

MYSTIC VALLEY PARKWAY

PLOT PLAN

FOR

527-529 MYSTIC VALLEY PARKWAY

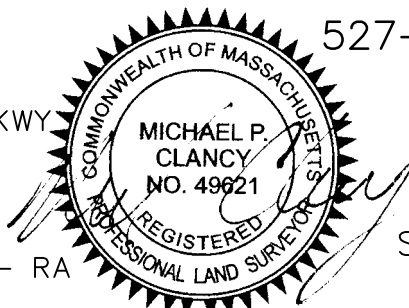
IN

SOMERVILLE, MA.

PREPARED FOR:

MIN HUI XIE & JIM LIN

527 529 MYSTIC VALLEY PKWY
SOMERVILLE, MA. 02143



NOTES:

1. ZONING CLASSIFICATION - RA
2. LOCUS DEED:
MIDDLESEX REGISTRY OF DEEDS CERTIFICATE #233734
3. PLAN REFERENCES:
MIDDLESEX REGISTRY OF DEEDS LAND COURT PLAN 5044-B
4. ASSESSORS PARCEL ID: F_756223_2976910

SCALE: 1"=20' DECEMBER 10, 2018

C & G SURVEY COMPANY
37 JACKSON ROAD
SCITUATE, MA. 02066
1-877-302-8440

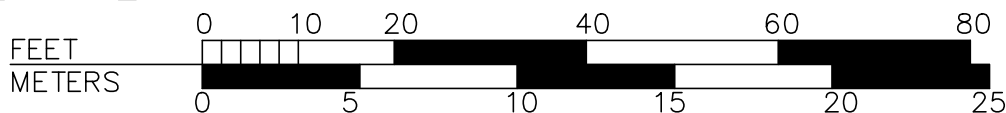


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LIN RESIDENCE
TWO FAMILY RESIDENCE
ADDITION & RENOVATION (PHASE II)
527 / 529 MYSTIC VALLEY PKWY, SOMERVILLE, MA

CODE:

2015 INTERNATIONAL RESIDENTIAL CODE
2015 STATE BUILDING CODE
2015 INTERNATIONAL ENERGY CONSERVATION CODE

BUILDING USE GROUP: SINGLE FAMILY DETACHED R3
CONSTRUCTION TYPE: VB COMBUSTIBLE UNPROTECTED

WIND EXPOSURE:	110 MPH EXPOSURE B
WINDBORNE DEBRIS REGION:	NO
GROUND SNOW LOAD:	30 PSF
WEATHERING:	SEVERE
FROST LINE DEPTH:	48"
FLOOD ZONE:	N/A
CLIMATE ZONE:	5A
WINTER DESIGN TEMP.:	7 DEGREES F
ICE BARRIER REQUIRED:	YES
AIR FREEZING INDEX:	1500
MEAN ANNUAL TEMP.:	50 DEGREES F
LATERAL BRACING:	CONTINUOUS SHEATHING

MINIMUM DESIGN LIVE LOADS:

GROUND SNOW LOAD:	30 P.S.F.
ATTICS W/ STORAGE:	20 P.S.F.
ATTICS W/O STORAGE:	10 P.S.F.
SLEEPING AREAS:	30 P.S.F.
GARAGES:	50 P.S.F.
DECKS & PORCHES:	40 P.S.F.
EXTERIOR BALCONIES:	40 P.S.F.
ALL OTHER SPACES:	40 P.S.F.

BUILDING DATA:
SEE SHEET A-101 FOR BUILDING AREAS

WINDOW REQUIREMENTS:	
IMPACT RATING:	NO
PROTECTION SYSTEM:	N/A
DP RATING:	DP45
1ST FLR. EGRESS:	5.0 S.F., 24" H MIN., 20" W MIN.
2ND FLOOR EGRESS:	5.7 S.F., 24" H MIN., 20" W MIN.
OPENING LIMITING DEVICE:	N/A

INSULATION:	
FENESTRATION U-FACTOR:	0.32
SKYLIGHT U-FACTOR:	0.55
CEILING R-VALUE:	49
FRAMED WALL R-VALUE:	20 OR 13 +5
FLOOR R-VALUE:	30
BASEMENT WALL R-VALUE:	15/19
SLAB R-VALUE:	10, 2FT

SCOPE OF WORK:

PHASE II
PROPOSED A NEW DORMER WITH A BATHROOM AND BEDROOM
IN ATTIC FLOOR LEVEL, & A NEW BATHROOM IN BASEMENT
FLOOR TO EXISTING TWO FAMILY RESIDENCE.

DRAWN BY
HE ZHENG
857-526-4030
OWNER
JIM LIN

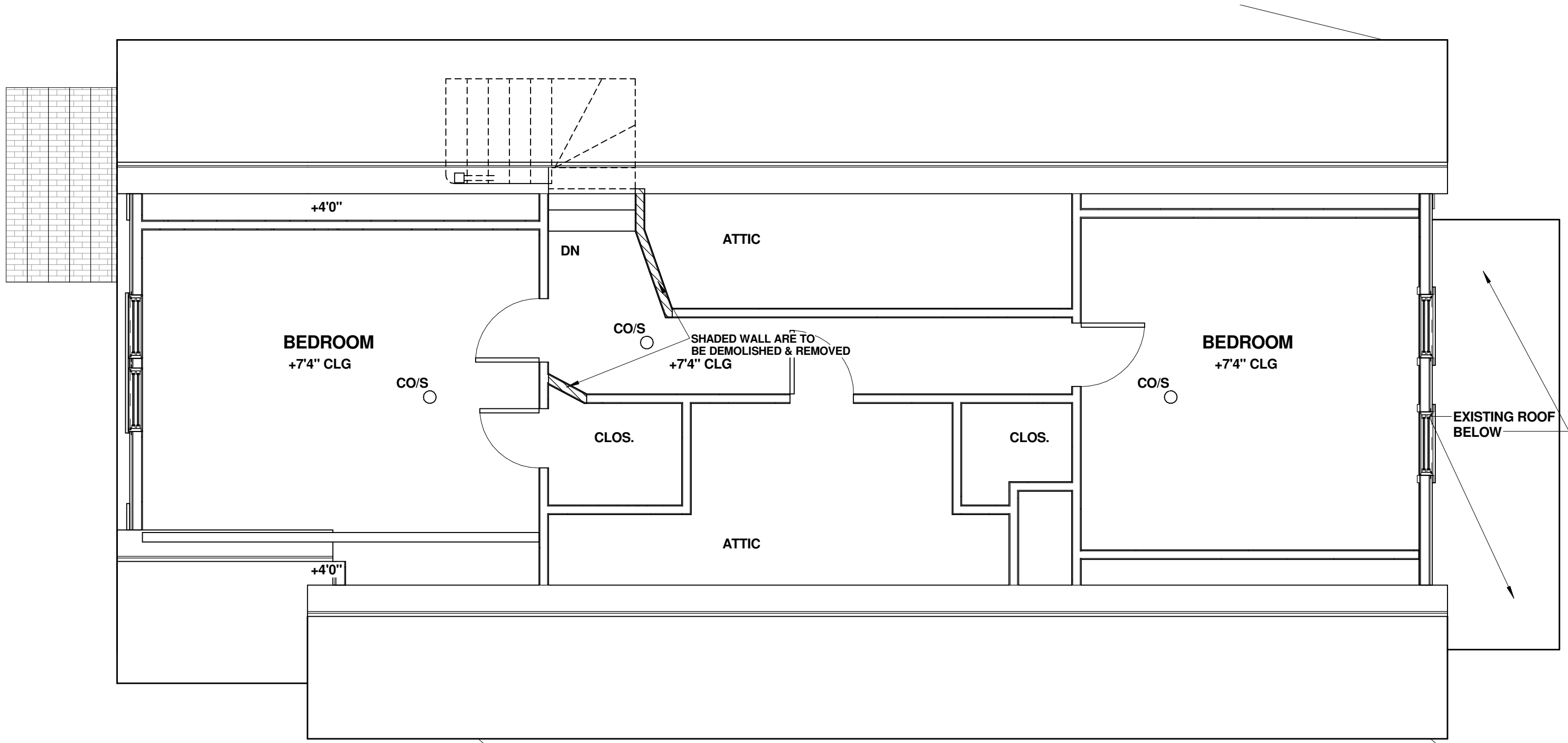
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T-101

DEMOLITION NOTES:

- 1. ALL DEMOLITION MATERIAL SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.
- 2. PROTECT ALL REMAINING STRUCTURE, INTERIOR SPACE & EQUIPMENT FROM DUST AND FLYING DEBRIS.
- 3. PROTECT INTERIOR SPACES FROM MOISTURE PENETRATION AT ALL TIMES.
- 4. ALL ITEMS TO BE REMOVED AND REUSED SHALL BE PROTECTED AND STORED IN A SECURE AND WEATHERTIGHT LOCATION.
- 5. DEMOLISH & REMOVE WINDOWS ONLY WHERE NOTED.

IMPORTANT NOTE:
CONTRACTOR SHALL MAKE NOTE OF LOCATION OF ALL OVERHEAD AND UNDERGROUND UTILITIES AND PROTECT SAME FROM DAMAGE DURING CONSTRUCTION OPERATIONS. SEE MECH./ELEC. FOR MORE INFORMATION. "CALL BEFORE YOU DIG"

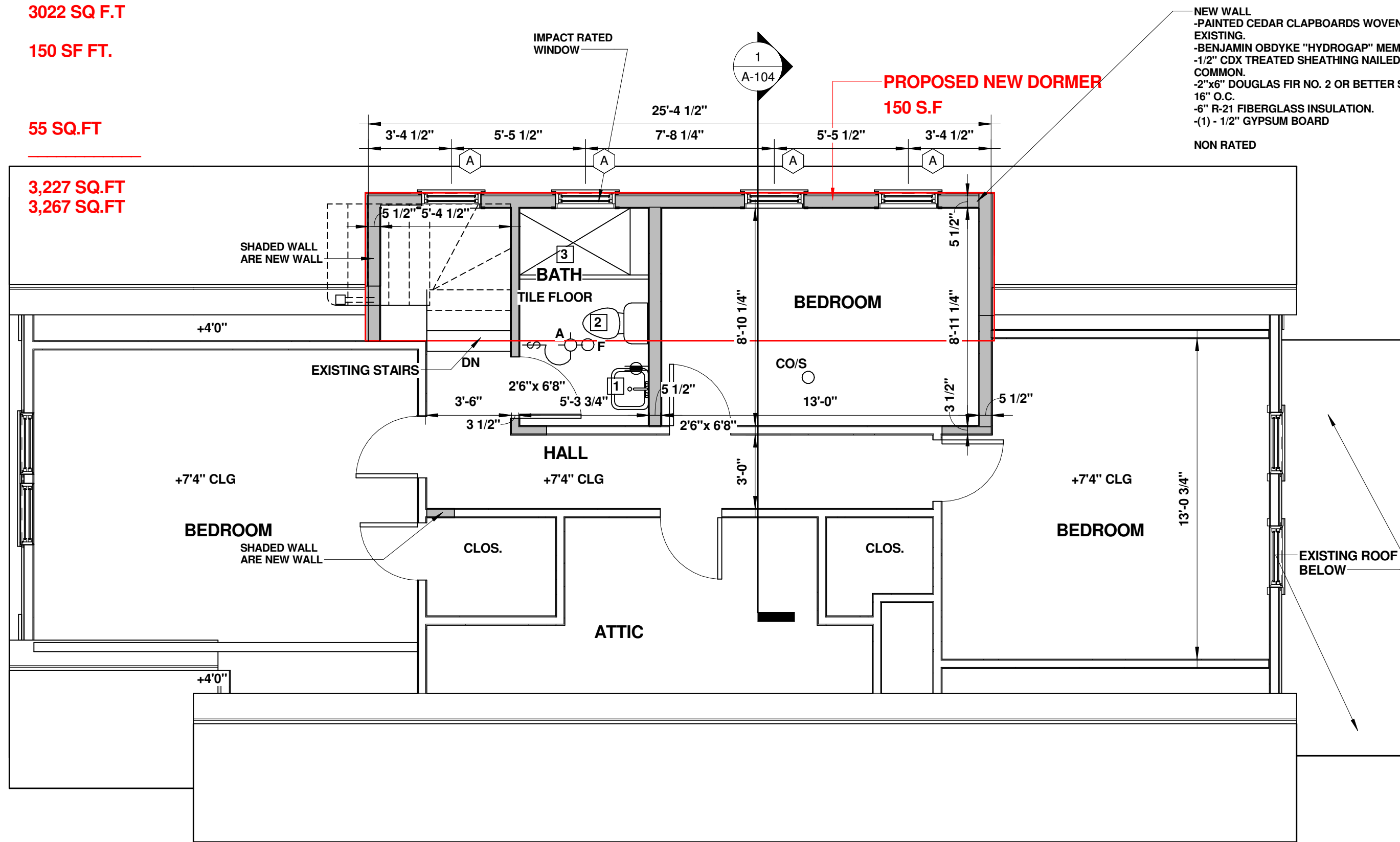


2 EXISTING ATTIC PLAN
1/4" = 1'-0"

FRAMING NOTES:

- 1. WINDOW & EXTERIOR DOOR HEADERS ARE 2 - 1-3/4"x7-1/2" MICROLLAM UNLESS OTHERWISE NOTED.
- 2. INTERIOR DOOR HEADERS ARE NOT REQUIRED UNLESS NOTED. OPENINGS IN INTERIOR BEARING WALLS SHALL BE 2 - 1-3/4" x 7-1/2" MICROLLAM LVL UNLESS OTHERWISE NOTED.
- 3. ALL DIMENSIONS ARE TO NOMINAL FINISH SURFACE AT INTERIOR PARTITIONS AND TO OUTSIDE OF STUD AT EXTERIOR WALLS UNLESS OTHERWISE NOTED.
- 4. ALL DIMENSIONS ARE TO CENTERLINE OF WINDOWS AND DOORS UNLESS OTHERWISE NOTED.
- 5. UNLESS OTHERWISE NOTED, DOORS AND WINDOWS SHALL BE CENTERED BETWEEN WALLS.
- 6. ADD BLOCKING AT FLOOR STRUCTURE FOR PARALLEL WALLS AND POINT LOAD CONDITIONS. DOUBLE FRAMING AT PARALLEL WALLS.
- 7. D.F. = DOUGLAS FIR STRUCTURAL GRADE MATERIAL NO. 2 OR BETTER.
- 8. FLASH TOP OF ALL DOUBLED DECK FRAMING MEMBERS TYPICAL.
- 9. DOUBLE FRAMING MEMBERS AT ALL OPENINGS UNLESS OTHERWISE NOTED.
- 10. FRAMING IS SHOWN ABOVE TYPICAL.
- 11. P.T. = PRESSURE TREATED SOUTHERN YELLOW PINE.
- 12. PROVIDE APPROVED HANGERS AT FLUSH FRAMED CONDITIONS.
- 13. "MICROLLAM" & "PARALLAM" GIRDERS, POSTS AND HEADERS ARE MANUFACTURED BY ILEVEL.
- 14. PROVIDE PERPENDICULAR BLOCKING AT 2 END BAYS AT ALL FLOOR FRAMING PARALLEL TO END WALLS. BLOCKING SHALL CONSIST OF SAME JOIST MATERIAL AT 48" O.C.
- 15. ALL OPENINGS IN WALLS SHALL HAVE HEADER, PLATE AND JACK STUDS REINFORCED WITH GALV. STEEL STRAPS, SIMPSON CS16 W/ 14 - 160 COMMON NAILS, PLACED OVER STUDS AND HEADER ABOVE UNLESS OTHERWISE NOTED.
- 16. ALL SHEARWALL HOLDDOWNS SHALL BE FASTENED TO 2 - 2"x4" D.F. STUDS MIN. & ALL CORNERS SHALL BE SOLID STUDED WITHOUT VOIDS.
- 17. ALL METAL STRAPS AND ANCHORS MAY BE INSTALLED DIRECTLY TO FRAMING OR OVER SHEATING.
- 18. ALL METAL HANGERS, STRAPS, BOLTS, WASHERS AND NUTS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED, G185 ZINC COATED GALVANIZED OR STAINLESS STEEL.

EXISTING LIVING AREA : 3022 SQ.F.T
PROPOSED DORMER : 150 SF.FT.
PROPOSED NEW BATHROOM IN BASEMENT : 55 SQ.FT
TOTAL LIVING AREA : 3,227 SQ.FT
MAXIMUM FAR ALLOWED 3,267 SQ.FT



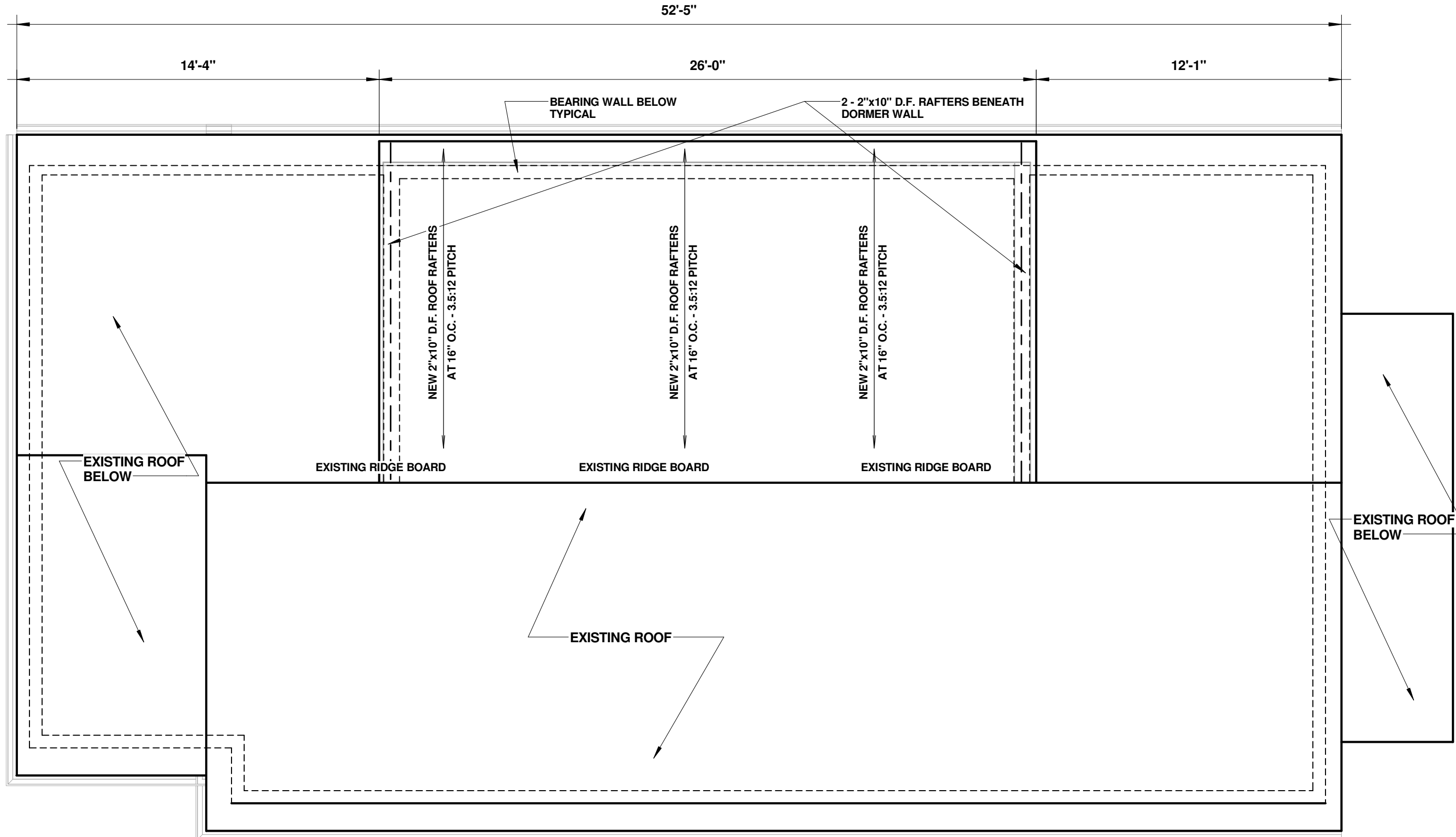
1 PROPOSED ATTIC PLAN
1/4" = 1'-0"

ELECTRICAL SCHEDULE:

- SINGLE POLE SWITCH/110V/WHITE
- DUPLEX RECEPTICAL/ 110V/ WHITE LOCATE 6" O.C. ABOVE COUNTERTOP OR 18" AFF AT EXTERIOR. GFCI PROTECTED DEVICE
- BATHROOM EXHAUST FAN RUN THROUGH ENERGY RECOVERY VENTILATOR
- 5" DIA. CEILING RECESSED FIXTURE IN INSULATION, L.E.D. BULB, LIGHTTOLIER OR EQUAL

PLUMBING SCHEDULE:

- 1 LAVATORY WITH FAUCET SELECTED BY THE OWNER.
- 2 1.6 GAL./FLUSH TOILET SELECTED BY THE OWNER
- 3 ALL TILED 30"x60" SHOWER ENCLOSURE W/ GLASS DOOR UNIT, MUD-SET TILED, PAN W/ SCHLUTER MEMBRANE AND PRESSURE BALANCING VALVE & SPOUT AS SELECTED BY OWNER.



3 PROPOSED ROOF PLAN
1/4" = 1'-0"

EXISTING & PROPOSED FLOOR PLANS

A-101

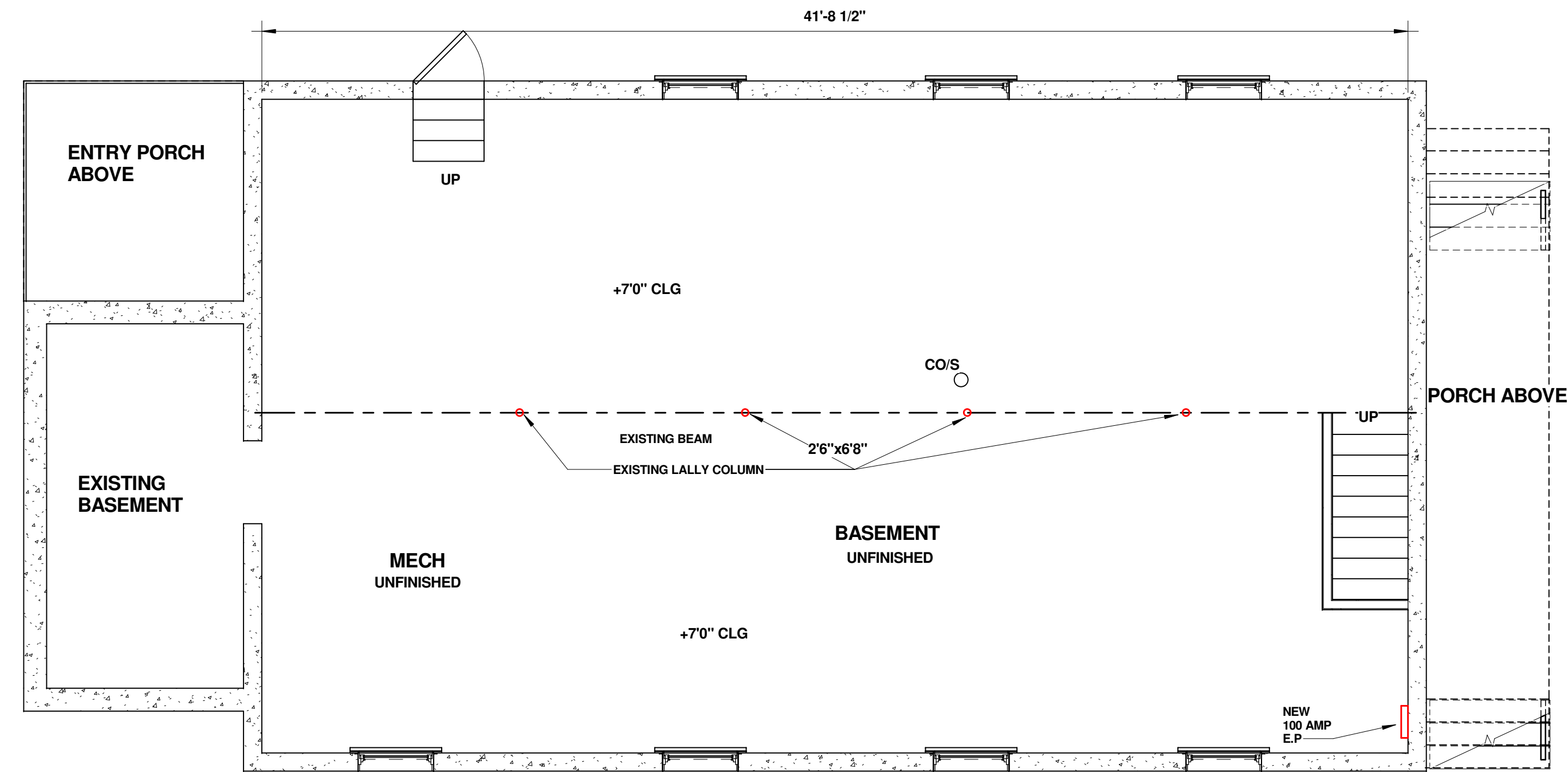
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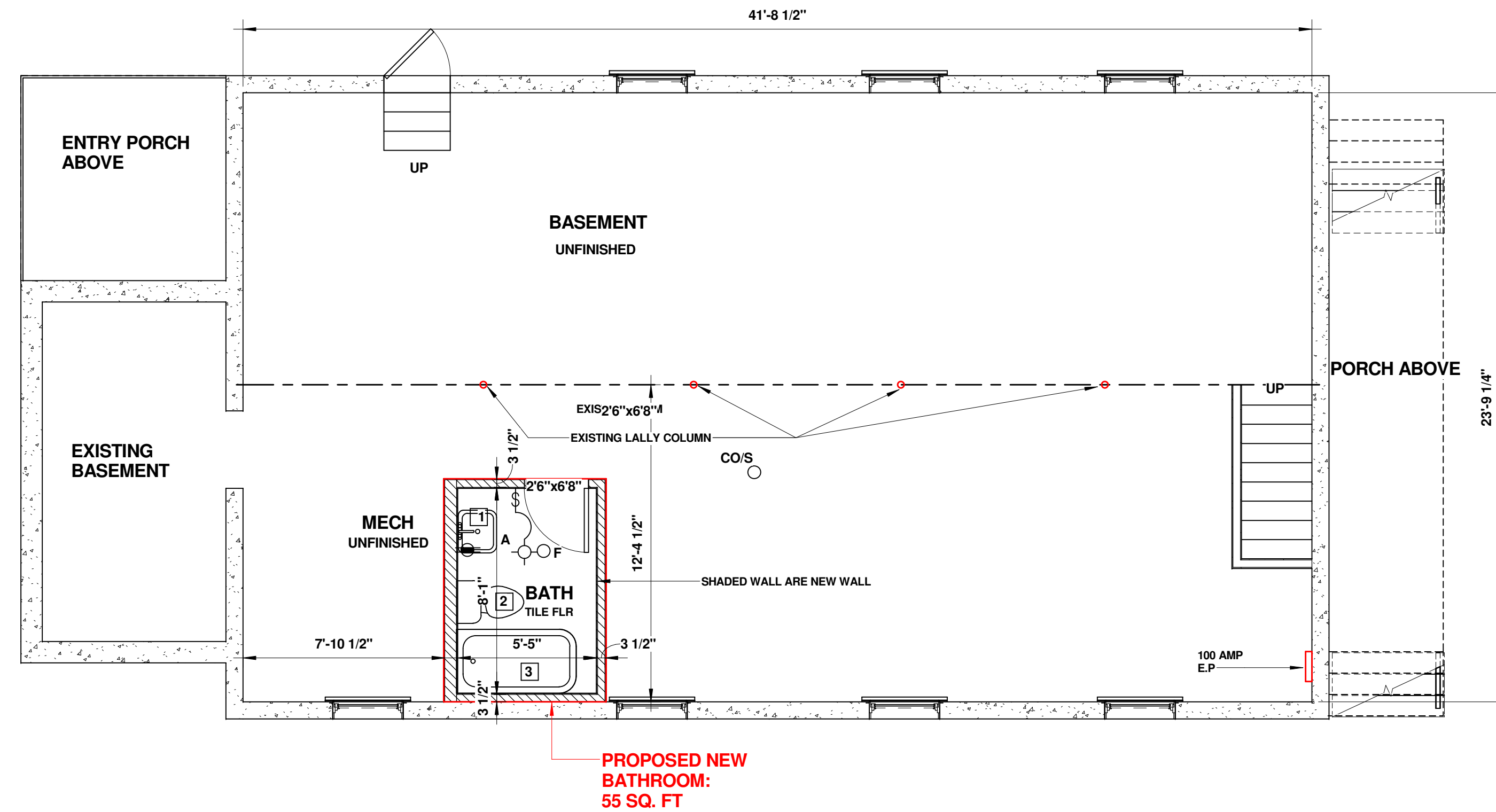
OWNER
JIM LIN

LIN RESIDENCE
TWO FAMILY RESIDENCE
NEW DORMER

527 MYSTIC VALLEY PKWY, MEDFORD, MA, 02155



① EXISTING BASEMENT PLAN
1/4" = 1'-0"



② PROPOSED BASEMENT PLAN
1/4" = 1'-0"

EXISTING LIVING AREA :	3022 SQ.F.T
PROPOSED DORMER :	150 SF.FT.
PROPOSED NEW BATHROOM IN BASEMENT :	55 SQ.FT
TOTAL LIVING AREA :	3,227 SQ.FT
MAXIMUM FAR ALLOWED	3,267 SQ.FT

EXISTING & PROPOSED FLOOR PLANS 2

LIN RESIDENCE
TWO FAMILY RESIDENCE
NEW DORMER
527 MYSTIC VALLEY PKWY, MEDFORD, MA, 02155

OWNER
JIM LIN

DRAWN BY
HE ZHENG
857-526-4030

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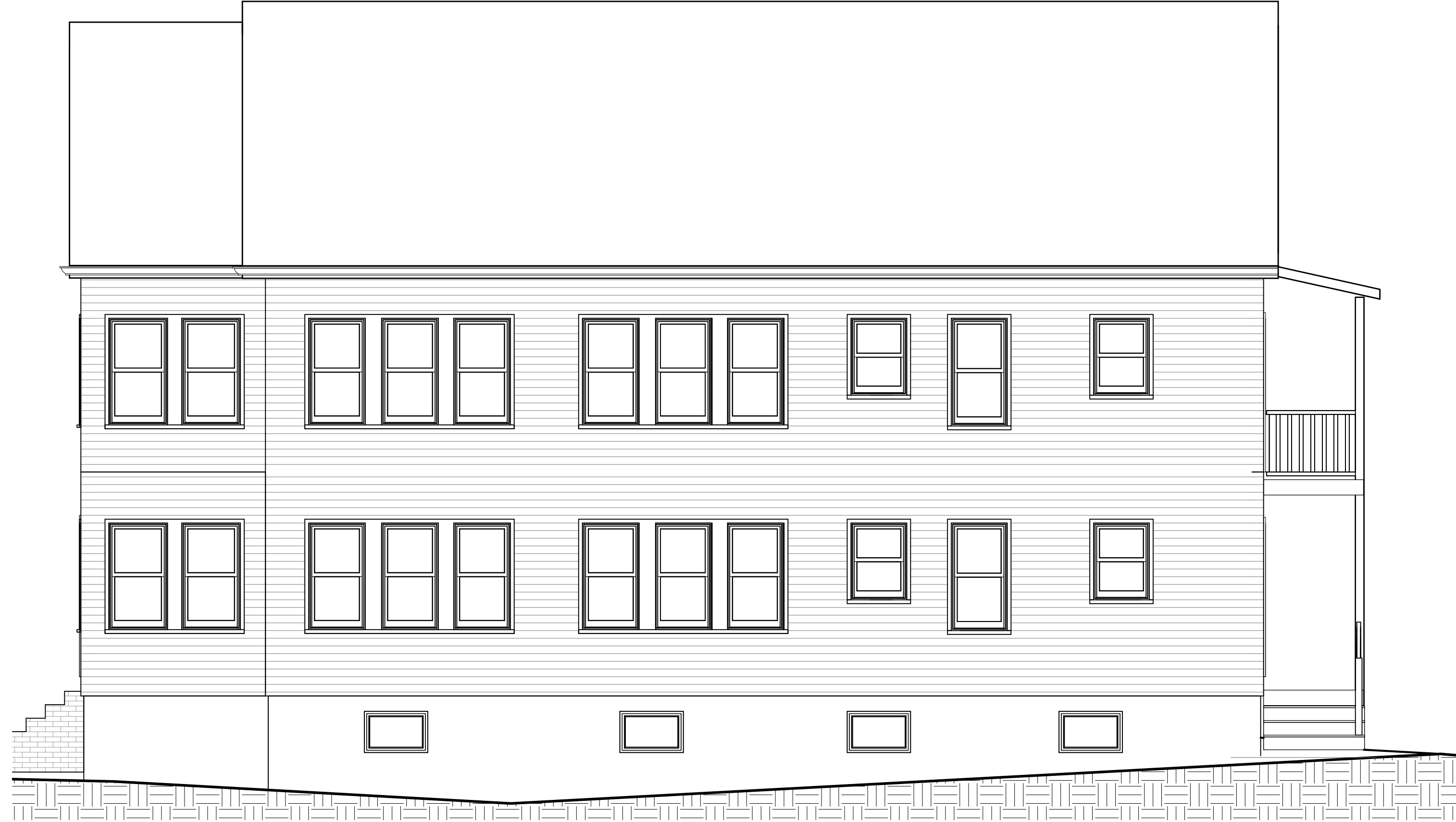
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① EXISTING FRONT / NORTH ELEVATION
1/4" = 1'-0"



③ EXISTING REAR / SOUTH ELEVATION
1/4" = 1'-0"



④ EXISTING RIGHT SIDE / WEST
ELEVATION
1/4" = 1'-0"



② EXISTING LEFT SIDE / EAST ELEVATION
1/4" = 1'-0"

EXISTING BUILDING ELEVATIONS

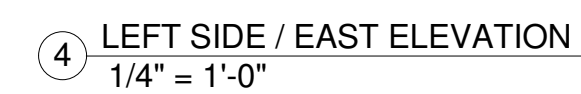
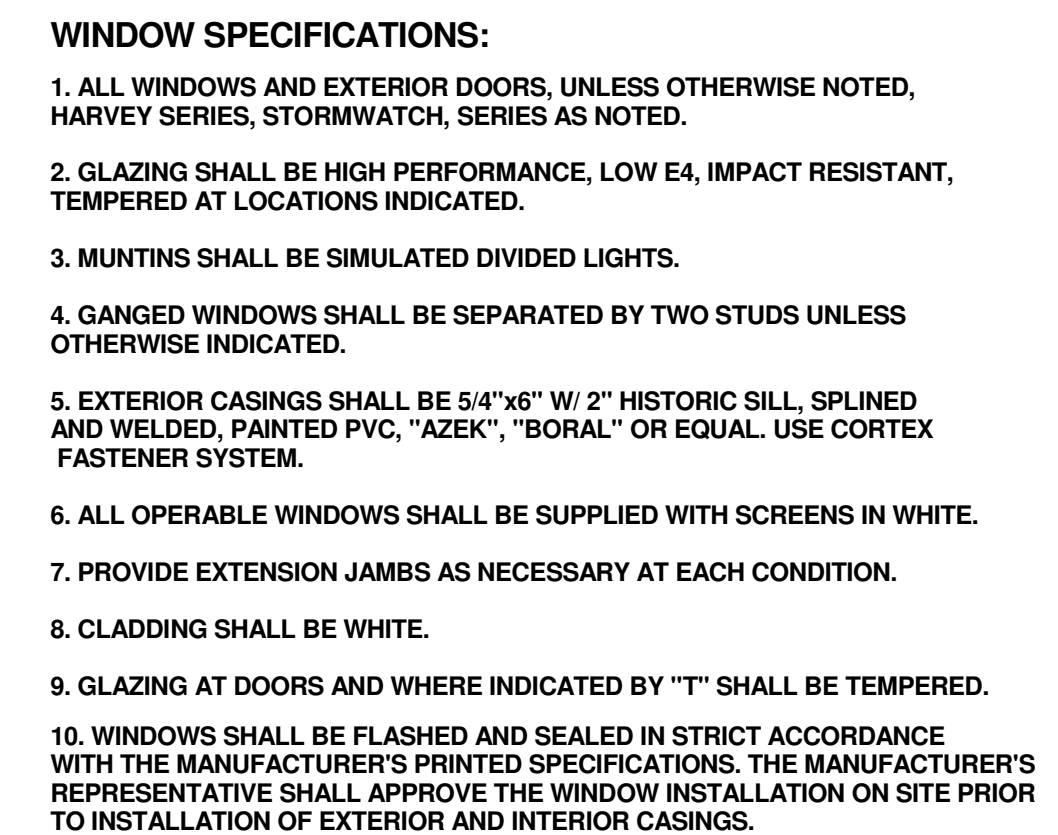
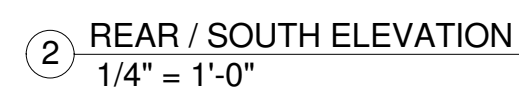
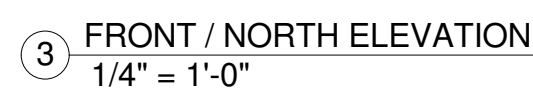
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PROPOSED BUILDING ELEVATIONS & SECTION

LIN RESIDENCE
TWO FAMILY RESIDENCE
NEW DORMER

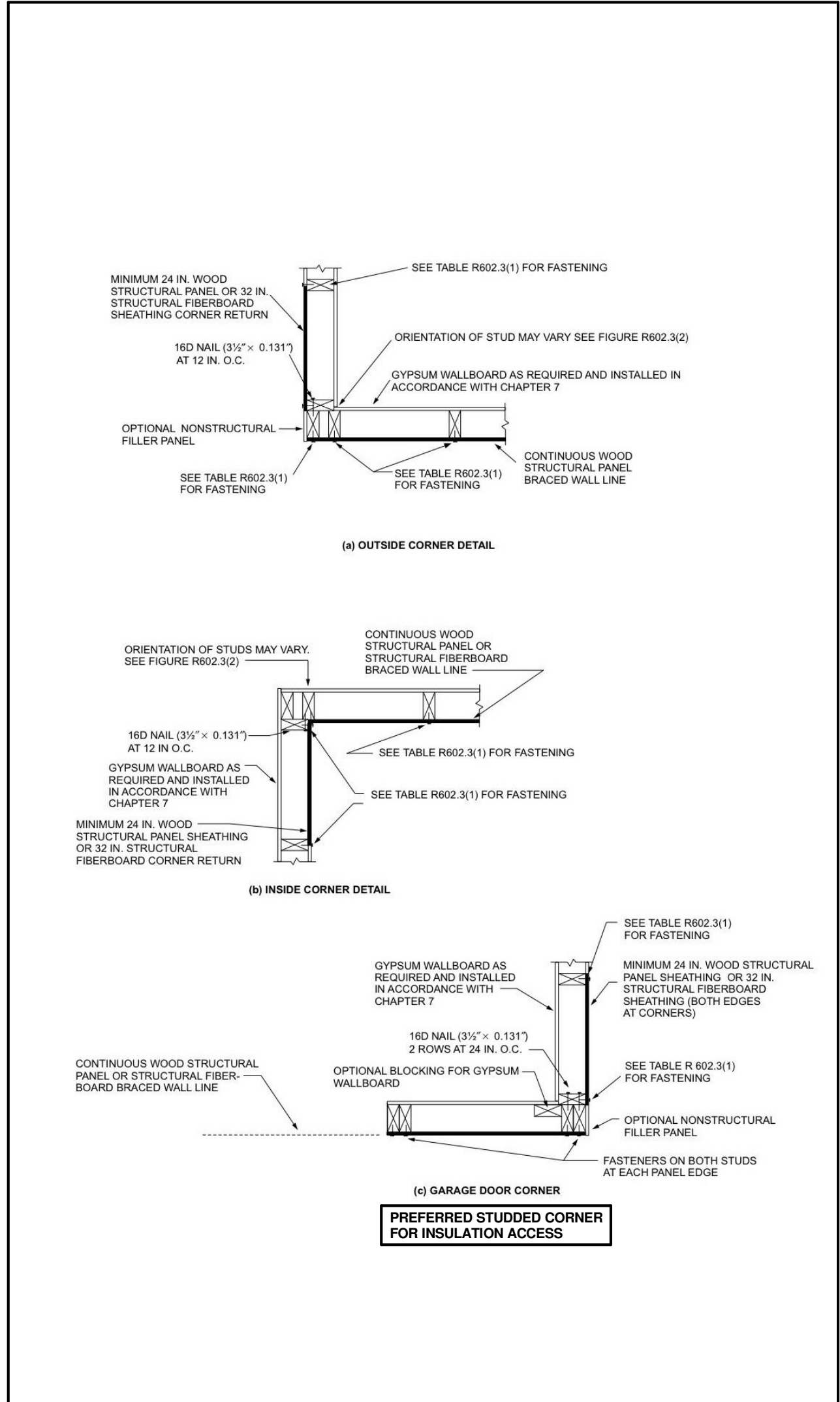
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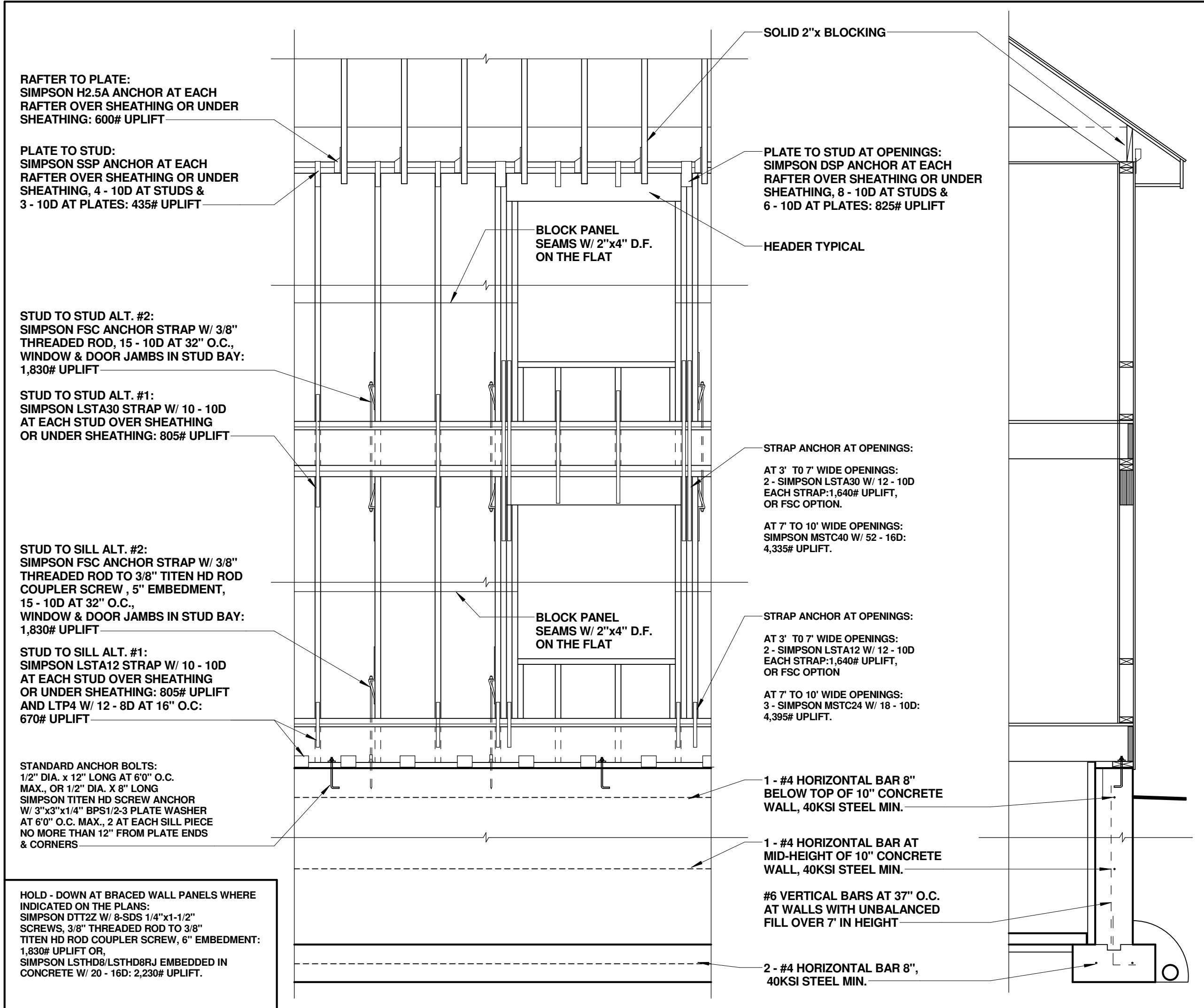
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TYPICAL WALL FRAMING @ BUILDING CORNERS



TYPICAL CONTINUOUS SHEATHED BRACED WALL SYSTEM

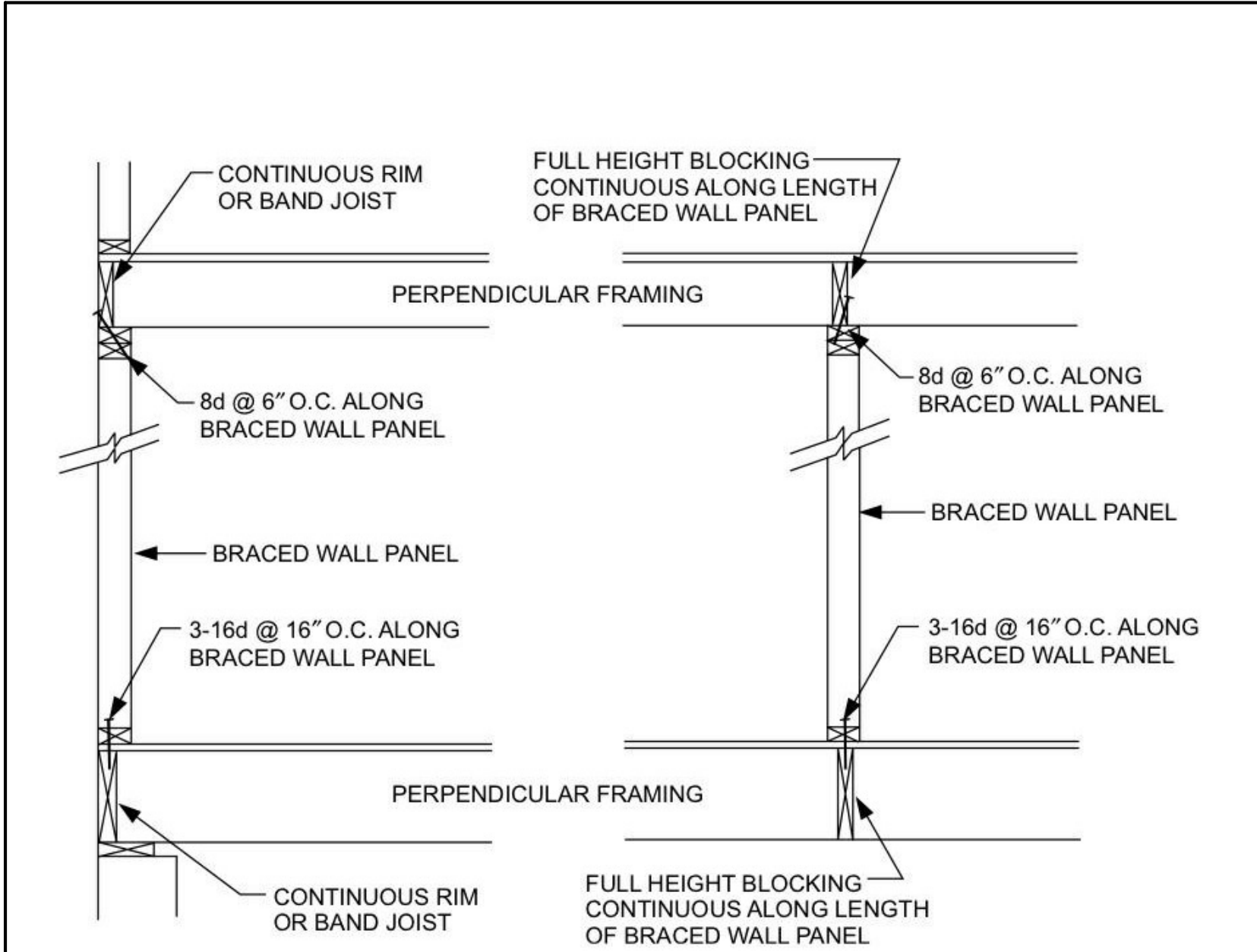


FIGURE R602.10.6(1)
BRACED WALL PANEL CONNECTION WHEN PERPENDICULAR TO FLOOR/CEILING FRAMING

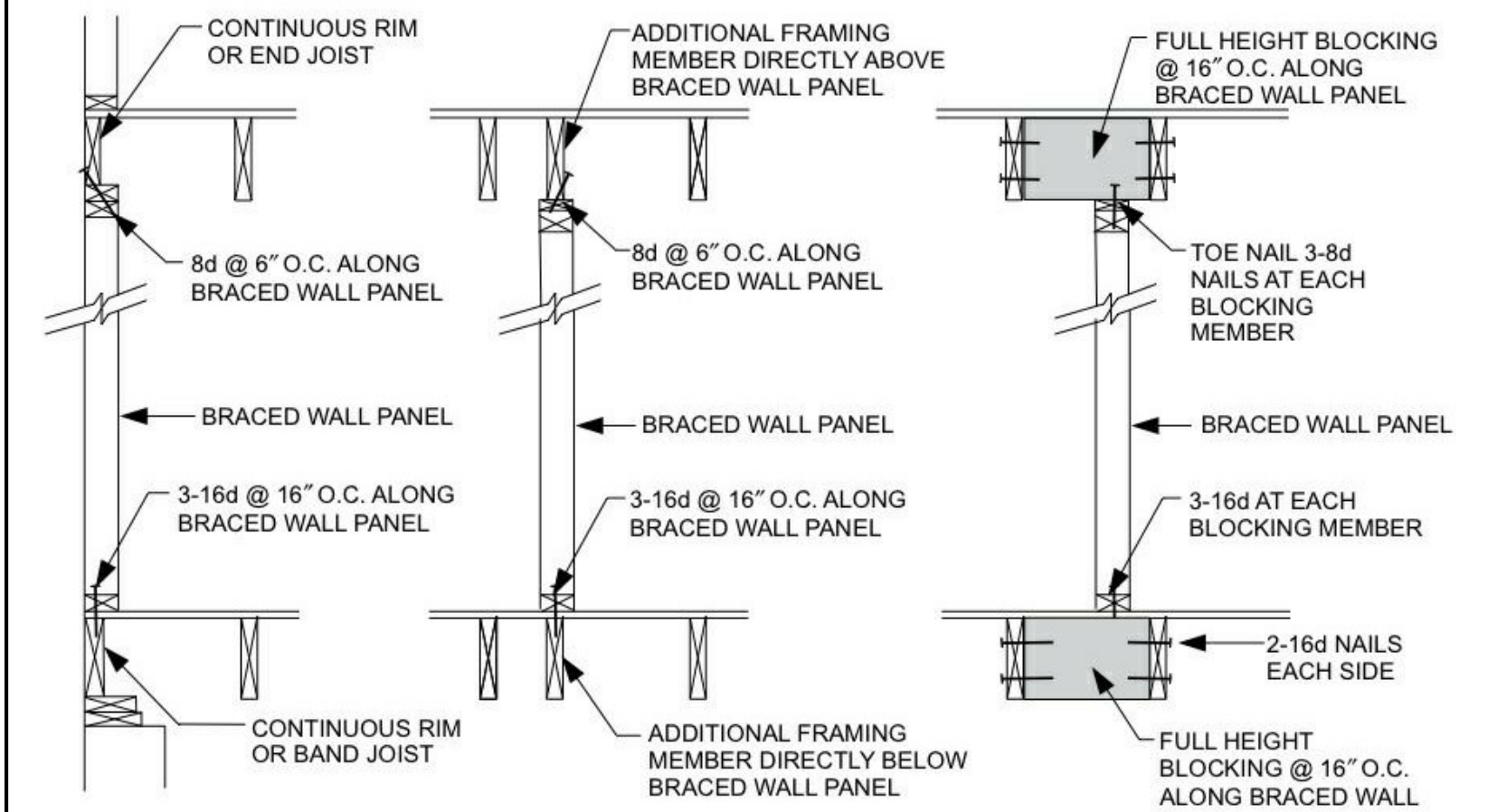


FIGURE R602.10.6(2)
BRACED WALL PANEL CONNECTION WHEN PARALLEL TO FLOOR/CEILING FRAMING

BRACED WALL PANEL FRAMING

WALL CONSTRUCTION

MINIMUM NAIL		MINIMUM WOOD STRUCTURAL PANEL RATING	MINIMUM NOMINAL PANEL THICKNESS (inches)	MAXIMUM WALL STUD SPACING (inches)	PANEL NAIL SPACING		MAXIMUM WIND SPEED (mph)		
Size	Penetration (inches)				Edges (inches o.c.)	Field (inches o.c.)	Wind exposure category		
					B	C	D		
6d Common (2.0" × 0.113")	1.5	24/0	3/8	16	6	12	110	90	85
8d Common (2.5" × 0.131")	1.75	24/16	7/16	16	6	12	130	110	105
				24	6	12	110	90	85

For SF: 1 inch = 25.4 mm, 1 mile per hour = 0.447 m/s.
a. Panel strength axis parallel or perpendicular to supports. Three-ply plywood sheathing with studs spaced more than 16 inches on center shall be applied with panel strength axis perpendicular to supports.
b. Table is based on wind pressures acting toward and away from building surfaces per Section R301.2. Lateral bracing requirements shall be in accordance with Section R602.10.
c. Wood Structural Panels with span ratings of Wall-16 or Wall-24 shall be permitted as an alternate to panels with a 24/0 span rating. Plywood siding rated 16 oc or 24 oc shall be permitted as an alternate to panels with a 24/16 span rating. Wall-16 and Plywood siding 16 oc shall be used with studs spaced a maximum of 16 inches on center.

TABLE R602.3(1)
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENERS ^a	SPACING OF FASTENERS
Roof			
1	Blocking between joists or rafters to top plate, toe nail	3-8d (2 1/2" × 0.113")	—
2	Ceiling joists to plate, toe nail	3-8d (2 1/2" × 0.113")	—
3	Ceiling joists not attached to parallel rafter, laps over partitions, face nail	3-10d	—
4	Collar tie rafter, face nail or 1 1/2" × 20 gage ridge strap	3-10d (3" × 0.128")	—
5	Rafter to plate, toe nail	2-16d (3 1/2" × 0.135")	—
6	Roof rafters to ridge, valley or hip rafters: toe nail face nail	4-16d (3 1/2" × 0.135") 3-16d (3 1/2" × 0.135")	—
Wall			
7	Built-up corner studs	10d (3" × 0.128")	24" o.c.
8	Built-up header, two pieces with 1/2" spacer	16d (3 1/2" × 0.135")	16" o.c. along each edge
9	Continued header, two pieces	16d (3 1/2" × 0.135")	16" o.c. along each edge
10	Continuous header to stud, toe nail	4-8d (2 1/2" × 0.113")	—
11	Double studs, face nail	10d (3" × 0.128")	24" o.c.
12	Double top plates, face nail	10d (3" × 0.128")	24" o.c.
13	Double top plates, minimum 24-inch offset of end joints, face nail in lapped area	8-16d (3 1/2" × 0.135")	—
14	Sole plate to joist or blocking, face nail	16d (3 1/2" × 0.135")	16" o.c.
15	Sole plate to joist or blocking at braced wall panels	3-16d (3 1/2" × 0.135")	16" o.c.
16	Stud to sole plate, toe nail	3-8d (2 1/2" × 0.113") 2-16d (3 1/2" × 0.135")	—
17	Top or sole plate to stud, end nail	2-16d (3 1/2" × 0.135")	—
18	Top plates, laps at corners and intersections, face nail	2-10d (3" × 0.128")	—
19	1" brace to each stud and plate, face nail	2-8d (2 1/2" × 0.113") 2 staples 1 1/2"	—
20	1" × 6" sheathing to each bearing, face nail	2-8d (2 1/2" × 0.113") 2 staples 1 1/2"	—
21	1" × 8" sheathing to each bearing, face nail	2-8d (2 1/2" × 0.113") 3 staples 1 1/2"	—
22	Wider than 1" × 8" sheathing to each bearing, face nail	3-8d (2 1/2" × 0.113") 4 staples 1 1/2"	—
Floor			
23	Joist to sill or girder, toe nail	3-8d (2 1/2" × 0.113")	—
24	1" × 6" subfloor or less to each joist, face nail	2-8d (2 1/2" × 0.113") 2 staples 1 1/2"	—
25	2" subfloor to joist or girder, blind and face nail	2-16d (3 1/2" × 0.135")	—
26	Rim joist to top plate, toe nail (roof applications also)	8d (2 1/2" × 0.113")	6" o.c.
27	2" planks (plank & beam - floor & roof)	2-16d (3 1/2" × 0.135")	at each bearing
28	Built-up girders and beams, 2-inch lumber layers	10d (3" × 0.128")	Nail each layer as follows: 32" o.c. at top and bottom and staggered. Two nails at ends and at each splice.
29	Ledger strip supporting joists or rafters	3-16d (3 1/2" × 0.135")	At each joist or rafter

(continued)

FASTENER SCHEDULE

TABLE R602.3(2)
ALTERNATE ATTACHMENTS

NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION ^{a,b} OF FASTENER AND LENGTH (inches)	SPACING ^c OF FASTENERS	
		Edges (inches)	Intermediate support (inches)
Wood structural panels subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing			
up to 1/2	Staple 15 ga. 1 1/2	4	8
	0.097 - 0.099 Nail 2 1/2	3	6
	Staple 16 ga. 1 1/2	3	6
	0.113 Nail 2	3	6
1/2 and 3/4	Staple 15 and 16 ga. 2	4	8
	0.097 - 0.099 Nail 2 1/2	4	8
	Staple 14 ga. 2	4	8
	Staple 15 ga. 1 1/2	3	6
	0.097 - 0.099 Nail 2 1/2	4	8
	Staple 16 ga. 2	4	8
	Staple 14 ga. 2 1/2	4	8
	0.113 Nail 2 1/2	3	6
	Staple 15 ga. 2 1/2	4	8
	0.097 - 0.099 Nail 2 1/2	4	8
NOMINAL MATERIAL THICKNESS (inches)			
DESCRIPTION^{a,b} OF FASTENER AND LENGTH (inches)			
SPACING^c OF FASTENERS			
Edges (inches)			
Body of panel^d (inches)			
Floor underlayment: plywood-harboard-particleboard			
Plywood			
1/4 and 3/8	1 1/2 ring or screw shank nail—minimum 12 1/2 ga. (0.099") shank diameter	3	6
	Staple 18 ga. 1/2 crown width	2	5
1/2 and 3/4	1 1/2 ring or screw shank nail—minimum 12 1/2 ga. (0.099") shank diameter	6	8
	1 1/2 ring or screw shank nail—minimum 12 1/2 ga. (0.099") shank diameter	6	8
	Staple 16 ga. 1 1/2	6	8
Hardboard			
0.200	1 1/2 long ring-grooved underlayment nail	6	6
	4d cement-coated sinker nail	6	6
	Staple 18 ga. 1/2 long (plastic coated)	3	6
Particleboard			
1/4	4d ring-grooved underlayment nail	3	6
	Staple 18 ga. 1/2 long, 1/2 crown	3	6
3/4	6d ring-grooved underlayment nail	6	10
	Staple 16 ga. 1 1/2 long, 1/2 crown	3	6
1 1/2	6d ring-grooved underlayment nail	6	10
	Staple 16 ga. 1 1/2 long, 1/2 crown	3	6

For SF: 1 inch = 25.4 mm.
a. Nail is a general description and may be Thread, modified round head or round head.
b. Staples shall have a minimum crown width of 1/2 inch on diameter except as noted.
c. Nails or staples shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater. Nails or staples shall be spaced at not more than 12 inches on center at intermediate supports for floors.
d. Fasteners shall be placed in a grid pattern throughout the body of the panel.
e. For 5-ply panels, intermediate nails shall be spaced not more than 12 inches on center each way.
f. Hardboard underlayment shall conform to CPAN/ANSI A135.4.

BRACED WALL PANEL FASTENING SCHEDULE

LIN RESIDENCE
TWO FAMILY RESIDENCE
NEW DORMER

527 MYSTIC VALLEY PKWY, MEDFORD, MA 02155

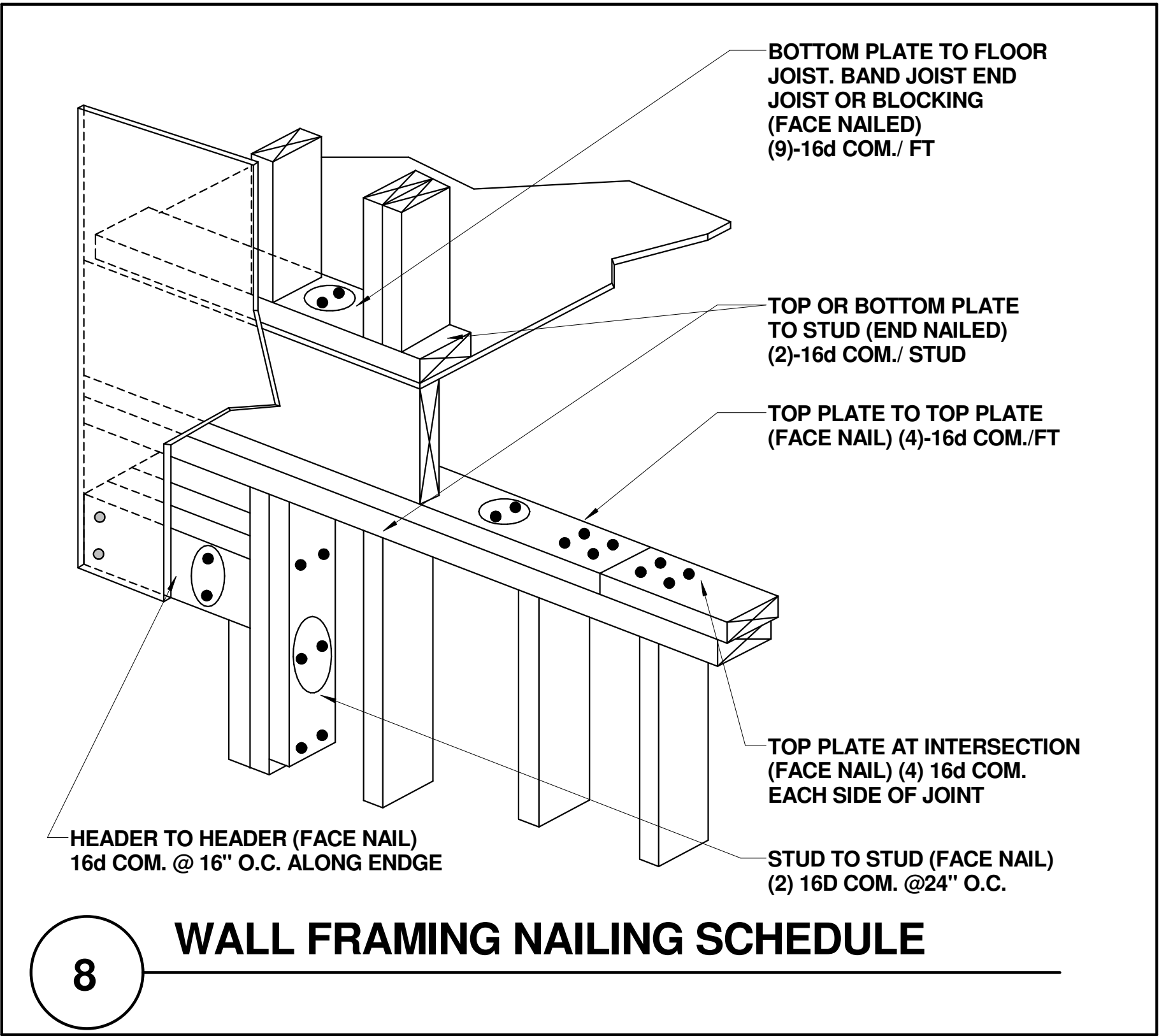
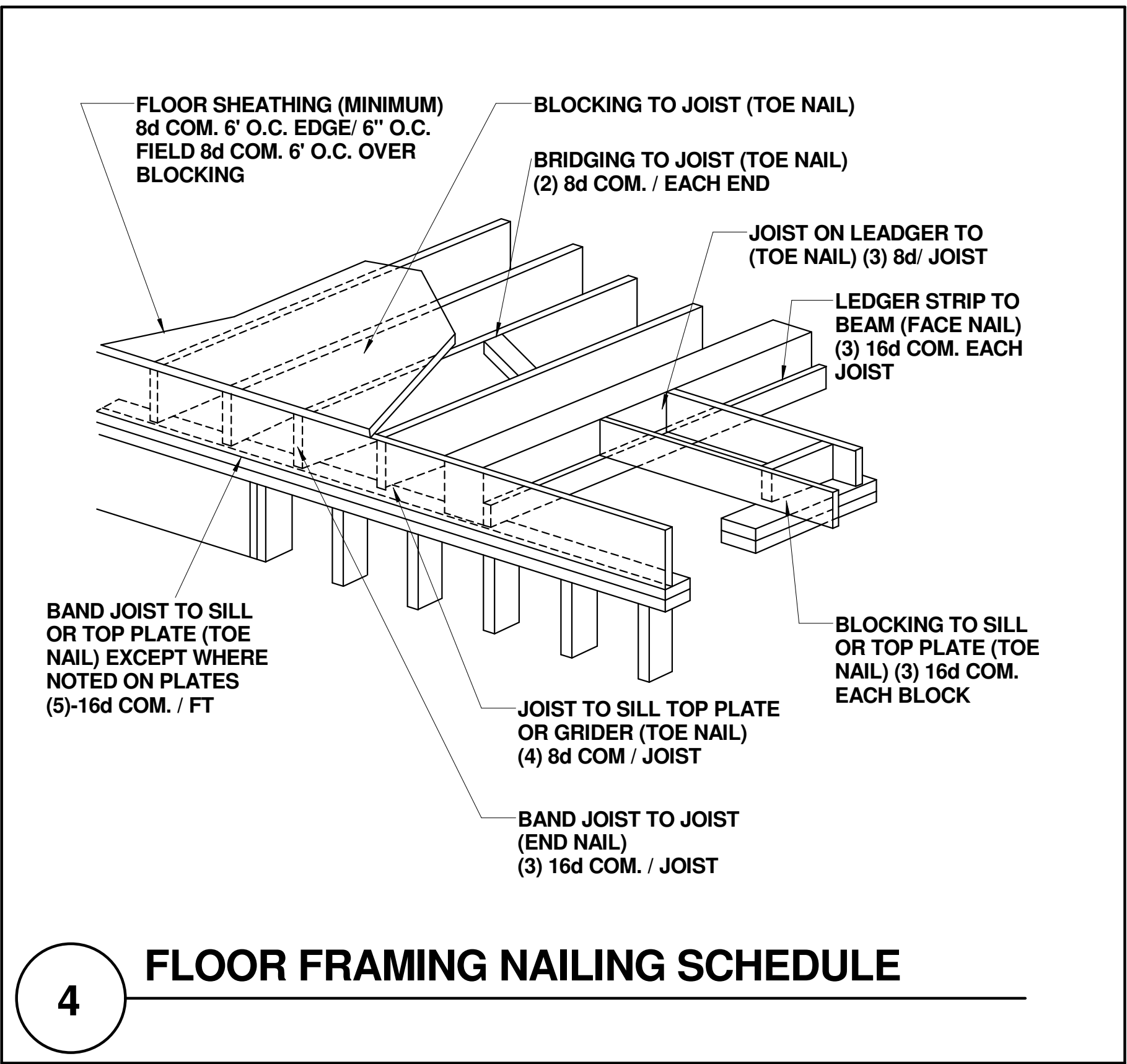
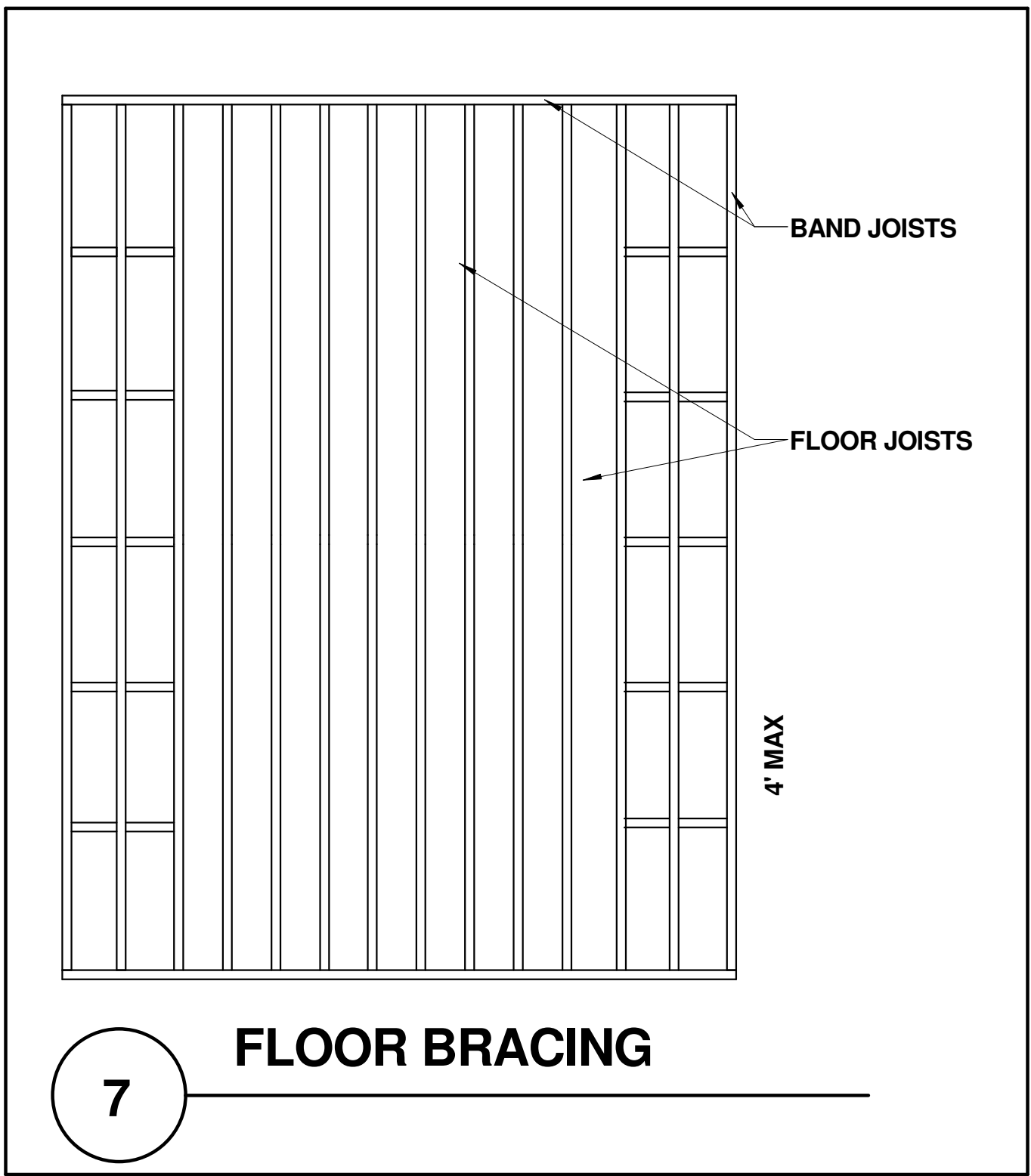
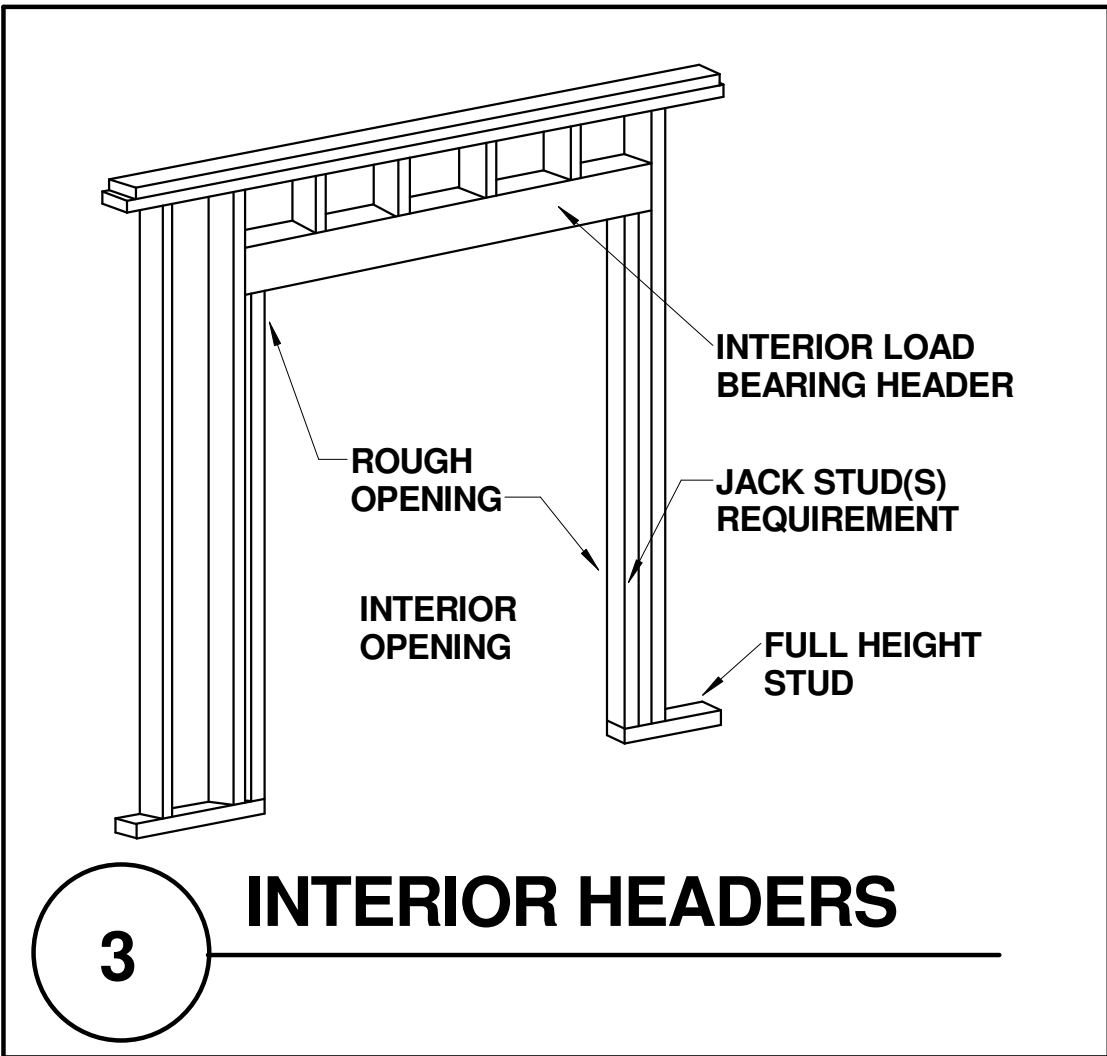
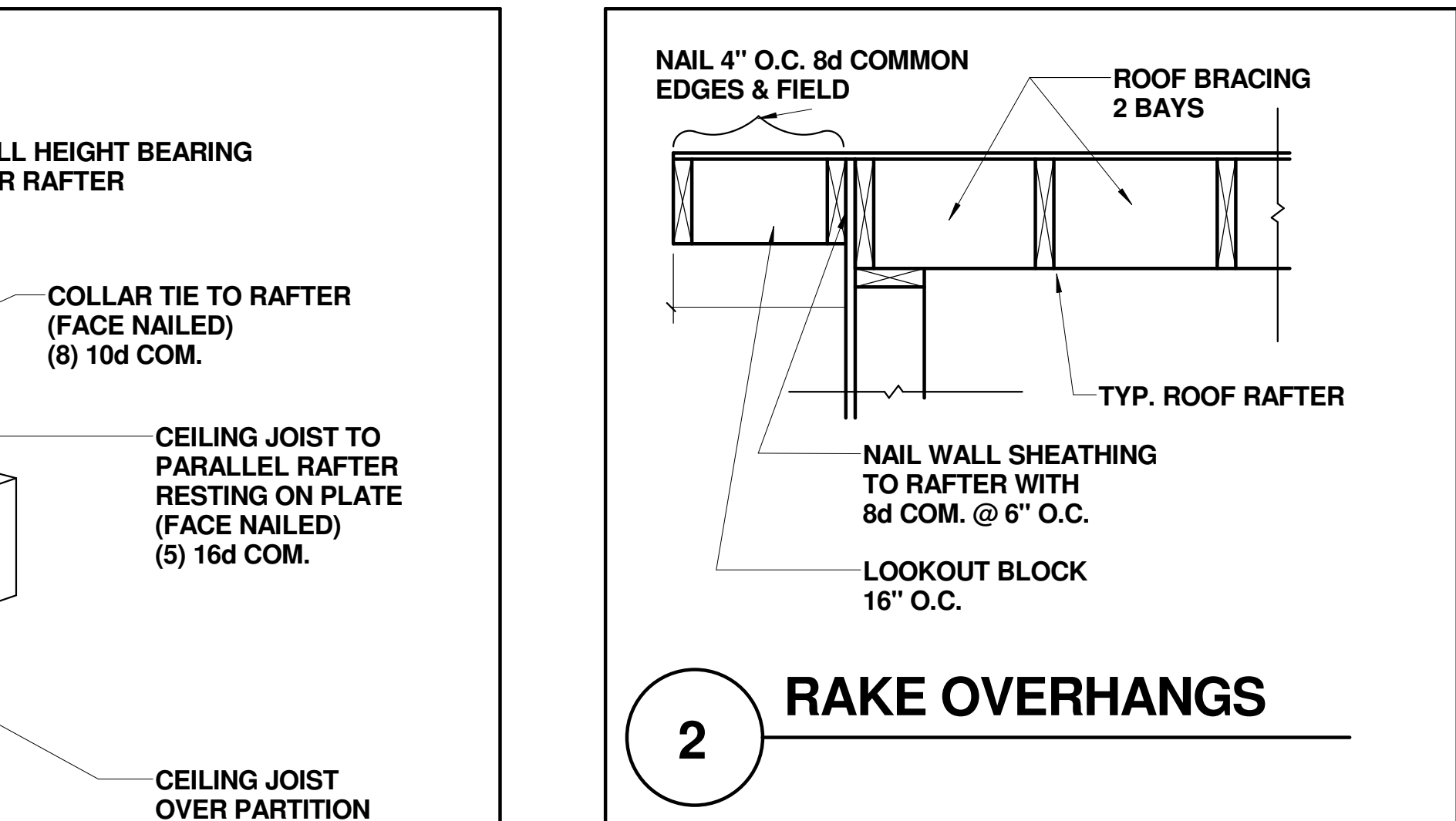
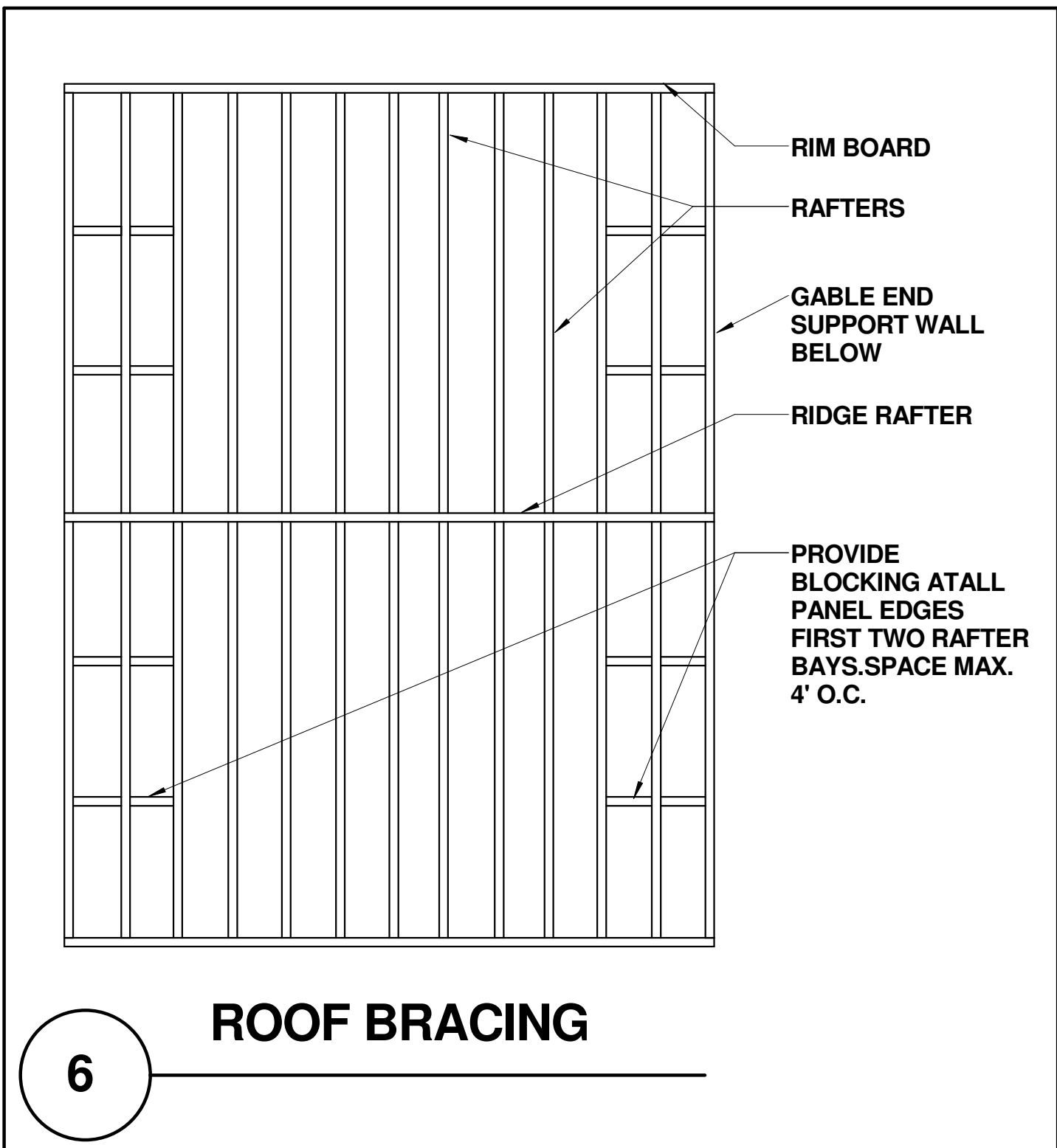
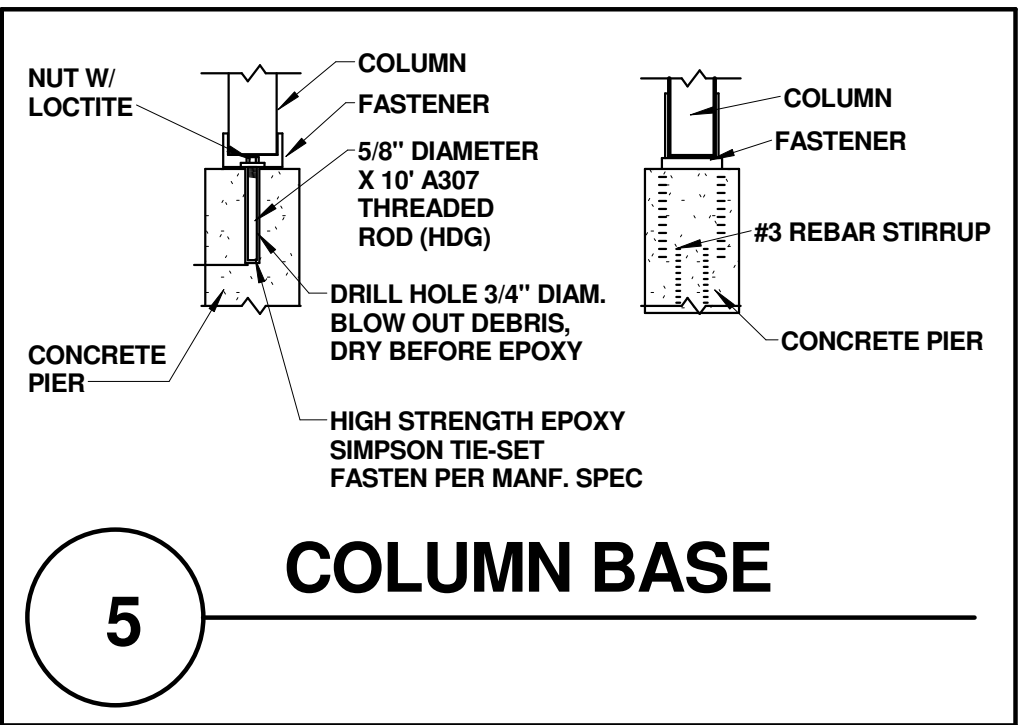
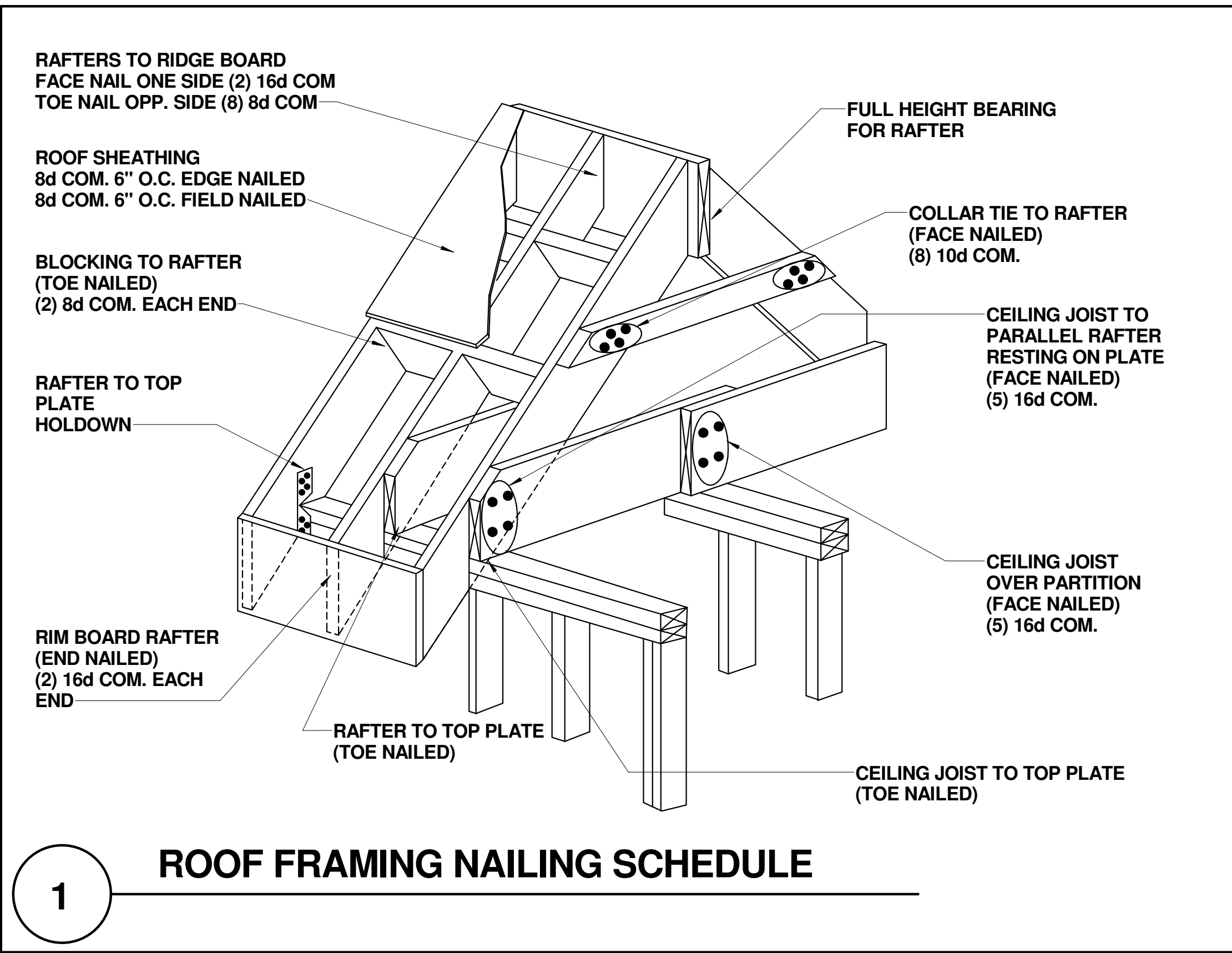
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857-526-4030

DATE: 22 DECEMBER 2018

A-105

CONSTRUCTION DETAILS 1



CONSTRUCTION DETAILS 2

LIN RESIDENCE
TWO FAMILY RESIDENCE
NEW DORMER
527 MYSTIC VALLEY PKWY, MEDFORD, MA, 02155

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A-106