



HISTORIC PRESERVATION COMMISSION

Marc Elrich
County Executive

Sandra I. Heiler
Chairman

Date: December 18, 2020

MEMORANDUM

TO: Mitra Pedoeem
Department of Permitting Services

FROM: Michael Kyne
Historic Preservation Section
Maryland-National Capital Park & Planning Commission

SUBJECT: Historic Area Work Permit #923964: Building addition and alterations

The Montgomery County Historic Preservation Commission (HPC) has reviewed the attached application for a Historic Area Work Permit (HAWP). This application was **Approved** at the September 9, 2020 HPC meeting.

The HPC staff has reviewed and stamped the attached construction drawings.

THE BUILDING PERMIT FOR THIS PROJECT SHALL BE ISSUED CONDITIONAL UPON ADHERENCE TO THE ABOVE APPROVED HAWP CONDITIONS AND MAY REQUIRE APPROVAL BY DPS OR ANOTHER LOCAL OFFICE BEFORE WORK CAN BEGIN.

Applicant: Richard Perle & Leslie Barr Trust (Luke Olson, Architect)
Address: 5 Grafton Street, Chevy Chase

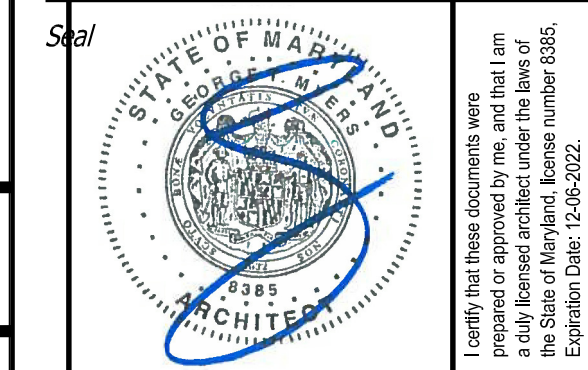
This HAWP approval is subject to the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made. Once work is complete the applicant will contact Michael Kyne at 301.563.3403 or michael.kyne@montgomeryplanning.org to schedule a follow-up site visit.





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Consultant

Project
5 GRAFTON ST

5 GRAFTON ST., CHEVY CHASE, MD 20815

Owner

Developer

PERMIT SET 2020-12-11

Issue Description Date

GTM Project No. 20.0233

Checked By GTM

Drawn By LEO/SGC

Scale AS NOTED

Sheet Title

COVER SHEET

Sheet No.

001

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5 GRAFTON STREET CHEVY CHASE, MD 20815

SCOPE OF WORK: INTERIOR RENOVATION AND REAR DORMER ADDITIONS

PLAT DATA

5 GRAFTON STREET
LOT 3, BLOCK 25
LOT AREA: 10,000 SF
CHEVY CHASE VILLAGE
ZONED: R-60
(SEE CIVIL SITE PLAN)

CHEVY CHASE VILLAGE CALCULATIONS

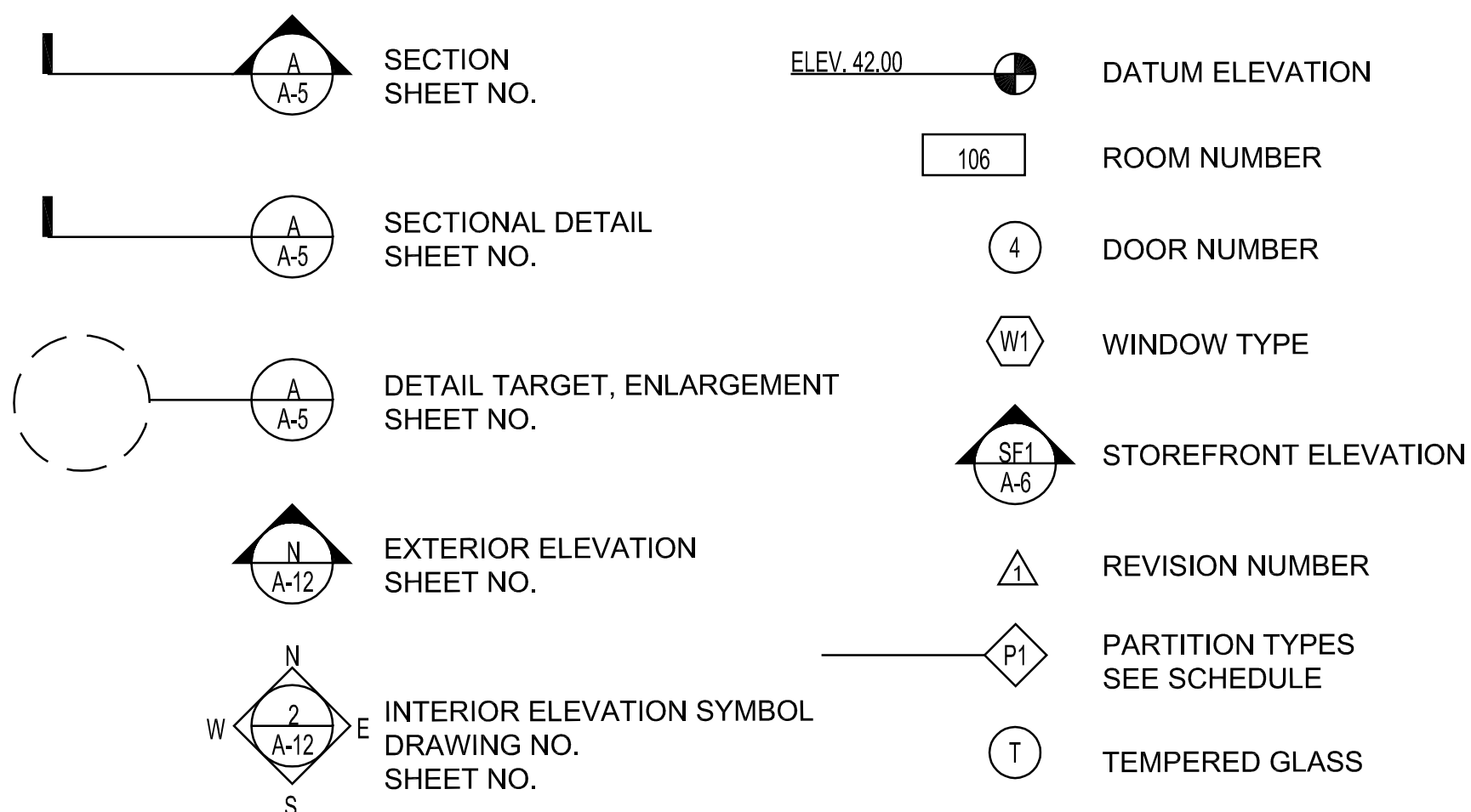
FLOOR AREA RATIO: INCLUDES 1ST & SECOND FLOORS AND ALL AREA IN ATTIC WITH AT LEAST 5' OF CLEAR HEAD HEIGHT

LOT AREA = 10,000 SF x 0.5 = 5,000.0 SF MAX FAR
EXISTING FAR = 4,496.8 SF MAIN HOUSE + 119.2 SF EXG. GARAGE
ADDITION FAR = 22.7 SF
TOTAL = 4,638.7 SF / 10,000 SF = 0.46 (MAX ALLOWABLE = 0.5)

LOT COVERAGE: INCLUDES ALL BUILDINGS, ACCESSORY BUILDINGS & RAISED STRUCTURES SUCH AS COVERED AND UNCOVERED PORCHES, BALCONIES AND DECKS, COVERED AND UNCOVERED STEPS, STAIRWAYS AND STOOPS, AND BAY AND BOW WINDOWS.

LOT AREA = 10,000 SF x .35 = 3,500.0 SF MAX LOT COVERAGE
EXG. LOT COVERAGE = 2,769.4 SF MAIN HOUSE + 359.2 SF GARAGE
ADDITION LOT COVERAGE = 70.5 SF MAIN HOUSE
TOTAL = 3,199.1 SF / 10,000 SF = 31.99% (MAX ALLOWABLE=35%)

GRAPHIC SYMBOLS



LIST OF DRAWINGS

001 COVER SHEET	S001 STRUCTURAL NOTES
002 SPECIFICATIONS	S100 FOUNDATION PLAN
003 DOOR & WINDOW SCHEDULES	S101 FIRST FLOOR FRAMING
004 SITE PLAN	S102 SECOND FLOOR FRAMING
	S103 ROOF FRAMING
EC001 THERMAL ENVELOPE DIAGRAMS	S200 STRUCTURAL DETAILS
EC002 RESCHECK-WEB COMPLIANCE REPORT	S201 STRUCTURAL DETAILS
	S300 WALL BRACING PLANS
	S301 WALL BRACING DETAILS
D001 DEMOLITION PLANS	
A100 LOWER LEVEL PLAN	
A101 FIRST FLOOR PLAN	
A102 SECOND FLOOR PLAN	
A103 ROOF PLAN	
A200 FRONT ELEVATIONS	
A201 RIGHT SIDE ELEVATIONS	
A202 REAR ELEVATIONS	
A203 LEFT SIDE ELEVATIONS	
A300 BUILDING SECTIONS	
A301 DETAILS	

CALCULATIONS

	EXISTING	PROVIDED	ALLOWED
EXISTING LIVING SPACE			
BASEMENT:	1,867.1 S.F.		
FIRST FLOOR:	2,373.2 S.F.		
FRONT PORCH/STOOP:	361.6 S.F.		
SECOND FLOOR:	1,728.5 S.F.		
INTERIOR BALCONY:	56.6 S.F.		
TOTAL	6,387.0 S.F.		
	50% = 3,193.5 SF		
EXISTING FLOOR AREA TO BE DEMOLISHED			
BASEMENT:	16.8 S.F.		
SECOND FLOOR:	56.6 S.F.		
TOTAL	56.6 S.F.		
PROPOSED ADDITION			
BASEMENT:	741.0 S.F.		
SECOND FLOOR:	157.2 S.F.		
TOTAL	898.2 S.F.		

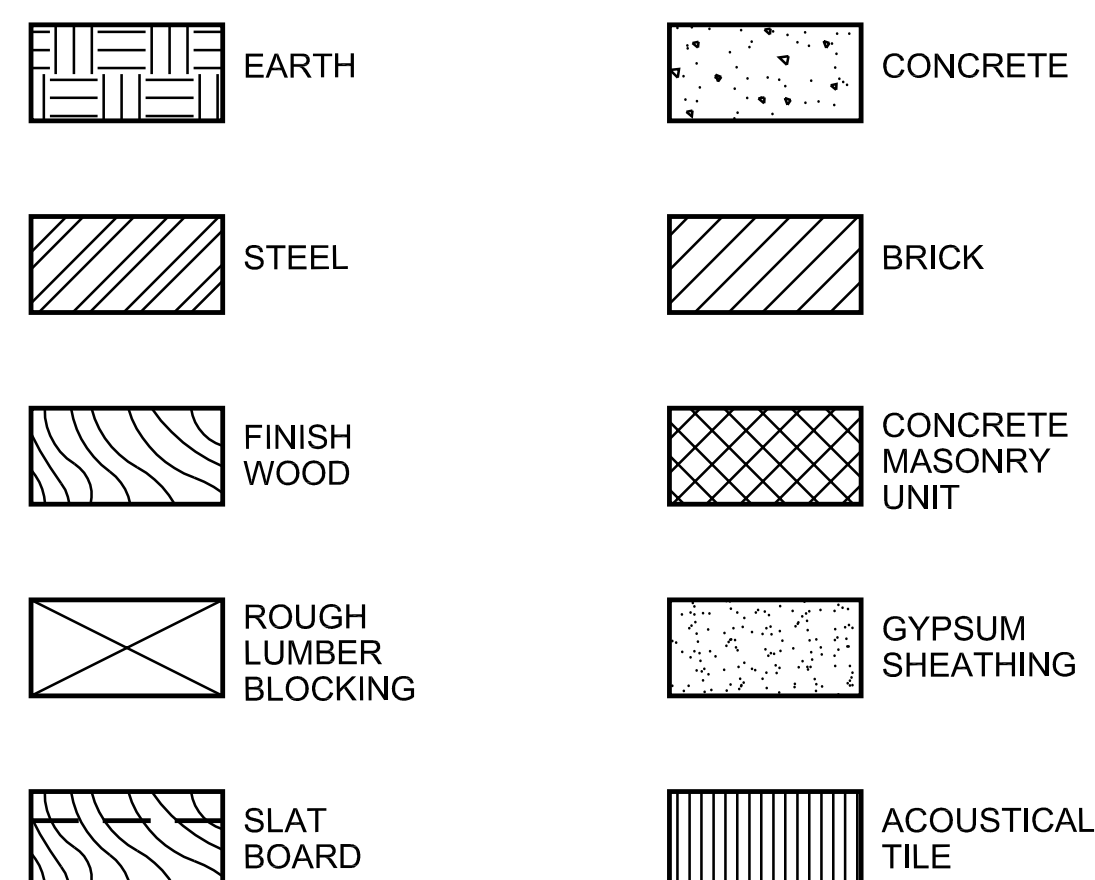
PROPOSED WORK DOES NOT INCREASE EXISTING BUILDING HEIGHT

PROJECT ADDS 52 SF OF NEW ROOF, DISTURBS 2,725 SQ. FT. AND INVOLVES 92.8 CU-YDS OF EARTH MOVEMENT
ONLY BUILDING PERMIT SITE PLAN IS REQUIRED

EXISTING FLOOR AREA TO BE DEMOLISHED IS LESS THAN 50% OF THE TOTAL GROSS FLOOR AREA OF THE HOUSE DOES NOT NEED TO BE SPRINKLERED
SEE CALCULATIONS ON DEMO SHEET D100

LOT AREA = 10,000 SF x .35 = 3,500.0 SF MAX LOT COVERAGE
EXG. LOT COVERAGE = 2,735.4 SF MAIN HOUSE + 359.2 SF GARAGE
ADDITION LOT COVERAGE = 52.1 SF MAIN HOUSE
TOTAL = 3,146.7 SF / 10,000 SF = 31.47% (MAX ALLOWABLE=35%)

MATERIAL SYMBOLS



ABBREVIATIONS

ABOVE FINISH FLOOR	AFF	EACH	EA	INTERIOR	INT	PLATE	PL	VERTICAL	VERT
ACOUSTIC	ACST	EAST	E	INTERIOR	INT	PLUMBING	PL	VESTIBULE	VEST
ADJUSTABLE	ADJ	ELECTRIC, ELECTRICAL	ELEC	JANITOR'S CLOSET	JC	PLYWOOD	PLYWD	VINYL COMPOSITE TILE	VCT
AIR CONDITIONING	A/C	ELEVATION	EL	JOINT	JT	POLYVINYL CHLORIDE	PVC	VOLTS	V
AIR HANDLING	AH	ELEVATOR	ELEV	JOIST	JST	POUND PER SQUARE INCH	PSI	WALLED WIRE FABRIC	WWF
AIR HANDLING UNIT	AHU	EMERGENCY POWER	EM	JUNCTION BOX	JB	PREFABRICATED	PREFAB	WIDTH	W
ALTERNATE	ALT	EMPTY CONDUIT	EC	LAMINATED	LAM	PREFINISHED	PREFIN	WINDOW	W
ALTERNATE CURRENT	AC	ENGINEER	ENGR	LAVATORY	LAV	PREFORMED	PREFM	WITH	W
ALUMINUM	AL	ELECTRIC WATER COOLER	EW	LEFT HAND	LH	QUARRY TILE	QT	WITHOUT	WO
AMPERES	AMP	EXISTING	EXM	LENGTH	L	RADIUS	RD	WOOD	WD
ANCHOR BOLT	AB	EXPANSION	EXP	LIBRARY	LIB	REFRIGERATOR	REF	YARD	YD
ARCHITECT	ARCH	EXPANSION JOINT	EXP-JT	LINEAR FEET	LF	REINFORCING	REINF		
AT	AT	EXTERIOR	EXT	LONG LEG HORIZONTAL	LLH	REQUIRED	REQD		
AVERAGE	AVG	FAHRENHEIT	F	LONG LEG VERTICAL	LLV	RESILIENT	RES		
BEAM	BM	FEET PER MINUTE	FPM	MAINTENANCE	MAINT	RETURN AIR	RA		
BOARD	BD	FEET, FOOT	FT	MANUFACTURER	MFR	REVISION	REV		
CABINET	CAB	FINISH	FIN	MASONRY	MAS	RIGHT HAND	RH		
CATALOG	CAT	FIRE EXTINGUISHER CAB.	FEC	MASONRY OPENING	MO	ROUGH OPENING	RO		
CEILING	CLG	FLOOR	FLR	MECHANICAL	MCH	SCHEDULE	SCHD		
CENTERLINE	CL	FLOUORESCENT	FL	MEDIA	MED	SECTION	SECT		
CERAMIC TILE	CT	FIRE RATED	FR	MEZZANINE	MEZZ	SERVICE SINK	SS		
CLOSET	CLO	GALVE	GA	MINIMUM	MIN	SIMILAR	SM		
COLUMN	COL	GALLON	GAL	MISCELLANEOUS	MISC	SOUND TRANSMISSION	STM		
COMPANY	CO	GALLONS PER MINUTE	GPM	MOUNTED	MTD	SPECIFICATION	SPEC		
CONCRETE	CONC	GALVANIZED	GALV	MULLION	MUL	SQUARE	SQ		
CONCRETE MASONRY UNITS	CMU	GENERAL CONTRACTOR	GC	NOT IN CONTRACT	NIC	STANDARD	STD		
CONFERENCE	CONF	GROUNDED FAULT INTERUPT.	GFI	NOT TO SCALE	NTS	STAINLESS STEEL	SS		
CONTINUOUS	CONT	GYPSUM	GYP	NUMBER	N	STATION	STA		
CONTROL JOINT	CJ	HANDICAPPED	HDCP	OFFICE	OFF	STATION	STL		
COORDINATE	COORD	HARDWARE	HW	ON CENTER	OC	STORAGE	STOR		
CORNER	CORR	HARDWOOD	HW	OPENING	OPNG	STRUCTURAL	STRUCT		
CUBIC FEET	CU-FEET	HERTZ	HZ	OPPOSITE	OPP	SUSPENDED CEILING	SUSP		
CUBIC FEET PER MINUTE	CFM	HOLLOW METAL	HM	OVERALL	OV	TELEPHONE	TEL		
DEDICATED	DED	HORIZONTAL	HRZ	OVERHEAD	OH	THICK OR THICKNESS	THK		
DEPARTMENT	DEPT	HORIZONTAL	HRZ	PAINTED	PTD	THRESHOLD	THRSLD		
DEPTH	DEPT	HORIZONTAL	HRZ	PANEL	PNL	TILE	T		
DETAIL	DET	HOUR	HR	PARTITION	PRTN	TO BE SELECTED	TBS		
DIAGONAL	DIA	HOUR	HR	PERPENDICULAR	PERP	TONGUE & GROOVE	T & G		
DIAMETER	DM	INCH	IN	PERSONAL COMPUTER	PC	TYPICAL	TYP		
DIMENSION	DM	INFORMATION	INFO	INSIDE DIAMETER	ID				
DISHWASHER	DW	INSULATED, INSULATION	INSUL	INSULATED, INSULATION	INSUL				
DOOR	DR								
DOW	DWN								
DRAWING	DWG								
DRINKING FOUNTAIN	DF								

PROJECT INFORMATION

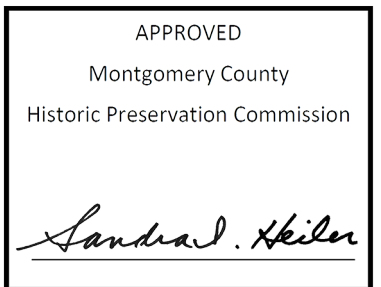
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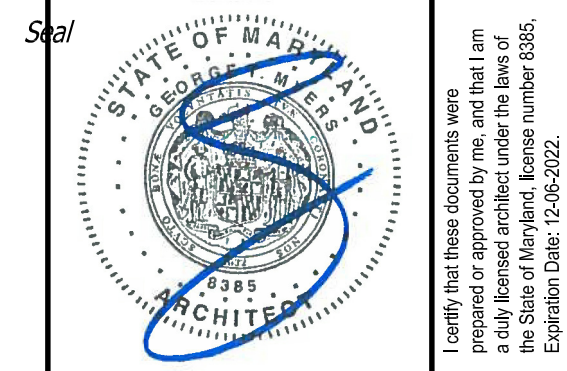
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olson@gtmarchitects.com

PLANS PREPARED BASED ON THE FOLLOWING CODES:
INTERNATIONAL RESIDENTIAL CODE 2018
MONTGOMERY COUNTY EXECUTIVE REGULATION 8-12
INTERNATIONAL ENERGY CONSERVATION CODE 2018
INTERNATIONAL EXISTING BUILDING CODE 2018
MARYLAND BUILDING REHABILITATION CODE COMAR 05.16.01



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5 GRAFTON ST

5 GRAFTON ST., CHEVY CHASE, MD 20815

Owner

Developer

PERMIT SET	2020-12-11
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<i>Issue Description</i>	<i>Date</i>
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GTM Project No.	20.0233
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Checked By	GTM
Drawn By	LEO/SGC
Scale	AS NOTED

Sheet Title

SPECIFICATIONS

Sheet No.

002

FILE NAME:

SPECIFICATIONS FOR RESIDENTIAL CONSTRUCTION

The purpose of the following specifications is to establish the level of quality required for both materials and workmanship. These notes are intended as a general outline; specific and additional requirements are indicated on the drawings. The contractor should also note that not all of the items mentioned below may apply to the project.

GENERAL REQUIREMENTS

- All work shall conform to the International Residential Code (IRC), 2018 edition and all applicable sections of the Montgomery County code for single family construction and applicable building codes including (but not limited to) IECC 2018.
- The General Contractor shall stake out area of new construction and designate trees and shrubs for removal as required. Protect all landscaping beyond the areas of construction.
- The General Contractor shall coordinate phasing and time limits for new construction with the Owner, so as to establish an acceptable payment schedule related to the status of the project.
- Any permits required for the project shall be obtained by the General Contractor, unless informed otherwise by the Architect that the permit has been obtained.
- The General Contractor shall store materials and equipment in a safe and suitable place during the construction process. The Owner is not responsible for any losses of material.
- All debris shall be periodically removed from the site so as to not create a physical or visual hazard to the Owner.
- The General Contractor shall be licensed in Montgomery County, Maryland, and shall guarantee the project labor and materials for a period of one year after the Architect determines the work to be substantially complete, as per county laws.
- The General Contractor shall provide competent daily supervision of the project.
- The General Contractor shall notify the related authorities for inspection of the work as related to the specific areas required by the county.
- The General Contractor shall Carry Workmen's Compensation Insurance for every person employed by him on the premises and shall maintain such insurance in full force during the entire time of this contract. The General Contractor shall carry Comprehensive General and Automobile Liability Insurance of \$25,000 to \$50,000 minimum. These requirements can be amended by the Owner if specified by the contract.
- All drawings, specifications, and copies furnished by the Architect are the documents for the construction of this project only and shall not be used in any other circumstance.
- The General Contractor shall carefully study the contract documents and report to the Architect any error, omission, or inconsistency they may discover.
- The General Contractor shall provide and pay for all labor, materials, equipment, tools, machinery and other facilities and services necessary for proper execution and completion of the work, and shall guarantee no mechanic liens against the project at completion.
- The Contract Sum is stated in the agreement and is the total amount payable by the Owner, which designates the addition, deletion, or revision to the contract. The Change Order must also designate the change in the original contract sum.
- At least seven days before the date of each progress payment established by the agreement, the General Contractor shall submit to the Architect and Owner an itemized application designating which portion of the work has been completed.
- The Contractor shall verify dimensions prior to construction, and all discrepancies shall be brought to the attention of the Architect so that clarifications can be made. The Contractor shall field verify all dimensions related to existing conditions. Written dimensions take precedence over scaled sizes. Do not scale drawings to determine missing dimensions.
- The Contractor shall be responsible to have new utility line services (gas, electric, telephone) installed to the house connection/meter location.

DEMOLITION NOTES

- Every care shall be taken during demolition to protect the house by means of temporary supports and braces as necessary to prevent any structural failure during removal and replacement of existing structural members.
- Temporary walls and dust barriers shall be installed as necessary to prevent circulation of dirt and dust into portions of the house that are not part of the work.
- All dashed walls, fixtures, windows, etc., are to be removed. See Demolition Sheets for additional information.
- Conduct all demolition operations in accordance with applicable codes and ordinances.
- Coordinate demolition with work of subcontractors.
- Maintain the existing structure in a water/tight condition at all times.
- Provide the necessary enclosures to allow the owner to maintain comfortable temperatures within the occupied portions of the home during construction.

GENERAL STRUCTURAL NOTES

- Work shall be done in accordance with the International Residential Code (IRC), 2018 Edition.
- The design gravity live loads are as follows:
Roof load (snow): 30 LL + 15 DL = 45 PSF
Living Spaces: (1st Floor) 40 LL + 15 DL = 55 PSF
Sleeping Spaces: (2nd Floor) 30 LL + 15 DL = 45 PSF
Exterior Decks: 60 LL + 15 DL = 75 PSF
Live Load Deflection Limitation for floors and stairs shall be L/360
Live Load Deflection Limitation for roofs shall be L/240

FOUNDATIONS

- The foundation for the structure has been designed for the assumed bearing pressure of 1,500 PSF. This is to be verified by the contractor prior to the footings being poured. It is also assumed that there is no water condition present.
- Basement walls have been designed for an assumed equivalent fluid pressure of 55 PSF.
- Excavations for spread footings and continuous footings shall be cleaned and hand tamped to a uniform surface.
- Slabs on grade shall be underlaid by a minimum of 4" of granular material having a maximum aggregate size of 1.5 inches and no more than 2% fines. Prior to placing the granular material, the floor subgrade shall be properly compacted, proofrolled, free of standing water, mud, and frozen soil. Before placement of concrete, a vapor barrier shall be placed on top of the granular fill.
- Bottoms of all exterior footings shall be 2'-0" minimum below finished grade. Footings shall project a minimum of 12" into undisturbed existing natural ground having allowable bearing capacity stated. Depths of footings subject to change if soil conditions are other than assumed.

ENERGY CONSERVATION

- The following provisions for thermal resistance meet or exceed the requirements stipulated by the 2018 International Energy Conservation Code (IECC), climate zone 4A. These values are the minimum acceptable. See drawings for specific values required for the project.
- Insulation

A. Ceiling (of uppermost story)	IECC or R-38 continuous
B. Vaulted Ceiling	R-49 w/lessor of 500 sf or 20% of total insulated ceiling area R-30 allowance
C. Frame walls (with storm window or double glazing)	R-20 or 13+5 (exterior)
D. Rim Joists	Equal to wall below
E. Floors over unheated spaces (including floor overhangs)	R-38
F. Masonry walls (enclosed heated living areas)	R-13 or R-10 continuous
G. Slab on grade (heated space)	R-10
H. Windows	U-0.32 SHGC-0.40
I. Doors	See section R402.3.4
- Air Infiltration

A. Provide 1/2" x 5.5" compressible sill sealer between foundation wall and all sill plates.
B. Windows: Not exceeding three tenths (0.3) CFM of sash crack
C. Sliding glass doors: not exceeding three tenths (0.3) CFM per square foot of door area
D. Swinging doors: Not exceeding five tenths (0.5) CFM per square foot of door area. Provide 1" compressible sill sealer between foundation wall and all sill plates.
E. Building thermal envelopes shall be tested per IECC R402.4.1.2 and verified as having air leakage not to exceed 3 air changes per hour.
F. Recessed lighting in the thermal envelope shall comply with IECC R402.4.5
G. Systems duct and piping installation shall comply with IECC R403 including Whole-House Mechanical Ventilation system installation.

TERMITE CONTROL SOIL TREATMENT

- Treat soil with Bayer Corporation, Premise 75, in strict accordance with manufacturer's recommendations.
- Remove all extraneous sources of wood cellulose and other edible materials such as wood debris, tree stumps and roots, stakes, formwork, and construction waste wood from soil within and around foundations. Loose, rack, and level soil to be treated except previously compacted areas under slabs and footings.
 - Slabs-on-Grade and Basement Slabs: Under ground-supported slab construction, including footings, building, slabs, and attached slabs as an overall treatment. Treat soil materials before concrete footings and slabs are placed.
 - Foundations: Adjacent soil including soil along the entire inside perimeter of foundation walls, along both sides of interior partition walls, around plumbing pipes and electric conduit penetrating the slab, and around interior column footers, piers, and chimney bases; also along the entire outside perimeter, from grade to bottom of footing. Avoid soil washout around footings.
 - Crawlspace: Soil under and adjacent to foundations as previously indicated. Treat adjacent areas including around entrance platform, porches, and equipment bases. Apply overall treatment only where attached concrete platform and porches are on fill or ground. Crawlspace used as plenum spaces strictly follow manufacturer's recommendations.
 - Along driplines of roof overhangs without gutters.

- | | |
|----|---|
| E. | Where condensate lines from mechanical equipment drip or drain to soil. |
| F. | At plumbing penetrations through ground-supported slabs. |
| G. | Other sites and locations as determined by licensed installer. |

WARRANTY

Special Warranty: Manufacturer's standard form, signed by Applicator and Contractor certifying that termite control work, consisting of applied termiticide treatment, will prevent infestation of subterranean termites. If subterranean termite activity or damage is discovered during warranty period of five (5) years from Substantial Completion, re-treat soil and repair or replace damage caused by termite infestation.

CONCRETE

- All concrete construction shall conform to the latest A.C.I. code 332.
- Concrete shall have natural sand fine aggregates and normal weight coarse aggregates conforming to ASTM C33, Type 1 Portland Cement conforming to ASTM 150, and shall have a minimum 28-day compressive strength (F'c) as follows:
 - F'c = 2,500 PSI for footings, interior slabs on grade (except garages) and fill in concrete blocks
 - F'c = 3,000 PSI for foundation walls exposed to weather.
 - F'c = 3,500 PSI for drives, porches, walks, steps, and garage slabs.
 - F'c = 4,000 PSI for precast concrete units.
- All poured in place concrete exposed to weather conditions, including the garage floor, shall be air entrained by 6% of concrete volume. No calcium chloride or other admixtures shall be used except as approved in writing by the Owner.
- Slabs on grade: except where otherwise noted, shall be min. 4" thick, reinforced with 6x6 W1.4xW1.4 WWF Lap mesh 6" in each direction. Slab shall be placed on a layer of 6 mil polyethylene over a 4" layer of washed gravel. Refer to drawings for location of thermal insulation.
- Concrete finish: Exposed exterior steps, slogs and slabs shall first have a steel trowel finish and then a very light broom finish. Exposed interior and garage shall receive a silt polyureth finish.
- Expansion joints: Non-organic, Owner approved, expansion joint material shall be cast in place where slabs abut masonry or concrete walls to prevent bonding between the two materials.
- Curing: Exposed concrete surfaces shall be sealed with an approved chemical curing compound within one hour of the final troweling. Curing compound label shall state that its use will not interfere with adhesion of subsequent floor finishes.
- Reinforcing steel: Reinforcing steel for ties shall be intermediate grade deformed lath steel conforming to ASTM spec. A615-40. All other reinforcing steel shall conform to ASTM spec. A615-60. Welded wire fabric to conform to ASTM A-185. Fabric shall be supplied in flat sheets and lapped to mesh at splices. All reinforcing shall be detailed, fabricated and installed in accordance with the latest detailing manual A.C.I. 315.
- Reinforcement designated as "continuous" shall lap 36 bar diameters at splices unless noted otherwise.
- Horizontal footing and walls: reinforcement shall be continuous and shall have 90 degree bends and extensions, or corner bars of equivalent size lapped 36 bar diameters, at corners and intersections.

- Footings:
 - Bottom of footings shall extend a minimum of 2'-6" below any surface subject to freezing; footings shall extend at least 12" into undisturbed soil or set on controlled compacted fill. Depth of footing subject to change if soil conditions are other than assumed. Bearing value of soil is assumed to be 1,500 PSF with no water condition present. Minimum bearing value of controlled fill shall be certified by a licensed geotechnical engineer.
- Anchor bolts: set anchor bolts or approved straps as shown. Bolts for wood sill plates shall be 1/2" in diameter and project 8" into concrete; set straps or bolts 12" max from end of any plate and 6'-0" max O.C. spacing, unless shown otherwise.

MASONRY

- Brick shall conform to ASTM C-62. Mortar shall conform to federal specifications SS-C-18IE-type II. Lay brick which will outside temperature is 45° F and rising. Protect all work from cold and frost and ensure that mortar will cure without freezing. Calcium chloride and antifreeze admixture will not be acceptable.
- Bearing steel and wood beams shall be supported on solid masonry piers as indicated. Other structural members (lintels, etc.) shall be supported on 8" of solid masonry. All beams and lintels shall have minimum horizontal bearing of 4".
- Anchor bolts: Set anchor bolts or approved anchor straps as required. Bolts for wood sill plates shall be 1/2" diameter and project 16" into masonry. Set bolts or straps 12" max. from end of any plate.
- CMU walls shall have horizontal wire joints reinforcement at 16" O.C. vertically, or as indicated.
- Provide 4" solid masonry on all sides of joists or beams entering masonry party walls.
- Brick Veneer:
 - Secure brick veneer with 16 GA hot-dipped zinc coated wall ties at 16" O.C. horizontally and vertically.
 - Provide flashing at first course above grade, at lintels, sills and elsewhere as shown. Provide 3/8" diameter tube weeps or cellular plastic head joint-type weeps at 24" O.C.
 - Provide through-wall flashing above all unsheltered openings. Flashing shall be end-dammed at all terminations.
 - Install high-density polyethylene or polyester cavity drainage material, equal to "mortar net," above all flashing. Material shall be sized to fill the width of the cavity.
- Stone Veneer:
 - Vapor permeable weather-resistant barriers: two-ply asphalt saturated Kraft Grade D breather type sheathing paper.
 - Basis of design is Fortifiber® / two-ply super jumbo tex® 60 minute
 - Reference standard; federal specification W-B-790A, Type I, Grade D, Style 2
 - Moisture vapor transmission: 35 grams minimum; ASTM E 96
 - Water resistance: 150 minutes (Professional), ASTM D 779
 - C.M.U.'s to have water repellent block admixture; Dry-Block® by W.R. Grace recommended.
 - Exterior mortar to have water repellent admixture.
 - Unless noted otherwise, tool all joints concave.
 - Fully bed in mortar face shells and webs of first course of CMU.
 - All masonry joints shall be fully filled with mortar, including head joints.

STEEL

- Structural steel shall conform to ASTM A36
- Steel beams shall conform to ASTM A72 Grade 50.
- All steel angles, lintels, beams, columns, etc. are to be shop primed with red lead or red oxide primer or approved equal. Structural steel at or below grade shall be painted with two coats on an asphaltic base paint and protected with a minimum of 2" solid masonry or concrete.
- For all openings or recesses in brick or brick-faced masonry walls not specifically detailed, provide one steel angle for each 4" of wall thickness. Provide lintels according to the schedule below:

Lintel	Masonry Opening Up to 3'-0"	Min. Bearing 4"
L-3-1/2 X 3-1/2 X 1/4	3'-1" to 4'-0"	6"
L-3-1/2 X 3-1/2 X 5/16	3'-1" to 6'-0"	6"
L-4 X 3-1/2 X 1/4	4'-1" to 5'-0"	6"
L-4 X 3-1/2 X 5/16	5'-1" to 6'-0"	6"
L-5 X 3-1/2 X 5/16	6'-1" to 7'-0"	8"
L-6 X 4 X 3/8	7'-1" to 8'-0"	8"

Note: For openings greater than 8'-0", consult with Architect and Engineer.

WOOD & CARPENTRY

- Unless otherwise noted on drawings, all structural wood members shall be #2 Southern Pine or equal, with the following combination of unit stresses:

Extreme fiber stress in bending	1,200 PSI
Compression parallel to the grain	1,000 PSI
Compression perpendicular to the grain	565 PSI
Modulus of Elasticity Shear Stress	1,500,000 PSI
- Manufactured joists and trusses (if shown on drawings) must be designed and certified by a licensed engineer and submitted to the Architect and local building department for approval.
- Roof rafters and/or trusses shall be connected at each bearing point with one prelab-90 PSI galvanized rafter tie (hurricane clip) by Simpson or approved equal. Similarly, floor joists and trusses shall be connected with one prefabricated joint hanger. Each anchor shall be 18 GA minimum thick.
- Provide double joists under all parallel partitions, at joists that support headers, and at headers that support joists. Use joist hangers where applicable.
- All joists and rafters shall be rigidly braced at intervals not exceeding 8'-0".
- Double studs at header bearing, double joists and rafters at all openings according to schedule below (unless noted otherwise on drawings):
Double 2 x 4 Up to 3'-0"
Double 2 x 6 Up to 4'-0"
Double 2 x 8 Up to 5'-0"
Double 2 x 10 Up to 7'-0"
Double 2 x 12 Up to 8'-0"
All double headers and joists shall be joined with a minimum of two rows of 16 d nails 12" on center.
- Provide blocking, banding, crush blocks, stiffeners, or rim joists, as required, at joint ends.
- Floor joists shall have a minimum bearing of 2" on framed walls. All beams shall have minimum bearing of 4" bearing on all supports. Provide moisture protection to end of beams pocketed into masonry walls.
- Wood joists, studs, and beams shall not be cut or notched unless authorized by the Architect. Drilled holes shall be centered at mid-depth of the member and the hole diameter shall not exceed 1/3 the actual depth of the member. No holes shall be drilled within 2' from the ends or within the middle 1/2 of the span. Provide 4" clear between holes.
- Existing conditions shall be verified by the Contractor. Any existing damaged wood members shall be identified and replaced by the Contractor.

- Contractor shall be responsible for providing necessary bracing and shoring of existing members and walls while altering the structure.
- Provide 2x4 intermediate blocking at all bearing and non-bearing partitions.
- All plywood shall be APA span rated. Use exterior grade plywood wherever edge of face will be exposed to weather. Interior plywood exposed to weather during construction shall be Exposure 1 min.
 - Exterior wall sheathing shall be 1/2" plywood unless noted otherwise.
 - Subflooring shall be 3/4" tongue and groove plywood, glued and screwed to the floor joists as per APA recommendations.
 - Where spacing of roof structure members is 16" O.C., roof sheathing shall be 1/2" plywood (3/4" where roofing is slate or tile). Where spacing of roof structure members is 24" O.C., roof sheathing shall be 3/8" plywood (3/4" where roofing is slate or tile). Provide "H" clips at butt joints of roof sheathing.
- MICRO-LAM L.V.L. (laminated veneer lumber) beams shall be manufactured by Trus Joist MacMillan or approved equal. Beams shall be installed according to manufacturer's recommendations. When fastening two or more beams together, provide a minimum of two rows of 16 d nails 12" on center.
- TJI Floor Joists are to be manufactured by Trus Joist MacMillan or approved equal. Install per manufacturer's recommendations.
- The following wood elements are to be pressure treated with preservative, bearing the AWWA standards use category label UC3B or UC4B (for ground contact):
 - Sill plates resting on concrete or masonry walls.
 - Sill plates resting on concrete slabs on grade.
 - Joists which enter concrete or masonry walls and have less than 1/2" clearance on tops, sides, and ends.
 - Sleepers resting directly on concrete slabs.
 - Exterior porch and deck framing, decking, and stairs.
- Fasteners, hangers, and metal accessories used in pressure treated wood construction shall be type 304 or 316 stainless steel. Treated lumber shall not be placed in contact with aluminum flashing or other aluminum components.
- Exterior Wood Trim:
 - All exterior wood trim shall be clear pine or redwood.
 - All trim shall be primed on both sides prior to installation.
 - All outside corners shall be mitered. No butt joints will be accepted
- Exterior Synthetic Trim shall be "AZEK" with traditional smooth surface. Fasteners, joint cement, and installation procedures shall be in accordance with manufacturer's recommendations.
- Sliding: Refer to drawings for type specified.
 - Cement board shall be non-asbestos fiber-cement material complying with ASTM Standard Specification C1186 Grade II, Type A. Materials shall be equal to those manufactured by James Hardie Building Products.
 - Wood siding and siding Shingles shall be kiln dried Western Red Cedar. "Clear V.G. Heart" grade for clear and transparent stain finishes, and "A Clear" grade for semi-transparent stain or opaque finishes. Semi-transparent stain or opaque finish shall be applied in strict accordance to manufacturer's recommendations; including, but not limited to, substrate preparation and primer/sealer application to all wood surfaces (8-sides). Fasteners shall generally be type 304 stainless steel, but shall be type 316 for coastal applications. Install wood siding and shingle products over "Cedar Breather" by Benjamin Obdyke Inc. and 30# felts in accordance with manufacturer's instructions.
- Coordinate all floor and wall framing with ductwork. Refer to mechanical notes.
- Folding Attic Access Ladder shall be 22 1/2" x 44" with self-trimming flange, pre-finished door panel, and gas-piston counterbalance. The door panel shall have continuous integral weatherstripping, R-10 insulation, and two key operated locking pins to draw the door tight. Ladder steps shall be pine, dovetailed to pine stringers. Contact Radian Conservation Technology at 410-366-1146. Additional insulation hood shall be provided to meet required insulation value per IECC R402.2.4.

RADON DETECTION AND TREATMENT

- The Contractor shall provide a venting system consisting of a minimum of 3" diameter ABS, PVC or equivalent gas-tight plumbing pipe inserted into the sub-slab gravel base (at all new concrete slabs), A "T" fitting or equivalent method shall be used to ensure that the pipe opening remains within the sub-slab permeable material. The pipe shall terminate at least 12" above the high side of the roof penetration. Contractor shall coordinate location of pipe with Architect prior to installing the pipe.
- Install, per IRC, 2018 edition, Appendix F Radon Control Methods.
- The Contractor shall provide any other measures as required by local codes.

VENTILATION

- Where attics are indicated to be ventilated, they are to be vented in one of the following ways (refer to drawings for specifics):
 - Continuous ridge venting and continuous soffit venting. Ridge vent shall be by Cox-A-Vent or approved equal. Continuous soffit vents shall be a minimum of 2" wide. Circular louver vents between each rafter may be used at the soffit if shown on the drawings.
 - Screen louvers or vents with an open area equal to one square foot for every 300 square feet of attic space.
- Provide foundation vents for all crawl spaces. Refer to drawings for locations.
- Venting for appliances and exhaust fans:
 - Provide venting to the exterior as per manufacturer's recommendations for all appliances. Location of ductwork and vent on exterior shall be approved by Architect prior to installation.
 - Provide exhaust fans for bathrooms, etc., as shown on drawings. Location of ductwork and vent on exterior shall be approved by Architect prior to installation. Ducts within unconditioned spaces shall be insulated to prevent condensation.
 - Provide Whole-House ventilation system to comply with IECC R403.4

MOISTURE PROTECTION

- Aggregate sealants shall be selected for each substrate depending upon location (interior or exterior), humidity, moisture conditions, and traffic conditions. Use primers as required.
- Color of caulking shall be coordinated with adjacent materials and must be approved by Architect prior to application.
- Joint fillers shall be used:
 - To control the depth of sealants in joints.
 - To meet the requirements for resilient separations in horizontal joints in floor, pavements, patios, sidewalks, and other light traffic areas.
- Bond breakers shall be used to prevent adhesion to more than two surfaces.
- Masonry foundations shall be parged to a thickness of 1/2" minimum.
- Waterproof all below grade foundation walls with a polymer-modified asphalt emulsion similar to CETCO "StrataSeal." Dry/cured membrane thickness shall be minimum 60 mil. Installation and substrate preparation shall be per manufacturer's recommendations. Reinforce corners and concrete cold joints by embedding fiberglass fabric around corners and across joints in accordance with manufacturer's recommendations. Install subsurface drainage composite similar to CETCO "Aquadrain 10X" over the cured membrane.
- Footing drains shall be min. 4" in diameter and installed on the exterior of all foundations.
- All flashing shall be installed according to the building code. An eave flashing strip of 40 mil. self-adhering rubberized asphalt sheet membrane shall be applied to extend from the edge of the roof to a point 24" min. inside the interior wall line of the structure, and at all valleys.
- All membrane roofing to be approved by Architect prior to installation.
- All roof shingles to be approved by Architect prior to installation.
- Asphalt shingle roofs with slopes from 2 in 12 to 4 in 12 shall have two layers of #15 roofing felt applied in accordance with with the International Residential Code.
- Flashing*
 - Through-wall and other concealed flashing shall be a composite of fiberglass fabric, 5 oz. copper and asphalt, equal to York Copper Fabric.
 - Exposed flashing shall be 16 oz. copper.
- Painted aluminum drip strips shall be installed at the eave and rake edges of the roof sheathing for shingle roofs, and above window and door trim where indicated.
- Exterior Insulation and Finish Systems (EIFS) shall be equal to Dyrvit, Residential MD System, with Dyrvit drainage mat installed between the secondary weather barrier and the insulation board.
- Cedar roof shingles shall be No. 1, Blue Label, red cedar. Install over "Cedar Breather" by Benjamin Obdyke Inc. and 30# felts in accordance with manufacturer's instructions.
- Standing seam roofing shall be 16 ounce copper with water-tight standing seams. For slopes greater than 3 in 12 provide #30 roofing felt underlayment on solid sheathing. For slopes 3 in 12 or less provide self-adhering 40 mil ice and water guard membrane over the entire area to receive standing seam roofing.

FINISHES

- Gypsum Wallboard:**
- Gypsum wallboard shall be ASTM C-36 as follows:
 - Regular (1/2") except where noted.
 - Water resistant (1/2"); at bathroom ceilings and walls that are not tiled.
 - Durock interior tile backer board (1/2"); at all surfaces that have tile.
 - Gypsum boards shall have tapered edges to accommodate joint reinforcement.
 - Provide edge corner beads, trim, taping, and joint compounds as required for the proper completion of the job. Materials shall be by U.S. Gypsum or approved equal.
 - Finishing requirements:
 - For typical walls and ceilings provide a Level 4 Finish as defined by the Gypsum Association.
 - For surfaces noted to receive semi-gloss or gloss paint provide a Level 5 Finish as defined by the Gypsum Association.
- Hardwood Flooring:**
- Unless noted otherwise, provide wood strip flooring where shown on the drawings.
 - Wood strip flooring to be oak. Where abutting existing floor, new floor shall match existing in size and grain. Elsewhere, oak shall be "clear"

- grade, in accordance with the national Oak Flooring Manufacturer's Association.
 - Install flooring in strict accordance with the recommendation of the National Oak Flooring Manufacturer's Association.
 - After the floors have been sanded, the flooring contractor shall apply a minimum of four stain and urethane samples in two foot by two foot areas on the floor for the owner to review. The owner shall have a minimum of two days to make a selection.
- Ceramic Tile:**
- Provide ceramic tile and accessories in accordance with the Tile Council of American Specifications 137.1, in colors and patterns to be specified by the owner.
 - Setting materials: comply with pertinent recommendations contained in the Tile Council of America "Handbook for Ceramic Tile Installation."
 - Installation: comply with ANSI A108.1, ANSI A108.2, and the "Handbook for Ceramic Tile Installation" of the Tile Council of America.
 - Extend tile into recesses and under equipment and fixtures to form a complete covering without interruptions.
 - Terminate tile neatly at obstruction, edges, and corners, without disruption of pattern or joint alignment.
 - Align joints when adjoining tiles on floor, base, trim, and walls are the same size.
 - Layout tile work and center the tile fields in both directions in each space or on each wall area.
 - Replacement reserve: Contractor shall furnish to the Owner one unopened box of additional tiles for future repairs and maintenance work.

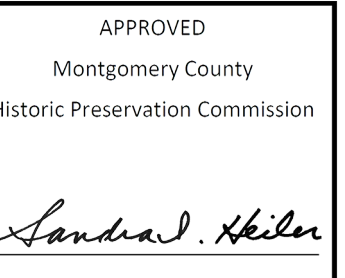
- Carpet:**
- Provide carpeting as indicated on the drawings. Refer to allowances on schedule sheet.
- Vinyl Tile:**
- Installation of all vinyl composition tile (VCT) shall be done in a manner which conforms with:
 - ASTM E 64,
 - ASTM E 64, AND
 - ASTM E 662.
- Paint:**
- Replacement reserve: Contractor shall furnish Owner with one unopened box of additional tile for future repairs and maintenance.
 - All paint and primers to be Benjamin Moore or approved equal. Refer to schedule for colors and types.
 - All surfaces to be painted shall receive one primer coat and two finish coats.
 - All paint shall be applied according to manufacturer's recommendations.
- Architectural Woodwork and Trim:**
- All millwork trim and molding shall be installed according to the quality of standards of the Architectural Woodwork Institute (AWI).
 - All interior trim and millwork shall conform to AWI "custom standards."
 - Flat trim shall be clear pine or approved equal.
 - All corners of trim and siding are to be mitred, except inside corners of interior running trim which shall be coped. Exposed end grains will not be accepted.
 - All millwork and trim shall be installed by craftsmen with experience in work of this type. All work shall be first class in every regard and consistent with the best practices of the trade.

FIRE AND LIFE SAFETY

- Stairs:
 - 7 1/2" max rise
 - 10" min tread
 - 6'-8" min head room
 - Height of handrails shall be continuous, 34" (min) to 38" (max) above finished stair treads. Handrails required at stairs with 3 or more risers.
 - Guardrails shall be 36" (min) to 42" (max) above finished floor.
- Provide a clear window opening of 5.7 square feet with no less than 20" clear wide and 24" clear high for sleeping area. The sill of this windows shall be no more than 44" above the finished floor.
- Provide safety glass in all exterior doors, storm doors, sliding glass doors, shower doors, and tub enclosures above and adjacent to spas and tubs and where the glass is closer than 18" to the floor and exceeds 9 square feet in area.
- Ground metal siding.
- Smoke detectors shall be provided on every floor, in each bedroom and in each hall outside of bedrooms, and integrated with the electrical system with battery backup.
- If a fuel-burning appliance, fireplace, or attached garage is present, an interconnected battery back up carbon monoxide alarm or detector must be installed outside all sleeping areas and on all floors. If fuel-burning appliance or fireplace is present in any sleeping area, an interconnected carbon monoxide alarm or detector must also be installed in that room as required per local jurisdiction.
- Flues shall be class B except solid fuel flues, which shall be class A.
- Top of flue shall be 2'-0" above any part of structure within 10'-0" of flue.
- Interior finish of walls and ceiling shall have a flame spread rating not greater than Class III.
- Carpeting shall meet federal specification DOC FF-1.
- Prefab fireplaces shall be (U.L.) rated and installed according to manufacturer's specifications.
- Provide outside air for combustion in all prefab and masonry fireplaces.

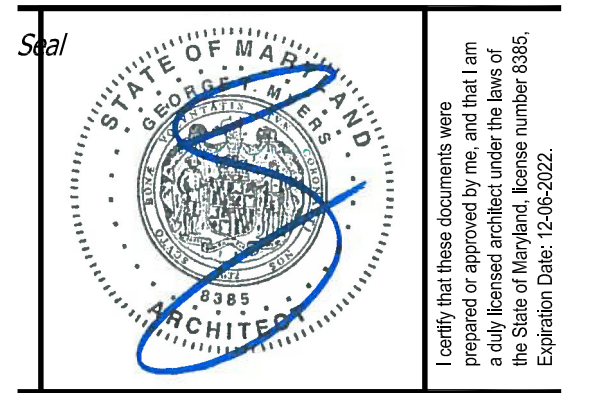
ELECTRICAL AND LIGHTING NOTES

- Electrical contractor shall size and arrange all circuits in accordance with the National Electric Code as well as all local codes. Service to be upgraded as required.
- Wall outlets are to be mounted 1'-6" above finished floor unless noted otherwise.
- Switches are to be mounted 4'-0" above finished floor unless noted otherwise.
- Mounting heights are to the vertical center of the equipment to the finished elevation of the floor.
- All new switch and outlet styles are to be approved by Owner prior to installation.
- Provide hardwired smoke detectors on all floors, located as per Montgomery County Code.
- Electrician shall locate all fixtures, switches, outlets, etc. prior to running wiring. Owner, Architect, and Electrician to meet at a mutually agreed upon time to review locations. The purpose of which is to allow for possible relocation prior to wiring.
- Owner is allowed to add an additional ten (10) items (switches, cable, phone, outlet



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Owner

Developer

PERMIT SET	2020-12-11
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Issue Description	Date
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GTM Project No.	20.0233
Checked By	GTM
Drawn By	LEO/SGC
Scale	AS NOTED

Sheet Title

DOOR & WINDOW SCHEDULES

Sheet No.

003

DOOR SCHEDULE
* BASED ON SIERRA-PACIFIC (W) ALUMINUM CLAD SWINGING PATIO DOORS & TRU-STILE SOLID CORE MDF INTERIOR DOORS. CONFIRM MANUFAC. & STYLE W/ OWNER. INTERIOR DOOR HEIGHTS ARE NOMINAL; UNLESS NOTED OTHERWISE, GC TO FIELD VERIFY INSTALL HEAD HEIGHT OF EXTERIOR DOORS AND WINDOWS AND SPECIFY HEIGHT OF INTERIOR DOORS TO MATCH EXG.

NO.	DOOR		FRAME				HARDWARE	REMARKS
	SIZE	MATERIAL	MANUF.	MAT.	FIN:	HEAD/JAMB/ SILL		
LOWER LEVEL								
1	2 ⁶ x 6 ⁸	MDF, PAINTED	TBD				H-5	
2	2 ⁶ x 6 ⁸	MDF, PAINTED	TBD				H-3	
3	2 ⁸ x 6 ⁸	MDF, PAINTED	TBD				H-4	
4	2 ⁸ x 6 ⁸	MDF, PAINTED	TBD				H-4	
5	2 ⁶ x 6 ⁸	MDF, PAINTED	TBD				H-3	
6	2 ⁴ x 6 ⁸	SAFETY GLASS	TBD				PER MANUF.	SHOWER DOOR
7	2 ⁶ x 6 ⁸	MDF, PAINTED	TBD				H-4	
8	3 ⁰ x 6 ⁸	MTL FRAME & GLASS	TBD				H-4	PROVIDE MATCHING FIXED PANELS FOR SIDELIGHTS IN ADJACENT WALL
9	3 ⁰ x 6 ⁸	MDF, PAINTED	TBD				H-4	

FIRST FLOOR								
10	2 ⁶ x 6 ⁸	MDF, PAINTED	TBD				H-5	
11	2 ⁴ x 6 ⁸	MDF, PAINTED	TBD				H-3	
12	1 ⁶ x 6 ⁸	MDF, PAINTED	TBD				H-5	
13	2 ⁸ x 6 ⁸	PTD. WOOD & GLASS	TBD				H-3	PROVIDE FLUSH FLOOR BOLT FOR PASSIVE PANEL
14	3 ⁰ x 8 ⁰	STD. WOOD & GLASS	TBD				H-1	
15	2 ⁸ x 6 ⁸	MDF, PAINTED	TBD				H-4	
16	2 ⁴ x 6 ⁸	MDF, PAINTED	TBD				H-4	

SECOND FLOOR								
17	2 ⁴ x 6 ⁸	MDF, PAINTED	TBD				H-3	
18	2 ⁶ x 6 ⁸	MDF, PAINTED	TBD				H-3	
19	2 ⁴ x 6 ⁸	SAFETY GLASS	TBD				PER MANUF.	SHOWER DOOR
20	2 ⁸ x 6 ⁸	MDF, PAINTED	TBD				H-3	
21	2 ⁶ x 6 ⁸	MDF, PAINTED	TBD				H-4	
22	2 ⁴ x 6 ⁸	MDF, PAINTED	TBD				H-4	
23	2 ⁴ x 6 ⁸	MDF, PAINTED	TBD				H-3	
24	2 ⁶ x 6 ⁸	MDF, PAINTED	TBD				H-3	
25	2 ⁰ x 6 ⁸	MDF, PAINTED	TBD				H-5	
26	2 ⁴ x 6 ⁸	MDF, PAINTED	TBD				H-3	
27	2 ⁴ x 6 ⁸	SAFETY GLASS	TBD				PER MANUF.	SHOWER DOOR

GENERAL DOOR NOTES:
1. INTERIOR DOORS TO BE SOLID-CORE.
2. HANDING PER PLANS.
3. DOOR STOPS PER OWNER.
4. CONFIRM HARDWARE SELECTION WITH OWNER PRIOR TO ORDERING.
5. DOORS W/ SIDELITES SHALL HAVE (2) 2x6 SPACERS BETWEEN, UNLESS SHOWN OTHERWISE.
6. PROVIDE SAFETY GLASS AT ALL EXTERIOR FRENCH DOORS, PER CODE.
7. PROVIDE CHARCOAL SCREENING @ SCREEN DOOR.

WINDOW SCHEDULE
* BASED ON SIERRA-PACIFIC (W) ALL-WOOD WINDOWS: CONFIRM W/ OWNER

#	TYPE	NO.	MANUF.	CAT. NO.	ROUGH OPNG.	GLASS	REMARKS	EGRESS
1	CASEMENT	1	SIERRA PACIFIC	C-CS-25X43	30 3/4" x 48 3/4"	INSULATED	SEE ELEVS. FOR GRILLE PATTERN	
2	DOUBLE HUNG	2	SIERRA PACIFIC	16 18 -1W	144 3/4" X 45 1/8"	INSULATED	SEE ELEVS. FOR GRILLE PATTERN	
3	CASEMENT	3	SIERRA PACIFIC	C-CS-25X55-2	60 3/4" x 60 3/4"	INSULATED	SEE ELEVS. FOR GRILLE PATTERN	WINDOW PAIR

GENERAL WINDOW NOTES:
1. ALL OPERABLE WINDOWS TO HAVE SCREENS (CONFIRM SCREEN FRAME COLOR W/ OWNER).
2. ALL WINDOWS TO BE PRE-PRIMED WOOD EXTERIOR, PRE-PRIMED INTERIOR.
3. CONFIRM HARDWARE FINISH W/ OWNER PRIOR TO ORDER.
4. ALL GLAZING TO BE DOUBLE PANELED, LOW E, CLEAR INSULATED.
5. CONFIRM OVERALL WINDOW SCHEDULE W/ ARCHITECT PRIOR TO ORDER.
6. ALL WINDOWS & GLASS DOORS TO BE SIMULATED DIVIDED LITE, 7/8" MUNTIN. SEE ELEVATIONS FOR MUNTIN CONFIGURATIONS.
7. CONFIRM JAMB LINER COLOR W/ OWNER.
8. GANGED WINDOWS SHALL HAVE (3) 2x SPACERS BETWEEN, UNLESS SHOWN OTHERWISE.
9. PROVIDE EGRESS HARDWARE IN EGRESS WINDOWS AS REQUIRED.
10. SEE ELEVATIONS FOR TYPICAL HEAD HEIGHTS ABOVE SUBFLOOR.
11. PROVIDE SAFETY GLASS AT ENTRIES, STAIRS, OVER BATHTUBS & ELSEWHERE AS REQUIRED BY CODE.
12. IN ACCORDANCE WITH IRC 2015, SECTION R312, ALL WINDOWS HAVING AN OPENING LESS THAN 24" ABOVE THE FLOOR AND THAT ARE LOCATED SUCH THAT THE DIMENSION FROM THE BOTTOM OF THE OPENING TO THE EXTERIOR SURFACE BELOW EXCEEDS 72", SHALL EITHER HAVE A STOP TO LIMIT THE OPENING TO LESS THAN 4" OR SHALL HAVE GUARDS INSTALLED THAT WOULD PREVENT THE PASSAGE OF A 4" SPHERE. IN THE CASE OF AN EGRESS WINDOW, THE GUARD MUST BE REMOVABLE WITHOUT SPECIAL KNOWLEDGE OR TOOLS. GUARD SHALL BE EQUAL TO THOSE MANUFACTURED BY THE GUARDIAN ANGEL CO.
13. CONTRACTOR TO CONFIRM ALL ROUGH OPENING DIMENSIONS W/ WINDOW MANUFAC. PRIOR TO FRAMING.

HARDWARE SCHEDULE (CONFIRM W/ OWNER PRIOR TO ORDERING)

NOTE: ALL HARDWARE TO BE SCHLAGE F-SERIES OR APPROVED EQUAL. (EXCEPT FRENCH DOORS, WHICH ARE TO HAVE STANDARD HARDWARE BY DOOR MANUF.)

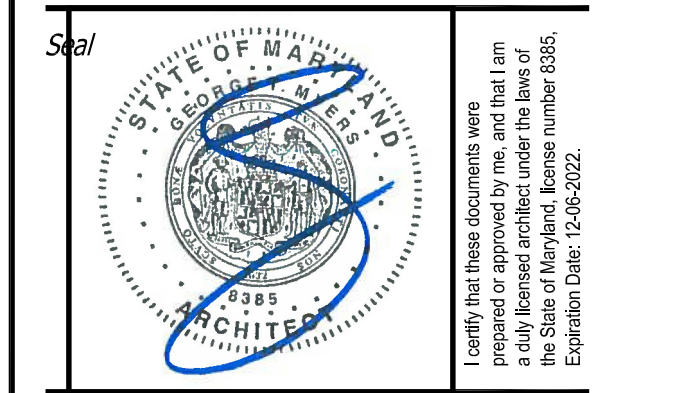
H-1	SINGLE-CYLINDER ENTRANCE LOCK + DEADBOLT W/ THUMBTURN		
H-2	STANDARD LOCKSET BY DOOR MANUF.; FINISH PER OWNER		
H-3	BATH/BEDROOM PRIVACY LOCK		
H-4	PASSAGE SET		
H-5	BALL CATCHES & DUMMY KNOBS		
H-6	POCKET DOOR HARDWARE		
H-7	BARN DOOR HARDWARE		

FILE NAME: A B C D



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Developer

PERMIT SET	2020-12-11
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Issue Description	Date
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GTM Project No.	20.0233
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Scale	AS NOTED

Sheet Title

LOWER LEVEL FLOOR PLAN

Sheet No.

A100

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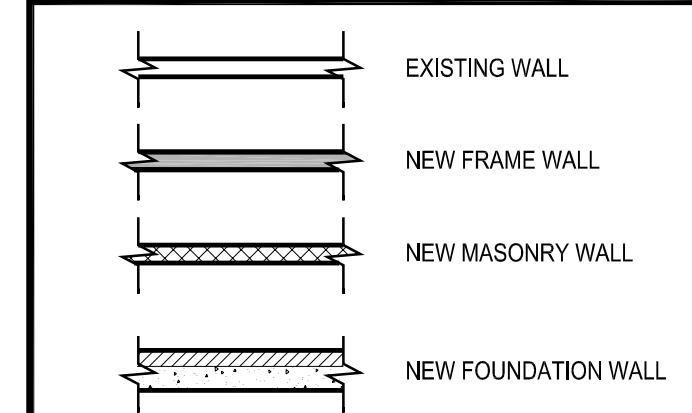
CONSTRUCTION NOTES

- C1 CASED OPENING; MATCH EXG. DOOR/WINDOW AND CASING HEAD HEIGHT
- C2 STAIRCASE & RAILING; PTD, RISERS & TREADS TO MATCH H.W.F., T.B.S., SEE DETAILS, FOLLOW IRC 2018 R311.7, RAILING T.B.S.
- C3 VANITY W/ SINK, FAUCET & COUNTERTOP; T.B.S.
- C4 PLUMBING FIXTURES, T.B.S. BY OWNER
- C5 CUSTOM BUILT-INS T.B.S. BY OWNER
- C6 HOT WATER HEATER T.B.S.
- C7 1-1/2" WD. ROD, PTD W/ 14" WD SHELF, PTD.
- C8 WD. STEPS; 1X RISERS W/ TREADS TO MATCH FLOORING.; SEE DETAILS, FOLLOW IRC 2018 FOR STAIR.
- C9 EXISTING ELECTRICAL PANEL(S); GC TO COORDINATE HEAVY-UP AS REQUIRED
- C10 EXG. DOOR/WINDOW TO REMAIN
- C11 EXG. MASONRY PIER TO REMAIN, SEE FOUNDATION PLAN
- C12 EXISTING FOUNDATION WALLS TO REMAIN, SEE FOUNDATION PLAN
- C13 NEW STEEL BEAM ABOVE, SEE FRAMING PLANS
- C14 NEW STEEL POST, SEE STRUCTURAL DRAWINGS
- C15 HVAC SYSTEM, T.B.S., COORDINATE LOCATION W/ MECHANICAL SUB
- C16 POURED CONC. FOUNDATION WALL @ NEW STEPS ABOVE, SEE FOUNDATION PLANS
- C17 CONFIRM EXISTING/PROVIDE NEW HARDWIRED SMOKE/CARBON MONOXIDE DETECTOR W/ BATTERY BACKUP PER IRC 2018
- C18 NEW TILED SHOWER W. TEMPERED GLASS ENCLOSURE & 4" CURB. PROVIDE MEMBRANE LINER & 1/2" DUROCK AROUND ALL SIDES.
- C19 EGRESS WINDOW; MAX. 44" SILL HEIGHT FROM A.F.F.
- C20 WINDOW WELL DRAIN; RUN TO DAYLIGHT OR SUMP PUMP
- C21 POURED CONC. EGRESS WINDOW WELL PER IRC 2018, PROVIDE SLOPED STONE CAP, SEE 2/A300 FOR ADDITIONAL INFO
- C22 EGRESS METAL LADDER PER 2018 IRC SECTION R310.2 AS REQUIRED
- C23 STONE VENEER TO MATCH EXG. SEE ELEVATIONS
- C24 MASONRY OPENING FOR PLUMBING, DUCTWORK, ETC. FIELD VERIFY HT.
- C25 DASHED LINE OF STEPS ABOVE
- C26 REINF. CONC. SLAB, SEE FOUNDATION PLAN
- C27 FURR OUT WALLS W/ FULL 2x4s W/ R-13 BATT INSULATION, TYP.; PROVIDE P/T SILL; HOLD 1/2" OFF MASONRY WALL
- C28 MARBLE THRESHOLD, SEE 5/A301
- C29 TURNDOWN SLAB, SEE FOUNDATION PLANS
- C30 SUMP PUMP W/ BATTERY BACKUP
- C31 FLOOR DRAIN; RUN TO FOUNDATION DRAINAGE SYSTEM
- C32 RADON MITIGATION PIPE VENT PER IRC 2018, RUN TO ROOF LOCATION T.B.D., SEE SPECIFICATION SHEET FOR DETAILS

NOTE:

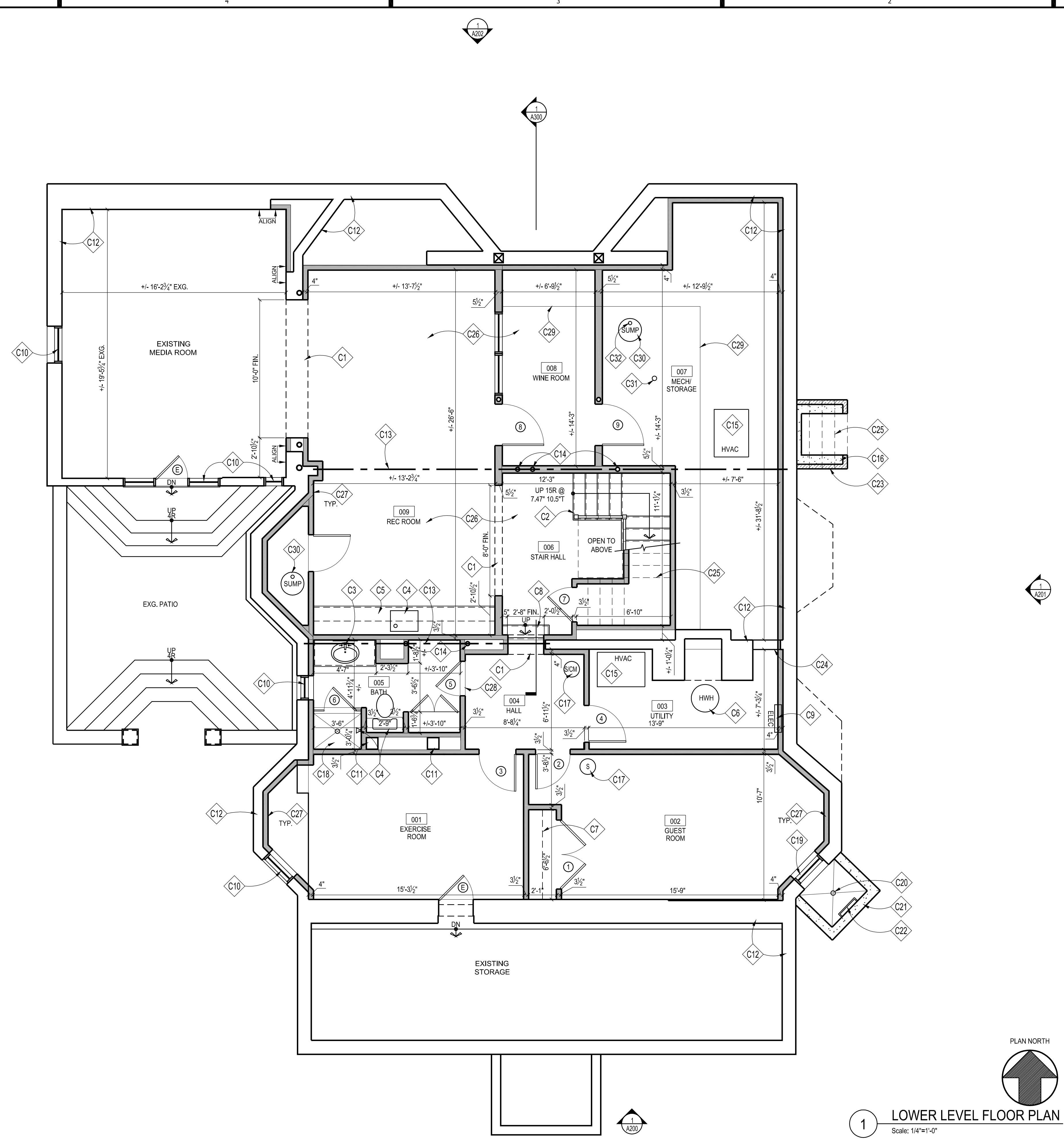
1. UNLESS INDICATED OTHERWISE, DIMENSIONS ARE TO FACE OF FRAMING
2. VERIFY ALL EXTERIOR RISER + TREAD DIMENSIONS IN THE FIELD
3. TONED WALLS INDICATE NEW 2x STUD WALLS, SEE PLAN
4. PROVIDE MINERAL WOOL SOUND INSULATION IN WALLS, CEILING, + FLOOR OF THE FOLLOWING ROOMS (FILL CAVITIES):
-003 UTILITY
-007 MECH STORAGE
-005 BATH
5. (T) = TEMPERED GLASS
6. SEE DETAILS 5 & 6/A300 FOR TYPICAL FRAMING DETAILS

KEY



WALL TYPES

TYPICAL NON-BEARING INTERIOR PARTITION: U.N.O. 2x4 WOOD STUDS 16" O.C. W/ 1/2" GYP. BD. EACH SIDE, INCREASE WALL THICKNESS AS SHOWN TO ALIGN FINISHES WHERE SHOWN



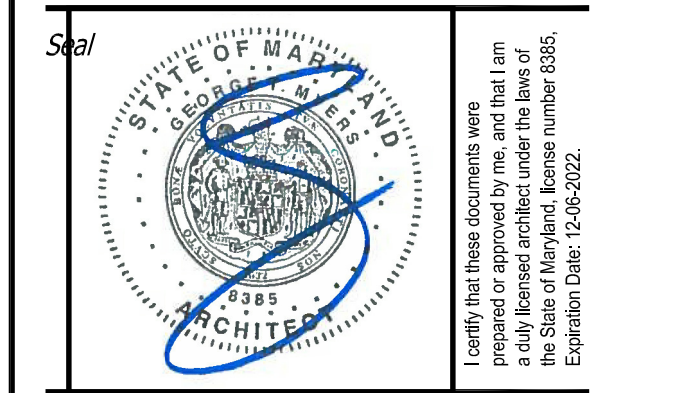
1 LOWER LEVEL FLOOR PLAN
Scale: 1/4"=1'-0"

FILE NAME: A200



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Developer

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GTM Project No.	20.0233
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Scale	AS NOTED

Sheet Title
ROOF PLAN

Sheet No.
A103

CONSTRUCTION NOTES

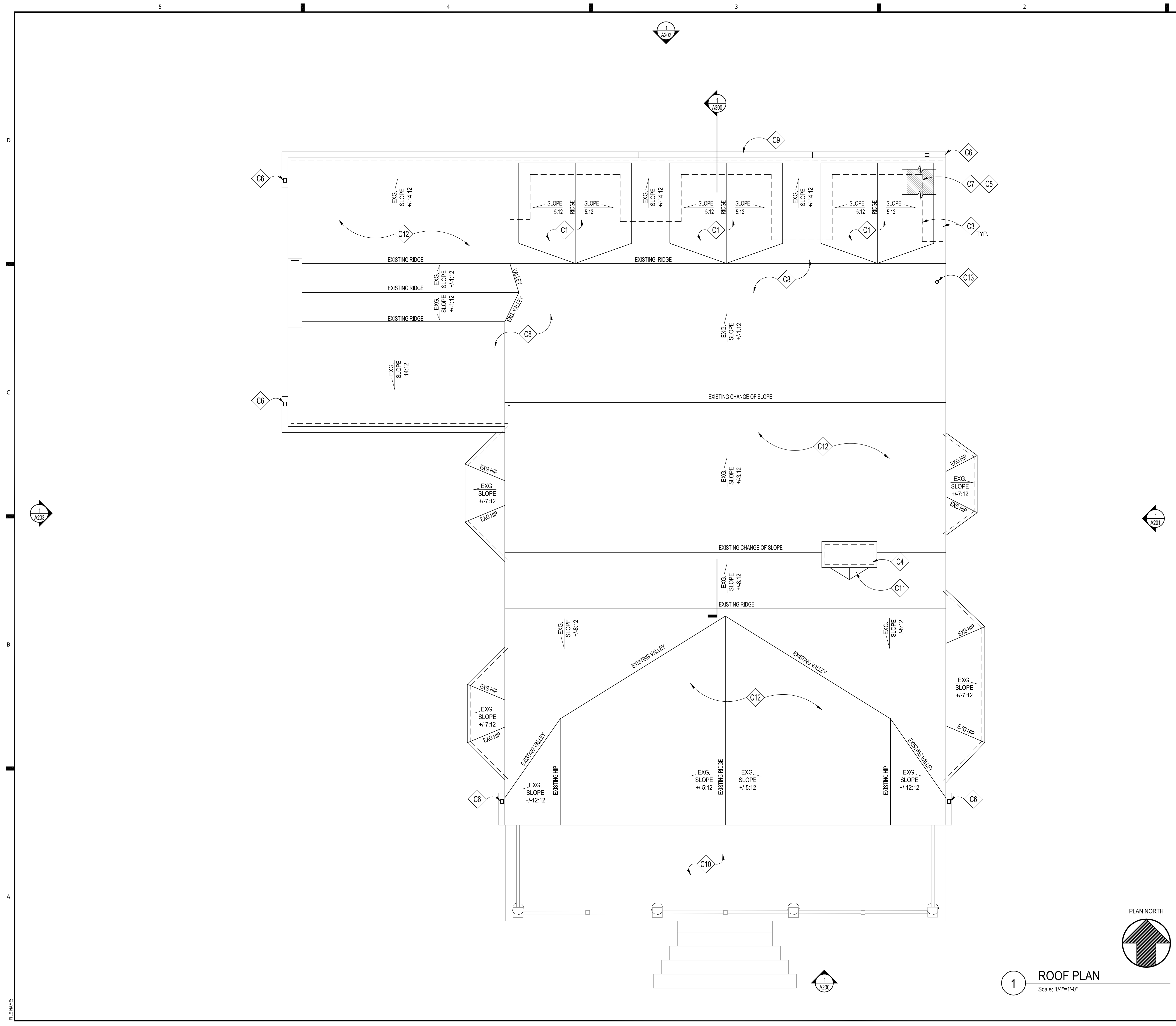
- C1 30 YR. ASPHALT SHINGLES OR APPROVED EQUAL, COLOR TO MATCH EXISTING
- C2 RIDGE VENTS BY "COR-A-VENT" OR APPROVED EQUAL, OMIT IF USING FOAM INSULATION, TYPICAL
- C3 DASHED LINE OF WALL BELOW
- C4 EXISTING CHIMNEY TO REMAIN, REPAIR/REPOINT AS REQUIRED
- C5 SEE GENERAL ROOFING NOTE #1 BELOW.
- C6 EXISTING GUTTERS/ DOWNSPOUTS TO REMAIN
- C7 ICE AND WATER GUARD AT ALL EAVES AND VALLEYS. SEE GENERAL NOTE BELOW
- C8 REPLACE EXISTING DAMAGED ASPHALT SHINGLES DUE TO NEW ADDITION
- C9 NEW GUTTER TO MATCH EXG.
- C10 DECK BELOW
- C11 CONFIRM EXG. MTL CRICKET, PROVIDE IF MISSING
- C12 EXISTING ROOFING TO REMAIN, REPAIR/REPLACE AS REQUIRED
- C13 RADON MITIGATION PIPE VENT PER IRC 2018, PAINT TO MATCH ROOF

LEGEND

LOW SLOPE ROOF, PROVIDE ICE & WEATHER GUARD

GENERAL ROOFING NOTES

1. PROVIDE SELF-ADHERING, 40 MIL ICE AND WATER GUARD UNDERLAYMENT UNDER SHINGLES AT ALL VALLEYS AND FROM LOWEST EDGE OF ROOF SURFACES TO A POINT AT LEAST 24" INSIDE THE EXTERIOR WALL LINE, AND ON ALL AREAS WITH A SLOPE LESS THAN 4:12.
2. SEE FRAMING PLAN FOR OVERBUILD AREAS
3. DOTTED LINE INDICATES LINE OF BUILDING BELOW



1 ROOF PLAN
Scale: 1/4"=1'-0"

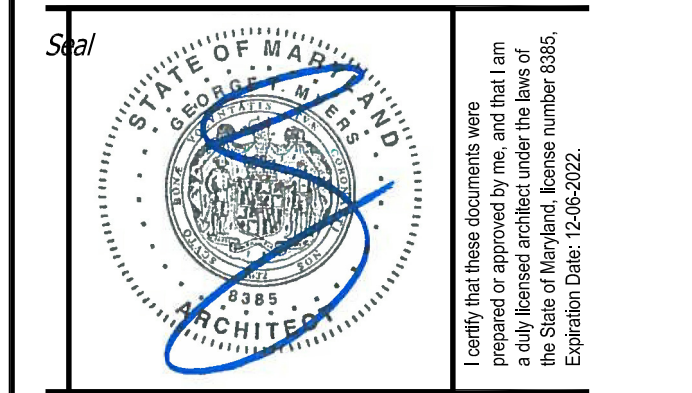


GENERAL NOTES

- FOR ENTIRE HOUSE:
1. INVESTIGATE & RESTORE HISTORIC CEDAR SIDING TRIM DETAILS AS NECESSARY. ANY TRIM/SIDING THAT CAN NOT BE REPAIR IS TO BE REPLACED IN-KIND. CONFER WITH HISTORIC PRESERVATION STAFF BEFORE COMMENCING WORK ON ANY EXISTING TRIM/SIDING. PROVIDE NEW PTD. WOOD TRIM DETAILS TO MATCH EXISTING HISTORIC DETAILS AS CLOSELY AS POSSIBLE ON ADDITION.
 2. ALL WOOD TRIM (CORNERBOARDS, FRIEZE BOARDS, SOFFITS, WINDOW CASING, SKIRTBOARDS, APRONS, ETC.) TO BE WINDSOR-ONE+ OR APPROVED EQ. PRIME ALL END CUTS & INSTALL PER MANUFACTURERS INSTRUCTIONS.

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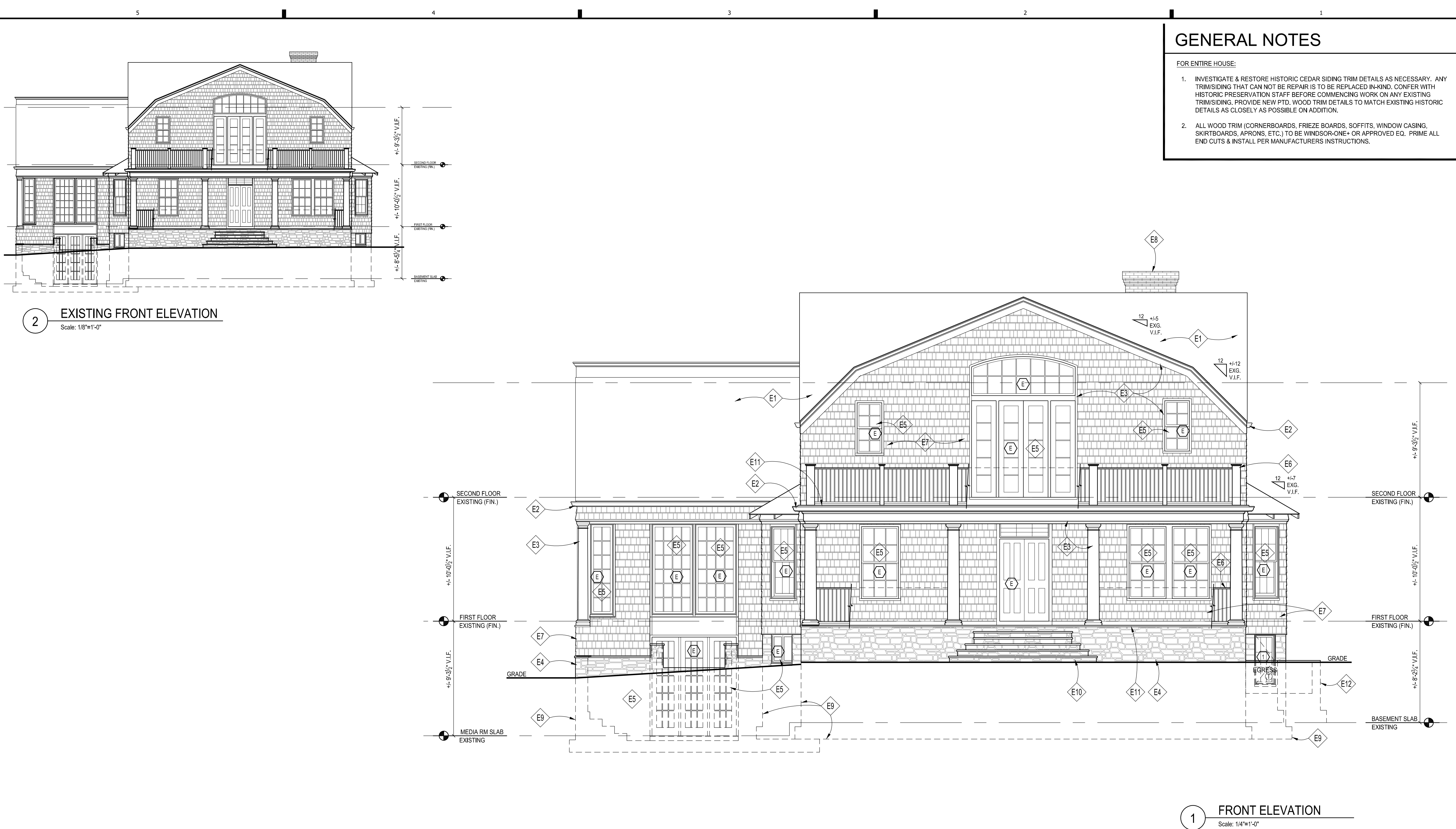
Sheet Title

FRONT ELEVATIONS

Sheet No.

A200

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2 EXISTING FRONT ELEVATION
Scale: 1/8"=1'-0"

1 FRONT ELEVATION
Scale: 1/4"=1'-0"

ELEVATION NOTES

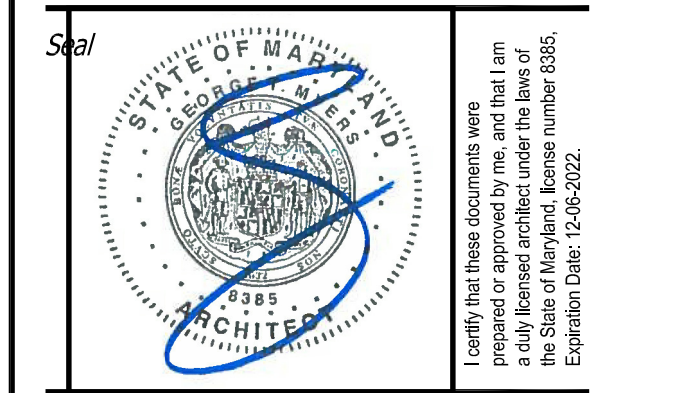
- E1 EXISTING ROOFING TO REMAIN, TYP.
- E2 EXISTING GUTTER & DOWNSPOUTS TO REMAIN, SEE ROOF PLAN 1/A103
- E3 ALL EXISTING EXTERIOR TRIM TO REMAIN. SCRAPE, PAINT, REPAIR AS REQUIRED
- E4 EXISTING FOUNDATION/STONE PIERS TO REMAIN, REPAIR/REPOINT AS REQ'D
- E5 EXG. WINDOWS & DOORS TO REMAIN, SCRAPE/REPAIR AND PAINT AS REQ'D
- E6 EXG. RAILING TO REMAIN, TYP.; SCRAPE, PAINT, REPAIR AS REQUIRED
- E7 EXG. SIDING TO REMAIN, TYP.; GC TO EVALUATE CONDITION & REPAIR/REPLACE IN-KIND AS REQUIRED, STAIN W/ BENJAMIN MOORE ARBORCOAT OR EQ.
- E8 EXISTING MASONRY CHIMNEY TO REMAIN; REPAIR/REPOINT AS REQ'D
- E9 APPROX. LINE OF EXISTING FOUNDATION & FOOTINGS BELOW, VERIFY IN FIELD
- E10 EXG. STEPS TO GRADE TO REMAIN, TYP.;
- E11 EXG. DECKING TO REMAIN, TYP.;
- E12 DASHED LINE OF EGRESS WINDOW WELL BELOW GRADE. PROVIDE 4" GRAVEL BASE AT BOTTOM & DRAIN TO DAYLIGHT, HOLD BOTTOM OF WELL TO MAX 30" BELOW GRADE

NOTE:
1. VERIFY ALL EXTERIOR RISER & TREAD DIMENSIONS IN FIELD
2. (T) = TEMPERED GLASS



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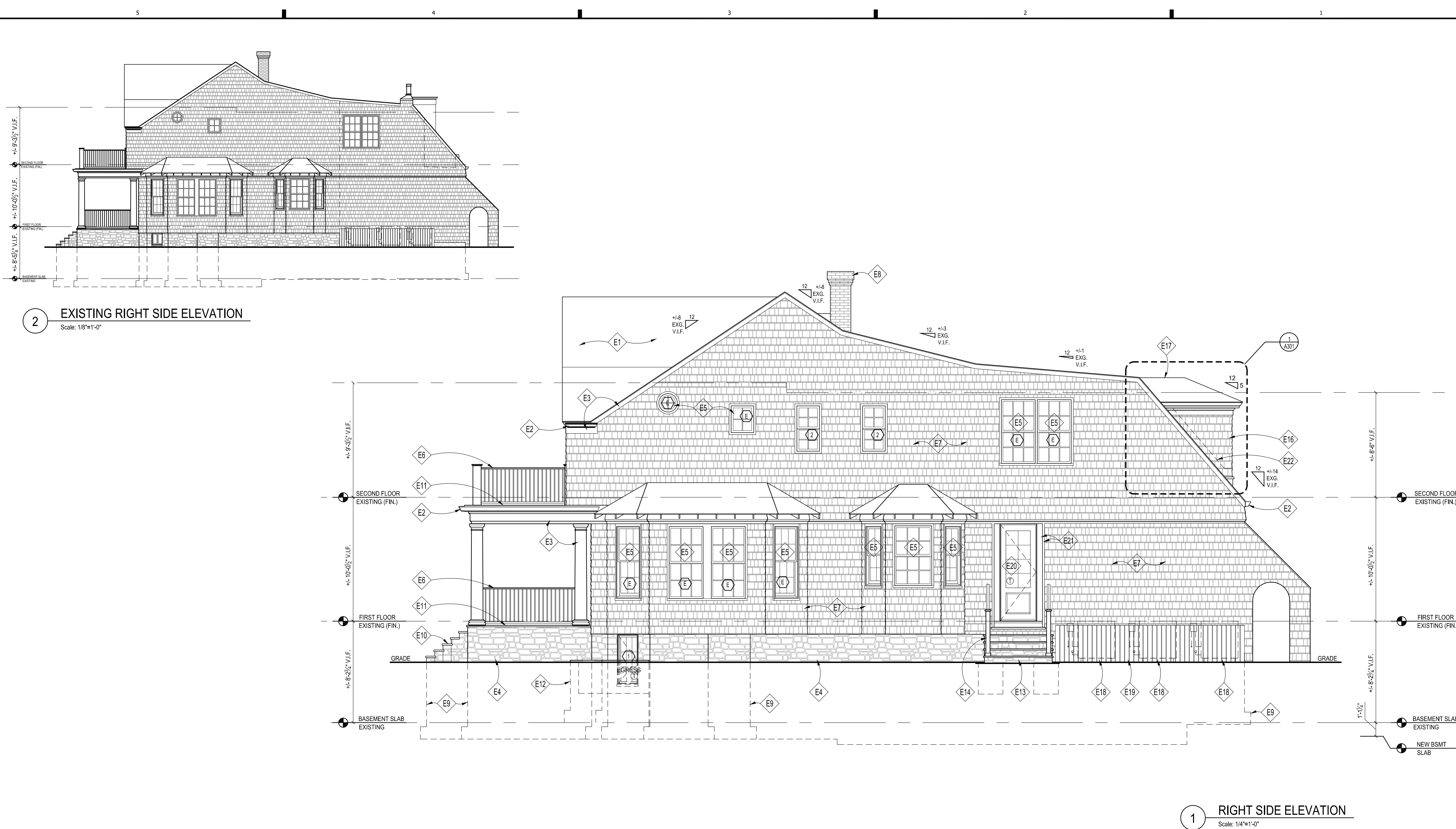
Sheet Title

RIGHT SIDE ELEVATIONS

Sheet No.

A201

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2 EXISTING RIGHT SIDE ELEVATION
Scale: 1/8"=1'-0"

1 RIGHT SIDE ELEVATION
Scale: 1/4"=1'-0"

ELEVATION NOTES

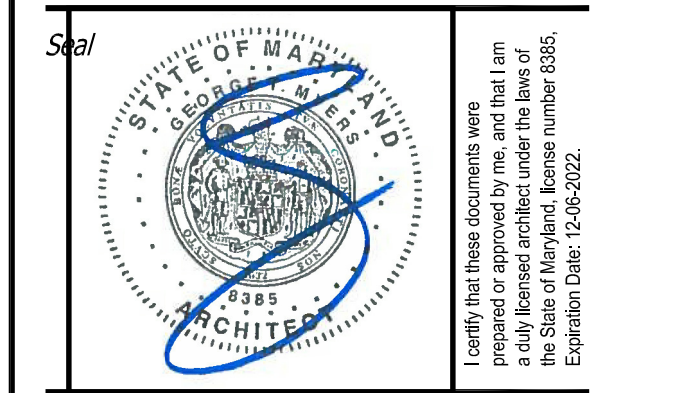
- | | | |
|--|--|---|
| <p>E1 EXISTING ROOFING TO REMAIN, TYP.</p> <p>E2 EXISTING GUTTER & DOWNSPOUTS TO REMAIN. SEE ROOF PLAN 1/A103</p> <p>E3 ALL EXISTING EXTERIOR TRIM TO REMAIN. SCRAPE, PAINT, REPAIR AS REQUIRED</p> <p>E4 EXISTING FOUNDATION/STONE PIERS TO REMAIN, REPAIR/REPOINT AS REQ'D</p> <p>E5 EXG. WINDOWS & DOORS TO REMAIN, SCRAPE/REPAIR AND PAINT AS REQ'D</p> <p>E6 EXG. RAILING TO REMAIN, TYP.; SCRAPE, PAINT, REPAIR AS REQUIRED</p> <p>E7 EXG. SIDING TO REMAIN, TYP.; GC TO EVALUATE CONDITION & REPAIR/REPLACE IN-KIND AS REQUIRED, STAIN W/ BENJAMIN MOORE ARBORCOAT OR EQ.</p> <p>E8 EXISTING MASONRY CHIMNEY TO REMAIN; REPAIR/REPOINT AS REQ'D</p> <p>E9 APPROX. LINE OF EXISTING FOUNDATION & FOOTINGS BELOW, VERIFY IN FIELD</p> <p>E10 EXG. STEPS TO GRADE TO REMAIN, TYP.;</p> | <p>E11 EXG. DECKING TO REMAIN, TYP.;</p> <p>E12 DASHED LINE OF EGRESS WINDOW WELL BELOW GRADE. PROVIDE 4" GRAVEL BASE AT BOTTOM & DRAIN TO DAYLIGHT, HOLD BOTTOM OF WELL TO MAX 30" BELOW GRADE</p> <p>E13 NEW STONE VENEER RISERS/FLAGSTONE TREADS TO GRADE. FIELD VERIFY RISE/RUN</p> <p>E14 36" H. PTD. PVC RAILING SYSTEM PER IRC 2018, T.B.S.</p> <p>E15 T&G COMPOSITE DECKING @ ENTRY OVER 60 MIL SELF-ADHERED WATERPROOFING MEMBRANE, SLOPE 1/8" PER FT</p> <p>E16 NEW DORMER W/ CEDAR SIDING TO MATCH EXG. & PTD.PVC TRIM</p> <p>E17 NEW ASPHALT SHINGLE ROOF TO MATCH EXG., CERTAINTED LANDMARK PRO 30 YR WARRANTY OR EQ., COLOR T.B.D., SEE ROOF PLAN</p> <p>E18 RELOCATE EXG. CONDENSER UNITS</p> <p>E19 NEW PTD. WOOD SCREENING @ CONDENSER UNITS TO MATCH EXG.</p> <p>E20 NEW PTD. WOOD DOOR AS SCHEDULED</p> | <p>E21 NEW PTD. WOOD TRIM @ DOOR/ENTRY TO MATCH EXG.</p> <p>E22 CONFIRM EXG./ PROVIDE NEW CONCEALED ALUMINUM FLASHING @ ALL EXG. VERT. TRANSITIONS; PROVIDE IF MISSING & EXTEND VERT. TRANSITIONS, EXTEND 8" MIN. BEHIND STUCCO OR SIDING, TYP.</p> |
|--|--|---|

NOTE:
1. VERIFY ALL EXTERIOR RISER & TREAD DIMENSIONS IN FIELD
2. (T) = TEMPERED GLASS



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PERMIT SET 2020-12-11

Issue Description Date

GTM Project No. 20.0233

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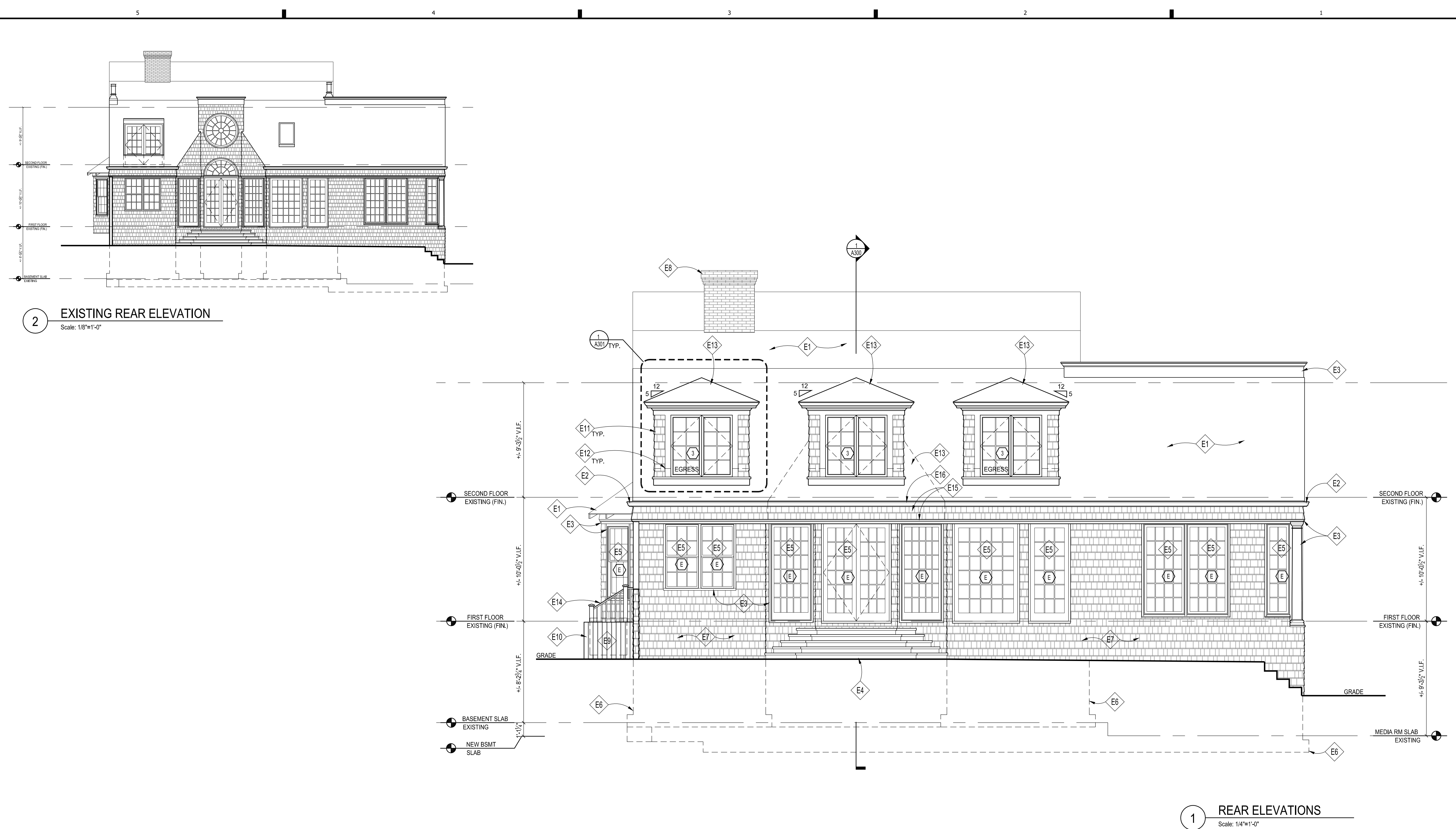
Sheet Title

REAR ELEVATIONS

Sheet No.

A202

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2 EXISTING REAR ELEVATION
Scale: 1/8"=1'-0"

1 REAR ELEVATIONS
Scale: 1/4"=1'-0"

ELEVATION NOTES

- E1 EXISTING ROOFING TO REMAIN, TYP.
- E2 EXISTING GUTTER & DOWNSPOUTS TO REMAIN. SEE ROOF PLAN 1/A103
- E3 ALL EXISTING EXTERIOR TRIM TO REMAIN. SCRAPE, PAINT, REPAIR AS REQUIRED
- E4 EXG. STEPS TO GRADE TO REMAIN, TYP.;
- E5 EXG. WINDOWS & DOORS TO REMAIN. SCRAPE/REPAIR AND PAINT AS REQ'D
- E6 APPROX. LINE OF EXISTING FOUNDATION & FOOTINGS BELOW. VERIFY IN FIELD
- E7 EXG. SIDING TO REMAIN, TYP.; GC TO EVALUATE CONDITION & REPAIR/REPLACE IN-KIND AS REQUIRED. STAIN W/ BENJAMIN MOORE ARBORCOAT OR EQ.
- E8 EXISTING MASONRY CHIMNEY TO REMAIN; REPAIR/REPOINT AS REQ'D
- E9 RELOCATE EXG. CONDENSER UNITS
- E10 NEW PTD. WOOD SCREENING @ CONDENSER UNITS TO MATCH EXG.
- E11 NEW DORMER W/ CEDAR SIDING TO MATCH EXG. & PTD. PVC TRIM
- E12 CONFIRM EXG./ PROVIDE NEW CONCEALED ALUMINUM FLASHING @ ALL EXG. VERT. TRANSITIONS; PROVIDE IF MISSING & EXTEND VERT. TRANSITIONS, EXTEND 8" MIN. BEHIND STUCCO OR SIDING, TYP.
- E13 NEW ASPHALT SHINGLE ROOF TO MATCH EXG., CERTAINTED LANDMARK PRO 30 YR WARRANTY OR EQ., COLOR T.B.D., SEE ROOF PLAN
- E14 36" H. PTD. PVC RAILING SYSTEM PER IRC 2018, T.B.S.
- E15 NEW CEDAR SHINGLE SIDING & PTD. WOOD TRIM TO MATCH EXG.
- E16 NEW GUTTER TO MATCH EXG. @ INFILL ROOF ADDITION

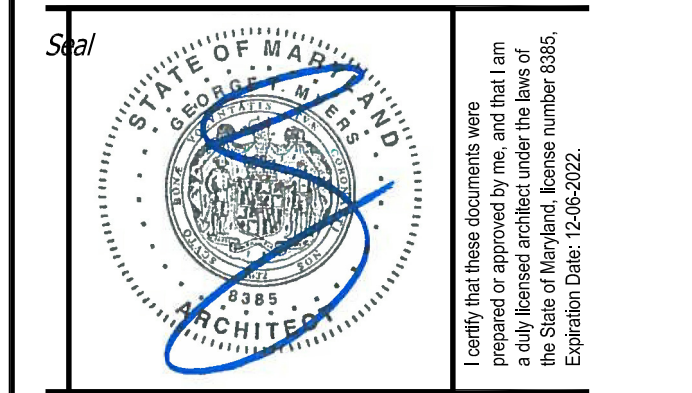
NOTE:
1. VERIFY ALL EXTERIOR RISER & TREAD DIMENSIONS IN FIELD
2. ① = TEMPERED GLASS

FILE NAME:



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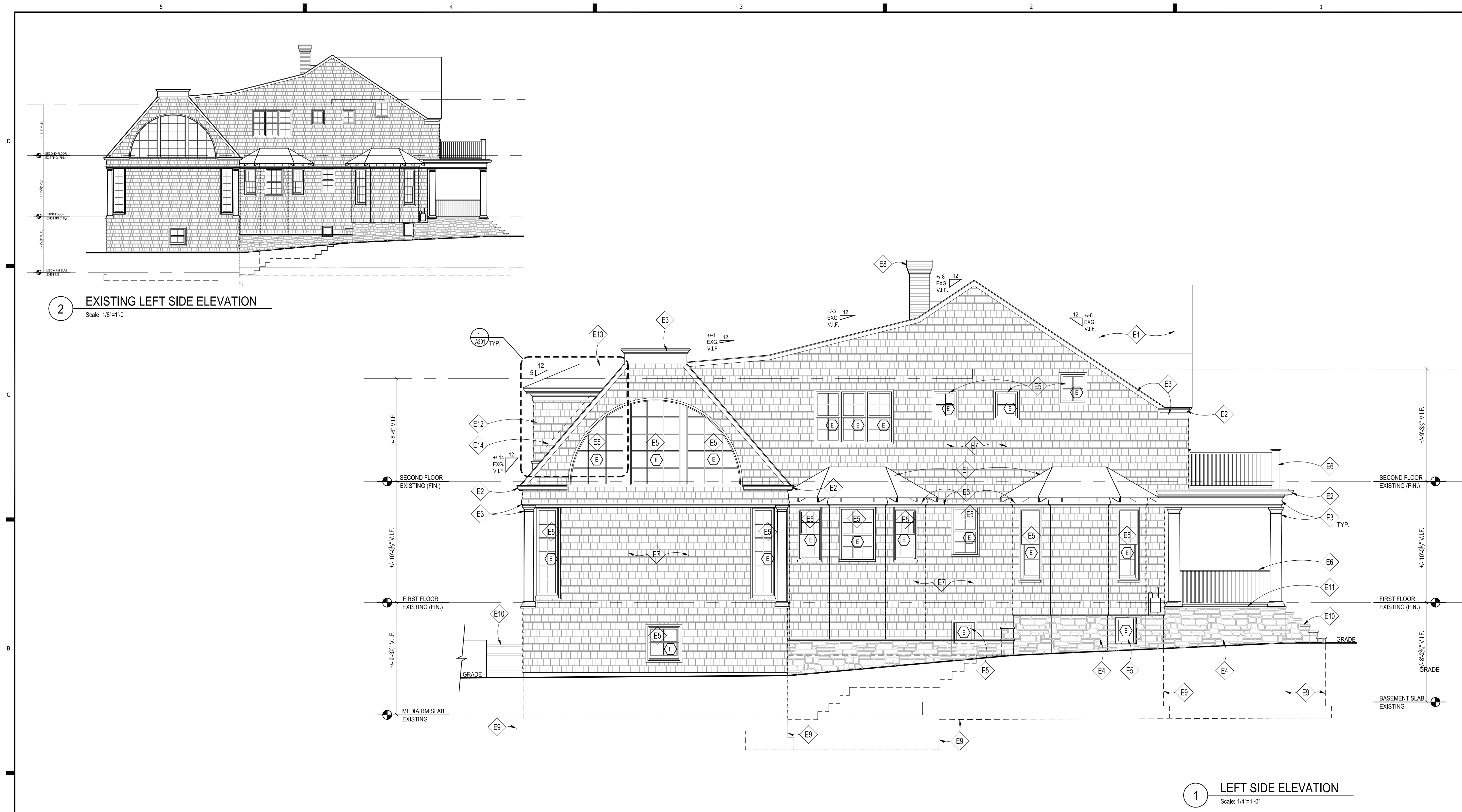
Sheet Title

LEFT SIDE ELEVATIONS

Sheet No.

A203

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2 EXISTING LEFT SIDE ELEVATION
Scale: 1/8"=1'-0"

1 LEFT SIDE ELEVATION
Scale: 1/4"=1'-0"

ELEVATION NOTES

- E1 EXISTING ROOFING TO REMAIN, TYP.
- E2 EXISTING GUTTER & DOWNSPOUTS TO REMAIN, SEE ROOF PLAN 1/A103
- E3 ALL EXISTING EXTERIOR TRIM TO REMAIN, SCRAPE, PAINT, REPAIR AS REQUIRED
- E4 EXISTING FOUNDATION/STONE PIERS TO REMAIN, REPAIR/REPOINT AS REQ'D
- E5 EXG. WINDOWS & DOORS TO REMAIN, SCRAPE/REPAIR AND PAINT AS REQ'D
- E6 EXG. RAILING TO REMAIN, TYP.; SCRAPE, PAINT, REPAIR AS REQUIRED
- E7 EXG. SIDING TO REMAIN, TYP.; GC TO EVALUATE CONDITION & REPAIR/REPLACE IN-KIND AS REQUIRED, STAIN W/ BENJAMIN MOORE ARBORCOAT OR EQ.
- E8 EXISTING MASONRY CHIMNEY TO REMAIN; REPAIR/REPOINT AS REQ'D
- E9 APPROX. LINE OF EXISTING FOUNDATION & FOOTINGS BELOW, VERIFY IN FIELD
- E10 EXG. STEPS TO GRADE TO REMAIN, TYP.;
- E11 EXG. DECKING TO REMAIN, TYP.;
- E12 NEW DORMER W/ CEDAR SIDING TO MATCH EXG. & PTD. PVC TRIM
- E13 NEW ASPHALT SHINGLE ROOF TO MATCH EXG., CERTAINTED LANDMARK PRO 30 YR WARRANTY OR EQ., COLOR T.B.D., SEE ROOF PLAN
- E14 CONFIRM EXG./ PROVIDE NEW CONCEALED ALUMINUM FLASHING @ ALL EXG. VERT. TRANSITIONS; PROVIDE IF MISSING & EXTEND VERT. TRANSITIONS, EXTEND 8" MIN. BEHIND STUCCO OR SIDING, TYP.

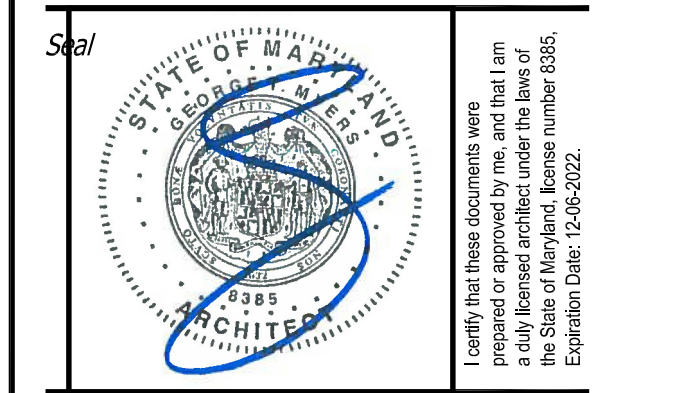
NOTE:
1. VERIFY ALL EXTERIOR RISER & TREAD DIMENSIONS IN FIELD
2. Ⓣ = TEMPERED GLASS

FILE NAME:



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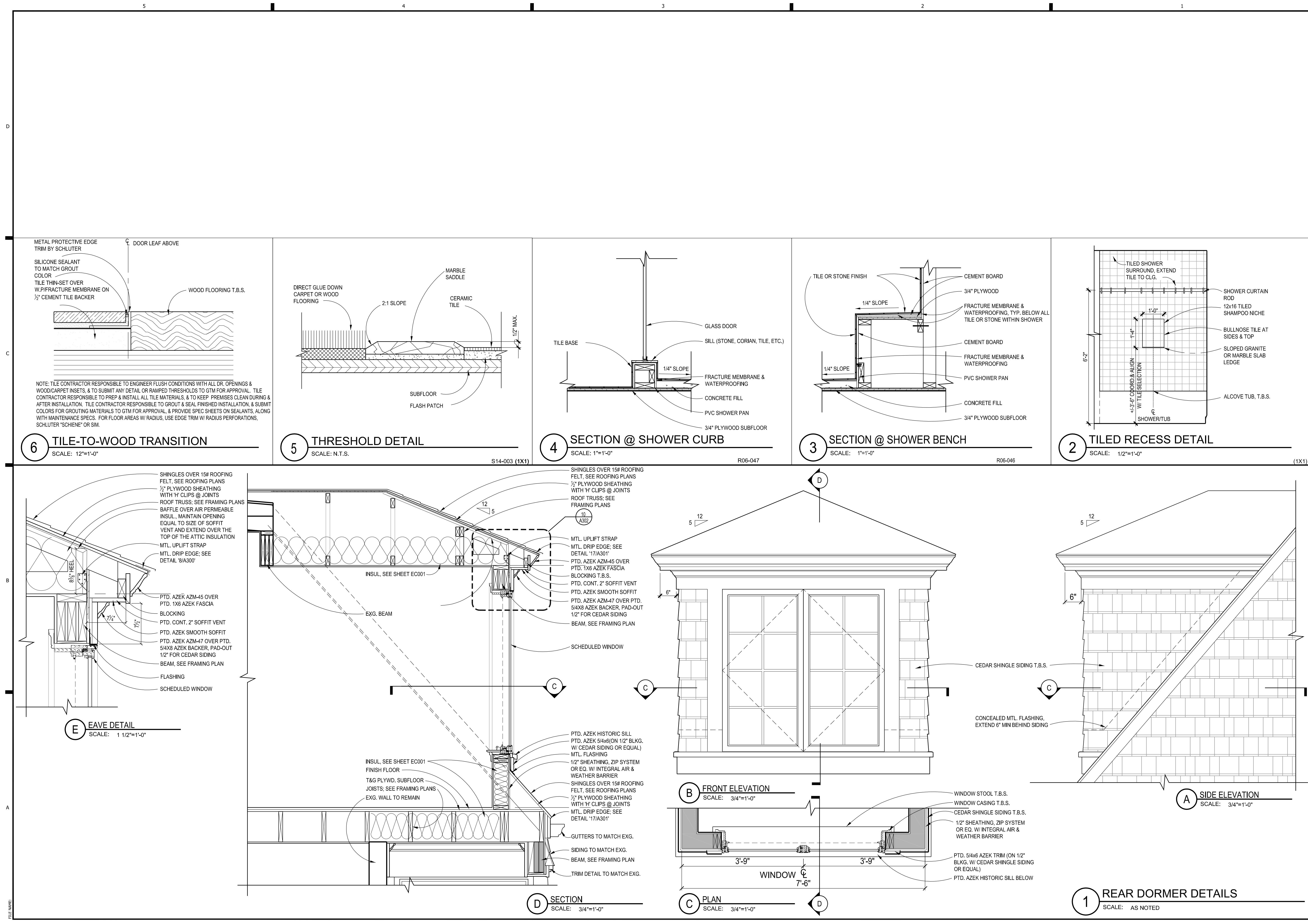
Sheet Title

DETAILS

Sheet No.

A301

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Sheet Title

DEMOLITON PLANS

Sheet No.

D100

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DEMOLITION NOTES

- D1 REMOVE WINDOWS/DOORS SHOWN, TYPICAL
- D2 REMOVE DASHED WALLS AS SHOWN, PROVIDE TEMPORARY SHORING AS REQUIRED
- D3 REMOVE EXT'G STAIRS/RAILING AS SHOWN
- D4 REMOVE EXISTING HVAC UNITS TO BE RELOCATED
- D5 REMOVE BATHROOM FIXTURES AS SHOWN
- D6 HATCHED AREA INDICATES FLOOR AREA OF DEMOLITION. SEE DEMO CALCULATIONS (THIS PAGE) FOR TOTAL FLOOR AREA TO BE DEMO'D
- D7 REMOVE EXISTING PLUMBING FIXTURES, COUNTERTOPS, APPLIANCES, CABINETS IN THEIR ENTIRETY; RETAIN AS REQUESTED BY OWNER
- D8 REMOVE EXISTING ROD & SHELF
- D9 REMOVE EXISTING BATH IN ITS ENTIRETY
- D10 EXISTING ELECTRIC PANEL TO REMAIN
- D11 EXISTING WATER HEATER & HVAC EQUIPMENT TO BE REMOVED
- D12 EXISTING PORCH/DECK/STEPS TO REMAIN
- D13 EXISTING BALCONY TO BE REMOVED IN ITS ENTIRETY
- D14 REMOVE EXISTING SKYLIGHT AS SHOWN
- D15 REMOVE EXISTING PIZZA OVEN/HEARTH
- D16 EXISTING ROOF/GUTTERS TO REMAIN
- D17 EXISTING CHIMNEY TO REMAIN
- D18 REMOVE EXIST. FINISH @ WALLS & FLOORING, PLUMBING & LIGHT FIXTURES, PATCH & REPAIR AS REQUIRED. TYP.
- D19 REMOVE EXISTING ROOFING AS REQUIRED FOR NEW DORMERS

NOTE:

1. PRIOR TO COMMENCING ANY DEMOLITION, GC TO COORDINATE W/ OWNER ALL BUILDING MATERIALS, APPLIANCES, FIXTURES, ETC. TO BE RETAINED BY OWNER. SEE GENERAL NOTES FOR LIST OF ITEMS TO BE SAVED & INSTRUCTIONS FOR SALVAGE/STORAGE.

NOTE:

1. ALL EXISTING WOOD FLOORS TO BE SANDED, PATCHED/REPAIRED AS REQUIRED & RE-FINISHED
2. ENTIRETY OF EXISTING INTERIOR TO BE REPAINTED PREP. AS REQD.

INTERIOR DEMO CALCS

EXISTING FLOOR AREA:
(TAKEN FROM INSIDE FACE OF EXTERIOR WALLS AND NOT INCLUDING THE BASEMENT FLOOR AREA)

FIRST FLOOR 2,243.0 SF
SECOND FLOOR 1,778.7 SF

TOTAL 4,021.7 SF (50% = 2,010.9 SF)

FLOOR AREA OF INTERIOR DEMOLITION TO BE CARRIED OUT

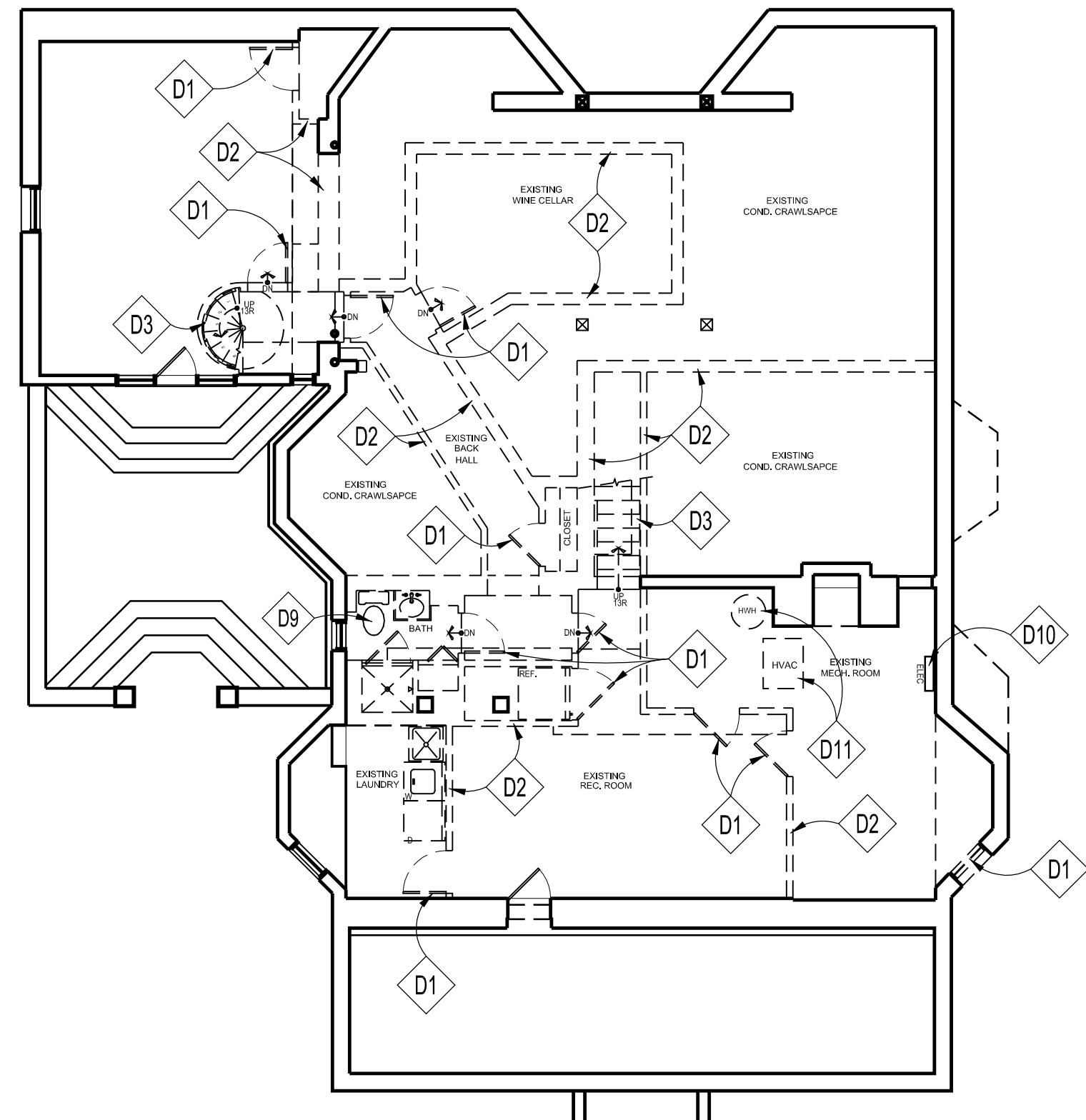
FIRST FLOOR 1,064.5 SF
SECOND FLOOR 788.3 SF

TOTAL 1,852.8 SF

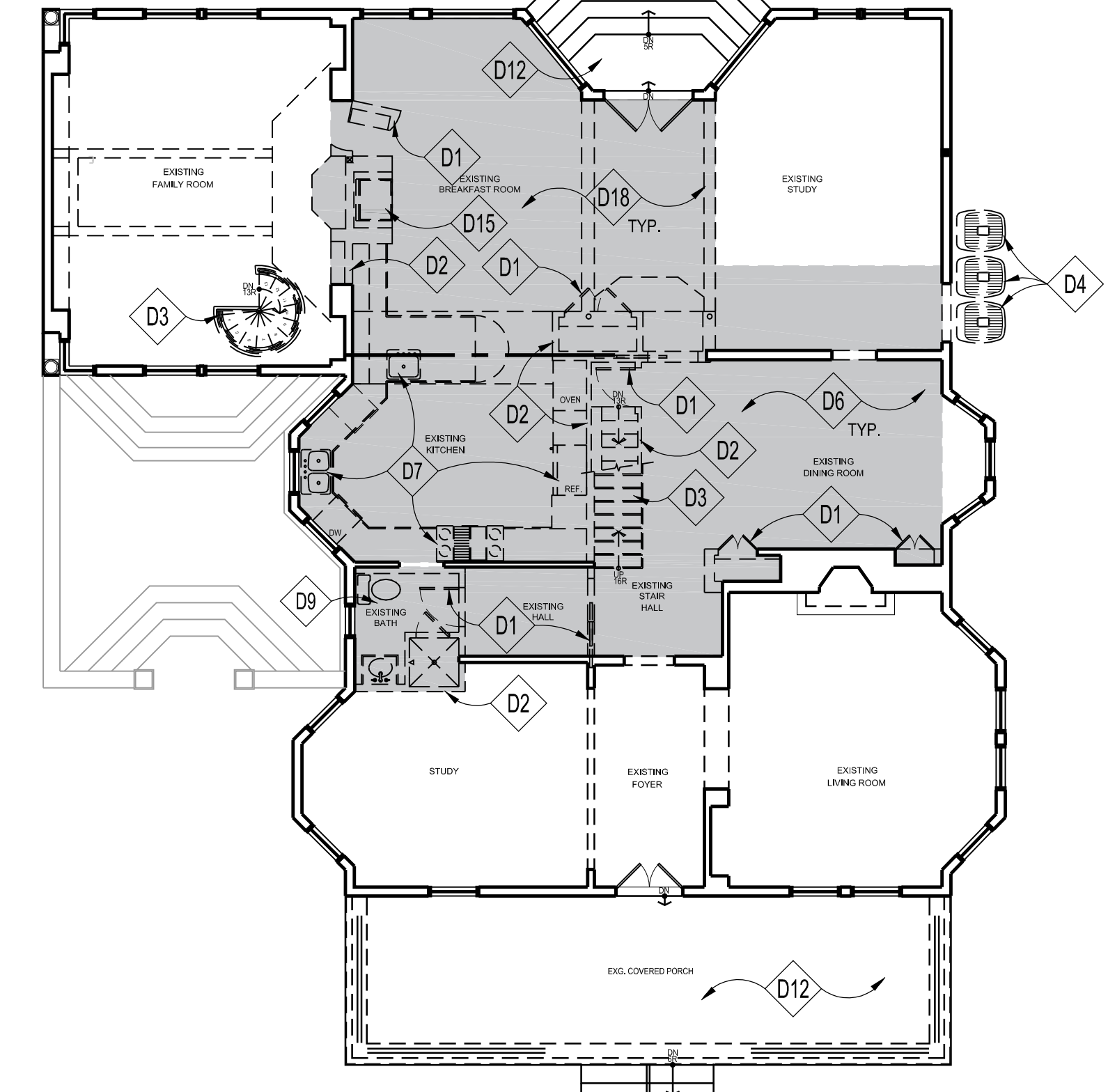
HOUSE DOES NOT NEED TO BE SPRINKLERED

GENERAL DEMOLITION NOTES

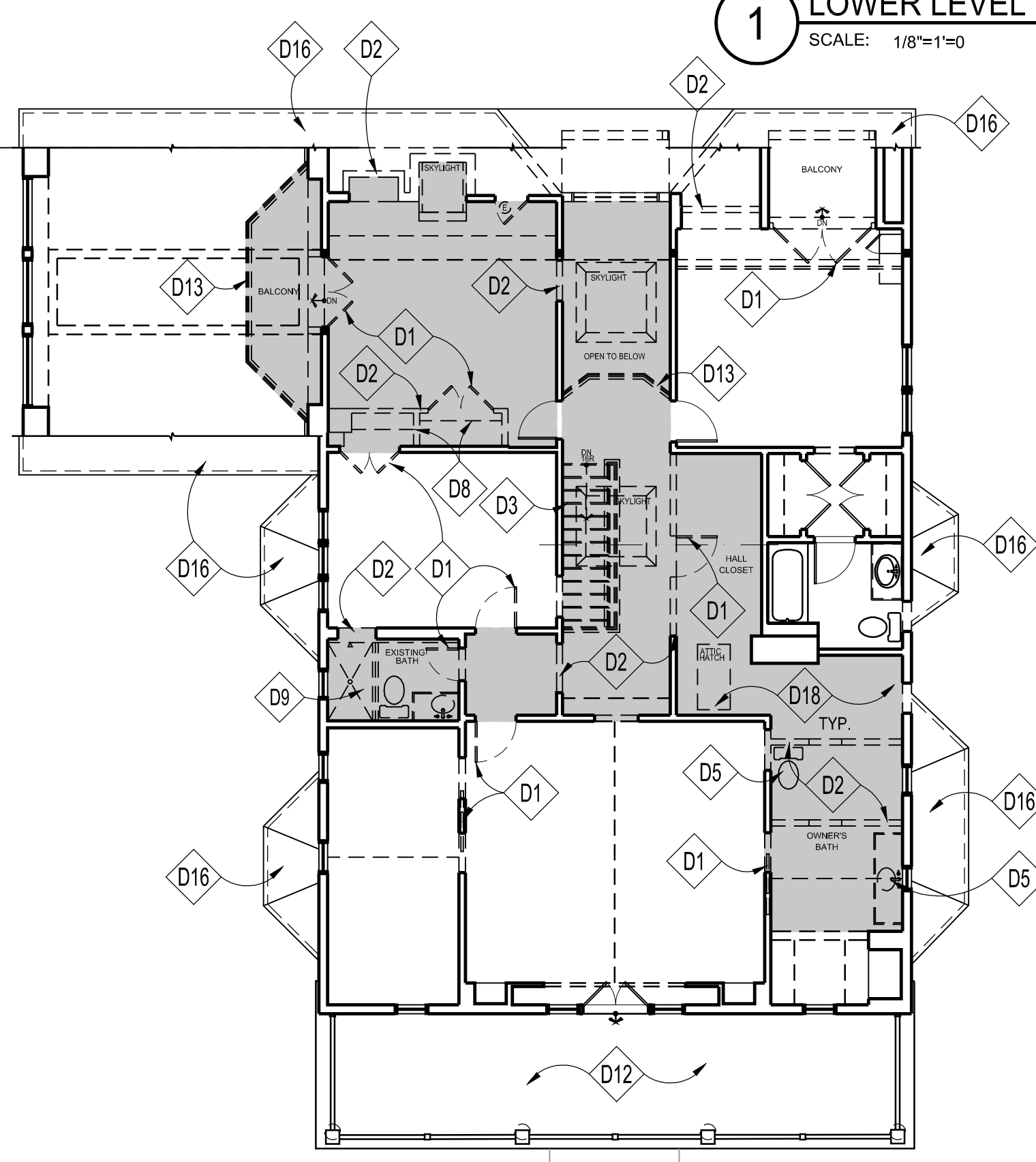
1. EVERY CARE SHALL BE TAKEN DURING DEMOLITION TO PROTECT THE HOUSE BY MEANS OF TEMPORARY SUPPORTS AND BRACES AS NECESSARY TO PREVENT ANY STRUCTURAL FAILURE DURING REMOVAL AND REPLACEMENT OF EXISTING STRUCTURAL MEMBERS.
2. TEMPORARY WALLS AND DUST BARRIERS SHALL BE INSTALLED AS NECESSARY TO PREVENT CIRCULATION OF DIRT AND DUST INTO PORTIONS OF THE HOUSE THAT ARE NOT PART OF THE WORK.
3. ALL DASHED WALLS, FIXTURES, WINDOWS, ETC., ARE TO BE REMOVED.
4. CONDUCT ALL DEMOLITION OPERATIONS IN COMPLIANCE WITH APPLICABLE CODES AND ORDINANCES.
5. COORDINATE DEMOLITION WITH WORK OF SUBCONTRACTORS.
6. MAINTAIN THE EXISTING STRUCTURE IN A WATERTIGHT CONDITION AT ALL TIMES.
7. RELOCATE/REMOVE ANY EXISTING GAS, ELECTRICAL, PLUMBING LINES, ETC. IN CONFLICT WITH NEW WORK.
8. SEE STRUCTURAL SHEETS FOR ADDITIONAL INFORMATION.
9. RE-ROUTE VENTS FLUES, EXHAUST, ETC. AS REQD.
10. REMOVE LANDSCAPING AS REQUIRED, RELOCATE VIABLE PLANTS ON SITE FOR REUSE.
11. GENERAL CONTRACTOR TO STORE AND PROVIDE SECURITY PROTECTION FOR ANY MATERIALS AND EQUIPMENT RELATED TO THE DEMOLITION AND CONSTRUCTION.
12. OWNER AND CONTRACTOR TO OBTAIN RELEVANT BUILDING PERMITS PRIOR TO EXECUTION OF WORK.
13. DEMO OF ADDITIONAL BUILDING COMPONENTS FOR EASE OF CONSTRUCTION IS DONE SO AT GC DISCRETION.



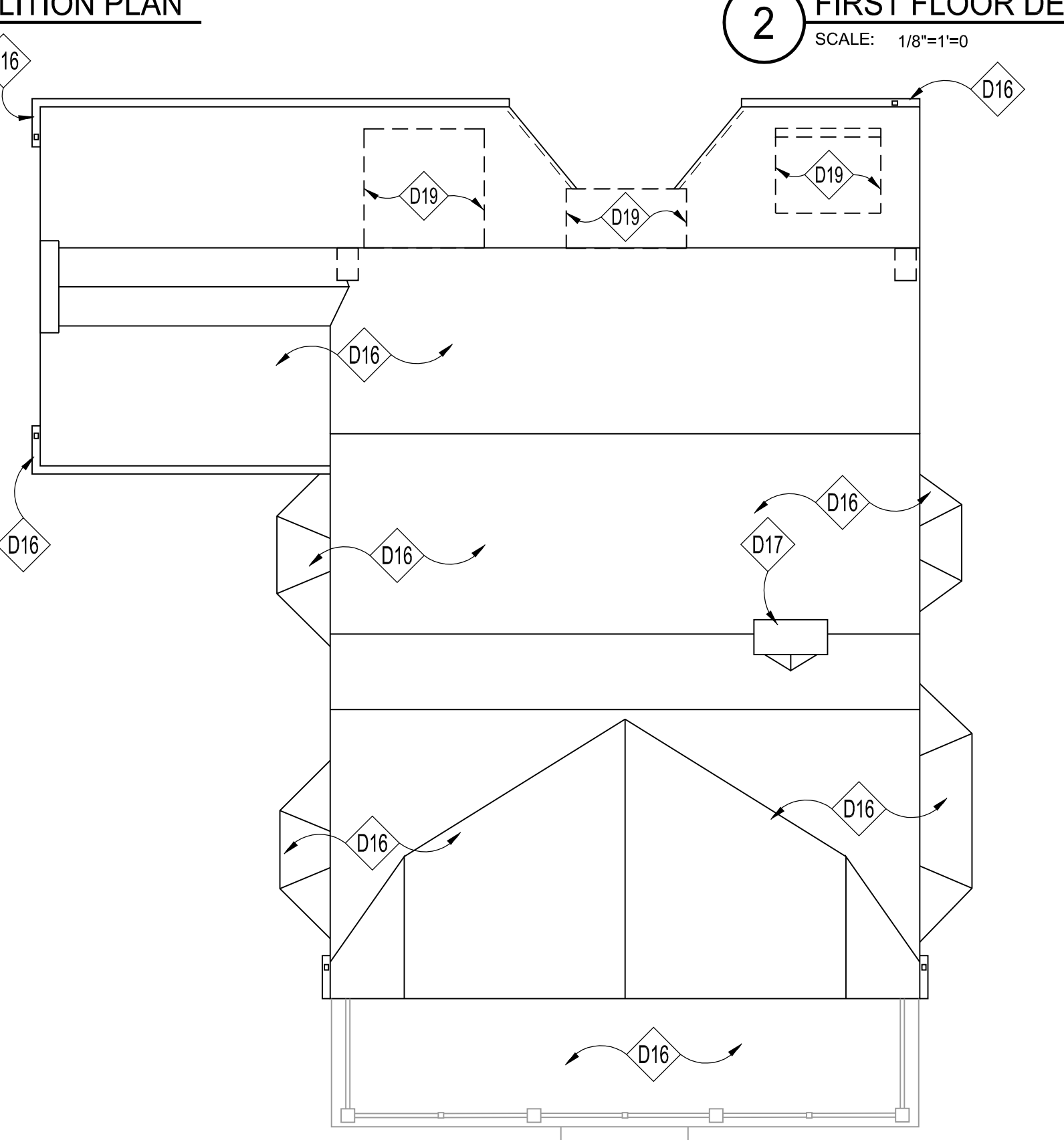
1 LOWER LEVEL DEMOLITION PLAN
SCALE: 1/8"=1'-0"



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



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



3 ROOF DEMOLITION PLAN
SCALE: 1/8"=1'-0"



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Sheet Title

THERMAL ENVELOPE DIAGRAMS

Sheet No.

EC001

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WINDOW/DOORS THERMAL DATA

Table with 3 columns: OPENING TYPE, U-VALUE, SHGC. Rows include CASEMENT WINDOWS, DOUBLE HUNG WINDOWS, FRENCH INSWINGING DOORS, FRENCH SLIDING DOORS, and EXTERIOR SWINGING DOORS.

THE AREA-WEIGHTED AVERAGE MAXIMUM FENESTRATION U-FACTOR PERMITTED USING TRADE-OFFS FROM SECTION 402.1 IN ZONE 4 SHALL BE .35 FOR VERTICAL FENESTRATION AND .55 FOR SKYLITES
U-FACTORS & SHGC OF FENESTRATION TO BE DETERMINED IN ACCORDANCE W/ THE NFRC

ENERGY CONSERVATION NOTES

- The following provisions for thermal resistance meet or exceed the requirements stipulated by the International Energy Conservation Code.
- INSULATION:
 - CEILING (OF UPPERMOST STORY) IBC
 - VAULTED CEILING R-49
 - EXTERIOR FRAME WALLS R-20
 - RIM JOISTS EQUAL TO WALL BELOW
 - FLOORS OVER UNHEATED SPACES (INCLUDING FLOOR OVERHANGS) R-30
 - MASONRY MASS WALLS (ENCLOSED HEATED LIVING AREAS) R-13
 - SLAB ON GRADE (HEATED SPACE) R-10
 - 24" PERIMETER INSULATION R-10
 - WINDOWS DOUBLE-GLAZED
 - DOORS DOUBLE-GLAZED
- Air Infiltration:
 - A. Windows: not exceeding five tenths (0.5) CFM of sash crack.
 - B. Sliding Glass Doors: not exceeding five tenths (0.5) CFM per foot of door area.
 - C. Swinging Doors: not exceeding one and twenty-five hundredths (1.25) CFM per square foot of door area. Provide 1" fiberglass sill sealer between foundation wall and all sill plates.
 - D. In order to seal between dissimilar materials to allow for differential expansion and contraction, the following shall be caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material:
 - All joints, seams, and penetrations
 - Site-built windows, doors, and skylights
 - Openings between window and door assemblies and their respective jambs & framing
 - Utility penetrations
 - Dropped ceilings or chases adjacent to the thermal envelope
 - Knee walls
 - Walls and ceilings separating a garage from conditioned spaces
 - Behind tubs and showers on exterior walls
 - Common walls between dwelling units
 - Attic access openings
 - Rim joist junction
 - Other sources of infiltration

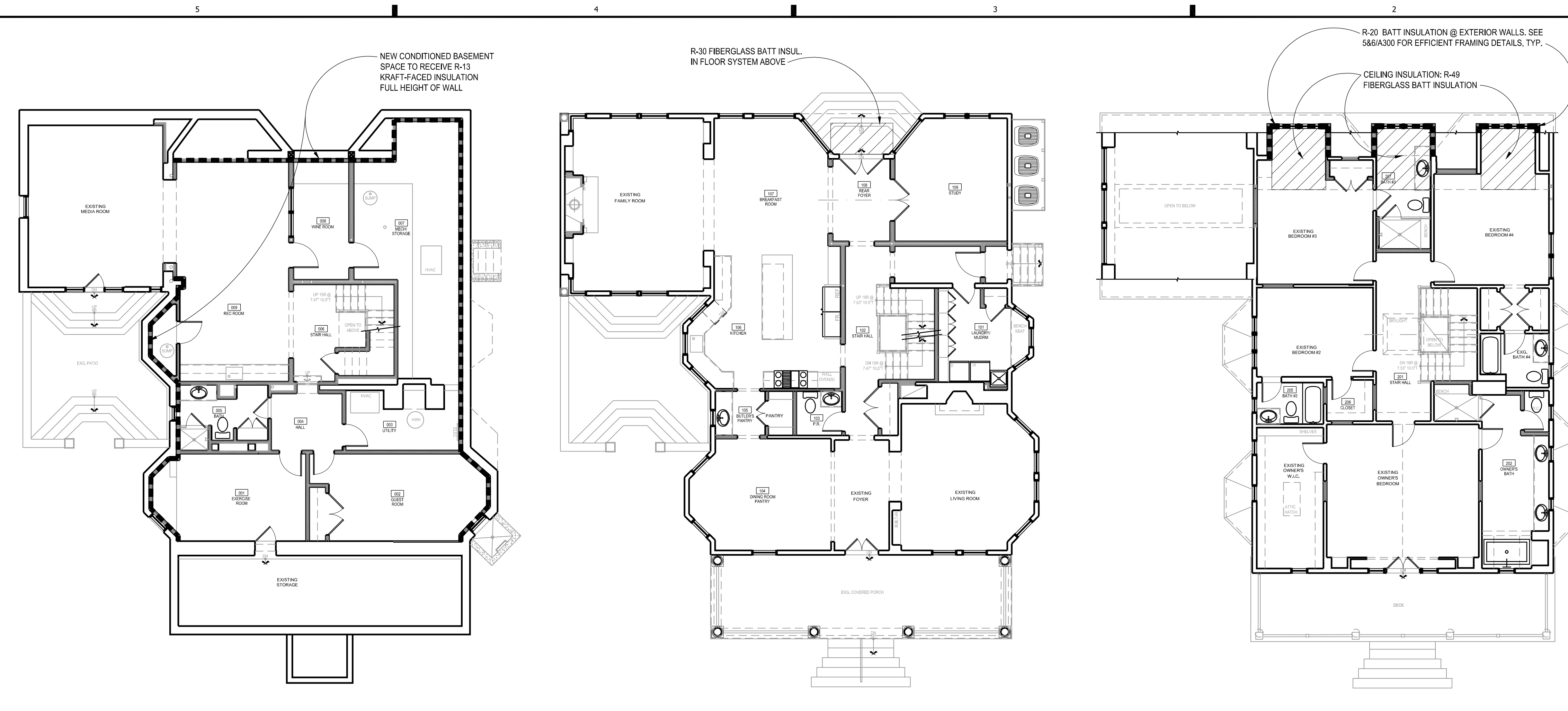
HVAC SYSTEMS & WATER HEATING

- HEATING & COOLING EQUIP. CONTROLS. AT LEAST ONE PRE-PROGRAMMED PROGRAMMABLE THERMOSTAT IS REQUIRED WHEN USING A FORCED AIR SYSTEM. SEPARATE THERMOSTATS ARE REQUIRED FOR EACH HEATING/COOLING ZONE IN THE DWELLING.
- DUCT INSULATION. SUPPLY DUCTS LOCATED OUTSIDE THE BUILDING THERMAL ENVELOPE SHALL BE INSULATED TO MINIMUM R-8. ALL OTHER DUCTS INSULATED TO A MINIMUM OF R-6
- DUCT SEALING. ALL DUCTS, AIR HANDLERS, FILTER BOXES, & BUILDING CAVITIES MUST BE SEALED. JOINTS & SEAMS SHALL COMPLY W/ M1606.4.1 IRC
- MECHANICAL SYSTEM PIPING INSULATION. R-3 FOR PIPING CARRYING FLUIDS AT >105°F OR <55°F IS REQUIRED
- MECHANICAL VENTILATION. OUTDOOR AIR INTAKES OR EXHAUSTS SHALL HAVE DAMPERS
- SERVICE WATER HEATING. PIPING IN THE CIRCULATING HOT WATER SYSTEM SHALL BE INSULATED TO AN R-3 AND SYSTEM TO INCLUDE MANUAL OR AUTOMATIC SWITCH THAT CAN TURN OFF THE SYSTEM WHEN IT IS NOT USED, WATER HEATERS WITH PIPE RISERS SHALL HAVE HEAT TRAPS ON BOTH INLET AND OUTLET OF WATER HEATER UNLESS THE WATER HEATER HAS INTEGRAL HEAT TRAPS OR IS PART OF A CIRCULATION SYSTEM. TYPICAL METHODS USED FOR CREATING HEAT TRAPS ARE "U" OR "RAMS HORN" BENDS IN THE FLEXIBLE PIPE CONNECTORS OR INSTALLING AFTERMARKET PIPE NIPPLES WITH INTEGRAL TRAPS.
- EQUIPMENT SIZING. HEATING AND COOLING EQUIPMENT SHALL BE SIZED BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE WITH ACCA (AIR CONDITIONING CONTRACTORS OF AMERICA) MANUAL-J. A SIMPLIFIED METHOD OF CALCULATING HEATING AND COOLING LOADS. THE MANUAL-J CALCULATIONS SHALL BE SUBMITTED UPON APPLICATION FOR THE MECHANICAL PERMIT.

SECTION 302.1 OF IECC SPECIFIES THE INTERIOR DESIGN TEMPERATURES USED FOR HEATING AND COOLING LOAD CALCULATIONS AS MAXIMUM OF 72°F FOR HEATING AND MINIMUM 75°F FOR COOLING.

LEGEND

- INSULATION PERIMETER
- AREA OF INSULATION ABOVE OR BELOW AS INDICATED
- UNDERSLAB AND PERIMETER INSULATION



1 BASEMENT THERMAL ENVELOPE PLAN
Scale: 1/8"=1'-0"

2 FIRST FLOOR THERMAL ENVELOPE PLAN
Scale: 1/8"=1'-0"

3 SECOND FLOOR THERMAL ENVELOPE PLAN
Scale: 1/8"=1'-0"

- INSTALL WALL AND CEILING INSULATION PER MANUFACTURER'S INSTRUCTIONS
- BAFFLE OVER AIR PERMEABLE INSULATION ADJACENT TO SOFFIT AND EAVE VENTS.
- ATTIC ACCESS HATCH AND DOOR INSULATION ≥ R-VALUE OF ADJACENT ASSEMBLY.

ADDITIONS, ALTERATIONS, RENOVATIONS AND REPAIR SHALL BE COMPLETED IN ACCORDANCE WITH 2018 IECC TABLE 402.4.1.1 BELOW:

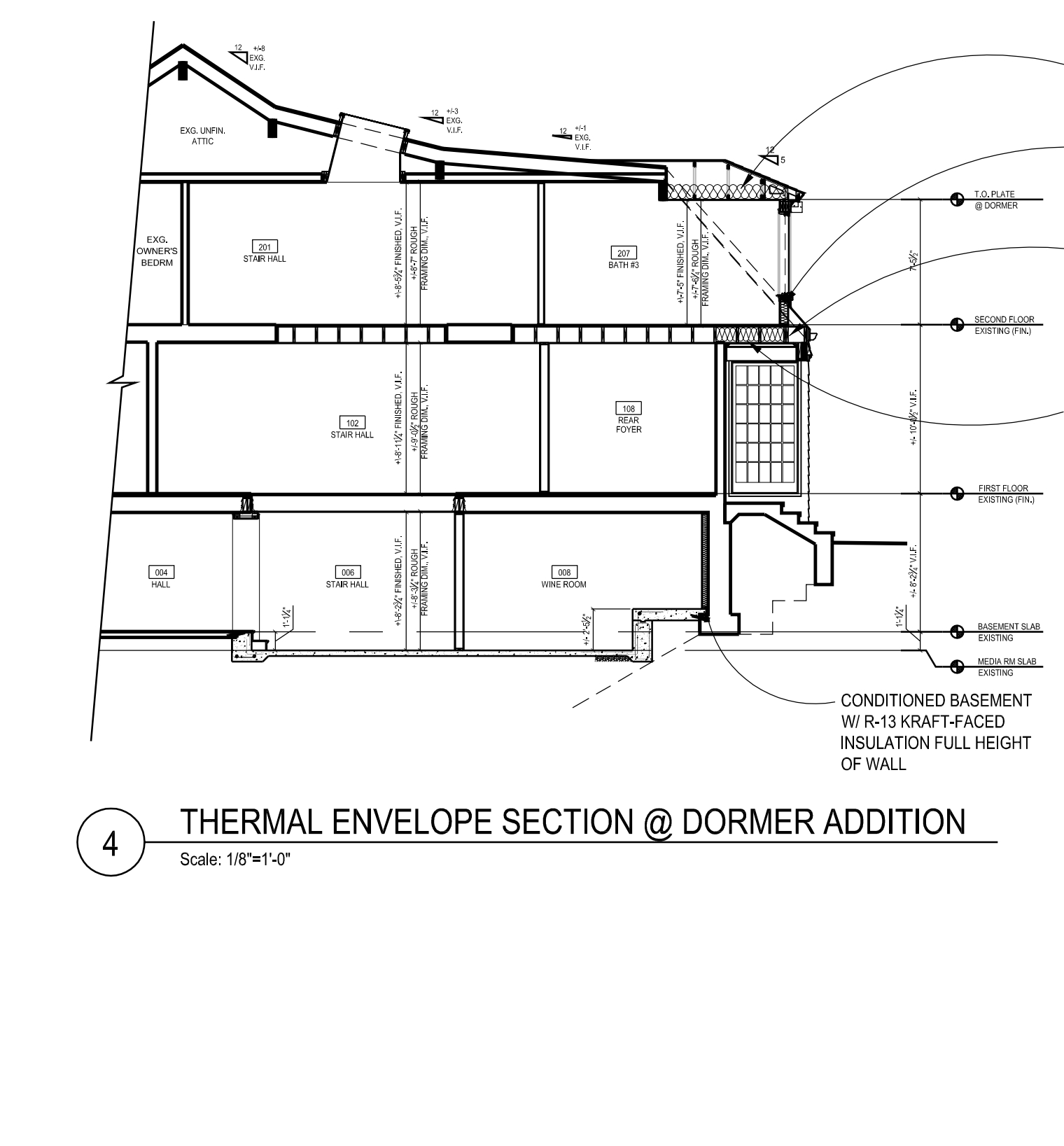
TABLE R402.4.1.1 AIR BARRIER AND INSULATION INSTALLATION

COMPONENT	CRITERIA*
Air barrier and thermal barrier	A continuous air barrier shall be installed in the building envelope. Exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed. Air-permeable insulation shall not be used as a sealing material.
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier sealed. Access openings, drop down stair or knee wall doors to unconditioned attic spaces shall be sealed.
Walls	Comers and headers shall be insulated and the junction of the foundation and sill plate shall be sealed. The junction of the top plate and top of exterior walls shall be sealed. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier. Knee walls shall be sealed.
Windows, skylights and doors	The space between window/door jambs and framing and skylights and framing shall be sealed.
Rim joists	Rim joists shall be insulated and include the air barrier.
Floors (including above-garage and cantilevered floors)	Insulation shall be installed to maintain permanent contact with underside of subfloor decking. The air barrier shall be installed at any exposed edge of insulation.
Crawl space walls	Where provided in lieu of floor insulation, insulation shall be permanently attached to the crawlspace walls. Exposed earth in unvented crawl spaces shall be covered with a Class 1 vapor retarder with overlapping joints taped.
Shafts, penetrations	Duct shafts, utility penetrations, and fue shafts opening to exterior or narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be air tight, IC rated, and sealed to the drywall.
Plumbing and wiring	Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.
Shower/tub on exterior wall	Exterior walls adjacent to showers and tubs shall be insulated and the air barrier installed separating them from the showers and tubs.
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air sealed boxes shall be installed.
HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the subfloor or drywall.
Fireplace	An air barrier shall be installed on fireplace walls. Fireplaces shall have gasketed doors.

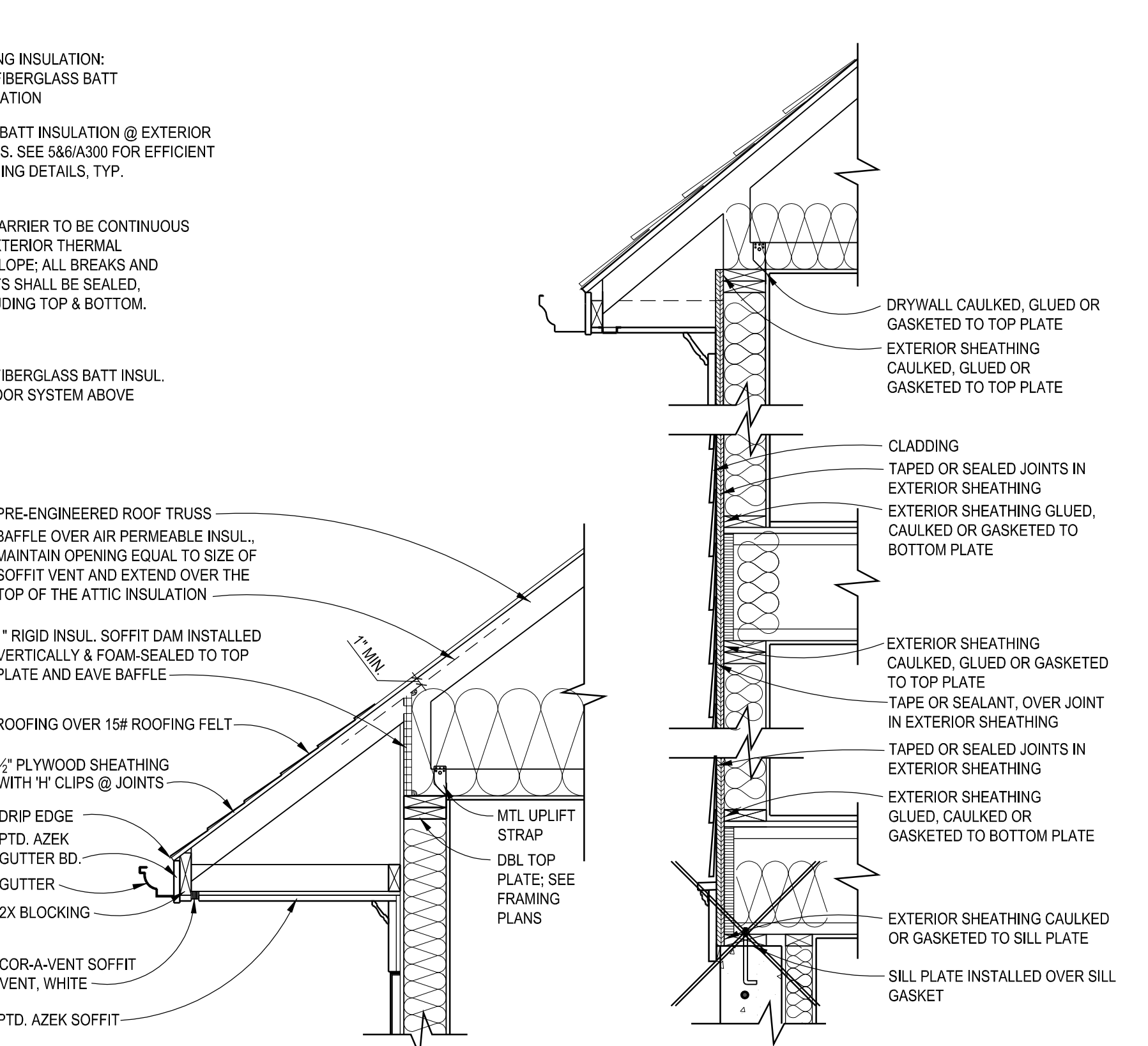
a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

*INSTALL AIR AND THERMAL BARRIER PER MANUFACTURER'S INSTRUCTIONS

*GO TO BACK FOAM SEAL ANY PENETRATIONS MADE THROUGH THE TOP PLATE OF FRAMING, INCLUDING BUT NOT LIMITED TO: HOLES FOR WIRING & VENTING ETC...



4 THERMAL ENVELOPE SECTION @ DORMER ADDITION
Scale: 1/8"=1'-0"



5 ENVELOPE AIR SEALING DETAIL
SCALE: 3/4"=1'-0"

6 EAVE BAFFLE DETAIL
SCALE: 3/4"=1'-0"



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Consultant

Project
5 GRAFTON ST

5 GRAFTON ST., CHEVY CHASE, MD 20815

Owner

Developer

PERMIT SET 2020-12-11

Issue Description Date

GTM Project No. 20.0233

Checked By GTM

Drawn By LEO/SGC

Scale AS NOTED

Sheet Title

RESHECK-WEB COMPLIANCE REPORT

Sheet No.

EC002

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Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.1, 402.3.3, 402.5 [FR2]†	Glazing U-factor (area-weighted average).	U-_____	U-_____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.1.3 [FR4]†	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.4.1.1 [FR23]†	Air barrier and thermal barrier installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.4.3 [FR20]†	Fenestration that is not site built is listed and labeled as meeting AAMA WDMA/CSA 101/15.2/AA440 or has infiltration rates per NFRC 400 that do not exceed code limits.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.4.5 [FR16]†	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate s2.0 cfm leakage at 75 Pa.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3.1 [FR12]†	Supply and return ducts in attics insulated >= R-8 where duct is >= 3 inches in diameter and >= R-6 where < 3 inches. Supply and return ducts in other portions of the building insulated >= R-6 for diameter >= 3 inches and R-4.2 for < 3 inches in diameter.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3.2 [FR13]†	Ducts, air handlers and filter boxes are sealed with joint/seams compliant with International Mechanical Code or International Residential Code, as applicable.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3.5 [FR15]†	Building cavities are not used as ducts or plenums.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.4 [FR17]†	HVAC piping conveying fluids above 105 °F or chilled fluids below 55 °F are insulated to >= R-3.	R-_____	R-_____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.4.1 [FR24]†	Protection of insulation on HVAC piping.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.3 [FR18]†	Hot water pipes are insulated to >= R-3.	R-_____	R-_____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.6 [FR19]†	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

Project Title: 20.0233 5 Grafton Report date: 12/10/20
Data filename: Page 4 of 9

Section # & Req.ID	Foundation Inspection	Complies?	Comments/Assumptions
303.2.1 [FC11]†	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.9 [FC12]†	Snow- and ice-melting system controls installed.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

Project Title: 20.0233 5 Grafton Report date: 12/10/20
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REScheck Software Version : REScheck-Web
Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the REScheck software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2 [PR1]†	Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope represented on construction documents.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
103.1, 103.2, 403.7 [PR3]†	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
302.1, 403.7 [PR2]†	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: BTU/hr _____ Cooling: BTU/hr _____	Heating: BTU/hr _____ Cooling: BTU/hr _____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

Project Title: 20.0233 5 Grafton Report date: 12/10/20
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Generated by REScheck-Web Software
Compliance Certificate

Project 20.0233 5 Grafton

Energy Code: **2018 IECC**
Location: **Chevy Chase, Maryland**
Construction Type: **Single-family Addition**
Climate Zone: **4 (4470 HDD)**
Permit Date:
Permit Number:
Construction Site: Owner/Agent: Designer/Contractor:
Alabama Alabama

Compliance: Passes using UA trade-off
Compliance: **2.6% Better Than Code** Maximum UA: **39** Your UA: **38** Maximum SHGC: **0.40** Your SHGC: **0.13**
The % Better or Worse Than Code index reflects how close to compliance the house is based on code trade-off rules. It DOES NOT provide an estimate of energy use or cost relative to a minimum code home.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Ceiling: Flat Ceiling or Scissor Truss	98	49.0	0.0	0.025	3
Wall: Wood Frame, 16" a.c.	75	20.0	0.0	0.059	11
Window: Wood Frame SHGC: 0.19				0.310	23
Floor: All-Wood Joist/Truss	28	30.0	0.0	0.033	1

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2018 IECC requirements in REScheck Version - REScheck-Web and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Name - Title Signature Date

Project Notes:
Add three dormers to rear of existing house

Project Title: 20.0233 5 Grafton Report date: 12/10/20
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Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [N13]†	All installed insulation is labeled or the installed R-values provided.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.1.1, 402.2.6 [N11]†	Floor insulation R-value.	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
402.1.1, 402.2.5, 402.2.6 [N3]†	Wall insulation R-value. If this is a mass wall with at least 1/2 of the wall insulation on the wall exterior, the exterior insulation requirement applies (R10).	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.2 [N4]†	Wall insulation is installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

Project Title: 20.0233 5 Grafton Report date: 12/10/20
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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2, 402.2.6 [F11]†	Ceiling insulation R-value.	R-_____ Wood <input type="checkbox"/> Steel	R-_____ Wood <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.1.1.1, 303.2 [F2]†	Ceiling insulation installed per manufacturer's instructions. Blown insulation market every 300 ft ² .			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.2.3 [F22]†	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.2.4 [F3]†	Attic access hatch and door insulation R-value of the adjacent assembly.	R-_____	R-_____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.4.1.2 [F17]†	Blower door test @ 50 Pa. <=5 ach in Climate Zones 1-2, and <=3 ach in Climate Zones 3-8.	ACH 50 = _____	ACH 50 = _____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3.3 [F27]†	Ducts are pressure tested to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Post-construction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure.	_____ cfm/100 ft ²	_____ cfm/100 ft ²	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3.4 [F14]†	Duct tightness test result of <=4 cfm/100 ft ² across the system or <=3 cfm/100 ft ² without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection.	_____ cfm/100 ft ²	_____ cfm/100 ft ²	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3.2.1 [F24]†	Air handler leakage designated by manufacturer at <=2% of design air flow.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.1.1 [F9]†	Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.1.2 [F10]†	Heat pump thermostat installed on heat pumps.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.1 [F11]†	Circulating service hot water systems have automatic or accessible manual controls.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

Project Title: 20.0233 5 Grafton Report date: 12/10/20
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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.6.1 [F25]†	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficiency and air flow limits per Table 90.3.6.1.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.2 [F26]†	Hot water boilers supplying heat through one- or two-pipe heating systems have outdoor setback control to lower boiler water temperature based on outdoor temperature.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.1.1 [F28]†	Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermosiphon circulation systems are not present. Controls for circulating hot water system pumps start the pumps with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at setpoint temperature and no demand for hot water exists.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.1.2 [F29]†	Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.2 [F30]†	Demand recirculation water systems have controls that manage operation of the pump and limit the temperature of the water entering the cold water piping to <= 104°F.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.4 [F31]†	Drain water heat recovery units tested in accordance with CSA 855.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
404.1 [F16]†	90% or more of permanent fixtures have high efficacy lamps.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
404.1.1 [F23]†	Fuel gas lighting systems have no continuous pilot light.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
401.3 [F17]†	Compliance certificate posted.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

Project Title: 20.0233 5 Grafton Report date: 12/10/20
Data filename: Page 8 of 9

2018 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
Above-Grade Wall	20.00
Below-Grade Wall	0.00
Floor	30.00
Ceiling / Roof	49.00

Ductwork (unconditioned spaces):

Glass & Door Rating	U-Factor	SHGC
Window	0.31	0.19

Heating & Cooling Equipment Efficiency

Heating System: _____
Cooling System: _____
Water Heater: _____

Name: _____ Date: _____
Comments: _____

Project Title: 20.0233 5 Grafton Report date: 12/10/20
Data filename: Page 9 of 9



STRUCTURAL NOTES

A. GENERAL

1. THE STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE IRC 2018 CODE FOR ONE AND TWO FAMILY DWELLINGS. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE IRC 2018 CODE.
2. THE DESIGN GRAVITY LIVE LOADS ARE AS FOLLOWS:

ROOF SNOW LOAD:	30 PSF
RESIDENTIAL FLRS:	40 PSF
SLEEPING ROOMS:	30 PSF
BALCONIES:	60 PSF
GARAGE FLR:	50 PSF
SLAB ON GRADE:	125 PSF

3. WIND LOADS:

BASIC WIND SPEED (3 SEC GUST):	115 MPH
WIND EXPOSURE FACTOR:	"B"
WIND PRESSURE MAIN BUILDING:	20 PSF
WIND PRESSURE COMPONENTS/CLADDING:	18 PSF
NET WIND UPLIFT ON ROOF:	12 PSF

4. EARTHQUAKE DESIGN DATA:

SEISMIC DESIGN CATEGORY:	"B"
--------------------------	-----

5. METHODS, PROCEDURES, AND SEQUENCE OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF THE CONSTRUCTION.

6. INDIVIDUAL STRUCTURAL COMPONENTS ARE DESIGNED TO SUPPORT LOADS IN THEIR FINALLY ERECTED POSITION AS PART OF THE TOTAL COMPLETED STRUCTURE. PROVIDE TEMPORARY GUYING AND BRACING AS REQUIRED UNTIL ALL CONSTRUCTION, FLOOR, ROOF AND WALL SHEATHING AFFECTING LATERAL STABILITY IS COMPLETED.

7. THE STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. REFERENCE MUST BE MADE TO ALL BID DOCUMENTS AS WELL AS THE GEOTECHNICAL REPORT. DISCREPANCIES SHALL BE RESOLVED BEFORE PROCEEDING WITH THE CONSTRUCTION AND SHOP FABRICATION. CONTRACTOR TO COORDINATE THE WORK OF ALL TRADES AND MAKE NECESSARY FIELD MEASUREMENTS.

B. FOUNDATIONS

1. THE CONTRACTOR SHALL PERFORM SITE STRIPPING, EXCAVATIONS, FOOTING CONSTRUCTION, PREPARATION OF THE SUBGRADE FOR THE SLAB ON GRADE, AND PLACEMENT OF BACKFILL MATERIALS IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT, AND UNDER DIRECT SUPERVISION OF A REGISTERED GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL INCLUDE THE SOILS REPORT AS PART OF THE BID DOCUMENTS.

2. THE FOUNDATION FOR THE STRUCTURE HAS BEEN DESIGNED FOR AN ASSUMED ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF TO BE FIELD VERIFIED BY THE GEOTECHNICAL ENGINEER.

3. BASEMENT WALLS HAVE BEEN DESIGNED FOR AN ASSUMED ALLOWABLE EQUIVALENT FLUID PRESSURE OF 60 PCF TO BE FIELD VERIFIED. RETAINING WALLS HAVE BEEN DESIGNED FOR AN ASSUMED ALLOWABLE EQUIVALENT FLUID PRESSURE OF 45 PCF. A GRAVITY DRAINAGE SYSTEM IS REQUIRED TO PREVENT THE BUILD-UP OF HYDROSTATIC PRESSURE ON THE BASEMENT WALLS. THIS SYSTEM SHALL CONSIST OF A DRAIN BOARD, SAND BACKFILL, AND AN INTERCEPTOR - COLLECTOR SYSTEM AT THE TOP OF THE WALL FOOTING COLLECTED INTO SUMPS FOR DISCHARGE.

4. BOTTOM OF ALL FOOTINGS SHALL BE 2'-6" BELOW FROST LINE PER LOCAL REQUIREMENTS. FOOTINGS SHALL BE FURTHER LOWERED TO APPROVED BEARING ELEVATIONS AS REQUIRED BY THE FIELD GEOTECHNICAL ENGINEER. STEP DOWN FOOTINGS AS REQUIRED TO CLEAR UTILITY LINES AND FIED CONDITIONS.

5. EXCAVATIONS FOR SPREAD FOOTINGS AND CONTINUOUS WALL FOOTINGS SHALL BE CLEANED AND HAND TAMPED TO A UNIFORM SURFACE. FOOTING EXCAVATIONS SHALL HAVE THE SIDES AND BOTTOMS TEMPORARILY LINED WITH 6 MIL VISQUEEN IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 24 HOURS OF THE FOOTING EXCAVATION.

6. FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION, WHICH DIFFER FROM THOSE DESCRIBED IN THE DRAWINGS SHALL BE REPORTED TO THE ARCHITECT, STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER BEFORE FURTHER CONSTRUCTION IS ATTEMPTED.

7. SLAB ON GRADE SHALL BE UNDERLAID BY A MINIMUM OF 4 INCHES OF GRANULAR MATERIAL HAVING A MAXIMUM AGGREGATE SIZE OF 1.5 INCHES AND NO MORE THAN 2% FINES. PRIOR TO PLACING THE GRANULAR MATERIAL, THE FLOOR SUBGRADE SHALL BE PROPERLY COMPACTED, PROOFROLLED, FREE OF STANDING WATER, MUD AND FROZEN MATERIAL. BEFORE PLACEMENT OF CONCRETE A VAPOR BARRIER SHALL BE PLACED ON TOP OF THE GRANULAR MATERIAL.

C. CONCRETE

1. CONCRETE SHALL HAVE NATURAL SAND FINE AGGREGATES AND NORMAL WEIGHT COARSE AGGREGATES CONFORMING TO ASTM C33, TYPE I PORTLAND CEMENT CONFORMING TO ASTM C150, AND SHALL HAVE THE FOLLOWING MINIMUM 28 DAY COMPRESSIVE STRENGTH (F_c):

WALLS & FOOTINGS:	3000 PSI
SLAB ON GRADE:	3500 PSI

ALL EXTERIOR CONCRETE AND CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED 6% OF CONCRETE VOLUME. MAXIMUM CONCRETE SLUMP SHALL BE 4 INCHES.

2. GROUT SHALL BE NONSHRINKABLE, NON-METALLIC CONFORMING TO ASTM C827, AND SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH AT 28 DAYS OF 5000 PSI. PREGROUTING OF BASE PLATES WILL NOT BE PERMITTED.

3. DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" AND ACI SP-66 "DETAILING MANUAL". PLACING OF REINFORCING BARS SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315R "MANUAL OF ENGINEERING AND PLACING DRAWINGS FOR REINFORCED CONCRETE STRUCTURES" AND CRSI "MANUAL OF STANDARD PRACTICE".

4. MIXING, TRANSPORTING, AND PLACING OF CONCRETE SHALL CONFORM TO ACI 301.

5. MINIMUM CONCRETE COVER PROTECTION FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS:

FOOTINGS:	3"
SLAB ON GRADE (TOP):	2"

PROVIDE STANDARD BAR CHAIRS AND SPACERS AS REQUIRED TO MAINTAIN CONCRETE PROTECTION SPECIFIED.

6. CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60. REINFORCEMENT BARS SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT UNLESS REVIEWED BY THE STRUCTURAL ENGINEER.

7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. FABRIC SHALL BE SUPPLIED IN FLAT SHEETS. FABRIC SHALL BE LAPPED TWO MESH AT SPLICES.

8. WELDING OF REINFORCEMENT BARS, WHEN ACCEPTED BY THE STRUCTURAL ENGINEER, SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD D1.4. ELECTRODES FOR SHOP AND FIELD WELDING OF REINFORCEMENT BARS SHALL CONFORM TO ASTM A233, CLASS E90XX.

9. REINFORCEMENT DESIGNATED AS "CONTINUOUS" SHALL LAP 36 BAR DIAMETERS AT SPLICES UNLESS NOTED OTHERWISE.

10. HORIZONTAL WALL & FTG REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90-DEGREE BENDS AND EXTENSION, OR CORNER BARS OF EQUIVALENT SIZE LAPPED 36 BAR DIAMETERS, AT CORNERS AND INTERSECTIONS.

11. PROVIDE 1 #4 x 3'-0" DIAGONAL BAR AT ALL RE-ENTRANT CORNERS AND AROUND RECTANGULAR HOLES IN SLABS UNLESS NOTED OTHERWISE. PLACE BAR AT MID DEPTH OF THE SLAB AND DIAGONAL TO THE CORNER WITH 1" CLEARANCE FROM THE CORNER.

D. STEEL

1. STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A572 GRADE 50 (F_y = 50 KSI). STEEL PLATES & ANGLES SHALL CONFORM TO ASTM A36. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S GRADE B, OR ASTM A501. STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500 GRADE B (F_y = 46 KSI). ANCHOR BOLTS SHALL CONFORM TO ASTM A307, UNLESS NOTED OTHERWISE.

2. CONNECTION BOLTS FOR STRUCTURAL STEEL SHALL BE HIGH STRENGTH BOLTS WHICH MEET OR EXCEED THE REQUIREMENTS OF ASTM A325, TYPE N,X, OR F. BOLTS SHALL BE DESIGNED AS BEARING TYPE BOLTS. BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE "SNUG TIGHT" CONDITION AS OUTLINED IN THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". BOLTS SHALL HAVE A HARDENED WASHER PLACED UNDER THE ELEMENT TO BE TIGHTENED.

3. STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".

4. THE FABRICATOR IS RESPONSIBLE FOR THE SELECTION, DESIGN AND DETAILING OF ALL CONNECTIONS NOT FULLY DETAILED ON THE CONTRACT DRAWINGS. CONNECTIONS SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH THE AISC "MANUAL OF STEEL CONSTRUCTION".

5. WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD D1.1. ELECTRODES FOR SHOP AND FIELD WELDS SHALL CONFORM TO AWS A5.1 OR AWS A5.5, CLASS E70XX, LOW HYDROGEN. WELDING ELECTRODES TO BE USED FOR WELDING GALVANIZED STEEL SHALL BE E7014. AFTER WELDING, APPLY GALVANIZED PAINT TO THE AFFECTED AREAS.

6. PENETRATION, MODIFICATION, & SPLICING OF STRUCTURAL STEEL WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

7. PROVIDE STRUCTURAL STEEL WITH ONE COAT OF RUST PREVENTIVE SHOP PRIMER. TOUCH UP PAINT WHERE WELDING OR ERECTION PROCEDURE DAMAGE PAINT.

8. ALL WEATHER EXPOSED STEEL SUPPORTING MASONRY, STONE, OR PRECAST CONCRETE SHALL BE HOT DIPPED GALVANIZED. ALL WEATHER EXPOSED STRUCTURAL STEEL SHALL BE BLASTED CLEAN, AND PAINTED WITH A WEATHER RESISTANT PAINT AS SELECTED BY THE OWNER OR ARCHITECT.

9. ALL ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL HAVE TOLERANCES, ALIGNMENT, AND LEVELNESS CONFORMING TO THE AISC REQUIREMENTS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL.

E. MASONRY

1. MASONRY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ACI 530 "BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES" AND ACI 530.1 "SPECIFICATIONS FOR MASONRY STRUCTURES".

2. CONCRETE MASONRY CONSTRUCTION SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F_m) OF 1500 PSI ON THE NET CROSS SECTIONAL AREA AT 28 DAYS.

3. MASONRY UNITS SHALL BE GRADE N, TYPE I MEDIUM WEIGHT HOLLOW CONCRETE UNITS CONFORMING TO THE REQUIREMENTS OF ASTM C90, MASONRY UNITS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI ON THE NET AREA AT 28 DAYS.

4. FACING BRICK SHALL CONFORM TO THE REQUIREMENTS OF ASTM C216 GRADE SW. FACING BRICK SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AS DETERMINED BY ASTM C67.

5. MORTAR SHALL CONFORM TO THE REQUIREMENTS OF ASTM C270, TYPE M OR S. TYPE M MORTAR SHALL BE USED IN BELOW GRADE APPLICATIONS AND SHALL OBTAIN AN AVERAGE COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS. TYPE S MORTAR MAY BE USED IN ABOVE GRADE APPLICATIONS AND SHALL OBTAIN AN AVERAGE COMPRESSIVE STRENGTH OF 1800 PSI AT 28 DAYS.

6. GROUT SHALL CONFORM TO ASTM C476 AND SHALL HAVE A COMPRESSIVE STRENGTH OF 2500 PSI ON THE NET AREA AT 28 DAYS.

7. REINFORCEMENT SHALL CONFORM TO THE STANDARDS SPECIFIED IN THE CONCRETE NOTES. REINFORCEMENT SHALL BE LAP SPliced A MINIMUM OF 36 BAR DIAMETER UNLESS NOTED OTHERWISE.

8. HORIZONTAL JOINT REINFORCEMENT SHALL BE USED IN THE MASONRY CONSTRUCTION. SUCH JOINT REINFORCEMENT SHALL BE PLACED AT 8 INCHES ON CENTER VERTICALLY IN WALLS BELOW GRADE AND AT 16 INCHES ON CENTER VERTICALLY IN WALLS THAT ARE ABOVE GRADE. MASONRY JOINT REINFORCING SHALL BE TRUSS TYPE ZINC COATED, COLD DRAWN STEEL WIRE CONFORMING TO ASTM A82.

9. UNLESS NOTED OTHERWISE ON PLAN, PROVIDE LOOSE ANGLE LINTELS FOR EACH 4 INCHES OF WALL THICKNESS WITH 6 INCHES MINIMUM BEARING AT EACH END.

UP TO 4'-0"	L3	1/2x3	1/2x1/4
UP TO 6'-0"	L5x3	1/2x5/16	(LLV)
UP TO 8'-0"	L6x3	1/2x5/16	(LLV)

F. WOOD

1. ALL LUMBER AND ITS FASTENINGS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, LATEST EDITION, BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.

2. ALL FRAMING LUMBER EXCEPT SILL PLATES AND TOP & BOT BEARING WALL PLATES SHALL BE HEM-FIR, GRADE #2 OR SPRUCE-PINE-FIR, GRADE #2 OR BETTER, HAVING THE FOLLOWING MIN VALUES:

BENDING STRESS "F _b ":	850 PSI (SINGLE MEMB USE)
HORIZONTAL SHEAR "F _v ":	135 PSI
COMP PERPENDICULAR TO GRAIN "F _c ⊥":	405 PSI
COMP PARALLEL TO GRAIN "F _c ":	1100 PSI
MODULUS OF ELASTICITY "E":	1,300,000 PSI

NOTE: SPRUCE-PINE-FIR (SOUTH) IS NOT ACCEPTABLE. SPRUCE-PINE-FIR MUST BE GRADED BY NLGA.

3. ALL STRUCTURAL POSTS, SILL PLATES, TOP & BOT BEARING WALL PLATES, AND EXTERIOR FRAMING LUMBER SHALL BE SOUTHERN YELLOW PINE, GRADE #2 OR BETTER, WITH THE FOLLOWING MINIMUM VALUES (BASED ON 2x12 LUMBER):

BENDING STRESS "F _b ":	975 PSI (SINGLE MEMB USE)
HORIZONTAL SHEAR "F _v ":	175 PSI
COMP PERPENDICULAR TO GRAIN "F _c ⊥":	565 PSI
COMP PARALLEL TO GRAIN "F _c ":	1450 PSI
MODULUS OF ELASTICITY "E":	1,600,000 PSI

4. ALL LVL MEMBERS SHALL BE 1.9E MICROLAM LVL WITH THE FOLLOWING ALLOWABLE DESIGN STRESSES:

BENDING STRESS "F _b ":	2600 PSI
HORIZONTAL SHEAR "F _v ":	285 PSI
COMP PERPENDICULAR TO GRAIN "F _c ⊥":	750 PSI
COMP PARALLEL TO GRAIN "F _c ":	2310 PSI
MODULUS OF ELASTICITY "E":	1,900,000 PSI

5. ALL PSL MEMBERS SHALL BE 2.0E PARALLAM PSL WITH THE FOLLOWING ALLOWABLE DESIGN STRESSES:

BENDING STRESS "F _b ":	2900 PSI
HORIZONTAL SHEAR "F _v ":	290 PSI
COMP PERPENDICULAR TO GRAIN "F _c ⊥":	650 PSI
COMP PARALLEL TO GRAIN "F _c ":	2900 PSI
MODULUS OF ELASTICITY "E":	2,000,000 PSI

4. ALL WEATHER EXPOSED DIMENSION LUMBER AND SILL PLATES BEARING ON MASONRY OR CONCRETE SHALL BE PRESSURE TREATED. WEATHER EXPOSED ENDS OF MEMBERS SHALL BE TREATED WITH C.C.A.

5. ALL FREESTANDING POSTS SHALL HAVE PREFABRICATED POST CAPS AND BASE. POSTS WITHIN WALL SHALL HAVE PREFABRICATED CAP ATTACHED TO BEAM. POSTS BEARING ON MASONRY OR CONCRETE SHALL HAVE PREFABRICATED BASE. INSTALL CONNECTORS PER MANUF RECOMMENDATIONS. CONNECTORS EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND OR SHALL BE HOT DIP GALVANIZED.

6. PROVIDE SOLID WOOD BLOCKING WITH END GRAIN BEARING BETWEEN FLOOR LEVELS BELOW ALL SOLID WOOD POSTS AND MULTIPLE STUD. COLUMN CONCENTRATED LOADS SHALL BE TRANSFERRED THROUGH FLOOR LEVELS DOWN TO TOP OF CONCRETE OR MASONRY. PROVIDE SOLID WOOD BLOCKING AT SUPPORTS, ENDS OF CANTILEVERS, AND AT 8'-0" O.C. MAXIMUM OF ANY HORIZONTAL SPAN OR AS PER MANUFACTURED MEMBER INSTALLATION INSTRUCTIONS. PROVIDE INTERMEDIATE HORIZONTAL WOOD BLOCKING AT 4'-0" MAXIMUM VERTICAL SPACING AT ALL LOAD BEARING STUD WALLS.

7. FRAMING CONNECTORS FOR JOISTS, BEAMS, TRUSSES, COLUMNS, ETC., SHALL BE BY SIMPSON STRONG-TIE COMPANY OR APPROVED EQUAL. CONNECTORS SHALL BE PROPERLY SIZED ACCORDING TO MEMBER SIZES, AND INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. CONNECTORS EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND OR SHALL BE HOT DIP GALVANIZED.

8. PROVIDE SIMPSON H2.5A UPLIFT CONNECTORS OR EQUAL AT ALL RAFTERS AND ROOF TRUSSES. REFER TO THE IRC BUILDING CODE FOR MINIMUM NAILING REQUIREMENTS FOR CONNECTING WOOD ELEMENTS. MULTIPLE BEAMS SHALL BE NAILED WITH 2 ROWS OF NAILS AT 12" O.C. MULTIPLE MEMBER STUD POSTS SHALL BE NAILED AT 6" O.C. STAGGERED.

9. DOUBLE FLOOR JOISTS UNDER NON BEARING PARTITION WALLS AND UNDER BATH TUBS PARALLEL TO THE FLOOR JOISTS. UNLESS OTHERWISE SHOWN ON KING STUDS SCHEDULE, PROVIDE DOUBLE END STUDS EACH SIDE OF WALL OPENINGS UP TO 4'-0" AND TRIPLE END STUDS EACH SIDE OF WALL OPENINGS UP TO 6'-0". MINIMUM END BEARING OF HEADERS IN BEARING WALLS SHALL BE 3" (TWO STUDS) UNLESS NOTED OTHERWISE ON PLAN.

10. WOOD JOIST AND STUDS SHALL NOT BE CUT OR NOTCHED UNLESS AUTHORIZED BY THE ENGINEER. DRILLED HOLES SHALL BE CENTERED AT MID DEPTH OF MEMBER AND THE HOLE DIA SHALL NOT EXCEED 1/3 ACTUAL DEPTH OF MEMBER. NO HOLES ARE TO BE LOCATED WITHIN 2" FROM THE ENDS OR WITHIN THE MIDDLE 1/3 OF THE SPAN. PROVIDE 4" CLEAR BETWEEN HOLES.

11. PLYWOOD WEB JOISTS (TJI), LAMINATED VENEER LUMBER (LVL), AND PARALLEL STRAND LUMBER (PSL) SHALL BE AS MANUFACTURED BY TRUS JOIST MACMILLAN OR APPROVED EQUAL. REFER TO THE MANUFACTURER RECOMMENDATIONS FOR INSTALLATION, CONNECTION, AND REINFORCEMENT DETAILS REQUIRED FOR THESE PRODUCTS. PROVIDE 1 3/4" MINIMUM BEARING FOR TJI JOISTS AND 3 1/2" MINIMUM BEARING FOR LVL AND PSL BEAMS. PROVIDE 1 1/4" MINIMUM TIMBERSTRAND RIM BOARD AT ALL PERIMETER WALLS AND SILL PLATES. PROVIDE WEB STIFFENERS 2x SQUASH BLOCKS AS SHOWN ON THE PROJECT DRAWINGS AND AS REQUIRED BY THE MANUFACTURER.

12. FASTEN MULTIPLE LVL MEMBERS TOGETHER AS FOLLOWS: 2 AND 3 MEMBERS 12" OR LESS: PROVIDE 2 ROWS OF 16d COMMON NAILS AT 12" O.C. 2 AND 3 MEMBERS > 12" DEEP: PROVIDE 3 ROWS OF 16d COMMON NAILS AT 12" O.C. NAIL 3 MEMBER ASSEMBLY FROM BOTH SIDES. FOR ONE SIDED LOADED ASSEMBLY AND 4 PIECE MEMBERS: PROVIDE 2 ROWS OF 1/2" THROUGH BOLTS @ 12" O.C. PROVIDE HEAVY DUTY FRAMING CONNECTIONS BY SIMPSON STRONG TIE COMPANY OR APPROVED EQUAL WHEN CONNECTING LVL AND PSL MEMBERS.

13. UNLESS OTHERWISE INDICATED, SUBFLOORING SHALL BE 3/4" T & G PLYWOOD APA RATED, FLOOR-FLOOR ROOF SHEATHING SHALL BE 5/8" CDX PLYWOOD APA RATED, AND WALL SHEATHING SHALL BE 1/2" CDX PLYWOOD APA RATED. PROVIDE "H" CLIPS AT BUTT JOINTS OF ROOF SHEATHING.

14. ROOF TRUSSES SHALL BE DESIGNED BY THE TRUSS MANUFACTURER FOR THE LOADS INDICATED ON THE DRAWINGS. SHOP DRAWINGS AND DESIGN CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND SHALL BE STAMPED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF THE ACTUAL CONSTRUCTION.

15. MULTIPLE TRUSSES MUST BE FASTENED TO EACH OTHER IN A MANNER AS TO SHARE THE SUPERIMPOSED LOADS INCLUDING LOADS FROM HEADERS. CONNECTORS FOR TRUSSES TO BEAMS AND TRUSS GIRDERS SHALL BE DESIGNED BY THE SPECIFIED BY THE TRUSS MANUFACTURER. WOOD TRUSSES SHALL NOT BE CUT OR DRILLED UNLESS AUTHORIZED BY THE TRUSS MANUFACTURER.

G. NOTES

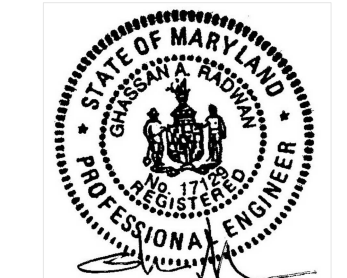
1. REFER TO ARCHITECTURAL, ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL SLEEVES, ANCHORS, VENT OPENINGS, ETC. NOT SHOWN ON STRUCTURAL DRAWINGS THAT MAY BE REQUIRED.

2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR CONCRETE AND MASONRY REINFORCING, CONCRETE MIX DESIGN, STRUCTURAL STEEL, T&E FLOOR JOIST LAYOUTS, AND ENGINEERED WOOD ROOF TRUSSES TO THE STRUCTURAL ENGINEER FOR REVIEW.

3. GUARD RAILS, HAND RAILS AND STAIRS SHALL BE ENGINEERED BY THE STAIR AND RAILING MANUFACTURER TO MEET THE IRC CODE REQUIRED DESIGN LOAD CRITERIA. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS FOR THE STAIR AND GUARD RAIL DESIGN SIGNED BY A PROFESSIONAL ENGINEER FOR REVIEW BY THE ARCHITECT AND ENGINEER OF RECORD.

4. ALL WORK SPECIFIED HEREIN SHALL BE INSPECTED BY A QUALIFIED INSPECTION AGENCY IN ACCORDANCE WITH ALL APPLICABLE BUILDING CODES AND LOCAL ORDINANCES. THE OWNER OR CONTRACTOR SHALL HIRE AN EXPERIENCED INSPECTION AGENCY TO PERFORM ALL THE REQUIRED INSPECTION WORK AND PROVIDE ANY REQUIRED CERTIFICATIONS.

Seal



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 17129, Expiration date: 11-06-22

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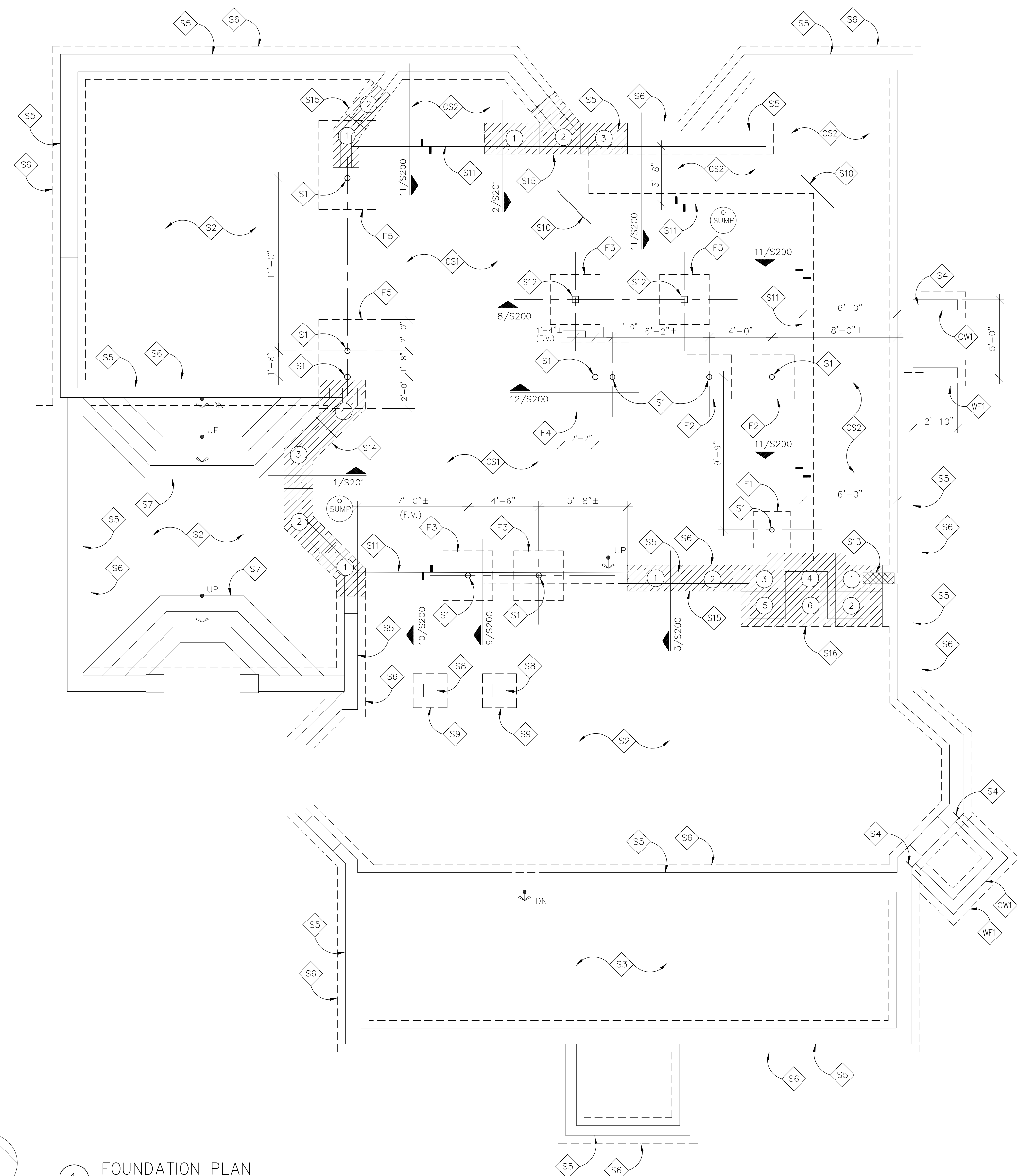
Developer

PERMIT	12-11-2020

Issue Description	Date
RAI Project No.	RA-20-117
Checked By	GR
Drawn By	GR
Scale	1=48

STRUCTURAL NOTES

Sheet No. **S001**
SHEET 1 OF 9
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CONC WALL NOTES:

CW1 8" CONC WALL W/ #5 @ 16" O.C. EACH WAY. PLACE ALL BARS IN CENTER OF WALL. LAP ALL BARS 2'-4". PROVIDE MATCHING #5 DOWELS @ 16" O.C. INTO FTG.

WALL FOOTING NOTES:

WF1 1'-8" WIDE x 1'-0" DEEP CONT CONC WALL FTG W/ (2) #5 CONT 3" FROM BOT OF FTG.

COL FOOTING NOTES:

F1 2'-4" x 2'-4" x 1'-0" DEEP CONC FTG W/ (3) #5 EACH WAY 3" FROM BOT OF FTG
 F2 2'-10" x 2'-10" x 1'-0" DEEP CONC FTG W/ (3) #5 EACH WAY 3" FROM BOT OF FTG
 F3 3'-2" x 3'-2" x 1'-0" DEEP CONC FTG W/ (4) #5 EACH WAY 3" FROM BOT OF FTG
 F4 4'-4" x 4'-4" x 1'-0" DEEP CONC FTG W/ (5) #5 EACH WAY 3" FROM BOT OF FTG
 F5 3'-8" x 5'-8" x 1'-2" DEEP CONC FTG W/ (4) #5 LONG BARS & (6) #5 SHORT BARS 3" FROM BOT OF FTG

CONC SLAB NOTES:

CS1 4" CONC SLAB OVER VAPOR BARRIER OVER 4" CRUSHED STONE OVER COMPACTED SUBGRADE W/ 6x6-W1.4xW1.4 W.W.F. @ MID-DEPTH OF SLAB
 CS2 5" CONC SLAB ON VAPOR BARRIER OVER 4" CRUSHED STONE OVER COMPACTED SUBGRADE W/ #4 @ 12" O.C. EA WAY AT MID-DEPTH OF SLAB

FOUNDATION PLAN NOTES:

S1 STEEL COL SEE SHEET S101
 S2 EXIST CONC SLAB ON GRADE TO REMAIN INTACT
 S3 EXIST CRAWL SPACE FIELD VERIFY
 S4 DRILL & EPOXY #5 DOWELS x 1'-6" @ 16" O.C. VERT SPACING W/ 6" EMBED INTO EXIST WALL. SEE DET 7/S200
 S5 EXIST MASONRY WALL FIELD VERIFY SIZE & CONDITION
 S6 EXIST WALL FTG TO REMAIN INTACT
 S7 EXIST STAIR TO REMAIN INTACT
 S8 EXIST BRICK PIER TO REMAIN INTACT FIELD VERIFY CONDITION
 S9 EXIST PIER FTG TO REMAIN INTACT
 S10 #4 x 3'-0" ADD'L SLAB CORNER BAR
 S11 SLAB DROP SEE STRUCTURAL DETAILS FOR MORE INFO
 S12 STEEL COL SEE SHEET S102
 S13 MASONRY INFILL TO MATCH EXIST WALL. TOOTH-IN & GROUT SOLID TO RESTORE STRUCTURAL INTEGRITY OF MASONRY WALL.
 S14 PROVIDE 2'-0" WIDE FTG UNDERPINNING & EXIST WALL. SEE STRUCT DETAILS FOR MORE INFO.
 S15 PROVIDE 2'-4" WIDE FTG UNDERPINNING & EXIST WALL. SEE STRUCT DETAILS FOR MORE INFO.
 S16 PROVIDE FTG UNDERPINNING & EXIST CHIMNEY WALL. PROVIDE 8" FOOTING PROJECTION ALL AROUND.

UNDERPINNING NOTES:

1. ALL UNDERPINNING WORK SHALL BE DONE BY A SPECIALTY CONTRACTOR EXPERIENCED AND INSURED FOR THIS TYPE OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURE AS THE RESULT OF THE UNDERPINNING WORK.
2. ALL UNDERPINNING WORK SHALL BE INSPECTED BY A THIRD PARTY INSPECTION AGENCY. THE SOIL BEARING MATERIAL SHALL BE APPROVED BY A REGISTERED GEOTECHNICAL ENGINEER.
3. UNDERPINNING PIERS SHALL BE INSTALLED IN THE SEQUENCE INDICATED ON THE PLANS AND THE DETAIL. PIERS SHALL BE 4'-0" MAX AND SHALL EXTEND 1'-0" MIN INTO UNDISTURBED SOIL. NO OPEN UNDERPINNING PIT SHALL BE CLOSER THAN 12'-0" CLEAR TO ANY OTHER OPEN UNDERPINNING PIT. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI. ALLOW 36 HOURS CURING PRIOR TO PLACING 2" CONTINUOUS FULL WIDTH DRYPACKING. ALLOW ANOTHER 18 HOURS BETWEEN DRYPACKING AND THE NEXT EXCAVATION SEQUENCE.

UNDERPINNING INSPECTION:

PROVIDE INSPECTION FOR ALL FOUNDATION UNDERPINNING WORK. ALL FOUNDATION UNDERPINNING WORK SHALL BE INSPECTED BY A THIRD PARTY INSPECTION AGENCY.

BRACING & SHORING NOTE:

CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, SEQUENCE, AND MEANS AND METHODS OF THE UNDERPINNING & CONSTRUCTION.

DIMENSIONING NOTE:

CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL DIMENSIONS SHOWN ON THIS DRAWINGS WITH THE ARCHITECTURAL DWGS & CIVIL DWGS.

FIELD VERIFICATION NOTE:

EXISTING INFORMATION SHOWN ON THE DRAWINGS WERE NOT VERIFIED. CONTRACTOR SHALL REVIEW DRAWINGS & FIELD VERIFY ALL EXISTING CONDITIONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT & ENGINEER PRIOR TO START OF CONSTRUCTION.

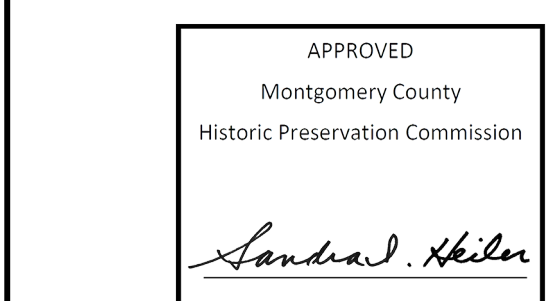
FOUNDATION NOTES:

1. STEP FOOTINGS PER DETAILS ON S200 FOR UTILITY LINES AND AS REQ'D BY THE GEOTECH ENGINEER FOR APPROVED SOIL BEARING. BOTTOM OF ALL FOOTINGS SHALL BE MIN OF 2'-6" BELOW FINISH GRADE. CONTRACTOR SHALL COORDINATE BOTTOM OF FTGS WITH SITE PLAN, ARCHT DWGS & FIELD CONDITIONS.
2. FOUNDATION WALLS SHALL HAVE P.T. 2x6 SILL PL ANCHORED TO WALL W/ 5/8" DIA x 1'-0" BOLTS @ 32" O.C. PROVIDE DRAIN BOARD, WATER PROOFING, & 4" DIA PERIMETER DRAIN PIPE DRAIN TO SUMP PUMP.

GENERAL NOTES:

1. REFER TO THE ARCHT DWGS FOR DIMENSIONS, ELEVATIONS, & BALANCE OF INFORMATION. REFER TO MEP DWGS FOR ADD'L INFO ON DRAINS, UTILITY LINES, SLEEVES, & OPENINGS REQUIREMENTS.
2. REFER TO S001 FOR STRUCTURAL NOTES. REFER TO S200, S201 & S301 FOR APPLICABLE DETAILS NOT REFERENCED ON PLAN.
3. PROVIDE SOLID BLOCKING BETWEEN FLOORS UNDER ALL WOOD POSTS ALL THE WAY DOWN TO TOP OF BEAMS & CONC WALLS. PROVIDE 2x6 SQUASH BLOCKING EACH SIDE OF TJI JOISTS AT STACKED LOAD BEARING WALLS, INSTALL PER TJI MANUF. PROVIDE INTERMEDIATE HORIZONTAL BLKG BETWEEN STUDS AT 4'-0" VERT SPACING AT ALL LOAD BEARING WALLS.
4. IN ADDITION TO POSTS SHOWN ON PLAN, PROVIDE THE FOLLOWING: ADD'L (1) KING STUD EACH SIDE OF OPNGS UP TO 4'-0" WIDE. ADD'L (2) KING STUDS EACH SIDE OF OPNGS UP TO 8'-0" WIDE.
5. PROVIDE FRAMING CONNECTORS FOR JOISTS, BEAMS & POSTS. CONNECTORS SHALL BE BY SIMPSON STRONG-TIE OR EQUAL AND SHALL BE PROPERLY SIZED ACCORDING TO MEMBER SIZES, AND INSTALLED ACCORDING TO MANUFACTURER. PROVIDE SIMPSON H2.5A UPLIFT CONNECTORS AT ALL RAFTERS. PROVIDE ST2215 STRAPS CONNECTING TOP OF SHEARWALLS TO HEADERS.
6. INSTALL CHIMNEY ANCHORAGE STRAPS AT EACH FLOOR AND AT ROOF LEVEL PER IRC BUILDING CODE.
7. REFER TO S300 FOR WALL BRACING PLANS. REFER TO S301 FOR WALL BRACING PANEL CONSTRUCTION & TYPICAL DETAILS.

1 FOUNDATION PLAN
1/4"=1'-0"



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 17129, Expiration date: 11-06-22

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Project
5 GRAFTON ST. RESIDENCE

5 GRAFTON STREET
CHEVY CHASE, MD 20815

Developer

PERMIT	12-11-2020
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Issue Description	Date
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RAI Project No. RA-20-117

Checked By GR

Drawn By GR

Scale 1=48

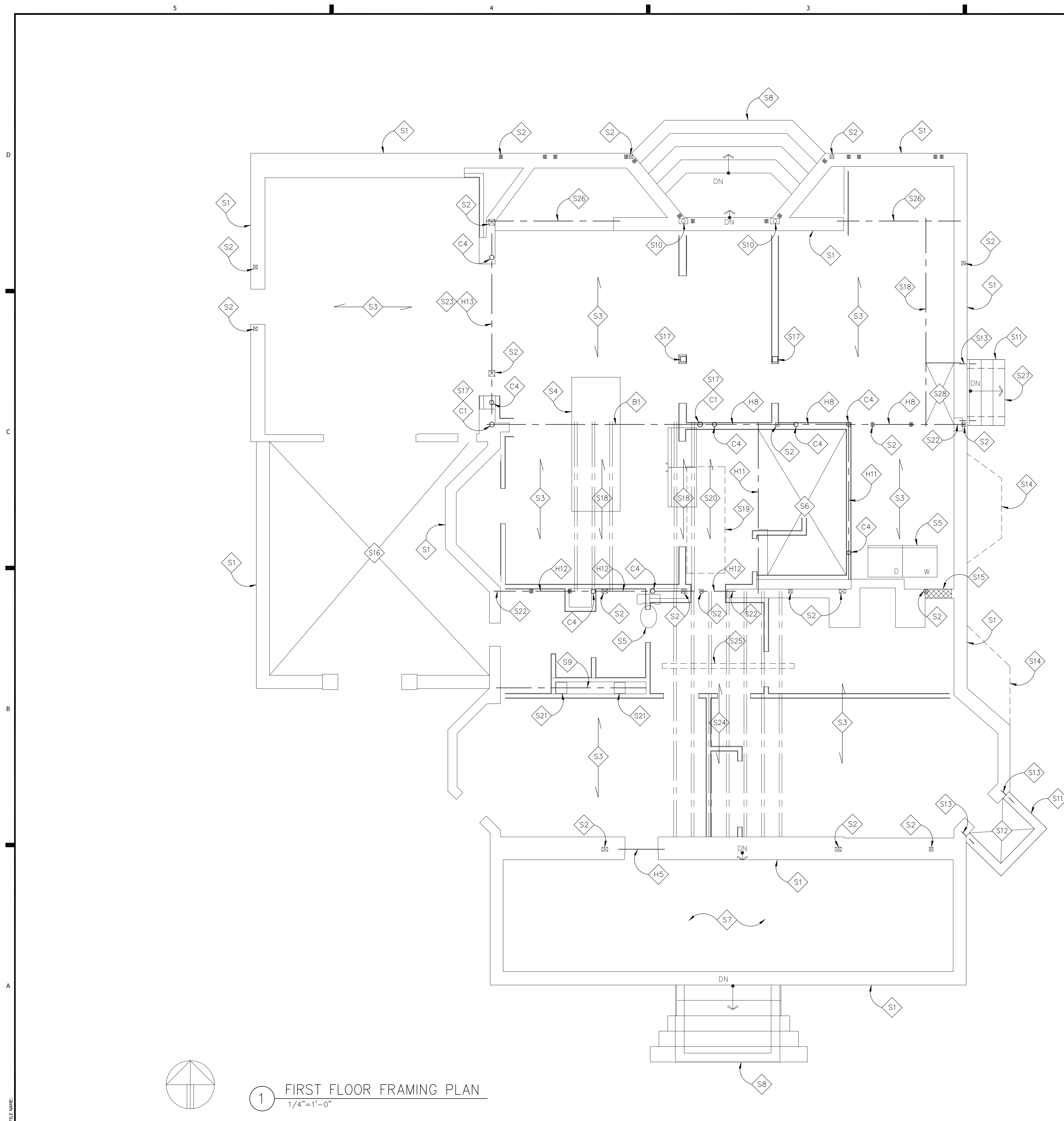
Sheet Title

FOUNDATION PLAN

Sheet No.

S100

SHEET 2 OF 9



- WOOD HEADER NOTES:**
(LVL USE 1.9E MICROLAM)
- H1 (2) 2x8 DROPPED
 - H2 (3) 2x8 DROPPED
 - H3 (2) 2x10 DROPPED
 - H4 (3) 2x10 DROPPED
 - H5 (2) 1 3/4" x 9 1/4" LVL DROPPED
 - H6 (3) 1 3/4" x 9 1/4" LVL DROPPED
 - H7 (2) 1 3/4" x 11 7/8" LVL DROPPED
 - H8 (3) 1 3/4" x 11 7/8" LVL DROPPED
 - H9 (2) 1 3/4" x 9 1/2" LVL IN SAME PLANE AS JOISTS
 - H10 (3) 1 3/4" x 9 1/2" LVL IN SAME PLANE AS JOISTS
 - H11 (2) 1 3/4" x 11 1/4" LVL IN SAME PLANE AS JOISTS
 - H12 (3) 1 3/4" x 11 1/4" LVL IN SAME PLANE AS JOISTS
 - H13 (3) 1 3/4" x 16" LVL UPSET

- STEEL BEAM NOTES:**
- B1 W10x26 STEEL BEAM UPSET W/ 2x8 PL CUT FLUSH + 1/8" & BOLT TO TOP FLANGE W/ 1/2" DIA BOLTS @ 32" O.C. STAGGERED. WELD BEAM TO TOP OF STEEL COLS.

- STEEL COLUMN NOTES:**
- C1 4" DIA STD STEEL PIPE COL (O.D.=4 1/2") ALLOW CAP = 48,000 LBS. PROVIDE 5/8" COL CAP PL & 3/4"x1"-0"x1"-0" BASE PL W/ (4) 5/8" EXP BOLTS W/ 6" EMBED INTO CONC FTG. WELD COL TO BOT OF STEEL BEAM. SEE DET 8, 9, 12/S200
 - C2 3" DIA STD STEEL PIPE COL (O.D.=3 1/2") ALLOW CAP = 30,000 LBS. PROVIDE 5/8" COL CAP PL & 5/8"x0"-5"x0"-5" BASE PL WELD COL TO BOT OF STEEL BEAM. SEE DET 6 & 7/S201
 - C3 HSS 5x5x1/4 STEEL TUBE COL CONT DOWN TO TOP OF FTG. PROVIDE 5/8" COL CAP PL & 3/4"x1"-0"x1"-0" BASE PL W/ (4) 5/8" EXP BOLTS W/ 6" EMBED INTO CONC FTG. WELD COL TO BOT OF STL BEAM. SEE DET 8/S200 & 9/S201
 - C4 4" DIA ADJUSTABLE STEEL PIPE COL. ALLOW CAP = 18,000 LBS @ 8'-0" HT INSTALL PER MANUF

BRACING & SHORING NOTE:
CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, SEQUENCE, AND MEANS AND METHODS OF THE CONSTRUCTION.

FIELD VERIFICATION NOTE:
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- FIRST FLOOR FRAMING NOTES:**
- S1 EXIST MASONRY WALL BELOW FIELD VERIFY SIZE & CONDITION
 - S2 POST ABOVE, PROVIDE SOLID BLOCKING BELOW POST BEARING LOCATION
 - S3 EXIST 2x12 FLOOR JOISTS TO REMAIN INTACT. FIELD VERIFY SIZE, ORIENTATION, & CONDITION
 - S4 KITCHEN ISLAND ABOVE
 - S5 PLUMBING DRAIN ABOVE, COORDINATE WITH FRAMING. DO NOT CUT ANY JOISTS
 - S6 STAIR OPNG
 - S7 EXIST FLOOR JOISTS TO REMAIN INTACT. FIELD VERIFY SIZE, ORIENTATION & CONDITION
 - S8 EXIST STAIR TO REMAIN INTACT
 - S9 EXIST HEADER TO REMAIN INTACT FIELD VERIFY SIZE & CONDITION
 - S10 EXIST STEEL COL ABOVE TO REMAIN INTACT FIELD VERIFY SIZE, LOCATION, & CONDITION
 - S11 CONC WALL BELOW SEE SHEET S100
 - S12 WINDOW WELL OPNG
 - S13 DRILL & EPOXY #5 DOWELS x 1'-6" @ 16" O.C. VERT SPACING W/ 6" EMBED INTO EXIST WALL SEE 7/S200
 - S14 EXIST BAY WINDOW ABOVE
 - S15 MASONRY INFILL TO MATCH EXIST WALL TOOTH-IN & GROUT SOLID TO RESTORE STRUCTURAL INTEGRITY OF MASONRY WALL.
 - S16 EXIST PATIO BELOW
 - S17 STEEL COL ABOVE SEE SHEET S102
 - S18 PROVIDE DOUBLE JOISTS. FIELD VERIFY EXIST CONDITION
 - S19 EXIST STAIR OPNG TO BE REMOVED
 - S20 2x12 @ 16" O.C. FULL SPAN FLOOR JOISTS INFILL
 - S21 EXIST BRICK PIER TO REMAIN INTACT FIELD VERIFY CONDITION
 - S22 PROVIDE POCKET W/ 6" BEARING OVER GROUTED MASONRY WALL
 - S23 PROVIDE BEAM CANTILEVER END
 - S24 SISTER EACH EXIST JOISTS W/ FULL LENGTH EQUAL SIZE LVL JOIST. NAIL W/ (2) ROWS OF 16d NAILS @ 8" O.C. FRAME ONE END INTO LVL HEADER. DISCONTINUE OTHER END AT FACE OF EXIST WALL
 - S25 WOOD STUD BEARING WALL ABOVE
 - S26 EXIST (2) 2x12 HEADER TO REMAIN INTACT FIELD VERIFY SIZE & CONDITION
 - S27 CONC STAIRS SEE DET 13/S200
 - S28 (2) 2x6 @ 16" O.C. SET BOTTOM FLUSH W/ JOISTS AT RECESSED ENTRY

GENERAL NOTES:

1. REFER TO THE ARCH DWGS FOR DIMENSIONS, ELEVATIONS, & BALANCE OF INFORMATION. REFER TO MEP DWGS FOR ADD'L INFO ON DRAINS, UTILITY LINES, SLEEVES, & OPENINGS REQUIREMENTS.
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3. PROVIDE SOLID BLOCKING BETWEEN FLOORS UNDER ALL WOOD POSTS ALL THE WAY DOWN TO TOP OF BEAMS & CONC WALLS. PROVIDE 2x6 SQUASH BLOCKING EACH SIDE OF TJI JOISTS AT STACKED LOAD BEARING WALLS. INSTALL PER TJI MANUF. PROVIDE INTERMEDIATE HORIZONTAL BLKG BETWEEN STUDS AT 4'-0" VERT SPACING AT ALL LOAD BEARING WALLS.
4. IN ADDITION TO POSTS SHOWN ON PLAN, PROVIDE THE FOLLOWING: ADD'L (1) KING STUD EACH SIDE OF OPNGS UP TO 4'-0" WIDE. ADD'L (2) KING STUDS EACH SIDE OF OPNGS UP TO 8'-0" WIDE.
5. PROVIDE FRAMING CONNECTORS FOR JOISTS, BEAMS & POSTS. CONNECTORS SHALL BE BY SIMPSON STRONG-TIE OR EQUAL AND SHALL BE PROPERLY SIZED ACCORDING TO MEMBER SIZES, AND INSTALLED ACCORDING TO MANUFACTURER. PROVIDE SIMPSON H2.5A UPLIFT CONNECTORS AT ALL RAFTERS. PROVIDE ST2215 STRAPS CONNECTING TOP OF SHEARWALLS TO HEADERS.
6. INSTALL CHIMNEY ANCHORAGE STRAPS AT EACH FLOOR AND AT ROOF LEVEL PER IRC BUILDING CODE.
7. REFER TO S300 FOR WALL BRACING PLANS. REFER TO S301 FOR WALL BRACING PANEL CONSTRUCTION & TYPICAL DETAILS.

1 FIRST FLOOR FRAMING PLAN
1/4"=1'-0"



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 17129, Expiration date: 11-06-22

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Project
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5 GRAFTON STREET
CHEVY CHASE, MD 20815

Developer

PERMIT 12-11-2020

Issue Description **Date**

RAI Project No. RA-20-117

Checked By GR

Drawn By GR

Scale 1=48

Sheet Title

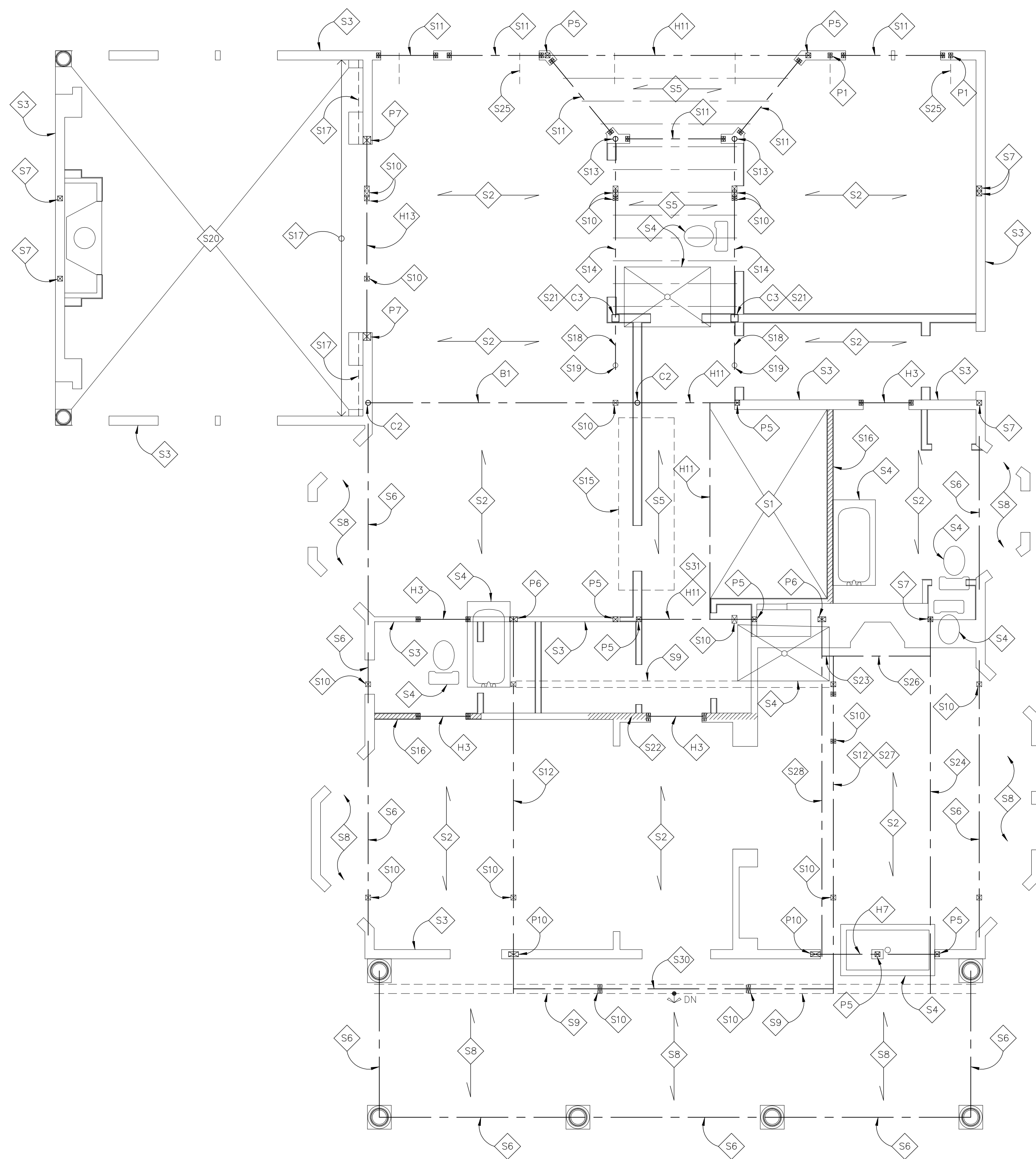
1ST FLOOR FRAMING

Sheet No.

S101
SHEET 3 OF 9

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5 4 3 2 1



WOOD HEADER NOTES:
(LVL USE 1.9E MICROLAM)

- H1 (2) 2x8 DROPPED
- H2 (3) 2x8 DROPPED
- H3 (2) 2x10 DROPPED
- H4 (3) 2x10 DROPPED
- H5 (2) 1 3/4" x 9 1/4" LVL DROPPED
- H6 (3) 1 3/4" x 9 1/4" LVL DROPPED
- H7 (2) 1 3/4" x 11 7/8" LVL DROPPED
- H8 (3) 1 3/4" x 11 7/8" LVL DROPPED
- H9 (2) 1 3/4" x 9 1/2" LVL IN SAME PLANE AS JOISTS
- H10 (3) 1 3/4" x 9 1/2" LVL IN SAME PLANE AS JOISTS
- H11 (2) 1 3/4" x 11 1/4" LVL IN SAME PLANE AS JOISTS
- H12 (3) 1 3/4" x 11 1/4" LVL IN SAME PLANE AS JOISTS
- H13 (3) 1 3/4" x 16" LVL UPSET

WOOD POST NOTES:
(PSL USE 2.0E PARALLAM)

- P1 (2) 2x4
- P2 (3) 2x4
- P3 (2) 2x6
- P4 (3) 2x6
- P5 3 1/2" x 3 1/2" PSL
- P6 3 1/2" x 5 1/4" PSL
- P7 5 1/4" x 5 1/4" PSL
- P8 P.T. 4x6 SOLID WOOD
- P9 P.T. 6x6 SOLID WOOD
- P10 3 1/2" x 7" PSL
- P11 5 1/4" x 7" PSL

STEEL BEAM NOTES:

- B1 W10x26 STEEL BEAM UPSET W/ 2x8 PL CUT FLUSH + 1/8" & BOLT TO TOP FLANGE W/ 1/2" DIA BOLTS @ 32" O.C. STAGGERED. WELD BEAM TO TOP OF STEEL COLS.

STEEL COLUMN NOTES:

- C1 4" DIA STD STEEL PIPE COL (O.D.=4 1/2") ALLOW CAP = 48,000 LBS. PROVIDE 5/8" COL CAP PL & 3/4"x1'-0"x1'-0" BASE PL W/ (4) 5/8" EXP BOLTS W/ 6" EMBED INTO CONC FTG. WELD COL TO BOT OF STEEL BEAM. SEE DET 8, 9, 12/S200
- C2 3" DIA STD STEEL PIPE COL (O.D.=3 1/2") ALLOW CAP = 30,000 LBS. PROVIDE 5/8" COL CAP PL & 5/8"x0'-5"x0'-5" BASE PL WELD COL TO BOT OF STEEL BEAM. SEE DET 6 & 7/S201
- C3 HSS 5x5x1/4 STEEL TUBE COL CONT DOWN TO TOP OF FTG. PROVIDE 5/8" COL CAP PL & 3/4"x1'-0"x1'-0" BASE PL W/ (4) 5/8" EXP BOLTS W/ 6" EMBED INTO CONC FTG. WELD COL TO BOT OF STL BEAM. SEE DET 8/S200 & 9/S201
- C4 4" DIA ADJUSTABLE STEEL PIPE COL. ALLOW CAP = 18,000 LBS @ 8'-0" HT INSTALL PER MANUF

POST NOTE:

- P3 PROVIDE P3 POSTS AT H2 & H4 HEADERS TYPICAL WHERE NOT NOTED ON PLAN.
- P1 PROVIDE P1 POSTS AT H1 & H3 HEADERS TYPICAL WHERE NOT NOTED ON PLAN.

BRACING & SHORING NOTE:

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FIELD VERIFICATION NOTE:

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SECOND FLOOR FRAMING NOTES:

- S1 STAIR OPNG
- S2 EXIST 2x12 FLOOR JOISTS TO REMAIN INTACT. FIELD VERIFY SIZE, ORIENTATION, & CONDITION
- S3 EXIST WOOD STUD BEARING WALL BELOW FIELD VERIFY
- S4 PLUMBING DRAIN ABOVE. COORDINATE WITH FRAMING. DO NOT CUT ANY JOISTS
- S5 2x12 @ 16" O.C. FULL SPAN FLOOR JOISTS INFILL
- S6 EXIST HEADER TO REMAIN INTACT FIELD VERIFY SIZE & CONDITION
- S7 EXIST 4x4 POST BELOW TO REMAIN INTACT FIELD VERIFY CONDITION OR PROVIDE NEW POST
- S8 EXIST ROOF FRAMING FIELD VERIFY SIZE & CONDITION
- S9 WOOD STUD BEARING WALL ABOVE
- S10 POST ABOVE. PROVIDE SOLID BLOCKING BELOW POST BEARING LOCATION
- S11 EXIST (2) 2x10 HEADER TO REMAIN INTACT FIELD VERIFY SIZE & CONDITION
- S12 EXIST W10x17 STEEL BEAM TO REMAIN INTACT FIELD VERIFY SIZE & CONDITION
- S13 EXIST STEEL COL TO REMAIN INTACT FIELD VERIFY SIZE & CONDITION
- S14 EXIST W8x18 STEEL BEAM TO REMAIN INTACT FIELD VERIFY SIZE & CONDITION
- S15 EXIST STAIR OPNG TO BE REMOVED
- S16 2x4 STUDS @ 16" O.C. BEARING WALL BELOW. PROVIDE INTERMEDIATE HORIZ BLKG @ 4'-0" MAX VERT SPACING
- S17 PROVIDE 1/2" PLYWD SHEATHING ON ONE FACE OF STUDS & NAIL W/ 8d NAILS @ 4" O.C. AT PANEL EDGE & NAIL @ 12" O.C. AT INTERMEDIATE SUPPORTS. PROVIDE HORIZONTAL BLKG AS REQ'D
- S18 PART OF EXIST CANTILEVER STEEL BEAM TO REMAIN INTACT
- S19 EXIST STEEL COL TO BE REMOVED. PROVIDE TEMPORARY SHORING OF THE STEEL BEAM TO REMAIN
- S20 OPEN TO BELOW
- S21 SEE DET 9/S201 FOR OPTIONAL INTERMEDIATE COL SPLICE
- S22 2x6 STUDS @ 16" O.C. BEARING WALL BELOW. PROVIDE INTERMEDIATE HORIZ BLKG @ 4'-0" MAX VERT SPACING
- S23 PROVIDE 6000 LBS FACE MOUNTED HANGER W/ 16d NAILS. PROVIDE (4) 5/8" DIA THRU BOLTS EACH SIDE OF HANGER. PROVIDE TOTAL OF 8 BOLTS
- S24 EXIST TRUE (2) 2x12 JOISTS TO REMAIN INTACT FIELD VERIFY CONDITION
- S25 RAFTER BEAM ABOVE SEE SHEET S103
- S26 EXIST (2) 1 3/4" x 11 1/4" LVL TO REMAIN INTACT FIELD VERIFY CONDITION
- S27 EXIST TOP MOUNTED STEEL SADDLE HANGER AT ONE END TO REMAIN INTACT
- S28 EXIST (1) 1 3/4" x 11 1/4" LVL PLUS TRUE (1) 2x12 TO REMAIN INTACT FIELD VERIFY CONDITION
- S29 PROVIDE (1) 1 3/4" x 11 1/4" LVL PLUS TRUE (1) 2x12 HEADER NAIL W/ (2) ROWS OF 16d NAIL @ 8" O.C.
- S30 EXIST (2) 1 3/4" x 14" LVL W/ 1 1/2" x 8'-0" LONG TOP NOTCH TO REMAIN INTACT FIELD VERIFY CONDITION
- S31 PROVIDE (2) ROWS OF 5/8" DIA THRU BOLTS @ 16" O.C. INTO EXIST HEADER

GENERAL NOTES:

1. REFER TO THE ARCHT DWGS FOR DIMENSIONS, ELEVATIONS, & BALANCE OF INFORMATION. REFER TO MEP DWGS FOR ADD'L INFO ON DRAINS, UTILITY LINES, SLEEVES, & OPENINGS REQUIREMENTS.
2. REFER TO S001 FOR STRUCTURAL NOTES. REFER TO S200, S201 & S301 FOR APPLICABLE DETAILS NOT REFERENCED ON PLAN.
3. PROVIDE SOLID BLOCKING BETWEEN FLOORS UNDER ALL WOOD POSTS ALL THE WAY DOWN TO TOP OF BEAMS & CONC WALLS. PROVIDE 2x6 SQUASH BLOCKING EACH SIDE OF TJI JOISTS AT STACKED LOAD BEARING WALLS. INSTALL PER TJI MANUF. PROVIDE INTERMEDIATE HORIZONTAL BLKG BETWEEN STUDS AT 4'-0" VERT SPACING AT ALL LOAD BEARING WALLS.
4. IN ADDITION TO POSTS SHOWN ON PLAN, PROVIDE THE FOLLOWING: ADD'L (1) KING STUD EACH SIDE OF OPNGS UP TO 4'-0" WIDE. ADD'L (2) KING STUDS EACH SIDE OF OPNGS UP TO 8'-0" WIDE.
5. PROVIDE FRAMING CONNECTORS FOR JOISTS, BEAMS & POSTS. CONNECTORS SHALL BE BY SIMPSON STRONG-TIE OR EQUAL AND SHALL BE PROPERLY SIZED ACCORDING TO MEMBER SIZES, AND INSTALLED ACCORDING TO MANUFACTURER. PROVIDE SIMPSON H2.5A UP/LIFT CONNECTORS AT ALL RAFTERS. PROVIDE ST2215 STRAPS CONNECTING TOP OF SHEARWALLS TO HEADERS.
6. INSTALL CHIMNEY ANCHORAGE STRAPS AT EACH FLOOR AND AT ROOF LEVEL PER IRC BUILDING CODE.
7. REFER TO S300 FOR WALL BRACING PLANS. REFER TO S301 FOR WALL BRACING PANEL CONSTRUCTION & TYPICAL DETAILS.

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



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 17129, Expiration date: 11-06-22

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Developer

PERMIT 12-11-2020

Issue Description **Date**

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Checked By GR

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Scale 1=48

Sheet Title

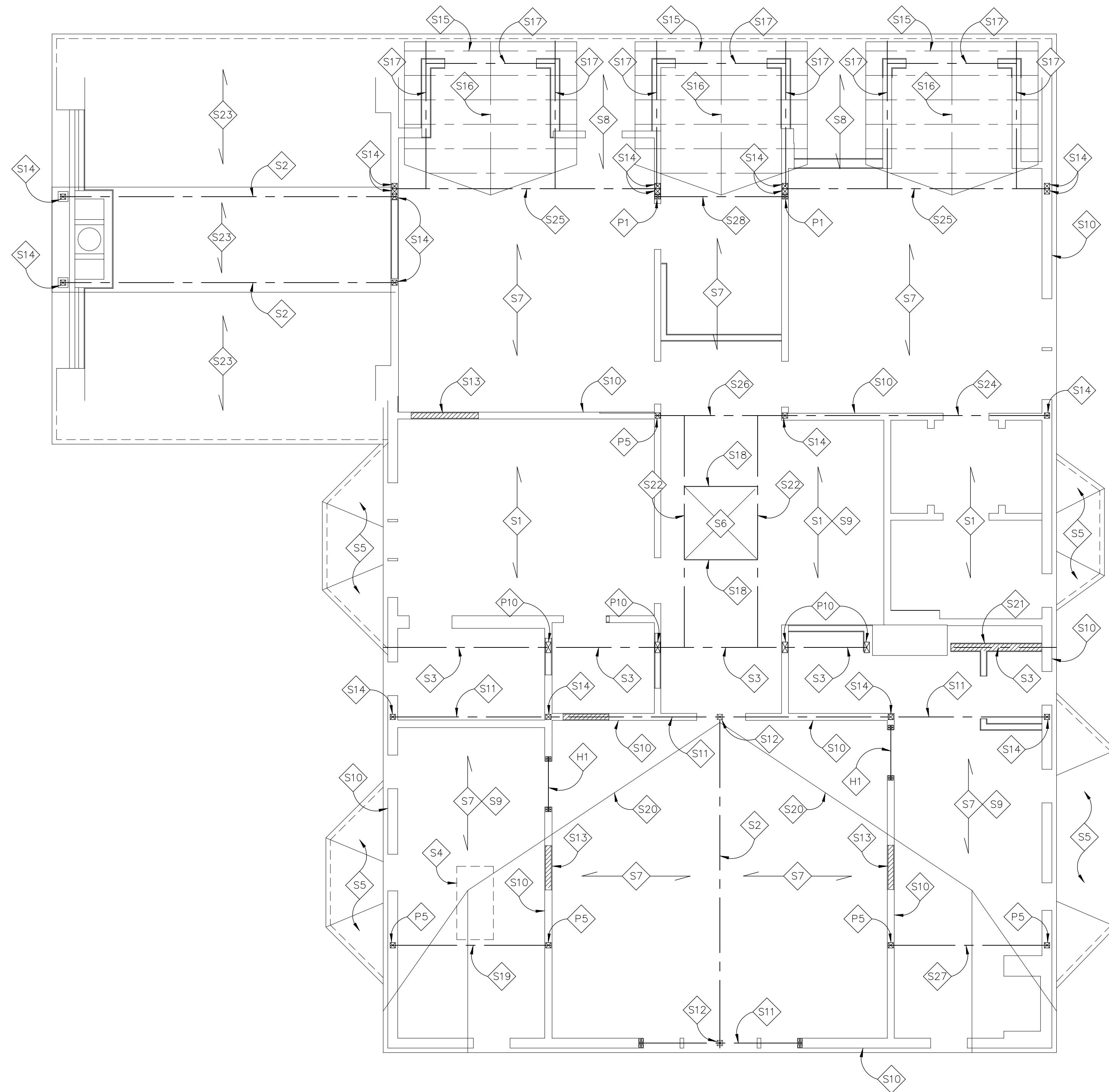
2ND FLOOR FRAMING

Sheet No.

S102

SHEET 4 OF 9

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- WOOD POST NOTES:**
(PSL USE 2.0E PARALLAM)
- P1 (2) 2x4
 - P2 (3) 2x4
 - P3 (2) 2x6
 - P4 (3) 2x6
 - P5 3 1/2"x 3 1/2" PSL
 - P6 3 1/2"x 5 1/4" PSL
 - P7 5 1/4"x 5 1/4" PSL
 - P8 P.T. 4x6 SOLID WOOD
 - P9 P.T. 6x6 SOLID WOOD
 - P10 3 1/2"x 7" PSL
 - P11 5 1/4"x 7" PSL

- WOOD HEADER NOTES:**
(LVL USE 1.9E MICROLAM)
- H1 (2) 2x8 DROPPED
 - H2 (3) 2x8 DROPPED
 - H3 (2) 2x10 DROPPED
 - H4 (3) 2x10 DROPPED
 - H5 (2) 1 3/4"x 9 1/4" LVL DROPPED
 - H6 (3) 1 3/4"x 9 1/4" LVL DROPPED
 - H7 (2) 1 3/4"x 11 7/8" LVL DROPPED
 - H8 (3) 1 3/4"x 11 7/8" LVL DROPPED
 - H9 (2) 1 3/4"x 9 1/2" LVL IN SAME PLANE AS JOISTS
 - H10 (3) 1 3/4"x 9 1/2" LVL IN SAME PLANE AS JOISTS
 - H11 (2) 1 3/4"x 11 1/4" LVL IN SAME PLANE AS JOISTS
 - H12 (3) 1 3/4"x 11 1/4" LVL IN SAME PLANE AS JOISTS
 - H13 (3) 1 3/4"x 16" LVL UPSET

- ROOF FRAMING NOTES:**
- S1 EXIST 2x8 RAFTERS FIELD VERIFY SIZE & CONDITION
 - S2 EXIST (1) 1 3/4" x14 LVL RIDGE BEAM TO REMAIN INTACT FIELD VERIFY SIZE & CONDITION
 - S3 EXIST VALLEY BEAM TO REMAIN INTACT FIELD VERIFY SIZE & CONDITION
 - S4 ATTIC ACCESS - PROVIDE DOUBLE CEILING JOISTS EACH SIDE OF OPNG
 - S5 EXIST ROOF FRAMING BELOW SEE SHEET S102
 - S6 SKYLIGHT OPNG
 - S7 EXIST 2x10 RAFTERS FIELD VERIFY SIZE & CONDITION
 - S8 SISTER EXIST 2x6 RAFTERS W/ 2x8 RAFTERS
 - S9 PROVIDE 2x8 CEILING JOISTS @ 16" O.C. AS NEEDED. FIELD VERIFY EXIST CONDITION
 - S10 EXIST WOOD STUD BEARING WALL BELOW FIELD VERIFY
 - S11 EXIST HEADER TO REMAIN INTACT FIELD VERIFY SIZE & CONDITION
 - S12 EXIST STUB POST BELOW TO REMAIN INTACT FIELD VERIFY CONDITION
 - S13 2x4 STUDS @ 16" O.C. BEARING WALL BELOW. PROVIDE INTERMEDIATE HORIZ BLKG @ 4'-0" MAX VERT SPACING
 - S14 EXIST 4x4 POST BELOW TO REMAIN INTACT FIELD VERIFY CONDITION OR PROVIDE NEW POST
 - S15 2x6 RAFTERS @ 16" O.C.
 - S16 2x8 RIDGE PLATE
 - S17 (2) 2x8 IN SAME PLANE AS RAFTERS
 - S18 (2) 2x10 IN SAME PLANE AS RAFTERS
 - S19 (2) 1 3/4"x 9 1/4" LVL IN SAME PLANE AS RAFTERS
 - S20 EXIST VALLEY PLATE TO REMAIN INTACT
 - S21 2x6 STUDS @ 16" O.C. BEARING WALL BELOW. PROVIDE INTERMEDIATE HORIZ BLKG @ 4'-0" MAX VERT SPACING
 - S22 (3) 2x10 IN SAME PLANE AS RAFTERS
 - S23 EXIST (3) 1" DEEP WOOD DECKING TO REMAIN INTACT FIELD VERIFY SIZE & CONDITION
 - S24 EXIST W8x10 STEEL BEAM TO REMAIN INTACT
 - S25 EXIST (4) 2x12 W/ (2) 1/2" PLYWD TO REMAIN INTACT FIELD VERIFY CONDITION. BOLTS EXIST (4) PLY W/ (2) ROWS OF 1/2" DIA THRU BOLTS @ 24" O.C.
 - S26 (2) 1 3/4"x 9 1/4" LVL SET BOTTOM FLUSH W/ CEILING JOISTS. PROVIDE BLKG TO SUPPORT RAFTERS ABOVE
 - S27 EXIST (2) 1 3/4"x 9 1/4" LVL TO REMAIN INTACT
 - S28 (2) 2x12 SET BOTTOM FLUSH W/ CEILING JOISTS

POST NOTE:

- P3 PROVIDE P3 POSTS AT H2 & H4 HEADERS TYPICAL WHERE NOT NOTED ON PLAN.
- P1 PROVIDE P1 POSTS AT H1 & H3 HEADERS TYPICAL WHERE NOT NOTED ON PLAN.

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 - PROVIDE SOLID BLOCKING BETWEEN FLOORS UNDER ALL WOOD POSTS ALL THE WAY DOWN TO TOP OF BEAMS & CONC WALLS. PROVIDE 2x6 SQUASH BLOCKING EACH SIDE OF TJI JOISTS AT STACKED LOAD BEARING WALLS. INSTALL PER TJI MANUF. PROVIDE INTERMEDIATE HORIZONTAL BLKG BETWEEN STUDS AT 4'-0" VERT SPACING AT ALL LOAD BEARING WALLS.
 - IN ADDITION TO POSTS SHOWN ON PLAN, PROVIDE THE FOLLOWING: ADD'L (1) KING STUD EACH SIDE OF OPNGS UP TO 4'-0" WIDE. ADD'L (2) KING STUDS EACH SIDE OF OPNGS UP TO 8'-0" WIDE.
 - PROVIDE FRAMING CONNECTORS FOR JOISTS, BEAMS & POSTS. CONNECTORS SHALL BE BY SIMPSON STRONG-TIE OR EQUAL AND SHALL BE PROPERLY SIZED ACCORDING TO MEMBER SIZES, AND INSTALLED ACCORDING TO MANUFACTURER. PROVIDE SIMPSON H2.5A UPLIFT CONNECTORS AT ALL RAFTERS. PROVIDE ST2215 STRAPS CONNECTING TOP OF SHEARWALLS TO HEADERS.
 - INSTALL CHIMNEY ANCHORAGE STRAPS AT EACH FLOOR AND AT ROOF LEVEL PER IRC BUILDING CODE.
 - REFER TO S300 FOR WALL BRACING PLANS. REFER TO S301 FOR WALL BRACING PANEL CONSTRUCTION & TYPICAL DETAILS.

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



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5 GRAFTON STREET
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Developer

PERMIT 12-11-2020

Issue Description **Date**

RAI Project No. RA-20-117

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Sheet Title
ROOF FRAMING

Sheet No.
S103
SHEET 5 OF 9



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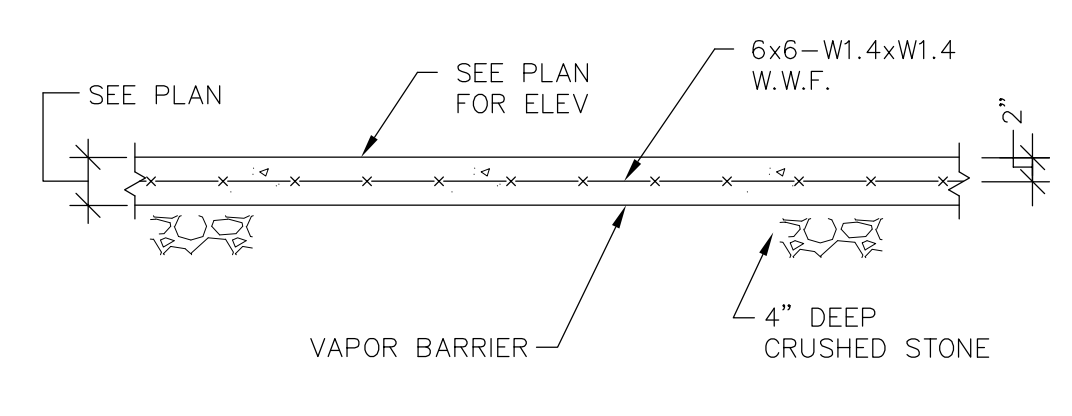
Developer

PERMIT	12-11-2020

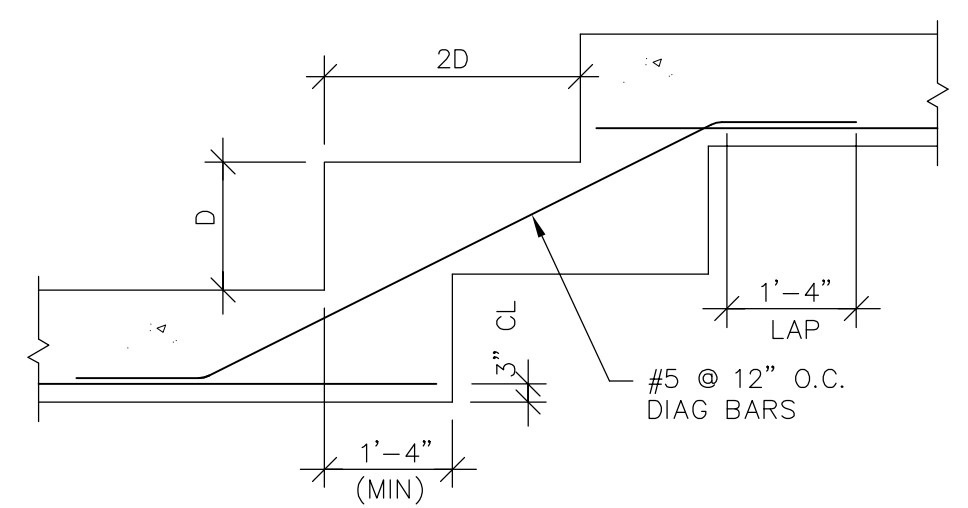
Issue Description	Date
RAI Project No.	RA-20-117
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Sheet Title
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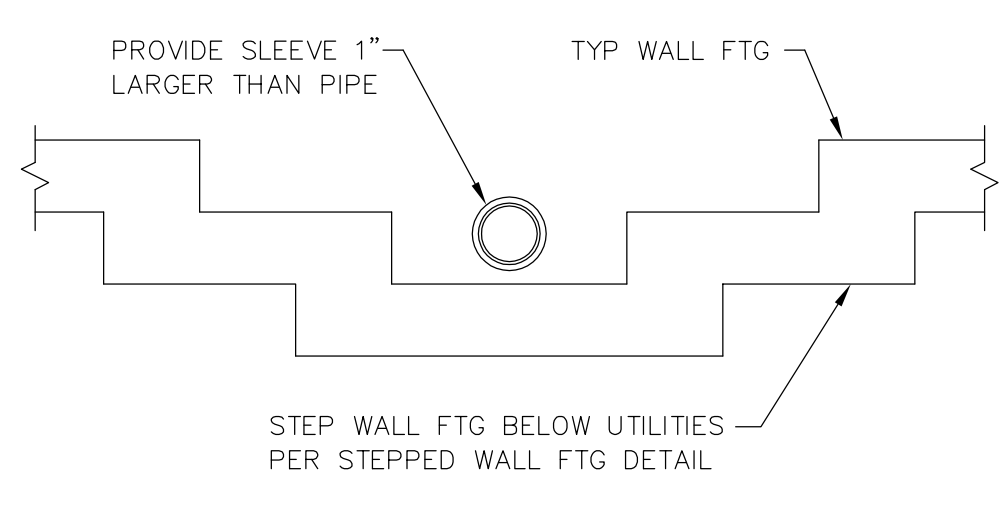
Sheet No.
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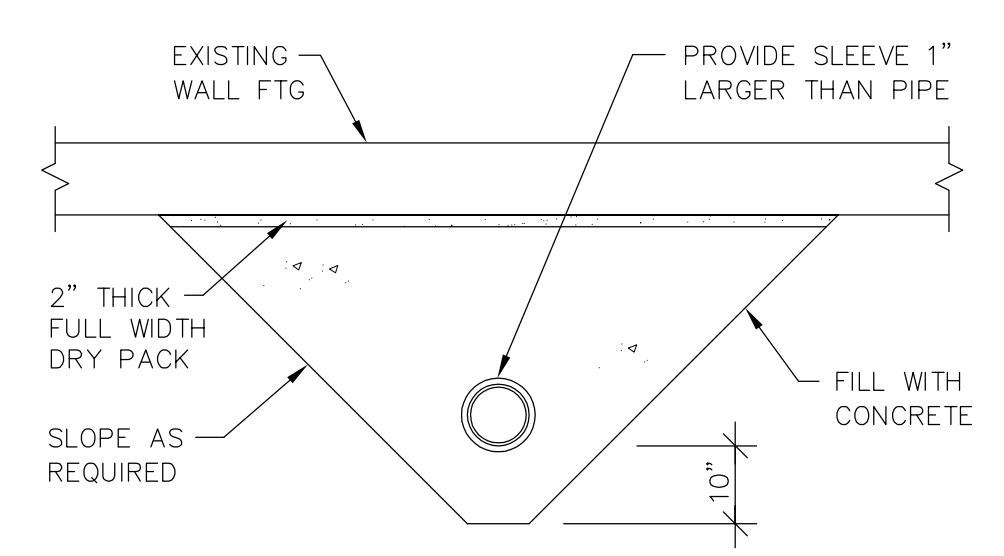
1 SECT @ SLAB ON GRADE
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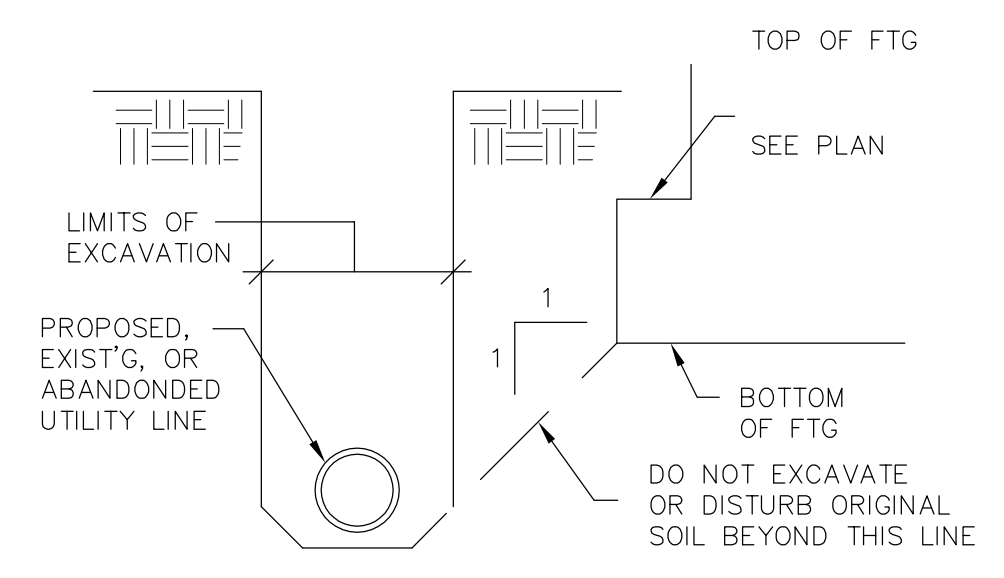
2 SECT @ STEPPED FTG
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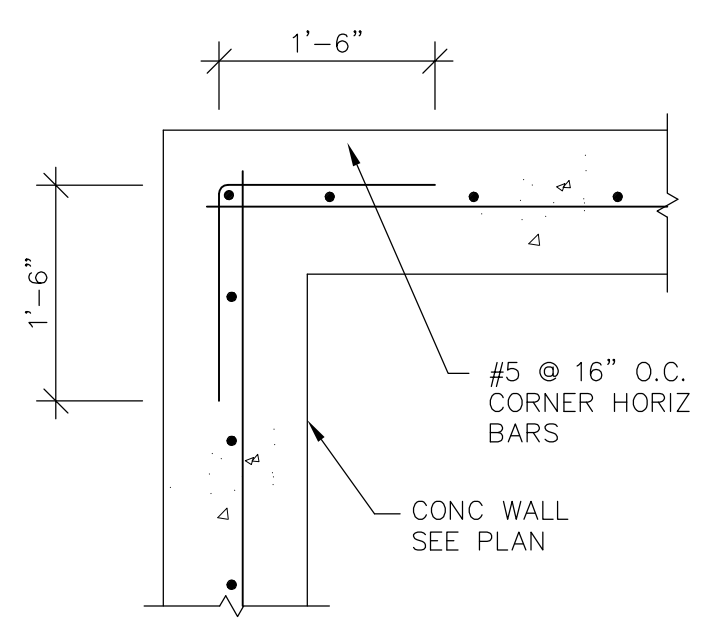
3 FTG @ UTILITY LINE
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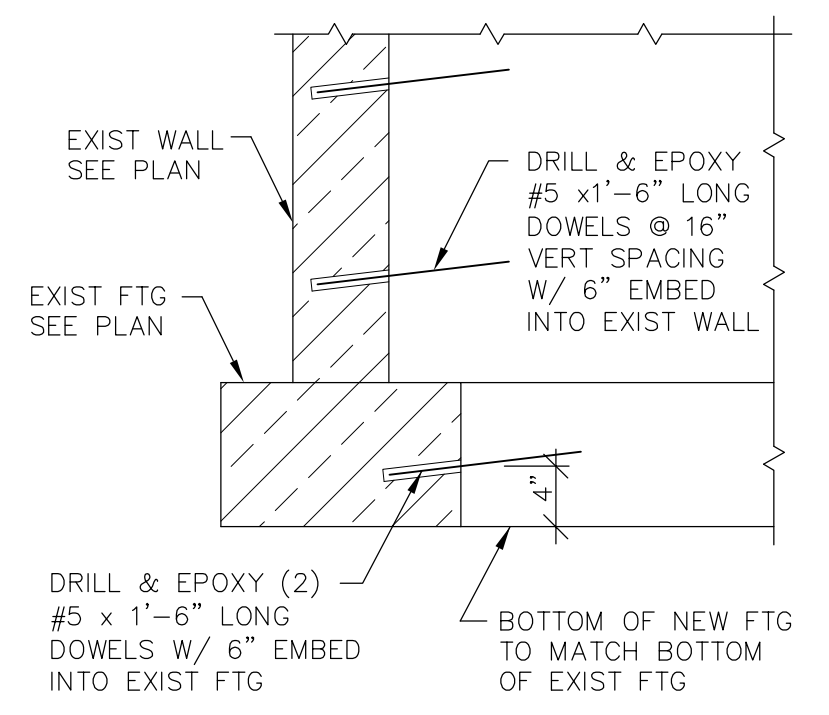
4 FTG @ UTILITY LINE
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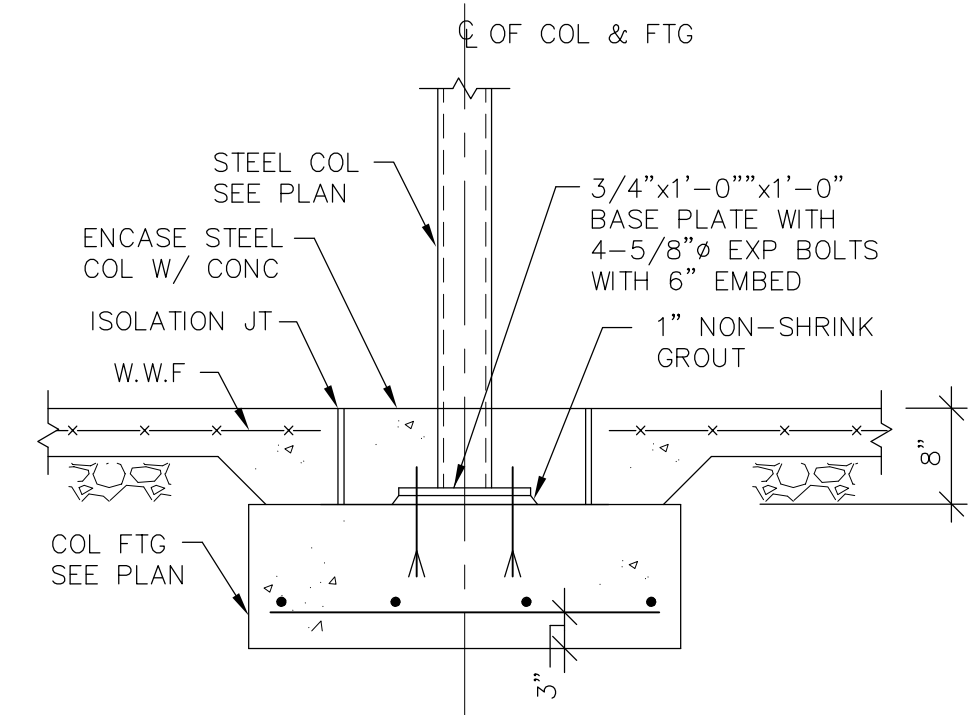
5 FTG @ UTILITY LINE
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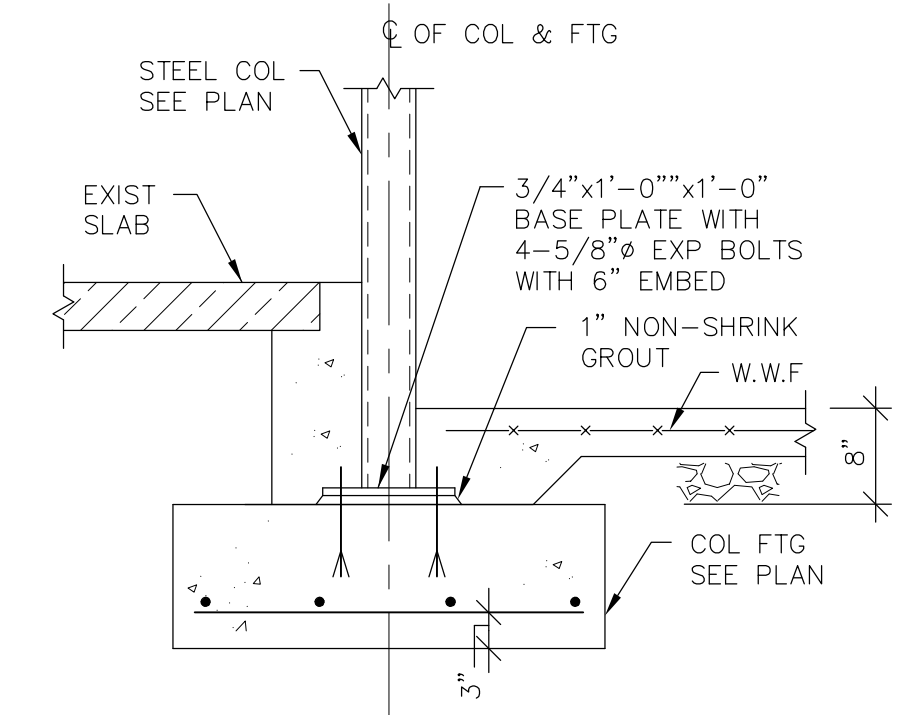
6 WALL CORNER REINF
N.T.S.



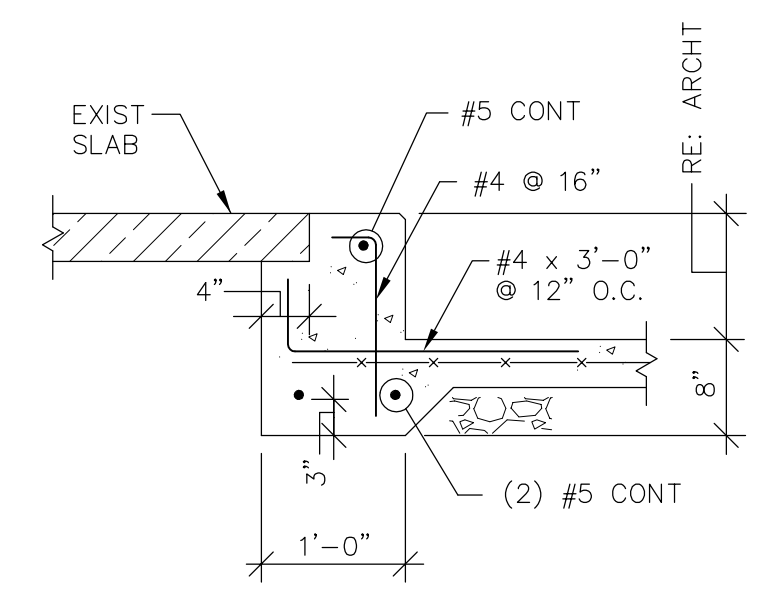
7 SECT @ NEW WALL FTG
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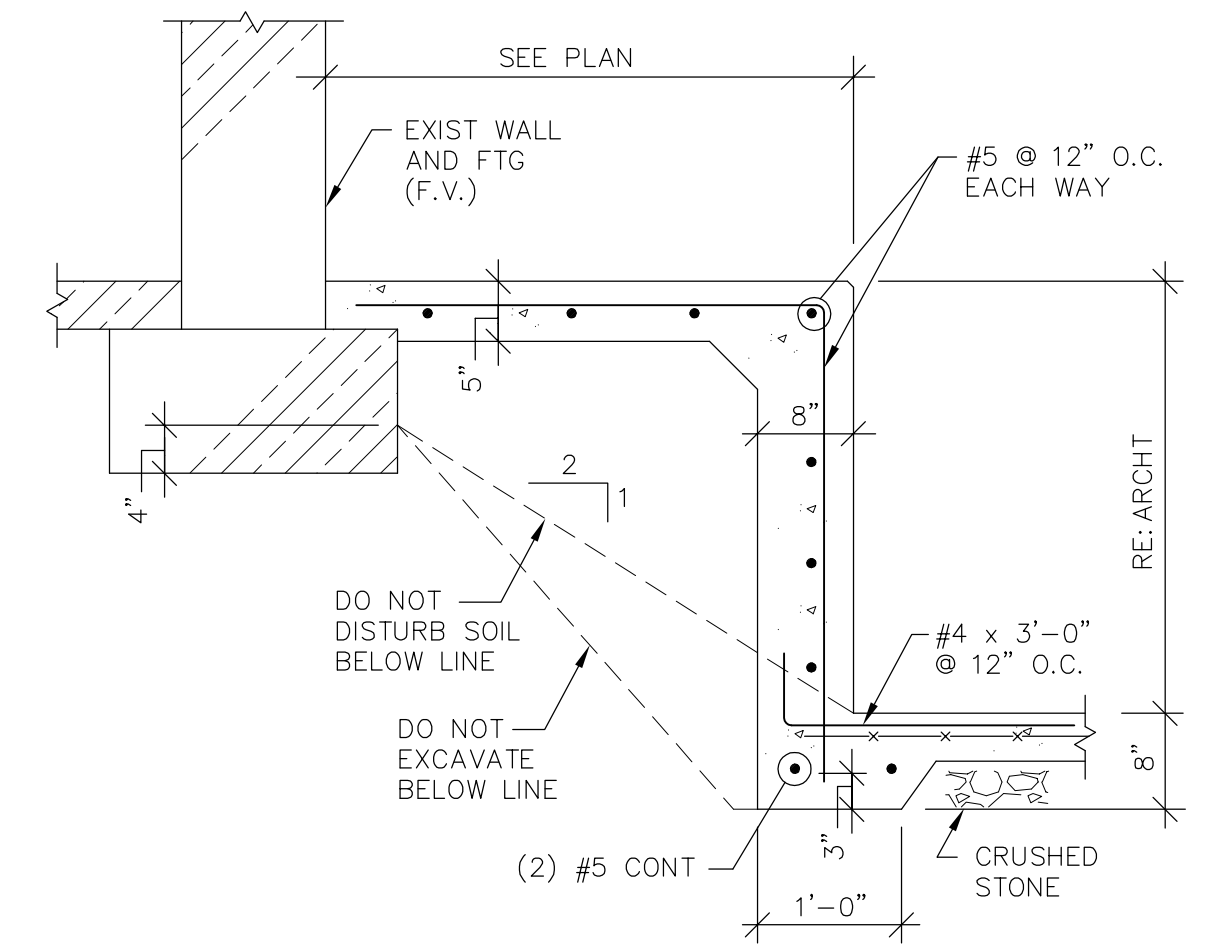
8 SECT @ STEEL COL
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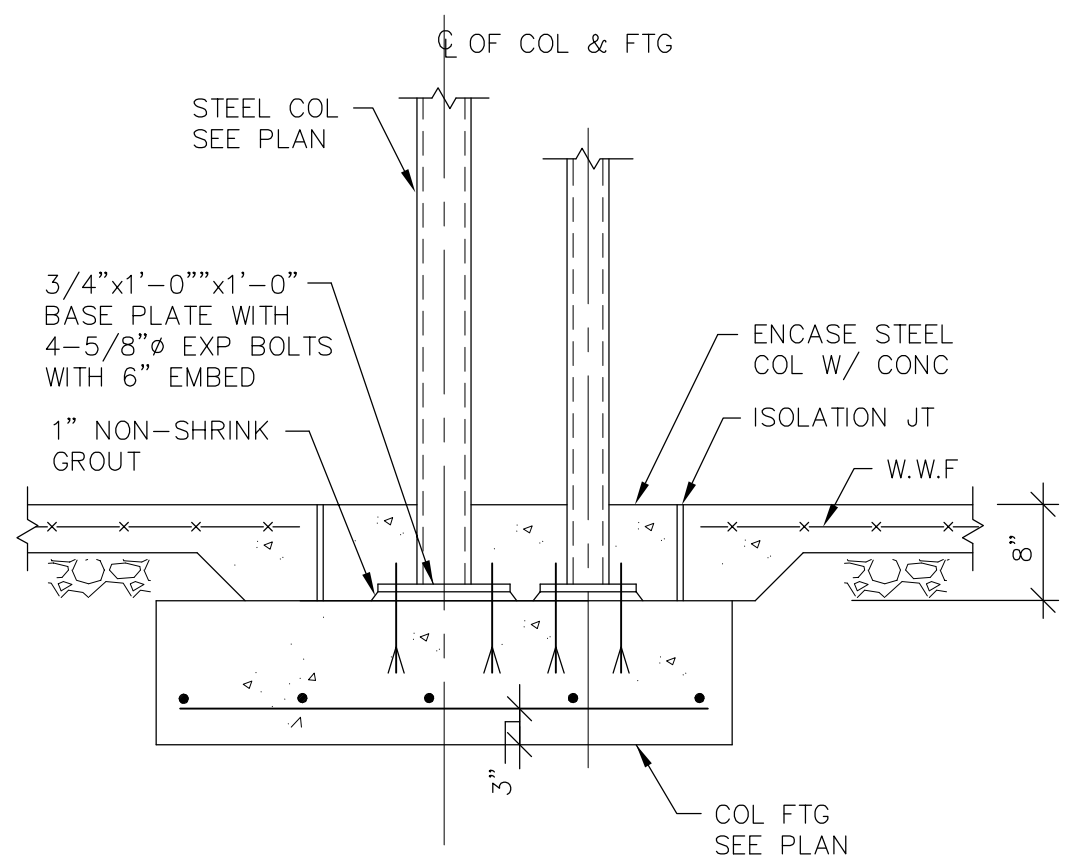
9 SECT @ STEEL COL
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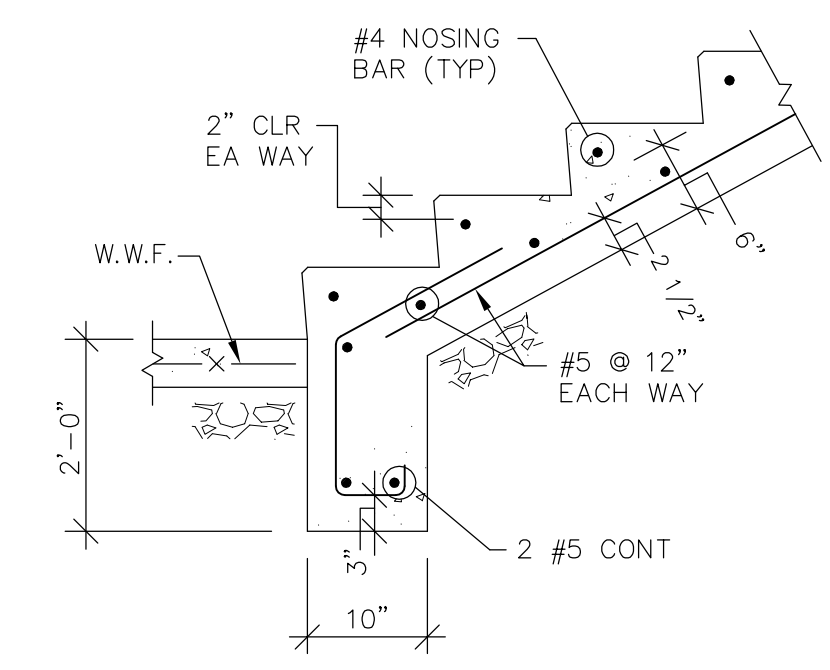
10 SECTION
N.T.S.



11 SECT @ LOWERED SLAB
N.T.S.



12 SECT @ STEEL COL
N.T.S.



13 CONC STAIRS ON GRADE
N.T.S.



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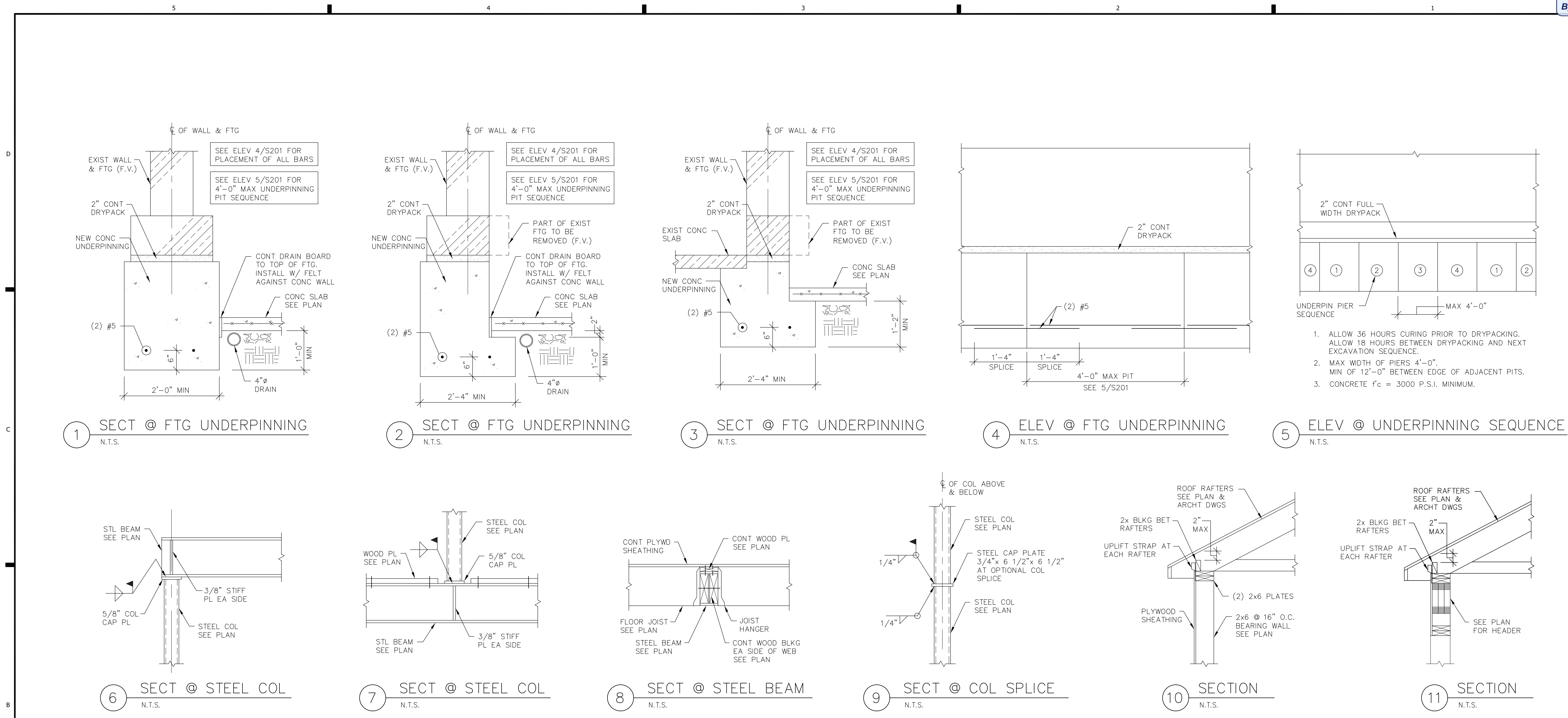
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Issue Description	Date

RAI Project No. RA-20-117
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Sheet Title
STRUCTURAL DETAILS

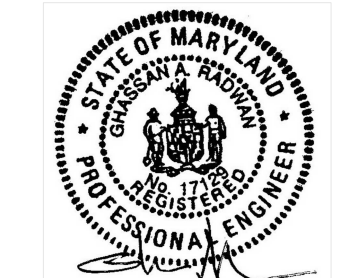
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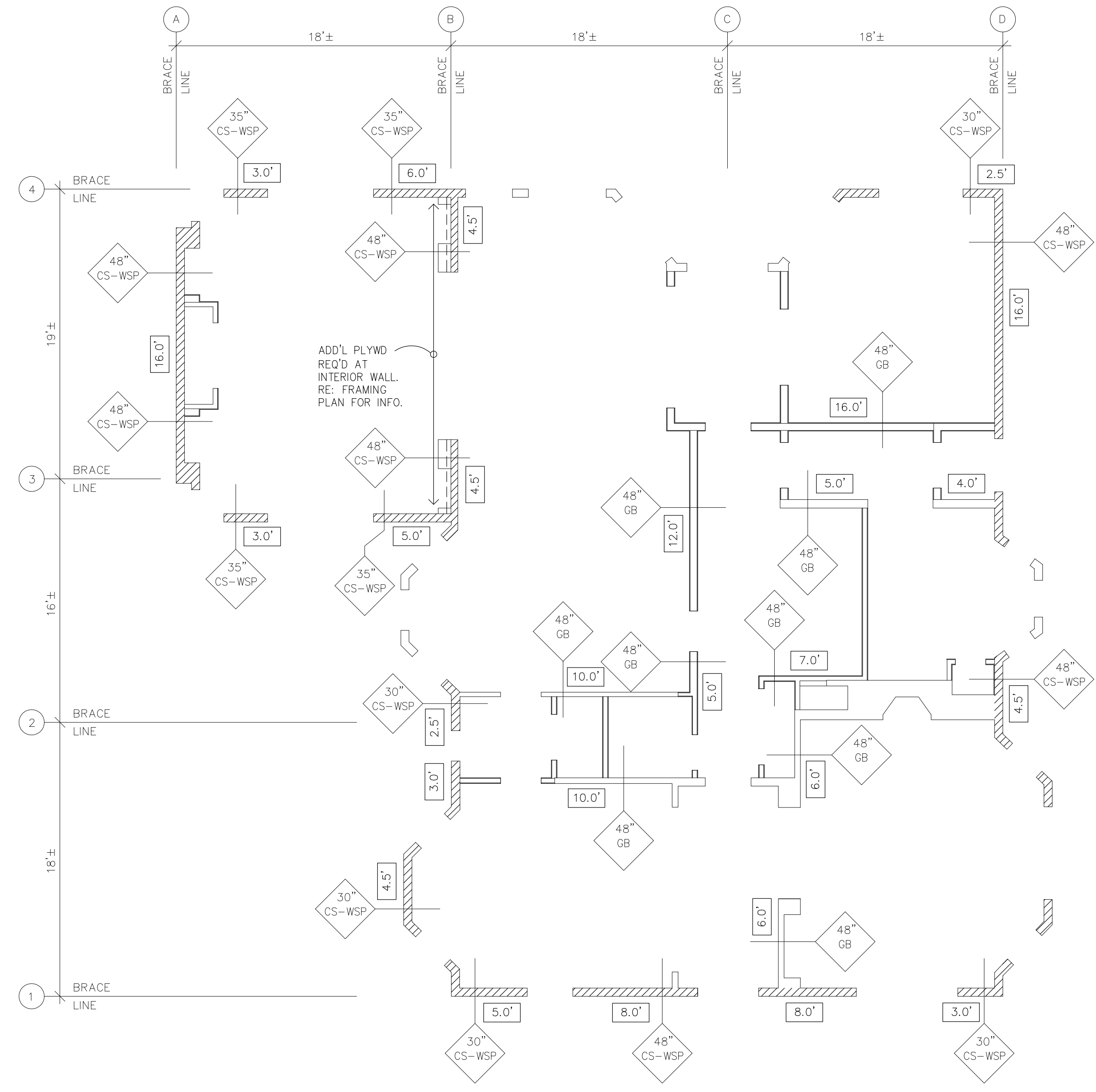
WALL BRACING PLANS

Sheet No.

S300

SHEET 8 OF 9

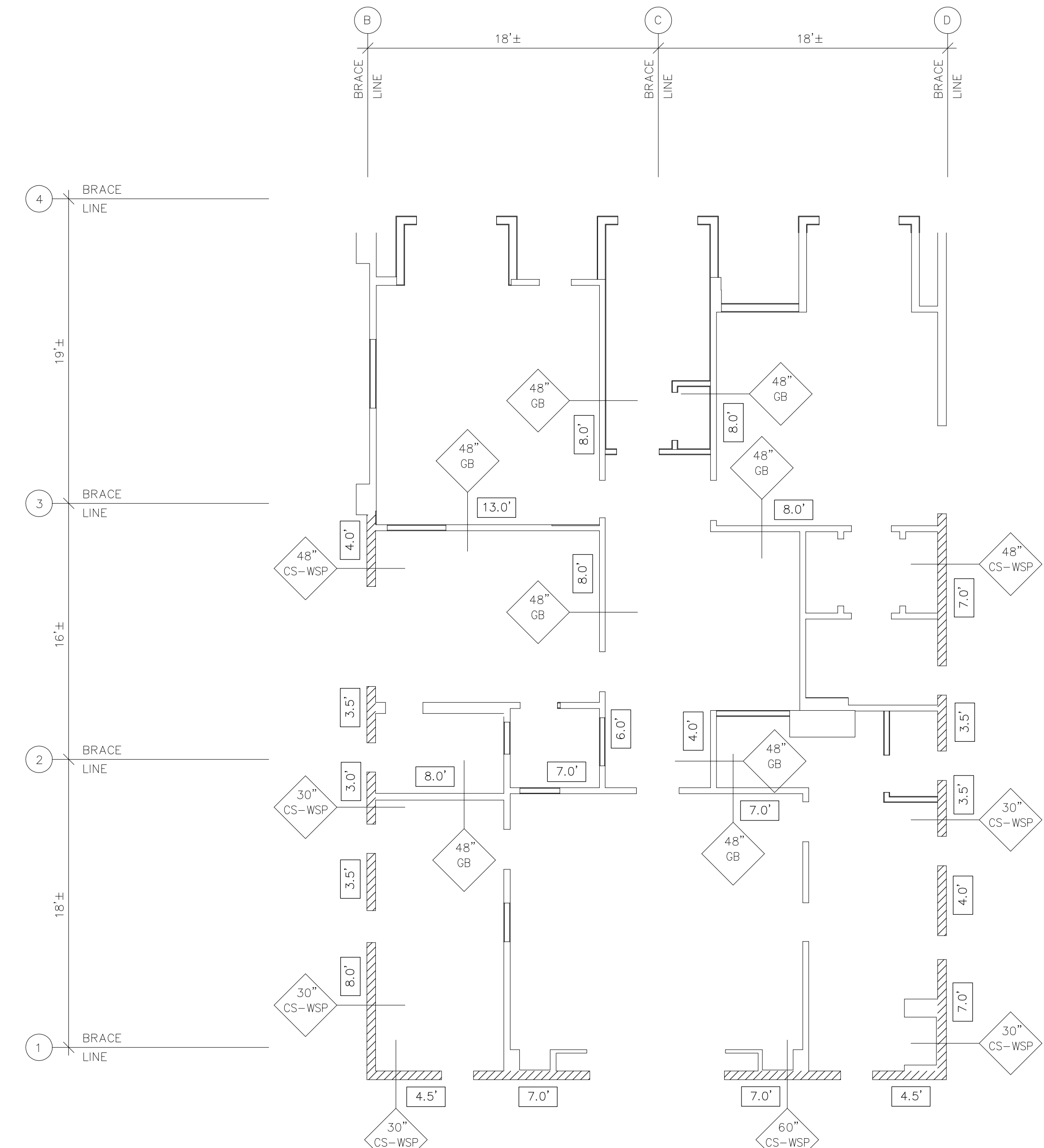
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1 1ST FLOOR WALLS PLAN
3/16"=1'-0"

1ST FLR TOTAL BRACE WALL LINE LENGTH 115 MPH WIND - EXPOSURE "B"				
BWL	MULT FACTOR	BWL SPACING	LENGTH REQ'D	LENGTH PROVIDED
①	1.25	18'	7.4'	22'
②	1.25	18'	15' GB	27' GB
③	1.25	19'	7.8'	20'
④	1.25	19'	7.8'	11.5'
A	1.25	18'	7.4'	16'
B	1.25	18'	7.4'	19'
C	1.25	18'	15' GB	29' GB
D	1.25	18'	7.4'	20.5'

REFER TO S301 FOR WALL BRACING ADD'L INFO



2 2ND FLOOR WALLS PLAN
3/16"=1'-0"

2ND FLR TOTAL BRACE WALL LINE LENGTH 115 MPH WIND - EXPOSURE "B"				
BWL	MULT FACTOR	BWL SPACING	LENGTH REQ'D	LENGTH PROVIDED
①	1.18	18'	4'	23'
②	1.18	18'	8' GB	22' GB
③	1.18	19'	8' GB	21' GB
④	NA	NA	NA	NA
A	NA	NA	NA	NA
B	1.18	18'	4'	22'
C	1.18	18'	8' GB	34' GB
D	1.18	18'	4'	25'

REFER TO S301 FOR WALL BRACING ADD'L INFO

BRACE PANEL LENGTH NOTES:

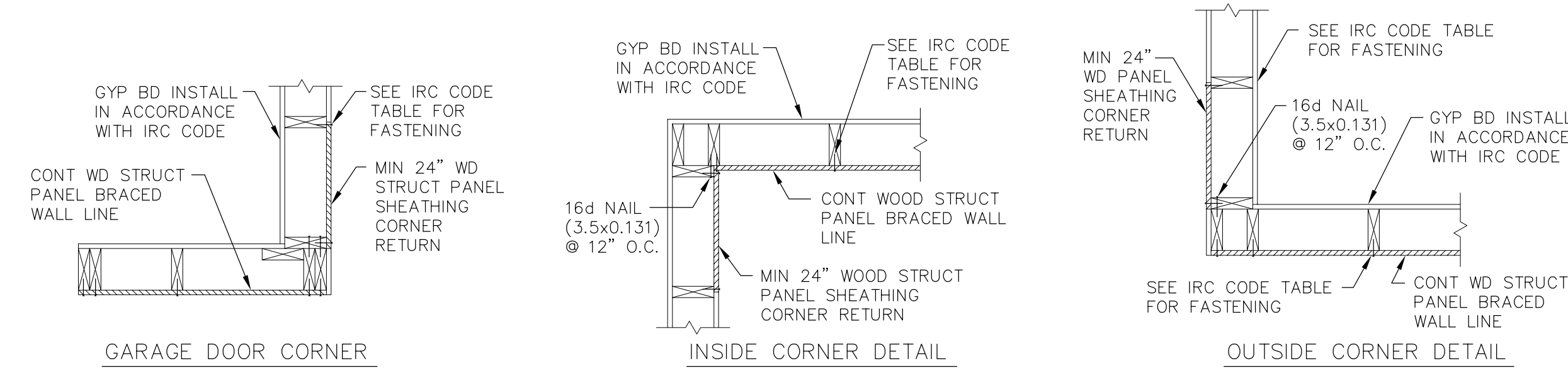
14.0' INDICATES TOTAL LENGTH OF PANEL

27" CS-WSP INDICATES MIN PANEL LENGTH REQ'D SEE SHEET S301

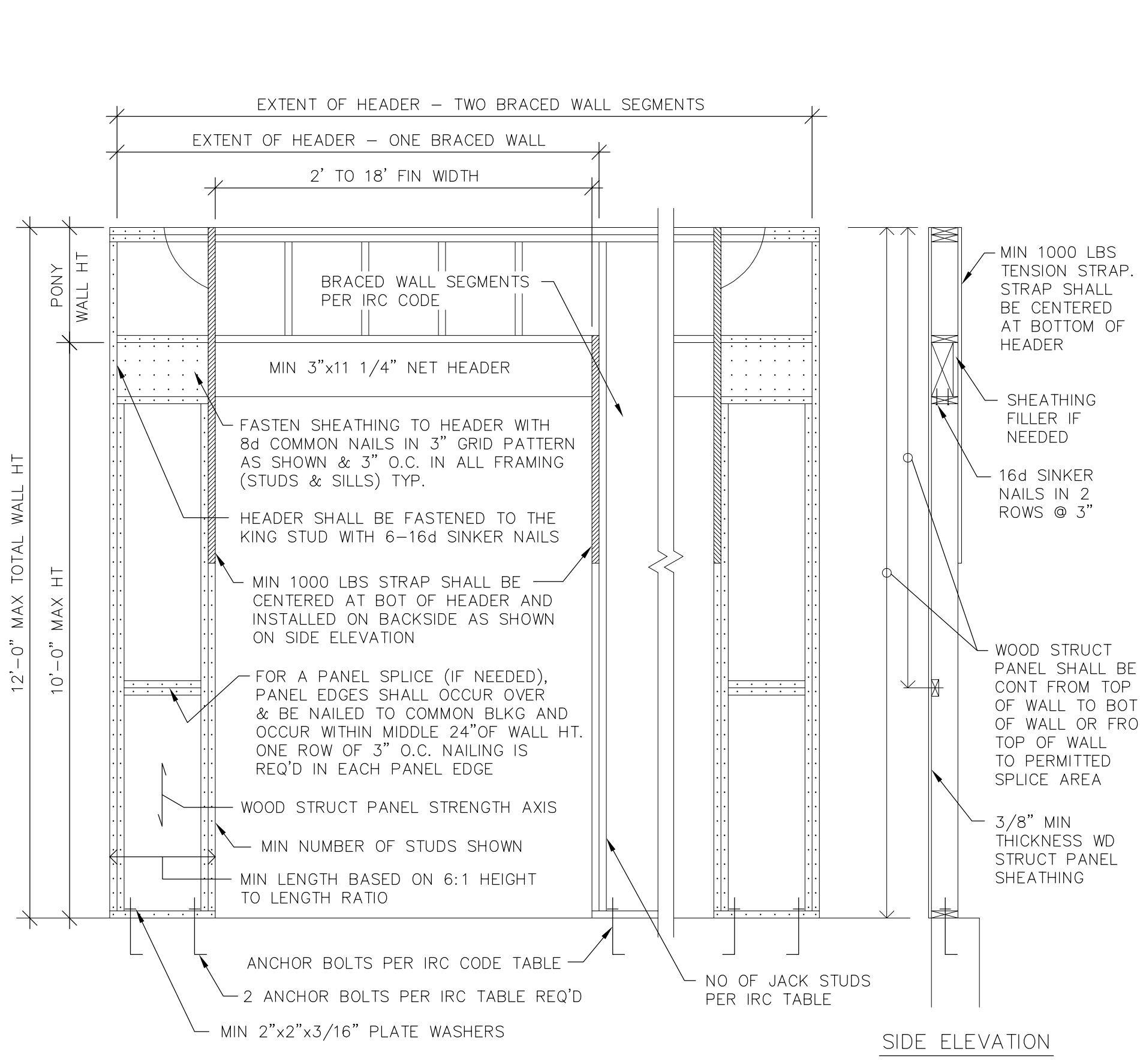
LENGTH CONVERSION WSP LENGTH = 0.5 x (GB) LENGTH
GB LENGTH = 2 x (WSP) LENGTH

WALL BRACING NOTES:

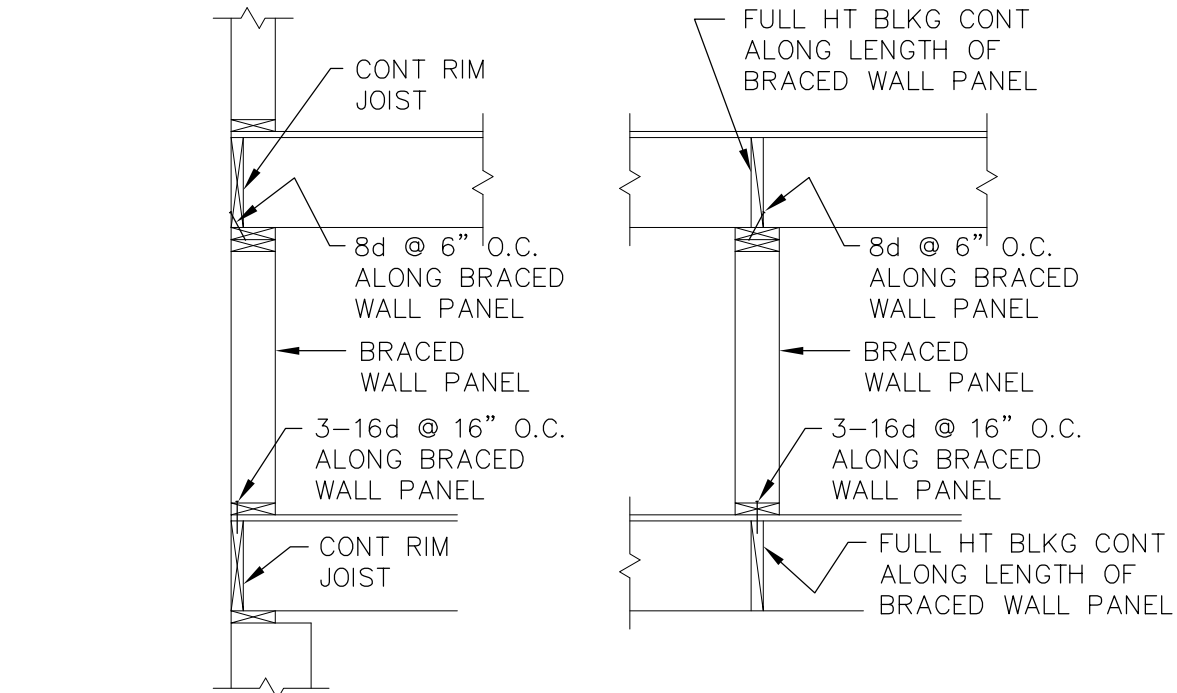
- REFER TO FRAMING PLANS FOR INFORMATION ON ADD'L PLYWOOD REQUIRED AT INTERIOR WALLS.
- REFER TO FRAMING PLANS FOR LOCATION OF PORTAL FRAME EXTENDED HEADERS TO BACK END OF WALL PANEL.
- REFER TO S301 FOR WALL BRACING INFORMATION, PANEL CONSTRUCTION & TYPICAL DETAILS.
- "HD" INDICATES HOLD DOWN ANCHOR, "ST" INDICATES TENSION STRAP REQUIRED AT THAT LOCATION. REFER TO FRAMING PLANS FOR INFORMATION.
- "SSW" INDICATES SIMPSON STRONG WALL SHEAR WALL PANELS. REFER TO FRAMING PLANS FOR INFORMATION.
- "SMF" INDICATES STEEL MOMENT FRAME. REFER TO FRAMING PLANS FOR INFORMATION.



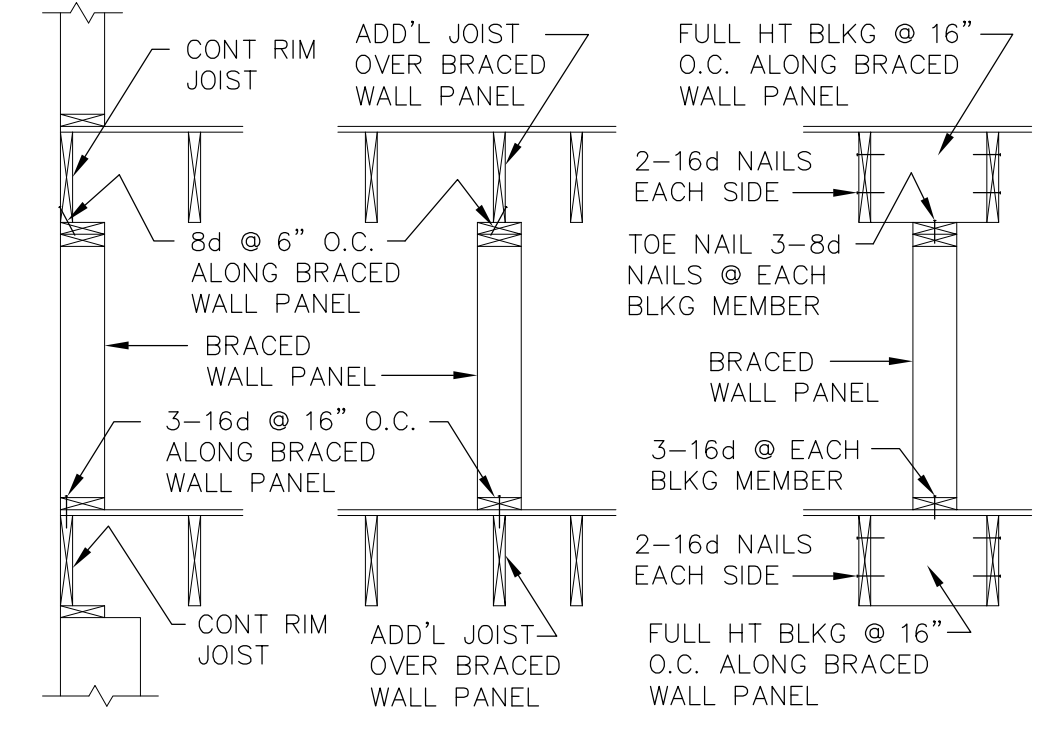
1 TYPICAL CORNER WALL BRACING DETAILS
N.T.S.



5 METHOD CS-PF CONT PORTAL FRAME PANEL CONSTRUCTION
N.T.S.



2 PANEL CONN WHEN PERPENDICULAR TO FRAMING
N.T.S.



3 PANEL CONN WHEN PARALLEL TO FRAMING
N.T.S.

LEGEND

30 CS-WSP MIN REQ'D LENGTH (INCHES) OF BRACED WALL PANEL

BRACED WALL PANEL TYPE

BRACED WALL PANEL TYPES

30 CS-WSP 2x6 WD STUDS @ 16" O.C. W/ 7/16" OSB SHEATHING ON EXTERIOR. ATTACH SHEATHING TO STUDS W/ 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND @ 12" O.C. AT INTERMEDIATE SUPPORTS OR W/ 16 GA x 1 3/4 STAPLES @ 3" O.C. AT PANEL EDGES AND @ 6" O.C. AT INTERMEDIATE SUPPORTS.

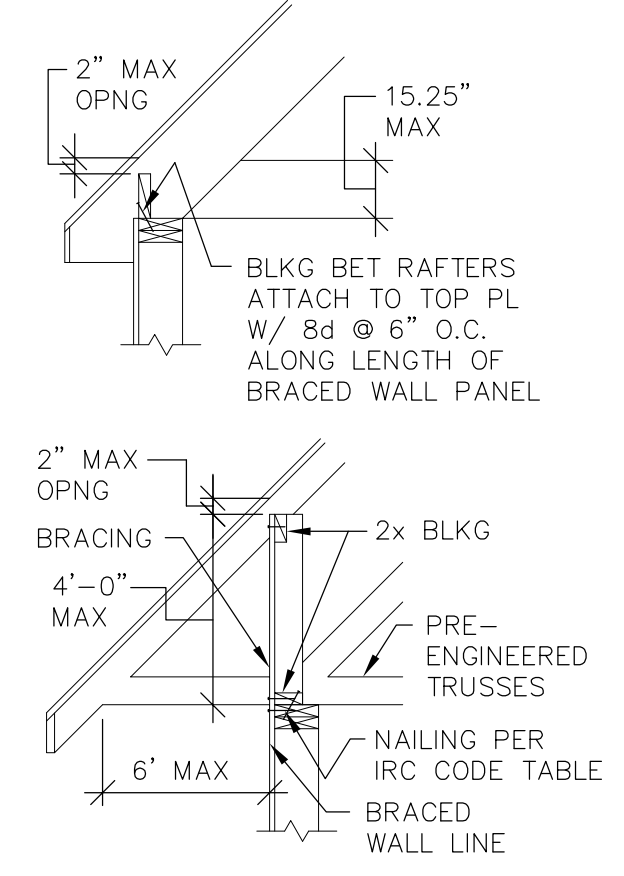
48 GB 2x6 WD STUDS @ 16" O.C. W/ 1/2" GYP BD EA SIDE. ATTACH GYP BD TO STUDS AT PANEL EDGES W/ NAILS OR SCREWS @ 7" O.C. INCL TOP & BOT PLATES. SEE IRC CODE TABLE FOR NAIL OR SCREW SIZES AND SPACING AT INTERMEDIATE SUPPORTS.

20 CS-PF CONT PORTAL FRAME PANEL CONSTRUCTION PER IRC CODE SEE ELEV 5/S301

32 SW SIMPSON WOOD STRONG-WALL SHEAR WALL SEE FLOOR PLAN FOR SIZE, HEIGHT & TYPE. SEE SIMPSON SHEET S302 FOR MORE INFO.

18 SSW SIMPSON STEEL STRONG-WALL SHEAR WALL SEE FLOOR PLAN FOR SIZE, HEIGHT & TYPE. SEE SIMPSON SHEET S303 FOR MORE INFO.

30 6"-MAS EXISTING 6" COMPOSITE MASONRY WALL CONSTRUCTION WITH FULL WIDTH BRICK TIE COURSES @ 32" O.C. VERT SPACING



4 RAFTER & TRUSS CONNECTION DETAILS
N.T.S.

1ST FLR BRACE WALL LINE MULT FACTOR
115 MPH WIND - EXPOSURE "B"

EAST-WEST WALLS		MULT FACTOR
NO OF BRACED WALLS	4	1.45
EAVE-TO-RIDGE HT	7'	0.91
WALL HEIGHT	9'	0.95
TOTAL MULT FACTOR		1.25
NORTH-SOUTH WALLS		MULT FACTOR
NO OF BRACED WALLS	4	1.45
EAVE-TO-RIDGE HT	7'	0.91
WALL HEIGHT	9'	0.95
TOTAL MULT FACTOR		1.25

2ND FLR BRACE WALL LINE MULT FACTOR
115 MPH WIND - EXPOSURE "B"

EAST-WEST WALLS		MULT FACTOR
NO OF BRACED WALLS	4	1.45
EAVE-TO-RIDGE HT	7'	0.82
WALL HEIGHT	9'	0.95
TOTAL MULT FACTOR		1.13
NORTH-SOUTH WALLS		MULT FACTOR
NO OF BRACED WALLS	4	1.45
EAVE-TO-RIDGE HT	7'	0.82
WALL HEIGHT	9'	0.95
TOTAL MULT FACTOR		1.13

BRACING REQUIREMENTS
EXP. CATEGORY B, 30' MEAN ROOF HT, 10' EAVE-TO-RIDGE HT, 10' WALL HT, 2 BRACED WALL LINES, ≤ 115 MPH WIND SPEED

STORY LOCATION	BRACED WALL SPACING (FT)	CONTINUOUS SHEATHING	METHOD GB (DOUBLE SIDED)
1	10	2.0	3.5
	20	3.5	6.5
	30	4.5	9.5
	40	6.0	12.5
	50	7.5	15.0
	60	9.0	18.0
2	10	3.5	7.0
	20	6.5	12.5
	30	9.0	18.0
	40	11.5	23.5
	50	14.0	29.0
	60	17.0	34.5
3	10	5.0	10.0
	20	9.0	18.5
	30	13.0	27.0
	40	17.0	35.0
	50	21.0	43.0
	60	25.0	51.0

ADJUSTMENT FACTORS TO AMOUNT OF BRACING REQUIRED

EXPOSURE/HEIGHT FACTORS

NO OF STORIES	EXPOSURE B	EXPOSURE C	EXPOSURE D
1	1.0	1.2	1.5
2	1.0	1.3	1.6
3	1.0	1.4	1.7

EAVE-TO-RIDGE HEIGHT

SUPPORT CONDITION	5' OR LESS	10'	15'	20'
ROOF ONLY	0.7	1.0	1.3	1.6
ROOF + FLOOR	0.85	1.0	1.15	1.3
ROOF + 2 FLOORS	0.9	1.0	1.1	NP

WALL HEIGHT

WALL HEIGHT	NUMBER OF BRACED WALL LINES
8' MAX	0.9
9' MAX	0.95
10' MAX	1.0
11' MAX	1.05
12' MAX	1.1
NUMBER OF BRACED WALL LINES	
2	1.0
3	1.3
4	1.45
≥ 5	1.6

BRACED WALL PANEL LENGTH REQUIREMENTS
(IN INCHES) METHOD CS-WSP

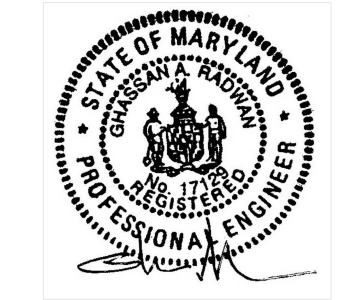
ADJ CLEAR OPNG HT (IN)	WALL HEIGHT (FEET)			
	8'	9'	10'	11'
64	24	27	30	33
68	26	27	30	33
72	27	27	30	33
76	30	29	30	33
80	32	30	30	33
84	35	32	32	33
88	38	35	33	33
92	43	37	35	35
96	48	41	38	36
100	-	44	40	38
104	-	49	43	40
108	-	54	46	43
112	-	-	50	45
116	-	-	55	48
120	-	-	60	52

BRACED WALL PANEL LENGTH REQUIREMENTS
(IN INCHES) METHOD CS-PF

ADJ CLEAR OPNG HT (IN)	WALL HEIGHT (FEET)			
	8'	9'	10'	11'
≤ 120	16	18	20	22

- NOTES:**
- PROJECT LOCATED IS SEISMIC CATEGORY B.
 - BASIC WIND SPEED ≤ 115 MPH.
 - ALL EXTERIOR WALLS TO BE CONTINUOUSLY SHEATHED.
 - BUILDING IS BRACED IN ACCORDANCE WITH THE IRC CODE

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Sheet Title

WALL BRACING DETAILS

Sheet No.

S301

SHEET 9 OF 9

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