

COLUMBUS TOWNHOMES

2 UNITS

5108 EAST COLUMBUS DRIVE
TAMPA, FLORIDA



DRAWING INDEX

ARCHITECTURAL	ELECTRICAL	MECHANICAL	PLUMBING
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GENERAL INFORMATION

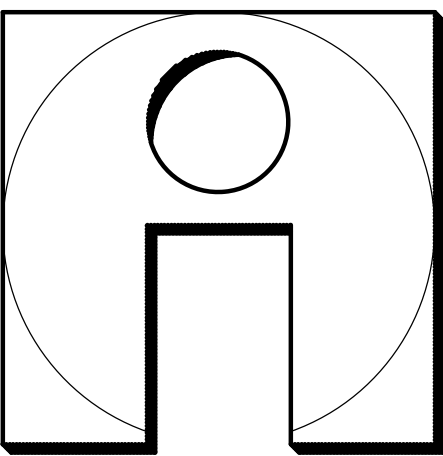
CLASSIFICATION OF WORK: RESIDENTIAL
OCCUPANCY: GROUP R2
TYPE OF CONSTRUCTION: IV,B
STRUCTURE IS NOT SPRINKLED

CODE ANALYSIS

FLORIDA BUILDING CODE 7TH EDITION (2020)
FLORIDA EXISTING BUILDING CODE 7TH EDITION (2020)
FLORIDA FIRE PREVENTION CODE 7TH EDITION (2020)
FLORIDA BUILDING CODE PLUMBING 7TH EDITION (2020)
FLORIDA BUILDING CODE MECHANICAL 7TH EDITION (2020)
NATIONAL ELECTRIC CODE 2017
NFPA-101 2018 EDITION
NFPA-1 2018 EDITION
FLORIDA STATUTES
PLANS CONFORM TO FLORIDA BUILDING CODE 7TH EDITION (2020)
ALL SECTIONS

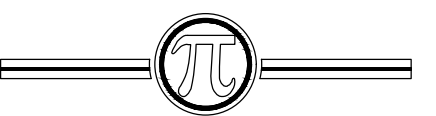
BUILDING AREA CALCULATIONS

UNIT 'A'	FIRST FLOOR	= 657 S.F.
	SECOND FLOOR	= 762 S.F.
	TOTAL LIVING AREA	= 1269 S.F.
	ENTRY	= 27 S.F.
	TOTAL AREA	= 1296 S.F.



INSIDE
OUT

CONSTRUCTION INC.
CGC 058452
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CLEARWATER, FL 33765

JOHN PANTAZES
ARCHITECT AR#22860



PROJECT:
**COLUMBUS TOWNHOME
RESIDENCE
UNIT A**

5108 E COLUMBUS DRIVE
TAMPA, FLORIDA

REVISIONS:

DRAWN BY:
CP

DATE:
JANUARY 5, 2022

JOB NO.:
21-064

T1

BOUNDARY AND TOPOGRAPHIC SURVEY
SECTION 10, TOWNSHIP 29S, RANGE 19E, HILLSBOROUGH COUNTY

PROPERTY ADDRESS:
5108 E COLUMBUS DR,
TAMPA, FL 33619
(FOLIO No. 159298-0000)

DESCRIPTION:
LOTS 28 AND 28A, TOGETHER WITH THAT PORTION OF THE SOUTH HALF OF CLOSED ALLEY ABUTTING ON THE NORTH OF "FLORENCE VILLA", ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 14 AT PAGE 1 OF THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY, FLORIDA.

FLOOD ZONE INFORMATION:
COMMUNITY: CITY OF TAMPA-120114
MAP/PANEL NO. 12057C0369H
12057C0369H (PRELIMINARY)
SUFFIX: H, J (PRELIMINARY)
FIRM DATE: 08/28/2008, 10/26/2018 (PRELIMINARY)
FLOOD ZONE: X

THERE MAY BE LEGAL RESTRICTIONS ON THE SUBJECT PROPERTY THAT ARE NOT SHOWN ON THE MAP OF SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY, OR THE RECORDS OF ANY OTHER PUBLIC AND PRIVATE ENTITIES AS THEIR JURISDICTIONS MAY APPEAR.

THE MAP OF SURVEY IS INTENDED TO BE DISPLAYED AT THE STATED GRAPHIC SCALE IN ENGLISH UNITS OF MEASUREMENT. ATTENTION IS BROUGHT TO THE FACT THAT SAID DRAWING MAY BE ALTERED IN SCALE BY THE REPRODUCTION PROCESS.

THIS SURVEY WAS CONDUCTED FOR THE PURPOSE OF A TOPOGRAPHIC SURVEY ONLY AND IS NOT INTENDED TO DELINEATE THE REGULATORY JURISDICTION OF ANY FEDERAL, STATE, REGIONAL OR LOCAL AGENCY BOARD, COMMISSION OR OTHER ENTITY.

THE ELEVATIONS OF WELL-IDENTIFIED FEATURES AS DEPICTED ON THIS SURVEY AND MAP WERE MEASURED TO AN ESTIMATED VERTICAL POSITIONAL ACCURACY OF 1/10 FOOT FOR NATURAL GROUND SURFACES AND 1/100 FOOT FOR HARDSCAPE SURFACES, INCLUDING PAVEMENTS, CURBS AND OTHER MAN-MADE FEATURES AS MAY EXIST.

BENCH MARK: GPS-NAIL ELEVATION: 37.32 FEET (NAVD83)

LEGAL DESCRIPTION WAS FURNISHED BY THE CLIENT.

WELL-IDENTIFIED FEATURES AS DEPICTED ON THIS SURVEY AND MAP WERE MEASURED TO AN ESTIMATED HORIZONTAL POSITIONAL ACCURACY OF 1/10 FOOT UNLESS OTHERWISE SHOWN.

BEARINGS AS SHOWN HEREON ARE BASED UPON AN ASSUMED VALUE OF N89°47'35"W FOR THE NORTH RIGHT OF WAY LINE OF OLD COLUMBUS DR AS DEPICTED ON THE MAP OF SURVEY.

LEGAL DESCRIPTION SUBJECT TO ANY DEDICATIONS, LIMITATIONS, RESTRICTIONS, RESERVATIONS OR RECORDED EASEMENTS.

THE SURVEYOR MAKES NO REPRESENTATION AS TO OWNERSHIP, POSSESSION OR OCCUPATION OF THE SUBJECT PROPERTY BY ANY ENTITY OR INDIVIDUAL.

SUBSURFACE IMPROVEMENTS AND/OR ENCROACHMENTS WITHIN, UPON, ACROSS, ABUTTING OR ADJACENT TO THE SUBJECT PROPERTY WERE NOT LOCATED AND ARE NOT SHOWN.

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS AND DELETIONS TO THIS MAP OF SURVEY BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

THIS MAP OF SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF THE ENTITIES NAMED HEREIN AND THE CERTIFICATION DOES NOT EXTEND TO ANY UNNAMED PARTY.

NO TREES FOUND 20' AWAY FROM PROPERTY UNLESS DEPICTED ON THIS MAP.

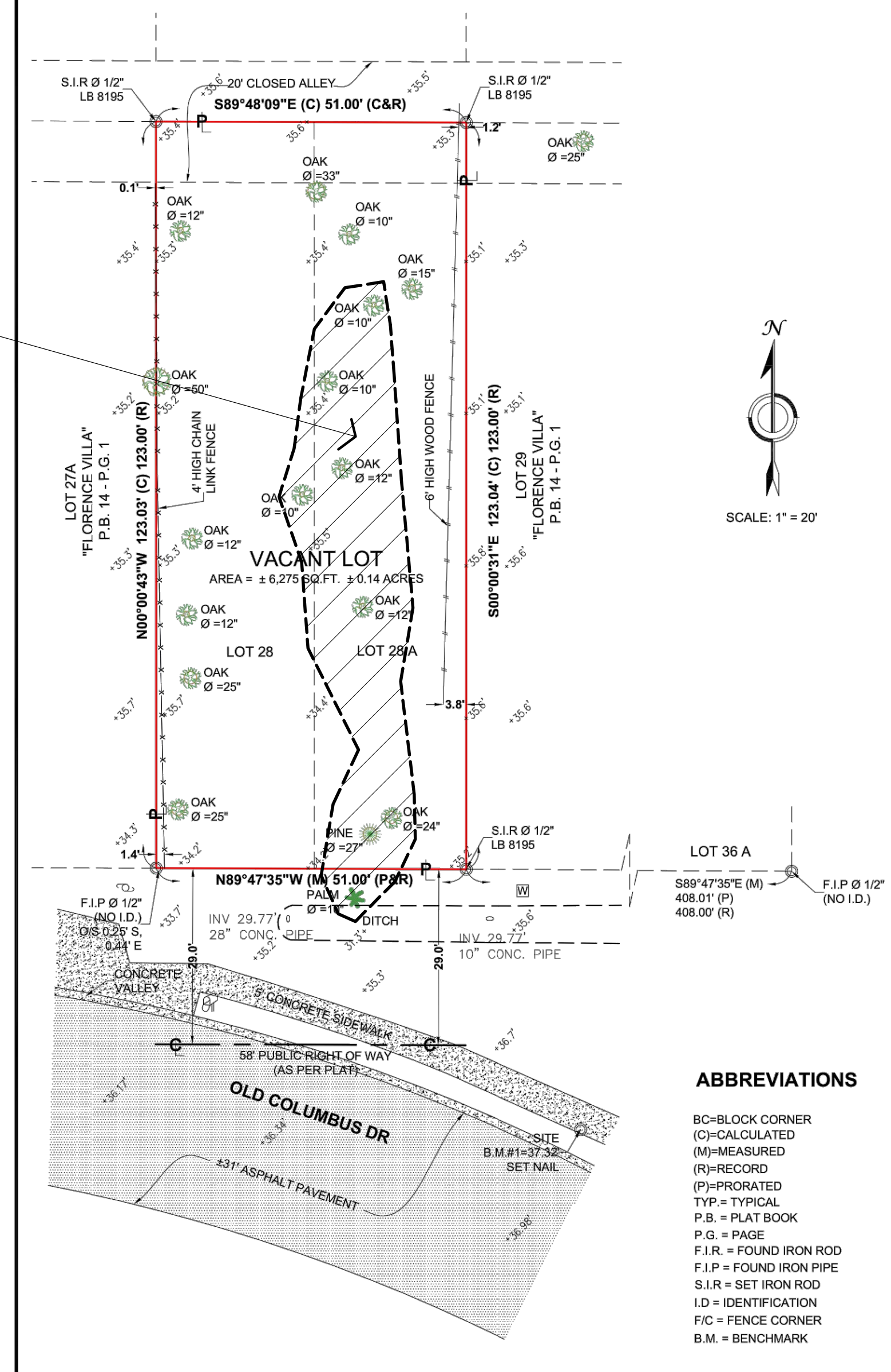
CERTIFY TO:

DIKSON RODRIGUEZ
ALLIE PROPERTY HOLDINGS INC

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY, THAT THIS "TOPOGRAPHIC SURVEY" AND THE MAP OF SURVEY RESULTING THERE FROM WAS PERFORMED UNDER MY DIRECTION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND FURTHER, THAT SAID "TOPOGRAPHIC SURVEY" MEETS THE INTENT OF THE "MINIMUM TECHNICAL STANDARDS FOR LAND SURVEYING IN THE STATE OF FLORIDA" PURSUANT TO RULE 64J1 OF THE FLORIDA ADMINISTRATIVE CODE AND ITS IMPLEMENTING RULE, CHAPTER 472.027 OF THE FLORIDA STATUTES.

SURVEY
SCALE: 1" = 20'

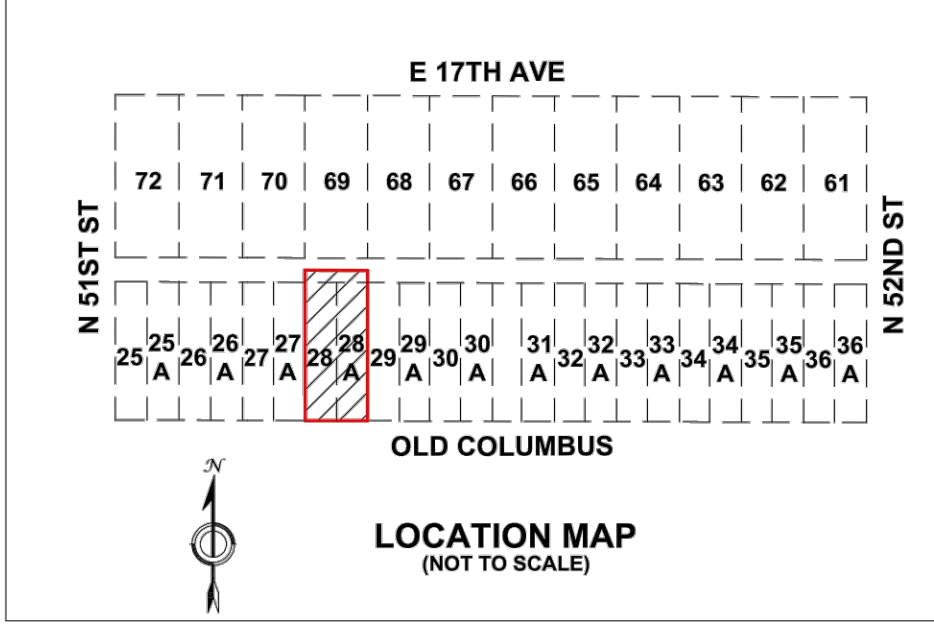


ABBREVIATIONS

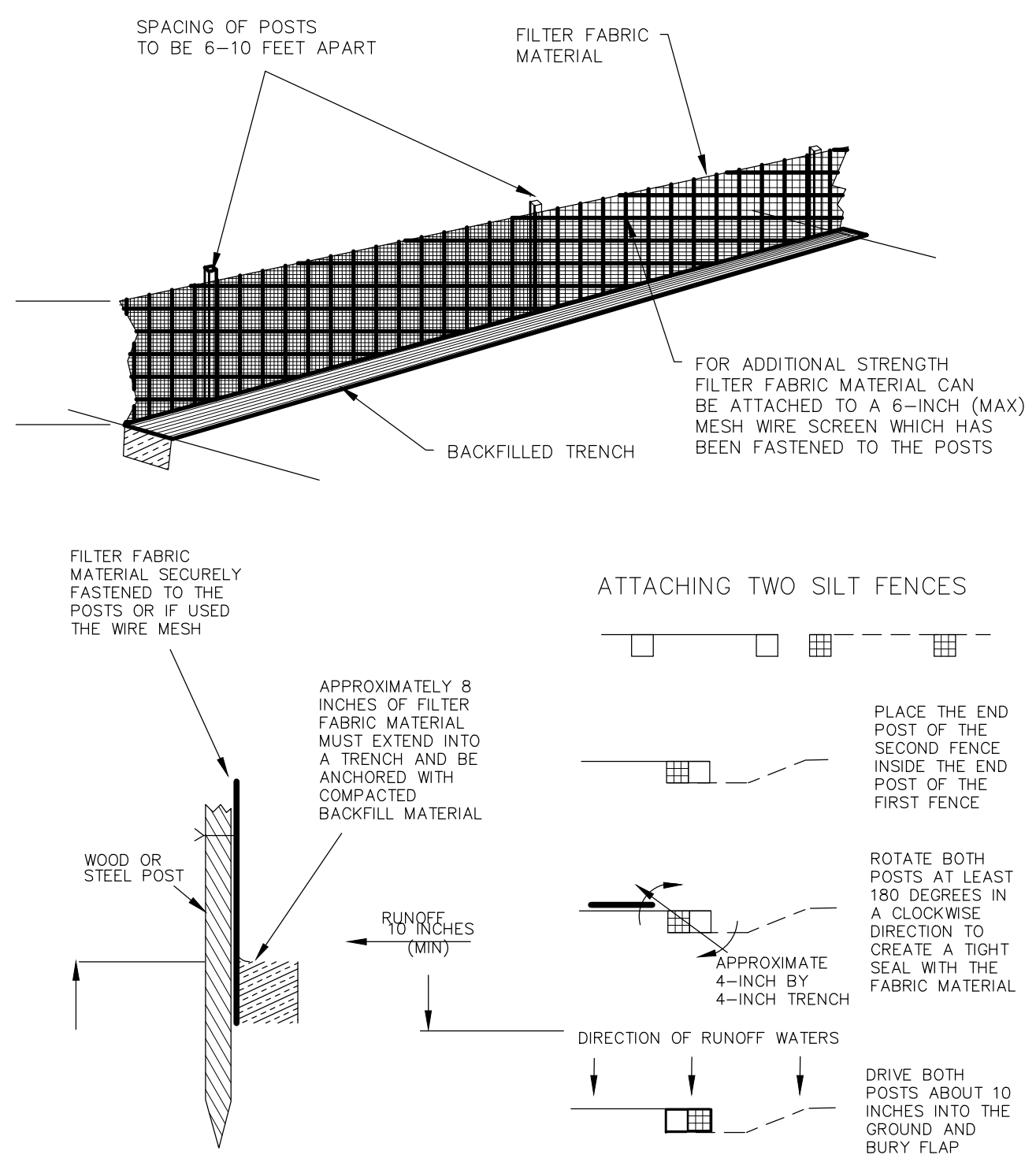
- BC=BLOCK CORNER
- (C)=CALCULATED
- (M)=MEASURED
- (R)=RECORD
- (P)=PRORATED
- TYP.= TYPICAL
- P.B. = PLAT BOOK
- P.G. = PAGE
- F.I.R. = FOUND IRON ROD
- S.I.R. = SET IRON ROD
- I.D. = IDENTIFICATION
- F.C. = FENCE CORNER
- B.M. = BENCHMARK

LEGEND

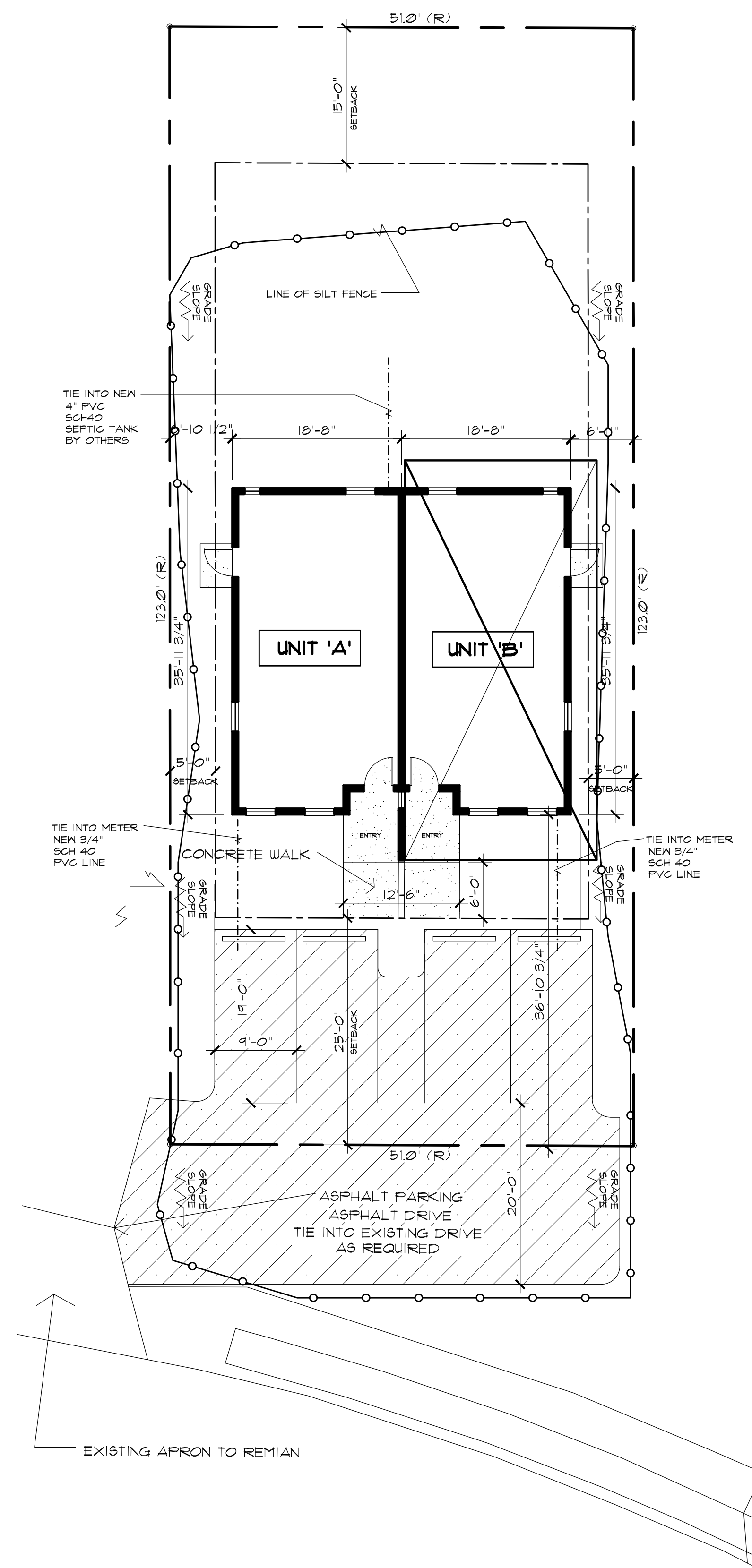
- CENTER LINE
- PROPERTY CORNER
- ▭ PROPERTY LINE
- ✎ PALM & TRUNK TREE
- ✎ CANOPY & TRUNK TREE
- ✎ PINE & TRUNK TREE
- GROUND ELEVATION
- PAVEMENT ELEVATION
- MAILBOX
- UTILITY POLE
- METER (WATER)



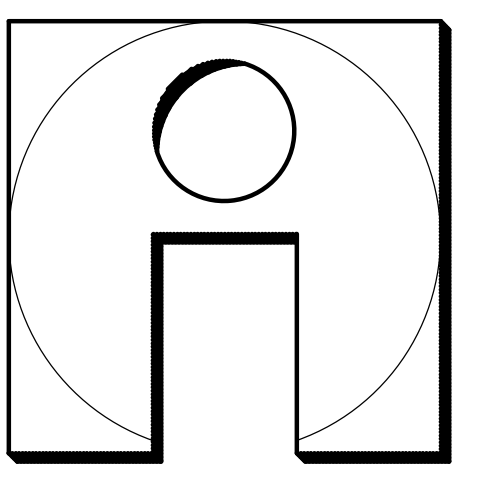
	PROFESSIONAL SURVEYOR AND MAPPER	ORIGINAL FIELD DATE	09/07/2021	JOB NO.	21-3715	Digitally signed by Julio C Rodriguez DN: c=US, o=Unaffiliated, ou=A01410C00000175DDC09C300003 DNB, cn=Julio C. Rodriguez Date: 2021.09.22 12:40:00 -0400	
	GLOBAL PROJECTS SURVEYING	PHONE: (813) 423-3483 FAX: (813) 388-0111 www.gpsflorida.net	REVISIONS:	DRAWN	CAM		



SILT FENCE DETAILS



SITE PLAN
SCALE: 1" = 10'



INSIDE OUT

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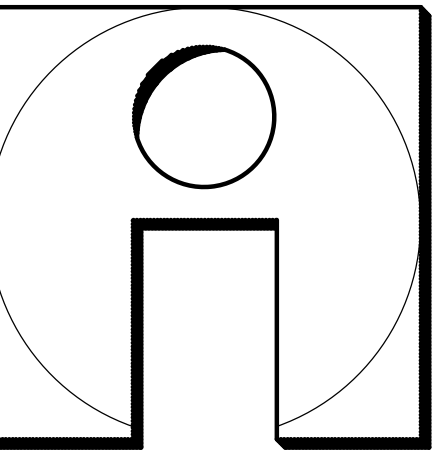
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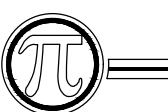
JOB NO.:
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A1



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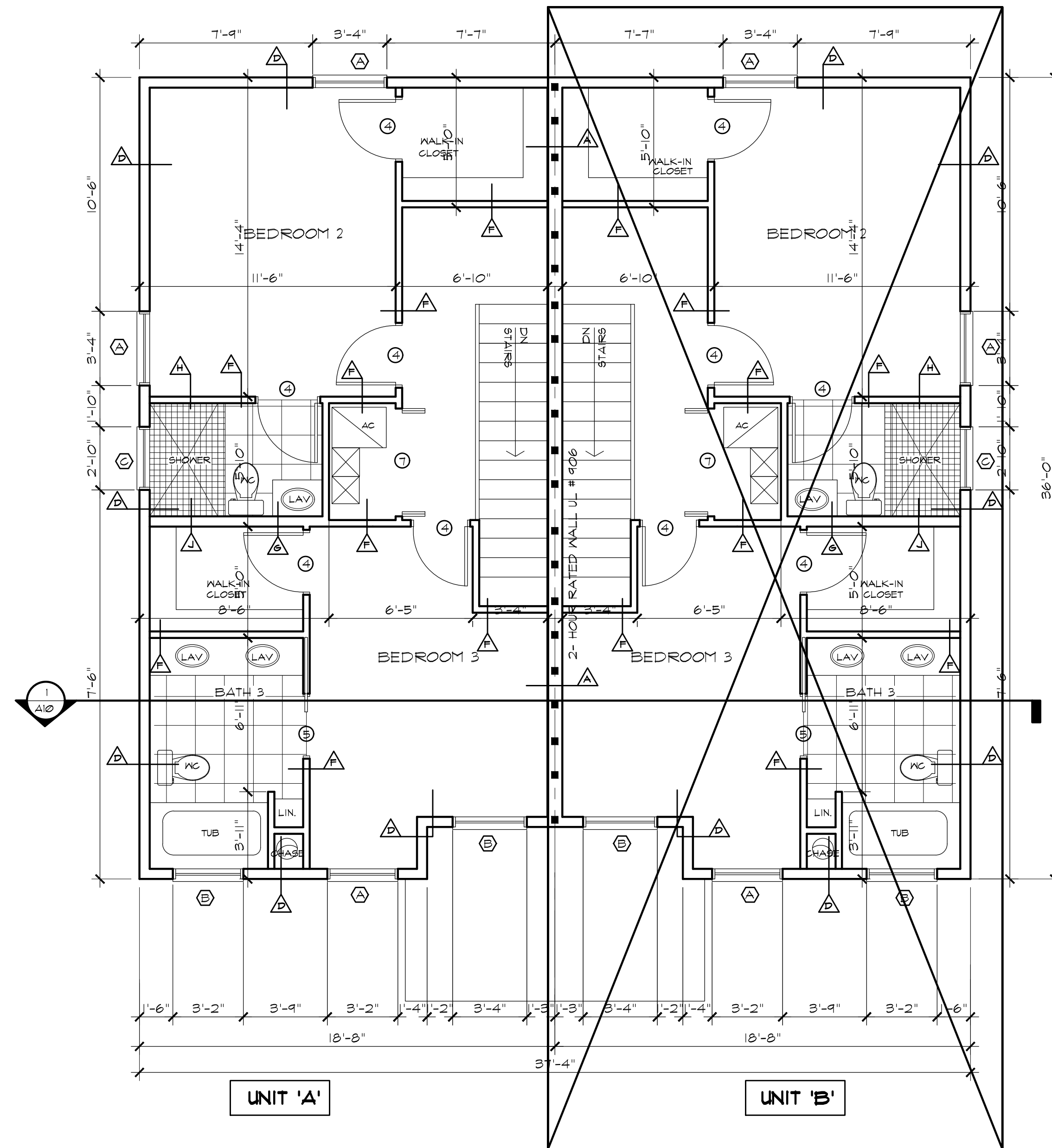
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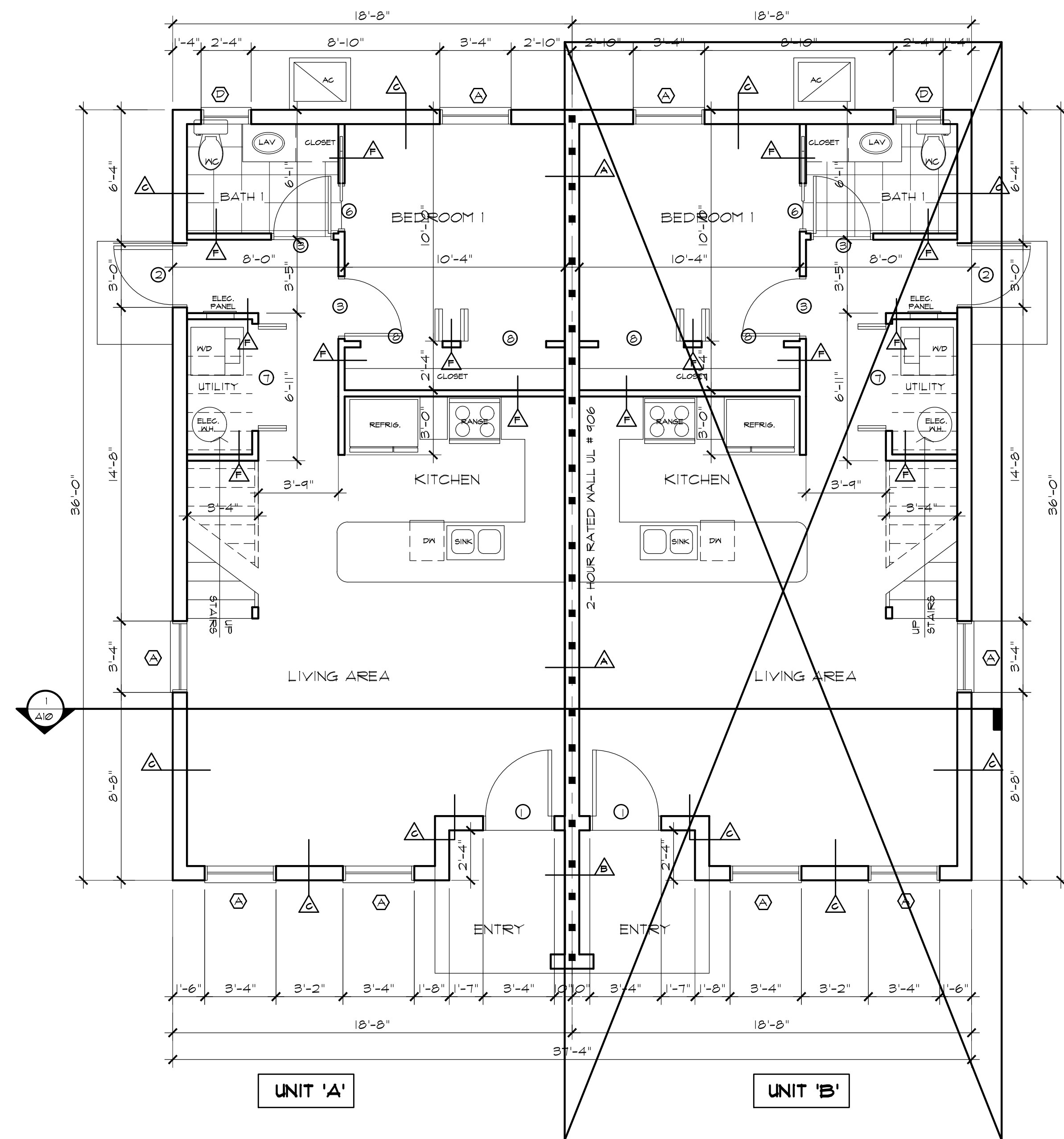
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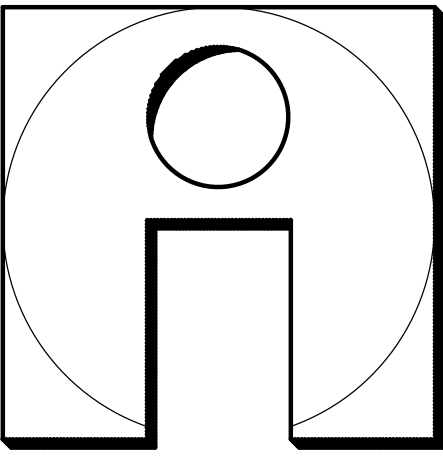
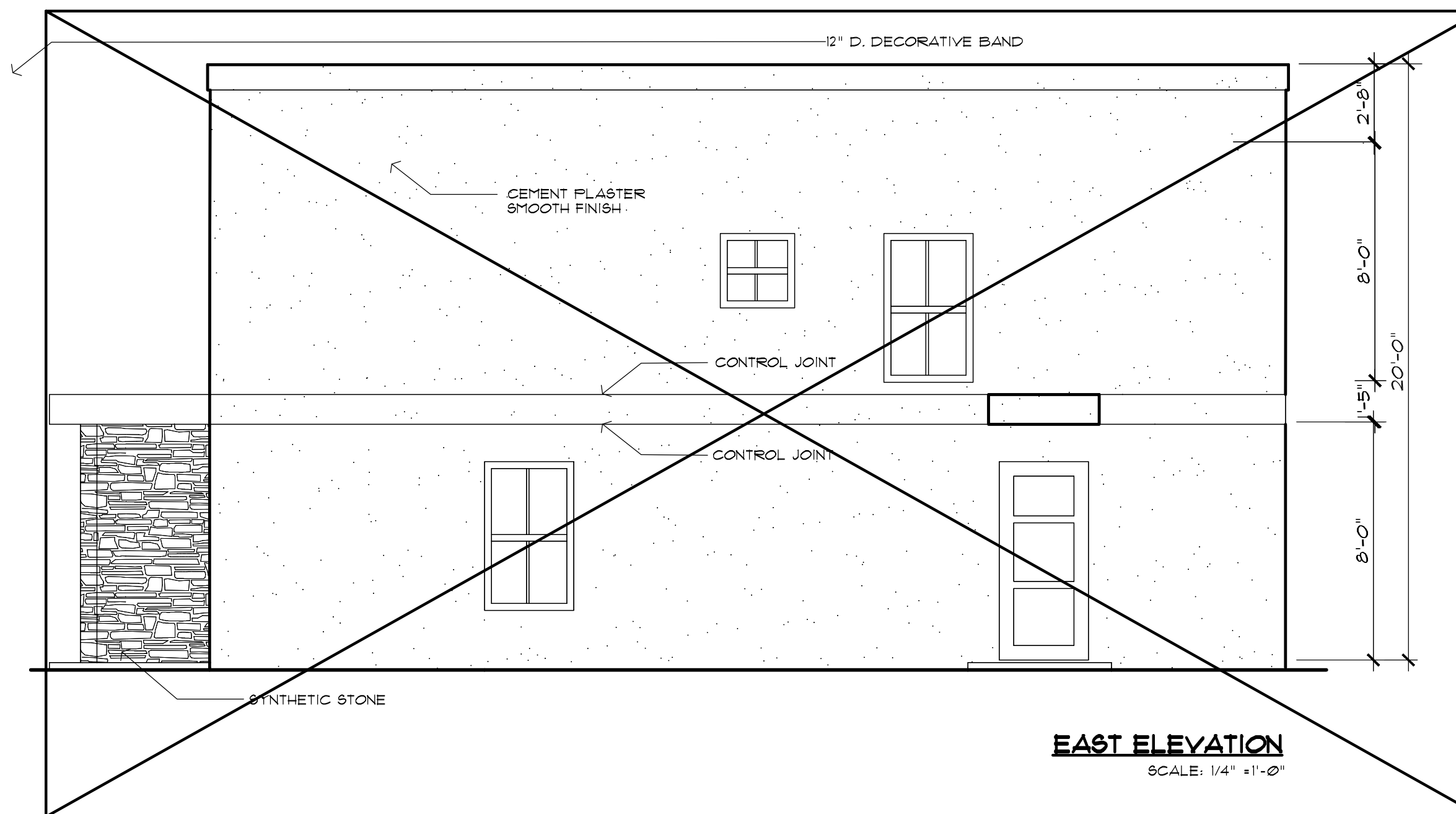
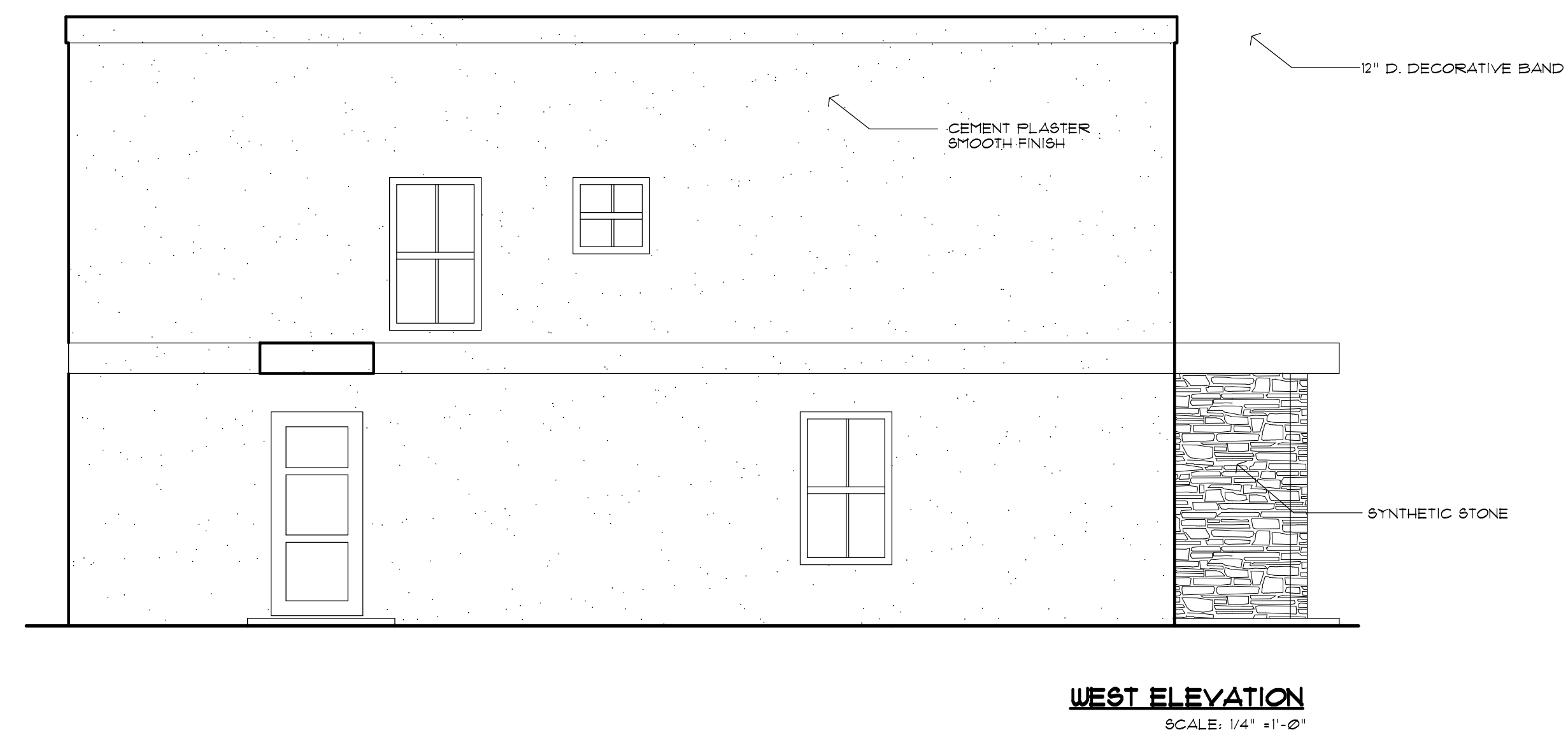
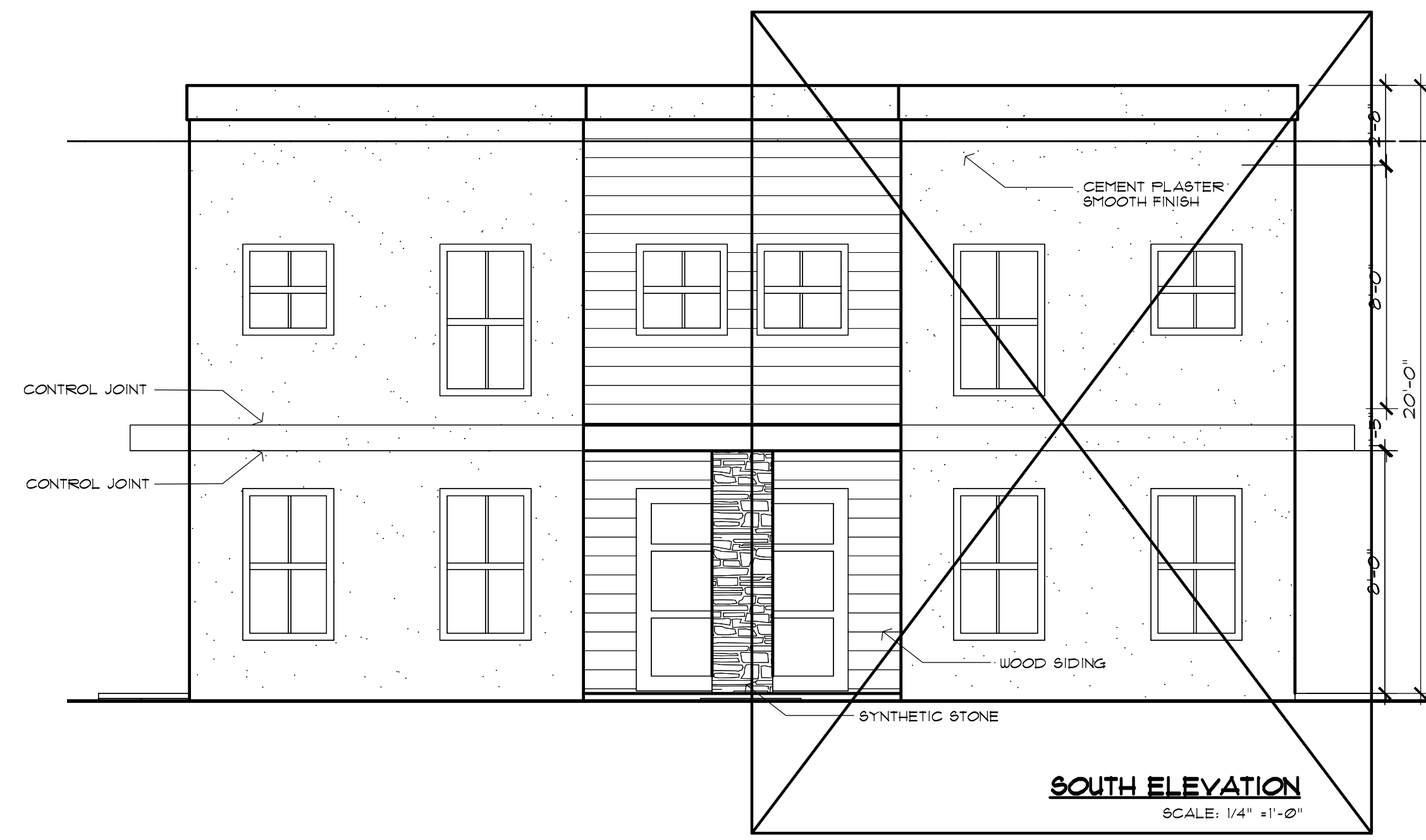
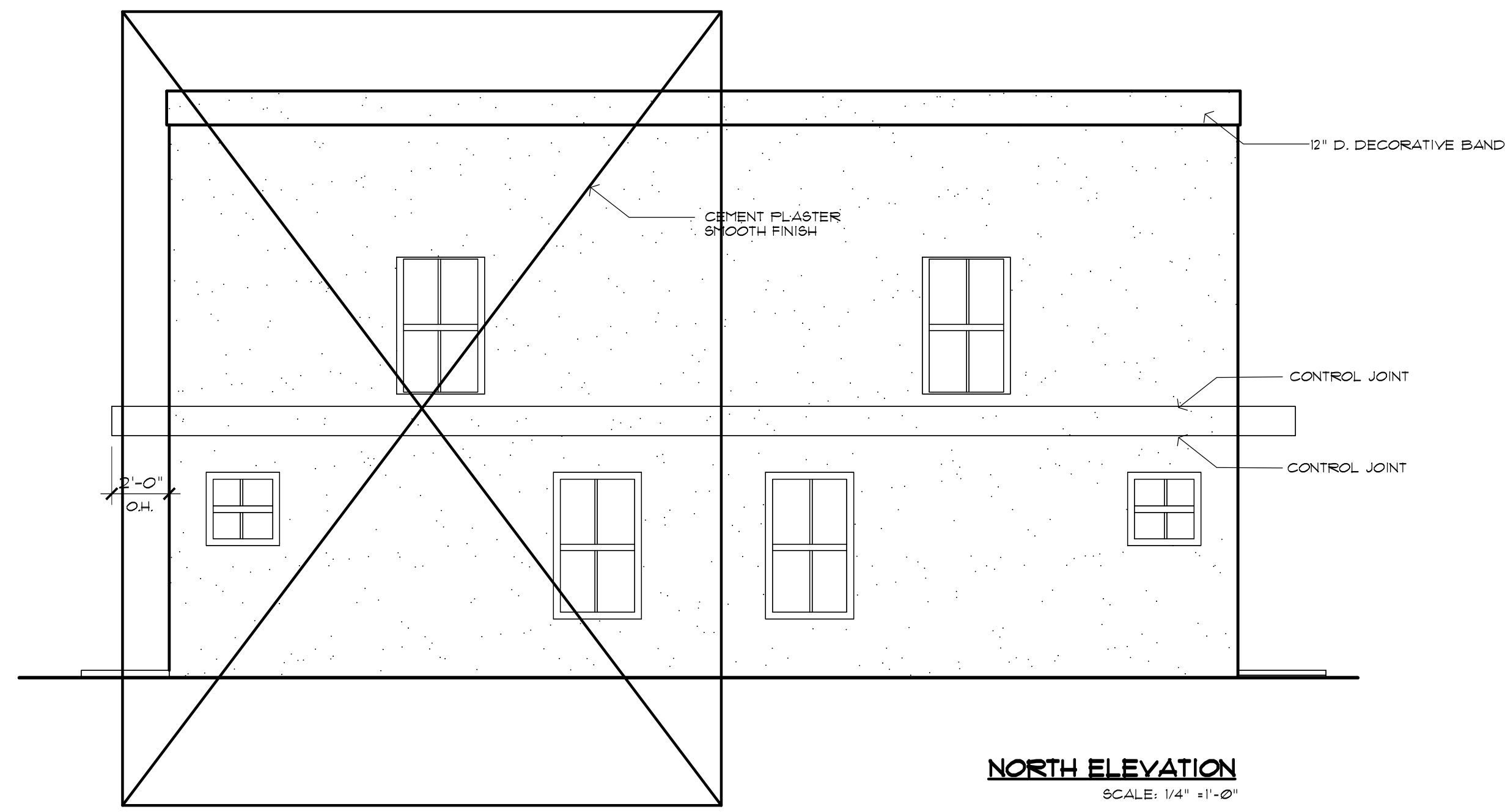
JOB NO.:
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SECOND FLOOR PLANS
SCALE: 1/4" = 1'-0"

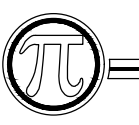


FIRST FLOOR PLANS
SCALE: 1/4" = 1'-0"



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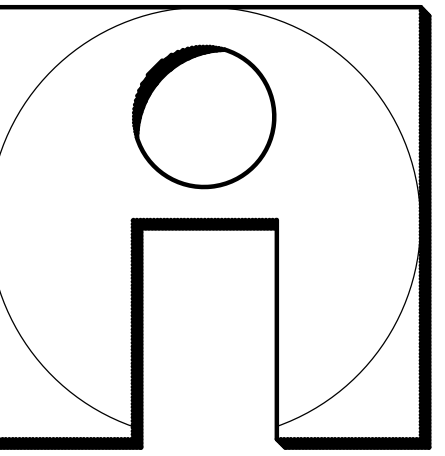
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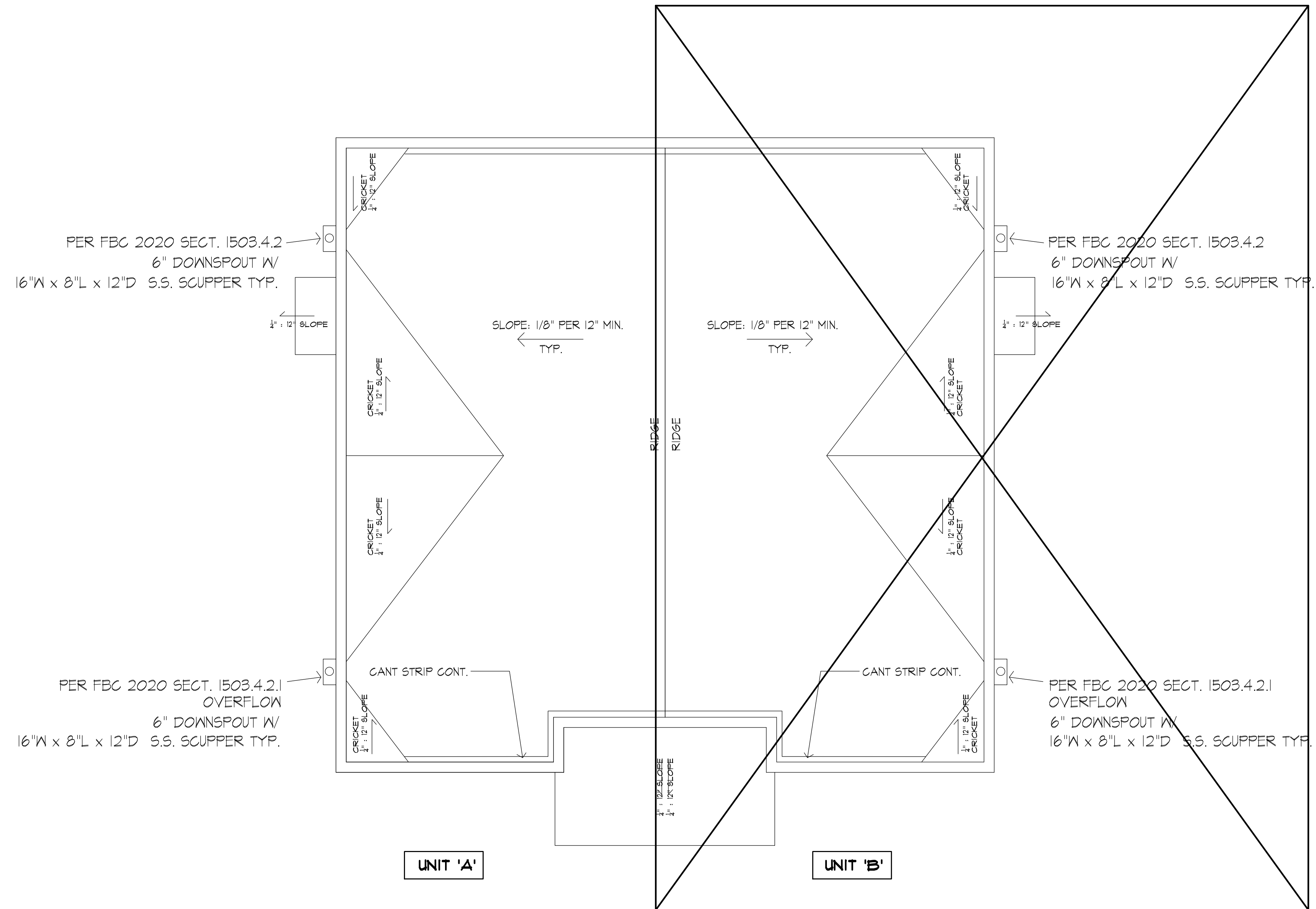
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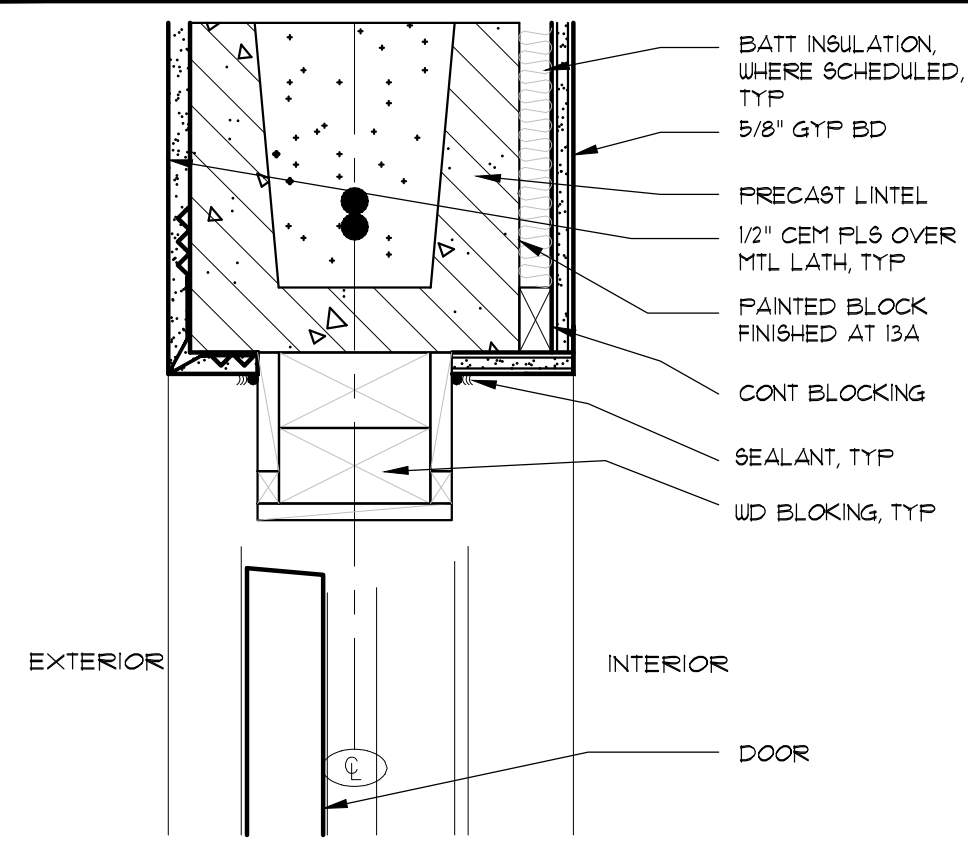
A4



FIRST FLOOR PLANS
SCALE: 1/4" = 1'-0"

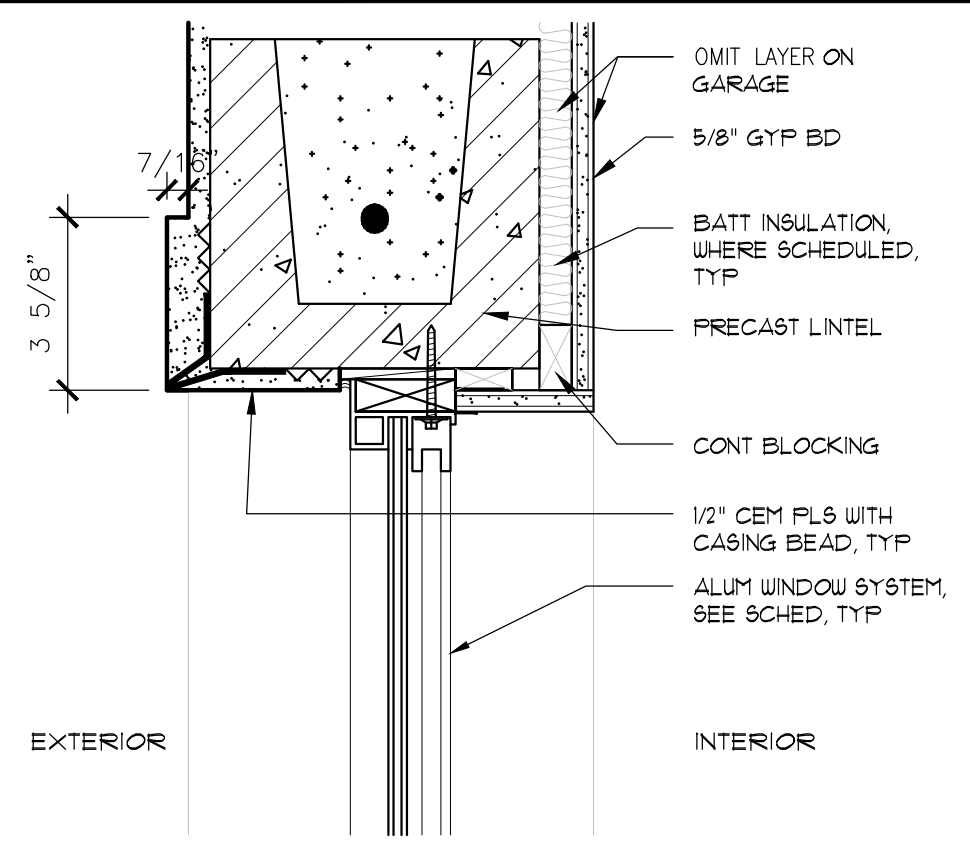
ROOF SPEC. FBC 2020 CHAPTER 15
TPO ROOFING SYSTEM -GAF PER
MANUFACTURER'S SPECIFICATIONS

DOOR DETAILS

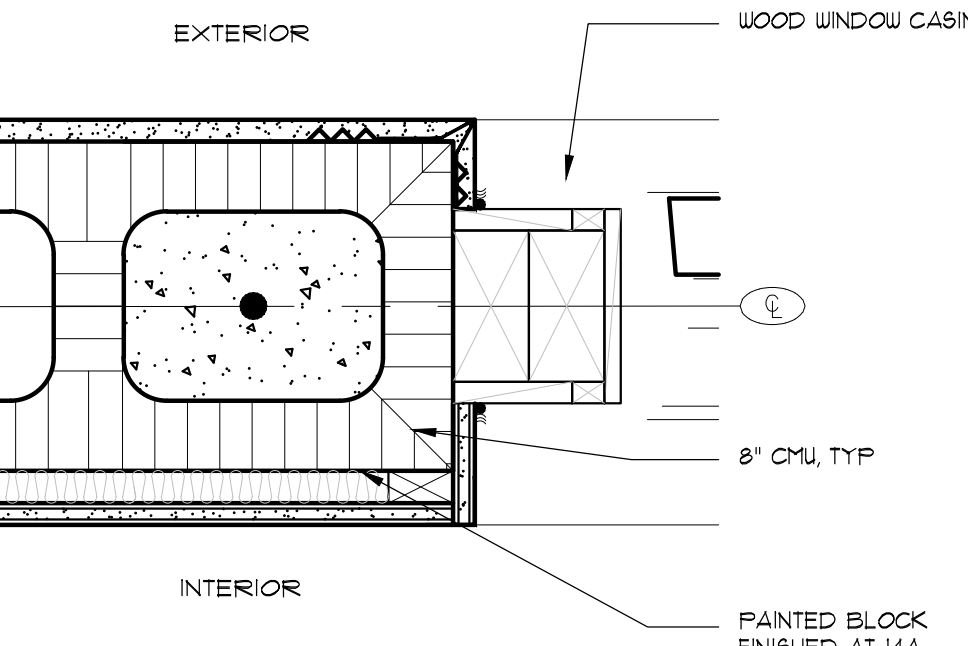


HEAD
SCALE: 3" = 1'-0"

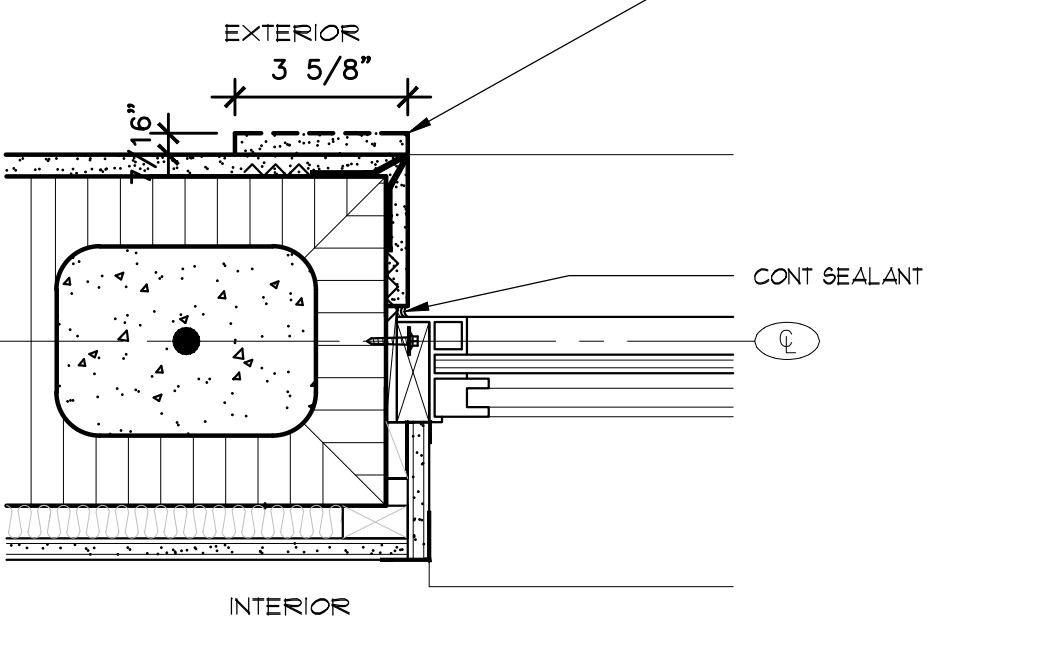
WINDOW DETAILS



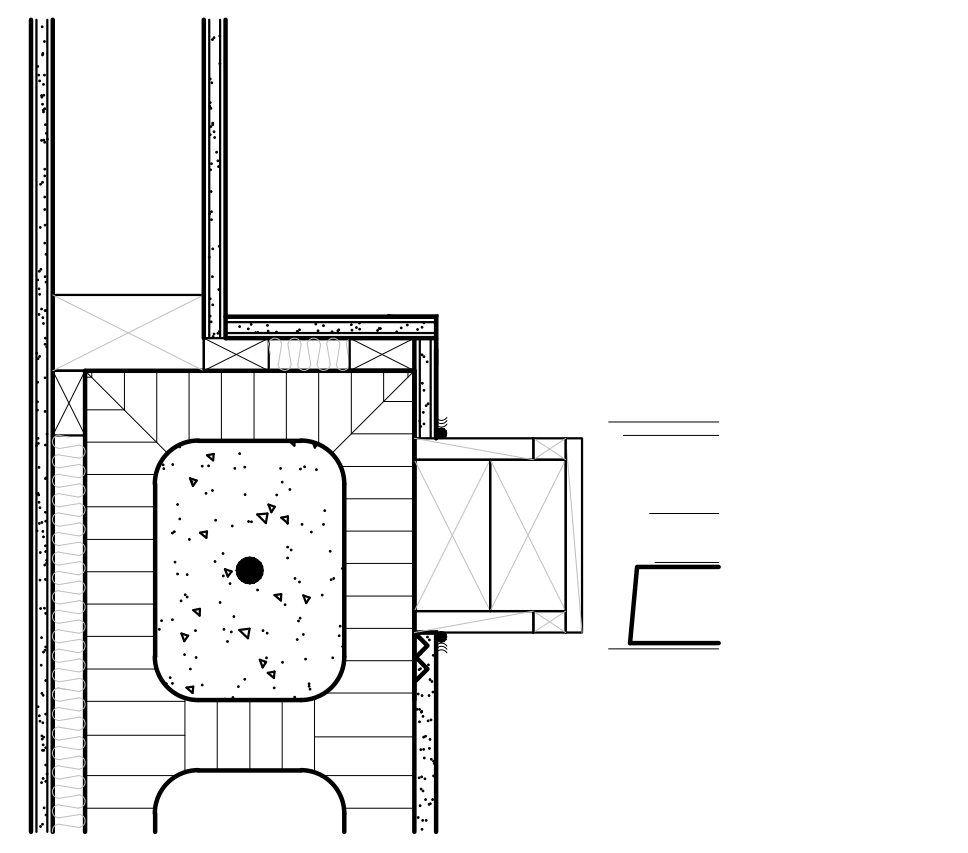
HEAD
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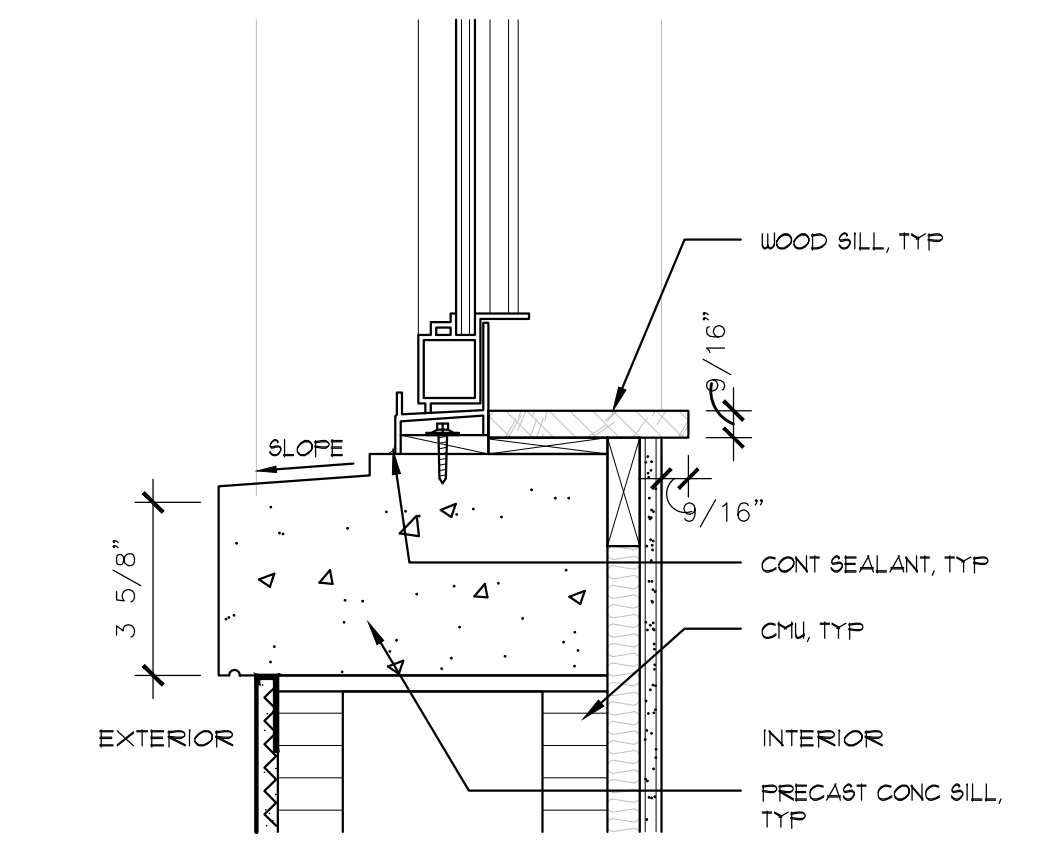
JAMB
SCALE: 3" = 1'-0"



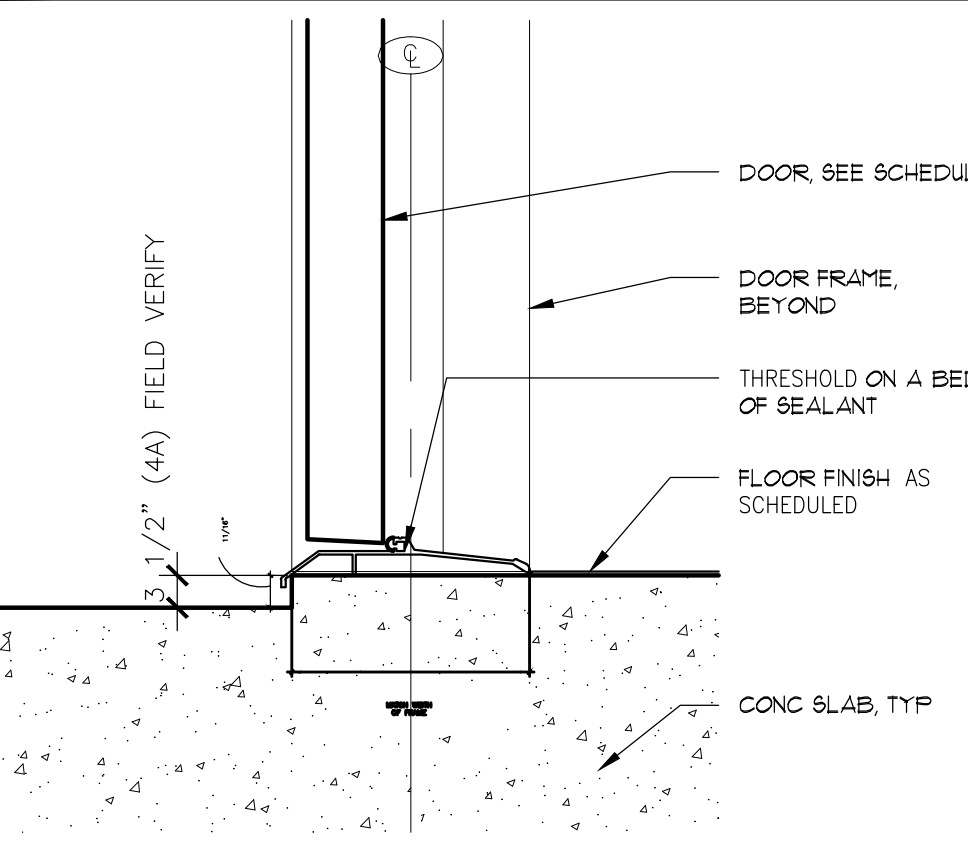
JAMB
SCALE: 3" = 1'-0"



JAMB
SCALE: 3" = 1'-0"



SILL
SCALE: 3" = 1'-0"



THRESHOLD
SCALE: 3" = 1'-0"

FLORIDA PRODUCT APPROVAL NUMBERS

PRODUCT	MANUFACTURER	PROD APR. #
SINGLE HUNG WINDOW	AMERICAN CRAFTSMAN	FL 14911.5
EXTERIOR DOOR	THERMA-TRU	FL 6993
HURRICANE CLIP	SIMPSON H 2.5	FL 10470
HURRICANE CLIP	SIMPSON LUS28	FL 11468.6
PEEL & STICK UNDERLAYMENT	GAF	FL18686.1

WINDOW SCHEDULE

MARK	SIZE	W x L	TYPE	MATERIAL	MANUFACTURER
(A)	36" x 60"		SH	VINYL, WHITE, INSULATED, LOW E, IMPACT RESISTANT EMERGENCE EGRESS	AMERICAN CRAFTSMAN
(B)	36" x 36"		SH	VINYL, WHITE, INSULATED, LOW E, IMPACT RESISTANT EMERGENCE EGRESS	AMERICAN CRAFTSMAN
(C)	30" x 30"		SH	VINYL, WHITE, INSULATED, LOW E,	AMERICAN CRAFTSMAN
(D)	24" x 30"		SH	VINYL, WHITE, INSULATED, LOW E,	AMERICAN CRAFTSMAN

NOTE: G.C. TO VERIFY PRECISE WINDOW SIZING PER MANUFACTURER WINDOW SIZING CHART.

SOLID CORE WOOD DOOR

DOOR SCHEDULE

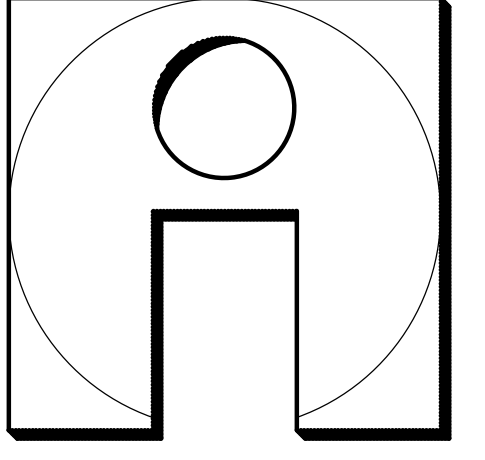
MARK	SIZE	TYPE	MANUFACTURER	HARDWARE SET	DOOR TYPE
(1)	3080	PREHUNG FIBERGLASS	THERMA-TRU	SET 1	
(2)	2680	PREHUNG FIBERGLASS	THERMA-TRU	SET 1	
(3)	2868	SOLID CORE WOOD DOOR		SET 2	
(4)	2668	SOLID CORE WOOD POCKET DOOR			
(5)	2668	SOLID CORE WOOD POCKET DOOR		SET 2	
(6)	2068	SOLID CORE WOOD POCKET DOOR		SET 1	
(7)	3068	BI-FOLD WOOD DOOR			
(8)	4068	BI-FOLD WOOD DOOR			

NOTE: G.C. TO VERIFY PRECISE DOOR SIZING PER MANUFACTURER DOOR SIZING CHART.

HARDWARE SCHEDULE

HARDWARE SET 1-ENTRANCE LOCK	
3	HINGES 630 FINISH
1	LOCKSET ENTRANCE FUNCTION
1	DEADLOCK EXTERIOR FINISH
1	HINGE STOP
HARDWARE SET 2-BEDROOMS AND BATHROOMS	
3	HINGES 652 FINISH
1	LOCKSET PRIVACY FUNCTION
1	WALL STOP 652 FINISH

NOTE:
MANUFACTURE'S STANDARD WIDTH RAILS AND STILES.
ALL FASTENING CONCEALED, COMPLETE WEATHERSTRIPPING ON ALL EDGES.



INSIDE OUT

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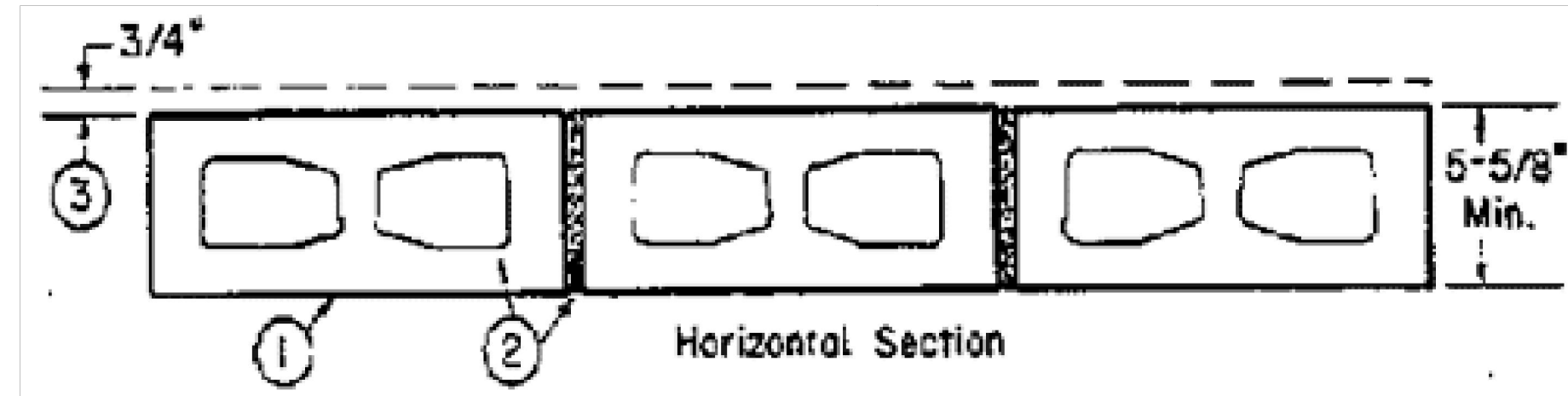
JOB NO.:
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UL FIRE RATED

Design No. U906

Bearing Wall Rating - 2 HR.

Nonbearing Wall Rating - 2 HR.



1. Concrete Blocks* - Nominal 6 by 8 by 16 in., hollow or solid.

Classification D-2 (2 hr).

Anchor Concrete Products, Inc.

Florida Rock Industries, Inc.

Pike Industries Inc., d/b/a Tilcon Whitcomb.

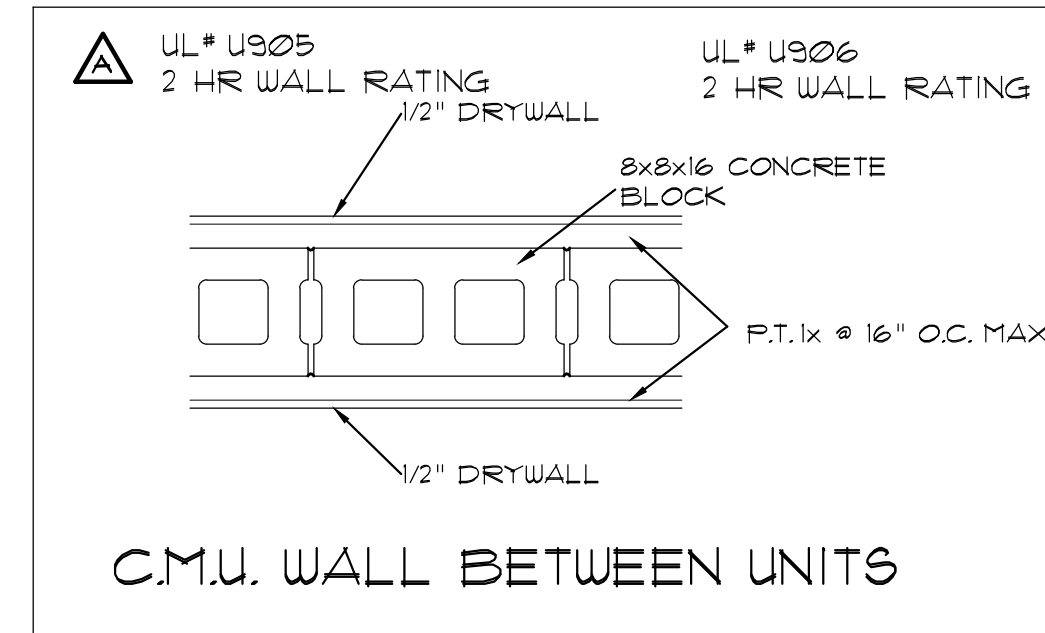
Westbrook Concrete Block Co., Inc.

2. Mortar - Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

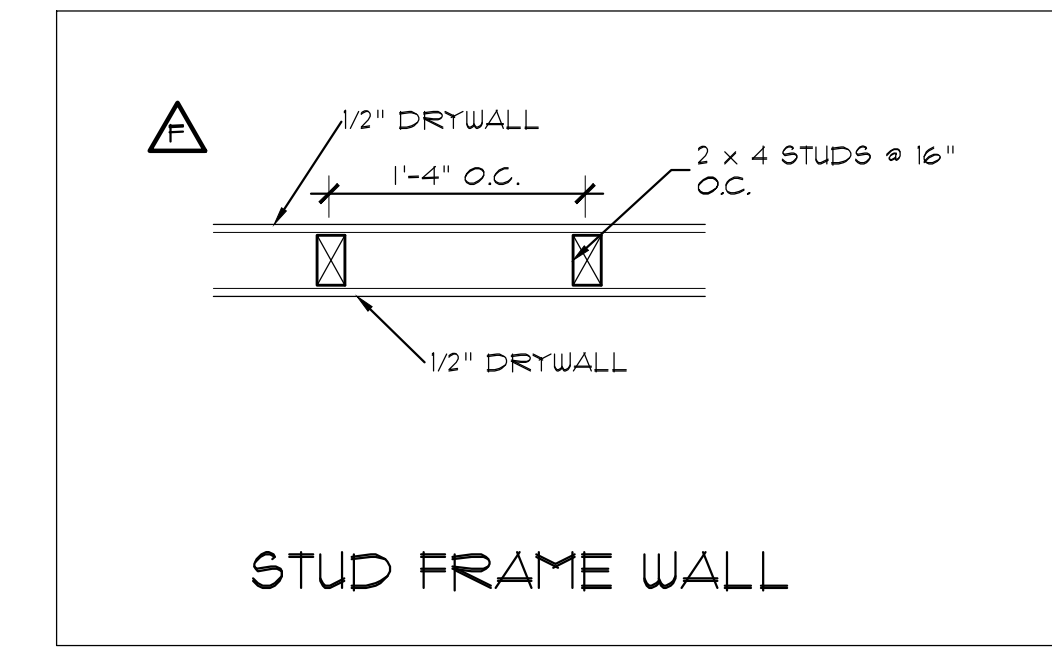
3. Portland Cement Stucco or Gypsum Plaster - If used, add 1/2 hr. to Classification. Attached to concrete blocks (Item 1).

4. Foamed Plastic* - (Optional - not shown) 1-1/2 in thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).

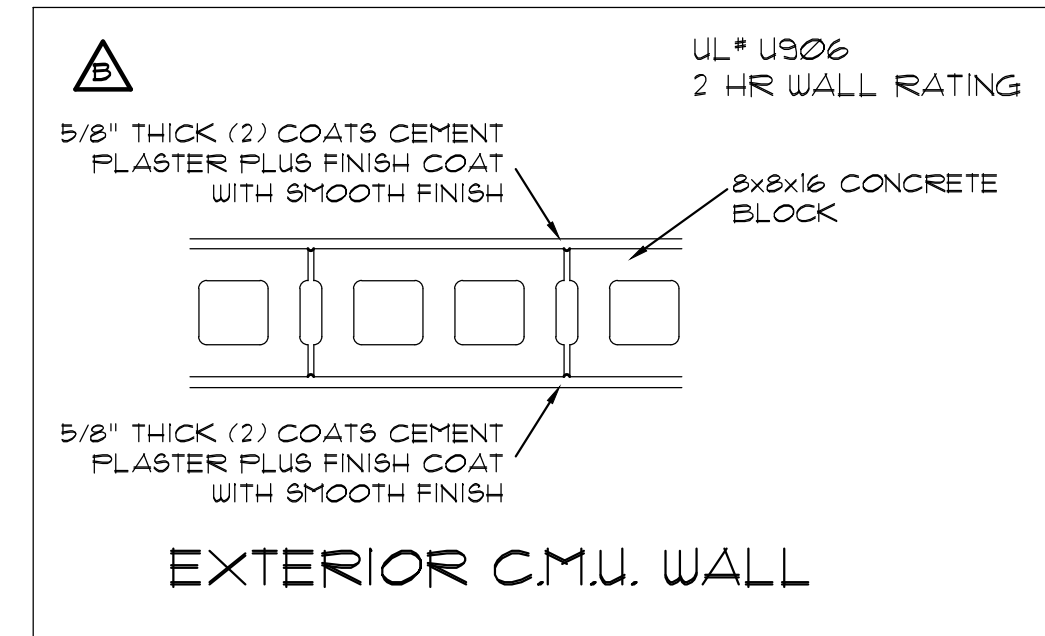
Celotex Corp. - Type Thermax



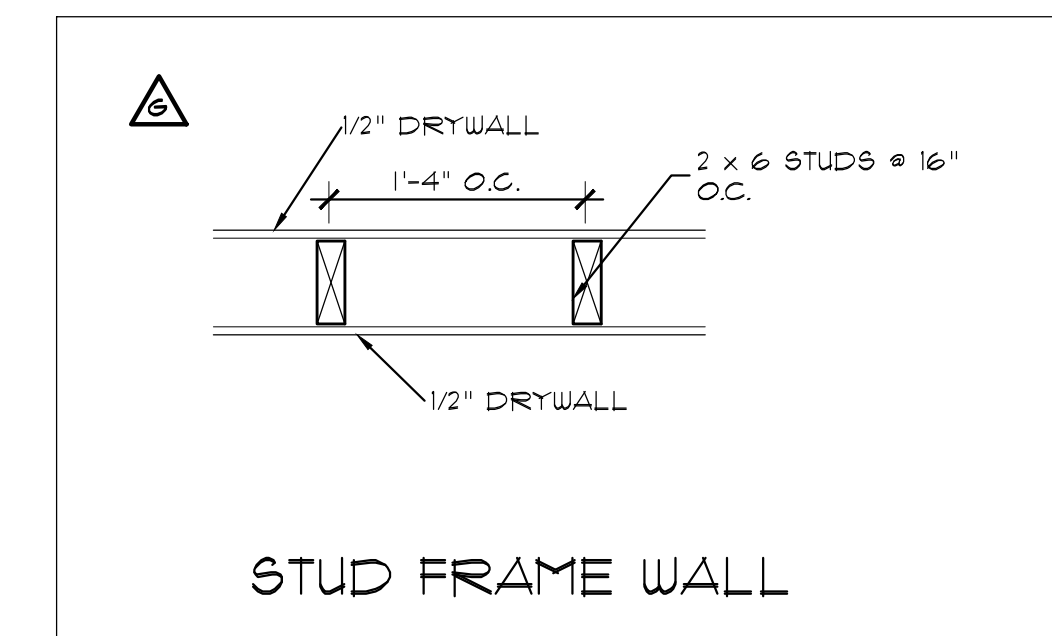
C.M.U. WALL BETWEEN UNITS



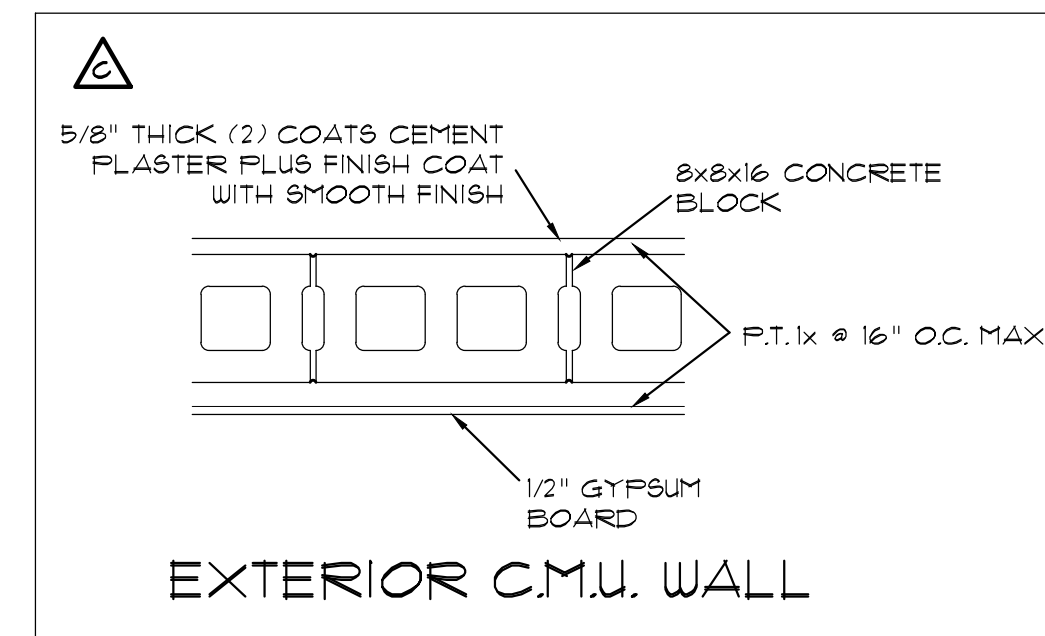
STUD FRAME WALL



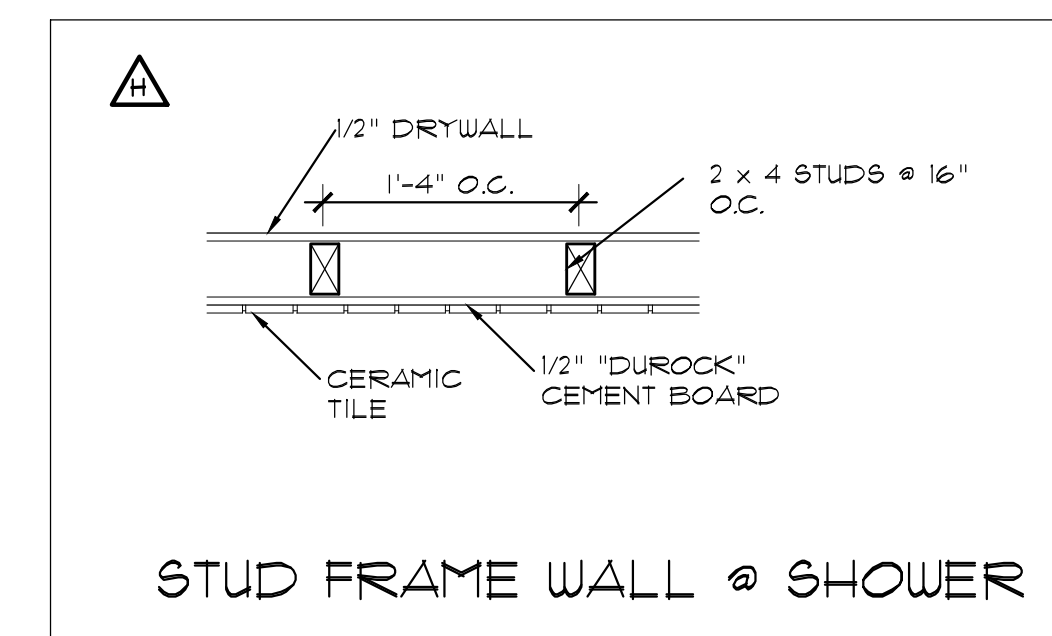
EXTERIOR C.M.U. WALL



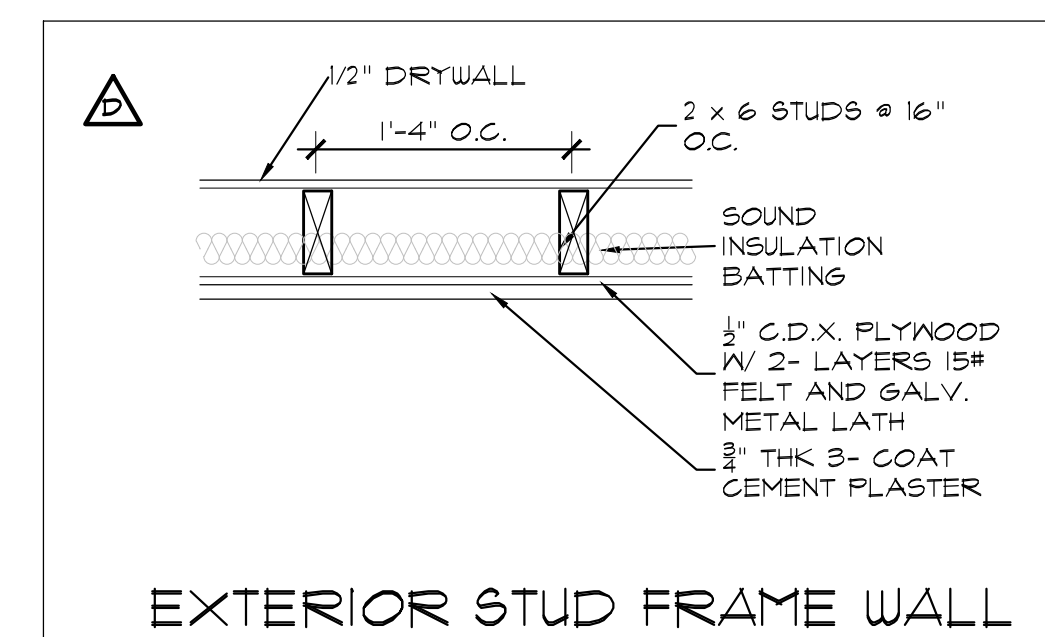
STUD FRAME WALL



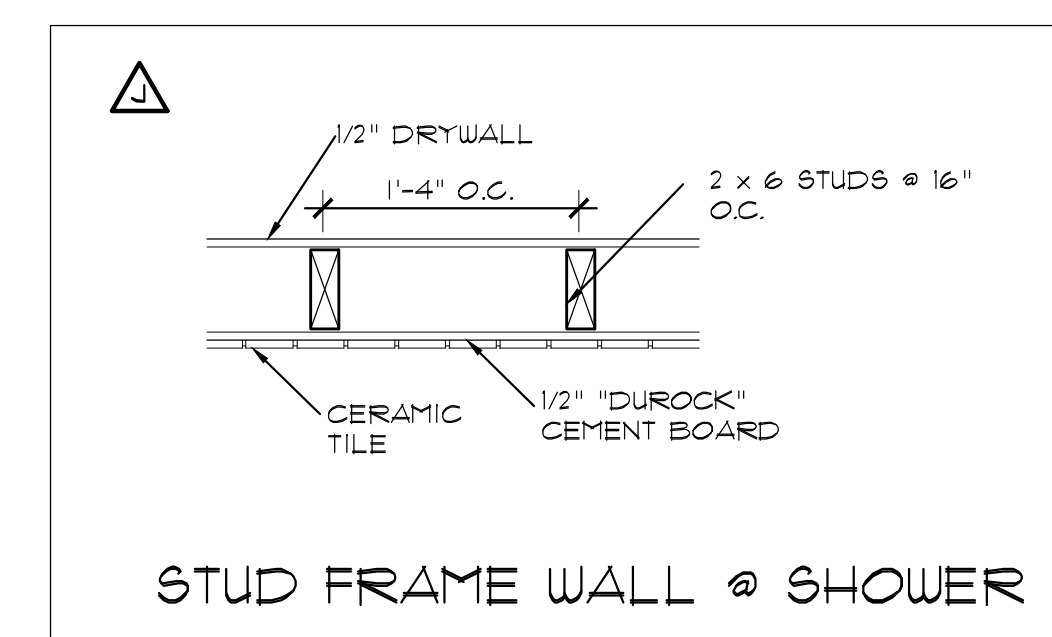
EXTERIOR C.M.U. WALL



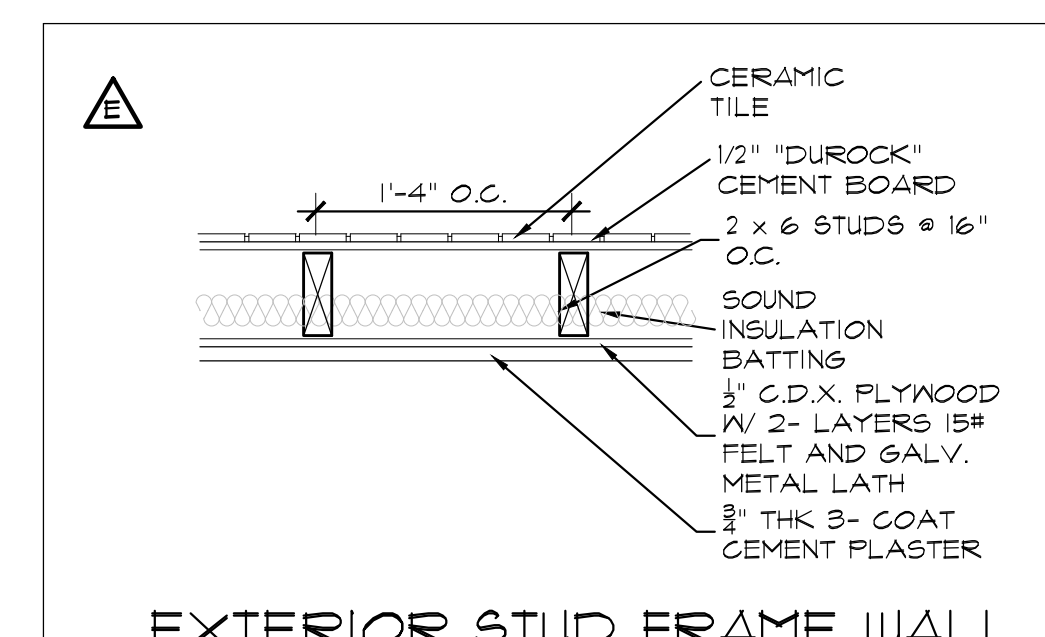
STUD FRAME WALL @ SHOWER



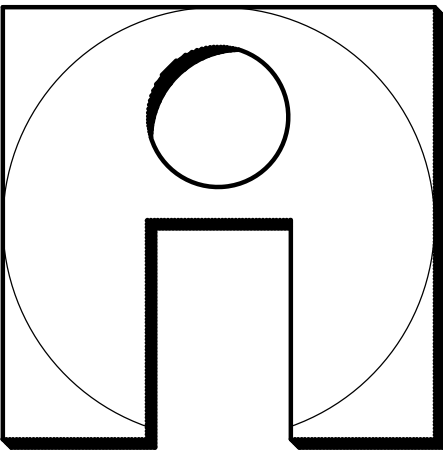
EXTERIOR STUD FRAME WALL



STUD FRAME WALL @ SHOWER



EXTERIOR STUD FRAME WALL



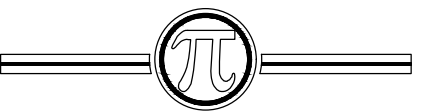
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OUT

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JOHN PANTAZES, ARCHITECT
2551 DREW ST #301
CLEARWATER, FL 33765

JOHN PANTAZES
ARCHITECT ARCH#22860



PROJECT:
**COLUMBUS TOWNHOME
RESIDENCE
UNIT A**

5108 E COLUMBUS DRIVE
TAMPA, FLORIDA

REVISIONS:

DRAWN BY:
CP

DATE:
JANUARY 5, 2022

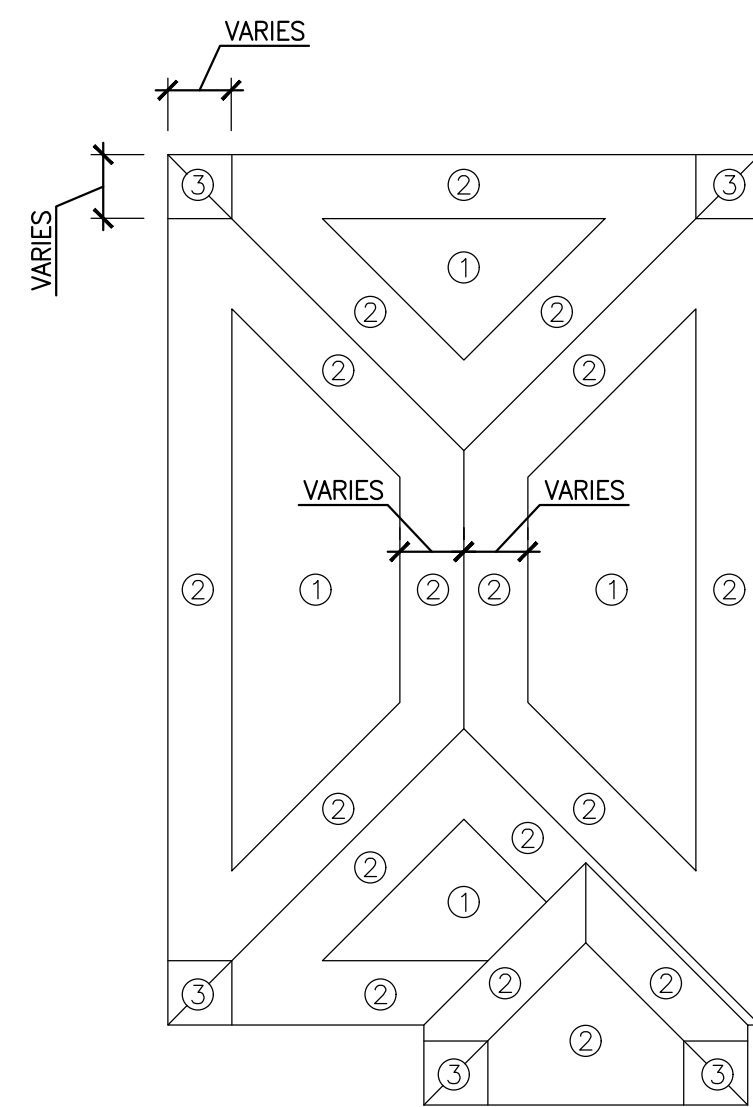
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21-064

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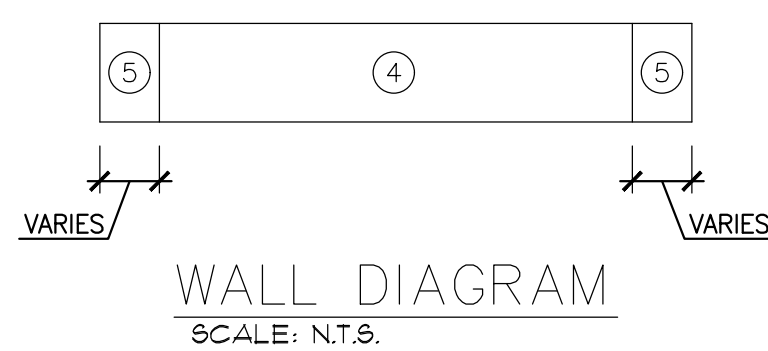
COMPONENT & CLADDING				
ZONE	EFF. WIND AREA (FF)	PRESSURE (PSF)		
1	10.00	+23.3	-37.0	
1	20.00	+21.3	-36.0	
1	50.00	+18.5	-34.6	
1	100.00	+16.5	-33.6	
2	10.00	+23.3	-64.5	
2	20.00	+21.3	-59.3	
2	50.00	+18.5	-52.5	
2	100.00	+16.5	-47.3	
3	10.00	+23.3	-95.4	
3	20.00	+21.3	-89.2	
3	50.00	+18.5	-81.0	
3	100.00	+16.5	-74.8	
4	10.00	+40.5	-43.9	
4	20.00	+38.7	-42.1	
4	50.00	+36.2	-39.7	
4	100.00	+34.4	-37.6	
5	10.00	+40.5	-54.2	
5	20.00	+38.7	-50.5	
5	50.00	+36.2	-45.7	
5	100.00	+34.4	-42.1	

COMPONENTS AND CLADDING

CATEGORY II
 EXPOSURE B
 ADJUSTMENT FACTOR 1
 ENCLOSURE CLASSIFICATION +, 1B
 LOAD
 DESIGN WIND SPEED - 145 MPH



ROOF UP-LIFT PLAN
 SCALE: N.T.S.



WALL DIAGRAM
 SCALE: N.T.S.

FOOTING SCHEDULE			
FOOTING ID.	FOOTING SIZE	REINFORCING	TOP OF FOOTING (UNO. ON PLAN)
Ⓐ	2'-6" W x CONT. x 1'-0" D	4-#5 CONT.	SEE PLAN
Ⓑ	2'-0" W x CONT. x 1'-0" D	3-#5 CONT.	SEE PLAN
Ⓒ	8" W x CONT. x 8" D	1-#5 CONT.	SEE PLAN
Ⓓ	2'-6" W x 2'-6" T. x 1'-6" D	5 # 6" O.C. TOP BTM.	SEE PLAN
Ⓔ	2'-0" W x CONT. x 1'-0" D	3-#5 CONT.	SEE PLAN

STRAP SCHEDULE			
MARK	STRAP	FASTENER	ALLOWABLE UPLIFT
1	SIMPSON HTZ	5-10d x 1 1/2" EACH	565*
2	SIMPSON H 2.5	5-8d x 1 1/2"	535*

WALL STUD SCHEDULE		
WALL TYPE	LEVEL	REMARKS
EXTERIOR WALLS	1ST FLOOR	8" CMU
EXTERIOR WALLS	2ND FLOOR	2x6 @ 16" O.C.

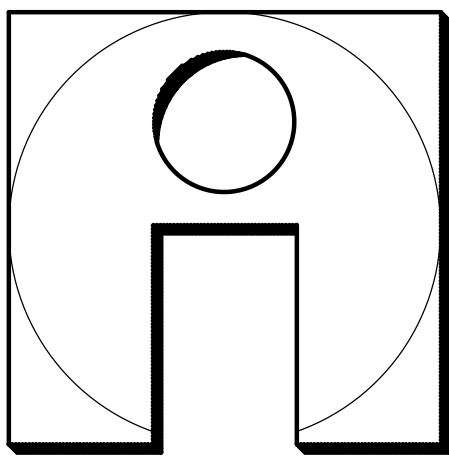
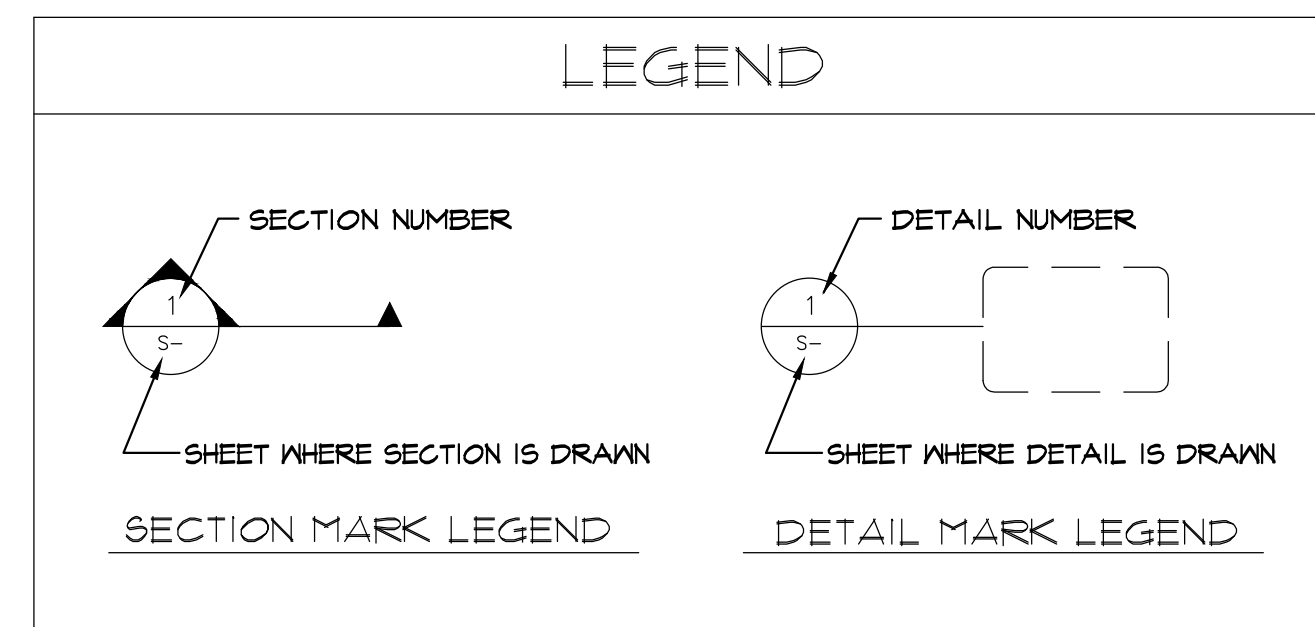
PRE-CAST / PRE-STRESSED CONCRETE LINTEL SCHEDULE		
MARK NO.	DESIGNATION	MIN. SAFE LOAD (PLF) GRAVITY / UPLIFT
3'-4" DOOR	PRECAST	8F8-1B
4'-8" DOOR	PRECAST	8F8-1B
6'-4" DOOR	PRECAST	8F8-1B
8'-8" DOOR	PRECAST	8F16-1B
4'-8" WINDOW	PRECAST	8F16-1B
5'-4" WINDOW	PRECAST	8F16-1B
8'-0" WINDOW	PRECAST	8F16-1B
12'-0" WINDOW	PRECAST	8F24-1B/1T

NOTES:
 1. THIS TABLE BASED ON PRECAST/PRESTRESSED LINTLES AS MANUFACTURED BY *CAST CRETE / FLORIDA ENGINEERED CONSTRUCTION PRODUCTS (TEL: 813-621-4641)*. PRECAST/PRESTRESSED LINTLES BY OTHER MANUFACTURERS SHALL MEET OR EXCEED SAFE LOAD CAPACITIES, MATERIALS AND PERFORMANCE CRITERIA.
 2. REFER TO "STRUCTURAL NOTES", SHEET S-0, UNDER "MASONRY CONSTRUCTION" FOR ADDITIONAL CONSTRUCTION AND MATERIAL REQUIREMENTS.
 4. REINFORCING PLACED IN LINTLES SHALL EXTEND 2'-0" MIN BEYOND OPENINGS.

TYPE DESIGNATION (SAMPLE)
 F = FILLED WITH GROUT
 U = UNFILLED
 QUANTITY OF CONT. REINFORCING AT BOTTOM OF LINTLE CAVITY
 QUANTITY OF CONTINUOUS REINFORCING AT TOP

8F16-1B/1T

ABBREVIATIONS			
AB	- ANCHOR BOLT	L	- ANGLE
ALT	- ALTERNATE	LG	- LONG
APPROX	- APPROXIMATELY	LP	- LOW POINT
ARCH	- ARCHITECTURAL	LW	- LONG WAY
B	- BOTTOM	MFR	- MANUFACTURER
BLDG	- BUILDING	MAS	- MASONRY
BM	- BEAM	MO	- MASONRY OPENING
BOTT	- BOTTOM	MATL	- MATERIAL
BRG	- BEARING	MAX	- MAXIMUM
C/C	- CENTER TO CENTER	MECH	- MECHANICAL
CH	- CHANNEL	MTL	- METAL
CIP	- CAST IN PLACE	MIN	- MINIMUM
CJ	- CONTRACTION JOINT	MISC	- MISCELLANEOUS
CL	- CENTERLINE	N5	- NEAR SIDE
CLR	- CLEAR	NIC	- NOT IN CONTRACT
CMU	- CONCRETE MASONRY UNIT	NTS	- NOT TO SCALE
COL	- COLUMN	O/C	- ON CENTER
CONC	- CONCRETE	OPNG	- OPENING
CONFIG	- CONFIGURATION	PART.	- PARTITION
CONT	- CONTINUOUS	PCJ	- PRECAST CONCRETE JOIST
CONTR	- CONTRACTOR	PL	- PLATE
CTR	- CENTER	PLF	- POUNDS PER LINEAR FOOT
DBL	- DOUBLE	PSF	- POUNDS PER SQUARE FOOT
DET	- DETAIL	PSI	- POUNDS PER SQUARE INCH
DIA	- DIAMETER	PT	- POST TENSIONED/PRESSURE TREATED
DIM	- DIMENSION	R	- RISER
DN	- DOWN	REIN	- REINFORCING
DR	- DOOR	REM	- REMAINDER
DLG	- DRAWING	REQD	- REQUIRED
EA	- EACH	REV	- REVISED/REVISION
EE	- EACH END	RM	- ROOM
EF	- EACH FACE	RO	- ROUGH OPENING
EJ	- EXPANSION JOINT	SCHED	- SCHEDULE
EL	- ELEVATION	SECT	- SECTION
ELEV	- ELEVATOR	SIM	- SIMILAR
EQ	- EQUAL	SL	- SLOPE
EW	- EACH WAY	SQ	- SQUARE
EXIST.	- EXISTING	SF	- SPIRAL
EXP	- EXPANSION	STD	- STANDARD
FIN	- FINISH	SW	- SHEARWALL/SHORT WAY
FLR	- FLOOR	STL	- STEEL
FND	- FOUNDATION	STRUCT	- STRUCTURAL
FOM	- FACE OF MASONRY	TB	- TIE BEAM
F5	- FAR SIDE	TC	- TIE COLUMN
FT	- FOOT	T.O.	- THRU OUT
FTG	- FOOTING	T/	- TOP OF
GA	- GAGE	TOC	- TOP OF CONCRETE
GALV	- GALVANIZED	T	- TOP
HC	- HOLLOW CORE	TEMP	- TEMPERATURE
HDG	- HOT DIPPED GALVANIZED	TOS	- TOP OF STEEL
HORIZ	- HORIZONTAL	TR	- TREAD
HP	- HIGH POINT	TYP	- TYPICAL
IJ	- ISOLATION JOINT	UNO	- UNLESS NOTED OTHERWISE
INFO	- INFORMATION	VERT	- VERTICAL
INT	- INTERIOR	W/	- WITH
JT	- JOINT	WD	- WOOD
KJ	- CONSTRUCTION JOINT	WUF	- WELDED WIRE FABRIC



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JOHN PANTAZES
 ARCHITECT ARCH#22860



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COLUMBUS TOWNHOME RESIDENCE UNIT A
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 TAMPA, FLORIDA

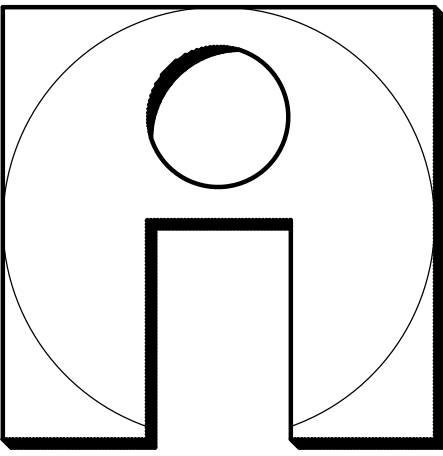
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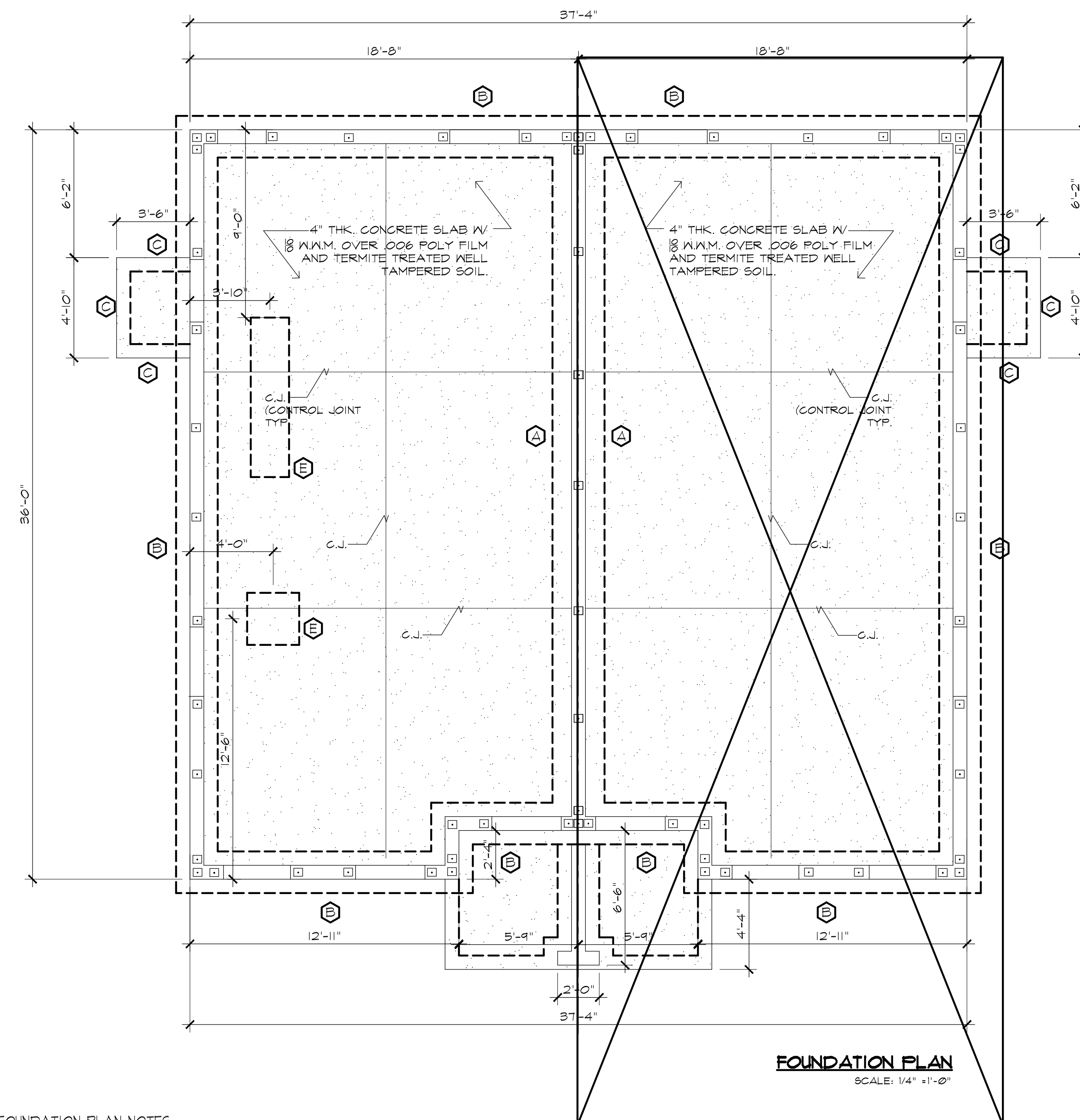
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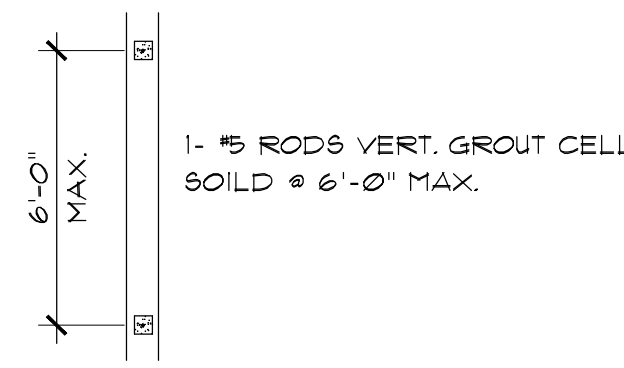
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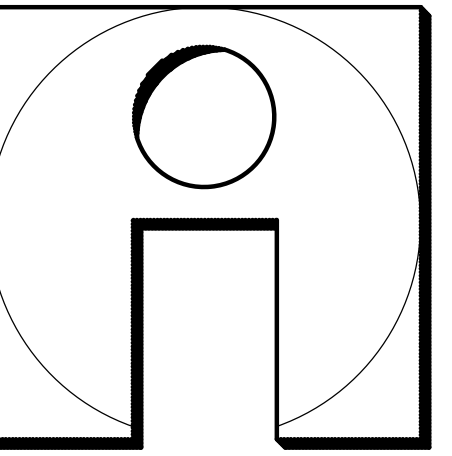


REBAR PLACEMENT LEGEND



FOUNDATION PLAN NOTES:

1. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE STRUCTURAL ENGINEER. DO NOT SCALE THIS DRAWING FOR DIMENSIONS NOT SHOWN - REFERENCE ARCHITECTURAL DRAWINGS.
2. REFER TO THE STRUCTURAL NOTES SHEET S-7 & SHEET S-8 FOR ADDITIONAL INFORMATION.
3. ALL ELEVATIONS ARE WITH RESPECT TO DATUM EL.=0'-0" (FINISHED FLOOR ELEVATION) REFER TO CIVIL DRAWINGS FOR EXACT ELEVATION.
4. GROUND FLOOR SLAB SHALL BE A MINIMUM 4" CONCRETE SLAB ON GRADE WITH FIBROUS REINF. ADDED AT A RATE 1.5#/yd. THE SLAB SHALL BE CAST ON VAPOR BARRIER 6 MIL. (MIN. THICKNESS) ON WELL COMPACTED TERMITE TREATED FILL MATERIAL. LAP VAPOR BARRIER 6" AT JOINTS AND TAPE. SLAB CONTRACTION JOINTS ARE INDICATED AS C.J. ON PLAN. CONTRACTION JOINTS MAY BE TOOLED OR SAW CUT (WITHIN 4 TO 16 HOURS OF POUR). SEE SOILS REPORT FOR SUBGRADE PREPARATION EQUIPMENT. SPACE JOINTS @ 15' O.C. MAX. AS INDICATED ON PLAN.
5. [Hatched pattern] INDICATES 8" MASONRY WALL (SEE PLAN) - REINF. W/ #5 VERT. AS SHOWN U.N.O. PROVIDE 9 GA HORIZ. JOINT REINF. EVERY OTHER COURSE. PROVIDE ASTM A153 CLASS B-2 HOT DIP GALV. FINISH.
6. TOP OF FOOTING = -1'-4" FROM 0'-0" UNLESS NOTED OTHERWISE.
7. REFER TO GEOTECHNICAL FOR GENERAL REQUIREMENTS OF SUBGRADE.
8. REFER TO GENERAL NOTES FOR MORE INFORMATION.



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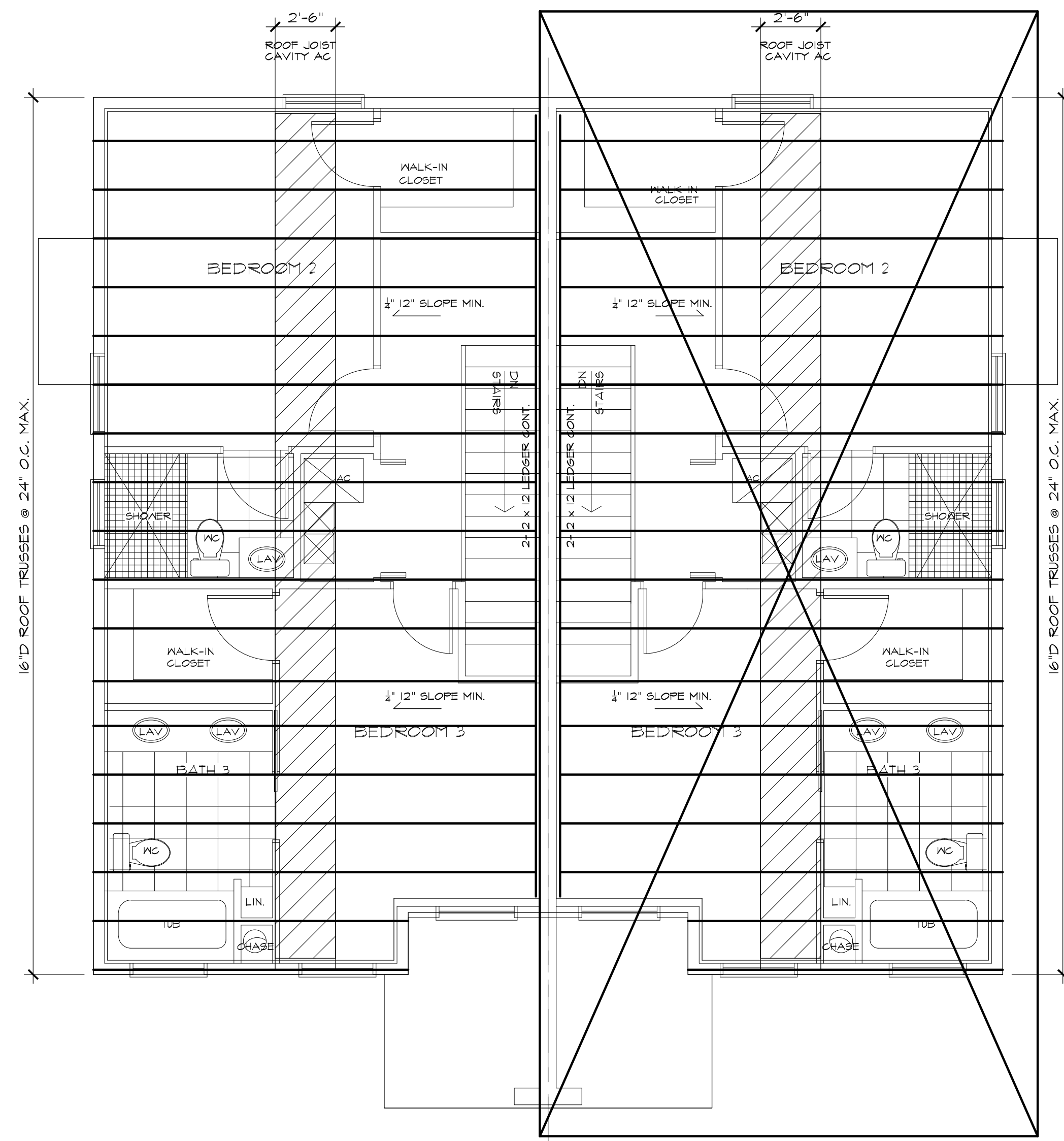
5108 E COLUMBUS DRIVE
TAMPA, FLORIDA

REVISIONS:

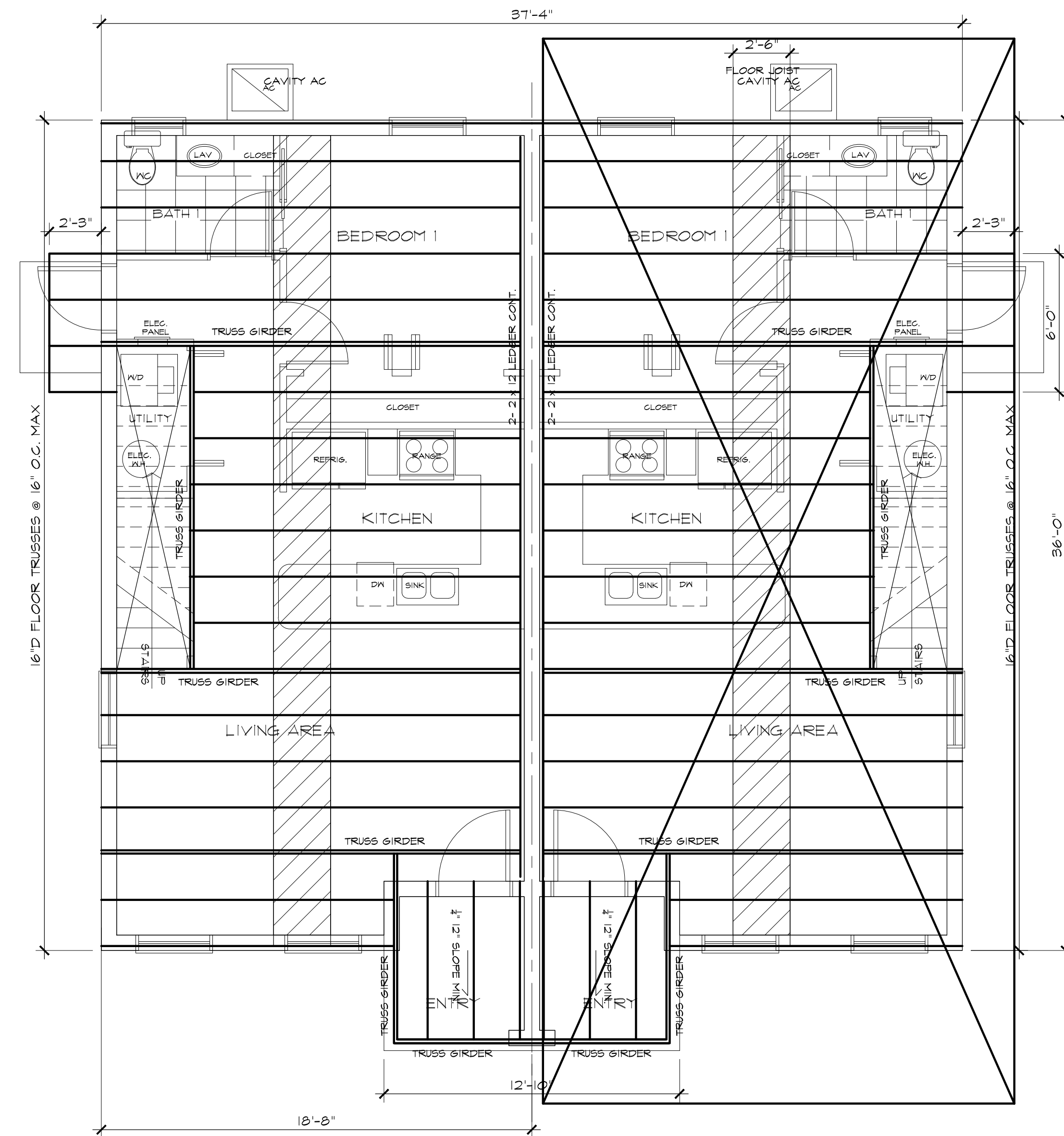
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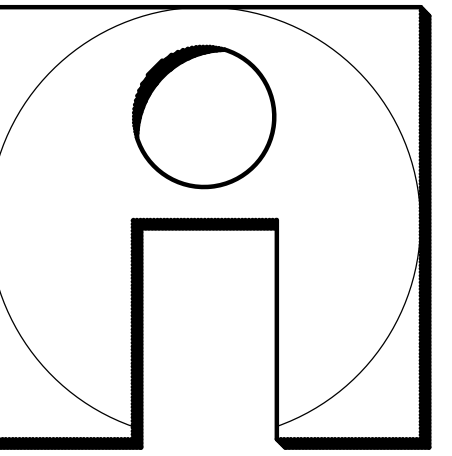
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ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"



SECOND FLOOR FRAMING PLAN
SCALE: 1/4" = 1'-0"



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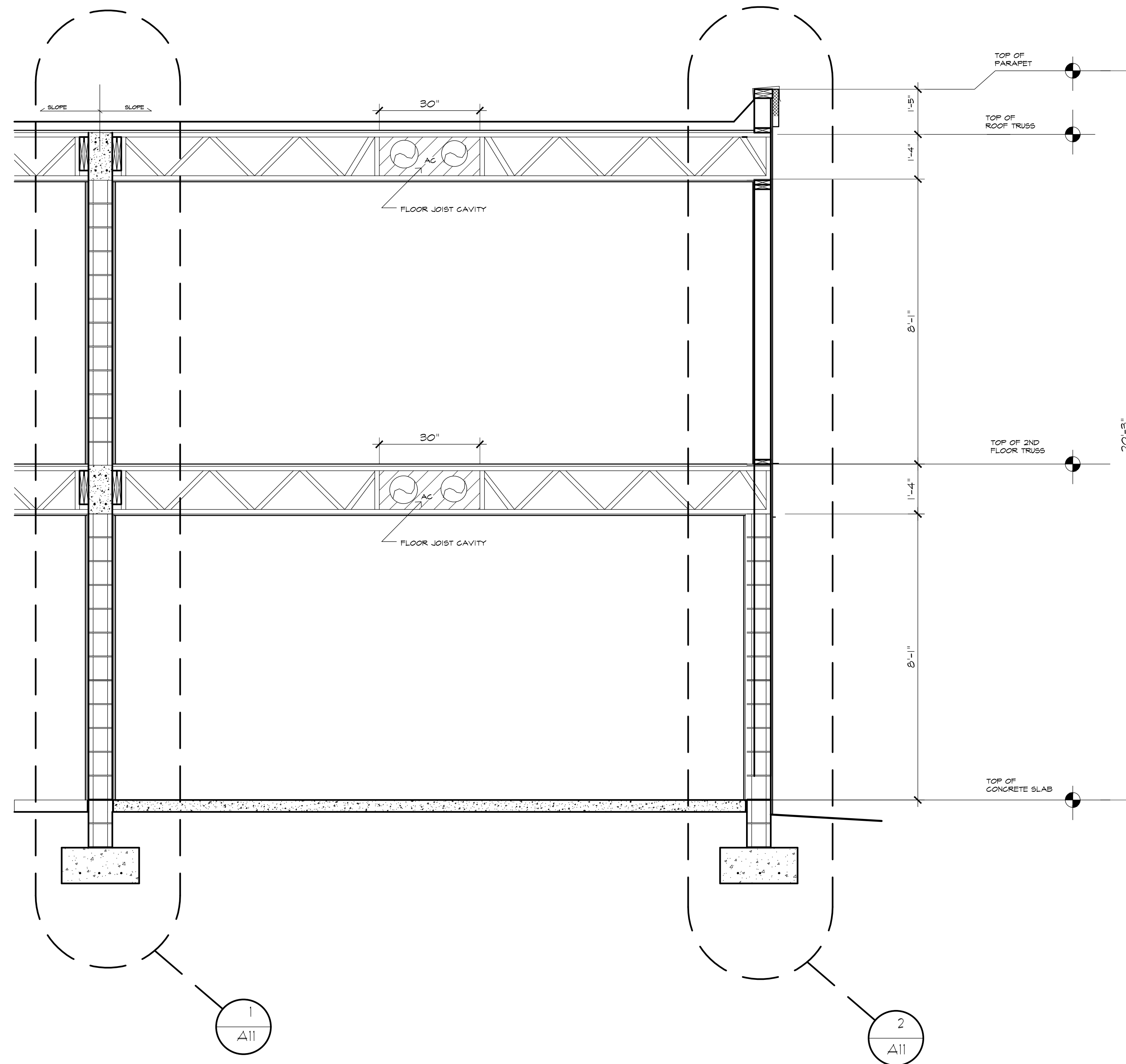
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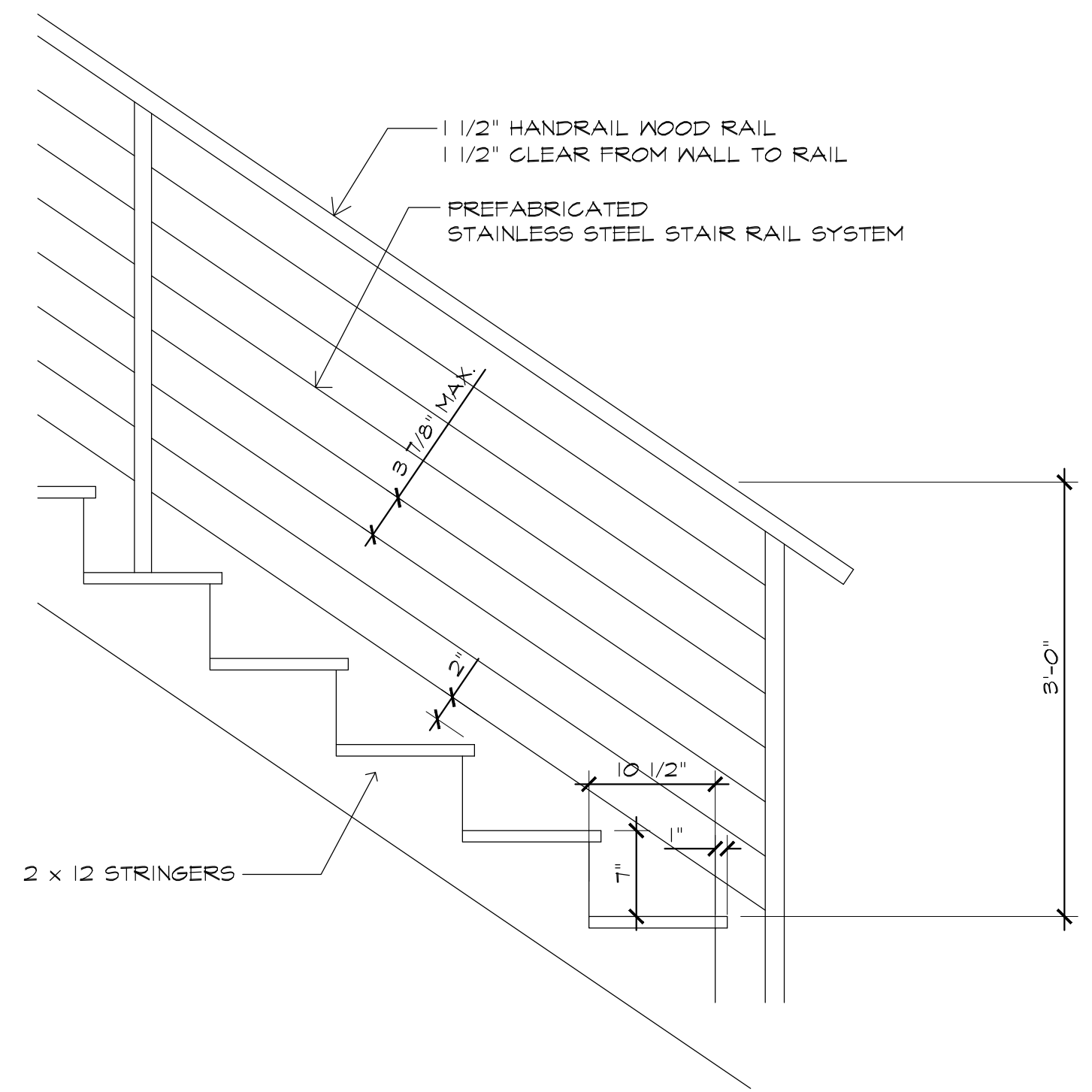
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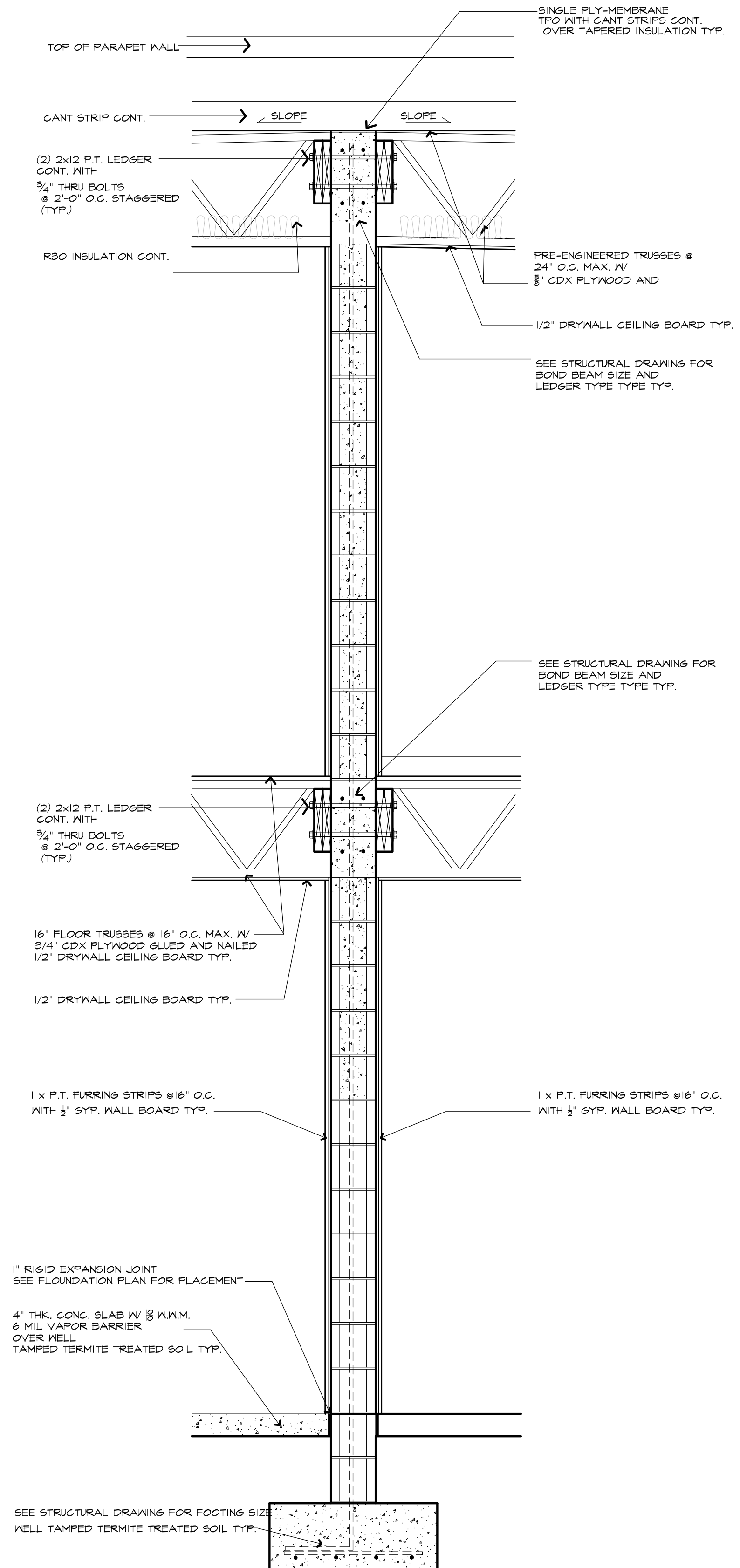
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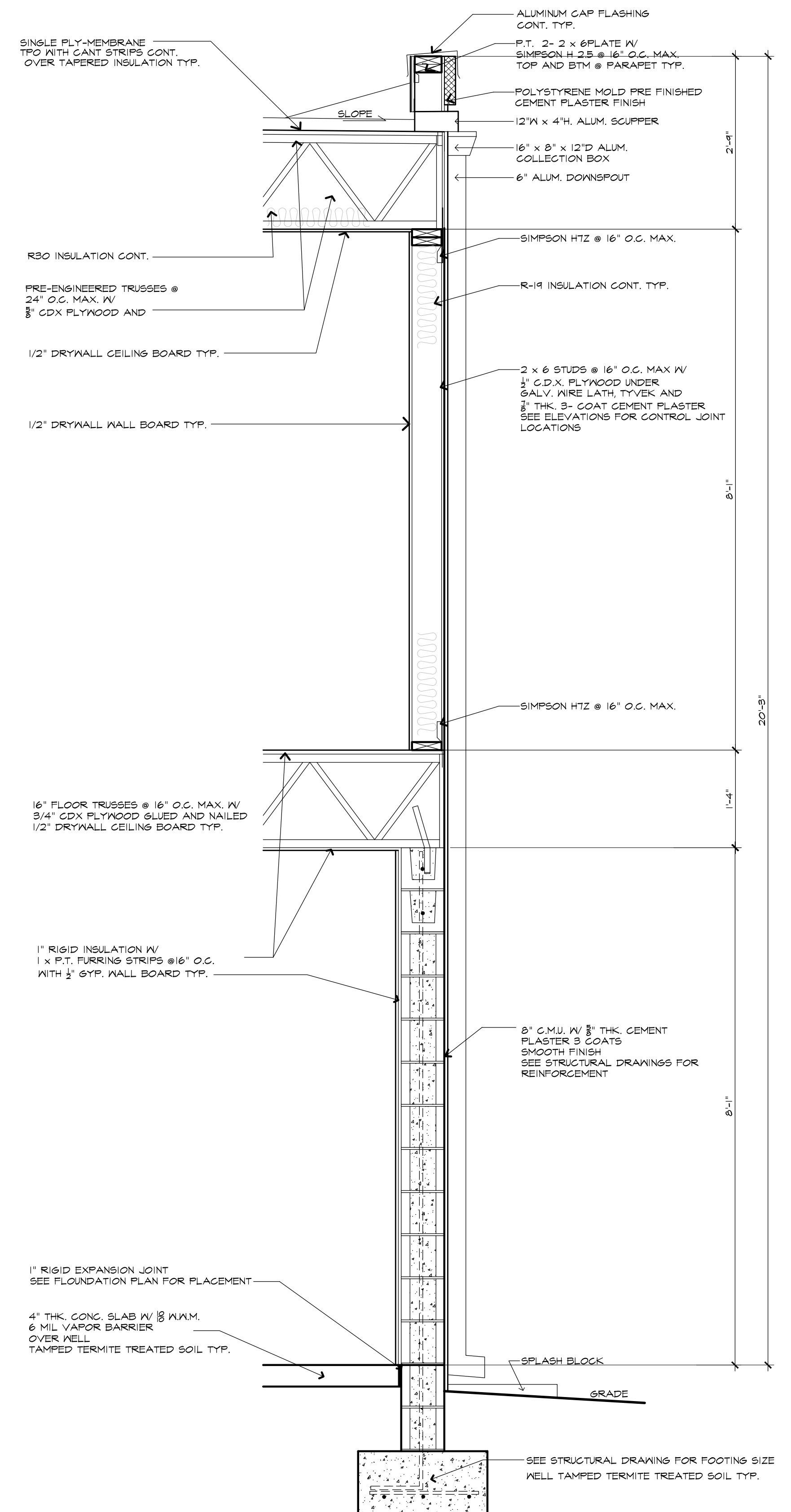
 **BUILDING SECTION**
SCALE: 1/2" = 1'-0"



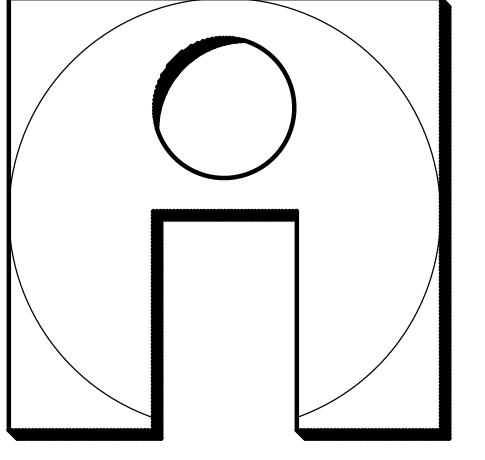
STAIR DETAILS
SCALE: 1" = 1'-0"



1 WALL SECTION
SCALE: 3/4" = 1'-0"



2 WALL SECTION
SCALE: 3/4" = 1'-0"



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GENERAL NOTES AND SPECIFICATIONS

GENERAL REQUIREMENTS

1. ALL CODES HAVING JURISDICTION SHALL BE STRICTLY OBSERVED IN THE CONSTRUCTION OF THE PROJECT. CONTRACTOR SHALL VERIFY ALL CODE REQUIREMENTS BEFORE COMMENCEMENT OF CONSTRUCTION AND BRING ANY DISCREPANCIES BETWEEN CODE REQUIREMENTS AND THE CONSTRUCTION DOCUMENTS TO THE ATTENTION OF THE ARCHITECT.
2. DETAILS AND SECTIONS ON THE DRAWINGS ARE SHOWN AT SPECIFIC LOCATIONS AND ARE INTENDED TO SHOW GENERAL REQUIREMENTS THROUGHOUT. DETAILS NOTED "TYPICAL" IMPLY ALL CONDITIONS TREATED SIMILARLY. MODIFICATIONS MAY BE MADE BY CONTRACTOR TO ACCOMMODATE VARIATIONS.
3. ALL DRAWINGS SHALL BE FULLY COORDINATED BY CONTRACTOR TO VERIFY ALL DIMENSIONS, LOCATE DRAINS, OUTLETS, RECESSES, BOLT SETTINGS, SLEEVES, ETC.
4. THE CONTRACTOR SHALL VERIFY AND PROTECT ALL SERVICE LINES AND EXISTING SITE AREA FROM DETERIORATION OR DAMAGE.
5. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR THE SAFETY AND CONSTRUCTION TECHNIQUES PROCEDURE TECHNIQUES, OR FAILURE OF THE BUILDER TO CARRY OUT THE WORK IN ACCORDANCE WITH THE DRAWINGS OR THE REQUIRED CODES.
6. CONTRACTOR SHALL OBTAIN ALL NECESSARY BUILDING PERMITS.
7. CONTRACTOR SHALL BRING ERRORS AND OMISSIONS WHICH MAY OCCUR IN CONTRACT DOCUMENTS TO THE ATTENTION OF THE ARCHITECT IN WRITING AND WRITTEN INSTRUCTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY ERRORS, DISCREPANCIES, OR OMISSIONS IN THE CONTRACT DOCUMENTS, WHICH THE CONTRACTOR FAILED TO NOTIFY THE ARCHITECT BEFORE CONSTRUCTION AND/OR FABRICATION OF THE WORK.
8. THE CONTRACTOR AND SUBCONTRACTOR SHALL VERIFY ALL DIMENSIONS AND JOB CONDITIONS AT THE JOB SITE SUFFICIENTLY IN ADVANCE OF WORK TO BE PERFORMED TO ASSURE THE ORDERLY PROGRESS OF THE WORK.
9. CONTRACTORS SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF ALL TRASH, DEBRIS AND SHALL PROTECT ALL ADJACENT WORK FROM DAMAGE, SOILING, PAINT OVERSPRAY, ETC. ALL FIXTURES, EQUIPMENT, GLAZING, FLOORS, ETC. SHALL BE LEFT CLEAN AND READY FOR OCCUPANCY UPON COMPLETION OF THE PROJECT.
10. SHOP DRAWINGS ARE REQUIRED FOR STRUCTURAL, MECHANICAL AND SPECIALIZED CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE WORK. IN AREAS WHERE DRAWINGS DO NOT ADDRESS METHODOLOGY, THE CONTRACTOR SHALL BE BOUND TO PERFORM IN STRICT COMPLIANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND/OR RECOMMENDATIONS.
11. ALL MANUFACTURERS PRINTED WARNINGS FOR HANDLING OF PRODUCTS MUST BE STRICTLY OBSERVED. THE WORDS "OR EQUAL" ARE TO BE ASSUMED WHENEVER A SPECIFIC MANUFACTURER IS NOTED.
12. ALL CODES, TRADE STANDARDS, AND MANUFACTURER'S INSTRUCTIONS REFERENCED IN THE CONTRACT DOCUMENTS SHALL BE THE LATEST EDITION.
13. THE CONTRACTOR SHALL MAKE NO STRUCTURAL CHANGES WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.
14. CONSTRUCTION SITE ACCESS SHALL BE THROUGHOUT AN AREA TO BE DESIGNATED BY THE OWNER. STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED ONLY IN AREAS DESIGNATED BY THE OWNER. PERSONNEL PARKING WILL BE DESIGNATED BY THE OWNER.
15. CONTRACTOR SHALL BE PROVIDED ACCESS TO REQUIRED UTILITIES AT LOCATIONS DESIGNATED BY THE OWNER.
16. THE AGREEMENT AND GENERAL CONDITIONS OF THIS CONTRACT SHALL BE THE LATEST EDITION OF THE AMERICAN INSTITUTE OF ARCHITECTS' DOCUMENT A101, "STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR", AND THE LATEST EDITION OF AIA DOCUMENT A201, "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION".
17. THE CONTRACTOR AGREES TO PURCHASE AND CAUSE EACH SUBCONTRACTOR TO PURCHASE, PRIOR TO THE COMMENCEMENT OF THE WORK, OR ANY PORTION THEREOF, AND KEEP IN FORCE UNTIL COMPLETION OF THEIR RESPECTIVE WORK ON THE PROJECT THE FOLLOWING INSURANCE:
 - (a) WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE IN THE CONTRACTOR'S NAME.
 - (b) COMPREHENSIVE GENERAL LIABILITY INSURANCE.
 - (c) CONTRACTUAL LIABILITY INSURANCE.
 - (d) AUTOMOBILE LIABILITY INSURANCE WITH AN EMPLOYER'S NON OWNERSHIP LIABILITY ENDORSEMENT.
 - (e) UMBRELLA EXCESS LIABILITY INSURANCE.
18. ROOF LOAD = 20# LIVE LOAD
 - 25# DEAD LOAD
 - 45# TOTAL ROOF LOAD
19. FLOOR LOAD = 40# LIVE LOAD
 - 25# DEAD LOAD
 - 65# TOTAL FLOOR LOAD
20. EXTERIOR BALCONY LOAD = 60# LIVE LOAD
21. DECK LOAD = 40# LIVE LOAD

22. WIND LOAD = 145 M.P.H. DESIGN CRITERIA
23. ALL WORK SHALL CONFORM TO F.B.C. 2020 ALL SECTIONS AND SUPPLEMENTS

SITE WORK

1. IF A DISCREPANCY FROM THE PRESUMED SOIL BEARING CAPACITY EXISTS, CONTRACTOR SHALL NOT PLACE FOUNDATIONS WITHOUT WRITTEN INSTRUCTIONS FROM THE ARCHITECT.
2. PRESUMPTIVE SOIL BEARING CAPACITY IS 2,000 psf ON UNDISTURBED SOIL. ALL CONCRETE FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED FILL. BOTTOM OF FOOTINGS SHALL BE 1'-0" BELOW FINISHED GRADE (MINIMUM).
3. ALL BACKFILL AT STRUCTURES, SLABS, STEPS, AND PAVEMENTS SHALL BE CLEAR W/ GRANULAR FILL. PLACE IN 8" LAYERS AND COMPACT TO 95% MAXIMUM DRY DENSITY DETERMINED IN ACCORDANCE WITH ASTM D-1557. BUILDING SITE SHALL BE KEPT DRY SO THAT EROSION WILL NOT OCCUR IN THE FOUNDATIONS OR ON SITE.
4. BACKFILL AT LAWNS AND UNPAVED AREAS SHALL BE FREE OF CLAY, ROCK OR GRAVEL LARGER THAN 2" IN ANY DIRECTION, DEBRIS VEGETABLE MATTER, WASTE AND FROZEN MATERIALS. PLACE IN 12" LAYERS AND COMPACT TO 90% MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1557.
5. ALL SLABS ON GRADE SHALL BEAR ON MECHANICALLY COMPACTED SOIL CAPABLE OF SUPPORTING 2000 PSF.
6. BACKFILL SHALL BE BROUGHT UP EQUALLY ON EACH SIDE OF WALLS.
7. DO NOT BACKFILL UNTIL WALLS HAVE CURED.
8. SILT FENCE SITE AT PROPERTY LINES.

CONCRETE

1. ALL REINFORCED CONCRETE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE CURRENT ACI-308 BUILDING CODE & ACI-301 SPECIFICATIONS.
2. INTERIOR CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI AND EXTERIOR CONCRETE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
3. REINFORCING STEEL SHALL CONFORM TO ASTM-A615 GRADE 40, WELDED WIRE FABRIC TO BE 6x6 W4 AND CONFORM WITH ASTM A-185.
4. IN ON-GRADE CONCRETE SLABS THE WAF REINFORCEMENT SHALL BE LOCATED MIDWAY IN THE SLAB THICKNESS.
5. PROVIDE 6 MIL POLYETHYLENE VAPOR BARRIER MEMBRANE COMPLYING WITH ASTM D-2103 WHERE INDICATED. TAPE ALL 6" MINIMUM OVERLAPS & PATCH ALL PUNCTURES AND TEARS.
6. REINFORCING STEEL SHALL OVERLAP A MINIMUM OF 40 BAR DIAMETERS.
7. CONCRETE COVER ON STEEL TO BE 1 1/2" TYPICAL.

MASONRY

1. ALL MASONRY CONSTRUCTION SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE BUILDING CODE FOR MASONRY ACI-530.
2. RESERVED.
3. MORTAR AND GROUT SHALL MEET REQUIREMENTS OF ASTM C270 AND REQUIREMENTS SPECIFIED HEREIN. TYPE N MORTAR SHALL BE USED FOR EXTERIOR WALLS BELOW GRADE; TYPE S MORTAR SHALL BE USED FOR WALLS AND PARTITIONS ABOVE GRADE.
4. PRE CAST LINTELS SHALL BE 8" NOMINAL DEPTH WITH (1)-5# BOTTOM AND #5# DOWELS AT EACH END. MINIMUM BEARING OF 6" EACH END. LOAD CAPACITIES SHALL BE STAMPED ON EACH LINTEL.

METALS

1. STEEL FOR TS SECTIONS SHALL CONFORM TO ASTM A500, GRADE B. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 AND BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC SPECIFICATION.
2. ALL SHOP CONNECTIONS SHALL BE WELDED OR BOLTED WITH HIGH STRENGTH BOLTS CONFORMING TO ASTM A325.
3. ALL FIELD CONNECTIONS SHALL BE BOLTED WITH HIGH STRENGTH BOLTS CONFORMING TO ASTM A325. SECONDARY FIELD CONNECTIONS, BRACING, MAY BE BOLTED WITH UNFINISHED BOLTS UNLESS OTHERWISE NOTED.
4. ALL HIGH STRENGTH BOLTS SHALL BE TIGHTENED BY THE "TURN OF THE NUT" METHOD. ALL WELDED CONSTRUCTION SHALL CONFORM TO AWS STANDARDS AND AISC SPECS. WELDING RODS SHALL CONFORM TO THE ETO CLASSIFICATION.
5. STEEL PIPE SHALL CONFORM TO ASTM A-53

CARPENTRY

1. ALL WOODS AND WOOD CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND CODES WITH MODIFICATIONS
 - A. AMERICAN INSTITUTE OF TIMBER CONSTRUCTION: (STANDARDS MANUAL).
 - B. NATIONAL FOREST PRODUCTS ASSOCIATION: NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION.
 - C. SOUTHERN YELLOW PINE INSPECTION BUREAU: STANDARD GRADING RULES FOR SOUTHERN YELLOW PINE LUMBER.
 - E. AMERICAN PLYWOOD ASSOCIATION: GUIDE TO PLYWOOD FOR FLOORS, PLYWOOD SHEATHINGS FOR

WALLS AND ROOFS.

- F. AMERICAN WOOD-PRESERVERS ASSOCIATION STANDARDS.
2. ALL UNTREATED LUMBER: #2 HEM-FIR, #2 S.Y.P. OR BETTER. ALL PRESSURE TREATED LUMBER: #2 SOUTHERN YELLOW PINE (0.4 LB. / CU. FT. CCA) ALL MICRO-LAM BEAMS TO BE GEORGIA PACIFIC-GP OR BOISE CASCADE-VERMILAM OR EQUAL.
3. ALL STRUCTURAL LUMBER SHALL BE STAMPED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTIONS' "CONSTRUCTION MANUAL".
4. HANGERS, FRAMING ANCHORS AND FASTENERS, PROVIDE AND INSTALL STAMPED AND FABRICATED STEEL OF THE TYPE INDICATED AS REQUIRED. NAILS TO BE THOSE FURNISHED BY MANUFACTURER FOR THIS SPECIFIC USE. NAILS SHALL BE FULLY DRIVEN IN ALL HOLES IN THE ANCHOR. "SIMPSON", "TECO", "TRIMFAST" OR "ARTCOR".
5. INSTALL PRESSURE TREATED LUMBER WHERE LUMBER IS IN CONTACT WITH CONCRETE AND MASONRY; AND A MINIMUM OF 8" FROM GRADE.
6. ALL HEADERS AT BEARING CONDITIONS SHALL BE OF SIZES AS SHOWN ON PLANS.
7. ALL HEADERS AT BEARING CONDITIONS SHALL BE AS FOLLOWS:

OPENING SIZE	HEADER
UP TO 4'-0"	(2) - 2x6
4'-0" TO 6'-0"	(2) - 2x10
6'-0" TO 9'-0"	(2) - 2x12

INSTALL (2) SIMPSON M5TAM24 STRAPS OR EQUAL

8. LOCATE FLOOR JOIST UNDER ALL INTERIOR PARTITIONS RUNNING PARALLEL TO FRAMING.
9. ROOF SHEATHING TO BE 1/2" EXTERIOR GRADE PLY-WOOD WITH CLIPS AS REQUIRED. NAIL W/8d RING SHANK NAILS @ 6" O.C. @ EDGES AND 6" O.C. IN FIELD.
10. WALL SHEATHING TO BE 1/2" EXTERIOR GRADE PLY-WOOD OF APPROVED EQUAL NAILED WITH 8d COMMON NAILS AT 6" O.C. @ EDGES AND 12" O.C. IN THE FIELD.
11. FLOOR SHEATHING TO BE 3/4" TONGUE AND GROOVE, GLUED AND NAILED WITH 8d COMMON NAILS AT 6" O.C. @ EDGES AND 12" O.C. IN THE FIELD.

THERMAL AND MOISTURE PROTECTION

1. THE FOLLOWING SPECIFICATION SHALL GOVERN WITH MODIFICATIONS AS SPECIFIED HEREIN: AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS (ASHRAE) HANDBOOK OF FUNDAMENTALS.
2. INSTALL FLASHING AND SHEET METAL IN COMPLIANCE WITH "ARCHITECTURAL" SHEET METAL MANUAL" BY SMACNA.
3. ALUMINUM FLASHING SHALL CONFORM TO ASTM B 209, AND BE MINIMUM 0.016" THICK STANDARD BUILDING SHEET OF PLAIN FINISH.
4. GALVANIZED STEEL FLASHING SHALL CONFORM TO ASTM A 526, 0.20% COPPER, 26 GAUGE (0.0171") ASTM A525, DESIGNATION G 90 HOT-DIP GALVANIZED, MILL PHOSPHATIZED.
5. BACKPAINT FLASHINGS WITH BITUMINOUS PAINT, WHERE EXPECTED TO BE IN CONTACT WITH CEMENTITIOUS MATERIALS OR DISSIMILAR METALS.
6. PROVIDE AND INSTALL FLASHING AT ALL ROOF TO WALL CONDITIONS, PROJECTIONS OF WOOD BEAMS THROUGH EXTERIOR WALLS, EXTERIOR OPENINGS, AND ELSEWHERE AS REQUIRED TO PROVIDE WATERTIGHT/WEATHERPROOF PERFORMANCE.
7. ROOF VALLEY FLASHING SHALL BE PROVIDED OF NOT LESS THAN NO. 28 GALVANIZED SHEET GAUGE CORROSION-RESISTANT METAL OR COPPER AND SHALL EXTEND AT LEAST 11" FROM THE CENTER LINE EACH WAY AND SHALL HAVE THE FLOW LINE FORMED AS PART OF THE FLASHING. SECTIONS OF FLASHING SHALL HAVE AN END LAP OF NOT LESS THAN 4".
8. ASPHALT SHINGLES SHALL BE FASTENED ACCORDING TO MANUFACTURER'S PRINTED INSTRUCTIONS BUT NOT LESS THAN FOUR (4) NAILS PER EACH SHINGLE. EXPOSURE 5" FOR 16" SHINGLE, 5 1/2" FOR 18" SHINGLE, AND 7 1/2" FOR 24" SHINGLES. PROVIDE TWO LAYERS OF 15# (MIN) BUILDING FELT UNDER SHINGLES. ALL ROOF COVERINGS SHALL CONFORM TO F.B.C. 2017 (6TH EDITION) SECTIONS 15 & 16. THE ROOF CONTRACTOR SHALL SUBMIT MFG'S COMPLIANCE AT THE TIME OF PERMITTING.
9. ENCLOSED ATTIC SPACES AND ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN. THE NET FREE VENTILATING AREAS SHALL BE NOT LESS THAN 2/3 OF ONE PERCENT (1%) OF THE HORIZONTALLY PROJECTED ROOF AREAS, OR 1/3 OF ONE PERCENT (1%) IF AT LEAST 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY CORNICE VENTS.
10. PROVIDE AND INSTALL 5-1/2" THICK UNFACED GLASS FIBER BATT INSULATION WITH AN INSULATION VALUE OF R=13 IN ALL EXTERIOR STUD WALLS UNLESS NOTED OTHERWISE.
11. PROVIDE AND INSTALL 9" THICK UNFACED GLASS FIBER BATT INSULATION WITH AN INSULATION-ONLY VALUE OF R=33 IN ROOF RAFTERS AND FLOOR JOIST AS SHOWN ON DRAWINGS

12. PROVIDE AND INSTALL BATT INSULATION AT WINDOW SHIM SPACE.
13. FIT INSULATION TIGHT WITHIN SPACES AND TIGHT TO AND BEHIND MECHANICAL AND ELECTRICAL SERVICES WITHIN THE PLANE OF INSULATION. LEAVE NO GAPS OR VOIDS.
14. INSTALL F-TYPE 15 FELT (FER "UL" STANDARD SPEC 55A REV. OCT. 1915) UNDER EXTERIOR TRIM AND SIDING. APPLY SO AS TO FORM A WATERTIGHT MEMBRANE. OVERLAP EACH COURSE BELOW 2 INCHES MINIMUM AT HORIZONTAL JOINTS AND 6 INCHES MINIMUM AT VERTICAL.
15. PROVIDE SEALANT AND CAULKING MEETING APPLICABLE SPECIFICATIONS WHERE SHOWN ON THE DRAWINGS AND ELSEWHERE AS REQUIRED TO PROVIDE A POSITIVE BARRIER AGAINST MOISTURE AND PASSAGE OF AIR.
16. PROVIDE AND INSTALL A 4 MIL± POLYETHYLENE VAPOR BARRIER COMPLYING WITH ASTM D 2103 WHERE SHOWN ON THE DRAWINGS.
17. PROVIDE AND INSTALL R-11 UNFACED BATT INSULATION AT BATHROOM WALLS.
18. SCUFFERS SHALL BE 16 OZ COPPER WITH 4" WIDE FLASHING ON ALL FOUR SIDES.
19. ROOF CONTRACTOR PROVIDE "GREEN SHEET" FOR PERMIT PURPOSES.

DOORS, WINDOWS AND GLASS

1. REFERENCE STANDARDS FOR METAL DOORS, WOOD DOORS AND WINDOWS SHALL BE A FOLLOWS:
 - A. UNDERWRITER'S LABORATORIES, INC.: BUILDING MATERIALS LABORATORY.
 - B. NATIONAL FIRE PROTECTION ASSOC.: PAMPHLET NO. 60 STANDARD FOR FIRE DOORS AND WINDOWS.
 - C. NATIONAL WOODWORK MANUFACTURERS ASSOCIATION FOR WOOD PANELED DOORS.
 - D. ASTM E263, ASTM E331.
2. GLAZING IN LOCATIONS WHICH MAY BE SUBJECT TO HUMAN IMPACT SUCH AS GLASS ENTRANCE AND EXIT DOORS, FIXED GLASS PANELS, SHOWER DOORS, TUB ENCLOSURES, AND STORM DOORS SHALL MEET THE REQUIREMENTS SET FORTH IN THE F.B.C. 2017 (6TH EDITION) AND THE SAFETY STANDARD FOR ARCHITECTURAL GLAZING MATERIALS (16 CFR 1201). ALL GLAZED PANELS LOCATED WITHIN 12' OF A DOOR OR GLAZING BELOW 3'-0" HEIGHT WHICH MAY BE MISTAKEN FOR OPENINGS FOR HUMAN PASSAGE, UNLESS SUCH PANELS ARE PROVIDED WITH A HORIZONTAL MEMBER 1 1/2" MINIMUM IN WIDTH LOCATED BETWEEN 24" AND 36" ABOVE THE WALKING SURFACE, SHALL BE TEMPERED GLASS.
3. ALL DOORS AND WINDOWS OPENING TO THE EXTERIOR OR TO UNCONDITIONED AREAS SHALL BE FULLY WEATHER STRIPPED, GASKETED OR OTHERWISE TREATED TO LIMIT AIR INFILTRATION. ALL AIR INFILTRATION STANDARDS OF THE 1912 AMERICAN NATIONAL STANDARDS INSTITUTE ASTM E283-T3 WITH A PRESSURE DIFFERENTIAL OF 1.51 POUNDS PER SQUARE FOOT AND SHALL BE CERTIFIED AND LABELED.
4. PROVIDE WEATHERPROOF THRESHOLD AT ALL EXTERIOR SWING DOORS.
5. PROVIDE DOORS, WINDOW AND GLAZING SIZES AS INDICATED ON DRAWINGS. CONTRACTOR TO PROVIDE SHOP DRAWINGS ON ALL MILLWORK ON NON-STOCK MATERIALS FOR OWNERS APPROVAL.
6. WINDOW AND EXTERIOR DOOR SIZES BASED UPON MANUFACTURER'S SPECIFICATIONS.
7. THE CONTRACTOR SHALL SUBMIT TECHNICAL DATA ON ALL OPENINGS CONFORMING TO F.B.C. 6TH EDITION (2017) SECTION 16 WIND LOADS

FINISHES

1. PROVIDE AND INSTALL GYPSUM WALLBOARD IN ACCORDANCE WITH "AMERICAN STANDARD SPECIFICATION FOR THE APPLICATION AND FINISHING OF GYPSUM WALL BOARD AS APPROVED BY THE AMERICAN STANDARDS ASSOCIATION, LATEST EDITION. APPLICABLE PARTS THEREOF ARE HEREBY MADE A PART OF THIS SPECIFICATION EXCEPT WHERE MORE STRINGENT REQUIREMENTS ARE CALLED FOR IN THIS SPECIFICATION, IN LOCAL CODES, OR BY THE MANUFACTURER OF THE GYPSUM WALLBOARD, WHOSE REQUIREMENTS ARE TO BE FOLLOWED.
2. PROVIDE AND INSTALL GYPSUM WALL BOARD, 1/2" THICK AT ALL WALLS AND CEILINGS UNLESS OTHERWISE INDICATED ON DRAWINGS OR SPECIFIED. CONTRACTOR SHALL PROVIDE ALL TRIM ACCESSORIES, FINISH TAPING AND SPACKLING IN ACCORDANCE WITH AMERICAN STANDARD SPECIFICATION.
3. PROVIDE AND INSTALL MOISTURE-RESISTANT GYPSUM WALLBOARD, TYPE VII, GRADE IV OR X AS REQUIRED, CLASS 2, 1/2" THICK AT SHOWER/ TUB ENCLOSURE AT WALLS AND CEILING.
4. PROVIDE AND INSTALL FIRE-RETARDANT GYPSUM WALLBOARD, GRADE X, CLASS I, 5/8" THICK, AT UTILITY ROOM CEILING AND BOTH SIDES OF INFILL OF DOOR OPENINGS IN GARAGE WALL.
5. APPLICATION OF PAINT OR OTHER COATING SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S DIRECTIONS. READY-MIX PAINT SHALL NOT BE THINNED, EXCEPT AS PERMITTED IN INSTRUCTIONS.

FINISHES CONTINUED

6. ALL EXTERIOR AND INTERIOR SURFACES SHALL RECEIVE THE PAINTER'S FINISH EXCEPT COLOR COORDINATED FACTORY FINISH SURFACES. TOP AND BOTTOM OF ALL DOORS TO BE SEALED AND PAINTED.
7. ALL SURFACES TO BE FINISHED SHALL CLEAN AND FREE OF FOREIGN MATERIALS (DIRT, GREASE, ASPHALT, RUST, ETC.)
8. APPLICATION SHALL BE IN A WORKMANLIKE MANNER PROVIDING A SMOOTH SURFACE. APPLICATION RATE SHALL BE THAT RECOMMENDED BY THE MANUFACTURER. APPLICATION MAY BE BY BRUSH OR ROLLER OR BY SPRAY IF PAINT FORMULATED FOR SPRAY APPLICATION.
9. INTERIOR PAINT SHALL BE AS APPROVED BY THE OWNER.
10. EXTERIOR AND INTERIOR SURFACE FINISH AS APPROVED BY OWNER.
11. PROVIDE CERAMIC TILE AND ACCESSORIES COMPLYING WITH TILE COUNCIL OF AMERICA SPECIFICATION (37.) IN COLORS AND PATTERNS OF THE APPROVED MANUFACTURERS.
12. INSTALL CERAMIC TILE IN COMPLIANCE WITH PERTINENT RECOMMENDATIONS CONTAINED IN THE TILE COUNCIL OF AMERICA "HANDBOOK FOR CERAMIC TILE INSTALLATION" AND MANUFACTURER'S PRINTED INSTRUCTIONS.
13. SETTING MATERIAL MAY BE EITHER DRY SET MORTAR IN COMPLIANCE WITH ANSI A118.1 AND A118.2 OR ORGANIC ADHESIVE IN COMPLIANCE WITH ANSI A136.1, USING TYPE II.
14. SUPPLY AND INSTALL THREE COAT STUCCO AS PER DESIGN MIX AND FINISH UTILIZED IN THE MOCK-UP PANEL APPROVED BY THE ARCHITECT.

SPECIALTIES

1. PROVIDE BATH ACCESSORIES AND MISCELLANEOUS ITEMS AS APPROVED BY THE OWNER. ALL ITEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S PUBLISHED INSTRUCTIONS AND APPROVED INSTALLATION DRAWINGS.

MECHANICAL

1. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL PLUMBING, RELATED FIXTURES, VENTILATION, FLOOR DRAINS, HEATING AND AIR CONDITIONING. ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODES AND ORDINANCES. SUBCONTRACTORS SHALL COORDINATE WORK WITH ALL OTHER TRADES. TERMINAL HOOKUP OF ALL FIXTURES AND TAP IN TO ALL UTILITIES IS REQUIRED. CONTRACTOR SHALL INSTALL AND CHECK ALL PRESSURE REDUCING VALVES, POP OFF VALVES AND OTHER SAFETY DEVICES PRIOR TO OPERATION OF SYSTEM. HVAC CONTRACTOR SHALL PROVIDE COMPRESSOR PADS AS REQUIRED.
2. HVAC DRAWINGS TO BE PREPARED BY THE BUILDERS MECHANICAL ENGINEER FOR THE OWNERS APPROVAL PRIOR TO SIGNING OF THE CONSTRUCTION CONTRACT.
- A- THE WORK SHALL BE INSTALLED AS INDICATED ON DRAWINGS, HOWEVER, CHANGES TO ACCOMMODATE INSTALLATION OF THIS WORK WITH OTHER WORK IN ORDER TO MEET ARCHITECTURAL OR STRUCTURAL CONDITIONS SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
- B- FOR PURPOSES OF CLARITY AND LEGIBILITY, THE DRAWINGS MAY BE DIAGRAMMATIC TO THE EXTENT THAT OFFSETS, BENDS, SPECIAL FITTINGS AND EXACT LOCATIONS ARE NOT INDICATED. CONTRACTOR SHALL MAKE USE OF ALL OF THE CONTRACT DOCUMENTS AND SHALL VERIFY THIS INFORMATION AT THE SITE. SUBMIT COPY OF SHOP DRAWINGS TO THE ARCHITECT PRIOR TO CONSTRUCTION FOR REVIEW FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE WORK.
3. PLUMBING DRAWINGS TO BE PREPARED BY THE BUILDERS MECHANICAL ENGINEER FOR THE OWNERS APPROVAL PRIOR TO SIGNING OF THE CONSTRUCTION CONTRACT.
- A. PLUMBING SUBCONTRACTOR SHALL PREPARE AND SUBMIT PLANS, RISER DIAGRAMS AND CALCULATIONS REQUIRED BY THE SUBJECT AGENCY.
- B- FOR PURPOSES OF CLARITY AND LEGIBILITY, THE DRAWINGS MAY BE DIAGRAMMATIC TO THE EXTENT THAT OFFSETS, BENDS, SPECIAL FITTINGS AND EXACT LOCATIONS ARE NOT INDICATED. CONTRACTOR SHALL MAKE USE OF ALL OF THE CONTRACT DOCUMENTS AND SHALL VERIFY THIS INFORMATION AT THE SITE. SUBMIT COPY OF SHOP DRAWINGS TO THE ARCHITECT PRIOR TO CONSTRUCTION FOR REVIEW FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE WORK.

ELECTRICAL

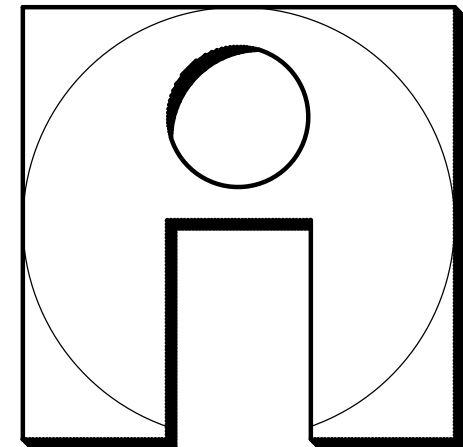
1. ELECTRICAL SYSTEM LAYOUT TO BE PREPARED BY THE BUILDERS ELECTRICAL ENGINEER FOR THE OWNERS APPROVAL PRIOR TO SIGNING OF THE CONSTRUCTION CONTRACT.

2. CONTRACTOR SHALL PROVIDE AND INSTALL ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO INSTALL WIRING, RELATED FIXTURES, ELECTRIC HEAT ELEMENTS, AND CONTROL. ALL WORK SHALL COMPLY WITH NATIONAL ELECTRICAL CODE AND STATE AND LOCAL CODES AND ORDINANCES. SUBCONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES. TERMINAL HOOKUP IS REQUIRED OF ALL FIXTURES, APPLIANCES, MOTORS, FANS, AND CONTROLS.
3. EXACT ROUTING OF WIRING, LOCATIONS OF OUTLETS SHALL BE GOVERNED BY STRUCTURAL CONDITIONS AND OBSTRUCTIONS. WIRING FOR EQUIPMENT REQUIRING MAINTENANCE AND INSPECTION SHALL BE READILY ACCESSIBLE.
4. ALL ELECTRICAL EQUIPMENT, BREAKERS, AND TIME CLOCK CONTROLS SHALL BE PROPERLY LABELED.
5. CONTRACTOR TO PROVIDE PANEL DESIGN.
6. LIGHT CIRCUITS SHALL BE 15 AMP WITH #14 AWG COPPER CONDUCTORS.
7. APPLIANCE AND EQUIPMENT CIRCUITS SHALL BE SEPARATE 20 AMP WITH #12 AWG COPPER CONDUCTORS.
8. MATERIALS AND EQUIPMENT SHALL BE NEW AND LISTED BY UNDERWRITER'S LABORATORIES, INC. AND BEAR THEIR LABEL WHEREVER STANDARDS HAVE BEEN ESTABLISHED AND THEIR LABEL SERVICE IS REGULARLY FURNISHED.

9. VERIFY AND LOCATE ALL RECEPTACLES PRIOR TO INSTALLATION OF DRYWALL.
10. INSTALL RECEPTACLES AT 1'-0" TO CENTER LINE ABOVE FINISH FLOOR UNLESS OTHERWISE INDICATED BY THE OWNER.
11. INSTALL LIGHT SWITCHES AT 3'-6" TO CENTER LINE ABOVE FINISH FLOOR UNLESS OTHERWISE INDICATED BY THE OWNER.
12. ALL SWITCHED OUTLETS SHALL BE ONE-HALF

13. PROVIDE 6FI OUTLETS AS INDICATED ON APPROVED ELECTRIC PLANS AND CODE REQUIREMENTS.
14. ALL EQUIPMENT INSTALLED OUTDOORS AND EXPOSED TO THE WEATHER SHALL BE WEATHER-

15. INSTALL RECEPTACLES AT KITCHEN COUNTER AND BATHROOMS ABOVE WORK TOP UNLESS OTHERWISE INDICATED ON ELECTRIC PLANS.
- 16- PROVIDE LIGHT FIXTURES AS INDICATED ON ELECTRIC PLANS APPROVED BY THE OWNER.



INSIDE OUT

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JOHN PANTAZES
ARCHITECT AR#32860



PROJECT:

COLUMBUS TOWNHOME
RESIDENCE
UNIT A

5108 E COLUMBUS DRIVE
TAMPA, FLORIDA

REVISIONS:

DRAWN BY:

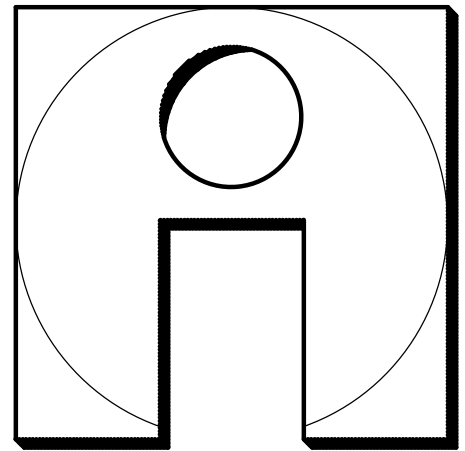
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DATE:

JANUARY 5, 2022

JOB NO.:

21-064

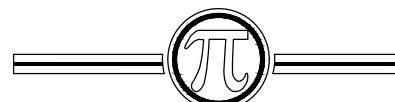


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JOHN PANTAZES
ARCHITECT ARCH#22860



PROJECT:

**COLUMBUS TOWNHOME
RESIDENCE
UNIT A**

5108 E COLUMBUS DRIVE
TAMPA, FLORIDA

REVISIONS:

DRAWN BY:
CP

DATE:
JANUARY 5, 2022

JOB NO.:\n21-064

E1

DIVISION 16 – ELECTRICAL

SECTION 16010 – GENERAL PROVISIONS

- 1. GENERAL**
- 1.01** The following are minimum requirements and shall govern, except that building laws and/or drawings shall govern when their requirements are in excess thereof.
- 2. DRAWINGS AND SPECIFICATIONS**
- 2.01** The architectural, mechanical, electrical and equipment drawings and specifications are hereby incorporated into and become a part of this Division. The Contractor shall examine all such drawings and specifications and become thoroughly familiar with provisions contained herein and the submission of his bid shall be construed as indicating such knowledge.
- 2.02** Electrical drawings are diagnostic and are intended to show the approximate locations of equipment and piping. Dimensions given on the plans shall be verified in the field. Drawings may not be scaled to obtain exact dimensions.
- 2.03** The exact locations of apparatus, fixtures, equipment and conduits shall be ascertained from the Owner's representative in the field, and the work shall be laid out accordingly. Should the Contractor fail to ascertain such locations, the work shall be changed at his own expense when so ordered by the Owner. The Owner reserves the right to make minor changes in the location of conduit and equipment up to the time of installation without additional cost.
- 2.04** The electrical drawings and specifications are intended to supplement each other and any material or labor called for in one shall be furnished and supplied even though not specifically mentioned in both. Labor and/or materials neither shown nor specified, but necessary for the completion and proper functioning of the system, shall be provided by this Contractor.
- 2.05** The work required under these specifications includes all labor, materials, equipment and services necessary to provide lighting and power systems, service entrances, motor controls and connections, branch circuiting, feeders, panels, fixtures, wiring devices, and other items shown on the plans or specified.
- 2.06** When the specification of an item is not identified with a particular area, the item shall pertain to all areas.
- 2.07** This Contractor shall furnish such labor and materials as hereinafter specified and as required to complete all electrical connections in accordance with the manufacturer's requirements for all mechanical equipment and Owner's equipment as shown and/or specified.
- 3. EXAMINATION OF SITE**
- 3.01** Bidder is to visit the site and familiarize himself with existing conditions and satisfy himself as to the nature and scope of work. The submission of a bid will be evidence that such an examination has been made. Later claims for labor, equipment of materials required, or for difficulties encountered which could have been foreseen had an examination been made, will not be allowed.
- 4. DEFINITIONS**
- 4.01** "Install" shall mean to place, fix in position, secure, anchor, wire, etc., including necessary appurtenances and labor so that equipment or installation will function as specified or intended.
- 4.02** "Furnish" shall mean to purchase and supply equipment or components.
- 4.03** "Provide" shall mean to "furnish and install".
- 4.04** "Or approved equal" shall mean equal in type, design, quality, style, color, etc., as determined by the Engineer/Architect.
- 5. INTERFERENCES**
- 5.01** It shall be the duty of this Contractor to report any interferences between his work and that of any other Contractor to the Owner or Architect as soon as they are discovered. The Owner or Architect will determine which equipment shall be relocated regardless of which was first installed, and his decision shall be final.
- 6. MATERIALS AND WORKMANSHIP**
- 6.01** All work shall be installed in a practical and workmanlike manner by competent workmen, skilled in their branch of the trade.
- 6.02** Unless otherwise specified or indicated on the drawings, all materials shall be new and free from defects and shall be the best of their several kinds.
- 6.03** All material and equipment shall meet or exceed standards specified by UL, NEMA, ANSI and IEEE wherever such standards have been established.
- 6.04** From time-to-time during the operation and at the completion thereof, this Contractor shall remove all debris and excess materials caused by his work and he shall leave the area of the operation broom clean.
- 6.05** All electrical equipment and material shall bear the Underwriter's Laboratories label.
- 7. SUPPORTS**
- 7.01** This Contractor shall furnish and install all angle iron, channel iron, rods, supports or hangers required to install panels, switchboards, or any electrical equipment called for on the plans, in these specifications, or as necessary to mount any piece of electrical equipment, material, or device. Conduit, fixtures, or any electrical devices shall not be supported from steel deck, bridging, ceiling, or ceiling support wires.
- 8. TEMPORARY CONSTRUCTION POWER AND LIGHTING**
- 8.01** Sufficient temporary power, during construction, for heating, lighting, appliances, or motorized portable equipment shall be provided by the Electrical Contractor.
- 9. CODES, LAWS, PERMITS AND INSPECTIONS**
- 9.01** Install all work in full accord with codes, rules and regulations of municipal, city, county, state and public utility, and all other authorities having jurisdiction over the premises. This shall include all requirements of the City Building Code, regulations of the State Department of Industrial Relations, OSHA, ADA (Americans with Disabilities Act), and the requirements of the National Electric Code, as interpreted by the Local Inspection Division. All these codes, rules, and regulations are hereby incorporated into this specification.
- 9.02** Comply with specification requirements which are in excess of code requirements and not in conflict with same.
- 9.03** The Contractor shall secure all permits and certificates of inspection incidental to the work, required by foregoing authorities. All such certificates shall be delivered to the Owner in duplicate, before final payment on contract will be allowed. The Contractor shall pay all fees, charges and other expenses in connection therewith.
- 10. FIELD CHANGES (RECORD DRAWINGS)**
- 10.01** Keep one (1) set of working drawings and shop drawings at the job site for sole purpose of recording all changes made during construction. After completion of the work and before requesting final payment, the above mentioned drawings shall be delivered to the Owner.
- 11. LABELING AND NAMEPLATES**
- 11.01** Permanently label transformers, panelboards, time switches and safety switches indicating equipment or panels and areas which they serve.
- 11.02** Lighting and appliance panels shall be labeled as shown on drawings.
- 11.03** Electrical Contractor shall furnish and install identification for pull or junction boxes furnished by him.
- 11.04** Identify as to use on face of equipment by means of laminated black and white phenolic label with 3/8" letters engraved through black to white.

- 11.05 Materials**
- A. Nameplates:** Engraved three-layer laminated plastic, white letters on a black background.
- 11.06 Installation**
- A. Degrease and clean surfaces to receive nameplates and tape labels.**
- B. Install nameplates and tape labels parallel to equipment lines.**
- C. Secure nameplates to equipment fronts using screws, rivets or adhesive. Secure nameplates to inside face of recessed panelboard doors in finished locations.**
- D. Mark every junction or pull box cover plates with the circuit number(s) of all wires contained therein.**
- 11.07 Wire Identification**
- A. Provide wire markers on each conductor at terminal strips and at final line and load connections. Identify with branch circuit or feeder number of power and lighting circuits, and with control wire number as indicated on equipment manufacturer's shop drawings for control wiring or as drawings indicate.**
- B. All wires shall be color coded. Color code branch circuit wiring as follows:**
- 1. Single Phase System:**

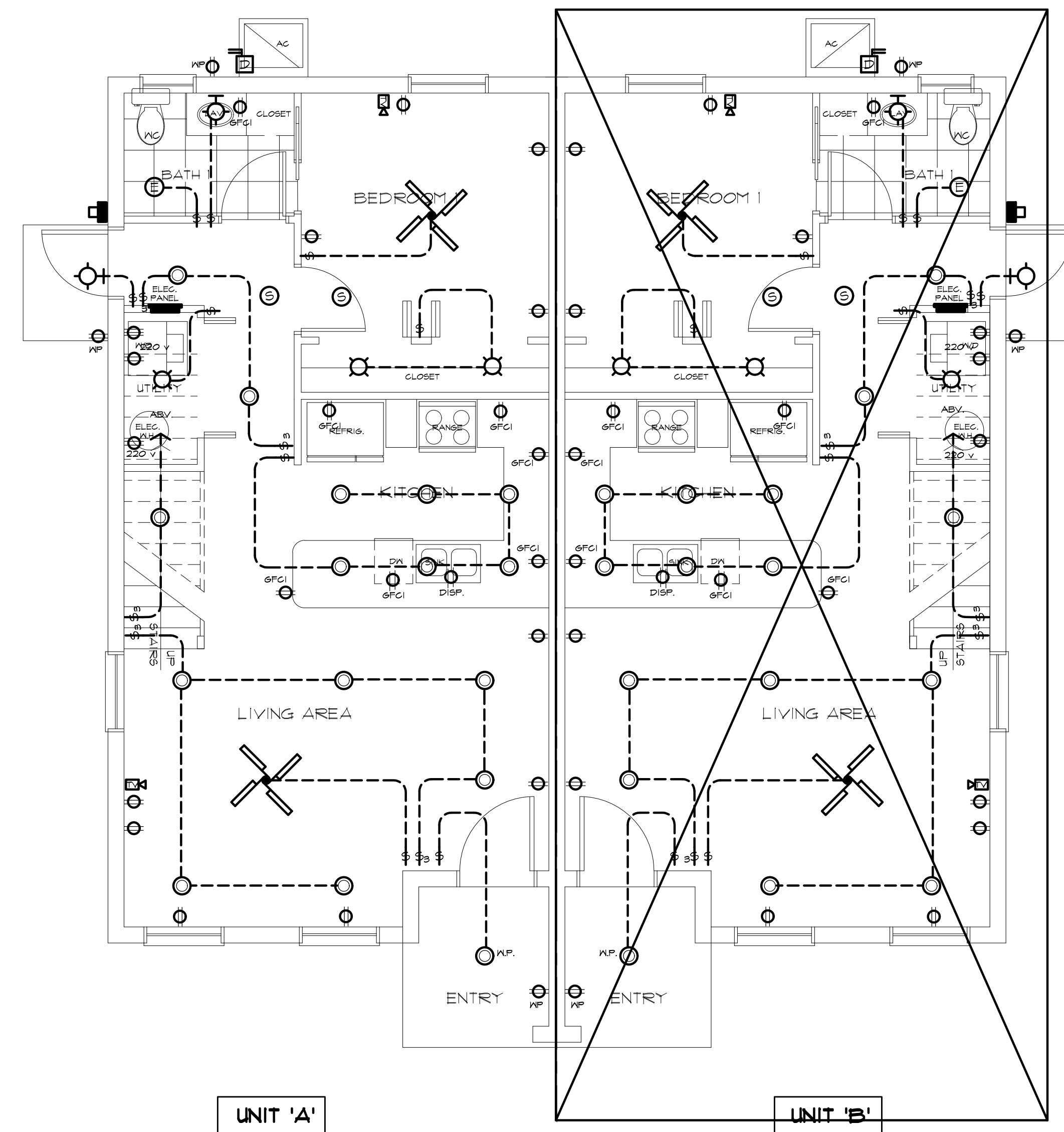
Phase A	Black
Phase B	Red
Neutral	White
- 2. Switched Wires:** Other than colors listed above
- 3. Travelers Between 3-Way Switches:** Purple
- 4. Insulated Ground:** Green
- 12. GUARANTEE**
- 12.01** In addition to guarantees of equipment by manufacturer of same, this Contractor shall also guarantee equipment provided by him and shall be held for a period of one (1) year to make good any defects in material and workmanship occurring during this period, at his sole expense. This one (1) year period shall start from the date of final acceptance by Owner.
- 13. SCOPE OF WORK**
- 13.01** Furnish all labor and material necessary to complete the electrical work shown on the drawings, specified herein or required to complete the construction of the building as shown.
- 13.02** The listing herein of article or material, operation or method, required that the Contractor shall provide and install, unless noted to be supplied by others, each item listed of quality or subject to qualification noted. Each operation shall be performed according to standard practice, manufacturer's instructions and conditions stated, providing, therefore, all necessary labor, equipment and incidentals.
- 13.03** The electrical Contractor shall schedule his work to conform to the progress of the other trades and Contractors employed on this project.
- 13.04** The electrical work shall include but is not limited to the following:
- A. Complete power and lighting distribution systems including panels, as shown on plans.**
B. Complete branch circuit wiring system.
C. Temporary electric service as required for construction.
D. Testing of all electrical equipment.
E. Provide and install complete site lighting system as shown on plans.
- 14. MANDATORY SHOP DRAWINGS**
- 14.01** Submit a minimum of five (5) copies of all required electrical shop drawings.
- 14.02** Shop Drawings shall be submitted for:
- Switchgear**
All Site Lighting Fixtures
All Wiring Devices
- END OF SECTION 16010
- ### **SECTION 16100 – BASIC MATERIALS AND METHODS**
- 1. CONDUIT**
- 1.01** All wire shall be run in accordance with the applicable codes in corrosion resistant, rigid, threaded, metal conduit or electrical metallic tubing (EMT), unless otherwise specifically stated herein.
- A. Conduit below first floor slab or underground shall be rigid, threaded, galvanized, heavy wall type.**
- B. Conduit exposed to weather shall be rigid, threaded, galvanized, heavy wall type and shall be painted with an approved bituminous coating to prevent corrosion.**
- C. Carlon PVC, Type 40 heavy wall conduit with ground wire may be used underground below floor slab or pavement in lieu of threaded, galvanized conduit. PVC schedule 40 conduit shall not be run in or above first floor slab. PVC conduit shall terminate below floor slab with rigid, threaded metal conduit adapter. Conduit above slab shall be metal.**
- D. A ground conductor shall be supplied in all conduits and raceways. The ground conductor shall be copper, and sized per the N.E.C. or as shown on drawing, whichever is more stringent.**
- E. PVC conduit run beneath areas subject to heavy vehicular traffic such as commercial parking areas, drive through, etc., shall be concrete encased. This conduit shall comply with NEMA TC-6 and -8 (Power), TC-10 (Telephone), ASTM F512 (Concrete Encasement Applications) and UL-651 (Standard).**
- F. PVC conduit used between lighting standards shall be Carlon Type 40 mm. and comply with NEMA TC-2, TC-3, and UL-651 (Std.).**
- 1.02** Conduit and E.M.T. shall be delivered to the building in 10-foot lengths and each length shall have the Underwriter's Laboratories label.
- 1.03** Conduit and E.M.T. shall be run concealed in all finished areas of the building.
- 1.04** E.M.T. connectors and couplers shall be set compression made of die cast as manufactured by Thomas & Betts, Steel City, or Appleton. Bends and offsets shall be made with a hickey or power bender without kinking or destroying the smooth bore of the conduit. Paralleled conduits shall run straight and true with offsets uniform and symmetrical. Conduit terminals at boxes and cabinets shall be rigidly secured with locknuts and bushings as required by the National Electrical Code and local electrical codes. Insulated bushings shall be used on all conduit 1-1/4" trade size and larger.

- 1.05** Conduit shall be securely fastened in place at no more than 8-foot centers, and hangers, supports or fastenings shall be provided at each conduit, elbow and at the end of each straight run, terminating at a box or cabinet. Conduit shall not be suspended from the ceiling or ceiling suspension wires.
- 1.06** Horizontal and vertical conduit runs shall be supported by one-hole malleable straps or other approved metal device with suitable bolts, expansion shield or beam clamp for mounting to building structure or special brackets. Conduit shall be supported from structural steel or just and independent of other piping. Do not support conduit from metal roof deck or any other support device of another trade.
- 1.07** Armored cable (BX) shall not be used.
- 1.08** No aluminum conduit shall be used.
- 1.09** Only short runs of flexible metal conduit not over 6' in length and having a ground conductor, shall be used for terminal connections to motors and also for electrical equipment where it is not practical to make final connection with rigid conduit. Flexible conduit exposed to weather shall be Sealate.
- 1.10** Exposed conduit and conduit in ceiling space shall be run parallel to the building structure.
- 1.11** Conduit system shall conform to all the requirements of the National Electrical Code (N.E.C./NFPA-70) and local codes.
- 1.12** Nonmetallic sheathed cable (Romex) may be used where allowed by N.E.C. (latest edition) and by local authority having jurisdiction, except where shown otherwise in these documents. However, Romex shall be prohibited in unit type 'A' first floor office area. In these area 'MC' Metal Clad cable may be used.
- 2. CONDUCTORS**
- 2.01** Sizes of conductors for feeders are given on the drawings and no wire smaller than #12 gauge shall be used for branch lighting or power circuits. All wiring shall have the U.L. label and be of 98% conductivity copper. Aluminum wire or aluminum cable is not acceptable.
- A. The gauge of all wire shall be in accordance with B&S standard.**
- 2.02** All wire and cable for branch lighting or small power circuits shall have 'NEC' Type 'THHN' or 'THWN' 600-volt insulation.
- 2.03** Wire and cable above #12 gauge shall be stranded Type 'THHN/THWN' insulated for 600-volts.
- 2.04** For special conditions, as provided by the National Electrical Code, Type 'RHH, A.V.A.' or other required insulation shall be used.
- 2.05** Where lighting fixtures are used as raceways, 90 degree C. minimum insulated wire shall be used.
- 3. GROUNDING**
- 3.01** This Contractor shall provide, install and connect a complete system of grounding for all equipment and structures. A good mechanical and electrical connection shall be made with approved grounding conductors.
- 3.02** Electrical system and equipment grounds shall comply with the N.E.C. as well as all local and state codes and regulations.
- 3.03** Panels, conduit systems, motor frames, lighting fixtures and other equipment that are part of this installation shall be securely grounded both mechanically and electrically in accordance with all codes.
- 3.04** System ground shall not exceed a maximum of ten (10) OHMS resistance. Test grounding system and add additional grounding as required to meet the above specified value.
- 3.05** Main grounding system shall be sized to conform with Section 250, Table 250-94 of the National Electrical Code. Provide conduit to protect wire from damage to an area eight feet (8') above floor.
- 3.06** A ground conductor shall be supplied in all conduit and nonmetallic sheathed cable. It shall be insulated, stranded, annealed copper conductor.
- 4. TOGGLE SWITCHES AND RECEPTACLES**
- 4.01** All general receptacles and switches shall be 20 amps rated, commercial grade, decoar style, with non-It switches. Color shall be white (re-verify with owner).
- 4.02** Acceptable device manufacturers are Hubbell, Arrow Hart, Leviton, or Bryant. The basis of design is Leviton.
- 4.03** Wall Switches: commercial grade
- A. Single poles #5621-2, Double pole #5622-2, Three (3) way switches #5623-2, and Four way #5624-2 shall be rated 20-ampere, 120/277 volts.**
B. Switches shall be mounted 4"-0" above finished floor to centerline.
- 4.04** Duplex receptacles shall be 20-ampere at 125-volts, commercial grade, Leviton catalogue #16352 or approved equal. Mount at 18" above floor to centerline or as noted on plans.
- 4.05** Outdoor receptacles shall be weatherproof with spring covers (Leviton #4926 plates).
- 5. WALL PLATES**
- 5.01** Unless otherwise noted, all plates in finished areas for wall switches, receptacles and telephone outlets shall be white.
- 5.02** All plates shall have full contact with the wall and boxes. Edges shall be parallel to the finished walls and ceilings.
- 6. OUTLETS**
- 6.01** Locations of outlets are shown approximately on the drawings. Contractor shall refer to the shop drawings of the manufacturers of the equipment for the exact location of outlets for fixtures, motors, heaters and their respective control devices. Approximate locations of light fixtures are shown on the drawings.
- 6.02** Outlet boxes for concealed work shall be pressed steel boxes, galvanized and not less than #12 gauge, except floor boxes which shall be cast iron. Each ceiling outlet designated for a lighting fixture shall have a fixture support secured in place with nuts and bolts. Ceiling boxes shall be four inches (4") round and octagonal with lugs and screws for back plates. Wall outlets shall be four inches (4") square by 1-1/2" deep, single or double cover, except gang boxes of similar depth shall be used at locations requiring more than 2-gang.
- 6.03** Outlets on the exterior of the building and where shown on the plans, shall be flush weatherproof type.
- 6.04** All outlets shall be firmly secured in place. Outlets in finished areas shall be flush with finished ceiling or walls.
- 6.05** All outlet locations in floor shall be verified with Owner's Representative before pouring of concrete floor.
- 7. BRANCH CIRCUIT WIRING**
- 7.01** The Electrical Contractor shall provide and connect a complete system of panels, conduits, wire fittings, boxes, supports and all other miscellaneous materials required for equipment as indicated on the plans and ready for operation by the Owner.
- 7.02** All circuits shall be color coded where applicable.
- END OF SECTION 16100
- ### **SECTION 16400 – ELECTRICAL SERVICE AND DISTRIBUTION**
- 1. SECONDARY SERVICE**
- 1.01** Electrical service shall be secondary, as shown on plans with grounded neutral and secondary metering. Provide all necessary equipment and material and install the service, metering and distribution equipment accordingly.
- 1.02** The Electrical Contractor shall be responsible for contacting the power company to secure complete details and schedule if necessary.
- 1.03** Electrical Contractor shall provide secondary service cables and conduits as shown on plans.
- 1.04** Site electrical, including provisions for the primary services lines and transformer shall be coordinated with local power company by Electrical Contractor.

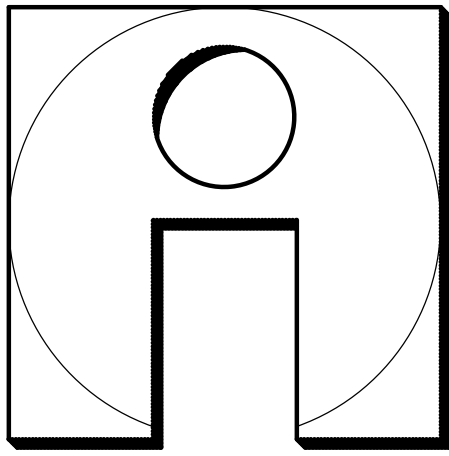
- 1.05** Provide coordination, via the General Contractor, of the Site Electrical Contractor for the final locations, penetrations, and service tie-ins associated with secondary power service entrance conduits.
- 2. FUSES**
- 2.01** This Contractor shall replace all fuses blown during construction and testing and shall provide a complete set of fuses in all fuse holders, switches, panels and all other devices requiring fuses.
- 2.02** Fuses shall be as indicated on plans.
- A. Provide label in each switch indicating fuse type, ampere rating and interrupting rating.**
- B. Replace all blown fuses up to final acceptance of job.**
- 2.03** Fuses shall be as specified herein and indicated on drawings. In the event the Electrical Contractor wishes to furnish materials other than those specified, a written request, along with complete application data to assure a selectively coordinated system, shall be submitted to the Engineer for evaluation. Alternate manufacturer is Littelfuse.
- 3. SAFETY SWITCHES**
- 3.01** Provide horsepower rated, quick-make, quick break, general duty safety switches with the number of poles and fuses as required.
- 3.02** Switches shall have arc shields, to be of heavy enclosed construction and fusible or non-fusible as indicated. Switches shall be rated for 240 volt AC.
- 3.03** All switches shall be capable of interrupting locked rotor current of motor which it serves.
- 3.04** Enclosures: NEMA 1 for interior use, NEMA 3R for exterior use unless noted otherwise.
- 3.05** Provide dual-element type fuses (fusetrans) for any fusible safety switch serving a motor circuit.
- 3.06** Provide non-fusible switches at remote motor locations (rain-tight where required) as indicated on the drawings.
- 3.07** Identify safety switches with bakelite nameplates in accordance with Section 16010.
- 4. DISTRIBUTION PANELBOARDS (INCLUDING POWER PANELS)**
- 4.01** Panels, other than unit panels, shall be, Panel board type, dead front type, copper buss, with lugs only in the main and branch circuits as indicated on the drawings. Panels shall have 20 amp single 2-pole circuit breakers (capable of interrupting available short circuit current) as required in each branch circuit. Where breakers larger than 20 amperes are required, the sizes are noted on the drawings. Breakers shall be Bolted to the bus type, quick-make, quick-break and capable of interchanging 1 or 2-pole units. Multiple units shall be common trip. Provide spare breakers in each panel as shown. All lugs shall be U.L. approved CU/AL type.
- 4.02** Electrical Contractor shall arrange circuits as near as possible to circuit numbers on the drawings. At finish of job, Electrical Contractor shall take current reading checks of respective phases. A minimum of circuit connections shall be rearranged to balance (as closely as possible) the load on the panel.
- 4.03** Panels shall be enclosed in galvanized steel of code thickness. Cabinets shall be large enough to allow standard size wiring gutters on each side, top and bottom of panels. Mount not over 6'-6" from floor to top of panels.
- 4.04** Panels shall be provided with spares and full provisions for future breakers as shown.
- 4.05** Panels shall be manufactured as a complete unit by Siemens-ITE, Square D, General Electric Company, or Challenger, not an assembly of parts secured from a supply house.
- 4.06** Panelboards and switches shall be identified for "usage".
- 5. UNIT PANELS – (LOAD CENTERS)**
- 5.01** Unit panels shall be dead front type, copper buss, with lugs only in the main and branch circuits as indicated on the drawings. Panels shall have 20 amp single 2-pole circuit breakers (capable of interrupting available short circuit current) as required in each branch circuit. Where breakers larger than 20 amperes are required, the sizes are noted on the drawings. Breakers shall be Plug on to the bus type, quick-make, quick-break and capable of interchanging 1 or 2-pole units. Multiple units shall be common trip. Provide spare breakers in each panel as shown. All lugs shall be U.L. approved CU/AL type.
- 5.02** Electrical Contractor shall arrange circuits as near as possible to circuit numbers on the drawings. At finish of job, Electrical Contractor shall take current reading checks of respective phases. A minimum of circuit connections shall be rearranged to balance (as closely as possible) the load on the panel.
- 5.03** Panels shall be enclosed in galvanized steel of code thickness. Cabinets shall be large enough to allow standard size wiring gutters on each side, top and bottom of panels. Mount not over 6'-6" from floor to top of panels.
- 5.04** Panels shall be provided with spares and full provisions for future breakers as shown.
- 5.05** Panels shall be manufactured as a complete unit by Siemens-ITE, Square D, General Electric Company, or Challenger, not an assembly of parts secured from a supply house.
- 5.06** Panelboards and switches shall be identified for "usage".
- 6. GENERAL (FOR ALL UNIT PANELS AND PANELBOARDS)**
- 6.01** Metal framed card holders with typewritten circuit directory must be provided for each panel. Directory shall be clear and designation shall match identification on equipment. Panelboards distribution, power panels and lighting panels shall be identified by a label on the switch and/or panel door. Provide engraved laminated phenolic nameplates with 3/8" letters engraved through black to white.
- 6.02** All panels, safety switches, starters and in general, all equipment requiring lugs shall be equipped with solderless type U.L. approved lugs.
- 6.03** Provide all necessary unstrut, channel, backing and supports to mount switchboard and panelboards securely in place.
- END OF SECTION
- ### **SECTION 16500 – LIGHTING**
- 1. LIGHTING FIXTURES**
- 1.01** All fixtures shall be as shown on Fixture Schedules, and approved by owner.
- 1.02** Unless otherwise indicated, all lighting fixtures shall be furnished and installed by Electrical Contractor as indicated on the Lighting Fixture Schedules, including lamps.
- 1.03** All fixtures shall bear the Underwriter's Laboratories label and shall be installed according to manufacturer's instruction.
- 1.04** All fixtures shall be new and undamaged.
- 1.05** Surface-mounted fluorescent fixtures shall be mounted 6' from ceiling. Mount spacers and supports on 48" centers with additional support at the end of each row of fixtures.
- 1.06** This Contractor shall provide and install all necessary support media for all lighting fixtures including structural steel, angle, rods, etc. In general, fixtures shall be supported in a manner acceptable to the local inspection authorities. All fixtures shall be firmly supported from beams or joists.
- 1.07** This Contractor shall support all fixtures from building structural members and NOT from ceiling system.
- END OF SECTION 16500

ELECTRICAL SYMBOLS

	DUPLEX OUTLET w/ GROUND FAULT CIRCUIT INTERCEPTOR WATER TIGHT		ELECTRICAL PANEL
	220 VOLT OUTLET		ELECTRIC METER
	110V OUTLET, WEATHERPROOF		COMMUNICATION / DATA
	DUPLEX OUTLET @ 18" U.N.O.		JUNCTION BOX
	QUAD OUTLET		CABLE TV
	SWITCH		SMOKE DETECTOR
	THREE WAY SWITCH		COMBINATION CARBON MONOXIDE & SMOKE DETECTOR, HARD-WIRED
	RECESSED LED CAN LIGHT FIXTURE		THERMOSTAT
	RECESSED LED CAN LIGHT FIXTURE, WATER PROOF		ELECTRIC TANKLESS WATER HEATER
	WALL MOUNTED LIGHT FIXTURE		
	DISCONNECT		
	EXHAUST FAN		
	FAN WITH LIGHT		
	CEILING MOUNTED LIGHT FIXTURE		



FIRST FLOOR ELECTRICAL PLANS
SCALE: 1/4" = 1'-0"



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PROJECT:
**COLUMBUS TOWNHOME
RESIDENCE
UNIT A**
5108 E COLUMBUS DRIVE
TAMPA, FLORIDA

REVISIONS:

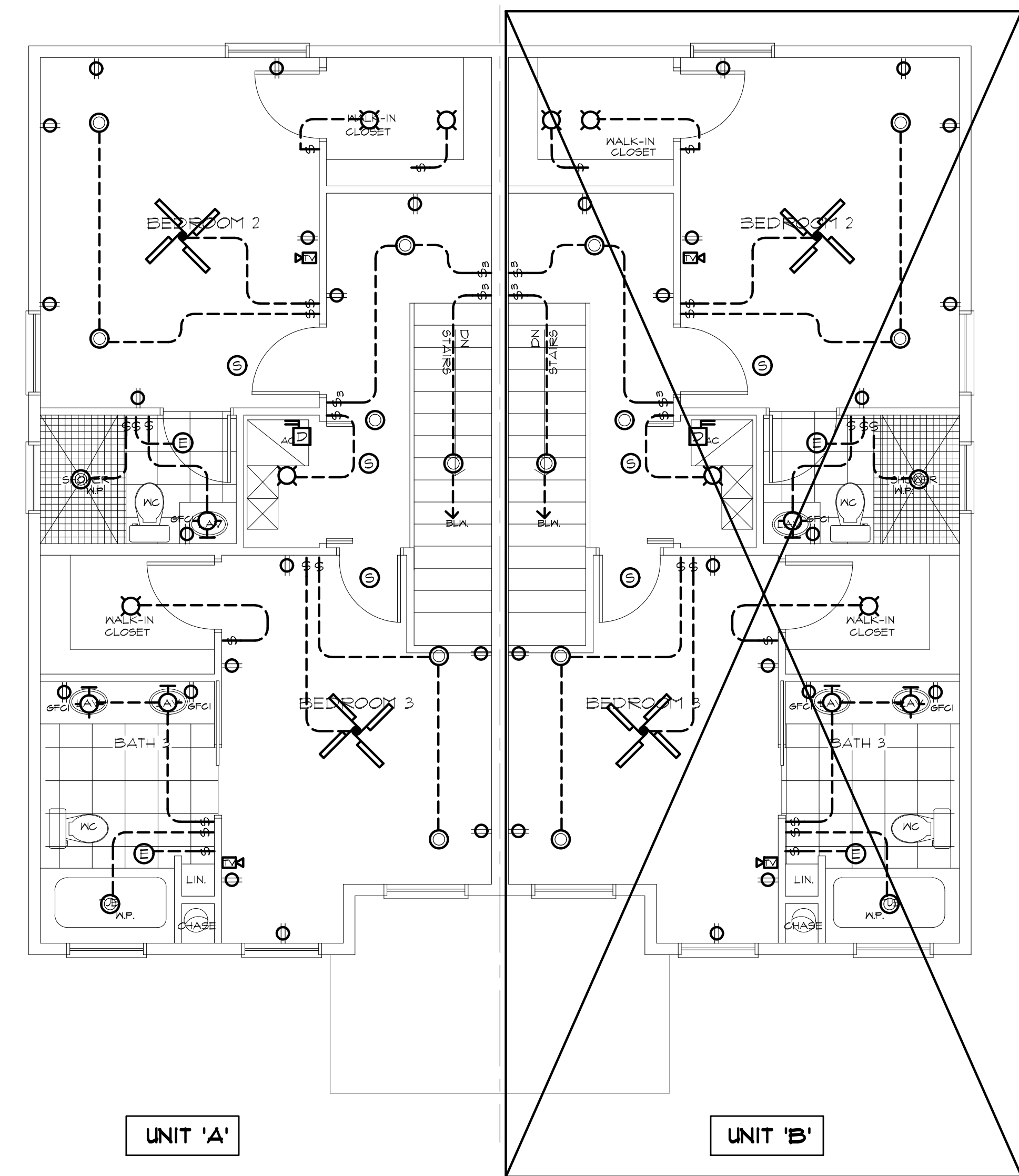
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DATE:
JANUARY 5, 2022

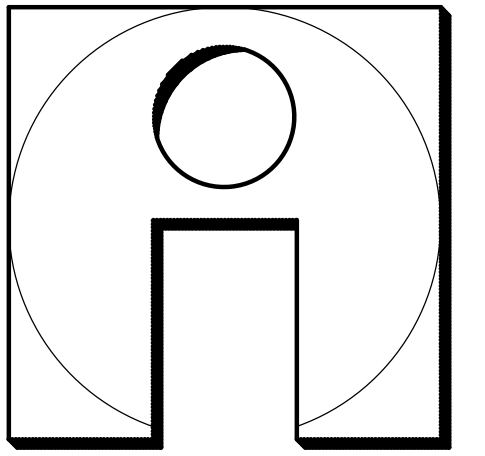
JOB NO.:
21-064

ELECTRICAL SYMBOLS

	DUPLEX OUTLET w/ GROUND FAULT CIRCUIT INTERCEPTOR WATER TIGHT		ELECTRICAL PANEL
	220 VOLT OUTLET		ELECTRIC METER
	110V OUTLET, WEATHERPROOF		COMMUNICATION / DATA
	DUPLEX OUTLET @ 1/8\"/>		JUNCTION BOX
	QUAD OUTLET		CABLE TV
	SWITCH		SMOKE DETECTOR
	THREE WAY SWITCH		COMBINATION CARBON MONOXIDE & SMOKE DETECTOR, HARD-WIRED
	RECESSED LED CAN LIGHT FIXTURE		THERMOSTAT
	RECESSED LED CAN LIGHT FIXTURE, WATER PROOF		ELECTRIC TANKLESS WATER HEATER
	WALL MOUNTED LIGHT FIXTURE		
	DISCONNECT		
	EXHAUST FAN		
	FAN WITH LIGHT		
	CEILING MOUNTED LIGHT FIXTURE		



SECOND FLOOR ELECTRICAL PLANS
SCALE: 1/4" = 1'-0"



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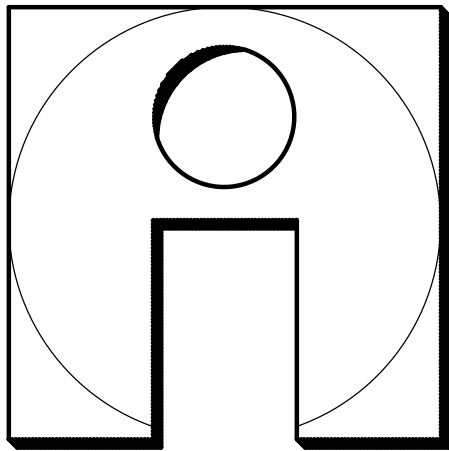


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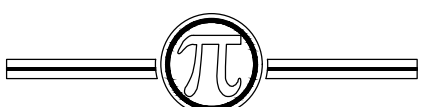


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PROJECT:

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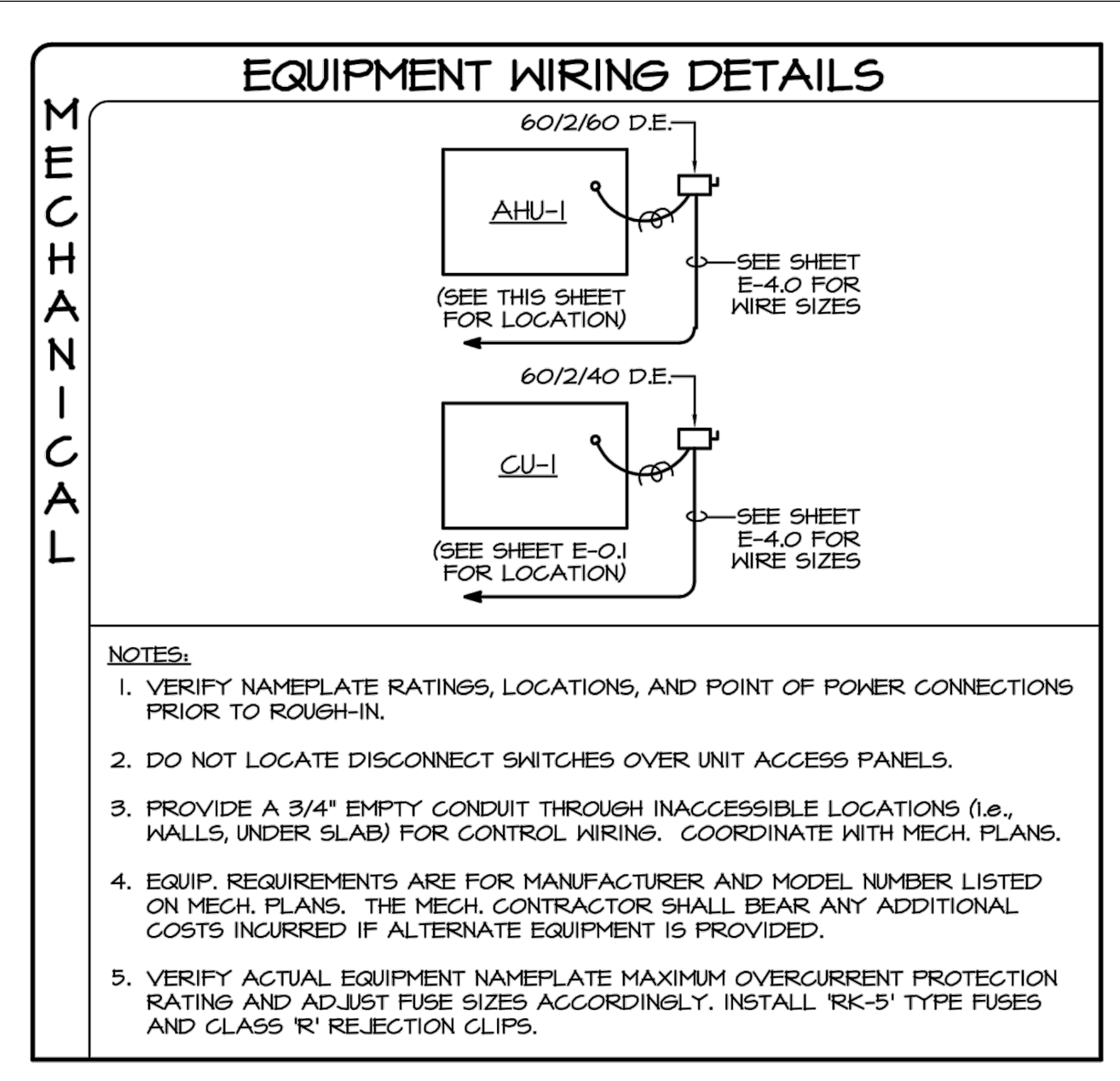
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21-064

E4

- KEY NOTES**
1. OUTLET BOX BELOW COUNTER FOR CONNECTION TO GARBAGE DISPOSAL. MAKE ALL REQUIRED TERMINATIONS.
 2. RECEPTACLE FLUSH MOUNTED IN CABINET ABOVE FOR EXHAUST HOOD SEE ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION.
 3. OUTLET BOX BELOW COUNTER FOR DISHWASHER. VERIFY EXACT LOCATION AND REQUIREMENTS AND PROVIDE ACCORDINGLY.
 4. MOUNT SWITCH FOR GARBAGE DISPOSAL AT SAME ELEVATION AS ABOVE COUNTER RECEPTACLES AND AT A POINT 12" BEYOND EDGE OF SINK MINIMUM. GROUP WITH RECEPTACLE ABOVE COUNTER.
 5. WEATHER PROOF DOOR BELL PUSH-BUTTON MOUNTED AT 48" A.F.F. PUSH-BUTTON SHALL OPERATE CHIME IN KEY NOTE No. 6.
 6. CHIME - COORDINATE WITH OWNER FOR TYPE, LOCATION AND HEIGHT, AND PROVIDE ACCORDINGLY. TIE TRANSFORMER TO NEAREST GENERAL RECEPTACLE CIRCUIT.
 7. TELEPHONE OUTLET - PROVIDE CAT-5E TELEPHONE CABLE FROM POINT OF SERVICE BOX TO EACH OUTLET INSIDE UNIT - SEE KEY NOTE 4.
 8. TELEVISION OUTLET - PROVIDE RG-6 COAXIAL CABLE FROM POINT OF SERVICE BOX TO EACH OUTLET INSIDE UNIT - SEE KEY NOTE 4.
 9. TELEPHONE AND CABLE T.V. POINT OF SERVICE BOX. BOX SHALL BE FLUSH MOUNTED WITH HINGED, LATCHING DOOR. BOX SHALL BE 18" HIGH, 18" WIDE, AND SUITABLE FOR USE IN A 4" STUD WALL, EQUAL TO HOFFMAN HA-FD1818P. INSTALL ONE RECEPTACLE INSIDE BOX AND ONE RECEPTACLE 12" BELOW CEILING AT BOX LOCATION. PROVIDE (2) 1" CONDUIT WITH PULLWIRE TO DEMARK POINT FOR TELEPHONE AND CABLE SERVICES (1) 1" CONDUIT PER SYSTEM.
 10. RECEPTACLE MOUNTED HORIZONTAL IN BACKSPASH. COORDINATE WITH CABINET INSTALLER.
 11. SEE DETAIL, THIS SHEET, FOR ELECTRICAL REQUIREMENTS TO MECHANICAL EQUIPMENT.
 12. MOUNT RECEPTACLE A MAXIMUM 12" BELOW COUNTERTOP.
 13. 120 VOLT SMOKE DETECTOR WITH 9 VOLT BACKUP BATTERY, SENTEX #4123. COORDINATE FINAL LOCATION WITH AUTHORITY HAVING JURISDICTION ON SITE. SMOKE DETECTORS SHALL BE INTERCONNECTED SO THAT WHEN ONE SMOKE DETECTOR IS ACTIVATED, ALL DETECTORS IN THAT UNIT SHALL BE ACTIVATED. SEE LOCATION CRITERIA, THIS SHEET.
 14. 50 AMP RANGE OUTLET - COORDINATE EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGH-IN.
 15. FLUSH MOUNTED 30A/2 ENCLOSED CIRCUIT BREAKER AT 60" A.F.F.
 16. SWITCH FOR SWITCHED RECEPTACLES SHOWN. GROUP THE SWITCH WITH ROOM FAN / LIGHT SWITCHES IN ONE BOX AND UNDER ONE COVER.
 17. SWITCHED RECEPTACLE, CONTROLLED BY THE SWITCH SHOWN IN KEYED NOTE NO. 16 ABOVE. MOUNT RECEPTACLE WITH GROUND PIN AT TOP. BOTTOM HALF OF THE RECEPTACLE SHALL BE SWITCHED.
 18. FLUSH MOUNTED RECEPTACLE AND CONTROL FOR GARAGE DOOR. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN.
 19. JUNCTION BOX WITH MAINTENANCE SWITCH FOR WHIRLPOOL TUB. VERIFY ACCESS PANEL LOCATION PRIOR TO PLACING MAINTENANCE SWITCH AND MAKE FINAL TERMINATIONS ACCORDINGLY.
 20. JUNCTION BOX WITH 1/2" CONDUIT STUBBED INTO GARAGE CEILING FOR LOW VOLTAGE CONTROL BY OTHERS.



PANEL B TYPICAL

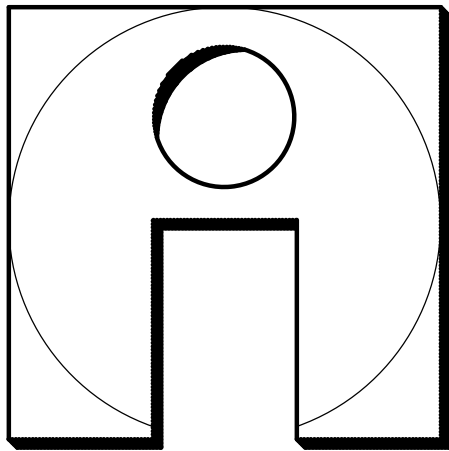
SPACES 42	MOUNTING SURFACE	LOCATION INDOOR	MCB 200 AMP		VOLTAGE 110-220 Volt		MAIN BUS RATING 200A		SINGLE	PHASE	DESCRIPTION	CKT. NO.
			A φ	LOADS B φ	BKR SIZE	POLE	BKR SIZE	POLE				
1					20	1					BEDROOM RECEPTACLES	2
3					20	1					BEDROOM RECEPTACLES	4
5					20	1					BEDROOM RECEPTACLES	6
7					60	2					BEDROOM LIGHTING	8
9					60	2					BEDROOM LIGHTING	10
11					60	2					BEDROOM LIGHTING	12
13											SMOKE DETECTORS	14
15					30	2					REFRIGERATOR	16
17											DISHWASHER	18
19					20	1					EXHAUST HOOD/ MICROWAVE	20
21					20	1					RANGE	22
23					20	1						24
25					20	1						26
27											WATER HEATER	28
29												30
31												32
33											SPARE	34
35											SPARE	36
37											SPARE	38
39											SPARE	40
41											SPARE	42
FEED			TOTAL				TOTAL				VOLTAGE 120-208	

- SMOKE DETECTOR LOCATION CRITERIA** (PER NFPA-72)
1. SMOKE DETECTORS SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS AND ON EACH ADDITIONAL STORY OF THE FAMILY LIVING UNIT. A SMOKE DETECTOR ALSO SHALL BE INSTALLED IN EACH SLEEPING ROOM.
 2. SMOKE DETECTORS MOUNTED ON THE CEILING SHALL BE A MINIMUM OF 4 INCHES FROM WALLS.
 3. SMOKE DETECTORS MOUNTED ON A WALL SHALL HAVE THE TOP OF THE DETECTOR NOT LESS THAN 4 INCHES OR MORE THAN 12 INCHES BELOW THE CEILING.
 4. SMOKE DETECTORS SHALL BE A MINIMUM 3'-0" HORIZONTALLY FROM:
 - a) THE DOOR TO A BATHROOM CONTAINING A TUB OR SHOWER.
 - b) ANY A/C SUPPLY REGISTER (DETECTOR MUST ALSO BE OUTSIDE OF AIRFLOW).
 5. THE SMOKE DETECTOR INSTALLED TO COMPLY WITH NFPA 72-11.2.3, IN A MULTI-STORY DWELLING UNIT, SHALL BE LOCATED ON CLOSE PROXIMITY TO THE STAIRWAY LEADING TO THE FLOOR ABOVE. COORDINATE EXACT LOCATION WITH FIRE MARSHAL ON SITE PRIOR TO ROUGH-IN.

PANEL 'B' (200A) LOAD CALCS.

1425 S.F. @ 3 VA / SQ. FT.	4275 VA
(2) 20 AMP APPLIANCE OUTLETS CIRCUITS @ 1500 VA EACH	3000 VA
LAUNDRY CIRCUIT	1500 VA
RANGE(AT NAME PLATE READING)	8000 VA
DISHWASHER	1500 VA
DISPOSAL	1200 VA
WATER HEATER	8800 VA
CLOTHES DRYER	5000 VA
MICROWAVE	1200 VA
REFRIGERATOR	1000 VA
SUB TOTAL	35,475 VA
FIRST 10,000 @ 100%	10,000 VA
BALANCE @ 40% = 25,475 X .4	10,190 VA
SUB TOTAL	20,190 VA
HVAC	10632 VA
TOTAL	30822 VA
120/240 V PH 129 A	

SERVICE SIZE IS TO BE 200 AMP



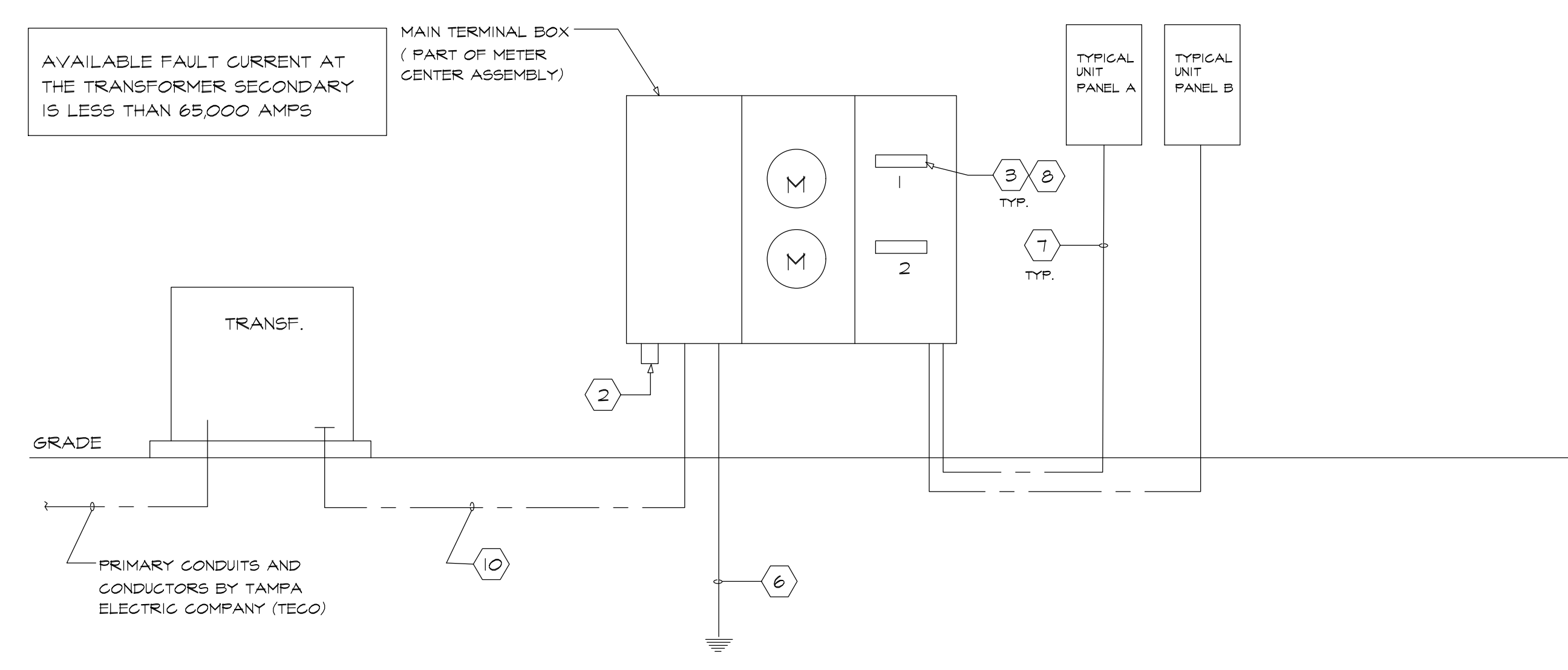
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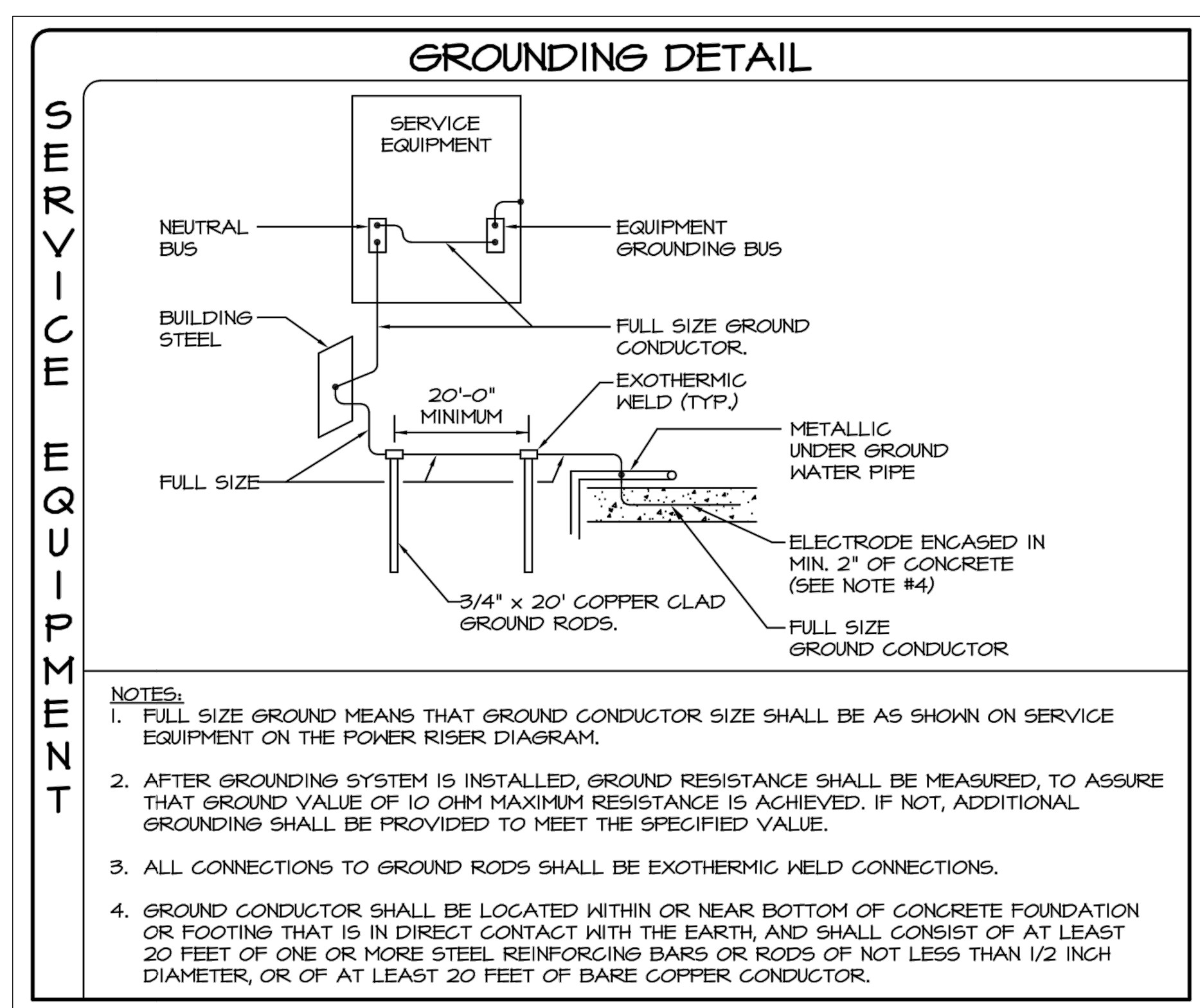
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ARCHITECT ARCHITECT AR#22860



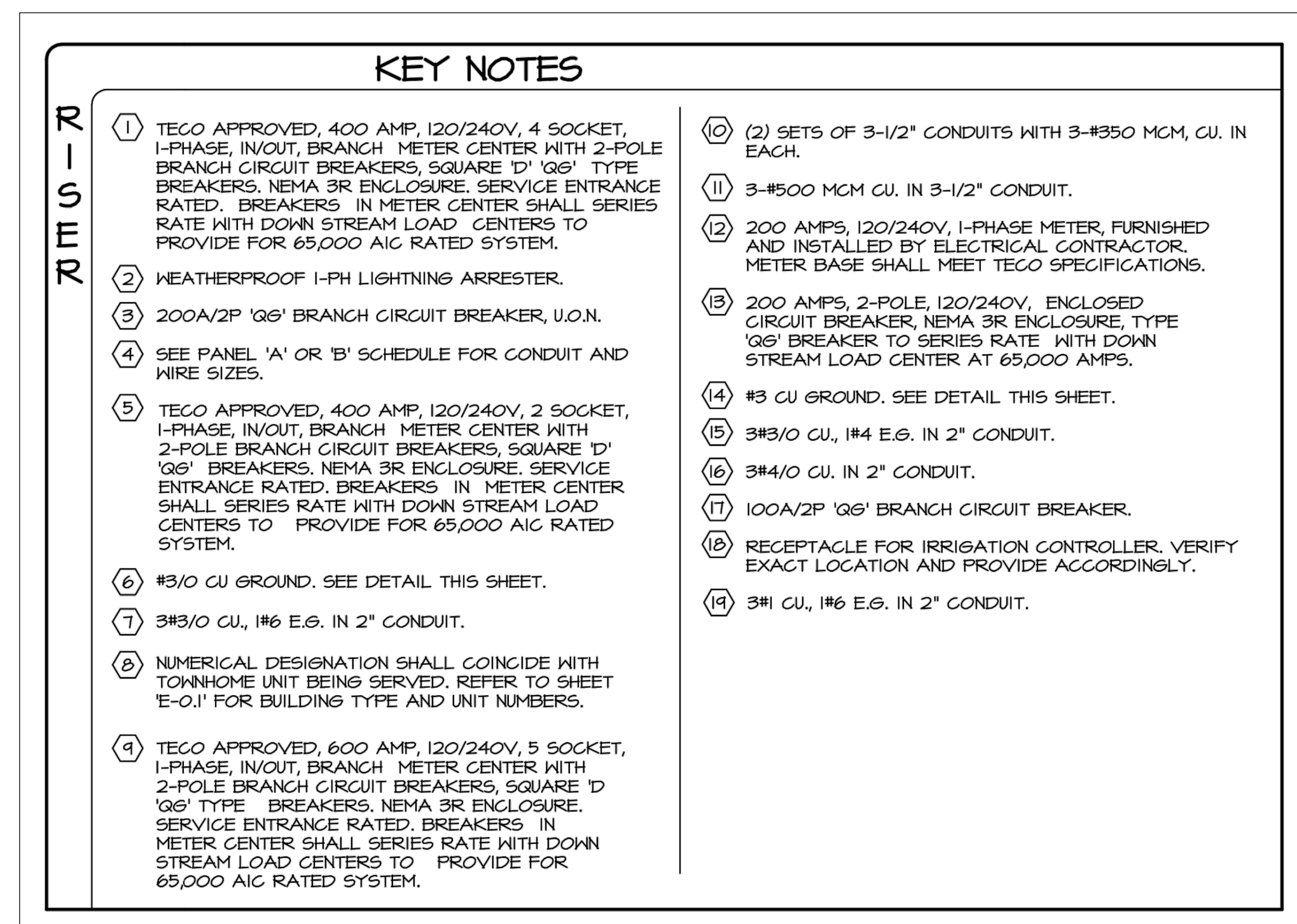
THE METER CENTER SHALL BE SERVICE ENTRANCE RATED AND HAVE 65,000 AIC FULLY RATED TENANT BREAKERS



2- UNIT POWER RISER DIAGRAM
SCALE: NTS



- NOTES:
1. FULL SIZE GROUND MEANS THAT GROUND CONDUCTOR SIZE SHALL BE AS SHOWN ON SERVICE EQUIPMENT ON THE POWER RISER DIAGRAM.
 2. AFTER GROUNDING SYSTEM IS INSTALLED, GROUND RESISTANCE SHALL BE MEASURED, TO ASSURE THAT GROUND VALUE OF 10 OHM MAXIMUM RESISTANCE IS ACHIEVED. IF NOT, ADDITIONAL GROUNDING SHALL BE PROVIDED TO MEET THE SPECIFIED VALUE.
 3. ALL CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC WELD CONNECTIONS.
 4. GROUND CONDUCTOR SHALL BE LOCATED WITHIN OR NEAR BOTTOM OF CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH, AND SHALL CONSIST OF AT LEAST 20 FEET OF ONE OR MORE STEEL REINFORCING BARS OR RODS OF NOT LESS THAN 1/2 INCH DIAMETER, OR OF AT LEAST 20 FEET OF BARE COPPER CONDUCTOR.



PROJECT:
COLUMBUS TOWNHOME RESIDENCE UNIT A
5108 E COLUMBUS DRIVE
TAMPA, FLORIDA

REVISIONS:

DRAWN BY:
CP

DATE:
JANUARY 5, 2022

JOB NO.:
21-064

E5

FAN SCHEDULE										
GENERAL					CONSTRUCTION					
MARK	CFM	SONES	ESP (IN-WG)	ELEC.	MOTOR	FAN-TYPE	MANUF.	MODEL	WEIGHT (LBS)	NOTES
EF-1	100	5.6	0.25	120/1-FH	90-WATTS	CEILING	BROAN	S-130	10.5	① ②
EF-1A	110	4.0	0.25	120/1-FH	90-WATTS	CEILING	BROAN	RDH 4 110RDF	15	① ② ⑤
EF-2	70	3.5	0.25	120/1-FH	70-WATTS	COMBO FAN/LIGHT	BROAN	670	11	③ ④

- NOTE: ① PROVIDE COMPLETE WITH GALVANIZED STEEL HOUSING, WHITE CEILING GRILLE WITH TORSION SPRING MOUNTING, BACKDRAFT DAMPER, AND DISCONNECT PLUG.
 ② PLUG-TYPE DISCONNECT 4 WALL SWITCH TO BE BY ELECTRICIAN.
 ③ PROVIDE COMPLETE WITH GALVANIZED STEEL HOUSING, WHITE COMBINATION GRILLE/LIGHT LENS FOR 100-W BULB, DUAL POWER ENTRY (LIGHT/FAN), BACKDRAFT DAMPER, AND DISCONNECT PLUG. FURNISH AND INSTALL A 100-W BULB.
 ④ PLUG-TYPE DISCONNECT 4 2-BUTTON WALL SWITCH (LIGHT/FAN) TO BE BY ELECTRICIAN.
 ⑤ PROVIDE WITH FIRE RATED RADIATION DAMPER (WARNOCK HERSEY) 4 HOUSING, ALONG WITH FINISH KIT AND FAN TRIM.

VENT CAP SCHEDULE										
GENERAL					CONSTRUCTION					
TAG	SERVICE	FUNCTION	INLET SIZE	PATTERN	MATERIAL	DAMPER	BIRDSCREEN	MFG.	MODEL	
WALL CAP	BATH EXHAUST	EXHAUST	5"	60600SENECK	ALUMINUM	YES	YES	BROAN	641	

AIR DEVICE SCHEDULE										
GENERAL				CONSTRUCTION						
MARK	TYPE	FUNCTION	FRAME SIZE	PATTERN	MATERIAL	FINISH	MFG.	MODEL	AIR PATTERN	NOTES
CD1	HORIZONTAL CEILING DIFFUSER	SUPPLY	16x12	MULTI-BLADES	ALUMINUM	WHITE	TITUS	250-AA	L1 (1-WAY)	①
CD2	VERTICAL SIDEWALL DIFFUSER	SUPPLY	8x12	MULTI-BLADES	ALUMINUM	WHITE	TITUS	250-AA	L1 (1-WAY)	①
										①
RGC **	FILTER RETURN GRILLE	RETURN	24x18	BLADES	STEEL	WHITE	TITUS	350-RFL	--	-- ②
RGC	FILTER RETURN GRILLE	RETURN	24x18	BLADES	ALUMINUM	WHITE	TITUS	350-FFL	--	--
TGC	TRANSFER GRILLE	TRANSFER	16x8	BLADES	ALUMINUM	WHITE	TITUS	350-FL	--	①

NOTE: ① PROVIDE WITH *AG-20, OPPOSED BLADE DAMPER, WITH LEVER ARM FOR ADJUSTMENT. (NOTE: METALAIRE, AIRMATE, MAY BE USED AS AN ALTERNATE MFG.)

CONDENSING UNIT SCHEDULE										
GENERAL		CAPACITY COOLING			COMPRESSOR					
MARK	SERVES	TOTAL MBH	SENSIBLE MBH	POWER	QTY.	TYPE	MFG.	MODEL	SEER (MIN.)	NOTES
CU-1	2 STORY	36.0	28.0	230/1	1	SCROLL	CARRIER	24ACC4	14.0	① ② ③ ④

- NOTE: ① PROVIDE REFRIGERANT LINE SETS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SIZING REQUIREMENTS - USE LONG LINE APPLICATIONS FOR 2ND FLOOR UNITS.
 ② PROVIDE WITH EXPANSION-VALVE, SIGHT GLASS, FILTER DRIER, 4 5-MINUTE ANTI-CYCLE TIMER.
 ③ PROVIDE LONG-LINE REFRIGERANT PIPING INSTALLATION 4 ACCESSORIES ACCORDING TO MANUFACTURER'S GUIDELINES FOR ALL PIPING RUNS OVER 50-FEET LONG - FIELD VERIFY ALL SYSTEMS.
 ④ DISCONNECT TO BE PROVIDED BY ELECTRICIAN (DIVISION 16).

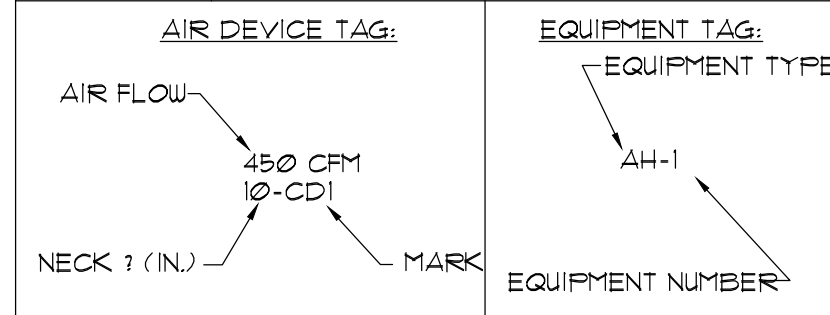
AIR HANDLING UNIT SCHEDULE																	
GENERAL				BLOWER MOTOR		COOLING		COOLING CAP		ELECTRIC HEAT							
MARK	SERVES	SUPPLY CFM	ESP IN. WG.	POWER	TONS (NOM.)	HP	SPEED	ENT AIR DB	WB	TOTAL MBH	SENS. MBH	KW (# 230-V)	TOTAL MBH	WT LBS	MFG.	MODEL	NOTES
AHU-1	2 STORY	1200	0.4	230/1	3.0	3/4	MEDIUM	75.0	62.5	36.0	28.0	10.0	36.0	118	CARRIER	FX4D	① ② ③ ④ ⑤ ⑥

- NOTE: ① PROVIDE WITH DIGITAL MANUAL THERMOSTAT WITH MANUAL CHANGEOVER (ON-OFF-AUTO/HEAT-COOL) - HONEYWELL *T8500, OR EQUAL.
 ② PROVIDE SECONDARY DRAIN PAN UNDER UNIT WITH FLOAT SWITCH WIRED TO SHUT DOWN FAN MOTOR.
 ③ DISCONNECT TO BE BY ELECTRICIAN.
 ④ PROVIDE WITH FULLY INSULATED (1" THICK) SINGLE PIECE GALVANIZED STEEL CABINET, WITH PREPAINTED FINISH.
 ⑤ PROVIDE WITH ELECTRICAL HEAT STRIP AND SINGLE POINT POWER CONNECTION TO UNIT (AHU 4 HEATER).
 ⑥ PROVIDE WITH THREE SPEED FAN MOTOR.

SEQUENCE OF OPERATIONS:

AHU SUPPLY FAN TO RUN CONTINUOUS IN THE OCCUPIED MODE, 4 CYCLE IN UNOCCUPIED MODE. UPON A CALL FOR COOLING, THE COMPRESSOR SHALL CYCLE TO MAINTAIN SETPOINT. UPON A CALL FOR HEATING, THE HEAT STRIP SHALL CYCLE TO MAINTAIN SETPOINT.

HVAC LEGEND	
	FLEXIBLE DUCT
	RECTANGULAR DUCTWORK, WITH SIZE LISTED
	SUPPLY AIR DIFFUSER OR GRILLE
	RETURN AIR GRILLE / EXHAUST FAN
N.T.S.	NOT TO SCALE
	FIRE RATED CEILING RADIATION DAMPER
	MANUAL VOLUME DAMPER W/ HANDLE
TYP.	TYPICAL (ITEM, DETAIL, REQUIREMENT, ETC.)
①	THERMOSTAT
	DOOR UNDERCUT
?	ROUND, DIAMETER
?	PHASE
AFF	ABOVE FINISHED FLOOR
CFM	CUBIC FEET PER MINUTE



BRANCH DUCT RUNOUT SCHEDULE	
GENERAL	
AIRFLOW	DUCT RUNOUT SIZE (SNAPLOCK OR FLEX)
0-120 CFM	6"
130-250 CFM	8"
260-350 CFM	10"
OVER 350 CFM	12"

MECHANICAL GENERAL NOTES

ALL MECHANICAL WORK SHALL MEET THE REQUIREMENTS OF THE "2020 FLORIDA BUILDING CODE - MECHANICAL," ALONG WITH ALL LOCAL AMENDMENTS.

IN GENERAL, PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED.

CONTRACTOR SHALL PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUBFEND MECHANICAL EQUIPMENT AND MATERIALS.

DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.

THE CONTRACTOR SHALL PERFORM A STARTUP ON THE HVAC SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.

THE CONTRACTOR SHALL PROVIDE A FULL TEST 4 BALANCE OF THE NEW HVAC SYSTEMS AS SHOWN ON PLANS, AND SHALL FURNISH HIS TEST AND BALANCE REPORT TO THE ENGINEER 4 OWNER FOR REVIEW PRIOR TO FINAL APPROVAL.

CONTRACTOR SHALL NOTIFY THE OWNER, ARCHITECT OR HIS AUTHORIZED REPRESENTATIVE OF ANY DAMAGE TO THE EXISTING INSTALLATION BEFORE PROCEEDING WITH THE WORK.

INTENT OF THESE NOTES AND MECHANICAL "NOTES" ON DRAWINGS IS TO CLARIFY THE SCOPE OF WORK AND ALERT CONTRACTOR OF EXISTING CONDITIONS. CONTRACTOR TO VISIT SITE AND VERIFY ALL CLEARANCES BEFORE FABRICATION OF DUCTWORK AND PROVIDE ADDITIONAL OFFSET AND/OR CHANGES IN DUCT SIZES TO MEET FIELD CONDITIONS AND COORDINATE WITH ALL OTHER SUBCONTRACTORS BEFORE THE START OF ANY CONSTRUCTION WORK.

ALL HVAC SYSTEMS INSTALLATION SHALL BE COORDINATED AND INSTALLED IN ACCORDANCE WITH CONTRACT PLANS 4 SPECIFICATIONS AND WARRANTY.

ACCESS PANELS IN DUCTWORK 4 CEILING SHALL BE PROVIDED WHERE REQUIRED FOR OPERATION 4 MAINTENANCE OF ALL FANS, DAMPERS, 4 MECHANICAL EQUIPMENT.

CONNECTION TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DUGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EQUIPMENT FURNISHED.

BEFORE FABRICATION, VERIFY AND COORDINATE ALL DIMENSIONS IN FIELD. ALL DUCTS SHALL BE GROUNDED ACROSS FLEXIBLE CONNECTIONS.

DUCT SIZES AND OPENINGS THRU ROOFS, SLABS AND WALLS SHALL SUIT EQUIPMENT FURNISHED.

COORDINATE DIFFUSER AND GRILLE LOCATIONS WITH ELECTRICAL LIGHTING LAYOUT AND ARCHITECTURAL REFLECTED CEILING PLAN.

LOCATE THERMOSTATS 4 SENSORS 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.

ALL EQUIPMENT, DUCTWORK, ETC. SHALL BE SUPPORTED AS DETAILED. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED TO PROVIDE A VIBRATION-FREE RIGID INSTALLATION.

ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. ANY OFFSETS REQUIRED IN DUCTS AND PIPING (INCLUDING DIVIDED DUCTS) AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

REFER TO TYPICAL DETAILS FOR PIPING AND INSTALLATION OF EQUIPMENT.

IF AT ANY TIME THERE IS DISCREPANCY BETWEEN THE PLANS 4 SPECS, OR CONFUSION/CONCERN OVER REQUIRED WORK, CONTRACTOR SHALL IMMEDIATELY NOTIFY ARCHITECT, ENGINEER, OR OWNER AND GET DIRECTION BEFORE PROCEEDING WITH WORK IN QUESTION.

THESE PLANS AND SPECIFICATIONS ARE COMPLEMENTARY, AND BOTH SHALL BE UTILIZED FULLY IN EXECUTION OF WORK.

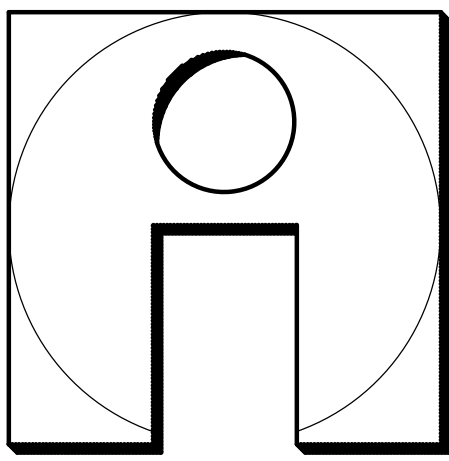
MATERIALS

- DUCTWORK:
- EXHAUST AIR SHALL BE GALVANIZED SHEET METAL IN ACCORDANCE WITH UL, SMACNA 4 ASHRAE STANDARDS.
 - SUPPLY 4 RETURN AIR DUCTWORK SHALL BE FIBERGLASS DUCTBOARD KNAUF (OR EQUAL) WITH A CLEANABLE AIR-SIDE SURFACE MAT, CONTAINING AN EPA-REGISTERED BIOCIDES, AND A 25/50 FLAME/SMOKE RATING (CLASS 'A'). R-6.0 ON TOP FLOORS AND R-4.2 ON 1ST 4 2ND FLOORS.
 - ALL BRANCH DUCT TAKE-OFFS TO BE ROUND SNAPLOCK GALVANIZED METAL WITH EXTERNAL WRAP INSULATION (R-6.0 MINIMUM).
 - FLEXIBLE DUCT SHALL BE INSULATED (R-6.0) WITH ENCAPSULATED STEEL HELIX COIL AND SHALL COMPLY WITH UL-181 PROVISIONS. FLEXIBLE DUCT IS ALLOWED ON SUPPLY DUCTS ONLY, AND SHALL BE SAME SIZE AS DIFFUSER NECK CONNECTED TO.
 - DRYER VENTS SHALL BE RIGID ALUMINUM DUCTS FROM FLEXIBLE CONNECTOR THROUGH ROOF CAP.

- PIPING:
- CONDENSATE SHALL BE SCHEDULE 40 PVC.
 - REFRIGERANT LINES TO BE TYPE "ACR" COPPER TUBING.

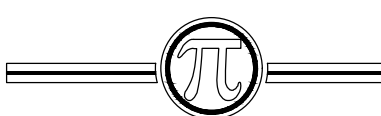
- INSULATION:
- BRANCH ROUND DUCTS - SHALL BE 2" (R-6.0) FOIL FACED FIBERGLASS WRAP DUCT INSULATION, WITH 25/50 FLAME/SMOKE RATING (CLASS 'A').
 - REFRIGERANT SUCTION LINES - 3/8" ARMAFLEX INSULATION WITH 25/50 RATING.
 - CONDENSATE DRAIN LINES - 1/2" ARMAFLEX INSULATION WITH 25/50 RATING.

- SUBMITTALS: (PROVIDE COPIES AS REQUIRED IN SPECIFICATIONS)
- SPLIT SYSTEMS (AHU 4 CU), 4 ASSOCIATED CONTROLS
 - EXHAUST FANS, AND ACCESSORIES (WALL 4 ROOF CAPS)
 - DUCTWORK MATERIAL (SHEET METAL, DUCTBOARD, FLEXIBLE DUCT, SEALANTS)



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PROJECT:
COLUMBUS TOWNHOME RESIDENCE UNIT A

5108 E COLUMBUS DRIVE
 TAMPA, FLORIDA

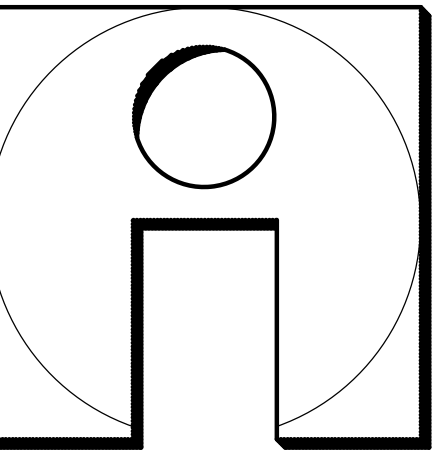
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M1



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PROJECT:
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RESIDENCE
UNIT A**

5108 E COLUMBUS DRIVE
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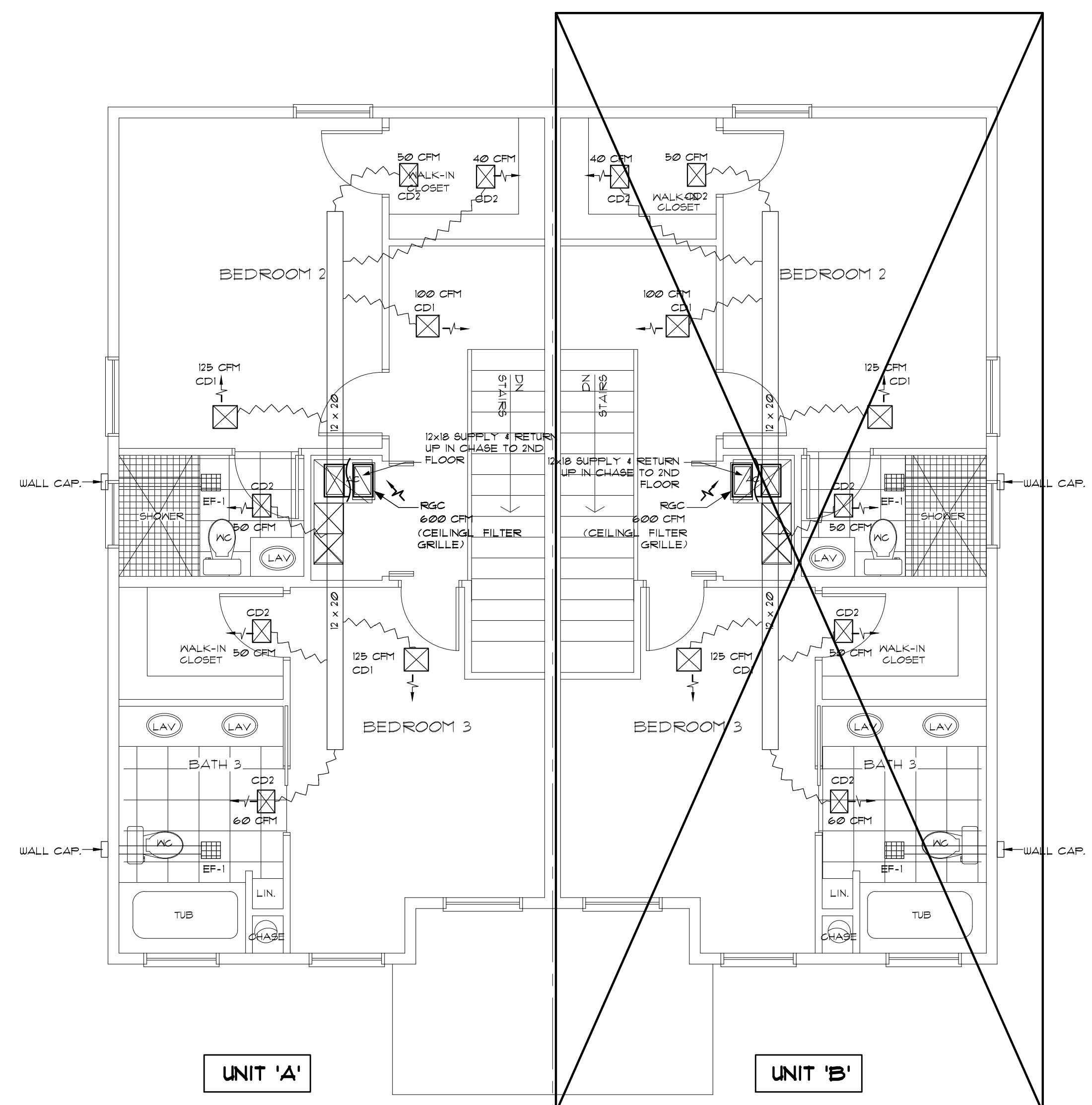
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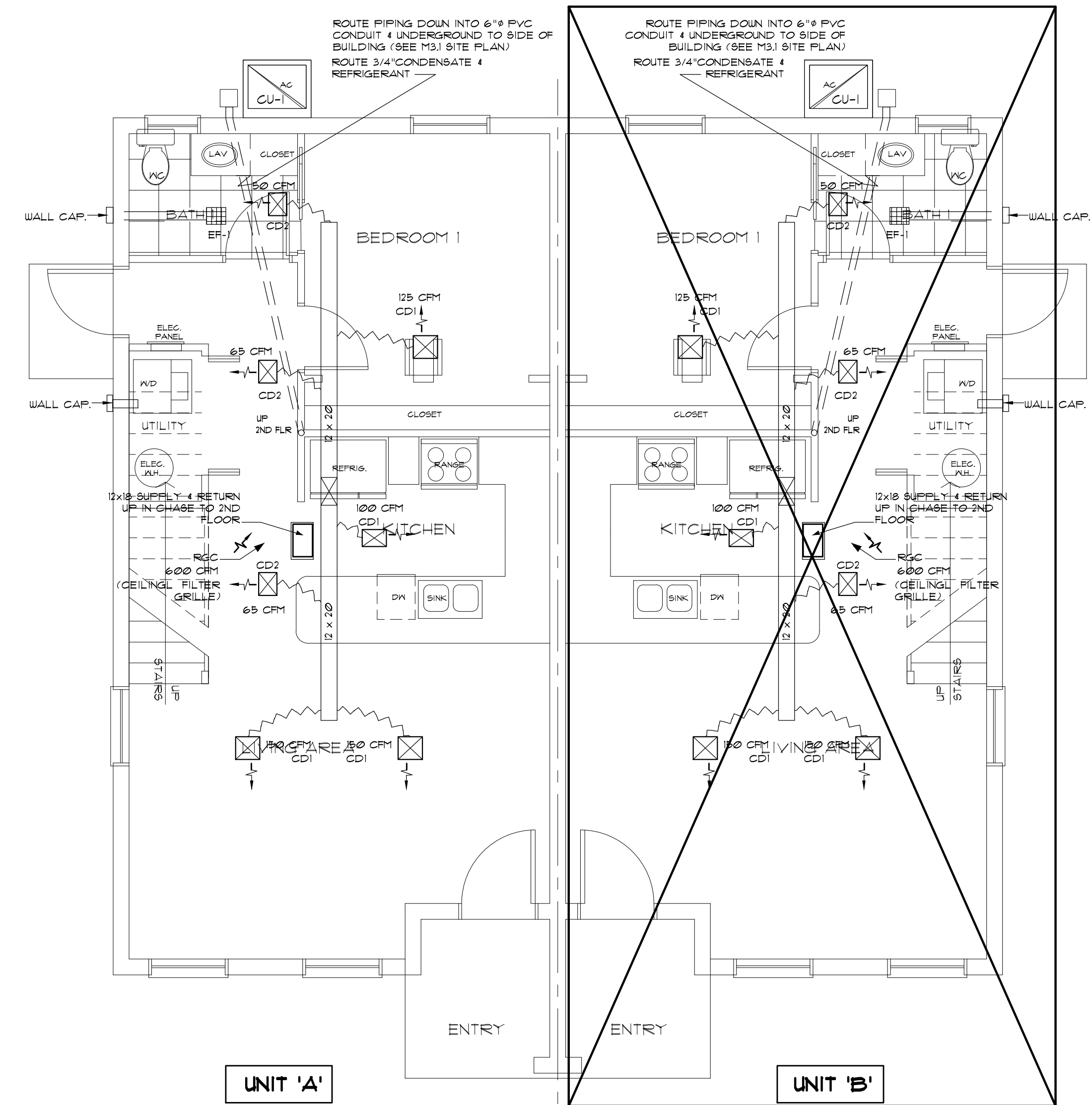
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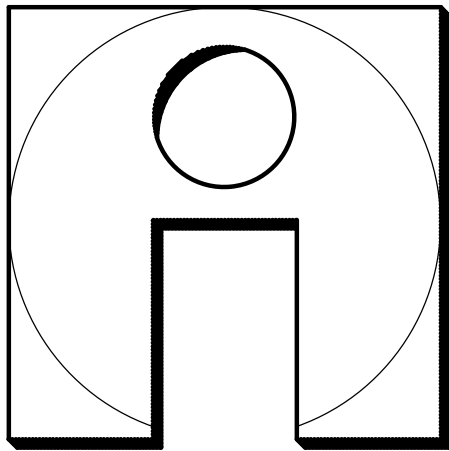
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SECOND FLOOR MECHANICAL PLANS
SCALE: 1/4" = 1'-0"



FIRST FLOOR MECHANICAL PLANS
SCALE: 1/4" = 1'-0"



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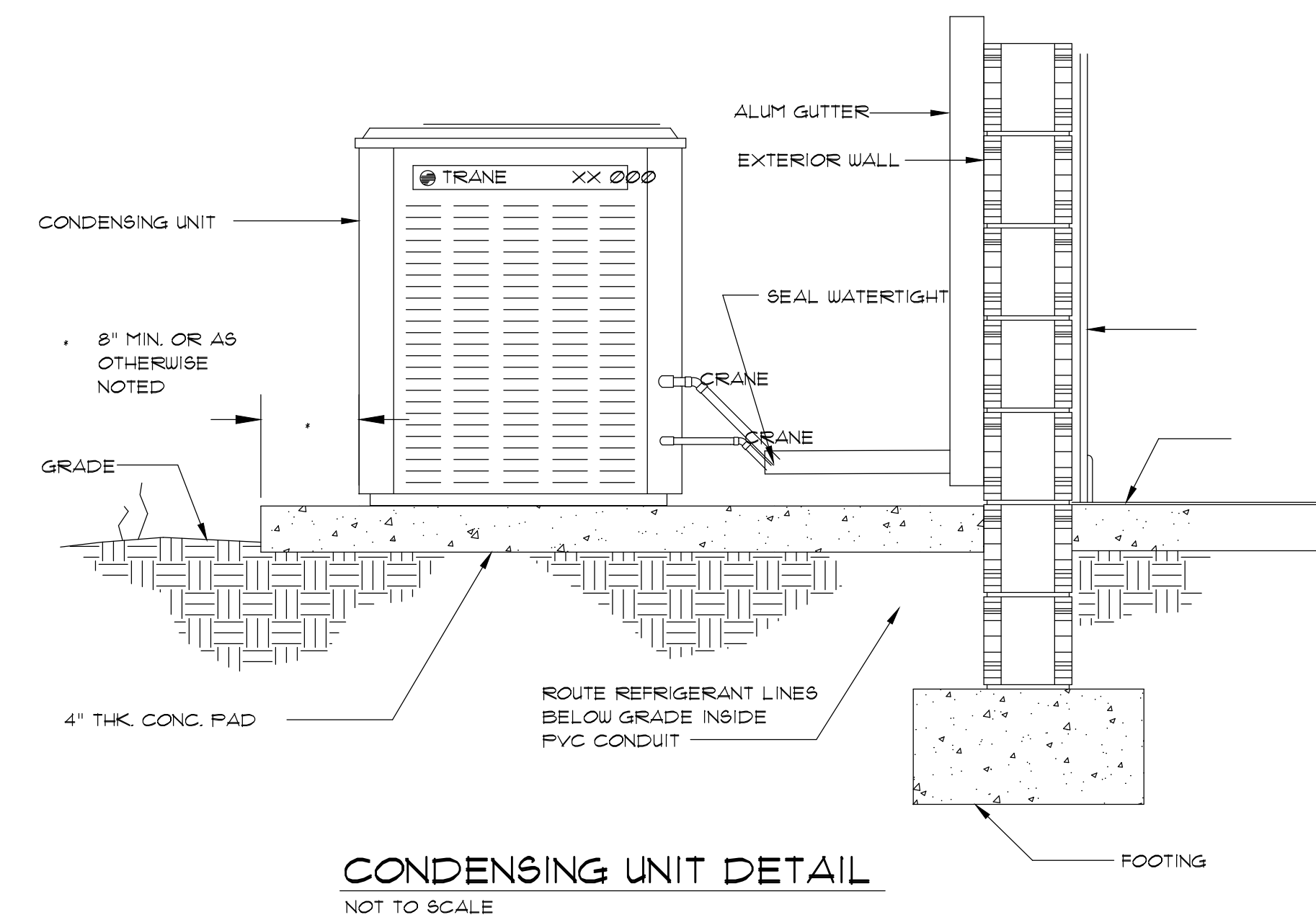
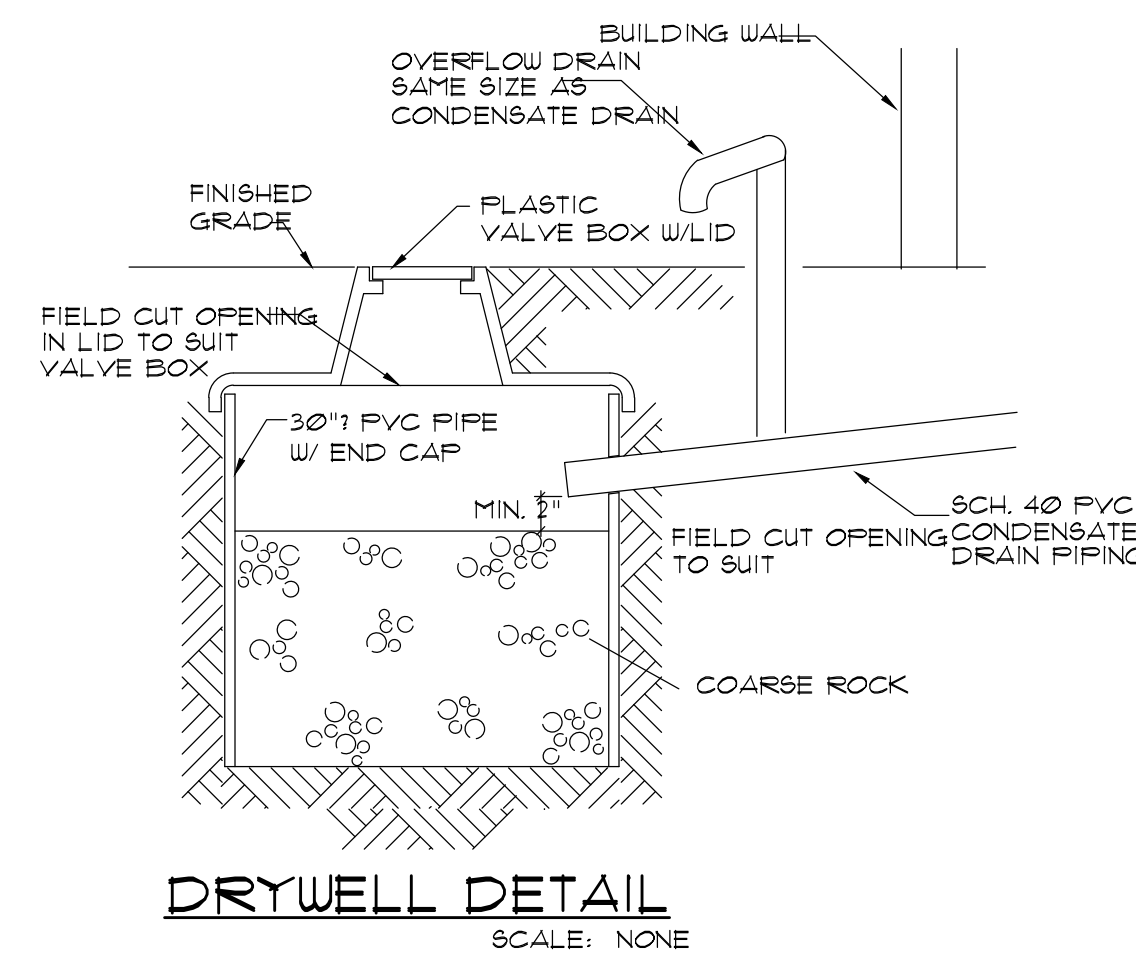
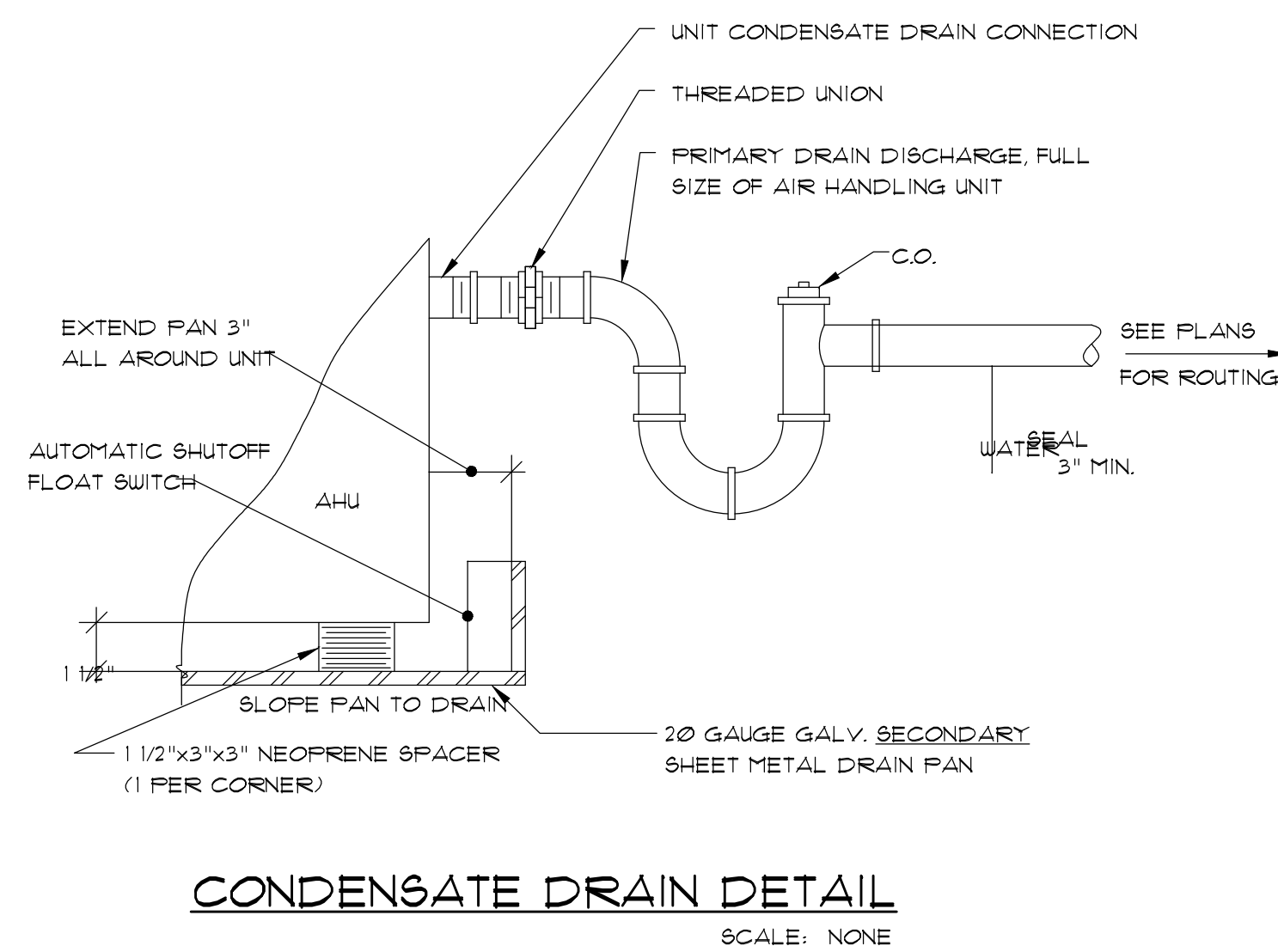
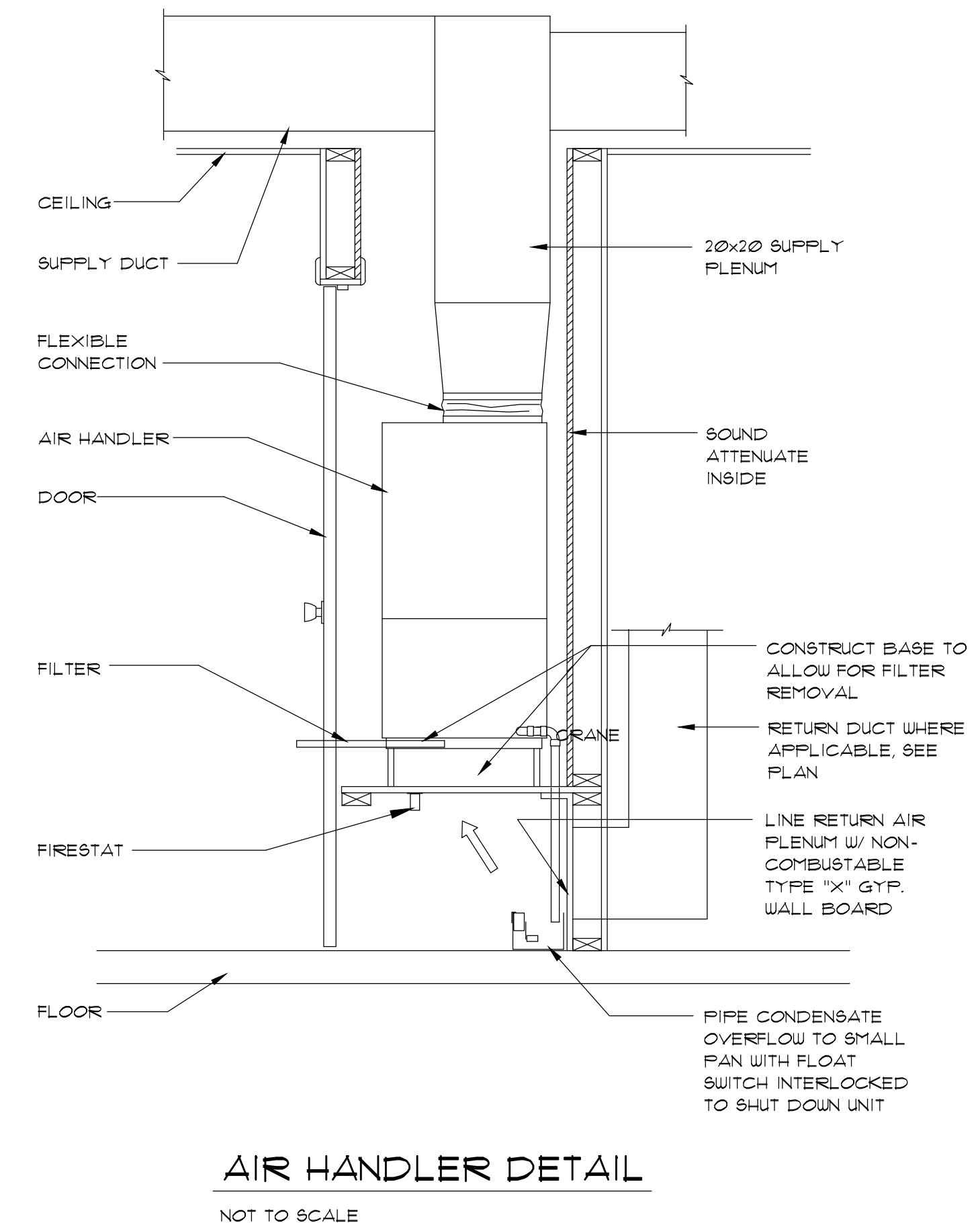
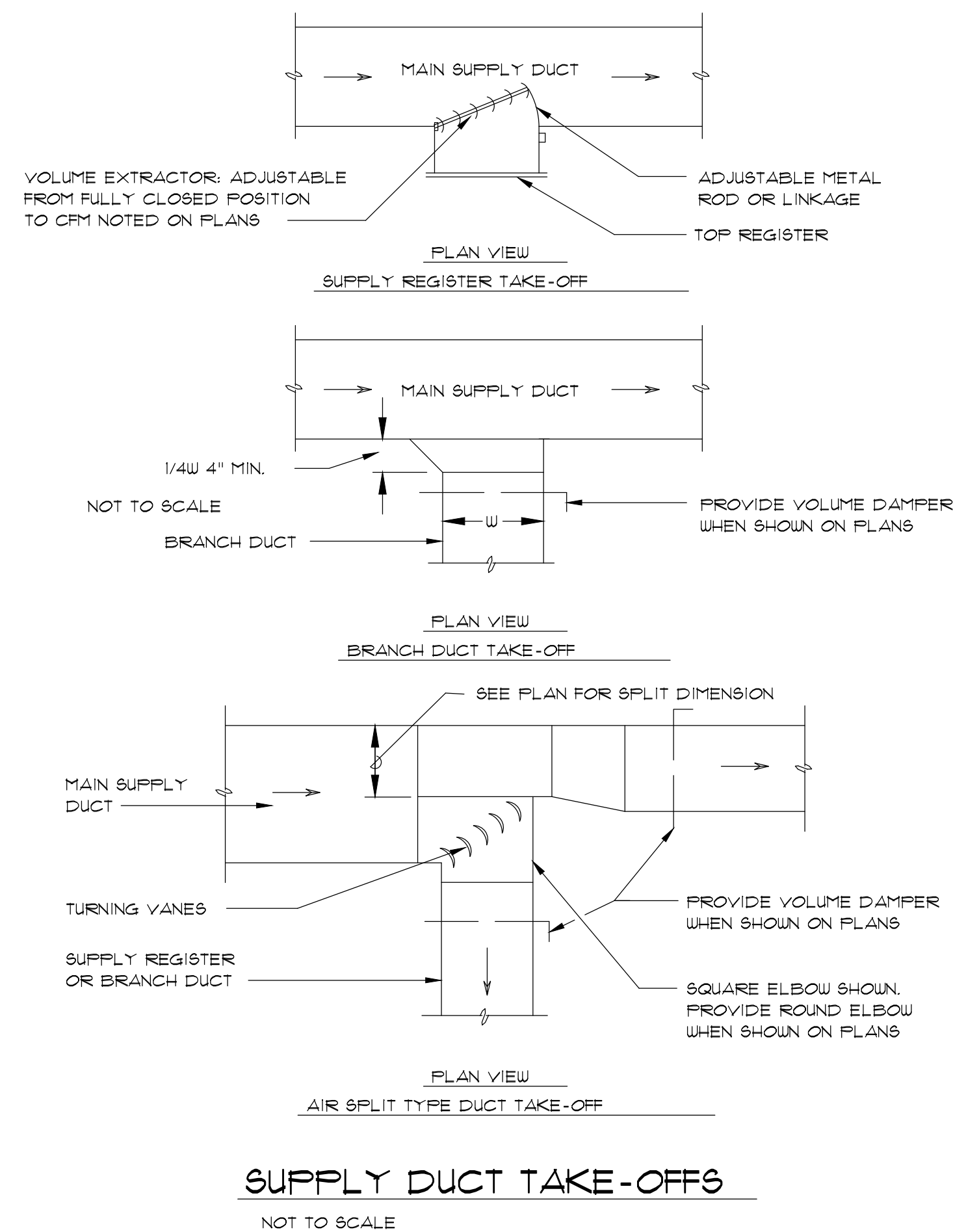
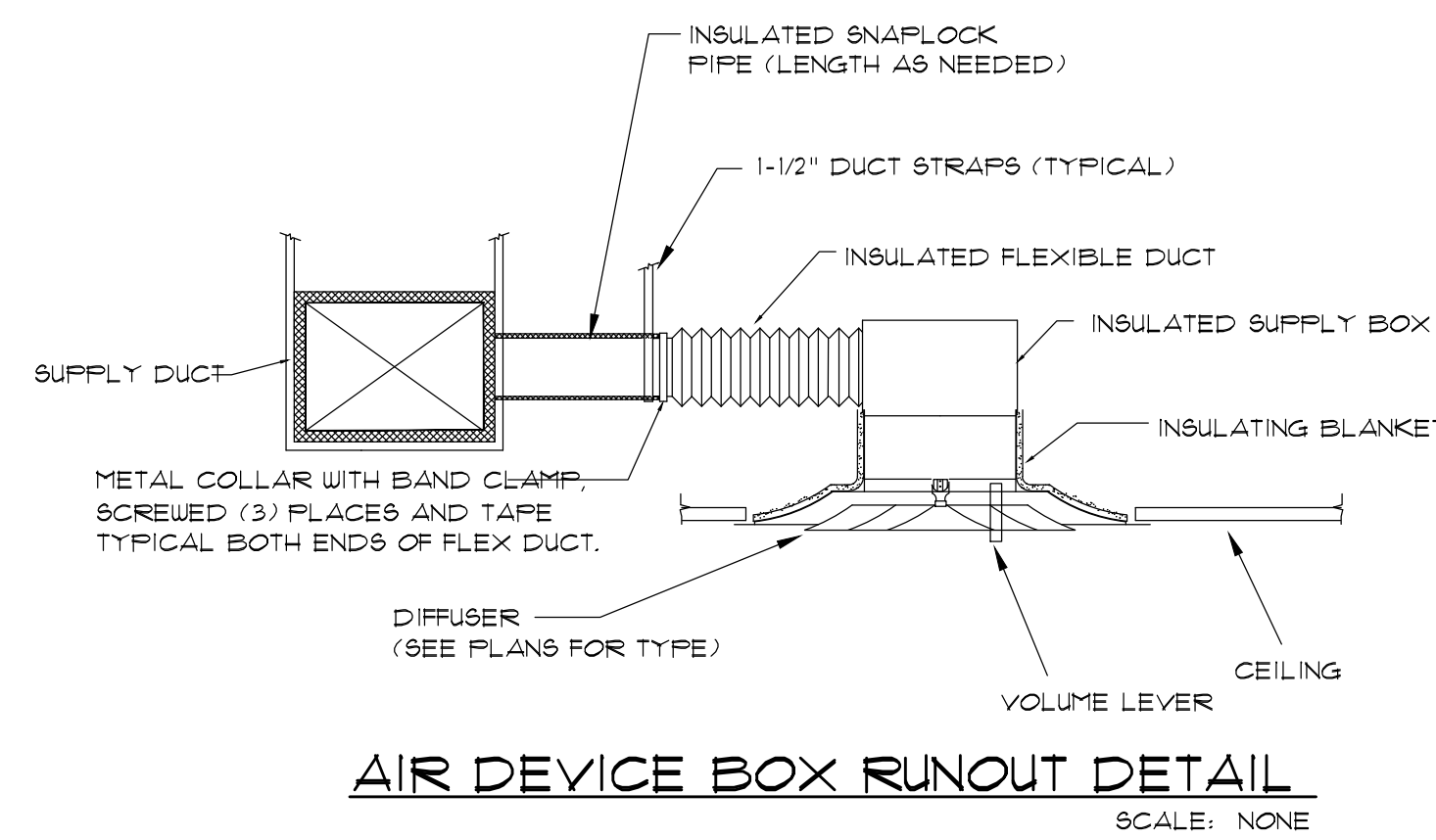
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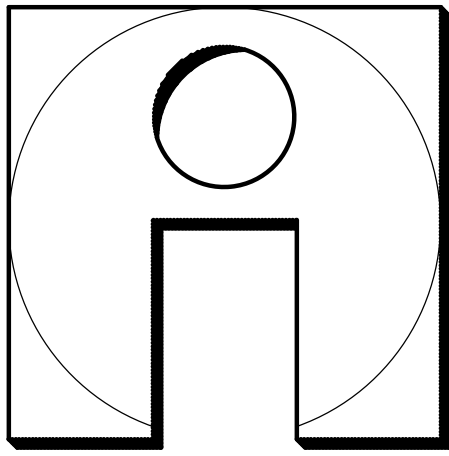
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M3



CONDENSING UNIT DETAIL
NOT TO SCALE

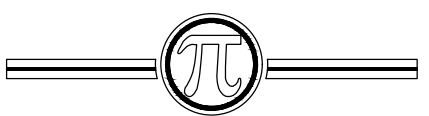


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P1

FIXTURE & CONNECTION SCHEDULE

FIXTURE	MOUNTING	BRANCH SIZE				MANUFACTURER/MODEL	REMARKS
		DRAINAGE		WATER			
		WASTE	VENT	COLD	HOT		
WATER CLOSET (WC-1)	FLOOR	3"	2"	1/2"	--	AMERICAN STANDARD * 2198.012 "CADET"	WATER CLOSET: TANK TYPE, FLOOR MOUNTED, VITREOUS CHINA, FULLY GLAZED 2" TRAPWAY, SIPHON JET ACTION, ROUND BOUL, SEAT: HEAVY-DUTY SOLID PLASTIC, CLOSED FRONT WITH LID.
WATER CLOSET (WC-2) (HANDICAPPED)	FLOOR	3"	2"	1/2"	--	AMERICAN STANDARD CADET II * 2998.012	VITREOUS CHINA, ELONGATED BOUL, SIPHON JET, FLOOR MOUNTED TANK TYPE, 17" RIM HEIGHT, 4 FULLY GLAZED 2" TRAPWAY, SOLID WHITE PLASTIC SEAT WITH OPEN FRONT.
LAVATORY (LAV-1)	COUNTER	2"	2"	1/2"	1/2"	AMERICAN STANDARD * 0419.444 "CADET" FAUCET: RELIANT * 2389.000	LAVATORY: ROUND, FRONT OVERFLOW, VITREOUS CHINA, SELF-RIMMING, 15 IN. BY 12-1/2 IN. POP-UP DRAIN, WITH FAUCET HOLES ON 4 IN. CENTERS. FITTINGS: 1-1/4 IN. BY 1-1/2 IN. P-TRAP, SUPPLIES AND STOPS. FAUCET: SINGLE CENTER CONTROL, CHROME FINISH
LAVATORY (LAV-2)	COUNTER	2"	2"	1/2"	1/2"	AMERICAN STANDARD * 0419.444 "CADET" FAUCET: RELIANT * 2389.000	LAVATORY: OVAL, FRONT OVERFLOW, VITREOUS CHINA, SELF-RIMMING, 16.5 IN. BY 11 IN. POP-UP DRAIN, WITH FAUCET HOLES ON 4 IN. CENTERS. FITTINGS: 1-1/4 IN. BY 1-1/2 IN. P-TRAP, SUPPLIES AND STOPS. FAUCET: SINGLE CENTER CONTROL, CHROME FINISH
KITCHEN SINK (KS-1)	COUNTER	2"	2"	1/2"	1/2"	ELKAY * LR-3322 FAUCET: ELKAY * LKE-4101 (W/ SPRAY HOSE)	KITCHEN SINK: 2-COMPARTMENT STAINLESS STEEL, COATED UNDERSIDE SELF-RIMMING, 8" DEPTH, 2" DRAIN 4 BASKET STRAINER, WITH FAUCET HOLES ON 4 IN. CENTERS. FAUCET: SINGLE HANDLE, W/ SPRAY HOSE ATTACHMENT, DECK MOUNT. GARBAGE DISPOSER: IN-SINK-ERATOR, 1/2-HP, 2-YEAR WARRANTY, DISHWASHER CONNECTION.
SHOWER (SH-1)	FLOOR	2"	2"	1/2"	1/2"	SHOWER/FAUCET: DELTA * 1325-WSHF ENCLOSURE: SWANSTONE * SD-DTF (W/ FLOOR)	SHOWER HEAD/FAUCET: LEVER HANDLE, PRESSURE BALANCE VALVE, FLOOR DRAIN WITH BRASS STRAINER ENCLOSURE: CLEAR PLEXI-GLASS ENCLOSURE, WITH HINGED DOOR/SEALS.
SHOWER (SH-2)	WALL	2"	2"	1/2"	1/2"	SHOWER/FAUCET: DELTA * 1325-WSHF	SHOWER HEAD/FAUCET: LEVER HANDLE, PRESSURE BALANCE VALVE, FLOOR DRAIN WITH BRASS STRAINER
BATHTUB (TUB-1)	FLOOR	2"	2"	1/2"	1/2"	AMERICAN STANDARD * 0153.01 (LEFTHAND) OR * 0155.01 (RIGHTHAND). SPOUT/SHOWER/FAUCET: DELTA * 1345-WSHF	BATHTUB: 60" TUB, CHROME DRAIN, SIDE OVERFLOW, PORCELAIN ON STEEL CONSTRUCTION PROVIDE COMPLETE WITH SPOUT/FAUCET/SHOWER.
HOSE BIBB (HB)	WALL	--	--	1/2"	--	WOODFORD * 24	HOSE BIBB: WALL HYDRANT, EXPOSED, CHROME FINISH WITH CHROME PLATED FACE, BRONZE CASING, HOSE CONNECTION WITH INTEGRAL VACUUM BREAKER, WHEEL HANDLE.
WASHING MACHINE (WB-1) CONNECTION	WALL	2"	--	1/2"	1/2"	GUY GRAY	WASHING MACHINE CONNECTION: 1/2" GATE VALVES, WALL BOX, WATER HAMMER ARRESTOR.
WATER HEATER (WH-1)	FLOOR	--	--	3/4"	3/4"	RHEEM * 41VR40	WATER HEATER: 40-GALLON TANK, UL-LISTED, GLASS LINED, WITH (2) 4.5-KW NON-SIMULTANEOUS ELEMENTS @ 208-V/1-PH, T 4 P VALVE, TANK DRAIN VALVE
DISHWASHER (DW-1)	FLOOR	1"	--	--	1/2"	DISHWASHER FURNISHED BY OTHERS.	INSTALL UNIT AND MAKE PIPING CONNECTIONS AS LISTED.

NOTE: FINAL SELECTION & COLORS OF ALL FIXTURES TO BE VERIFIED WITH OWNER PRIOR TO ORDERING.

PLUMBING GENERAL NOTES

VERIFY LOCATION OF EXISTING WATER SERVICE AND THE LOCATION/INVERTS OF SANITARY PIPING PRIOR TO INSTALLATION.

ALL WORK SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL CODES, INCLUDING, BUT NOT LIMITED TO, THE FLORIDA BUILDING CODE - 2020 LATEST EDITION.

REVIEW PLANS OF ALL TRADES PRIOR TO BIDDING AND INSTALLATION TO INCLUDE ALL PLUMBING FOR COMPLETE SYSTEMS SHOWN ON THE PLANS AND AS REQUIRED.

COORDINATE WITH OTHER TRADES TO PREVENT INTERFERENCE WITH HVAC DUCTS, STRUCTURE, ELECTRICAL LIGHTING, AND OTHER PIPING IN THE CEILING SPACE. VENT PIPING AND WATER PIPING SHALL BE HELD EITHER ABOVE OR BELOW HVAC DUCTWORK AS COORDINATED WITH THE HVAC CONTRACTOR.

COORDINATE WITH ARCHITECTURAL DRAWINGS BEFORE ROUGHING-IN PLUMBING FIXTURES AND EQUIPMENT SUPPLIES.

THE PLUMBING SUBCONTRACTOR SHALL FURNISH AND INSTALL ALL PLUMBING FIXTURES, UNLESS NOTED OTHERWISE.

RUNOUTS TO FIXTURES SHALL HAVE AMPLE PROVISION FOR EXPANSION AND CONTRACTION BOTH HORIZONTALLY AND VERTICALLY.

INSTALL 12" TALL WATER HAMMER ARRESTERS OR AIR CHAMBERS AT ALL SUPPLIES AND STOPS TO ALL FIXTURES, SIZE TO BE SAME AS SUPPLY LINE TO FIXTURE.

PROVIDE DIELECTRIC UNIONS AND FLANGES AT CONNECTIONS BETWEEN PIPES OF DISSIMILAR METALS.

CLEANOUTS WILL BE INSTALLED AT THE UPSTREAM END OF PIPES, AT CHANGES OF DIRECTIONS, WHERE THE BUILDING DRAIN MEETS THE BUILDING SEWER, AND AT NOT MORE THAN 15 FT INTERVALS ALONG THE HORIZONTAL BUILDING DRAIN.

SHUT-OFF VALVES SHALL BE INSTALLED AT EACH PLUMBING FIXTURE.

CONTRACTOR SHALL ADJUST ALL VALVES FOR THE SATISFACTORY OPERATION OF THE SYSTEM.

IT IS THE INTENT OF THESE DRAWINGS TO COVER ALL WORK AND MATERIAL FOR A FIRST CLASS INSTALLATION. ANY EQUIPMENT, PLUMBING FIXTURE, TRIM HARDWARE AND/OR DEVICES USUALLY UTILIZED IN THE CLASS OF WORK, THOUGH NOT SPECIFICALLY MENTIONED OR SHOWN ON THESE DRAWINGS, BUT WHICH MAY BE NECESSARY FOR THE SATISFACTORY COMPLETION OF THE WORK (AS DETERMINED BY THE ENGINEER) SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AS PART OF HIS TOTAL WORK, AT NO ADDITIONAL COST TO TENANT/OWNER.

ALL WORK, BOTH MATERIAL AND INSTALLATION, SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY THE OWNER.

IF AT ANY TIME THERE IS DISCREPANCY BETWEEN THE PLANS & SPECS, OR CONFUSION/CONCERN OVER REQUIRED WORK, CONTRACTOR SHALL IMMEDIATELY NOTIFY ARCHITECT, ENGINEER, OR OWNER AND GET DIRECTION BEFORE PROCEEDING WITH WORK IN QUESTION.

THESE PLANS AND THE SPECIFICATIONS ARE COMPLEMENTARY, AND BOTH SHALL BE UTILIZED FULLY IN EXECUTION OF WORK.

MATERIALS

PIPING:

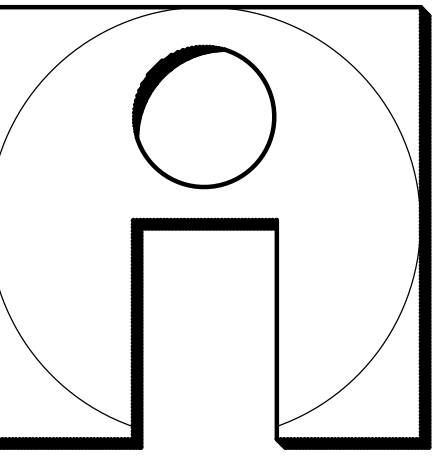
- HOT & COLD WATER EXPOSED AT FIXTURES: TYPE "L" HARD DRAIN COPPER
- HOT & COLD WATER IN WALLS & UNDERGRADE: C.P.V.C. PIPING & FITTINGS
- SANITARY, WASTE, VENT: DWV SCHEDULE-40 P.V.C.

INSULATION:

- HOT WATER PIPING: 1/2" ARMAFLEX INSULATION WITH 25/50 FLAME/SMOKE RATING

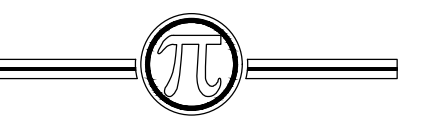
SUBMITTALS: (PROVIDE COPIES AS REQUIRED IN SPECIFICATIONS)

- PLUMBING FIXTURES (WATER CLOSETS, LAVS, ETC.)
- WATER HEATERS
- PLUMBING MATERIALS (PIPING, INSULATION, ETC.)



**INSIDE
OUT**

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CLEARWATER, FLORIDA
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JOHN PANTAZES, ARCHITECT
2551 DREW ST #301
CLEARWATER, FL 33765

JOHN PANTAZES
ARCHITECT ARCH#22860



PROJECT:
**COLUMBUS TOWNHOME
RESIDENCE
UNIT A**

5108 E COLUMBUS DRIVE
TAMPA, FLORIDA

REVISIONS:

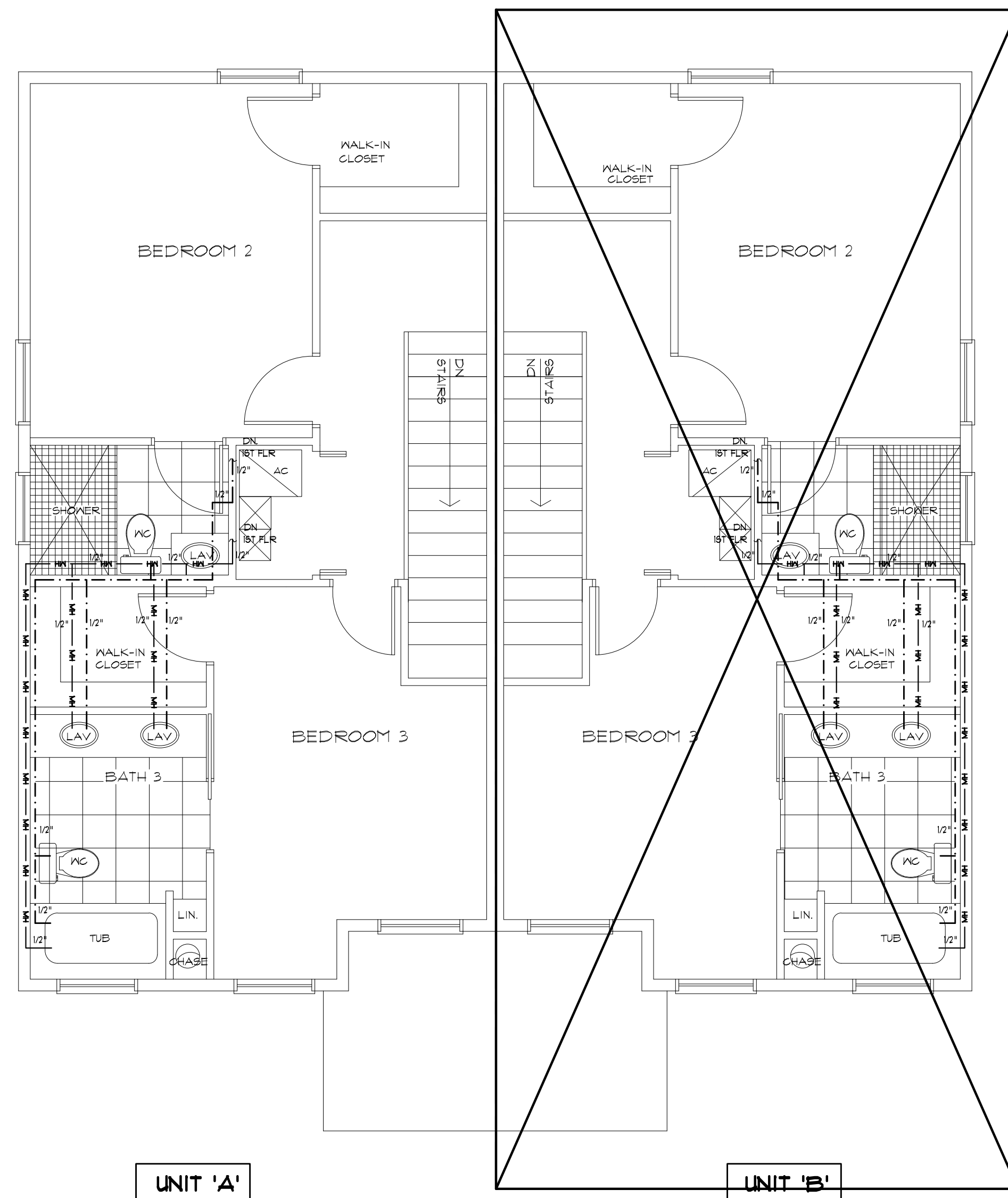
DRAWN BY:
CP

DATE:
JANUARY 5, 2022

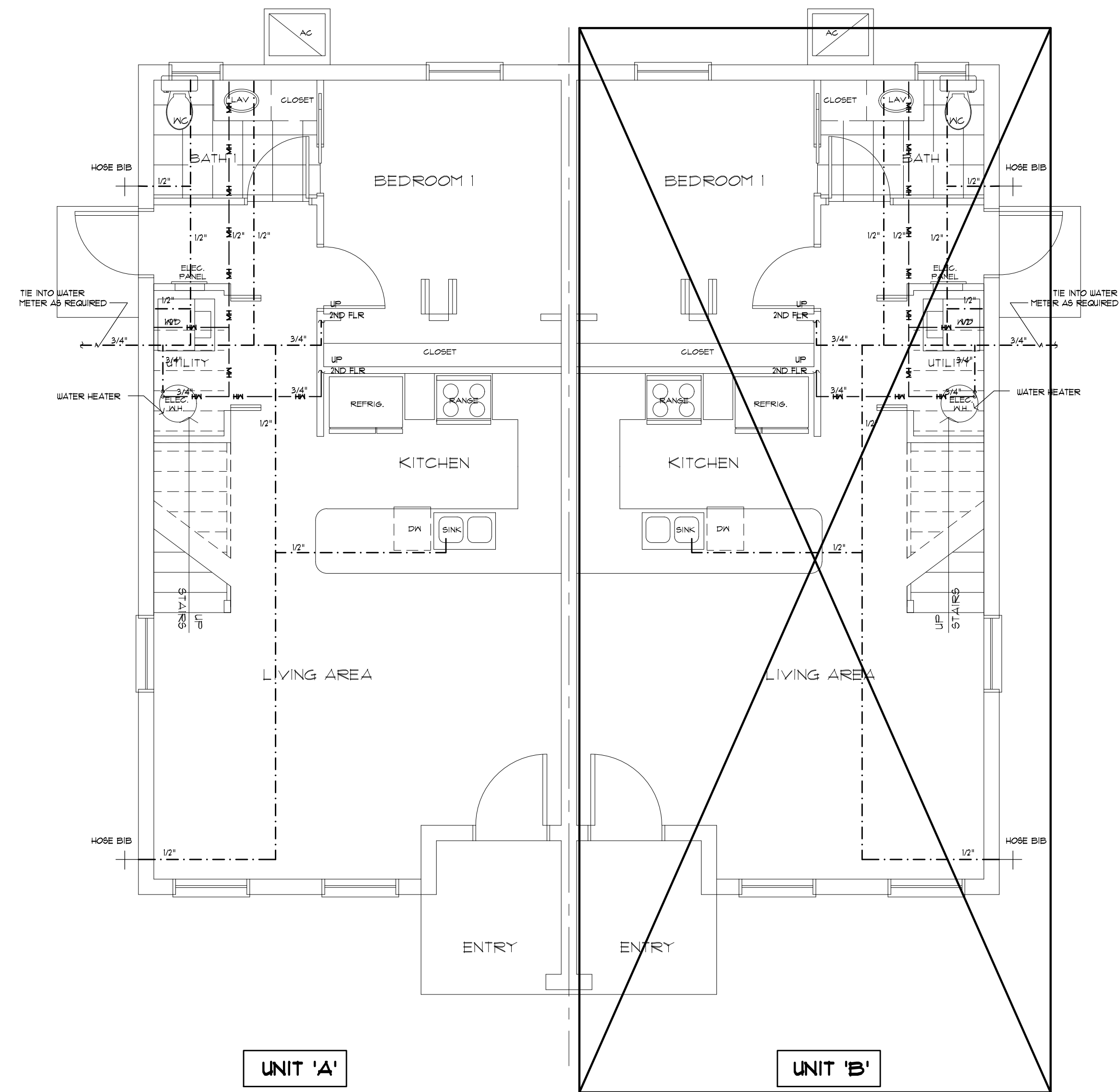
JOB NO.:
21-064

P2

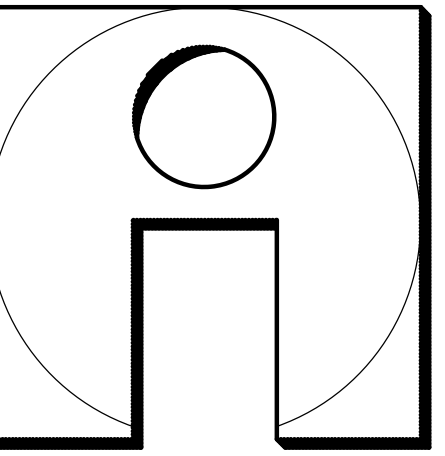
DESCRIPTION	ABBREV.	SYMBOL
SANITARY PIPING	SAN	———
VENT PIPING	V	- - - - -
COLD WATER PIPING	CW	- · - · - ·
HOT WATER PIPING	HW	———
TRAP PRIMER PIPING	TRP	———TRP———
GATE VALVE	GV	——— ———
WALL CLEAN OUT	WCO	WCO ———
FLOOR CLEAN OUT	FCO	FCO ———
CAPPED PIPING		———



SECOND FLOOR POTABLE WATER PLAN
SCALE: 1/4" = 1'-0"



FIRST FLOOR POTABLE WATER PLAN
SCALE: 1/4" = 1'-0"



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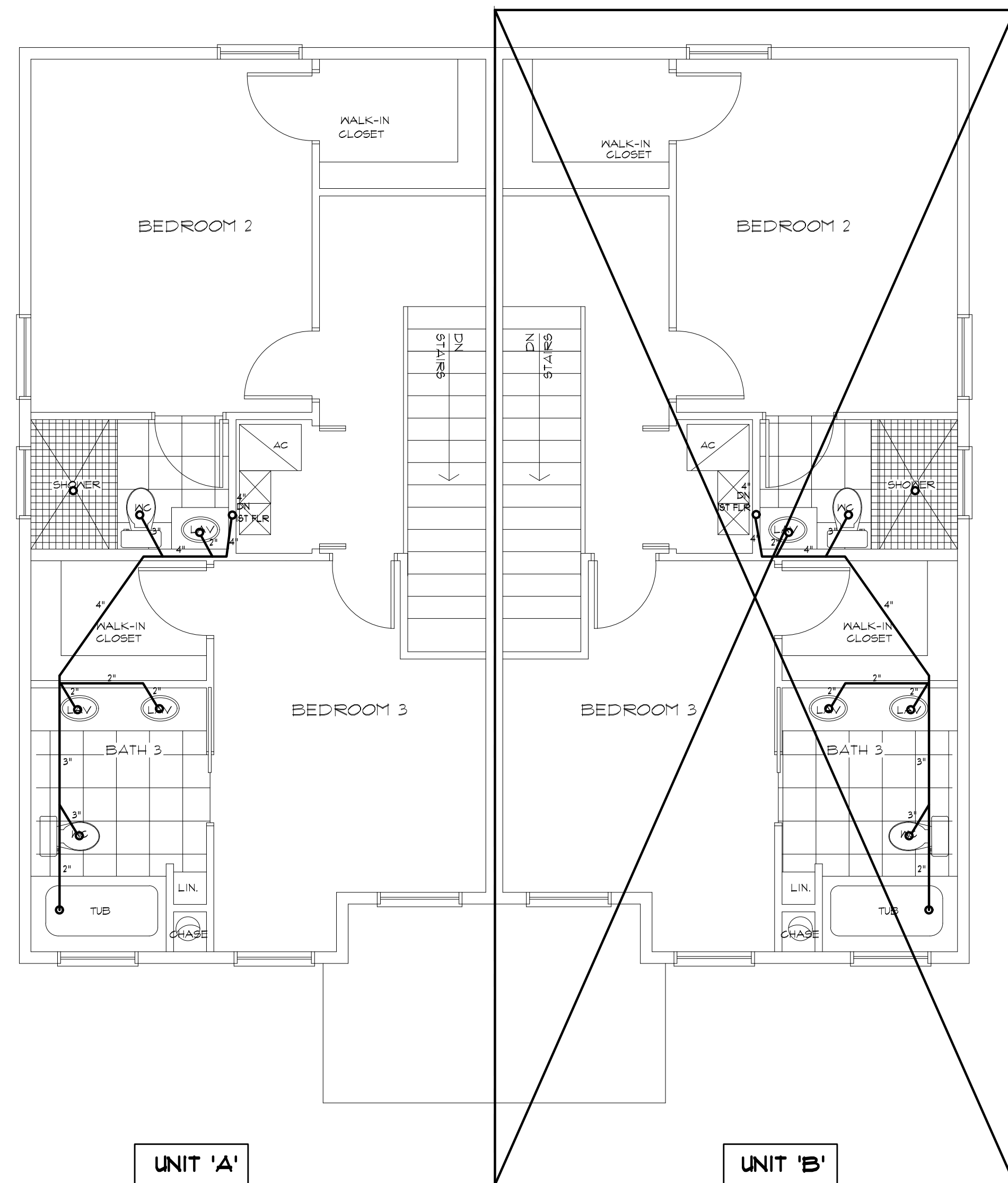
REVISIONS:

DRAWN BY:
 CP

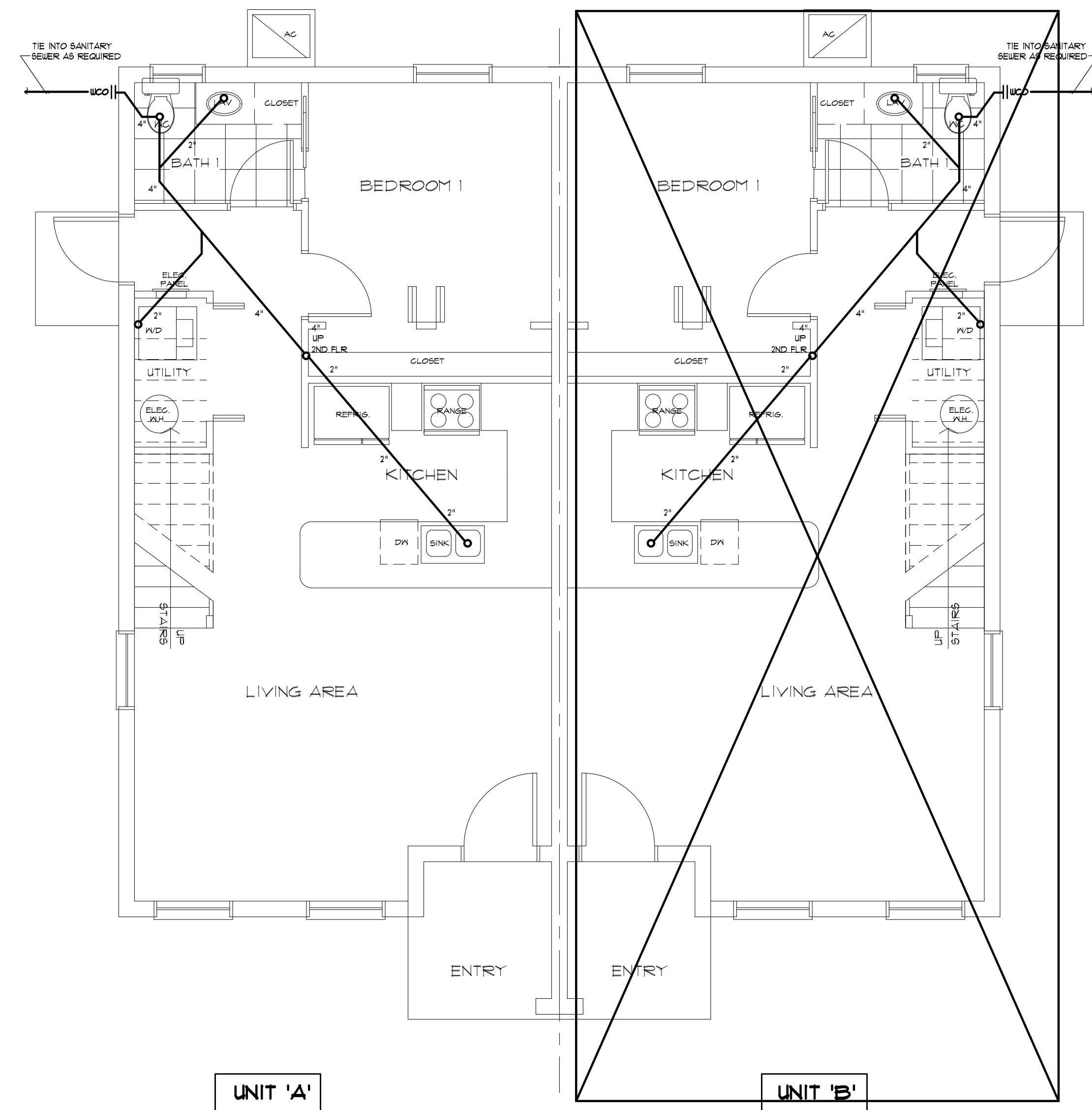
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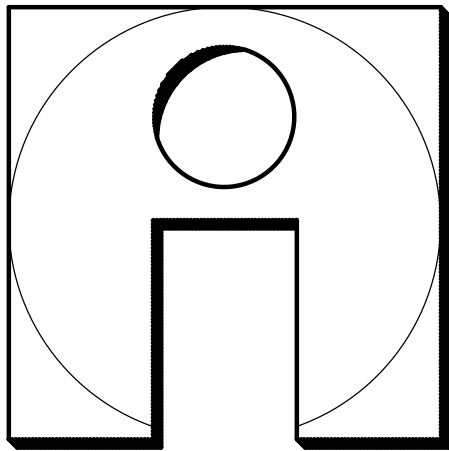
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SANITARY PIPING	SAN	—————
VENT PIPING	V	- - - - -
COLD WATER PIPING	CW	- · - · - ·
HOT WATER PIPING	HW	— — — — —
TRAP PRIMER PIPING	TRP	- - - - -
GATE VALVE	GV	— — — — —
WALL CLEAN OUT	WCO	WCO
FLOOR CLEAN OUT	FCO	FCO
CAPPED PIPING		⊥



SECOND FLOOR SANITARY WASTE PLAN
 SCALE: 1/4" = 1'-0"



FIRST FLOOR SANITARY WASTE PLAN
 SCALE: 1/4" = 1'-0"



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PROJECT:
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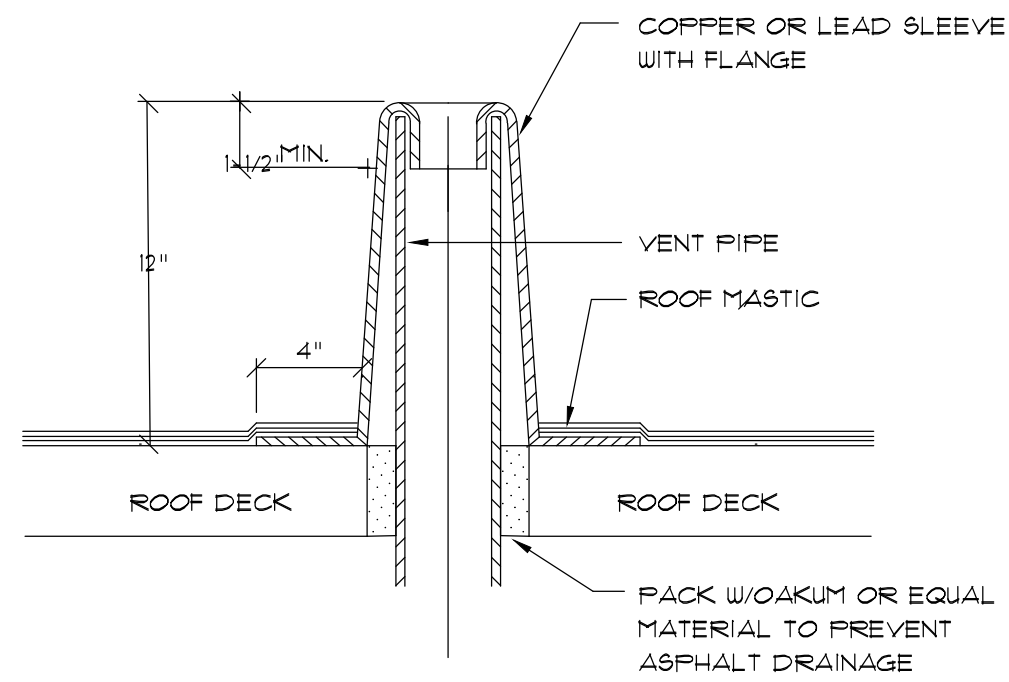
REVISIONS:

DRAWN BY:
CP

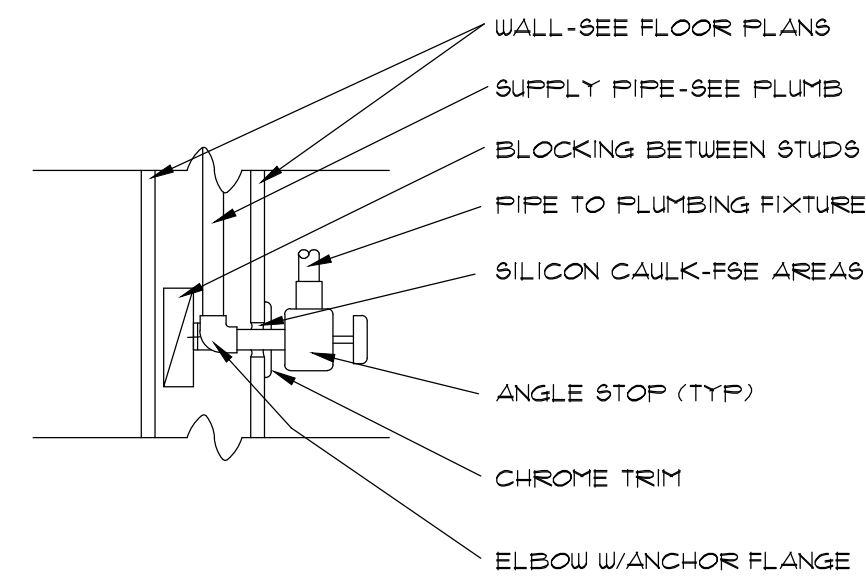
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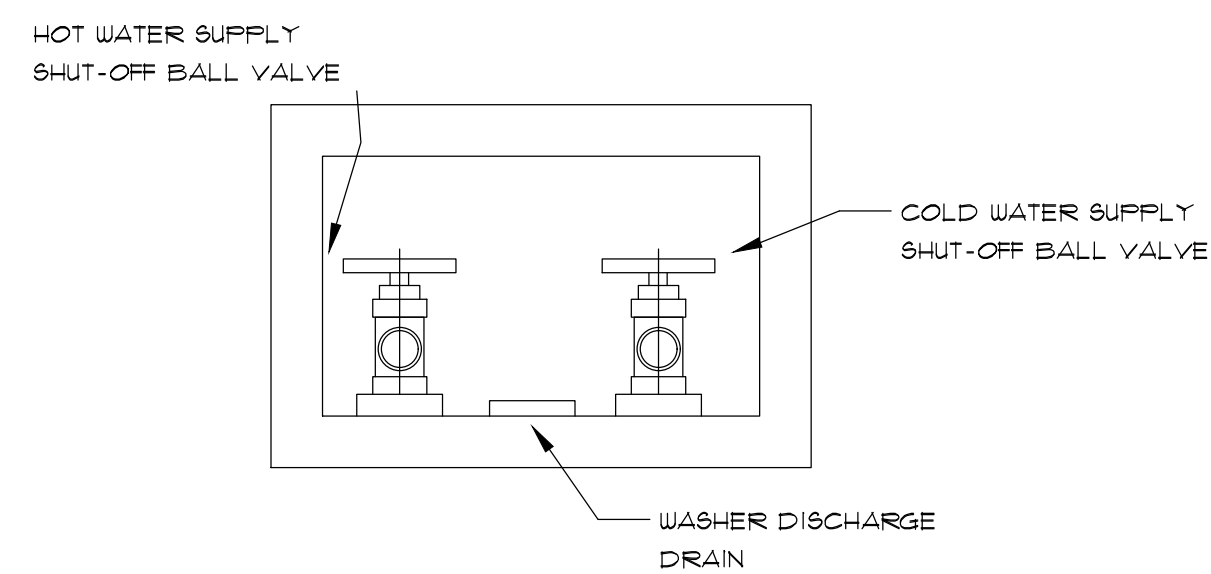
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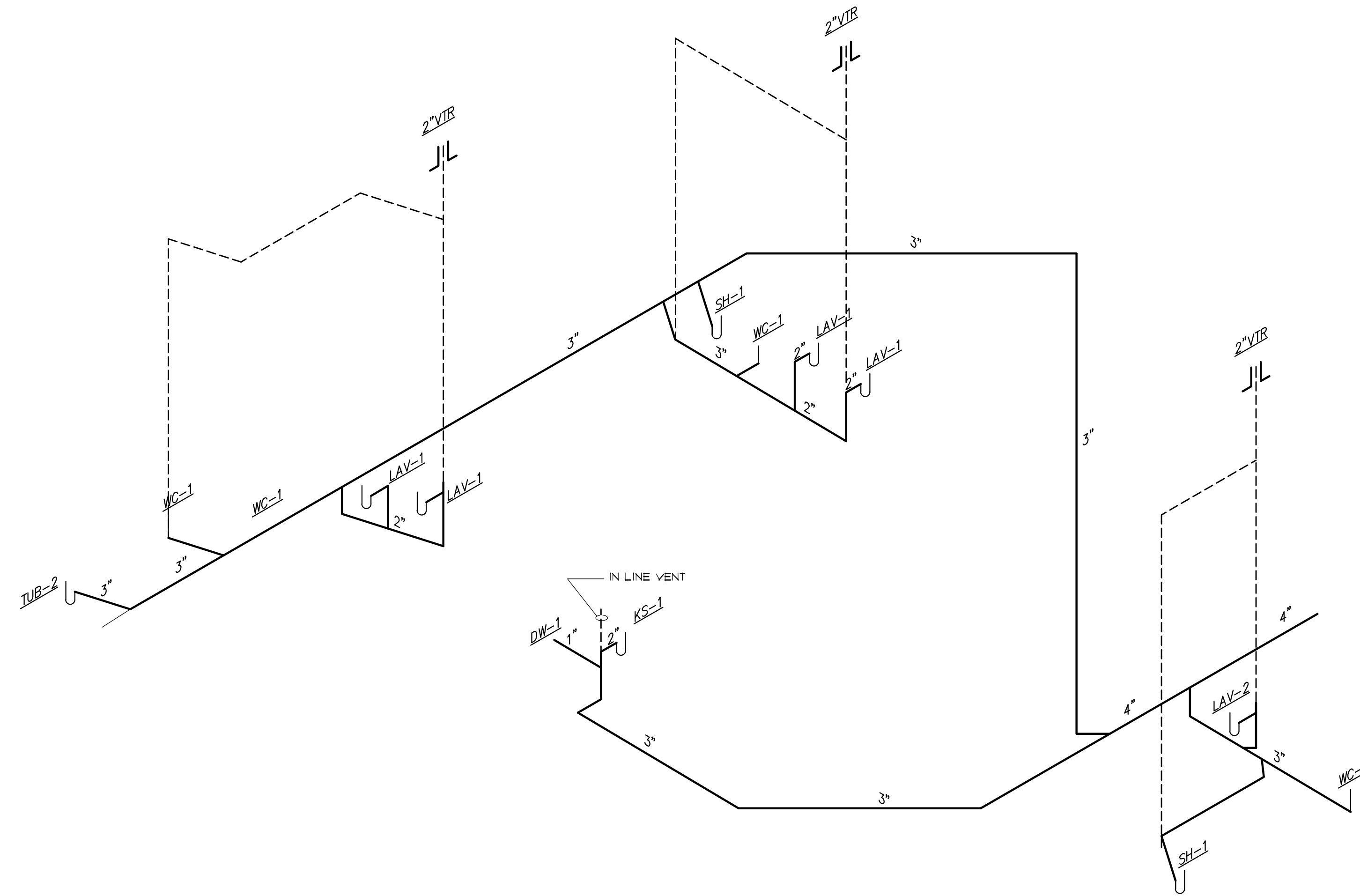
VENT THROUGH ROOF DETAIL
NOT TO SCALE



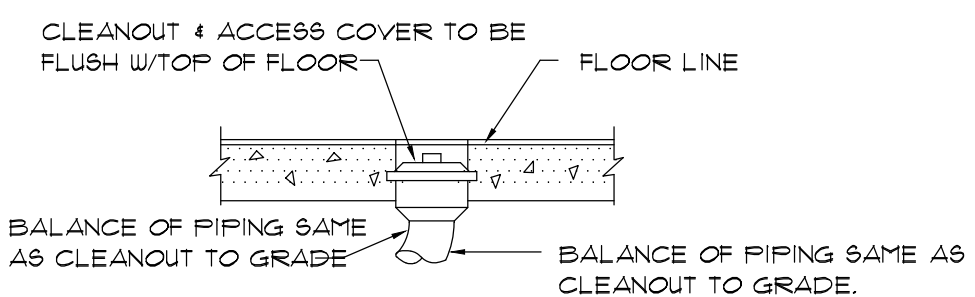
SHUTOFF VALVE DETAIL
NOT TO SCALE



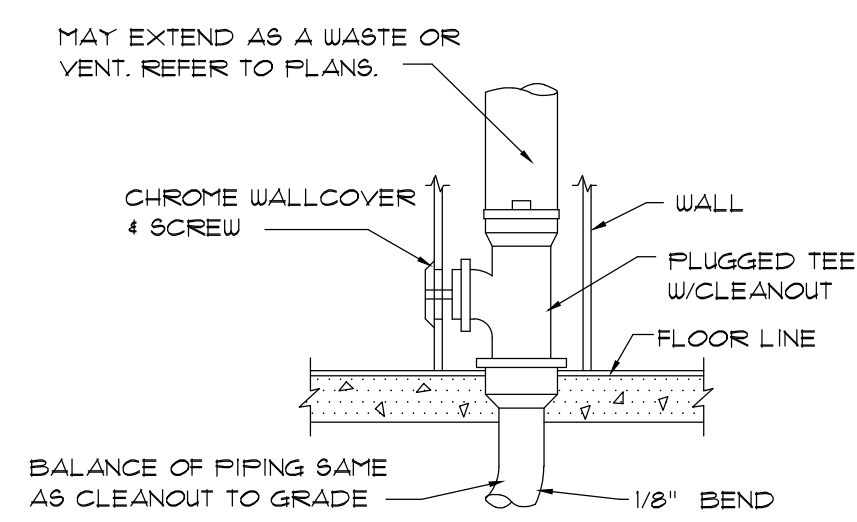
WASHER BOX DETAIL
NOT TO SCALE



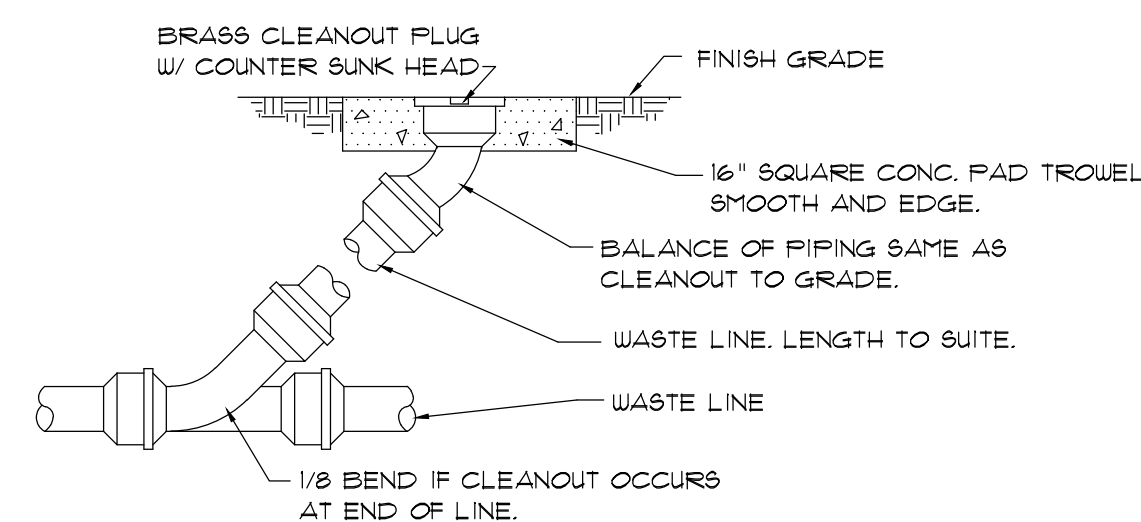
TYPICAL 2 STORY UNIT SANITARY RISER DIAGRAM
NOT TO SCALE



FLOOR CLEANOUT (F.C.O.)
C.O. NOT TO BE LOCATED IN CARPETED AREA.

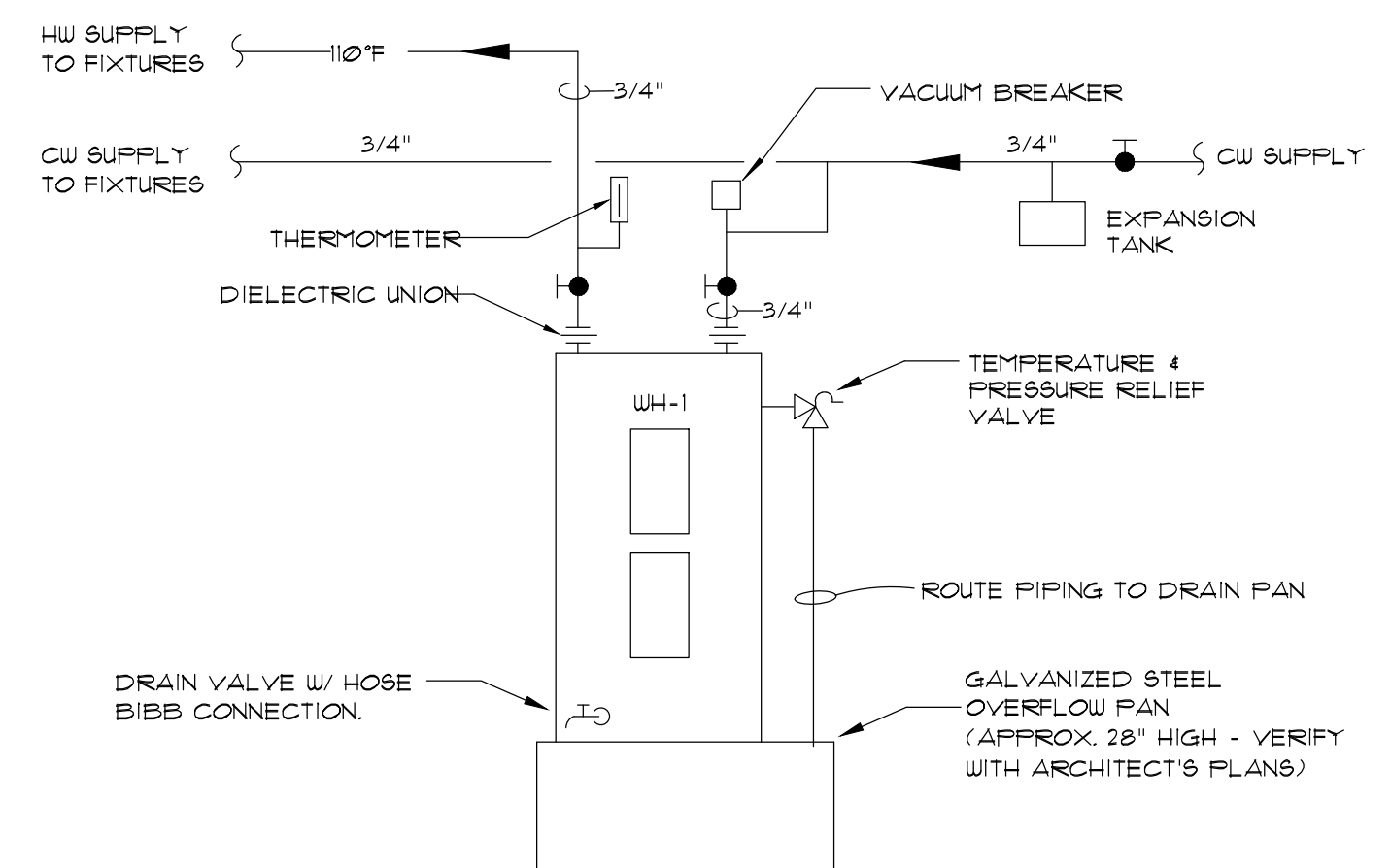


WALL CLEANOUT



GRADE CLEANOUT (COTG)

CLEANOUT DETAILS
NOT TO SCALE



WATER HEATER DETAIL
NOT TO SCALE