

**LEGEND**

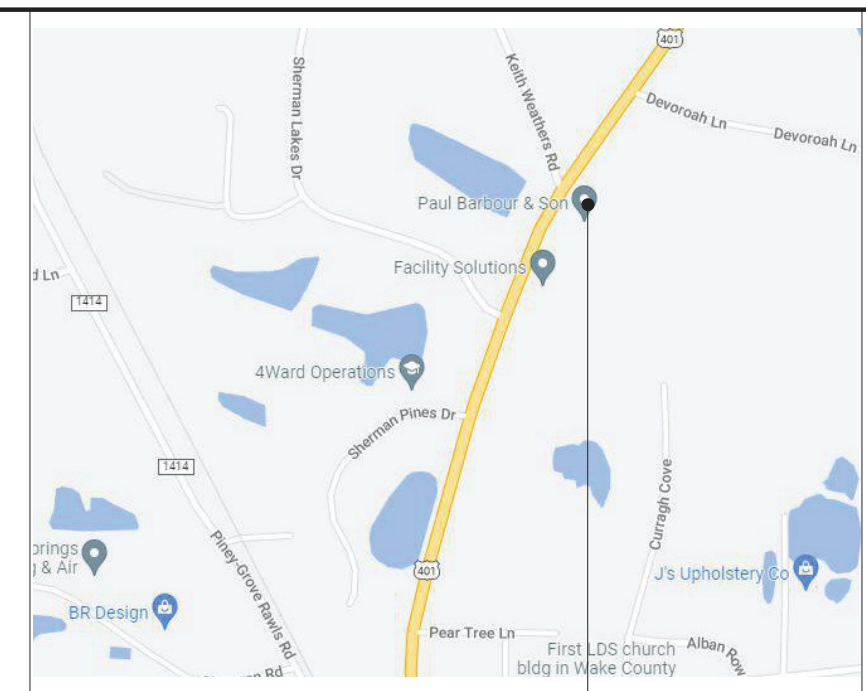
	CONCRETE		NORTH ARROW		ELEVATION REFERENCE SHEET NO.		SPACE TAG
	STONE FILL		CENTERLINE		DRAWING NO.		ROOM NAME
	CONCRETE MASONRY		COLUMN CENTERLINE		ELEVATION REFERENCE SHEET NO.		ROOM NO.
	BRICK		ELEVATION LEVEL		DRAWING NO.		ROOM INFO.
	STEEL		SPOT ELEVATION		SECTION REFERENCE DRAWING NO. SHEET NO.		ROOM TAG
	ALUMINUM		REVISION AREA		DRAWING NO.		ROOM NAME
	PLYWOOD		REVISION NUMBER		DRAWING NO.		ROOM NO.
	FINISH WOOD		CEILING ELEVATION		DETAIL REFERENCE DRAWING NO. SHEET NO.		DOOR TAG
	GYPSUM WALLBOARD		REVISION AREA		DRAWING NO.		WINDOW TAG
	EARTH		REVISION NUMBER		DRAWING NO.		WALL TAG
	BATT. INSULATION		CEILING ELEVATION		DRAWING NO.		
	RIGID INSULATION						
	BLOCKING						

**ABBREVIATIONS**

A.B.	ANCHOR BOLT	E	EAST	INT.	INTERIOR	REQD.	REQUIRED
ACoust.	ACOUSTICAL	EA	EACH	J.B.	JOIST BEARING	RESL.	RESILIENT
ACT	ACOUSTICAL CEILING TILE	E.B.	EXPANSION BOLT	JT.	JOINT	REV.	REVISION
A.F.F.	ABOVE FINISH FLOOR	E.I.F.S.	EXTERIOR INSULATION FINISH SYSTEM	LAM.	LAMINATED	RM	ROOM
ALUM.	ALUMINUM	E.J.	EXPANSION JOINT	LF	LINEAR FEET	R.O.	ROUGH OPENING
APPROX.	APPROXIMATELY	EL.	ELEVATION (FLOOR)	LG	LONG, LARGE	ROMTS.	REQUIREMENTS
ARCH.	ARCHITECT, ARCHITECTURAL	ELEV.	ELEVATION	LH	LONG LEG HORIZONTAL	RTU	ROOF TOP UNIT
BD.	BOARD	ELEC.	ELECTRICAL	LLV	LONG LEG VERTICAL	R.W.L.	RAIN WATER LEADER
BLDNG.	BUILDING	EQ.	EQUAL	L.P.	LOW POINT	SCHED.	SCHEDULE
BLK.	BLOCK	EQUIP.	EQUIPMENT	MAS.	MASONRY	S.F.	SQUARE FEET
BM.	BEAM	E.W.	EACH WAY	MATL.	MATERIAL	SHT.	SHEET
B.O.S.	BOTTOM OF STEEL	EWG	ELECTRIC WATER COOLER	MAX.	MAXIMUM	SM.	SMILAR
BRG.	BEARING	EXST.	EXISTING	MECH.	MECHANICAL	S.M.S.	SHEET METAL SCREW
BS	BOTH SIDES	EXP.	EXPOSED, EXPANSION	MED.	MEDIUM	SPECS.	SPECIFICATIONS
BTM.	BOTTOM	EXT.	EXTERIOR	MFR.	MANUFACTURER	SQ.	SQUARE
BUR	BUILT-UP ROOF	F.D.	FLOOR DRAIN	MIN.	MINIMUM	S.S.	STAINLESS STEEL
C.I.	CAST IRON	F.E.	FIRE EXTINGUISHER	MISC.	MISCELLANEOUS	STD.	STANDARD
C.J.	CONTROL JOINT	F.F.E.	FINISH FLOOR ELEVATION	MCO	MASONRY OPENING	STL.	STEEL
C.T.	CERAMIC TILE	F.O.	FACE OF	M.R.	MOISTURE-RESISTANT	STOR.	STORAGE
CAB.	CABINET	FIN.	FINISH	M.R.G.B.	MOISTURE-RESISTANT GYPSUM BOARD	STRUCT.	STRUCTURAL
CEM.	CEMENTITIOUS	FL.FLR.	FLOOR	MTD.	MOUNTED	SUSP.	SUSPENDED
CG	CORNER GUARD	FLUOR.	FLUORESCENT	MTL.	METAL	T	TREAD
CLR.	CLEAR	FDN.	FOUNDATION	N	NORTH	T/B	TOP & BOTTOM
CLNG.	CEILING	F.S.	FLOOR SINK	N.C.	NOT IN CONTRACT	TEL	TELEPHONE
CMU	CONCRETE MASONRY UNIT	FTG.	FOOTING	NO. #	NUMBER	T/O	TOP OF
CO	CLEAN OUT	G.C.	GENERAL CONTRACTOR	NTS	NOT TO SCALE	T.O.M.	TOP OF MASONRY
COL	COLUMN	GA.	GAUGE	O.A.	OVERALL	T.O.S.	TOP OF STEEL
CONC.	CONCRETE	GALV.	GALVANIZED	O.F.D.	OVERFLOW DRAIN	TH	THICKNESS
CONST.	CONSTRUCTION	GEN.	GENERAL	OW	OVERHEAD	TYP.	TYPICAL
CONT.	CONTINUOUS	GL.	GLASSGLAZING	O/D	OUT TO OUT	ULL	UNDERWRITERS LABORATORY
CONTR.	CONTRACTOR	GWB	GYPSUM WALLBOARD	O.C.	ON CENTER	U.O.N.	UNLESS OTHERWISE NOTED
CPT.	CARPET	GYP.	GYPSUM	O.D.	OUTSIDE DIAMETER	V	VOLT
CR	CARRIAGE/CHAIRRAIL	H	HIGH	OPNG.	OPENING	VCT	VINYL COMPOSITION TILE
CSX	COUNTERSINK	HB	HOSE BIBB	OPP.	OPPOSITE	VERT.	VERTICAL
D	DEPTH	H2	HANDICAPPED	P	PAINT	W	WEST, WIDTH, WASTE, WIRE
DBL	DOUBLE	HDW	HARDWARE	P	PIECE	W/	WITH
DEMO	DEMOLITION	H.M.	HOLLOW METAL	PL.	PLATE	W.C.	WATER CLOSET
DET.	DETAIL	HORIZ.	HORIZONTAL	PLAS.	PLASTER, PLASTIC	WD.	WOOD
DI.	DIAMETER	H.P.	HIGH POINT	PLYWD.	PLYWOOD	WT	WEIGHT
DN	DOWN	HT	HEIGHT	OW	OVERHEAD	W.H.	WATER HEATER
DM.	DIMENSION	HVAC	HEATING, VENTILATION & AIR CONDITIONING	QUAN.	QUANTITY	W/I	WITHIN
D.O.	DOOR OPENING	I.D.	INTERIOR DIAMETER	Q.T.	QUARRY TILE	W/O	WITHOUT
D.S.	DOOR SWING	INCL.	INCLUDE	R	RADIUS, RISER	W/WF	WELDED WIRE FABRIC
DWG.	DRAWING	INSUL.	INSULATION	R.D.	ROOF DRAIN	X	EXISTING TO REMAIN
				REINF.	REINFORCING	XTR	EXISTING TO BE REMOVED

# NEW BUILDING for PAUL BARBOUR & SONS

11496 HWY 401N  
FUQUAY-VARINA, NC 27526



PROJECT SITE



**VICINITY MAP**

**SEPARATE CONTRACTS:**

INCLUDING, BUT NOT LIMITED TO:

SECURITY AND TELECOMMUNICATIONS: THE OWNER SHALL CONTRACT WITH SEPARATE FIRMS TO PROVIDE SECURITY AND TELECOMMUNICATIONS EQUIPMENT AND INSTALLATION. GENERAL CONTRACTOR SHALL PROVIDE BOXES AND CONDUIT AS INDICATED IN THESE DRAWINGS.

**INDEX OF DRAWINGS**

Sheet #	DESCRIPTION	ISSUED FOR CONSTRUCTION	LATEST REVISION
<b>GENERAL</b>			
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P3	PLUMBING SUPPLY PLANS AND RISER	5/24/2022	
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E1	ELECTRICAL NOTES, SCHEDULES AND RISER	5/24/2022	
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E4	ELECTRICAL DETAILS	5/24/2022	

**CIVIL AND STRUCTURAL DRAWINGS BY OTHERS**

**GENERAL NOTES**

- GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES FOUND IN THE PLANS, DETAILS AND/OR SPECIFICATIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.
- CONTRACTOR SHALL BEAR RESPONSIBILITY FOR VERIFYING COMPLIANCE OF SHOP DRAWINGS WITH THE CONTRACT DOCUMENTS PRIOR TO ORDERING MATERIALS OR BEGINNING FABRICATION.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK INCLUDED IN THE CONTRACT DOCUMENTS. ALL CORRESPONDENCE FROM THE SUBCONTRACTORS SHALL BE THROUGH THE GENERAL CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES AND STATUTES, WHETHER SPECIFICALLY REFERENCED BY THE PLANS OR NOT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND SECURING REQUIRED INSPECTIONS.
- BUILDING SIGNAGE IS TO BE PROVIDED UNDER SEPARATE CONTRACT BY OTHERS.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL SIGNAGE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (A.D.A.), ICC/ANSI A117.1-2009, AND THE LATEST EDITION OF THE NORTH CAROLINA BUILDING CODE.
- ALL MATERIALS ARE TO BE NEW UNLESS OTHERWISE NOTED.
- ANY DEFECTIVE WORK AND ANY DAMAGE RESULTING THEREFROM SHALL BE REPAIRED AT NO COST TO THE OWNER.
- ALTHOUGH THESE DRAWINGS ARE DRAWN TO SCALE, NO DIMENSIONS ARE TO BE DETERMINED BY SCALING THE DRAWINGS. ANY QUESTIONS OR DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- CONTRACTOR IS RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING OF ALL REFUSE FROM THE PROJECT.
- NO SMOKING WILL BE PERMITTED INSIDE THE PROJECT AREA.
- CONTRACTOR SHALL PROVIDE BLOCKING AS REQUIRED TO SUPPORT ALL CONTRACTOR-SUPPLIED AND OWNER-SUPPLIED WALL-HUNG EQUIPMENT OR CASEWORK. CONFIRM LOCATIONS WITH OWNER PRIOR TO INSTALLATION.
- THE ADJACENT SITE MAY BE OCCUPIED BY THE PUBLIC DURING CONSTRUCTION. THE G.C. SHALL TAKE ALL PRECAUTIONS NECESSARY TO SAFEGUARD THE HEALTH AND WELFARE OF THE PUBLIC. ALL REQUIRED MEANS OF EGRESS SHALL BE KEPT CLEAR AND ACCESSIBLE AT ALL TIMES.
- THE GENERAL CONTRACTOR SHALL THOROUGHLY REVIEW MANUFACTURER'S LITERATURE AND SHOP DRAWINGS FOR ALL FIXTURES AND/OR EQUIPMENT (WHETHER PROVIDED BY THE OWNER, TENANT OR CONTRACTOR) PRIOR TO ROUGH-IN FOR UTILITIES. CONFIRM ANY DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.
- LABEL ALL FIRE-RATED WALLS ABOVE CEILING AS REQUIRED BY NC BUILDING CODE 2018, SECTION 703.7. SUGGESTED WORDING: "\_\_\_ HR RATED FIRE AND/OR SMOKE BARRIER. PROTECT ALL OPENINGS."
- G.C. SHALL PROVIDE KNOX BOX, IF REQUIRED BY LOCAL JURISDICTION.



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**NEW BUILDING**  
**for PAUL BARBOUR & SONS**  
 11496 HWY 401N  
 FUQUAY-VARINA, NC 27526

PLOT DATE:	5/24/2022	
ISSUED:	5/24/2022	
FOR CONSTRUCTION		
Rev.	Date	Description

DRAWN BY:	PJA	APPROVED:	EJG
PROJECT NO.:	22039	RECORD:	

CONTENTS:  
COVER SHEET

SHEET:  
**G101**

BUILDING CODE SUMMARY

2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT FOR 1 AND 2- FAMILY DWELLINGS AND TOWNHOUSES)

NAME OF PROJECT: NEW OFFICE BUILDING FOR PAUL BARBOUR AND SONS
ADDRESS: 11496 HWY 401 N. ZIP CODE: 27526
PROPOSED USE: OFFICE
OWNER OR AUTHORIZED AGENT: BARRY BARBOUR PHONE: 910-520-8205 E-MAIL: barbour@pbarbourandsons.com

CONTACT: EDMUND J. GONTRAM III, AIA GONTRAM ARCHITECTURE, INC.

Table with columns: ARCHITECT, CIVIL, ELECTRICAL, FIRE ALARM, PLUMBING, MECHANICAL, SPRINK-STNDP, STRUCTURAL, RET.WAL>5'H, OTHER. Lists various engineering firms and their contact information.

2018 NC BUILDING CODE: NEW BUILDING ADDITION RENOVATION 1st TIME INTERIOR COMPLETION SHELL/CORE PHASED CONSTRUCTION - SHELL/CORE

2018 NC EXISTING BUILDING CODE: PRESCRIPTIVE REPAIR CHAPTER 14 ALTERATION LEVEL HISTORIC PROPERTY CHANGE OF USE

CONSTRUCTED: (date) CURRENT OCCUPANCY(S) (Ch.3)
RENOVATED: (date) PROPOSED OCCUPANCY(S) (Ch.3) B
OCCUPANCY CATEGORY (Table 1604.5): Current: Proposed: II

SCOPE OF WORK: NEW TWO-STORY WOOD FRAMED BUILDING, APPROXIMATELY 2200 GSF PER FLOOR TO BE USED FOR BUSINESS OFFICES

BASIC BUILDING DATA

CONSTRUCTION TYPE: I-A I-B II-A II-B III-A III-B IV V-A V-B

SPRINKLERS: NO PARTIAL YES NFPA 13 NFPA 13R NFPA 13D
STANDPIPES: NO YES CLASS: I II III IV WET DRY
FIRE DISTRICT: NO YES FLOOD HAZARD AREA: NO YES
SPECIAL INSPECTIONS REQUIRED: NO

GROSS BUILDING AREA TABLE

Table with columns: FLOOR, EXISTING (SQ. FT.), NEW (SQ. FT.), SUB-TOTAL. Lists floor areas for 4th, 3rd, 2nd, 1st floor, and basement.

PROJECT AREA: 4412 SF

ALLOWABLE AREA

PRIMARY OCCUPANCY CLASSIFICATION(S):

ASSEMBLY: A-1 A-2 A-3 A-4 A-5
BUSINESS
EDUCATIONAL
FACTORY: F-1 Moderate F-2 Low
HIGH-HAZARD: H-1 (Detonate) H-2 (Deflagrate) H-3 (Combust) H-4 (Health) H-5 (HPM)
INSTITUTIONAL: I-1 Condition I 1 2 I-2 Condition I 1 2 I-3 Condition I 1 2 I-4
MERCANTILE
RESIDENTIAL: R-1 R-2 R-3 R-4
STORAGE: S-1 Moderate S-2 Low High-Piled
Parking Garage Open Enclosed Repair Garage
UTILITY AND MISCELLANEOUS

ACCESSORY OCCUPANCY CLASSIFICATION(S):
INCIDENTAL USES (TABLE 509):
SPECIAL USES (CHAPTER 4 - List code sections):
SPECIAL PROVISIONS (CHAPTER 5 - List code sections):
MIXED OCCUPANCY: NO YES SEPARATION 1-HR 2-HR 3-HR 4-HR EXCEPTION

NON-SEPARATED MIXED OCCUPANCY (508.3)
The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.
SEPARATED MIXED OCCUPANCY (508.4) - SEE BELOW FOR AREA CALCULATIONS
For each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

ACTUAL AREA OF OCCUPANCY A / ALLOWABLE AREA OF OCCUPANCY A <= 1
ACTUAL AREA OF OCCUPANCY B / ALLOWABLE AREA OF OCCUPANCY B <= 1

Table with columns: STORY NO., DESCRIPTION AND USE, (A) BLDG AREA PER STORY (ACTUAL), (B) TABLE 506.2 AREA, (C) AREA FOR FRONTAGE INCREASE, (D) ALLOWABLE FLOOR AREA OR UNLIMITED. Shows 2 stories of Business use.

Frontage area increases from Section 506.3 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = (F)
b. Total Building Perimeter = (P)
c. Ratio (F/P) = (F/P)
d. W = Minimum width of public way = (W)
Percent of frontage increase I = 100(F/P - 0.25) x W/30 = (%)

Unlimited area applicable under conditions of Section 507.
Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
The maximum area of open parking garages must comply with Table 406.5.4.
The maximum area of open parking garages must comply with Table 406.5.4.
Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

Table with columns: BUILDING HEIGHT IN FEET (TABLE 504.3), ALLOWABLE, SHOWN ON PLANS, CODE REFERENCE. Shows height limits for 2 stories.

Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.
The maximum height of air traffic control towers must comply with Table 412.3.1.
The maximum height of open parking garages must comply with Table 406.5.4.

FIRE PROTECTION REQUIREMENTS

Table with columns: BUILDING ELEMENT, FIRE SEPARATION DISTANCE (FEET), RATED, PROVIDED (W/ REDUCTION), DETAIL # AND SHEET #, DESIGN # FOR RATED ASSEMBLY, DESIGN # FOR RATED PENETRATION, DESIGN # FOR RATED JOINTS. Lists fire protection details for various building elements.

INDICATE SECTION NUMBER PERMITTING REDUCTION.

PERCENTAGE OF WALL OPENINGS CALCULATIONS

Table with columns: FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES, DEGREE OF OPENINGS PROTECTION (TABLE 705.8), ALLOWABLE AREA (%), ACTUAL SHOWN ON PLANS (%). Shows calculations for wall openings.

LIFE SAFETY SYSTEM REQUIREMENTS

EMERGENCY LIGHTING: NO YES
EXIT SIGNS: NO YES
FIRE ALARM: NO YES
SMOKE DETECTION SYSTEMS: NO YES PARTIAL
CARBON MONOXIDE DETECTION: NO YES

LIFE SAFETY PLAN REQUIREMENTS

LIFE SAFETY PLAN SHEET #: T-103
Fire and/or smoke rated wall locations (Chapter 7)
Assumed and real property line locations
Exterior wall opening area with respect to distance to assumed property lines (705.8)
Occupancy Use for each area as it relates to occupant load calculation. (Table 1004.1.2)
Occupant loads for each area
Exit access travel distances (1017)
Common path of travel distances (1006.2.1 & 1006.3.2(1))
Dead end lengths (1020.4)
Clear exit widths for each exit door
Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.5)
Actual occupant load for each exit door
A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation.
Location of doors with panic hardware (1010.1.10)
Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
Location of doors with electromagnetic egress locks (1010.1.9.8)
Location of doors equipped with hold-open devices
Location of emergency escape windows (1030)
The square footage of each fire area (202)
The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
Note any code exceptions or table notes that may have been utilized regarding the items above.

ACCESSIBLE DWELLING UNITS (SECTION 1107) (NOT APPLICABLE)

Table with columns: TOTAL UNITS, ACCESSIBLE UNITS REQUIRED, ACCESSIBLE UNITS PROVIDED, TYPE A UNITS REQUIRED, TYPE A UNITS PROVIDED, TYPE B UNITS REQUIRED, TYPE B UNITS PROVIDED, TOTAL ACCESSIBLE UNITS PROVIDED.

ACCESSIBILITY PARKING (SECTION 1106)

Table with columns: LOT OR PARKING AREA, TOTAL # OF PARKING SPACES REQUIRED, PROVIDED, # OF ACCESSIBLE SPACES PROVIDED, TOTAL # ACCESSIBLE PROVIDED. Shows 0 accessible spaces provided.

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

Table with columns: USE, WATER CLOSETS, URINALS, LAVATORIES, SHOWERS/TUBS, DRINKING FOUNTAINS. Shows fixture counts for existing and new construction.

SPECIAL APPROVALS

SPECIAL APPROVAL: (Local Jurisdiction, Department of Insurance, OSC, DPL, DHHS, etc. describe below) (NOT APPLICABLE)

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each designer shall furnish the required portions of the required information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design versus the annual energy cost for the proposed design.
EXISTING BUILDING ENVELOPE COMPLIES WITH CODE: NO YES (the remainder of this section is not applicable)
EXEMPT BUILDING: NO YES (provide code or statutory reference)
CLIMATE ZONE: 3A 4A 5A

METHOD OF COMPLIANCE:
ENERGY CODE - PERFORMANCE ENERGY CODE - PRESCRIPTIVE OTHER
ASHRAE 90.1 - PERFORMANCE ASHRAE 90.1 - PRESCRIPTIVE
If "other" specify source here

THERMAL ENVELOPE (Prescriptive method only)

ROOF/CEILING ASSEMBLY (each assembly)
DESCRIPTION OF ASSEMBLY: Wood trusses with spray foam insulation, exterior sheathing, shingles
U-VALUE OF TOTAL ASSEMBLY: R-24
R-VALUE OF INSULATION: R-42
SKYLIGHTS IN EACH ASSEMBLY: N/A
U-VALUE OF SKYLIGHT: N/A
TOTAL SQUARE FOOTAGE OF SKYLIGHTS IN EACH ASSEMBLY

EXTERIOR WALLS (each assembly)
DESCRIPTION OF ASSEMBLY: Wood studs with spray foam insulation, exterior sheathing, Air barrier, siding
U-VALUE OF TOTAL ASSEMBLY: 064
R-VALUE OF INSULATION: R-20
OPENINGS (windows or doors with glazing)
U-VALUE OF ASSEMBLY: 45
SOLAR HEAT GAIN COEFFICIENT: 25
PROTECTION FACTOR
DOOR R-VALUES: 2

WALLS BELOW GRADE (each assembly)
DESCRIPTION OF ASSEMBLY: N/A
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION

FLOORS OVER UNCONDITIONED SPACE (each assembly)
DESCRIPTION OF ASSEMBLY: N/A
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION

FLOORS SLAB ON GRADE (each assembly)
DESCRIPTION OF ASSEMBLY: 4" THICK CONCRETE SLAB WITH TURN DOWN
U-VALUE OF TOTAL ASSEMBLY
R-VALUE OF INSULATION: R-15 FOR 24"
HORIZONTAL/VERTICAL REQUIREMENT: UNHEATED
SLAB HEATED

STRUCTURAL DESIGN

DESIGN LOADS:
IMPORTANCE FACTORS: SNOW (Is) 1.0 SEISMIC (Ie) 1.0

LIVE LOADS: ROOF 20 (reducible) PSF MEZZANINE n/a PSF FLOOR 50 (office) 80 (comedor) PSF

GROUND SNOW LOAD: 15 PSF

WIND LOAD: BASIC WIND SPEED 115 MPH (ASCE-7) EXPOSURE CATEGORY B

SEISMIC DESIGN CATEGORY: A B C D
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5): I II III IV
Spectral Response Acceleration Ss: .172 %g S1: .063 %g
Site Classification (ASCE-7): A B C D E F
Data Source: Field Test Presumptive Historical Data
Basic Structural System: Bearing Wall Dual w/Special Moment Frame Building Frame Dual w/intermediate RC or Special Steel Moment Frame Inverted Pendulum
Analysis Procedure: Simplified Equiv. Lateral Force Dynamic
Architectural, Mechanical, Components anchored? Yes No

LATERAL DESIGN CONTROL: Earthquake Wind

SOIL BEARING CAPACITIES: Field Test (provide copy of test report) 2000 psf Presumptive Bearing Capacity
Pile size, type, and capacity

ELECTRICAL SYSTEM AND EQUIPMENT

(SEE ELECTRICAL DRAWINGS FOR ELECTRICAL ENERGY CODE CALCULATIONS.)

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

(SEE MECHANICAL DRAWINGS FOR MECHANICAL ENERGY CODE CALCULATIONS.)



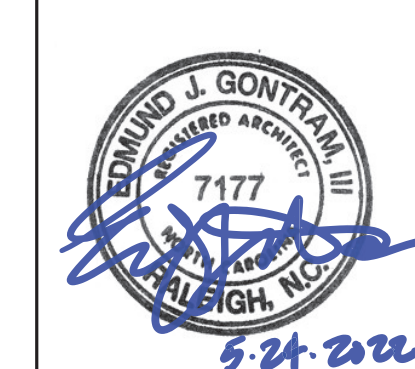
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NEW BUILDING for PAUL BARBOUR & SONS 11496 HWY 401N FUQUAY-VARINA, NC 27526

Table with columns: PLOT DATE, ISSUED, FOR CONSTRUCTION, Rev, Date, Description. Shows construction schedule from 5/24/2022.

DRAWN BY: PJA APPROVED: EJG
PROJECT NO.: 22039 RECORD:

CONTENTS: BUILDING CODE SUMMARY

SHEET:

G102

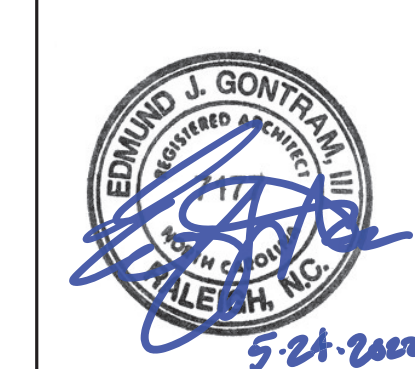


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PLOT DATE:  
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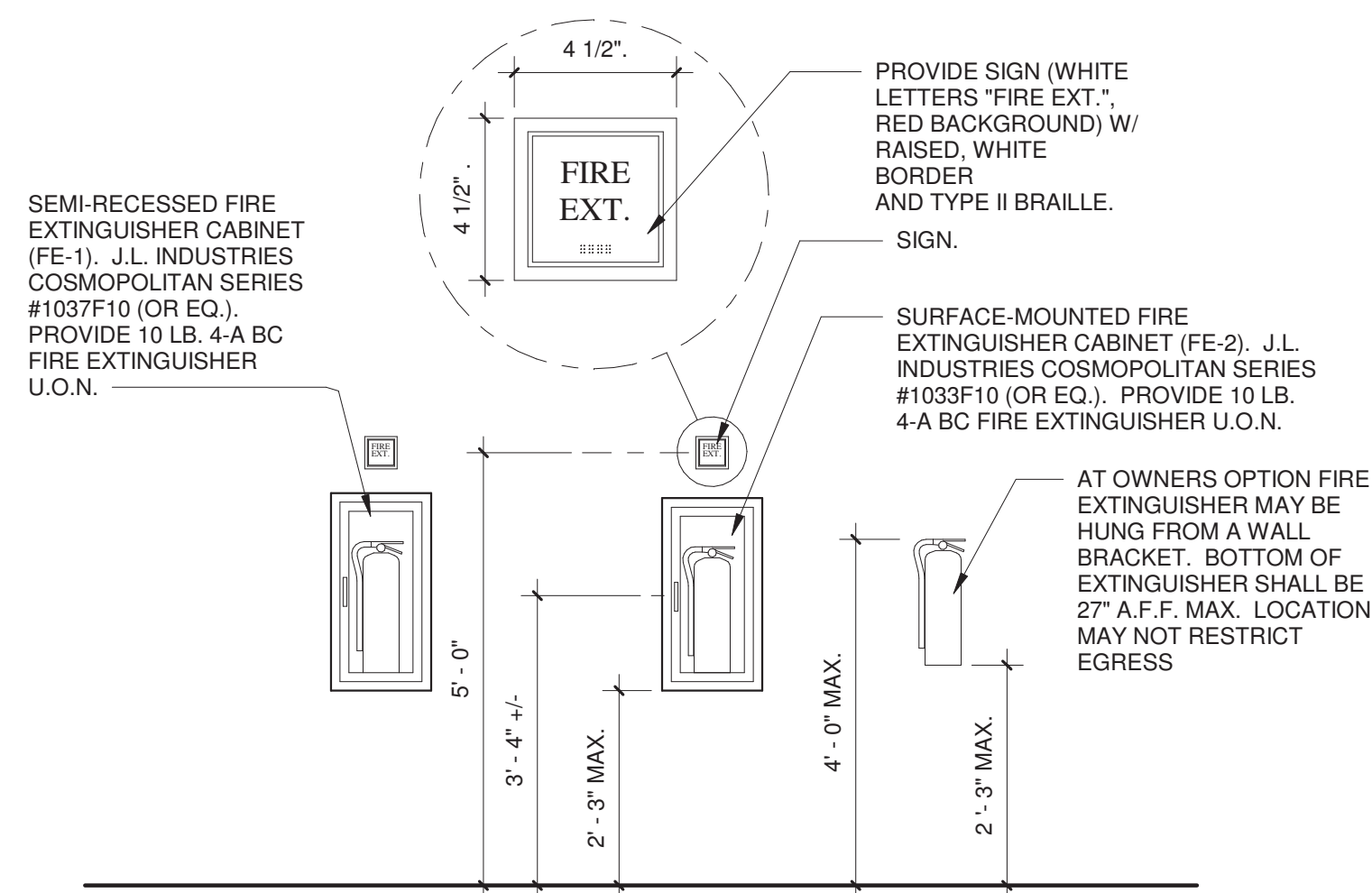
Rev.	Date	Description

DRAWN BY: PJA  
APPROVED: EJG

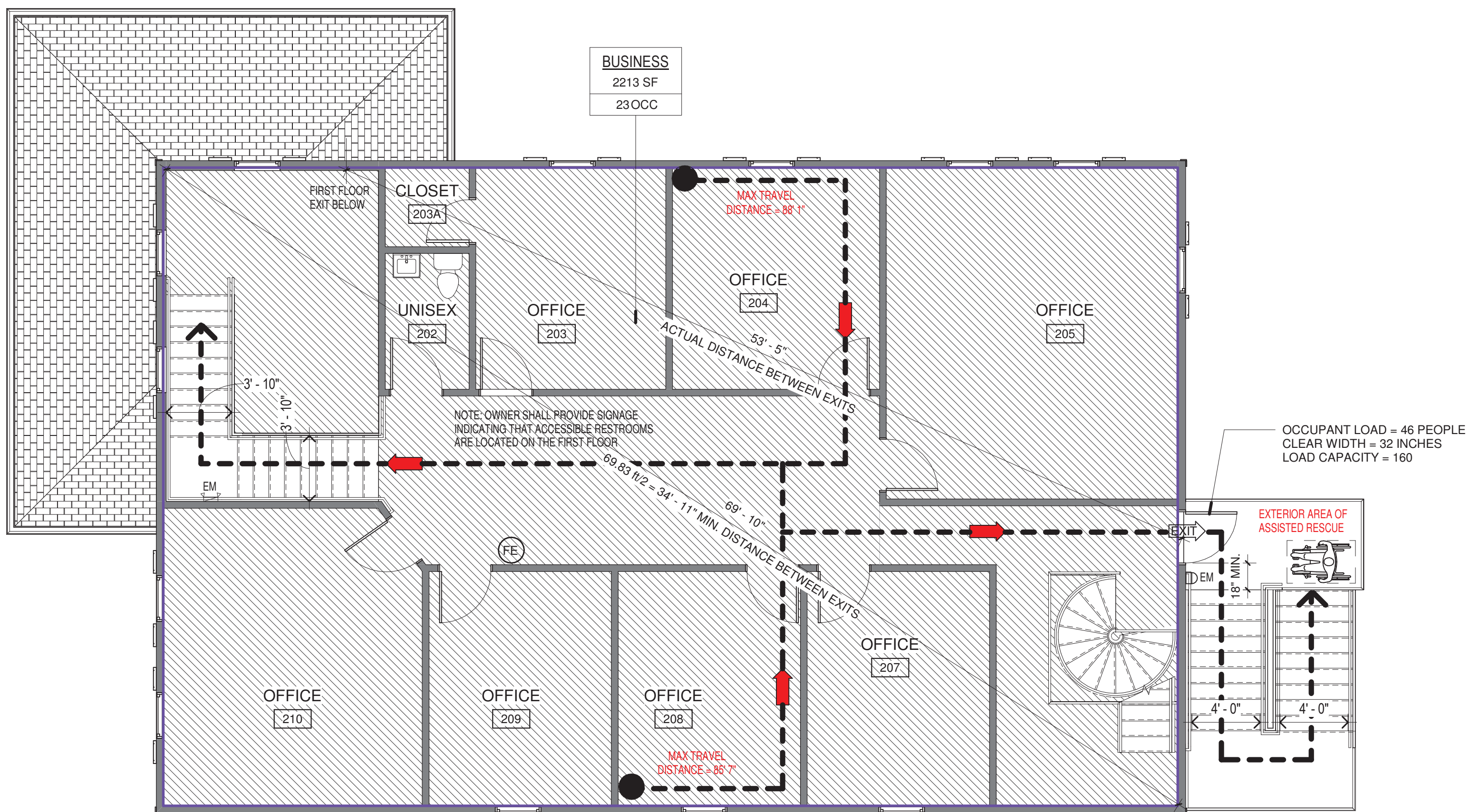
PROJECT NO.: 22039  
RECORD:

CONTENTS:  
LIFE SAFETY PLANS

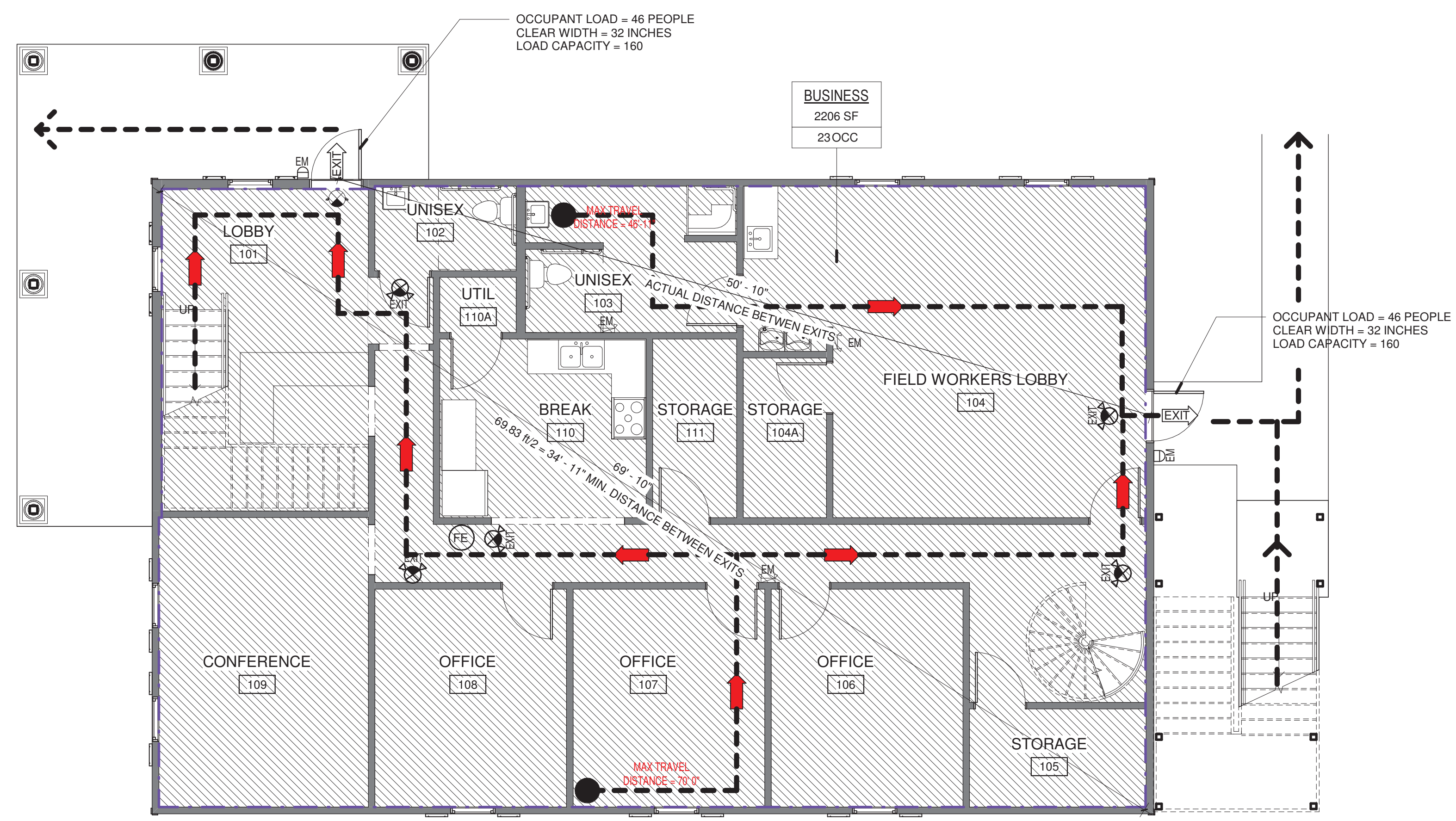
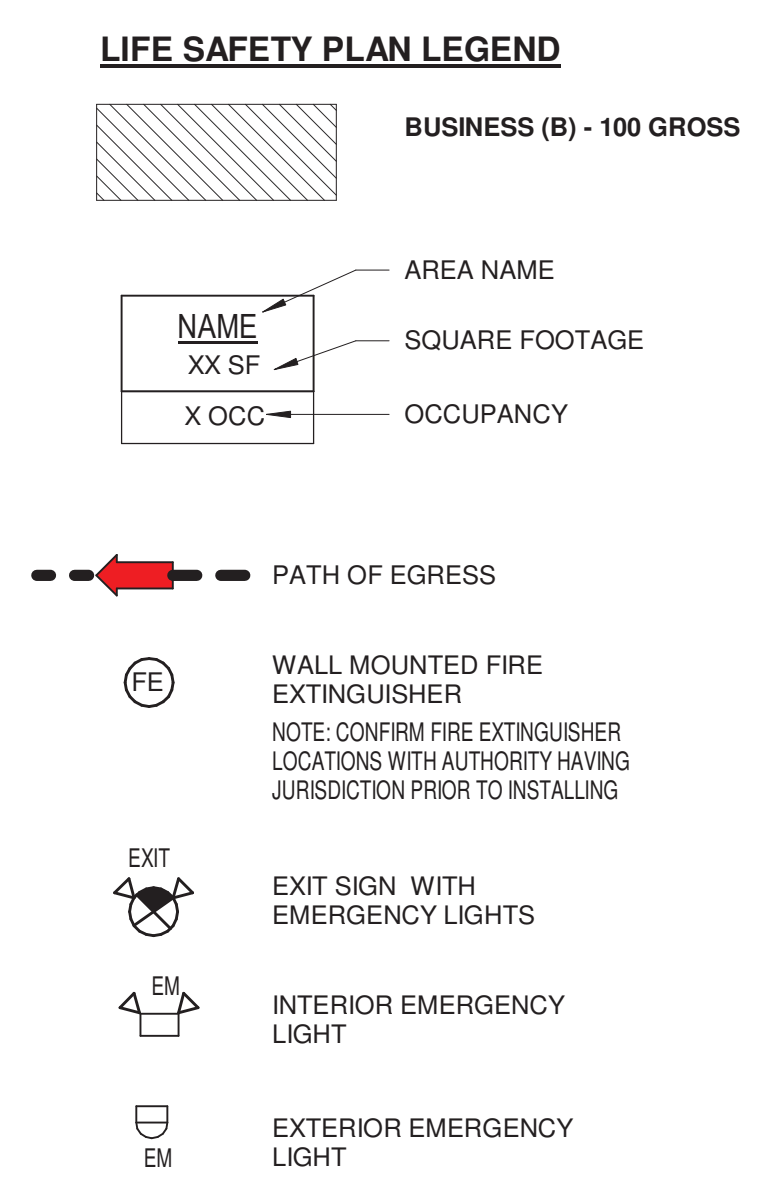
SHEET:  
**G103**



**3 FIRE EXTINGUISHER DETAIL**  
1/2" = 1'-0"



**2 2ND FLR LIFE SAFETY PLAN**  
3/16" = 1'-0"



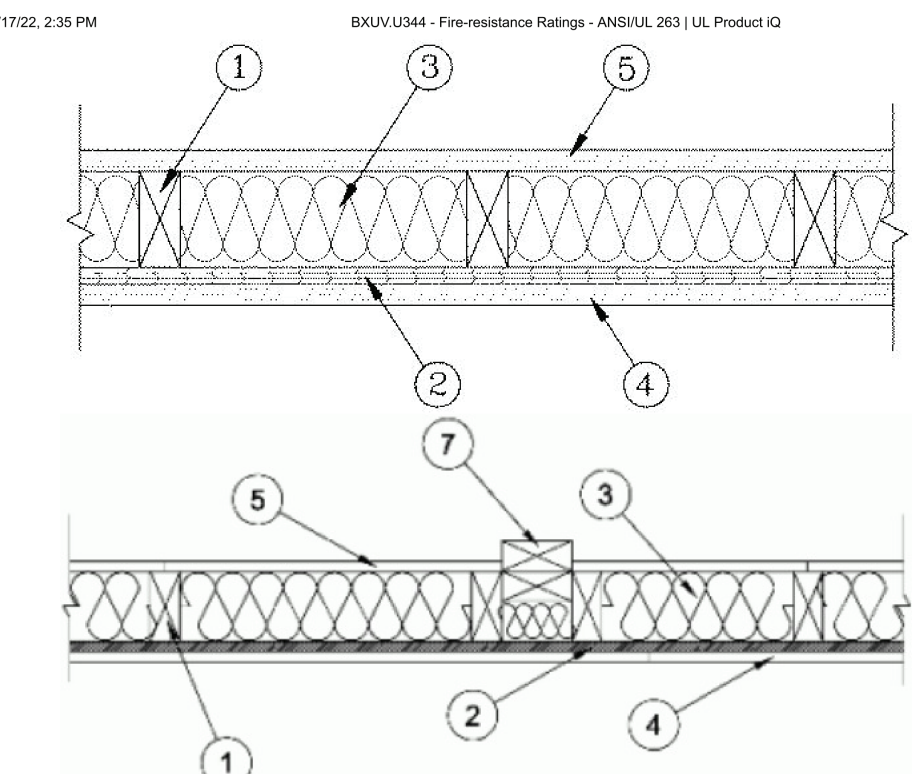
**1 1ST FLR LIFE SAFETY PLAN**  
3/16" = 1'-0"

Design No. U344

March 25, 2022

**Bearing Wall Rating — 1 Hr.**  
**Finish Rating — 24 Min.**  
 This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXU/ U344.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



- 1. Wood Studs** — Nom 2 by 4 in. spaced 24 in. OC, laterally braced, and effectively fire stopped at top and bottom.
- 2. Wood Structural Panel Sheathing** — Nom 15/32 in. thick, 4 ft wide APA Rated Sheathing 32/16, Exposure 1, plywood or oriented strand board (OSB) per F51, F52 or AWJ Standard PPW-108. Installed with long dimension of sheet (lengthwise) or face grain of plywood, parallel with studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Horizontal joints backed with nom 2 by 4 in. wood backing. Attached to studs on exterior side of wall with 6d cement coated steel box nails spaced 12 in. OC along interior studs and 6 in. OC at perimeter of panels.
- 3. Batts and Blankets** — 3-1/2 in. thick foil-faced glass fiber bats. Supplied in rolls 23 in. wide. Density to be nom 0.70 pcf. Friction-fitted to completely fill the stud cavity.
- 4. Gypsum Board** — 5/8 in. thick, 4 ft wide, applied horizontally or vertically. Attached to studs through plywood sheathing with B. cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam head nails spaced 7 in. OC along studs and at perimeter of panels. When used in widths other than 48 in., wallboard is to be installed horizontally. Joints exposed or covered with tape and compound.
- Steel Framing Members** (Item 6 or any alternate clip) is used; gypsum panels attached to furring channels with 1 in. long Type 5 bugle-head steel screws spaced 7 in. OC.
- AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C, LightRock.
- CABOT MANUFACTURING ULC** — 5/8 Type X, Type BlueGlas Exterior Sheathing
- CERTAINTED GYPSUM INC** — Type C, Type X or Type X-1 (Finished Rating is 23 minutes). Type EGRG, Type GlasRock, GlasRock-2, East-Line Type 2, SlatRock.
- COC INC** — Type AR, C, IP-X2, IPC-AR, SCX, ULX, USGX, WRC, WXC.
- GEORGIA-PACIFIC GYPSUM L L C** — Types LGFC, LGFC6A, LGFC-C, LGFC-C/A.
- GEORGIA-PACIFIC GYPSUM L L C** — Type TG-C, GreenGlas Type X, Type DGG.
- NATIONAL GYPSUM CO** — Types FSK, FSK-G, FSW, FSW-3, FSW-4, FSW-G, FSK-C, FSW-C, FSW-C, FSW-6, FSL, FSW-8.
- PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Types PG-11, PG5-WRS, PG1.
- UNITED STATES GYPSUM CO** — Type AR, C, FRX-G, FRX-G, IP-X2, IPC-AR, SCX, ULX, ULX, USGX or WRC.
- USG BORAL DRYWALL SFZ LLC** — Types C, SCX, USGX.
- USG MEXICO S A DE C V** — Type AR, C, IP-X1, IP-X2, IPC-AR, SCX, ULX, USGX or WRC.
- 5A. Gypsum Board** — (As an alternate to Item 4) — 5/8 in. thick, gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC, with the last two screws 4 and 1 in. from the edge of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally. Joints exposed or covered with tape and compound.
- AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C, LightRock.
- CERTAINTED GYPSUM INC** — Type C, Type X or Type X-1 (Finished Rating is 23 minutes). Type EGRG, Type GlasRock, GlasRock-2.
- COC INC** — Type AR, C, IP-X2, IPC-AR, SCX, SHK, ULX, ULX, USGX, WRC or WXC. (Finished Rating is 24 minutes).

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- 3C. Fibre, Sprayed** — As an alternate to Batts and Blankets (Item 3) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry dens shall be 4.8 lb/ft<sup>3</sup>.
- INTERNATIONAL CELLULOSE CORP** — Cellul-R.
- 3A. Fibre, Sprayed** — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 4.5 lb/ft<sup>3</sup>.
- 3B. Fibre, Sprayed** — As an alternate to Item 3 and 3A — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 4.5 lb/ft<sup>3</sup>.
- NU WOOL CO INC** — Cellulose Insulation
- https://q.ulprospector.com/in/profile?n=14918
- 5B. Gypsum Board** — (As an alternate to Items 5 and 5A) — 5/8 in. thick gypsum panels, with square edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 and 4 in. from edge of board or nailed as described in Item 5. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.
- GEORGIA-PACIFIC GYPSUM L L C** — GreenGlas Type X, Type DGG.
- 5D. Gypsum Board** — (As an alternate to Items 5 through 5C) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 5.
- PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Type QuerRock ES.
- 5E. Wall and Partition Facings and Accessories** — (As an alternate to Items 5 through 5D) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 5.
- PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Type QuerRock S27.
- 5F. Gypsum Board** — (As an alternate to Items 5 through 5E) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 5.
- NATIONAL GYPSUM CO** — Type SBWB.
- 5G. Gypsum Board** — (As an alternate to Item 5) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC, with the last two screws 4 and 1 in. from the edge of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.
- CERTAINTED GYPSUM INC** — Type LGFC6A (Finish rating 21 min), Type LGFC6A Type LGFC-C/A, Type LGFC-WD, Type LGXL.
- 5H. Gypsum Board** — (As an alternate to Item 5-5G) — 5/8 in. thick, 4 ft wide, paper surfaced applied vertically or horizontally and secured with 7/16 in. Type W coarse thread gypsum panel steel screws spaced a maximum of 12 in. OC.
- CERTAINTED GYPSUM INC** — Type SletRock.
- 5I. Gypsum Board** — (As an alternate to Item 5) For use with Item 6D - Any 5/8 in. thick, 4 ft wide, Gypsum Board UL Classified for Fire Resistance (K200) eligible for use in Design Nos. U305, U301 or G512 - Two layers, applied vertically, and attached to furring channels (Item 6Ea). Vertical gypsum board side joints offset 24 inches between layers. Horizontal butt joints offset 48 inches from adjacent board horizontal joints and 24 inches from base layer butt joints. Vertical joints staggered one stud cavity on opposite sides of studs. Type 5 steel screws used to attach gypsum board to furring channels: First layer - 1 in. long, 3 inches from the edge and 24 in. OC. Second layer - 1-5/8 in. long, spaced 1 inch from the edge and 12 in. OC.
- 5J. Gypsum Board** — 5/8 in. thick, 4 ft wide applied horizontally or vertically. Attached to studs or blocking at 7 in. OC with 6d cement coated nails, 1-3/8 in. long, 0.0913 in. shank diam and 1/4 in. diam heads. When used in widths other than 48 in., wallboard to be installed horizontally. Joints exposed or covered with tape and compound.

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- 5K. Gypsum Board** — (As an alternate to Item 4) — 5/8 in. thick, 4 ft wide, paper surfaced applied vertically and secured as described in Item 4.
- GEORGIA-PACIFIC GYPSUM L L C** — Type X ComfortGuard Sound Deadening Gypsum Board (Finish rating 27 min).
- 5L. Gypsum Board** — (As an alternate to Items 4, 4A) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 4.
- PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Type QuerRock ES.

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4C. **Wall and Partition Facings and Accessories** — (As an alternate to Items 4, 4A, 4B) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 4.

**PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Type QuerRock S27.

4D. **Gypsum Board** — (As an alternate to Item 4) — 5/8 in. thick, 4 ft wide, applied horizontally or vertically. Attached to studs through plywood sheathing with 6d cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam head nails spaced 7 in. OC along studs and at perimeter of panels. When used in widths other than 48 in., wallboard is to be installed horizontally. Joints exposed or covered with tape and compound.
- Steel Framing Members** (Item 6 or any alternate clip) is used; gypsum panels attached to furring channels with 1 in. long Type 5 bugle-head steel screws spaced 7 in. OC.
- AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C, LightRock.
- CABOT MANUFACTURING ULC** — 5/8 Type X, Type BlueGlas Exterior Sheathing
- COC INC** — Type AR, C, IP-X1, IP-X2, IPC-AR, SCX, ULX, USGX, WRC, WXC.
- CERTAINTED GYPSUM INC** — Types LGFC, LGFC6A, LGFC-C, LGFC-C/A.
- GEORGIA-PACIFIC GYPSUM L L C** — Types TG-C, GreenGlas Type X, Type DGG.
- NATIONAL GYPSUM CO** — Types FSK, FSK-G, FSW, FSW-3, FSW-4, FSW-G, FSK-C, FSW-C, FSW-6, FSL, FSW-8.
- PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Types PG-11, PG5-WRS, PG1.
- UNITED STATES GYPSUM CO** — Type AR, C, FRX-G, FRX-G, IP-X2, IPC-AR, SCX, ULX, ULX, USGX or WRC.
- USG BORAL DRYWALL SFZ LLC** — Types C, SCX, USGX.
- USG MEXICO S A DE C V** — Type AR, C, IP-X2, IPC-AR, SCX, SHK, ULX, ULX, USGX or WRC. (Finished Rating is 24 minutes).
- 5A. Gypsum Board** — (As an alternate to Item 5) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC, with the last two screws 4 and 1 in. from the edge of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.
- AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C, LightRock.
- CERTAINTED GYPSUM INC** — Type C, Type X or Type X-1 (Finished Rating is 23 minutes). Type EGRG, Type GlasRock, GlasRock-2.
- COC INC** — Type AR, C, IP-X2, IPC-AR, SCX, SHK, ULX, ULX, USGX, WRC or WXC. (Finished Rating is 24 minutes).
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4C. **Wall and Partition Facings and Accessories** — (As an alternate to Items 4, 4A, 4B) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 4.

**PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Type QuerRock S27.

4D. **Gypsum Board** — (As an alternate to Item 4) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC, with the last two screws 4 and 1 in. from the edge of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

4E. **Gypsum Board** — (As an alternate to Item 4) — 5/8 in. thick, 4 ft wide, applied horizontally or vertically. Attached to studs through plywood sheathing with 6d cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam head nails spaced 7 in. OC along studs and at perimeter of panels. When used in widths other than 48 in., wallboard is to be installed horizontally. Joints exposed or covered with tape and compound.

**Steel Framing Members** (Item 6 or any alternate clip) is used; gypsum panels attached to furring channels with 1 in. long Type 5 bugle-head steel screws spaced 7 in. OC.

**PANEL KEY 5 A** — Type FRK2

5. **Gypsum Board** — 5/8 in. thick, 4 ft wide applied horizontally or vertically. Attached to studs or blocking at 7 in. OC with 6d cement coated nails, 1-3/8 in. long, 0.0913 in. shank diam and 1/4 in. diam heads. When used in widths other than 48 in., wallboard to be installed horizontally. Joints exposed or covered with tape and compound.

**Steel Framing Members** — (As an alternate to Item 6) — Resilient channels and Steel Framing Members as described below.

**AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C, LightRock.
- CABOT MANUFACTURING ULC** — 5/8 Type X, Type BlueGlas Exterior Sheathing
- COC INC** — Type AR, C, IP-X1, IP-X2, IPC-AR, SCX, ULX, USGX, WRC, WXC.
- CERTAINTED GYPSUM INC** — Types LGFC, LGFC6A, LGFC-C, LGFC-C/A.
- GEORGIA-PACIFIC GYPSUM L L C** — Type TG-C, GreenGlas Type X, Type DGG.
- NATIONAL GYPSUM CO** — Types FSK, FSK-G, FSW, FSW-3, FSW-4, FSW-G, FSK-C, FSW-C, FSW-6, FSL, FSW-8.
- PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Types PG-11, PG5-WRS, PG1.
- UNITED STATES GYPSUM CO** — Type AR, C, FRX-G, FRX-G, IP-X2, IPC-AR, SCX, ULX, ULX, USGX or WRC.
- USG BORAL DRYWALL SFZ LLC** — Types C, SCX, USGX.
- USG MEXICO S A DE C V** — Type AR, C, IP-X1, IP-X2, IPC-AR, SCX, ULX, USGX or WRC.
- 5A. Gypsum Board** — (As an alternate to Item 5) — (not shown) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths of other than 48 in., gypsum boards are to be installed horizontally. Joints exposed or covered with tape and compound.
- AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C, LightRock.
- CERTAINTED GYPSUM INC** — Type C, Type X or Type X-1 (Finished Rating is 23 minutes). Type EGRG, Type GlasRock, GlasRock-2.
- COC INC** — Type AR, C, IP-X2, IPC-AR, SCX, SHK, ULX, ULX, USGX, WRC or WXC. (Finished Rating is 24 minutes).
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- NATIONAL GYPSUM CO** — Type FSK, Type FSK-G, Type FSW, Type FSW-3, Type FSW-4, Type FSW-G, Type FSK-C, Type FSW-C, Type FSW-6, Type FSL, Type FSK.
- THAI GYPSUM PRODUCTS PCL** — Type C or Type X.
- UNITED STATES GYPSUM CO** — Type AR, C, FRX-G, FRX-G, IP-X2, IPC-AR, SCX, ULX, USGX or WRC. (Finished Rating is 24 minutes).
- USG BORAL DRYWALL SFZ LLC** — Types C, SCX, USGX.
- USG MEXICO S A DE C V** — Type AR, C, IP-X1, IP-X2, IPC-AR, SCX, ULX, USGX or WRC. (Finished Rating is 24 minutes).
- 5B. Gypsum Board** — (As an alternate to Items 5 and 5A) — 5/8 in. thick gypsum panels, with square edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 and 4 in. from edge of board or nailed as described in Item 5. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.
- GEORGIA-PACIFIC GYPSUM L L C** — GreenGlas Type X, Type DGG.
- 5D. Gypsum Board** — (As an alternate to Items 5 through 5C) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 5.
- PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Type QuerRock ES.
- 5E. Wall and Partition Facings and Accessories** — (As an alternate to Items 5 through 5D) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 5.
- PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Type QuerRock S27.
- 5F. Gypsum Board** — (As an alternate to Items 5 through 5E) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 5.
- NATIONAL GYPSUM CO** — Type SBWB.
- 5G. Gypsum Board** — (As an alternate to Item 5) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC, with the last two screws 4 and 1 in. from the edge of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.
- CERTAINTED GYPSUM INC** — Type LGFC6A (Finish rating 21 min), Type LGFC6A Type LGFC-C/A, Type LGFC-WD, Type LGXL.
- 5H. Gypsum Board** — (As an alternate to Item 5-5G) — 5/8 in. thick, 4 ft wide, paper surfaced applied vertically or horizontally and secured with 7/16 in. Type W coarse thread gypsum panel steel screws spaced a maximum of 12 in. OC.
- CERTAINTED GYPSUM INC** — Type SletRock.
- 5I. Gypsum Board** — (As an alternate to Item 5) For use with Item 6D - Any 5/8 in. thick, 4 ft wide, Gypsum Board UL Classified for Fire Resistance (K200) eligible for use in Design Nos. U305, U301 or G512 - Two layers, applied vertically, and attached to furring channels (Item 6Ea). Vertical gypsum board side joints offset 24 inches between layers. Horizontal butt joints offset 48 inches from adjacent board horizontal joints and 24 inches from base layer butt joints. Vertical joints staggered one stud cavity on opposite sides of studs. Type 5 steel screws used to attach gypsum board to furring channels: First layer - 1 in. long, 3 inches from the edge and 24 in. OC. Second layer - 1-5/8 in. long, spaced 1 inch from the edge and 12 in. OC.
- 5J. Gypsum Board** — 5/8 in. thick, 4 ft wide applied horizontally or vertically. Attached to studs or blocking at 7 in. OC with 6d cement coated nails, 1-3/8 in. long, 0.0913 in. shank diam and 1/4 in. diam heads. When used in widths other than 48 in., wallboard to be installed horizontally. Joints exposed or covered with tape and compound.

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4C. **Wall and Partition Facings and Accessories** — (As an alternate to Items 4, 4A, 4B) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically only and secured as described in Item 4.

**PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Type QuerRock S27.

4D. **Gypsum Board** — (As an alternate to Item 4) — 5/8 in. thick, 4 ft wide, applied horizontally or vertically. Attached to studs through plywood sheathing with 6d cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam head nails spaced 7 in. OC along studs and at perimeter of panels. When used in widths other than 48 in., wallboard is to be installed horizontally. Joints exposed or covered with tape and compound.
- Steel Framing Members** (Item 6 or any alternate clip) is used; gypsum panels attached to furring channels with 1 in. long Type 5 bugle-head steel screws spaced 7 in. OC.
- AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C, LightRock.
- CABOT MANUFACTURING ULC** — 5/8 Type X, Type BlueGlas Exterior Sheathing
- COC INC** — Type AR, C, IP-X1, IP-X2, IPC-AR, SCX, ULX, USGX, WRC, WXC.
- CERTAINTED GYPSUM INC** — Types LGFC, LGFC6A, LGFC-C, LGFC-C/A.
- GEORGIA-PACIFIC GYPSUM L L C** — Types TG-C, GreenGlas Type X, Type DGG.
- NATIONAL GYPSUM CO** — Types FSK, FSK-G, FSW, FSW-3, FSW-4, FSW-G, FSK-C, FSW-C, FSW-6, FSL, FSW-8.
- PARCO BUILDING PRODUCTS L L C, DBA PARCO GYPSUM** — Types PG-11, PG5-WRS, PG1.
- UNITED STATES GYPSUM CO** — Type AR, C, FRX-G, FRX-G, IP-X2, IPC-AR, SCX, ULX, ULX, USGX or WRC.
- USG BORAL DRYWALL SFZ LLC** — Types C, SCX, USGX.
- USG MEXICO S A DE C V** — Type AR, C, IP-X2, IPC-AR, SCX, SHK, ULX, ULX, USGX or WRC. (Finished Rating is 24 minutes).
- 5A. Gypsum Board** — (As an alternate to Item 5) — (not shown) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC, with the last two screws 4 and 1 in. from the edge of the board. When used in widths other than 48 in., gypsum boards are to be installed horizontally.
- AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C, LightRock.
- CERTAINTED GYPSUM INC** — Type C, Type X or Type X-1 (Finished Rating is 23 minutes). Type EGRG, Type GlasRock, GlasRock-2.
- COC INC** — Type AR, C, IP-X2, IPC-AR, SCX, SHK, ULX, ULX, USGX, WRC or WXC. (Finished Rating is 24 minutes).
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When Item 6-6D, **Steel Framing Members** is used, gypsum panels attached to furring channels with 1 in. long Type 5 bugle-head steel screws spaced 7 in. OC.

**PANEL KEY 5 A** — Type FRK2

6. **Steel Framing Members** — (Optional, Not Shown) — Furring Channels and Steel Framing Members as described below.

**a. Furring Channels** — Formed of No. 25 MSG galv steel, 2-9/16 in. x 2-3/32 in. wide by 7/8 in. deep, spaced 24 in. OC, perpendicular to studs. Channels secured to studs as described in Item 6. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Items 4 and 5.

**b. Steel Framing Members** — Used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. RSC-1 clip for use with 2-9/16 in. wide furring channels. RSC-1 (2-1/3) clip for use with 2-23/32 in. wide furring channels.
- PAFC INTERNATIONAL L L C** — Type RSC-1, RSC-1 (2-1/3).
- 6A. Steel Framing Members** — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below.
- a. Furring Channels** — Formed of No. 25 MSG galv steel 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC, perpendicular to studs. Channels secured to studs as described in Item 6. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 5.
- b. Steel Framing Members** — Used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
- STUCCO BUILDING SYSTEMS** — RESLMOUNT Sound Isolation Clips - Type A2TRK.
- 6C. Steel Framing Members** — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below.
- a. Furring Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC, perpendicular to studs. Channels secured to studs as described in Item 6. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 5.
- b. Steel Framing Members** — Used to attach furring channels (Item 6Ca) to studs. Clips spaced 48 in. OC, and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
- STUCCO BUILDING SYSTEMS** — RESLMOUNT Sound Isolation Clips - Type A2TRK.
- 6D. Steel Framing Members** — (Optional, Not Shown, As an alternate to Item 6) — Resilient channels and Steel Framing Members as described below.
- a. Resilient Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item 6. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to resilient channels as described in Item 5.
- b. Steel Framing Members** — Used to attach furring channels (Item 6Da) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one 10 x 1-1/2 in. pan-head self-drilling screw.
- RENE BUILDING PRODUCTS CO INC** — Type RC - Assurance Clip.
- 6E. Steel Framing Members** — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Framing Members as described below.
- a. Furring Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC, perpendicular to studs. Channels secured to studs as described in Item 6Ea. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Two layers of gypsum board attached to furring channels as described in 5.
- b. Framing Members** — Used to attach furring channels (Item 6Ea) to studs (Item 1). Rats secured to stud, spaced a maximum of 24 in. OC. Horizontally, vertically spaced 2 in. from the top and bottom and 24 inch on center along each stud and secured with one 1-1/4 inch (No. 6) W drywall screws. One on each side of the core. Fasteners should not be placed closer than 1/4 inch to the edge of the mounts.
- RCD LLC** — Type HubFrame Ruff Connector.
- 6F. Steel Framing Members** — (Optional, Not Shown, As an alternate to Item 6) — Used as an alternate method to attach resilient channels to wall studs. A resilient sound isolation accessory shall be used at each attachment point of the resilient channels and spaced max 24 in. OC. Channel ends butted and secured under the structural members and attached with one accessory at each end. Additional accessories used to hold resilient channels that support the gypsum board end joints. The accessory envelopes the mounting edge of the resilient channel. The accessory and resilient channel are fastened to the structural members with the screws supplied with the accessory and per the accessory manufacturer's installation instructions.
- PAFC INTERNATIONAL L L C** — Type RC-1 Ruff.
- 6G. Steel Framing Members** — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing Members as described below.
- a. Furring Channels** — Formed of No. 25 MSG galv steel, 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC, perpendicular to studs. Channels secured to studs as described in Item 6. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 5.
- b. Steel Framing Members** — Used to attach furring channels (Item 6Ga) to studs. Clips spaced maximum 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.
- CLARDIETECH BUILDING SYSTEMS** — Type ClardTech Dutch Strud Clip.
- 7. Non-Bearing Wall Partition Intersection** — (Optional) — Two nominal 2 by 4 in. stud or nominal 2 by 6 in. stud, nailed together with two 3-1/2 in. long 10d nails spaced a max. 16 in. OC, vertically and fastened to one side of the minimum by 2 in. stud with 3 in. long 10d nails spaced a max. 16 in. OC, vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a max. 16 in. OC, vertically. Maximum one non-bearing wall partition intersection per vertical cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall.
- \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.
- Last Updated on 2022-03-25

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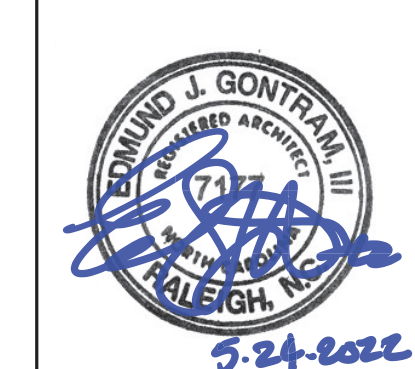
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**NEW BUILDING**  
**for PAUL BARBOUR & SONS**  
 11496 HWY 401N  
 FUQUAY-VARINA, NC 27526

PLOT DATE:  
 5/24/2022

ISSUED:  
 5/24/2022

**FOR CONSTRUCTION**

Rev.	Date	Description

# INTERIOR PARTITION SCHEDULE

1		NEW UNRATED INTERIOR PARTITION: 2x4 WOOD STUDS AT 16" O.C. TO BOTTOM OF TRUSSES (10'-0" AFF), WITH ONE LAYER 5/8" GWB ON EACH SIDE. FINISH AS SCHEDULED. PROVIDE SOUND BATT INSULATION (R-11 UNFACED BATT INSULATION)
2		NEW UNRATED INTERIOR PARTITION: 2x6 WOOD STUDS AT 16" O.C. TO BOTTOM OF TRUSSES (11'-5" AFF). BRACE TO STRUCTURE ABOVE, WITH ONE LAYER 5/8" GWB ON EACH SIDE. FINISH AS SCHEDULED. PROVIDE SOUND BATT INSULATION (R-11 UNFACED BATT INSULATION)

1. PARTITION TYPE #1 IS TYPICAL THROUGHOUT PROJECT, UNLESS OTHERWISE NOTED.  
 2. WHERE PARTITIONS OF VARIOUS THICKNESS MEET, MAINTAIN A FLUSH SURFACE ON THE SIDE WHERE FACES ARE STRAIGHT AND CONTINUOUS, UNLESS OTHERWISE NOTED.  
 3. PARTITIONS IN ALL TOILET ROOMS TO HAVE WATER RESISTANT TYPE "X" GYPSUM BOARD IN THICKNESS TO MATCH SCHEDULED. WHERE TILE IS SCHEDULED FOR WALLS, PROVIDE CEMENTITIOUS BACKERBOARD OF SAME THICKNESS.

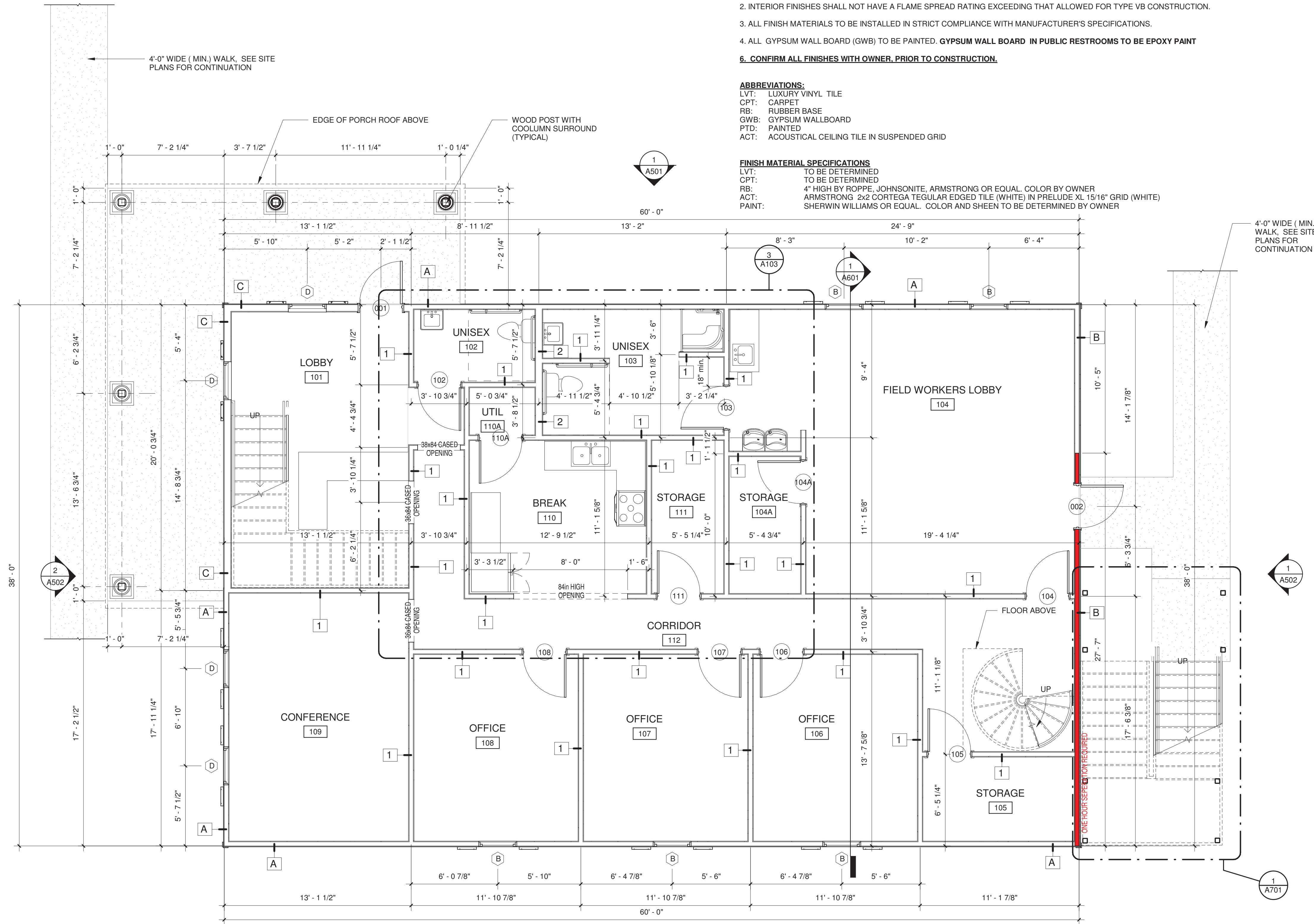
# EXTERIOR WALL SCHEDULE

A		NEW UNRATED WALL: 2x4 WOOD STUDS AT 16" O.C. TO TRUSS ABOVE. R-20 SPRAY FOAMED INSULATION, TYVEK AIR INFILTRATION BARRIER OVER EXTERIOR SHEATHING, SIDING
B		NEW 1-HR RATED WALL: 2x4 WOOD STUDS AT 16" O.C. TO TRUSS ABOVE. R-20 SPRAY FOAMED INSULATION, TYVEK AIR INFILTRATION BARRIER OVER TYPE X GYPSUM SHEATHING, SIDING UL U344
C		NEW UNRATED LOAD BEARING WALL: 2x6 WOOD STUDS AT 16" O.C. TO TRUSS ABOVE. R-20 SPRAY FOAMED INSULATION, TYVEK AIR INFILTRATION BARRIER OVER EXTERIOR SHEATHING, SIDING

1. PARTITION TYPE A IS TYPICAL AT EXTERIOR WALLS THROUGHOUT PROJECT, UNLESS OTHERWISE NOTED.  
 2. WHERE PARTITIONS OF VARIOUS THICKNESS MEET, MAINTAIN A FLUSH SURFACE ON THE SIDE WHERE FACES ARE STRAIGHT AND CONTINUOUS, UNLESS OTHERWISE NOTED.

### PLAN NOTES:

- EXTERIOR DIMENSIONS SHOWN ARE FROM EXTERIOR FACE OF STUD TO WALL CENTERLINE TO CENTERLINE OF OPENING TO EXTERIOR FACE OF STUD.
- INTERIOR DIMENSIONS SHOWN ARE FROM CENTERLINE OF STUD TO CENTERLINE OF NEW STUD.
- DIMENSIONS INDICATED AS "CLR" OR "CLR" ARE FROM FINISHED SURFACE TO FINISHED SURFACE. CLEAR DIMENSIONS ARE INDICATED WITH OPEN ARROWS
- DIMENSIONS INDICATED AS "MIN." OR "MINIMUM" ARE ABSOLUTE MINIMUM DIMENSIONS AND ARE NOT TO BE DECREASED. DIMENSIONS INDICATED AS "MAX." OR "MAXIMUM" ARE ABSOLUTE MAXIMUM DIMENSIONS AND ARE NOT TO BE INCREASED.
- ALTHOUGH THESE DRAWINGS ARE DRAWN TO SCALE, NO DIMENSIONS ARE TO BE DETERMINED BY SCALING THE DRAWINGS. ANY QUESTIONS OR DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.



**1 1st FLOOR PLAN**  
 1/4" = 1'-0"

# FINISH SCHEDULE- 1st FLOOR

NUMBER	ROOM	FLOOR		WALLS				CEILING		NOTES
		FLOOR	BASE	NORTH	EAST	SOUTH	WEST	TYPE	HEIGHT	
101	LOBBY	LVT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	20'-0"	
102	UNISEX	LVT	RB	MR-GWB/PTD	MR-GWB/PTD	MR-GWB/PTD	MR-GWB/PTD	ACT	9'-0"	
103	UNISEX	LVT	RB	MR-GWB/PTD	MR-GWB/PTD	MR-GWB/PTD	MR-GWB/PTD	ACT	9'-0"	
104	FIELD WORKERS LOBBY	LVT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	ACT	9'-0"	
104A	STORAGE	LVT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	ACT	9'-0"	
105	STORAGE	LVT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	ACT	9'-0"	
106	OFFICE	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	ACT	9'-0"	
107	OFFICE	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	ACT	9'-0"	
108	OFFICE	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	ACT	9'-0"	
109	CONFERENCE	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	ACT	9'-0"	
110	BREAK	LVT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	ACT	9'-0"	
110A	UTIL	CONCRETE	RB	GWB/PTD	GWB/PAIN	GWB/PAIN	GWB/PAIN	ACT	9'-0"	
111	STORAGE	LVT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	ACT	9'-0"	
112	CORRIDOR	LVT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	ACT	9'-0"	

**NOTE:** NORTH, EAST, SOUTH AND WEST ARE BASED ON PLAN NORTH, EAST, SOUTH, AND WEST

### GENERAL FINISH NOTES:

- ALL EXPOSED STRUCTURAL STEEL, MECHANICAL DUCTWORK, ELECTRICAL CONDUIT, ETC. IS TO BE PAINTED. COLOR TO BE CONFIRMED BY OWNER.
- INTERIOR FINISHES SHALL NOT HAVE A FLAME SPREAD RATING EXCEEDING THAT ALLOWED FOR TYPE VB CONSTRUCTION.
- ALL FINISH MATERIALS TO BE INSTALLED IN STRICT COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS.
- ALL GYPSUM WALL BOARD (GWB) TO BE PAINTED. GYPSUM WALL BOARD IN PUBLIC RESTROOMS TO BE EPOXY PAINT
- CONFIRM ALL FINISHES WITH OWNER, PRIOR TO CONSTRUCTION.**

### ABBREVIATIONS:

- LVT: LUXURY VINYL TILE
- CPT: CARPET
- RB: RUBBER BASE
- GWB: GYPSUM WALLBOARD
- PTD: PAINTED
- ACT: ACOUSTICAL CEILING TILE IN SUSPENDED GRID

### FINISH MATERIAL SPECIFICATIONS

- LVT: TO BE DETERMINED
- CPT: TO BE DETERMINED
- RB: 4" HIGH BY ROPPE, JOHNSONITE, ARMSTRONG OR EQUAL. COLOR BY OWNER
- ACT: ARMSTRONG 2x2 CORTEGA TEGULAR EDGED TILE (WHITE) IN PRELUDE XL 516" GRID (WHITE)
- PAINT: SHERWIN WILLIAMS OR EQUAL. COLOR AND SHEEN TO BE DETERMINED BY OWNER



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**NEW BUILDING**  
**for PAUL BARBOUR & SONS**  
 11496 HWY 401N  
 FUQUAY-VARINA, NC 27526

PLOT DATE: 5/24/2022  
 ISSUED: 5/24/2022  
 FOR CONSTRUCTION

Rev.	Date	Description

DRAWN BY: PJA	APPROVED: EJG
PROJECT NO.: 22039	RECORD:

CONTENTS:  
 1st FLOOR PLAN

SHEET:  
**A101**

# INTERIOR PARTITION SCHEDULE

1		NEW UNRATED INTERIOR PARTITION: 2x4 WOOD STUDS AT 16" O.C. TO BOTTOM OF TRUSSES (10'-0" AFF), WITH ONE LAYER 5/8" GWB ON EACH SIDE. FINISH AS SCHEDULED. PROVIDE SOUND BATT INSULATION (R-11 UNFACED BATT INSULATION)
2		NEW UNRATED INTERIOR PARTITION: 2x6 WOOD STUDS AT 16" O.C. TO BOTTOM OF TRUSSES (11'-0" AFF), BRACE TO STRUCTURE ABOVE, WITH ONE LAYER 5/8" GWB ON EACH SIDE. FINISH AS SCHEDULED. PROVIDE SOUND BATT INSULATION (R-11 UNFACED BATT INSULATION)

1. PARTITION TYPE #1 IS TYPICAL THROUGHOUT PROJECT, UNLESS OTHERWISE NOTED.

2. WHERE PARTITIONS OF VARIOUS THICKNESS MEET, MAINTAIN A FLUSH SURFACE ON THE SIDE WHERE FACES ARE STRAIGHT AND CONTINUOUS, UNLESS OTHERWISE NOTED.

3. PARTITIONS IN ALL TOILET ROOMS TO HAVE WATER RESISTANT TYPE "X" GYPSUM BOARD IN THICKNESS TO MATCH SCHEDULED. WHERE TILE IS SCHEDULED FOR WALLS, PROVIDE CEMENTITIOUS BACKERBOARD OF SAME THICKNESS.

# EXTERIOR WALL SCHEDULE

A		NEW UNRATED WALL: 2x4 WOOD STUDS AT 16" O.C. TO TRUSS ABOVE. R-20 SPRAY FOAMED INSULATION, TYVEK AIR INFILTRATION BARRIER OVER EXTERIOR SHEATHING, SIDING
B		NEW 1-HR RATED WALL: 2x4 WOOD STUDS AT 16" O.C. TO TRUSS ABOVE. R-20 SPRAY FOAMED INSULATION, TYVEK AIR INFILTRATION BARRIER OVER TYPE X GYPSUM SHEATHING, SIDING UL U344
C		NEW UNRATED LOAD BEARING WALL: 2x6 WOOD STUDS AT 16" O.C. TO TRUSS ABOVE. R-20 SPRAY FOAMED INSULATION, TYVEK AIR INFILTRATION BARRIER OVER EXTERIOR SHEATHING, SIDING

1. PARTITION TYPE A IS TYPICAL AT EXTERIOR WALLS THROUGHOUT PROJECT, UNLESS OTHERWISE NOTED.

2. WHERE PARTITIONS OF VARIOUS THICKNESS MEET, MAINTAIN A FLUSH SURFACE ON THE SIDE WHERE FACES ARE STRAIGHT AND CONTINUOUS, UNLESS OTHERWISE NOTED.

### PLAN NOTES:

- EXTERIOR DIMENSIONS SHOWN ARE FROM EXTERIOR FACE OF STUD TO WALL CENTERLINE TO CENTERLINE OF OPENING TO EXTERIOR FACE OF STUD.
- INTERIOR DIMENSIONS SHOWN ARE FROM CENTERLINE OF STUD TO CENTERLINE OF NEW STUD.
- DIMENSIONS INDICATED AS "CLR" OR "CLR" ARE FROM FINISHED SURFACE TO FINISHED SURFACE. CLEAR DIMENSIONS ARE INDICATED WITH OPEN ARROWS
- DIMENSIONS INDICATED AS "MIN." OR "MINIMUM" ARE ABSOLUTE MINIMUM DIMENSIONS AND ARE NOT TO BE DECREASED. DIMENSIONS INDICATED AS "MAX." OR "MAXIMUM" ARE ABSOLUTE MAXIMUM DIMENSIONS AND ARE NOT TO BE INCREASED.
- ALTHOUGH THESE DRAWINGS ARE DRAWN TO SCALE, NO DIMENSIONS ARE TO BE DETERMINED BY SCALING THE DRAWINGS. ANY QUESTIONS OR DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

# FINISH SCHEDULE - 2nd FLOOR

NUMBER	ROOM	FLOOR		WALLS				CEILING		NOTES
		FLOOR	BASE	NORTH	EAST	SOUTH	WEST	TYPE	HEIGHT	
201	OPEN FILE ROOM	LVT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	9'-0"	
202	UNISEX	LVT	RB	MR-GWB/PTD	MR-GWB/PTD	MR-GWB/PTD	MR-GWB/PTD	GWB/PTD	9'-0"	
203	OFFICE	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	9'-0"	
203A	CLOSET	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	9'-0"	
204	OFFICE	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	9'-0"	
205	OFFICE	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	9'-0"	
206	HALL	LVT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	9'-0"	
207	OFFICE	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	9'-0"	
208	OFFICE	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	9'-0"	
209	OFFICE	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	9'-0"	
210	OFFICE	CPT	RB	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	GWB/PTD	9'-0"	

**NOTE:** NORTH, EAST, SOUTH AND WEST ARE BASED ON PLAN NORTH, EAST, SOUTH, AND WEST

### GENERAL FINISH NOTES:

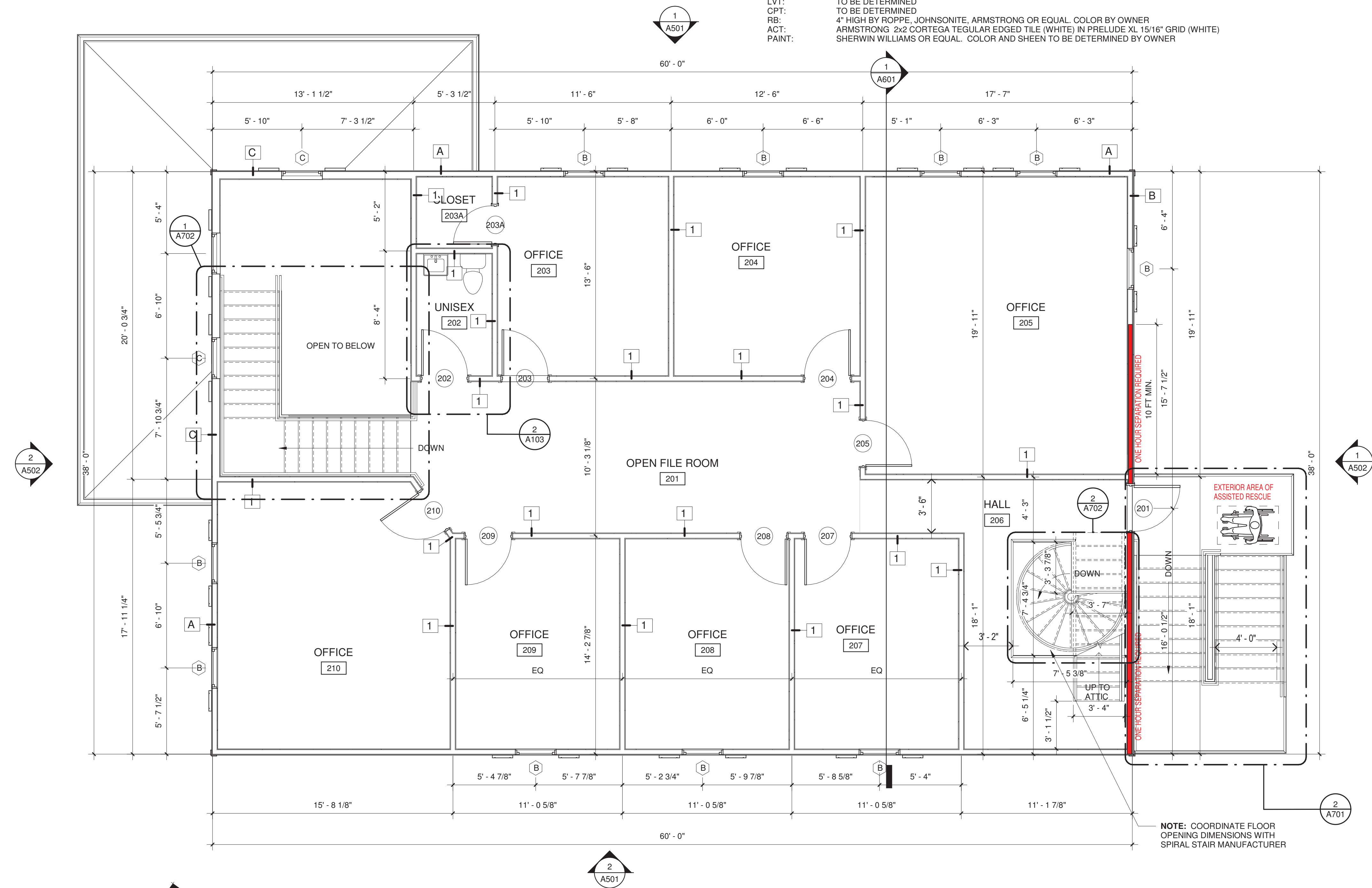
- ALL EXPOSED STRUCTURAL STEEL, MECHANICAL DUCTWORK, ELECTRICAL CONDUIT, ETC. IS TO BE PAINTED. COLOR TO BE CONFIRMED BY OWNER.
  - INTERIOR FINISHES SHALL NOT HAVE A FLAME SPREAD RATING EXCEEDING THAT ALLOWED FOR TYPE VB CONSTRUCTION.
  - ALL FINISH MATERIALS TO BE INSTALLED IN STRICT COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS.
  - ALL GYPSUM WALL BOARD (GWB) TO BE PAINTED. GYPSUM WALL BOARD IN PUBLIC RESTROOMS TO BE EPOXY PAINT
- 6. CONFIRM ALL FINISHES WITH OWNER, PRIOR TO CONSTRUCTION.**

### ABBREVIATIONS:

- LVT: LUXURY VINYL TILE
- CPT: CARPET
- RB: RUBBER BASE
- GWB: GYPSUM WALLBOARD
- PTD: PAINTED
- ACT: ACOUSTICAL CEILING TILE IN SUSPENDED GRID

### FINISH MATERIAL SPECIFICATIONS

- LVT: TO BE DETERMINED
- CPT: TO BE DETERMINED
- RB: 4" HIGH BY ROPPE, JOHNSONITE, ARMSTRONG OR EQUAL. COLOR BY OWNER
- ACT: ARMSTRONG 2x2 CORTEGA TEGULAR EDGED TILE (WHITE) IN PRELUDE XL 1516" GRID (WHITE)
- PAINT: SHERWIN WILLIAMS OR EQUAL. COLOR AND SHEEN TO BE DETERMINED BY OWNER



**1** 2nd FLOOR PLAN  
1/4" = 1'-0"



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FUQUAY-VARINA, NC 27526

PLOT DATE:  
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Rev.	Date	Description

DRAWN BY: PJA  
APPROVED: EJG

PROJECT NO.: 22039  
RECORD:

CONTENTS:  
2nd FLOOR PLAN

SHEET:  
**A102**











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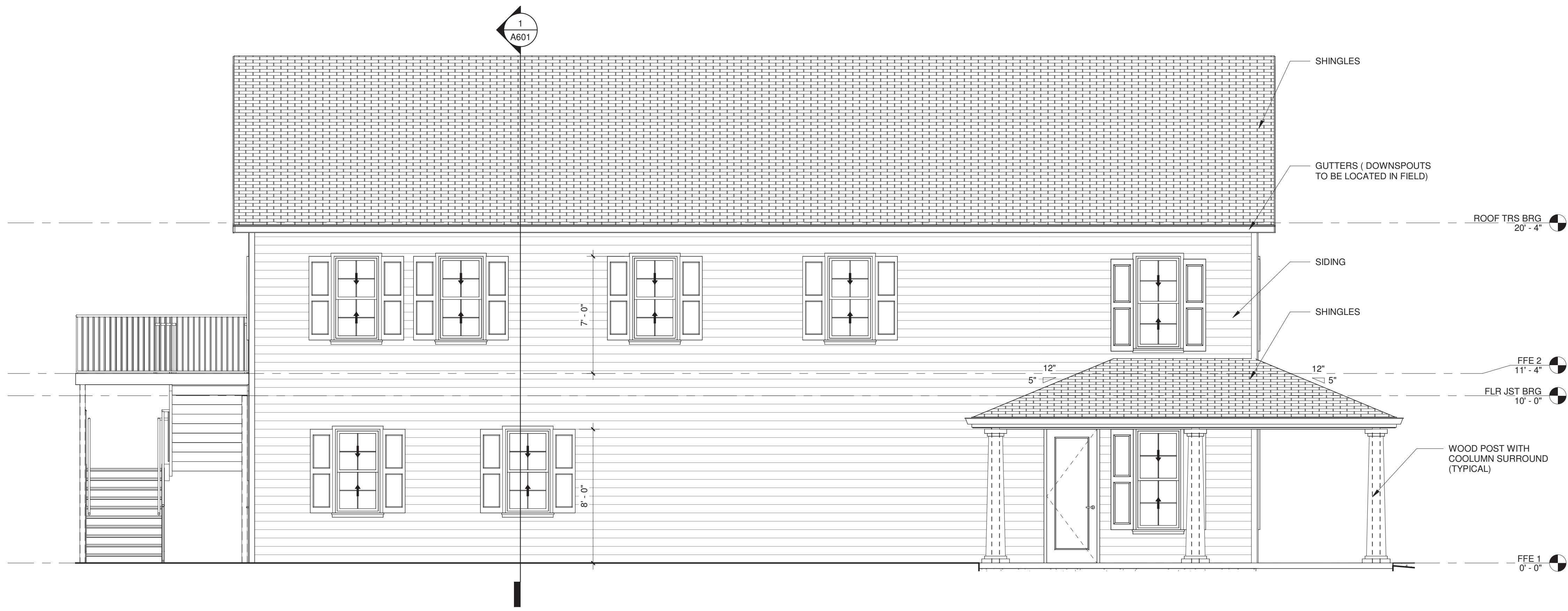
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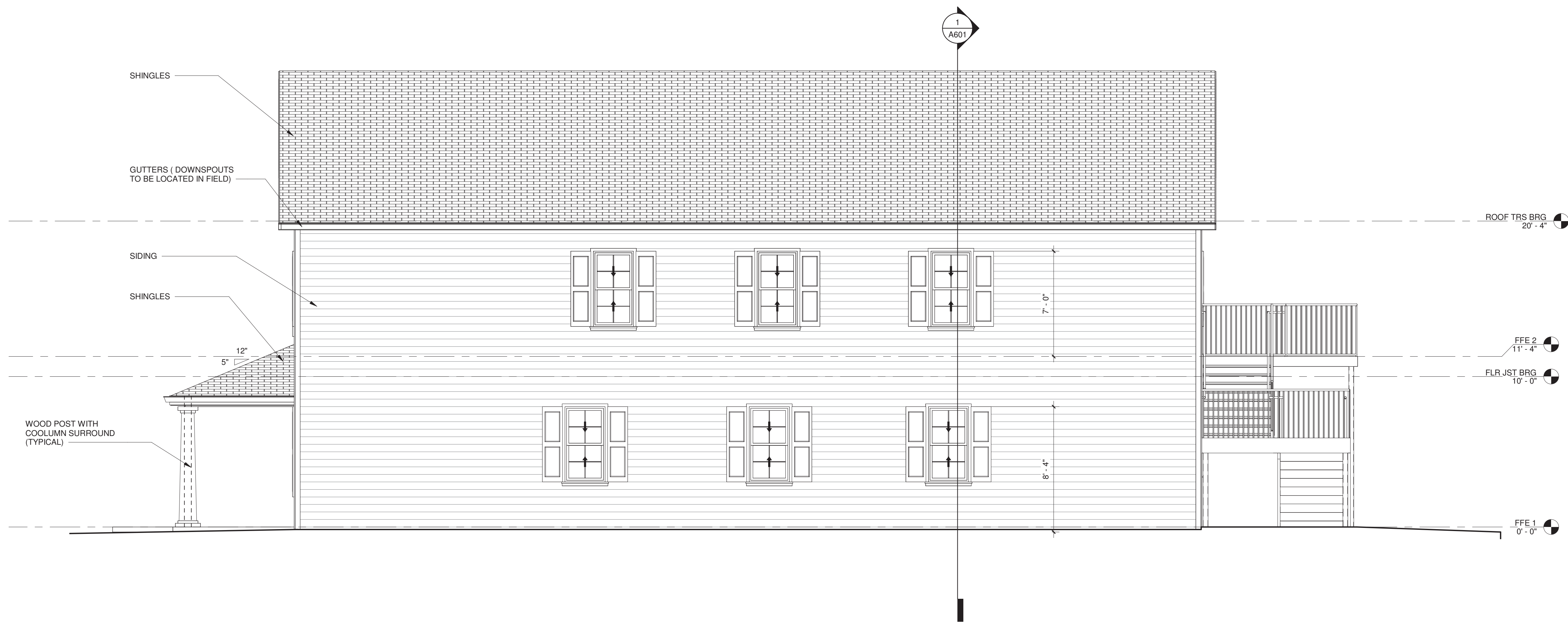
PROJECT NO.: 22039      RECORD:

CONTENTS:  
BUILDING ELEVATIONS

SHEET:  
**A501**



**1 ELEVATION (FRONT)**  
1/4" = 1'-0"



**2 ELEVATION (REAR)**  
1/4" = 1'-0"





















PANEL A						
CKT	LOAD	BKR	LOAD KVA	PH	LOAD KVA	CKT
1	PANEL 1	100/2	7.80	A	5.30	2
3			4.00	B	3.20	4
5	RANGE	50/2	3.99	A	2.25	6
7			3.99	B	2.25	8
9	1ST FLR. HVAC	40/2	3.84	A	3.84	10
11			3.84	B	3.84	12
13	WAREHOUSE 1	30/2	2.88	A	2.88	14
15			2.88	B	2.88	16
17	GATE OPENER	20/2	1.92	A	0.00	18
19			1.92	B	0.00	20
21	SPACE		0.00	A	0.00	22
23	SPACE		0.00	B	0.00	24
25	SPACE		0.00	A	0.00	26
27	SPACE		0.00	B	0.00	28
29	SPACE		0.00	A	0.00	30
VOLTAGE/PHASE			120/240, 1P, 3W			
BUS RATING			400A			
MAIN CIRCUIT BREAKER RATING			400A MB			
AIC RATING			100K AIC			
SERVICE ENTRANCE RATED			YES			
ENCLOSURE			NEMA 3R			
MOUNTING			SURFACE			

PANEL 1						
CKT	LOAD	BKR	LOAD KVA	PH	LOAD KVA	CKT
1	BK. RM RECEPT.	20/1	0.54	A	0.72	2
3	REFIG. RECEPT.	20/1A	0.18	B	0.54	4
5	OFFICE 10A, GFCI C-TOP	20/1	0.36	A	0.90	6
7	OFFICE 10A RECEPT.	20/1	0.90	B	0.36	8
9	OFFICE 106 RECEPT.	20/1	0.90	A	1.08	10
11	OFFICE 106, CONF. RM RECEPT.	20/1	1.08	B	0.72	12
13	CONF. RM / EXT. RECEPT.	20/1	0.54	A	1.20	14
15	WATER COOLER	20/1A	0.18	B	0.00	16
17	1ST. FLR. LIGHTS	20/1	1.54	A	0.00	18
19	SPACE		0.00	B	0.00	20
21	SPACE		0.00	A	0.00	22
23	SPACE		0.00	B	0.00	24
25	SPACE		0.00	A	0.00	26
27	SPACE		0.00	B	0.00	28
29	SPACE		0.00	A	0.00	30
31	SPACE		0.00	B	0.00	32
33	SPACE		0.00	A	0.00	34
35	SPACE		0.00	B	0.00	36
37	SPACE		0.00	A	0.00	38
39	SPACE		0.00	B	0.00	40
41	SPACE		0.00	A	0.00	42
VOLTAGE/PHASE			120/240, 1P, 3W			
BUS RATING			200A			
MAIN CIRCUIT BREAKER RATING			100A			
AIC RATING			10K AIC			
SERVICE ENTRANCE RATED			NO			
ENCLOSURE			NEMA 1			
MOUNTING			FLUSH			

PANEL 2						
CKT	LOAD	BKR	LOAD KVA	PH	LOAD KVA	CKT
1	OFFICE 208, 209 RECEPT.	20/1	0.72	A	1.08	2
3	OFFICE 208, 209 RECEPT.	20/1	0.90	B	0.90	4
5	OFFICE 205 RECEPT.	20/1	0.72	A	0.72	6
7	OFFICE 204 RECEPT.	20/1	0.72	B	0.72	8
9	OFFICE 203, GFCI BATH RECEPT.	20/1	0.36	A	0.00	10
11	SPACE		0.00	B	0.00	12
13	2ND FLR. LIGHTS	20/1	1.40	A	0.35	14
15	SPACE		0.00	B	0.00	16
17	SPACE		0.00	A	0.00	18
19	SPACE		0.00	B	0.00	20
21	SPACE		0.00	A	0.00	22
23	SPACE		0.00	B	0.00	24
25	SPACE		0.00	A	0.00	26
27	SPACE		0.00	B	0.00	28
29	SPACE		0.00	A	0.00	30
31	SPACE		0.00	B	0.00	32
33	SPACE		0.00	A	0.00	34
35	SPACE		0.00	B	0.00	36
37	SPACE		0.00	A	0.00	38
39	SPACE		0.00	B	0.00	40
41	SPACE		0.00	A	0.00	42
VOLTAGE/PHASE			120/240, 1P, 3W			
BUS RATING			200A			
MAIN CIRCUIT BREAKER RATING			100A			
AIC RATING			10K AIC			
SERVICE ENTRANCE RATED			NO			
ENCLOSURE			NEMA 1			
MOUNTING			FLUSH			

* USE GFCI BREAKER.
** USE GFCI BREAKER FOR HOT BOX CKT.

* USE GFCI BREAKER.
** USE GFCI BREAKER FOR HOT BOX CKT.

EQUIPMENT	DEMAND FACTOR	kVA		LOAD kVA	NEC REFERENCE	NOTES/CALCULATIONS
		A	B			
LIGHTING	125%	3.50	3.50	7.00	220.12	4394SF X 1.3 VA/SF X 1.25
RECEPTACLES < 10 kVA	100%	5.00	5.00	10.00	220.44	
RECEPTACLES > 10 kVA	50%	1.40	1.40	2.80	220.44	
HVAC	100%	7.68	7.68	15.36	—	BASED ON NCA
WATER HEATER	125%	2.81	2.81	5.62	422.13	STORAGE TANK (120 GAL @ 125%)
WAREHOUSE 1	100%	2.88	2.88	5.76		
WAREHOUSE 2	100%	2.88	2.88	5.76		
GATE OPENER	100%	1.92	1.92	3.84		
RANGE	100%	3.96	3.96	7.92		
DEMAND kVA PER PHASE		32.03		32.03		
DEMAND AMPS PER PHASE		267		267		

THE CALCULATED LIGHTING LOAD EXCEEDS THE CONNECTED LIGHTING LOAD.

DESCRIPTION	FURN. BY	VOLT/PH	NCA	MCCP	DISC	AWG	EGG	COND
RANGE	OWNER	240/1	33.3	30	60	#8	#10	1'
WATER HEATER	PC	240/1	18.75	30	30	#10	#10	3/4'
HVAC 1ST FLR. *	MC	240/1	3.84	40	60	#8	#10	1'
HVAC 2ND FLR. *	MC	240/1	3.84	40	60	#8	#10	1'
WAREHOUSE 1	OWNER	240/1	24	30	30	#10	#10	3/4'
WAREHOUSE 2	OWNER	240/1	24	30	30	#10	#10	3/4'
GATE OPENER	OWNER	240/1	16	20	30	#12	#12	1/2'

\* EC TO VERIFY ALL ELECTRICAL REQUIREMENTS OF ALL ACTUAL EQUIPMENT BEFORE RUSH IN.

ELECTRICAL DESIGNER'S STATEMENT			
ELECTRICAL SYSTEM AND EQUIPMENT METHOD OF COMPLIANCE			
PRESCRIPTIVE, ENERGY EFFICIENCY, ENERGY COST BUDGET			
LIGHTING SCHEDULE:			
LAMP TYPE REQUIRED IN FIXTURE:		SEE LIGHTING LEGEND	
NUMBER OF LAMPS PER FIXTURE:		SEE LIGHTING LEGEND	
BALLAST TYPE USED IN FIXTURE:		SEE LIGHTING LEGEND	
TOTAL BALLASTS IN FIXTURE:		SEE LIGHTING LEGEND	
TOTAL WATTAGE PER FIXTURE:		SEE LIGHTING LEGEND	
TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED:	WATTS SPECIFIED	WATTS ALLOWED	
	2350.0	3603.08	
OCCUPANCY	AREA (sqF)	ALLOWANCE (W/sqF)	WATTAGE ALLOWED
OFFICE	4394	0.82	3603.08
TOTAL	4394		3603.08
EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)			
MOTOR HORSHPWR: N/A			
NUMBER OF PHASES: N/A			
MINIMUM EFFICIENCY: N/A			
MOTOR TYPE: N/A			
NUMBER OF POLES: N/A			
DESIGNER STATEMENT: TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE 2018 NORTH CAROLINA ENERGY CONSERVATION CODE.			
FOR THE ADDITIONAL PRESCRIPTIVE REQUIREMENT REQUIRED BY 4206 OF 2018 NORTH CAROLINA ENERGY CONSERVATION CODE, WE ARE CHOOSING 0406.3 - REDUCED LIGHTING POWER DENSITY.			
2350 W SPECIFIED @ 3242 W (3603 W ALLOWED X 90%)			

GENERAL ELECTRICAL NOTES:

ADMINISTRATIVE:

- THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS:  
PC - PLUMBING CONTRACTOR, EC - ELECTRICAL CONTRACTOR, MC - MECHANICAL CONTRACTOR, GC - GENERAL CONTRACTOR, FAS - FIRE ALARM SYSTEM CONTRACTOR, AU - AUTHORITY HAVING JURISDICTION.
- "PROVIDE" MEANS TO FURNISH AND INSTALL THE ELECTRICAL CONTRACTOR SHALL ALSO INSTALL MATERIALS AND EQUIPMENT FURNISHED BY OTHERS AND THE GENERAL CONTRACTOR AS REQUIRED.
- EC SHALL PROVIDE LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY AND REASONABLY NECESSARY TO INSURE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. MINOR ITEMS, ACCESSORIES, AND DEVICES REASONABLY INFERRABLE AS NECESSARY FOR THE COMPLETION AND PROPER OPERATION OF ANY ELECTRICAL SYSTEM SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
- WORKMANSHIP SHALL BE IN ACCORDANCE WITH NECA 1 "STANDARD PRACTICE FOR GOOD WORKMANSHIP IN ELECTRICAL CONTRACTING".
- ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLOADED BY THE ELECTRICAL CONTRACTOR AT AN APPROVED LOCATION. THE ELECTRICAL CONTRACTOR SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAK, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE ELECTRICAL CONTRACTOR UNTIL THE PROJECT HAS BEEN COMPLETED AND TURNED OVER TO THE OWNER.
- THE ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT.
- DO NOT SCALE THESE DRAWINGS-REFER TO ARCHITECTURAL SHEETS FOR DIMENSIONS.
- TRADE NAMES AND MANUFACTURERS ARE SPECIFIED TO ESTABLISH A QUALITY STANDARD. SUBSTITUTIONS SHALL BE PERMITTED IF APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ALL LISTED MODEL NUMBERS SHALL BE VERIFIED WITH THE MANUFACTURER FOR PROPER APPLICATION OF EQUIPMENT.
- THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION.
- GROUNDING AND BONDING SHALL BE PER NEC ARTICLE 250. THE RACEWAY SYSTEM SHALL NOT BE RELIED UPON FOR GROUNDING CONTINUITY. A GREEN EQUIPMENT GROUNDING CONDUCTOR, SIZED PER NEC TABLE 250-122, SHALL BE RUN IN ALL POWER RACEWAYS. FOR NON-ISOLATED GROUND CIRCUITS PROVIDE ONE EQUIPMENT GROUNDING CONDUCTOR PER CIRCUIT RUN FOR ISOLATED GROUND CIRCUITS, PROVIDE ONE NEUTRAL AND ONE ISOLATED GROUND WIRE FOR EACH CIRCUIT. IN ADDITION, PROVIDE ONE EQUIPMENT GROUNDING CONDUCTOR PER CIRCUIT RUN. MAIN BONDING JUMPERS AND SYSTEM BONDING JUMPERS SHALL BE INSTALLED IN ACCORDANCE WITH 250.28 OF THE NEC. FOR BUILDINGS OR STRUCTURES SUPPLIED BY FEEDERS OR BRANCH CIRCUITS, GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH 250.32, SEPARATELY DERIVED AS SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH 250.30. RESISTANCE TO GROUND SHALL NOT EXCEED 25 OHMS. ADDITIONAL GROUNDING ELECTRODES SHALL BE INSTALLED PER 250.56 AS NECESSARY. THE ELECTRICAL CONTRACTOR SHALL ALSO COORDINATE WITH THE GENERAL CONTRACTOR REGARDING THE BONDING OF THE FOOTING REBAR, SO THAT IT WILL BE IN PLACE AND READY AT TIME OF FOOTING INSPECTION.
- ALL MATERIALS AND EQUIPMENT SHALL COMPLY WITH THE UNDERWRITERS' LABORATORIES, INC. STANDARDS OR HAVE UL APPROVAL, OR BEAR UL RE-EXAMINATION LISTING WHERE SUCH APPROVAL HAS BEEN ESTABLISHED FOR THE TYPE OF DEVICE IN QUESTION.
- CONDUCTORS, FUSES, CIRCUIT BREAKERS, AND DISCONNECT SWITCHES SHOWN ON THESE PLANS ARE THE SIZE LISTED FOR THE EQUIPMENT. BEFORE ORDERING ELECTRICAL EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS ON THE SITE AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES SHOULD CONDUCTOR, CIRCUIT BREAKER, OR FUSE SIZES REQUIRE CHANGE.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE THE FOLLOWING MATERIALS ARE AVAILABLE DURING THE CONSTRUCTION PHASE OF THE PROJECT: LIGHT FIXTURES, INCLUDING PROPER DISPOSAL OF BALLASTS, FLUORESCENT LIGHT BULBS, AND TRANSFORMERS, WIRING AND ELECTRICAL EQUIPMENT, AND INSULATION. WASTE MATERIALS CONTAINING LEAD, ASBESTOS, PCBs (FLUORESCENT LAMP BALLASTS), OR OTHER HAZARDOUS SUBSTANCES SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH FEDERAL AND STATE LAWS AND REQUIREMENTS CONCERNING HAZARDOUS WASTE.
- ALL WORK SHALL CONFORM TO 2020 NATIONAL ELECTRIC CODE, 2018 STATE BUILDING CODE, AND ALL APPLICABLE LOCAL CODES.

MATERIALS:

- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, RECEPTACLES, TERMINALS, ETC. UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS AND CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED OTHERWISE BY OTHER DISCIPLINES.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SERVICE ENTRANCE EQUIPMENT, SER PANELS, AND OTHER ELECTRICAL DISTRIBUTION EQUIPMENT AS NECESSARY FOR A COMPLETE INSTALLATION. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH UTILITY REGARDING SERVICE AND METERING DETAILS. PRIOR TO ORDERING EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL OBTAIN THE AVAILABLE FAULT CURRENT OR TRANSFORMER SIZE AND IMPEDANCE FROM THE UTILITY AND CONTACT THE ENGINEER IF THE VALUE EXCEEDS THE EQUIPMENT SPECIFIED. PANEL BOARDS OR SWITCH BOARDS SHALL BE SQUARE-D, CUTLER-HAMMER, SIEMENS, OR GE. BUSES SHALL BE COPPER UNLESS OTHERWISE APPROVED BY THE ENGINEER. RECESSED PANEL BOARDS SHALL BE INSTALLED FLUSH WITH THE WALL FINISH. METER BASES SHALL COMPLY WITH THE UTILITY'S SPECIFICATIONS AND SHALL BE MOUNTED AT A HEIGHT APPROVED BY THE UTILITY. ALL EQUIPMENT IDENTIFIED FOR SERVICE ENTRANCE USE SHALL BE SO LABELED AND UL LISTED FOR SUCH USE. ELECTRICAL CONTRACTOR SHALL INSTALL ALL ELECTRICAL EQUIPMENT WITH CLEARANCES PER NEC 110.26. ELECTRICIAN SHALL PERMANENTLY LABEL EQUIPMENT PER NEC 110.24.
- ENCLOSED SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE BY SQUARE D, EATON, OR GE. ENCLOSED SWITCHES SHALL HAVE A HANDLE LOCKABLE IN THE OFF POSITION AND SHALL HAVE A HANDLE INTERLOCKED TO PREVENT OPENING THE FRONT COVER WHILE IN THE ON POSITION. ENCLOSED SWITCHES OF THE FUSEBLE TYPE SHALL BE FUSED IN ACCORDANCE WITH NAMEPLATE DATA WITH DUAL ELEMENT TYPE FUSES BY BUSSMAN, LITTELFUSE, OR MERSSON.
- OUTLET/PHASE SENSORS SHALL BE BY WATSTOPPER, LUTRON, LEVITON, SENSOR SWITCH, HUBBELL, OR APPROVED EQUAL.
- CIRCUIT BREAKERS SHALL BE MOLDED-CASE, THERMAL MAGNETIC TYPE WITH QUICK-MAKE, QUICK-BREAK MECHANISM, COMMON TRIP ON MULTI-POLE BREAKERS, AND UL LISTED FOR BOTH COPPER AND ALUMINUM CONDUCTORS. CIRCUIT BREAKERS IN PANELS SHALL BE SERIES RATED WITH THE MAIN BREAKER, FULLY RATED FOR THE SYSTEM, SERIES RATED WITH THE BREAKER FEEDING THE PANEL FROM THE FACTORY.
- ALL WIRE, CONDUCTORS, TERMINALS, AND LUGS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. WHERE CONDUCTORS ARE RUN IN PARALLEL, LUGS SHALL BE LISTED FOR PARALLEL CONDUCTORS. PUSH WIRE CONNECTORS ARE NOT ALLOWED FOR BUILDING WIRE. PUSH CONNECTORS ARE ONLY ALLOWED WHEN APPROVED AS PART OF MANUFACTURED LISTED PRODUCTS. ALL WIRE SHALL BE INSTALLED IN CONDUIT UNLESS SPECIFICALLY NOTED OTHERWISE.
- THE INSULATION TYPE FOR INTERIOR WIRING SHALL BE DUAL RATED THIN/THIN OR XHHW. ALL WIRING INSTALLED BELOW GRADE OR IN MOIST OR WET LOCATIONS SHALL HAVE TYPE THIN OR XHHW INSULATION. INSULATION VOLTAGE RATINGS SHALL BE 600 VOLTS AND A MINIMUM TEMPERATURE RATING OF 90C. CONDUCTORS SHALL BE SOLID OR STRANDED COPPER FOR #10 AWG AND #12 AWG, AND STRANDED COPPER FOR #8 AWG AND LARGER SIZES. ALL WIRING AND CABLE SHALL BE UL LISTED. ALL TERMINATIONS AND DEVICES SHALL BE RATED FOR USE WITH 75C CONDUCTORS. FINAL CONNECTIONS TO ALL MOTORS AND EQUIPMENT SUBJECT TO VIBRATION OR MOVEMENT SHALL BE MADE WITH STRANDED COPPER CONDUCTORS. CONDUCTORS SHALL BE BY CERRO WIRE, INC., INDUSTRIAL WIRE & CABLE, INC., ENCORE WIRE CORPORATION, OR SOUTHWIRE COMPANY.

METHODS:

- EC SHALL REVIEW THE MECHANICAL PLANS TO ESTABLISH POINTS OF CONNECTION AND THE EXTENT OF THE ELECTRICAL WORK TO BE PROVIDED IN THE CONTRACT.
- ALL CIRCUIT BREAKERS FEEDING HVAC EQUIPMENT SHALL BE HACR BREAKERS. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE MINIMUM #12 AWG IN 3/4" IN CONDUIT. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE SOURCE PER NEC 210.4(B). GROUP ALL CONDUCTORS OF EACH MULTI-WIRE BRANCH CIRCUIT PER 210.4(D) WITH WIRE TIES OR SIMILAR MEANS. DO NOT EXCEED THREE HOMERUNS PER CONDUIT. DO NOT INSTALL ISOLATED GROUND AND NON-ISOLATED GROUND CIRCUITS IN THE SAME CONDUIT. INSTALL CONDUCTORS OF DIFFERENT VOLTAGES IN SEPARATE CONDUITS.
- COLOR CODE CONDUCTORS PER NEC. FEEDERS SHALL BE IDENTIFIED IN ACCORDANCE WITH NEC 210.5. USE BLACK AND RED FOR PHASES A AND B RESPECTIVELY ON 120/240 VOLT SINGLE-PHASE SYSTEMS AND WHITE FOR THE NEUTRAL. THIS IDENTIFICATION SHALL BE MADE AT EACH POINT WHERE A CONNECTION IS MADE. COLORS SHALL BE FACTORY APPLIED FOR CONDUCTORS #6 AWG AND SMALLER. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE GREEN IN COLOR AND MINIMUM #12 AWG. THE EC SHALL PROVIDE PLENUM RATED CABLE FOR ANY ELECTRICAL, TELEPHONE, COMMUNICATION, OR OTHER CABLE THAT ENTERS CEILING RETURN PLenums.
- ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING. COORDINATE LIGHTING LAYOUT WITH CEILING GRID, MECHANICAL EQUIPMENT, DUCTWORK AND SPRINKLER HEADS AS NECESSARY. SEE REFLECTED CEILING PLAN FOR DETAILS. FLUORESCENT FIXTURES UTILIZING DOUBLE-ENDED LAMPS MUST HAVE A DISCONNECTING MEANS COMPLYING WITH NEC 410.130(3).
- MOUNT LIGHT SWITCHES AT 48" IN AFT. MULTIPLE SWITCHES AT SAME LOCATION SHALL BE UNDER ONE WALL PLATE. VERIFY WALL PLATE COLOR AND MATERIAL WITH THE ARCHITECT/OWNER. INSTALL SWITCHES WITH OFF POSITION DOWN. ALL SWITCHES SHALL BE HEAVY DUTY, MORY PLASTIC WITH TOGGLE HANDLE, RATED 120-277V AC, AND COMPLYING WITH NEMA WD 6 AND WD 1. SWITCHES SHALL BE BY COOPER WIRING DEVICES, LEVITON MANUFACTURING, PASS & SENMOUR, OR HUBBELL. PROMOTE BOX DEVICE PARTITION/OWNERS FOR MULTI-GANG BOXES FOR COMPLIANCE WITH NEC 404.8(B).
- ELECTRICAL CONTRACTOR SHALL PROVIDE FIRE-STOPPING AT ALL ELECTRICAL PENETRATIONS OF RATED FLOORS AND WALLS TO PRESERVE OR RESTORE THE FIRE-RESISTANCE RATING. SEAL PENETRATIONS USING A UL LISTED SYSTEM FOUND IN THE UL DIRECTORY SPECIFIC TO THE UL LISTING OF THE ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL PLANS FOR UL RATED ASSEMBLIES SPECIFIC TO THIS PROJECT.
- ELECTRICAL CONTRACTOR SHALL PROVIDE GFCI RECEPTACLES IN KITCHENS, RESTROOMS, OUTDOORS, AND IN SHOP AREAS AS REQUIRED BY NEC. REFRIGERATORS AND WATER COOLERS MUST HAVE A DEDICATED GFCI BREAKER. EACH OUTDOOR HANG UNIT MUST HAVE A GFCI RECEPTACLE WITHIN 25 FEET FOR SERVICING. GFCI RECEPTACLES SHALL CONFORM TO UL 943 CLASS A AND UL 498 STANDARDS. RECEPTACLES SHALL BE BY COOPER WIRING DEVICES, LEVITON MANUFACTURING, PASS & SENMOUR, OR HUBBELL. ALL RECEPTACLES SHALL BE 125V RATED, HEAVY DUTY, AND COMPLY WITH NEMA WD 6 AND WD 1.
- CONDITIONS AND HEIGHTS OF ALL WALL MOUNTED DEVICES SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO INSTALLATION.
- ENCLOSED ALL CONDUIT EXCEPT IN MECHANICAL ROOMS OR UNFINISHED AREAS AS NOTED. USE EMT CONDUIT FOR ALL BRANCH CIRCUITS AND FEEDERS INSIDE THE BUILDING. TYPE MC CABLE AND TYPE AC CABLE MAY BE INSTALLED WITHIN WALLS IF ALL NEUTRAL WIRES, ISOLATED GROUND WIRES, AND EQUIPMENT GROUND WIRES AS LISTED ABOVE ARE CONTAINED IN THE CABLE. FLEXIBLE CONNECTIONS TO MOTORS AND OTHER EQUIPMENT SHALL BE MADE USING WEATHERPROOF FLEXIBLE CONDUIT. FOR LAY-IN LIGHT FIXTURES, USE MAXIMUM OF SIX (6) FEET OF FLEXIBLE MC CABLE (OR THE FLEXIBLE CONDUIT PROVIDED BY THE FIXTURE MANUFACTURER). SCHEDULE 40 PVC CONDUIT MAY BE USED FOR THE SECONDARY UNDERGROUND SERVICE, UNDERGROUND TELEPHONE SERVICE, AND BRANCH AND FEEDER CIRCUITS UNDER SLAB OR EXTERIOR TO THE BUILDING. EXPOSED EXTERIOR CONDUIT SHALL BE SCHEDULE 80 PVC. ALL UNDERGROUND RACEWAYS SHALL BE IDENTIFIED WITH UNDERGROUND LINE MARKING TAPE 6-8" IN BELOW GRADE DIRECTLY ABOVE THE RACEWAY. PROVIDE PULL RISE IN EMPTY CONDUITS. UPSIZE CONDUIT FROM MINIMUM SIZE AS NECESSARY FOR CONDUIT PULLS. UNDERGROUND RACEWAYS THAT STUB INTO THE BOTTOM OF SWITCHBOARDS, OUTDOOR TRANSFORMERS, GENERATORS, ETC., SHALL RISE AT LEAST 2" ABOVE THE FINISHED SLAB TO PREVENT WATER FROM DRAINING INTO THE RACEWAYS. RACEWAYS THAT PENETRATE EXTERIOR WALLS OR INTERIOR PARTITIONS SEPARATING SPACES THAT WILL BE AT SIGNIFICANTLY DIFFERENT TEMPERATURES SHALL BE SEALED IN ACCORDANCE WITH 305.5(5), 300.7(A), AND 305.5(2) OF THE NEC. ROUTE CONDUIT IN AND UNDER SLAB FROM POINT-TO-POINT. ROUTE EXPOSED CONDUIT AND CONDUIT INSTALLED ABOVE ACCESSIBLE CEILING PARALLEL AND PERPENDICULAR TO WALLS COMPLETELY AND THOROUGHLY SNAG ALL RACEWAYS BEFORE INSTALLING WIRE. PULL ALL CONDUCTORS INTO EACH RACEWAY AT ONE TIME. USE A SUTURE WIRE PULLING LUBRICANT FOR BUILDING WIRE #4 AWG AND LARGER.
- CABLES, RACEWAYS, OR BOXES, INSTALLED IN EXPOSED OR CONCEALED LOCATIONS UNDER METAL-CORRUGATED SHEET ROOF DECKING, SHALL BE INSTALLED AND SUPPORTED SO THERE IS NOT LESS THAN 1-1/2" IN MEASURED FROM THE LOWEST SURFACE OF THE ROOF DECKING TO THE TOP OF THE CABLE, RACEWAY, OR BOX. A CABLE, RACEWAY, OR BOX SHALL NOT BE INSTALLED IN CONCEALED LOCATIONS IN METAL-CORRUGATED SHEET DECKING-TYPE ROOF SEE NEC 300.4(E). THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL OUTLET, JUNCTION, PULL BOXES, FITTINGS, AND SUPPORTS. ALL OUTLET AND JUNCTION BOXES SHALL BE GALVANIZED STEEL TYPE BY APPLETON, STEEL CITY, OR RACO. EXTERIOR BOXES SHALL BE TYPE FS. VAPORITE BOXES SHALL BE TYPE GS. WHERE SURFACE MOUNTED BOXES ARE USED, THESE BOXES AND THEIR FACEPLATES SHALL HAVE ROUNDED CORNERS. BOXES INSTALLED IN FLOORS SHALL BE RATED FOR THE APPLICATION MOUNT JUNCTION AND OUTLET BOXES FLUSH WITH FINISH SURFACES UNLESS OTHERWISE NOTED. WHERE MOUNTING HEIGHTS ARE GIVEN, THEY SHALL BE MEASURED FROM THE FINISHED FLOOR TO THE CENTER OF THE BOX. ALL BOXES SHALL BE SIZED PER NEC ARTICLE 314. ALL OUTLET AND JUNCTION BOXES SHALL HAVE A COVER PLATE, PROVIDED BY THE ELECTRICAL CONTRACTOR. OUTLET BOXES IN RATED WALLS SHALL BE INSTALLED IN ACCORDANCE WITH NORTH CAROLINA BUILDING CODE 714.3.2 (MAXIMUM BOX SIZE IS 16 SQUARE IN AND MAXIMUM OF SIX (6) BOXES PER 100 SQUARE FEET). INSTALL OUTLET BOXES IN RATED WALLS SUCH THAT OPENINGS IN ONE SIDE ONLY WITHIN ANY GIVEN STUD SHALL. ALL CLEARANCES BETWEEN THE OUTLET BOX AND THE OPSIDE BOARD SHALL BE FILLED WITH JOINT COMPOUND OR OTHER APPROVED FIRE STOP MATERIAL. FLUSH MOUNTING OUTLET BOXES IN MOUNTED ROOMS SHALL NOT BE MOUNTED BACK-TO-BACK. SURFACE MOUNTED FIXTURES SHALL BE FED THROUGH FLUSH MOUNTED 4X4 OCTAGONAL OR SQUARE BOXES.
- ALL CONDUIT, BOXES, AND ELECTRICAL EQUIPMENT SHALL BE FIRMLY AND SECURELY FASTENED TO OR SUPPORTED





