IS NOT WITHIN MANUFACTURER'S TOLERANCE OR REQUIRED CLEARANCES ARE NOT PROVIDED. PROCEEDING WITH INSTALLATION SIGNIFIES ACCEPTANCE OF THE SUBSTRATE AND CLEARANCES.
C. PROVIDE MANUFACTURER'S REQUIRED ENVIRONMENTAL TESTS FOR MOISTURE, VAPOR DRIVE, RELATIVE HUMIDITY AND TEMPERATURE TO VERIFY THESE ARE WITHIN THE MATERIAL MANUFACTURER'S TOLERANCE PRIOR TO INSTALLING MATERIALS.
D. MATERIAL AND INSTALLATION SHALL CONFORM WITH LOCAL, STATE AND NATIONAL BUILDING CODES AND CONSTRUCTION STANDARDS ENFORCED BY THE AUTHORITY HAVING JURISDICTION.
E. REQUIRED DOCUMENTATION:
1. SAFETY DATA SHEETS.
2. PROVIDE SAMPLES WHEN SPECIFICALLY REQUESTED IN THESE DOCUMENTS.
3. PROVIDE SHOP DRAWINGS OF MATERIALS AND SYSTEMS, WHICH WILL BE BUILT INTO AND MUST BE COORDINATED WITH OTHER CONSTRUCTION. SHOP DRAWINGS SHALL CONSIST OF PLAN, ELEVATION, SECTION VIEWS AND DETAILS AS REQUIRED TO COMMUNICATE FINAL APPEARANCE AND CONNECTION TO ADJOINING CONSTRUCTION.
F. PROTECT ADJACENT SURFACES DURING WORK.
G. REMOVE ADHESIVE OR PAINT SPOTS FROM FINISHED FLOORS, WALLS, GLASS OR OTHER SURFACES. FINISHES TO MEET OR EXCEED CODE REQUIREMENTS.
H. FILL MINOR DRYWALL IRREGULARITIES WITH SPACKLING COMPOUND AND SAND TO A SMOOTH LEVEL SURFACE. EXERCISE CARE TO AVOID RAISING THE NAP OF PAPER.
I. DO NOT PERFORM PAINTING AND OTHER FINISHING WORK UNDER CONDITIONS UNSUITABLE FOR EXECUTION OF PAINTING WORK. AIR SHALL BE FREE FROM DUST AND DIRT TO PREVENT LODGING OF FOREIGN MATTER IN FRESH PAINT. FLOORS TO BE BROOM CLEAN BEFORE PAINTING IS STARTED.
J. EDGES OF PAINT ADJOINING OTHER COLORS OR MATERIALS TO BE SHARP AND CLEAN WITHOUT OVERLAP.
K. WHENEVER NECESSARY TO OBTAIN REQUIRED RESULTS, REFINISH AN ENTIRE WALL RATHER THAN SPOT FINISHING WHERE A PORTION OF THE FINISH HAS BEEN DAMAGED OR IS UNSATISFACTORY.
L. WHEN INSTALLING CARPET FOLLOW THE CARPET AND RUG INSTITUTE METHODS OF INSTALLATION AND MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.
M. WHEN INSTALLING TILE FOLLOW THE TILE COUNCIL OF NORTH AMERICA'S INSTALLATION SPECIFICATIONS AND MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.
N. CENTER FLOOR MATERIAL TRANSITIONS ON DOOR ABOVE.
O. FLOOR MATERIAL TRANSITIONS SHALL OCCUR BELOW THE DOOR.



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Table with 2 columns: Date Revised, Description. Includes entries for 1-24-2023 OWNER REVIEW and 1-31-2023 BIDS.

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Table with 2 columns: Role, Name. Includes Project Manager (D HOLTROP), Discipline Lead (B HUYLER), Designer (E POST), Reviewer (R KEUNEKE), Date Issued (1/31/2023), Project Number (22013309A).

Sheet Name

GENERAL NOTES AND LEGENDS

Drawing Number

A001

GENERAL REQUIREMENTS:

SUBSTITUTION PROCEDURES:

- A. SUBSTITUTIONS FOR CAUSE: CHANGES PROPOSED BY CONTRACTOR THAT ARE REQUIRED DUE TO CHANGED PROJECT CONDITIONS, SUCH AS UNAVAILABILITY OF PRODUCT, REGULATORY CHANGES, OR UNAVAILABILITY OF REQUIRED WARRANTY TERMS.
- B. SUBSTITUTIONS FOR CONVENIENCE: CHANGES PROPOSED BY CONTRACTOR OR OWNER THAT ARE NOT REQUIRED IN ORDER TO MEET OTHER PROJECT REQUIREMENTS BUT MAY OFFER ADVANTAGE TO CONTRACTOR OR OWNER. SUBSTITUTIONS FOR CONVENIENCE ARE ALLOWED ONLY BY APPROVAL OF THE OWNER OR OWNER'S AGENT.
- C. SUBMIT REQUEST FOR CONSIDERATION. IDENTIFY PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED. INCLUDE PRODUCT, MATERIAL OR SYSTEM NAME AND AFFECTED DRAWING NUMBERS AND TITLES.
- D. EXECUTE ACCEPTED SUBSTITUTIONS UNDER THE SAME CONDITIONS AS OTHER WORK OF THE CONTRACT.
- E. DOCUMENTATION: SHOW COMPLIANCE WITH REQUIREMENTS FOR SUBSTITUTIONS AND THE FOLLOWING, AS APPLICABLE:
 1. COST INFORMATION, INCLUDING A PROPOSAL OF CHANGE, IF ANY, IN THE CONTRACT SUM.
 2. CONTRACTOR'S CERTIFICATION THAT PROPOSED SUBSTITUTION COMPLIES WITH REQUIREMENTS IN THE CONTRACT DOCUMENTS, EXCEPT AS INDICATED IN SUBSTITUTION REQUEST, IS COMPATIBLE WITH RELATED MATERIALS AND IS APPROPRIATE FOR APPLICATIONS INDICATED.
 3. STATEMENT INDICATING WHY SPECIFIED PRODUCT OR FABRICATION, OR INSTALLATION METHOD CANNOT BE PROVIDED, IF APPLICABLE.
 4. COORDINATION OF INFORMATION, INCLUDING A LIST OF CHANGES OR REVISIONS NEEDED TO OTHER PARTS OF THE WORK AND TO CONSTRUCTION PERFORMED BY OWNER AND SEPARATE CONTRACTORS THAT WILL BE NECESSARY TO ACCOMMODATE PROPOSED SUBSTITUTION.
 5. PRODUCT DATA, INCLUDING DRAWINGS AND DESCRIPTIONS OF PRODUCTS AND FABRICATION AND INSTALLATION PROCEDURES. INCLUDE DETAILED COMPARISON OF SIGNIFICANT QUALITIES OF PROPOSED SUBSTITUTIONS WITH THOSE OF THE WORK SPECIFIED. SIGNIFICANT QUALITIES MAY INCLUDE ATTRIBUTES, SUCH AS PERFORMANCE, WEIGHT, SIZE, DURABILITY, VISUAL EFFECT, SUSTAINABLE DESIGN CHARACTERISTICS, WARRANTIES, AND SPECIFIC FEATURES AND REQUIREMENTS INDICATED. INDICATE DEVIATIONS, IF ANY, FROM THE WORK SPECIFIED.
 6. CONTRACTOR'S WAIVER OF RIGHTS TO ADDITIONAL PAYMENT OR TIME THAT MAY SUBSEQUENTLY BECOME NECESSARY BECAUSE OF FAILURE OF PROPOSED SUBSTITUTION TO PRODUCE INDICATED RESULTS.
- F. ARCHITECT'S ACTION: IF NECESSARY, ARCHITECT WILL REQUEST ADDITIONAL INFORMATION OR DOCUMENTATION FOR EVALUATION WITHIN 7 DAYS OF RECEIPT OF A REQUEST FOR SUBSTITUTION. ARCHITECT WILL NOTIFY CONTRACTOR OF ACCEPTANCE OR REJECTION OF PROPOSED SUBSTITUTION WITHIN 14 DAYS OF RECEIPT OF REQUEST, OR 7 DAYS OF RECEIPT OF ADDITIONAL INFORMATION OR DOCUMENTATION.
- G. ARCHITECT WILL CONSIDER CONTRACTOR'S REQUEST FOR SUBSTITUTION WHEN THE LISTED REQUIREMENTS ARE SATISFIED. IF THE LISTED REQUIREMENTS ARE NOT SATISFIED, ARCHITECT WILL RETURN REQUESTS WITHOUT ACTION, EXCEPT TO RECORD NONCOMPLIANCE WITH LISTED REQUIREMENTS.
- H. FORMS OF ACCEPTANCE: CHANGE ORDER, CONSTRUCTION CHANGE DIRECTIVE, OR ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS FOR MINOR CHANGES IN THE WORK.

SUBMITTAL REQUIREMENTS:

- A. PREPARE SUBMITTAL SCHEDULE: SUBMIT, AS AN ACTION SUBMITTAL, A LIST OF SUBMITTALS, ARRANGED IN CHRONOLOGICAL ORDER BY DATES REQUIRED BY CONSTRUCTION SCHEDULE. INCLUDE TIME REQUIRED FOR REVIEW, ORDERING, MANUFACTURING, FABRICATION, AND DELIVERY WHEN ESTABLISHING DATES. INCLUDE ADDITIONAL TIME REQUIRED FOR MAKING CORRECTIONS OR REVISIONS TO SUBMITTALS NOTED BY ARCHITECT AND CONTRACTOR AND ADDITIONAL TIME FOR HANDLING AND REVIEWING SUBMITTALS REQUIRED BY THOSE CORRECTIONS.
- B. PREPARE AND SUBMIT SUBMITTALS AS INCLUDED IN THE SUBMITTAL SCHEDULED.
- C. EMAIL: PREPARE SUBMITTALS AS PDF PACKAGE AND TRANSMIT TO ARCHITECT BY SENDING VIA EMAIL. INCLUDE PDF TRANSMITTAL FORM. INCLUDE INFORMATION IN EMAIL SUBJECT LINE AS REQUESTED BY ARCHITECT.
- D. WEB-BASED PROJECT MANAGEMENT SOFTWARE: PREPARE SUBMITTALS IN PDF FORM, AND UPLOAD TO WEB-BASED PROJECT MANAGEMENT SOFTWARE WEBSITE. ENTER REQUIRED DATA IN WEB-BASED SOFTWARE SITE TO FULLY IDENTIFY SUBMITTAL.
- E. ACTION SUBMITTALS AND INFORMATIONAL SUBMITTALS: REVIEW EACH SUBMITTAL AND CHECK FOR COORDINATION WITH OTHER WORK OF THE CONTRACT AND FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. NOTE CORRECTIONS AND FIELD DIMENSIONS. MARK WITH APPROVAL STAMP BEFORE SUBMITTING TO ARCHITECT.
- F. USE FOR CONSTRUCTION: RETAIN COMPLETE COPIES OF SUBMITTALS ON PROJECT SITE. USE ONLY FINAL ACTION SUBMITTALS THAT ARE MARKED WITH APPROVAL NOTATION FROM ARCHITECT'S AND CONTRACTOR'S ACTION STAMP.
- G. SUBMITTAL INFORMATION: INCLUDE THE FOLLOWING INFORMATION IN EACH SUBMITTAL:
 1. PROJECT NAME, DATE AND INDICATION OF FULL OR PARTIAL SUBMITTAL.
 2. ARCHITECT'S AND CONTRACTOR'S AND/OR CONSTRUCTION MANAGER'S, FIRM OR ENTITY THAT PREPARED SUBMITTAL AND SUBCONTRACTOR, MANUFACTURER, AND SUPPLIER NAMES.
 3. NUMBER AND TITLE OF SPECIFICATION SECTION, WITH PARAGRAPH NUMBER AND GENERIC NAME FOR EACH OF MULTIPLE ITEMS
 4. MATERIAL OR SYSTEM NAME AND DRAWING NUMBER AND DETAIL REFERENCES, AS APPROPRIATE.
 5. IDENTIFY OPTIONS REQUIRING SELECTION BY ARCHITECT.
 6. LOCATION(S) WHERE PRODUCT IS TO BE INSTALLED, AS APPROPRIATE AND OTHER NECESSARY INFORMATION.
 7. ON EACH SUBMITTAL, CLEARLY INDICATE DEVIATIONS FROM REQUIREMENTS IN THE CONTRACT DOCUMENTS, INCLUDING MINOR VARIATIONS AND LIMITATIONS; INCLUDE RELEVANT ADDITIONAL INFORMATION AND REVISIONS, OTHER THAN THOSE REQUESTED BY ARCHITECT AND CONTRACTOR ON PREVIOUS SUBMITTALS. INDICATE BY HIGHLIGHTING ON EACH SUBMITTAL OR NOTING ON ATTACHED SEPARATE SHEET.
- H. INCOMPLETE SUBMITTALS ARE UNACCEPTABLE, WILL BE CONSIDERED NONRESPONSIVE, AND WILL BE RETURNED FOR RESUBMITTAL WITHOUT REVIEW.
- I. ARCHITECT'S ACTION: ARCHITECT WILL REVIEW INFORMATION OR DOCUMENTATION NOTIFY CONTRACTOR OF ACCEPTANCE REQUEST FOR MORE INFORMATION OR REJECTION WITHIN 14 DAYS OF RECEIPT. ARCHITECT WILL REVIEW RESUBMITTAL WITHIN 7 DAYS OF RECEIPT.
- J. SUBMITTALS NOT REQUIRED BY THE CONTRACT DOCUMENTS WILL BE RETURNED BY ARCHITECT WITHOUT ACTION.

QUALITY REQUIREMENTS:

- A. CONFLICTING STANDARDS AND OTHER REQUIREMENTS: IF COMPLIANCE WITH TWO OR MORE STANDARDS OR REQUIREMENTS IS SPECIFIED AND THE STANDARDS OR REQUIREMENTS ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, INFORM THE ARCHITECT REGARDING THE CONFLICT AND OBTAIN CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK. REFER CONFLICTING REQUIREMENTS THAT ARE DIFFERENT, BUT APPARENTLY EQUAL, TO ARCHITECT FOR CLARIFICATION BEFORE PROCEEDING.
- B. PREPARE AND SUBMIT CERTIFIED WRITTEN REPORTS REQUIRED. INCLUDE THE FOLLOWING:
 1. PROJECT TITLE AND NUMBER AND DATE OF ISSUE. RECORD OF TEMPERATURE AND WEATHER CONDITIONS AT TIME OF SAMPLE TAKING AND TESTING AND INSPECTION. NAME AND SIGNATURE OF LABORATORY INSPECTOR.
 2. NAME, ADDRESS, TELEPHONE NUMBER, AND EMAIL ADDRESS OF TESTING AGENCY
 3. DATES AND LOCATIONS OF SAMPLES AND TESTS OR INSPECTIONS.
 4. TEST AND INSPECTION RESULTS AND AN INTERPRETATION OF TEST RESULTS. COMMENTS OR PROFESSIONAL OPINION ON WHETHER TESTED OR INSPECTED WORK COMPLIES WITH THE CONTRACT DOCUMENT REQUIREMENTS. RECOMMENDATIONS ON RETESTING AND REINSPECTING.
- C. MANUFACTURER QUALIFICATIONS: A FIRM EXPERIENCED IN MANUFACTURING PRODUCTS OR SYSTEMS SIMILAR TO THOSE INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE, AS WELL AS SUFFICIENT PRODUCTION CAPACITY TO PRODUCE REQUIRED UNITS. AS APPLICABLE, PROCURE PRODUCTS FROM MANUFACTURERS ABLE TO MEET QUALIFICATION REQUIREMENTS, WARRANTY REQUIREMENTS, AND TECHNICAL OR FACTORY-AUTHORIZED SERVICE REPRESENTATIVE REQUIREMENTS.
- D. FABRICATOR QUALIFICATIONS: A FIRM EXPERIENCED IN PRODUCING PRODUCTS SIMILAR TO THOSE INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE, AS WELL AS SUFFICIENT PRODUCTION CAPACITY TO PRODUCE REQUIRED UNITS.
- E. INSTALLER QUALIFICATIONS: A FIRM OR INDIVIDUAL EXPERIENCED IN INSTALLING, ERECTING, APPLYING, OR ASSEMBLING WORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT, WHOSE WORK HAS RESULTED IN CONSTRUCTION WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE.
- F. TESTING AND INSPECTING AGENCY QUALIFICATIONS: AN NRTL, AN NVLAP, OR AN INDEPENDENT AGENCY WITH THE EXPERIENCE AND CAPABILITY TO CONDUCT TESTING AND INSPECTION INDICATED, AS DOCUMENTED ACCORDING TO ASTM E329; AND WITH ADDITIONAL QUALIFICATIONS REQUIRED BY THE CONSTRUCTION DOCUMENTS; AND, WHERE REQUIRED BY AUTHORITIES HAVING JURISDICTION, THAT IS ACCEPTABLE TO AUTHORITIES.
- G. PRECONSTRUCTION TESTING: WHERE TESTING AGENCY IS INDICATED TO PERFORM PRECONSTRUCTION TESTING FOR COMPLIANCE WITH SPECIFIED REQUIREMENTS FOR PERFORMANCE AND TEST METHODS, COMPLY WITH THE FOLLOWING:
 1. CONTRACTOR RESPONSIBILITIES INCLUDE THE FOLLOWING: PROVIDE TEST SPECIMENS REPRESENTATIVE OF PROPOSED PRODUCTS AND CONSTRUCTION. SUBMIT SPECIMENS IN A TIMELY MANNER WITH SUFFICIENT TIME FOR TESTING AND ANALYZING RESULTS TO PREVENT DELAYING THE WORK. WHEN TESTING IS COMPLETE, REMOVE TEST SPECIMENS AND TEST ASSEMBLIES, AND MOCKUPS UNLESS NOTED OTHERWISE; DO NOT REUSE PRODUCTS ON PROJECT.
 2. TESTING AGENCY RESPONSIBILITIES: SUBMIT A CERTIFIED WRITTEN REPORT OF EACH TEST, INSPECTION, AND SIMILAR QUALITY-ASSURANCE SERVICE TO ARCHITECT AND CONTRACTOR. INTERPRET TESTS AND INSPECTIONS AND STATE IN EACH REPORT WHETHER TESTED AND INSPECTED WORK COMPLIES WITH OR DEVIATES FROM THE CONTRACT DOCUMENTS.
- H. MOCKUPS: BEFORE INSTALLING PORTIONS OF THE WORK REQUIRING MOCKUPS, BUILD MOCKUPS FOR EACH FORM OF CONSTRUCTION AND FINISH REQUIRED TO COMPLY WITH THE FOLLOWING REQUIREMENTS, USING MATERIALS INDICATED FOR THE COMPLETED WORK, TO SIZE AND LOCATION INDICATED. DEMONSTRATE THE PROPOSED RANGE OF AESTHETIC EFFECTS AND WORKMANSHIP. NOTIFY ARCHITECT AND CONTRACTOR 7 DAYS IN ADVANCE OF DATES AND TIMES WHEN MOCKUPS WILL BE CONSTRUCTED AND ALLOW 7 DAYS FOR REVIEW AND APPROVAL. OBTAIN THE APPROVAL FROM ARCHITECT AND CONTRACTOR BEFORE STARTING CORRESPONDING WORK. FABRICATION OR CONSTRUCTION. MAINTAIN MOCKUPS DURING CONSTRUCTION IN AN UNDISTURBED CONDITION AS A STANDARD FOR JUDGING THE COMPLETED WORK. DEMOLISH AND REMOVE MOCKUPS WHEN DIRECTED UNLESS OTHERWISE INDICATED.
- I. QUALITY CONTROL:
 1. CONTRACTOR RESPONSIBILITIES: TESTS AND INSPECTIONS ARE CONTRACTOR'S RESPONSIBILITY. PERFORM ADDITIONAL QUALITY-CONTROL ACTIVITIES, WHETHER SPECIFIED OR NOT, TO VERIFY AND DOCUMENT THAT THE WORK COMPLIES WITH REQUIREMENTS. ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM QUALITY-CONTROL SERVICES. NOTIFY TESTING AGENCIES AT LEAST (72) HOURS IN ADVANCE OF TIME WHEN WORK THAT REQUIRES TESTING OR INSPECTION WILL BE PERFORMED. COOPERATE WITH AGENCIES AND REPRESENTATIVES PERFORMING REQUIRED TESTS, INSPECTIONS, AND SIMILAR QUALITY-CONTROL SERVICES, AND PROVIDE REASONABLE AUXILIARY SERVICES AS REQUESTED.
 2. TESTING AGENCY RESPONSIBILITIES: COOPERATE WITH ARCHITECT, CONTRACTOR OR CONSTRUCTION MANAGER IN PERFORMANCE OF DUTIES. PROVIDE QUALIFIED PERSONNEL TO PERFORM REQUIRED TESTS AND INSPECTIONS. INTERPRET TESTS AND INSPECTIONS AND STATE IN EACH REPORT WHETHER TESTED AND INSPECTED WORK COMPLIES WITH OR DEVIATES FROM REQUIREMENTS. NOTIFY ARCHITECT OR CONTRACTOR PROMPTLY OF IRREGULARITIES OR DEFICIENCIES OBSERVED IN THE WORK DURING PERFORMANCE OF ITS SERVICES.
 3. CONTRACTOR AND TESTING AGENCY SHALL COORDINATE SEQUENCE OF ACTIVITIES TO ACCOMMODATE REQUIRED QUALITY-ASSURANCE AND QUALITY-CONTROL SERVICES WITH A MINIMUM OF DELAY AND TO AVOID NECESSITY OF REMOVING AND REPLACING CONSTRUCTION TO ACCOMMODATE TESTING AND INSPECTION.
- J. SPECIAL TESTS AND INSPECTIONS: OWNER WILL ENGAGE A QUALIFIED TESTING AGENCY OR SPECIAL INSPECTOR TO CONDUCT SPECIAL TESTS AND INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION AS THE RESPONSIBILITY OF OWNER AS INDICATED IN THE STATEMENT OF SPECIAL INSPECTIONS, AND AS FOLLOWS:
 1. VERIFYING THAT MANUFACTURER MAINTAINS DETAILED FABRICATION AND QUALITY-CONTROL PROCEDURES AND REVIEWING THE COMPLETENESS AND ADEQUACY OF THOSE PROCEDURES TO PERFORM THE WORK.
 2. NOTIFY ARCHITECT OR CONTRACTOR PROMPTLY OF IRREGULARITIES OR DEFICIENCIES OBSERVED IN THE WORK DURING PERFORMANCE OF ITS SERVICES.
 3. SUBMITTING A CERTIFIED WRITTEN REPORT OF EACH TEST, INSPECTION, AND SIMILAR QUALITY-CONTROL SERVICE TO ARCHITECT WITH COPY TO CONTRACTOR AND TO AUTHORITIES HAVING JURISDICTION. SUBMIT A FINAL REPORT OF SPECIAL TESTS AND INSPECTIONS AT SUBSTANTIAL COMPLETION, WHICH INCLUDES A LIST OF UNRESOLVED DEFICIENCIES.
 4. RETESTING AND REINSPECTING CORRECTED WORK.
- K. ALL RETESTING/REINSPECTING: REGARDLESS OF WHETHER ORIGINAL TESTS OR INSPECTIONS WERE CONTRACTOR'S RESPONSIBILITY OR THE OWNER'S SPECIAL INSPECTIONS, PROVIDE QUALITY-CONTROL SERVICES, INCLUDING RETESTING AND REINSPECTING, FOR CONSTRUCTION THAT REPLACED WORK THAT FAILED TO COMPLY WITH THE CONTRACT DOCUMENTS.

CONSTRUCTION WASTE MANAGEMENT:

- A. DEVELOP A WASTE MANAGEMENT PLAN AND SUBMIT PLAN FOR APPROVAL WITHIN 14 DAYS OF DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK.
- B. DISTRIBUTE AND IMPLEMENT APPROVED WASTE MANAGEMENT PLAN. PROVIDE HANDLING, CONTAINERS, STORAGE, SIGNAGE, TRANSPORTATION, AND OTHER ITEMS AS REQUIRED TO IMPLEMENT WASTE MANAGEMENT PLAN DURING THE ENTIRE DURATION OF THE CONTRACT.
- C. TRAIN WORKERS, SUBCONTRACTORS, AND SUPPLIERS ON PROPER WASTE MANAGEMENT PROCEDURES, AS APPROPRIATE FOR THE WORK.
- D. SITE ACCESS AND TEMPORARY CONTROLS: CONDUCT WASTE MANAGEMENT OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, WALKWAYS, AND OTHER ADJACENT OCCUPIED AND USED FACILITIES. DESIGNATE AND LABEL SPECIFIC AREAS ON PROJECT SITE NECESSARY FOR SEPARATING MATERIALS THAT ARE TO BE SALVAGED AND RECYCLED.

CLOSEOUT PROCEDURES:

- A. CONTRACTOR'S LIST OF INCOMPLETE ITEMS: PREPARE AND SUBMIT A LIST OF ITEMS TO BE COMPLETED AND CORRECTED (CONTRACTOR'S "PUNCH LIST"), INDICATING THE VALUE OF EACH ITEM ON THE LIST AND REASONS WHY THE WORK IS INCOMPLETE.
- B. SUBMITTALS PRIOR TO SUBSTANTIAL COMPLETION: COMPLETE THE FOLLOWING A MINIMUM OF 10 DAYS PRIOR TO REQUESTING INSPECTION FOR DETERMINING DATE OF SUBSTANTIAL COMPLETION.
 1. SUBMIT A FINAL APPLICATION FOR PAYMENT.
 2. CERTIFICATE OF INSURANCE: SUBMIT EVIDENCE OF FINAL, CONTINUING INSURANCE COVERAGE.
 3. CERTIFIED LIST OF INCOMPLETE ITEMS: SUBMIT CERTIFIED COPY OF ARCHITECT'S SUBSTANTIAL COMPLETION INSPECTION LIST OF ITEMS TO BE COMPLETED OR CORRECTED (PUNCH LIST), ENDORSED AND DATED BY ARCHITECT. CERTIFIED COPY OF THE LIST SHALL STATE THAT EACH ITEM HAS BEEN COMPLETED OR OTHERWISE RESOLVED FOR ACCEPTANCE.
 4. CERTIFICATES OF RELEASE: OBTAIN AND SUBMIT RELEASES FROM AUTHORITIES HAVING JURISDICTION, PERMITTING OWNER UNRESTRICTED USE OF THE WORK AND ACCESS TO SERVICES AND UTILITIES. INCLUDE OCCUPANCY PERMITS, OPERATING CERTIFICATES, AND SIMILAR RELEASES.
 5. SUBMIT CLOSEOUT SUBMITTALS AS REQUIRED, INCLUDING SPECIFIC WARRANTIES, WORKMANSHIP BONDS, MAINTENANCE SERVICE AGREEMENTS, FINAL CERTIFICATIONS, AND SIMILAR DOCUMENTS.
 6. SUBMIT MAINTENANCE MATERIAL SUBMITTALS SPECIFIED IN INDIVIDUAL SECTIONS, INCLUDING TOOLS, SPARE PARTS, EXTRA MATERIALS, AND SIMILAR ITEMS, AND DELIVER TO LOCATION DESIGNATED BY OWNER OR OWNER'S AGENT. LABEL WITH MANUFACTURER'S NAME AND MODEL NUMBER.
 7. SUBMIT TESTING, ADJUSTING, AND BALANCING RECORDS.
 8. SUBMIT CHANGEOVER INFORMATION RELATED TO OWNER'S OCCUPANCY, USE, OPERATION, AND MAINTENANCE.

C. FINAL CLEANING

1. EMPLOY EXPERIENCED WORKERS OR PROFESSIONAL CLEANERS FOR FINAL CLEANING. CLEAN EACH SURFACE OR UNIT TO CONDITION EXPECTED IN AN AVERAGE COMMERCIAL BUILDING CLEANING AND MAINTENANCE PROGRAM. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. USE CLEANING PRODUCTS THAT COMPLY WITH GREEN SEAL'S GS-37, OR IF GS-37 IS NOT APPLICABLE, USE PRODUCTS THAT COMPLY WITH THE CALIFORNIA CODE OF REGULATIONS MAXIMUM ALLOWABLE VOC LEVELS.
3. CLEAN EXPOSED EXTERIOR AND INTERIOR HARD-SURFACED FINISHES TO A DIRT-FREE CONDITION, FREE OF STAINS, FILMS, AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING NATURAL WEATHERING OF EXTERIOR SURFACES. RESTORE REFLECTIVE SURFACES TO THEIR ORIGINAL CONDITION.
4. VACUUM CARPET AND SIMILAR SOFT SURFACES, REMOVING DEBRIS AND EXCESS NAP; CLEAN ACCORDING TO MANUFACTURER'S RECOMMENDATIONS IF VISIBLE SOIL OR STAINS REMAIN.
5. CLEAN TRANSPARENT MATERIALS, INCLUDING MIRRORS AND GLASS IN DOORS AND WINDOWS. REMOVE GLAZING COMPOUNDS AND OTHER NOTICEABLE, VISION-OBSCURING MATERIALS. POLISH MIRRORS AND GLASS, TAKING CARE NOT TO SCRATCH SURFACES.
6. CLEAN PLUMBING FIXTURES TO A SANITARY CONDITION, FREE OF STAINS, INCLUDING STAINS RESULTING FROM WATER EXPOSURE.

OPERATIONS AND MAINTENANCE DATA:

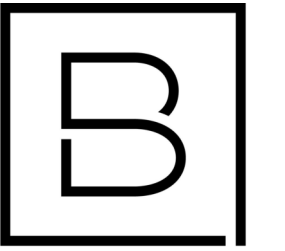
- A. SUBMIT EACH MANUAL IN FINAL FORM PRIOR TO REQUESTING INSPECTION FOR SUBSTANTIAL COMPLETION AND AT LEAST 10 DAYS BEFORE COMMENCING DEMONSTRATION AND TRAINING.
- B. CORRECT OR REVISE EACH MANUAL TO COMPLY WITH ARCHITECT'S COMMENTS. SUBMIT COPIES OF EACH CORRECTED MANUAL WITHIN 10 DAYS OF RECEIPT OF ARCHITECT'S COMMENTS AND PRIOR TO COMMENCING DEMONSTRATION AND TRAINING.
- C. SUBMIT ON DIGITAL MEDIA ACCEPTABLE TO ARCHITECT BY UPLOADING TO WEB-BASED PROJECT SOFTWARE SITE OR BY EMAIL TO ARCHITECT, IF WEB-BASED SOFTWARE IS NOT UTILIZED. ENABLE REVIEWER COMMENTS ON DRAFT SUBMITTALS.
 1. ELECTRONIC FILES: USE ELECTRONIC FILES PREPARED BY MANUFACTURER WHERE AVAILABLE. WHERE SCANNING OF PAPER DOCUMENTS IS REQUIRED, CONFIGURE SCANNED FILE FOR MINIMUM READABLE FILE SIZE.
 2. BOOKMARK INDIVIDUAL DOCUMENTS BASED ON FILE NAMES. NAME DOCUMENT FILES TO CORRESPOND TO SYSTEM, SUBSYSTEM, AND EQUIPMENT NAMES USED IN MANUAL DIRECTORY AND TABLE OF CONTENTS. GROUP DOCUMENTS FOR EACH SYSTEM AND SUBSYSTEM INTO INDIVIDUAL COMPOSITE BOOKMARKED FILES; THEN CREATE COMPOSITE MANUAL, SO THAT RESULTING BOOKMARKS REFLECT THE SYSTEM, SUBSYSTEM, AND EQUIPMENT NAMES IN A READILY NAVEGATED FILE TREE. CONFIGURE ELECTRONIC MANUAL TO DISPLAY BOOKMARK PANEL ON OPENING FILE.
- D. ORGANIZATION OF MANUALS: UNLESS OTHERWISE INDICATED, ORGANIZE EACH MANUAL INTO A SEPARATE SECTION FOR EACH SYSTEM AND SUBSYSTEM, AND A SEPARATE SECTION FOR EACH PIECE OF EQUIPMENT NOT PART OF A SYSTEM. PROVIDE A TITLE PAGE AND TABLE OF CONTENTS.
 1. TITLE PAGE SHALL INCLUDE:
 - a. SUBJECT MATTER INCLUDED IN MANUAL.
 - b. DATE OF SUBMITTAL.
 - c. NAME AND CONTACT INFORMATION FOR CONTRACTOR AND CONSTRUCTION MANAGER WHEN APPLICABLE.
 - d. NAME AND CONTACT INFORMATION FOR COMMISSIONING AUTHORITY.
 2. EMERGENCY MANUAL: ASSEMBLE A COMPLETE SET OF EMERGENCY INFORMATION INDICATING PROCEDURES FOR USE BY EMERGENCY PERSONNEL AND BY OWNER'S OPERATING PERSONNEL FOR TYPES OF EMERGENCIES INDICATED.
 3. SYSTEMS AND EQUIPMENT OPERATION MANUAL: ASSEMBLE A COMPLETE SET OF DATA INDICATING OPERATION OF EACH SYSTEM, SUBSYSTEM, AND PIECE OF EQUIPMENT NOT PART OF A SYSTEM. INCLUDE INFORMATION REQUIRED FOR DAILY OPERATION AND MANAGEMENT, OPERATING STANDARDS, AND ROUTINE AND SPECIAL OPERATING PROCEDURES.
 4. SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS: ASSEMBLE A COMPLETE SET OF DATA INDICATING MAINTENANCE OF EACH SYSTEM, SUBSYSTEM, AND PIECE OF EQUIPMENT NOT PART OF A SYSTEM. INCLUDE MANUFACTURER'S MAINTENANCE DOCUMENTATION, PREVENTIVE MAINTENANCE PROCEDURES AND FREQUENCY, REPAIR PROCEDURES, WIRING AND SYSTEMS DIAGRAMS, LISTS OF SPARE PARTS, AND WARRANTY INFORMATION.
 5. PRODUCT MAINTENANCE MANUAL: ASSEMBLE A COMPLETE SET OF MAINTENANCE DATA INDICATING CARE AND MAINTENANCE OF EACH PRODUCT, MATERIAL, AND FINISH INCORPORATED INTO THE WORK.

PROJECT RECORD DOCUMENTS:

- A. RECORD PRINTS: MAINTAIN ONE SET OF MARKED-UP PAPER COPIES OF THE CONTRACT DRAWINGS AND SHOP DRAWINGS, INCORPORATING NEW AND REVISED DRAWINGS AS MODIFICATIONS ARE ISSUED.
- B. MAINTAIN ONE COPY OF EACH SUBMITTAL DURING THE CONSTRUCTION PERIOD FOR PROJECT RECORD DOCUMENT PURPOSES. POST CHANGES AND REVISIONS TO PROJECT RECORD DOCUMENTS AS THEY OCCUR. DO NOT WAIT UNTIL END OF PROJECT.
- C. RECORD DIGITAL DATA FILES: IMMEDIATELY BEFORE INSPECTION FOR CERTIFICATE OF SUBSTANTIAL COMPLETION, REVIEW MARKED-UP RECORD DOCUMENTS WITH ARCHITECT AND/OR CONTRACTOR, WHEN AUTHORIZED. PREPARE A FULL SET OF CORRECTED DIGITAL DATA FILES OF THE CONTRACT DOCUMENTS. SEE OPERATIONS AND MAINTENANCE DATA SECTION ABOVE FOR SUBMISSION FORMAT REQUIREMENTS.

DEMONSTRATION AND TRAINING:

- A. FACILITATOR: CONTRACTOR SHALL PREPARE INSTRUCTION PROGRAM AND TRAINING MODULES, TO COORDINATE INSTRUCTORS, AND TO COORDINATE BETWEEN CONTRACTOR AND OWNER FOR NUMBER OF PARTICIPANTS, INSTRUCTION TIMES, AND LOCATION.
- B. ENGAGE QUALIFIED INSTRUCTORS TO INSTRUCT OWNER'S PERSONNEL TO ADJUST, OPERATE, AND MAINTAIN SYSTEMS, SUBSYSTEMS, AND EQUIPMENT NOT PART OF A SYSTEM.
- C. PROVIDE INSTRUCTION AT MUTUALLY AGREED-ON TIMES. FOR EQUIPMENT THAT REQUIRES SEASONAL OPERATION, PROVIDE SIMILAR INSTRUCTION AT START OF EACH SEASON.
- D. TRAINING LOCATION AND REFERENCE MATERIAL: CONDUCT TRAINING ON-SITE IN THE COMPLETED AND FULLY OPERATIONAL FACILITY USING THE ACTUAL EQUIPMENT IN-PLACE. CONDUCT TRAINING USING FINAL OPERATION AND MAINTENANCE DATA SUBMITTALS.
- E. EVALUATION: AT CONCLUSION OF EACH TRAINING MODULE, ASSESS AND DOCUMENT EACH PARTICIPANT'S MASTERY OF MODULE BY USE A DEMONSTRATION PERFORMANCE-BASED TEST.
- F. COLLECT USED AND LEFTOVER EDUCATIONAL MATERIALS AND GIVE TO OWNER. REMOVE INSTRUCTIONAL EQUIPMENT, RESTORE SYSTEMS AND EQUIPMENT TO CONDITION EXISTING BEFORE INITIAL TRAINING USE.



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ORCHARD VIEW SCHOOL DISTRICT

EARLY ELEMENTARY KITCHEN AND SERVING RENOVATIONS

2820 MACARTHUR RD
MUSKEGON, MI

Date Revised	Description
1-24-2023	OWNER REVIEW
1-31-2023	BIDS

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Project Manager	Discipline Lead
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Designer	Reviewer
E POST	D HOLTROP
Date Issued	Project Number
1/31/2023	22013309A

Sheet Name

GENERAL REQUIREMENTS

Drawing Number

A002

DEMO RCP KEYNOTES #

- C1 REMOVE EXISTING CEILING AND LIGHTING. PREPARE FOR NEW CEILING.
- C2 APPROXIMATE LOCATION OF NEW SUPPLY WATER PIPING PER PLUMBING DRAWINGS. TEMPORARILY REMOVE AND SALVAGE CEILING AND REINSTALL UPON COMPLETION OF WORK. COORDINATE EXACT EXTENT WITH PLUMBING.
- C3 EXISTING CEILING TO REMAIN. SEE ELECTRICAL DRAWINGS FOR LIGHT RELOCATION. REMOVE, SALVAGE, AND RE-WORK CEILING AS REQUIRED BY LIGHTING.
- C4 EXISTING CEILINGS

DEMO PLAN KEYNOTES #

- D1 SAWCUT AND REMOVE ENTIRE EXISTING CONCRETE SLAB IN THIS AREA. PREPARE AS REQUIRED FOR NEW STRIP FOOTING AND SLAB PER STRUCTURAL DRAWINGS.
- D2 SAWCUT AND REMOVE EXISTING FLOORING AND CONCRETE SLAB AS REQUIRED FOR NEW SANITARY LINES. NOTE THAT THE BALANCE OF THE EXISTING QUARRY TILE FLOOR IS TO REMAIN. PROTECT AS REQUIRED AND ALL SAW-CUTS TO BE MADE ON TILE JOINTS. COORDINATE EXACT EXTENT WITH PUMBING DRAWINGS. PATCH AND REPAIR FLOOR TO RECEIVE NEW TILE.
- D3 REMOVE EXISTING DOOR, FRAME, AND HARDWARE. REMOVE MASONRY AT JAMB TO ALLOW FOR TOOTHED IN MASONRY. PREPARE FOR INFILL TO MATCH EXISTING.
- D4 REMOVE EXISTING WOOD TRIM.
- D5 REMOVE EXISTING LINOLEUM FLOOR AND EXISTING WOOD GYM FLOOR ON SLEEPERS. BALANCE OF FLOOR TO REMAIN AS INDICATED. PROVIDE A CLEAN, STRAIGHT SAWCUT LINE AND PROTECT EXISTING AS REQUIRED.
- D6 DISCONNECT, REMOVE AND SALVAGE EXISTING COOLER FOR RELOCATION INTO NEW WORK. COORDINATE UTILITY REMOVAL WITH M.E.P.
- D7 DISCONNECT AND REMOVE EXISTING BOLTED PIPE BOLLARDS.
- D8 REMOVE EXISTING BASE ALONG EXISTING WALL AS REQUIRED FOR NEW WALL CONSTRUCTION.
- D9 TEMPORARILY REMOVE AND REINSTALL SHELVING IN THIS ROOM AS REQUIRED FOR NEW CONSTRUCTION.
- D10 REMOVE EXISTING WALL BASE AT EXTENT OF FLOORING REMOVAL. BALANCE OF BASE TO REMAIN.
- D11 DISCONNECT AND REMOVE EXISTING CONDENSING UNIT ASSOCIATED WITH WALK-IN FREEZER AND SALVAGE FOR RELOCATION. DISCONNECT AND REMOVE CONDENSATE LINES AND ELECTRICAL CONNECTIONS.

GENERAL NOTES

- A. CONTRACTOR SHALL COORDINATE REMOVAL OF FLOORS, WALLS AND CEILINGS WITH MECHANICAL, ELECTRICAL AND PLUMBING TRADES. ALL POWER, MECHANICAL AND PLUMBING LINES SHALL BE REMOVED BACK TO NEAREST MAIN BRANCH LINE OR PANEL.
- B. CONTRACTOR SHALL PROTECT EXISTING CONSTRUCTION AND EQUIPMENT NOTED TO REMAIN FROM DAMAGE RESULTING FROM DEMOLITION ACTIVITIES. ANY DAMAGE TO EXISTING PROPERTY RESULTING FROM DEMOLITION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- C. CONTRACTOR SHALL PROTECT ADJACENT SURFACES IN PREPARATION OF SAW CUTTING REQUIRED FOR DEMOLITION ACTIVITIES.



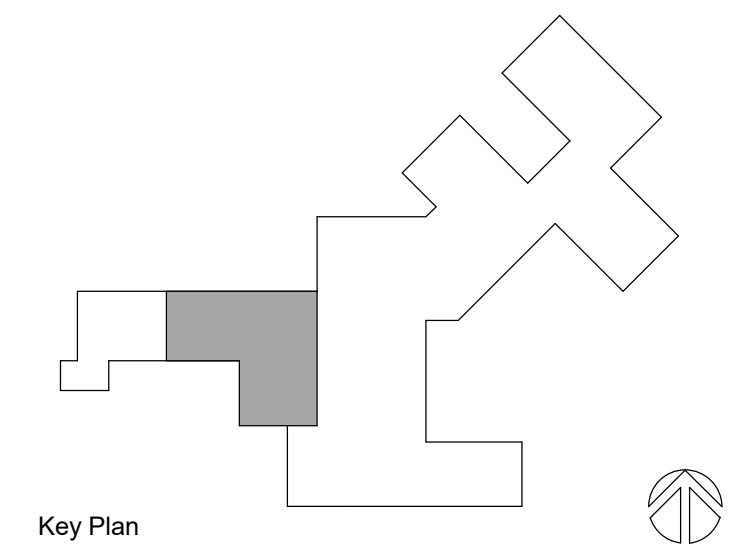
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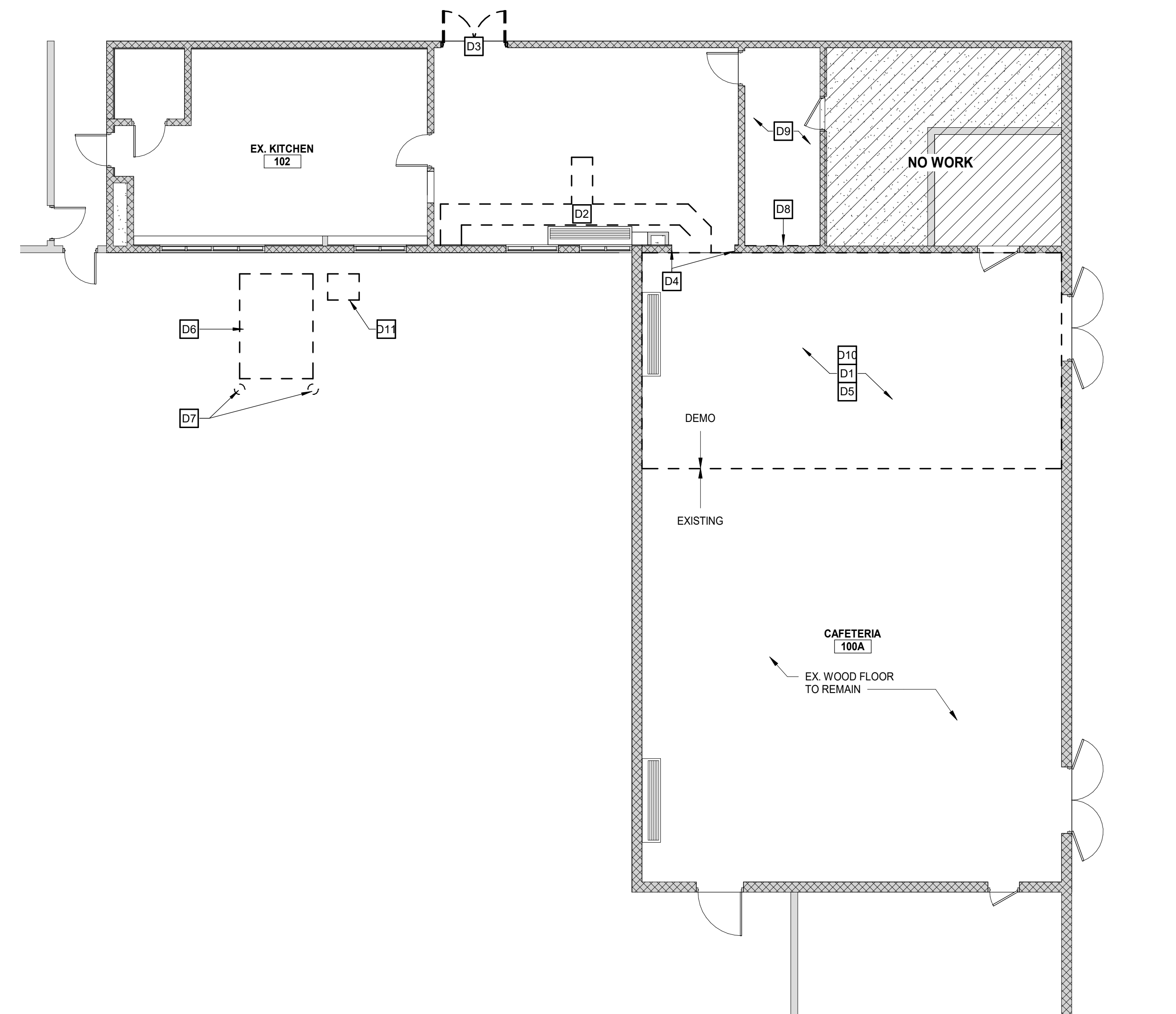
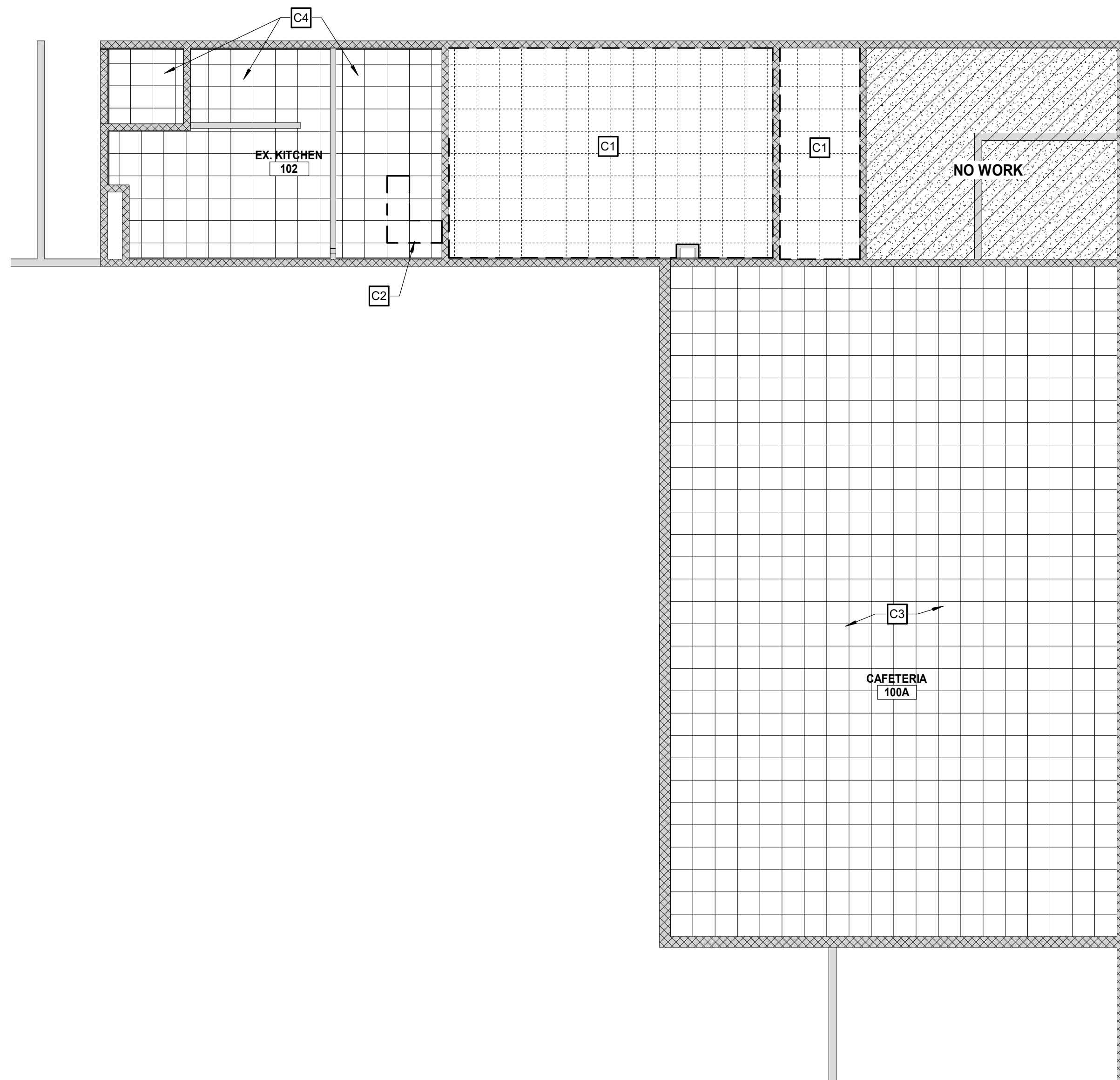
Project Manager	Discipline Lead
D HOLTROP	B HUYLER
Designer	Reviewer
E POST	R KEUNEKE
Date Issued	Project Number
1/31/2023	22013309A

Sheet Name

FIRST FLOOR AND CEILING DEMOLITION PLANS

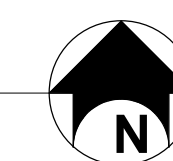
Drawing Number

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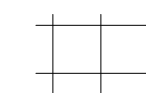


2 FIRST FLOOR DEMOLITION RCP
SCALE: 1/8" = 1'-0"

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

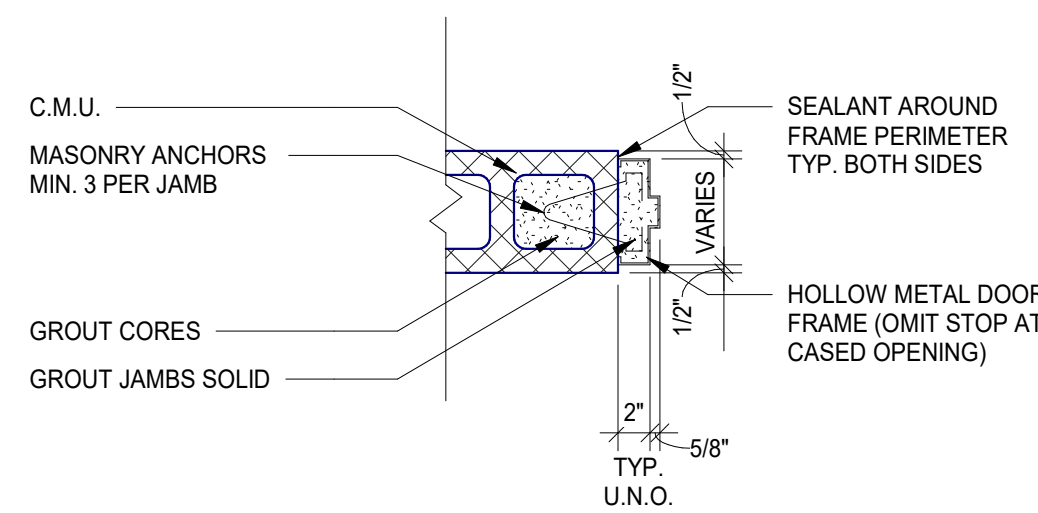


CEILING LEGEND

NOTE: SEE OTHER DISCIPLINE DRAWINGS (E.G. MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS) FOR ASSOCIATED SYSTEMS AND INFORMATION ABOUT SYMBOLS NOT INDICATED IN THIS LEGEND.

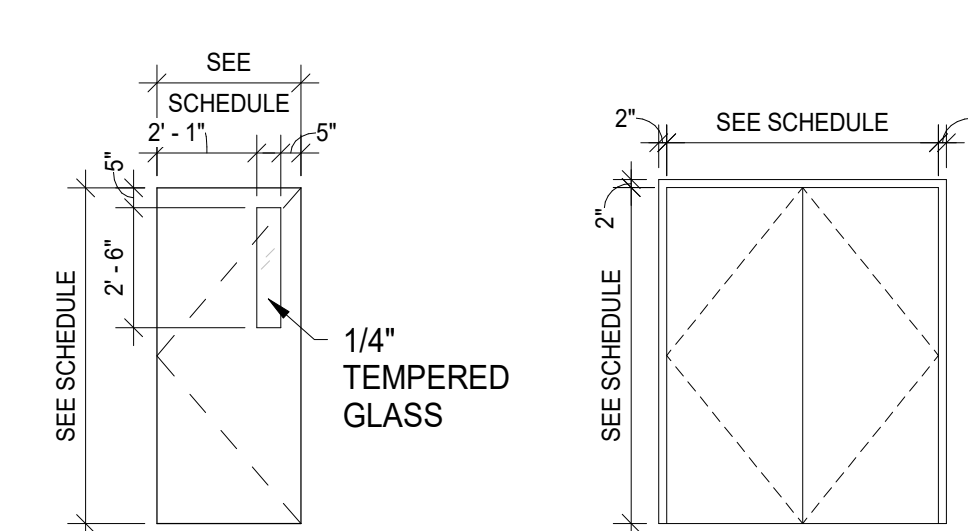
-  2' x 2' SUSPENDED CEILING TILE
-  GYPSUM BOARD CEILING/SOFFIT
-  OPEN TO DECK

DOOR #	DOOR					FRAME			GENERAL			REMARKS	DOOR #
	WIDTH	HEIGHT	THK.	TYPE	MAT-FIN	TYPE	MAT-FIN	DETAIL	HDWR	RATING			
101	5' - 6"	7' - 0"	1 3/4"	NG	WD - ST	1	HM - PT	A	01			VERIFY OPENING IN FIELD	101



NOTE: PROVIDE 4" FRAME @ HEAD OF CMU OPENINGS AS NOTED ON DOOR FRAME ELEVATIONS

JAMB DETAILS (HEAD DETAIL SIM.)



DOOR - TYPES DOOR - FRAME TYPES

GENERAL NOTES

- A. REFER TO A140 SERIES DRAWINGS FOR BASIS OF DESIGN, FINISH PLANS, SCHEDULES, AND DETAILS.
- B. REFER TO FSE SERIES DRAWINGS FOR FOOD SERVICE EQUIPMENT PLANS AND SCHEDULES.

DOORS & HARDWARE NOTES

- A. HOLLOW METAL FRAME: HEAVY-DUTY ANSIS/SDI A250.8, LEVEL 2, ANSIS/SDI A250.4, LEVEL B, FULL PROFILE WELDED, ACCEPTABLE MANUFACTURERS - CECO DOOR, CURRIES COMPANY, REPUBLIC DOORS AND FRAMES, AND STEELCRAFT.
- B. FLUSH WOOD DOORS: SOLID-CORE FIVE-PLY FLUSH WOOD VENEER-FACED DOORS FOR TRANSPARENT FINISH, PERFORMANCE GRADE - ANSII/WDMA I.S. EXTRA HEAVY DUTY, FACES - PLAIN SLICED RED OAK, CENTER-BALANCE MATCH, FINISH - FACTORY FINISH STAIN TO MATCH EXISTING DOORS, ACCEPTABLE MANUFACTURERS - EGGERS INDUSTRIES, OSHKOSH DOOR COMPANY, AND VT INDUSTRIES.
- C. HARDWARE
 - a. MORTISE LOCKS - SCHLAGE L9000, NO SUBSTITUTE.
 - b. CYLINDERS - CORBIN-RUSSWIN, NO SUBSTITUTE.
 - c. ALL CYLINDERS/CORES AND KEYING SHALL BE PURCHASED THROUGH ARCHITECTURAL HARDWARE COMPANY, MUSKEGON, MI AND INCLUDED IN BASE BID.
 - d. KEYING - MASTER KEYING SYSTEM AS DIRECTED BY OWNER.
 - e. KEYS - IDENTIFICATION AS DIRECTED BY OWNER.
- D. HARDWARE SET 01
 - a. (6) HINGES - 5B81HW 4.5 X 4.5 - FINISH 652 - MFR IVE
 - b. (1) CONST LATCHING BOLT - FB51P - FINISH 630 - MFR IVE
 - c. (1) DUST PROOF STRIKE - DP2 - FINISH 626 - MFR IVE
 - d. (1) CLASSROOM LOCK - LB070L 17A - FINISH 626 - MRF SCH
 - e. (1) MORTISE CYLINDER - KEYED TO EXISTING SYSTEM - COORDINATE W/OWNER - FINISH 626 - MRF C-R
 - f. (1) OH STOP & HOLDER - 100HP - FINISH 630 - MRF GLY
 - g. (1) SURFACE CLOSER - 4040XP RW/PA PULL SIDE - FINISH 689 - MFR LCN
 - h. (2) KICKPLATE - 8400 10" X 1" LDW B-CS - FINISH 630 - MFR IVE
 - i. (1) WALL STOPHOLDER - WS40 - FINISH 626 - MFR IVE
 - j. (2) SILENCER - SR65 - FINISH GRY - MFR IVE

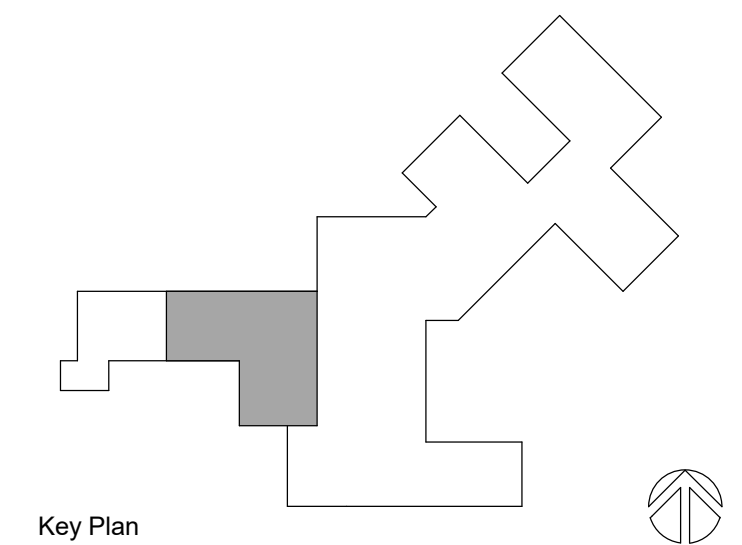
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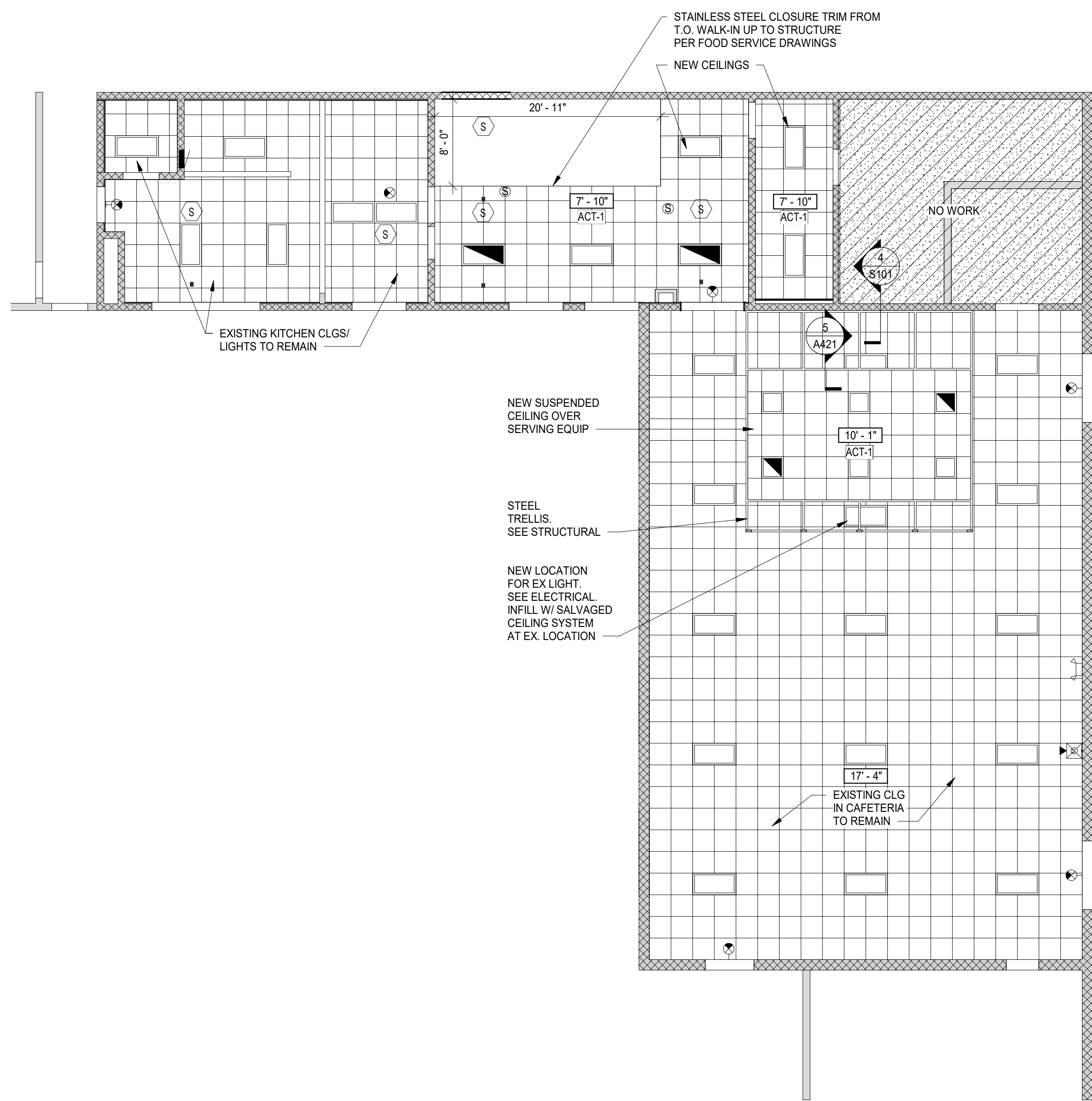
Project Manager	Discipline Lead
D HOLTROP	B HUYLER
Designer	Reviewer
E POST	R KEUNEKE
Date Issued	Project Number
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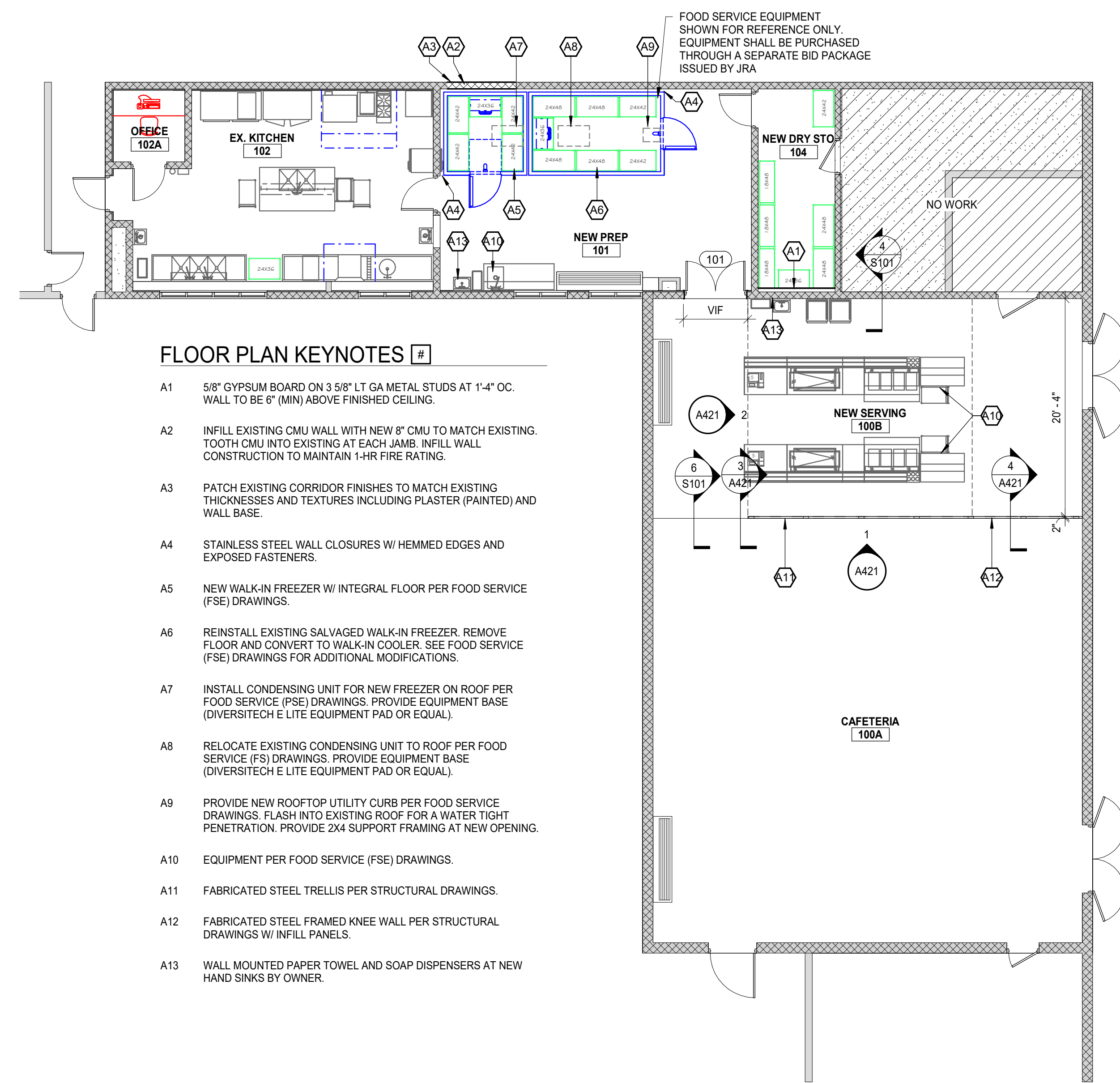
**FIRST FLOOR AND CEILING
PLANS**

Drawing Number

A101



2 FIRST FLOOR REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"



FLOOR PLAN KEYNOTES

- A1 5/8" GYPSUM BOARD ON 3 5/8" LT GA METAL STUDS AT 1'-4" OC. WALL TO BE 6" (MIN) ABOVE FINISHED CEILING.
- A2 INFILL EXISTING CMU WALL WITH NEW 8" CMU TO MATCH EXISTING. TOOTH CMU INTO EXISTING AT EACH JAMB. INFILL WALL CONSTRUCTION TO MAINTAIN 1-HR FIRE RATING.
- A3 PATCH EXISTING CORRIDOR FINISHES TO MATCH EXISTING THICKNESSES AND TEXTURES INCLUDING PLASTER (PAINTED) AND WALL BASE.
- A4 STAINLESS STEEL WALL CLOSURES W/ HEMMED EDGES AND EXPOSED FASTENERS.
- A5 NEW WALK-IN FREEZER W/ INTEGRAL FLOOR PER FOOD SERVICE (FSE) DRAWINGS.
- A6 REINSTALL EXISTING SALVAGED WALK-IN FREEZER. REMOVE FLOOR AND CONVERT TO WALK-IN COOLER. SEE FOOD SERVICE (FSE) DRAWINGS FOR ADDITIONAL MODIFICATIONS.
- A7 INSTALL CONDENSING UNIT FOR NEW FREEZER ON ROOF PER FOOD SERVICE (PSE) DRAWINGS. PROVIDE EQUIPMENT BASE (DIVERSITECH E LITE EQUIPMENT PAD OR EQUAL).
- A8 RELOCATE EXISTING CONDENSING UNIT TO ROOF PER FOOD SERVICE (FS) DRAWINGS. PROVIDE EQUIPMENT BASE (DIVERSITECH E LITE EQUIPMENT PAD OR EQUAL).
- A9 PROVIDE NEW ROOFTOP UTILITY CURB PER FOOD SERVICE DRAWINGS. FLASH INTO EXISTING ROOF FOR A WATER TIGHT PENETRATION. PROVIDE 2X4 SUPPORT FRAMING AT NEW OPENING.
- A10 EQUIPMENT PER FOOD SERVICE (FSE) DRAWINGS.
- A11 FABRICATED STEEL TRELLIS PER STRUCTURAL DRAWINGS.
- A12 FABRICATED STEEL FRAMED KNEE WALL PER STRUCTURAL DRAWINGS W/ INFILL PANELS.
- A13 WALL MOUNTED PAPER TOWEL AND SOAP DISPENSERS AT NEW HAND SINKS BY OWNER.

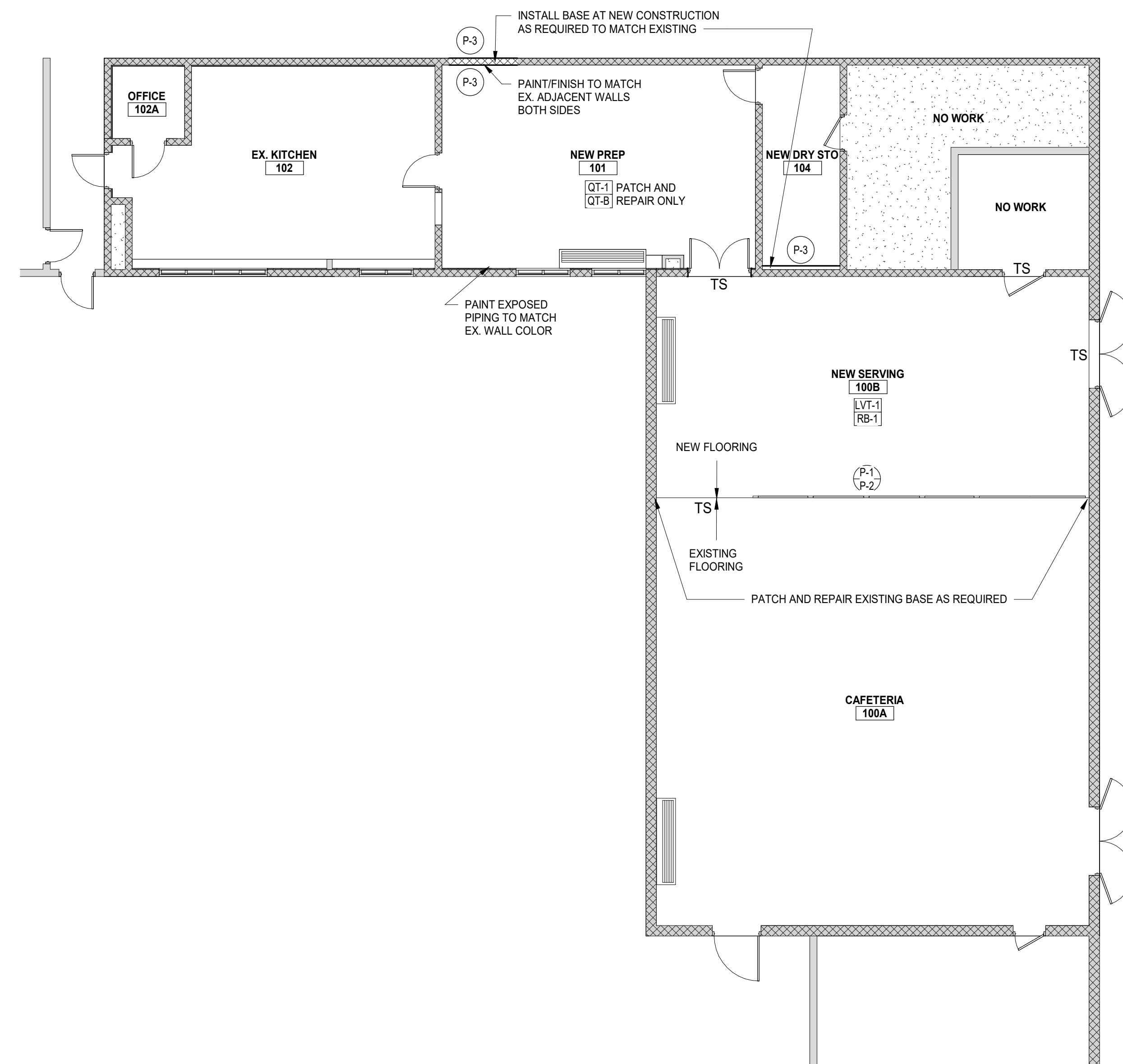
1 FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

BASIS OF DESIGN	
095113 ACOUSTICAL PANEL CEILINGS	
ACT-1: ACOUSTICAL CEILING TILE 24"x24"	
MANUFACTURER:	ARMSTRONG
STYLE:	KITCHENZONE
COLOR:	WHITE
EDGE:	SQUARE LAY-IN 15/16
GRID:	15/16" WHITE
NOTE:	
096519 RESILIENT TILE FLOORING	
LVT-1: LVT PLANK; 6" x 48", 20 MIL	
MANUFACTURER:	SHAW CONTRACT
COLLECTION:	SOLITUDE
STYLE:	0648V
COLOR:	COCOA 48103
NOTE:	
098433 INTERIOR PAINT	
P-1: METAL PAINT	
MANUFACTURER:	SHERWIN WILLIAMS
PRIMER:	PRO INDUSTRIAL PRO-CRYL
TOP COAT:	BOND-PLEX WATER BASED ACRYLIC COATING
COLOR:	B71S00200 ALUMINUM
P-2: METAL PAINT	
MANUFACTURER:	SHERWIN WILLIAMS
COLOR:	SW 6314 LUXURIOUS RED
FINISH:	SEMI-GLOSS
NOTE:	
P-3: COLOR TO MATCH EXISTING	
MANUFACTURER:	-
COLOR:	-
FINISH:	-
NOTE:	COORDINATE W/ OWNER
093000 TILE	
QT-1: QUARRY TILE	
MANUFACTURER:	DALTILE
COLLECTION:	QUETREAD & PAVER
STYLE:	SURFACE - PAVER
COLOR:	RED 0090
GROUT:	MAPEI PEARL GRAY 19 (OR SIMILAR TO EXISTING)
LOCATION:	NEW PREP RM 101 PATCH AND REPAIR
NOTE:	USE MATCHING WALL BASE, COVE (QT-B), WHERE NECESSARY FOR PATCH AND REPAIR
096513 RESILIENT BASE	
RB-1: RESILIENT WALL BASE: 4" H	
MANUFACTURER:	JOHNSONITE
STYLE:	TRADITIONAL 4" DC-32-4
COLOR:	BURNT UMBER
TOE STYLE:	COVE
NOTE:	

ROOM FINISH SCHEDULE									
ROOM NUMBER	ROOM NAME	FLOOR	BASE	WALLS				CEILING	REMARKS
				NORTH	SOUTH	EAST	WEST		
1ST FLOOR									
100A	CAFETERIA	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
100B	NEW SERVING	LVT-1	RB-1	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST /ACT-1 1
101	NEW PREP	QT-1*	QT-B*	P-3	EXIST	EXIST	EXIST	EXIST	ACT-1 2
102	EX. KITCHEN	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
102A	OFFICE	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
104	NEW DRY STO	EXIST	EXIST	EXIST	P-3	EXIST	EXIST	ACT-1	

REMARKS:

- STEEL TRELLIS TO RECEIVE P-1.
- PATCH EXISTING FLOOR AND BASE AS REQUIRED BY FLOOR SAW CUTS.

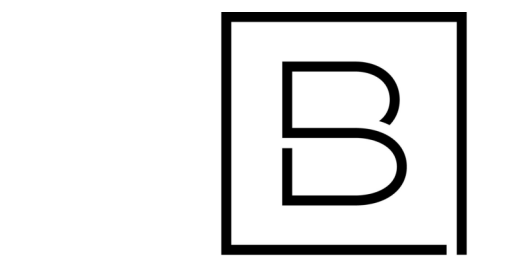


GENERAL NOTES

- COMPLY WITH MANUFACTURER'S RECOMMENDATIONS FOR PREPARING AND INSTALLING FINISHES.
- PROTECT ADJACENT WORK BY SUITABLY COVERING DURING WORK.
- REMOVE ADHESIVE OR PAINT SPOTS FROM FINISHED FLOORS, WALLS, GLASS OR OTHER SURFACES. FINISHES TO MEET OR EXCEED CODE REQUIREMENTS.
- INSTALL MATERIALS USING MANUFACTURER'S APPROVED ADHESIVES AND METHODS, U O N.
- FILL MINOR DRYWALL IRREGULARITIES WITH SPACKLING COMPOUND AND SAND TO A SMOOTH LEVEL SURFACE. EXERCISE CARE TO AVOID RAISING THE NAP OF PAPER.
- DO NOT PERFORM PAINTING AND OTHER FINISHING WORK UNDER CONDITIONS UNSUITABLE FOR EXECUTION OF PAINTING WORK. AIR SHALL BE FREE FROM DUST AND DIRT TO PREVENT LODGING OF FOREIGN MATTER IN FRESH PAINT. FLOORS MUST BE BROOM CLEAN BEFORE PAINTING IS STARTED.
- EDGES OF PAINT ADJOINING OTHER COLORS OR MATERIALS TO BE SHARP AND CLEAN WITHOUT OVERLAP.
- EXAMINE SURFACES TO RECEIVE PAINT CAREFULLY FOR DEFECTS. DO NOT PROCEED WITH WORK UNTIL DEFECTS ARE CORRECTED.
- WHENEVER NECESSARY TO OBTAIN REQUIRED RESULTS, REFINISH AN ENTIRE WALL RATHER THAN SPOT FINISHING WHERE A PORTION OF THE FINISH HAS BEEN DAMAGED OR IS UNSATISFACTORY.
- PREPARE FLOOR SURFACES INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
 - PREPARE/PROPERLY REPAIR AND PATCH SUBFLOORS TO A SMOOTH AND LEVEL FINISH.
 - FLASH PATCH AS REQUIRED, READY TO RECEIVE NEW FINISH.
- PROVIDE SELF LEVELING TROWELABLE UNDERLAYMENT WHERE REQUIRED TO OBTAIN FINISH MANUFACTURER'S REQUIRED SUBFLOOR CONDITION.
- INSTALL TILE PER THE TILE COUNCIL OF NORTH AMERICA'S INSTALLATION SPECIFICATIONS.
- PROVIDE THE REQUIRED TRANSITIONS BASED ON TYPES IDENTIFIED ON DRAWINGS AT EACH FINISH TRANSITION LOCATION.
- CENTER FLOOR MATERIAL TRANSITIONS ON DOOR ABOVE.
- FINISHED FLOORS EXTEND INTO TOE SPACES, CLOSETS, DOOR REVEALS AND SIMILAR OPENINGS.
- REFER TO REFLECTED CEILING PLANS FOR CEILING FINISHES.
- REFER TO ELEVATIONS FOR MILLWORK FINISHES.

FINISH SYMBOL LEGEND

- XX# → FLOOR FINISH ONLY
XX# → FLOOR FINISH AND WALL BASE
X# → GENERAL WALL FINISH SPLIT
 TS → TRANSITION STRIP



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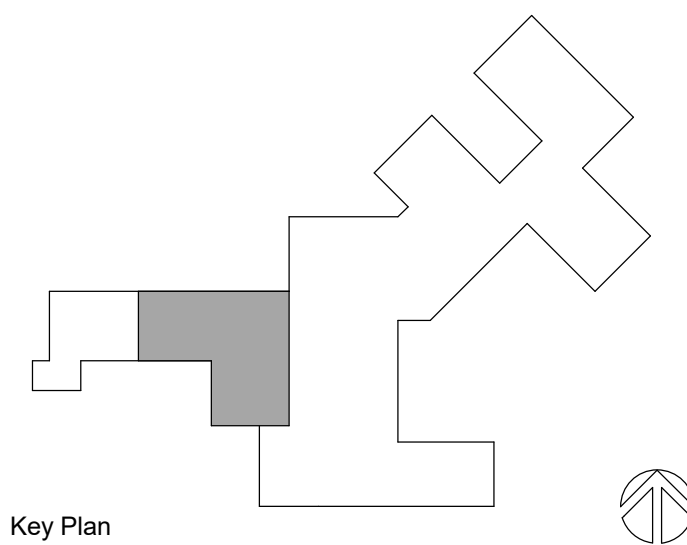
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Key Plan

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D HOLTROP	B HUYLER
Designer	Reviewer
E POST	R KEUNEKE
Date Issued	Project Number
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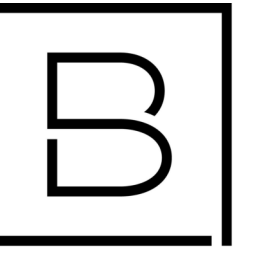
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FIRST FLOOR FINISH PLAN

Drawing Number

A141

1 FIRST FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"

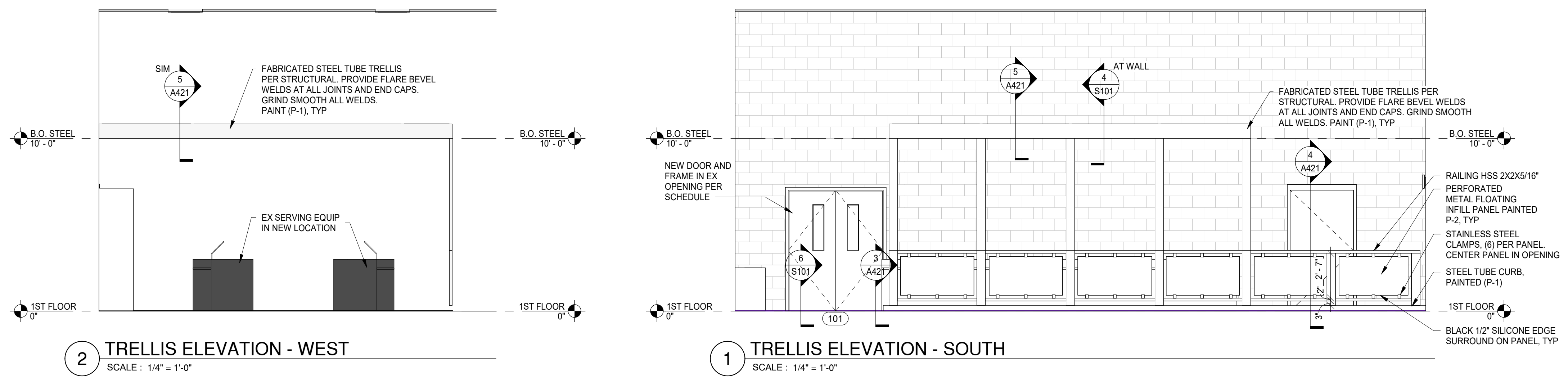
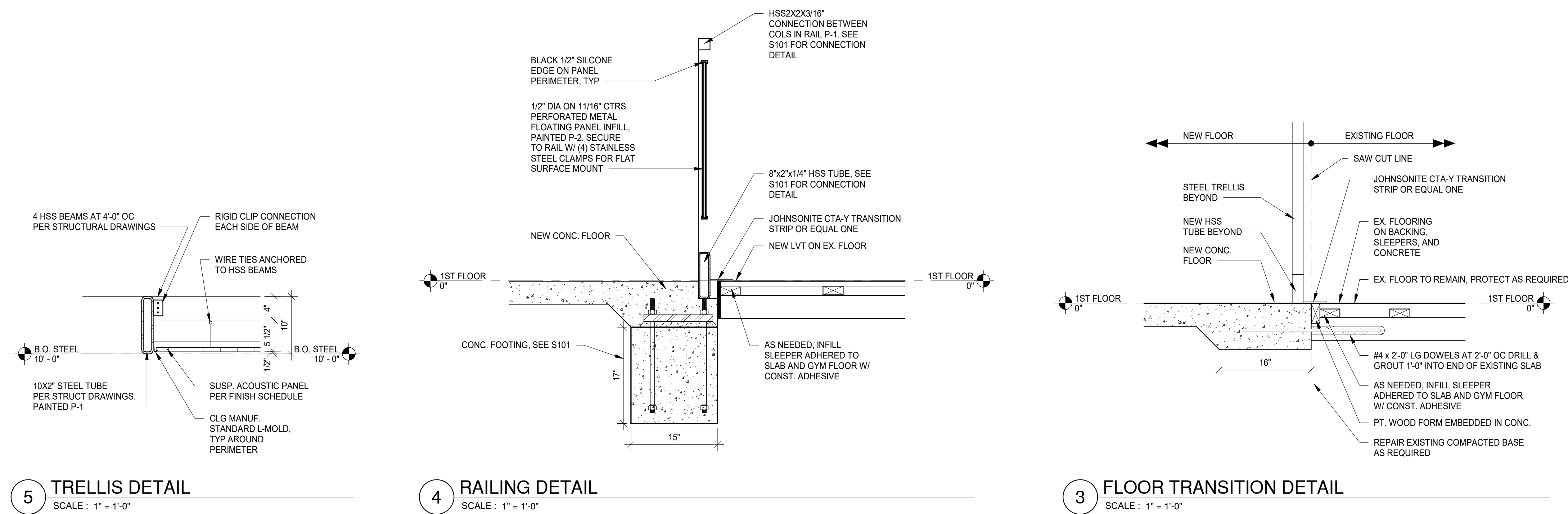


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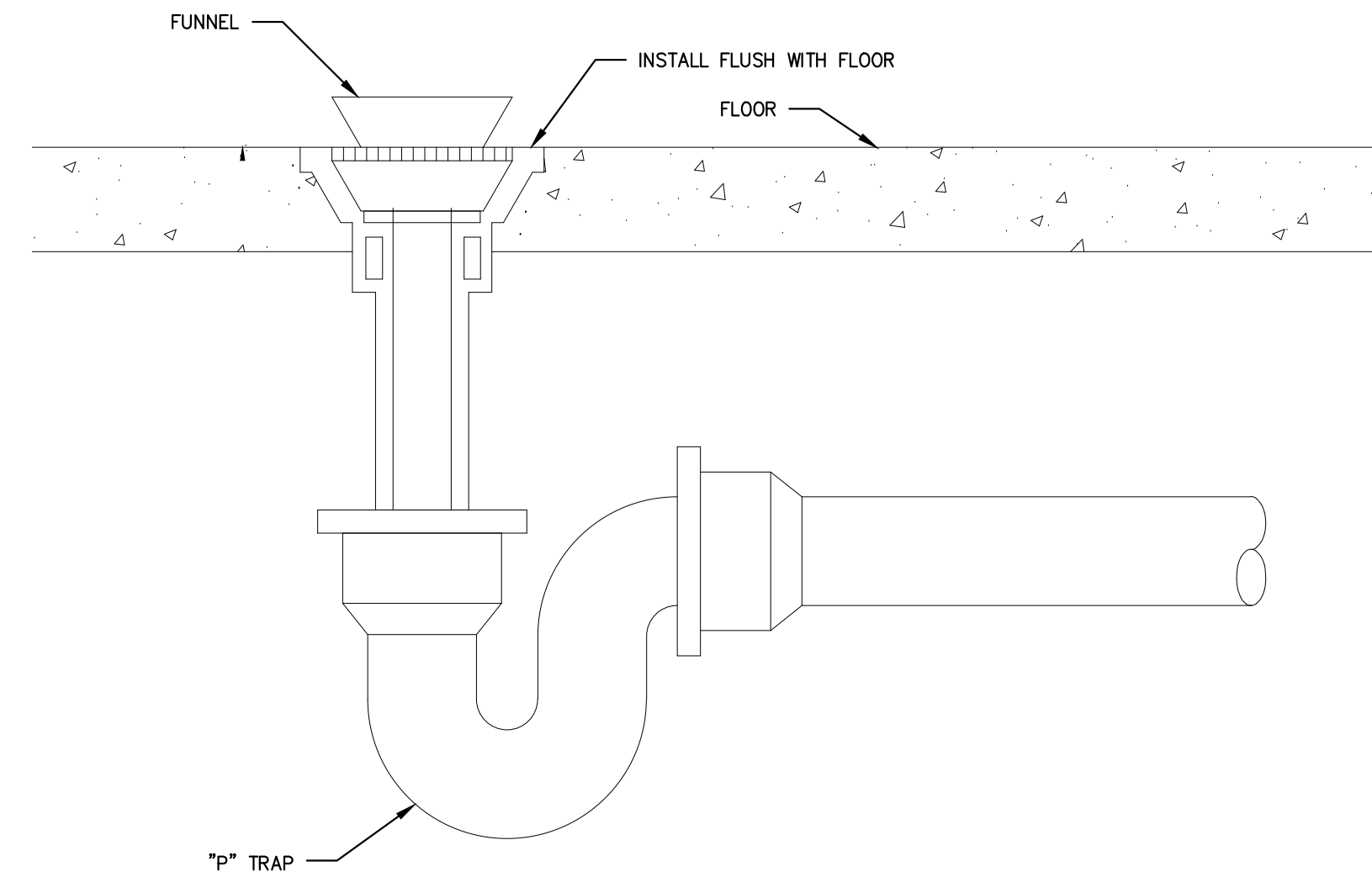
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Designer	Reviewer
E POST	R KEUNEKE
Date Issued	Project Number
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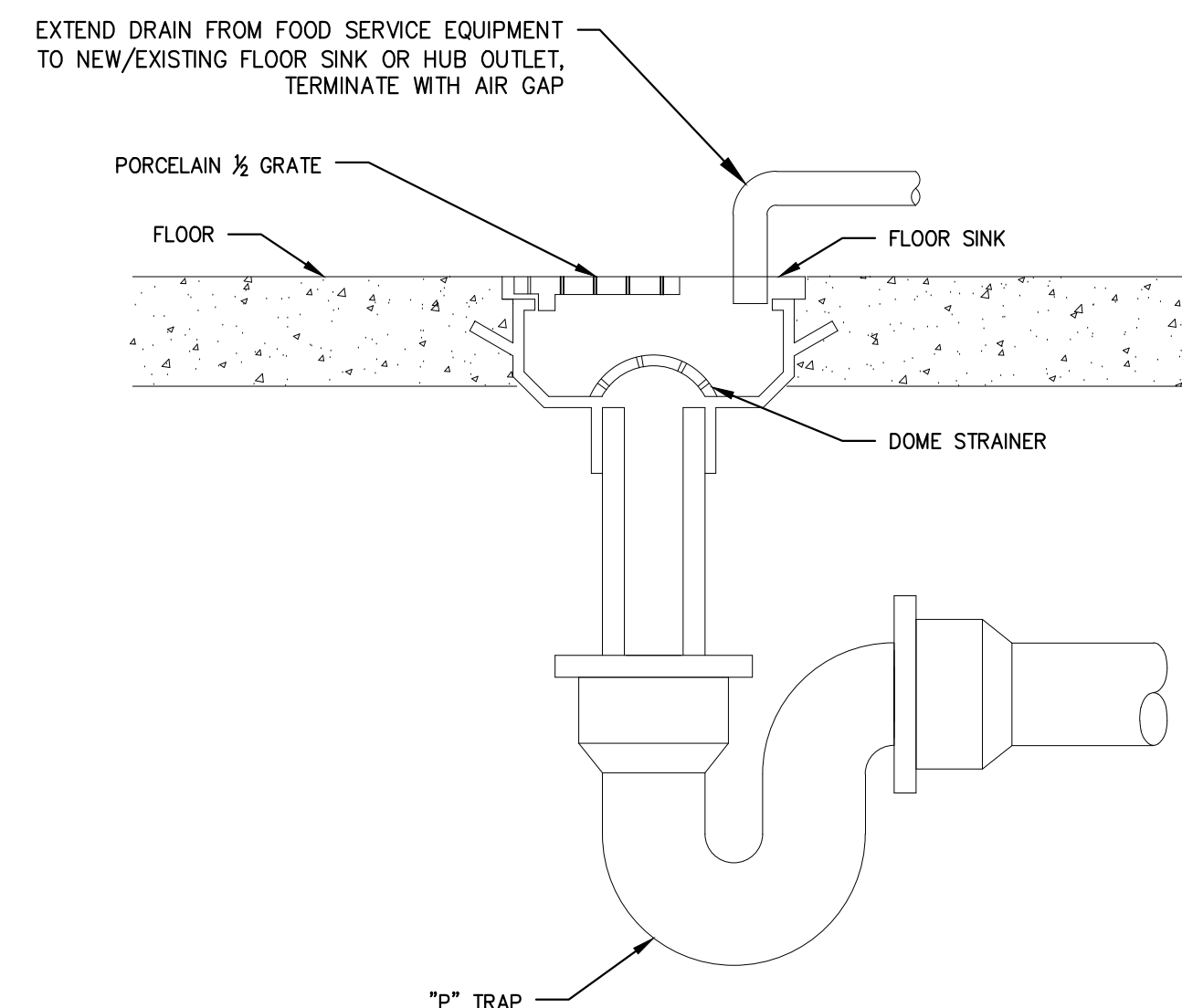
**INTERIOR ELEVATIONS AND
DETAILS**

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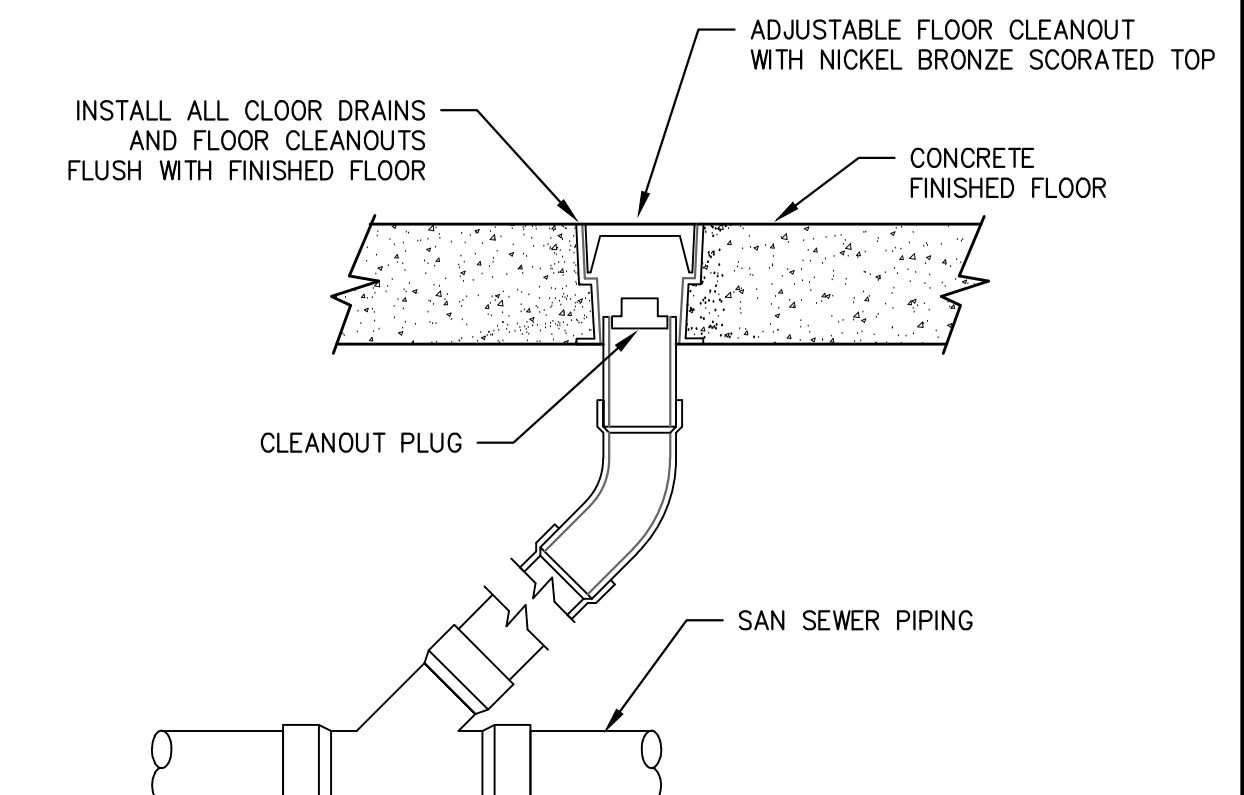
A421



FUNNEL FLOOR DRAIN (FFD) DETAIL
NOT TO SCALE



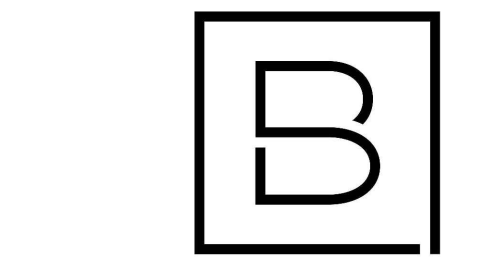
INDIRECT DRAIN DETAIL
NOT TO SCALE



FLOOR CLEANOUT DETAIL
NOT TO SCALE

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PLUMBING FIXTURE LIST

AAV-1	AIR-ADMITTANCE VALVE - ASSE 1051 MECHANICAL SEALING DIAPHRAGM (BASED ON STUDOR, INC.)
FFD-1	FUNNEL FLOOR DRAIN - 5" ROUND, LIGHT DUTY, NICKEL BRONZE FINISH (BASED ON JAY R. SMITH MODEL #2005-ASNB WITH #3580 FUNNEL). PROVIDE WITH SURESEAL TRAP SEALER.
FS-1	FLOOR SINK - 8.5" SQUARE, HALF GRATE, NICKEL BRONZE FINISH (BASED ON JAY R. SMITH MODEL #3100)

PLUMBING CODE COMPLIANCE NOTES:

- COMPLETED INSTALLATIONS SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND ORDINANCES INCLUDING, BUT NOT LIMITED TO THE LATEST EDITIONS OF THE FOLLOWING: 2018 MICHIGAN PLUMBING CODE.
- VENT ALL DRAIN FIXTURES IN ONE OF THE METHODS ALLOWED BY 2018 MPC CHAPTER 9. EXTEND EVERY VENT, VENT STACK OR WASTE STACK VENT THROUGH ROOF WITH 3" MINIMUM SIZE.
- CONTRACTOR SHALL PERFORM ALL REQUIRED TESTS OF SANITARY WASTE AND VENT SYSTEM AND DOMESTIC WATER SYSTEM AS IDENTIFIED IN SECTION 312 OF 2018 MPC.

GENERAL PLUMBING NOTES:

- CONTRACTOR RESPONSIBLE FOR ALL REQUIRED PERMITS AND FEES RELATIVE TO THEIR WORK SCOPE.
- THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL OTHER TRADES AND WITH INSTALLATION OF ALL PLUMBING SYSTEMS IN COMPLIANCE WITH THE 2018 MICHIGAN PLUMBING CODE AND ALL OTHER APPLICABLE STATE AND LOCAL CODES.
- ROUTE ALL SANITARY & WASTE PIPING 2-1/2" AND LARGER AT 1/8" FALL PER FOOT UNLESS OTHERWISE NOTED; ROUTE ALL SANITARY & WASTE PIPING 2" AND SMALLER AT 1/4" FALL PER FOOT UNLESS OTHERWISE NOTED.
- DRAIN AND VENT SIZES IDENTIFIED ON PLANS SUPERCEDE SIZES IDENTIFIED ON MINIMUM SIZE CONNECTION TABLE.
- INSTALL WATER HAMMER ARRESTOR AT ALL QUICK CLOSING FIXTURES.
- MAINTAIN AS-BUILT DRAWINGS IN THE FIELD; AS-BUILTS SHALL BE PROVIDED TO THE OWNER AS RECORD DRAWINGS WITH PROJECT CLOSE-OUT DOCUMENTS.
- CONTRACTOR SHALL GUARANTEE WORK INSTALLED UNDER THEIR CONTRACT TO BE FREE FROM DEFECTIVE WORKMANSHIP OR MATERIALS FOR A PERIOD OF ONE (1) YEAR AFTER SUBSTANTIAL COMPLETION, AND SHALL REPAIR AND/OR REPLACE DEFECTIVE ITEMS AND DAMAGE RESULTING FROM FAILURE OF THESE ITEMS AT NO EXPENSE TO THE OWNER.

PLUMBING (DIVISION 22) SPECIFICATION:

PROVIDE EQUIPMENT INDICATED ON THE DRAWINGS, AND AS REQUIRED FOR A COMPLETE FUNCTIONING SYSTEM.

DEFINITIONS: FURNISH MEANS TO SUPPLY AND DELIVER TO PROJECT SITE, READY FOR INSTALLATION. INSTALL MEANS TO PLACE IN POSITION AND MAKE CONNECTIONS FOR SERVICE OR USE. PROVIDE MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.

COORDINATION: COORDINATE WITH THE WORK OF OTHER TRADES. EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.

ALL PUBLIC LAVATORIES SHALL BE PROVIDED WITH APPROVED WATER TEMPERATURE LIMITING DEVICE THAT CONFORMS TO ASSE 1070.

ALL FLOOR DRAIN SHALL BE EQUIPPED WITH ASSE 1072 BARRIER STYLE TRAP SEAL; RECTORSEAL SURESEAL OR EQUAL.

DOMESTIC HOT AND COLD WATER PIPE TO BE TYPE L HARD COPPER TUBE WITH LEAD FREE SOLDERED OR PRESS-FIT JOINTS AND FITTINGS.

DOMESTIC HOT WATER PIPE AND HOT WATER RETURN PIPE SHALL BE INSULATED WITH 1" THICKNESS OF PRE-FORMED FIBERGLASS PIPE INSULATION WITH FACTORY ASJ AND PVC ELBOW JACKETS. PIPE SUPPORTS WILL BE ALLOWED TO CONNECT DIRECTLY TO THE PIPE AND PIPE INSULATION IS NOT REQUIRED TO BE CONTINUOUS AT SUPPORTS. FLEXIBLE ELASTOMERIC INSULATION (AP ARMAFLEX BLACK LAPSEAL OR EQUAL) SHALL BE APPROVED ALTERNATE TO FIBERGLASS PIPE INSULATION.

PROVIDE STOP VALVES AT ALL WATER FIXTURE CONNECTIONS.

HOT WATER RECIRCULATION BALANCING VALVE BASED ON CIRCUITSOLVER SELF-ACTING THERMOSTATIC RECIRCULATION VALVE.

PURGE AND DISINFECT ALL NEW POTABLE WATER PIPING PER REQUIREMENTS OF AWWA C651 OR C652, OR AS REQUIRED BY LOCAL HEALTH DEPARTMENT.

WASTE AND VENT PIPING TO BE SCH 40 SOLID CORE PVC WITH SOLVENT WELDED JOINTS & FITTINGS.

ABOVE GROUND WASTE AND VENT PIPING TO BE SCH 40 DWV SOLID CORE OR CELLULAR CORE PVC WITH SOLVENT WELDED JOINTS & FITTINGS. BELOW GROUND WASTE & VENT PIPING SHALL BE SCH 40 SOLID CORE PVC WITH SOLVENT WELDED JOINTS & FITTINGS.

PROVIDE CLEANOUTS FOR WASTE LINES AS SHOWN ON DRAWINGS, AND OF TYPE APPROVED BY LOCAL CODES

VENT PIPE(S) THRU THE ROOF SHALL BE 3" MINIMUM AND EXTEND AT LEAST 1 FT ABOVE THE ROOF; PROVIDE ROOF JACK VENT PIPE FLASHING EACH PENETRATION WITH ALUMINUM BASE AND RUBBERIZED BOOT. CAULK JOINT BETWEEN VENT PIPE AND BOOT TO MAKE WEATHER TIGHT.

PLUMBING ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE	HWR	DOMESTIC HOT WATER RETURN
AFF	ABOVE FINISH FLOOR	HWRP	HOT WATER RECIRCULATION PUMP
CBV	CALIBRATED BALANCING VALVE	IE	INVERT ELEVATION
CLG	CEILING	LOC	LOCATION
CO	CLEANOUT	MFR	MANUFACTURER
CONN	CONNECTION	SAN	SANITARY DRAIN
CONT	CONTINUATION	TYP	TYPICAL
COORD	COORDINATE	V	VENT
CW	DOMESTIC COLD WATER	VTR	VENT THROUGH ROOF
DFU	DRAINAGE FIXTURE UNITS	W	WASTE
DN	DOWN	WCO	WALL CLEAN OUT
DWG	DRAWING	WSFU	WATER SUPPLY FIXTURE UNITS
DWH	DOMESTIC WATER HEATER		
EXIST	EXISTING		
FCO	FLOOR CLEAN OUT		
FD	FLOOR DRAIN		
FF	FINISH FLOOR		
FFD	FUNNEL FLOOR DRAIN		
FLR	FLOOR		
FS	FLOOR SINK		
FSET	FOOD SERVICE EQUIPMENT TRADES		
HW	DOMESTIC HOT WATER		
HWFU	HOT WATER FIXTURE UNITS		

PLUMBING LEGEND

	CALIBRATED BALANCING VALVE		SANITARY DRAIN (UNDERGROUND)
	CHECK VALVE		DOMESTIC COLD WATER
	SHUT OFF VALVE		DOMESTIC HOT WATER
	PIPE ELBOW		DOMESTIC HOT WATER RETURN
	RISER UP		PLUMBING VENT
	RISER DOWN		DIRECTION OF FLOW
	BRANCH UP		CONNECTION OF NEW ONTO EXISTING
	BRANCH DOWN		

CHRISTOPHER J. NOLAN, P.E.
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EXP. DATE# 4/14/2025

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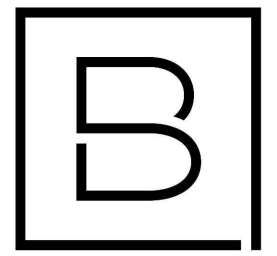
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Designer	Reviewer
C. SCHOLTEN	C. NOLAN
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Sheet Name

GENERAL PLUMBING INFORMATION

Drawing Number

P001


FIXTURE UNIT VALUES

FIXTURE	DRAINAGE ^a		SUPPLY ^b	
	DFU	HW	CW	TOTAL
SINK (PRIVATE)	2	1	1	1.4
FLOOR DRAIN/SINK (3" TRAP)	5	—	—	—


a. DRAINAGE FIXTURE UNIT VALUES (DFU) TAKEN FROM Michigan Plumbing Code/2018, CHAPTER 7, TABLE 709.1.

b. SUPPLY FIXTURE UNIT VALUES TAKEN FROM Michigan Plumbing Code/2018, APPENDIX E, TABLE E103.3(2).

MINIMUM SIZE CONNECTION

FIXTURE	SAN	HW	CW	VENT
SINK	1 1/2"	1/2"	1/2"	1 1/2"
FLOOR DRAIN	3"	—	—	1 1/2"

WATER HAMMER ARRESTOR LEGEND

SYMBOL	PDI RATING	FIXTURE UNIT CAP
	A	1-11

NOTES:

- PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PLACEMENT OF WATER HAMMER ARRESTORS. REFER TO MANUFACTURER'S RECOMMENDATIONS.

GENERAL PLUMBING NOTES:

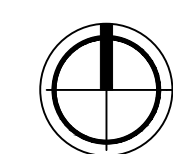
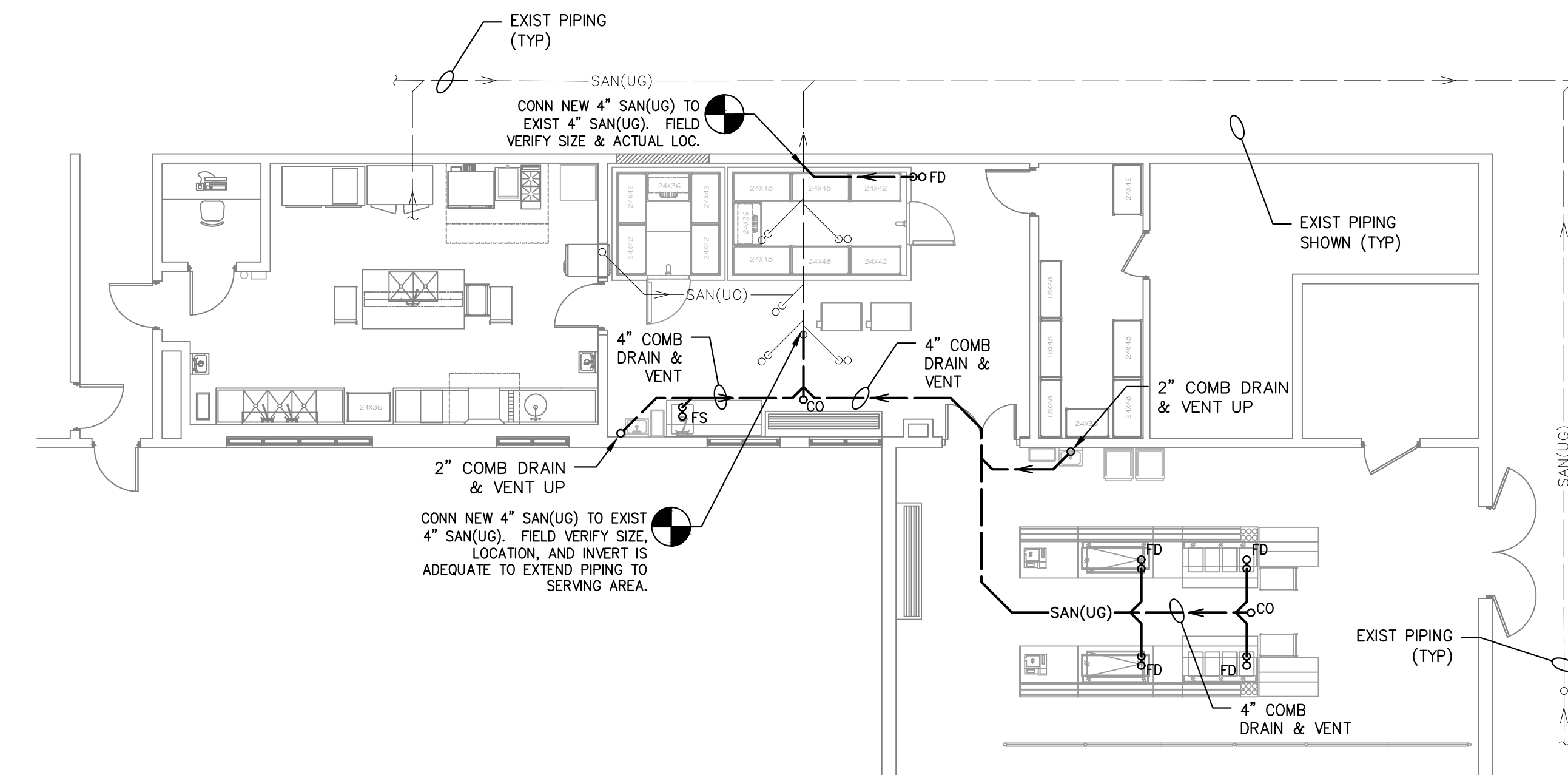
- THESE DRAWINGS ARE DIAGNAMATIC, AND INDICATE THE GENERAL EXTENT OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL OTHER TRADES AND FOR PROPER INSTALLATION OF ALL PLUMBING SYSTEMS AND COMPONENTS IN ACCORDANCE WITH 2018 MICHIGAN PLUMBING CODE REQUIREMENTS.
- ROUTE ALL SANITARY & WASTE PIPING 2" AND LARGER AT 1/8" FALL PER FOOT UNLESS OTHERWISE NOTED; ROUTE ALL SANITARY & WASTE PIPING 2" AND SMALLER AT 1/4" FALL PER FOOT UNLESS OTHERWISE NOTED.

KEYED PLUMBING NOTES:

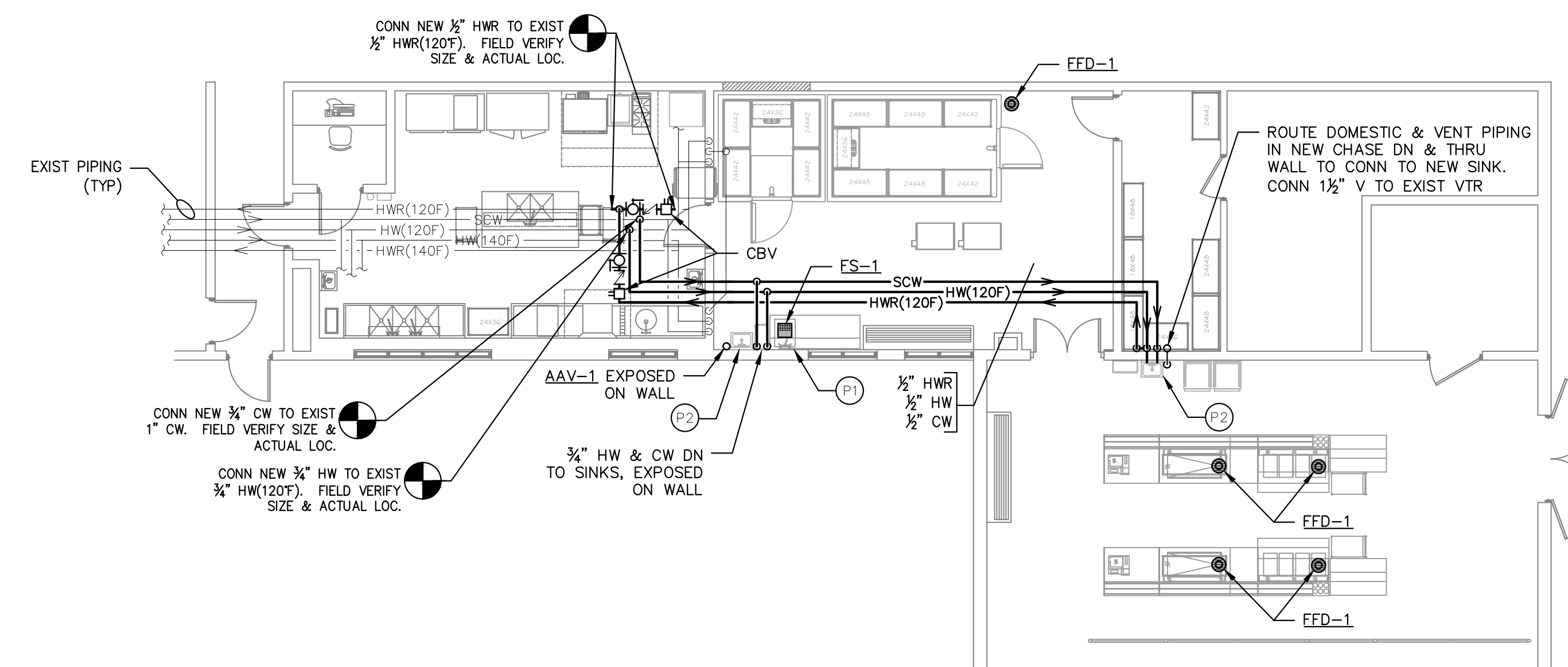
- (P1) NEW PREP SINK PROVIDED & INSTALLED BY FOOD SERVICE CONTRACTOR. PC TO PROVIDE 1/2" CW & 1/2" HW STUB W/ STOP VALVE AND 1 1/2" DIRECT DRAIN AS REQ FOR CONN BY FOOD SERVICE CONTRACTOR. PROVIDE ASSE 1070 TEMPERATURE AND PRESSURE REGULATING DEVICE AT FIXTURE, REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.
- (P2) NEW HAND SINK PROVIDED & INSTALLED BY FOOD SERVICE CONTRACTOR. PC TO PROVIDE 1/2" CW & 1/2" HW STUB W/ STOP VALVE AND 1 1/2" DIRECT DRAIN AS REQ FOR CONN BY FOOD SERVICE CONTRACTOR. PROVIDE ASSE 1070 TEMPERATURE AND PRESSURE REGULATING DEVICE AT FIXTURE, REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.

GENERAL PLUMBING DEMOLITION NOTES:

- DO NOT INTERRUPT OR CONNECT INTO ANY SERVICE PIPING, ELECTRICAL, OR INSTRUMENTATION WORK WITHOUT PRIOR APPROVAL FROM THE OWNERS REPRESENTATIVE.
- CONTRACTOR SHALL FIELD VERIFY LOCATION(S) OF EXISTING PIPING OR EQUIPMENT TO BE REMOVED.
- COORDINATE WITH GENERAL CONTRACTOR FOR WALL, ROOF, CEILING, AND FLOOR REPAIR WORK LEFT BY REMOVED ITEMS.


UNDERGROUND PLUMBING PLAN

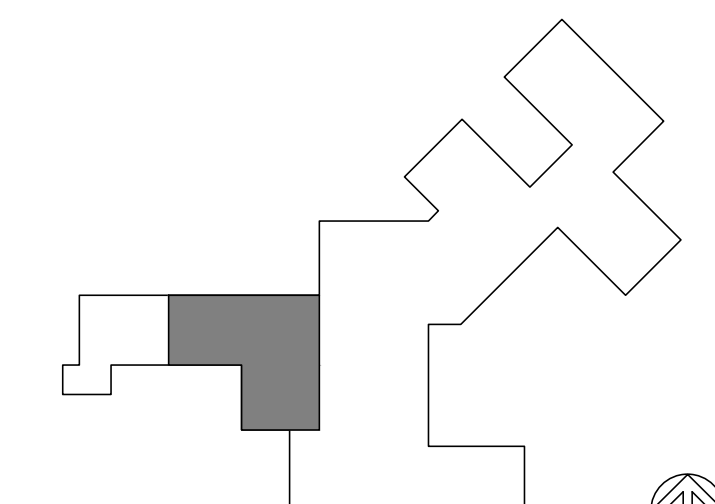
SCALE: 1/8" = 1'-0"


FIRST FLOOR PLUMBING PLAN

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

**ORCHARD VIEW
SCHOOL
DISTRICT**
**EARLY
ELEMENTARY
KITCHEN AND
SERVING
RENOVATIONS**
2820 MACARTHUR RD
MUSKEGON, MI

Date Revised	Description
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CHRISTOPHER J. NOLAN, P.E.
MI - REGISTRATION# 6201043863
EXP. DATE# 4/14/2025

Key Plan

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Project Manager	Discipline Lead
D. HOLTROP	B. HUYLER
Designer	Reviewer
C. SCHOLTEN	C. NOLAN
Date Issued	Project Number
01/31/2023	22013309A

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PLUMBING PLANS

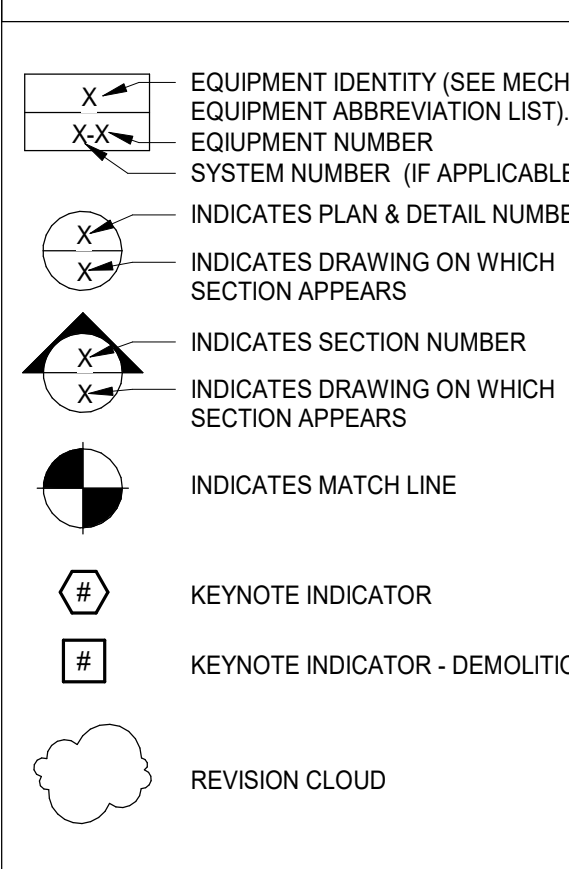
Drawing Number

P101

ABBREVIATIONS

Table of abbreviations for electrical symbols, including terms like INCHES, AMPERE, WATT, and various electrical components.

REFERENCE SYMBOLS



MOUNTING HEIGHTS

Table of mounting heights for various electrical components, such as CARD READER, CLOAK HANGER OULETS, EXIT LIGHTS, and TELEPHONE TERMINAL CABINET.

NOTE

NOT ALL SYMBOLS AND ABBREVIATIONS INDICATED APPEAR ON THESE CONTRACT DRAWINGS. INDIVIDUAL DRAWINGS MAY HAVE SHEET LEGENDS FOR UNIQUE SYMBOLS AND FOR CONVENIENCE.

ELECTRICAL SYMBOL LIST

Large table of electrical symbols and their descriptions, organized into sections: GENERAL, POWER, SIGNAL, SITE, and FIRE ALARM. Includes symbols for fuses, receptacles, switches, and various control devices.



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LEGEND

Sheet Name, Drawing Number

E001

DIVISION 26

ELECTRICAL SPECIFICATIONS

DESCRIPTION OF WORK

WORK SHALL INCLUDE BUT NOT NECESSARILY BE LIMITED TO THE FOLLOWING:

1. WIRING METHODS.
2. NON-FUSED AND FUSED SWITCHES.
3. DEVICES.
4. MOTORS AND CONTROLS.
5. LIGHTING.
6. COMMUNICATIONS HORIZONTAL CABLING
7. TEMPORARY POWER AND LIGHTING

STANDARDS

MATERIALS AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF NEC, NEC, MIOSHA, NFPA, ILL, NEMA, A.D.A. AND RESPECTIVE PUBLICATIONS AND OTHER REQUIREMENTS SPECIFIED BELOW. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER.

CODES AND ORDINANCES

COMPLY WITH ALL CODES AND ORDINANCES. BIDDERS SHALL INFORM THEMSELVES OF CODE REQUIREMENTS.

PERMITS, INSPECTION FEES, AND CODES

THE CONTRACTOR SHALL OBTAIN AND PAY ALL PERMIT AND INSPECTION FEES. FINAL INSPECTION CERTIFICATES BY THE LOCAL ELECTRICAL INSPECTOR AND FIRE MARSHAL SHALL BE OBTAINED BY THE CONTRACTOR AND TURNED OVER IN DUPLICATE TO THE OWNER.

SUBMISSIONS

SUBMIT PRODUCT DATA, SHOP DRAWINGS, WIRING DIAGRAMS, AND DESCRIPTIVE LITERATURE ON ALL MATERIALS AND EQUIPMENT. MAKE SUBMITTALS WITHIN THIRTY (30) DAYS AFTER THE SIGNING OF THE CONTRACT. SHIPMENT SHALL NOT BE RELEASED UNTIL DRAWINGS AND LITERATURE HAVE BEEN FINALLY APPROVED.

AS-BUILTS – OPERATION & MAINTENANCE MANUALS

PROVIDE FOR EACH SYSTEM AND EQUIPMENT AS SPECIFIED FOR USE BY OPERATION AND MAINTENANCE PERSONNEL. THE OPERATING INSTRUCTIONS SHALL INCLUDE:

- WIRING DIAGRAMS, CONTROL DIAGRAMS, AND CONTROL SEQUENCE FOR EACH SYSTEM AND ITEM OF EQUIPMENT.
- START-UP, PROPER ADJUSTMENT, OPERATING, LUBRICATION, AND SHUTDOWN PROCEDURES.
- SAFETY PRECAUTIONS.
- THE PROCEDURE IN THE EVENT OF EQUIPMENT FAILURE
- OTHER ITEMS OF INSTRUCTION AS RECOMMENDED BY THE MANUFACTURER OF EACH SYSTEM OR ITEM OF EQUIPMENT.

IDENTIFICATION OF SYSTEMS

OPERATING INSTRUCTIONS: PRINT OR ENGRAVE INSTRUCTIONS AND FRAME UNDER GLASS OR APPROVED LAMINATED PLASTIC. POST INSTRUCTIONS IN VIEW OF EQUIPMENT. PROVIDE WEATHER RESISTANT MATERIALS FOR EXTERIOR APPLICATIONS.

EQUIPMENT: PROVIDE NAMEPLATE FOR ALL EQUIPMENT IT SHALL BE A SELF-ADHESIVE, ENGRAVED, LAMINATED ACRYLIC OR MELAMINE LABEL. PROVIDE ADHESIVE BACK, WITH WHITE LETTERS ON A DARK GRAY BACKGROUND. MINIMUM LETTER HEIGHT SHALL BE 3/8-INCH.

WARNING SIGNS: PROVIDE A SELF-ADHESIVE WARNING LABEL THAT IS FACTORY PRINTED, MULTI-COLOR, PRESSURE SENSITIVE, ADHESIVE LABEL. COMPLY WITH N.E.C. 70 AND 29 CFR 1910.145. LABELS FOR MULTIPLE POWER SOURCES SHALL READ: "DANGER – ELECTRICAL SHOCK HAZARD – EQUIPMENT HAS MULTIPLE POWER SOURCES". LABELS FOR ALL OTHER EQUIPMENT REQUIRING WORKSPACE CLEARANCES SHALL READ: "WARNING – OSHA REGULATION – AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36-INCHES".

CONTRACTOR SHALL PROVIDE IDENTIFICATION ON ALL DEVICES. PROVIDE WHITE LABEL WITH BLACK LETTERING AND LOCATE ON DEVICE UNDER PLATE. CONTRACTOR SHALL IDENTIFY DEVICE WITH PANEL AND CIRCUIT NUMBER FEEDING DEVICE.

GUARANTEE

PROVIDE GUARANTEE FOR ALL LABOR AND MATERIALS FOR ONE (1) YEAR AFTER OWNER'S WRITTEN ACCEPTANCE OF THE PROJECT.

LAYOUT OF THE WORK

EXAMINE THE SITE AND ALL THE DRAWINGS BEFORE PROCEEDING WITH THE LAYOUT AND INSTALLATION OF THIS WORK. LOCATE ESSENTIALLY AS SHOWN ON THE DRAWINGS, BUT IN EXACT LAYOUT DETERMINED ON THE JOB, TO SUIT ACTUAL CONDITIONS. CONFER AND COOPERATE WITH OTHER TRADES ON THE JOB SO ALL PARTS WILL BE INSTALLED IN PROPER RELATIONSHIP. PRECISE LOCATION OF PARTS TO COORDINATE WITH OTHER WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

DEMOLITION

CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIAL AS INDICATED ON THE DEMOLITION PLAN. ALL REMOVED AND UNUSED LIGHTS AND EQUIPMENT SHALL BE TURNED OVER TO THE OWNER; ALL OTHER ITEMS SHALL BE REMOVED FROM THE SITE. EXISTING CONDUIT HOMERUNS MAY BE REUSED WHENEVER POSSIBLE. CONTRACTOR SHALL PATCH EXISTING WALL AND CEILING OPENINGS IN FINISHED AREAS UPON REMOVAL OF ELECTRICAL EQUIPMENT. CONTRACTOR SHALL ALSO PROTECT ALL EXISTING ELECTRICAL EQUIPMENT TO REMAIN DURING CONSTRUCTION PERIOD.

CUTTING AND PATCHING

ALL NECESSARY CUTTING OF THE BUILDING CONSTRUCTION FOR THE NEW INSTALLATION OF THE WORK SHALL BE FURNISHED BY THE CONTRACTOR. NO STRUCTURAL MEMBERS OF THE BUILDING SHALL BE CUT WITHOUT PRIOR APPROVAL OF THE ARCHITECT. ALL NECESSARY PATCHING OF THESE SURFACES TO BE FURNISHED BY THIS CONTRACTOR.

WIRE AND CABLE

ALL WIRING SHALL STRANDED COPPER AND INSTALLED IN CONDUIT, TUBING, OR SURFACE METALLIC RACEWAY. CONDUCTORS SHALL BE CONTINUOUS BETWEEN OUTLETS OF JUNCTION BOXES WITH SPLICES MADE ONLY WITHIN SUCH BOXES. SOLDERLESS PRESSURE-TYPE CONNECTORS PROPERLY INSULATED SHALL BE USED FOR ALL JOINTS. NO WIRE SMALLER THAN #12 MAY BE USED UNLESS SPECIFICALLY SPECIFIED UNDER DESCRIPTIONS OF SPECIAL SYSTEMS. ALL INDIVIDUAL BRANCH CIRCUITS AND SINGLE POLE BRANCH CIRCUITS SHALL HAVE INDIVIDUAL NEUTRALS. EACH NEUTRAL SHALL BE IDENTIFIED AT ALL JUNCTION BOXES AND TERMINALS SAME AS ITS CORRESPONDING BRANCH CIRCUIT NUMBER.

CONDUIT

ALL CONDUIT SHALL BE 1/2-INCH MINIMUM UNLESS NOTED OTHERWISE. WIRING METHODS: EXTERIOR EXPOSED AND CONCEALED: RGC, INTERIOR EXPOSED/CONCEALED UNDER 2-INCHES: EMT, INTERIOR EXPOSED/CONCEALED 2-INCHES AND LARGER: RGC, CONNECTIONS TO VIBRATING EQUIPMENT: LFMC, ALL CONDUIT AND WIRE IN FINISHED AREAS SHALL BE CONCEALED IN THE CONSTRUCTION WHERE PRACTICABLE. ALL RACEWAYS SHALL BE ROUTED WITHIN STRUCTURAL STEEL AND FURRED SPACES UTILIZING FACTORY MADE ELBOWS AS GOOD PRACTICE AND WORKMANSHIP ALLOWS. INSTALL SLEEVES THROUGH STRUCTURAL CONCRETE OR WHERE PENETRATING STRUCTURAL FLOOR DECKS. KEEP RACEWAYS AT LEAST 6-INCHES FROM PARALLEL RUNS OF FLUES, STEAM AND HOT WATER PIPING. INSTALL HORIZONTAL CONDUIT RUNS ABOVE WATER AND STEAM PIPING. INSTALL RACEWAYS LEVEL AND SQUARE AND AT PROPER ELEVATIONS. PROTECT STUB UPS FROM DAMAGE WHERE CONDUITS RISE THROUGH FLOOR SLABS AND ARRANGE SO CURVED PORTION OF BENDS ARE NOT VISIBLE ABOVE THE FINISHED SLAB. INSTALL RACEWAYS IN MIDDLE THIRD OF SLAB WITH MINIMUM OF 1-INCH CONCRETE COVER. SECURE RACEWAYS TO REINFORCING RODS TO PREVENT SAGGING OR SHIFTING DURING CONCRETE PLACEMENT. SPACE RACEWAYS LATERALLY TO PREVENT VOIDS IN CONCRETE. RUN CONDUIT LARGER THAN 1-INCH TRADE SIZE PARALLEL TO OR AT RIGHT ANGLES TO MAIN REINFORCEMENT. WHERE AT RIGHT ANGLES TO REINFORCEMENT, PLACE CONDUIT CLOSE TO SLAB SUPPORT.

OUTLET BOXES

A STANDARD GALVANIZED OUTLET BOX, COMPLETE WITH PLASTER RING, IF NECESSARY, SHALL BE INSTALLED FOR EACH AND EVERY FIXTURE AND OUTLET SHOWN. EACH OUTLET SHALL BE RIGIDLY SUPPORTED FROM THE BUILDING CONSTRUCTION (INDEPENDENT OF THE RACEWAY SYSTEM). CEILING OUTLET BOXES SHALL BE 4-INCH OCTAGON, 1-1/2-INCH DEEP, WITH FIXTURE HICKEY, AND SUPPORTED TO WITHSTAND 80 LBS.

EQUIPMENT GROUNDING CONDUCTOR

INSTALL EQUIPMENT GROUNDING CONDUCTOR IN RACEWAYS WITH CONDUCTORS FOR ALL FEEDER AND BRANCH CIRCUITS.

LIGHTING FIXTURES

ALL LIGHTING FIXTURES AND COMPONENTS THEREOF SHALL BE U.L. AND E.T.L. APPROVED.

COMMUNICATIONS HORIZONTAL CABLING

FURNISH ALL LABOR, MATERIALS, TOOLS, AND EQUIPMENT NECESSARY AND REASONABLY INCIDENTAL TO THE INSTALLATION OF ANY EMPTY CONDUIT SYSTEM CONSISTING OF CABINETS, CONDUIT, OUTLET BOXES, COVERS, AND PLATES FOR THE INSTALLATION OF TELEPHONE SYSTEM BY OTHERS.

WALL SWITCHES

SWITCHES SHALL BE SPECIFICATION GRADE TOGGLE TYPE, SINGLE-POLE, THREE-WAY TWO POSITION DEVICES RATED AT 20A.

CONVENIENCE OUTLETS

OUTLETS SHALL BE SPECIFICATIONS GRADE, 20A, 125VAC, 2-POLE, 3-WIRE DUPLEX CONFORMING TO NEMA WD 6, NEMA 5-20R UNLESS NOTED OTHERWISE.

WALL PLATES

ALL DEVICE PLATES SHALL BE NON-CONDUCTIVE, THERMOPLASTIC, COLOR TO MATCH DEVICES, AND MEET FEDERAL SPECIFICATION WP455-A.

FUSED/NON-FUSED SWITCHES

FUSED SWITCHES SHALL BE 250V, CLASS A, HEAVY DUTY, DUAL HORSEPOWER RATED IN NEMA 1 ENCLOSURE OR WEATHERPROOF AS SHOWN, COMPLETE WITH ARC QUENCHING CHUTES AND SELF-ALIGNING FUSE AND BREAK JAWS AND RATED FOR "SERVICE ENTRANCE". SWITCHES FOR 30 AMPERES TO 200 AMPERE OPERATION SHALL BE SQUARE D TYPE HD, OR EQUAL WITH ENCLOSURE, VOLTAGE, CURRENT RATING NUMBER OF POLES, AND FUSING AS INDICATED. SWITCH CONSTRUCTION SHALL BE SUCH THAT, WHEN THE SWITCH HANDLE IN THE "ON" POSITION, THE COVER OR DOOR CANNOT BE OPENED.

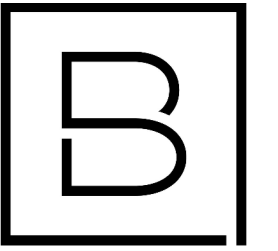
MOTOR STARTERS

MOTOR STARTERS SHALL BE COMBINATION FUSIBLE TYPE 250V, CLASS A, HEAVY DUTY, DUAL HORSEPOWER RATED WITH OVERLOADS AND TIME DELAY SWITCH. UNITS SHALL BE SQUARE D OR EQUAL.

SUPPORTS AND HANGERS

PROVIDE AND INSTALL NECESSARY STEEL BRACKETS, RODS, CLAMPS, ETC., FOR SUPPORT OF ALL WORK UNDER THIS CONTRACT.

END OF DIVISION 26



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MUSKEGON, MI

Date Revised	Description
1/24/2023	OWNER REVIEW
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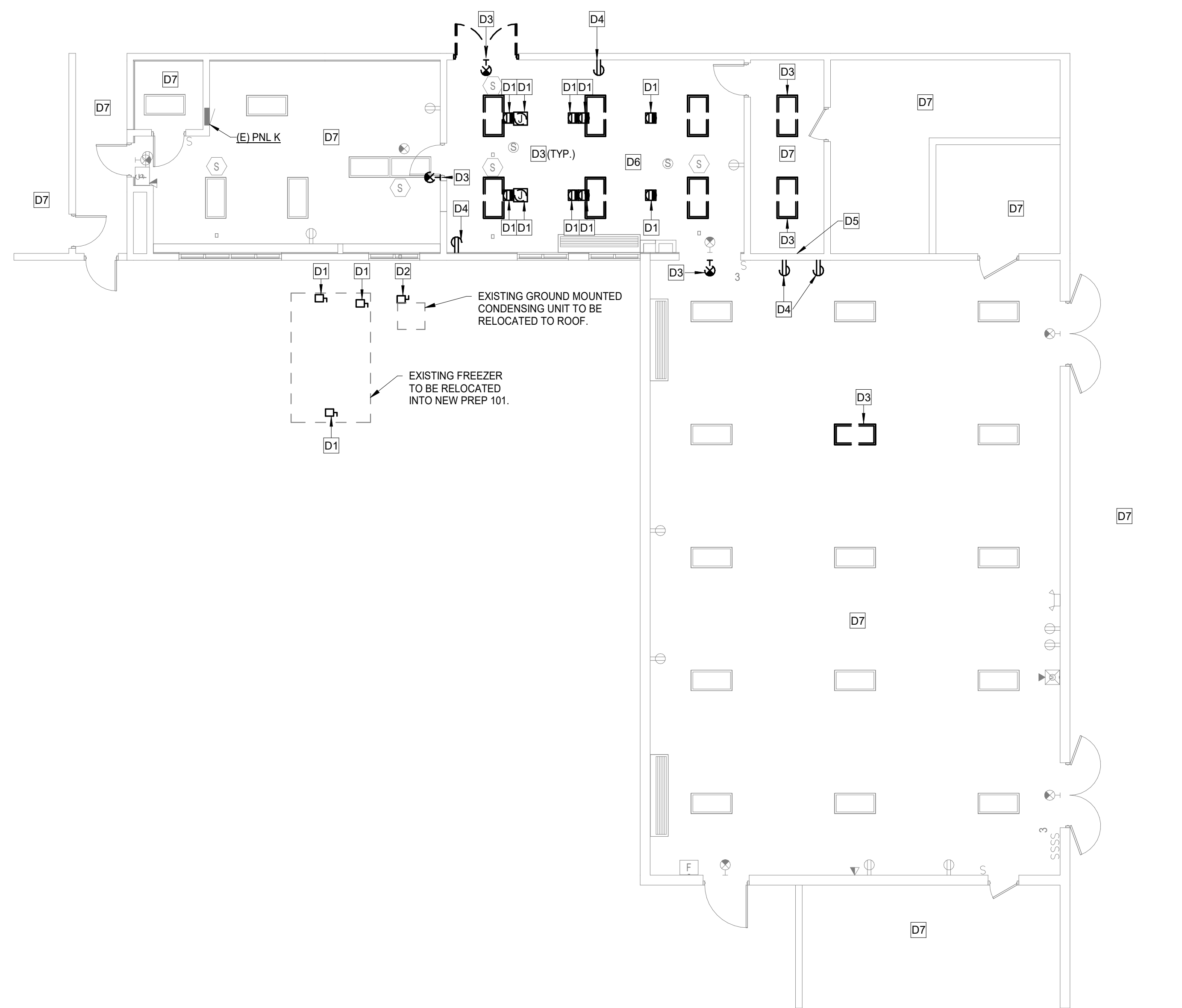
Project Manager	Discipline Lead
D HOLTRUP	A ROBINSON
Designer	Reviewer
C NIKONCHUK	B HUYLER
Date Issued	Project Number
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SPECIFICATIONS

Drawing Number

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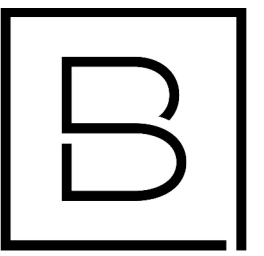
1 FIRST FLOOR PLAN - ELECTRICAL DEMOLITION
SCALE : 1/8" = 1'-0"

GENERAL NOTES:

- A. ANY EXISTING CONDITIONS INDICATED ARE BASED ON INFORMATION PROVIDED BY OTHERS AND POSSIBLE LIMITED FIELD VERIFICATION. THE CONTRACTOR SHALL ADJUST FOR THE ACTUAL FIELD CONDITIONS AT NO EXPENSE TO THE OWNER.
- B. THE CONTRACTOR SHALL VISIT THE PROJECT SITE, REVIEW EXISTING CONDITIONS AGAINST THE PLANS, AND FAMILIARIZE THEMSELVES WITH THE WORK PRIOR TO BIDDING AND START OF THE WORK.
- C. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING EQUIPMENT, DEVICES, AND LUMINAIRES AS INDICATED AND/OR AS REQUIRED TO ALLOW FOR INSTALLATION AND CONSTRUCTION OF THE NEW WORK. REMOVE ALL EQUIPMENT, DEVICES, LUMINAIRES, CONDUITS, SUPPORTS, HANGERS, ECT. THAT ARE NOT SHOWN AND ARE REQUIRED TO BE REMOVED IN ORDER TO COMPLETE THE NEW WORK.
- D. CONTRACTOR SHALL DISCONNECT AND REMOVE ALL DEVICES IN WALLS BEING REMOVED. REMOVE BOXES, CONDUITS, AND WIRE TO SOURCE OR FIRST JUNCTION BOX TO MAINTAIN EXISTING DEVICES ON SAME CIRCUIT.
- E. MAINTAIN CONTINUITY OF EXISTING CIRCUITS AS REQUIRED TO PROVIDE POWER TO REMAINING EQUIPMENT, DEVICES, AND LUMINAIRES THAT ARE NOT BEING REMOVED.

KEYNOTES - DEMOLITION #

- D1 DISCONNECT EQUIPMENT FOR REMOVAL BY OTHERS. REMOVE EXPOSED CONDUIT AND/OR CAP END TO BELOW GRADE. REMOVE WIRE TO FIRST JUNCTION BOX ABOVE CEILING TO REUSE.
- D2 DISCONNECT POWER FOR GROUND MOUNTED CONDENSING UNIT REMOVAL. REMOVE EXPOSED CONDUIT AND/OR CAP END TO BELOW GRADE, IN WALL OR ABOVE CEILING. REMOVE WIRE TO FIRST JUNCTION BOX ABOVE CEILING TO REUSE.
- D3 DISCONNECT AND REMOVE LIGHT FIXTURE. REMOVE WHIPS AND JUNCTION BOX. FEEDER AND CONDUIT TO REMAIN.
- D4 DEVICE TO BE REMOVED. REMOVE EXPOSED CONDUIT AND/OR CAP END IN WALL. REMOVE WIRE TO FIRST JUNCTION BOX ABOVE CEILING TO REUSE. UPDATE PANEL SCHEDULE.
- D5 MOVE ANY ELECTRICAL DEVICE(S) ON EXISTING WALL TO NEW CHASE WALL. EXTEND CONDUIT AND WIRING AS REQUIRED.
- D6 DEVICES TO REMAIN IN ROOM UNLESS NOTED OTHERWISE.
- D7 NO WORK IN SPACE UNLESS NOTED OTHERWISE.



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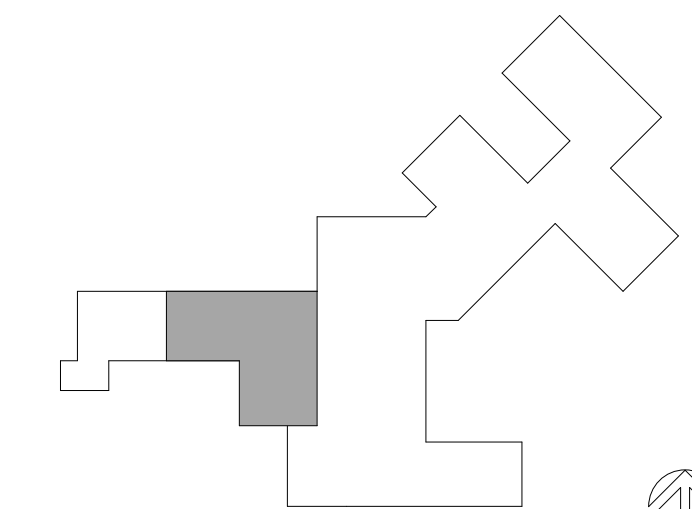
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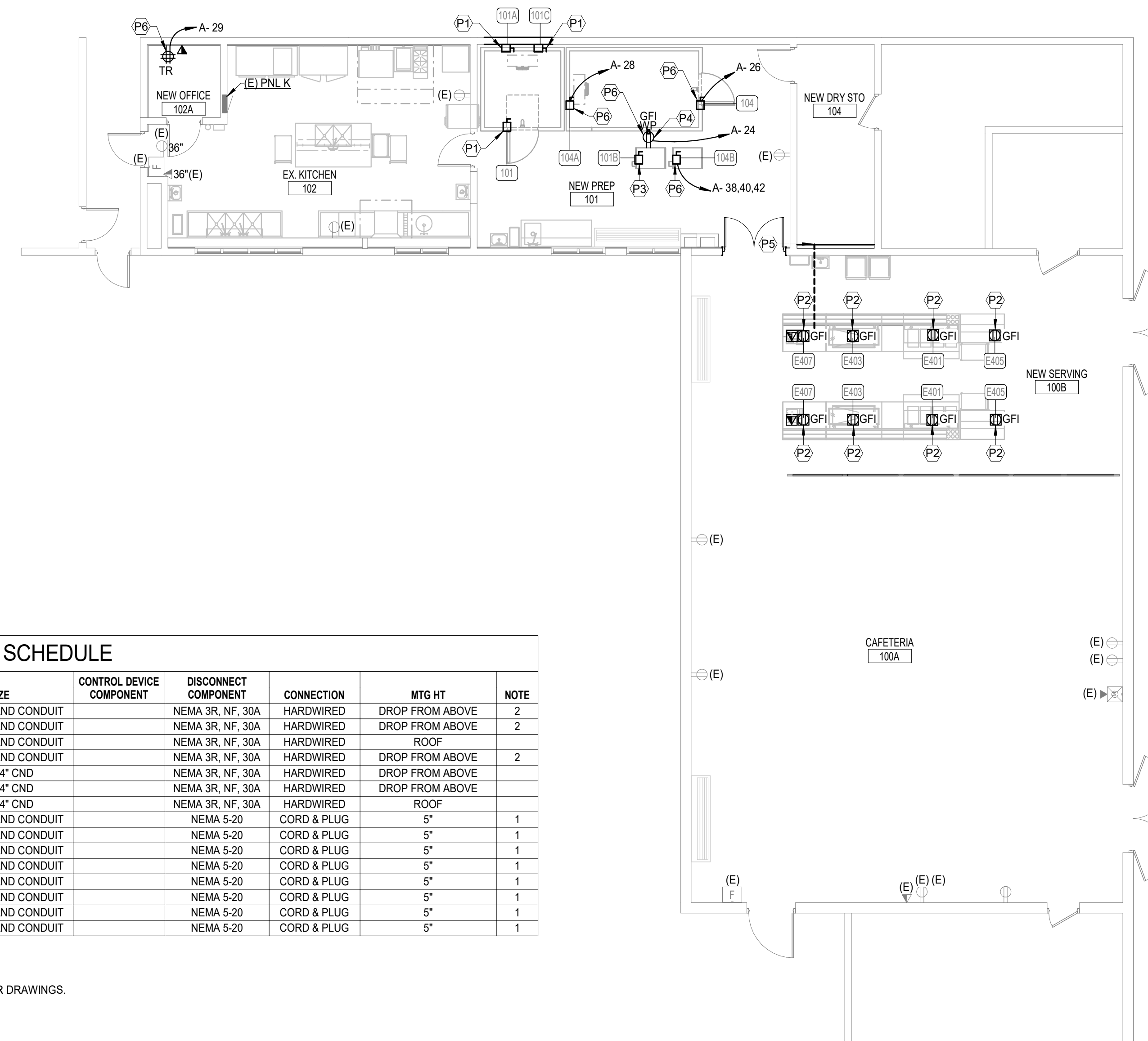
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FIRST FLOOR PLAN -
ELECTRICAL DEMOLITION

Drawing Number

ED101



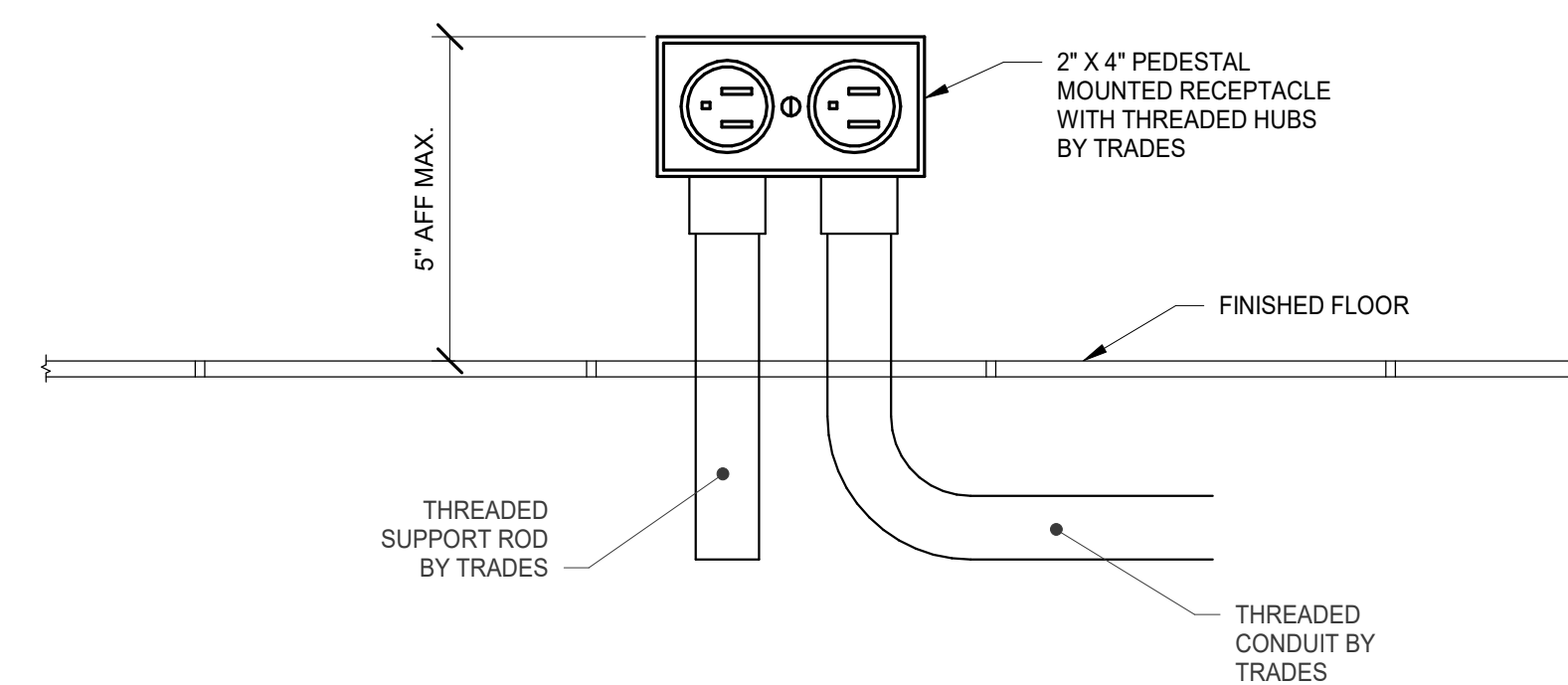
KITCHEN EQUIPMENT SCHEDULE											
ITEM NO.	DESCRIPTION	LOAD		VOLT	PHASE	CONDUIT & WIRE SIZE	CONTROL DEVICE COMPONENT	DISCONNECT COMPONENT	CONNECTION	MTG HT	NOTE
		HP	A								
101	RELOCATED WALK-IN FREEZER	8	8	120	1	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 3R, NF, 30A	HARDWIRED	DROP FROM ABOVE	2
101A	RELOCATED FREEZER COIL	13	13	240	1	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 3R, NF, 30A	HARDWIRED	DROP FROM ABOVE	2
101B	NEW FREEZER COMPRESSOR	13	13	240	3	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 3R, NF, 30A	HARDWIRED	ROOF	
101C	RELOCATED FREEZER COIL HEAT TAPE	5	5	120	1	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 3R, NF, 30A	HARDWIRED	DROP FROM ABOVE	2
104	WALK-IN COOLER	8	8	120	1	(2)#12, (1)#12 GND IN 3/4" CND		NEMA 3R, NF, 30A	HARDWIRED	DROP FROM ABOVE	
104A	COOLER COIL	5	5	120	1	(2)#12, (1)#12 GND IN 3/4" CND		NEMA 3R, NF, 30A	HARDWIRED	DROP FROM ABOVE	
104B	COOLER COMPRESSOR	10	10	208	3	(3)#12, (1)#12 GND IN 3/4" CND		NEMA 3R, NF, 30A	HARDWIRED	ROOF	
E401	MILK COOLER	9	0	240	1	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 5-20	CORD & PLUG	5"	1
E401	MILK COOLER	9	0	240	1	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 5-20	CORD & PLUG	5"	1
E403	COLD FOOD TABLE	5.2	0	120	1	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 5-20	CORD & PLUG	5"	1
E403	COLD FOOD TABLE	5.2	0	120	1	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 5-20	CORD & PLUG	5"	1
E405	MILK COOLER	10	0	120	1	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 5-20	CORD & PLUG	5"	1
E405	MILK COOLER	10	0	120	1	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 5-20	CORD & PLUG	5"	1
E407	CASH REGISTER - BY OWNER	10	0	120	1	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 5-20	CORD & PLUG	5"	1
E407	CASH REGISTER - BY OWNER	10	0	120	1	EXTEND EXISTING FEEDER AND CONDUIT		NEMA 5-20	CORD & PLUG	5"	1

NOTES:

- ELECTRICAL CONTRACTOR TO PROVIDE 2" x 4" PEDESTAL MOUNT GFI RECEPTACLE. REFER TO FOOD SERVICE PROVIDER DRAWINGS.
- DENOTES OWNER'S EXISTING EQUIPMENT TO BE RELOCATED. EXTEND EXISTING FEEDER AND CONDUIT.

1 FIRST FLOOR PLAN - POWER

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



2 TYPICAL PEDESTAL MOUNTED RECEPTACLE

SCALE: 1/2" = 1'-0"

GENERAL NOTES:

- COORDINATE ALL DEVICE LOCATIONS AND CIRCUIT ROUTING WITHIN MILLWORK WITH MILLWORK VENDOR PRIOR TO ROUGH-IN.
- COORDINATE ALL KITCHEN EQUIPMENT REQUIREMENTS AND DEVICE LOCATIONS WITH THE FOODSERVICE CONTRACTOR PRIOR TO ROUGH-IN. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE DISCONNECTING MEANS FOR, AND TO MAKE THE FINAL CONNECTION TO, ANY HARDWIRED EQUIPMENT. THE ELECTRICAL CONTRACTOR IS ALSO RESPONSIBLE TO PROVIDE AN APPROPRIATE CORD AND PLUG FOR ANY CORD-AND-PLUG CONNECTED EQUIPMENT THAT IS NOT EQUIPPED WITH AN INTEGRAL CORD AND PLUG.

KEYNOTES - POWER

- EXTEND EXISTING FEEDER AND CONDUIT FOR RELOCATED KITCHEN EQUIPMENT. REFER TO FOOD SERVICE AND ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
- EXTEND EXISTING FEEDER AND CONDUIT FOR RELOCATED KITCHEN EQUIPMENT. REFER TO FOOD SERVICE AND ARCHITECTURAL DRAWINGS FOR FLOOR CUTTING AND EXACT LOCATIONS. REFER TO DETAIL 2/E101 FOR TYPICAL PEDESTAL MOUNTED RECEPTACLE.
- NEW ROOFTOP COMPRESSOR FOR FREEZER. ROUTE EXISTING FEEDER AND CONDUIT THROUGH NEW SINGLE CHASE.
- NEW WP. GFI RECEPTACLE MOUNTED ON ROOFTOP CONDENSING UNIT FOR MAINTENANCE. ROUTE NEW CONDUIT AND WIRE THROUGH NEW SINGLE CHASE.
- ROUTE CONDUIT AND WIRING DOWN IN NEW CHASE TO FLOOR BOXES IN NEW SERVICE 100B. REFER TO FOOD SERVICE AND ARCHITECTURAL FOR EXACT LOCATIONS.
- ROUTE CONDUIT AND WIRING IN CEILING SPACE TO EXISTING PANEL A IN LOBBY A101.

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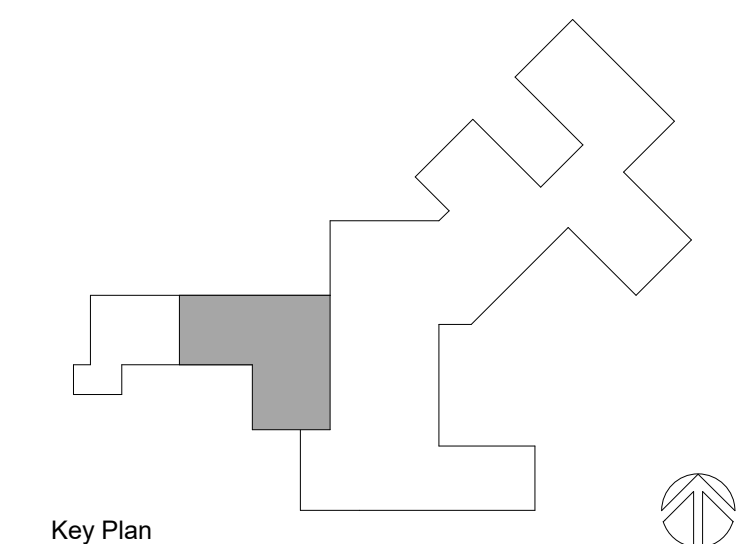
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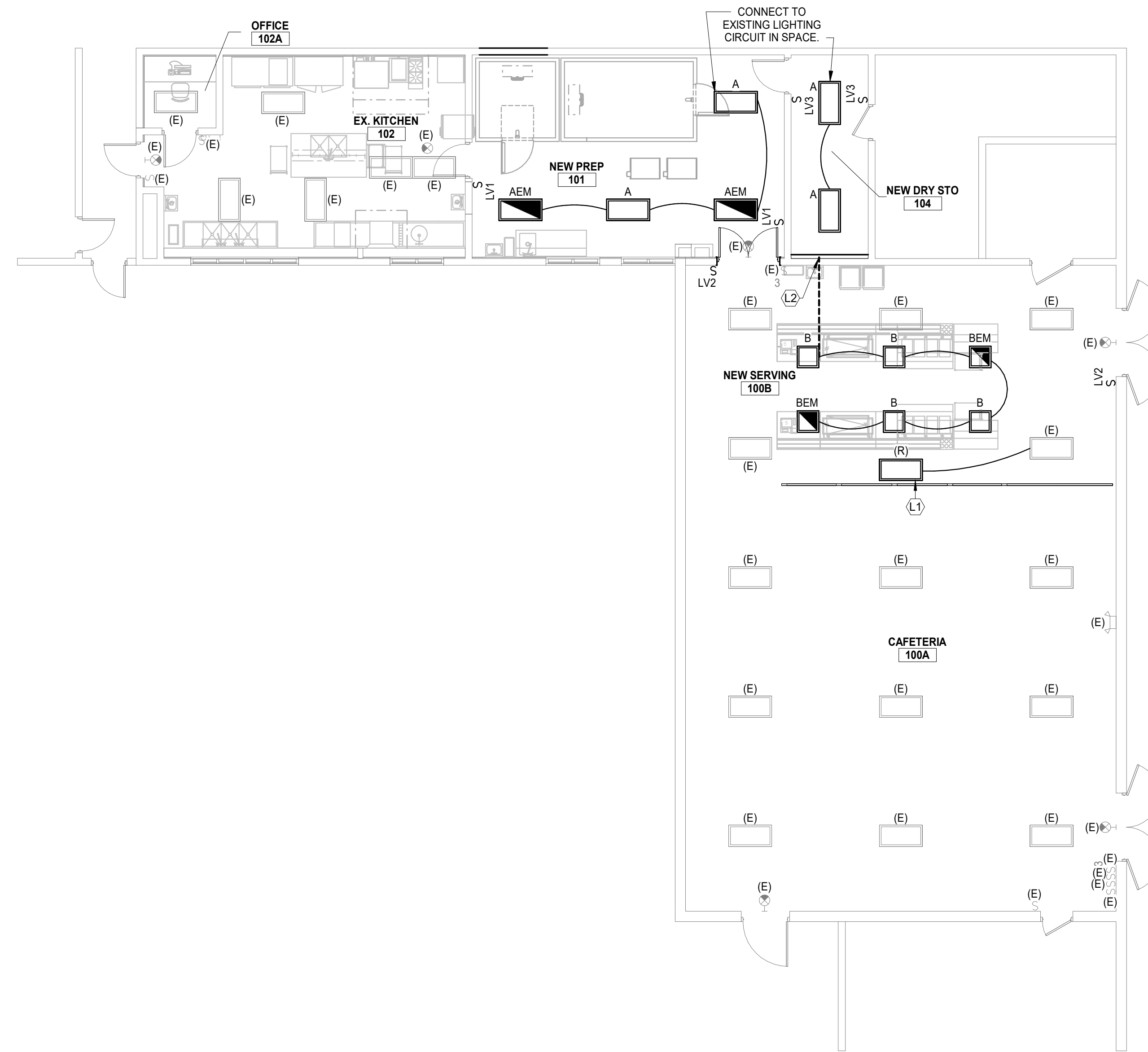
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FIRST FLOOR PLAN -
POWER

Drawing Number

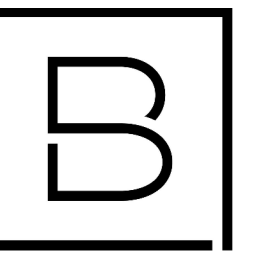
E101



KEYNOTES - LIGHTING

- L1 RELOCATED LIGHT FIXTURE, CLEAN AND RELAMP. EXTEND CONDUIT AND WIRING AS SHOWN.
- L2 CONNECT TO EXISTING LIGHTING CIRCUIT IN SPACE. ROUTE EXPOSED CONDUIT ALONG NORTH WALL OF NEW SERVING 100B & ACROSS TOP OF STEEL TUBE TRELLIS TO LOW CEILING. REFER TO ARCHITECTURAL DRAWINGS FOR TRELLIS LAYOUT.

1 FIRST FLOOR PLAN - LIGHTING
 SCALE: 1/8" = 1'-0"



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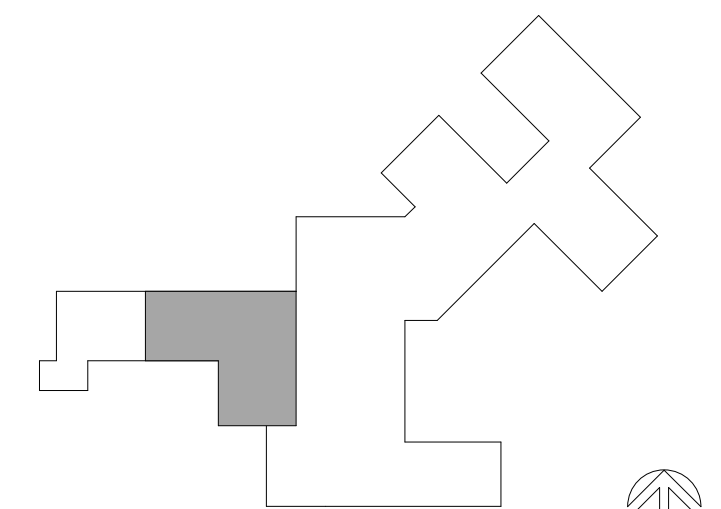
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1/31/2023	BIDS



Key Plan

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Project Manager	Discipline Lead
D. HOLTRUP	A. ROBINSON
Designer	Reviewer
C. NIKONCHUK	B. HUYLER
Date Issued	Project Number
12/13/2022	22013309A

Sheet Name

FIRST FLOOR PLAN -
 LIGHTING

Drawing Number

E201

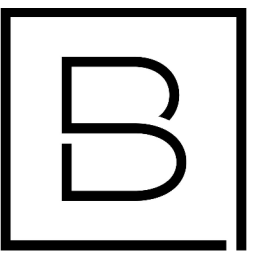
LUMINAIRE SCHEDULE								
TYPE	LAMP	MANUFACTURER	MODEL NUMBER	BALLAST/DRIVER	MOUNTING	INPUT WATTAGE	DESCRIPTION	NOTE
A	5000 LUMEN, 3500K, LED	FAIL-SAFE	CLMG-24-4-OLS-A12125-LD4-2-LO-35-120-EDD-1-AMD	0-10V	RECESSED GRID CEILING	44W	2x4 TROFFER. PROVIDE INTEGRAL OCCUPANCY SENSOR AND DAYLIGHT HARVEST SENSOR.	2
		COLUMBIA	SCLT-24-B-35-LW-L1-G-SD-FA-ED-U-WL-NXSW-ORLO					
		LITHONIA	2WRTL-G-L48-5000LM-AW-AFL-120-GZ1-35K-80CRI-MSE62L3VWL-DWAM					
		DAY-BRITE	K1-24-64L-835-C2G-6-AP3-120					
AEM	5000 LUMEN, 3500K, LED	FAIL-SAFE	CLMG-24-4-OLS-A12125-LD4-2-LO-35-120-EDD-1-EL10W-AMD	0-10V	RECESSED GRID CEILING	44W	2x4 TROFFER. PROVIDE INTEGRAL OCCUPANCY SENSOR AND DAYLIGHT HARVEST SENSOR. PROVIDE 10W CONSTANT POWER SELF-DIAGNOSTIC BATTERY PACK.	1,2
		COLUMBIA	SCLT-24-B-35-LW-L1-G-SD-FA-ED-U-WL-NXSW-ORLO-EL10W					
		LITHONIA	2WRTL-G-L48-5000LM-AW-AFL-120-GZ1-35K-80CRI-MSE62L3VWL-DWAM-E10W-LCP					
		DAY-BRITE	K1-24-64L-835-C2G-6-AP3-120-EL10W					
B	3000 LUMEN, 3500K, LED	FAIL-SAFE	CLMG-24-2-OLS-A12125-LD4-2-LO-35-120-EDD-1-AMD	0-10V	RECESSED GRID CEILING	26.6W	2x2 TROFFER. PROVIDE INTEGRAL OCCUPANCY SENSOR AND DAYLIGHT HARVEST SENSOR.	2
		COLUMBIA	SCLT-22-B-35-LW-L1-G-SD-FA-ED-U-WL-NXSW-ORLO					
		LITHONIA	2WRTL-G-L24-3000LM-AW-AFL-120-GZ1-35K-80CRI-MSE62L3VWL-DWAM					
		DAY-BRITE	K1-22-40L-835-C2G-6-AP3-120					
BEM	3000 LUMEN, 3500K, LED	FAIL-SAFE	CLMG-24-2-OLS-A12125-LD4-2-LO-35-120-EDD-1-EL10W-AMD	0-10V	RECESSED GRID CEILING	26.6W	2x2 TROFFER. PROVIDE INTEGRAL OCCUPANCY SENSOR AND DAYLIGHT HARVEST SENSOR. PROVIDE 10W CONSTANT POWER SELF-DIAGNOSTIC BATTERY PACK.	1,2
		COLUMBIA	SCLT-22-B-35-LW-L1-G-SD-FA-ED-U-WL-NXSW-ORLO-EL10W					
		LITHONIA	2WRTL-G-L24-3000LM-AW-AFL-120-GZ1-35K-80CRI-MSE62L3VWL-DWAM-E10W-LCP					
		DAY-BRITE	K1-22-40L-835-C2G-6-AP3-120-EL10W					

NOTES:

- WIRE FIXTURE TO EMERGENCY BATTERY PACK. PROGRAM FIXTURE TO FUNCTION WITH ROOM FIXTURES PER SEQUENCE OF OPERATION.
- PROVIDE PROGRAMMING REMOTE AS REQUIRED TO PROGRAM INTEGRATED CONTROLS.

SEQUENCE OF OPERATION:

- LIGHTING CONTROL INTENTION IS TO USE LIGHT FIXTURES WITH INTEGRATED WIRED CONTROLS AND ASSOCIATED LOW VOLTAGE SWITCHES, UNLESS NOTED OTHERWISE. DEVIATION FROM THIS SOLUTION SHALL MEET CONTROL INTENTIONS AND COORDINATED WITH ELECTRICAL CONTRACTOR FOR ADDITIONAL WIRING AND INSTALLATION.
- ALL SWITCHES WITH "LVF" ARE LOW VOLTAGE CONTROL STATIONS. PROVIDE ON/OFF BUTTONS, PRE-PROGRAMMED SCENES, INTEGRAL OCCUPANCY SENSING, AND/OR DIMMING CONTROL AS DESCRIBED BELOW PER SPACE.
- ALL EMERGENCY FIXTURES SHALL BE PROGRAMMED TO FUNCTION WITH AREA NORMAL LIGHTS, UNLESS NOTED AS NIGHT LIGHTS. UPON LOSS OF POWER, EMERGENCY FIXTURES SHALL ILLUMINATE TO 100% OF RATED POWER.
- COORDINATE COMMISSIONING OF SYSTEM PER LIGHTING, LIGHTING CONTROL, AND COMMISSIONING SPECIFICATIONS WITH OWNER'S AGENT AS REQUIRED PER STATE OF MICHIGAN ENERGY CODE.
- NEW PREP:**
 - LIGHTING COME ON AUTOMATICALLY AT 50% UPON ENTRANCE TO SPACE VIA CEILING LOW VOLTAGE OCCUPANCY SENSOR AND/OR INTEGRATED CONTROLS.
 - LIGHTING SHALL REMAIN ON UNTIL 20-MINUTES AFTER NO ACTIVITY AND THEN TURN OFF.
 - LV1 STATIONS SHALL INCLUDE:
 - ALL ON
 - 50% ILLUMINATION
 - 100% ILLUMINATION
 - ALL OFF
- NEW SERVING AREA:**
 - LIGHTING COME ON AUTOMATICALLY AT 50% UPON ENTRANCE TO SPACE VIA CEILING LOW VOLTAGE OCCUPANCY SENSOR AND/OR INTEGRATED CONTROLS.
 - LOCATE POWER PACK ABOVE SWITCH AT DOOR ENTRANCE.
 - LIGHTING SHALL REMAIN ON UNTIL 20-MINUTES AFTER NO ACTIVITY AND THEN GO OFF.
 - LIGHT FIXTURES WITH INTEGRATED CONTROLS ARE ACCEPTABLE AS ALTERNATE CONTROL.
 - LV2 STATIONS SHALL INCLUDE: CONTROLS CONTRACTOR SHALL PROVIDE DEVICES TO CONTROL NON-INTEGRATED FIXTURES WITH INTEGRATED FIXTURES.
 - ALL ON
 - 50% ILLUMINATION
 - DIM UP
 - DIM DOWN
 - ALL OFF
- NEW DRY STORAGE:**
 - LIGHTING COME ON AUTOMATICALLY AT 100% UPON ENTRANCE TO SPACE VIA CEILING LOW VOLTAGE OCCUPANCY SENSOR AND/OR INTEGRATED CONTROLS.
 - LOCATE POWER PACK ABOVE SWITCH AT DOOR ENTRANCE.
 - LIGHTING SHALL REMAIN ON UNTIL 20-MINUTES AFTER NO ACTIVITY AND THEN TURN OFF.
 - LV3 STATIONS SHALL INCLUDE:
 - ON
 - OFF



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**ORCHARD VIEW
SCHOOL
DISTRICT**

**EARLY
ELEMENTARY
KITCHEN AND
SERVING
RENOVATIONS**

2820 MACARTHUR RD
MUSKEGON, MI

Date Revised	Description
1/24/2023	OWNER REVIEW
1/31/2023	BIDS

PANEL BOARD SCHEDULE																						
(E) PANEL A			VOLTS: 208			MAINS RATING: 200A			A.I.C. RATING: BRKR SPACE: 42			LOCATION: LOBBY A101										
PHASE: 3			MCB: 200A			MTG/NEMA #:			NEMA 1			SOURCE: (E) 75KVA TX-A			FEEDER: (E) #4/30 + 1#6, 2" CND.							
WIRE: 4			MLO:																			
CKT	LOAD DESCRIPTION	LOAD	LTS	REC	MOTOR	OTHER	KIT	OCPD	P	CKT	PH	CKT	P	OCPD	LTS	REC	MOTOR	OTHER	KIT	LOAD DESCRIPTION	CKT	
1	RECEPT. LOBBY, CORR. MAIN OFF.				900				20	1	1	A	2	1	20						HEAT TAPE	2
3	RECEPT. OFFICE 203				900				20	1	3	B	4	1	20						DOOR OPENER	4
5	RECEPT. CORR. TOILETS				540				20	1	5	C	6	1	20						EPTA1, CURH-1	6
7	RECEPT. OFFICE WORKROOM				900				20	1	7	A	8	1	20						TERM UNITS IB1 - IB6, IA1 - IA4	8
9	RECEPT. OFFICE WORKROOM				900				20	1	9	B	10	1	20						HEAT TAPE	10
11	RECEPT. OFFICE WORKROOM				900				20	1	11	C	12	1	20	500					TRACK LIGHTS	12
13	RECEPT. MAIN OFFICE				900				20	1	13	A	14	1	20	500					FRONT LIGHTS	14
15	RECEPT. OFFICE FURNITURE				900				20	1	15	B	16	1	20						FRONT SIGN	16
17	RECEPT. OFFICE 201				900				20	1	17	C	18	1	20						FRONT SIGN	18
19	RECEPT. OFFICE 202				900				20	1	19	A	20	2	20						OFFICE COPIER	20
21	RECEPT. MAIN OFFICE, 202				900				20	1	21	B	22									22
23	UNDERCOUNTER LIGHTS	500							20	1	23	C	24	1		180					RECEPT. WP. GFI ROOF FREEZER COMPRESSOR	24
25	RECEPT. ROOM 202				900				20	1	25	A	26	1		900					184 WALK-IN COOLER 101	26
27	RECEPT. ROOM 202				900				20	1	27	B	28	1		900					104A COOLER COIL 101	28
29	RECEPT 102A	360							20	1	29	C	30	1							SPACE	30
31	RECEPT. ROOM 211				900				20	1	31	A	32	1							SPACE	32
33	PROJECTOR SCREEN				1000				20	1	33	B	34	1							SPACE	34
35	RECEPT. ROOM 211				900				20	1	35	C	36	1							SPACE	36
37	SPACE								20	1	37	A	38									38
39	SPACE								1	39	B	40	3	20							104B COOLER COMPRESSOR ROOF	40
41	SPACE								1	41	C	42										42

SUBTOTAL CONNECTED KVA						LOAD SUMMARY & FEEDER CALCULATION									
	LTS	REC	MOTOR	OTHER	KIT	TOTAL	LTS	REC	MOTOR	OTHER	KIT	SUBTOT	SPARE	TOTAL	
PHASE A CONNECTED KVA	0.5	5.4	3.1	2.2	0.0	11.2	1.25	#1	1.0	1.0	1.0	0.0	30.3	25%	
PHASE B CONNECTED KVA	0.0	4.5	2.7	4.2	0.0	11.4	1.9	11.8	7.7	7.4	0.0	28.8	7.2	36.0	
PHASE C CONNECTED KVA	1.0	3.8	1.9	1.0	0.0	7.7						100.1			
25% OF LARGEST MOTOR			0.0												
RECEPTACLE DEMAND FACTOR:							CONTINUOUS/NONCONT FACTOR								
#1: 100% FIRST 10 KVA + 50% REMAINING							MIN. OVERCURRENT DEVICE AMPS						101.3		

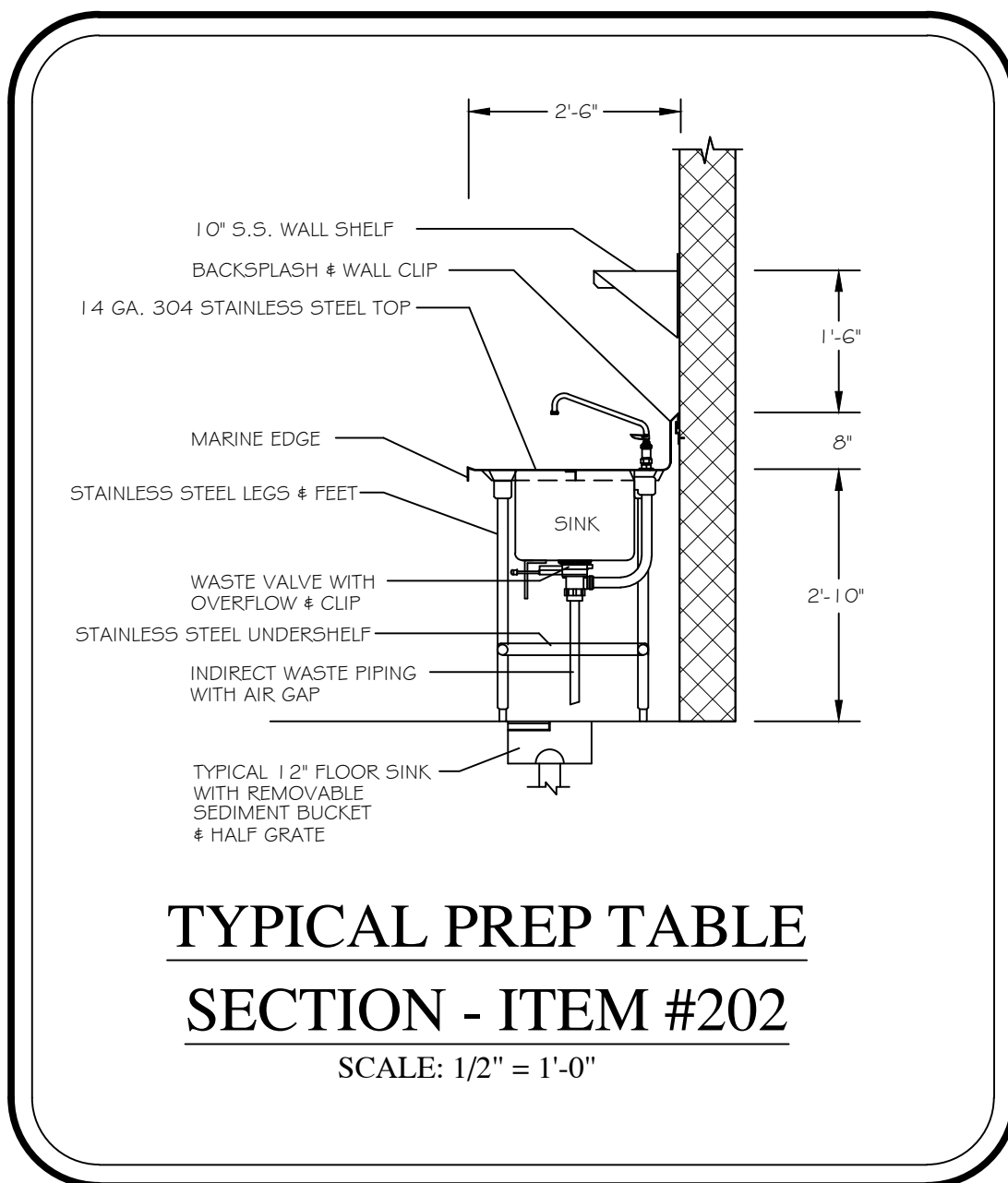
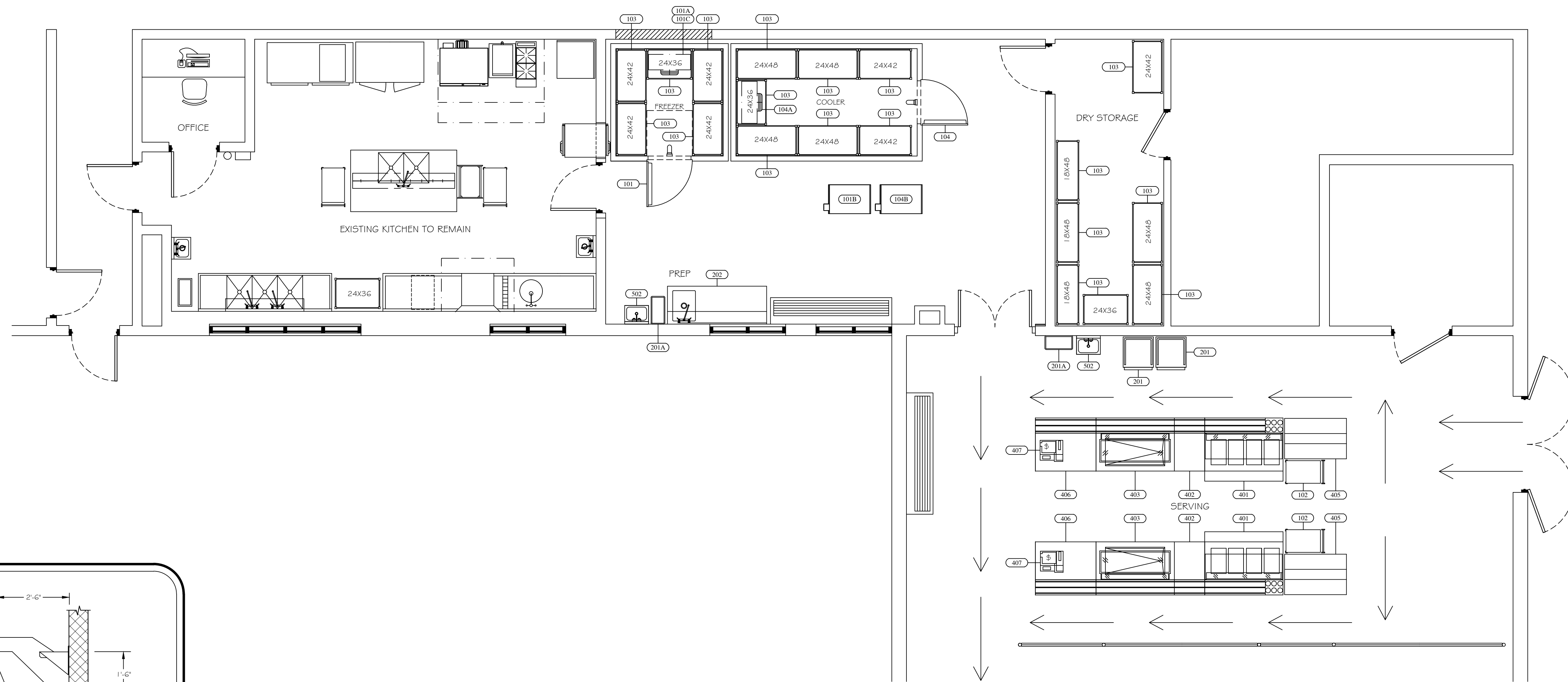
PANEL BOARD SCHEDULE																							
(E) PANEL K			VOLTS: 240			MAINS RATING: 300A			A.I.C. RATING: BRKR SPACE: 42			LOCATION: EX. KITCHEN 102											
PHASE: 1			MCB: 300A			MTG/NEMA #:			NEMA 1			SOURCE: EX 444/0, 3" CND			FEEDER: (E) 444/0, 3" CND								
WIRE: 3			MLO: 300A																				
CKT	LOAD DESCRIPTION	LOAD	LTS	REC	MOTOR	OTHER	KIT	OCPD	P	CKT	PH	CKT	P	OCPD	LTS	REC	MOTOR	OTHER	KIT	LOAD DESCRIPTION	CKT		
1	STEAMER								5000			1	A	2	2						2500	DISHWASHER	2
3	EXISTING LOAD								5000	80	2	3	B	4							2500		4
5	EXISTING LOAD				180				20	1	5	A	6	2	20						500	HOOD & MAKEUP AIR	6
7	ROOM 103 WEST WIREMOLD				540				20	1	7	B	8								500		8
9	DISPOSER								650			9	A	10	2	20					600	NORTH HOT FOOD TABLE	10
11	BOOSTER HEATER								650	20	2	11	B	12							600		12
13	SOUTH SERVING RECEPT.				360				800	20	1	13	A	14	1	20					400	DISHWASHER HOOD	14
15	SOUTH MILK DISPENSER								800	20	1	15	B	16	1	20					400	HOOD LTS & UNDER HOOD CNTRL	16
17	SOUTH CASH REGISTER								600	20	1	17	A	18	1	20					180	CONVECTION OVER RECEPT	18
19	SOUTH CASH REGISTER								400	20	1	19	B	20	1	20					180	CONVECTION OVER RECEPT	20
21	SOUTH COLD FOOD TABLE								600	20	1	21	A	22	1	20					180	RECEPT RIGHT OF HOOD	22
23	SOUTH HOT FOOD TABLE								600			23	B	24	1	20					600	REFRIGERATOR	24
25	NORTH SERVING RECEPT				360				800	20	2	25	A	26	1	20					600	MILK COOLER	26
27	NORTH MILK DISPENSER								800	20	1	27	B	28	1	20				360	RECEPT KITCHEN & SERVING	28	
29	NORTH CASH REGISTER								600	20	1	29	A	30	1	40					800	FREEZER	30
31	NORTH CASH REGISTER								400	20	1	31	B	32	1	20				540		ROOM 103 WIREMOLD	32
33	NORTH COLD FOOD TABLE								800	20	1	33	A	34	1	20					540	ROOM 102 WIREMOLD	34
35	ROOM 104 WIREMOLD				540				20	1	35	B	36	1	20						540	ROOM 105 WIREMOLD	36
37	ROOM 103 NW WIREMOLD				540				20	1	37	A	38	1	20						540	ROOM 105 WIREMOLD	38
39	ROOM 103 NW WIREMOLD				540				20	1	39	B	40	1	20						540	PROJECTOR RECEPETS	40
41	ROOM 103 W WIREMOLD				540				20	1	41	A	42	1	20						540	DROP CORD RECEPETS	42

SUBTOTAL CONNECTED KVA						LOAD SUMMARY & FEEDER CALCULATION								
	LTS	REC	MOTOR	OTHER	KIT	TOTAL	LTS	REC	MOTOR	OTHER	KIT	SUBTOT	SPARE	TOTAL
PHASE A CONNECTED KVA	0.0	3.2	0.0	0.0	0.0	14.9	18.1							
PHASE B CONNECTED KVA	0.0	4.5	0.0	0.0</										



Food Service Consultants
JRA FOOD SERVICE CONSULTANTS, LLC
401 HALL STREET SW - SUITE 183H
GRAND RAPIDS, MI 49503
PH: (616) 454-4433

ARCHITECT:
BERGMANN ASSOCIATES
560 5th NW
SUITE 305
GRAND RAPIDS, MI 49504



TYPICAL PREP TABLE
SECTION - ITEM #202
SCALE: 1/2" = 1'-0"

NOTE:

- FSEC SHALL VERIFY ROUGHIN REQUIREMENTS FOR FUTURE, PURVEYOR SUPPLIED, OWNERS RELOCATED EQUIPMENT, OWNER SUPPLIED EQUIPMENT, ETC.
- TRADES TO REUSE EXISTING ROUGHINS WHERE APPLICABLE.
- TRADES SHALL DISCONNECT, REMOVE, STORE & RECONNECT ANY EXISTING EQUIPMENT AS REQUIRED FOR CONSTRUCTION PURPOSES.
- EQUIPMENT NOT BEING REUSED TO BE DISCONNECTED BY TRADES AND STORED OR DISCARDED BY THE FSEC AS DIRECTED BY OWNER.
- EQUIPMENT DESIGNATED AS RELOCATED SHALL BE DISCONNECTED BY THE TRADES AND RELOCATED BY THE FSEC AS PER PLANS AND SPECIFICATIONS.

EQUIPMENT SCHEDULE																
Item	Qty	DESCRIPTION	CW (in)	HW (in)	INDIRECT DRAIN	DIRECT DRAIN (IN)	GAS (in)	MBTUH	EXH DUCT	EXH CFM	MUA DUCT	MUA CFM	Volts	Ph	Amps load	Equipment Remarks
101	1	WALK-IN FREEZER											120	1	8.0	INSULATED FLOOR: SEE REFRIGERATION PLAN
101A	1	FREEZER COIL			FFD								240	1	13.0	
101B	1	FREEZER COMPRESSOR											240	3	13.0	ROOF CURBS BY FSEC
101C	1	FREEZER COIL HEAT TAPE											120	1	5.0	
** 102	2	UTILITY CART														
103	19	SHELVING - POLYMER														
** 104	1	WALK-IN COOLER											120	1	8.0	INSULATED FLOOR: SEE REFRIGERATION PLAN
104A	1	COOLER COIL			FFD								120	1	5.0	
104B	1	COOLER COMPRESSOR											208	3	7.6	ROOF CURBS BY FSEC
* 201	2	TRASH BIN - BY OWNER														
201A	2	TRASH BIN - BY OWNER														
202	1	PREP TABLE	0.5	0.5	FL SK											
301	1	SPARE NUMBER														
** 401	2	HOT FOOD TABLE			FFD								240	1	9.0	
** 402	2	UTILITY COUNTER											120	1	5.2	
** 403	2	COLD FOOD TABLE			FFD								120	1	7.5	
404	1	SPARE NUMBER														
** 405	2	MILK COOLER											120	1	7.5	
** 406	2	CASHIER COUNTER														
** 407	2	CASH REGISTER/POS											120	1	10.0	DEDICATED CIRCUIT & DATA
501	1	SPARE NUMBER														
502	2	HAND SINK W/ SIDE SPLASHES	0.5	0.5		1.5										SOAP & TOWEL DISPENSER - BY OWNER

* DENOTES OWNERS EXISTING EQUIPMENT TO REMAIN
** DENOTES OWNERS EXISTING EQUIPMENT TO BE RELOCATED

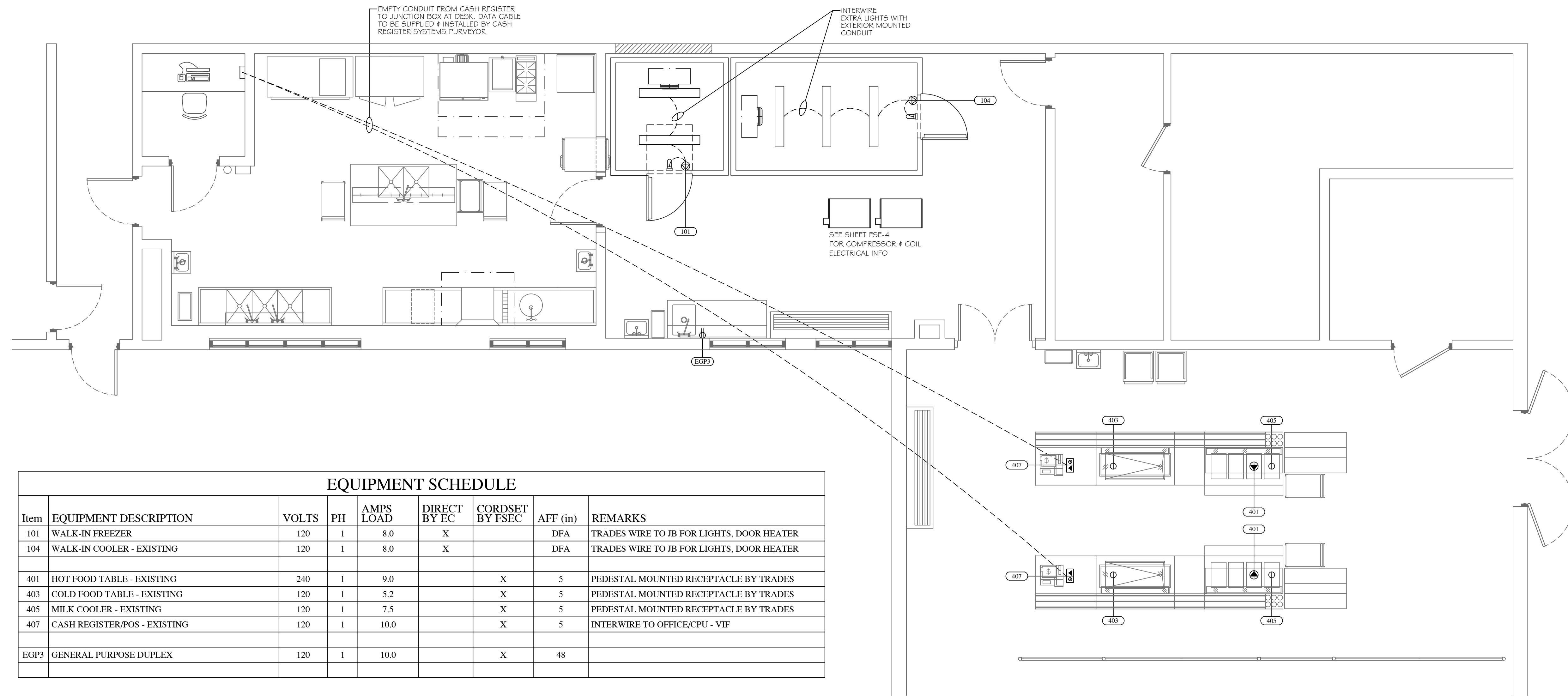
PROJECT:
ORCHARD VIEW
EARLY ELEMENTARY
2820 MACARTHUR RD
MUSKEGON, MI 49442

SHEET TITLE:
FOOD SERVICE
EQUIPMENT
FLOOR PLAN
SCALE 1/4" = 1'-0"

DATE CODE	PROJECT PHASE	BY
01/31/23 OVGESFP	BIDS	CM

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SHEET NUMBER:



EQUIPMENT SCHEDULE								
Item	EQUIPMENT DESCRIPTION	VOLTS	PH	AMPS LOAD	DIRECT BY EC	CORDSET BY FSEC	AFF (in)	REMARKS
101	WALK-IN FREEZER	120	1	8.0	X		DFA	TRADES WIRE TO JB FOR LIGHTS, DOOR HEATER
104	WALK-IN COOLER - EXISTING	120	1	8.0	X		DFA	TRADES WIRE TO JB FOR LIGHTS, DOOR HEATER
401	HOT FOOD TABLE - EXISTING	240	1	9.0		X	5	PEDESTAL MOUNTED RECEPTACLE BY TRADES
403	COLD FOOD TABLE - EXISTING	120	1	5.2		X	5	PEDESTAL MOUNTED RECEPTACLE BY TRADES
405	MILK COOLER - EXISTING	120	1	7.5		X	5	PEDESTAL MOUNTED RECEPTACLE BY TRADES
407	CASH REGISTER/POS - EXISTING	120	1	10.0		X	5	INTERWIRE TO OFFICE/CPU - VIF
EGP3	GENERAL PURPOSE DUPLEX	120	1	10.0		X	48	

DATE CODE	PROJECT PHASE	BY
01/31/23 OVGESE	BIDS	CM

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SHEET NUMBER:

TRADE & FSEC NOTES:

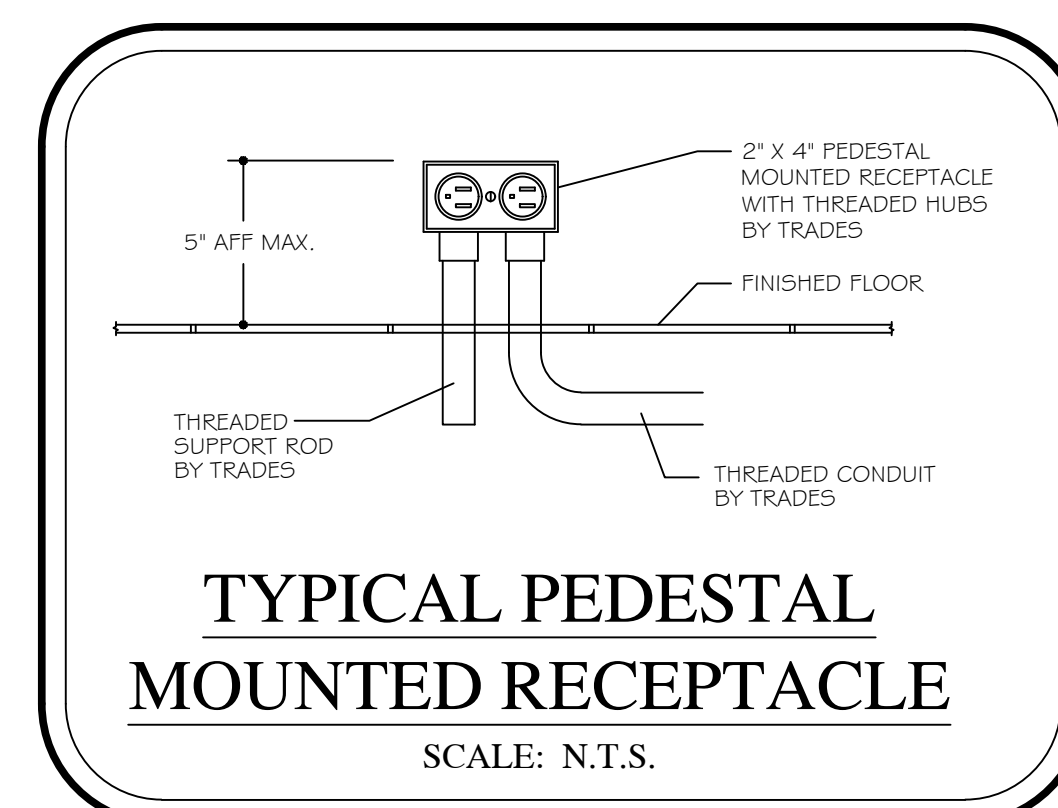
- KITCHEN EQUIPMENT SHALL BE DELIVERED AND ERECTED BY F.S.E.C.
- DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO F.S.E.C. DIMENSIONED ROUGH-IN DRAWINGS AND SHOP DRAWINGS FOR ACTUAL REQUIREMENTS.
- TRADES SHALL MAKE ALL FINAL CONNECTIONS BETWEEN EQUIPMENT AND ROUGH-IN POINT, AND FURNISH ALL WIRING, SWITCHES, CONTROLS, SERVICE VALVES, PIPING, ETC AS REQUIRED. FSEC SHALL FURNISH DRAIN WATER TEMPERING KIT(S), TRADES SHALL INSTALL.
- FSEC SHALL FURNISH AND TRADES SHALL INSTALL ALL ACCESSORIES (FAUCETS, SWITCHES, CORDS, VALVES, GAS HOSES, ETC.).
- SLOPES TO FDS SHOULD BE HELD TO A MINIMUM DIMENSION.
- ALL "ROUGH-INS" SHOULD BE "UP-WITHIN" AND THEN "OUT-OF" WALLS WHERE POSSIBLE TO KEEP FLOORS AS CLEAN AS POSSIBLE. ROUGH-INS ARE SHOWN AT TERMINATION POINT TO ALLOW WIRING/PIPING TO FIXTURE BY TRADES.
- TRADES TO PROVIDE CHASES/REWORK OF WALLS, FLOORS, CEILINGS FOR UTILITIES, FLOOR GRATES, WALKINS, DUCTS, ETC.
- F.S.E.C. SHALL PROVIDE ACCESS HOLES IN EQUIPMENT FOR UTILITIES, PIPING, POS, BEVERAGE LINES, ETC.
- TRADES SHALL PROVIDE VENTILATION STRUCTURAL SUPPORT, CEILING WORK, ROOF PENETRATIONS AND FIRE PROOFING AS REQUIRED.
- EXHAUST HOOD SHALL BE USED FOR VENTILATION OF COOKING EQUIPMENT ONLY. TRADES SHALL PROVIDE ROOM VENTILATION (A/C RECOMMENDED) AS REQUIRED.
- TRADES SHALL PROVIDE ADEQUATE VENTILATION FOR REFRIGERATION COMPRESSORS, WHETHER AIR OR WATER COOLED.
- TRADES SHALL REVIEW ALL ROUGHINS AND SHOP DRAWINGS FROM F.S.E.C. AND ADVISE PRIOR TO ROUGHING IN IF ANY CHANGES ARE REQUIRED.
- FSEC SHALL COORDINATE ROUGHIN REQUIREMENTS FOR OWNER SUPPLIED, RELOCATED, OR EXISTING EQUIPMENT WITH ALL TRADES.
- TRADES TO REUSE EXISTING ROUGHINS IF APPLICABLE.
- EQUIPMENT NOT BEING REUSED TO BE DISCONNECTED FROM UTILITIES BY THE TRADES.
- EQUIPMENT NOT BEING RE-USED SHALL BE DISCARDED BY THE FSEC.
- IF OWNER REQUESTS EXISTING EQUIPMENT BE SALVAGED THE FSEC SHALL TURN OVER TO OWNER.
- EQUIPMENT DESIGNATED AS RELOCATED SHALL BE DISCONNECTED FROM UTILITIES BY THE TRADES.
- EQUIPMENT DESIGNATED AS RELOCATED SHALL BE REMOVED FROM SITE, CLEANED, MADE READY FOR HEALTH DEPARTMENT AND RETURNED TO THE SITE BY THE FSEC.
- EQUIPMENT DESIGNATED AS RELOCATED SHALL BE RE-CONNECTED BY THE TRADES.
- TRADES & FSEC TO VERIFY VENTILATION DATA WITH HOOD MFG. SHOP DRAWINGS.

MECHANICAL / ELECTRICAL NOTES

⊕	120 V - 20 AMP DUPLEX RECEPTACLE - GFCI VERTICALLY MOUNTED	TFT	TEMPERED FLOOR TROUGH
⊕	120 V - 20 AMP SIMPLEX OUTLET - GFCI VERTICALLY MOUNTED	PH	PHASE
⊕	120 VOLT - 30 AMP QUAD OUTLET	UON	UNLESS OTHERWISE NOTED
SR	SPECIAL RECEPTACLE - 120 VOLT	V	VOLTS
SR	SPECIAL RECEPTACLE - 208/240 VOLT	VIF	VERIFY IN FIELD
W.T.	W.T. FLUSH FLOOR POWER/COMMUNICATIONS RECEPTACLE	HW	HOT WATER - 25 PSI - 115 DEGREES
DATA CONNECTION		CW	COLD WATER - 25 PSI
⊕	WATERTIGHT FLUSH FLOOR DUPLEX - 20 AMP - GFCI	G	NATURAL GAS - 7" W.C. OR LP GAS - 1 1/2" W.C. - VIF
JB	JUNCTION BOX	W	WASTE DRAIN - DIRECT CONNECTION
LT	LIGHT FIXTURE	FD	FLOOR DRAIN - 3" MINIMUM DRAIN - MINIMUM PITCH
A	AMPS	FFD	FUNNEL FLOOR DRAIN FOR IW - 3" MINIMUM DRAIN
AFF	ABOVE FINISHED FLOOR	FL SK	FLOOR SINK FOR IW - 1 2" SQ. - HALF GRATE - 3" MIN.
BTC	BRANCH TO CONNECTION BY TRADES	EVC	EXHAUST VENT CONNECTION
DFA	DROP FROM ABOVE	MUA	MAKE UP AIR DUCT CONNECTION
GP	GENERAL PURPOSE	CFM	CUBIC FEET MINUTE
HP	HORSEPOWER	SP	STATIC PRESSURE
IW	INDIRECT/AIR GAPPED WASTE TO FL DR OR FL SK	BC	BEVERAGE CONDUIT WITH 1 8" SWEEP ENDS BY TRADES - VIF
KW	KILOWATT	NIKEC	NOT IN KITCHEN EQUIPMENT CONTRACT

NOTE:

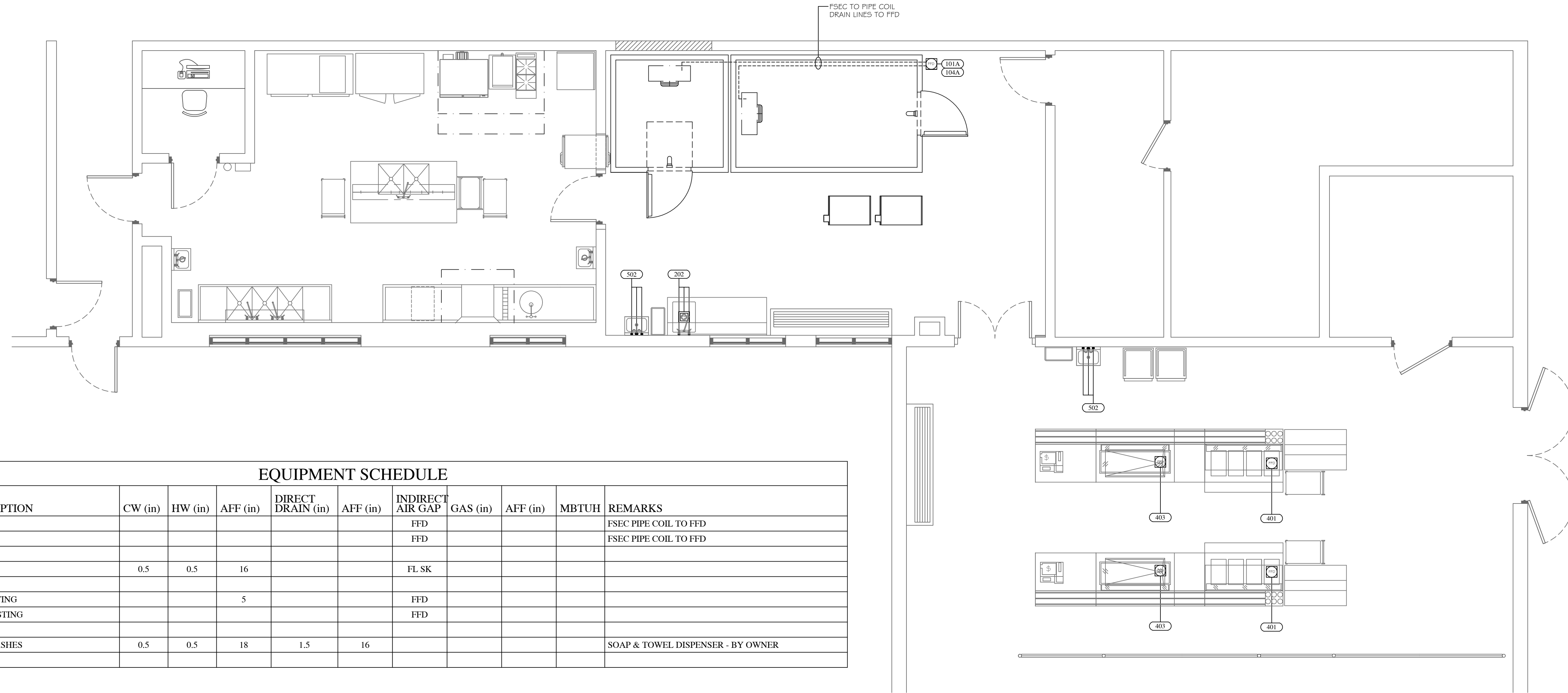
- FSEC SHALL VERIFY ROUGHIN REQUIREMENTS FOR FUTURE, PURVEYOR SUPPLIED, OWNERS RELOCATED EQUIPMENT, OWNER SUPPLIED EQUIPMENT, ETC.
- TRADES TO REUSE EXISTING ROUGHINS WHERE APPLICABLE.
- TRADES SHALL DISCONNECT, REMOVE, STORE & RECONNECT ANY EXISTING EQUIPMENT AS REQUIRED FOR CONSTRUCTION PURPOSES.
- EQUIPMENT NOT BEING REUSED TO BE DISCONNECTED BY TRADES AND STORED OR DISCARDED BY THE FSEC AS DIRECTED BY OWNER.
- EQUIPMENT DESIGNATED AS RELOCATED SHALL BE DISCONNECTED BY THE TRADES AND RELOCATED BY THE FSEC AS PER PLANS AND SPECIFICATIONS.





Food Service Consultants
JRA FOOD SERVICE CONSULTANTS, LLC
401 HALL STREET SW - SUITE 183H
GRAND RAPIDS, MI 49503
PH: (616) 454-4433

ARCHITECT:
BERGMANN ASSOCIATES
560 5th NW
SUITE 305
GRAND RAPIDS, MI 49504



EQUIPMENT SCHEDULE

Item	EQUIPMENT DESCRIPTION	CW (in)	HW (in)	AFF (in)	DIRECT DRAIN (in)	AFF (in)	INDIRECT AIR GAP	GAS (in)	AFF (in)	MBTUH	REMARKS
101A	FREEZER COIL						FFD				FSEC PIPE COIL TO FFD
104A	COOLER COIL						FFD				FSEC PIPE COIL TO FFD
202	PREP TABLE	0.5	0.5	16			FL SK				
401	HOT FOOD TABLE - EXISTING			5			FFD				
403	COLD FOOD TABLE - EXISTING						FFD				
502	HAND SINK W/ SIDE SPLASHES	0.5	0.5	18	1.5	16					SOAP & TOWEL DISPENSER - BY OWNER

MECHANICAL / ELECTRICAL NOTES

⊕		120 V - 20 AMP DUPLEX RECEPTACLE - GFC VERTICALLY MOUNTED		TFT	TEMPERED FLOOR TROUGH
⊕		120 V - 20 AMP SIMPLEX OUTLET - GFC VERTICALLY MOUNTED		PH	PHASE
⊕		120 VOLT - 30 AMP QUAD OUTLET		UON	UNLESS OTHERWISE NOTED
SR		SPECIAL RECEPTACLE - 120 VOLT		V	VOLTS
SR		SPECIAL RECEPTACLE - 208/240 VOLT		VIF	VERIFY IN FIELD
W.T.		W.T. FLUSH FLOOR POWER/COMMUNICATIONS RECEPTACLE		HW	HOT WATER - 25 PSI - 115 DEGREES
DATA		DATA CONNECTION		CW	COLD WATER - 25 PSI
⊕		WATERTIGHT FLUSH FLOOR DUPLEX - 20 AMP - GFC		G	NATURAL GAS - 7" W.C. OR LP GAS - 1 1/4" W.C. - VIF
JB		JUNCTION BOX		W	WASTE DRAIN - DIRECT CONNECTION
LT		LIGHT FIXTURE		FD	FLOOR DRAIN - 3" MINIMUM DRAIN - MINIMUM PITCH
A		AMPS		FFD	FUNNEL FLOOR DRAIN FOR IW - 3" MINIMUM DRAIN
AFF		ABOVE FINISHED FLOOR		FL SK	FLOOR SINK FOR IW - 12" SQ. - HALF GRATE - 3" MIN.
BTC		BRANCH TO CONNECTION BY TRADES		EVC	EXHAUST VENT CONNECTION
DFA		DROP FROM ABOVE		MUA	MAKE UP AIR DUCT CONNECTION
GP		GENERAL PURPOSE		CFM	CUBIC FEET MINUTE
HP		HORSEPOWER		SP	STATIC PRESSURE
IW		INDIRECT/AIR GAPPED WASTE TO FL DR OR FL SK		BC	BEVERAGE CONDUIT WITH 1/8" SWEEP ENDS BY TRADES - VIF
KW		KILOWATT		NIKEC	NOT IN KITCHEN EQUIPMENT CONTRACT

TRADE & FSEC NOTES:

- KITCHEN EQUIPMENT SHALL BE DELIVERED AND ERECTED BY F.S.E.C.
- DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO F.S.E.C. DIMENSIONED ROUGH-IN DRAWINGS AND SHOP DRAWINGS FOR ACTUAL REQUIREMENTS.
- TRADES SHALL MAKE ALL FINAL CONNECTIONS BETWEEN EQUIPMENT AND ROUGH-IN POINT, AND FURNISH ALL WIRING, SWITCHES, CONTROLS, SERVICE VALVES, PIPING, ETC AS REQUIRED. FSEC SHALL FURNISH DRAIN WATER TEMPERING KIT(S), TRADES SHALL INSTALL.
- FSEC SHALL FURNISH AND TRADES SHALL INSTALL ALL ACCESSORIES (FAUCETS, SWITCHES, CORDS, VALVES, GAS HOSES, ETC.).
- SLOPES TO FDS SHOULD BE HELD TO A MINIMUM DIMENSION.
- ALL "ROUGH-INS" SHOULD BE "UP-WITHIN" AND THEN "OUT-OF" WALLS WHERE POSSIBLE TO KEEP FLOORS AS CLEAN AS POSSIBLE. ROUGH-INS ARE SHOWN AT TERMINATION POINT TO ALLOW WIRING/PIPING TO FIXTURE BY TRADES.
- TRADES TO PROVIDE CHASES/REWORK OF WALLS, FLOORS, CEILINGS FOR UTILITIES, FLOOR GRATES, WALKINS, DUCTS, ETC.
- F.S.E.C. SHALL PROVIDE ACCESS HOLES IN EQUIPMENT FOR UTILITIES, PIPING, POS, BEVERAGE LINES, ETC.
- TRADES SHALL PROVIDE VENTILATION STRUCTURAL SUPPORT, CEILING WORK, ROOF PENETRATIONS AND FIRE PROOFING AS REQUIRED.
- EXHAUST HOOD SHALL BE USED FOR VENTILATION OF COOKING EQUIPMENT ONLY. TRADES SHALL PROVIDE ROOM VENTILATION (A/C RECOMMENDED) AS REQUIRED.
- TRADES SHALL PROVIDE ADEQUATE VENTILATION FOR REFRIGERATION COMPRESSORS, WHETHER AIR OR WATER COOLED.
- TRADES SHALL REVIEW ALL ROUGHINS AND SHOP DRAWINGS FROM F.S.E.C. AND ADVISE PRIOR TO ROUGHING IN IF ANY CHANGES ARE REQUIRED.
- FSEC SHALL COORDINATE ROUGHIN REQUIREMENTS FOR OWNER SUPPLIED, RELOCATED, OR EXISTING EQUIPMENT WITH ALL TRADES.
- TRADES TO REUSE EXISTING ROUGHINS IF APPLICABLE.
- EQUIPMENT NOT BEING REUSED TO BE DISCONNECTED FROM UTILITIES BY THE TRADES.
- EQUIPMENT NOT BEING RE-USED SHALL BE DISCARDED BY THE FSEC.
- IF OWNER REQUESTS EXISTING EQUIPMENT BE SALVAGED THE FSEC SHALL TURN OVER TO OWNER.
- EQUIPMENT DESIGNATED AS RELOCATED SHALL BE DISCONNECTED FROM UTILITIES BY THE TRADES.
- EQUIPMENT DESIGNATED AS RELOCATED SHALL BE REMOVED FROM SITE, CLEANED, MADE READY FOR HEALTH DEPARTMENT AND RETURNED TO THE SITE BY THE FSEC.
- EQUIPMENT DESIGNATED AS RELOCATED SHALL BE RE-CONNECTED BY THE TRADES.
- TRADES & FSEC TO VERIFY VENTILATION DATA WITH HOOD MFG. SHOP DRAWINGS.

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PROJECT:
ORCHARD VIEW
EARLY ELEMENTARY
2820 MACARTHUR RD
MUSKEGON, MI 49442

SHEET TITLE:
FOOD SERVICE
PLUMBING
FLOOR PLAN
SCALE 1/4" = 1'-0"

DATE CODE	PROJECT PHASE	BY
01/31/23 OVGPSP	BIDS	CM

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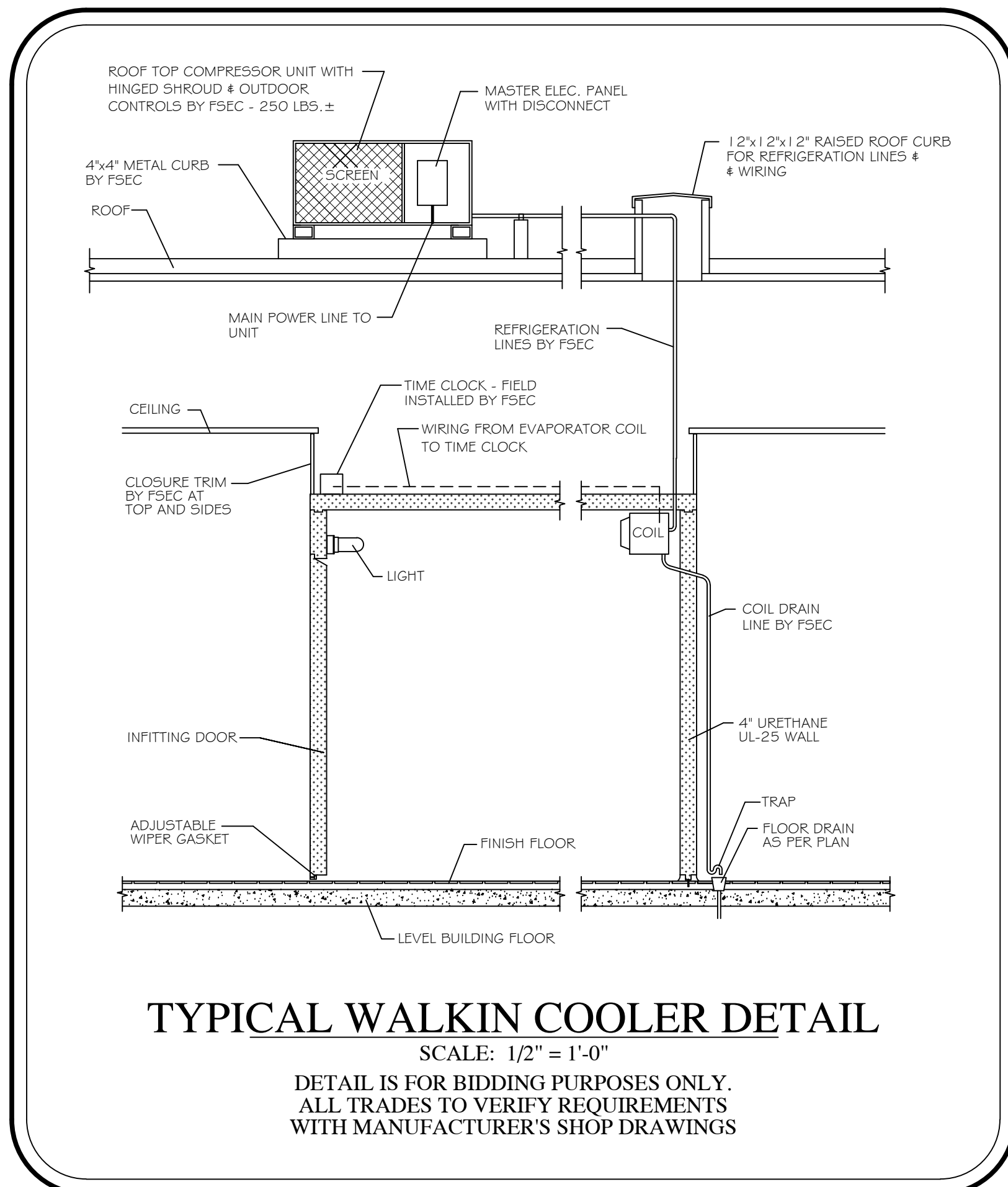
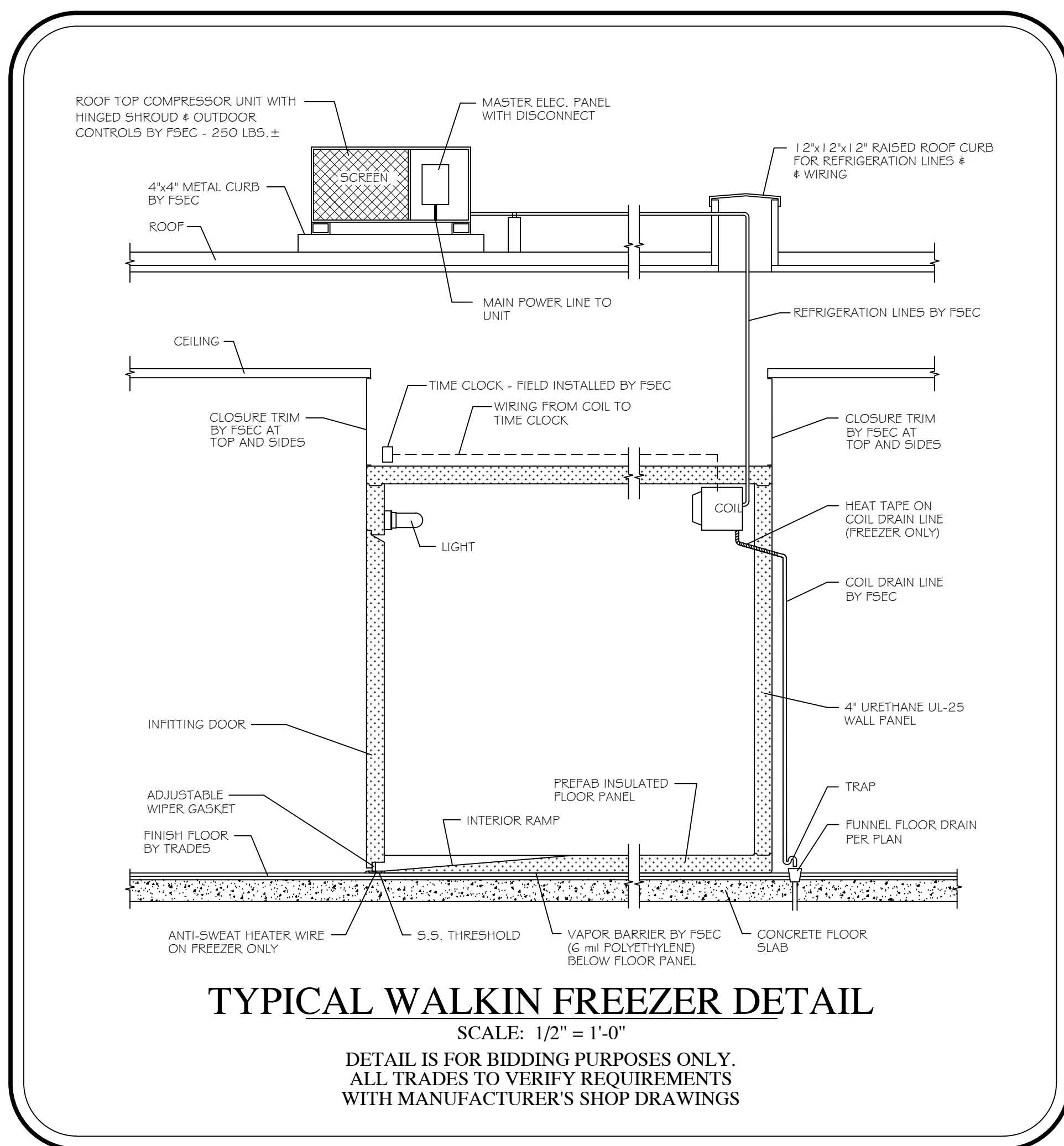
SHEET NUMBER:

FSE-3

DATE CODE	PROJECT PHASE	BY
01/31/23 OVGESR	BIDS	CM

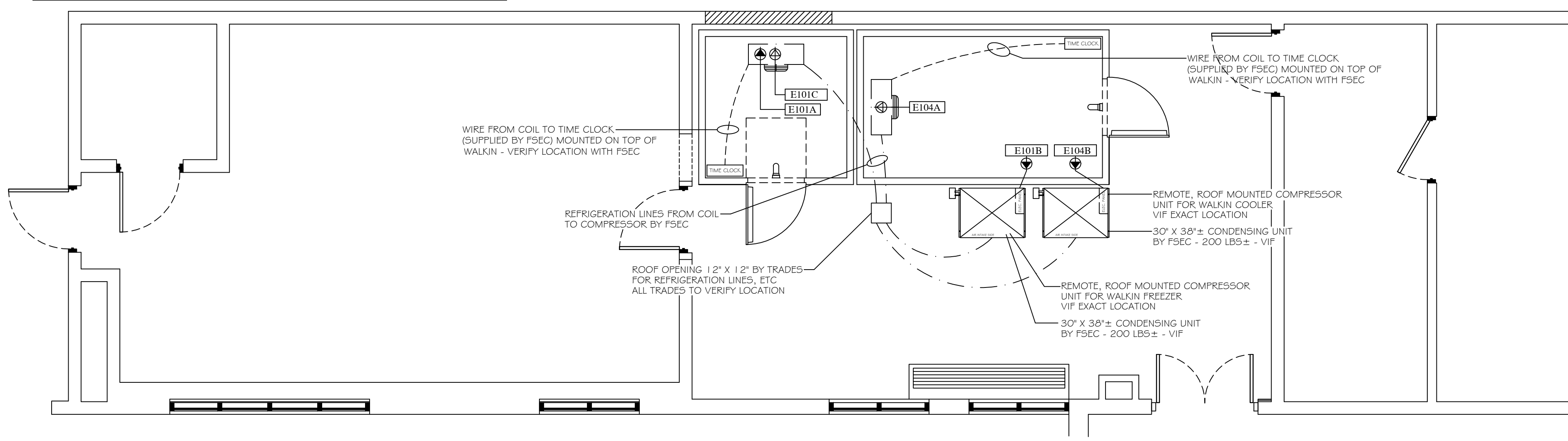
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REFRIGERATION NOTES

- FOODSERVICE EQUIPMENT TRADES
 - FSEC SHALL PROVIDE AND INSTALL WALKIN AND REFRIGERATION SYSTEM WITH COIL, CONDENSER, INSULATED LINES, OUTDOOR CONTROL PACKAGE, HINGED SHROUD, CONTROLS, CURBS, ETC. EVACUATE, CHARGE, TEST, ADJUST, ETC. PER G-5.
 - PROVIDE DIRECT EXPANSION TYPE COILS WITH ELECTRIC DEFROST SIMILAR TO BOHN CO. "LET" SERIES WITH LIQUID LINE SOLENOID VALVE, SUCTION LINE "T" TRAP, AND THERMOSTAT PIPED AND WIRED TO THE JUNCTION BOX FOR POSITIVE PUMP DOWN. PROVIDE TRAPPED COIL DRAIN LINES.
 - PROVIDE AIR COOLED CONDENSER PACKAGE SIMILAR TO COPELAND CO. "C" SERIES WITH OUTDOOR CONTROLS, HINGED SHROUD, AND FLOODED HEAD PRESSURE CONTROL SYSTEM. ALL INTERNAL PIPING SHALL BE PREPARED TO OUTSIDE OF ENCLOSURE WITH DRIER, SIGHT GLASS AND VIBRATION ELIMINATORS FOR SUCTION AND LIQUID LINES.
 - PROVIDE INSULATED, REFRIGERANT GRADE OR TYPE "L" COPPER LINE SETS WITH SILVER SOLDER.
 - ALL LINES SHALL BE SECURELY SUPPORTED AND ANCHORED WITH CLAMPS FSEC TO VERIFY ALL DIMENSIONS AND DATA IN FIELD.
- GENERAL TRADES
 - PROVIDE 12" X 12" ROOF OPENING AND RAISED CURB - VIF.
 - PROVIDE STRUCTURAL SUPPORT FOR CONDENSOR UNIT - VIF.
 - PROVIDE FLOOR CONSTRUCTION AND INSULATION AS PER PLAN.
 - PROVIDE PRESSURE TREATED WOOD THERMAL BREAKS UNDER ALL WALKIN WALLS UP THRU AND 1/8" ABOVE QUARRY TILE FLOOR TO TOUCH SCREEDS.
 - PROVIDE A MINIMUM OF 4" FROM CENTERLINE OF THERMAL BREAK TO ADJACENT BUILDING WALLS (TO CREATE AIR SPACE TO WALKIN WALL).
 - PROVIDE THREE LAYERS OF 2" OWENS/CORNING FOAMULAR 150 SERIES EXTRUDED POLYSTYRENE WITH R-VALUE OF 10 EACH AND DENSITY TO SUPPORT CONCRETE.
 - INSULATION MUST BE TIGHT AGAINST ALL THERMAL BREAKS AFTER CONCRETE IS POURED.
 - PROVIDE A 6 MIL POLYETHYLENE SHEET WATERTIGHT SEAL UNDER THE ENTIRE INSULATED SUBFLOOR AND UP ALL VERTICAL EXTERIOR SIDES IN CONTACT WITH THERMAL BREAKS.
 - PROVIDE POWER AND WIRING PER CODE FOR REFRIGERATION SYSTEM AND CONNECT TO CONTROL PANEL AND DISCONNECT (BY FSEC) ON ROOF TOP CONDENSING UNIT.
 - INSTALL ALL WIRING PER CODE TO SUPPLY POWER FOR COILS, TIME CLOCKS, SOLENOID/THERMOSTAT, DRAIN LINE HEATER, ETC - VIF EXTERIOR CONDUIT.
 - PROVIDE POWER AND INTERWIRE INTERIOR LIGHTS WITH EXTERIOR CONDUIT.
 - CONNECT DRAIN LINE HEATER (PROVIDED BY FSEC) IN FREEZER THROUGH J.B.
 - PROVIDE FUNNEL FLOOR DRAINS PER PLAN WITH MINIMUM PITCH 4" FROM WALKIN WALLS. PIPING SHALL NOT INTERFERE WITH INSULATED SUBFLOOR.

