

INSTRUCTIONS FOR:

INDIANA STATE UNIVERSITY
FEDERAL CREDIT UNION
NEW ADDITION

444 NORTH 3RD STREET, TERRE HAUTE, INDIANA 47807

DRAWING INDEX:

ARCHITECTURAL

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24 South 5th Street
Terre Haute, Indiana
47807
ph. 812.235.1300
www.holderdesign.net

SCOPE DOCUMENT

THE DRAWINGS INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF ARCHITECTURAL DESIGN CONCEPT, THE DIMENSIONS OF THE BUILDING, THE MAJOR ARCHITECTURAL ELEMENTS AND THE TYPE OF STRUCTURAL, MECHANICAL AND ELECTRICAL SYSTEMS. AS SCOPE DOCUMENTS, THE DRAWINGS DO NOT NECESSARILY INDICATE OR DESCRIBE ALL WORK THAT IS REQUIRED FOR FULL PERFORMANCE AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. ON THE BASIS OF THE GENERAL SCOPE INDICATED OR DESCRIBED, THE TRADE CONTRACTORS SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.



Matthew L. Holder
8/24/21

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INSTRUCTIONS FOR:
INDIANA STATE UNIVERSITY
FEDERAL CREDIT UNION
TERRE HAUTE, INDIANA

SHEET DESCRIPTION: COVER SHEET

REVISIONS

SHEET NO. A0.0	
JOB NO. A20-016	

FOR BIDDING ONLY - NOT FOR CONSTRUCTION

VICINITY MAP



CONTACT INFO

OWNER:

INDIANA STATE UNIVERSITY
FEDERAL CREDIT UNION

444 North 3rd Street
Terre Haute, Indiana 47807

PHONE: 812.234.1021

E-MAIL: -

CONTACT: Mr. Trent Kerr

ARCHITECT:

HOLDER DESIGN, INC

24 South 5th Street
Terre Haute, Indiana 47807

PHONE: 812.235.1300

E-MAIL: mholder@holderdesign.net

CONTACT: Matthew L. Holder, AIA

MEP ENGINEER:

MICHAEL R. WALDBIESER ENGINEERING

19 South 6th Street, Suite 804

Terre Haute, Indiana 47807

PHONE: 812.232.6510

E-MAIL: micahael@mrwengineeringinc.com

CONTACT: Michael R. Waldbieser, PE

PROJECT INFO.

PROJECT ADDRESS	444 NORTH 3RD STREET TERRE HAUTE, INDIANA 47807
PROJECT DESCRIPTION	ADDITION TO EXISTING STRUCTURE
PLANNED SQUARE FOOTAGE	TOTAL: 13,100 SF EXISTING: 8,700 SF ADDITION: 4,400 SF
OCCUPANCY	B - BUSINESS
CONSTRUCTION TYPE	V-B

BUILDING CODES:

GENERAL ADMINISTRATIVE RULES: (675-IAC-12)

INDIANA BUILDING CODE, 2014 EDITION: (675-IAC-13-2.6 IBC) BASED ON: 2012 INTERNATIONAL BUILDING CODE (1ST PRINTING), ANSI A117.1-2009, WITH INDIANA AMENDMENT, EFFECTIVE DECEMBER 1, 2014

INDIANA RESIDENTIAL CODE 2005 EDITION: (675-IAC-14-4.3) BASED ON: 2003 INTERNATIONAL RESIDENTIAL CODE, WITH INDIANA AMENDMENTS, EFFECTIVE APRIL 15, 2012

INDUSTRIALIZED BUILDING SYSTEMS: (675-IAC-15-1.1 THROUGH 15-1.7) EFFECTIVE SEPTEMBER 17, 2005

INDIANA PLUMBING CODE 2012 EDITION: (675-IAC-16-1.4P) BASED ON: 2006 INTERNATIONAL PLUMBING CODE WITH INDIANA AMENDMENTS, EFFECTIVE DECEMBER 24, 2012

INDIANA ELECTRICAL CODE 2009 EDITION: (675-IAC-17-1.8 IEC) BASED ON: 2008 NATIONAL ELECTRICAL CODE (1ST PRINTING) WITH INDIANA AMENDMENTS, EFFECTIVE AUGUST 26, 2009

INDIANA MECHANICAL CODE 2014 EDITION: (675-IAC-18-1.6 IMC) BASED ON: 2012 INTERNATIONAL MECHANICAL CODE (1ST PRINTING) WITH INDIANA AMENDMENTS, EFFECTIVE DECEMBER 1, 2014

INDIANA ENERGY CONSERVATION CODE 2010, (675 IAC 19-4), (ASHRAE 90.1 2007 EDITION, AS AMENDED)

INDIANA SAFETY CODE FOR ELEVATORS, ESCALATORS, MAN LIFTS AND HOISTS: (675-IAC-21-11-2 SCEEMH) BASED ON: AUTOMATED PEOPLE MOVER-PART 1, PART 2, AND PART 3, ANSI/ASCE/T & DI 21-08, AS AMENDED EFFECTIVE APRIL 13, 2011

INDIANA FIRE PREVENTION CODE: (675-IAC-22-2.5 IFC) BASED ON: 2012 INTERNATIONAL FIRE CODE, (1ST PRINTING) WITH INDIANA AMENDMENTS, EFFECTIVE DECEMBER 1, 2014.

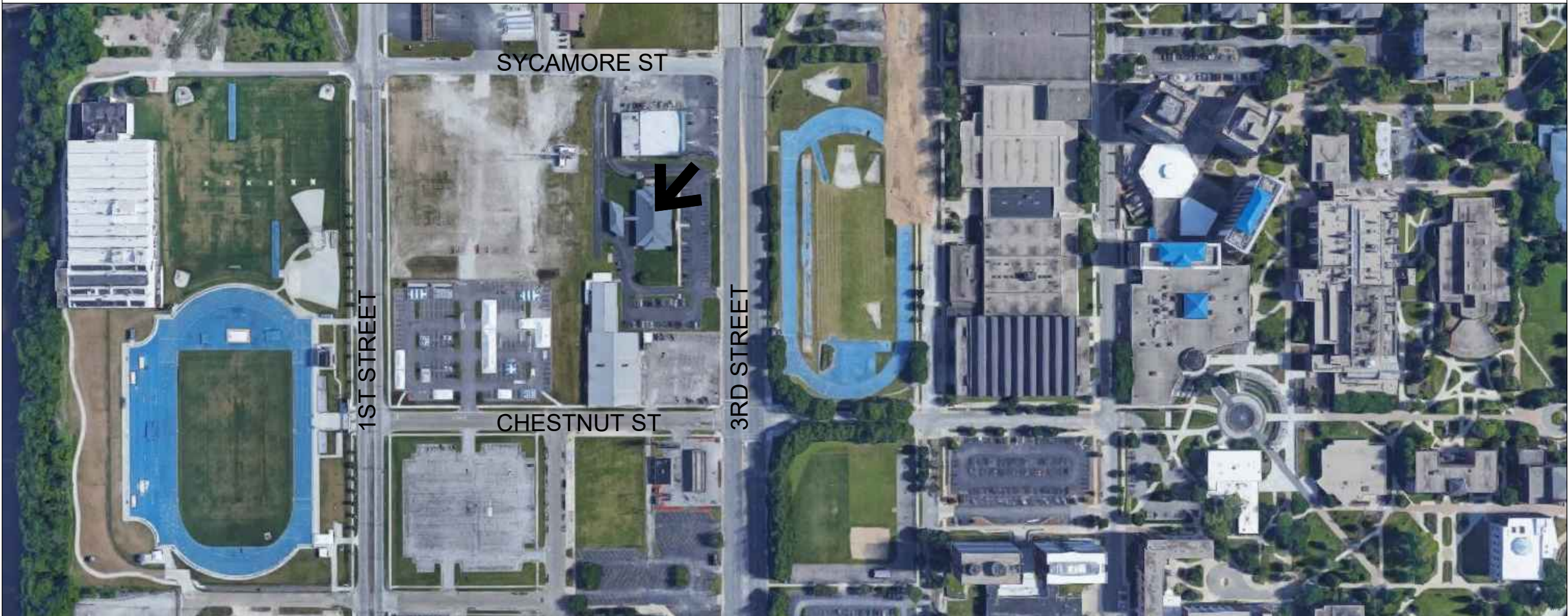
INDIANA SUPPLEMENTARY FIRE SAFETY RULES: (675-IAC-24-1 SFSR) EFFECTIVE OCTOBER 11, 2001

INDIANA FUEL GAS CODE 2014: (675-IAC-25-3 IFGC) BASED ON: 2012 INTERNATIONAL FUEL GAS CODE (2ND PRINTING), WITH INDIANA AMENDMENTS, EFFECTIVE DECEMBER 1, 2014

GENERAL NOTES:

- G.C. (GENERAL CONTRACTOR) SHALL REVIEW ALL DOCUMENTS AND FIELD VERIFY ALL DIMENSION AND CONDITIONS AND SHALL CONFIRM THAT WORK IS BUILDABLE AS SHOWN. ANY DISCREPANCIES OR OMISSIONS, ETC., SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY FOR CLARIFICATION PRIOR TO BEGINNING WORK RELATED THERETO.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF APPLICABLE STATE AND/OR LOCAL CODES, LAWS, ORDINANCES, STATUTES AND REGULATIONS. NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE CONSTRUED AS REQUIRING OR PERMITTING WORK CONTRARY TO THESE RULES, REGULATIONS AND CODES. REPORT ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS AND APPLICABLE REGULATIONS TO ARCHITECT IMMEDIATELY.
- THE DRAWINGS INDICATE LOCATIONS, DIMENSIONS, AND TYPICAL DETAILS OF CONSTRUCTION. THE DRAWINGS DO NOT ILLUSTRATE EVERY CONDITION. WORK NOT EXPLICITLY DETAILED IS ASSUMED TO BE OF CONSTRUCTION SIMILAR TO PARTS THAT ARE DETAILED. G.C. SHALL REPORT ANY DISCREPANCIES DISCOVERED TO THE ARCHITECT FOR RESOLUTION BEFORE PROCEEDING WITH WORK.
- ALL DIMENSIONS SHOWN IN DRAWING ARE BASED ON SPECIFIED MATERIALS AND EQUIPMENT. ANY CHANGES OR SUBSTITUTIONS MAY AFFECT DIMENSIONS. G.C. TO NOTIFY ARCHITECT BEFORE MAKING CHANGES.
- G.C. TO COORDINATE ALL WORK WITH MECHANICAL, ELECTRICAL, PLUMBING AND FIRE-PROTECTION CONTRACTORS. G.C. SHALL SUBMIT ALL DRAWINGS TO THE ARCHITECT FOR REVIEW PRIOR TO CONSTRUCTION.
- THE G.C SHALL COORDINATE AND COOPERATE WITH THE WORK OF SEPARATE CONTRACTORS.
- G.C. SHALL PROVIDE ALL SHOP DRAWINGS FOR FABRICATED ITEMS, CATALOG CUTS FOR ALL FIXTURES AND EQUIPMENT, AND SAMPLES OF AL FINISHES SPECIFIED TO THE ARCHITECT FOR APPROVAL THREE (3) WEEKS PRIOR TO FABRICATION AND/OR PURCHASING.
- ALL FIRE RESISTIVE ASSEMBLIES SHALL BE MAINTAINED AT ALL MECHANICAL, ELECTRICAL, AND PLUMBING WALL PENETRATIONS THROUGH THE USE OF FIRE STOP MATERIAL AT THESE LOCATIONS USING THE APPROPRIATE FIRE RATED ASSEMBLIES.

LOCATOR MAP





THE DRAWINGS INDICATE THE GENERAL
CORE OF THE PROJECT IN TERMS OF

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THE SEAL(S) AND SIGNATURE(S) APPLY
ONLY TO THE DOCUMENT TO WHICH
THEY ARE AFFIXED AND WE EXPRESSLY

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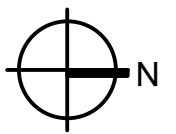
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Page 10 of 10

 EXIT SIGN

SMOKE DE



FIRE EXTINGUISHER



ANALYSIS

AREA ADDITION: 4,400 SF

CONSTRUCTION TYPE TYPE V-B

OCCUPANCY CLASSIFICATION B-BUSINESS

OCCUPANT LOAD PER 1001.1.2 BUSINESS: 4,400/100 GROSS = 44

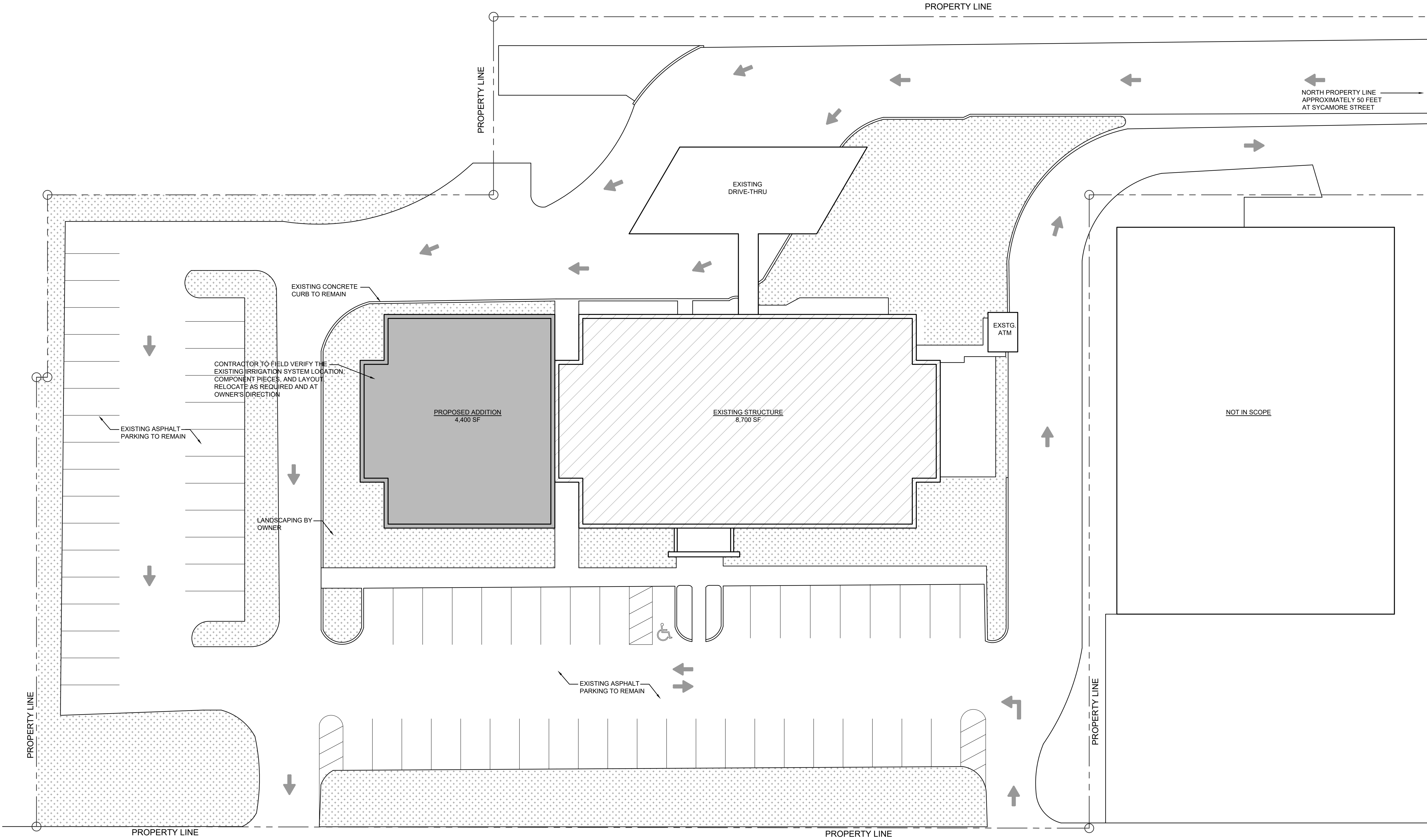
OF EXITS PER 1015.1 1 EXIT REQUIRED

2 EXITS ARE PROVIDED OK

MAXIMUM TRAVEL DISTANCE: 74'-3" OK

VISIONS

1



3RD STREET

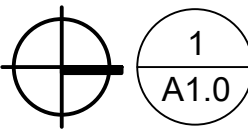
ARCHITECTURAL SITE NOTE:

"ARCHITECTURAL SITE PLAN" FOR GENERAL DESIGN INTENT ONLY. CONCEPTUAL IDEA IS BASED ON PRELIMINARY SITE INFORMATION AND IS APPROXIMATE IN NATURE. FINAL SITE LAYOUT SHALL BE BASED ON A CERTIFIED SURVEY MAP AND INVESTIGATION OF LOCAL MUNICIPALITY REQUIREMENTS. ALL CONSTRUCTION DETAILS AND SPECIFICATIONS SHALL BE REFERENCED ON CIVIL ENGINEERING DOCUMENTS. ANY DISCREPANCIES FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR THE CIVIL ENGINEER OF RECORD.



CALL 811 OR 1-800-382-5544
48 HOURS BEFORE DIGGING

LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (INCLUDING, BUT NOT LIMITED TO, MANHOLES, INLETS, VALVES, AND MARKS MADE UPON THE GROUND BY OTHERS) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.



ARCHITECTURAL SITE PLAN

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



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SCOPE DOCUMENT

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Matthew Holder
8/24/21

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CR	MLH	AS NOTED	08.24.2021

INSTRUCTIONS FOR:
**INDIANA STATE UNIVERSITY
FEDERAL CREDIT UNION**
TERRE HAUTE, INDIANA

SHEET DESCRIPTION: ARCHITECTURAL SITE PLAN

REVISIONS

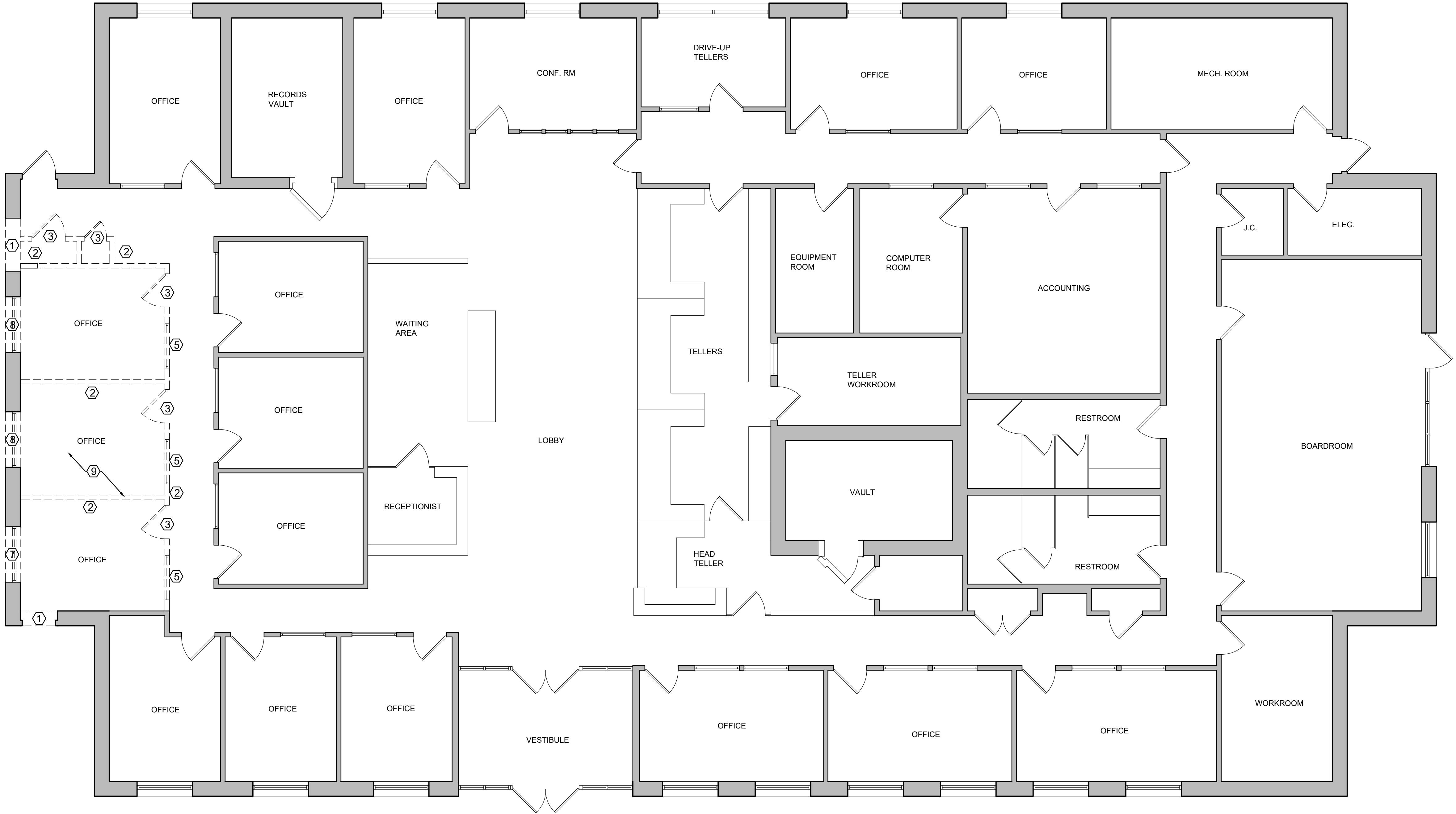
SHEET NO.

A1.0

JOB NO.

A20-016

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KEY:

- DEMO
--- EXISTING PARTITIONS TO REMAIN
--- NEW STUD PARTITIONS

KEYED PLAN NOTES:

- ① DEMO PORTION OF EXISTING MASONRY WALL COMPLETE
② DEMO EXISTING STUD WALL COMPLETE
③ DEMO EXISTING DOOR & JAMBS COMPLETE
④ DEMO EXISTING CASEWORK COMPLETE
⑤ DEMO EXISTING INTERIOR GLAZING COMPLETE
⑥ DEMO EXISTING OVERHEAD DOOR AND ALL ASSOCIATED EQUIPMENT
⑦ DEMO EXISTING STOREFRONT AND MASONRY WALL BELOW WINDOW COMPLETE
⑧ DEMO EXISTING STOREFRONT COMPLETE
⑨ REMOVE AND SALVAGE CEILING TILES AND LIGHTS TO BE RE-USED

GENERAL DEMOLITION NOTES:

REMOVE ALL EXISTING CONSTRUCTIONS AND FINISHES NECESSARY FOR THE COMPLETION OF THE WORK AS DEPICTED ON THE DRAWINGS, INCLUDING BUT NOT LIMITED TO ITEMS SHOWN ON THE PLANS WITH DASHED LINES. NECESSARY DISCONNECTS AND ALTERATIONS TO EXISTING MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INCLUDED. PATCH AS REQUIRED ALL CONSTRUCTIONS TO REMAIN IN ACCORDANCE WITH THE CONTRACT DRAWINGS WHERE CONTRACTOR IS DESIGNATED TO MAKE REMOVALS. DISPOSITION OF MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. VERIFY WITH THE OWNER, THE DISPOSITION AND REMOVAL OF ANY COMPONENTS OF SALVAGEABLE VALUE.

ALL REMOVALS AND SALVAGE, UNLESS SPECIFICALLY NOTED OR REQUESTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

REMOVE ONLY NON-LOAD BEARING CONSTRUCTION AND PARTITIONS. CONTRACTOR TO VERIFY, PRIOR TO REMOVAL THAT NO STRUCTURAL COMPONENTS, I.E. BEARING WALLS, BEAMS, HEADERS, ETC., SUPPORTING FLOOR, ROOF, OR CEILING JOISTS ARE DESIGNATED FOR REMOVAL. CONTACT THE ARCHITECT PRIOR TO REMOVAL OF ANY CONSTRUCTION IN QUESTION OR DEVIATING FROM THE DESIGN INTENT. CONTRACTORS NON-CONTACT OF ARCHITECT PRIOR TO REMOVAL OF ANY WORK INDICATES HIS COMPLETE UNDERSTANDING THAT NO LOAD BEARING OR STRUCTURAL WORK IS BEING ALTERED UNDER THIS CONTRACT.

PATCH ALL FINISHES TO MATCH EXISTING, INCLUDING BUT NOT LIMITED TO, GYPSUM BOARD, PLASTER, ACOUSTIC SYSTEMS, WOODTRIM, COVERS, BASE, PANELS, RAILS, AND WAINSCOT. VERIFY MATCH OF NEW FINISH MATERIALS TO EXISTING IN COLOR, TEXTURE, THICKNESS, CUT, ETC., TO SATISFACTION OF OWNER PRIOR TO INSTALLATIONS. PROVIDE OTHER MATERIALS TO MATCH EXISTING WHEN REQUIRED. TO BE APPROVED BY OWNER.

PATCH EXISTING WALLS GYPSUM DRYWALL OR PLASTER TO MATCH EXISTING OF SUFFICIENT THICKNESS TO MAINTAIN UNIFORM WALL THICKNESS. ALL EXPOSED PORTIONS OF WALL SHALL BE FINISHED WITH THREE (3) COATS OF SPECKLING, SANDED AND LEFT IN A PAINT READY CONDITION.

WHERE APPLICABLE LEVEL ALL EXISTING FLOORS AS REQUIRED TO RECEIVE NEW FLOOR FINISHES. INSTALL REQUIRED TRANSITION PIECES BETWEEN VARIOUS FLOOR FINISHED SUITABLE FOR CONDITIONS AND ACCEPTABLE TO THE OWNER. MATCH EXISTING WHEREVER POSSIBLE.

CONTRACTOR SHALL INSURE ALL WORK IS IN CONFORMANCE WITH ALL APPLICABLE BUILDING CODES. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE LATEST EDITIONS BUILDING CODE AND ENERGY CONSERVATION CODE, PLUMBING CODE, NATIONAL ELECTRICAL CODE, AND ALL OTHER FEDERAL, STATE AND LOCAL AGENCY REGULATIONS HAVING JURISDICTION OVER THIS PROJECT. IN THE EVENT OF ANY DISCREPANCIES BETWEEN AGENCY REQUIREMENT, THE CONTRACTOR SHALL OBSERVE THE MORE STRINGENT OF REQUIREMENTS.

ALL WORK SHALL COMPLY WITH THE STANDARDS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS (NBFU), INDUSTRIAL RISK INSURANCE UNDERWRITERS (IRI), FACTORY MUTUAL (FM), OR THE APPLICABLE RATING BUREAU. THE NATIONAL ELECTRIC CODE (NEC), THE AMERICAN GAS ASSOCIATION (AGA), AND THE AMERICAN SOCIETY OF HEATING AND AIR CONDITIONING ENGINEERS (ASHAE), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), APPLICABLE STATE AND CITY BUILDING CODES AND THE REQUIREMENTS OF ALL PUBLIC UTILITY COMPANIES SERVING THE PROJECT SITE.

CONTRACTOR (AND HIS SUBCONTRACTORS) SHALL BE LICENSED BY THE STATE IN WHICH THE PROJECT IS LOCATED AND APPROVED IN ADVANCE BY THE OWNER.

ALL WORK IS TO BE COORDINATED WITH THE OWNER. THE CONTRACTOR IS TO MEET WITH THE OWNER PRIOR TO STARTING CONSTRUCTION.

CHECK WITH THE OWNER FOR COORDINATION OF THE WORK UNDER THIS CONTRACT WITH WORK OF OTHER TRADES. OWNER'S REGULATIONS GOVERN ALL ASPECTS OF OUTSIDE CONTRACTORS WORKING ON THE PROPERTY.

CONTRACTOR SHALL KEEP THE JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL CONSTRUCTION DEBRIS FROM PROJECT SITE AND SHALL PROVIDE DUMPSTER'S ETC. AS REQUIRED. REMOVE ALL DEBRIS ON A DAILY BASIS.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING BUILDINGS AND OTHER INSTALLATIONS THAT ARE TO REMAIN INTACT WHILE PERFORMING THE SPECIFIED WORK. PROVIDE AND MAINTAIN FIRE EXTINGUISHERS ON PROJECT SITE DURING CONSTRUCTION.

UNLESS INDICATED OTHERWISE, ALL MATERIAL FURNISHED AND INCORPORATED INTO THE WORK SHALL BE NEW, UNUSED, AND OF QUALITY STANDARD TO THE INDUSTRY FOR FIRST CLASS WORK OF SIMILAR NATURE AND CHARACTER. INSTALL ALL MATERIALS TO THE MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARD OF THE TRADES INVOLVED.

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS IN FIELD PRIOR CONSTRUCTION. NOTIFY ARCHITECT IF ANY DISCREPANCIES ON DRAWINGS.

PROVIDE SLEEVE THROUGH FOUNDATION FOR PENETRATIONS AS REQUIRED. COORDINATE W/ CIVIL ENGINEERING DOCUMENTS.

CONTRACTOR SHALL PROVIDE ANY NECESSARY MEASURE TO PROTECT THE WORKERS AND OTHER PERSONS DURING CONSTRUCTION.

CONTRACTOR & MEP CONTRACTOR SHALL VERIFY LOCATION OF ROOF MOUNTED EQUIPMENT.

INTERIOR FINISHES SHALL BE CLASS C (SURFACE FLAME SPREAD RATING OF 76-200) MINIMUM IN CONFORMITY WITH GENERALLY ACCEPTED STANDARDS. CARPETING SHALL BE CLASS 2 WITH A MINIMUM CRITICAL RADIANT FLUX OF 22-WATTS PER SQUARE CENTIMETER.

ALL GYPSUM BOARD WORK SHALL BE DONE IN ACCORDANCE WITH THE DRYWALL CONSTRUCTION HANDBOOK, LATEST EDITION. PREPARED BY UNITED STATES GYPSUM. ALL JOINTS AND SEAMS SHALL BE TAPED AND FINISHED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS.

VISIT THE SITE TO VERIFY EXISTING CONDITIONS. EXISTING CONCEALED CONDITIONS AND CONNECTIONS ARE BASED UPON INFORMATION TAKEN FROM LIMITED FIELD INVESTIGATIONS. CONTRACTOR SHALL MAKE REQUIRED ADJUSTMENTS TO SYSTEM COMPONENTS AS NECESSITATED BY ACTUAL FIELD CONDITIONS AT NO ADDITIONAL COST TO OWNER OR ARCHITECT. REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS TO THE ARCHITECT BEFORE CONSTRUCTION.



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INSTRUCTIONS FOR:
**INDIANA STATE UNIVERSITY
FEDERAL CREDIT UNION**
TERRE HAUTE, INDIANA

SHEET DESCRIPTION: DEMOLITION PLAN

REVISIONS

SHEET NO.
A2.0

JOB NO.
A20-016

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GENERAL PLAN NOTES:

ALL NEW PARTITIONS SHALL BE BUILT TO MEET LOCAL, STATE, AND NATIONAL CODES

ALL PLUMBING FIXTURES TO BE LOCATED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL CODES.

PARTITIONS ARE DIMENSIONED FROM FACE OF STUD OR MASONRY, UNLESS NOTED OTHERWISE. REFER TO WALL TYPES FOR PARTITION THICKNESS.

PROVIDE WOOD BLOCKING SUPPORT AT ALL SURFACE MOUNTED ITEMS MOUNTED TO FACE OF DRYWALL.

CAULK ALL TOILET FIXTURES TO WALL USING CLEAR SILICONE SEALANT.

PROVIDE MISCELLANEOUS METAL SUPPORTS FOR ALL CEILING SUPPORTED ITEMS.

PROVIDE WATER RESISTIVE DRYWALL IN ALL WET LOCATIONS.

PROVIDE AND INSTALL ALL EMERGENCY LIGHTS AND EXIT LIGHTS, OWNER APPROVED, IN ACCORDANCE WITH REQUIREMENTS OF THE NFPA STANDARD NO. 101, LIFE SAFETY CODE, LATEST EDITION.

PROVIDE AND INSTALL FIRE EXTINGUISHERS AND OR CABINETS, OWNER APPROVED, AS REQUIRED BY ALL APPLICABLE CODES

FEC CABINETS TO BE MOUNTED SO THE EXTINGUISHER HANDLE TO BE AT 48" A.F.F.

PROVIDE AND INSTALL PANIC HARDWARE AND ALL RELATED COMPONENTS AT ALL LOCATIONS REQUIRED BY LOCAL, STATE AND FEDERAL CODES.

FIELD VERIFY ALL DIMENSIONS. FIELD VERIFY AND COORDINATE WITH ALL EXISTING CONDITIONS.

KEYED PLAN NOTES:

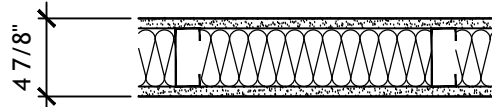
- ① 3'-0" x 7'-0" DRYWALL OPENING
- ② FUR OUT EXISTING MASONRY WALL WITH HAT CHANNEL AND 5/8" PAINTED GYPSUM WALL BOARD
- ③ WINDOW OPENING TO RECEIVE SOLID SURFACE SILLS

PARTITION TYPES:

P1 TYPICAL WALL

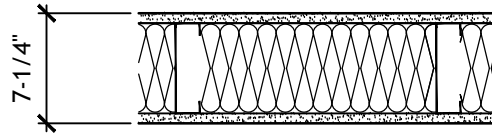
3-5/8" METAL STUDS @ 16" O.C. WITH SOUND BATT AND 5/8" GYPSUM WALLBOARD EACH SIDE. EXTEND STUDS TO UNDERSIDE OF TRUSS, EXTEND GYPSUM WALL BOARD AND INSULATION 6" ABOVE CEILING, UNLESS NOTED OTHERWISE. PROVIDE MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL WET WALL LOCATIONS.

NOTE: ALL WALLS ARE TYPE "P1" UNLESS MARKED OTHERWISE

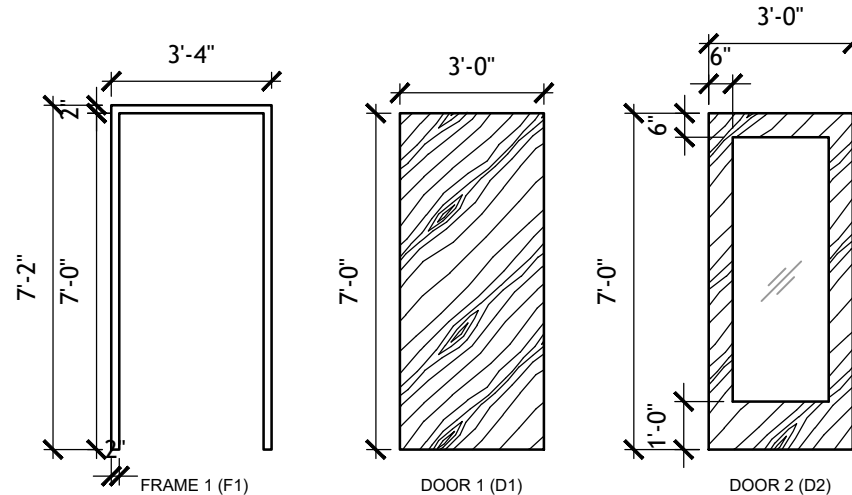


P2 TYPICAL WALL

6" METAL STUDS @ 16" O.C. WITH SOUND BATT AND 5/8" GYPSUM WALLBOARD EACH SIDE. EXTEND STUDS TO UNDERSIDE OF TRUSS, EXTEND GYPSUM WALL BOARD AND INSULATION 6" ABOVE CEILING, UNLESS OTHERWISE NOTED. PROVIDE MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL WET WALL LOCATIONS.



DOOR + FRAME ELEVATIONS:



DOOR & FRAME SCHEDULE

DOOR NUMBER	TYPE	SIZE			DOOR FAMILY AND TYPE	ELEVATION	HARDWARE	FRAME		REMARKS
		THICK	WIDTH	HEIGHT				MATERIAL	ELEVATION	
100	2	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D1	#4	HM	F1	
101	2	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D1	#1	HM	F1	
102	2	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D1	#1	HM	F1	
105	3	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D2	#3	HM	F1	
106	2	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D1	#4	HM	F1	
107	3	1 3/4"	6'-0"	7'-0"	SCW Slab/ Double-Flush	D2	#2	HM	F1	
108	3	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D2	#4	HM	F1	
109	3	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D2	#4	HM	F1	
110	3	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D2	#4	HM	F1	
111	3	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D2	#4	HM	F1	
112	3	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D2	#4	HM	F1	
113	3	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D2	#4	HM	F1	
114	3	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D2	#4	HM	F1	
115	1	1 3/4"	3'-0"	7'-0"	Exterior AL Storefront/ Single-Flush	-	#5	AL	-	
118	3	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D2	#2	HM	F1	
119	3	1 3/4"	3'-0"	7'-0"	SCW Slab/ Single-Flush	D2	#4	HM	F1	

DOOR TYPES:

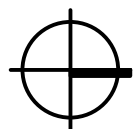
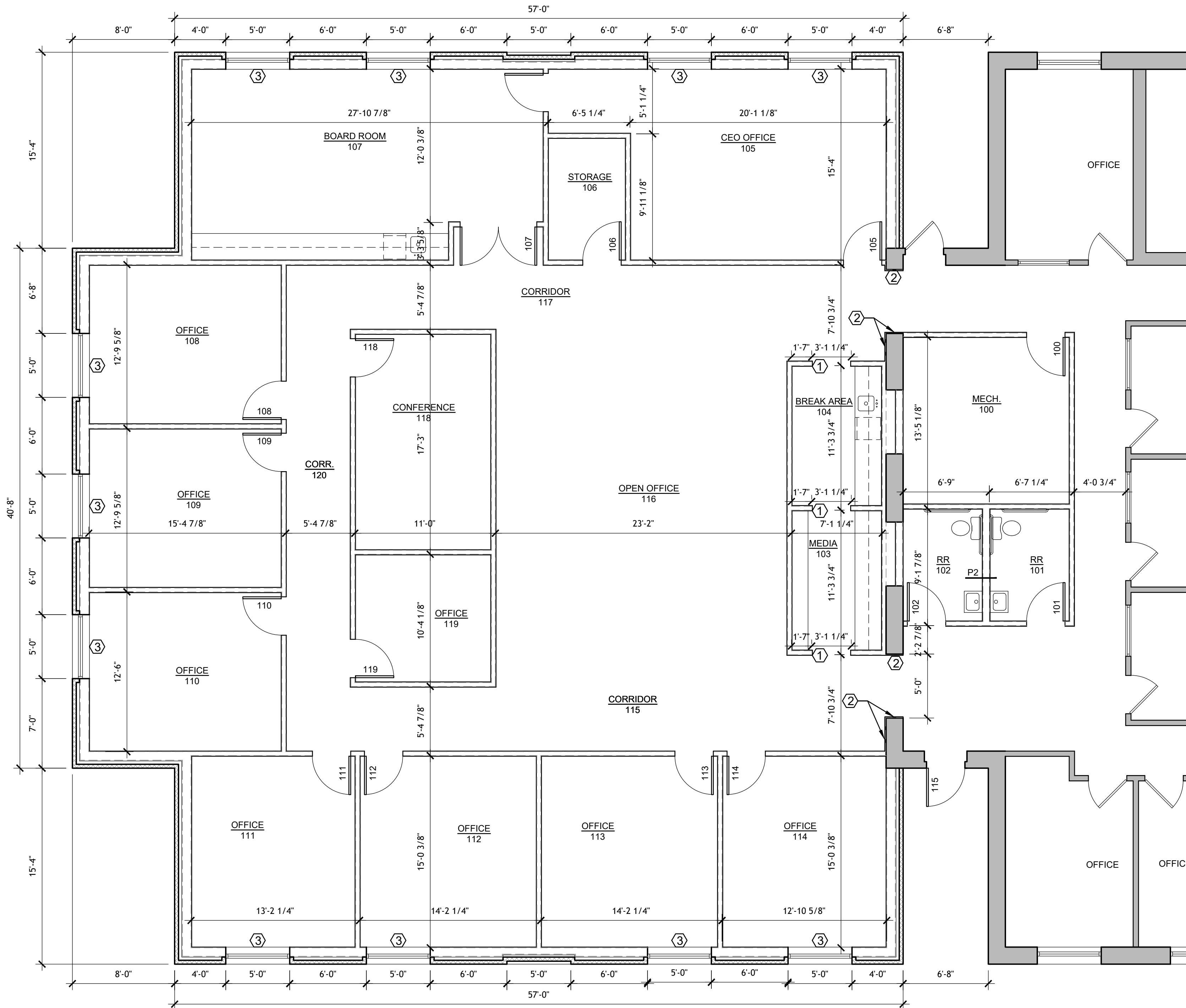
1. DARK BRONZE ANODIZED ALUMINUM STOREFRONT - WIDE STILE
2. SOLID CORE WOOD SLAB DOOR, OSHKOSH DOOR COMPANY, SPECIES + FINISH TBD
3. SOLID CORE WOOD SLAB DOOR W/ FULL LITE, OSHKOSH DOOR COMPANY, SPECIES + FINISH TBD

NOTES:

1. REFERENCE WINDOW SCHEDULE FOR DOOR 115

HARDWARE SCHEDULE

HDWR. SET #1 - RESTROOMS		HDWR. SET #2 - PASSAGE	
DESCRIPTION	NUMBER - FINISH	DESCRIPTION	NUMBER - FINISH
HINGES PRIVACY SET WALL STOP CLOSER	TA2714 4 1/2" x 4 1/2" - 26D PB 5302LN - 626 ROCKWOOD 403 LCN 1460	HINGES PASSAGE SET FLOOR STOP CLOSER	TA2714 4 1/2" x 4 1/2" - 26D PB 5301LN - 626 ROCKWOOD 440 - ONLY DOOR 104 N/A
HDWR. SET #3 - OFFICES		HDWR. SET #4 - STOREROOM	
DESCRIPTION	NUMBER - FINISH	DESCRIPTION	NUMBER - FINISH
HINGES PRIVACY SET WALL STOP	TA2714 4 1/2" x 4 1/2" - 26D PB 5308LN - 626 ROCKWOOD 403	HINGES STOREROOM SET WALL STOP	TA2714 4 1/2" x 4 1/2" - 26D PB 5305LN - 626 WS02 -630
HDWR. SET #5 - STOREFRONT - SINGLE		NOTES	
DESCRIPTION	NUMBER - FINISH	1. STOREFRONT HARDWARE FINISHES TO MATCH DOOR FINISH	
OFFSET PIVOTS EXIT DEVICE CYLINDER PULL CLOSER THRESHOLD WEATHERSWEEP	KAWNEER STANDARD T/B PACKAGE KAWNEER 1686 C.V.R. TYPE ACTIVE LEAF KAWNEER CO-9 LCN 4040 SURFACE TYPE KAWNEER 1/2" x 4" STANDARD KAWNEER STANDARD		



1
A2.2

PROPOSED FLOOR PLAN

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



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SCOPE DOCUMENT

THE DRAWINGS INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF ARCHITECTURAL DESIGN CONCEPT, THE DIMENSIONS OF THE BUILDING, THE MAJOR ARCHITECTURAL ELEMENTS AND THE TYPE OF STRUCTURAL, MECHANICAL AND ELECTRICAL SYSTEMS. AS SCOPE DOCUMENTS, THE DRAWINGS DO NOT NECESSARILY INDICATE OR DESCRIBE ALL WORK THAT IS REQUIRED FOR FULL PERFORMANCE AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. ON THE BASIS OF THE GENERAL SCOPE INDICATED OR DESCRIBED, THE TRADE CONTRACTORS SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.



Matthew Lynn Holder
3/24/21

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PLOT SCALE: AS NOTED
DATE: 08.24.2021

INSTRUCTIONS FOR:
**INDIANA STATE UNIVERSITY
FEDERAL CREDIT UNION**
TERRE HAUTE, INDIANA

PROPOSED FLOOR PLAN
SHEET DESCRIPTION:

REVISIONS

SHEET NO.

A2.2

JOB NO.

A20-016

FOR BIDDING ONLY - NOT FOR CONSTRUCTION

GENERAL NOTES:

- REFER TO ENGINEERING DRAWINGS FOR FINAL CEILING FIXTURES, LIGHTING SPECIFICATIONS, AND LAYOUT.
- SUBMIT FINISH SAMPLES OF ARMSTRONG CEILINGS TO ARCHITECT/OWNER FOR APPROVAL.

CEILING TYPES:

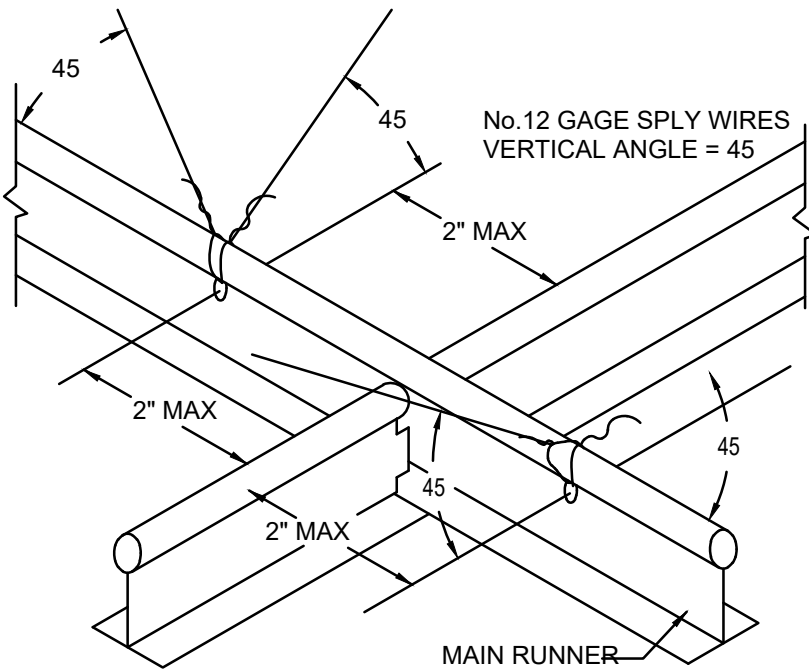
CL-1: INSTALL, WHERE NOTED, ARMSTRONG CEILING 24" x 24" GRID CANYON WITH TEGULAR EDGE WITH PRELUDE ML EXPOSED TEE SUSPENSION SYSTEM

CL-2: INSTALL, WHERE NOTED, GYPSUM BOARD HARD LID. USE WATER RESISTANT GYPSUM BOARD AT ALL WET LOCATIONS

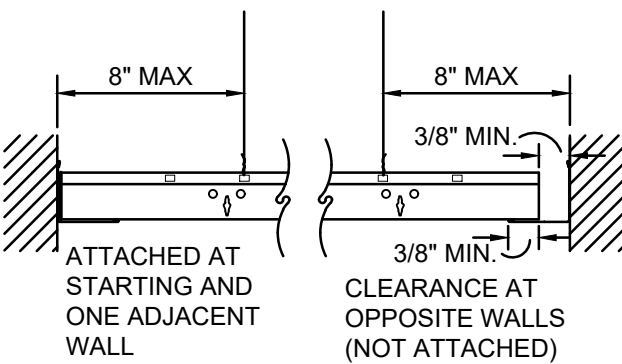
OPEN: NO CEILING INSTALLED, OPEN TO GYPSUM BOARD BOTTOM CHORD OF TRUSS, PAINT

SUSPENDED CEILING SYSTEM NOTES:

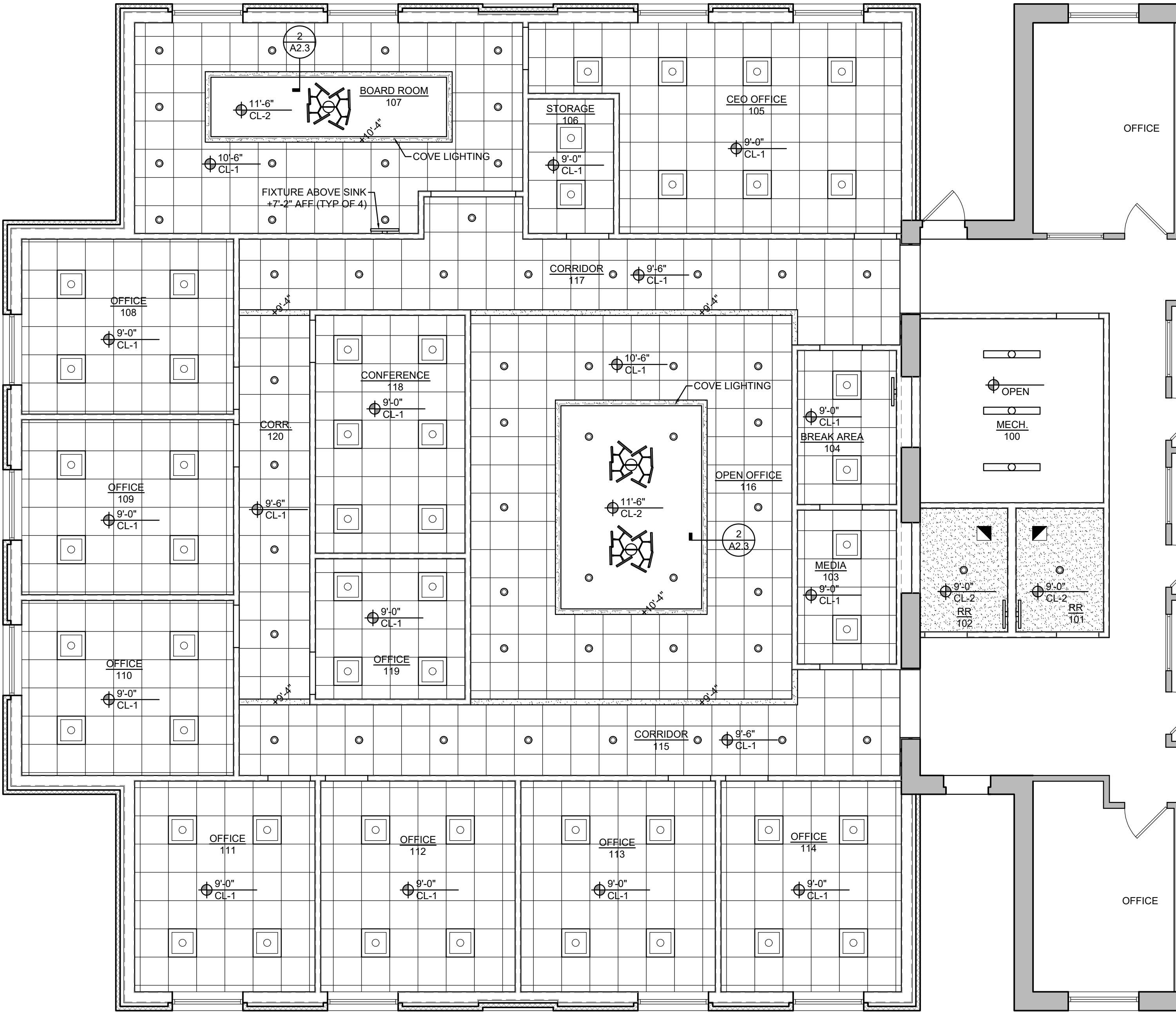
- A. SUSPENSION SYSTEM COMPONENTS:
- ONLY INTERMEDIATE AND HEAVY-DUTY SYSTEMS MAY BE USED.
 - MAIN RUNNERS AND CROSS RUNNERS OF THE CEILING GRID SYSTEMS AND THEIR SPLICES AND INTERSECTION CONNECTIONS SHALL SUPPORT NOT LESS THAN 60 lbs. DESIGN LOAD IN TENSION AND COMPRESSION. ACCEPTABLE TEST RESULTS SHALL SHOW ULTIMATE LOADS AVERAGING NO LESS THAN 120 lbs.
- B. SUSPENSION SYSTEM APPLICATION:
- MAIN RUNNERS AND CROSS RUNNERS SHALL BE ATTACHED TO THE PERIMETER MEMBERS ON TWO (2) ADJACENT WALLS. A CLEARANCE OF 1/4" SHALL BE MAINTAINED BETWEEN THE MAIN RUNNERS AND CROSS RUNNERS AND THE PERIMETER MEMBERS ON THE TWO REMAINING WALLS.
 - SUSPENSION WIRES SHALL BE SPACED ALONG EACH MAIN RUNNER IN ACCORDANCE WITH THE LOAD CARRYING CAPACITY OF THE SYSTEM AND SHALL BE A MINIMUM OF No. 12 GAGE (2.05 mm) SOFT ANNEALED GALVANIZED STEEL WIRE.
 - EACH VERTICAL WIRE SHALL BE ATTACHED TO THE CEILING SUSPENSION MEMBER WITH A MINIMUM OF THREE (3) TURNS AND TO THE STRUCTURE ABOVE WITH A CONNECTION CAPABLE OF CARRYING NOT LESS THAN A 100 lb. ALLOWABLE LOAD. THE POINTS OF HANGER WIRE SUPPORTS SHALL NOT PERMIT DISENGAGEMENT THROUGH VERTICAL LIFTING.
 - SUSPENSION WIRES SHALL NOT HANG MORE THAN ONE IN SIX (1:6) OUT OF PLUMB UNLESS COUNTER SLOPING WIRES ARE PROVIDED.
 - WIRES SHALL NOT ATTACH TO, OR BEND AROUND, INTERFERING MATERIAL, SUCH AS DUCTS. A TRAPESE OR EQUIVALENT DEVICE SHALL BE USED WHERE OBSTRUCTIONS PRECLUDE DIRECT SUSPENSION.
 - AT ALL LOCATIONS, THE TERMINAL ENDS OF EACH CROSS RUNNER SHALL BE SUPPORTED INDEPENDENTLY, A MAXIMUM OF 8 INCHES FROM EACH WALL WITH No. 12 GAGE (2.05 mm) WIRE.
 - HORIZONTAL RESTRAINT SHALL BE EFFECTED BY FOUR No. 12 GAGE WIRES SECURED TO THE MAIN RUNNER WITHIN 2 INCHES OF THE CROSS RUNNER INTERSECTION AND SPLAYED 90 DEGREES FROM EACH OTHER, AT AN ANGLE NOT EXCEEDING 45 DEGREES FROM THE PLANE OF THE CEILING. THESE HORIZONTAL RESTRAINT POINTS SHALL BE PLACED 12 FEET ON CENTER IN BOTH DIRECTIONS, WITH THE FIRST POINT WITHIN 4 FEET OF EACH WALL. ATTACHMENT OF THE RESTRAINT WIRES TO THE STRUCTURE ABOVE SHALL BE ADEQUATE FOR THE LOAD IMPOSED. (ALTERNATIVE METHODS FOR PROVIDING HORIZONTAL RESTRAINT WILL BE CONSIDERED ACCEPTABLE SO LONG AS THEIR PERFORMANCE IS PROVEN TO BE EQUAL TO OR BETTER THAN THE PRESCRIBED METHOD)
- C. LIGHT FIXTURE APPLICATION
- ALL RECESSED LIGHTING FIXTURES SHALL BE POSITIVELY ATTACHED TO THE SUSPENDED CEILING SYSTEM BY MECHANICAL MEANS AS SPECIFIED IN THE NATIONAL ELECTRICAL CODE, UNLESS INDEPENDENTLY SUPPORTED. THE ATTACHMENT DEVICE, A MINIMUM OF TWO (2) PER FIXTURE, SHALL HAVE A CAPACITY OF 100% OF THE LIGHTING FIXTURE WEIGHT ACTING IN ANY DIRECTION.
 - SURFACE MOUNTED LIGHTING FIXTURES SHALL BE ATTACHED TO THE CEILING SYSTEM WITH POSITIVE CLAMPING DEVICES THAT COMPLETELY SURROUND THE SUPPORTING MEMBERS. SAFETY WIRES SHALL BE ATTACHED BETWEEN THE CLAMPING DEVICE AND THE ADJACENT CEILING HANGER OR TO THE STRUCTURE ABOVE. IN NO CASE SHALL THE APPLIED FIXTURE LOAD EXCEED THE DESIGN CARRYING CAPACITY OF THE SUPPORTING MEMBER.
 - PENDANT HUNG LIGHTING FIXTURES SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE USING No. 9 GAGE (2.91 mm) WIRE WITHOUT USING THE CEILING SUSPENSION SYSTEM FOR DIRECT SUPPORT.
 - RIGID CONDUIT IS NOT RECOMMENDED FOR ATTACHMENT OF FIXTURES.
 - LIGHTING FIXTURES WEIGHING LESS THAN 56 lb. SHALL HAVE, IN ADDITION TO THE REQUIREMENTS OUTLINED ABOVE, TWO (2) No. 12 GAGE HANGERS CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE. THESE WIRES MAY BE SLACK.
 - LIGHTING FIXTURES WEIGHING 56 lb. OR MORE SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE BY APPROVED HANGERS.
- D. SERVICES WITHIN THE CEILING:
- THE SUSPENDED CEILING SHALL NOT BE USED TO SUPPORT DUCTWORK, PLUMBING, ETC. THESE ITEMS SHOULD BE ATTACHED TO THE STRUCTURE ABOVE EXCEPT WHEN SUCH UNITS WERE SPECIALLY DESIGNED FOR THIS APPLICATION, AS IN THE CASE OF INTEGRATED CEILING SYSTEMS.
 - CEILING MOUNTED AIR TERMINALS, OR SERVICES WEIGHING LESS THAN 20 lb. SHALL BE POSITIVELY ATTACHED TO THE SUSPENSION SYSTEM UNLESS DEFLECTION MINIMUMS ARE EXCEEDED.
- E. PARTITION APPLICATION TO SUSPENDED CEILINGS:
- WHERE NON-BEARING PARTITIONS ARE ATTACHED TO CEILING SUSPENSION SYSTEMS, THE LATERAL FORCE REACTION TRANSMITTED MUST FALL WITHIN THE DESIGN LIMITATION OF THE SUSPENSION SYSTEM OR SUPPLEMENTARY BRACING MUST BE PROVIDED.



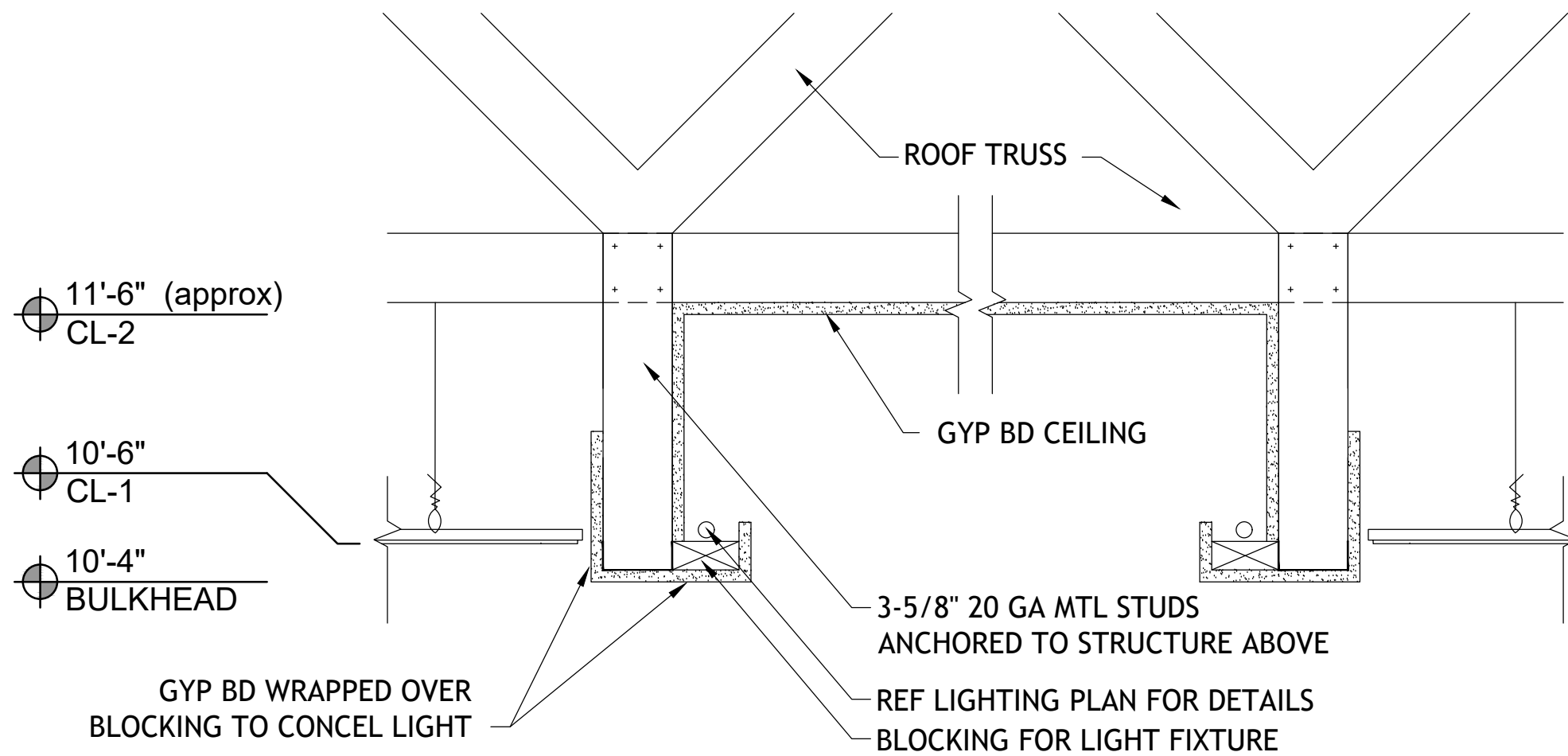
TYPICAL CEILING BRACING



RUNNERS AT WALLS



1 REFLECTED CEILING PLAN
A2.3 SCALE: 3/16" = 1'-0"



2 CEILING DETAIL
A2.3 SCALE: 1-1/2" = 1'-0"

HD
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SCOPE DOCUMENT

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Matthew Holder
3/24/21

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SHEET DESCRIPTION: REFLECTED CEILING PLAN

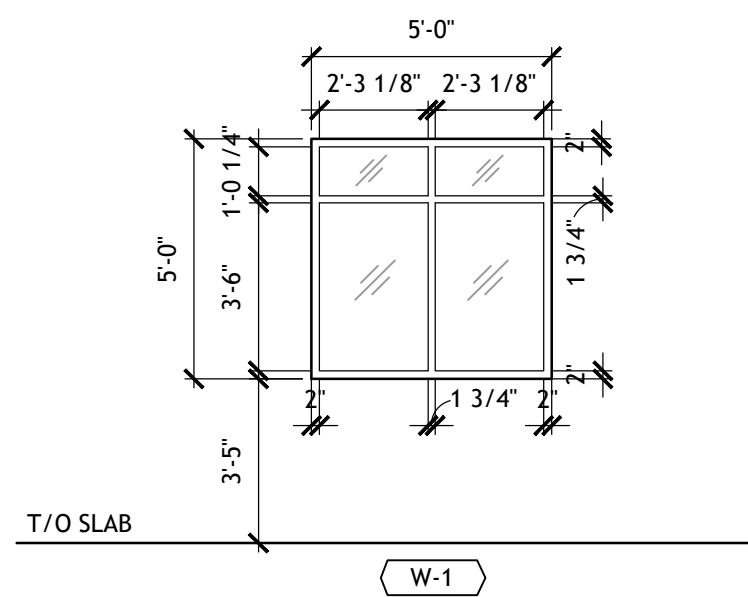
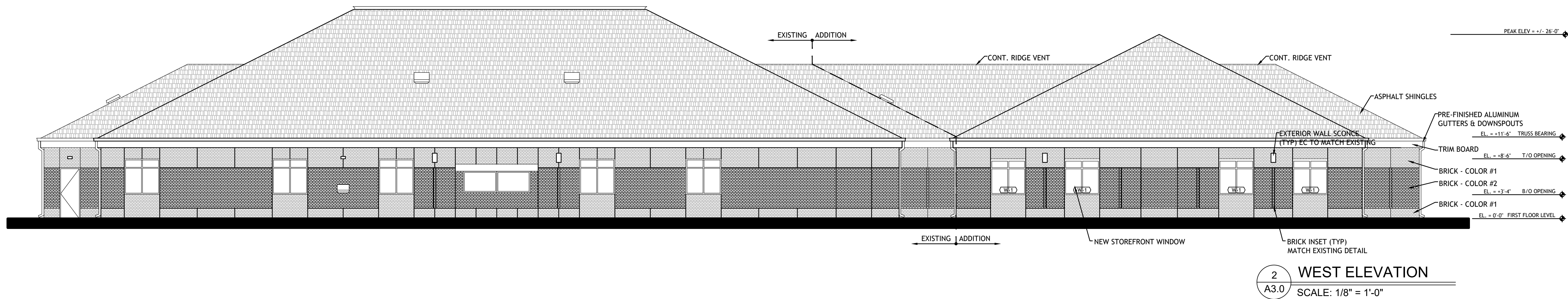
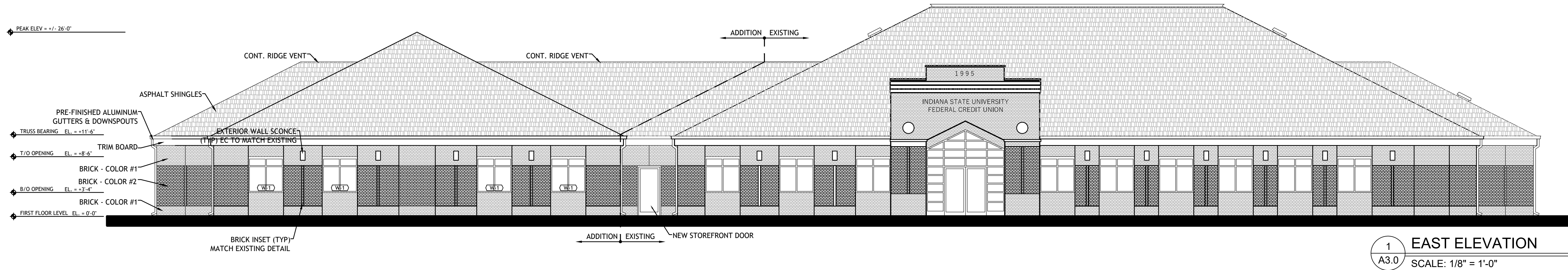
REVISIONS

NO.	DESCRIPTION

SHEET NO.
A2.3

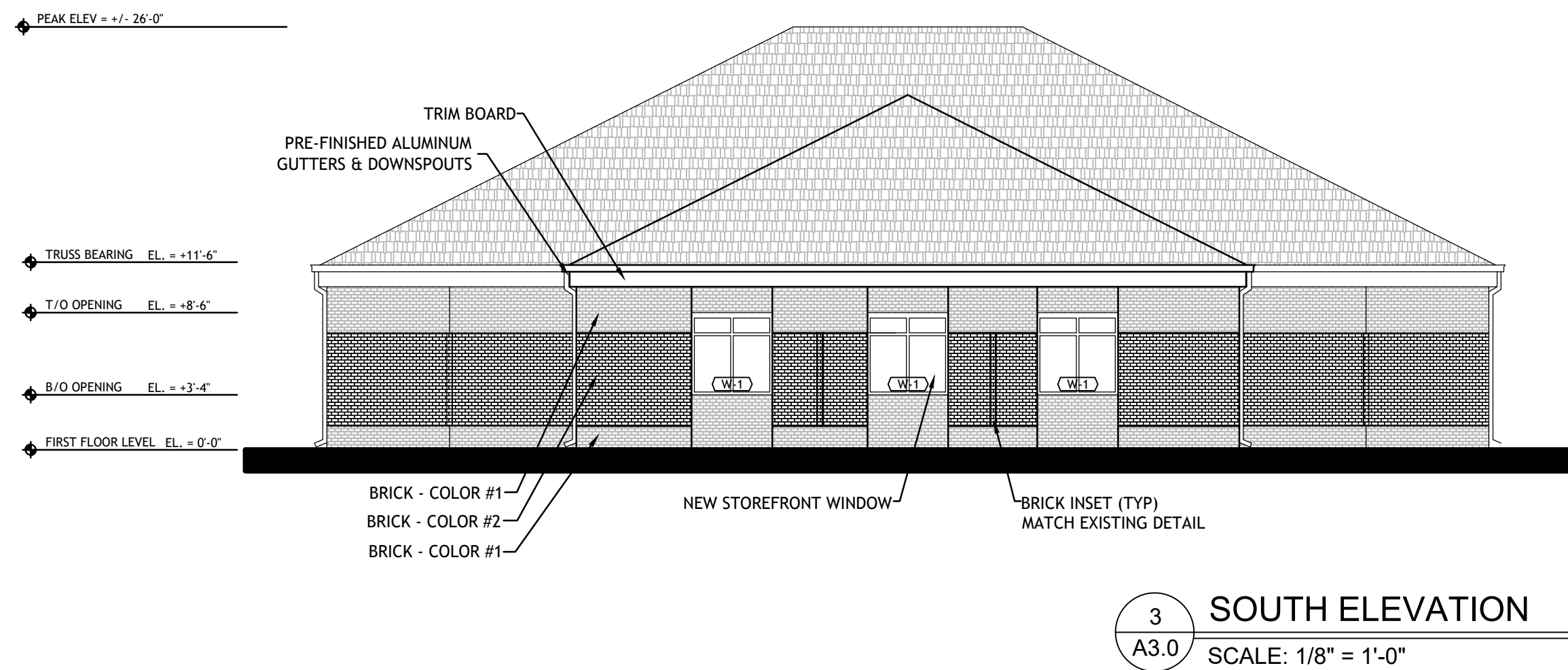
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STOREFRONT SYSTEM:

1. ALUMINUM FRAMING: KAWNEER TRIFAB 451UT, DARK BRONZE ANODIZED, ALL HINGES SHALL BE CONTINUOUS HINGE TYPE & HEAVY DUTY
2. EXTERIOR GLAZING: 1/4" GRAY TINTED OUTBOARD, 1/2" AIRSPACE, 1/4" CLEAR INBOARD WITH VITRO SOLARBAN 60 WITH LOW E
WINTER U-FACTOR = .29
SUMMER U-FACTOR = .27
SHGC = .29
SHADE COEFFICIENT = .33
3. TEMPERED GLASS AT ALL LOCATIONS REQUIRED BY THE BUILDING CODE
4. FIELD VERIFY ALL DIMENSIONS PRIOR TO SHOP DRAWING SUBMITTAL. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
5. NEW WINDOWS TO MATCH EXISTING WINDOWS AS CLOSELY AS POSSIBLE

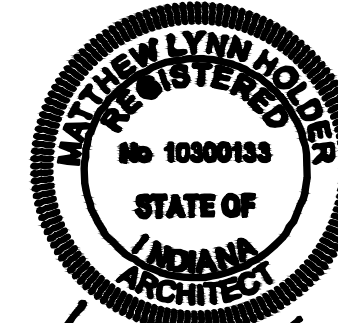


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INSTRUCTIONS FOR:

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TERRE HAUTE, INDIANA

EXTERIOR ELEVATIONS

SHEET DESCRIPTION:

REVISIONS

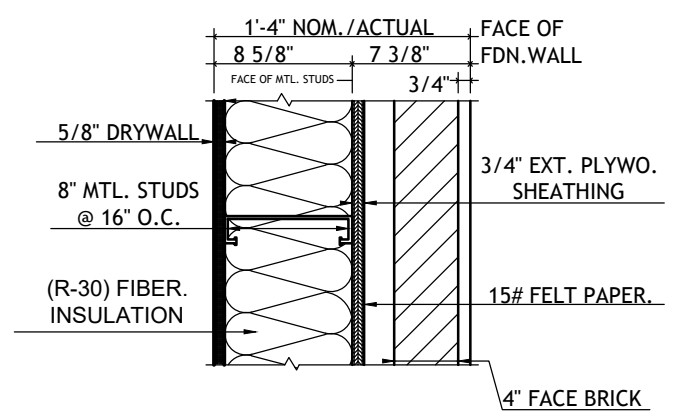
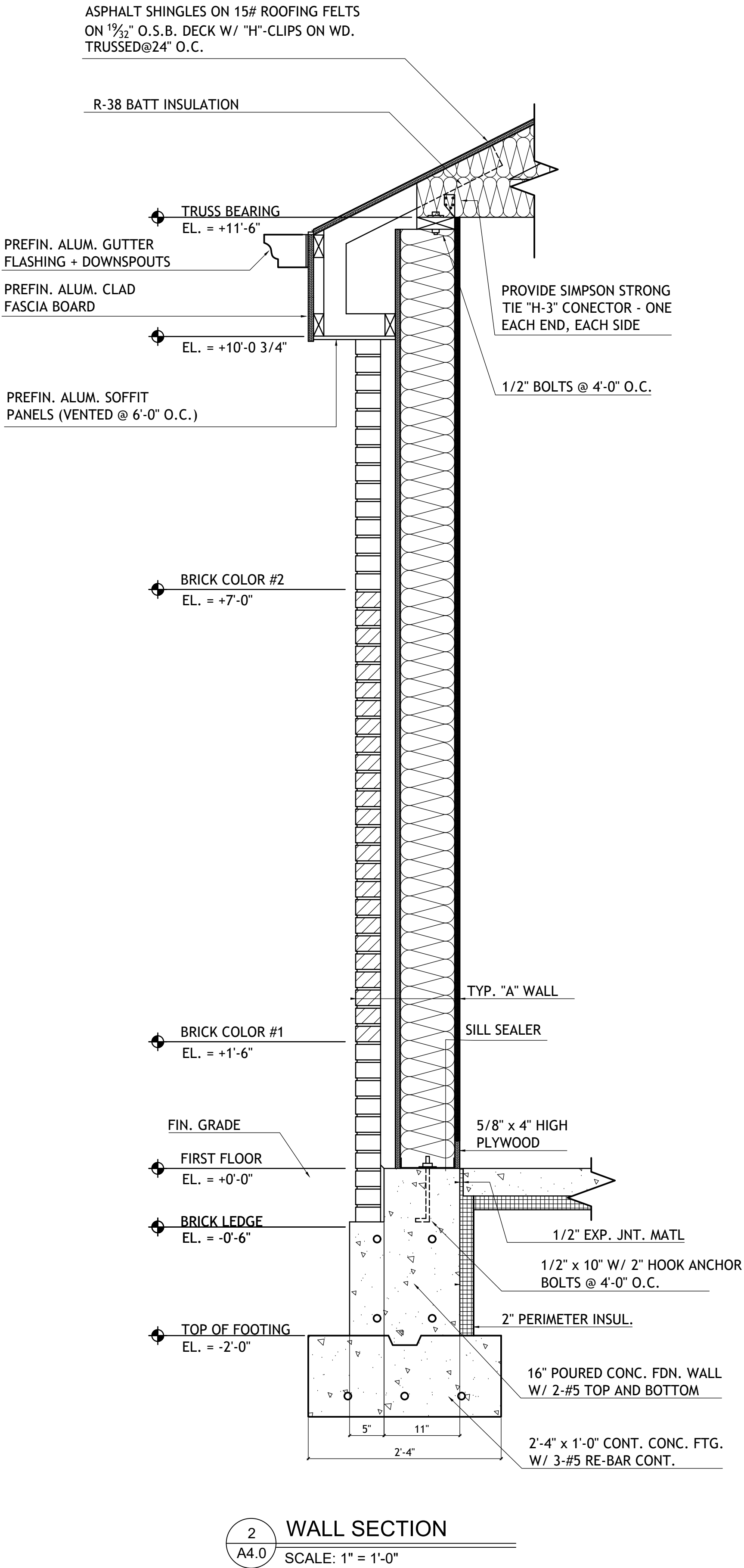
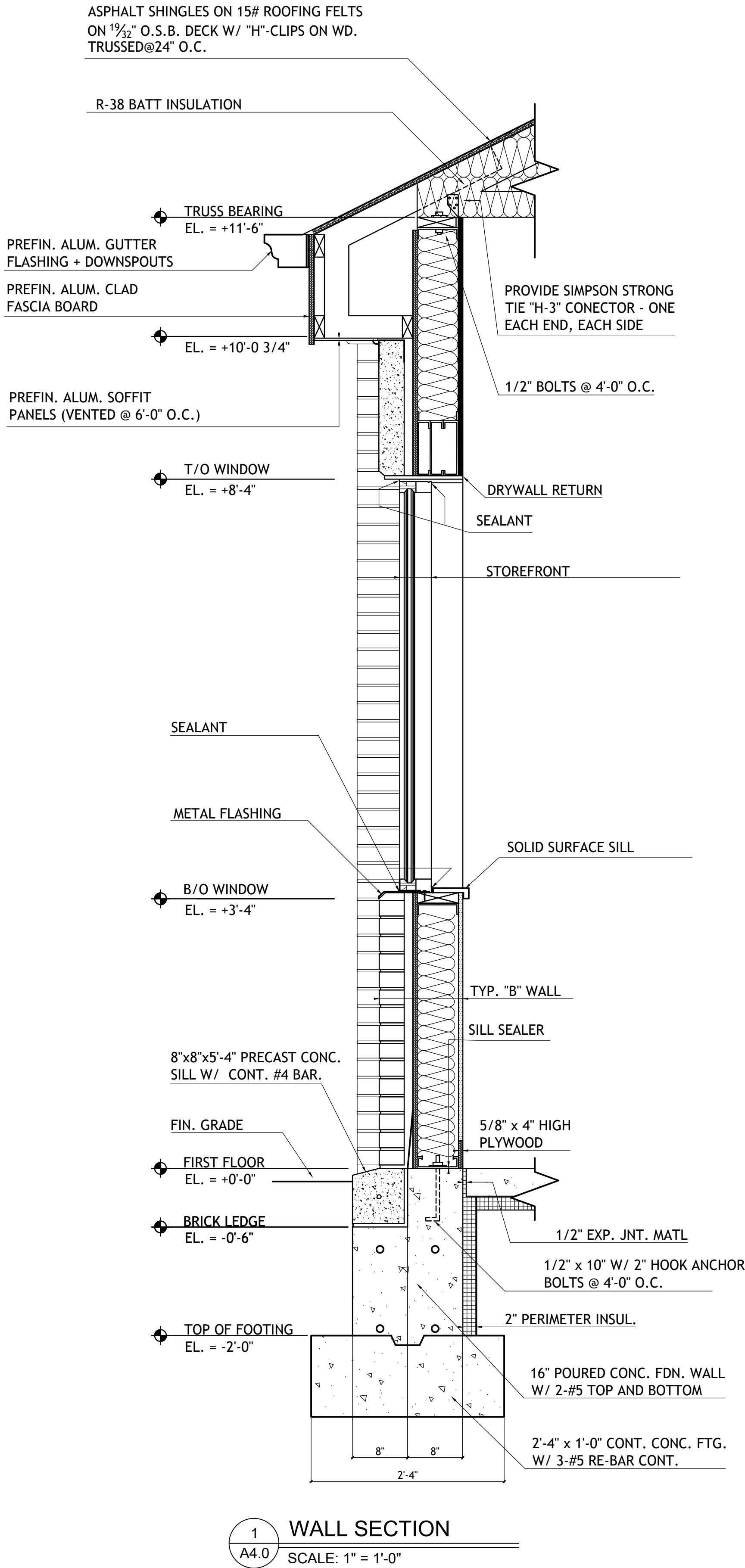
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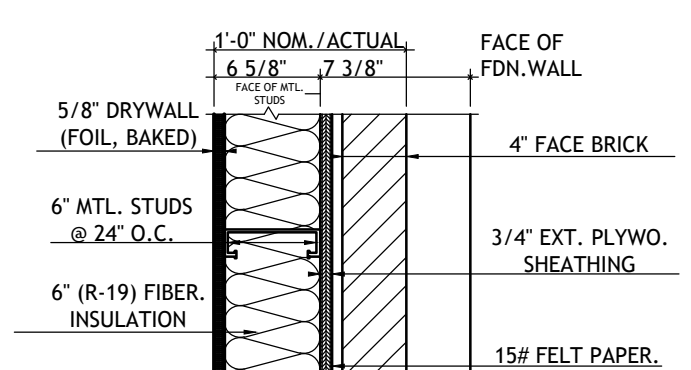
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A20-016


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3
A4.0
WALL DETAIL - 'A'
SCALE: 1" = 1'-0"



4
A4.0
WALL DETAIL - 'B'
SCALE: 1" = 1'-0"




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8/24/21

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SHEET DESCRIPTION: SECTIONS AND DETAILS

REVISIONS

SHEET NO.
A4.0

JOB NO.
A20-016


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TERRE HAUTE, INDIANA

SHEET DESCRIPTION: ENLARGED PLANS & ELEVATIONS

REVISIONS

SHEET NO.

A5.0

JOB NO.

A20-016

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RESTROOM ACCESSORIES: PROVIDED + INSTALLED BY GC
(PROVIDE BLOCKING AS REQUIRED, COORDINATE PLACEMENT WITH OWNER)

1. TOILET PAPER DISPENSERS: BOBRICK B-2840- TYP.
2. PP TOWEL DISPENSERS: BOBRICK B-72974 - TYP.

1
A5.0
ENLARGED PLANS RR101, RR102, + BREAK AREA 104
SCALE: 1/2" = 1'-0"

4
A5.0
BOARD RM. 107 EAST ELEVATION
SCALE: 1/2" = 1'-0"

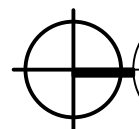
3
A5.0
RR102 NORTH ELEVATION
SCALE: 1/2" = 1'-0"

2
A5.0
RR101 SOUTH ELEVATION
SCALE: 1/2" = 1'-0"

5
A5.0
BREAK AREA 104 + MEDIA 103 NORTH ELEVATION
SCALE: 1/2" = 1'-0"

6
A5.0
BREAK AREA 104 + MEDIA 103 SOUTH ELEVATION
SCALE: 1/2" = 1'-0"

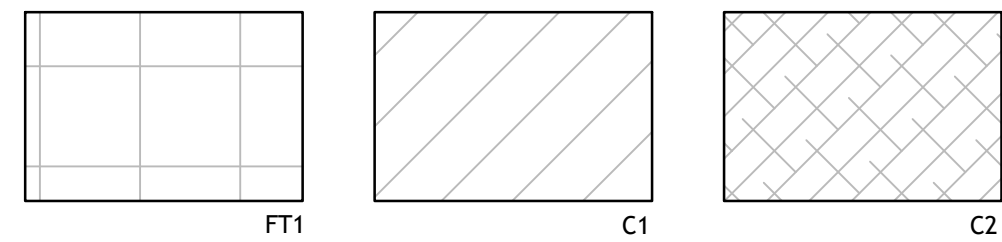



 1
A6.0 FIRST FLOOR FINISH PLAN
SCALE: 1/4" = 1'-0"

FIRST FLOOR FINISH SCHEDULE:

FINISH SPECIFICATIONS: (TO MATCH EXISTING) C1= 'MOHAWK COMMERCIAL', ART EXPOSURE, ACADEMIC VIEW, BT433, ECRU958, BRICK ASHLAR INSTALL C2= 'MILIKEN', FIELD PATINA, PAT245-249, 9,8x39.4, SMALT, ASHLAR INSTALL FT1 = 'CROSSVILLE', SHADES, AV244, MIST, 2'x2', STRAIT INSTALL, 'LATICRETE' RAVEN45 GROUT B1= TILE BASE TO MATCH FT1 B2= PAINTED WOOD BASE (COLOR TBD) P1= SW7647 CRUSHED ICE P2= SW2848 ROYCROFT PEWTER P3= SW6792 MINOR BLUE P4= SW7658 GRAY CLOUDS P5= SW6354 ARMAGNAC	
MECHANICAL 100: FLOOR: UNFINISHED WALLS: P1 BASE: VINYL WALL BASE	
RR 101: FLOOR: FT1 WALLS: N-P2, S-FT1+P3, E-P2, W-P2 BASE: B1	
RR 102: FLOOR: FT1 WALLS: N-FT1+P3, S-P2, E-P2, W-P2 BASE: B1	
MEDIA103: FLOOR: FT1 WALLS: P1 BASE: B1	
BREAK AREA 104: FLOOR: FT1 WALLS: P1 BASE: B1	
OFFICES-TYP.: FLOOR: C1 WALLS: P4 BASE: B2	
STORAGE 106: FLOOR: C1 WALLS: P1 BASE: B2	
BOARD ROOM 107: FLOOR: C2 WALLS: P1, E-P5 WHERE NOTED BASE: B2	
CORRIDORS-TYP.: FLOOR: C1 WALLS: P1 BASE: B2	
TRAINING 116: FLOORS: C2 WALLS: N-P1, S-P4 BASE: B2	
CONFERENCE 118: FLOOR: C1 WALLS: P4 BASE: B2	
CASEWORK SPECIFICATIONS: 1. LAMINATED MELAMINE CASEWORK - WILSONART 7993-38 FLORENCE WALNUT (PL1) TOP CROWN TREATMENT- FORMICA 851-58 SPECTRUM BLUE (PL3) FLOATING SHELVES- WILSONART 4830K-18 SATIN STAINLESS (PL2) 2. USE PLYWOOD SUBSTRATE AT ALL WET LOCATIONS 3. SOFT CLOSE: FULL EXTENSION DRAWER GLIDES 4. SOFT CLOSE "BLUME" FULLY CONCEALED HINGES 5. SELF EDGE ON ALL DOORS AND DRAWERS 6. TOE KICK TO MATCH 7. DOOR AND DRAWER PULLS: 12" BLACK BAR PULLS 8. TOPS: ALL TOPS TO BE SOLID SURFACE: 'CORIAN' SILVER BIRCH 9. FIELD VERIFY ALL DIMENSION AND SUBMIT A FULL SET OF CASEWORK DRAWINGS FOR REVIEW	

FIRST FLOOR FINISH SCHEDULE KEY:






HOLDERDESIGN, INC.

24 South 5th Street
Terre Haute, Indiana 47807
ph. 812.235.1300
www.holderdesign.net

SCOPE DOCUMENT

THE DRAWINGS INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF ARCHITECTURAL DESIGN CONCEPT, THE DIMENSIONS OF THE BUILDING, THE MAJOR ARCHITECTURAL ELEMENTS AND THE TYPE OF STRUCTURAL, MECHANICAL AND ELECTRICAL SYSTEMS. AS SCOPE DOCUMENTS, THE DRAWINGS DO NOT NECESSARILY INDICATE OR DESCRIBE ALL WORK THAT IS REQUIRED FOR FULL PERFORMANCE AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. ON THE BASIS OF THE GENERAL SCOPE INDICATED OR DESCRIBED, THE TRADE CONTRACTORS SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.



Matthew Holder
08/24/21

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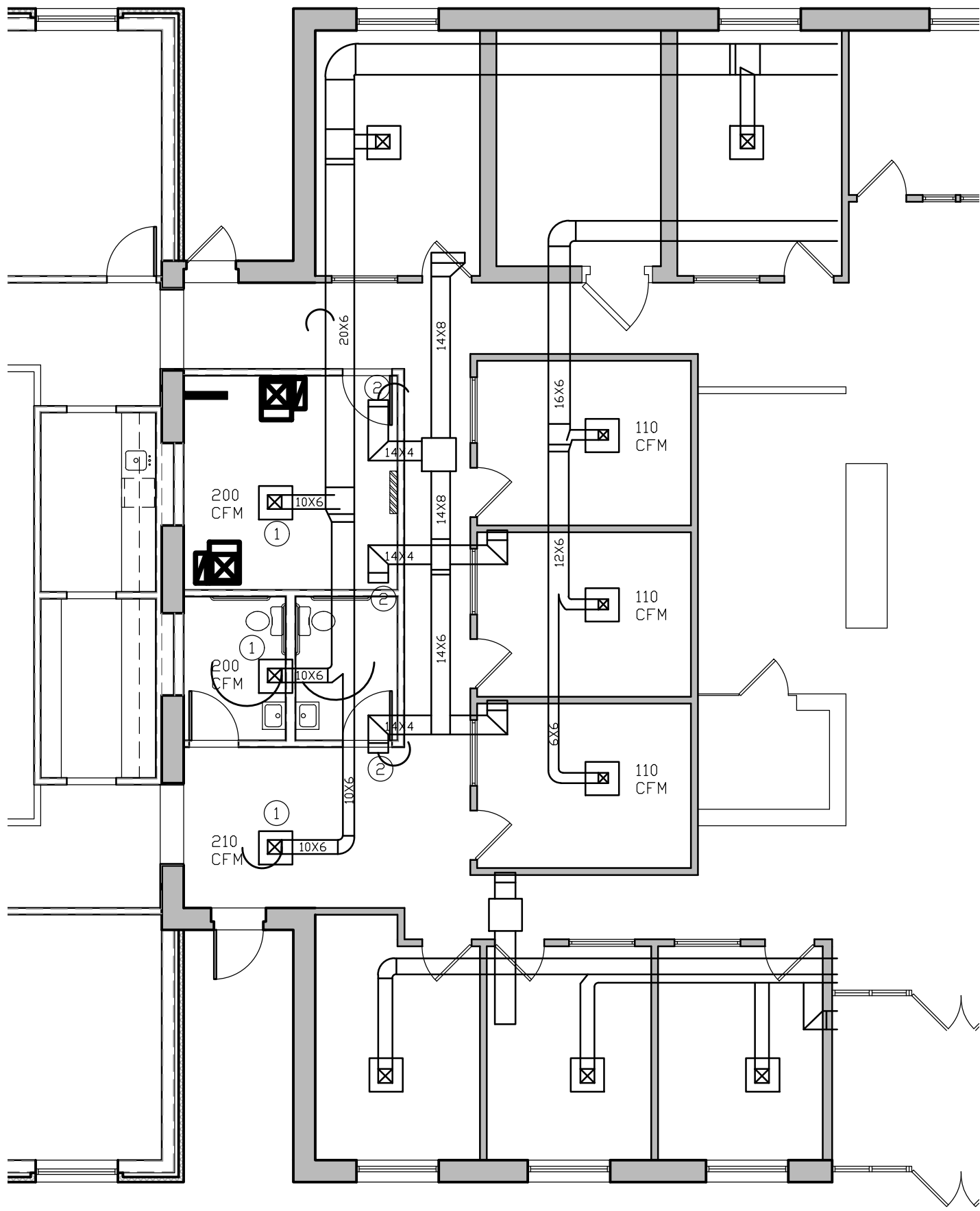
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DRAWN BY: CNR	CHECKED BY: MLH	PLOT SCALE: AS NOTED	DATE: 08.24.2021
INSTRUCTIONS FOR: INDIANA STATE UNIVERSITY FEDERAL CREDIT UNION TERRE HAUTE, INDIANA			
SHEET DESCRIPTION: FIRST FLOOR FINISH PLAN			

REVISIONS

SHEET NO.
A6.0
JOB NO.
A20-016

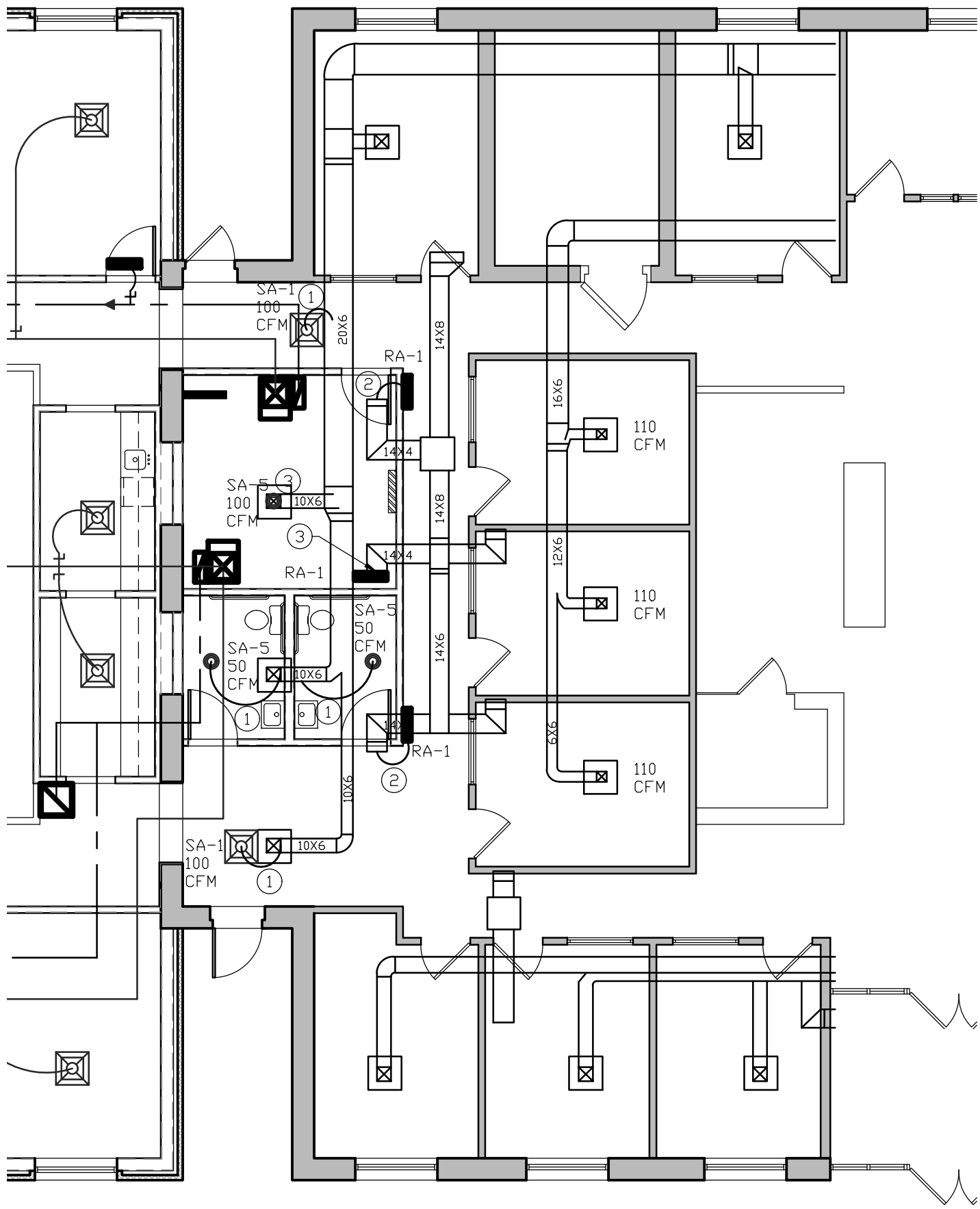
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1
M1.0
EXISTING BLDG. DEMO HVAC PLAN
SCALE = 1/8"=1'-0"

DEMO NUMBERED NOTES:

- 1 DEMO EXISTING SAG AS REQUIRED.
- 2 DEMO EXISTING RAG AS REQUIRED.



2
M1.0
EXISTING BLDG. NEW HVAC PLAN
SCALE = 1/8"=1'-0"

NEW NUMBERED NOTES:

- 1 6" FLEXIBLE DUCT
MINIMUM R-3.5 INSULATION
MAXIMUM LENGTH = 5'-0"
- 2 8" FLEXIBLE DUCT
MINIMUM R-3.5 INSULATION
MAXIMUM LENGTH = 5'-0"
- 3 CONNECT TO EXISTING DUCTWORK
AS REQUIRED

GENERAL NOTES:

1. ALL CONTRACTORS AND SUB-CONTRACTORS SHALL REVIEW ALL DRAWINGS FOR WORK PERFORMED BY THAT CONTRACTOR.
2. ALL WALLS INDICATED ON THE ARCHITECTURAL PLANS AS FIRE RATED SHALL BE PROPERLY FIRE CAULKED FOR ALL PENETRATIONS.

GENERAL MEP NOTES:

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Matthew Lynn Holder
8/24/21

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INSTRUCTIONS FOR:
**INDIANA STATE UNIVERSITY
FEDERAL CREDIT UNION**
TERRE HAUTE, INDIANA

SHEET DESCRIPTION: DEMOLITION HVAC PLAN

REVISIONS

SHEET NO.
M1.0

JOB NO.
A20-016

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Matthew Holder
3/24/21

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MRW

CHECKED BY:

MLH

PLOT SCALE:

AS NOTED

DATE:

08.24.2021

INSTRUCTIONS FOR:

INDIANA STATE UNIVERSITY

FEDERAL CREDIT UNION

TERRE HAUTE, INDIANA

SHEET DESCRIPTION: HVAC PLAN

REVISIONS

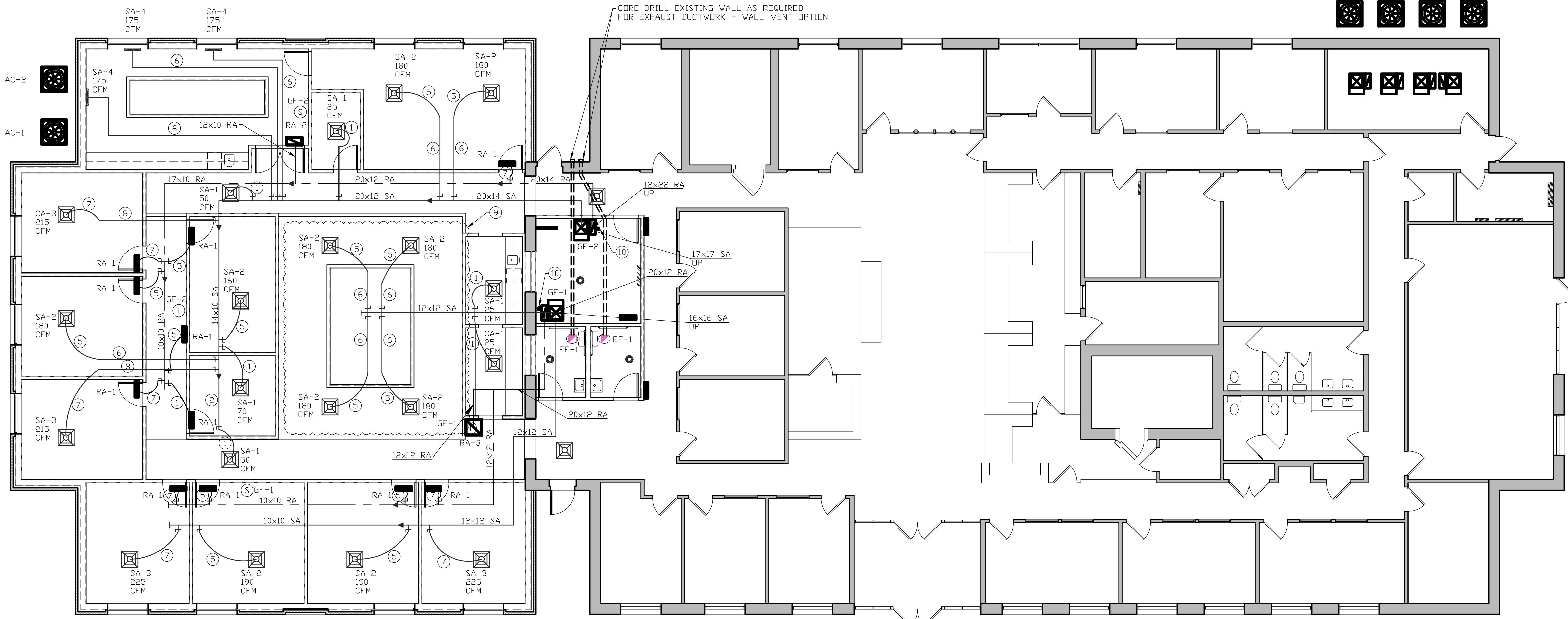
SHEET NO.

M1.1

JOB NO.

A20-016

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NUMBERED NOTES:

- 6" FLEXIBLE DUCT
MINIMUM R-3.5 INSULATION
MAXIMUM LENGTH = 5'-0"
- 6" GALVANIZED DUCT
MINIMUM R-3.5 INSULATION
WRAP WITH VAPOR BARRIER
- 7" FLEXIBLE DUCT
MINIMUM R-3.5 INSULATION
MAXIMUM LENGTH = 5'-0"
- 7" GALVANIZED DUCT
MINIMUM R-3.5 INSULATION
WRAP WITH VAPOR BARRIER
- 8" FLEXIBLE DUCT
MINIMUM R-3.5 INSULATION
MAXIMUM LENGTH = 5'-0"
- 8" GALVANIZED DUCT
MINIMUM R-3.5 INSULATION
WRAP WITH VAPOR BARRIER
- 10" FLEXIBLE DUCT
MINIMUM R-3.5 INSULATION
MAXIMUM LENGTH = 5'-0"
- 10" GALVANIZED DUCT
MINIMUM R-3.5 INSULATION
WRAP WITH VAPOR BARRIER
- ALL SUPPLY AIR DUCTWORK FOR OPEN OFFICE AREA SHALL BE RUN IN THE ATTIC AS REQUIRED AND DROPPED TO SUSPENDED CEILING AS SHOWN. INSTALLED R-VALUE OF ALL DUCTWORK IN ATTIC SHALL BE R-6.0.
- 10" GALVANIZED FRESH AIR DUCTWORK TO ROOF INTAKE WITH MANUAL DAMPER. EXTERIOR INSULATION - R-6.0. 10'-0" FROM ANY EXHAUST WEST SIDE OF ROOF RIDGE - BACKSIDE OF BUILDING.

GENERAL DUCTWORK NOTES:

- ALL SUPPLY AND RETURN AIR DUCTWORK SHALL BE GALVANIZED SHEET METAL. SUPPLY AND RETURN AIR DUCTWORK SHALL BE LOCATED BELOW THE 11'-6" GYPSUM BOARD CEILING.
- ALL SUPPLY AIR DUCTWORK INSIDE THE BUILDING SHALL BE EXTERNALLY INSULATED WITH OWENS CORNING 1.5" SOFTR DUCT WRAP FRK WITH AN INSTALLED R-VALUE OF 4.2.
- ALL RETURN AIR DUCTWORK SHALL BE EXTERNALLY INSULATED WITH OWENS CORNING 1.5" SOFTR DUCT WRAP FRK WITH AN INSTALLED R-VALUE OF 4.2.
- ALL SUPPLY AIR FLEXIBLE DUCT SHALL HAVE AN R-VALUE OF 3.5 IN.
- ALL RETURN AIR FLEXIBLE DUCT SHALL HAVE AN R-VALUE OF 3.5 IN.
- ALL SUPPLY AND RETURN DUCTWORK SHALL BE SEALED WITH A CLASS "A" LIQUID SEALER PRIOR TO EXTERNAL INSULATION INSTALLATION.
- VOLUME DAMPER LOCATION AS INDICATED BY
- ALL DUCTWORK INSULATION IN ATTIC SPACE OF THE BUILDING SHALL OWENS CORNING 2.2" SOFTR DUCT WRAP FRK WITH AN INSTALLED R-VALUE OF 6.0

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SUPPLY & RETURN REGISTER SCHEDULE

MARK	MFG.	MODEL	SIZE	COLOR	OPTIONS
SA-1	TITUS	TMS	6"	WHITE	LAY-IN, SEE OPTIONS
SA-2	TITUS	TMS	8"	WHITE	LAY-IN, SEE OPTIONS
SA-3	TITUS	TMS	10"	WHITE	LAY-IN, SEE OPTIONS
SA-4	TITUS	FL20 8' SPLIT	2'-0" LENGTH	WITH INSULATED PLENUM	
SA-5	TITUS	TMR	6"	WHITE	SEE OPTIONS
RA-1	TITUS	50F	6"X24"	WHITE	R-6 INSULATED BACK BOX
RA-2	TITUS	50F	10"X24"	WHITE	R-6 INSULATED BACK BOX
RA-3	TITUS	50F	24"X24"	WHITE	R-6 INSULATED BACK BOX

GAS FURNACE SCHEDULE

MARK	MFG.	MODEL	COOLING TONS / STAGES	HEATING-GAS STAGE 1 INPUT/OUTPUT	HEATING-GAS STAGE 2 INPUT/OUTPUT	HEATING EFFICIENCY	CFM @ ESP	VOLTAGE	MCA	MOCP	FRESH AIR	OPTIONS
GF-1	FRASER- JOHNSTON	TM9Y080C16MP11	4 / 2 STAGES	52,000 / 50,000	80,000 / 77,000	96.0 %	1600 @ .4 COOLING	120 VOLT / 1 PHASE	8.7 AMPS	15 AMPS	75 CFM	1, 2, 3, 4, 5
GF-2	FRASER- JOHNSTON	TM9Y100C20MP11	4 / 2 STAGES	65,000 / 62,000	100,000 / 96,000	96.0 %	1850 @ .7 COOLING	120 VOLT / 1 PHASE	10.3 AMPS	15 AMPS	75 CFM	1, 2, 3, 4, 5

GAS FURNACE OPTIONS:

- UNIT AIR BALANCE SHALL BE DONE IN COOLING MODE
- UP FLOW VERTICAL SUPPLY RETURN SHALL BE ON BOTTOM OF UNIT
- 7 DAY PROGRAMMABLE T-STAT AT LOCATION SHOWN WITH REMOTE TEMPERATURE SENSOR FOR TEMPERATURE AVERAGING AND CONTROL OF UNIT BETWEEN T-STAT AND REMOTE SENSOR
- CONCENTRIC VENT KIT THRU ROOF - WEST SIDE (BACKSIDE) OF BUILDING
- FLEXIBLE CONNECTION OF SUPPLY AND RETURN DUCTWORK TO UNIT.

MFG NOTE:

EQUALS BY CARRIER, BRYANT OR TRANE ARE ACCEPTED.
ALL OTHER MUST BE APPROVED BY THE ENGINEER OF RECORD.

AIR CONDITIONER SCHEDULE

MARK	MFG.	MODEL	COOLING TONS / STAGES	SEER	VOLTAGE	MCA	MOCP	OPTIONS
AC-1	FRASER- JOHNSTON	AL19B4821S	4 / 2 STAGE	16.75	208-230 VOLT / 1 PHASE	28.2 AMPS	45 AMPS	1, 2
AC-2	FRASER- JOHNSTON	AL19B4821S	4 / 2 STAGE	16.75	208-230 VOLT / 1 PHASE	28.2 AMPS	45 AMPS	1, 2

AIR CONDITIONER OPTIONS:

- SUPPLY & SUCTION LINES WITH INSULATION AS REQUIRED BY MFG. SIZE PER MFG. REQUIREMENTS FOR LENGTH OF LINE
- PROVIDE COMPATIBLE INDOOR COOLING COIL FOR SPECIFIED FURNACE TO OBTAIN SEER VALUE INDICATED

MFG NOTE:

EQUALS BY CARRIER, BRYANT OR TRANE ARE ACCEPTED.
ALL OTHER MUST BE APPROVED BY THE ENGINEER OF RECORD.

EXHAUST FAN SCHEDULE

MARK	MFG.	MODEL	CFM	OUTLET	ELECTRICAL	CONTROL	OPTIONS
EF-1	BROAN	#A80	80	4" DIA.	120V / 44 WATTS	WALL SWITCH	1, 2

EXHAUST FAN OPTIONS:

- 4" INSULATED VENTING DUCT RUN IN ATTIC SPACE OF BUILDING BELOW INSULATION FOR SOFFIT VENTING OPTION
- VENT TO 4" BROAN #885AL WALL CAP NATURAL ALUMINUM FINISH WITH SPRING-LOADED BACKDRAFT DAMPER AND BIRD SCREEN FOR WALL DISCHARGE OPTION. PROVIDE AND INSTALL SOFFIT VENT AS REQUIRED FOR THAT DISCHARGE OPTION.

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SECTION 15000 - MECHANICAL SPECIFICATIONS 15-1. GENERAL REQUIREMENTS

15-1-A. MECHANICAL REQUIREMENTS

1. ALL WORK SHALL BE IN ACCORDANCE W/ LATEST EDITION OF INTERNATIONAL BUILDING, MECHANICAL, & PLUMBING CODES. CODES AS ADOPTED BY CITY, COUNTY, STATE & ALL OTHER APPLICABLE CODES
2. FURNISH & INSTALL ALL LABOR & MATERIALS REQUIRED FOR COMPLETE, FUNCTIONING, MECHANICAL, & PLUMBING SYSTEMS W/ ALL ASSOCIATED EQUIPMENT & APPARATUS AS SHOWN ON PLANS. "PROVIDE" MEANS TO FURNISH & INSTALL.
3. OBTAIN & PAY FOR ALL PERMITS REQUIRED FOR EXECUTION OF THIS WORK & SHALL MAKE ARRANGEMENTS FOR MODIFICATIONS TO WATER, GAS & SEWER CONNECTIONS TO BUILDING AS REQUIRED.
4. ALL MATERIALS SHALL BE NEW & SHALL BARE UL LABEL WHERE APPLICABLE.
5. VISIT SITE & OBSERVE CONDITIONS UNDER WHICH WORK WILL BE DONE, ANY DISCREPANCIES SHALL BE CALLED TO ARCHITECTS ATTENTION. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN CONTRACT FOR ANY ERROR OR NEGLIGENCE ON CONTRACTOR'S PART.
6. FINAL ACCEPTANCE OF WORK SHALL BE SUBJECT TO CONDITION THAT ALL SYSTEMS, EQUIPMENT, APPARATUS & APPLIANCES OPERATE SATISFACTORILY AS DESIGNED & INTENDED. WORK SHALL INCLUDE REQUIRED ADJUSTMENT OF SYSTEMS & CONTROL EQUIPMENT INSTALLED UNDER THESE SPECIFICATION.
7. WARRANT TO OWNER QUALITY OF MATERIALS, EQUIPMENT, WORKMANSHIP & OPERATION OF EQUIPMENT PROVIDED UNDER THESE SPECIFICATIONS FOR ONE YEAR FROM & AFTER COMPLETION OF BUILDING & ACCEPTANCE OF MECHANICAL SYSTEMS BY OWNER.
8. ALL MATERIALS INSTALLED IN PLENUMS SHALL BE NONCOMBUSTIBLE OR HAVE FLAME/SMOKE INDEX OF NO MORE THAN 25/50 IN ACCORDANCE W/ ASTM E 84.
9. REQUIREMENTS UNDER DIVISION ONE & GENERAL & SUPPLEMENTARY CONDITIONS OF THESE SPECIFICATIONS SHALL BE PART OF THIS SECTION. CONTRACTOR SHALL BECOME THOROUGHLY ACQUAINTED W/ ITS CONTENTS AS TO REQUIREMENTS THAT AFFECT THIS DIVISION OF WORK REQUIRED UNDER THIS SECTION INCLUDING MATERIAL, EQUIPMENT, LABOR, TRANSPORTATION SERVICES, & LABOR REQUIRED TO COMPLETE ENTIRE SYSTEM AS REQUIRED BY DRAWINGS & SPECIFICATIONS.
10. THE SPECIFICATIONS & DRAWINGS FOR PROJECT ARE COMPLEMENTARY, & PORTIONS OF WORK DESCRIBED IN ONE, SHALL BE PROVIDED AS IF DESCRIBED IN BOTH. IN EVENT OF DISCREPANCIES, NOTIFY ENGINEER & REQUEST CLARIFICATION PRIOR TO PROCEEDING W/ WORK INVOLVED.

15-1-B. DEFINITIONS

1. WHENEVER USED IN THESE SPECIFICATIONS OR DRAWINGS, FOLLOWING TERMS SHALL HAVE INDICATED MEANINGS:
- 1A. FURNISH: TERM "FURNISH" IS USED TO MEAN "SUPPLY & DELIVER TO PROJECT SITE. READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION & SIMILAR OPERATIONS."
- 1B. INSTALL: TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING ACTUAL UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, & SIMILAR OPERATIONS."
- 1C. PROVIDE: TERM "PROVIDE" MEANS "TO FURNISH & INSTALL. COMPLETE & READY FOR INTENDED USE." FURNISHED BY OWNER OR FURNISHED BY OTHERS; ITEM WILL BE FURNISHED BY OWNER OR OTHERS. IT IS TO BE INSTALLED & CONNECTED UNDER REQUIREMENTS OF THIS DIVISION, COMPLETE & READY FOR OPERATION, INCLUDING ITEMS INCIDENTAL TO WORK, INCLUDING MATERIALS, TRANSPORTATION SERVICES, & LABOR REQUIRED TO COMPLETE INSTALLATION & OPERATION. INSTALLATION SHALL BE INCLUDED UNDER GUARANTEE REQUIRED BY THIS DIVISION.
- 1D. ENGINEER: WHERE REFERENCED IN THIS DIVISION, "ENGINEER" IS ENGINEER OF RECORD & DESIGN PROFESSIONAL FOR WORK UNDER THIS DIVISION, & IS CONSULTANT TO, & AN AUTHORIZED REPRESENTATIVE OF, ARCHITECT, AS DEFINED IN GENERAL (OR SUPPLEMENTARY CONDITIONS, WHEN USED IN THIS DIVISION. IT MEANS INCREASED INVOLVEMENT BY, & OBLIGATIONS TO, ENGINEER, IN ADDITION TO INVOLVEMENT BY, & OBLIGATIONS TO, "ARCHITECT."
- 1E. AHJ: LOCAL CODE &/OR INSPECTION AGENCY (AUTHORITY) HAVING JURISDICTION OVER WORK.
- 1F. THE TERMS "APPROVED EQUAL," "EQUIVALENT," OR "EQUAL" ARE USED SYNONYMOUSLY & SHALL MEAN "ACCEPTED BY OR ACCEPTABLE TO ENGINEER AS EQUIVALENT TO ITEM OR MANUFACTURER SPECIFIED."
- 1G. THE TERM "APPROVED" SHALL MEAN LABELED, LISTED, OR BOTH, BY NATIONALLY RECOGNIZED TESTING LABORATORY (E.G. UL, ETL, CSA), & ACCEPTABLE TO AHJ OVER THIS PROJECT.

15-1-C. PREBID SITE VISIT

1. PRIOR TO SUBMITTING BID, VISIT SITE OF PROPOSED WORK & BECOME FULLY INFORMED AS TO CONDITIONS UNDER WHICH WORK IS TO BE DONE. FAILURE TO DO SO WILL NOT BE CONSIDERED SUFFICIENT JUSTIFICATION TO REQUEST OR OBTAIN EXTRA COMPENSATION OVER & ABOVE CONTRACT PRICE.

15-1-D. MATERIAL & WORKMANSHIP

1. PROVIDE NEW MATERIAL, EQUIPMENT, & APPARATUS UNDER THIS CONTRACT UNLESS OTHERWISE STATED HEREIN. OF BEST QUALITY NORMALLY USED FOR PURPOSE IN GOOD COMMERCIAL PRACTICE & FREE FROM DEFECTS. MODEL NUMBERS LISTED IN SPECIFICATIONS OR SHOWN ON DRAWINGS ARE NOT NECESSARILY INTENDED TO DESIGNATE REQUIRED TRIM, WRITTEN DESCRIPTIONS OF TRIM GOVERN MODEL NUMBERS.
2. PIPE, FITTINGS, SPECIALTIES & VALVES SHALL BE MANUFACTURED IN USA. WORK PERFORMED UNDER THIS CONTRACT SHALL PROVIDE NEAT & "WORKMANLIKE" APPEARANCE TO THE SATISFACTION OF ARCHITECT & ENGINEER. WORKMANSHIP SHALL BE FINEST POSSIBLE BY EXPERIENCED MECHANICS. INSTALLATIONS SHALL COMPLY W/ APPLICABLE CODES & LAWS. COMPLETE INSTALLATION SHALL FUNCTION AS DESIGNED & INTENDED W/ RESPECT TO EFFICIENCY, CAPACITY, NOISE LEVEL, ETC. ABNORMAL NOISE CAUSED BY RATTLING EQUIPMENT, PIPING, DUCTS, AIR DEVICES, & SQUEAKS IN ROTATING COMPONENTS WILL NOT BE ACCEPTABLE IN GENERAL. MATERIALS & EQUIPMENT SHALL BE OF COMMERCIAL SPECIFICATION GRADE IN QUALITY. LIGHT DUTY & RESIDENTIAL EQUIPMENT IS NOT ACCEPTABLE.
3. REMOVE FROM PREMISES WASTE MATERIAL PRESENT FROM WORK, INCLUDING CARTONS, CRATING, PAPER, STICKERS, OR EXCAVATION MATERIAL NOT USED.
4. CLEAN EQUIPMENT INSTALLED UNDER THIS CONTRACT TO PRESENT NEAT & CLEAN INSTALLATION AT COMPLETION.
5. REPAIR OR REPLACE PUBLIC & PRIVATE PROPERTY DAMAGED AS RESULT OF WORK PERFORMED UNDER THIS CONTRACT TO SATISFACTION OF AUTHORITIES & REGULATIONS HAVING JURISDICTION.

15-1-E. COORDINATION

1. COORDINATE WORK W/ OTHER TRADES SO VARIOUS COMPONENTS OF SYSTEMS WILL BE INSTALLED AT PROPER TIME WILL FIT AVAILABLE SPACE & WILL ALLOW PROPER SERVICE ACCESS FOR MAINTENANCE. COMPONENTS WHICH ARE INSTALLED WITHOUT REGARD TO ABOVE SHALL BE RELOCATED AT NO ADDITIONAL COST TO OWNER.
2. UNLESS OTHERWISE INDICATED, GENERAL CONTRACTOR WILL PROVIDE CHASES & OPENINGS IN BUILDING CONSTRUCTION REQUIRED FOR INSTALLATION OF SYSTEMS SPECIFIED HEREIN. CONTRACTOR SHALL FURNISH GENERAL CONTRACTOR WITH INFORMATION WHERE CHASES & OPENINGS ARE REQUIRED.
3. KEEP INFORMED AS TO WORK OF OTHER TRADES ENGAGED IN CONSTRUCTION OF PROJECT & EXECUTE WORK IN MANNER AS TO NOT INTERFERE W/ OR DELAY WORK OF OTHER TRADES. FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALE DIMENSIONS.
4. CONTRACTOR SHALL TAKE HIS OWN MEASUREMENTS AT BUILDING, AS VARIATIONS MAY OCCUR. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ERRORS THAT COULD HAVE BEEN AVOIDED BY PROPER CHECKING & INSPECTION.
5. PROVIDE MATERIALS WITH TRIM THAT WILL PROPERLY FIT TYPES OF CEILING, WALL, OR FLOOR FINISHES ACTUALLY INSTALLED. MODEL NUMBERS LISTED IN SPECIFICATIONS OR SHOWN ON DRAWINGS ARE NOT INTENDED TO DESIGNATE REQUIRED TRIM.

15-1-F. ORDINANCES & CODES

1. WORK PERFORMED UNDER THIS CONTRACT SHALL, AT MINIMUM, BE IN CONFORMANCE W/ APPLICABLE NATIONAL, STATE & LOCAL CODES HAVING JURISDICTION. EQUIPMENT FURNISHED & ASSOCIATED
2. INSTALLATION WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN STRICT COMPLIANCE W/ CURRENT APPLICABLE CODES ADOPTED BY LOCAL AHJ INCLUDING ANY AMENDMENTS & STANDARDS AS SET FORTH BY NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), UNDERWRITERS' (UL), OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA), AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME), AMERICAN SOCIETY OF HEATING, REFRIGERATION, & AIR CONDITIONING ENGINEERS (ASHRAE), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AMERICAN SOCIETY OF TESTING MATERIALS (ASTM) & OTHER NATIONAL STANDARDS & CODES WHERE APPLICABLE.
3. WHERE CONTRACT DOCUMENTS EXCEED REQUIREMENTS OF REFERENCED CODES, STANDARDS, ETC., CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE.
4. PROCURE & PAY FOR PERMITS & LICENSES REQUIRED FOR ACCOMPLISHMENT OF WORK HEREIN DESCRIBED, WHENEVER REQUIRED. OBTAIN, PAY FOR & FURNISH CERTIFICATION OF INSPECTION TO OWNER. CONTRACTOR WILL BE HELD RESPONSIBLE FOR VIOLATIONS OF LAW.

15-1-G. PROTECTION OF EQUIPMENT & MATERIALS

1. STORE & PROTECT FROM DAMAGE EQUIPMENT & MATERIALS DELIVERED TO JOB SITE. COVER AS REQUIRED TO PROTECT FROM DIRT & DAMAGE. CAP OR OPEN ENDS OF DUCTWORK & PIPING SYSTEMS WHEN NOT IN USE. STORED & INSTALLED DURING CONSTRUCTION WHEN NOT IN USE TO PREVENT ENTRANCE OF DEBRIS INTO SYSTEMS. EQUIPMENT & MATERIAL THAT HAS BEEN DAMAGED BY CONSTRUCTION ACTIVITIES WILL BE REJECTED, & CONTRACTOR IS OBLIGATED TO FURNISH NEW EQUIPMENT & MATERIAL OF LIKE KIND & KEEP PREMISES BROOM CLEAN FROM FOREIGN MATERIAL, CREATED DURING WORK PERFORMED UNDER THIS CONTRACT. PIPING, EQUIPMENT, ETC. SHALL HAVE NEAT & CLEAN APPEARANCE AT COMPLETION.

15-1-H. SUBSTITUTIONS

1. THE BASE BID SHALL INCLUDE ONLY PRODUCTS FROM MANUFACTURERS SPECIFICALLY NAMED IN DRAWINGS & SPECIFICATIONS. NO SUBSTITUTION WILL BE CONSIDERED PRIOR TO RECEIPT OF BIDS UNLESS WRITTEN REQUEST FOR APPROVAL TO BID HAS BEEN RECEIVED BY ENGINEER AT LEAST TEN CALENDAR DAYS PRIOR TO DATE FOR RECEIPT OF BIDS. REQUEST SHALL INCLUDE NAME OF MATERIAL OR EQUIPMENT FOR SUBSTITUTION & COMPLETE DESCRIPTION OF PROPOSED SUBSTITUTE INCLUDING DRAWINGS, CUTS, PERFORMANCE & TEST DATA & OTHER INFORMATION FOR EVALUATION. STATEMENT SETTING FORTH CHANGES IN OTHER MATERIALS, EQUIPMENT OR OTHER WORK THAT INCORPORATION OF SUBSTITUTE WOULD REQUIRE SHALL BE INCLUDED.
2. THE BURDEN OF PROOF OF MERIT OF PROPOSED SUBSTITUTE IS UPON PROPOSER. ENGINEER'S DECISION OF BALANCE CONTRACTOR SHALL INCLUDE IN REPORT ANY IMPROPERLY INSTALLED OR MISSING BALANCING DEVICES THAT WOULD NEGATIVELY IMPACT SYSTEM OPERATION. ADJUST THERMOSTATS & CONTROL DEVICES TO OPERATE AS INTENDED. ADJUST BURNERS, PUMPS, FANS, ETC. FOR PROPER & EFFICIENT OPERATION. CERTIFY TO ARCHITECT THAT ADJUSTMENTS HAVE BEEN MADE & THAT SYSTEM IS OPERATING SATISFACTORILY. FURTHER ADJUSTMENTS SHALL BE MADE TO OBTAIN UNIFORM TEMPERATURE IN SPACES. CALIBRATE, SET, & ADJUST AUTOMATIC TEMPERATURE CONTROLS. CHECK PROPER SEQUENCING OF INTERLOCK SYSTEMS, & OPERATION OF SAFETY CONTROLS.
3. NO MATERIAL SUBSTITUTIONS SHALL BE CONSIDERED FOR APPROVAL PRIOR TO AWARD OF CONTRACT. COORDINATE & VERIFY W/ OTHER TRADES WHETHER OR NOT SUBSTITUTED EQUIPMENT CAN BE INSTALLED AS SHOWN ON DRAWINGS. DRAWINGS SHALL BE MUTUALLY COMPATIBLE & SUITABLE FOR INTENDED USE & WILL FIT AVAILABLE SPACE & ALLOW AMPLE ROOM FOR MAINTENANCE. ENGINEERS CHECKING A SUBSEQUENT APPROVAL OF SUCH SHOP DRAWINGS WILL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS IN DIMENSIONS, DETAILS, SIZE OF MEMBERS, QUANTITIES, OMISSIONS OF COMPONENTS OR FITTINGS. COORDINATION OF ELECTRICAL REQUIREMENTS, OR FOR COORDINATING ITEMS W/ ACTUAL BUILDING CONDITIONS. PROCEED W/ PROCUREMENT & INSTALLATION OF EQUIPMENT ONLY AFTER RECEIVING APPROVED SHOP DRAWINGS RELATIVE TO EACH ITEM.

15-1-I. SHOP DRAWINGS

1. SUBMIT TO ARCHITECT FOR APPROVAL, SIX (6) COPIES OF MANUFACTURER'S SHOP DRAWINGS FOR EQUIPMENT TO BE FURNISHED UNDER THIS CONTRACT. ITEMS REQUIRING COORDINATION BETWEEN CONTRACTORS & SHEET METAL DUCTWORK FABRICATION DRAWINGS, BEFORE SUBMITTING SHOP DRAWINGS TO ARCHITECT, CONTRACTOR SHALL SUBMIT TESTS IS MUTUALLY COMPATIBLE & SUITABLE FOR INTENDED USE & WILL FIT AVAILABLE SPACE & ALLOW AMPLE ROOM FOR MAINTENANCE. ENGINEERS CHECKING A SUBSEQUENT APPROVAL OF SUCH SHOP DRAWINGS WILL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS IN DIMENSIONS, DETAILS, SIZE OF MEMBERS, QUANTITIES, OMISSIONS OF COMPONENTS OR FITTINGS. COORDINATION OF ELECTRICAL REQUIREMENTS, OR FOR COORDINATING ITEMS W/ ACTUAL BUILDING CONDITIONS. PROCEED W/ PROCUREMENT & INSTALLATION OF EQUIPMENT ONLY AFTER RECEIVING APPROVED SHOP DRAWINGS RELATIVE TO EACH ITEM.
2. CATALOG DATA SHALL BE BOUND, IDENTIFIED, INDEXED & TABBED IN 3-RING BINDER. EACH ITEM OR MODEL NUMBER SHALL BE CLEARLY MARKED & ACCESSORIES INDICATED. LABEL CATALOG DATA W/ EQUIPMENT IDENTIFICATION ACRONYM OR NUMBER AS USED ON DRAWINGS & INCLUDE PERFORMANCE CURVES, CAPACITIES, SIZES, MATERIALS, FINISHES, WIRING DIAGRAMS & DEVIATIONS FROM SPECIFIED EQUIPMENT OR MATERIALS. MAKE OUT, INK, AND NUMBER EACH ITEM. SHOP DRAWINGS WILL BE RETURNED WITHOUT REVIEW IF ABOVE MENTIONED REQUIREMENTS ARE NOT MET.
3. ABOVE REQUIREMENTS MAY BE MET ELECTRONICALLY WHEN ORGANIZED IN LIKE MANNER & SUBMITTED IN PDF FORMAT IN FILES LESS THAN 10MB. FINAL COPIES SHALL BE FURNISHED TO OWNER AS PART OF O&M DOCUMENTS IN HARD & ELECTRONIC FORMATS.

15-1-J. OPERATION & MAINTENANCE INSTRUCTIONS

1. COLLECT & COMPILE COMPLETE BROCHURE OF EQUIPMENT FURNISHED & INSTALLED ON THIS PROJECT, INCLUDING OPERATIONAL & MAINTENANCE INSTRUCTIONS, MANUFACTURER'S CATALOG SHEETS, WIRING DIAGRAMS, PARTS LISTS, APPROVED SHOP DRAWINGS, TEST & BALANCE REPORTS, & DESCRIPTIVE LITERATURE AS FURNISHED BY EQUIPMENT MANUFACTURER. INCLUDE AN INSIDE COVER SHEET THAT LISTS PROJECT NAME, DATE, CONSULTING ENGINEER, GENERAL CONTRACTOR, SUB-CONTRACTOR, & AN INDEX OF CONTENTS. SUBMIT THREE COPIES OF LITERATURE BOUND IN 3-RING BINDER W/ INDEX & TABS SEPARATING EQUIPMENT TYPES TO ARCHITECT AT TERMINATION OF WORK. FINAL APPROVAL OF MECHANICAL SYSTEMS WILL BE WITHHELD UNTIL MANUAL IS RECEIVED & DEEMED COMPLETE BY ARCHITECT & ENGINEER. PROVIDE "AS-BUILT" DRAWINGS (SEE DIVISION 1 & GENERAL CONDITIONS).
2. THESE REQUIREMENTS MAY BE MET ELECTRONICALLY IN PDF FORMAT WHEN ORGANIZED IN LIKE MANNER TO HARD COPIES.

15-1-K. TRAINING

1. PROVIDE FACTORY TRAINED & AUTHORIZED REPRESENTATIVE TO TRAIN OWNER'S DESIGNATED PERSONNEL ON OPERATION & MAINTENANCE OF EQUIPMENT FOR THIS PROJECT. PROVIDE TRAINING TO INCLUDE BUT NOT BE LIMITED TO AN OVERVIEW OF SYSTEM &/OR EQUIPMENT AS IT RELATES TO FACILITY AS A WHOLE, OPERATION & MAINTENANCE PROCEDURES & SCHEDULES RELATED TO STARTUP & SHUTDOWN, TROUBLESHOOTING, SEE MAINTENANCE & APPROPRIATE OPERATOR INTERVENTION, & REVIEW OF DATA INCLUDED IN OPERATION & MAINTENANCE MANUALS. SUBMIT CERTIFICATION LETTER TO ARCHITECT STATING THAT OWNER'S DESIGNATED REPRESENTATIVE HAS BEEN TRAINED AS SPECIFIED HEREIN. LETTER SHALL ATTACHED TO SUBMITTAL OF TRAINING CONTRACTOR & OWNER'S REPRESENTATIVE SHALL SIGN CERTIFICATION LETTER INDICATING AGREEMENT THAT TRAINING HAS BEEN PROVIDED. SCHEDULE OWNER TRAINING W/ AT LEAST 7 DAYS' ADVANCE NOTICE.

15-1-L. SPARE PARTS

1. FURNISH TO OWNER, W/ RECEIPT:
- 1A. ONE SET OF SPARE FILTERS OF EACH TYPE REQUIRED FOR EACH UNIT. IN ADDITION TO SPARE SET OF FILTERS, INSTALL NEW FILTERS PRIOR TO TESTING, ADJUSTING, & BALANCING WORK & BEFORE TURNING SYSTEM OVER TO OWNER.
- 1B. FURNISH ONE COMPLETE SET OF BELTS FOR EACH FAN.

15-1-M. WARRANTIES

1. WARRANT EACH SYSTEM & EACH ELEMENT THEREOF AGAINST ALL DEFECTS DUE TO FAULTY WORKMANSHIP, DESIGN OR MATERIAL FOR PERIOD OF 12 MONTHS FROM DATE OF SUBSTANTIAL COMPLETION UNLESS SPECIFIC ITEMS ARE NOTED TO CARRY LONGER WARRANTY IN CONSTRUCTION DOCUMENTS OR MANUFACTURER'S STANDARD WARRANTY. REMEDY ALL DEFECTS, OCCURRING WITHIN WARRANTY PERIOD(S) STATED IN GENERAL CONDITIONS & DIVISION 1. WARRANTIES SHALL INCLUDE LABOR & MATERIAL. MAKE REPAIRS OR REPLACEMENTS WITHOUT ANY ADDITIONAL COSTS TO OWNER. PERFORM REMEDIAL WORK PROMPTLY, UPON WRITTEN NOTICE FROM ENGINEER OR OWNER.
2. AT TIME OF SUBSTANTIAL COMPLETION, DELIVER TO OWNER ALL WARRANTIES IN WRITING & PROPERLY EXECUTED. PROVIDE INSTRUCTIONS FOR MAINTENANCE BEYOND STANDARD ONE YEAR PERIOD. EACH WARRANTY INSTRUMENT BEING ADDRESSED TO OWNER & STATING COMMENCEMENT DATE & TERM.

15-1-N. CUTTING & PATCHING

1. PERFORM CUTTING OF WALLS, FLOORS, CEILINGS, ETC. AS REQUIRED TO INSTALL WORK UNDER THIS SECTION. OBTAIN PERMISSION FROM ARCHITECT PRIOR TO CUTTING. DO NOT CUT OR DISTURB STRUCTURAL MEMBERS WITHOUT PRIOR APPROVAL FROM ARCHITECT. PATCH ALL CUT, CUT HOLES AS SMALL AS POSSIBLE. CONTRACTOR SHALL PATCH WALLS, FLOORS, ETC. AS REQUIRED BY WORK UNDER THIS SECTION. PATCHING SHALL MATCH ORIGINAL MATERIAL, & CONSTRUCTION. REPAIR & FINISH AREAS DISTURBED BY WORK TO CONDITION OF ADJOINING SURFACES IN MANNER SATISFACTORY TO ARCHITECT.

15-1-O. ROUGH-IN

1. COORDINATE ROUGH-IN W/ GENERAL CONSTRUCTION & OTHER TRADES. CONCEAL PIPING & CONDUIT ROUGH-IN EXCEPT IN UNFINISHED AREAS & WHERE OTHERWISE SHOWN.

15-1-P. STRUCTURAL STEEL

1. STRUCTURAL STEEL USED FOR SUPPORT OF EQUIPMENT, DUCTWORK & PIPING SHALL BE NEW, CLEAN, & CONFORM TO ASTM A-36. SUPPORT MECHANICAL COMPONENTS FROM BUILDING STRUCTURE. DO NOT SUPPORT MECHANICAL COMPONENTS FROM CEILINGS, OTHER MECHANICAL OR ELECTRICAL COMPONENTS, & OTHER NON-STRUCTURAL ELEMENTS.

15-1-Q. ACCESS DOORS

1. PROVIDE ACCESS DOORS IN CEILINGS, WALLS, ETC. WHERE INDICATED OR REQUIRED FOR ACCESS OR MAINTENANCE TO CONCEALED VALVES & EQUIPMENT INSTALLED UNDER THIS SECTION. PROVIDE CONCEALED HINGES, SCREWDRIVER-TYPE LOCK, ANCHOR STAYS, MANUFACTURED BY MILCOR, ZURN, TITUS, OR EQUAL. OBTAIN ARCHITECT'S APPROVAL OF TYPE, SIZE, LOCATION & COLOR BEFORE ORDERING.

15-1-R. PENETRATIONS

1. SEAL MECHANICAL FLOOR, EXTERIOR WALL & ROOF PENETRATIONS WATERTIGHT & WEATHERTIGHT. SEAL AROUND MECHANICAL PENETRATIONS W/ 3M CP-25 FIRE BARRIER CAULK (THICKNESS AS REQUIRED & RECOMMENDED BY MANUFACTURER) TO MAINTAIN RESISTANCE RATING OF FIRE-RATED ASSEMBLIES. PROVIDE PREFABRICATED ROOF CURBS MANUFACTURED BY CUSTOM CURB, INC. PATE COMPANY, THYCURB OR APPROVED EQUAL. PROVIDE ROOF CURB W/ FACTORY INSTALLED WOOD NALER, WELDED, 18 GAUGE GALVANIZED STEEL SHELL, BASE PLATE (CASING), 1-1/2" THICK, 3 POUND RIGID INSULATION FULLY MITERED 3-INCH RAISED CAULK, COVER OF WEATHER-RESISTANT, WEATHER-PROOF MATERIAL, & PIPE COLLAR OF WEATHER-RESISTANT MATERIAL W/ STAINLESS STEEL PIPE CLAMPS. MAKE ROOF PENETRATIONS BY AUTHORIZED ROOFING CONTRACTOR WHEN REQUIRED TO MAINTAIN EXISTING ROOFING WARRANTY.

15-1-S. MOTORS & STARTERS

1. PROVIDE MOTORS & STARTING EQUIPMENT WHERE NOT FURNISHED W/ EQUIPMENT PACKAGE. MOTORS SHALL HAVE COPPER WINDINGS, CLASS B INSULATION, & STANDARD SQUIRREL CAGE W/ STARTING TORQUE CHARACTERISTICS SUITABLE FOR MOTORS SERVED. MOTORS FOR AIR HANDLING EQUIPMENT SHALL BE SELECTED FOR QUIET OPERATION. EACH MOTOR SHALL BE CHECKED FOR PROPER ROTATION AFTER ELECTRICAL CONNECTION HAS BEEN COMPLETED. PROVIDE DRIP-PROOF ENCLOSURE FOR LOCATIONS PROTECTED FROM WEATHER & NOT IN AIR STREAM OF FAN, & TOTALLY ENCLOSED FAN COOLED ENCLOSURE FOR MOTORS EXPOSED TO WEATHER. MOTORS SHALL BE MANUFACTURED BY CENTURY, GENERAL ELECTRIC, WESTINGHOUSE, LOUIS ALUIS, OR APPROVED EQUAL. PROVIDE EVERY MOTOR, EXCEPT FRACTIONAL HORSEPOWER SINGLE PHASE MOTORS W/ AN APPROVED TYPE OF "BUILT-IN" THERMAL OVERLOAD PROTECTION, IN MOTOR STARTER. EACH STARTER SHALL BE PROVIDED W/ OVERLOAD HEATERS SIZED TO MOTOR RATING, & EVERY THREE PHASE MOTOR STARTER SHALL HAVE OVERLOAD HEATERS IN EACH PHASE. AMBENT COMPENSATED HEATERS SHALL BE INSTALLED WHEREVER NECESSARY. UNLESS NOTED OTHERWISE, MOTOR STARTERS SHALL BE FURNISHED BY DIVISION 16 CONTRACTOR FOR INSTALLATION & CONNECTION BY DIVISION 16 CONTRACTOR. STARTERS SHALL BE ALLEN-BRADLEY, CLARK, FURNAS, SQUARED, OR APPROVED EQUAL.

15-1-T. ELECTRICAL WIRING

1. LINE VOLTAGE WIRING SHALL BE PROVIDED BY DIVISION 16. LINE VOLTAGE CONTROL & INTERLOCK WIRING FOR MECHANICAL SYSTEMS SHALL ALSO BE PROVIDED BY DIVISION 16 CONTRACTOR. LOW VOLTAGE CONTROL WIRING SHALL BE PROVIDED BY DIVISION 15 CONTRACTOR. FURNISH WIRING DIAGRAMS TO DIVISION 16 CONTRACTOR AS REQUIRED FOR PROPER EQUIPMENT HOOKUP. COORDINATE W/ DIVISION 16 CONTRACTOR FOR ACTUAL WIRE SIZING AMPS FOR SUBMITTED MECHANICAL EQUIPMENT TO ENSURE PROPER INSTALLATION.

15-1-U. FINAL TESTING & ADJUSTMENTS

1. FINAL SYSTEM TESTING, BALANCING & ADJUSTMENTS SHALL BE PERFORMED BY CONTRACTOR CERTIFIED BY NEBB, AMCA OR OTHER APPROVED AGENCY. PERFORM FAN TEST READINGS ON FAN UNITS, ETC., & ADJUST EQUIPMENT TO DELIVER SPECIFIED AMOUNT OF AIR OR WATER. PREPARE TESTING & BALANCING REPORT LOG SHOWING AIR SUPPLY QUANTITIES, AIR ENTERING & LEAVING TEMPERATURES & PRESSURES, FAN & UNIT TEST READINGS, MOTOR VOLTAGE & AMP DRAWS, ETC., & SUBMIT SIX COPIES OF FINAL COMPLETION OF DATA TO ARCHITECT FOR EVALUATION & APPROVAL BEFORE FINAL INSPECTION OF PROJECT. BALANCE AIR SYSTEMS TO WITHIN PLUS OR MINUS 10 PERCENT FOR TERMINAL DEVICES & BRANCH LINES & PLUS OR MINUS 5 PERCENT FOR MAIN DUCTS & AIR HANDLING EQUIPMENT OF AMOUNT OF AIR SHOWN ON DRAWINGS. FURTHER ADJUSTMENTS SHALL BE MADE TO OBTAIN UNIFORM TEMPERATURE IN SPACES. ADJUST EQUIPMENT TO OPERATE AS INTENDED BY SPECIFICATION. ALIGN BEARINGS & REPLACE BEARINGS THAT HAVE DIRT OR FOREIGN MATERIAL IN THEM W/ NEW BEARINGS WITHOUT ADDITIONAL COST TO OWNER. BALANCE CONTRACTOR SHALL INCLUDE IN REPORT ANY IMPROPERLY INSTALLED OR MISSING BALANCING DEVICES THAT WOULD NEGATIVELY IMPACT SYSTEM OPERATION. ADJUST THERMOSTATS & CONTROL DEVICES TO OPERATE AS INTENDED. ADJUST BURNERS, PUMPS, FANS, ETC. FOR PROPER & EFFICIENT OPERATION. CERTIFY TO ARCHITECT THAT ADJUSTMENTS HAVE BEEN MADE & THAT SYSTEM IS OPERATING SATISFACTORILY. FURTHER ADJUSTMENTS SHALL BE MADE TO OBTAIN UNIFORM TEMPERATURE IN SPACES. CALIBRATE, SET, & ADJUST AUTOMATIC TEMPERATURE CONTROLS. CHECK PROPER SEQUENCING OF INTERLOCK SYSTEMS, & OPERATION OF SAFETY CONTROLS.

15-1-V. EQUIPMENT FURNISHED BY OTHERS

1. PROVIDE NECESSARY EQUIPMENT & ACCESSORIES THAT ARE NOT PROVIDED BY EQUIPMENT SUPPLIER OR OWNER TO COMPLETE INSTALLATION OF COOKING EQUIPMENT, WASHING EQUIPMENT, ETC., FURNISHED BY OTHERS, IN LOCATIONS AS INDICATED ON DRAWINGS & FOR RECORD IN GENERAL NOTES TO THIS CONTRACTOR. EQUIPMENT & ACCESSORIES NOT PROVIDED BY EQUIPMENT SUPPLIER MAY INCLUDE FLUES, VENTS, INTAKES, ASSOCIATED ROOF JACKS & CAPS TO OUTDOORS, DAMPERS, IN-LINE FANS, ROOF FANS, CONTROL INTERLOCKS, ETC. AS REQUIRED FOR PROPER OPERATION OF COMPLETE SYSTEM IN ACCORDANCE W/ MANUFACTURER'S INSTRUCTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECT ROUGH-IN DIMENSIONS, & SHALL VERIFY SAME W/ ARCHITECT WORK EQUIPMENT SUPPLIER PRIOR TO SERVICE INSTALLATIONS.

15-1-W. MISCELLANEOUS REMODELING WORK

1. REMOVE ALL UNUSED EQUIPMENT, DUCTWORK, PIPING & ASSOCIATED SUPPORTS. CAP DUCTWORK & PIPING AT MAINS & SEAL AIR & WATER TIGHT. PROVIDE ITEMS OF HVAC SYSTEMS MODIFICATION REQUIRED BECAUSE OF BUILDING REMODELING, AS NOTED ON DRAWINGS OR NECESSARY. REMOVE EXISTING MATERIALS & CONSTRUCTION TECHNIQUES WHEN MODIFYING EXISTING SYSTEMS UNLESS SPECIFIED OTHERWISE. COORDINATE ADDITIONAL REQUIREMENTS IN GENERAL CONTRACTOR & ARCHITECT. SEAL EXISTING EXISTING DUCTWORK REQUIRED TO BE ABANDONED IN PLACE OR IN USE. TERMINATION OF WORK. CAP & SEAL WEATHERTIGHT EXISTING ROOF CURBS & ROOF OPENINGS TO BE ABANDONED IN PLACE AS RESULT OF EQUIPMENT REMOVAL. CLEAN & REBALANCE EXISTING DUCTWORK, DIFFUSERS, REGISTERS, & GRILLES INTENDED FOR REUSE AS REQUIRED OR AS INDICATED ON DRAWINGS. CLEAN & REFURNISH EXISTING HVAC EQUIPMENT INTENDED FOR REUSE AS REQUIRED FOR PROPER OPERATION INCLUDING REPLACEMENT OF FILTERS, BELTS, MOTORS, REMOTE CONTROLS, & SAFETY INTERLOCKS.

15-1-X. BUILDING OPERATION

1. COMPLY W/ SCHEDULE OF OPERATIONS AS OUTLINED IN ARCHITECTURAL PORTIONS OF THIS SPECIFICATION. BUILDING SHALL BE IN CONTINUOUS OPERATION. ACCOMPLISH WORK REQUIRING INTERRUPTION OF BUILDING OPERATION AT TIME WHEN BUILDING IS NOT IN OPERATION, & ONLY W/ WRITTEN APPROVAL OF BUILDING OWNER &/OR TENANT. COORDINATE INTERRUPTION OF BUILDING OPERATION W/ OWNER &/OR TENANT. MINIMUM OF SEVEN DAYS IN ADVANCE OF WORK.

15-1-Y. VIBRATION ISOLATION

1. PROVIDE VIBRATION ISOLATION EQUIPMENT & MATERIALS BY SINGLE MANUFACTURER. AMBER BOOTH, KINETICS NOISE CONTROL, MASON INDUSTRIES, INC., VIBRATION ELIMINATOR CO., INC., & VIBRATION MOUNTING & CONTROLS. GENERAL REQUIREMENTS: SELECT VIBRATION ISOLATORS BY WEIGHT DISTRIBUTION TO PRODUCE UNIFORM DEFLECTION. ISOLATORS SHALL OPERATE IN LINEAR PORTION OF THEIR LOAD VERSUS DEFLECTION CURVES. SPRING ISOLATORS SHALL HAVE 50 PERCENT EXCESS CAPACITY WITHOUT BECOMING COIL BOUND. COAT VIBRATION ISOLATORS FACTORY-APPLIED PAINT. COAT VIBRATION ISOLATORS EXPOSED TO WEATHER & CORROSION IN FACTORY-APPLIED PROTECTION. INSTALL & ADJUST ISOLATORS IN ACCORDANCE W/ MANUFACTURERS INSTRUCTIONS.

15-1-I. PLUMBING

15-1-I-A. PIPING & INSULATION

1. WATER PIPING - ALL WATER PIPING SHALL BE TYPE I, OR K COPPER.
2. WASTE & VENT PIPING - SCH 40 PVC W/ SOLVENT WELDS MAY BE USED WHERE ALLOWED BY LOCAL CODE.
- 15-1-I-B. VALVES
1. EQUIVALENT VALVES LISTED ON CURRENT COMPARISON CHARTS OF SPECIFIED VALVE MANUFACTURERS BY MILWAUKEE, STOCKHAM, POWELL, RED-WHITE, CRANE, APOLLO, MUELLER, MUSSCO, WATTS, HAYS, ROCKWELL, AND STROM.
2. BALL VALVES - 2" & UNDER - BRONZE FULL PORT W/ TEFLON SEATS, BRONZE BALL & INSULATED HANDLE.
3. BALANCING VALVES ARMSTRONG MODEL CBV I OR CBV II, 125 PSI WP AT 250 DEGREES F, . METER CONNECTIONS BUILT IN CHECK VALVES SCREWED OR FLANGED ENDS. PROVIDE POLYURETHANE INSULATION COVER.
4. CHECK VALVES - 2" & SMALLER SCREWED OR SOLDER BRONZE CHECK VALVE, 200 PSI-WOG/125 PSI-WSP, TEFLON OR BRONZE DISC & SEAT RING, 2-1/2" & LARGER FLANGED, ASTM 126 IRON BODY, BRONZE TRIMMED, 200PSI-WOG/125 PSI-WSP.

15-1-I-C. FIXTURES - SEE SCHEDULES

1. FIXTURES: AMERICAN STANDARD, KOHLER, CRANE, ZURN, TOTO.
2. STAINLESS STEEL FIXTURES: ELKAY, JUST, MOEN COMMERCIAL.
3. FITTINGS & SUPPORTS: JOSAM, SMITH, WADE, ZURN, OR JONESPEC.
4. SEATS: CHURCH, OLSONITE, BEMIS OR BENKE.
5. DRINKING FOUNTAINS: HALSEY TAYLOR, ELKAY, OASIS, OR HAWS.
6. TRIM BY MOEN, DELTA, EUSER, KOHLER, AMERICAN STBAARD, CRANE, SLOAN.
7. DRAINS BY WADE, ZURN, WOODFORD, SMITH, JOSAM.

15-1-I-D. PLUMBING EQUIPMENT - SEE SCHEDULES

1. WATER HEATERS - STATE, RHEEM, NATIONAL, A.O. SMITH, PORCELAINIZED GLASSLINED TANK, COLD WATER INLET DROP TUBE, MAGNESIUM ANODE RODS, U.I. SEAL, 160 PSI. FACTORY TEMPERATURE & PRESSURE RELIEF VALVE, N.S.F. CONSTRUCTION, 3 YR WARRANTY
2. RECIRCULATION PUMPS - HORIZONTAL, OIL-LUBRICATED, ALL BRONZE, 125PSI, NON-OVERLOADING MOTOR.

15-1-I-E. PLUMBING EXECUTION

1. PROVIDE UNIONS OR FLANGED JOINTS IN EACH PIPE LINE PRECEDING CONNECTIONS TO EQUIPMENT TO ALLOW REMOVAL FOR REPAIR OR REPLACEMENT. PROVIDE ALL SCREWED & CONTROL VALVES W/ UNIONS ADJACENT TO EACH CONNECTION. PROVIDE SCREWED END VALVES W/ UNION ADJACENT TO VALVE UNLESS VALVE CAN BE OTHERWISE EASILY REMOVED FROM LINE.
2. AFTER PIPING IS IN PLACE TEST LINES TO INSURE NO LEAKS.
3. ALL PIPING & EQUIPMENT SHALL BE SUPPORTED PROPERLY FROM STRUCTURE.
4. ESCUTCHEONS - PROVIDE NICKEL-BRASS OR CHROME PLATED ON ALL EXPOSED PIPES WHEN PASSING THRU WALL OR CEILING OF FINISHED ROOMS.
5. VERIFY FLOOR MATERIALS USED FROM ARCHITECTURAL PLANS & PROVIDE PROPER CLEANOUT TOPS, WHERE THEY OCCUR IN CARPET, QUARRY TILE, VINYL TILE OR CERAMIC TILE.
6. CAULK ALL FIXTURES AT JOINTS TO WALLS/FLOOR.

15-1-I. HVAC

15-1-I-A. INSULATION WORK

1. DUCT INSULATION SHALL NOT EXCEED FLAME SPREAD RATING OF 25 & SMOKE DEVELOPED RATING OF 50 PER ASTM E 84.
2. LINE ALL SUPPLY, RETURN AIR DUCTS & TRANSFER BOOTS AS STATED ON THE DRAWINGS. DO NO WRAP EXCEED SPIRAL DUCTS.

15-1-I-B. SHEET METAL WORK

1. HVAC DUCTWORK SHALL BE GALV SHEET METAL OF GAUGES & JOINT TYPES SPECIFIED IN SMACNA MANUAL. PROVIDE TURNING VANES IN ELBOWS.
2. COORDINATE ROUTING OF DUCTWORK W/ OTHER CONTRACTORS SUCH THAT PIPING, ELECTRICAL CONDUIT, & ASSOCIATED SUPPORTS ARE NOT ROUTED THROUGH DUCTWORK. CONSTRUCT SUPPLY DUCTS TO MEET SMACNA POSITIVE PRESSURE OF 2" W.G. CONSTRUCT RETURN, OUTDOOR & EXHAUST DUCTWORK UPSTREAM OF FANS TO MEET SMACNA NEGATIVE PRESSURE OF 1" W.G. CONSTRUCT EXHAUST DUCTWORK DOWNSTREAM OF FANS TO MEET SMACNA POSITIVE PRESSURE OF 1" W.G.
3. SEAL DUCTWORK W/ HEAVY LIQUID SEALANT CLASS A SEALER, HARDCAST IRONGRIP #01, DESIGN POLYMER DP 1010, UNITED MCGILL DUCT SEALER OR APPROVED EQUAL, APPLIED ACCORDING TO SEALANT MANUFACTURERS INSTRUCTIONS.
4. DUCTS SHALL BE CONNECTED TO FANS, FAN CASINGS & FAN PLENUMS BY MEANS OF FLEXIBLE CONNECTORS. FLEXIBLE CONNECTORS SHALL BE NEOPRENE COATED GLASS CLOTH CANVAS CONNECTIONS, DURO-DYNE, ELUGEN, VENTFABRIC, OR EQUAL. FLEXIBLE CONNECTORS SHALL HAVE FLAME SPREAD OF 25 OR LESS & SMOKE DEVELOPED RATING NOT HIGHER THAN 50. MAKE AIRTIGHT JOINTS & INSTALL W/ MINIMUM 1-1/2" SLACK.
5. PROVIDE BALANCING DAMPERS, MANUFACTURED BY RUSKIN, GREENHECK, NAILOR INDUSTRIES, CESCO, LOUVERS & DAMPERS, POTTORFF OR APPROVED EQUAL, WHERE SHOWN ON DRAWINGS & WHEREVER NECESSARY FOR COMPLETE CONTROL OF AIR FLOW. SPLITTER DAMPERS SHALL BE CONTROLLED BY LOCKING TRIANGULARS. PROVIDE YOUNG REGULATOR OR VENT OR END BEARINGS FOR DAMPER ROD. RECTANGULAR VOLUME DAMPERS SHALL BE OPPOSED BLADE INTERLOCKING TYPE. ROUND VOLUME DAMPERS SHALL BE BUTTERFLY TYPE CONSISTING OF CIRCULAR BLADE MOUNTED TO SHAFT.
6. DAMPER LEAKAGE FOR OUTSIDE AIR DAMPERS SHALL NOT EXCEED 6.5 CFM/SQUARE FOOT IN FULL CLOSED POSITION AT 4" WG PRESSURE DIFFERENTIAL ACROSS DAMPER. REFERENCE MANUFACTURER & MODEL NUMBER FOR OUTSIDE DAMPERS IS RUSKIN MODEL CD-50. DISHWASHER EXHAUST DUCT SHALL BE NEW COMMERCIAL QUALITY, BRIGHT TYPE 302 STAINLESS STEEL. CONSTRUCTION SHALL BE WELDED. DUCTWORK SHALL SLOPE TO DRAIN.

7. ALL DUCTWORK MUST BE SUPPORTED PROPERLY FROM STRUCTURE.

15-1-I-C. DUCTWORK SPECIALTIES

1. FLEXIBLE DUCTS - THERMAFLEX OR EQUAL SOUND RATED TYPE G-KM INSULATED. (DUCT W/IO PUBLISHED REQUIRED SOUND TRANSMISSION RATINGS NOT ACCEPTABLE) TAKE OFF FROM DUCT SHALL BE HI-EFF STYLE W/ LOCKING DAMPER. MAXIMUM LENGTH OF FLEXIBLE DUCTWORK SHALL BE 5'-0".
2. DIFFUSERS & GRILLES - SEE SCHEDULE. EQUIVALENT BY PRICE, TUTTLE & BAILEY, TITUS, METAL-AIRE, KRUEGER. COORDINATE COLOR, MOUNTING W/ DUCT, CEILING, ARCHITECT. SELECT AIR DEVICES TO LIMIT ROOM NOISE LEVEL TO NO HIGHER THAN NC-20 UNLESS OTHERWISE SHOWN. PROVIDE DEVICES W/ SOFT PLASTIC GASKET TO MAKE AN AIRTIGHT SEAL AGAINST MOUNTING SURFACE. COORDINATE FINAL LOCATION, FRAME, & MOUNTING TYPE OF AIR DEVICES W/ ARCHITECTURAL REFLECTED CEILING PLANS. SUBMIT COMPLETE SHOP DRAWINGS INCLUDING INFORMATION ON NOISE LEVEL, PRESSURE DROP, THROW, CFM FOR EACH AIR DEVICE, STYLES, BORDERS, ETC. CLEARLY MARKED W/ SPECIFIED EQUIPMENT NUMBER. PROVIDE CEILING SUPPLY AIR DIFFUSERS & RETURN AIR GRILLES OF LAY-IN OR SURFACE MOUNTED TYPE AS REQUIRED TO BE COMPATIBLE W/ CEILING CONSTRUCTION. PROVIDE CEILING DIFFUSERS & GRILLES W/ WHITE ENAMEL FINISH UNLESS NOTED OTHERWISE. PROVIDE SLOT PLENUMS BY DIFFUSER MANUFACTURER. PLENUMS SHALL BE INTERNALLY INSULATED BY MANUFACTURER.

15-1-I-D. HVAC EQUIPMENT

1. EXHAUST FANS - EQUIVALENT BY COOK, PENN, ACME, GREEN



HOLDERDESIGN, INC.

24 South 5th Street
Terre Haute, Indiana
47807
ph. 812.235.1300
www.holderdesign.net

SCOPE DOCUMENT

THE DRAWINGS INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF ARCHITECTURAL DESIGN CONCEPT, THE DIMENSIONS OF THE BUILDING, THE MAJOR ARCHITECTURAL ELEMENTS AND THE TYPE OF STRUCTURAL, MECHANICAL AND ELECTRICAL SYSTEMS. AS SCOPE DOCUMENTS, THE DRAWINGS DO NOT NECESSARILY INDICATE OR DESCRIBE ALL WORK THAT IS REQUIRED FOR FULL PERFORMANCE AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. ON THE BASIS OF THE GENERAL SCOPE INDICATED OR DESCRIBED, THE TRADE CONTRACTORS SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.



Matthew Holder
3/24/21

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DRAWN BY: MRW
CHECKED BY: MLH
PLOT SCALE: AS NOTED
DATE: 08.24.2021

INSTRUCTIONS FOR:

INDIANA STATE UNIVERSITY
FEDERAL CREDIT UNION
TERRE HAUTE, INDIANA

SHEET DESCRIPTION: LIGHTING PLAN

REVISIONS

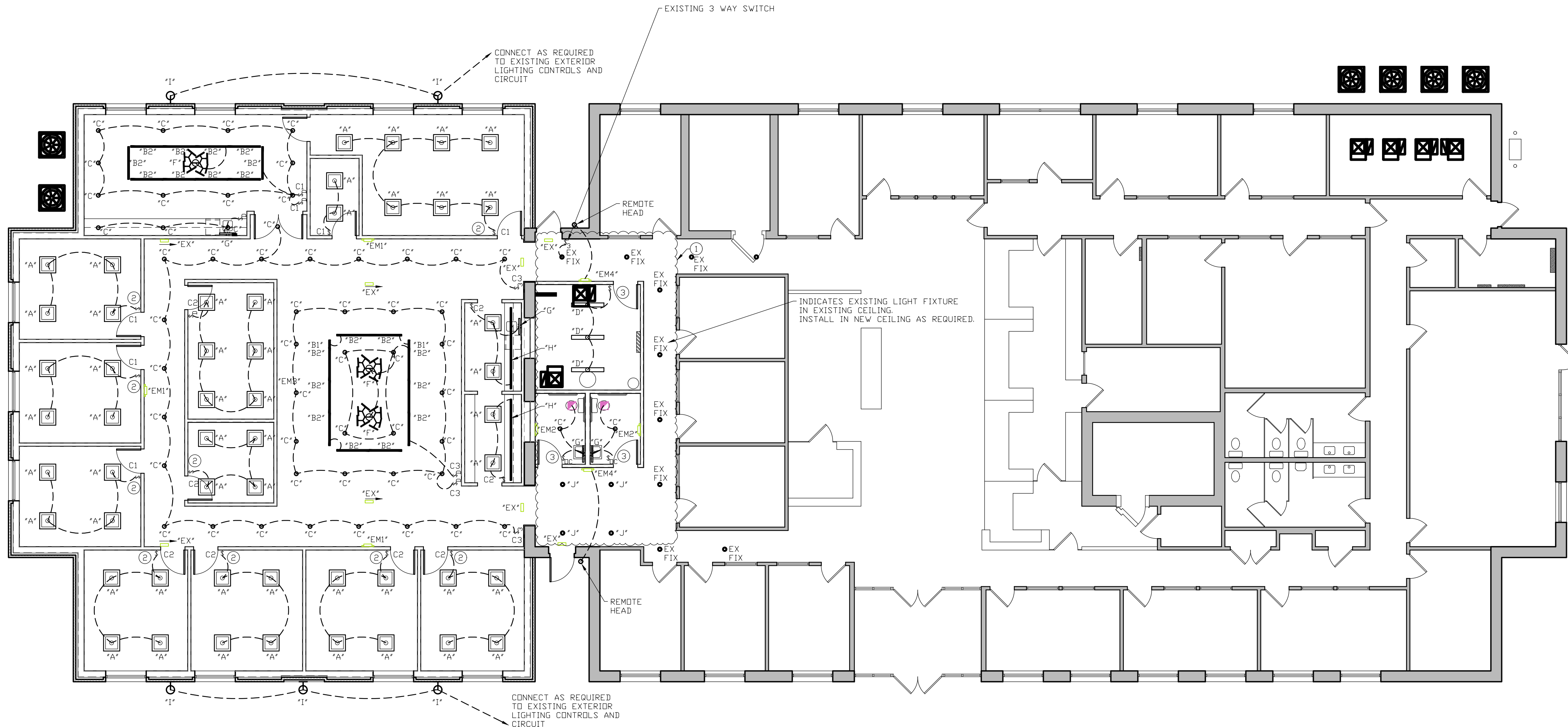
SHEET NO.

E1.0

JOB NO.

A20-016

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NUMBERED NOTES:

- 1 PROVIDE DEMOLITION AS REQUIRED IN THIS AREA. ELECTRICAL LIGHTING AND PDWER.
- 2 WIRE ALL LIGHT FIXTURES IN THIS ROOM FOR FUTURE 0-10V DIMMING.
- 3 CONNECT TO EXISTING LIGHTING CIRCUIT.

GENERAL NOTES:

1. FIELD VERIFY AND MATCH EXISTING COLOR TEMPERATURE FOR ALL NEW LIGHT FIXTURES. INTERIOR AND EXTERIOR.
2. WIRE ALL EMERGENCY LIGHTING ON LOCAL LIGHTING CIRCUIT BEFORE ANY SWITCHING.

GENERAL NOTES:

1. ALL CONTRACTORS AND SUB-CONTRACTORS SHALL REVIEW ALL DRAWINGS FOR WORK PERFORMED BY THAT CONTRACTOR.
2. ALL WALLS INDICATED ON THE ARCHITECTURAL PLANS AS FIRE RATED SHALL BE PROPERLY FIRE CAULKED FOR ALL PENETRATIONS.

GENERAL MEP NOTES:

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LIGHT FIXTURE SCHEDULE

MARK	MFG.	MODEL	DESCRIPTION	VOLTAGE	INPUT WATTS	LAMPS	REMARKS
'A'	COLUMBIA	LCAT22-35ML-G-ED-U	2'-0"x2'-0" LED CONTEMPORARY ARCHITECTURAL LIGHTING TROFFER. WITH 0-10 VOLT DIMMING	120 VOLT	29 WATTS 3418 LUMENS	3500K	-
'B1'	MODALIGHT	MODA NANO COVE INTERIOR ELV 1'-0" LENGTH	1'-0" LONG LED COVE LIGHT WITH 0-10 VOLT DIMMING	120 VOLT	3.6 WATTS 378 LUMENS	3500K	-
'B2'	MODALIGHT	MODA NANO COVE INTERIOR ELV 4'-0" LENGTH	4'-0" LONG LED COVE LIGHT WITH 0-10 VOLT DIMMING	120 VOLT	10.3 WATTS 1330 LUMENS	3500K	-
'C'	LITEFRAME BY PRESCOLITE	LC6SL-6LCSL-14L-35K-8	6" LED COMMERCIAL DOWNLIGHT WITH 0-10 VOLT DIMMING	120 VOLT	17.8 WATTS 1490 LUMENS	3500K	-
'D'	COLUMBIA	MPS4-35-ML-C-V-ED-U-CSHC	4'-0" LONG MULTIPURPOSE LINEAR FIXTURE WITH CURVED FROSTED ACRYLIC LENS - WIDE DISTRIBUTION WITH 0-10 VOLT DIMMING	120 VOLT	40.1 WATTS 4556 LUMENS	3500K	CHAIN HUNG FROM GYPSUM BOARD CEILING HEIGHT = 9'-0 AFF
'EX'	HUBBELL LIGHTING	CCESRE	THIN DIE CAST LED EMERGENCY EXIT SIGN. RED LETTERS	120 VOLT	1 WATT	-	-
'EM1'	HUBBELL LIGHTING	EV-4-I-D2VAL	ARCHITECTURAL LED EMERGENCY LIGHT WITH SELF TEST/SELF DIAGNOSTICS WITH WIDE AREA LENS	120 VOLT	4 WATT	-	-
'EM2'	HUBBELL LIGHTING	EV-2-I	ARCHITECTURAL LED EMERGENCY LIGHT WITH SELF TEST/SELF DIAGNOSTICS	120 VOLT	1 WATT	-	-
'EM3'	HUBBELL LIGHTING	EV-4-I-D2L	ARCHITECTURAL LED EMERGENCY LIGHT WITH SELF TEST/SELF DIAGNOSTICS AND 2 WATT LED HEADS	120 VOLT	2 WATT	-	-
'EM4'	HUBBELL LIGHTING	EV-4-I WITH EVD REMOTE BLACK HEAD EVD-D-B	ARCHITECTURAL LED EMERGENCY LIGHT WITH SELF TEST/SELF DIAGNOSTICS AND REMOTE HEAD	120 VOLT	2 WATT	-	-
'F'	ROBOTICA BY CONTEMPORARY LIGHTING	E21246-BK	ARCHITECTURAL BLACK LIGHT FIXTURE WITH ADJUSTABLE V SHAPED ACRYLIC DIFFUSERS	120 VOLT	56 WATTS 3920 LUMENS	3000K	ADJUSTED AS REQUIRED PER DWNER DIRECTION.
'G'	HOVER BY CONTEMPORARY LIGHTING	E21372-BK	EXTRUDED BLACK ALUMINUM WITH V SHAPED ACRYLIC DIFFUSERS.	120 VOLT	15.6 WATTS 1069 LUMENS	3000K	-
'H'	KLUS	K-BLUE-1275-24V	10'-0" LONG BLUE FLEXIBLE LED STRIP WITH BLACK 45-ALU EXTRUSION	12 VOLT	4.4 WATTS/FT 108 LUMENS/FT	-	MOUNT ABOVE NEW CABINETRY
'I'	-	FIELD VERIFY AND MATCH EXISTING EXTERIOR LIGHT FIXTURES.	-	120 VOLT	-	-	TIE INTO EXISTING LIGHTING CONTROL CIRCUITS AS REQUIRED.
'J'	-	FIELD VERIFY AND MATCH EXISTING HALLWAY LIGHT FIXTURES.	-	120 VOLT	-	-	TIE INTO EXISTING LIGHTING CONTROL CIRCUITS AS REQUIRED.

LIGHT FIXTURE NOTES:

1. ALL LIGHT FIXTURES SHALL BE DLC CERTIFIED.
2. OTHER FIXTURES THAN THOSE SPECIFIED TO BE APPROVED BY THE ARCHITECT.

1 LIGHTING PLAN
E1.0 SCALE = 1/8"=1'-0"



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Matthew Lynn Holder
8/24/21

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DRAWN BY: MRW
CHECKED BY: MLH
PLOT SCALE: AS NOTED
DATE: 08.24.2021

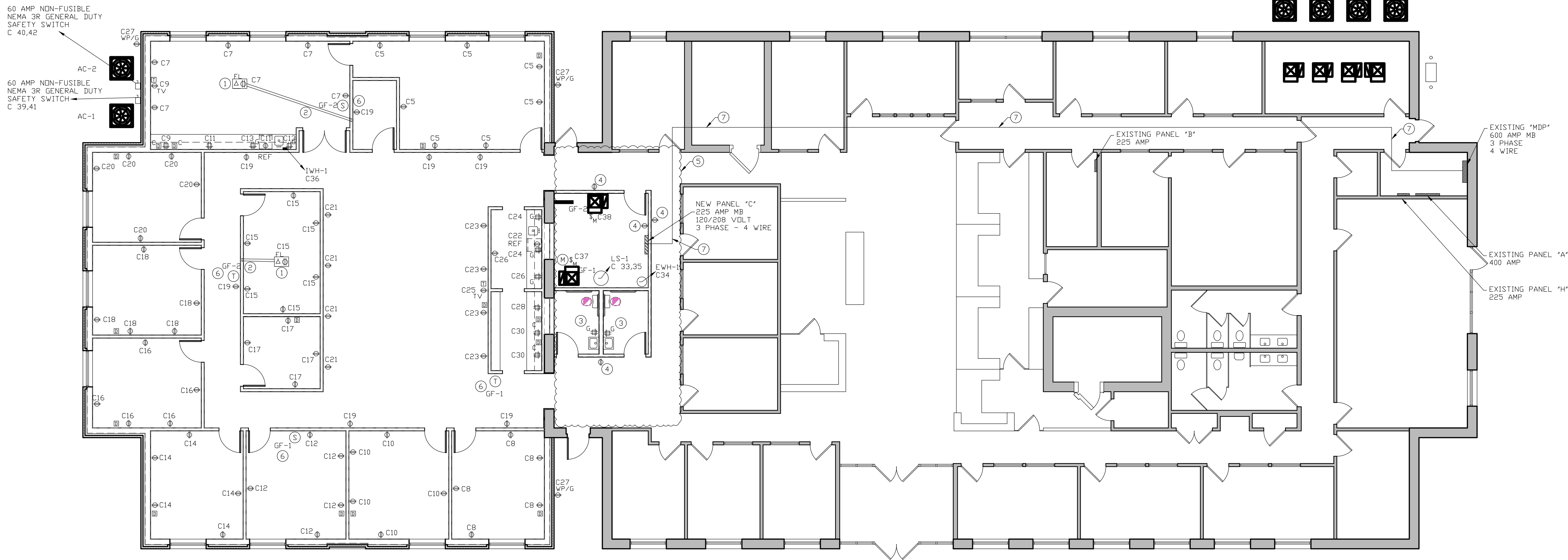
INSTRUCTIONS FOR:
**INDIANA STATE UNIVERSITY
FEDERAL CREDIT UNION**
TERRE HAUTE, INDIANA

SHEET DESCRIPTION: POWER + DATA PLAN

REVISIONS

SHEET NO.
E2.0
JOB NO.
A20-016

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NUMBERED NOTES:

- HUBBELL SYSTEM ONE RECESSED 4 GANG FLOOR BOX WITH ROUND COVER.
#CFB4G30RCR CORROSION-RESISTANT (ON GRADE)
8" ROUND COVER - BRUSHED ALUMINUM OR GRAY POWDER COAT
SELECTED BY DWNER.
ONE DUPLEX OPENING
ONE OPENING AS REQUIRED FOR OWNERS EQUIPMENT CONNECTION.
- PROVIDE 1" POWER CONDUIT UNDER SLAB TO WITHIN WALL CAVITY AS SHOWN. EXTEND TO ACCESSIBLE CEILING.
PROVIDE 1 1/4" DATA CONDUIT UNDER SLAB TO WITHIN WALL CAVITY AS SHOWN. EXTEND TO ACCESSIBLE CEILING.
- CONNECT TO EXISTING POWER CIRCUIT FROM EXISTING OFFICES REMOVED DURING DEMOLITION.
EXISTING CIRCUIT B23
- CONNECT TO EXISTING POWER CIRCUIT FROM EXISTING OFFICES REMOVED DURING DEMOLITION.
EXISTING CIRCUIT B21
- PROVIDE DEMOLITION AS REQUIRED IN THIS AREA.
ELECTRICAL LIGHTING AND POWER.
- PROVIDE WIRE AS REQUIRED BETWEEN T-STAT LOCATION AND REMOTE SENSORS AND UNIT CONTROLLED.
CONNECTIONS TO UNIT AND T-STAT BY MECHANICAL CONTRACTOR.
- NEW ELECTRICAL SERVICE FOR NEW PANEL "C" FED FROM EXISTING PANEL "MDP".
2 1/2" CONDUIT
4 - 4/0 THHN CU WIRES
1 - #2 CUT GROUND
TO BE RUN ABOVE EXISTING SUSPENDED CEILING AND BELOW BOTTOM OF EXISTING HARD CEILING AT +11'-6".
COORDINATE AROUND EXISTING DUCTWORK AND OTHER ELECTRICAL WORK.

GENERAL NOTES:

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3 PHASE - 4 WIRE - SOLID NEUTRAL PANELBOARD
120/208 VOLT
225 AMP MB

INTERIOR LIGHTING	1	20	20	2	INTERIOR LIGHTING
INTERIOR LIGHTING	3	20	20	4	SPARE
CEO RECEPTACLES	5	20	20	6	SPARE
BOARD ROOM RECEPTACLES	7	20	20	8	OFFICE RECEPTACLES
BOARD ROOM RECEPTACLES	9	20	20	10	OFFICE RECEPTACLES
BOARD ROOM RECEPTACLES	11	20	20	12	OFFICE RECEPTACLES
BOARD ROOM RECEPTACLES	13	20	20	14	OFFICE RECEPTACLES
CONF. ROOM RECEPTACLES	15	20	20	16	OFFICE RECEPTACLES
OFFICE RECEPTACLES	17	20	20	18	OFFICE RECEPTACLES
CORRIDOR RECEPTACLES	19	20	20	20	OFFICE RECEPTACLES
OPEN OFFICE RECEPTACLES	21	20	20	22	BREAK AREA REF RECEP.
OPEN OFFICE RECEPTACLES	23	20	20	24	BREAK AREA RECEPTACLES
OPEN OFFICE RECEPTACLE	25	20	20	26	BREAK AREA RECEPTACLES
EXTERIOR RECEPTACLES	27	20	20	28	MEDIA RECEPTACLES
	29	20	20	30	MEDIA RECEPTACLES
	31				
	32				
LIFT STATION LS-1	33	30	30	34	EW-H-1
	35			36	IWH-1
GF-1	37	15	15	38	GF-2
AC-1	39	45	45	40	AC-2
	41			42	

SOLID
NEUTRAL

PANEL "C"

1
E2.0
POWER + DATA PLAN
SCALE = 1/8"=1'-0"

ELECTRICAL DEVICE SCHEDULE	
1	PASS & SEYMOUR C8202AC1 - SINGLE POLE SWITCH
2	PASS & SEYMOUR C8202AC2 - DOUBLE POLE SWITCH
3	PASS & SEYMOUR C8202AC3 - THREE WAY SWITCH
4	PASS & SEYMOUR C8202AC4 - FOUR WAY SWITCH
D	2000 WATT SLIDE DIMMER SIMILAR TO LUTRON
QC	PASS & SEYMOUR W4200 OCCUPANCY SENSOR - 15 MIN. OFF TIMER
T	INTERMATIC PFM60MC COMMERCIAL SPONGE MOUNT TIMER
M	PASS & SEYMOUR C8202AC4 - GAS FURNACE CONNECTION
Q	PASS & SEYMOUR Q820 RECEPTACLE
QD	PASS & SEYMOUR Q820 QRD
QD	PASS & SEYMOUR Q820 RECEPTACLE - MOUNT ABOVE BACKSPLASH
QC	PASS & SEYMOUR Q820 RECEPTACLE FOR DEPICTED COVER
CL	PASS & SEYMOUR Q820 RECEPTACLE CEILING MOUNTED
M	MICROWAVE OVEN CONNECTION AS REQUIRED
DW	DISH WASHER CONNECTION AS REQUIRED
FL	PASS & SEYMOUR Q820 RECEPTACLE W/ FLUSH MOUNTED COVER
WP	PASS & SEYMOUR Q820 WITH WEATHERPROOF COVER
TV	PASS & SEYMOUR Q820 FOR TV - HEIGHT DICTATED BY OWNER A.F.F.
SM	PASS & SEYMOUR Q820 WITH WEATHERPROOF COVER WITH WIREMOL METAL RACKWAYS AND DOORS. COLOR BY OWNER
H	PASS & SEYMOUR B5000 RECEPTACLE - HOSPITAL DEVICE
T	PASS & SEYMOUR T820 - TAMPER RESISTANT
TC	PASS & SEYMOUR 5562 155A/150A AMP GROUND RECEPTACLE
TC	PASS & SEYMOUR 20991 Q820 RECEPTACLE - TAMPER RESISTANT
TC	PASS & SEYMOUR 20991 Q820 RECEPTACLE - MOUNT ABOVE BACKSPLASH
TC	PASS & SEYMOUR 20991 Q820 RECEPTACLE W/ WEATHERPROOF COVER
R	PASS & SEYMOUR 20991 Q820 RECEPTACLE W/ WEATHERPROOF COVER COORDINATE WITH OWNER EQUIPMENT
D	PASS & SEYMOUR 20991 Q820 RECEPTACLE W/ WEATHERPROOF COVER COORDINATE WITH OWNER EQUIPMENT
IT	2 GANG TV OUTLET BOX WITH 5/16" CONDUIT TO ACCESSIBLE CEILING
IT	1 GANG OUTLET BOX WITH 1/2" CONDUIT TO ACCESSIBLE CEILING
IT	1 GANG OUTLET BOX WITH 1/2" CONDUIT TO ACCESSIBLE CEILING - MOUNT ABOVE COUNTER
TTB	TELEPHONE TERMINAL BOARD LOCATION E.G. TO PROVIDE AND INSTALL 48"x48"x1/2" 1/4" PLYWOOD WALL MOUNTED
Q	GARBAGE DISPOSAL CONNECTION
Q	FURNACE BY M.C. WIRE BY E.C.
Q	MOTOR CONNECTION AS NOTED BY E.C.
Q	PASS & SEYMOUR C820200 DUAL TECHNOLOGY CEILING OCCUPANCY SENSOR WITH PFM210 120 VOLT POWER PACK AS REQUIRED
N	EVALUATION - CONTROLLED VESSEL

ELECTRICAL DEVICE NOTES:

- COLOR OF DEVICES AS SELECTED BY THE OWNER.
- WALL PLATES SHALL BE PASS & SEYMOUR THERMOSET PLASTIC STANDARD SIZE. MATCH EXISTING.
- FIELD COORDINATE DEVICE LOCATION WITH ARCHITECTURAL CASEWORK DRAWINGS.
- DEVICES AS LISTED OR APPROVED EQUALS.

SECTION 16000 - ELECTRICAL

PART 1: GENERAL The General Conditions and other Contract Documents are hereby made a part of this Section to the same extent as if written out in full.

1.1 MANUFACTURE'S DESIGNATION

When manufacturers catalog numbers are given, they are for assistance to the bidder. In case of discrepancies in catalog numbers, the Contractor shall contact the Engineer of Record.

All material to be new and in original cartons and bear the UL approval if such material is available with UL Label.

1.2 SUPERVISION

The Electrical Contractor shall, at all times throughout the construction period, maintain proper supervision of his employees, make orderly disposition of his materials, maintain high-class workmanship, systematically remove debris, cooperate fully with other contractors and subcontractors and avoid the creation of hazards to others on the job.

1.3 GUARANTEE

The Electrical Contractor shall make good any defects due to faulty material or workmanship; he shall correct any malfunction not due to misuse or abuse after date of acceptance which develops in his work, for a period on one (1) year from date of acceptance. The date of final payment shall be recognized as the date of acceptance.

1.4 EQUIPMENT MARKING AND PAINTING

All panels shall have card holders for circuit identification. Circuit legend shall be typewritten.

Each outlet and switch shall have circuit identification marked on back of plate.

1.5 RULES, REGULATIONS AND PERMITS

All materials, workmanship, and installation shall conform to all local and state codes and federal O.S.H.A. standards. This Electrical Contractor shall, at his own expense, furnish all necessary permits and fees required by the Local Ordinances and by the State of Indiana for construction and inspection of work installed by him. Refer to drawings for specific enforceable Building Codes. Electrical contractor shall include in his bid all cost associated with obtaining service requirements shown on drawings.

1.6 TEMPORARY SERVICE

The Electrical Contractor shall furnish and maintain an adequate temporary electric service located at a convenient point, and shall also furnish and maintain adequate temporary lighting the full length of each corridor, with outlets for lights and plug-ins for power at approximately twenty (20) foot intervals. Adequate lighting shall be maintained throughout the building during normal working hours.

1.7 SYSTEM SCHEDULE

The Electrical Contractor shall furnish and install all systems as hereinafter specified and shown on the drawings.

1.8 SCOPE

The work intended under this DIVISION consists of the provision of all labor and material required for the installation of complete systems all in accordance with the specifications and the accompanying drawings. Each system shall be constructed to be complete after all components are in place, and all in working order as approved by the Engineer. Furnish and install all electrical systems specified herein and as shown on the drawings. All electrical work to be installed according to the National Electrical Code, current issue, and with service requirements of the Electric Company for this project.

PART 2: MATERIALS AND METHODS

2.1 PRODUCTS

ELECTRIC SERVICE: Service shall be as outlined on the electrical drawings for voltage, phase and number of wires. This Contractor will extend branches as indicated.

FEEDER CIRCUITS: Feeder circuits shall be installed as shown on the drawings. All conduit shall be concealed except where necessary to use for connections to equipment and panel boards. Each feeder shall be protected with fuses and switches as shown on the drawings.

BRANCH CIRCUITS: Branch circuits shall be run from panels as shown with convenience outlet circuits. Outlets shall be grouped on circuits as shown on the drawings. PANELS: As indicated on the drawings. Panels and main breakers shall have integrated equipment short circuit rating as required by the local electrical utility and match the existing panels.

RECEPTACLES: See device specifications on drawings.

Backwiring is strictly prohibited. All wiring connections to be properly made at screw terminals with all units wrapped in electrical tape to cover all exposed terminals. SWITCHES: See device specifications on drawings.

LIGHTING FIXTURES: See schedule on drawings. To be installed with a complete complement of lamps.

Before roughing-in outlets for various fixtures, this Contractor shall make certain that the fixture to be supplied is fitted with the proper hanging accessories to suit the purpose intended.

Flush type or recessed fixtures shall be installed with proper plaster rings or ceiling aligning devices for the ceilings to which they are to be attached, and shall be correctly spaced for symmetry with the surrounding ceiling pattern.

All recessed fixtures shall be light-tight under the surface trim; if not inherently leakproof by manufacturer's design, they shall be corrected by the use of adhering type gaskets which will not mar the ceiling surfaces.

Surface type fixtures shall have adequate knockouts, symmetrically spaced to insure access to the wiring space in the outlet above. Surface fixture bodies shall be effectively grounded by (1) fixture support, (2) two screws into the appliance or plaster cover, or (3) bare bonding wire from a ground bushing in the outlet box to the fixture body.

The Electrical Contractor shall furnish and install, complete with all glassware and lamps of sizes indicated by wattage, all fixtures as shown in the fixture schedule on the drawings.

All fixtures shall bear the Underwriters' Laboratories Label.

SAFETY SWITCHES: Provide proper size, heavy duty safety switches for motors and equipment where indicated and not in proximity of the panel from which fed. Switches to be of the non-fused type. Switches on outdoor equipment shall have NEMA 3R enclosures.

MISCELLANEOUS WIRING: Provide and install service feeders for air conditioning units, exhaust and ventilating fans, water heater, etc. as indicated. Temperature control wiring to be provided and installed by the Electrical Contractor. Control wiring connections to thermostats and mechanical units to be by the Mechanical Contractor.

All equipment provided for this project are to be as specified on the drawings. Other manufacturer's may be substituted as long as the product is an approved "equal" by the Engineer of Record.

DATA / INTERNET SYSTEMS: Boxes and conduit as shown on the drawings. Wiring and devices complete by Owner.

TELEPHONE SYSTEM: Complete by Owner.

VIDEO SYSTEM: Not shown.

GROUNDING: Grounding of all interior metallic water piping is to be per NEC. Grounding of all steel buildings is to be in strict accordance with NEC. Grounding of interior gas piping as required by Code.

2.2 WIRING PLAN

The Electrical Contractor may use the accompanying drawings as his working drawings. In this case, the general plan and circuiting shall be substantially followed except for deviations due to mechanical and structural interference.

The Contractor shall, however, furnish additional drawings as hereinafter designated, or wherever directed, to bring out detail to a greater degree than that given on the accompanying drawings, or where alternate equipment, as furnished, does not fit the layout as planned on the original drawings.

The Contractor may elect to furnish complete working drawings of his own. In this case, he shall furnish prints for approval before the work has begun. Any work installed before Engineer's approval of the drawings may be subject to rejection, if in the Engineer's opinion, it does not conform with the intent of these specifications and the accompanying drawings.

2.3 DRAWINGS

The Electrical Contractor shall furnish "Shop Drawings" in accordance with the requirements of DIVISION 1, GENERAL CONDITIONS and all amendments thereto. He shall obtain, ahead of

job progress, the necessary manufacturer's drawings, wiring diagrams, and operating instructions for other Contractors equipment to which he is to connect. He shall also maintain a complete set of general, structural, electrical and mechanical drawings during the progress of the job. He shall also maintain a clean set of electrical drawings for record purposes, upon which he shall mark, legibly, all deviations from the Contract Documents. This set shall be turned over to the Engineer at the termination of the job for an "As Built" set.

2.4 FIELD LAYOUT

The intent of the drawings and these specifications is to cover circuiting, outlet location, and system coordination rather than to cover the exact location of each conduit; therefore, where interference with mechanical equipment and with the lines of other contractors are encountered, this Contractor shall at all times plan his work far enough in advance to avoid interfering with heavy equipment and large piping which cannot be readily shifted.

2.5 TYPE OF INSTALLATION

The basic wiring system shall be installed in accordance with the National Electrical Code. All exposed wiring in the building shall be THHN copper in EMT conduit. All concealed wiring shall be copper in MC-Cable. Shared neutrals are not allowed. NM-B is not allowed.

2.6 CONDUIT AND FITTINGS

Conduit for mains and feeders 2" IPS and larger shall be rigid galvanized heavy wall, threaded. All conduits exposed to weather, exposed through floors subject to hose cleaning and mopping, or exposed in earth filled spaces, shall be heavy wall galvanized. Other non-exposed conduits may be installed with either rigid conduit or electrical metallic tubing hereinafter referred to as EMT.

Conduits laid underfloor indoors may be bare galvanized.

In case of cast in slab work, all runs of EMT which may be bent or broken by removal of forms shall be carefully installed.

All boxes shall be galvanized steel for use with MC Cable or EMT Conduit. Fiberglass boxes shall be used for all NM-B installations. Blue plastic PVC boxes are prohibited on this project.

2.7 BASIC WIRING SYSTEM

The basic wiring system shall be fabricated as specified on the electrical drawings or in this specification. Wiring shall be sized as required to conform to the requirements of the latest National Electrical Code. All wire in conduit to be type THHN copper with all sizes larger than #8 AWG to be stranded.

A. For wire #8 and smaller, provide solid wire; for wire larger than #8, provide stranded wire.

B. Connectors shall be Thomas-Betts, Agpletten, or Metalclics.

C. Conductors shall be Triangle, Anaconda, Phelps Dodge, Columbia, Hatfield or Parantite and shall be sized per the requirements of NEC.

No conductor to be smaller than #12 AWG.

All wire in conduit to be THHN copper with all sizes larger than #8 AWG to be stranded.

No conductor smaller than #12.

Back-Wiring is strictly prohibited. All wiring connections to be properly made at screw terminals with all units wrapped in electrical tape to cover all exposed terminals. Power service to be as specified on the electrical drawings.

The Contractor shall not charge as an extra, relocation of devices and fixtures, if new location is not over six feet from the original location.

In any space used as "return air space" and indicated on the drawings, all wiring shall be in MC Cable or EMT conduit.

Grounding of all interior metallic water piping to be per NEC.

Exterior outlets and outlets indicated near sinks and lavatories shall be protected by approved "Ground Fault Circuit Interrupters" (GFI) typical throughout. GFIs installed where required by the National Electrical Code.

2.8 LOCATION OF OUTLETS AND EQUIPMENT CONNECTIONS

All outlets, as shown on the drawings, are intended to be in proper relative positions as far as symbol standards and the scale of the drawings permit. The exact positioning and final locations of these outlets, however, shall be as directed by the Engineer. This Contractor shall obtain the necessary horizontal and vertical dimensions of the outlets before roughing-in begins. This Contractor shall also obtain all necessary drawings and rough-in dimensions from the other contractors whose equipment is to be fitted.

2.9 CUTTING AND PATCHING

The Electrical Contractor shall do all the necessary cutting and fitting required for the proper installation of his work and shall repair any damage done by him or his workmen to the satisfaction of the Engineer.

PART 3: EXECUTION

All work on this project must be complete of all parts and supplies and hook-ups to make a complete operating job when the project is finished.

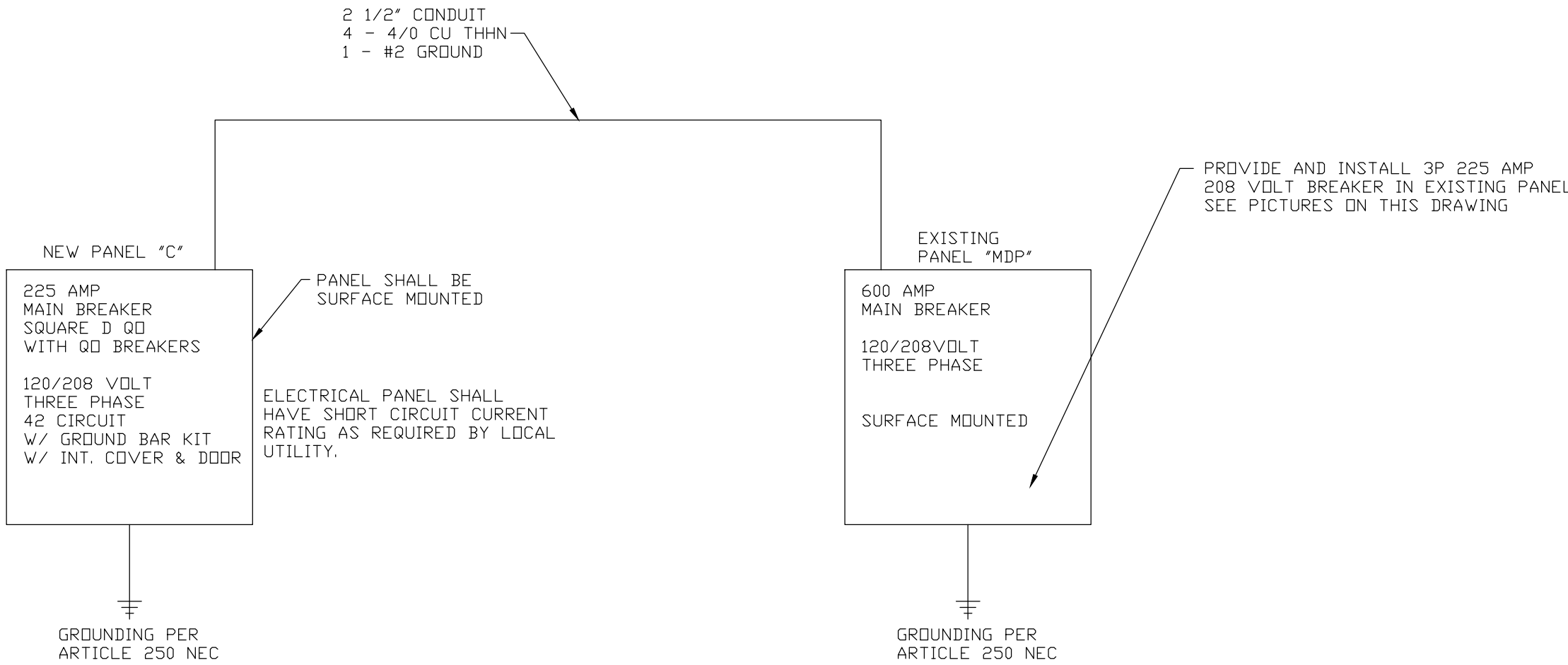
All equipment shall be installed in strict accordance with the manufacturer's installation instructions.

Verify voltage and amperage requirements for all equipment with Mechanical Contractor prior to start of the project.

Compaction of soil shall be as stated in the General Written Specifications for all trenching.

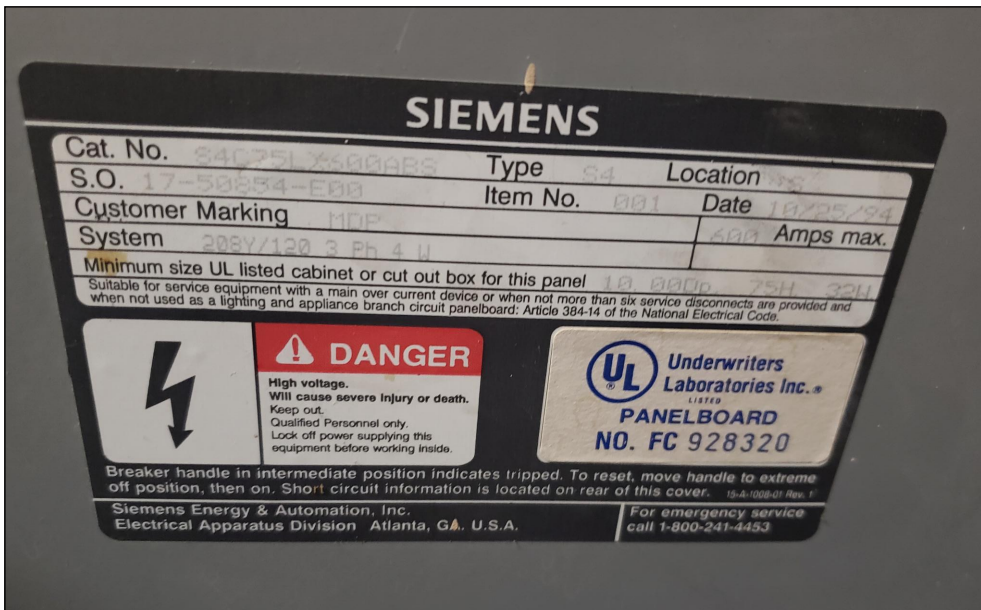
All trenching required for installation of products specified in this section of work shall be done by the Electrical Contractor. Backfilling after trenching shall be done in accordance with the General Written Specifications by the Electrical Contractor. After backfilling, the Electrical Contractor shall finish grade the area disturbed by the trenching to match that of the site prior to trenching.

END OF SECTION

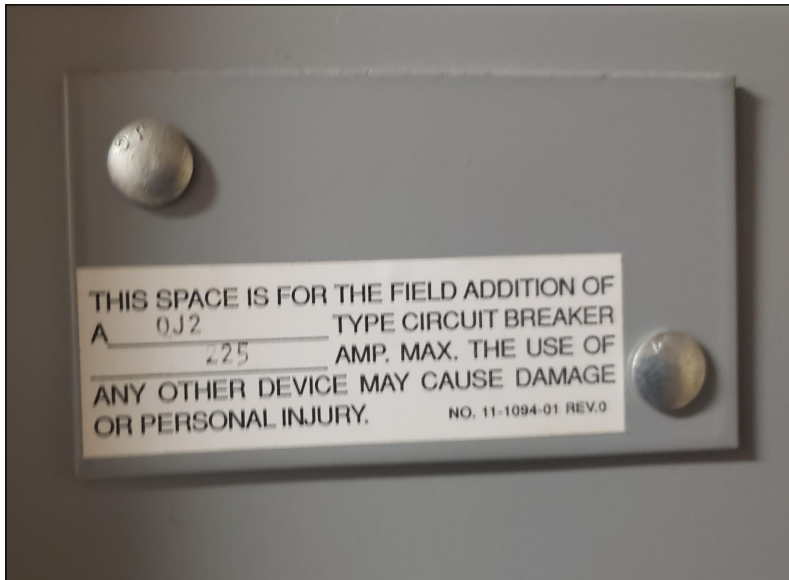


ELECTRICAL SERVICE DIAGRAM

SCALE: NONE



EXISTING "MDP" TAG FOR REFERENCE



EXISTING "MDP" BREAKER SPACE TAG FOR REFERENCE

GENERAL NOTES:

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SCOPE DOCUMENT

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Matthew Lynn Holder
3/24/21

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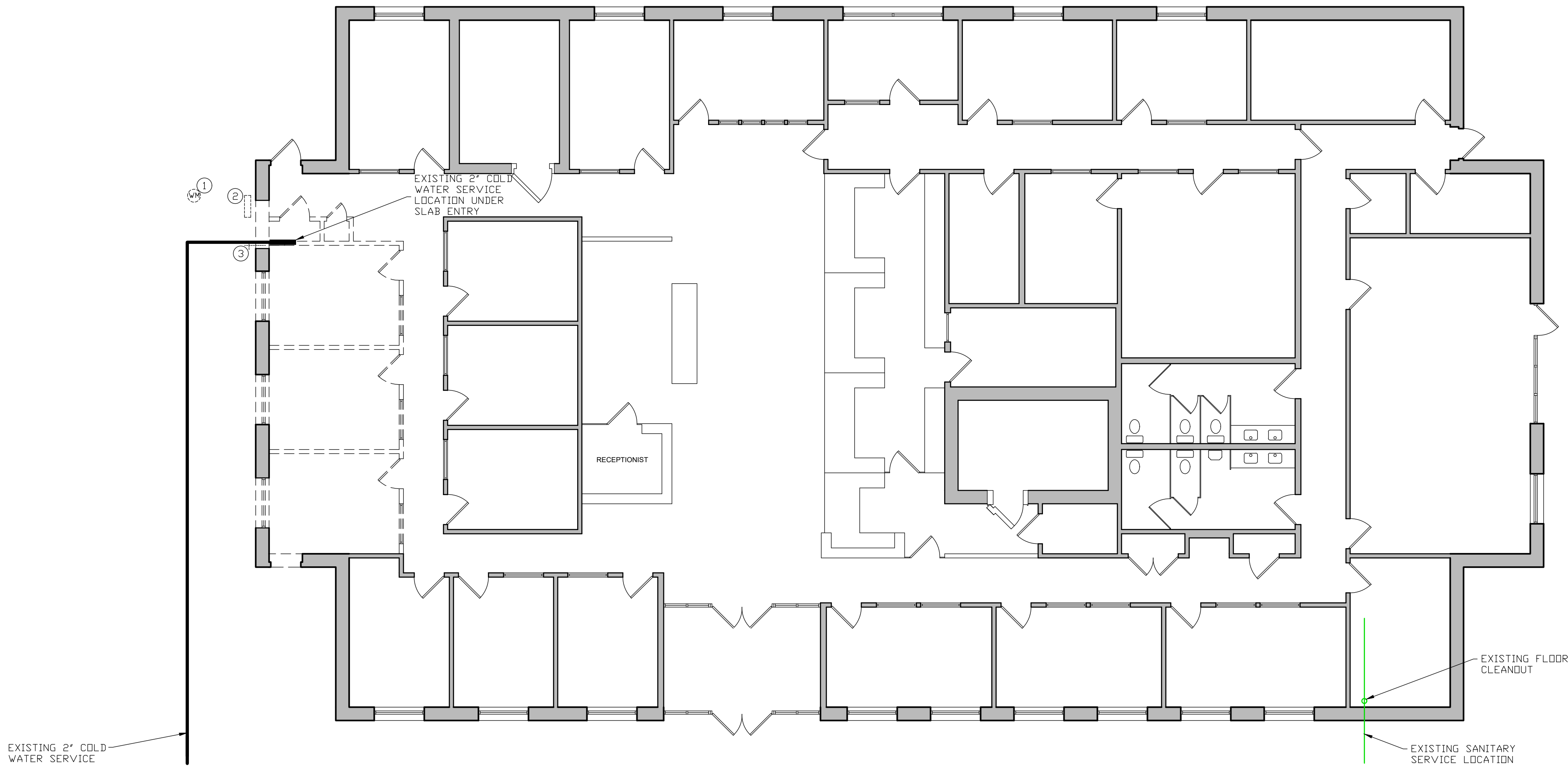
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INSTRUCTIONS FOR:
INDIANA STATE UNIVERSITY
FEDERAL CREDIT UNION
TERRE HAUTE, INDIANA
ELECTRICAL DIAGRAMS

REVISIONS

SHEET NO.
E3.0
JOB NO.
A20-016

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1 PLUMBING DEMOLITION PLAN
SCALE = 1/8"=1'-0"

NUMBERED NOTES:

- 1 ASSUMED EXISTING SHUTOFF VALVE FOR ENTIRE LAWN SPRINKLER SYSTEM. RELOCATE TO OUTSIDE OF NEW BUILDING ADDITION FOOTPRINT AS REQUIRED.
- 2 EXISTING LAWN SPRINKLER PIPING. RELOCATE TO OUTSIDE OF NEW BUILDING ADDITION FOOTPRINT AS REQUIRED.
- 3 EXISTING WALL MOUNTED EXTERIOR HOSE BIBB LOCATION. REMOVE COMPLETE. CAP WATER LINE AS REQUIRED.

LAWN SPRINKLER SYSTEM:

UNDER THE ENTIRE BUILDING ADDITION SHOWN ON THESE DRAWINGS, THERE IS A LAWN SPRINKLER SYSTEM. RELOCATE/CAP/RE-DO PIPING AS REQUIRED TO MAINTAIN A FUNCTIONAL LAWN SPRINKLER SYSTEM. FIELD VERIFY EXTENT OF WORK. KEEP SPRINKLER HEADS BETWEEN BUILDING ADDITION AND EDGE OF EXISTING CONCRETE SIDEWALK/CURBS.

KEY:

- SANITARY LINE
- (CW) COLD WATER LINE
- (HW) HOT WATER LINE
- GAS LINE

PERMIT & FEE NOTE:

PLUMBING CONTRACTOR SHALL INCLUDE IN HIS BASE BID ALL COSTS ASSOCIATED WITH OBTAINING DOMESTIC WATER SERVICE, SANITARY SEWER SERVICE AND GAS SERVICE. THIS SHALL INCLUDE ALL TAP FEES AND PERMITS.

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TERRE HAUTE, INDIANA

SHEET DESCRIPTION: PLUMBING DEMOLITION PLAN

REVISIONS

SHEET NO.
P1.0
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A20-016

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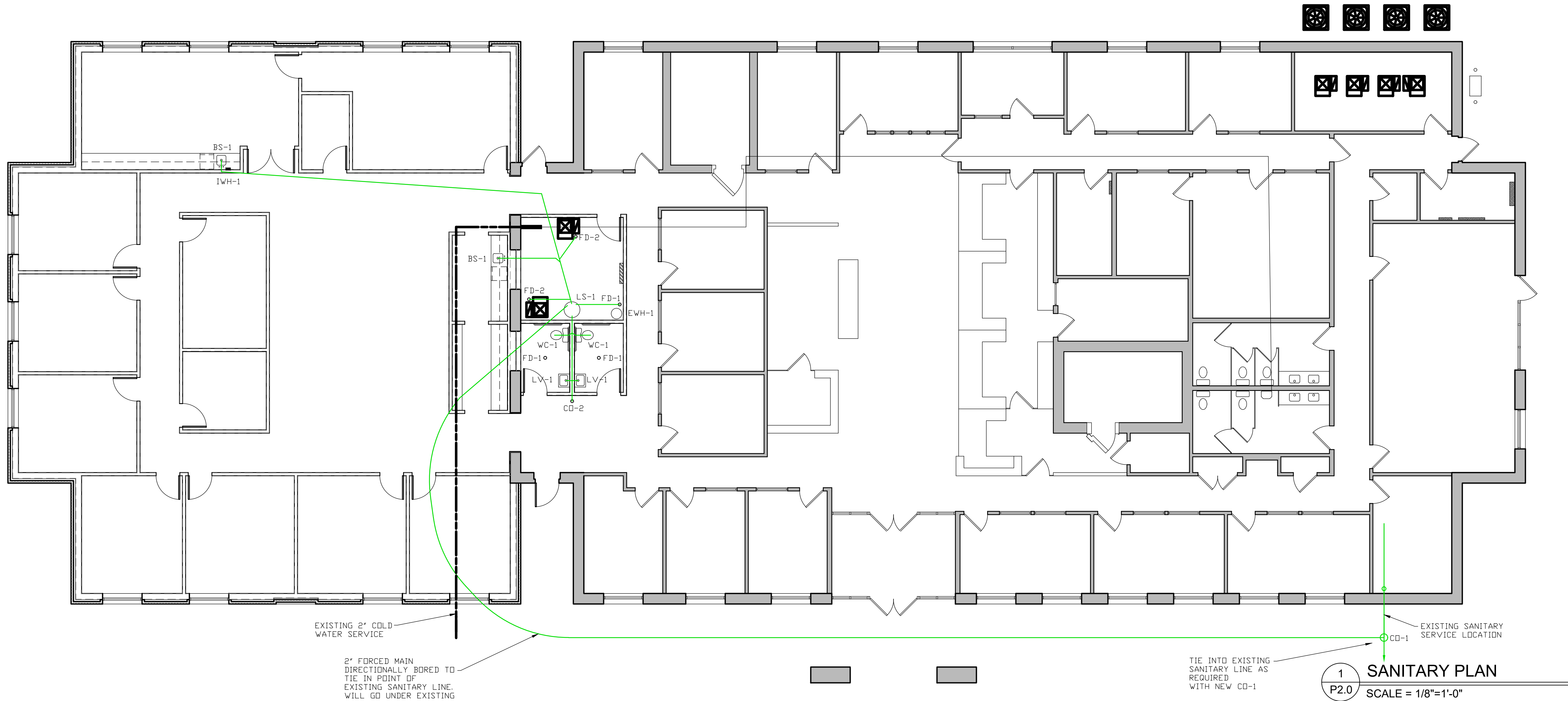
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INSTRUCTIONS FOR:
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TERRE HAUTE, INDIANA

SHEET DESCRIPTION: SANITARY PLAN

REVISIONS

SHEET NO.
P2.0
JOB NO.
A20-016



EXISTING 2" COLD WATER SERVICE

2" FORCED MAIN DIRECTIONALLY BORED TO TIE IN POINT OF EXISTING SANITARY LINE. WILL GO UNDER EXISTING ENTRY CANOPY. DO NOT BORE UNDER EXISTING COLUMN FOUNDATIONS. SEE ORIGINAL DRAWINGS

TIE INTO EXISTING SANITARY LINE AS REQUIRED WITH NEW CD-1

EXISTING SANITARY SERVICE LOCATION

1 P2.0
SANITARY PLAN
SCALE = 1/8"=1'-0"

KEY:

	SANITARY LINE
	(CW) COLD WATER LINE
	(HW) HOT WATER LINE
	GAS LINE

PERMIT & FEE NOTE:

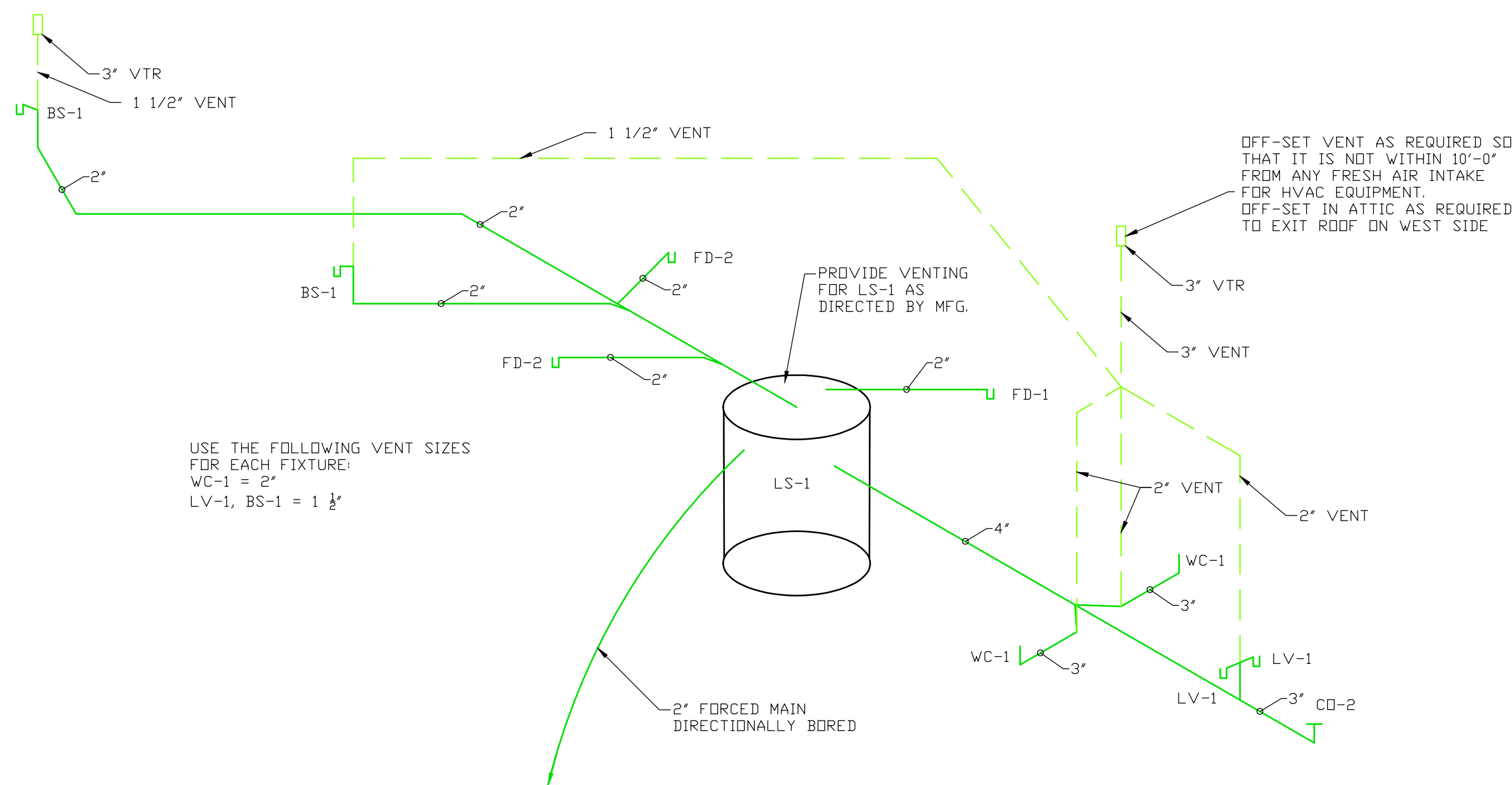
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INSTRUCTIONS FOR:

INDIANA STATE UNIVERSITY

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TERRE HAUTE, INDIANA

SHEET DESCRIPTION: WATER SUPPLY PLAN

REVISIONS

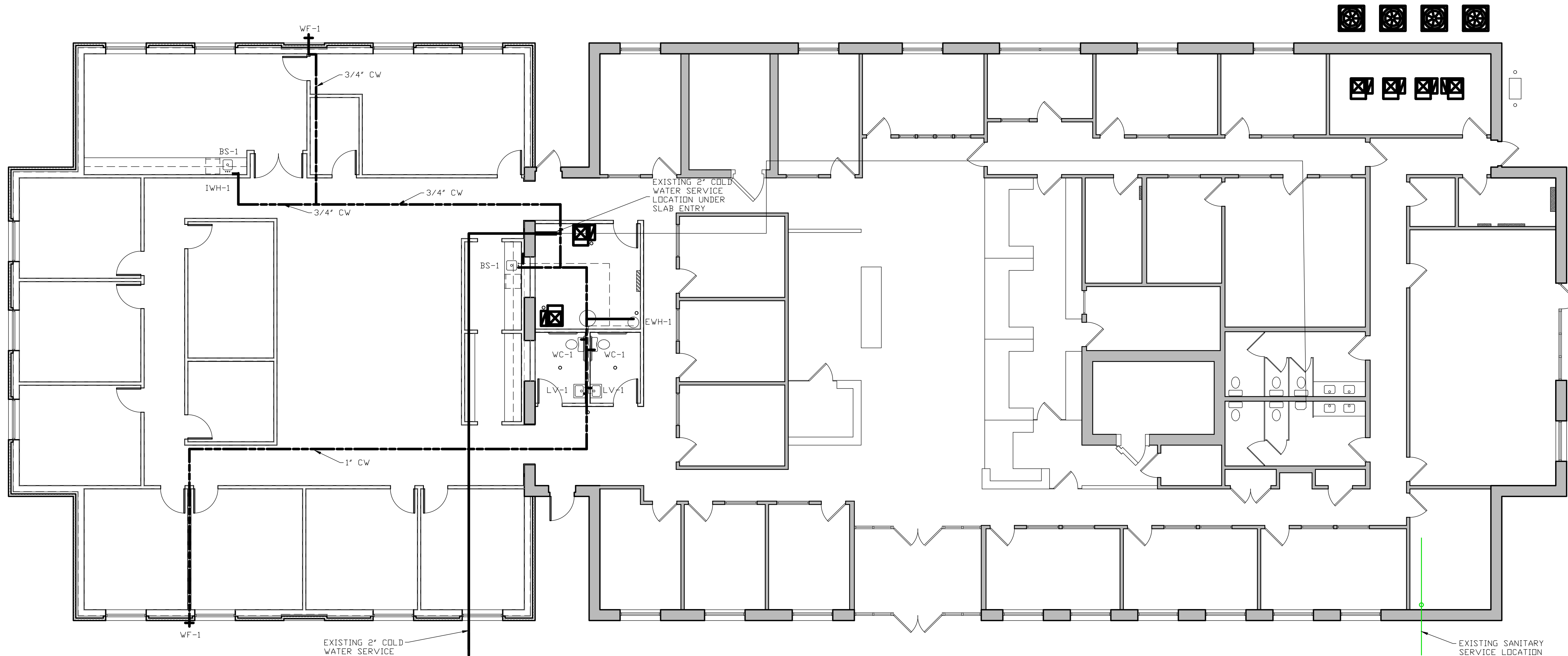
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P2.1

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1 WATER SUPPLY PLAN
P2.1 SCALE = 1/8"=1'-0"

KEY:

- SANITARY LINE
- (CW) COLD WATER LINE
- (HW) HOT WATER LINE
- GAS GAS LINE

PERMIT & FEE NOTE:

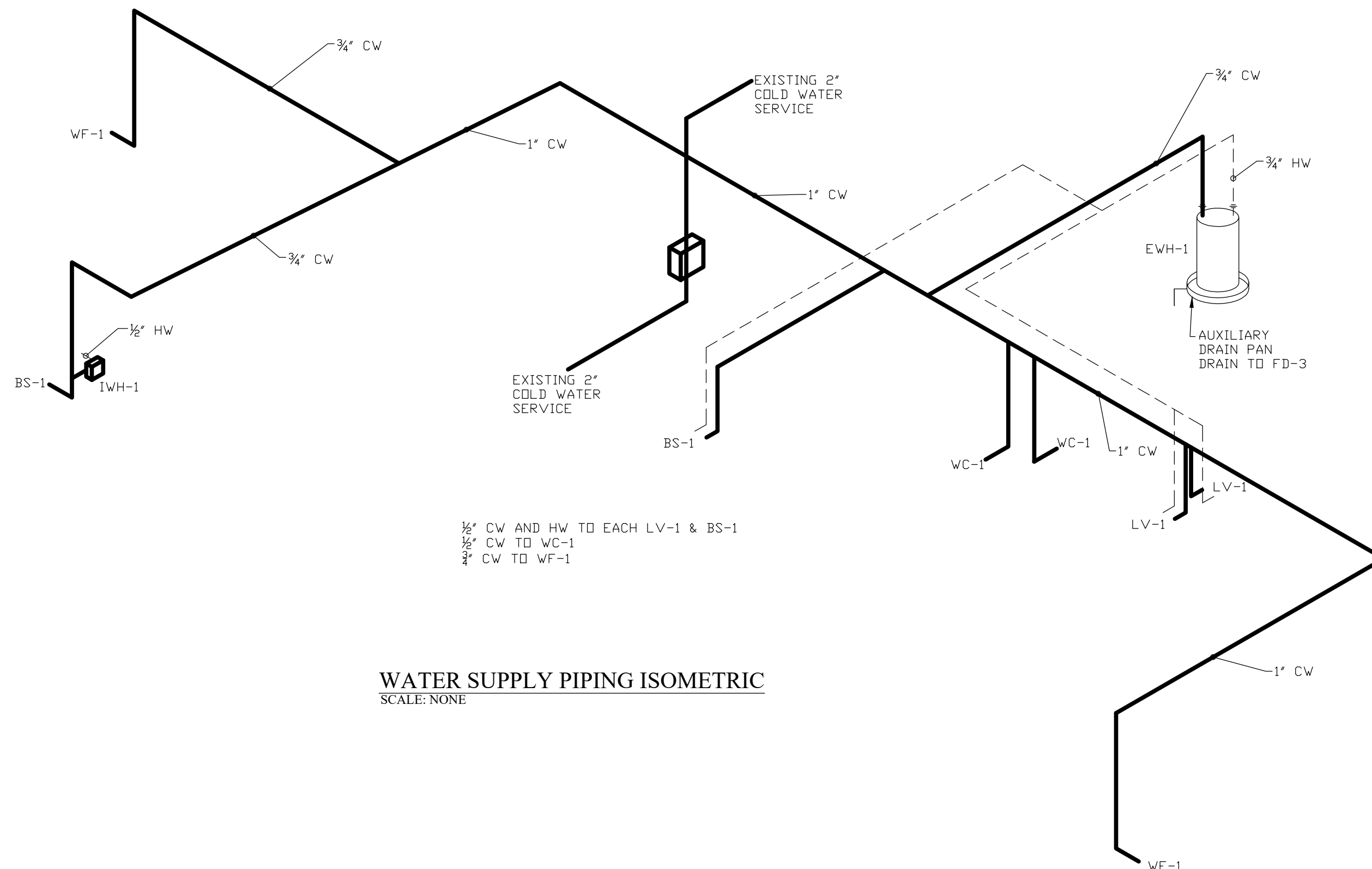
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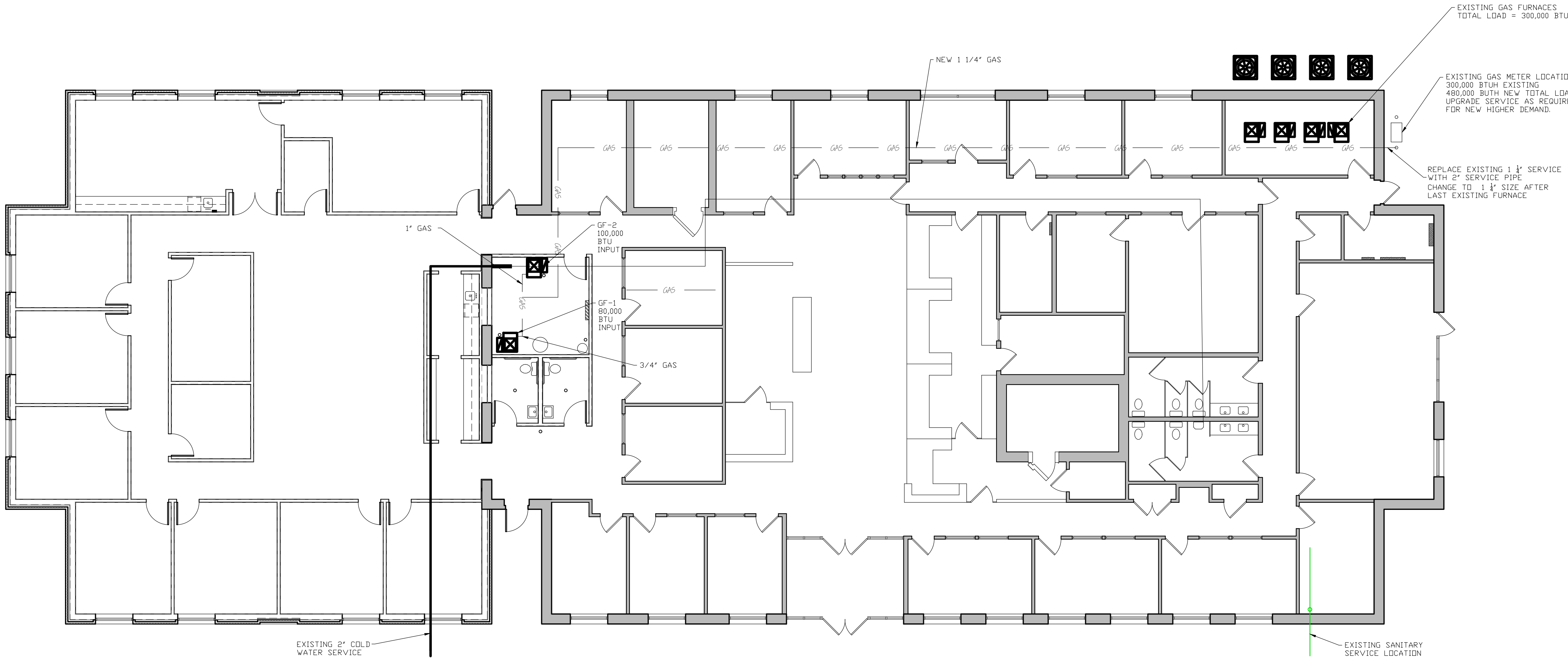
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WATER SUPPLY PIPING ISOMETRIC
SCALE: NONE



1
P3.0 **GAS PIPING PLAN**
SCALE = 1/8"=1'-0"

KEY:

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- (HW) HOT WATER LINE
- GAS LINE

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8/24/21

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TERRE HAUTE, INDIANA

SHEET DESCRIPTION: GAS PIPING PLAN

REVISIONS

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P3.0
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A20-016

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PLUMBING FIXTURE SCHEDULE										
SYMBOL	LOCATION	MODEL	DESCRIPTION	FAUCET / FLUSH VALVE	FITTINGS AND TRIM	PLUMBING FIXTURE PIPE SIZE				REMARKS
					FITTINGS MODEL	FITTING AND DESCRIPTION	WASTE	VENT	DCW	DHW
WC-1	RESTRROOM	AMERICAN STANDARD #215AA.004	WATER CLOSET; CADET PRO RIGHT HEIGHT ELONGATED, 16 GPF, WHITE IN COLOR, ADA HANDICAPPED	N/A - TANK TYPE TOILET	AMERICAN STANDARD #5901.110	WHITE HEAVY DUTY ELONGATED SEAT WITH EVERCLEAN SURFACE	3"	2"	1/2"	N/A
LV-1	RESTRROOM	AMERICAN STANDARD #0355.012	LAVATORY; LUCERNE WHITE WALL-HUNG	AMERICAN STANDARD COLONY PRO #7075.004 CHROME FAUCET METAL LEVER HANDLE LESS DRAIN, LESS POP-UP HDLE AND RDD	TRUEBRO LAV GUARD2	ADA COMPLIANT UNDERSINK WATER SUPPLY AND WASTE COVERS	1 1/4"	1 1/2"	1/2"	1/2"
BS-1	BREAK AREA	ELKAY #LR-1517	STAINLESS STEEL SINK; SIZE 15" LONG BY 17" DEEP #18 GAUGE TYPE 304 (18-8) NICKEL BEARING STAINLESS STEEL WITH SELF RIMMING WITH RINSING BASKET WITH FULLY UNDERCOATED	AMERICAN STANDARD #2475.500 COLONY SOFT TWO-HANDLE POLISHED CHROME BAR SINK FAUCET WITH BRASS GOOSENECK SPOUT	-	-	1 1/2"	1 1/2"	1/2"	1/2"
VF-1	VARIES	WOODFORD #65	WALL FAUCET; BACKFLOW PROTECTED FREEZELESS WALL HYDRANT	-	-	-	-	-	3/4"	-
CD-1	VARIES	PVC	CLEANOUT; SCH 40 PVC	-	-	-	-	-	-	-
CD-2	VARIES	ZURN #CD2450-PV3 -CM	ADJUSTABLE FLOOR CLEANOUT; PVC BODY WITH ADJUSTABLE NICKEL COVER WITH CARPET MARKER	-	-	-	3"	-	-	-
FD-1	RESTRROOM	ZURN #2210	ADJUSTABLE FLOOR DRAIN; PVC BODY WITH 5" DIA. ADJUSTABLE NICKEL HEAD AND HEEL-PRODF GRATE	-	-	-	2"	-	-	-
FD-2	MECH ROOM	PVC WITH 3" TO 2" PIPE REDUCER TDP	FLOOR DRAIN; SCH 40 PVC	-	-	-	2"	-	-	-

PLUMBING FIXTURE NOTES:

- ALL ANGLE SUPPLIES SHALL BE BRASS CRAFT G2 SERIES 1/4 TURN CHROME PLATED BRASS ANGLE STOPS.
- ALL SUPPLY LINE SHALL BE BRASS CRAFT CHROME PLATED BRASS RISERS WITH CONNECTIONS AS REQUIRED.
- ALL SUPPLY AND WASTE LINES SHALL HAVE ONE PIECE CHROME PLATED FLANGES AT WALL LINES.
- ALL P-TRAPS SHALL BE 17 GAUGE CHROME PLATED WITH CLEANDUTS IN BOTTOM OF TRAP.
- ALL FLOOR DRAINS SHALL HAVE 2" SURESEAL INLINE FLOOR DRAIN TRAP SEALER.

PLUMBING PIPING SPECIFICATIONS:

- SANITARY PIPING SHALL BE SDR35 PIPE MEETING ASTM-D3034.
- WASTE AND VENT PIPING SHALL BE SCH 40 PVC.
- WATER PIPING SHALL BE:
 - WATER PIPING IN THE BUILDING SHALL BE TYPE L HARD COPPER WITH LEAD FREE SOLDERED JOINTS AND INSULATED WITH 1/2" THICK ARMAFLEX.
 - WATER PIPING UNDER THE CONCRETE SLAB SHALL BE PEX CROSS-LINKED POLYETHYLENE OF SIZE SHOWN ON THE DRAWINGS.
 - GAS PIPING INSIDE BUILDING UNDER 2 1/2" IN SIZE SHALL BE BLACK STEEL, SCHEDULE 40, THREADED. ALL GAS PIPING 2 1/2" OR LARGER IN SIZE SHALL HAVE WELDED CONNECTIONS AND JOINTS.

SANITARY LIFT STATION SCHEDULE							
SYMBOL	LOCATION	MODEL	DESCRIPTION	PUMP SIZE	GPM	TDH	REMARKS
LS-1	MECH. ROOM	LIBERTY GRINDER PACKAGE SYSTEM #D3660LSGX202-24S	DUPLEX GRINDER STATION WITH 2 - 2 HP PUMPS, NEMA 4X JUNCTION BOX, CONTROL PANEL, CONTROL FLDATS, 36" X 60" FIBERGLASS BASIN, AND STAINLESS STEEL RAILS	2 HP - EACH 208 VOLT 1 PHASE	62	20'-0	1, 2, 3, 4, 5

WATER BOOSTER REMARKS:

- ENTIRE SYSTEM SHALL BE PURCHASE FROM:
CENTRAL SUPPLY COMPANY
ATTN: MR. JEFF BELL
9900 EAST 30TH STREET
INDIANAPOLIS, INDIANA 46219
PHONE: (317) 946-1227
- PUMPS SHALL BE LIBERTY LSGX 2 STAGE PUMPS.
- 2 HP, 2" FLANGE DISCHARGE, 25'-0 CORD, 62 GPM @ 20'-0 TDH.
- LIBERTY AE24HC=3-3 CONTROL PANEL.
- LIBERTY CNDTRL FLDATS.
- LIBERTY FIBERGLASS PREPACKAGED LIFT STATION, 36"X60", 4" INLET HUB, 2" DISCHARGE THRU SIDE, VENT THRU COVER.

THE SPECIFICATIONS ON THIS DRAWING ARE NOT COMPLETE. SPECIFICATIONS ARE FOR REFERENCE.

KEY:

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- (CW) COLD WATER LINE
- (HW) HOT WATER LINE
- GAS
- GAS LINE

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PLUMBING, MECHANICAL, AND ELECTRICAL CONTRACTORS TO ENSURE COORDINATION OF EQUIPMENT AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS. ALL WORK SHALL BE DONE IN ACCORDANCE WITH STATE, COUNTY, CITY, AND FEDERAL REGULATIONS AND CODES AS WELL AS INDUSTRY STANDARD PRACTICE. THESE REQUIREMENTS ARE CONSIDERED PART OF THE PLANS AND SPECIFICATIONS AND SHALL PREVAIL SHOULD THEY DIFFER FROM THE PLANS AND SPECIFICATIONS. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHOULD DIRECT THE ARCHITECT'S ATTENTION TO ANY DISCREPANCY. SHOULD THE PRIME CONTRACTOR NOT SO NOTIFY THE ARCHITECT, THE CONTRACTORS SHALL FULLY COMPLY WITHOUT CLAIM FOR EXTRA COSTS. REFER TO FRONT COVER / TITLE SHEET OF DRAWINGS FOR ADDITIONAL CODE REQUIREMENT INFORMATION.

WATER HEATER SCHEDULE

MARK	MFG.	MODEL	ENERGY FACTOR	HEATING-ELECTRIC INPUT	GALLON CAPACITY	FIRST HR. RATING	VOLTAGE	MCA	OPTIONS
EW-H-1	A.D. SMITH	EJC-20	-	2,500	19.9	-	120	20.8	1, 2, 3,
IWH-1	EEMAX	SP2412	-	2,400	-	-	120	20.0	4

WATER HEATER OPTIONS:

- PROVIDE PLASTIC AUXILIARY DRAIN PAN UNDER UNIT
- PROVIDE A.D. SMITH PMC-2 EXPANSION TANK
- PROVIDE DI-ELECTRIC UNIONS ON HOT AND COLD WATER LINES
- MAKE CONNECTIONS TO FAUCET AND UNIT AS REQUIRED

SECTION 15200 - PLUMBING SPECIFICATIONS

PART 1: GENERAL The General Conditions and other Contract Documents are hereby made a part of this Section to the same extent as if written out in full.

- MANUFACTURER'S DESIGNATION When manufacturers catalog numbers are given, they are for assistance to the bidder. In case of discrepancies in catalog numbers, the Contractor shall contact the Engineer of Record.
- SUPERVISION The Plumbing Contractor shall at all times throughout the construction period, maintain proper supervision of his employees, make orderly disposition of his materials, maintain high-class workmanship, systematically remove debris, cooperate fully with other contractors and subcontractors and avoid the creation of hazards to others on the job.
- GUARANTEE The plumbing Contractor shall make good any defect due to faulty material or workmanship; he shall correct any malfunction not due to misuse or abuse after date of acceptance, which develops in his work, for a period of one (1) year from date of acceptance. The date of final payment shall be recognized as the date of acceptance.
- EQUIPMENT MARKING AND PAINTING All marked or scratched equipment shall be touched up with same paint as that damaged. Steel and iron shall have grease, rust scale and dirt removed and left in a paintable condition. Painting will be done by General Contractor.
- RULES, REGULATIONS AND PERMITS All materials, workmanship, and installation shall conform to all local and state codes and federal O.S.H.A. standards. This Plumbing Contractor shall, at his own expense, furnish all necessary permits and fees required by the Local Ordinances and by the State of Indiana for construction and inspection of work installed by him. Refer to drawings for specific enforceable Building Codes. This includes all sanitary sewer tap fees and domestic water tap fees charged by local utilities.
- TEMPORARY SERVICES The Plumbing Contractor shall furnish and install a temporary water service. A water outlet shall be provided at a location convenient for general use, and an outlet shall be provided on each floor of the building. The General Contractor will pay for the water used.
- SYSTEM SCHEDULE Systems shall include, but not be limited to:
 - Water Service and Supply System - connect as shown on the drawings
 - Sanitary Sewer Piping - connect as shown on the drawings
 - Waste and Vent Piping
 - Plumbing Fixtures - water closets, lavatories, faucets, floor drains, sinks, etc.


PART 2: MATERIALS AND METHODS

- PRODUCTS See drawings for model numbers and specifications.
- PLUMBING PLAN The Plumbing Contractor shall use the accompanying drawings as his working drawings except that deviations may be made only where interferences may arise. Such deviations shall be called to the attention of the Engineer and prior approval obtained before making any installation. In no case shall codes, rules or regulations heretofore referred to be violated.
- DRAWINGS The Plumbing Contractor shall furnish "Shop Drawings" for all equipment supplied on this project. He shall obtain, ahead of job progress, all manufacturer's drawings, wiring diagrams, rough-in location drawings, operating instructions, etc., for each item of equipment furnished and set by him and connected to by other contractors. He shall see that the other contractors who connect his equipment have the necessary drawings for rough-in and wiring diagrams ahead of their job progress. The Plumbing Contractor, shall also maintain a complete set of General, structural, electrical and mechanical drawings during the progress of the job. He shall also maintain a clean set of mechanical drawings for record purposes, upon which he shall mark, legibly, all deviations from the Contract Documents. This set shall be turned over to the Engineer at the termination of the job for an "As Built" set.
- PIPE AND FITTINGS All fittings shall be cast brass or wrought copper fittings. All joints shall be made in accordance with instructions of the manufacturer of the fittings. Proper adapters and unions shall be used at connections to steel or iron pipe or equipment. Fittings for gas piping inside the building shall be black, malleable, threaded.
- WATER SUPPLY SYSTEM System Description. The Plumbing Contractor shall install a complete system of cold water, hot water and hot water return as shown on the drawings. All fixtures shall have appropriate services connected. The complete system shall be pitched for drainage to low points and drain valves installed at each low point. All piping shall be run as high as possible. Check valves shall be installed where necessary to prevent hot water from backing up into cold water. All branches shall be valved at take-off from mains. Each branch to riser shall be provided with stop and waste. All vertical pipe shall be supported where it passes through floors with an approved clamping device. All risers shall be securely fastened to floors and wall studs with any change from vertical supported by brackets or hangers in it's new position. All piping shall be run true and straight and at right angles or parallel to walls. In all cases the exposed pipe must be run straight and plumb and in no case to be farther from walls and ceilings than is absolutely necessary. All exposed connections to fixtures shall be chrome plated brass. Wherever an exposed pipe passes through finished walls or ceilings it shall be provided with a chrome plated solid ring escutcheon. If pipe is covered, escutcheon shall fit over insulation. Connections to fixtures shall be made with unions so that a fixture may be easily removed and reset without making new joints. Provide and install easily accessible stops for all fixtures. All pipe shall be thoroughly cleaned of grease, oil and foreign material before installation. All cuts and threads shall be thoroughly cleaned and reamed to remove shoulders and burrs before installation. Wherever piping materials change from copper to a dissimilar metal, a dielectric union shall be installed.
- SANITARY SEWER PIPING System Description. The Plumbing Contractor shall install a complete and continuous system of soil, waste and vent piping as shown on the drawings. All openings for connections must be closed with screw plugs or other means until used, all hand holes must be closed at once, and the pipe must be kept clean. Any earth or foreign matter that gets into the pipes must be removed by the contractor. Vent pipes shall extend at least 12" above the roof and extensions through the roof shall not be smaller than 3" in accordance with state code. Vents in outside walls are to be offset at least 12" inside of the wall before extending through the roof. Vents shall be offset in attics as indicated on the drawings before going through the roof to provide a minimum separation of 10'-0 from outside air intakes of furnaces. All horizontal waste and vent lines, branches, drains, etc., shall pitch at 1/8" per foot unless otherwise noted on the drawings. Waste lines shall pitch downward in the direction of flow. Vent lines shall pitch upward in the direction of venting. All junctions and changes in direction shall be made by the appropriate use of 45 degree Wyes, half Wyes, long sweep quarter bends, sixth eighth, sixteenth bends, combination Wye and eight bends, except that single and double Sanitary Tees may be used on vertical stacks and short quarter bends may be used where the change in direction of flow is from horizontal to vertical. Tees and crosses may be used in piping only. All vertical stacks (waste and vent) shall be supported wherever they pass through floors with an approved clamping device. Cleanouts shall be full size of the pipe up to 4" in diameter and not less than 4" for larger size pipe. In all cases the exposed pipe must be run straight and plumb and in no case to be farther from walls and ceilings than is absolutely necessary. Each and every fixture included in the contract must have a separate trap, except where noted otherwise on the drawings. Floor level cleanouts shall be set with cleanout rim and plug face absolutely flush with the finished floor or they shall be chiseled out and reset at this Contractors expense. Floor and Area Drains. The Plumbing Contractor shall furnish and install floor and area drains complete with traps and cleanouts as specified.
- GAS PIPING SYSTEM System Description. The Plumbing Contractor shall furnish and install a complete system of gas distribution as shown on the drawings. The installation shall be included as a part of this Contract and shall be installed per the Codes. Dielectric unions shall be installed between the gas meter/ the piping in the building. Piping inside the building shall be run true and straight and shall be pitched to drip pockets where required. The Plumbing Contractor shall make final connections to all equipment requiring gas service as shown on the drawings. All piping inside the building shall have screwed joints except that all gas piping 2 1/2" or larger shall have welded joints. Pipe shall be reamed to remove shoulders and burrs and all threads and the pipe cleaned before erection.
- TESTS General. The Plumbing Contractor shall furnish all labor and material necessary to perform the following tests. Tests may be performed in sections of the Systems as they are installed so as not to hold up construction. The Engineer shall be notified whenever such tests are to be made and shall witness all tests. Water Supply System. The Water Supply System shall be filled with water and subjected to a pressure of at least 150 PSIG per section under test. Pressure shall be obtained by use of an air compressor. Pressure shall hold for a period of one (1) hour without any additional pressure being applied. Soil and Waste System. The Soil, Waste and Vent System shall be subjected to a hydrostatic test by plugging or closing all holes in portion of the system under test and filling with water to a point twelve (12) feet higher than the highest pipe under test. Water level shall hold for a minimum of 24 hours without change in the water level with no additional water being applied. The Engineer may elect to shorten the test period due to freezing weather conditions. It shall be his prerogative. Gas Piping System. The Gas Piping system shall be subjected to an air pressure test of at least 150 PSIG and shall hold pressure for a period of 24 hours without any additional pressure being applied. Pressure shall be obtained from an air compressor. Each joint shall be soap tested to test for leaks.

PART 3: EXECUTION

The contractor must lay out the various pipe lines, as shown on the drawings, and carefully go over the work in the building and report to the Michael R. Waldbieser Engineering & Consulting, Inc. any obstacles that may be in the way to prevent proper run of pipes or interfere with the layout of the system in any way. All pipes included in the plumbing system must be run in such a manner as to not interfere with HVAC ductwork or electrical outlets. All work on this project must be complete of all parts and supplies and hook-ups to make a complete operating job when the project is finished. All equipment shall be provided and installed in strict accordance with the manufacturer's installation instructions. Compaction of soil shall be as stated in the General Written Specifications for all trenching. All trenching required for installation of products specified in this section of work shall be done by the Plumbing Contractor. Backfilling after trenching shall be done in accordance with the General Written Specifications by the Plumbing Contractor. After backfilling, the Plumbing Contractor shall finish grade the area disturbed by the trenching to match that of the site prior to trenching.

END OF SECTION

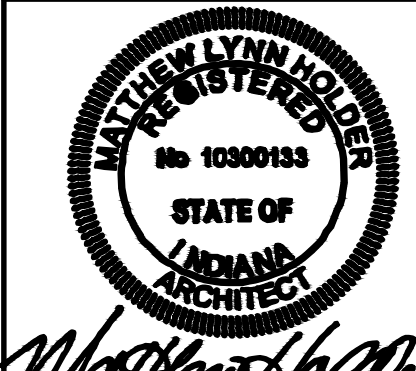


HOLDERDESIGN, INC.

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SCOPE DOCUMENT

THE DRAWINGS INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF ARCHITECTURAL DESIGN CONCEPT, THE DIMENSIONS OF THE BUILDING, THE MAJOR ARCHITECTURAL ELEMENTS AND THE TYPE OF STRUCTURAL, MECHANICAL AND ELECTRICAL SYSTEMS. AS SCOPE DOCUMENTS, THE DRAWINGS DO NOT NECESSARILY INDICATE OR DESCRIBE ALL WORK THAT IS REQUIRED FOR FULL PERFORMANCE AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. ON THE BASIS OF THE GENERAL SCOPE INDICATED OR DESCRIBED, THE TRADE CONTRACTORS SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.



Matthew E. Lynn
3/24/21

THE SEALS AND SIGNATURES APPLY ONLY TO THE DOCUMENT TO WHICH THEY ARE AFFIXED AND WE EXPRESSLY DISCLAIM ANY RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT.

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DRAWN BY: MRW
CHECKED BY: MLH
PLOT SCALE: AS NOTED
DATE: 08.24.2021

INSTRUCTIONS FOR:
**INDIANA STATE UNIVERSITY
FEDERAL CREDIT UNION**
TERRE HAUTE, INDIANA

SHEET DESCRIPTION: PLUMBING SPECIFICATIONS

REVISIONS

SHEET NO.
P4.0
JOB NO.
A20-016

FOR BIDDING ONLY - NOT FOR CONSTRUCTION