Large House Review (LHR) Committee
Monday, April 7, 2025
7:00 p.m.

Great Plain Room
Needham Town Hall, 1471 Highland Avenue, Needham, MA
AND
Virtual Meeting using Zoom
Meeting ID: **880 4672 5264**
(Instructions for accessing below)

To view and participate in this virtual meeting on your phone, download the "Zoom Cloud Meetings" app in any app store or at www.zoom.us. At the above date and time, click on "Join a Meeting" and enter the following Meeting ID: 885 4714 5967

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Direct Link to meeting: https://needham-k12-ma-us.zoom.us/j/88547145967

1. Approval of meeting minutes.
2. Presentation and Discussion Regarding Working Group Review of Existing House Build-out on Conforming Lots.
3. Status update (where we've been and where we are).
4. Responses to the Question on Committee Work Program Outcome.
5. Report to the Planning Board.
6. Schedule moving forward.

LHR Committee Members:

Artie Crocker	Planning Board Member / Planning Board Designee
Jeanne McKnight	Planning Board Member / Planning Board Designee
Heidi Frail	Select Board Member / Select Board Designee
Marianne Cooley	Select Board Member / Select Board Designee
Moe Handel	Design Review Board Member / Design Review Board Designee
Tina Burgos	Finance Committee Member / Finance Committee Designee
Nik Ligris	Zoning Board of Appeals Member / Zoning Board of Appeals Designee
Bill Paulson	Real Estate Broker appointed by the Planning Board
Paul McGovern	Developer appointed by the Planning Board
Oscar Mertz	Architect appointed by the Planning Board
Chris Cotter	At Large appointed by the Planning Board
Rob Dangle	At Large appointed by the Planning Board
Joe Matthews	At Large appointed by the Planning Board
Ed Quinlan	At Large appointed by the Planning Board

Large House Study - FAR Rules/Tests - Summary
Houses >10,000 SF (Conforming Lots)
3/26/2025

					Livable Area		Calculated Floor Area Ratio					Max Livable Floor Area (See Note 1)				
Address	Lot Size SF	Lot Area Limit %	Lot Area Actual %	Floors	As Designed N.I. Garage	FAR Limit	Floor 1,2	Floor 1,2,3	Floor 1,2,3,B	Floor 1,2,3,+G1	Floor 1,2 +G	Based On FAR Floor 1,2,3,+G1		TLAG	Based On Lot Coverage Limit	
House 1	10,001	30%	24.1%	4.0	6,765	38%	37.9%	52.9%	67.6%	58.2%	43.2%	5,270	-22.1%	5,817	9,979	47.5%
House 2	10,001	30%	23.5%	4.0	6,525	38%	37.8%	51.2%	65.2%	56.2%	42.8%	5,200	-20.3%	5,625	10,001	53.3%
House 3	10,001	30%	13.7%	4.0	6,151	38%	37.9%	45.4%	61.5%	50.7%	43.2%	5,411	-12.0%	5,075	9,966	62.0%
House 4	10,061	30%	24.7%	4.0	5,851	38%	37.5%	46.0%	58.2%	51.5%	43.1%	5,048	-13.7%	5,186	10,004	71.0%
House 5	10,045	30%	24.4%	4.0	4,982	38%	31.9%	35.2%	49.6%	40.1%	36.8%	5,267	5.7%	4,029	10,050	101.7%
House 6	10,149	30%	22.7%	4.0	6,092	38%	35.8%	43.2%	60.0%	49.0%	41.6%	5,566	-8.6%	4,970	10,069	65.3%
House 7	10,568	30%	24.3%	4.0	6,351	38%	37.9%	46.2%	60.1%	51.9%	43.7%	5,486	-13.6%	5,489	10,488	65.1%
House 8	10,785	30%	24.5%	4.0	6,588	38%	37.9%	46.2%	61.1%	50.6%	42.2%	5,700	-13.5%	5,454	10,856	64.8%
House 9	10,877	30%	22.3%	4.0	6,521	38%	36.8%	41.7%	60.0%	46.4%	41.5%	6,119	-6.2%	5,044	10,912	67.3%
House 10	11,761	30%	22.6%	4.0	6,687	38%	35.3%	44.0%	56.9%	49.2%	40.5%	5,981	-10.6%	5,789	11,735	75.5%
House 11	12,092	25%	21.7%	4.0	6,547	36%	35.8%	42.6%	54.1%	47.3%	40.6%	5,748	-12.2%	5,722	10,011	52.9%
House 12	12,615	25%	16.2%	4.0	5,146	36%	26.9%	31.0%	40.8%	35.1%	31.0%	5,776	12.3%	4,425	10,524	104.5%
House 13	12,932	25%	19.9%	4.0	5,798	36%	30.9%	34.5%	44.8%	39.0%	35.4%	5,990	3.3%	5,039	10,741	85.2%
House 14	14,326	25%	19.6%	4.0	7,268	36%	32.8%	37.7%	50.7%	37.7%	32.8%	7,021	-3.4%	5,404	11,941	64.3%
House 15	14,314	25%	26.0%	4.0	7,225	36%	35.1%	40.7%	50.5%	44.9%	39.2%	6,548	-9.4%	6,428	11,927	65.1%
House 16	16,406	25%	22.8%	3.0	8,936	36%	34.7%	34.7%	54.5%	38.0%	38.0%	9,145	2.3%	6,227	13,825	54.7%
House 17	32,679	25%	14.0%	4.0	10,117	36%	20.8%	22.7%	31.0%	25.6%	23.7%	14,462	43.0%	8,369	27,644	173.2%
			21.6%	Ave	6,679	Ave					Ave.=	6,455	-3.4%	5,535	11,804	76.7%

Note 1: Includes area on **ALL** floors, not including garage (typ of Real Estate Listin

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Limit when < X	30%	
Lot Coverage Limit when >= X	25%	

= Adjustable for Testing alternate values

Large House Study - FAR Rules/Tests

House 1

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	10,001	SF	
Lot Coverage	2,410	SF	24.1%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,470	-	1,470
1	2,292	522	1,770
2	2,025	-	2,025
3	1,500	-	1,500
Total	7,287	522	6,765
TLAG	5,817	Real Estate Ad=	6,700 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,410	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.1%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.9%	3,795	6,770
FAR (Flr 1,2,3 Exclude Garage)	38%	52.9%	5,295	5,270
FAR (Flr 1,2,3,B Exclude Garage)	38%	67.6%	6,765	3,800
FAR (Flr 1,2,3,+ Garage on 1)	38%	58.2%	5,817	5,270
FAR (Flr 1,2 + any Garage)	38%	43.2%	4,317	6,770

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

Large House Study - FAR Rules/Tests

House 2

3/26/2025

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House and Lot Information

# Floors	4.0	
Lot Size	10,001	SF
Lot Coverage	2,350	SF

23.5%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,400	-	1,400
1	2,345	500	1,845
2	1,935	-	1,935
3	1,345	-	1,345
Total	7,025	500	6,525
TLAG	5,625	Real Estate Ad=	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,350	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	23.5%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.8%	3,780	6,545
FAR (Flr 1,2,3 Exclude Garage)	38%	51.2%	5,125	5,200
FAR (Flr 1,2,3,B Exclude Garage	38%	65.2%	6,525	3,800
FAR (Flr 1,2,3,+ Garage on 1)	38%	56.2%	5,625	5,200
FAR (Flr 1,2 + any Garage)	38%	42.8%	4,280	6,545

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 3

3/26/2025

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House and Lot Information

# Floors	4.0		
Lot Size	10,001	SF	
Lot Coverage	1,370	SF	13.7%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,611	-	1,611	
1	2,435	535	1,900	
2	1,890	-	1,890	
3	750	-	750	
Total	6,686	535	6,151	
TLAG	5,075	Real Estate Ad=	6,151	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,370	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	13.7%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.9%	3,790	6,161
FAR (Flr 1,2,3 Exclude Garage)	38%	45.4%	4,540	5,411
FAR (Flr 1,2,3,B Exclude Garage	38%	61.5%	6,151	3,800
FAR (Flr 1,2,3,+ Garage on 1)	38%	50.7%	5,075	5,411
FAR (Flr 1,2 + any Garage)	38%	43.2%	4,325	6,161

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 4

3/26/2025

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House and Lot Information

# Floors	4.0		
Lot Size	10,061	SF	
Lot Coverage	2,485	SF	24.7%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,225	0	1,225
1	2,420	560	1,860
2	1,916	-	1,916
3	850	-	850
Total	6,411	560	5,851
TLAG	5,186	Real Estate Ad=	5,826 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,485	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.7%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.5%	3,776	5,898
FAR (Flr 1,2,3 Exclude Garage)	38%	46.0%	4,626	5,048
FAR (Flr 1,2,3,B Exclude Garage	38%	58.2%	5,851	3,823
FAR (Flr 1,2,3,+ Garage on 1)	38%	51.5%	5,186	5,048
FAR (Flr 1,2 + any Garage)	38%	43.1%	4,336	5,898

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 5

3/26/2025

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House and Lot Information

# Floors	4.0		
Lot Size	10,045	SF	
Lot Coverage	2,451	SF	24.4%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,450	-	1,450
1	1,756	497	1,259
2	1,943	-	1,943
3	330	-	330
Total	5,479	497	4,982
TLAG	4,029	Real Estate Ad=	5,500 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,451	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.4%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	31.9%	3,202	5,597
FAR (Flr 1,2,3 Exclude Garage)	38%	35.2%	3,532	5,267
FAR (Flr 1,2,3,B Exclude Garage	38%	49.6%	4,982	3,817
FAR (Flr 1,2,3,+ Garage on 1)	38%	40.1%	4,029	5,267
FAR (Flr 1,2 + any Garage)	38%	36.8%	3,699	5,597

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 6

3/26/2025

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House and Lot Information

# Floors	4.0	
Lot Size	10,149	SF
Lot Coverage	2,304	SF
		22.7%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,709	-	1,709	
1	2,317	587	1,730	
2	1,900	-	1,900	
3	753	-	753	
Total	6,679	587	6,092	
TLAG	4,970	Real Estate Ad=	6,092	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,304	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	22.7%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	35.8%	3,630	6,319
FAR (Flr 1,2,3 Exclude Garage)	38%	43.2%	4,383	5,566
FAR (Flr 1,2,3,B Exclude Garage	38%	60.0%	6,092	3,857
FAR (Flr 1,2,3,+ Garage on 1)	38%	49.0%	4,970	5,566
FAR (Flr 1,2 + any Garage)	38%	41.6%	4,217	6,319

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 7

3/26/2025

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House and Lot Information

# Floors	4.0			
Lot Size	10,568	SF		
Lot Coverage	2,568	SF	24.3%	

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,470	-	1,470	
1	2,568	608	1,960	
2	2,046	-	2,046	
3	875	-	875	
Total	6,959	608	6,351	
TLAG	5,489	Real Estate Ad=	6,250	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,568	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.3%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.9%	4,006	6,361
FAR (Flr 1,2,3 Exclude Garage)	38%	46.2%	4,881	5,486
FAR (Flr 1,2,3,B Exclude Garage	38%	60.1%	6,351	4,016
FAR (Flr 1,2,3,+ Garage on 1)	38%	51.9%	5,489	5,486
FAR (Flr 1,2 + any Garage)	38%	43.7%	4,614	6,361

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 8

3/26/2025

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House and Lot Information

# Floors	4.0		
Lot Size	10,785	SF	
Lot Coverage	2,642	SF	24.5%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,602	-	1,602	
1	2,379	468	1,911	
2	2,175	-	2,175	
3	900	-	900	
Total	7,056	468	6,588	
TLAG	5,454	Real Estate Ad=	2,398	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,642	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.5%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.9%	4,086	6,600
FAR (Flr 1,2,3 Exclude Garage)	38%	46.2%	4,986	5,700
FAR (Flr 1,2,3,B Exclude Garage	38%	61.1%	6,588	4,098
FAR (Flr 1,2,3,+ Garage on 1)	38%	50.6%	5,454	5,700
FAR (Flr 1,2 + any Garage)	38%	42.2%	4,554	6,600

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 9

3/26/2025

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House and Lot Information

# Floors	4.0			
Lot Size	10,877	SF		
Lot Coverage	2,426	SF		22.3%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,986	-	1,986	
1	2,368	509	1,859	
2	2,146	-	2,146	
3	530	-	530	
Total	7,030	509	6,521	
TLAG	5,044	Real Estate Ad=	7,677	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,426	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	22.3%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	36.8%	4,005	6,649
FAR (Flr 1,2,3 Exclude Garage)	38%	41.7%	4,535	6,119
FAR (Flr 1,2,3,B Exclude Garage	38%	60.0%	6,521	4,133
FAR (Flr 1,2,3,+ Garage on 1)	38%	46.4%	5,044	6,119
FAR (Flr 1,2 + any Garage)	38%	41.5%	4,514	6,649

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 10

3/26/2025

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House and Lot Information

# Floors	4.0			
Lot Size	11,761	SF		
Lot Coverage	2,658	SF		22.6%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,512	-	1,512	
1	2,677	614	2,063	
2	2,084	-	2,084	
3	1,028	-	1,028	
Total	7,301	614	6,687	
TLAG	5,789	Real Estate Ad=	5,297	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,658	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	22.6%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	35.3%	4,147	7,009
FAR (Flr 1,2,3 Exclude Garage)	38%	44.0%	5,175	5,981
FAR (Flr 1,2,3,B Exclude Garage)	38%	56.9%	6,687	4,469
FAR (Flr 1,2,3,+ Include Garage 1)	38%	49.2%	5,789	5,981
FAR (Flr 1,2 + Include Garage 1)	38%	40.5%	4,761	7,009

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

Large House Study - FAR Rules/Tests

House 11

3/26/2025

Please Note

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House and Lot Information

# Floors	4.0			
Lot Size	12,092	SF		
Lot Coverage	2,624	SF	21.7%	

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,395	-	1,395	
1	2,642	570	2,072	
2	2,262	-	2,262	
3	818	-	818	
Total	7,117	570	6,547	
TLAG	5,722	Real Estate Ad=	6,548	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,624	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	21.7%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	35.8%	4,334	6,566
FAR (Flr 1,2,3 Exclude Garage)	36%	42.6%	5,152	5,748
FAR (Flr 1,2,3,B Exclude Garage	36%	54.1%	6,547	4,353
FAR (Flr 1,2,3,+ Garage on 1)	36%	47.3%	5,722	5,748
FAR (Flr 1,2 + any Garage)	36%	40.6%	4,904	6,566

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 12

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0	
Lot Size	12,615	SF
Lot Coverage	2,044	SF

16.2%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,235	-	1,235
1	2,025	514	1,511
2	1,880	-	1,880
3	520	-	520
Total	5,660	514	5,146
TLAG	4,425	Real Estate Ad=	5,370 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,044	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	16.2%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	26.9%	3,391	6,296
FAR (Flr 1,2,3 Exclude Garage)	36%	31.0%	3,911	5,776
FAR (Flr 1,2,3,B Exclude Garage	36%	40.8%	5,146	4,541
FAR (Flr 1,2,3,+ Garage on 1)	36%	35.1%	4,425	5,776
FAR (Flr 1,2 + any Garage)	36%	31.0%	3,905	6,296

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 13

3/26/2025

Please Note

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This is the current Bylaw
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House and Lot Information

# Floors	4.0			
Lot Size	12,932	SF		
Lot Coverage	2,573	SF	0.199	

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,334	-	1,334	
1	2,526	575	1,951	
2	2,047	-	2,047	
3	466	-	466	
Total	6,373	575	5,798	
TLAG	5,039	Real Estate Ad=	6,089	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,573	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	19.9%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	30.9%	3,998	6,456
FAR (Flr 1,2,3 Exclude Garage)	36%	34.5%	4,464	5,990
FAR (Flr 1,2,3,B Exclude Garage)	36%	44.8%	5,798	4,656
FAR (Flr 1,2,3,+ Include Garage 1)	36%	39.0%	5,039	5,990
FAR (Flr 1,2 + Include Garage 1)	36%	35.4%	4,573	6,456

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

Large House Study - FAR Rules/Tests

House 14

3/26/2025

Please Note

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These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	14,326	SF	
Lot Coverage	2,808	SF	19.6%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	2,458	594	1,864	
1	2,616	-	2,616	
2	2,088	-	2,088	
3	700	-	700	
Total	7,862	594	7,268	
TLAG	5,404	Real Estate Ad=	6,533	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,808	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	19.6%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	32.8%	4,704	7,721
FAR (Flr 1,2,3 Exclude Garage)	36%	37.7%	5,404	7,021
FAR (Flr 1,2,3,B Exclude Garage)	36%	50.7%	7,268	5,157
FAR (Flr 1,2,3,+ Include Garage 1)	36%	37.7%	5,404	7,021
FAR (Flr 1,2 + Include Garage 1)	36%	32.8%	4,704	7,721

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

Large House Study - FAR Rules/Tests

House 15

3/26/2025

Please Note

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These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	14,314	SF	
Lot Coverage	3,722	SF	0.260

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,395	-	1,395	
1	3,156	598	2,558	
2	2,462	-	2,462	
3	810	-	810	
Total	7,823	598	7,225	
TLAG	6,428	Real Estate Ad=	9,300	SF 7bds10 bath

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	3,722	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	26.0%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	35.1%	5,020	7,358
FAR (Flr 1,2,3 Exclude Garage)	36%	40.7%	5,830	6,548
FAR (Flr 1,2,3,B Exclude Garage)	36%	50.5%	7,225	5,153
FAR (Flr 1,2,3,+ Include Garage 1)	36%	44.9%	6,428	6,548
FAR (Flr 1,2 + Include Garage 1)	36%	39.2%	5,618	7,358

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

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Large House Study - FAR Rules/Tests

House 16

3/26/2025

Please Note

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These are calculated values - don't modify

House and Lot Information

# Floors	3.0		
Lot Size	16,406	SF	
Lot Coverage	3,741	SF	22.8%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	3,239	-	3,239	
1	3,740	530	3,210	
2	2,487	-	2,487	
3	-	-	-	
Total	9,466	530	8,936	
TLAG	6,227	Real Estate Ad=	9,466	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	3,741	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	22.8%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	34.7%	5,697	9,145
FAR (Flr 1,2,3 Exclude Garage)	36%	34.7%	5,697	9,145
FAR (Flr 1,2,3,B Exclude Garage)	36%	54.5%	8,936	5,906
FAR (Flr 1,2,3,+ Include Garage 1)	36%	38.0%	6,227	9,145
FAR (Flr 1,2 + Include Garage 1)	36%	38.0%	6,227	9,145

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

Large House Study - FAR Rules/Tests

House 17

3/26/2025

Please Note

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House and Lot Information

# Floors	4.0			
Lot Size	32,679	SF		
Lot Coverage	4,575	SF		0.14

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	2,698	-	2,698	
1	4,119	950	3,169	
2	3,637	-	3,637	
3	613	-	613	
Total	11,067	950	10,117	
TLAG	8,369	Real Estate Ad=	9,466	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	4,575	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	14.0%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	20.8%	6,806	15,075
FAR (Flr 1,2,3 Exclude Garage)	36%	22.7%	7,419	14,462
FAR (Flr 1,2,3,B Exclude Garage)	36%	31.0%	10,117	11,764
FAR (Flr 1,2,3,+ Include Garage 1)	36%	25.6%	8,369	14,462
FAR (Flr 1,2 + Include Garage 1)	36%	23.7%	7,756	15,075

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

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Large House Study - FAR Rules/Tests - Summary
Houses <10,000 SF (Non-Conforming Lots)
3/26/2025

Address	Lot Size SF	Lot Cov. Limit %	Lot Area Actual %	Floors	Livable Area As Designed N.I. Garage	FAR Limit	Calculated Floor Area Ratio: Floor 1,2	Floor 1,2,3	Floor 1,2,3,B	Floor 1,2,3,+G1	Floor 1,2 +G	Max Livable Floor Area (See Note 1): Based On FAR Floor 1,2,3,+G1		Based on TLAG	Based On Lot Coverage Limit	
House 1	7,000	30%	23.4%	2.5	5,458	38%	46.0%	62.4%	78.0%	62.4%	52.5%	3,750	-31.3%	4,368	6,895	26.3%
House 2	7,000	30%	24.1%	2.5	4,004	38%	37.9%	48.0%	57.2%	55.3%	45.2%	3,306	-17.4%	3,870	6,838	70.8%
House 3	7,274	30%	22.4%	2.0	3,759	38%	37.9%	37.9%	51.7%	37.9%	45.1%	3,767	0.2%	2,756	7,114	89.2%
House 4	7,353	30%	25.0%	2.5	4,245	38%	35.1%	41.4%	57.7%	49.2%	42.9%	3,992	-6.0%	3,620	7,148	68.4%
House 5	7,828	30%	24.8%	2.5	5,276	38%	38.0%	51.5%	67.4%	57.0%	43.5%	4,219	-20.0%	4,465	7,786	47.6%
House 6	8,159	30%	22.3%	2.5	4,857	38%	37.9%	49.8%	59.5%	55.5%	43.7%	3,895	-19.8%	4,532	8,097	66.7%
House 7	8,171	30%	21.7%	2.5	4,722	38%	37.4%	45.7%	57.8%	50.6%	42.3%	4,095	-13.3%	4,132	8,180	73.2%
House 8	8,250	30%	22.1%	2.5	4,962	38%	37.7%	48.0%	60.1%	54.5%	44.2%	4,135	-16.7%	4,495	8,130	63.8%
House 9	9,191	30%	24.4%	2.5	5,858	38%	37.6%	49.8%	63.7%	56.0%	43.8%	4,776	-18.5%	5,148	9,078	55.0%
House 10	9,801	30%	23.1%	2.5	6,417	38%	37.7%	53.3%	65.5%	58.1%	42.4%	4,914	-23.4%	5,692	9,826	53.1%
House 11	9,953	30%	20.1%	2.5	5,349	38%	31.1%	40.9%	53.7%	46.3%	36.5%	5,063	-5.3%	4,604	9,915	85.4%
House 12	7,932	30%	22.2%	2.0	4,023	38%	38.7%	38.7%	50.7%	44.6%	44.6%	3,968	-1.4%	3,539	7,859	95.3%
House 13	8,300	30%	23.1%	2.5	5,360	38%	38.4%	49.7%	64.6%	55.3%	44.1%	4,392	-18.1%	4,593	8,244	53.8%
House 14	7,000	30%	24.9%	2.5	5,081	38%	40.3%	61.1%	72.6%	68.1%	47.4%	3,466	-31.8%	4,770	6,855	34.9%
House 15	8,844	30%	21.3%	2.5	4,713	38%	33.8%	39.3%	53.3%	44.7%	39.2%	4,598	-2.4%	3,950	8,812	87.0%
			23.0%	Ave	4,939	Ave					Ave.=	4,156	-15.9%	4,302	8,052	63.0%

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Limit when < X	30%	
Lot Coverage Limit when >= X	25%	

= Adjustable for Testing alternate values

Note 1: Includes livable area on **ALL** floors, not including garage (typ of R.E. Listing)

TLAG = 1+2+3+G but NI B

Large House Study - FAR Rules/Tests

House 1

3/26/2025

Please Note

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These are calculated values - don't modify

House and Lot Information

# Floors	2.5	
Lot Size	7,000	SF
Lot Coverage	1,638	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,545	455	1,090	
1	1,611	-	1,611	
2	1,611	-	1,611	
3	1,146	-	1,146	
Total	5,913	455	5,458	
TLAG	4,368	Real Estate Ad=	5,584	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,638	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	23.4%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	46.0%	3,222	4,896
FAR (Flr 1,2,3 Exclude Garage)	38%	62.4%	4,368	3,750
FAR (Flr 1,2,3,B Exclude Garage)	38%	78.0%	5,458	2,660
FAR (Flr 1,2,3,+ Garage on 1)	38%	62.4%	4,368	3,750
FAR (Flr 1,2 + any Garage)	38%	52.5%	3,222	4,896

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

Large House Study - FAR Rules/Tests

House 2

3/26/2025

Please Note

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House and Lot Information

# Floors	2.5	
Lot Size	7,000	SF
Lot Coverage	1,687	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	646	-	646
1	1,641	512	1,129
2	1,523	-	1,523
3	706	-	706
Total	4,516	512	4,004
TLAG	3,870	Real Estate Ad=	????? SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,687	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.1%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.9%	2,652	4,012
FAR (Flr 1,2,3 Exclude Garage)	38%	48.0%	3,358	3,306
FAR (Flr 1,2,3,B Exclude Garage	38%	57.2%	4,004	2,660
FAR (Flr 1,2,3,+ Garage on 1)	38%	55.3%	3,870	3,306
FAR (Flr 1,2 + any Garage)	38%	45.2%	3,164	4,012

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 3

3/26/2025

Please Note

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These are calculated values - don't modify

House and Lot Information

# Floors	2.0	
Lot Size	7,274	SF
Lot Coverage	1,629	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,527	524	1,003	
1	1,623	-	1,623	
2	1,133	-	1,133	
3	-	-	-	
Total	4,283	524	3,759	
TLAG	2,756	Real Estate Ad=	3,582	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,629	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	22.4%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.9%	2,756	3,767
FAR (Flr 1,2,3 Exclude Garage)	38%	37.9%	2,756	3,767
FAR (Flr 1,2,3,B Exclude Garage	38%	51.7%	3,759	2,764
FAR (Flr 1,2,3,+ Garage on 1)	38%	37.9%	2,756	3,767
FAR (Flr 1,2 + any Garage)	38%	45.1%	2,756	3,767

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 4

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	2.5	
Lot Size	7,353	SF
Lot Coverage	1,838	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,198	-	1,198
1	1,785	573	1,212
2	1,371	-	1,371
3	464	-	464
Total	4,818	573	4,245
TLAG	3,620	al Estate Ad=	????? SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,838	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	25.0%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	35.1%	2,583	4,456
FAR (Flr 1,2,3 Exclude Garage)	38%	41.4%	3,047	3,992
FAR (Flr 1,2,3,B Exclude Garage	38%	57.7%	4,245	2,794
FAR (Flr 1,2,3,+ Garage on 1)	38%	49.2%	3,620	3,992
FAR (Flr 1,2 + any Garage)	38%	42.9%	3,156	4,456

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 5

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	2.5	
Lot Size	7,828	SF
Lot Coverage	1,941	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,244	-	1,244	
1	1,801	433	1,368	
2	1,605	-	1,605	
3	1,059	-	1,059	
Total	5,709	433	5,276	
TLAG	4,465	Real Estate Ad=	5,276	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,941	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.8%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	38.0%	2,973	5,278
FAR (Flr 1,2,3 Exclude Garage)	38%	51.5%	4,032	4,219
FAR (Flr 1,2,3,B Exclude Garage	38%	67.4%	5,276	2,975
FAR (Flr 1,2,3,+ Garage on 1)	38%	57.0%	4,465	4,219
FAR (Flr 1,2 + any Garage)	38%	43.5%	3,406	5,278

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 6

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	2.5	
Lot Size	8,159	SF
Lot Coverage	1,819	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	795	-	795	
1	1,859	470	1,389	
2	1,707	-	1,707	
3	966	-	966	
Total	5,327	470	4,857	
TLAG	4,532	Real Estate Ad=	5,190	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,819	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	22.3%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.9%	3,096	4,861
FAR (Flr 1,2,3 Exclude Garage)	38%	49.8%	4,062	3,895
FAR (Flr 1,2,3,B Exclude Garage	38%	59.5%	4,857	3,100
FAR (Flr 1,2,3,+ Garage on 1)	38%	55.5%	4,532	3,895
FAR (Flr 1,2 + any Garage)	38%	43.7%	3,566	4,861

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 7

3/26/2025

Please Note

These values are adjustable
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House and Lot Information

# Floors	2.5	
Lot Size	8,171	SF
Lot Coverage	1,775	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	990	-	990	
1	1,732	400	1,332	
2	1,728	-	1,728	
3	672	-	672	
Total	5,122	400	4,722	
TLAG	4,132	Real Estate Ad=	5,100	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,775	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	21.7%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.4%	3,060	4,767
FAR (Flr 1,2,3 Exclude Garage)	38%	45.7%	3,732	4,095
FAR (Flr 1,2,3,B Exclude Garage	38%	57.8%	4,722	3,105
FAR (Flr 1,2,3,+ Garage on 1)	38%	50.6%	4,132	4,095
FAR (Flr 1,2 + any Garage)	38%	42.3%	3,460	4,767

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 8

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	2.5	
Lot Size	8,250	SF
Lot Coverage	1,823.0	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,000	-	1,000	
1	1,821	533	1,288	
2	1,824	-	1,824	
3	850	-	850	
Total	5,495	533	4,962	
TLAG	4,495	Real Estate Ad=	?????	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,823	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	22.1%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.7%	3,112	4,985
FAR (Flr 1,2,3 Exclude Garage)	38%	48.0%	3,962	4,135
FAR (Flr 1,2,3,B Exclude Garage	38%	60.1%	4,962	3,135
FAR (Flr 1,2,3,+ Garage on 1)	38%	54.5%	4,495	4,135
FAR (Flr 1,2 + any Garage)	38%	44.2%	3,645	4,985

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 9

3/26/2025

Please Note

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House and Lot Information

# Floors	2.5	
Lot Size	9,191	SF
Lot Coverage	2,242	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,283	-	1,283	
1	2,253	573	1,680	
2	1,774	-	1,774	
3	1,121	-	1,121	
Total	6,431	573	5,858	
TLAG	5,148	Real Estate Ad=	5,900	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,242	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.4%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.6%	3,454	5,897
FAR (Flr 1,2,3 Exclude Garage)	38%	49.8%	4,575	4,776
FAR (Flr 1,2,3,B Exclude Garage	38%	63.7%	5,858	3,493
FAR (Flr 1,2,3,+ Garage on 1)	38%	56.0%	5,148	4,776
FAR (Flr 1,2 + any Garage)	38%	43.8%	4,027	5,897

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 10

3/26/2025

Please Note

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House and Lot Information

# Floors	2.5	
Lot Size	9,801	SF
Lot Coverage	2,264	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,190	-	1,190	
1	2,125	465	1,660	
2	2,032	-	2,032	
3	1,535	-	1,535	
Total	6,882	465	6,417	
TLAG	5,692	Real Estate Ad=	??????	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,264	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	23.1%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.7%	3,692	6,449
FAR (Flr 1,2,3 Exclude Garage)	38%	53.3%	5,227	4,914
FAR (Flr 1,2,3,B Exclude Garage	38%	65.5%	6,417	3,724
FAR (Flr 1,2,3,+ Garage on 1)	38%	58.1%	5,692	4,914
FAR (Flr 1,2 + any Garage)	38%	42.4%	4,157	6,449

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 11

3/26/2025

Please Note

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House and Lot Information

# Floors	2.5	
Lot Size	9,953	SF
Lot Coverage	2,000	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,281	-	1,281	
1	1,889	536	1,353	
2	1,747	-	1,747	
3	968	-	968	
Total	5,885	536	5,349	
TLAG	4,604	Real Estate Ad=	????	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,000	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	20.1%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	31.1%	3,100	6,031
FAR (Flr 1,2,3 Exclude Garage)	38%	40.9%	4,068	5,063
FAR (Flr 1,2,3,B Exclude Garage	38%	53.7%	5,349	3,782
FAR (Flr 1,2,3,+ Garage on 1)	38%	46.3%	4,604	5,063
FAR (Flr 1,2 + any Garage)	38%	36.5%	3,636	6,031

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Large House Study - FAR Rules/Tests

House 12

3/26/2025

Please Note

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House and Lot Information

# Floors	2.0	
Lot Size	7,932	SF
Lot Coverage	1,759	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	954	-	954
1	1,802	470	1,332
2	1,737	-	1,737
3	-	-	-
Total	4,493	470	4,023
TLAG	3,539	Real Estate Ad=	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,759	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	22.2%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	38.7%	3,069	3,968
FAR (Flr 1,2,3 Exclude Garage)	38%	38.7%	3,069	3,968
FAR (Flr 1,2,3,B Exclude Garage)	38%	50.7%	4,023	3,014
FAR (Flr 1,2,3,+ Include Garage 1)	38%	44.6%	3,539	3,968
FAR (Flr 1,2 + Include Garage 1)	38%	44.6%	3,539	3,968

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

Large House Study - FAR Rules/Tests

House 13

3/26/2025

Please Note

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House and Lot Information

# Floors	2.5	
Lot Size	8,300	SF
Lot Coverage	1,917	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,238	-	1,238
1	1,917	471	1,446
2	1,743	-	1,743
3	933	-	933
Total	5,831	471	5,360
TLAG	4,593	Real Estate Ad=	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,917	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	23.1%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	38.4%	3,189	5,325
FAR (Flr 1,2,3 Exclude Garage)	38%	49.7%	4,122	4,392
FAR (Flr 1,2,3,B Exclude Garage)	38%	64.6%	5,360	3,154
FAR (Flr 1,2,3,+ Include Garage 1)	38%	55.3%	4,593	4,392
FAR (Flr 1,2 + Include Garage 1)	38%	44.1%	3,660	5,325

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

Large House Study - FAR Rules/Tests

House 14

3/26/2025

Please Note

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House and Lot Information

# Floors	2.5	
Lot Size	7,000	SF
Lot Coverage	1,743	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	806	-	806
1	1,743	495	1,248
2	1,576	-	1,576
3	1,451	-	1,451
Total	5,576	495	5,081
TLAG	4,770	Real Estate Ad=	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,743	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.9%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	40.3%	2,824	4,917
FAR (Flr 1,2,3 Exclude Garage)	38%	61.1%	4,275	3,466
FAR (Flr 1,2,3,B Exclude Garage)	38%	72.6%	5,081	2,660
FAR (Flr 1,2,3,+ Include Garage 1)	38%	68.1%	4,770	3,466
FAR (Flr 1,2 + Include Garage 1)	38%	47.4%	3,319	4,917

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

Large House Study - FAR Rules/Tests

House 15

3/26/2025

Please Note

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This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	2.5	
Lot Size	8,844	SF
Lot Coverage	1,887	SF

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,237	-	1,237
1	1,887	474	1,413
2	1,578	-	1,578
3	485	-	485
Total	5,187	474	4,713
TLAG	3,950	Real Estate Ad=	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,887	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	21.3%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	33.8%	2,991	5,083
FAR (Flr 1,2,3 Exclude Garage)	38%	39.3%	3,476	4,598
FAR (Flr 1,2,3,B Exclude Garage)	38%	53.3%	4,713	3,361
FAR (Flr 1,2,3,+ Include Garage 1)	38%	44.7%	3,950	4,598
FAR (Flr 1,2 + Include Garage 1)	38%	39.2%	3,465	5,083

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

C: House #01

MASS DEP
FILE#
234-192
SRI BAORI
SCHOOL COMMITTEE
HOUSE #01

HOUSE #01

VIKRAM
FOR
SELECT BOARD
HOUSE #01

Large House Study - FAR Rules/Tests

House 1

3/26/2025

Please Note

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House and Lot Information

# Floors	4.0		
Lot Size	10,001	SF	
Lot Coverage	2,410	SF	24.1%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,470	-	1,470
1	2,292	522	1,770
2	2,025	-	2,025
3	1,500	-	1,500
Total	7,287	522	6,765
TLAG	5,817	Real Estate Ad=	6,700 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,410	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.1%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.9%	3,795	6,770
FAR (Flr 1,2,3 Exclude Garage)	38%	52.9%	5,295	5,270
FAR (Flr 1,2,3,B Exclude Garage)	38%	67.6%	6,765	3,800
FAR (Flr 1,2,3,+ Garage on 1)	38%	58.2%	5,817	5,270
FAR (Flr 1,2 + any Garage)	38%	43.2%	4,317	6,770

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessor's Map & Parcel No. _____

Building Permit No. _____ At No. _____

Lot Area: 10,000 S.F. Zoning District: SRB

Owner: _____ Builder: _____

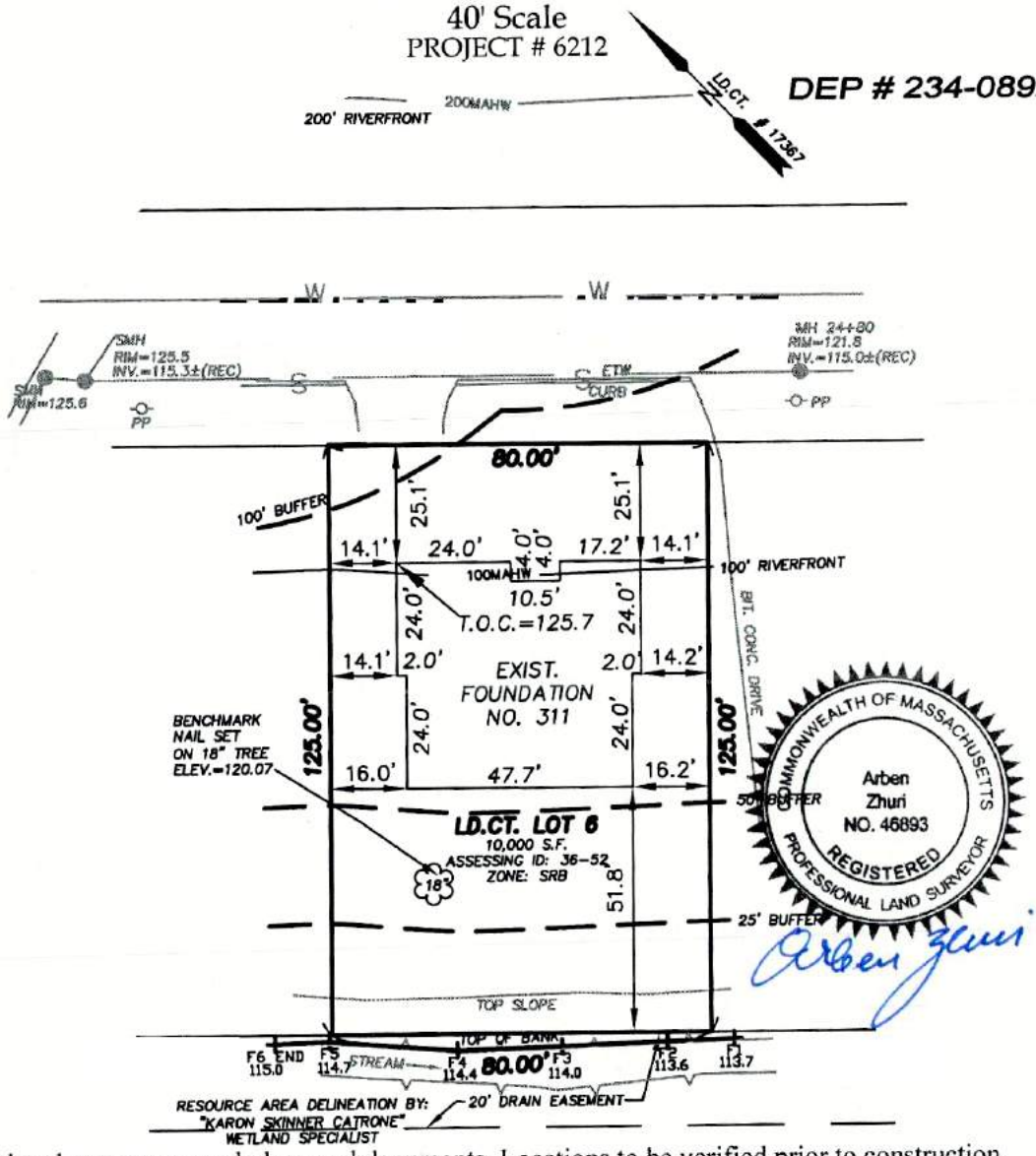
PROPOSED PLOT PLAN / (FOUNDATION AS BUILT) / FINAL AS BUILT

CIRCLE ONE THAT APPLIES

40' Scale

PROJECT # 6212

DEP # 234-0892



Utilities shown per record plans and documents. Locations to be verified prior to construction.

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the Town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gas lines, etc.; driveways, septic systems, wells, Flood Plain and Wetland Areas, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances, (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations proposed grading and drainage of recharge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system in areas with no public sewer.
(*Accessory structures may require a separate building permit - See Building Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.

The above is subscribed to and executed by me this 1st day of December 2023

Name Arben Zhuri Registered Land Surveyor No. 46893

Address Cheney Engineering LLC, 53 Mellen St., Needham, MA 02494 Phone 781-444-2188

Approved _____ Director of Public Works Date _____

Approved _____ Building Inspector

HOUSE # 01

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LEGEND

- SD — SMOKE DETECTOR
- H — HEAT DETECTOR
- SD/CO — CARBON MONOXIDE/SMOKE COMBO DETECTOR
- STRUCTURAL CONSTRUCTION
- BATHROOM EXHAUST VENT

GENERAL NOTES:

1. THE CONTRACTOR OR OWNER IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS REQUIRED FOR THIS PROJECT.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE COMMONWEALTH OF CURRENT MASSACHUSETTS STATE BUILDING CODE (IBC 2015 AMENDMENT 780 CMR 9TH EDITION) AND OTHER APPLICABLE CODES.
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCING, SCHEDULING AND SAFETY FOR THIS PROJECT.
4. DIMENSIONS ARE NOT GUARANTEE, THE CONTRACTOR SHOULD VERIFY ALL DRAWING DIMENSIONS BEFORE PERFORM WORK.
5. THE CONTRACTOR SHALL WARRANTEE HIS WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL COMPLETION.
6. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN DRAWINGS SPECIFICATIONS OR FIELD CONDITIONS TO T DESIGN IMMEDIATELY.
7. CONCRETE AND REBARS STRENGTH SHALL HAVE MINIMUM OF 3,000 PSI AND 60,000 PSI RESPECTIVELY
8. ALL WINDOWS AND DOORS MUST HAVE U FACTOR = 0.3 MINIMUM.

HOUSE # 01

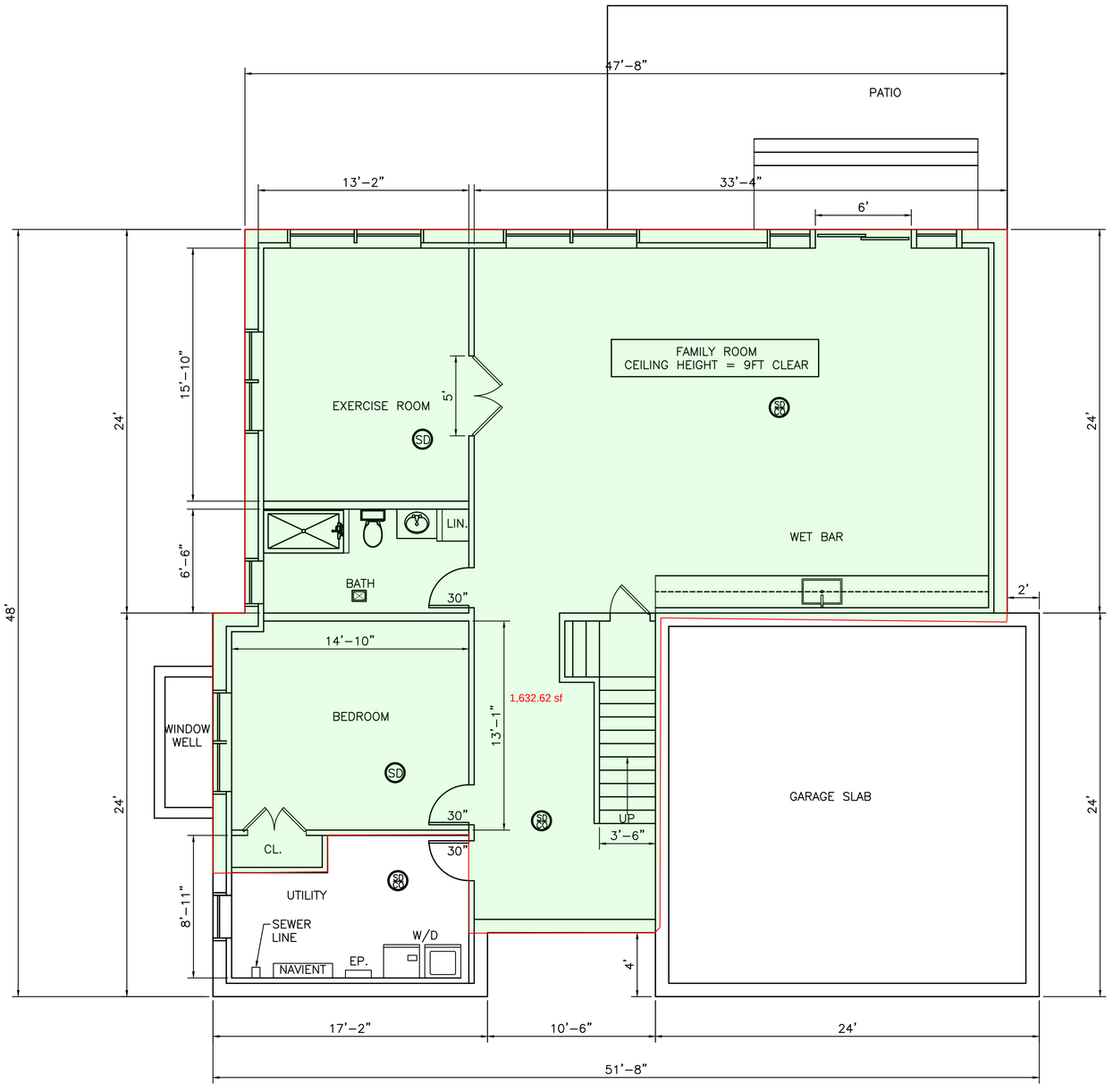
T DESIGN, LLC

1248 RANDOLPH AVE
MILTON, MA 02186
TEL: (617)-797-6637
EMAIL: QUOCTUANPE@GMAIL.COM

COMMONWEALTH OF MASSACHUSETTS
TUAN V NGUYEN
No. 45563
REGISTERED PROFESSIONAL ENGINEER

REV.	DATE

BY:	TN
DATE:	11/07/2022
SCALE:	1/4"=1'-0"
SHEET NO.:	T–1



BASEMENT PLAN

SCALE: $\frac{1}{4}$" = 1'-0"

HOUSE # 01

T DESIGN, LLC

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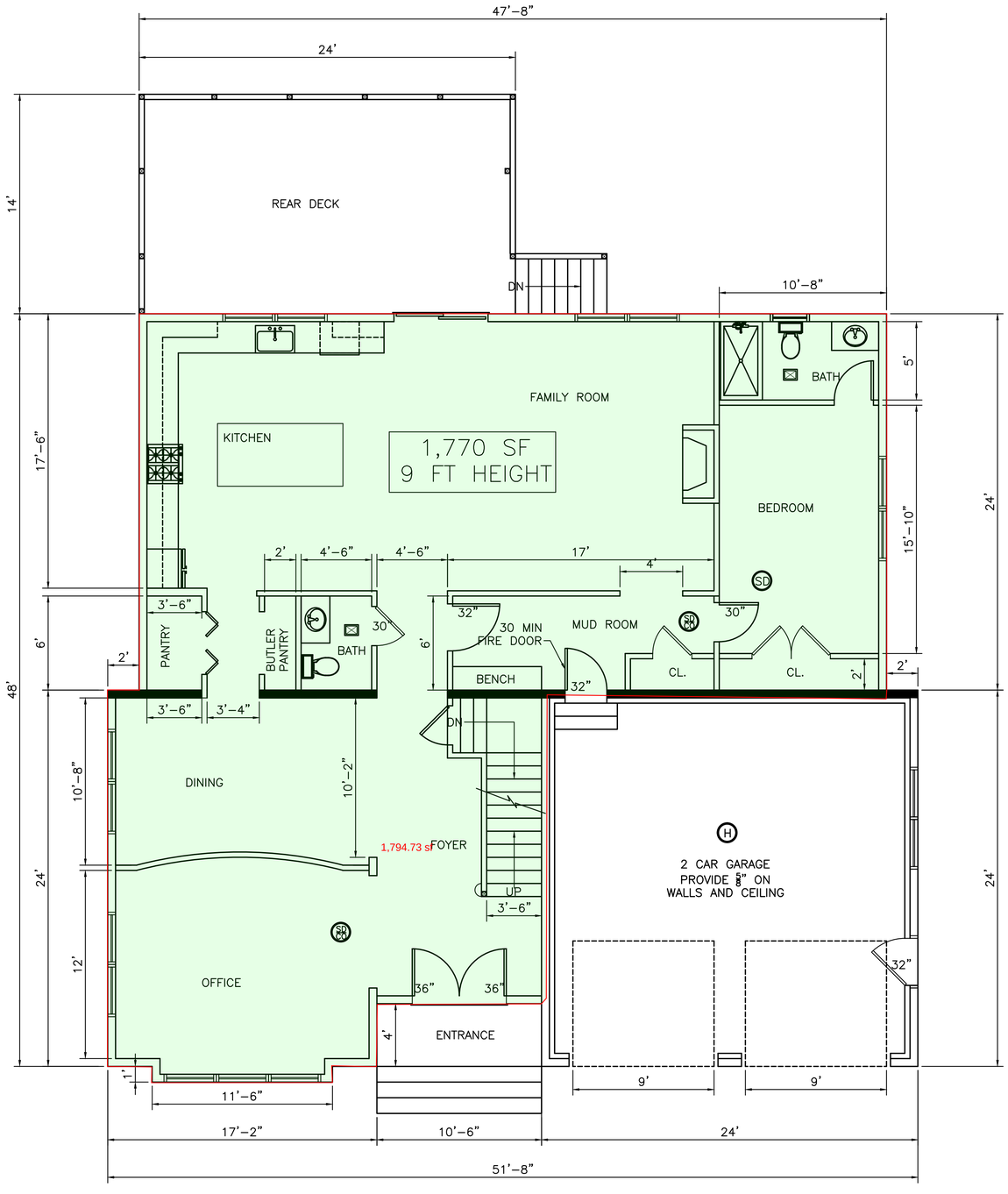
COMMONWEALTH OF MASSACHUSETTS
TUAN V. NGUYEN
No. 45583
REGISTERED PROFESSIONAL ENGINEER

REV.	DATE

BY:	TN
DATE:	11/07/2022
SCALE:	1/4"=1'-0"
SHEET NO.:	A-1



FIRST FLOOR PLAN

SCALE: 1/4" = 1'–0"

HOUSE # 01

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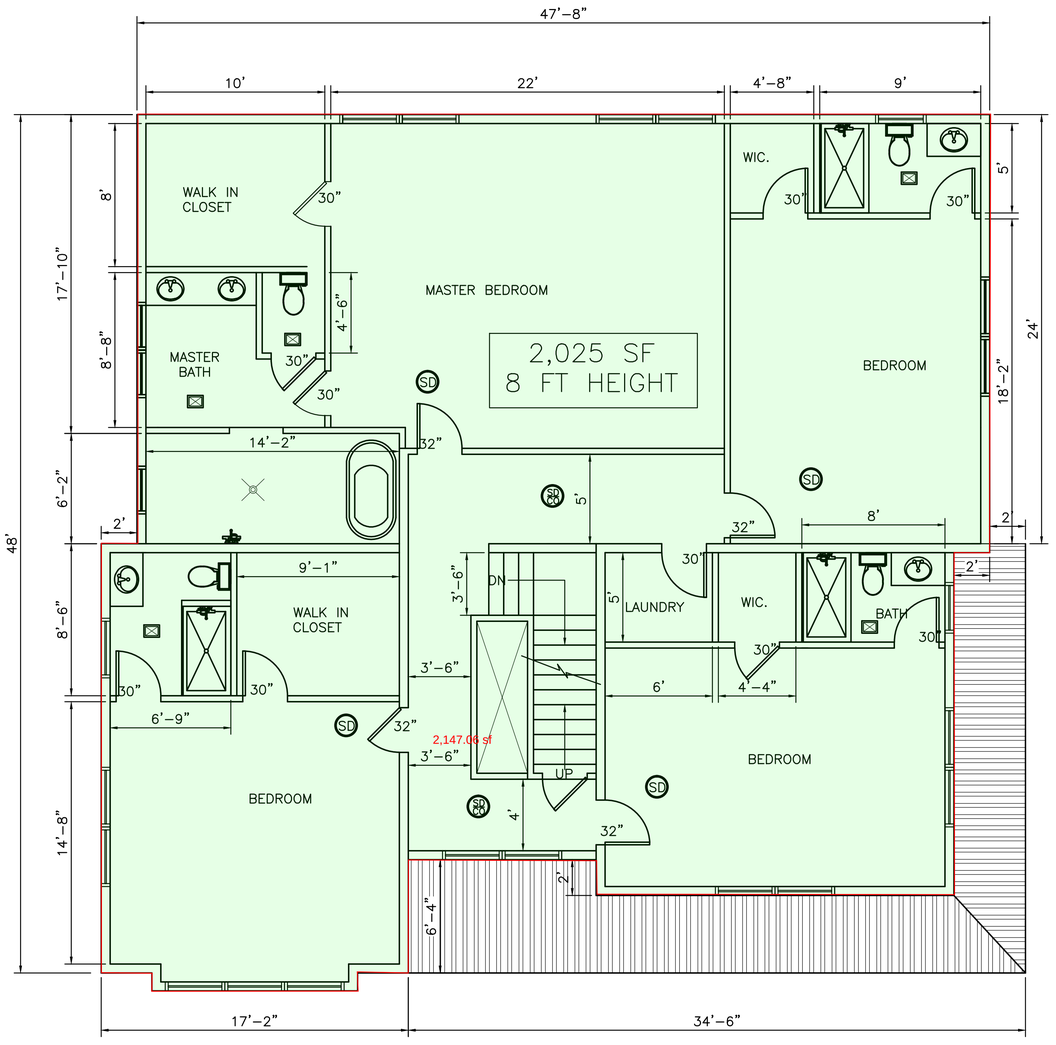
COMMONWEALTH OF MASSACHUSETTS
TUAN V. NGUYEN
No. 45563
REGISTERED PROFESSIONAL ENGINEER

REV.	DATE

BY:	TN
DATE:	11/07/2022
SCALE:	1/4"=1'–0"
SHEET NO.:	A–2



SECOND FLOOR PLAN

SCALE: $\frac{1}{4}$" = 1'-0"

HOUSE # 01

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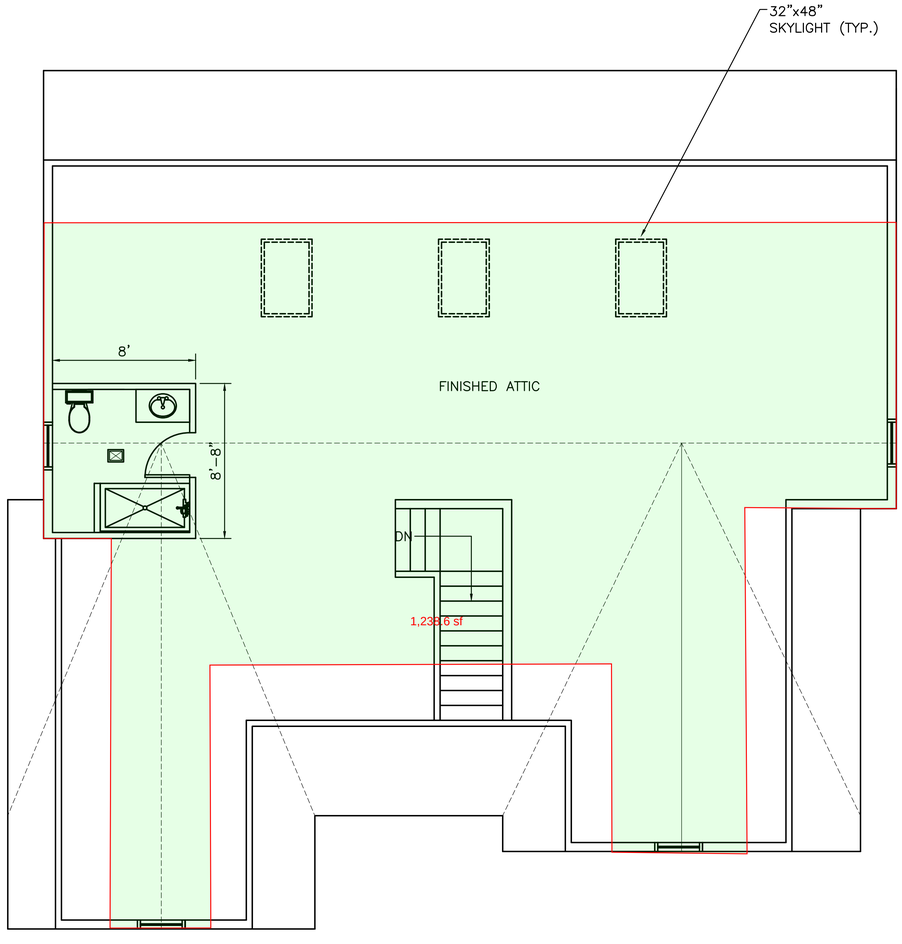
EMAIL: QUOCTUANPE@GMAIL.COM

COMMONWEALTH OF MASSACHUSETTS
TUAN V. NGUYEN
No. 45563
REGISTERED PROFESSIONAL ENGINEER

REV.	DATE

BY:	TN
DATE:	11/07/2022
SCALE:	1/4"=1'-0"
SHEET NO.:	A-3



ATTIC PLAN

SCALE: $\frac{1}{4}$" = 1'-0"

HOUSE # 01

T DESIGN, LLC

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COMMONWEALTH OF MASSACHUSETTS
TUAN
V
NGUYEN
No. 45563
REGISTERED
PROFESSIONAL ENGINEER

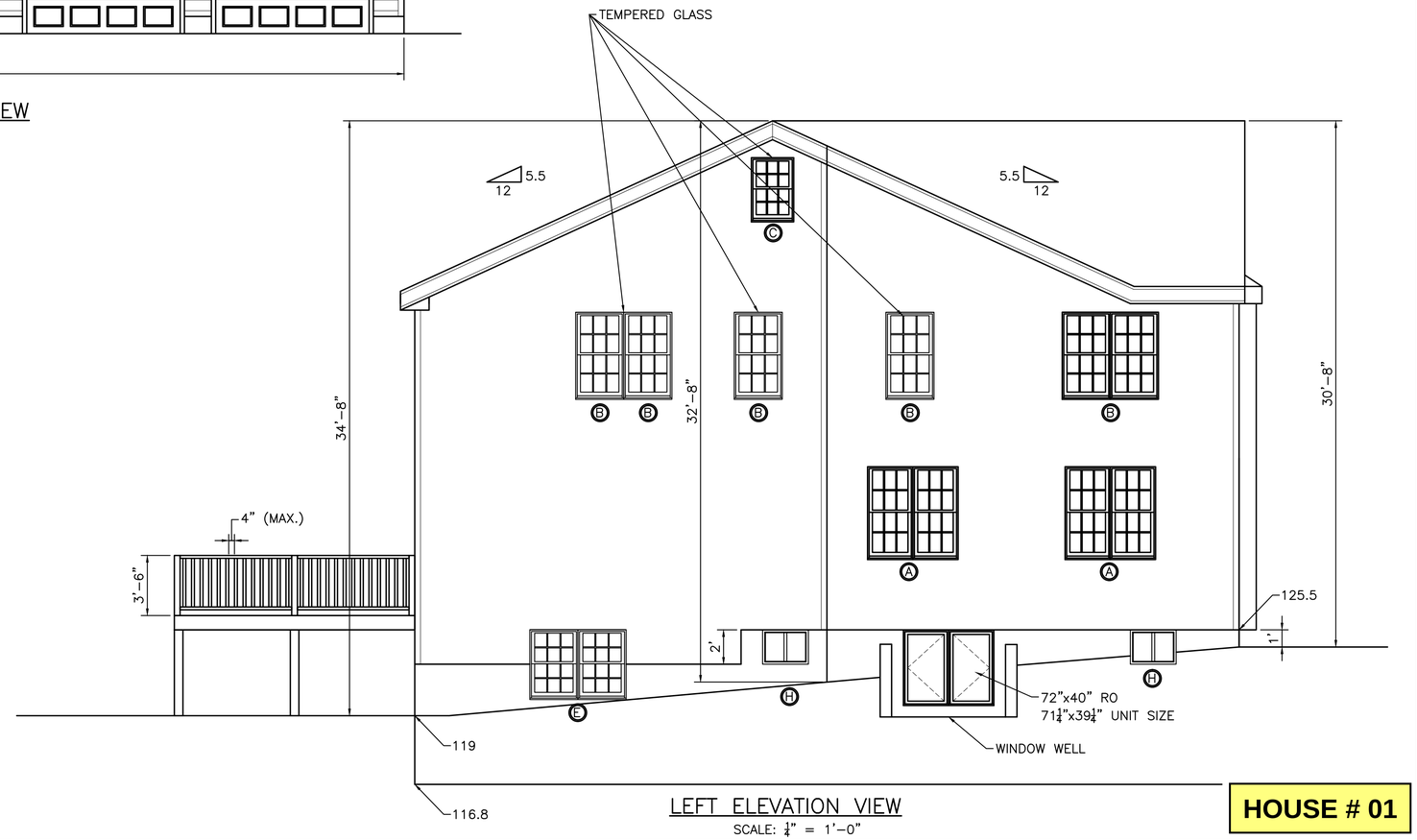
REV.	DATE

BY:	TN
DATE:	11/07/2022
SCALE:	1/4"=1'-0"
SHEET NO.:	A-4

FRONT ELEVATION VIEW

SCALE: 1/4" = 1'-0"

WINDOW SCHEDULE				
AS MARKED	WINDOW DIMENSION WxH	DOUBLE PANE	U FACTOR	NOTE
A	38"x64"	YES	0.3	
B	38"x60"	YES	0.3	
C	32"x52"	YES	0.3	
D	24"x40"	YES	0.3	TEMPERED GLASS
E	36"x41"	YES	0.3	
F	36"x44"	YES	0.3	
G	30"x36"	YES	0.3	TEMPERED GLASS
H	30"x24"	YES	0.3	TEMPERED GLASS



LEFT ELEVATION VIEW

SCALE: 1/4" = 1'-0"

HOUSE # 01

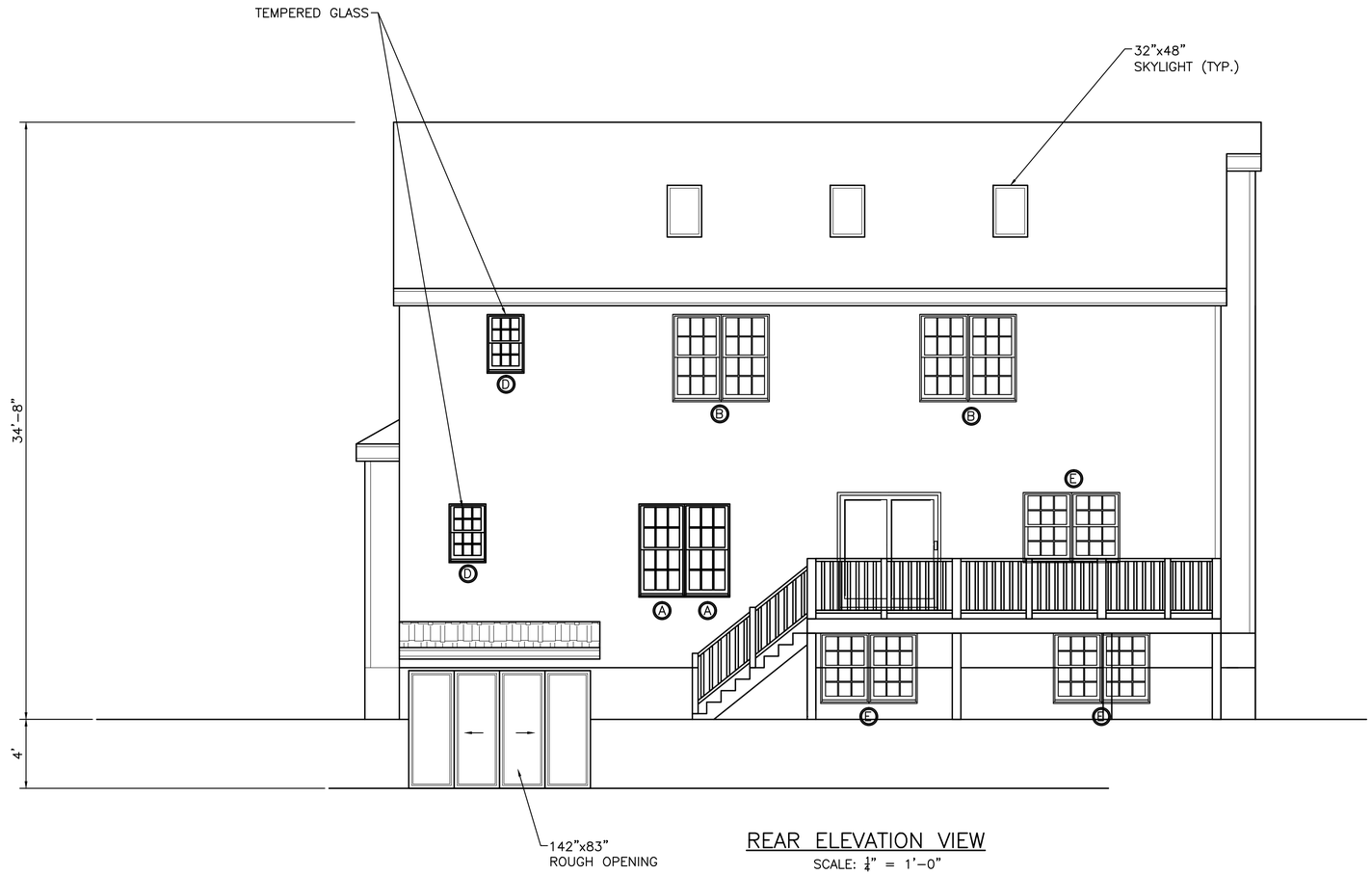
T DESIGN, LLC

1248 RANDOLPH AVE
MILTON, MA 02186
TEL: (617)-797-6637
EMAIL: QUOCTUANPE@GMAIL.COM

COMMONWEALTH OF MASSACHUSETTS
TUAN V. NGUYEN
No. 45563
REGISTERED PROFESSIONAL ENGINEER

REV.	DATE

BY:	TN
DATE:	11/07/2022
SCALE:	1/4"=1'-0"
SHEET NO.:	A-5



REAR ELEVATION VIEW

SCALE: $\frac{1}{4}$" = 1'-0"

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MILTON, MA 02186
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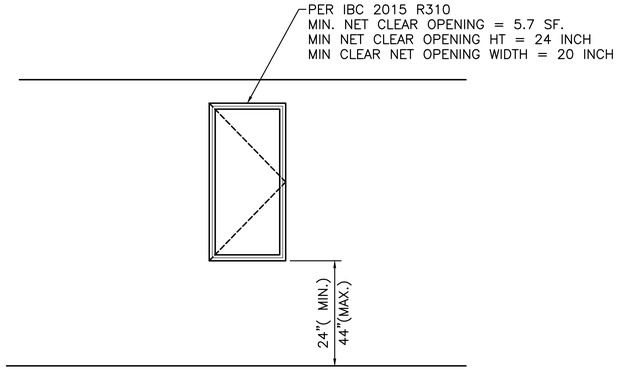
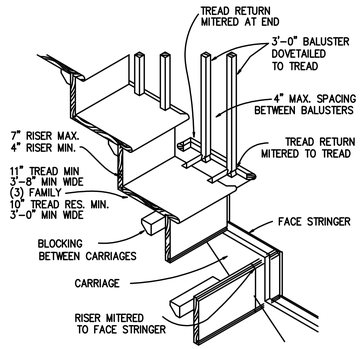
COMMONWEALTH OF MASSACHUSETTS
TUAN V. NGUYEN
No. 45563
REGISTERED PROFESSIONAL ENGINEER

REV.	DATE

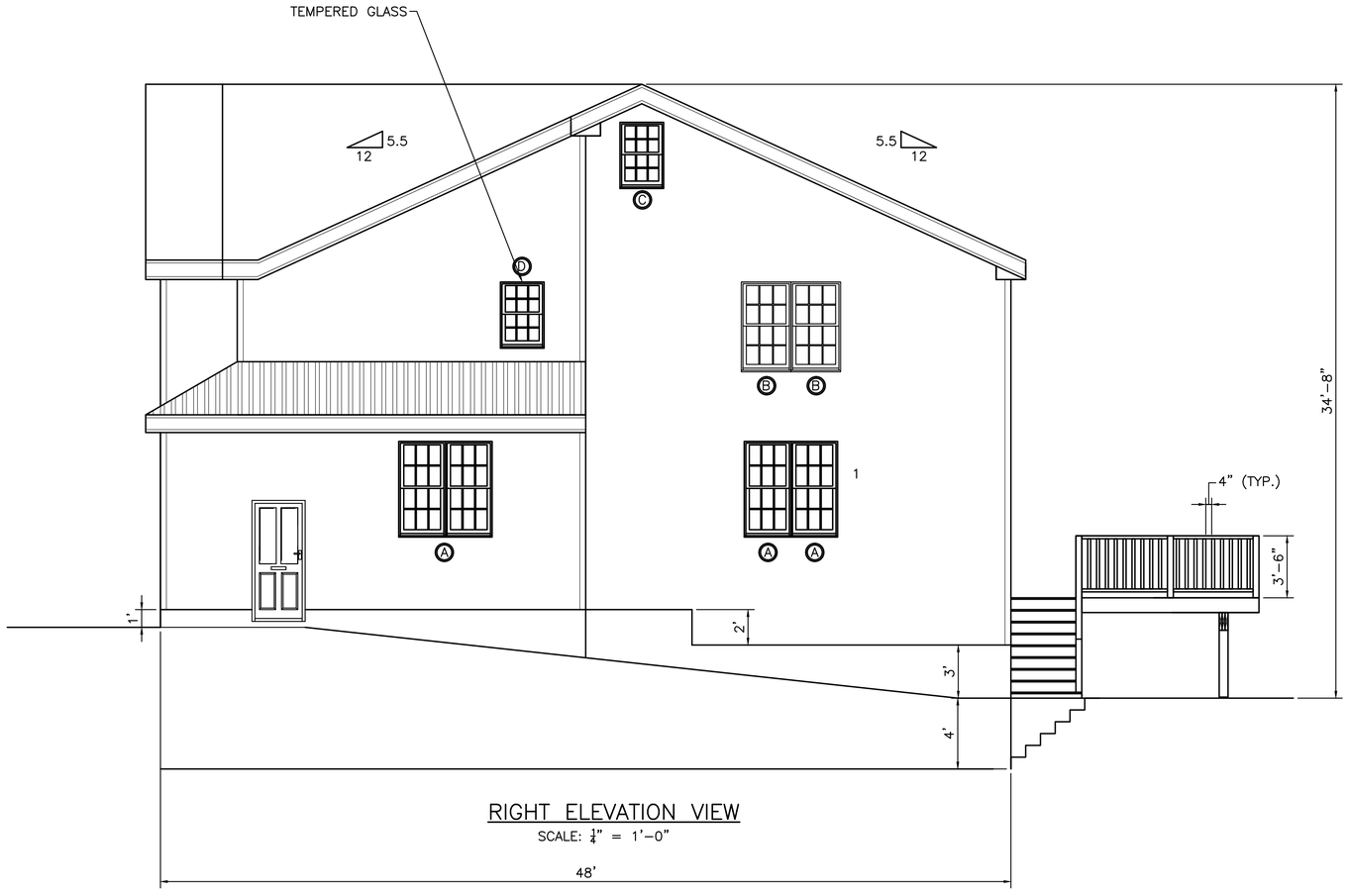
BY:	TN
DATE:	11/07/2022
SCALE:	1/4"=1'-0"
SHEET NO.:	A-6



BEDROOM FIRE ESCAPE WINDOW DETAIL
PER IBC 2015



STAIR DETAIL



RIGHT ELEVATION VIEW
SCALE: $\frac{1}{4}$" = 1'-0"

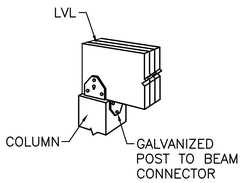
HOUSE # 01

T DESIGN, LLC
1248 RANDOLPH AVE
MILTON, MA 02186
TEL: (617)-797-6637
EMAIL: QUOCTUANPE@GMAIL.COM

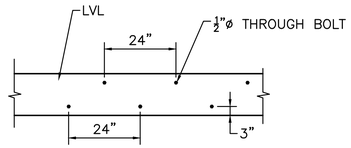
COMMONWEALTH OF MASSACHUSETTS
TUAN
V.
NGUYEN
No. 45563
REGISTERED
PROFESSIONAL ENGINEER

REV.	DATE

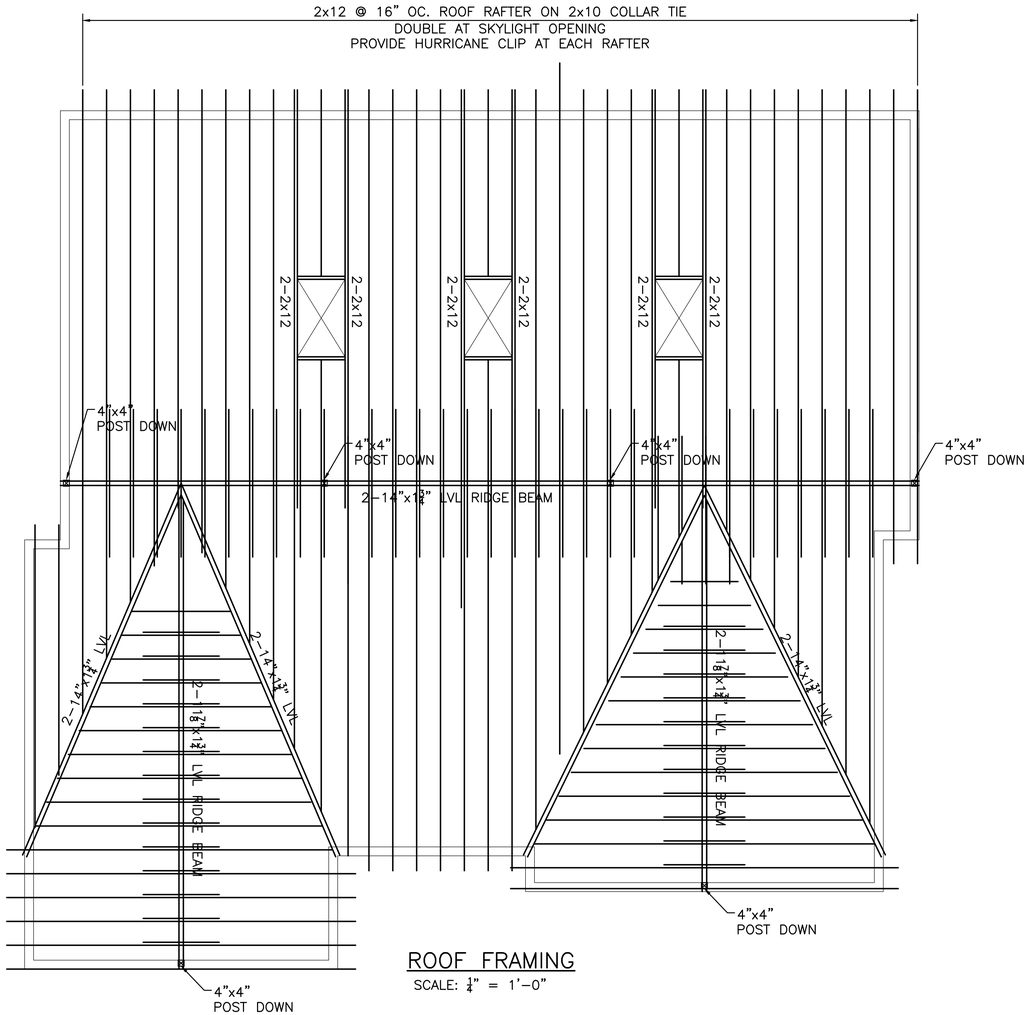
BY:	TN
DATE:	11/07/2022
SCALE:	1/4"=1'-0"
SHEET NO.:	A-7



COLUMN TO LVL CONNECTION

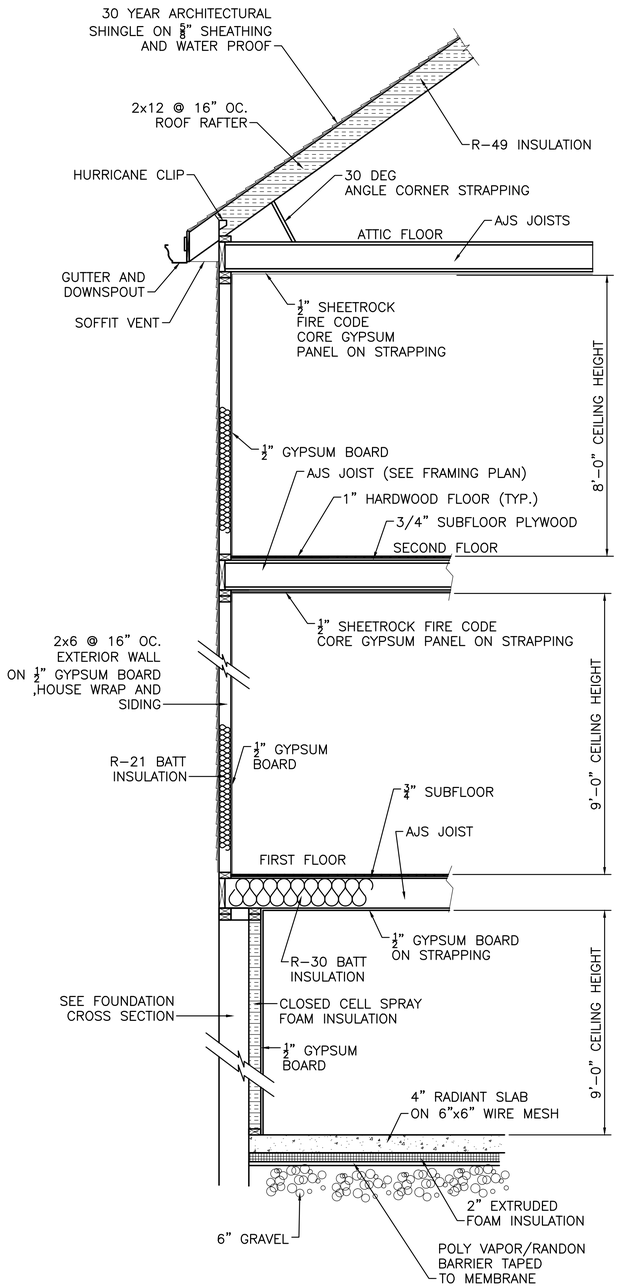


LVL BOLT PATTERN DETAIL



ROOF FRAMING

SCALE: ¼" = 1'-0"



EXTERIOR WALL SECTION

HOUSE # 01

E

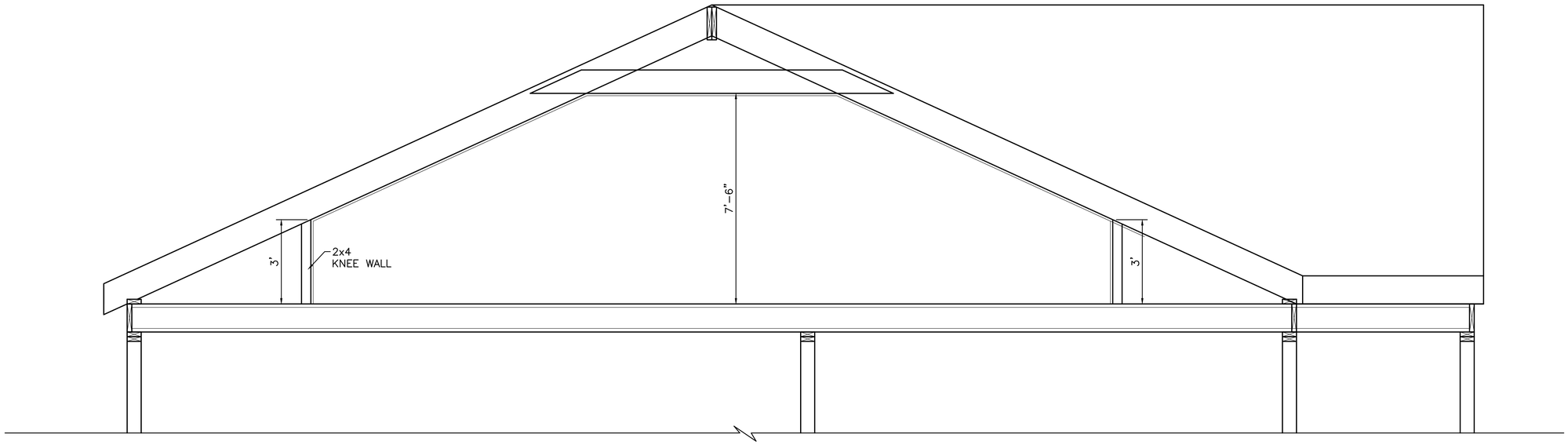
T DESIGN, LLC

1248 RANDOLPH AVE
MILTON, MA 02186
TEL: (617)-797-6637
EMAIL: QUOCTUANPE@GMAIL.COM

COMMONWEALTH OF MASSACHUSETTS
TUAN V NGUYEN
No. 45563
REGISTERED PROFESSIONAL ENGINEER

REV.	DATE

BY:	TN
DATE:	11/07/2022
SCALE:	1/4"=1'-0"
SHEET NO.:	S-5



CROSS SECTION AT ATTIC

SCALE: $\frac{1}{4}$" = 1'-0"

HOUSE # 01

T DESIGN, LLC

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TEL: (617)-797-6637
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COMMONWEALTH OF MASSACHUSETTS
TUAN V NGUYEN
No. 45563
REGISTERED PROFESSIONAL ENGINEER

REV.	DATE

BY:	TN
DATE:	11/07/2022
SCALE:	1/4"=1'-0"
SHEET NO.:	S-6

C: House #02

HOUSE #02

GMC
HOUSE #02

HOUSE #02

Large House Study - FAR Rules/Tests

House 2

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0	
Lot Size	10,001	SF
Lot Coverage	2,350	SF

23.5%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,400	-	1,400
1	2,345	500	1,845
2	1,935	-	1,935
3	1,345	-	1,345
Total	7,025	500	6,525
TLAG	5,625	Real Estate Ad=	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,350	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	23.5%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.8%	3,780	6,545
FAR (Flr 1,2,3 Exclude Garage)	38%	51.2%	5,125	5,200
FAR (Flr 1,2,3,B Exclude Garage	38%	65.2%	6,525	3,800
FAR (Flr 1,2,3,+ Garage on 1)	38%	56.2%	5,625	5,200
FAR (Flr 1,2 + any Garage)	38%	42.8%	4,280	6,545

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Building Permit Number: _____ Assessor's Map & Parcel Number: __

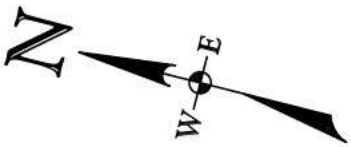
Lot Area: ***10,000 S.F.*** Zoning District: ***SRB*** _____

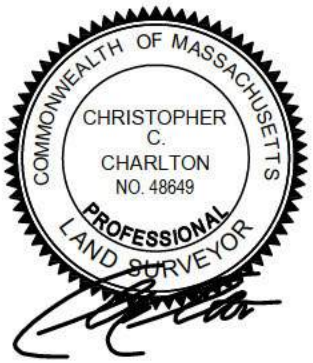
Owner: _____ Address: ___ _____

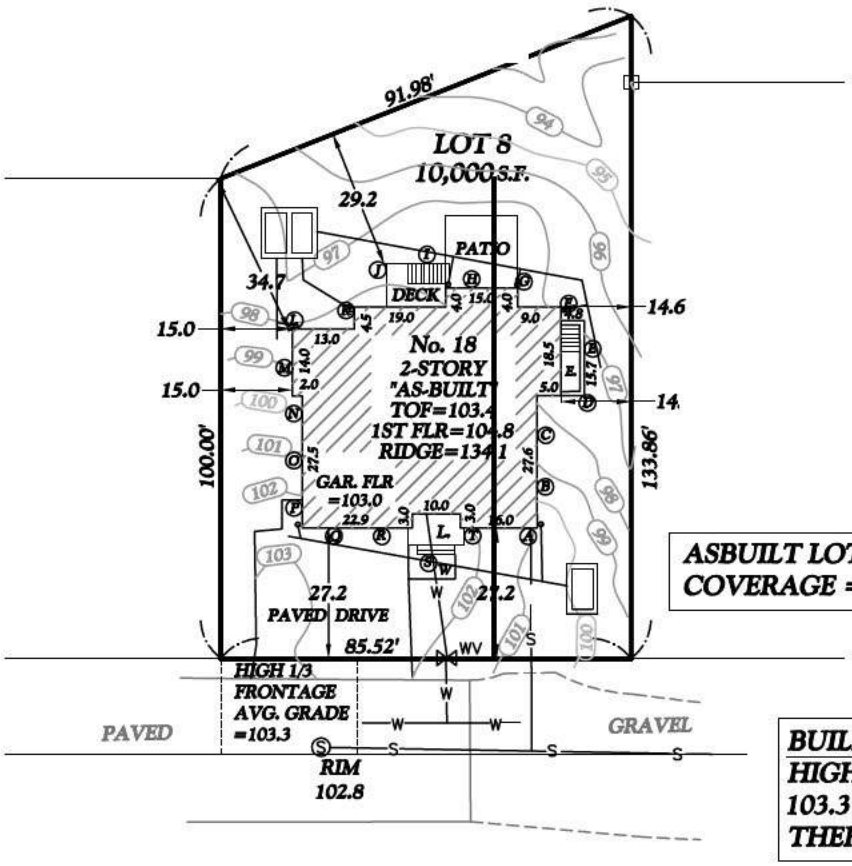
Builder: _____

FINAL AS-BUILT PLOT PLAN

40' Scale







ASBUILT LOT COVERAGE = 23.5%

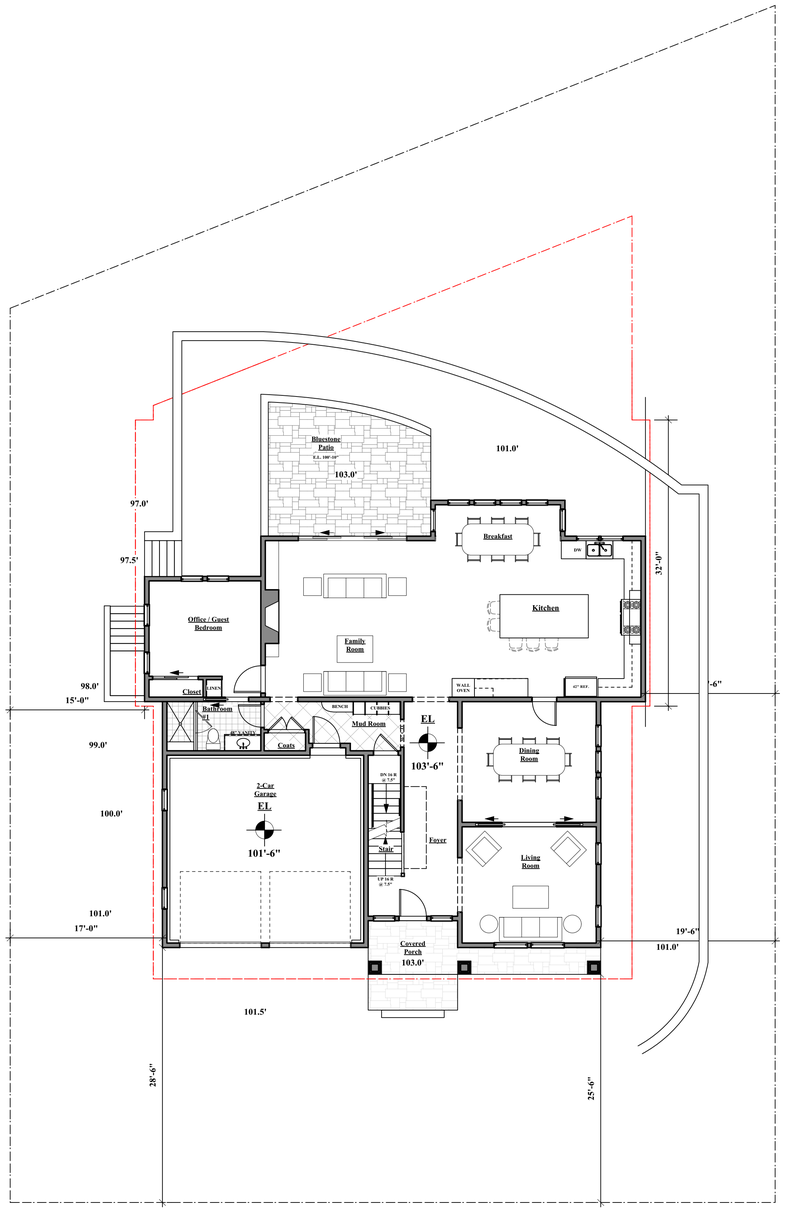
SPOT LOCATION	PRE-EXIST ELEV.	AS-BUILT ELEV.
A	100.6	101.1
B	98.8	99.5
C	97.4	98.5
D	96.3	97.5
E	96.3	97.1
F	96.5	96.8
G	96.9	97.5
H	97.4	97.6
I	97.8	97.5
J	98.9	97.6
K	100.4	98.2
L	101.7	98.0
M	101.7	99.1
N	101.1	100.2
O	100.4	101.3
P	101.0	102.4
Q		102.9
R		102.9
S		102.6
T		102.1
TOTAL	1,583.2	1,990.4
AVERAGE	99.0	99.5

BUILDING HEIGHT ALLOWANCE:
HIGH 1/3 AVG GRADE +32.0 = ALLOWED HEIGHT
103.3 + 32.0 = 135.3
THEREFORE ASBUILT HEIGHT 134.1 CONFORMS

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gaslines, etc.; driveways, septic systems, wells, Flood Plain and Wetland Areas, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances, (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations proposed grading and drainage of recharge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location in areas with no public sewer.
(*Accessory structures may require a separate building permit — See Building Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this ***21 st*** day of ***JUNE*** 20 ***24***.
Name ***CHRISTOPHER C. CHARLTON*** Registered Land Surveyor No. [redacted] License Expiration Date ***06/30/2024***
Address ***105 BEAVER STREET*** City ***FRANKLIN*** State ***MA*** Zip ***0203***
Approved _____ Director of Public Wo
Approved _____ Building Inspector

HOUSE # 02



1 L-1.1 **Site Plan**
1/4" = 1'-0"

HOUSE # 02

OWNER

mckay architects

35 Bryant Street
Dedham, MA 02026

p: 781.326.5400

www.mckayarchitects.net

MICHAEL L. MCKAY
REGISTERED ARCHITECT
NO. 6947
COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

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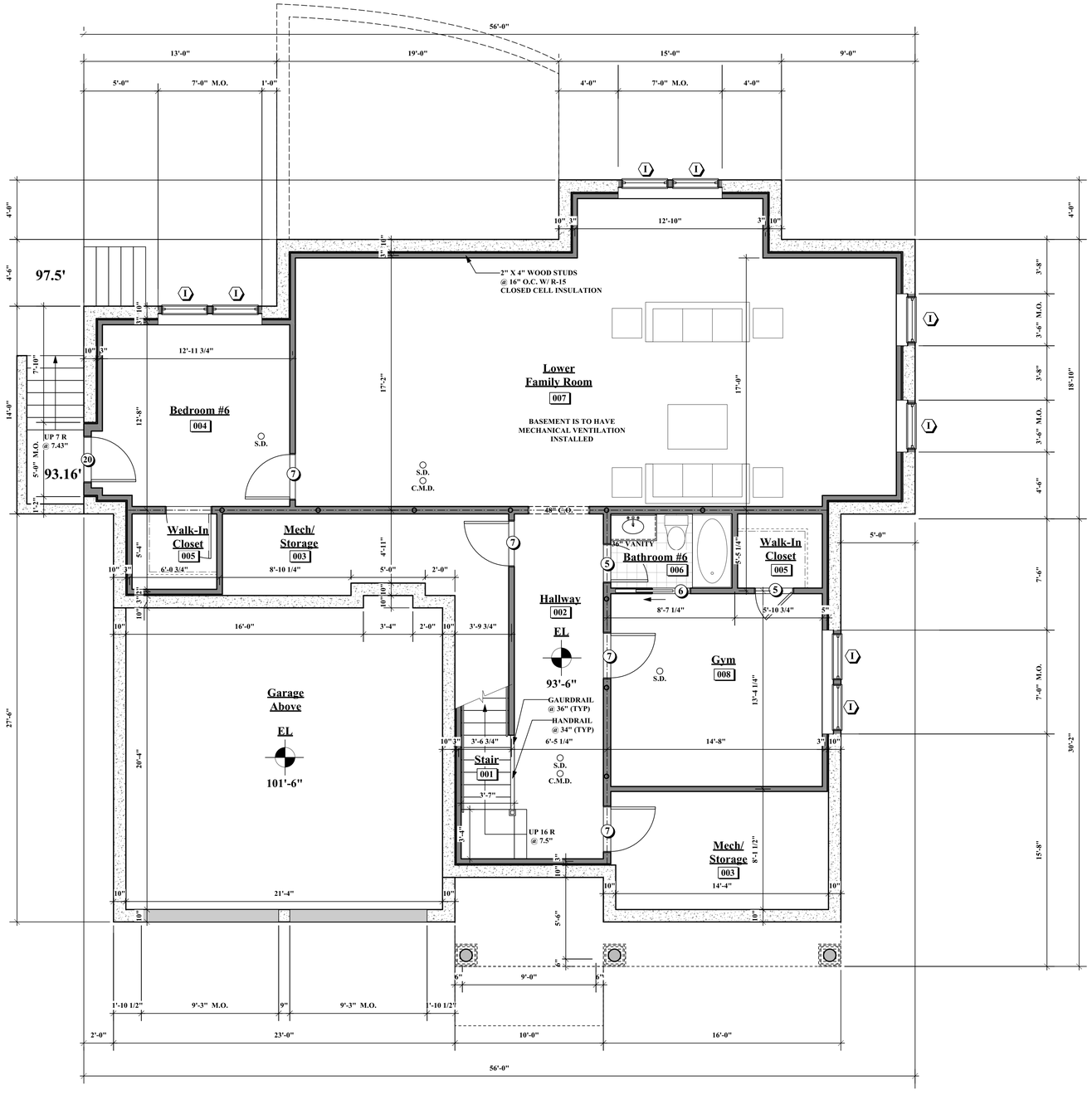
Contractor to verify all information and dimensions in the field prior to start of construction and is to notify McKay Architects of any discrepancies

Site Plan

JOB NO	0364
DATE	09.22.2023
DWG BY	EAL
CKD BY	MLM
SCALE	As Noted

L-1.1



1 A-1.1 **Basement Plan**
1/4" = 1'-0"

HOUSE # 02

OWNER

mckay architects

35 Bryant Street
Dedham, MA 02026

p: 781.326.5400

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REGISTERED ARCHITECT MICHAEL L. McKAY NO. AR 6947 COMMONWEALTH OF MASSACHUSETTS

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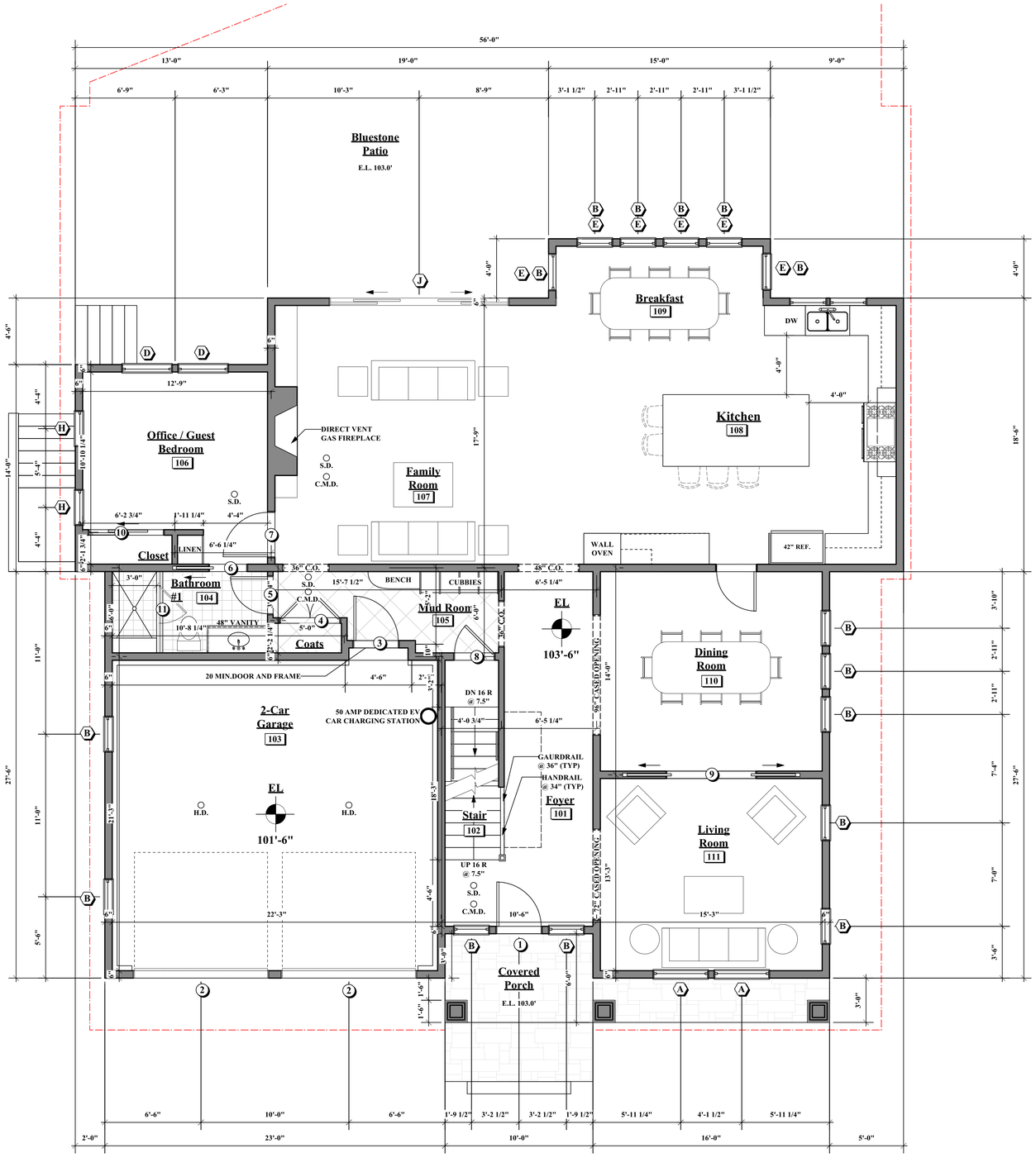
Basement Plan

JOB NO	0364
DATE	09.22.2023
DWG BY	EAL
CKD BY	MLM
SCALE	As Noted

A-1.1



1 A-1.2 **First Floor Plan**
1/4" = 1'-0"

HOUSE # 02

PROPOSED FAR

LOT SIZE: 10,000 SF
MAIMUM FAR ALLOWED: 10,000 X .38 = 3800 SF

PROPOSED:

FIRST FLOOR: 1845 SF
GARAGE: 500 SF (NOT INCLUDED IN FAR)
SECOND FLOOR: 1935 SF

TOTAL PROPOSED: 3,780 SF

OWNER

mckay architects

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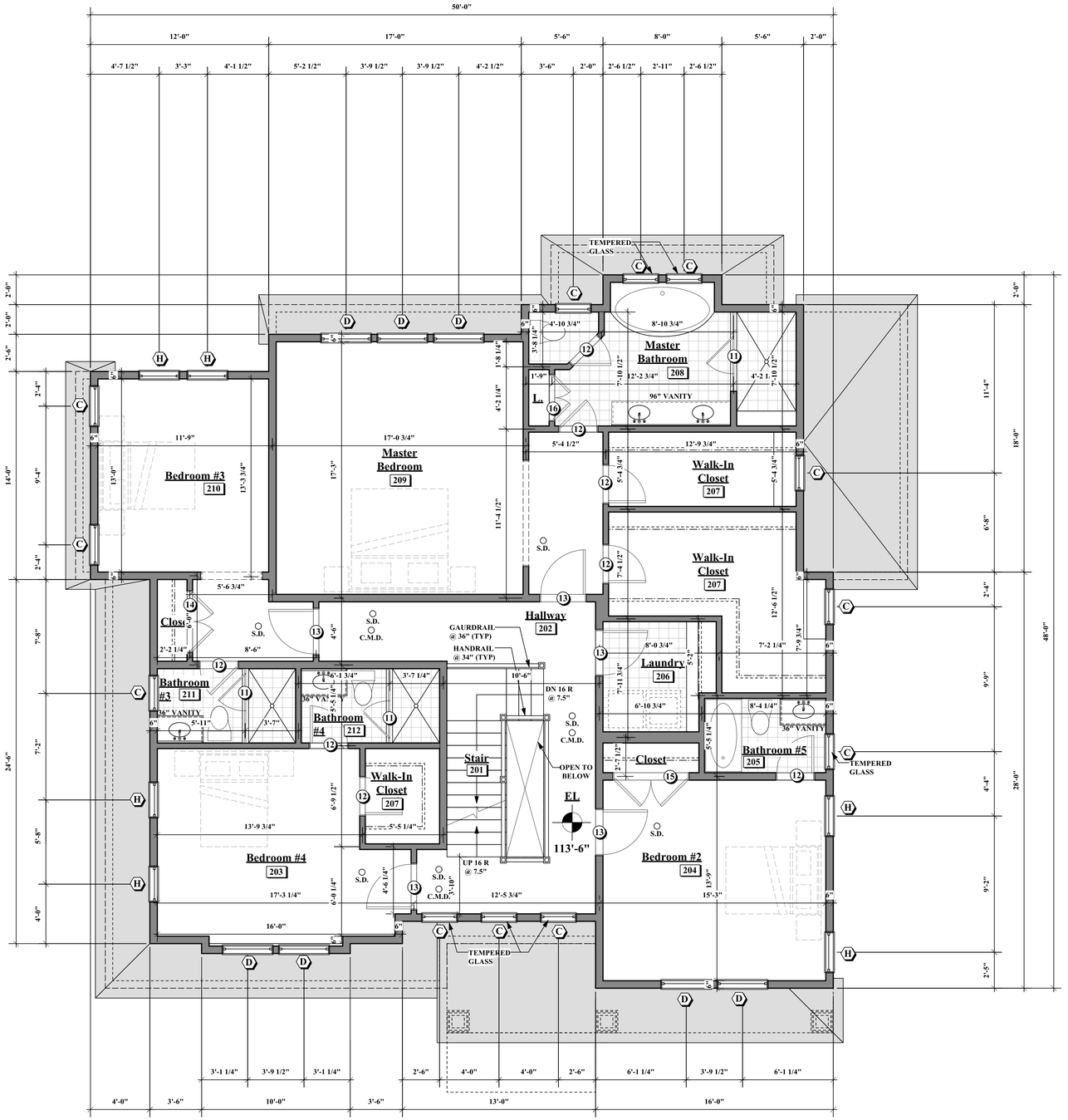
First Floor Plan

JOB NO	0364
DATE	09.22.2023
DWG BY	EAL
CKD BY	MLM
SCALE	As Noted

A-1.2



1 / A-1.3 **Second Floor Plan**
1/4" = 1'-0"

HOUSE # 02

OWNER

architects mckay

35 Bryant Street
Dedham, MA 02026

p: 781.326.5400

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REGISTERED ARCHITECT — MICHAEL L. McKAY — NO. AR 6947 — COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

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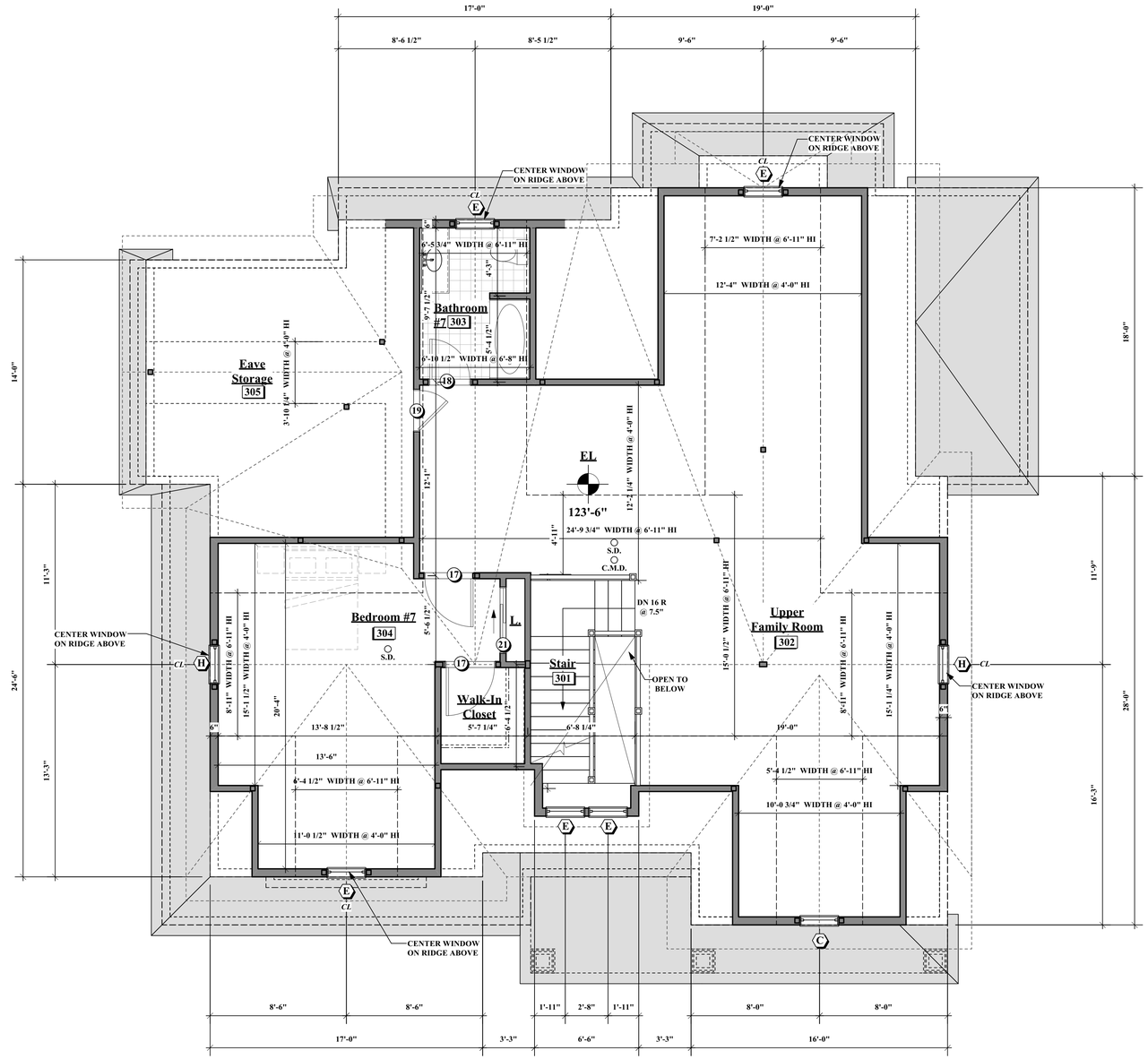
Second Floor Plan

JOB NO	0364
DATE	09.22.2023
DWG BY	EAL
CKD BY	MLM
SCALE	As Noted

A-1.3



1 A-1.4 **Attic Floor Plan**
1/4" = 1'-0"

HOUSE # 02

OWNER

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Dedham, MA 02026

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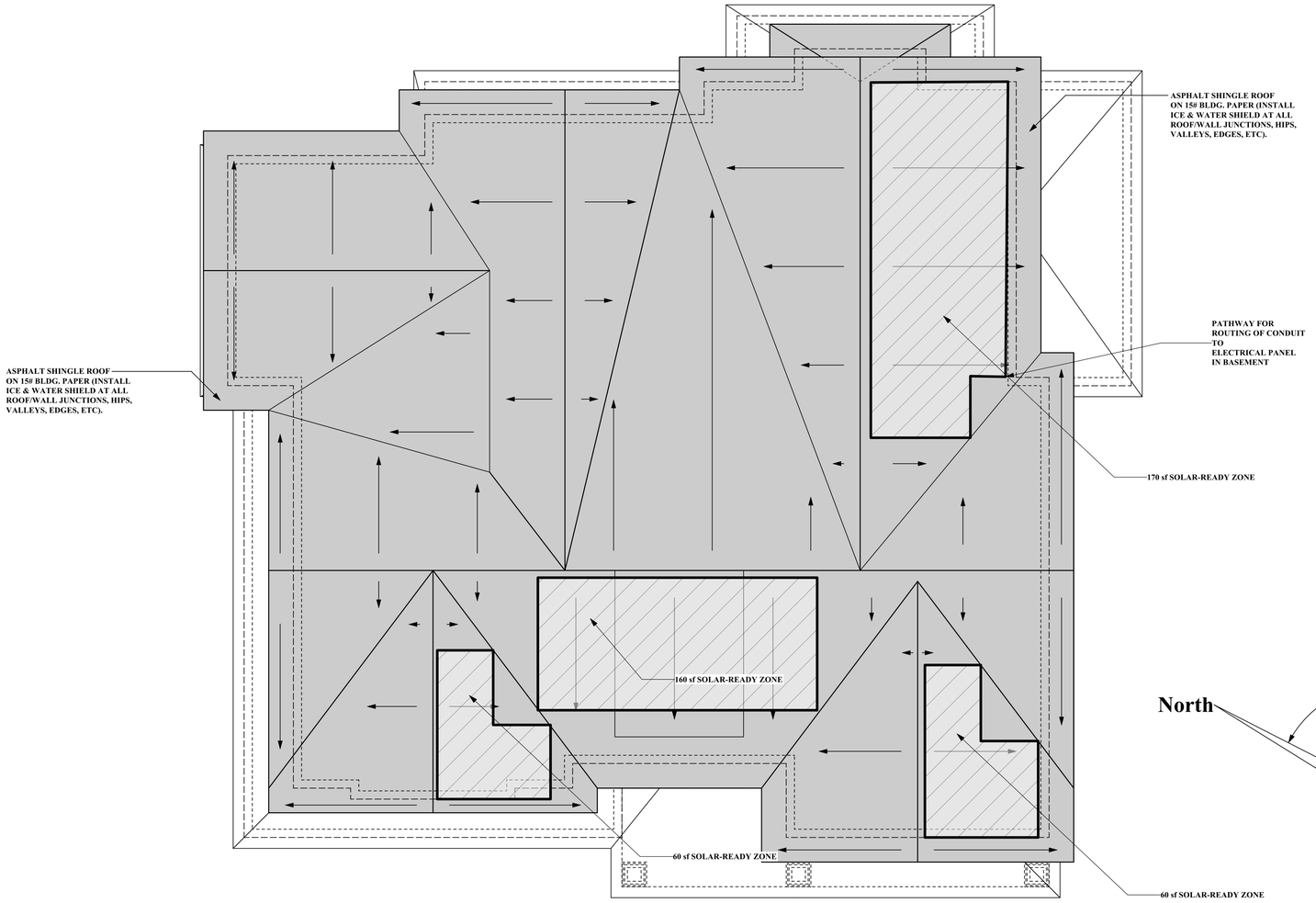
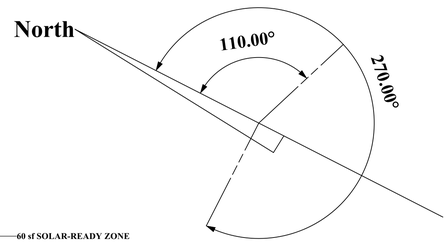
Attic Plan

JOB NO	0364
DATE	09.22.2023
DWG BY	EAL
CKD BY	MLM
SCALE	As Noted

A-1.4

TOTAL 450 sf SOLAR READY ZONES





MUST COMPLY WITH MASSACHUSETTS BUILDING CODE
-REFER TO SECTION AU102-AU103 OF THE CODE AND RB 103.5, 8, 9 & RB 103.1

ELECTRICAL PANEL
-RESERVE SPACE TO ALLOW INSTALLATION OF A DUAL POLE CIRCUIT BREAKER FOR FUTURE SOLAR ELECTRIC INSTALLATION
-LABELED "FOR FUTURE SOLAR ELECTRIC"
-THE RESERVED SPACE SHALL BE POSITIONED AT THE OPPOSITE END FROM THE INPUT FEEDER LOCATION OR MAIN CIRCUIT LOCATION
-A PERMANENT CERTIFICATE INDICTING SOLAR-READY ZONE SHALL BE POSTED NEAR THE ELECTRICAL DISTRIBUTION PANEL

SOLAR READY AREA
-ROOF AREA ORIENTED BETWEEN 110 AND 270 DEGREES OF TRUE NORTH
-SHALL BE FREE OF OBSTRUCTIONS AND CHIMNEYS

1 A-1.5 **Roof Plan**
1/4" = 1'-0"

HOUSE # 02

OWNER

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Dedham, MA 02026
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Roof Plan

JOB NO	0364
DATE	09.22.2023
DWG BY	EAL
CKD BY	MLM
SCALE	As Noted

A-1.5

1 A-2.1 **Front Elevation**
1/4" = 1'-0"

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Dedham, MA 02026

p: 781.326.5400

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6x6 POST OVER 14" DIAMETER SONOTUBE

REGISTERED ARCHITECT MICHAEL L. MCKAY NO. AR 6947 COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

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Front Elevation

JOB NO	0364
DATE	09.22.2023
DWG BY	EAL
CKD BY	MLM
SCALE	As Noted

A-2.1

HOUSE # 02

1 A-2.2 **Right Side Elevation**
1/4" = 1'-0"

HOUSE # 02

OWNER

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Dedham, MA 02026

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MICHAEL L. MCKAY
NO. AR 6947
REGISTERED ARCHITECT
COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

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Right Side Elevation

JOB NO	0364
DATE	09.22.2023
DWG BY	EAL
CKD BY	MLM
SCALE	As Noted

A-2.2

1 A-2.3 **Rear Elevation**
1/4" = 1'-0"

HOUSE # 02

OWNER

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Dedham, MA 02026

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Rear Elevation

JOB NO	0364
DATE	09.22.2023
DWG BY	EAL
CKD BY	MLM
SCALE	As Noted

A-2.3

1 / A-2.4 **Left Side Elevation**
1/4" = 1'-0"

HOUSE # 02

OWNER

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Dedham, MA 02026

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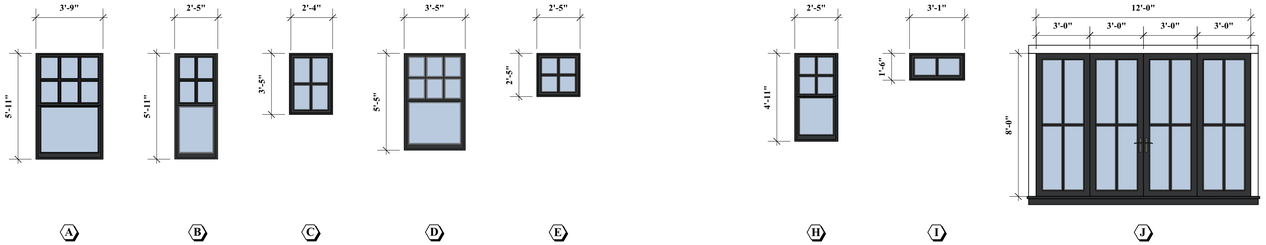
Left Side Elevation

JOB NO	0364
DATE	09.22.2023
DWG BY	EAL
CKD BY	MLM
SCALE	As Noted

A-2.4

WINDOW SCHEDULE



SHOP DRAWINGS OF WINDOWS ARE TO BE PROVIDED PRIOR TO ORDERING.

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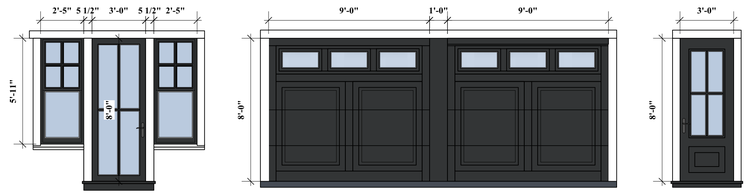


DOOR SCHEDULE

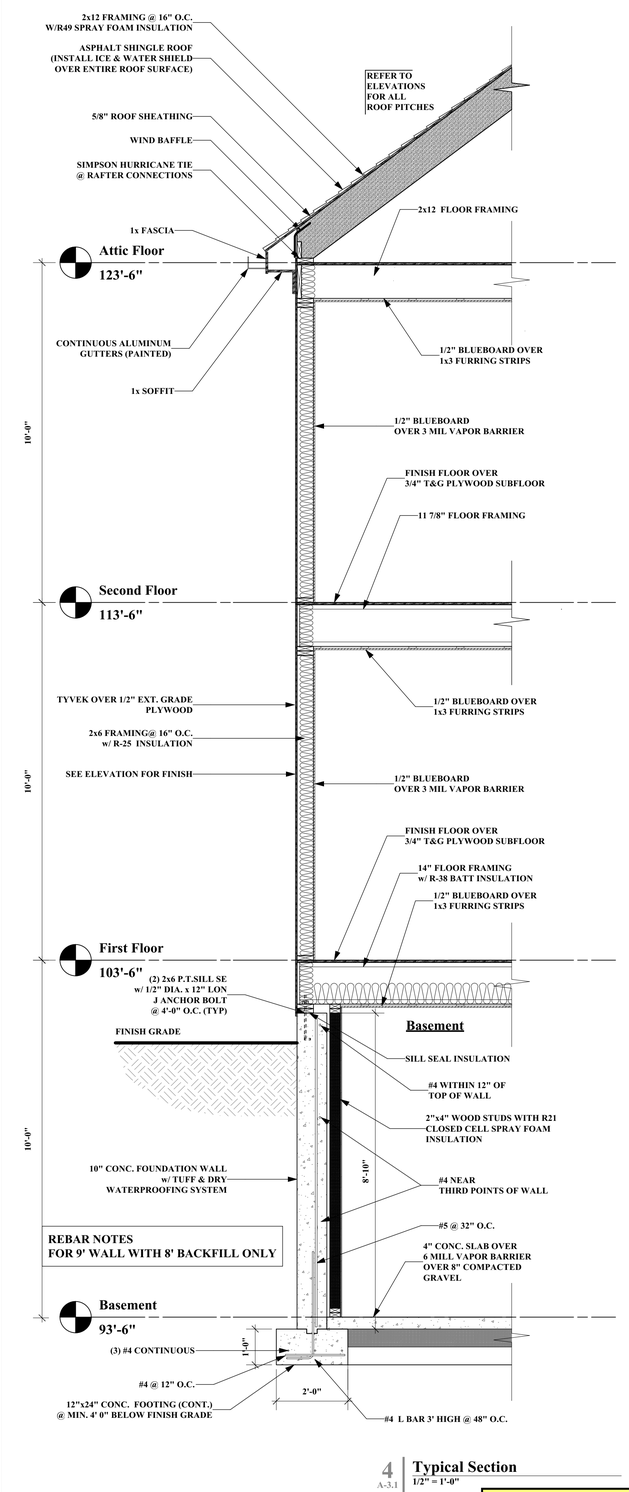
DOOR NO.	LOCATION / TYPE	SIZE	DETAILS		REMARKS
			HEAD	JAMB	
1	EXTERIOR / FOYER	3'-0" X 8'-0"	WOOD	WOOD	ENTRY DOOR
2	EXTERIOR / GARAGE	9'-0" X 8'-0"	WOOD	WOOD	GARAGE OVERHEAD
3	INTERIOR / GARAGE	3'-0" X 8'-0"	WOOD	WOOD	"C" LABEL DOOR
4	EXTERIOR / (TYP)	(2) 2'-0" X 8'-0"	WOOD	WOOD	
5	INTERIOR / (TYP)	2'-6" X 8'-0"	WOOD	WOOD	
6	INTERIOR / (TYP)	2'-6" X 8'-0"	WOOD	WOOD	POCKET DOOR
7	INTERIOR / (TYP)	3'-0" X 8'-0"	WOOD	WOOD	
8	INTERIOR / (TYP)	2'-8" X 8'-0"	WOOD	WOOD	
9	INTERIOR / (TYP)	(2) 3'-0" X 8'-0"	WOOD	WOOD	POCKET DOORS
10	INTERIOR / (TYP)	(2) 2'-6" X 8'-0"	WOOD	WOOD	SLIDING DOORS
11	INTERIOR / (TYP)	2'-6" X 6'-8"	WOOD	WOOD	FRAMELESS SHOWER DOOR
12	INTERIOR / (TYP)	2'-6" X 7'-0"	WOOD	WOOD	
13	INTERIOR / (TYP)	3'-0" X 7'-0"	WOOD	WOOD	
14	INTERIOR / (TYP)	(2) 2'-0" X 7'-0"	WOOD	WOOD	
15	INTERIOR / (TYP)	(2) 2'-6" X 7'-0"	WOOD	WOOD	
16	INTERIOR / (TYP)	(2) 1'-6" X 7'-0"	WOOD	WOOD	
17	INTERIOR / (TYP)	3'-0" X 6'-8"	WOOD	WOOD	
18	INTERIOR / (TYP)	2'-6" X 6'-8"	WOOD	WOOD	
19	INTERIOR / EAVE STORAGE	2'-6" X 5'-0"	WOOD	WOOD	
20	EXTERIOR / BEDROOM	3'-0" X 8'-0"	WOOD	WOOD	ENTRY DOOR
21	INTERIOR / (TYP)	(2) 2'-0" X 6'-8"	WOOD	WOOD	SLIDING DOORS

NOTE:

SHOP DRAWINGS OF DOORS ARE TO BE PROVIDED PRIOR TO ORDERING.

FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING	REMARKS
				NORTH	EAST	SOUTH	WEST		
001	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
002	HALLWAY	WOOD	WOOD			GWB	GWB	GWB	
003	MECH / STORAGE			GWB	GWB				
004	BEDROOM #6	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
005	WALK-IN CLOSET	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
006	BATHROOM # 6	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
007	LOWER FAMILY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
008	GYM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
101	FOYER	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
102	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
103	2 CAR GARAGE			GWB	GWB	GWB	GWB	GWB	5/8" TYPE "X" GWB
104	BATHROOM #1	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
105	MUD ROOM	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
106	OFFICE / GUEST BEDROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
107	FAMILY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
108	KITCHEN	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
109	BREAKFAST	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
110	DINING	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
111	LIVING	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
201	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
202	HALLWAY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
203	BEDROOM #4	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
204	BEDROOM #2	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
205	BATHROOM #5	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
206	LAUNDRY	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
207	WALK-IN CLOSET	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
208	MASTER BATHROOM	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
209	MASTER BEDROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
210	BEDROOM #3	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
211	BATHROOM #3	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
212	BATHROOM #4	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
301	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
302	UPPER FAMILY ROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
303	BATHROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
304	BEDROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
305	EAVE STORAGE		WOOD						



4 / A-3.1 **Typical Section**
1/2" = 1'-0"

HOUSE # 02

OWNER

mckay architects

35 Bryant Street
Dedham, MA 02026

p: 781.326.5400

www.mckayarchitects.net

REGISTERED ARCHITECT MICHAEL L. McKAY NO. AR 6947 COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

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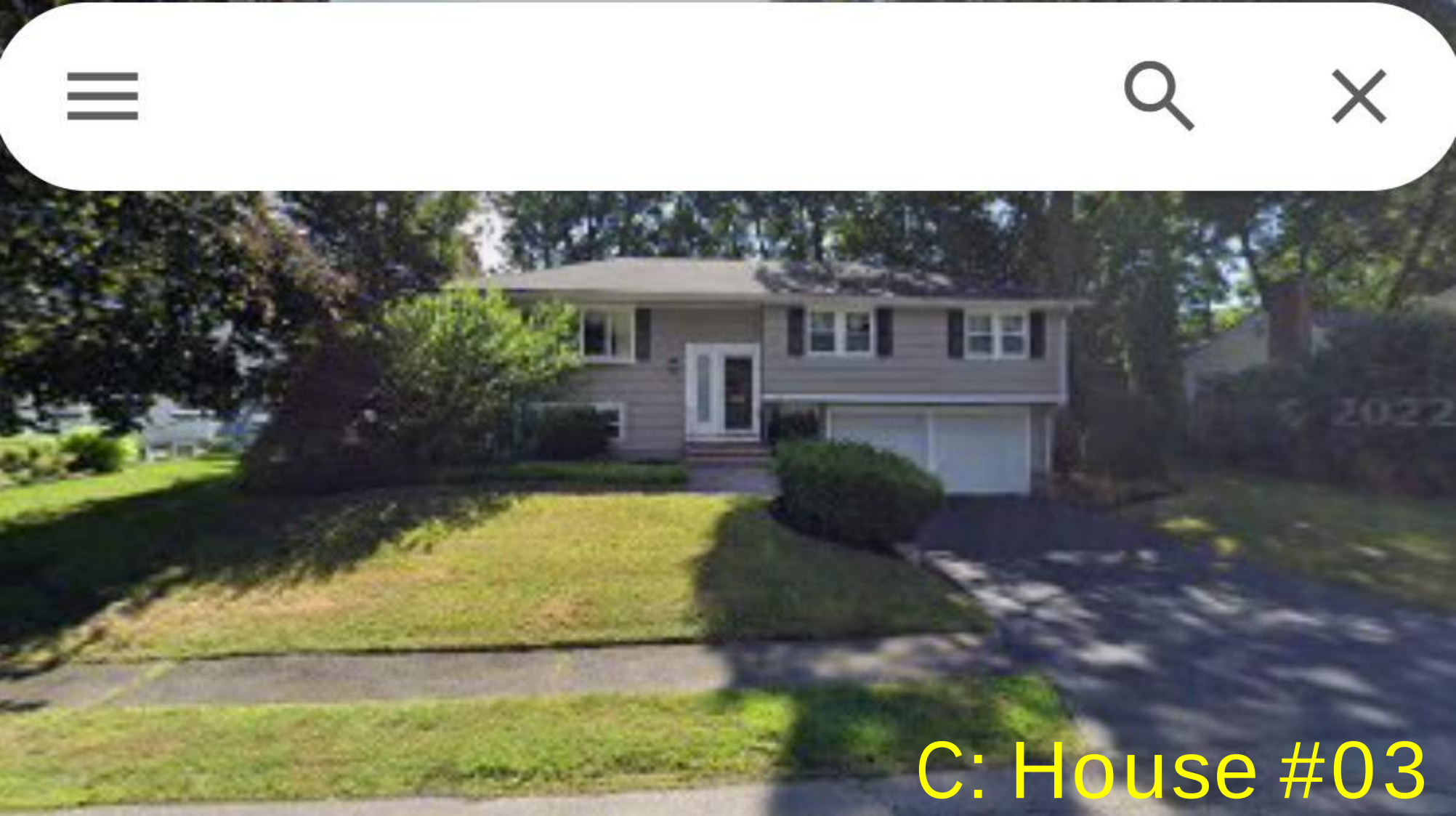
Schedules, Specifications & Typical Section

JOB NO	0364
DATE	09.22.2023
DWG BY	EAL
CKD BY	MLM
SCALE	VARIES

A-3.1


C: House #03

HOUSE #03

18
HOUSE #03

HOUSE #03

HOUSE #03

Large House Study - FAR Rules/Tests

House 3

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0	
Lot Size	10,001	SF
Lot Coverage	1,370	SF

Floor	Gross SF (inc Garage)	Garage	13.7% Livable SF (N.I. Garage)
B	1,611	-	1,611
1	2,435	535	1,900
2	1,890	-	1,890
3	750	-	750
Total	6,686	535	6,151
TLAG	5,075	Real Estate Ad=	6,151 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	1,370	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	13.7%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.9%	3,790	6,161
FAR (Flr 1,2,3 Exclude Garage)	38%	45.4%	4,540	5,411
FAR (Flr 1,2,3,B Exclude Garage	38%	61.5%	6,151	3,800
FAR (Flr 1,2,3,+ Garage on 1)	38%	50.7%	5,075	5,411
FAR (Flr 1,2 + any Garage)	38%	43.2%	4,325	6,161

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessors Map & Parcel Number: _____

Building Permit Number: _____ Zoning District: SRB

Lot Area: 10,000 SF Address: _____

Owner: _____ Builder: _____

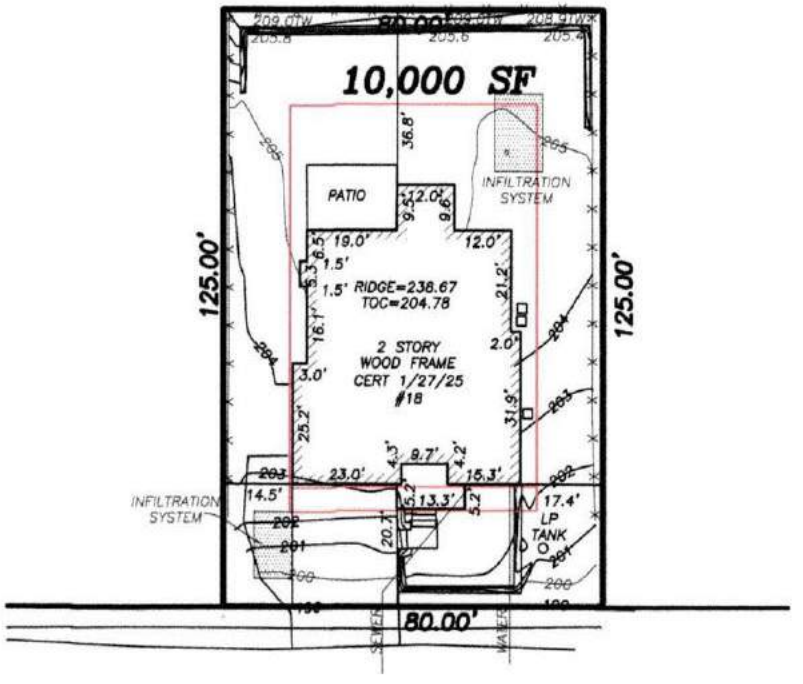
DEMO / PROPOSED PLOT PLAN / FOUNDATION ASBUILT / FINAL AS-BUILT

Circle One That Applies

40 Scale

Field Resources, Inc.
LAND SURVEYORS
P.O .Box 324 281 Chestnut Street
Auburn, MA 01501 Needham, MA 02492
781 444 5936
office@fieldresources.net

LOT COVERAGE = 13.7%
HEIGHT = 34.9'



006–24

AS BUILT UTILITY LOCATIONS PROVIDED BY CONTRACTOR

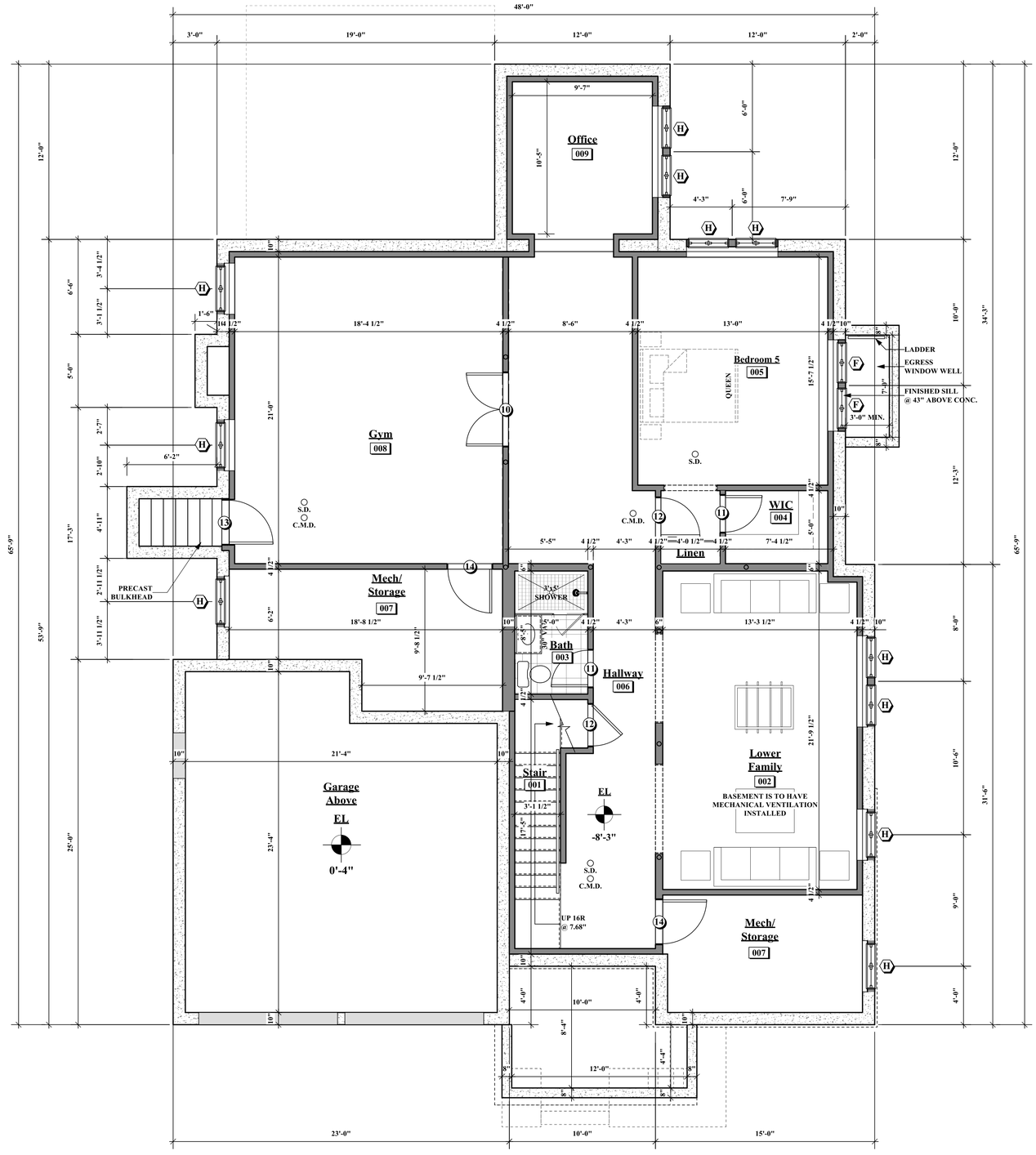
Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the Town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gaslines, etc.; driveways, septic systems, wells,Flood Plain and Wetland Areas, lot dimensions, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances, (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations, proposed grading and drainage of rechardge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures* offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location areas with no public sewer.

*Accessory structures may require a separate building permit - See Building Code

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this 29TH day of JANUARY ,20 25 .

Name: Bradley J. Simonelli, PLS. #47581 Registered Land Surveyor Date: _____
Address: 281 Chestnut Street City: Needham State: MA Zip: 02492 Phone: 781-444-5936
Approved: _____ Director of Public Works: Date: _____
Approved: _____ Building Inspector: Date: _____

HOUSE # 03



FAR SUMMARY

LOT SIZE:	**10,000 sf**
MAXIMUM ALLOWED FAR:	
.38x10000 =	**3800 sf**
PROPOSED:	
FIRST FLOOR:	**1900 SF**
GARAGE:	**535 SF (NOT INCLUDED IN FAR)**
SECOND FLOOR:	**1890 SF**
TOTAL PROPOSED: (LESS THAN ALLOWED)	**3790 sf**

1 A-1.1 **Basement Floor Plan 1,611 SF Finished**
1/4" = 1'-0"

HOUSE # 03

OWNER

mckay architects
35 Bryant Street
Dedham, MA 02026
p: 781.326.5400
www.mckayarchitects.net

MICHAEL L. MCKAY REGISTERED ARCHITECT NO. AR 6947 COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

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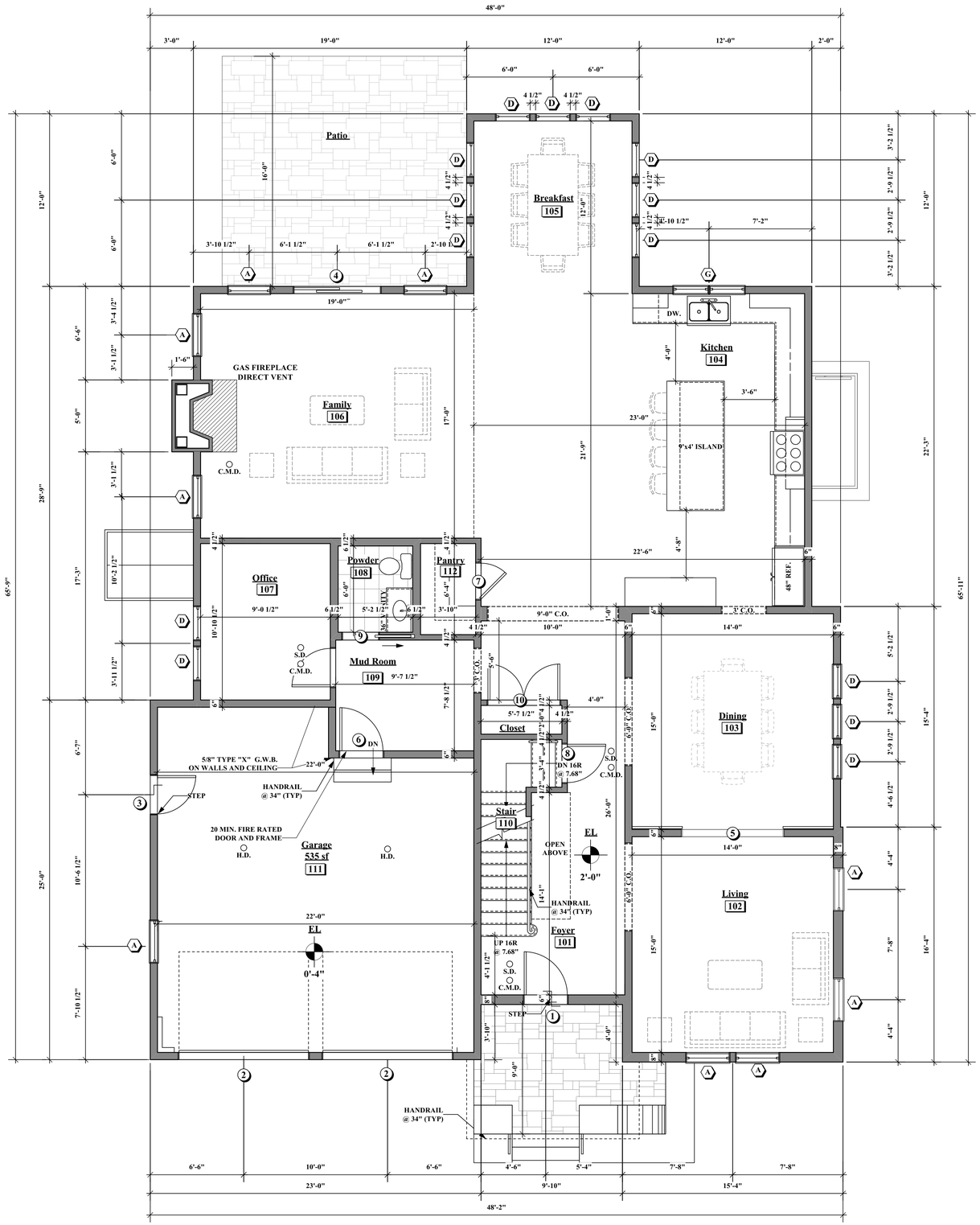
Basement Plan

JOB NO	0374
DATE	01.30.2024
DWG BY	EAL
CKD BY	MLM
SCALE	AS NOTED

A-1.1



1 A-1.2 **First Floor Plan**
1/4" = 1'-0"

HOUSE # 03

OWNER

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MICHAEL L. MCKAY
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NO. MA 8947
COMMONWEALTH OF MASSACHUSETTS

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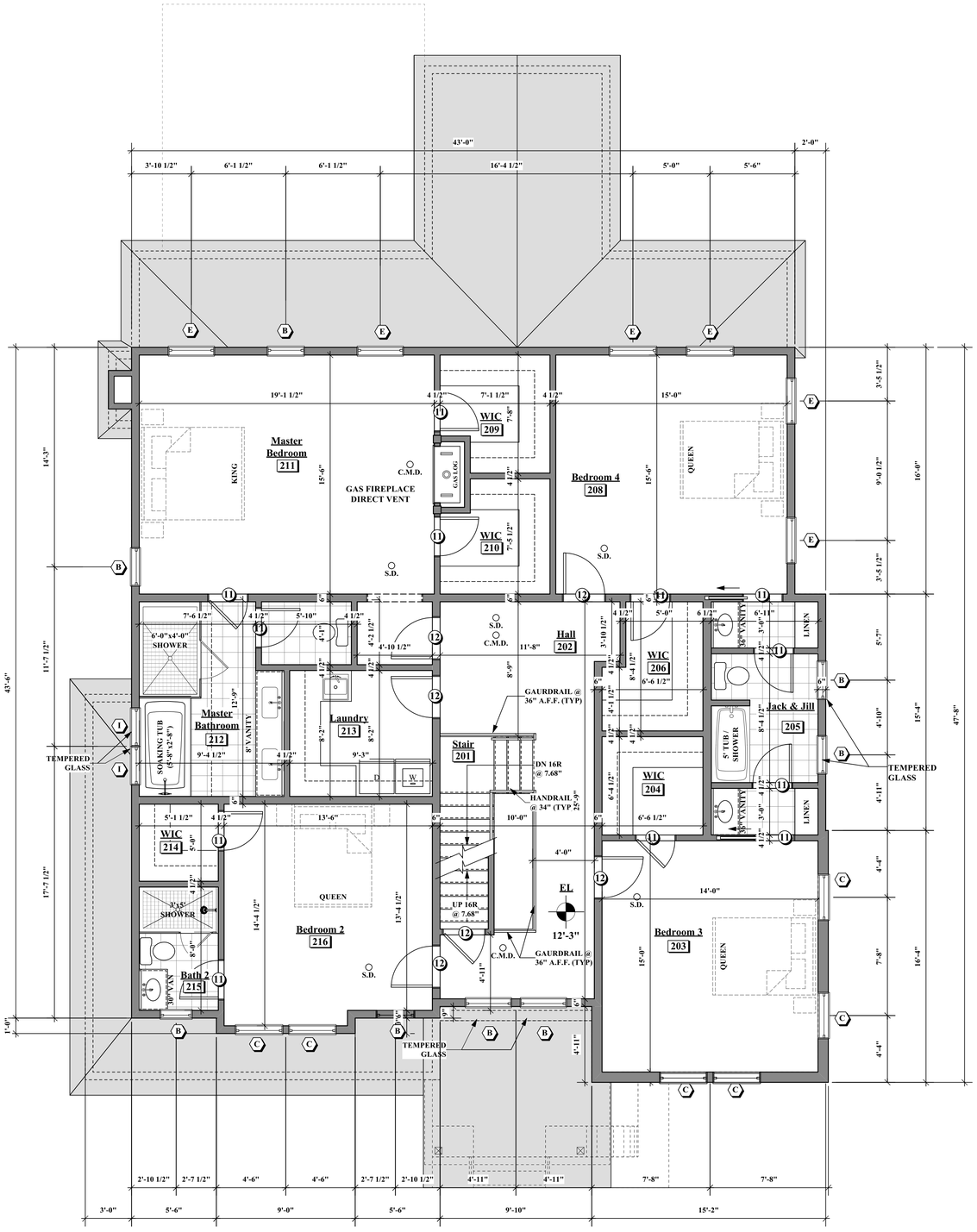
First Floor Plan

JOB NO	0374
DATE	01.30.2024
DWG BY	EAL
CKD BY	MLM
SCALE	AS NOTED

A-1.2



1 A-1.3 **Second Floor Plan**
1/4" = 1'-0"

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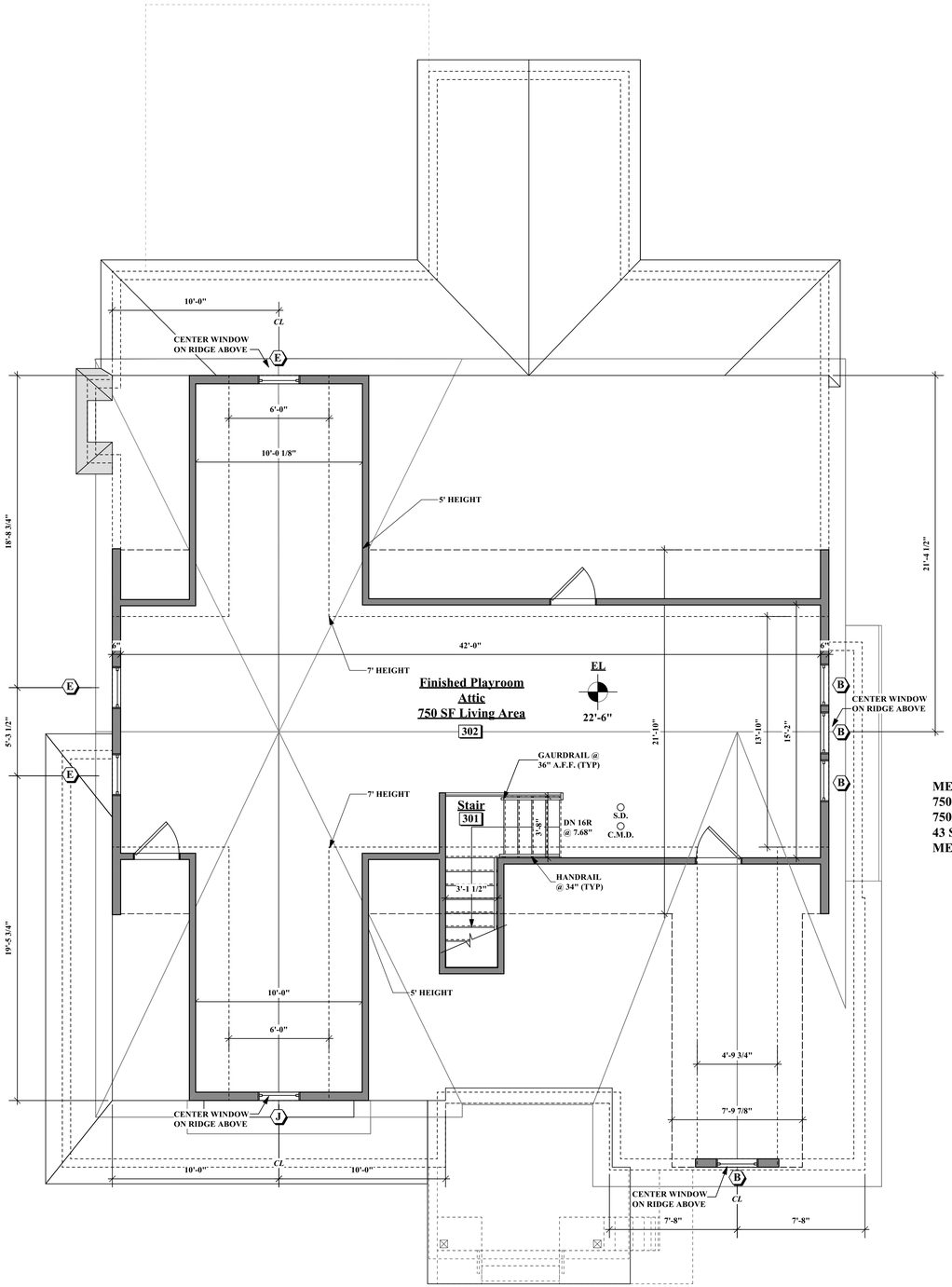
Second Floor Plan

JOB NO	0374
DATE	01.30.2024
DWG BY	EAL
CKD BY	MLM
SCALE	AS NOTED

A-1.3



MECHANICAL VENTILATION REQUIREMENT:
750 SF FINISHED FLOOR AREA
750 SF X .04 = 30 SF OPERABLE WINDOW REQUIRED
43 SF OPERABLE WINDOW PROVIDED
MECHANICAL VENTILATION NOT REQUIRED

1 / A-1.4 **Attic Floor Plan 750 SF**
1/4" = 1'-0"

HOUSE # 03

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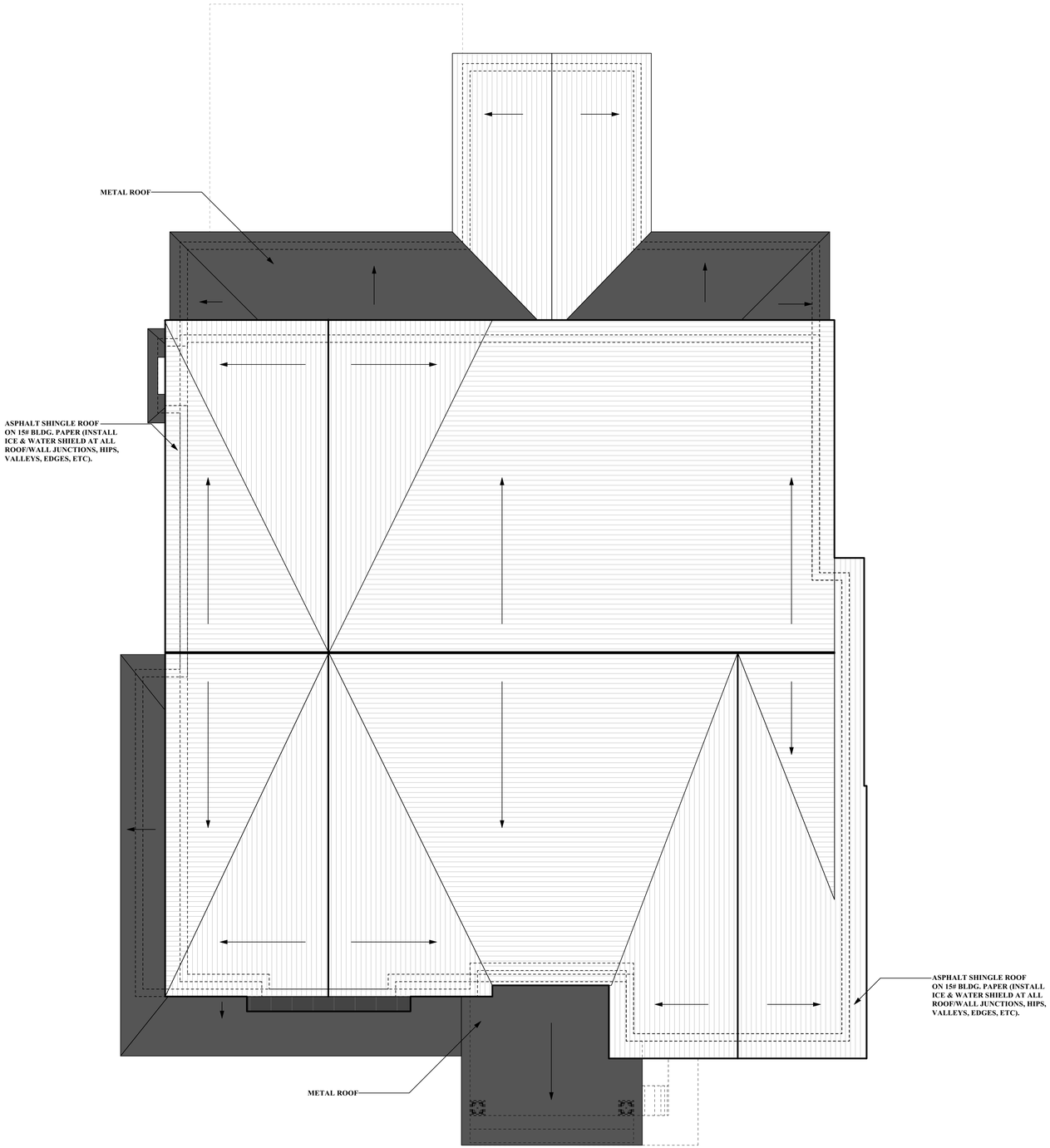
Attic Plan

JOB NO	0374
DATE	01.30.2024
DWG BY	EAL
CKD BY	MLM
SCALE	AS NOTED

A-1.4



1 A-1.5 **Roof Plan**
1/4" = 1'-0"

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Roof Plan

JOB NO	0374
DATE	01.30.2024
DWG BY	EAL
CKD BY	MLM
SCALE	AS NOTED

A-1.5

1 A-2.1 **Front Elevation**
1/4" = 1'-0"

HOUSE # 03

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Front Elevation

JOB NO	0374
DATE	01.30.2024
DWG BY	EAL
CKD BY	MLM
SCALE	AS NOTED

A-2.1

1 A-2.2 **Right Side Elevation**
1/4" = 1'-0"

HOUSE # 03

OWNER

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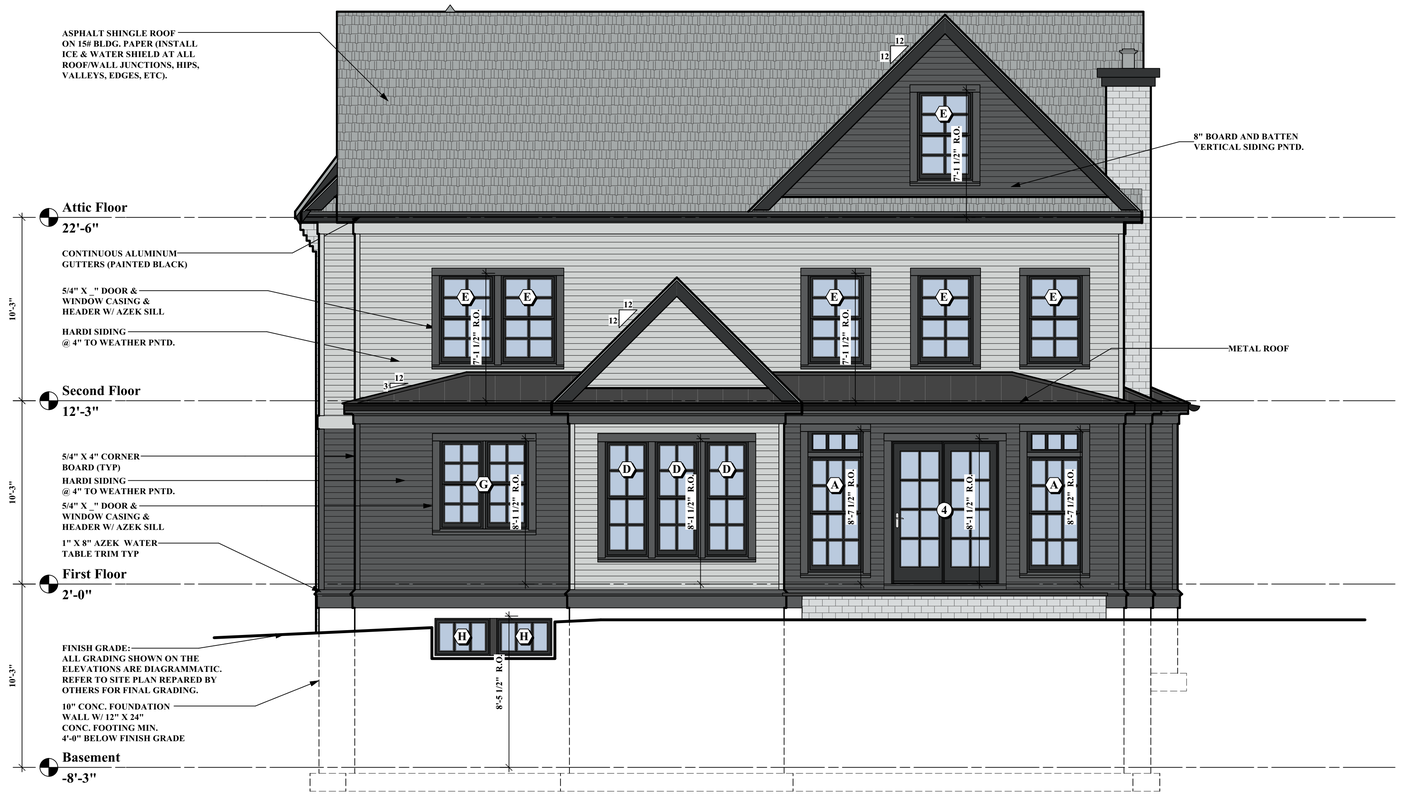
Right Side Elevation

JOB NO	0374
DATE	01.30.2024
DWG BY	EAL
CKD BY	MLM
SCALE	AS NOTED

A-2.2



1 A-2.3 **Rear Elevation**
1/4" = 1'-0"

HOUSE # 03

OWNER

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Dedham, MA 02026

p: 781.326.5400

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Rear Elevation

JOB NO	0374
DATE	01.30.2024
DWG BY	EAL
CKD BY	MLM
SCALE	AS NOTED

A-2.3

1 A-2.4 **Left Side Elevation**
1/4" = 1'-0"

HOUSE # 03

OWNER

mckay architects

35 Bryant Street
Dedham, MA 02026

p: 781.326.5400

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REV #	DATE	ISSUANCE

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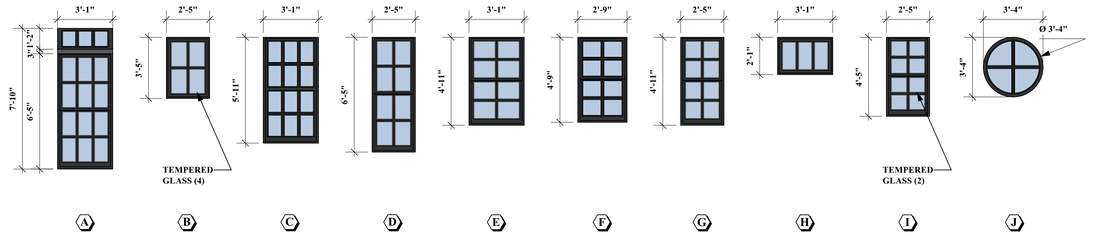
Left Side Elevation

JOB NO	0374
DATE	01.30.2024
DWG BY	EAL
CKD BY	MLM
SCALE	AS NOTED

A-2.4

WINDOW SCHEDULE



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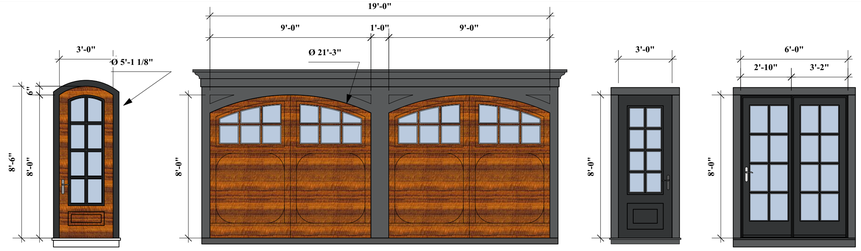


DOOR SCHEDULE

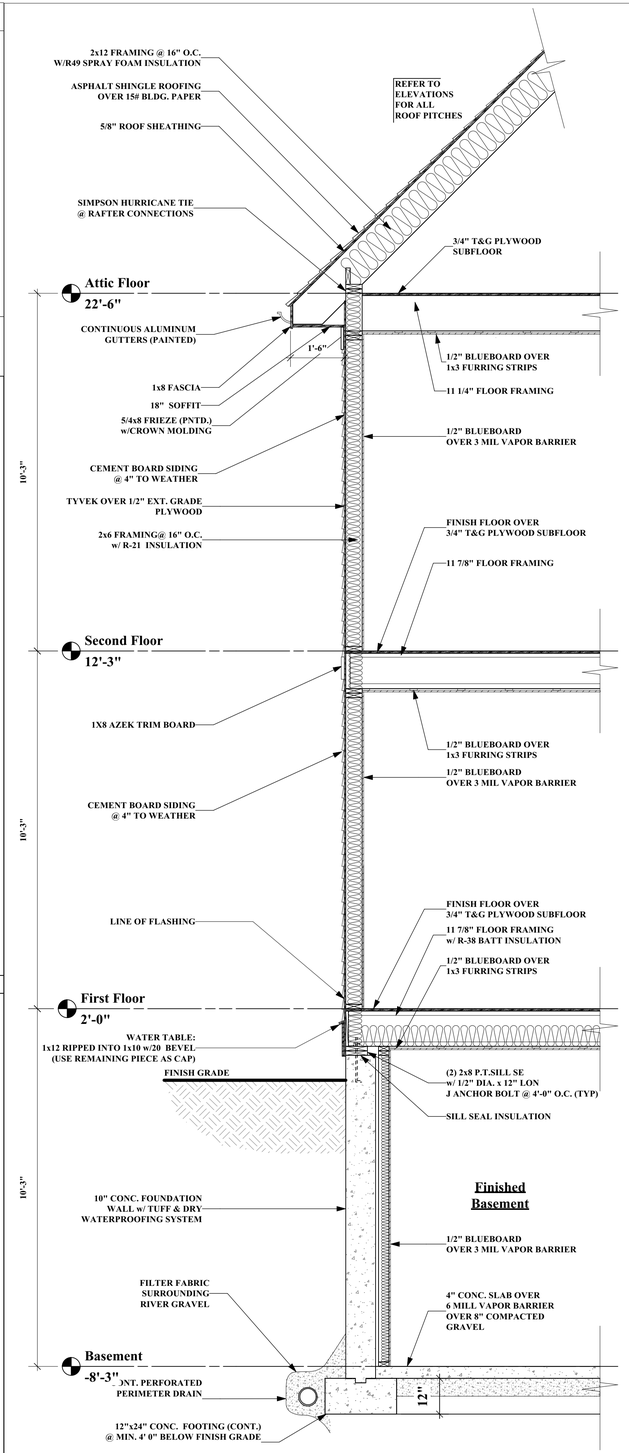
DOOR NO.	LOCATION / TYPE	SIZE	DETAILS		REMARKS
			HEAD	JAMB	
1	EXTERIOR / FOYER	3'-0"x8'-6"	WOOD	WOOD	ARCHTOP DOOR
2	EXTERIOR / GARAGE	9'-0"x8'-0"	WOOD	WOOD	ARCHTOP GARAGE OVERHEAD
3	EXTERIOR / (TYP)	3'-0"x8'-0"	WOOD	WOOD	
4	EXTERIOR / (TYP)	(2) 3'-0"x8'-0"	WOOD	WOOD	8 LITE SLIDING DOOR
5	INTERIOR / (TYP)	(2) 3'-0"x8'-0"	WOOD	WOOD	SLIDING BARN DOORS
6	INTERIOR / GARAGE	3'-0"x7'-0"	WOOD	WOOD	"C" LABEL DOOR
7	INTERIOR / (TYP)	2'-6"x7'-0"	WOOD	WOOD	
8	INTERIOR / (TYP)	2'-8"x7'-0"	WOOD	WOOD	
9	INTERIOR / (TYP)	2'-6"x7'-0"	WOOD	WOOD	POCKET
10	INTERIOR / (TYP)	(2) 2'-6"x7'-0"	WOOD	WOOD	PAIR
11	INTERIOR / (TYP)	2'-6"x6'-8"	WOOD	WOOD	
12	INTERIOR / (TYP)	2'-8"x6'-8"	WOOD	WOOD	
13	INTERIOR / BULKHEAD	3'-0"x6'-8"	WOOD	WOOD	
14	INTERIOR / (TYP)	3'-0"x6'-8"	WOOD	WOOD	

NOTE:

SHOP DRAWINGS OF DOORS ARE TO BE PROVIDED PRIOR TO ORDERING.

FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING	REMARKS
				NORTH	EAST	SOUTH	WEST		
001	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
002	LOWER FAMILY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
003	BATH	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
004	WIC	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
005	BEDROOM 5	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
006	HALLWAY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
007	UNFINISHED BASEMENT								
101	FOYER	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
102	LIVING	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
103	DINING	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
104	KITCHEN	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
105	BREAKFAST	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
106	FAMILY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
107	OFFICE	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
108	POWDER	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
109	MUD	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
110	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
111	2 CAR GARAGE			GWB	GWB	GWB	GWB	GWB	5/8" TYPE "X" GWB
112	PANTRY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
201	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
202	HALL	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
203	BEDROOM 3	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
204	WIC	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
205	BATH 3	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
206	WIC	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
207	BATH 4	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
208	BEDROOM 4	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
209	WIC	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
210	WIC	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
211	MASTER BEDROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
212	MASTER BATHROOM	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
213	LAUNDRY	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
214	WIC	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
215	BATH 2	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
216	BEDROOM 2	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
301	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
302	UNFINISHED ATTIC								



4 / A-3.2 **Typical Section**
1/2" = 1'-0"

HOUSE # 03

OWNER

mckay architects
35 Bryant Street
Dedham, MA 02026
p: 781.326.5400
www.mckayarchitects.net

REGISTERED ARCHITECT MICHAEL L. McKAY NO. MA 6947 COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

OWNERSHIP & USE OF DOCUMENTS

These drawings and specifications are the property and copyright of McKay Architects and shall not be used in whole or in part, or shall be assigned to a third party without the express written permission of McKay Architects.

Contractor to verify all information and dimensions in the field prior to start of construction and is to notify McKay Architects of any discrepancies

Schedules & Typical Section

JOB NO	0374
DATE	01.30.2024
DWG BY	EAL
CKD BY	MLM
SCALE	AS NOTED

A-3.1

C: House #04

HOUSE #04

24
HOUSE #04

HOUSE #04

Large House Study - FAR Rules/Tests

House 4

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	10,061	SF	
Lot Coverage	2,485	SF	24.7%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,225	0	1,225
1	2,420	560	1,860
2	1,916	-	1,916
3	850	-	850
Total	6,411	560	5,851
TLAG	5,186	Real Estate Ad=	5,826 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,485	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.7%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.5%	3,776	5,898
FAR (Flr 1,2,3 Exclude Garage)	38%	46.0%	4,626	5,048
FAR (Flr 1,2,3,B Exclude Garage	38%	58.2%	5,851	3,823
FAR (Flr 1,2,3,+ Garage on 1)	38%	51.5%	5,186	5,048
FAR (Flr 1,2 + any Garage)	38%	43.1%	4,336	5,898

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessors Map & Parcel Number: _____

Building Permit Number: _____ Zoning District: SRB

Lot Area: 10,061 SF Address: _____

Owner: _____ Builder: _____

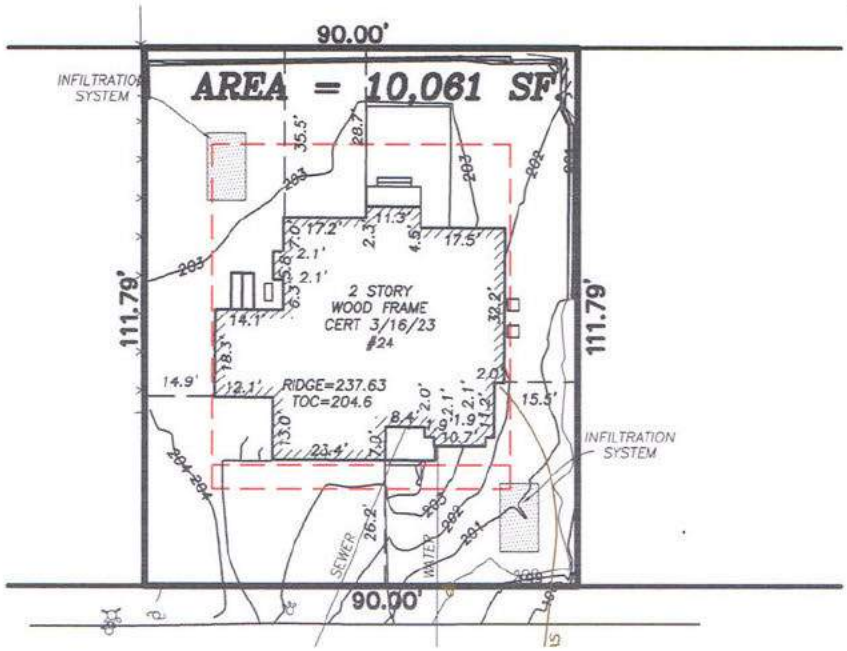
DEMO / PROPOSED PLOT PLAN / FOUNDATION ASBUILT / FINAL AS-BUILT

Circle One That Applies

40 Scale

Field Resources, Inc.
LAND SURVEYORS
P.O .Box 324 281 Chestnut Street
Auburn, MA 01501 Needham, MA 02492
781 444 5936
office@fieldresources.net

LOT COVERAGE =24.7%



013–21

AS BUILT UTILITY LOCATIONS PROVIDED BY CONTRACTOR

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the Town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gaslines, etc.; driveways, septic systems, wells,Flood Plain and Wetland Areas, lot dimensions, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances, (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations, proposed grading and drainage of rechardge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures* offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location areas with no public sewer.

*Accessory structures may require a separate building permit - See Building Code

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this 7TH day of APRIL ,20 23 .

Name: Bradley J. Simonelli, PLS. #47581 Registered Land Surveyor Date: _____

Address: 281 Chestnut Street City: Needham State: MA Zip: 02492 Phone: 781-444-5936

Approved: _____ Director of Public Works: Date: _____

Approved: _____ Building Inspector: Date: _____

HOUSE # 04

GENERAL CONSTRUCTION SPECIFICATIONS:

Interior Walls: 2x4 wood frame construction @ 16" o.c. with 3 1/2" sound reduction fiberglass batt insulation between studs for all walls between bedrooms (TBD). Finish both sides with 1/2" blueboard w/ skimcoat of plaster (BBSP).

Exterior Walls: 2x6 wood frame construction @ 16" o.c. (unless otherwise noted). Owens Corning or equal 5 1/2" R-21 unfaced fiberglass batt insulation between studs. Verify min. required wall R-values per HERS rating. Finish interior face with BBSP over polyethylene vapor barrier applied over all exterior walls. Exterior stud face to have min. 7/16" *Advantech Zip System* or 1/2" CDX plywood sheathing. Cement board or cedar siding shall be installed over fully taped Advantech Zip-System sheathing or Tyvek Housewrap.

Floors: Framing sizes as noted on framing plans with kraftfaced fiberglass insulation (if applicable) in R values per HERS rating. Subfloor shall be min. 3/4" T&G *Advantech* / Equal glued & nailed 6" o.c. to joists.

Roof & Ceilings: Framing sizes as noted on framing plans with R values per HERS rating. Provide full coverage all rafter bays with spray foam insulation, no roof venting required. Exterior face of rafters shall have 1/2" CDX fir plywood or 5/8" Advantech roof sheathing with Certainteed (or equal) 30 year roof shingles installed over 15# felt paper or shingle manufacture's required underlayment. Provide ice & water shield at all valleys and eaves and along wall transitions and projections.

Moisture from plaster job, painting, or any other source during construction must be fully mitigated by general contractor during construction to avoid potential mold problems. Architect is not responsible for any moisture complications attributable to any job site climate conditions or any performed work. Use of alternative insulation products or systems other than specified herein shall further indemnify architect of any liability attributable to building envelop performance. Architect is further exempt from liability associated with any HVAC systems installed. All structural assemblies, building components, materials, workmanship, energy conservation, life-safety, and fire protection shall conform fully with 780 CMR 9th Edition of the Massachusetts State Building Code Volume for One and Two Family Dwellings. Stretch Energy Code shall utilize the 2015 IECC base code with all Mass amendments. All duct testing and associated Stretch Code testing requirements and procedures shall be the responsibility of the Builder. See project specific HERS Rating for insulation values, all of which shall supercede any insulation values stated herein these construction documents.

SEE DRAWINGS FOR ADDITIONAL NOTES AND SPECIFICATIONS. OWNER SHALL REVIEW WITH BUILDER MODIFICATIONS TO ANY SPECIFICATIONS INDICATED WITHIN THESE CONSTRUCTION DOCUMENTS.

INSULATION NOTES:
See HERS rating for all required insulation values. DND Homes to coordinate all assemblies and testing procedures per stretch energy code compliance.

GENERAL STRUCTURAL CRITERIA:
Wind Speed: 110 mph
Wind Exposure Category: B
(All Sides of Building)
1st Floor Live Load: 40 #s / sq ft
2nd Floor Live Load: 30 #s / sq ft
Attic Floor Live Load: 40 #s / sq ft
All roof structures designed to meet or exceed 40# ground snow load Needham, MA

BATHROOM NOTES:
All bathroom exhaust fans vented to outside

STAIR AND GUARDRAIL NOTES:
Type I 2" Ø graspable handrail set @ 34" above nosing (Typ.)
Guardrail @ 36" AFF with balusters spaced to prevent 4" Ø sphere (Typ.)

—ALL DIMENSIONS TO STUD FACE
—2x4 WALLS @ 3 1/2" WIDTH (TYPICAL INTERIOR WALLS)
—2x6 WALLS @ 5 1/2" WIDTH (TYPICAL EXTERIOR WALLS)
(SD) —PHOTO-ELECTRIC SMOKE DETECTOR
(HD) —HEAT DETECTOR HD shall be interconnected with SD (household fire alarm system) inside the main dwelling. Location: 1 detector centered on garage ceiling
(CO) —CARBON MONOXIDE DETECTOR 10'-0" max. from all bedrooms and min. (1) on first floor

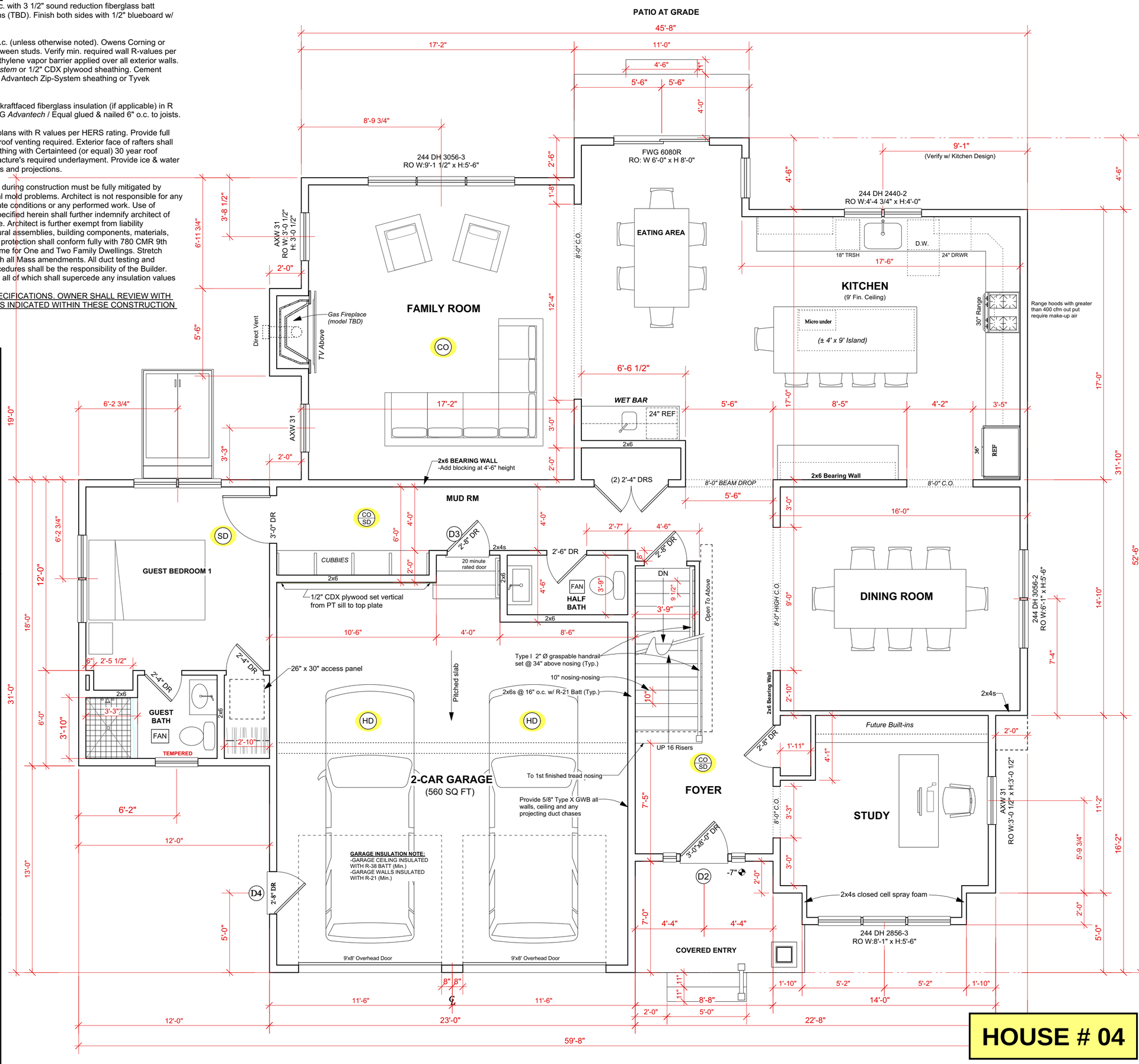
NOTES:
All first floor walls framed as 2x6 bearing walls with horizontal blocking at mid height unless otherwise noted.

Range hoods with greater than 400 cfm out put require make-up air.

First Floor: 1,860 SQ FT
Second Floor: 1,916 SQ FT
Attic Floor: 850 SQ FT
Basement Floor: 1,200 SQ FT
TOTAL FINISHED: 5,826 SQ FT

ALLOWABLE GFA:
10,061 LOT AREA x .38 = 3,823 SQ FT
PROPOSED 1st + 2nd = 3,776 SQ FT

—ALL DIMENSIONS TO STUD FACE
—2x4 WALLS @ 3 1/2" WIDTH (TYPICAL INTERIOR WALLS)
—2x6 WALLS @ 5 1/2" WIDTH (TYPICAL EXTERIOR WALLS)
(CO/SD) —CARBON MONOXIDE AND PHOTO-ELECTRIC SMOKE DETECTOR
(SD) —PHOTO-ELECTRIC SMOKE DETECTOR
(HD) —HEAT DETECTOR HD shall be interconnected with SD (household fire alarm system) inside the main dwelling. Location: 1 detector centered on garage ceiling



HOUSE # 04

R D K
ARCHITECTS
825 BEACON ST SUITE # 0
NEWTON CENTRE, MA 02459
PHONE: 617-571-0645
RALPHK@RDKARCHITECTS.COM
www.rdkarchitects.com

PROJECT:

BUILDER:
MURPHY GENERAL CONTRACTING, INC.

DATE:
MARCH 3, 2022
PER 9th EDITION BUILDING CODE

REVISIONS:

BUILDER / GENERAL CONTRACTOR IS RESPONSIBLE FOR MAKING SURE ALL SUB-CONTRACTORS ARE WORKING FROM MOST CURRENT ISSUE DATE.

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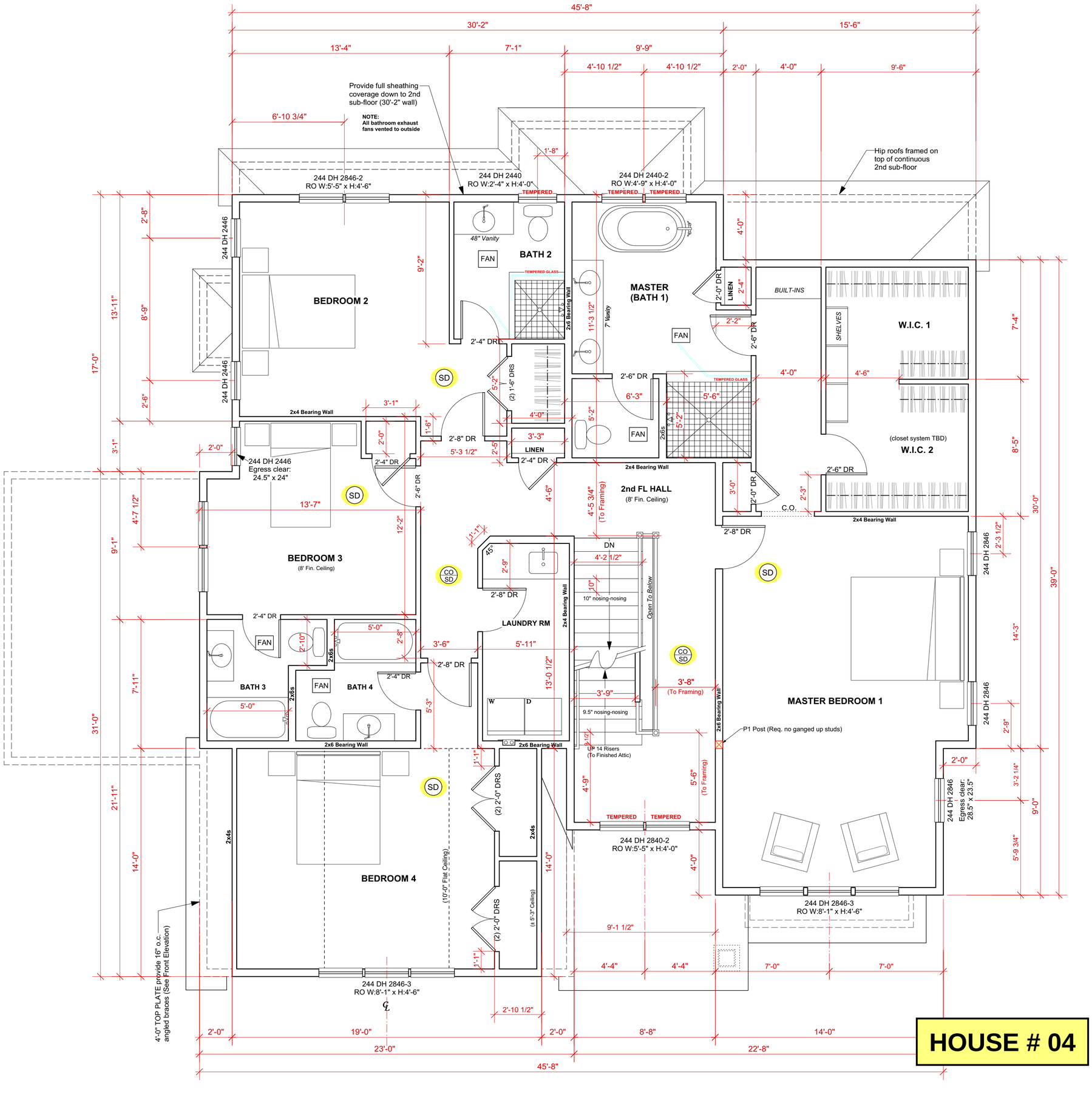
REGISTRATION:

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
FIRST FLOOR PLAN
GFA: 1,860 SF

SHEET NUMBER:
A-1



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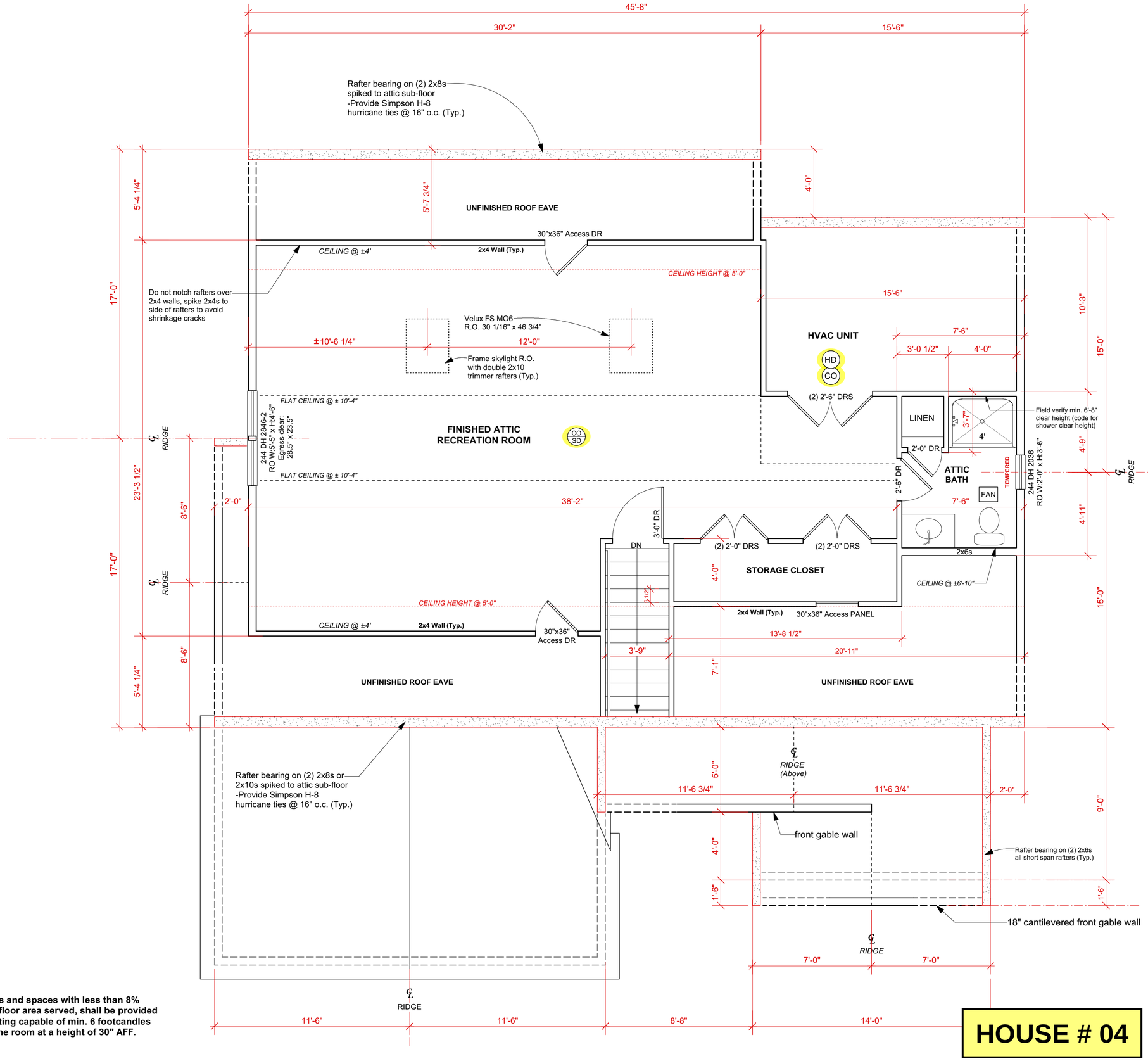
REGISTRATION:

REGISTERED ARCHITECT
RALPH D. KELFOYLE
No. 20379
BOSTON
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
SECOND FLOOR PLAN
GFA: 1,916 SF

SHEET NUMBER:
A-2



All finished rooms and spaces with less than 8% glazing area, per floor area served, shall be provided with artificial lighting capable of min. 6 footcandles over the area of the room at a height of 30" AFF.

HOUSE # 04

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REGISTRATION:

REGISTERED ARCHITECT
RALPH D. KELFOYLE
No. 20379
BOSTON
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
ATTIC FLOOR PLAN
± 850 SQ FT FINISHED

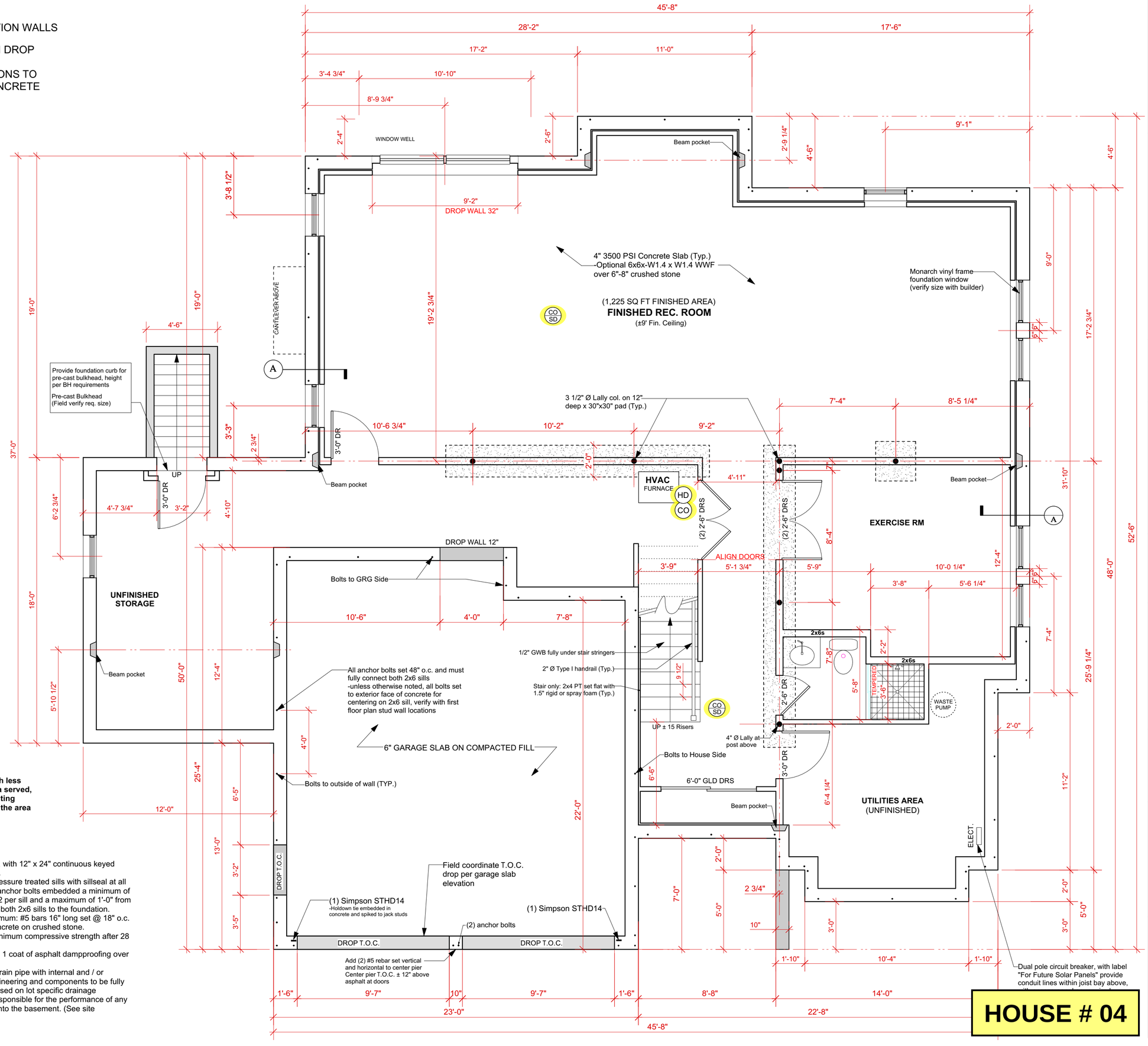
SHEET NUMBER:
A-3

—2 x 4 WALLS

—10" FOUNDATION WALLS

—FOUNDATION DROP

—ALL DIMENSIONS TO FACE OF CONCRETE



NOTE:
-All finished rooms and spaces with less than 8% glazing area, per floor area served, shall be provided with artificial lighting capable of min. 6 footcandles over the area of the room at a height of 30" AFF.

FOUNDATION NOTES:
- All foundation walls shall be 10" thick, with 12" x 24" continuous keyed footings at minimum 4'-0" below grade.
- All foundation walls shall have 2x6 pressure treated sills with sillseal at all wood/concrete joints. Provide 1/2" J- anchor bolts embedded a minimum of 8", set @ 4'-0" o.c. with a minimum of 2 per sill and a maximum of 1'-0" from corners. All anchor bolts must connect both 2x6 sills to the foundation.
- At joints between pours, provide minimum: #5 bars 16" long set @ 18" o.c.
- Poured slabs shall be 4" 3000 psi concrete on crushed stone.
- Foundation concrete shall attain a minimum compressive strength after 28 days of 3000 psi.
- All foundation walls shall receive min. 1 coat of asphalt dampproofing over roof cement parged tie-rod holes.
- Install continuous 4" Ø PVC footing drain pipe with internal and / or external drainage system. System engineering and components to be fully coordinated by Contractor or others based on lot specific drainage requirements. RDK Architects is not responsible for the performance of any draingage systems or water intrusion into the basement. (See site engineering drawings by others)

HOUSE # 04

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DATE:
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REGISTRATION:

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
FINISHED BASEMENT FLOOR PLAN
± 1,200 SQ FT FINISHED

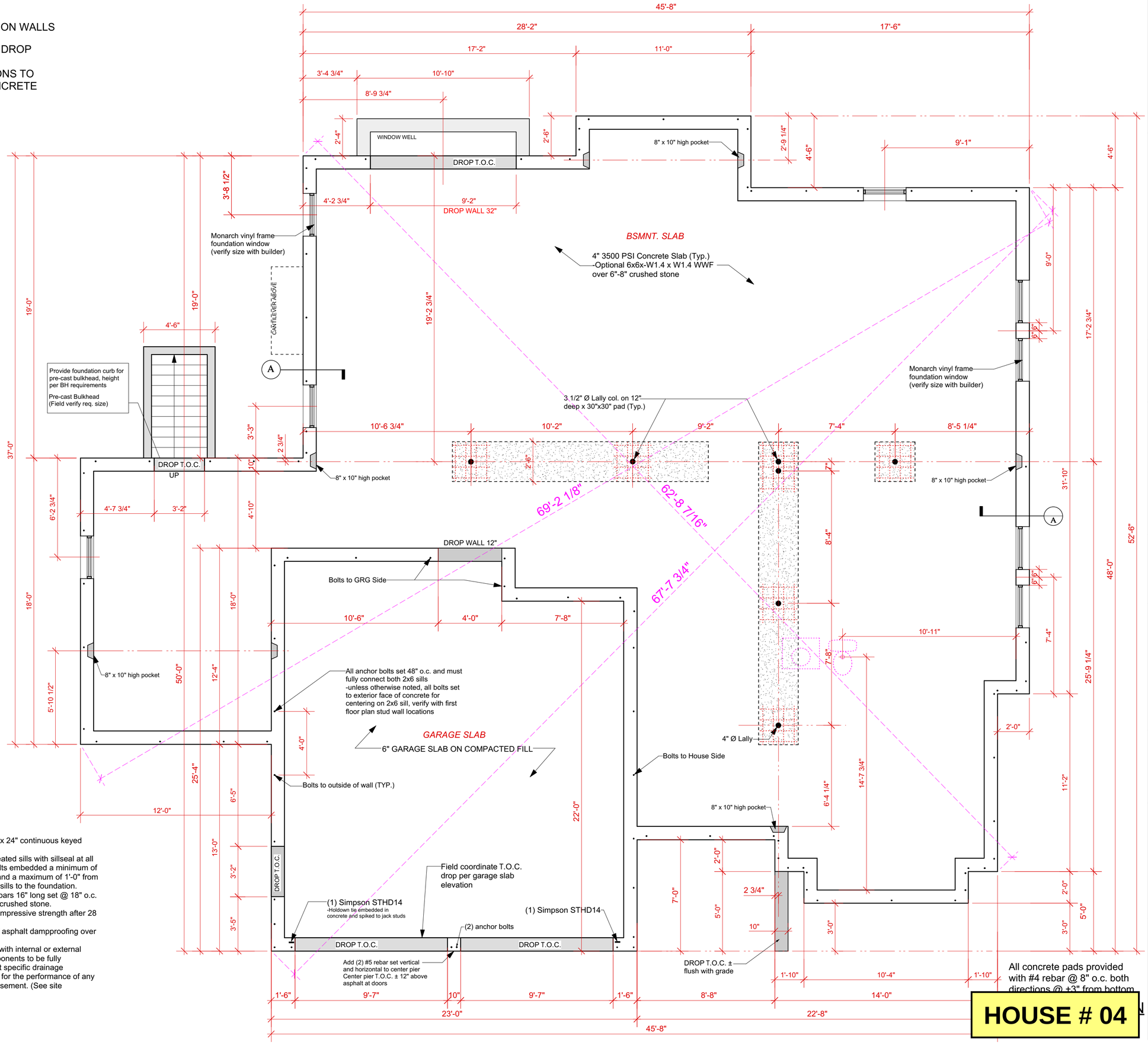
SHEET NUMBER:
A-4

—2 x 4 WALLS

—10" FOUNDATION WALLS

—FOUNDATION DROP

—ALL DIMENSIONS TO FACE OF CONCRETE



FOUNDATION NOTES:

- All foundation walls shall be 10" thick, with 12" x 24" continuous keyed footings at minimum 4'-0" below grade.
- All foundation walls shall have 2x6 pressure treated sills with sillseal at all wood/concrete joints. Provide 1/2" J- anchor bolts embedded a minimum of 8", set @ 4'-0" o.c. with a minimum of 2 per sill and a maximum of 1'-0" from corners. All anchor bolts must connect both 2x6 sills to the foundation.
- At joints between pours, provide minimum: #5 bars 16" long set @ 18" o.c.
- Poured slabs shall be 4" 3000 psi concrete on crushed stone.
- Foundation concrete shall attain a minimum compressive strength after 28 days of 3000 psi.
- All foundation walls shall receive min. 1 coat of asphalt dampproofing over roof cement parged tie-rod holes.
- Install continuous 4" Ø PVC footing drain pipe with internal or external drainage system. System engineering and components to be fully coordinated by Contractor or others based on lot specific drainage requirements. RDK Architects is not responsible for the performance of any draingage systems or water intrusion into the basement. (See site engineering drawings by others)

HOUSE # 04

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REGISTRATION:

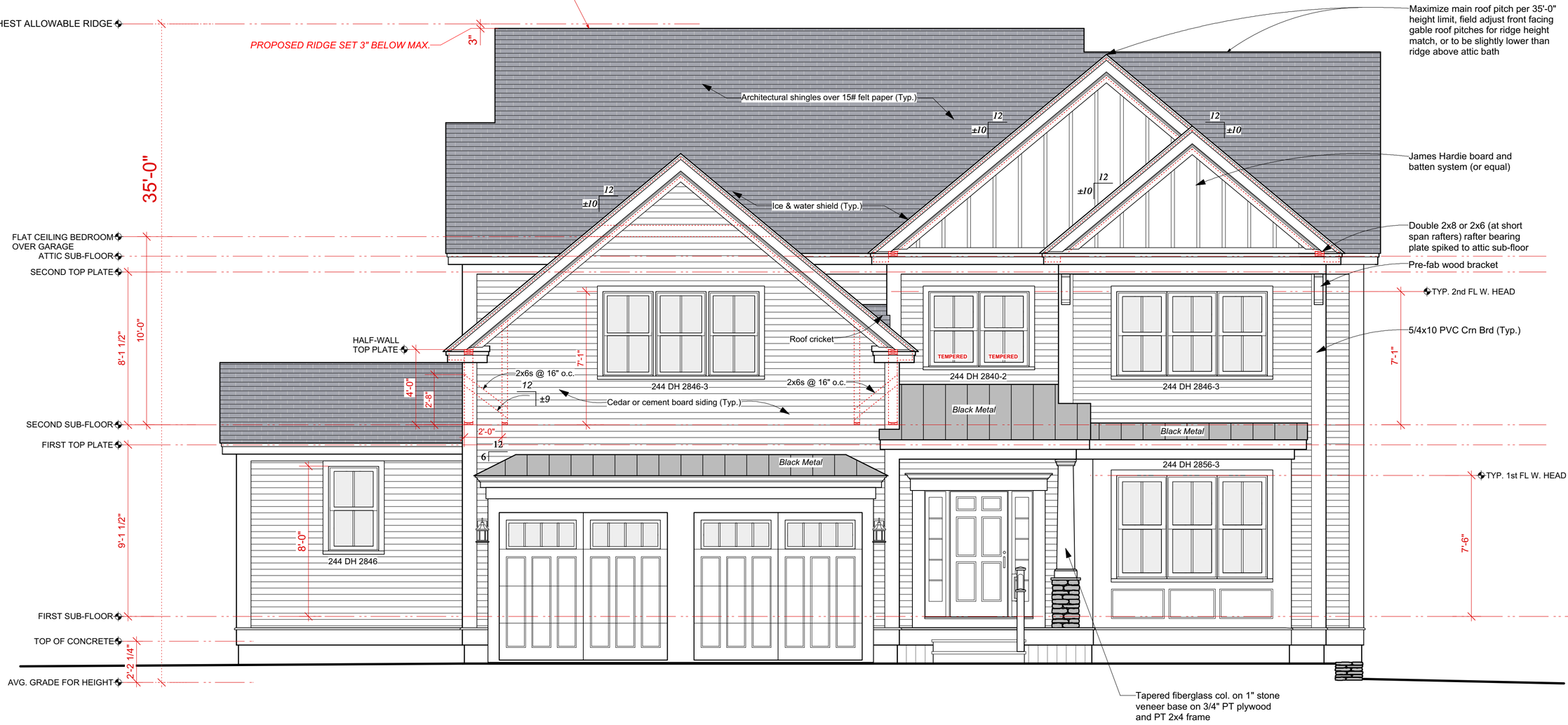
REGISTERED ARCHITECT RALPH D. KELFOYLE No. 20379 BOSTON MA COMMONWEALTH OF MASSACHUSETTS

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
FOUNDATION PLAN

SHEET NUMBER:
A-5

DO NOT BEGIN ANY ROOF FRAMING UNTIL MAXIMUM RIDGE ELEVATION IS DETERMINED ABOVE AS-BUILT T.O.C. BY ARCHITECT AND SURVEYOR.



FRONT ELEVATION

HOUSE # 04

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REVISIONS:

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The architectural plans, drawings, designs, specifications and other arrangements on this sheet are and shall remain the property of RDK Architects. No part thereof shall be copied, disclosed to others, or used in connection with any work or project, other than the specified project for which they have been prepared and developed, without the express knowledge and written consent of RDK Architects. These plans shall not be accepted for a building permit without a color wet stamp and signature.

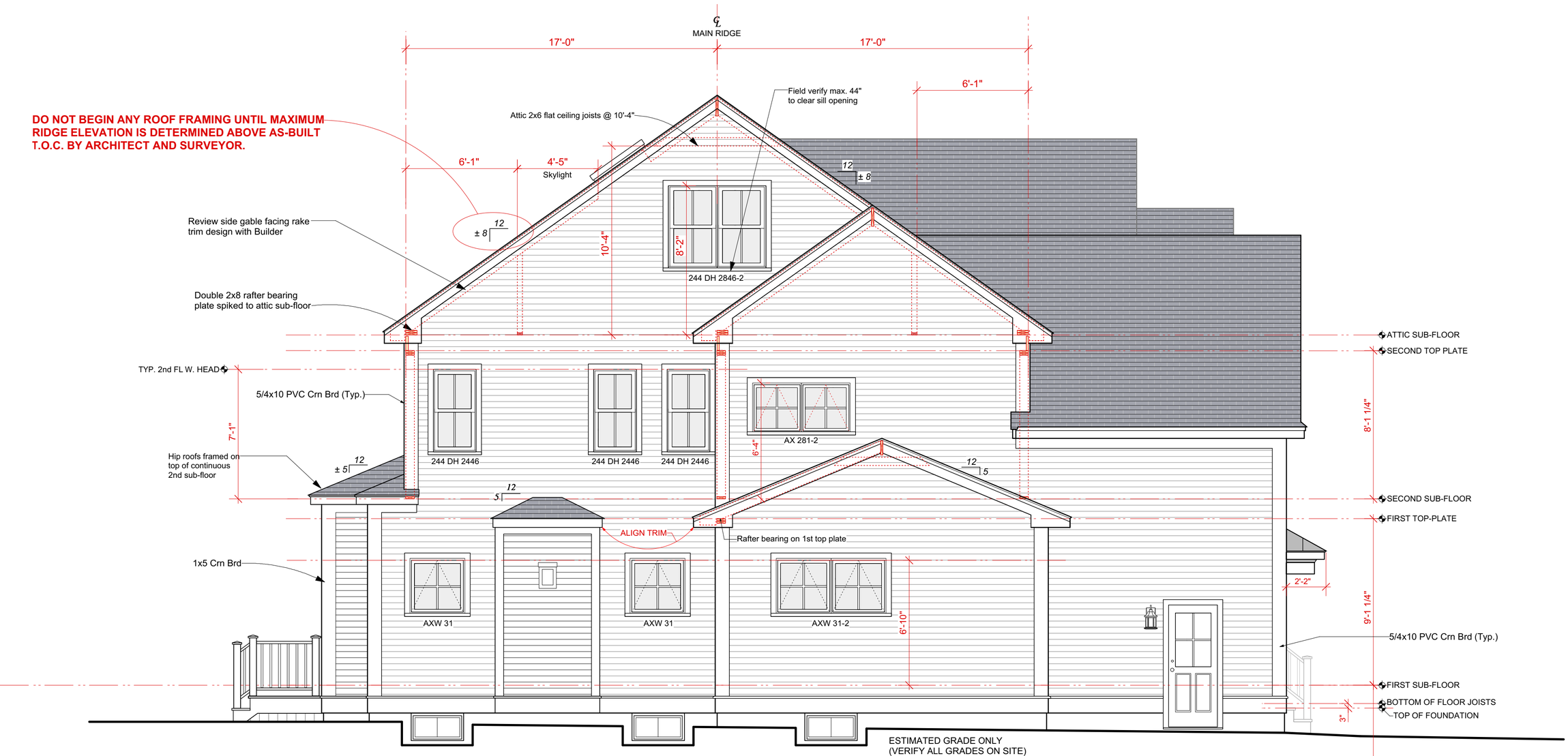
REGISTRATION:

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
FRONT ELEVATION

SHEET NUMBER:
A-6

DO NOT BEGIN ANY ROOF FRAMING UNTIL MAXIMUM RIDGE ELEVATION IS DETERMINED ABOVE AS-BUILT T.O.C. BY ARCHITECT AND SURVEYOR.



LEFT SIDE ELEVATION

HOUSE # 04

R D K
ARCHITECTS
825 BEACON ST SUITE # 10
NEWTON CENTRE, MA 02459
PHONE: 617-571-0645
RALPHK@RDKARCHITECTS.COM
www.rdkarchitects.com

PROJECT:

BUILDER:
MURPHY GENERAL CONTRACTING, INC.

DATE:
MARCH 3, 2022
PER 9th EDITION BUILDING CODE

REVISIONS:

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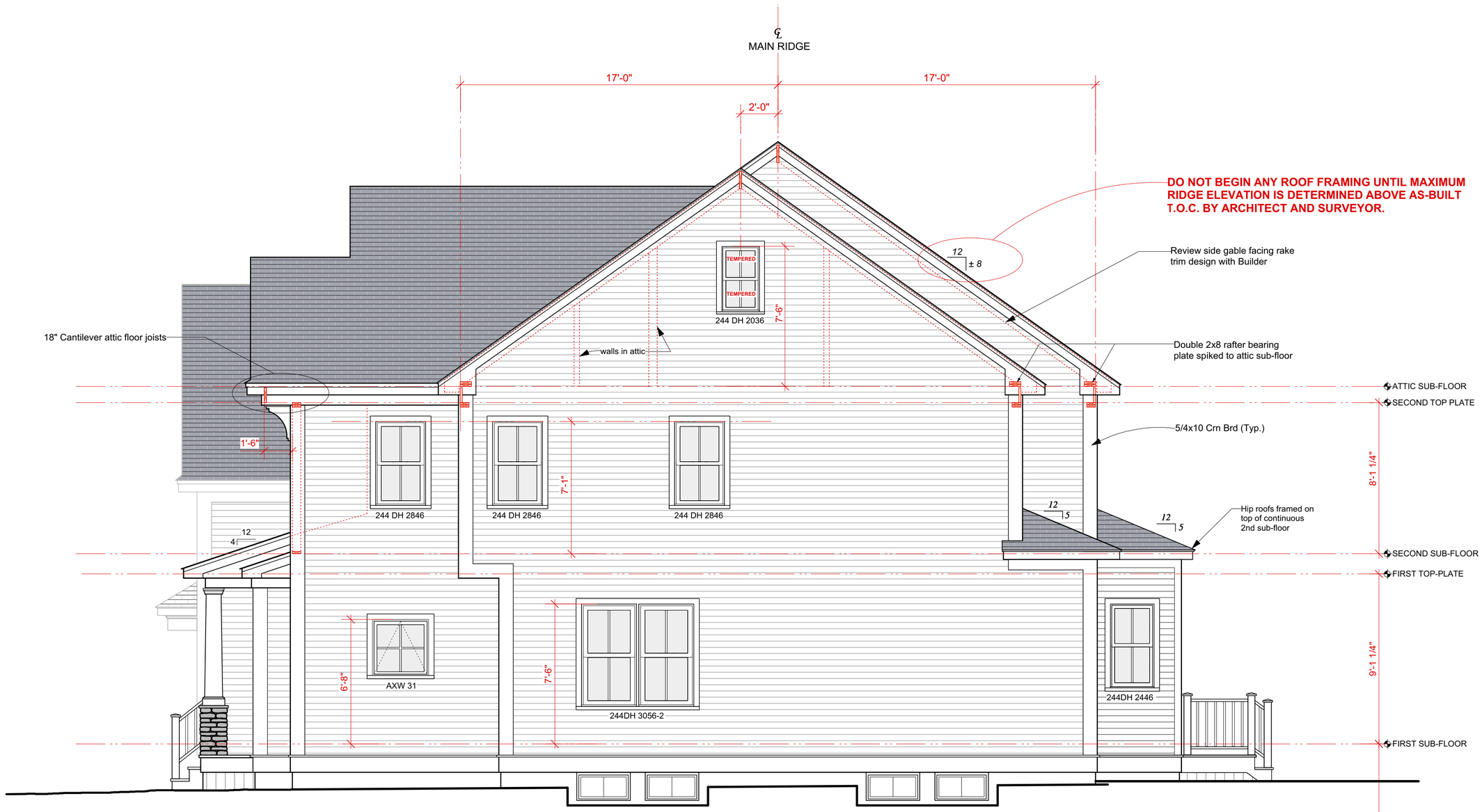
REGISTRATION:

REGISTERED ARCHITECT
RALPH D. KILFOYLE
No. 20379
BOSTON
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
LEFT ELEVATION

SHEET NUMBER:
A-7



RIGHT SIDE ELEVATION

HOUSE # 04

R D K
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825 BEACON ST SUITE # 10
NEWTON CENTRE, MA 02459
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REGISTERED ARCHITECT
RALPH D. KILFOYLE
No. 20379
BOSTON
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
RIGHT ELEVATION

SHEET NUMBER:
A-8

REAR ELEVATION

HOUSE # 04

R D K
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PHONE: 617-571-0645
RALPHK@RDKARCHITECTS.COM
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REGISTRATION:

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
REAR ELEVATION

SHEET NUMBER:
A-9

C: House #05

HOUSE #05

HOUSE #05

HOUSE #05

Large House Study - FAR Rules/Tests

House 5

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	10,045	SF	
Lot Coverage	2,451	SF	24.4%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,450	-	1,450
1	1,756	497	1,259
2	1,943	-	1,943
3	330	-	330
Total	5,479	497	4,982
TLAG	4,029	Real Estate Ad=	5,500 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,451	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.4%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	31.9%	3,202	5,597
FAR (Flr 1,2,3 Exclude Garage)	38%	35.2%	3,532	5,267
FAR (Flr 1,2,3,B Exclude Garage	38%	49.6%	4,982	3,817
FAR (Flr 1,2,3,+ Garage on 1)	38%	40.1%	4,029	5,267
FAR (Flr 1,2 + any Garage)	38%	36.8%	3,699	5,597

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessor"s Map & Parcel Nunber: 2 LOT 62

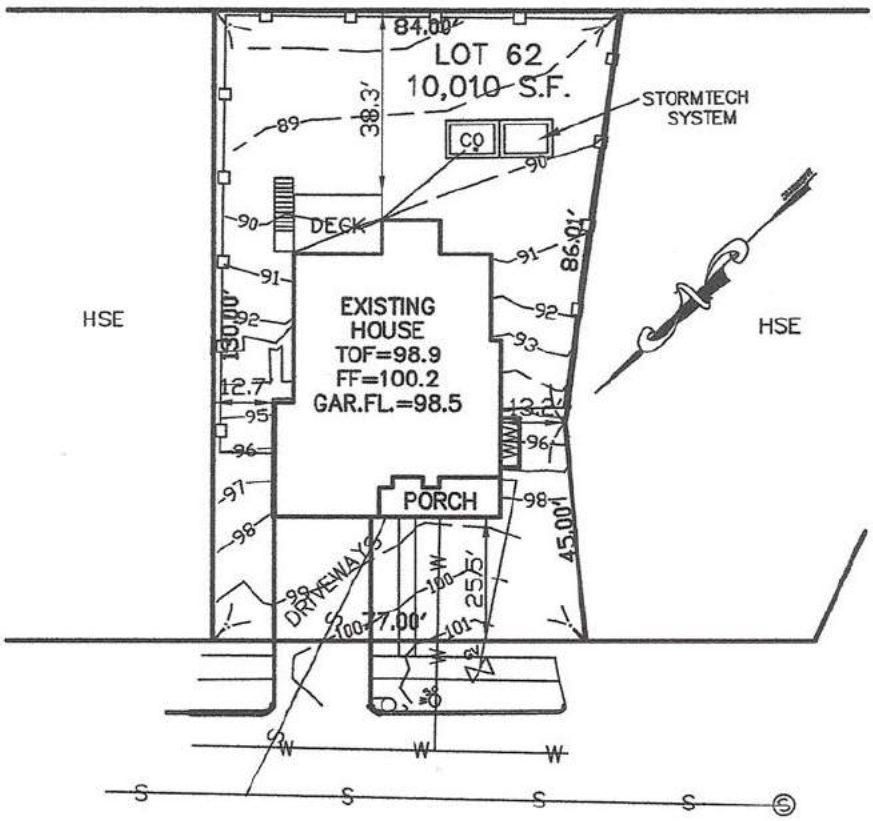
Building Permit No. _____ Zoning District: SRB

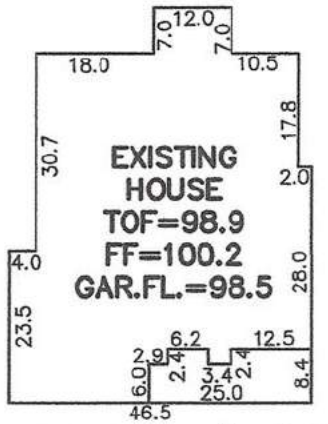
Lot Area 10,010 S.F Address: _____

Owner _____ Builder: _____

DEMO/PROPOSED PLOT PLAN/FOUNDATION AS-BUILT/FINAL AS-BUILT

40' Scale





SCALE: 1"=30'

LOT COVERAGE=24.4%

HEIGHT OF DWELLING 34.8' FROM AVERAGE GRADE TO THE RIDGE OF ROOF

TOTAL PERIMETER OF BASEMENT–215.4 L.F.
119 L.F. OF BASEMENT INSIDE GROUND
96.4 L.F. OF BASEMENT OPEN (45.4%)

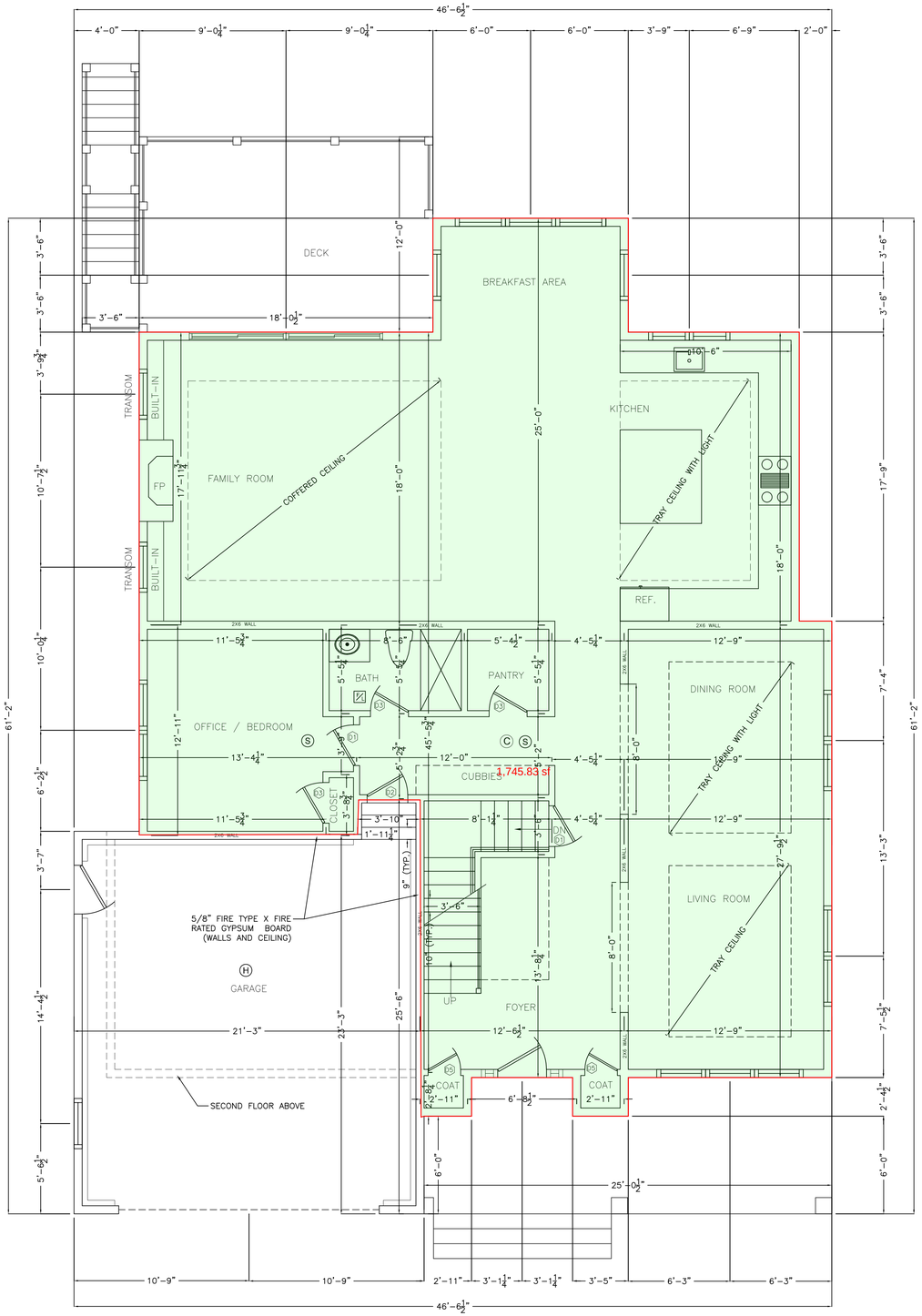
COMMONWEALTH OF MASSACHUSETTS
A. MATTHEW BELSKI, JR.
No. 37557
PROFESSIONAL LAND SURVEYOR

11/27/22

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the town of Needham. All plot plans shall show existing structures and public utilities, including water mains, sewers, drains, gaslines, etc.; driveways, Flood Plain and Wetland Areas, lot dimensions, dimensions of proposed structures, sideline offsets and setback distances, (allowing for overhangs) and elevation of top of foundations and garage floor. For new construction, elevation of lot corners at streetline and existing and approved street grades shall be shown for grading along lot line bordering streetline. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location in unsewered area.
(*Accessory structures may require a separate building permit — See Building Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this 21 day of NOVEMBER 20 22 .
Name A. MATTHEW BELSKI, JR. Registered Land
Address 35 MAPLE ST. City W. NEWBURY State MA Zip
Approved _____ Director of Public
Approved _____ Building Inspector

HOUSE # 05



FIRST FLOOR PLAN

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO MASSACHUSETTS BUILDING CODE AND ALL FEDERAL, STATE AND TOWN OF NEEDHAM LAWS, CODES AND REGULATIONS AS EACH MAY APPLY.

2. ALL EXISTING CONDITIONS MUST BE VERIFIED IN FIELD. IF DISCREPANCIES ARE FOUND, THEY HAVE TO BE REPORTED TO THE ENGINEER PRIOR TO START OF WORK. OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF SUCH WORK.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SCHEDULING AND WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED PRIOR TO PROCEEDING WITH THE WORK.

4. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, INCLUDING BUT NOT LIMITED TO BRACING AND SHORING.

5. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

6. ALL WORK SHALL BE PERFORMED IN A FIRST CLASS AND WORKMANLIKE MANNER IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS, AND SHALL BE IN GOOD USABLE CONDITION AT THE COMPLETION OF THE PROJECT.

7. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS AND STRUCTURE PLACEMENT, PRIOR TO START OF THE WORK. THE CONTRACTOR WILL OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID DAMAGE TO SAME. ANY DAMAGE TO EXISTING STRUCTURES AND UTILITIES, WHETHER SHOWN OR NOT ON THE DRAWINGS, SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

8. PRIOR TO BIDDING THE WORK THE CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS AND QUANTITIES, IF ANY. NO CLAIM AGAINST THE OWNER OR ENGINEER WILL BE ALLOWED FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OR RELATIVE.

9. CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND RELOCATION WORKS, IF ANY.

PROPOSED GFA (GROSS FLOOR AREA) CALCULATION:

ZONING DISTRICT: SR-B
LOT AREA 9,784 SF

ALLOWABLE FAR: 0.38

ALLOWABLE FLOOR AREA: 3,717.92 SF

PROPOSED FLOOR AREA OF THE BUILDING:

1. 1ST FLOOR: 1,756 SF (NOT INCLUDING GARAGE 497 SF)

2. 2ND FLOOR: 1,943 SF

3. BASEMENT: NA

TOTAL PROPOSED FLOOR AREA OF THE BUILDING:
1,756 (1ST FL.) + 1,943 (2ND FL.) = 3,699 SF

3,699 SF < 3,717.92 SF

NOTES:

1. ALL EXTERIOR WALLS ARE 2"x6" @ 16" O.C. UNLESS NOTED OTHERWISE.

2. ALL INTERIOR WALLS ARE 2"x4" @ 16" O.C. UNLESS NOTED OTHERWISE.

3. INTERIOR (DEMISING) WALL BETWEEN THE GARAGE AND THE BUILDING IS 2"x6" @ 16" O.C.

4. DIMENSIONS TO THE OUTSIDE (PERIMETER) WALLS ARE TO FACE OF STUDS OR EXTERIOR FACE OF THE FOUNDATION WALL.

5. INTERIOR DIMENSIONS SHOWN BETWEEN CENTERS OF THE INTERIOR WALLS.

INTERIOR DOORS SCHEDULE:

(D1) 2'-6" X 8'-0"
(D2) 2'-6" X 8'-0" FIRE RATED, 20M MIN
(D3) 2'-4" x 8'-0"
(D4) 4'-0" x 8'-0"
(D5) 2'-0" x 8'-0"
(D6) 3'-0" x 6'-8" UTILITY ROOM
(D7) 2'-8" x 6'-8"

FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

NOTE:
ALL FIRST FLOOR DOORS ARE 8' HEIGHT.
ALL SECOND FLOOR DOORS ARE 7' HEIGHT.
ALL BASEMENT DOORS ARE 7' HEIGHT.

(S) PHOTO ELECTRIC HARD WIRED SMOKE DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE

(C) CARBON MONOXIDE DETECTOR

(H) HARD WIRED HEAT DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

NOTES:
ALL EXTERIOR WALLS ARE 2"x6" @ 16" O.C.
ALL INTERIOR WALLA ARE 2"x4" @ 16" O.C.

DATE	REVISION

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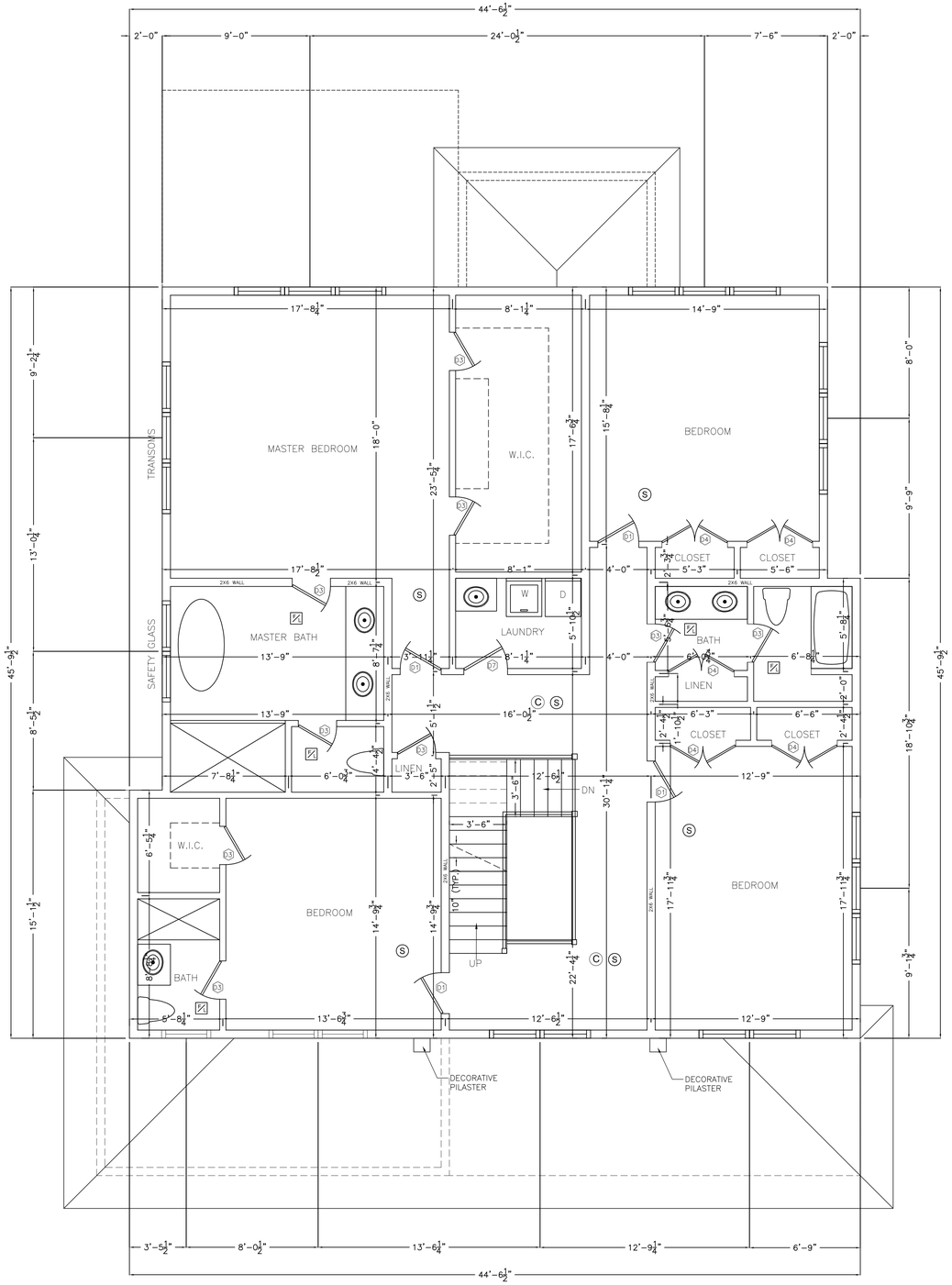
FIRST FLOOR PLAN

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

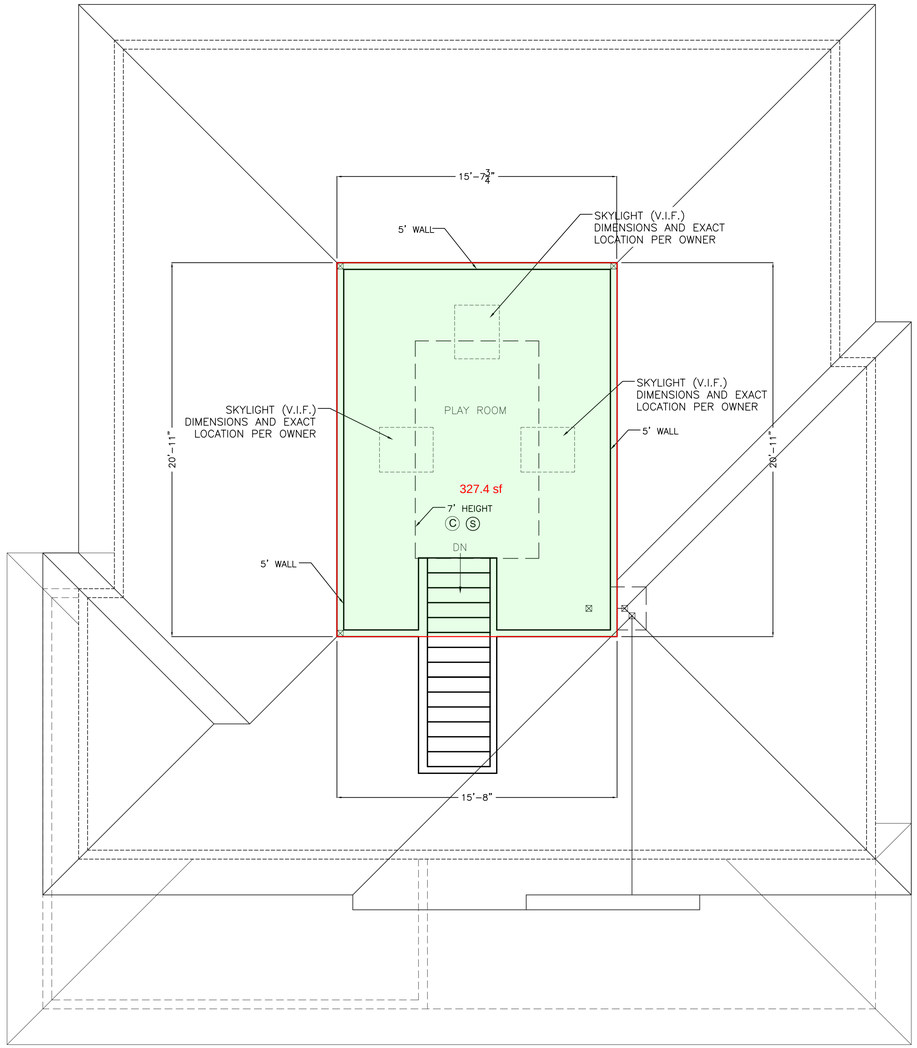
COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VAN
NO. 22264
REGISTERED PROFESSIONAL ENGINEER

HOUSE # 05

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 02/03/2022	DRAWN BY: I.K.	A-1
	CHECKED BY: R.A.V.	



SECOND FLOOR PLAN



ATTIC PLAN

INTERIOR DOORS SCHEDULE:

- (D1) 2'-6" X 8'-0"
- (D2) 2'-6" X 8'-0" FIRE RATED, 20M MIN
- (D3) 2'-4" X 8'-0"
- (D4) 4'-0" X 8'-0"
- (D5) 2'-0" X 8'-0"
- (D6) 3'-0" X 6'-8" UTILITY ROOM
- (D7) 2'-8" X 6'-8"

FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

NOTE:
ALL FIRST FLOOR DOORS ARE 8' HEIGHT.
ALL SECOND FLOOR DOORS ARE 7' HEIGHT.
ALL BASEMENT DOORS ARE 7' HEIGHT.

- (S) PHOTO ELECTRIC HARD WIRED SMOKE DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES
- FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE
- (C) CARBON MONOXIDE DETECTOR
- (H) HARD WIRED HEAT DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VISNAK
NO. 22201
REGISTERED PROFESSIONAL ENGINEER

DATE	REVISION

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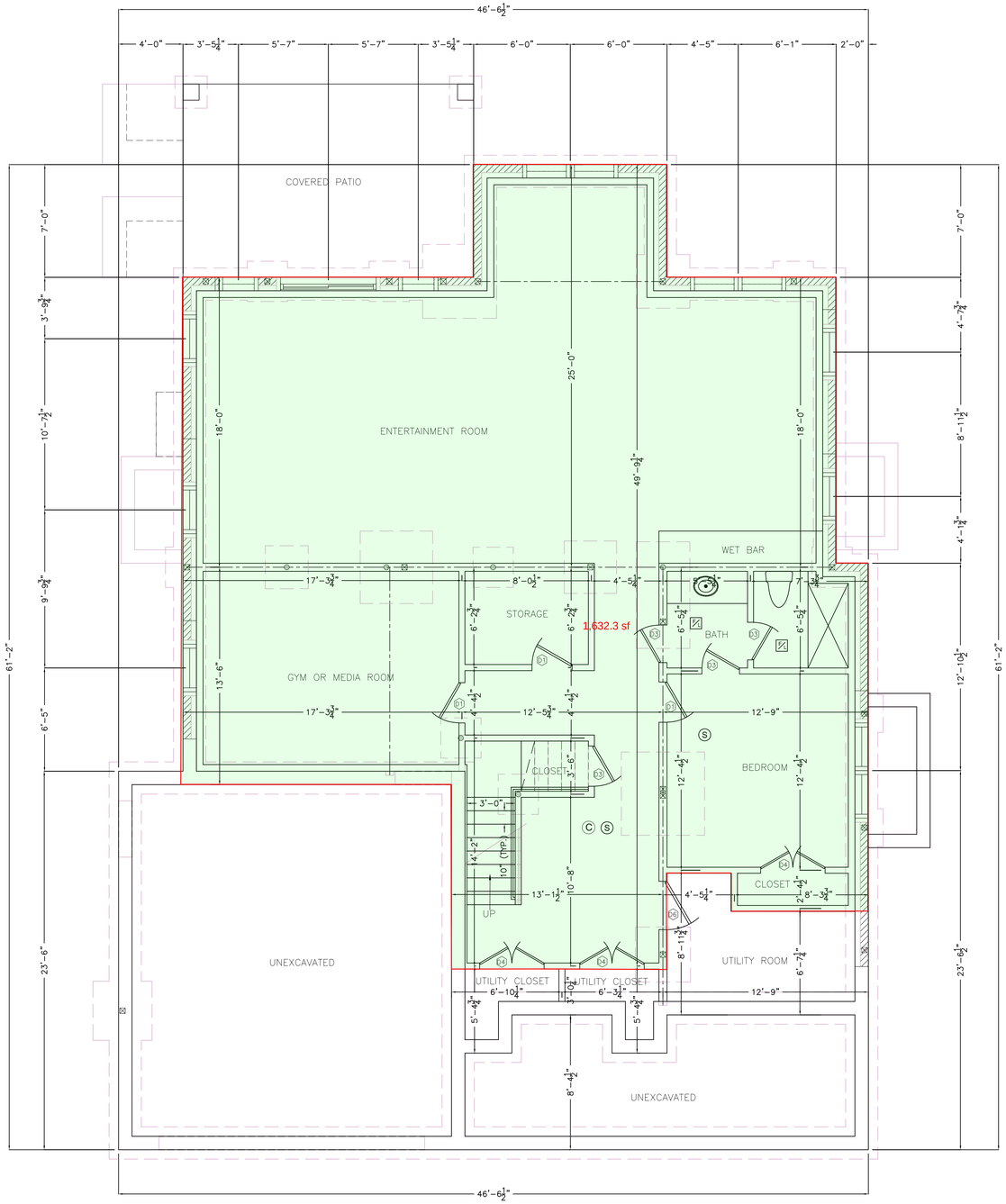
SECOND FLOOR AND ATTIC PLANS

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
	DRAWN BY: I.K.	A-2
DATE: 02/03/2022	CHECKED BY: R.A.V.	



BASEMENT PLAN

INTERIOR DOORS SCHEDULE:

(D1) 2'-6" X 8'-0"
(D2) 2'-6" X 8'-0" FIRE RATED, 20M MIN
(D3) 2'-4" x 8'-0"
(D4) 4'-0" x 8'-0"
(D5) 2'-0" x 8'-0"
(D6) 3'-0" x 6'-8" UTILITY ROOM
(D7) 2'-8" x 6'-8"

FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

NOTE:
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ALL BASEMENT DOORS ARE 7' HEIGHT.

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NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VOLPE
NO. 22201
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"

APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
	DRAWN BY: I.K.	A-3
DATE: 02/03/2022	CHECKED BY: R.A.V.	

EXTERIOR DOORS AND WINDOWS SCHEDULE				
100–SERIES CASEMENT WINDOWS BY ANDERSEN WITH LOW–E INSULATING GLASS, UNLESS NOTED OTHERWISE				
No.	UNIT DIMENSIONS	MODEL		REMARKS
1	3'–0" x 8'–0"	CUSTOM		ENTRY DOOR
2	1'–0" x 8'–0"	CUSTOM		SIDELIGHTS
3	16'–0" x 8'–0"	CUSTOM		GARAGE DOOR
4	2'–11 5/8" x 6'–0 7/8"	WDH210510	*	
5	2'–11 5/8" x 5'–0 7/8"	WDH210410	*	
5A	2'–11 5/8" x 5'–0 7/8"	WDH210410	*	SAFETY GLASS
6	8'–0" x 3'–0"	CUSTOM		SIDE GARAGE DOOR
7	2'–11 5/8" x 1'–0"	WTR21010		TRANSOM
8	2'–11 5/8" x 1'–7 5/16"	WTR21015		TRANSOM
9	2'–5 5/8" x 4'–0 7/8"	WDH210410		
10	2'–5 5/8" x 5'–0 7/8"	WDH24410		
11	5'–11 1/4" x 6'–10 3/8"	FWG60611		BASEMENT SLIDING DOOR
12	11'–10 1/4" x 8'–0"	GP1180		SLIDING DOOR / E SERIES
13	2'–0" x 3'–0"	CUSTOM		BASEMENT WINDOW

* EGRESS WINDOW MEETS OR EXCEEDS CLEAR OPENING OF 5.7 SF, CLEAR WIDTH 20" AND CLEAR HEIGHT 24"

NOTES:

CONTRACTOR MUST VERIFY ALL SIZES AND ROUGH OPENINGS PRIOR TO ORDERING WINDOWS.
CONTACT WINDOW MANUFACTURER FOR DETAILS. CONTACT THE OWNER FOR FINAL SELECTION OF DOORS AND WINDOWS PRIOR TO ORDERING AND PRIOR TO FRAMING DOOR AND WINDOW OPENINGS.
VERIFY CLEAR OPENINGS IN ALL BEDROOMS. MINIMUM CLEAR OPENING MUST BE 20 IN (W) x 24 IN (H) AND HAVE MINIMUM OF 5.7 S.F. OF CLEAR OPEN AREA FOR ANY WINDOW EXCEPT OF DOUBLE HUNG WINDOW (3.3 S.F. OF CLEAR OPEN AREA FOR DOUBLE HUNG WINDOW).
VERIFY LOCATIONS OF SAFETY GLASS WINDOWS AND DOORS PRIOR TO ORDERING WINDOWS AND DOORS.

SPECIFIC LOCATIONS:
1. GLAZING IN INGRESS AND MEANS OF EGRESS DOORS;
2. GLAZING IN FIXED AND SLIDING PANELS OF SLIDING DOORS AND SWINGING DOORS;
3. GLAZING IN STORM DOORS;
4. GLAZING IN UNFRAMED SWINGING DOORS;
5. GLAZING IN DOORS AND ENCLOSURES FOR BATHTUBS, STEAM ROOMS AND SHOWERS. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING THESE COMPONENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE.
6. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24–INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.
7. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL WHICH MEETS THE FOLLOWING CONDITIONS:
   a) EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 S.F.;
   b) EXPOSED BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR;
   c) EXPOSED TOP EDGE GREATER THAN 36" ABOVE THE FLOOR;
   d) ONE OR MORE WALKING SURFACES WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.

FRONT ELEVATION

REAR ELEVATION

DATE	REVISION

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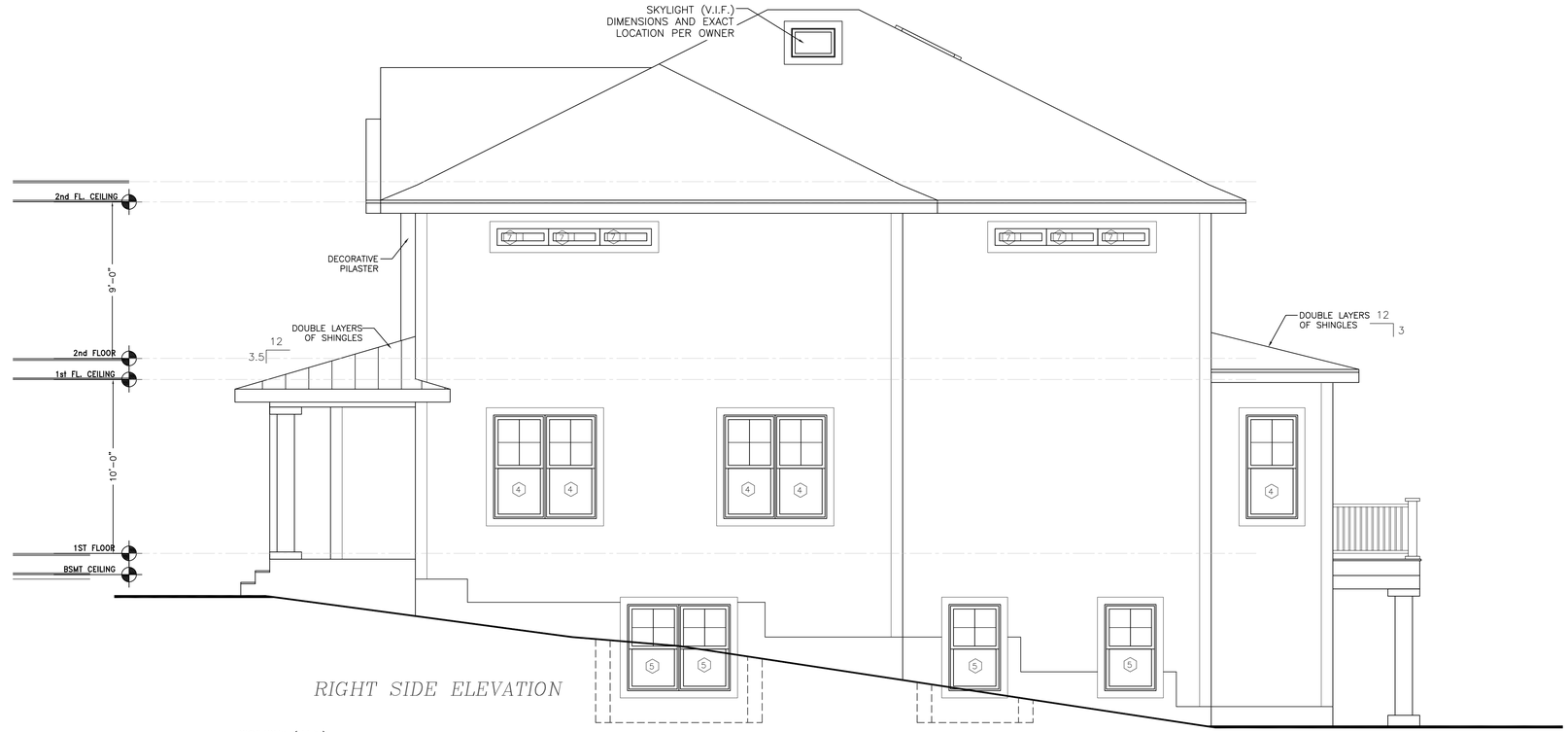
FRONT AND REAR ELEVATIONS

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VISNAW
No. 22760
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'–0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
	DRAWN BY: I.K.	A–4
DATE: 02/03/2022	CHECKED BY: R.A.V.	



RIGHT SIDE ELEVATION

LEFT SIDE ELEVATION

DATE	REVISION

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SIDE ELEVATIONS

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

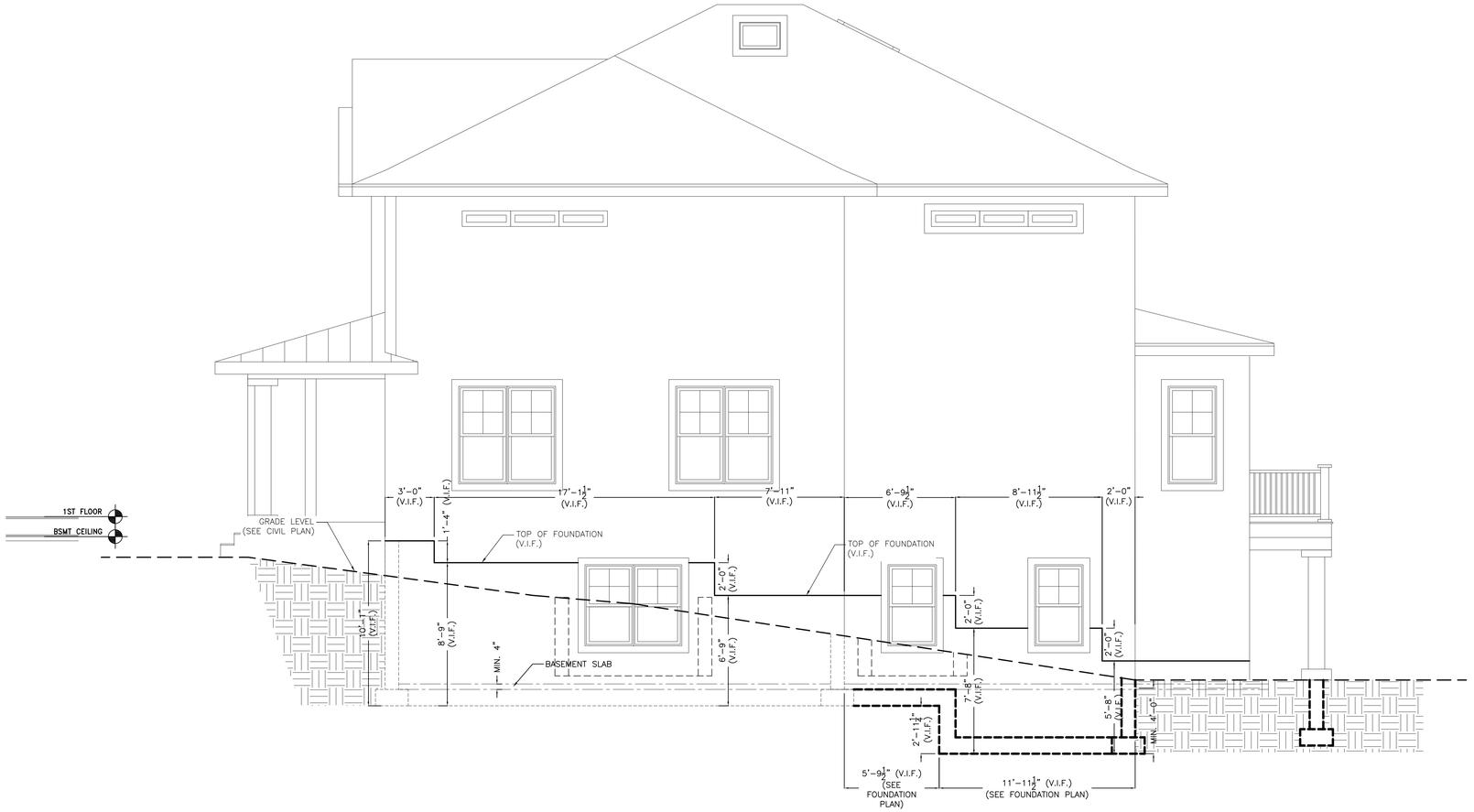
COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VOLPE
NO. 22201
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"

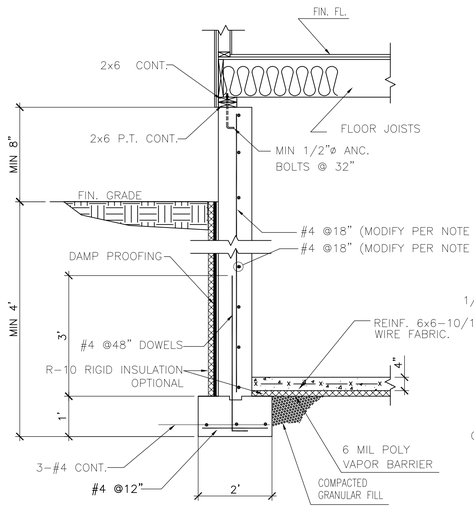
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 02/03/2022	DRAWN BY: I.K.	A-5
	CHECKED BY: R.A.V.	

MINIMUM VERTICAL REINFORCEMENT FOR 10-INCH NOMINAL FLAT CONCRETE BASEMENT WALLS				
MAXIMUM UNSUPPORTED WALL HEIGHT FT	MAXIMUM UNBALANCED BACKFILL FT	MINIMUM VERTICAL REINFORCEMENT – BAR SIZE IN SPACING (INCHES)		
		SOIL CLASSES AND DESIGN LATERAL SOIL (PSF PER FOOT OF DEPTH)		
		GW, GP, SW, SP 30	GM, GC, SM, SM-SC, ML 45	SC, ML-CL, INORGANIC CL 60
8	4	NR	NR	NR
	5	NR	NR	NR
	6	NR	NR	NR
	7	NR	NR	NR
	8	6@48	6@35	6@28
9	4	NR	NR	NR
	5	NR	NR	NR
	6	NR	NR	NR
	7	NR	NR	NR
	8	NR	NR	6@31
	9	6@37	6@28	6@24
10	4	NR	NR	NR
	5	NR	NR	NR
	6	NR	NR	NR
	7	NR	NR	6@28
	8	NR	6@28	6@24
	9	6@33	6@28	6@21
	10	6@28	6@23	6@17

MINIMUM HORIZONTAL REINFORCEMENT FOR CONCRETE BASEMENT WALLS	
MAXIMUM UNSUPPORTED WALL HEIGHT FT	LOCATION OF HORIZONTAL REINFORCEMENT
≤8	ONE #4 BAR WITHIN 12 INCHES OF THE TOP OF THE WALL STORY AND ONE #4 BAR NEAR MID-HEIGHT OF THE WALL STORY
>8	ONE #4 BAR WITHIN 12 INCHES OF THE TOP OF THE WALL STORY AND ONE #4 BAR NEAR THIRD POINTS OF THE WALL STORY

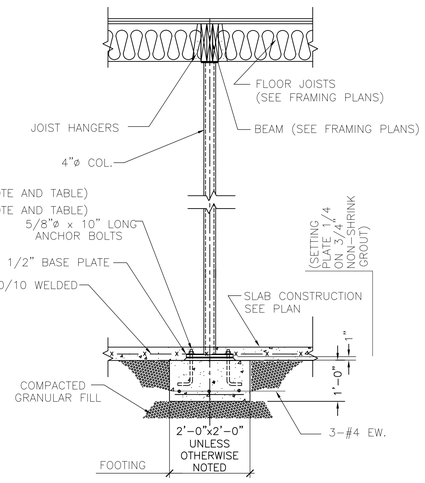


RIGHT SIDE ELEVATION FOUNDATION PROFILE



TYPICAL FOUNDATION DETAIL

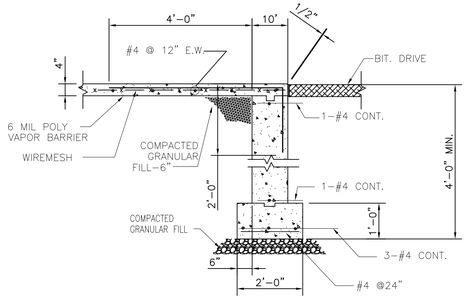
SCALE: NTS



TYPICAL COLUMN FOUNDATION DETAIL

SCALE: NTS

NOTE:
REFER TO IRC 2015;
TABLES R404.1.2(4), AND R404.1.2(9) FOR VERTICAL REINFORCEMENT REQUIREMENT; AND
TABLES R404.1.2(1) FOR HORIZONTAL REINFORCEMENT REQUIREMENTS)



TYPICAL GARAGE OPENING FOUNDATION DETAIL

SCALE: NTS

DATE	REVISION

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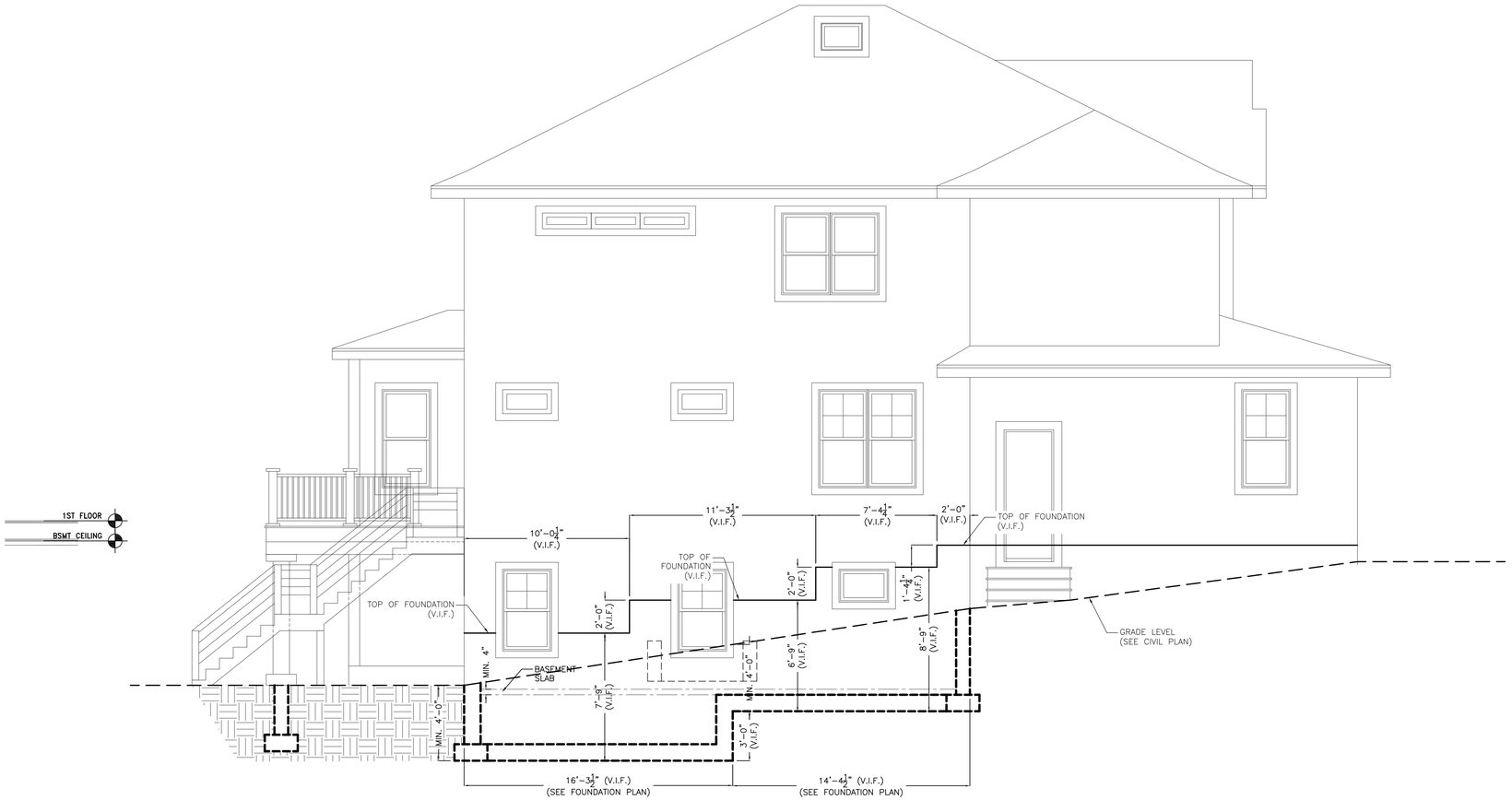
FOUNDATION PROFILE AND DETAILS

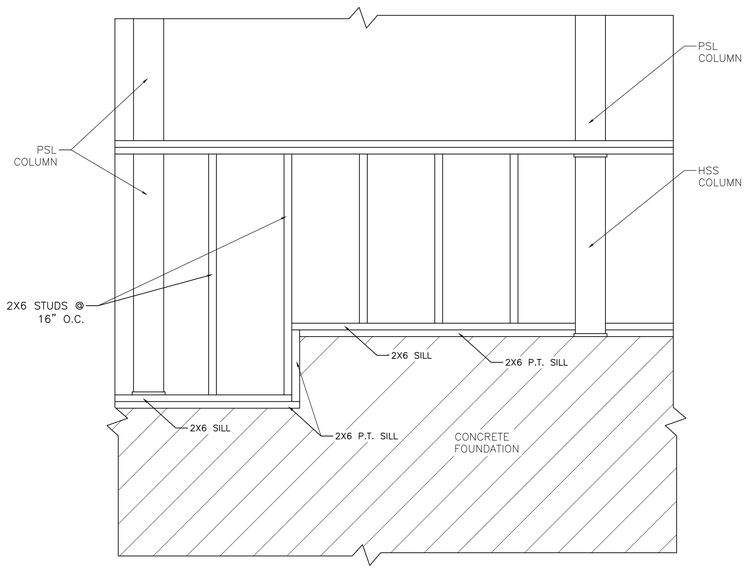
RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS — RICHARD V. NAY — No. 22760 — REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
	DRAWN BY: I.K.	S-2
DATE: 02/03/2022	CHECKED BY: R.A.V.	



LEFT SIDE ELEVATION FOUNDATION PROFILE



DROPPED FOUNDATION DETAIL

SCALE: NTS

DATE	REVISION

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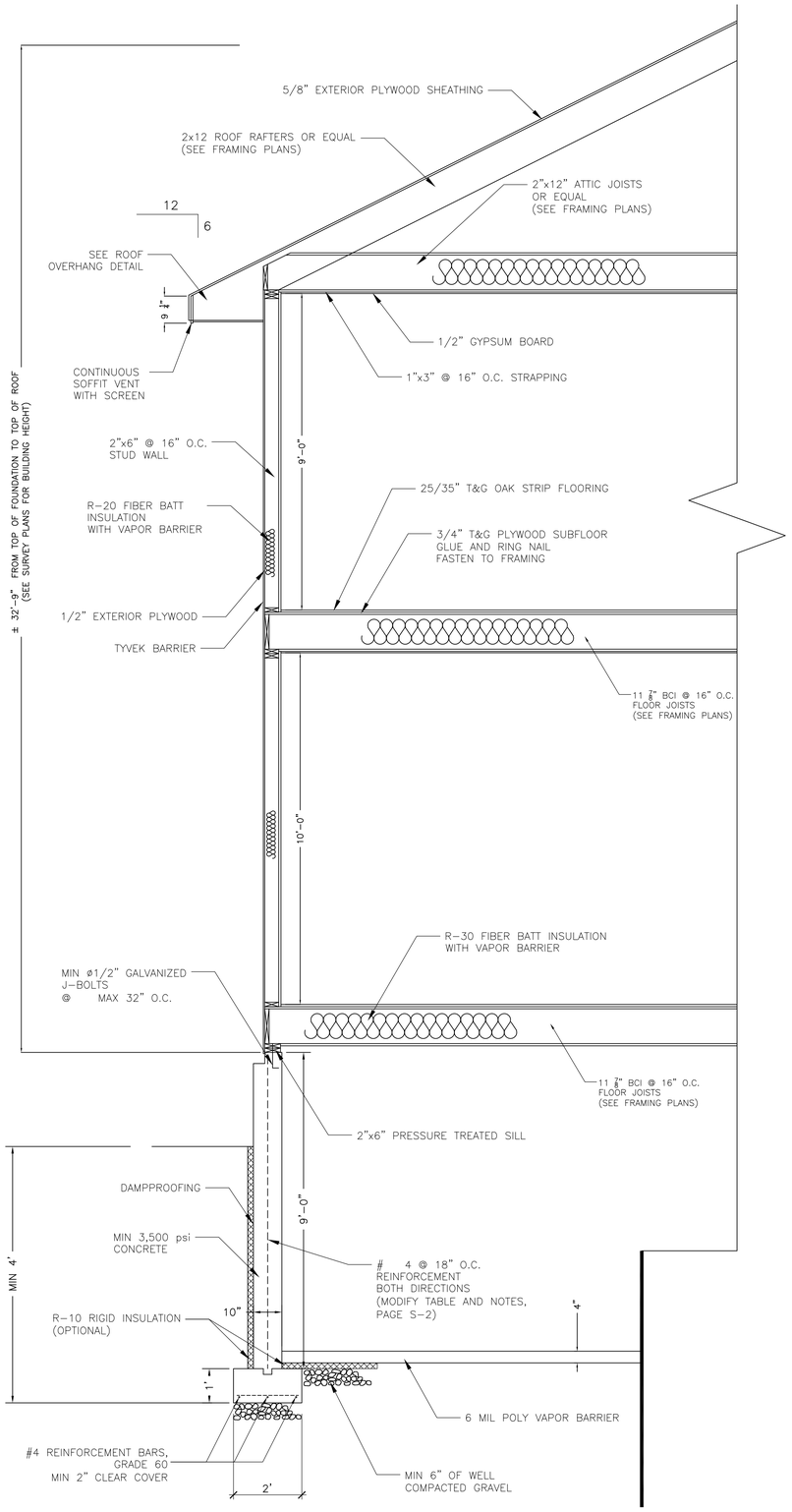
FOUNDATION PROFILE AND DETAILS

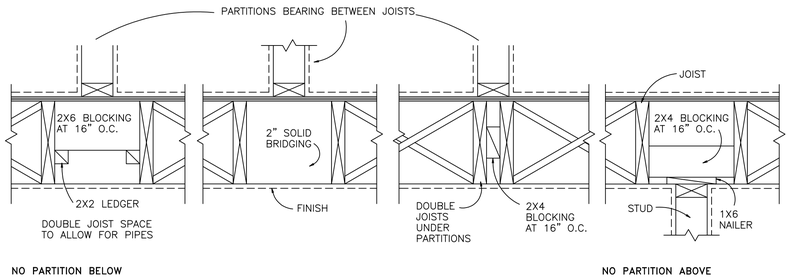
RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS — RICHARD A. VOLPE — NO. 22201 — REGISTERED PROFESSIONAL ENGINEER

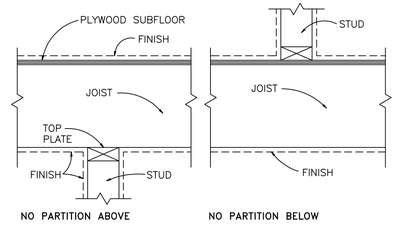
SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 02/03/2022	DRAWN BY: I.K.	S-3
	CHECKED BY: R.A.V.	



TYPICAL CROSS SECTION
THROUGH THE WALL
SCALE: 1/2"=1'

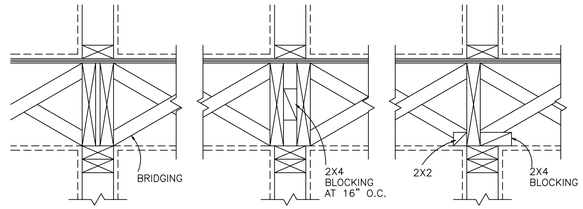


PARTITIONS PARALLEL TO JOISTS

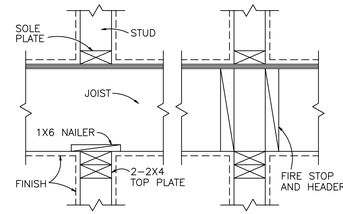


PARTITIONS PERPENDICULAR TO JOISTS

NONBEARING INTERIOR PARTITIONS TYPICAL DETAILS

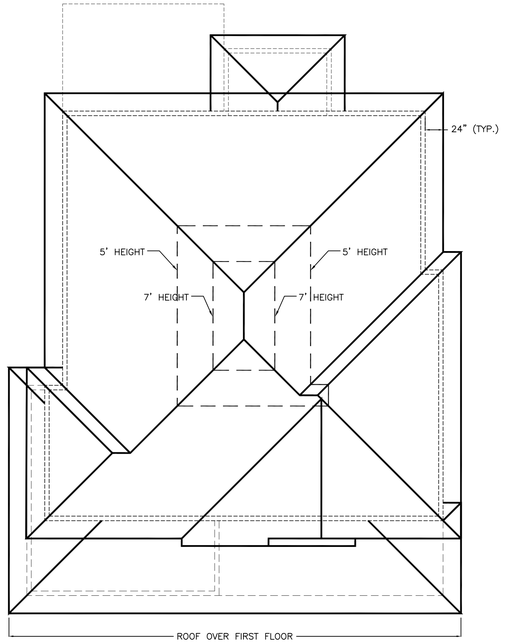


PARTITIONS PARALLEL TO JOISTS



PARTITIONS PERPENDICULAR TO JOISTS

BEARING INTERIOR PARTITIONS TYPICAL DETAILS



ROOF PLAN
SCALE: 1/2"=1'

DATE	REVISION

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CROSS SECTIONS AND DETAILS

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS
RICHARD V. SILVAN
No. 22760
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
	DRAWN BY: I.K.	S-8
DATE: 02/03/2022	CHECKED BY: R.A.V.	

C: House #06

HOUSE #06

HOUSE #06

HOUSE #06

HOUSE #06

Large House Study - FAR Rules/Tests

House 6

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	10,149	SF	
Lot Coverage	2,304	SF	22.7%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,709	-	1,709	
1	2,317	587	1,730	
2	1,900	-	1,900	
3	753	-	753	
Total	6,679	587	6,092	
TLAG	4,970	Real Estate Ad=	6,092	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,304	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	22.7%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	35.8%	3,630	6,319
FAR (Flr 1,2,3 Exclude Garage)	38%	43.2%	4,383	5,566
FAR (Flr 1,2,3,B Exclude Garage	38%	60.0%	6,092	3,857
FAR (Flr 1,2,3,+ Garage on 1)	38%	49.0%	4,970	5,566
FAR (Flr 1,2 + any Garage)	38%	41.6%	4,217	6,319

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessor's Map & Parcel Number: _____

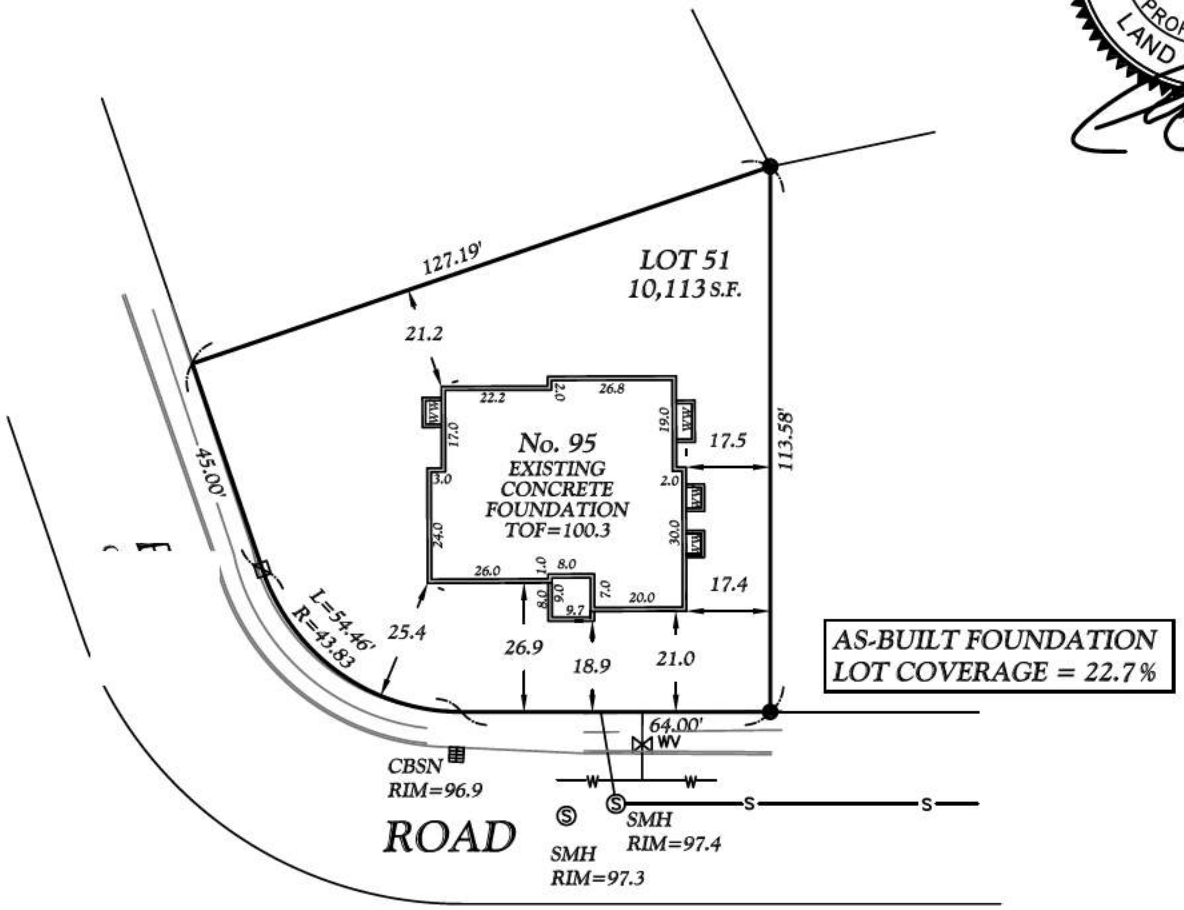
Building Permit Number: _____ Zoning District: *SRB*

Lot Area: *10,113 S.F.* Address: _____

Owner: _____ Builder: _____

FOUNDATION AS-BUILT PLOT PLAN

40' Scale



Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gaslines, etc.; driveways, septic systems, wells, Flood Plain and Wetland Areas, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances, (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations proposed grading and drainage of recharge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location in areas with no public sewer.
(*Accessory structures may require a separate building permit — See Building Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this *8 th* day of *OCTOBER* 20 *24* .
Name *CHRISTOPHER C. CHARLTON* Registered Land Surveyor No. *48649* L
Address *105 BEAVER STREET* City *FRANKLIN* State *MA* Zip *020*
Approved _____ Director of Public Wor
Approved _____ Building Inspector

HOUSE # 06

PROJECT IMAGE

DRAWING INDEX

DRAWING INDEX

SHEET NO.	SHEET NAME	ISSUE DATE	REV. DATE
G-0.0	TITLE SHEET, PROJECT INFORMATION, CODE NOTES	06/27/2024	
G-1.0	GENERAL NOTES AND ABBREVIATIONS	06/27/2024	
G-2.0	TYPICAL THERMAL ENVELOPE DETAILS	06/27/2024	
G-3.0	ZONING AND CODE REGULATIONS	06/27/2024	
A-0.1	SURVEY	06/27/2024	
A-0.2	SITE PLAN	06/27/2024	
A-1.0	BASEMENT PLAN	06/27/2024	
A-1.1	FIRST FLOOR PLAN	06/27/2024	
A-1.2	SECOND FLOOR PLAN	06/27/2024	
A-1.3	HALF STORY AND DORMER PLANS	06/27/2024	
A-1.4	ROOF PLAN	06/27/2024	
A-5.0	EXTERIOR ELEVATIONS	06/27/2024	
A-5.1	EXTERIOR ELEVATIONS	06/27/2024	
A-6.0	BUILDING SECTION	06/27/2024	
A-6.1	BUILDING SECTION	06/27/2024	
A-6.2	BUILDING SECTION	06/27/2024	
A-6.3	BUILDING SECTION	06/27/2024	
A-8.0	DOOR AND WINDOW SCHEDULES	06/27/2024	
A-8.1	DOOR AND WINDOW SCHEDULES	06/27/2024	

CURRENT DRAWING ISSUE

PERMIT SET 06/27/2024

LOCATION MAP

PROJECT CONTACTS

CONTRACTOR

JOE AND EVAN WHITE
METRO CONSTRUCTION + DESIGN
568 SOUTH ST
NEEDHAM, MA, 02492

P. 617.974.3800
E. JOEWHITE3800@GMAIL.COM
ETW996@GMAIL.COM

ARCHITECT

HILLARY MATEEV
RUHL | JAHNES ARCHITECTS
281 MT AUBURN ST
WATERTOWN, MA 02472

P. 617.744.8722
E. @RUHLJAHNES.COM

STRUCTURAL

DAVID ABRAMO
18 JUNIPER DR
CLIFTON PARK, NY, 12065

P. 716.228.3595
E. DABRAMO3@GMAIL.COM

PROJECT INFO / CODE REFERENCE

DESCRIPTION: NEW CONSTRUCTION

ZONING USE GROUP: SINGLE RESIDENCE B

ZONING ORDINANCE: ZONING ORDINANCE, TOWN OF NEEDHAM

REFERENCE CODE: 2015 INTERNATIONAL RESIDENTIAL CODE

MASSACHUSETTS REGULATIONS
- 780 CMR. MASSACHUSETTS STATE BUILDING CODE, 9TH EDITION WITH AMENDMENTS TO 2015 IRC
- STRETCH ENERGY CODE ADOPTS IECC 2021 WITH MA AMENDMENTS AND STRETCH CODE AMENDMENTS

HOUSE # 06

RUHL | JAHNES

281 Mt. Auburn Street
Watertown, MA 02472
617.744.8722

www.ruhljahnes.com

NO.	REVISION	DATE

REGISTERED ARCHITECT
HILLARY G. MATEEV
No. 50173
CAMBRIDGE
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE	1" = 1'-0"
DRAWN BY	KM
ISSUED	06/27/2024

TITLE SHEET, PROJECT INFORMATION, CODE NOTES

G-0.0

PERMIT SET

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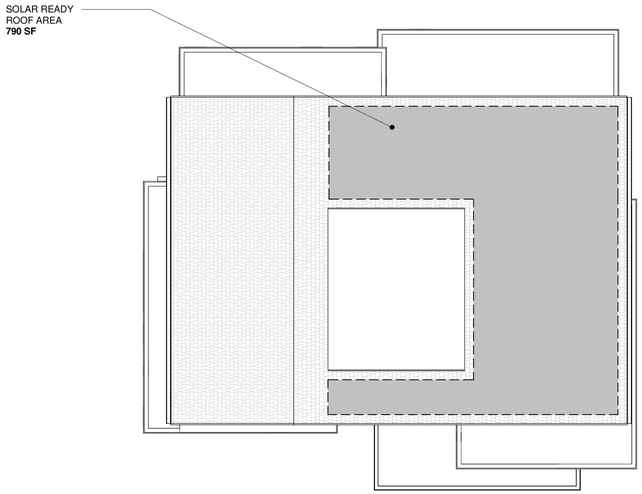
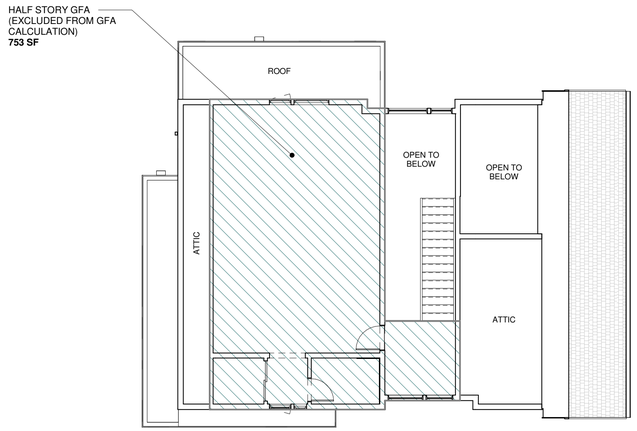


E ROOF ZONING PLAN
1/8" = 1'-0"



D HALF STORY ZONING PLAN
1/8" = 1'-0"

GENERAL NOTES - ZONING

1. REFER TO G-0.0 FOR FURTHER APPLICABLE CODE AND ZONING NOTES
2. FAR CALCULATIONS ARE BASED ON 2022 ZONING BY-LAW OF THE TOWN OF NEEDHAM, MASSACHUSETTS
3. ZONING DIMENSIONS AND REGULATIONS ARE BASED ON 2022 ZONING BY-LAW OF THE TOWN OF NEEDHAM, MASSACHUSETTS

LEGEND

PROPOSED GROSS FLOOR AREA

AREA EXCLUDED FROM GFA CALCULATION

OVERHEAD HABITABLE SPACE

SOLAR READY AREA

FAR CALCULATION

FAR: 0.38
LOT SIZE: 10,113 SF
0.38 x 10,113 SF = 3,843 SF ALLOWED

FIRST FLOOR:	1,730 SF
SECOND FLOOR:	1,900 SF
TOTAL:	**3,630 SF**

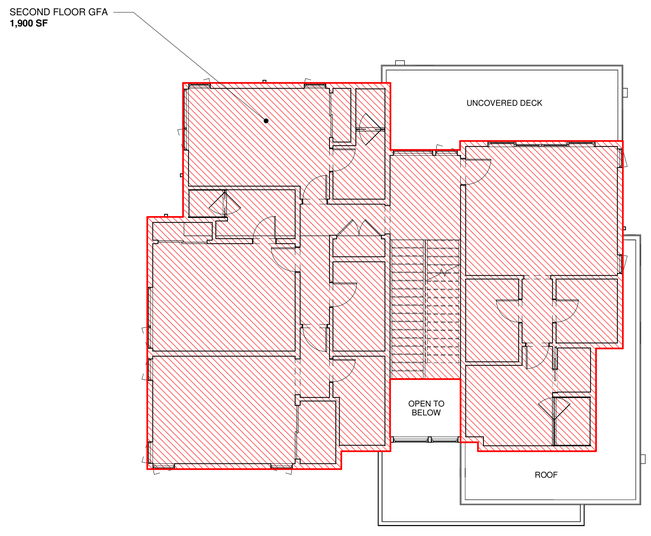
3,630 SF < 3,843 SF

BUILDING COVERAGE CALCULATION

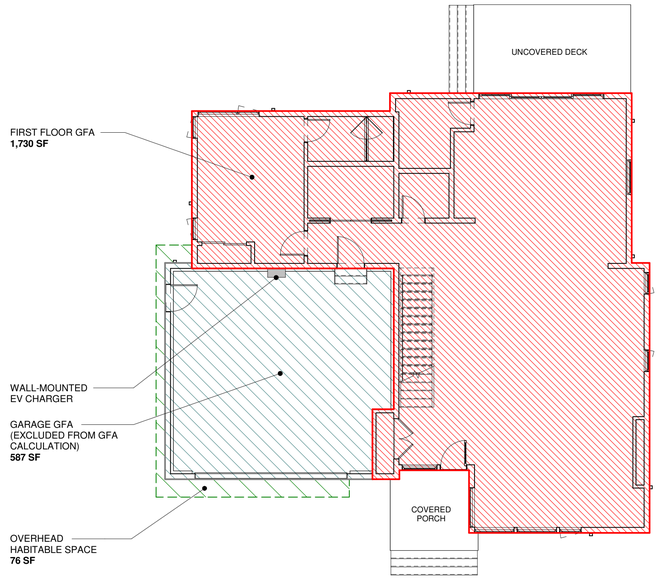
LOT COVERAGE: 0.25
LOT SIZE: 10,113 SF
0.25 x 10,113 SF = 2,529 SF ALLOWED

FIRST FLOOR:	1,730 SF
GARAGE:	587 SF
OVERHEAD HABITABLE SPACE:	76 SF
TOTAL:	**2,393 SF**

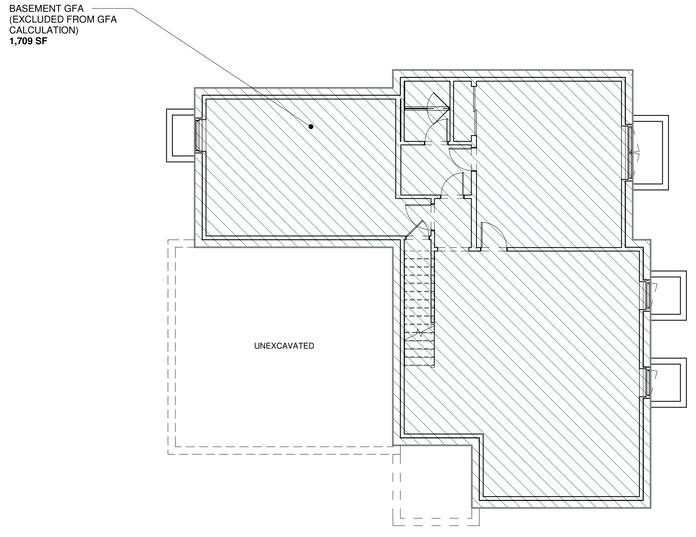
2,393 SF < 2,529 SF



C SECOND FLOOR ZONING PLAN
1/8" = 1'-0"



B FIRST FLOOR ZONING PLAN
1/8" = 1'-0"



A BASEMENT ZONING PLAN
1/8" = 1'-0"

HOUSE # 06

RUHL | JAHNES

281 Mt. Auburn Street
Watertown, MA 02472
617.744.8722

www.ruhljahnes.com

NO.	REVISION	DATE

REGISTERED ARCHITECT
HILLARY G. MATEER
No. 50173
CAMBRIDGE
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE	As indicated
DRAWN BY	KM
ISSUED	06/27/2024

ZONING AND CODE REGULATIONS

G-3.0

PERMIT SET

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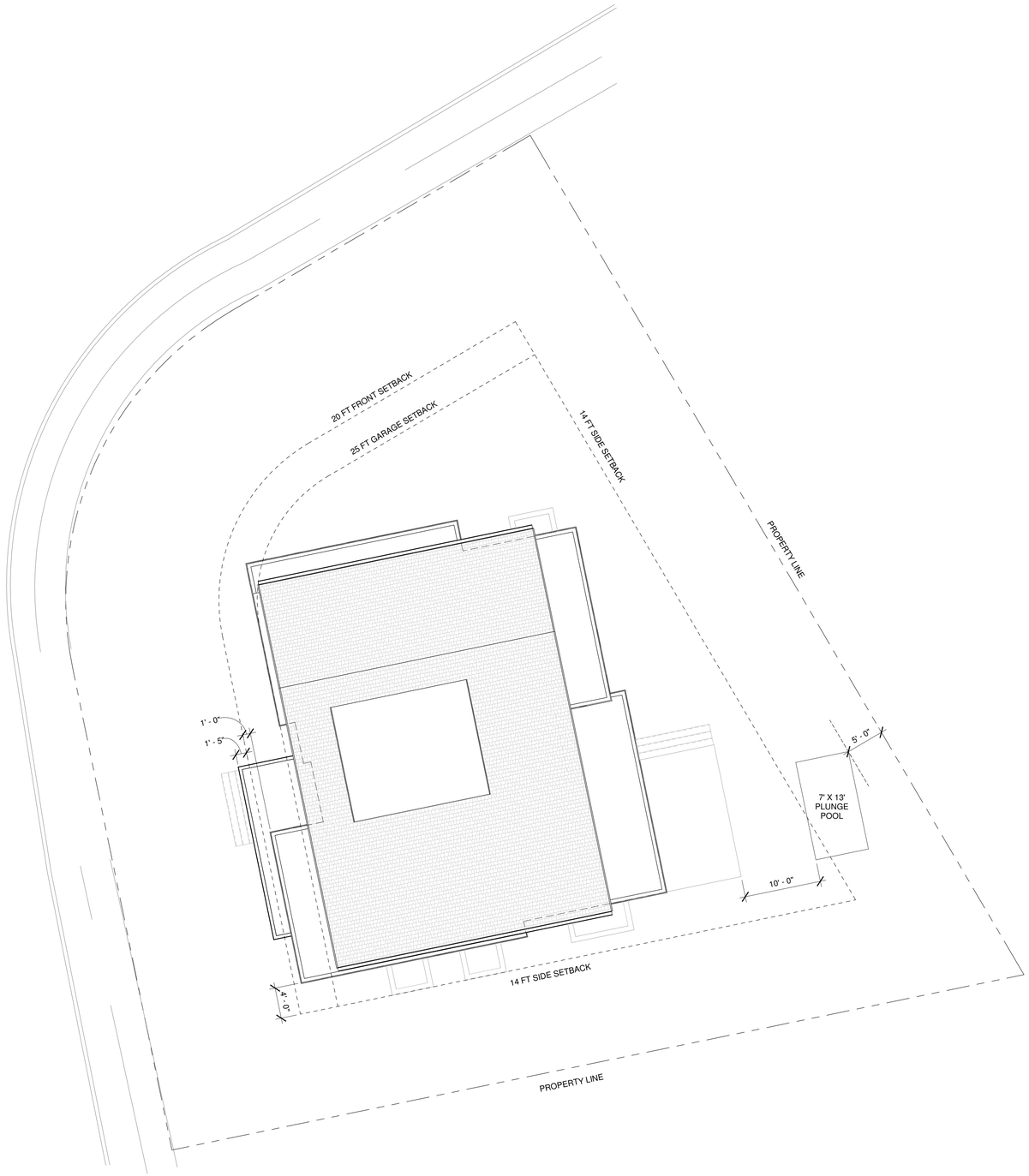

A SITE PLAN
1/8" = 1'-0"

N

HOUSE # 06

RUHL | JAHNES

281 Mt. Auburn Street
Watertown, MA 02472
617.744.8722

www.ruhljahnes.com

NO.	REVISION	DATE

REGISTERED ARCHITECT
HILLARY G. MATEER
No. 50173
CAMBRIDGE
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE	As indicated
DRAWN BY	KM
ISSUED	06/27/2024

SITE PLAN

A-0.2

PERMIT SET

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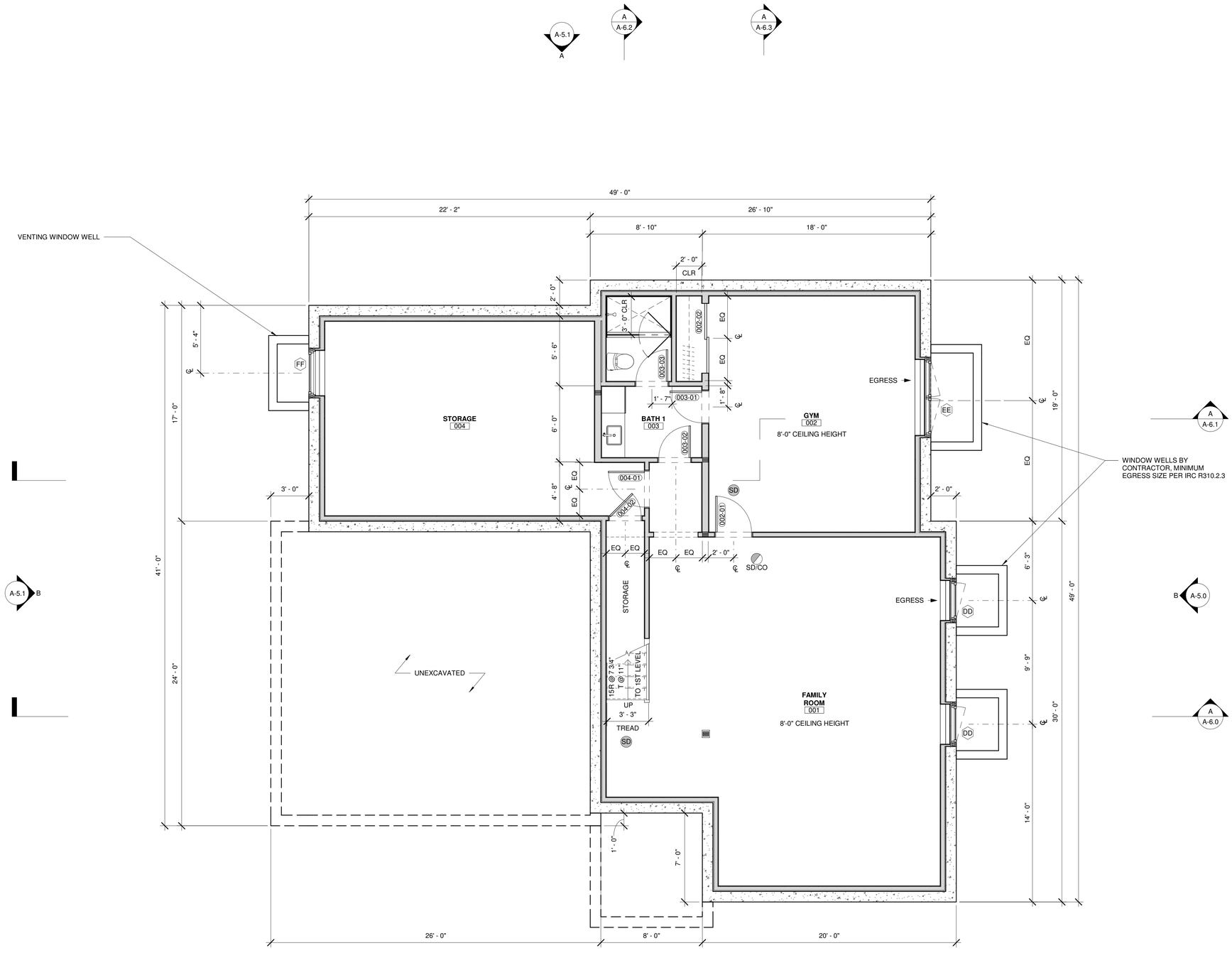

A BASEMENT PLAN
1/4" = 1'-0"

GENERAL NOTES - FLOOR PLAN

1. REFER TO G-1.0 FOR FURTHER ADDITIONAL DETAILED GENERAL NOTES
2. DIMENSIONS ARE TO FACE OF STRUCTURE INDICATED UNLESS NOTED OTHERWISE.
3. REFER TO STRUCTURAL DRAWINGS FOR FRAMING AND FOUNDATION INFORMATION.
4. ALL EXTERIOR AND PLUMBING WALLS FRAMED IN 2X6, ALL OTHER WALLS TO BE FRAMED IN 2X4 WOOD STUDS, OR EQUAL.
5. ELECTRICAL BY CONTRACTOR WITH ELECTRICAL ENGINEER.

LEGEND

SD	SMOKE DETECTOR (LOCATIONS T.B.D. W/ LOCAL FIRE MARSHALL) SMOKE DETECTORS REQUIRED: -IN ALL BEDROOMS -IN IMMEDIATE VICINITY OF ALL SLEEPING AREAS -FOR EVERY 12OO SF OF FLOOR AREA OR PART THEREOF ON EVERY FLOOR EXCLUDING CRAWL SPACES AND ATTICS -ANY DETECTOR WITHIN 20' OF KITCHEN OR BATH W/ SHOWER TO BE PHOTOELECTRIC
SD/CO	SMOKE AND CARBON MONOXIDE DETECTOR (LOCATIONS T.B.D. W/ LOCAL FIRE MARSHALL) CARBON MONOXIDE DETECTORS REQUIRED: -ON EVERY LEVEL OF THE HOME INCLUDING HABITABLE PORTIONS OF BASEMENT AND ATTIC -WITHIN TEN FEET OF ALL BEDROOM DOORS
HD	HEAT DETECTOR

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NO.	REVISION	DATE

REGISTERED ARCHITECT
HILLARY G. MATEER
No. 50173
CAMBRIDGE
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE	As indicated
DRAWN BY	KM
ISSUED	06/27/2024

BASEMENT PLAN

A-1.0

PERMIT SET

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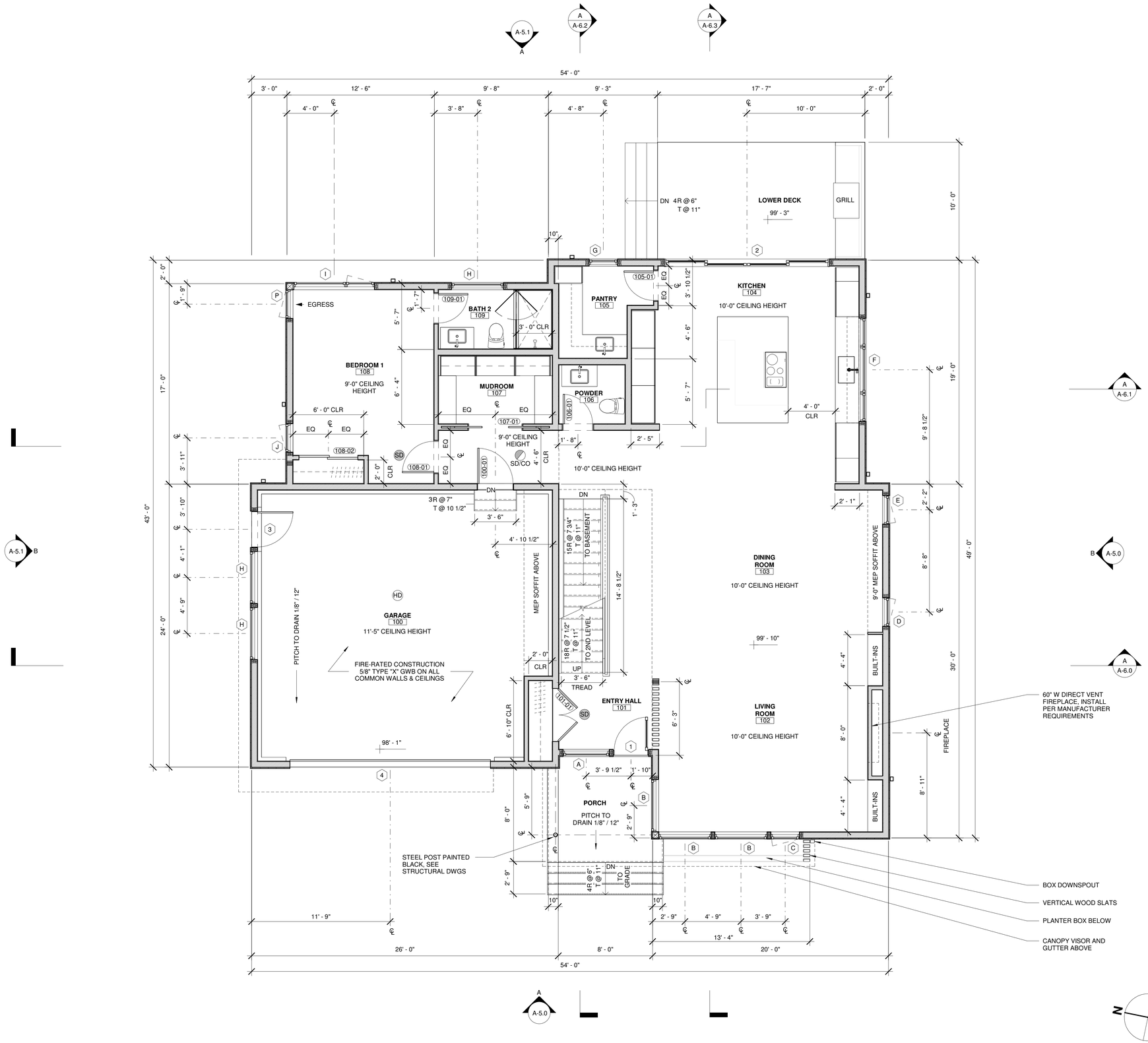
HOUSE # 06



GENERAL NOTES - FLOOR PLAN

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HD	HEAT DETECTOR

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

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FIRST FLOOR PLAN

A-1.1

PERMIT SET

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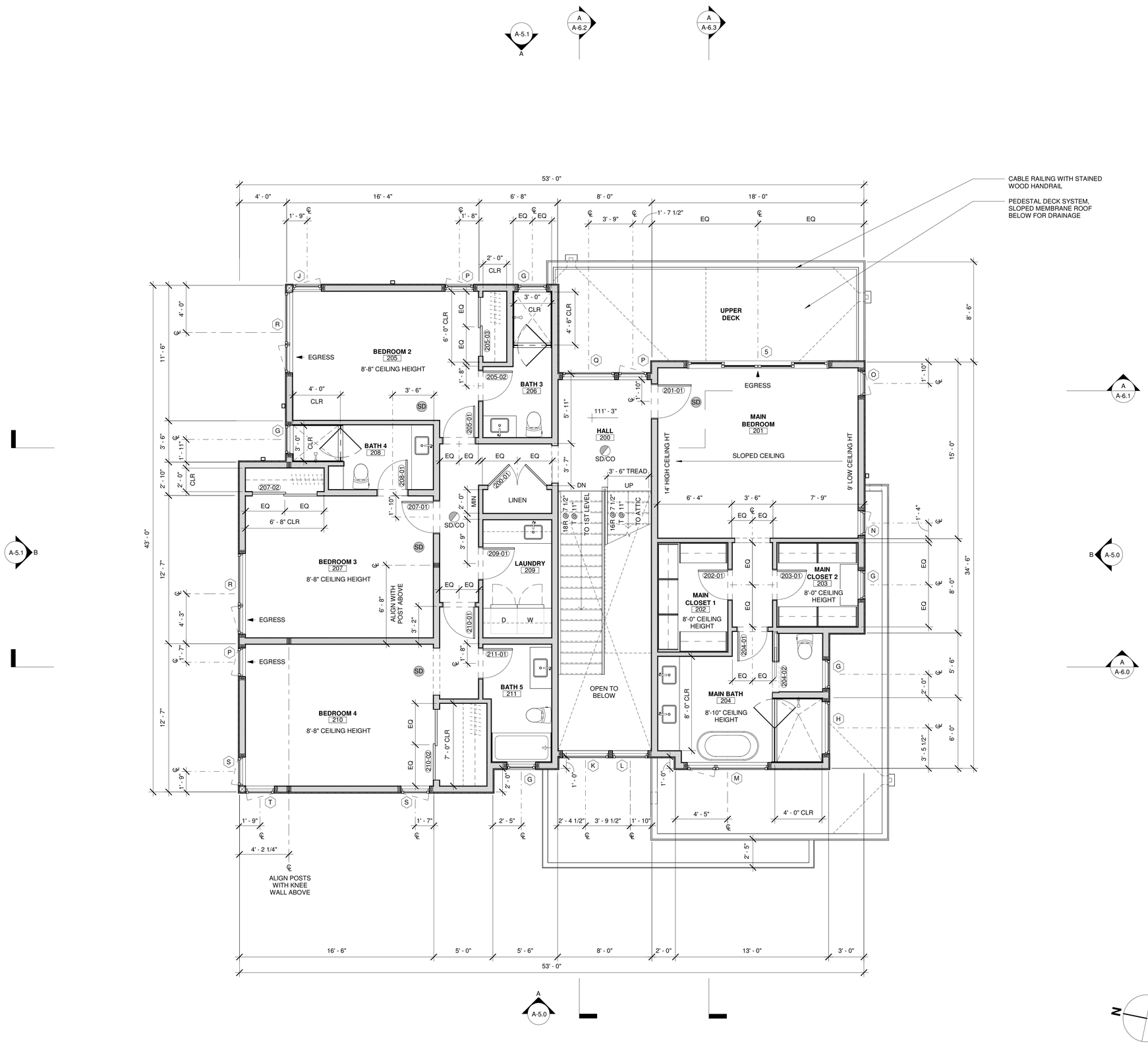

GENERAL NOTES - FLOOR PLAN

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LEGEND

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HD	HEAT DETECTOR

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

HOUSE # 06

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SECOND FLOOR PLAN

A-1.2

PERMIT SET

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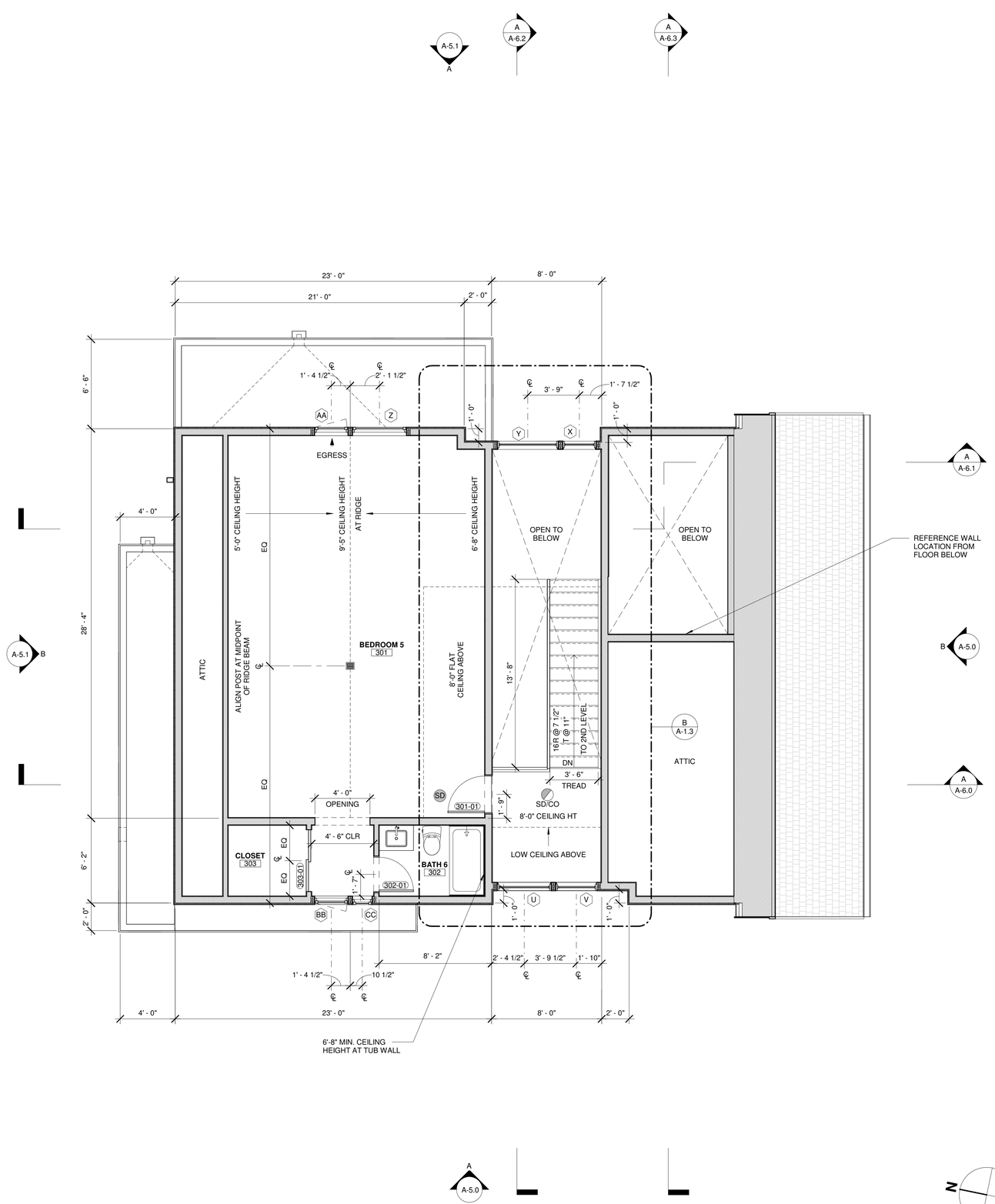

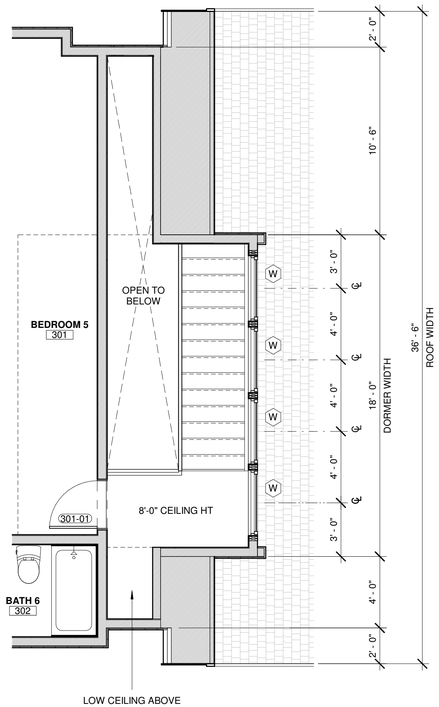

GENERAL NOTES - FLOOR PLAN

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LEGEND

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HD	HEAT DETECTOR

A HALF STORY PLAN
1/4" = 1'-0"

B DORMER PLAN
1/4" = 1'-0"

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REGISTERED ARCHITECT
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No. 50173
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MA
COMMONWEALTH OF MASSACHUSETTS

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ISSUED	06/27/2024

HALF STORY
AND DORMER
PLANS

A-1.3

PERMIT SET

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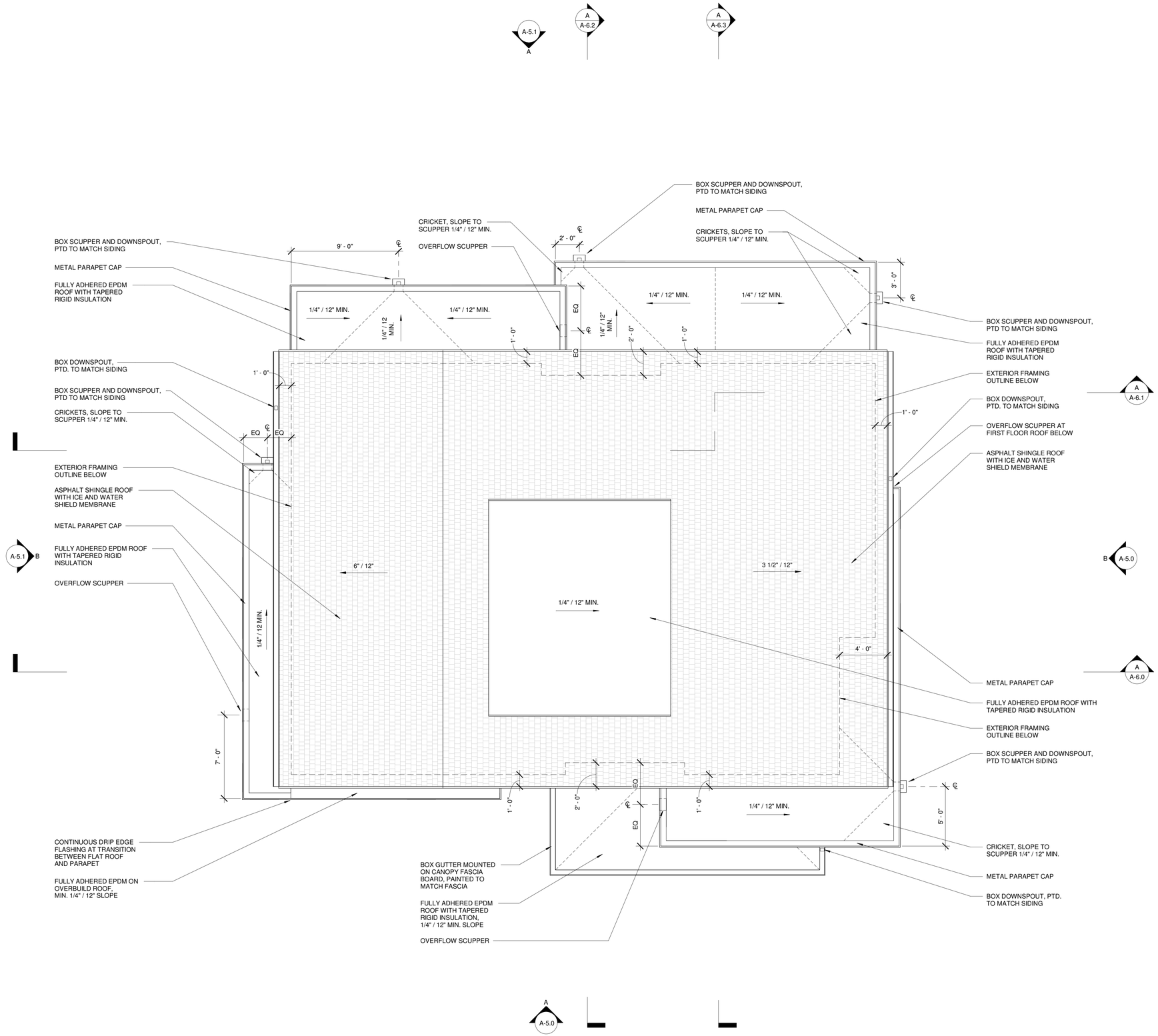

GENERAL NOTES - ROOF PLAN

1. REFER TO G-1 FOR FURTHER ADDITIONAL DETAILED GENERAL NOTES
2. REFER TO STRUCTURAL DRAWINGS FOR FRAMING INFORMATION.

LEGEND

ASPHALT SHINGLES

EPDM FLAT ROOF

A ROOF
1/4" = 1'-0"

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

A-1.4

PERMIT SET

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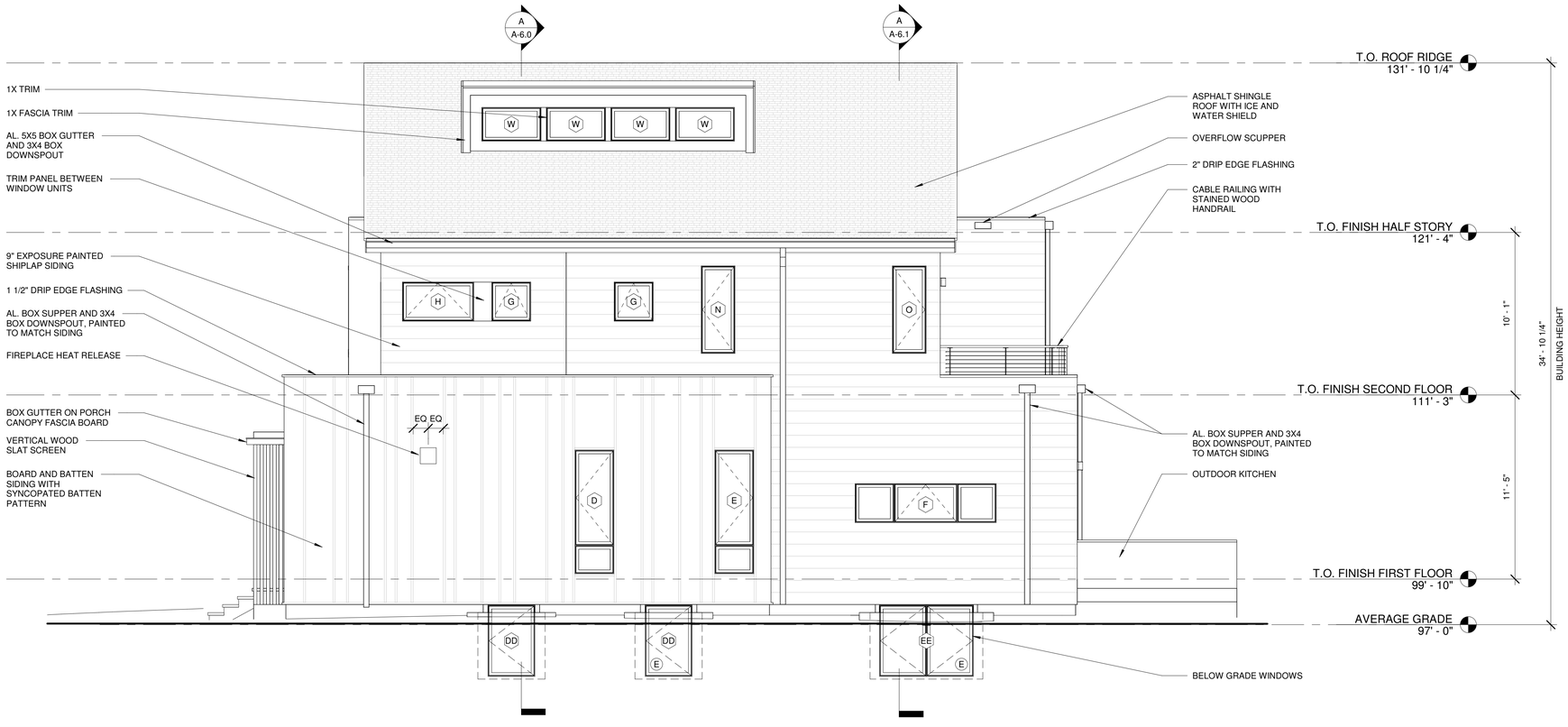

B SOUTH ELEVATION

1/4" = 1'-0"

A WEST ELEVATION

1/4" = 1'-0"

GENERAL NOTES - ELEVATION

1. REFER TO G-1 FURTHER ADDITIONAL DETAILED GENERAL NOTES
2. NOTIFY ARCHITECT OF ANY FIELD ISSUES THAT CONFLICT WITH DRAWINGS PRIOR TO BEGINNING WORK

LEGEND

- 9" EXPOSURE SHIPLAP
- ASPHALT SHINGLES
- BOARD AND BATTEN
- (E) EGRESS OPENING

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NO.	REVISION	DATE

REGISTERED ARCHITECT HILLARY G. MATEEV No. 50173 CAMBRIDGE MA COMMONWEALTH OF MASSACHUSETTS

SCALE	1/4" = 1'-0"
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EXTERIOR ELEVATIONS

A-5.0

PERMIT SET

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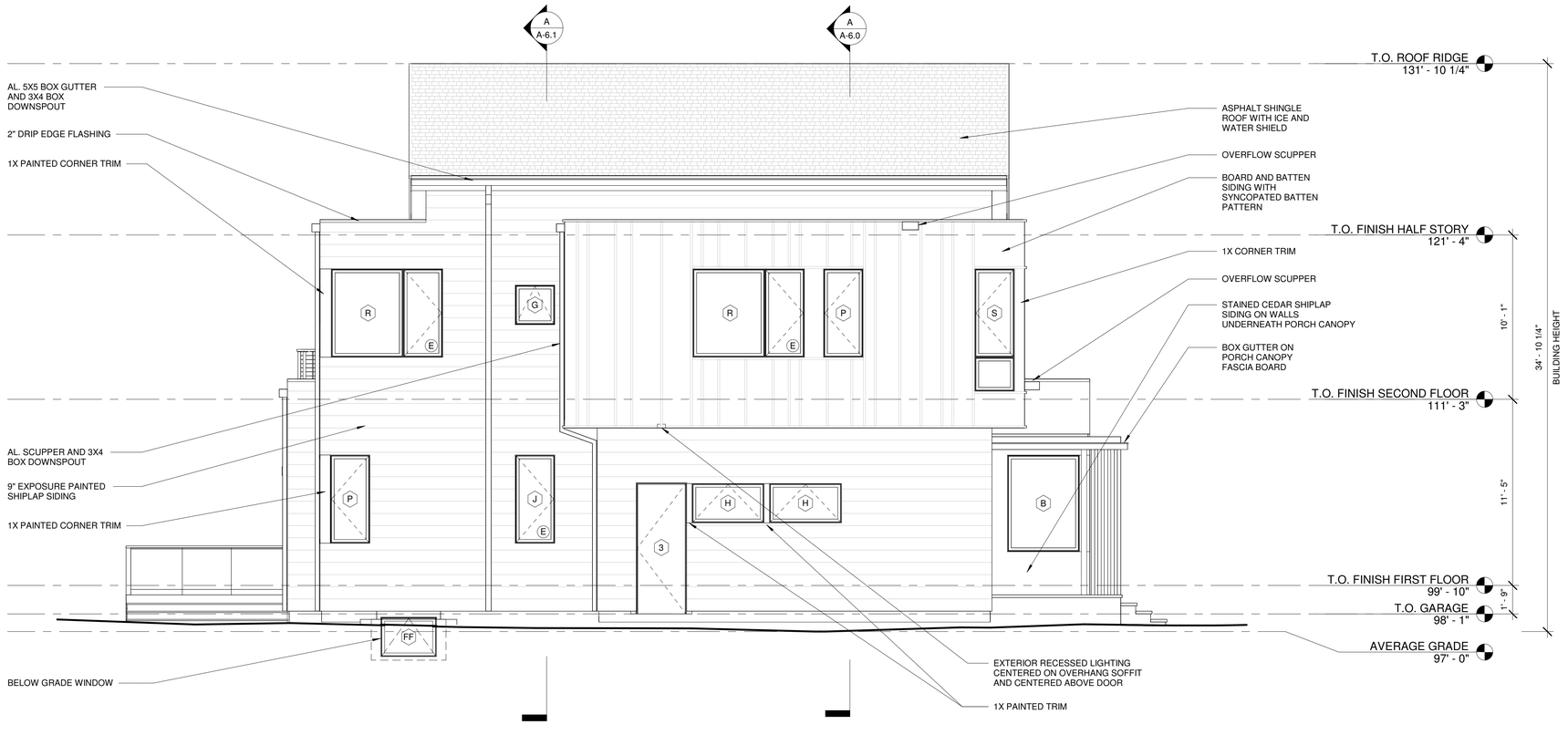

B NORTH ELEVATION

1/4" = 1'-0"

A EAST ELEVATION

1/4" = 1'-0"

GENERAL NOTES - ELEVATION

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LEGEND

- 9" EXPOSURE SHIPLAP
- ASPHALT SHINGLES
- BOARD AND BATTEN
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EXTERIOR ELEVATIONS

A-5.1

PERMIT SET

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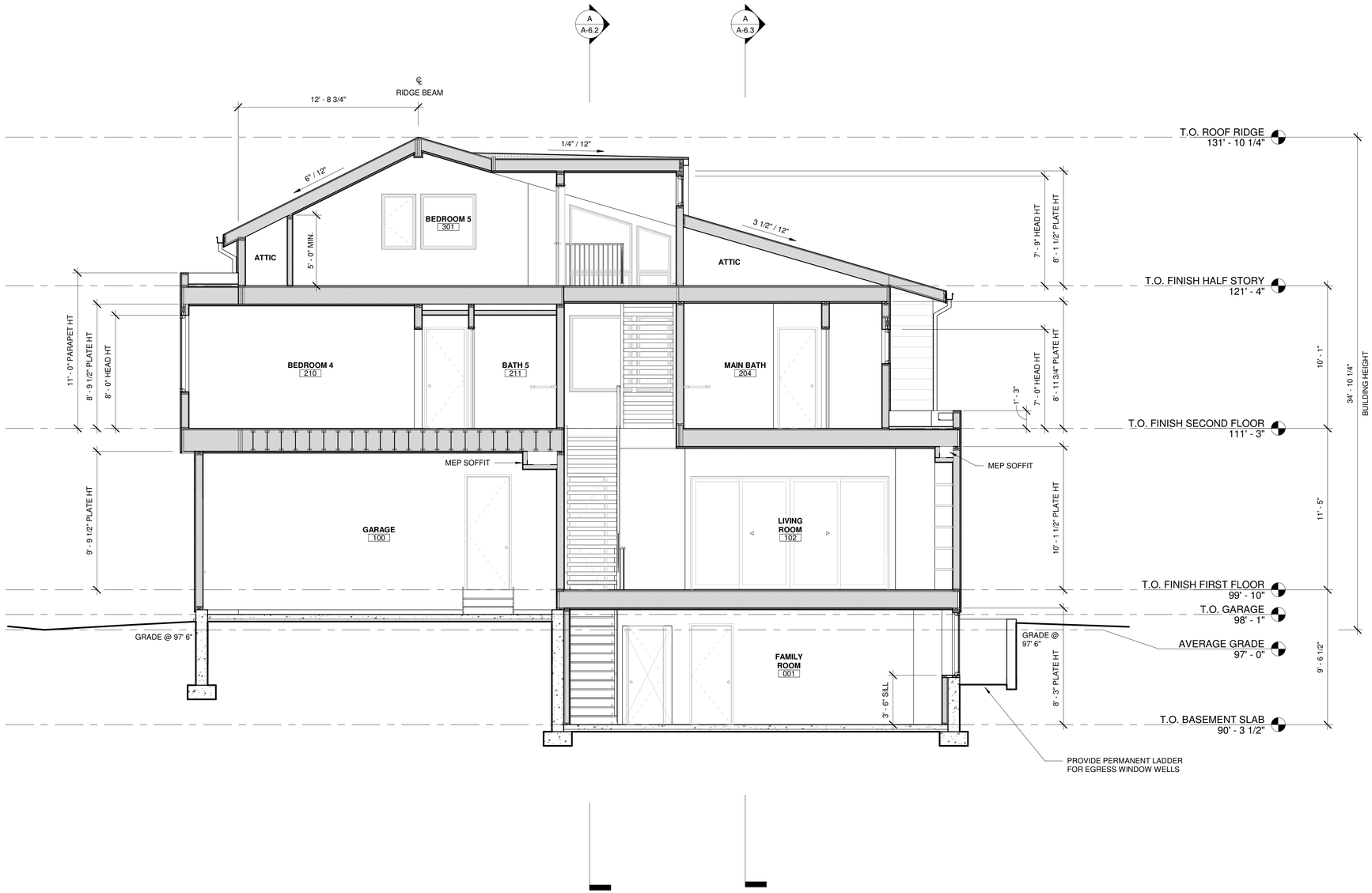

A SECTION 1
1/4" = 1'-0"

GENERAL NOTES - SECTION

1. REFER TO G-1 FURTHER ADDITIONAL DETAILED GENERAL NOTES.
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3. REFER TO STRUCTURAL DRAWINGS FOR FRAMING AND FOUNDATION INFORMATION.

LEGEND

- 9" EXPOSURE SHIPLAP
- ASPHALT SHINGLES
- BOARD AND BATTEN

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BUILDING SECTION

A-6.0

PERMIT SET

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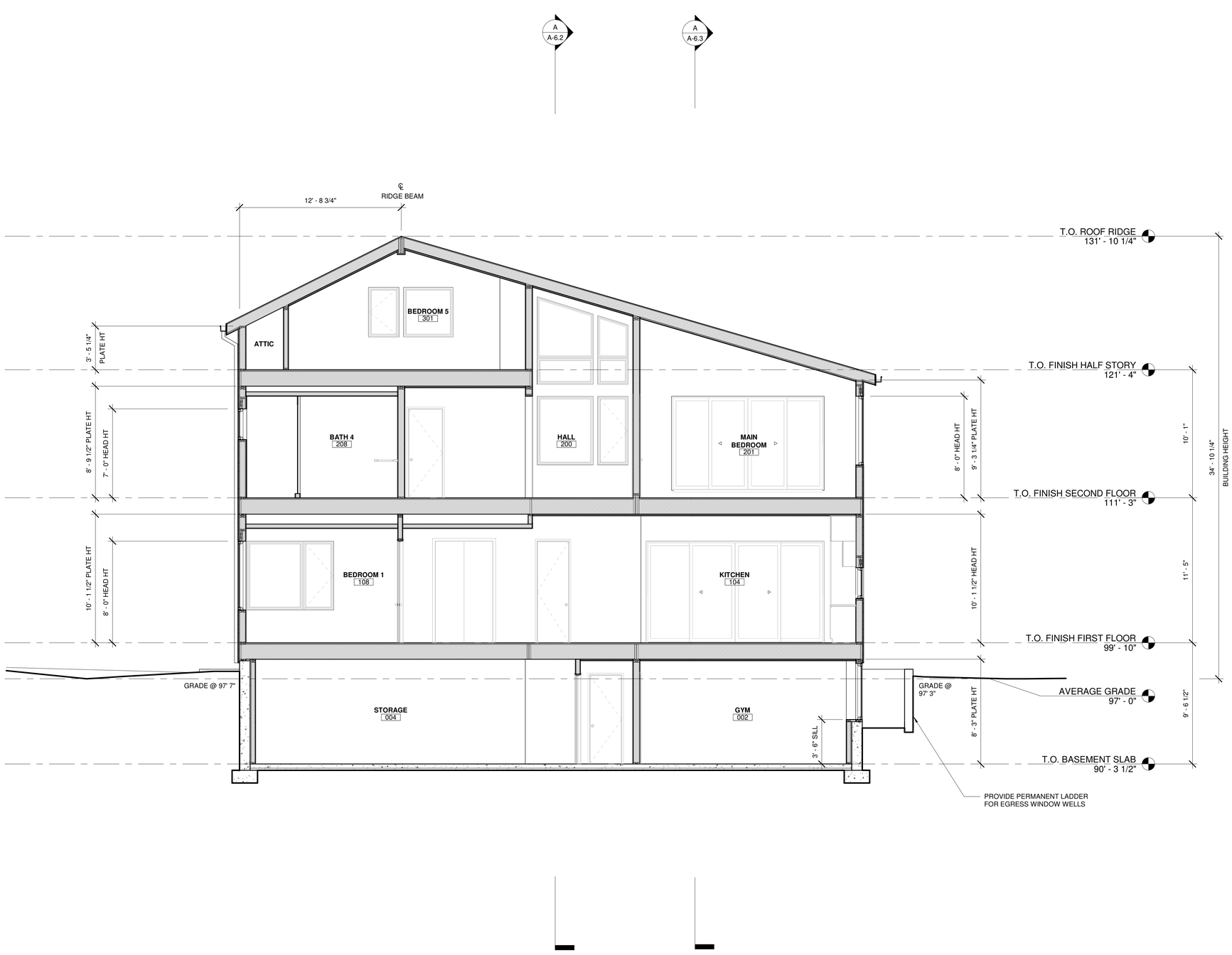

A SECTION 2
1/4" = 1'-0"

GENERAL NOTES - SECTION

1. REFER TO G-1 FURTHER ADDITIONAL DETAILED GENERAL NOTES.
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LEGEND

- 9" EXPOSURE SHIPLAP
- ASPHALT SHINGLES
- BOARD AND BATTEN

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CAMBRIDGE
MA
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BUILDING SECTION

A-6.1

PERMIT SET

HOUSE # 06

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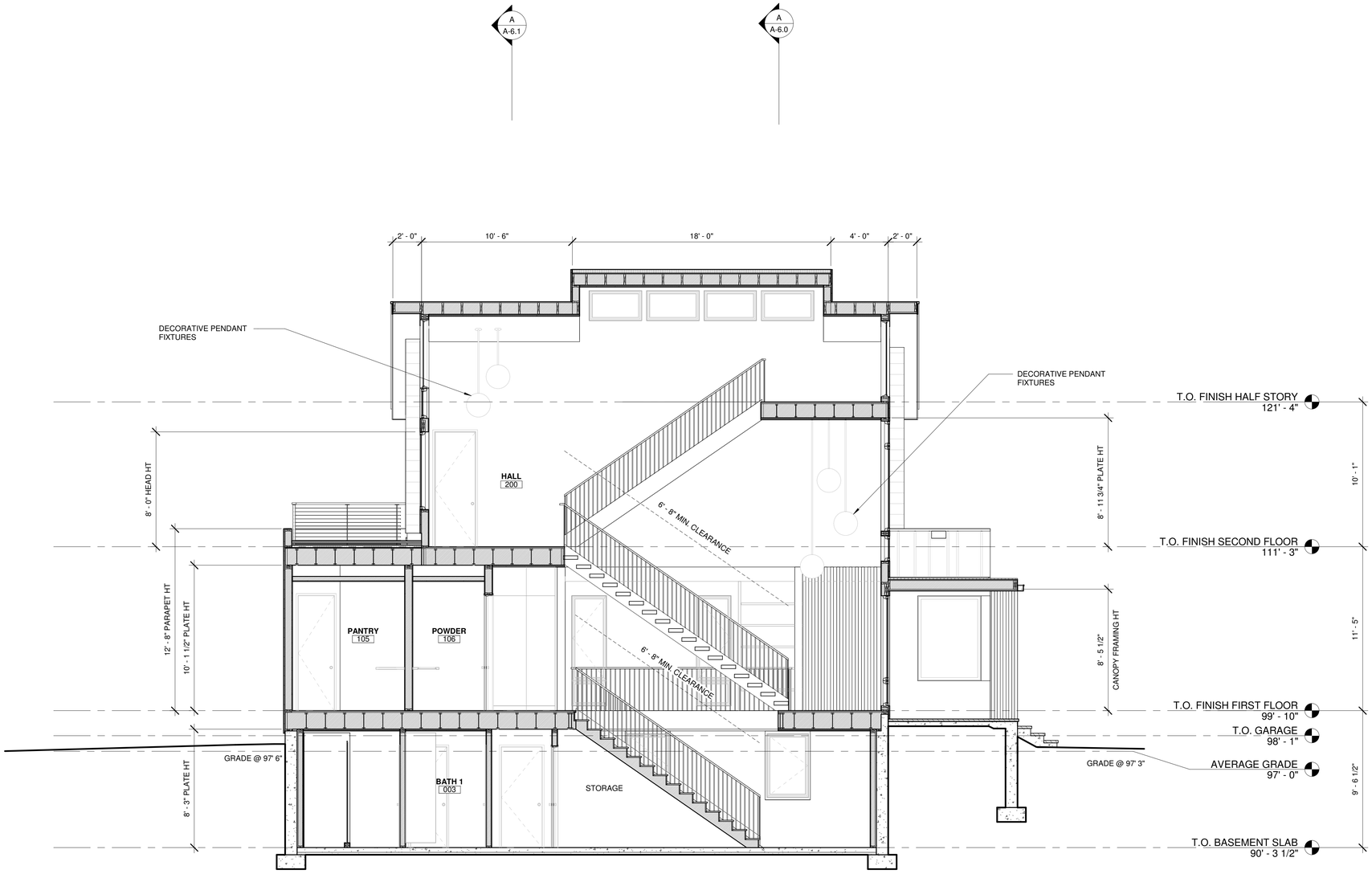

A SECTION 3
1/4" = 1'-0"

GENERAL NOTES - SECTION

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LEGEND

- 9" EXPOSURE SHIPLAP
- ASPHALT SHINGLES
- BOARD AND BATTEN

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BUILDING SECTION

A-6.2

PERMIT SET

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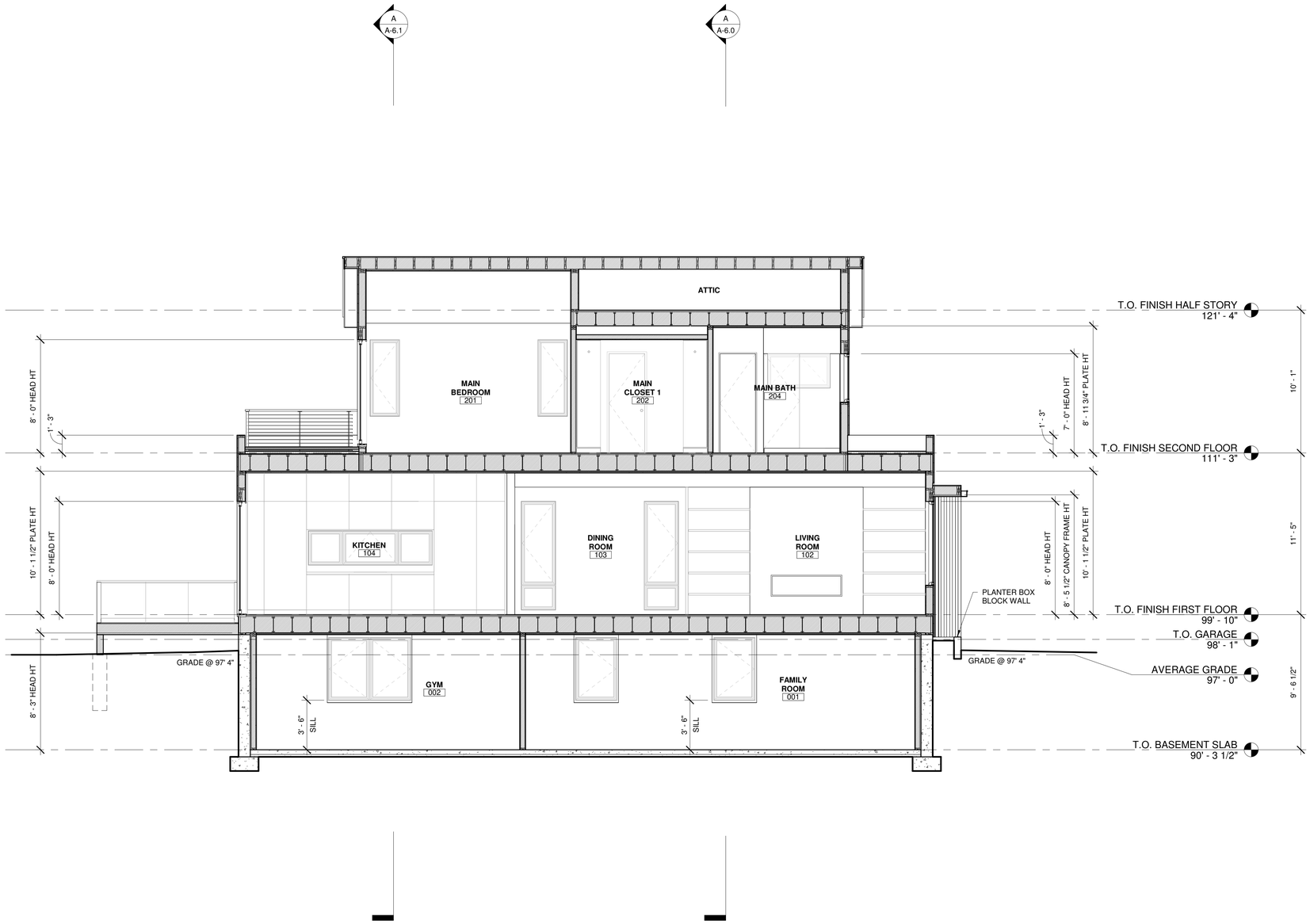
HOUSE # 06



A SECTION 4
1/4" = 1'-0"

GENERAL NOTES - SECTION

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LEGEND

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- ASPHALT SHINGLES
- BOARD AND BATTEN

HOUSE # 06

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BUILDING SECTION

A-6.3

PERMIT SET

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SOLD
C: House #07

HOUSE #07

HOUSE #07

HOUSE #07

Large House Study - FAR Rules/Tests

House 7

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	10,568	SF	
Lot Coverage	2,568	SF	24.3%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,470	-	1,470	
1	2,568	608	1,960	
2	2,046	-	2,046	
3	875	-	875	
Total	6,959	608	6,351	
TLAG	5,489	Real Estate Ad=	6,250	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,568	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.3%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.9%	4,006	6,361
FAR (Flr 1,2,3 Exclude Garage)	38%	46.2%	4,881	5,486
FAR (Flr 1,2,3,B Exclude Garage	38%	60.1%	6,351	4,016
FAR (Flr 1,2,3,+ Garage on 1)	38%	51.9%	5,489	5,486
FAR (Flr 1,2 + any Garage)	38%	43.7%	4,614	6,361

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessor's Map & Parcel Number: _____

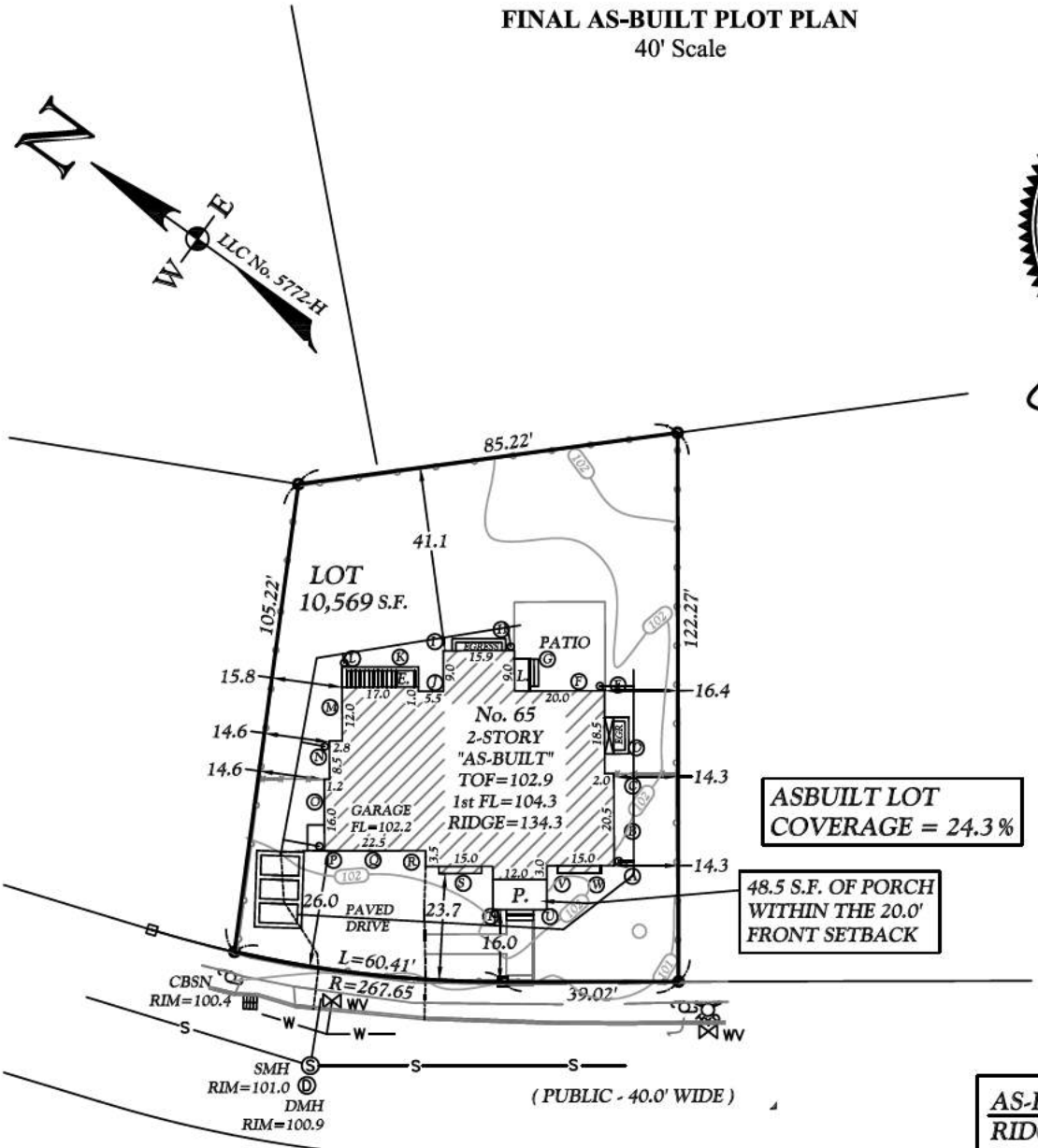
Building Permit Number: _____ Zoning District: *SRB*

Lot Area: *10,569 S.F.* Address: _____

Owner: _____ Builder: _____

FINAL AS-BUILT PLOT PLAN

40' Scale



ASBUILT LOT COVERAGE = 24.3%

48.5 S.F. OF PORCH WITHIN THE 20.0' FRONT SETBACK

SPOT LOCATION	PRE-EXIST. ELEV.	AS-BUILT ELEV.
A	101.6	101.8
B	101.8	102.1
C	101.7	102.3
D	101.9	102.5
E	102.1	102.1
F	102.2	102.1
G	102.1	102.2
H	102.1	102.5
I	97.2	102.6
J	102.4	102.4
K	102.5	102.5
L	102.5	102.6
M	102.4	102.5
N	102.3	102.4
O	102.1	102.3
P	102.2	102.1
Q	102.2	102.2
R	102.1	102.2
S	102.1	102.1
T		102.1
U		102.1
V		102.0
W		102.0
TOTAL	1,935.6	2,351.7
AVERAGE	101.9	102.2

AS-BUILT BUILDING HEIGHT
RIDGE - PRE-EXISTING GRADE = 134.3 - 101.9 = 32.4

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gaslines, etc.; driveways, septic systems, wells, Flood Plain and Wetland Areas, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances, (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations proposed grading and drainage of recharge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location in areas with no public sewer.
(*Accessory structures may require a separate building permit — See Building Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this *29 th* day of *OCTOBER* 20 *24*.
Name *CHRISTOPHER C. CHARLTON* Registered Land Surveyor No. *48649* License Expiration Date *06/30/2026*
Address *105 BEAVER STREET* City *FRANKLIN* State *MA* Zip *02*
Approved _____ Director of Public W
Approved _____ Building Inspector

HOUSE # 07

GENERAL CONSTRUCTION SPECIFICATIONS:

Interior Walls: 2x4 wood frame construction @ 16" o.c. with 3 1/2" sound reduction *Rockwool* or fiberglass batt insulation between studs for all walls between bedrooms (TBD). Finish both sides with 1/2" blueboard w/ skimcoat of plaster (BBSP).

Exterior Walls: 2x6 wood frame construction @ 16" o.c. (unless otherwise noted). Owens Corning or equal 5.5" R-21 Craft-Faced High Density Fiberglass between studs. Verify min. required wall R-values per HERS rating. Finish interior face with BBSP over polyethylene vapor barrier applied over all exterior walls. Exterior stud face to have min. 7/16" *Advantech Zip System* or 1/2" CDX fir plywood sheathing. Cement board or cedar siding shall be installed over fully taped Advantech Zip-System sheathing or Tyvek Housewrap.

Floors: Framing sizes as noted on framing plans with kraftfaced fiberglass insulation (if applicable) in R values per HERS rating. Subfloor shall be min. 3/4" T&G *Advantech* / Equal glued & nailed 6" o.c. to joists.

Roofs & Vaulted Ceilings: R-49 min. all roofs. Provide min. 3" closed cell against roof sheathing, then cover with open cell or dense-packed fiberglass or cellulose. Dense-packing requires **INTELLO Plus®** / eqial air-barrier at the bottom side such as sheetrock. Do not need ridge or soffit vents if creating hot roof as should be unvented. Framing sizes as noted on framing plans. Exterior face of rafters shall have 1/2" CDX fir plywood or 9/16" Advantech roof sheathing with Certainteed (or equal) 30 year roof shingles installed over 15# felt paper or shingle manufacture's required underlayment. Provide ice & water shield at all valleys and eaves and along wall transitions and projections.

Moisture from plaster job, painting, or any other source during construction must be fully mitigated by general contractor during construction to avoid potential mold problems. Architect is not responsible for any moisture complications attributable to any job site climate conditions or any performed work. Use of alternative insulation products or systems other than specified herein shall further indemnify architect of any liability attributable to building envelop performance. Architect is further exempt from liability associated with any HVAC systems installed.

All structural assemblies, building components, materials, workmanship, energy conservation, life-safety, and fire protection shall conform fully with 780 CMR 9th Edition of the Massachusetts State Building Code Volume for One and Two Family Dwellings. Stretch Energy Code shall utilize the 2021 IECC base code with all Mass amendments. All duct testing and associated Stretch Code testing requirements and procedures shall be the responsibility of the Builder. See project specific HERS Rating for insulation values, all of which shall supercede any insulation values stated herein these construction documents.

SEE DRAWINGS FOR ADDITIONAL NOTES AND SPECIFICATIONS. BUILDER/OWNER SHALL ASSUME ALL LIABILITY FOR ANY MODIFICATIONS TO SPECIFICATIONS INDICATED WITHIN THESE CONSTRUCTION DOCUMENTS AS BEING FULLY CODE COMPLIANT.

INSULATION NOTES:
See HERS rating for all required insulation values. Builder shall coordinate and verify all assemblies and testing procedures per stretch energy code compliance.

GENERAL STRUCTURAL CRITERIA:
Wind Speed: 126 mph
Wind Exposure Category: B
(All Sides of Building)
1st Floor Live Load: 40 #s / sq ft
2nd Floor Live Load: 30 #s / sq ft
(sleeping rooms only)
Attic Load: 30 #s / sq ft (sleeping rooms only)
All roof structures designed to meet or exceed 40# ground snow load NEEDHAM, MA

BATHROOM NOTES:
All bathroom exhaust fans vented to outside

STAIR AND GUARDRAIL NOTES:
Type I 2" Ø graspable handrail
set @ 34" above nosing (Typ.)
Guardrail @ 36" AFF with balusters
spaced to prevent 4" Ø sphere (Typ.)

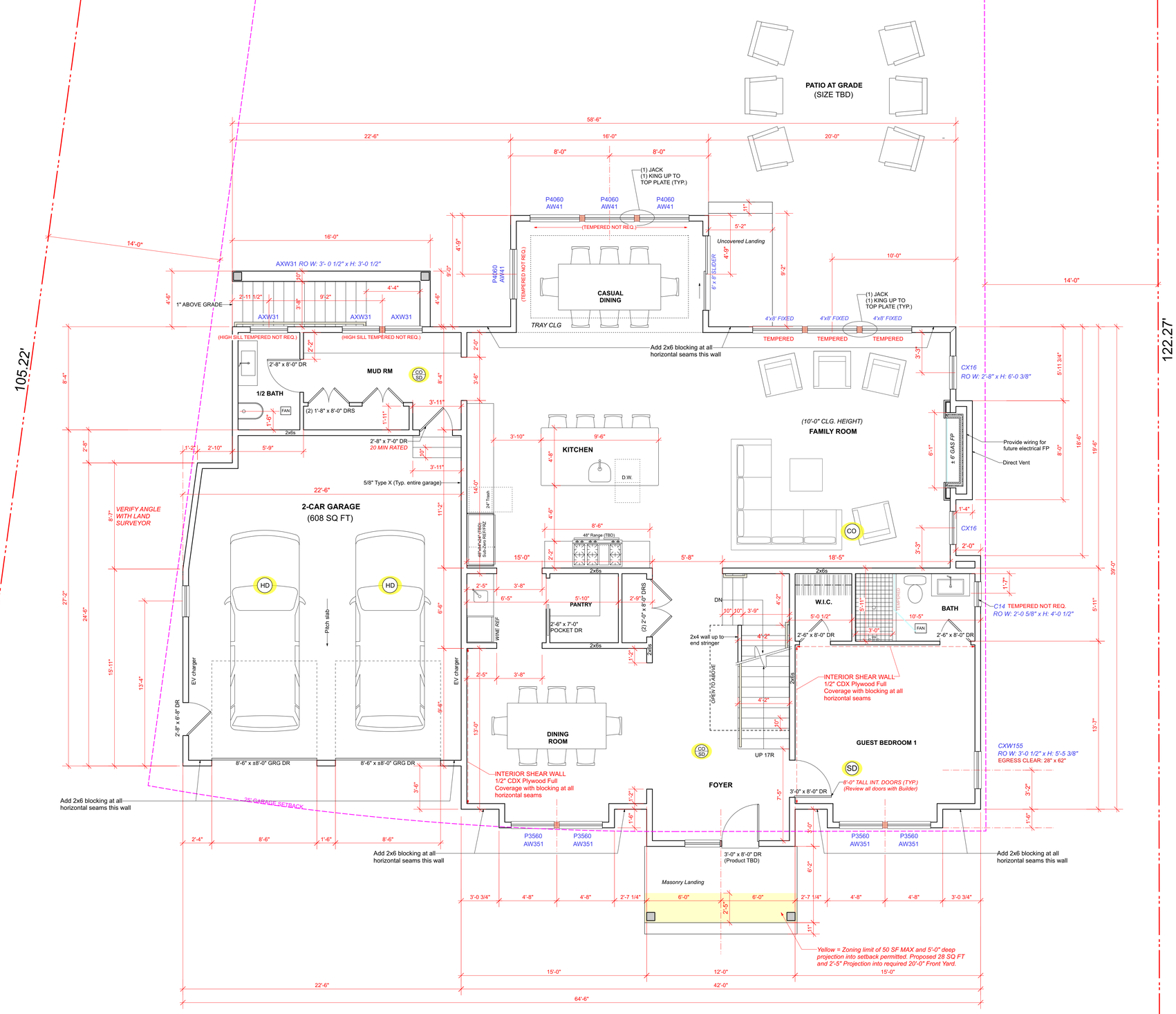
—ALL DIMENSIONS TO STUD FACE
—2x4 WALLS @ 3 1/2" WIDTH (TYPICAL INTERIOR WALLS)
—2x6 WALLS @ 5 1/2" WIDTH (TYPICAL EXTERIOR WALLS)
CO SD —CARBON MONOXIDE AND PHOTO-ELECTRIC SMOKE DETECTOR
SD —PHOTO-ELECTRIC SMOKE DETECTOR
HD —HEAT DETECTOR HD shall be interconnected with SD (household fire alarm system) inside the main dwelling. Location: 1 detector centered on garage ceiling

NOTES:
All first floor walls framed as 2x6 bearing walls with horizontal blocking at mid height.

Range hoods with greater than 400 cfm out put require make-up air.

Review vent path for range hood with architect prior to any framing work.

ALL WINDOWS VERIFY ALL PRODUCT OPTIONS WITH BUILDER. ALL GRILLE BARS AND OPENING DIRECTIONS PER ELEVATION VIEWS. TEMPERED GLASS REQ. PER FLOOR PLANS. MIN. U-VALUES PER HERS RATING.



FIRST FLOOR PLAN

1,960 SQ FT (1st Floor)
2,046 SQ FT (2nd Floor)
875 SQ FT (Finished Attic)
1,470 SQ FT (Finished Basement)
608 SQ FT (Garage)
TOTAL FAR: 1960 + 2046 + 6 = ***4,012 SQ FT***
(MAX FAR .38 x 10,569 = 4,016 SQ FT)

HOUSE # 07

R D K
ARCHITECTS
825 BEACON ST SUITE 10
NEWTON CENTRE, MA 02459
PHONE: 617-571-0645
RALPHK@RDKARCHITECTS.COM
www.rdkarchitects.com

PROJECT:

BUILDER / OWNER:
Kostopolous Group, LLC

DATE:
JANUARY 17, 2024
BUILDING PERMIT SET
PER 9th ED. 780 CMR

REVISIONS:
BUILDER / GENERAL CONTRACTOR IS RESPONSIBLE FOR MAKING SURE ALL SUB-CONTRACTORS ARE WORKING FROM MOST CURRENT ISSUE DATE OF PLANS.

REGISTRATION:
RALPH D. KELTON
No. 20379
BOSTON
MA
REGISTERED ARCHITECT
COMMONWEALTH OF MASSACHUSETTS

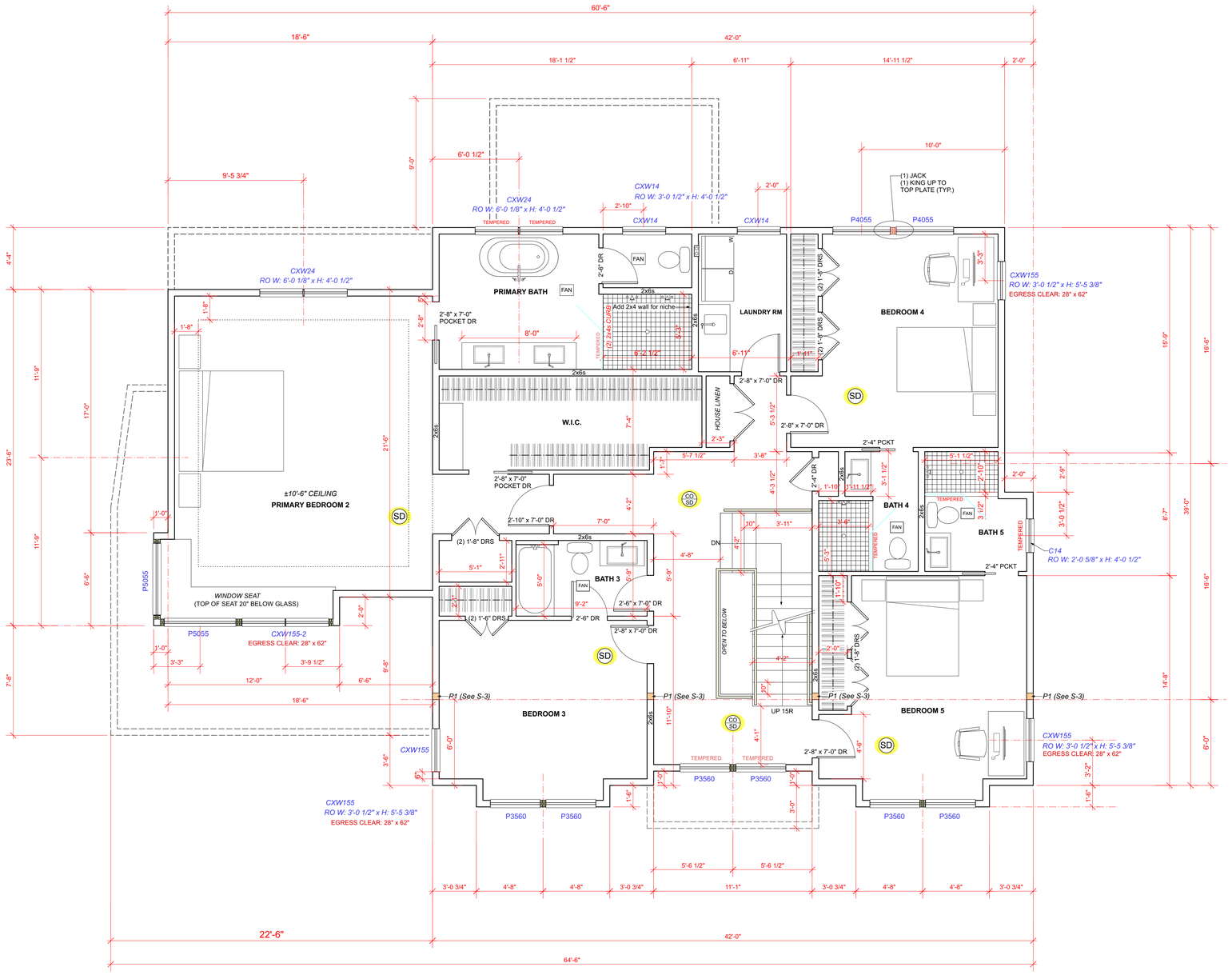
SCALE:
1/4" = 1'-0"
0 1 2 4 8

DO NOT SCALE DRAWINGS. CONSULT ARCHITECT OF ANY DIMENSIONAL CONFLICTS OR REQUIRED DIMENSIONS NOT INDICATED ON THE DRAWINGS. FLOOR PLAN DIMENSIONS SUPERCEDE ANY FRAMING PLAN DIMENSIONS OR GRAPHICS.

SHEET TITLE:
FIRST FLOOR PLAN

SHEET NUMBER:
A-1

SET TOTAL: A-1 - A-6 + S-1 - S-5



SECOND FLOOR PLAN

FAR 2,046 SQ FT

HOUSE # 07

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PROJECT:

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DATE:
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BUILDING PERMIT SET
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REVISIONS:
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REGISTRATION:

SCALE:
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0 1 2 4 8

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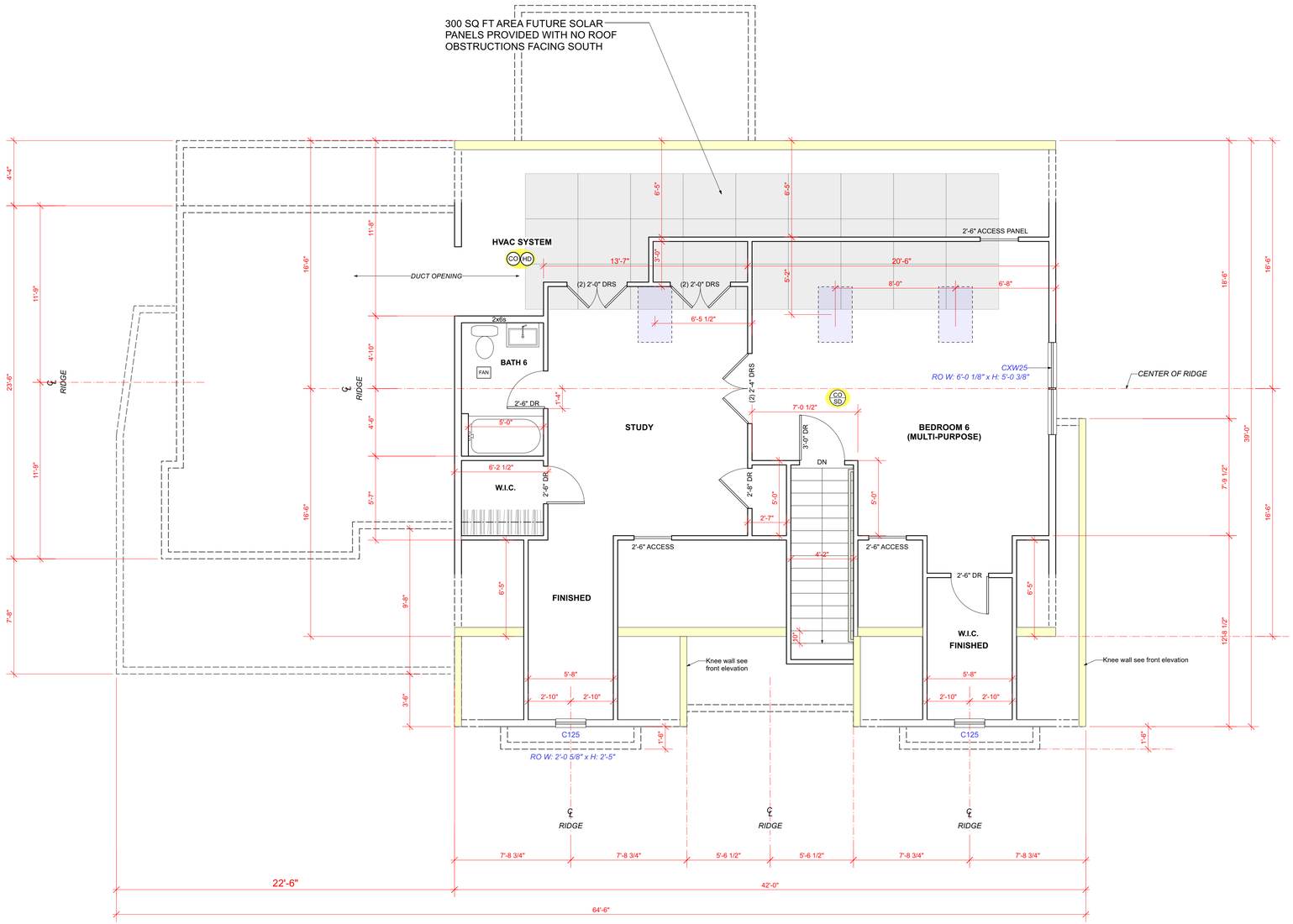
SHEET TITLE:
SECOND FLOOR PLAN

SHEET NUMBER:
A-2

SET TOTAL: A-1 - A-6 + S-1 - S-5



ATTIC FLOOR PLAN

± 875 SQ FT FINISHED

HOUSE # 07

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PROJECT:

BUILDER / OWNER:
Kostopolous Group, LLC

DATE:
JANUARY 17, 2024
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PER 9th ED. 780 CMR

REVISIONS:
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REGISTRATION:
RALPH D. KELTON
No. 20379
BOSTON
MA
REGISTERED ARCHITECT
COMMONWEALTH OF MASSACHUSETTS

SCALE:
1/4" = 1'-0"
0 1 2 4 8

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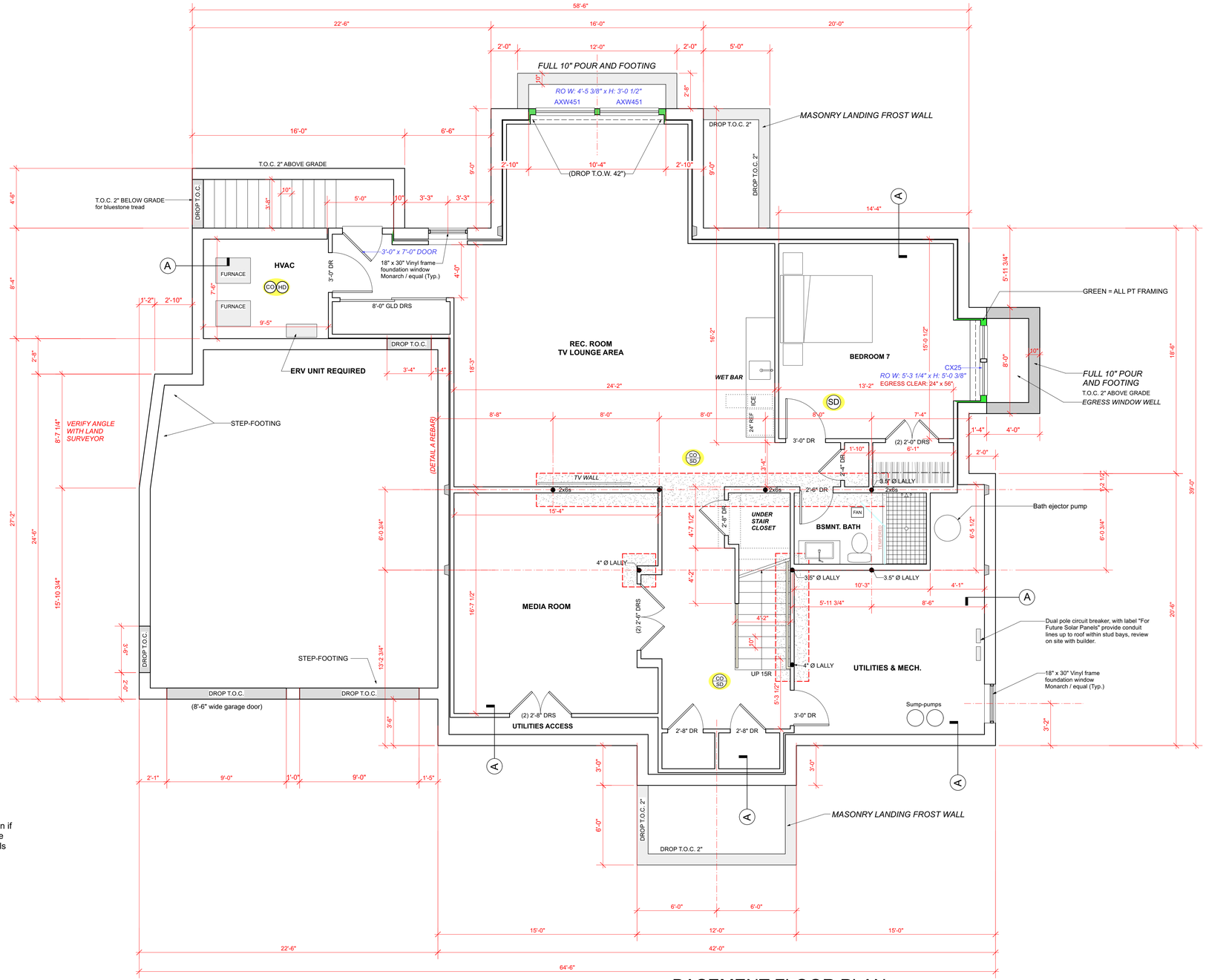
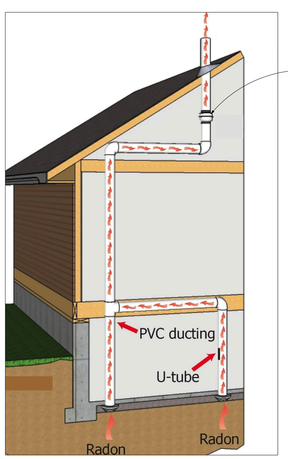
SHEET TITLE:
ATTIC FLOOR PLAN

SHEET NUMBER:
A-3

SET TOTAL: A-1 - A-6 + S-1 - S-5





FINISHED BASEMENT NOTE:
4" 3500 PSI Concrete Slab over fully taped Stego vapor barrier. Provide 6x6x-W1.4 x W1.4 WWF over 6"-8" crushed stone. No insulation under slab required per HERS, but recommended 2" closed cell in place of Stego vapor barrier (Review with RDK).

Mechanical system shall meet the criteria within the 2021 International Mechanical Code for inclusion of make-up fresh air exchange for all conditioned basement spaces. RMV Unit required.

All finished rooms and spaces with less than 8% glazing area, per floor area served, shall be provided with artificial lighting capable of min. 6 footcandles over the area of the room at a height of 30" AFF.

BASEMENT FLOOR PLAN

± 1,470 SQ FT FINISHED

276.5 LINEAR FEET OF WALLS (INCLUDES ALL GARAGE WALLS)

96 LINEAR FEET OF LANDING FROST WALLS, WINDOW WELLS AND BASEMENT STAIR

HOUSE # 07

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www.rdkarchitects.com

PROJECT:

BUILDER / OWNER:
Kostopolous Group, LLC

DATE:
JANUARY 17, 2024
BUILDING PERMIT SET
PER 9th ED. 780 CMR

REVISIONS:
BUILDER / GENERAL CONTRACTOR IS RESPONSIBLE FOR MAKING SURE ALL SUB-CONTRACTORS ARE WORKING FROM MOST CURRENT ISSUE DATE OF PLANS.

REGISTRATION:
REGISTERED ARCHITECT RALPH D. KILTONIC No. 20379 BOSTON MA

SCALE:
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0 1 2 4 8
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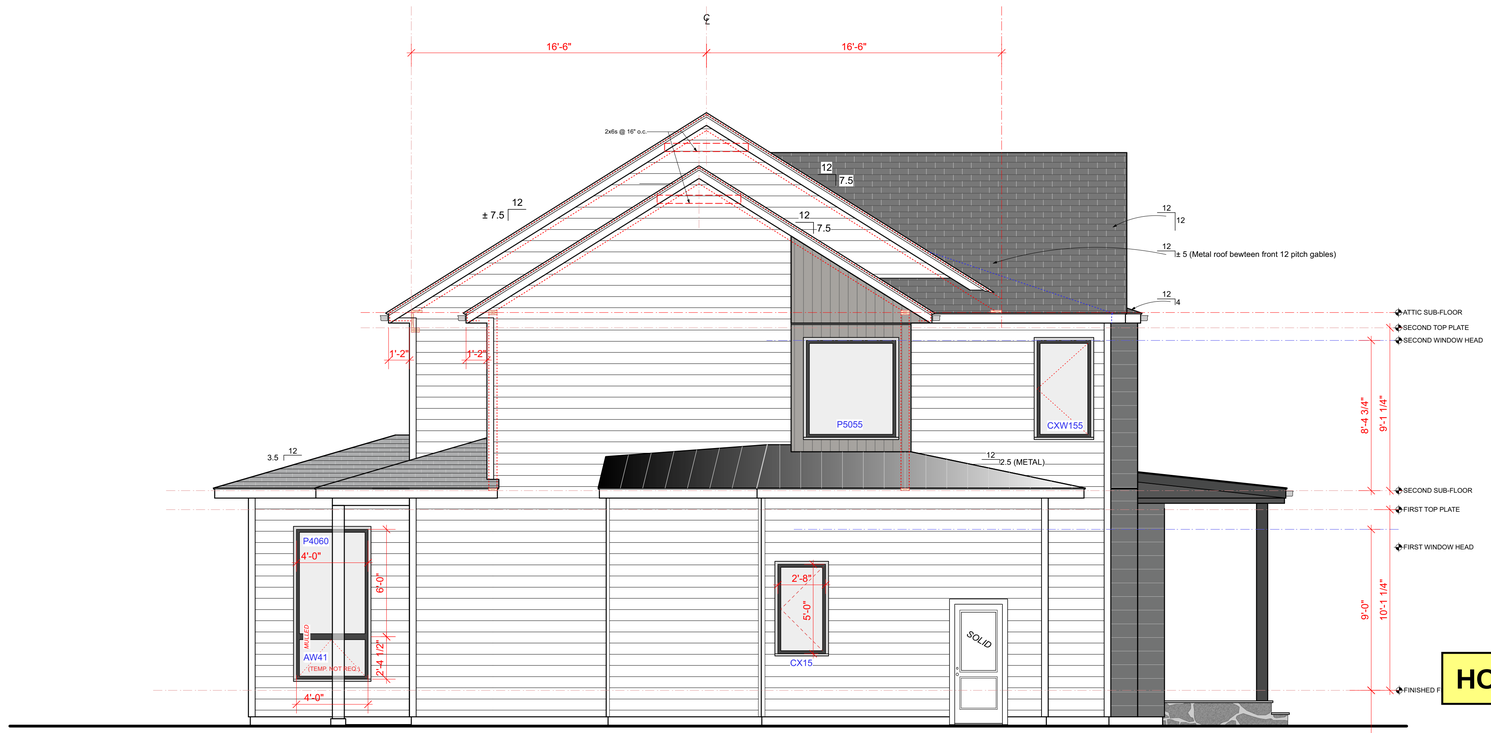
SHEET TITLE:
FINISHED BASEMENT PLAN

SHEET NUMBER:
A-4
SET TOTAL: A-1 - A-6 + S-1 - S-5

35'-0" MAX. ROOF HEIGHT. ROOF PITCH TO BE FIELD ADJUSTED IF NECESSARY BASED ON AS-BUILT AVERAGE GRADE AND TOP OF FOUNDATION ELEVATIONS. BUILDER SHALL VERIFY ROOF HEIGHT COMPLIANCE DURING CONSTRUCTION. DO NOT BEGIN ANY ROOF FRAMING UNTIL MAX. RIDGE HEIGHT IS FIELD VERIFIED BY LAND SURVEYOR. RDK ARCHITECTS WILL PROVIDE 2x12 RIDGE HEIGHT ABOVE ATTIC SUB-FLOOR TO FRAMING CONTRACTOR ONCE HEIGHT LIMIT IS ESTABLISHED PER FIELD CONDITIONS.

FRONT ELEVATION



LEFT SIDE ELEVATION

HOUSE # 07

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PROJECT:

BUILDER / OWNER:
Kostopolous Group, LLC

DATE:
JANUARY 17, 2024
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REVISIONS:
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REGISTRATION:
RALPH D. KELLEY REGISTERED ARCHITECT No. 20379 BOSTON MA COMMONWEALTH OF MASSACHUSETTS

SCALE:
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SHEET TITLE:
ELEVATIONS

SHEET NUMBER:
A-5

SET TOTAL: A-1 - A-6 + S-1 - S-5

35'-0" MAX. ROOF HEIGHT. ROOF PITCH TO BE FIELD ADJUSTED IF NECESSARY BASED ON AS-BUILT AVERAGE GRADE AND TOP OF FOUNDATION ELEVATIONS. BUILDER SHALL VERIFY ROOF HEIGHT COMPLIANCE DURING CONSTRUCTION. DO NOT BEGIN ANY ROOF FRAMING UNTIL MAX. RIDGE HEIGHT IS FIELD VERIFIED BY LAND SURVEYOR. RDK ARCHITECTS WILL PROVIDE 2x12 RIDGE HEIGHT ABOVE ATTIC SUB-FLOOR TO FRAMING CONTRACTOR ONCE HEIGHT LIMIT IS ESTABLISHED PER FIELD CONDITIONS.

REAR ELEVATION

RIGHT SIDE ELEVATION

HOUSE # 07

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RALPHK@RDKARCHITECTS.COM
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PROJECT:

BUILDER / OWNER:
Kostopolous Group, LLC

DATE:
JANUARY 17, 2024
BUILDING PERMIT SET
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REVISIONS:
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REGISTRATION:
RALPH D. KOSTOPOULOS
No. 20379
BOSTON
MA
REGISTERED ARCHITECT
COMMONWEALTH OF MASSACHUSETTS

SCALE:
1/4" = 1'-0"
0 1 2 4 8

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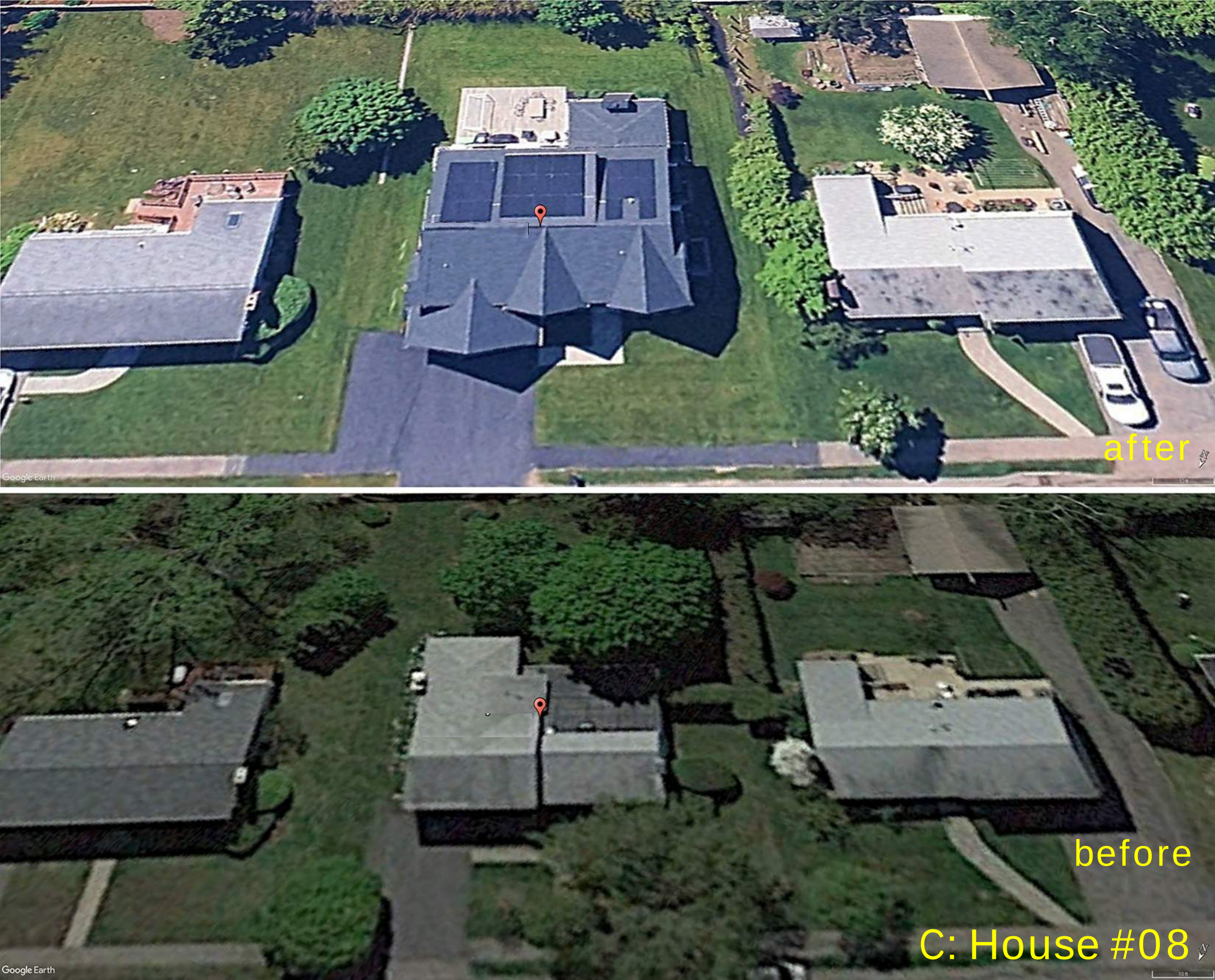
SHEET TITLE:
ELEVATIONS

SHEET NUMBER:
A-6

SET TOTAL: A-1 - A-6 + S-1 - S-5


after
Google Earth
before
C: House #08
Google Earth

HOUSE #08

188
HOUSE #08

HOUSE #08

Large House Study - FAR Rules/Tests

House 8

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0	
Lot Size	10,785	SF
Lot Coverage	2,642	SF
		24.5%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,602	-	1,602	
1	2,379	468	1,911	
2	2,175	-	2,175	
3	900	-	900	
Total	7,056	468	6,588	
TLAG	5,454	Real Estate Ad=	2,398	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,642	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	24.5%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	37.9%	4,086	6,600
FAR (Flr 1,2,3 Exclude Garage)	38%	46.2%	4,986	5,700
FAR (Flr 1,2,3,B Exclude Garage	38%	61.1%	6,588	4,098
FAR (Flr 1,2,3,+ Garage on 1)	38%	50.6%	5,454	5,700
FAR (Flr 1,2 + any Garage)	38%	42.2%	4,554	6,600

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessor's Map & Parcel No. _____

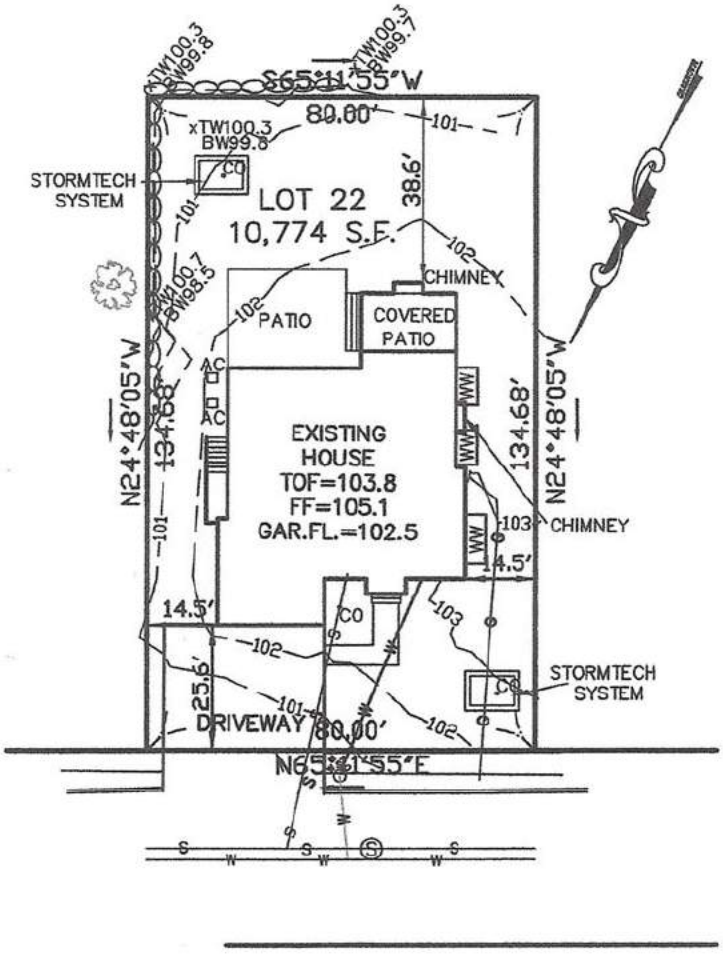
Building Permit No. _____ At No. _____

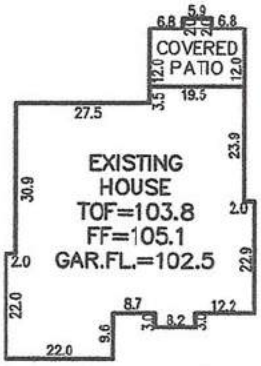
Lot Area 10,774 S.F. Zoning District SRB

Owner _____ Builder _____

DEMO/PROPOSED PLOT PLAN/FOUNDATION ASBUILT/FINAL ASBUILT

40' Scale





LOT COVERAGE=24.5%
HEIGHT OF EXISTING DWELLING 34.1'
FROM AVERAGE GRADE
TO THE RIDGE OF ROOF

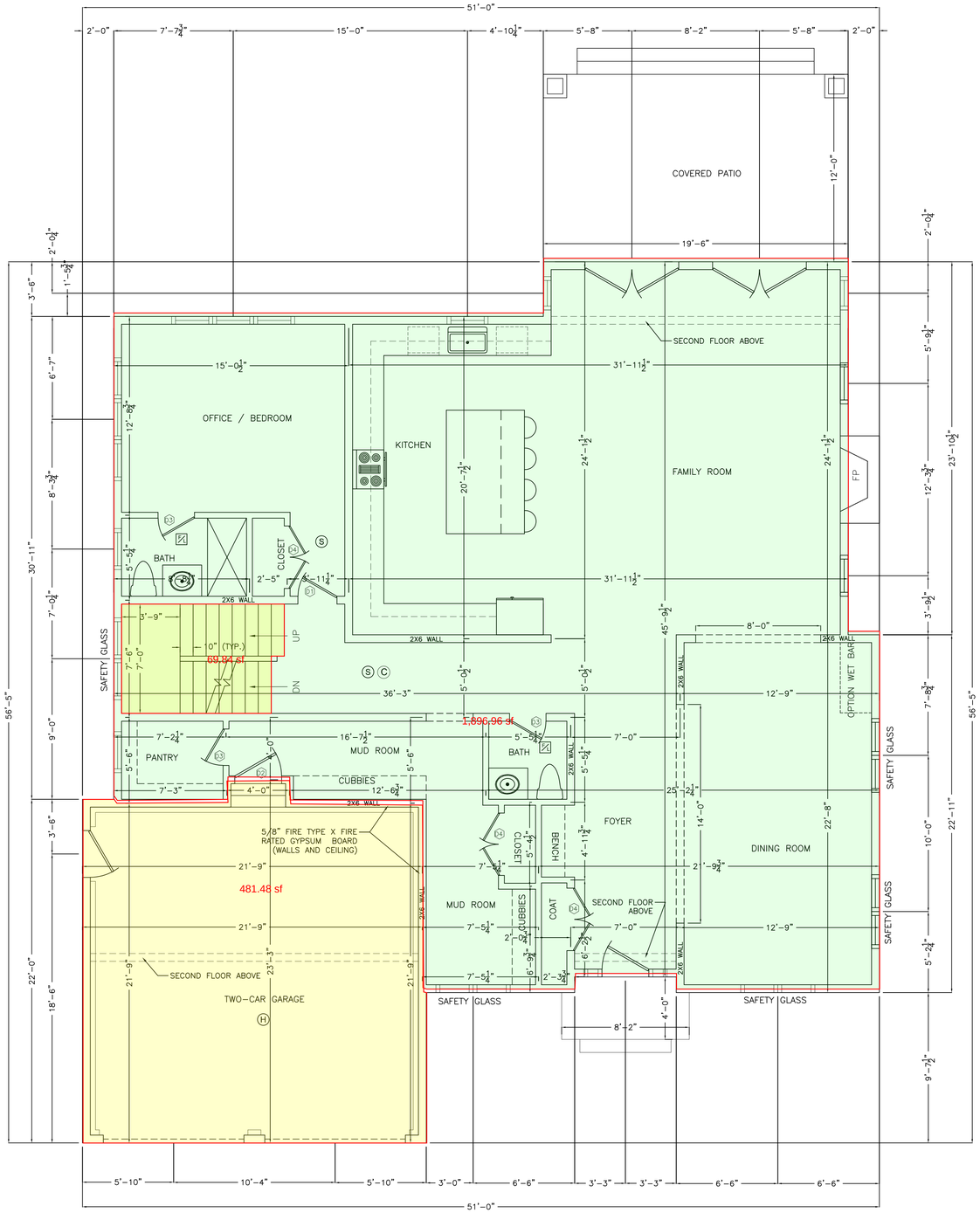
COMMONWEALTH OF MASSACHUSETTS
A. MATTHEW BELSKI, JR.
No. 37557
PROFESSIONAL LAND SURVEYOR

11/27/22

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the town of Needham. All plot plans shall show existing structures and public utilities, including water mains, sewers, drains, gaslines, etc.; driveways, Flood Plain and Wetland Areas, lot dimensions, dimensions of proposed structures, sideline offsets and setback distances, (allowing for overhangs) and elevation of top of foundations and garage floor. For new construction, elevation of lot corners at streetline and existing and approved street grades shall be shown for grading along lot line bordering streetline. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location in unsewered area.
(*Accessory structures may require a separate building permit — See Building Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this 27 day of NOVEMBER 20 22.
Name A. MATTHEW BELSKI, JR. Registered Land
Address 35 MAPLE ST. City W. NEWBURY State MA Zip
Approved _____ Director of Public
Approved _____ Building Inspector

HOUSE # 08



FIRST FLOOR PLAN

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO MASSACHUSETTS BUILDING CODE AND ALL FEDERAL, STATE AND TOWN OF NEEDHAM LAWS, CODES AND REGULATIONS AS EACH MAY APPLY.

2. ALL EXISTING CONDITIONS MUST BE VERIFIED IN FIELD. IF DISCREPANCIES ARE FOUND, THEY HAVE TO BE REPORTED TO THE ENGINEER PRIOR TO START OF WORK. OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF SUCH WORK.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SCHEDULING AND WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED PRIOR TO PROCEEDING WITH THE WORK.

4. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, INCLUDING BUT NOT LIMITED TO BRACING AND SHORING.

5. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

6. ALL WORK SHALL BE PERFORMED IN A FIRST CLASS AND WORKMANLIKE MANNER IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS, AND SHALL BE IN GOOD USABLE CONDITION AT THE COMPLETION OF THE PROJECT.

7. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS AND STRUCTURE PLACEMENT, PRIOR TO START OF THE WORK. THE CONTRACTOR WILL OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID DAMAGE TO SAME. ANY DAMAGE TO EXISTING STRUCTURES AND UTILITIES, WHETHER SHOWN OR NOT ON THE DRAWINGS, SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

8. PRIOR TO BIDDING THE WORK THE CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS AND QUANTITIES, IF ANY. NO CLAIM AGAINST THE OWNER OR ENGINEER WILL BE ALLOWED FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OR RELATIVE.

9. CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND RELOCATION WORKS, IF ANY.

PROPOSED GFA (GROSS FLOOR AREA) CALCULATION:

ZONING DISTRICT: SR-B
LOT AREA 10,764 SF

ALLOWABLE FAR: 0.38

ALLOWABLE FLOOR AREA: 4,094.12 SF

PROPOSED FLOOR AREA OF THE BUILDING:

1. 1ST FLOOR: 1,911 SF (NOT INCLUDING GARAGE 468 SF)

2. 2ND FLOOR: 2,175 SF

3. BASEMENT: NA

TOTAL PROPOSED FLOOR AREA OF THE BUILDING:
1,911 (1ST FL.) + 2,175 (2ND FL.) = 4,086 SF

4,086 SF < 4,094.12 SF

NOTES:

1. ALL EXTERIOR WALLS ARE 2"x6" @ 16" O.C. UNLESS NOTED OTHERWISE.

2. ALL INTERIOR WALLS ARE 2"x4" @ 16" O.C. UNLESS NOTED OTHERWISE.

3. INTERIOR (DEMISING) WALL BETWEEN THE GARAGE AND THE BUILDING IS 2"x6" @ 16" O.C.

4. DIMENSIONS TO THE OUTSIDE (PERIMETER) WALLS ARE TO FACE OF STUDS OR EXTERIOR FACE OF THE FOUNDATION WALL.

5. INTERIOR DIMENSIONS SHOWN BETWEEN CENTERS OF THE INTERIOR WALLS.

INTERIOR DOORS SCHEDULE:

(D1) 2'-6" X 8'-0"
(D2) 2'-6" X 8'-0" FIRE RATED, 20M MIN
(D3) 2'-4" x 8'-0"
(D4) 4'-0" x 8'-0"
(D5) 5'-0" x 8'-0"

FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

(S) PHOTO ELECTRIC HARD WIRED SMOKE DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE

(C) CARBON MONOXIDE DETECTOR

(H) HARD WIRED HEAT DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

DATE	REVISION

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HOUSE # 08

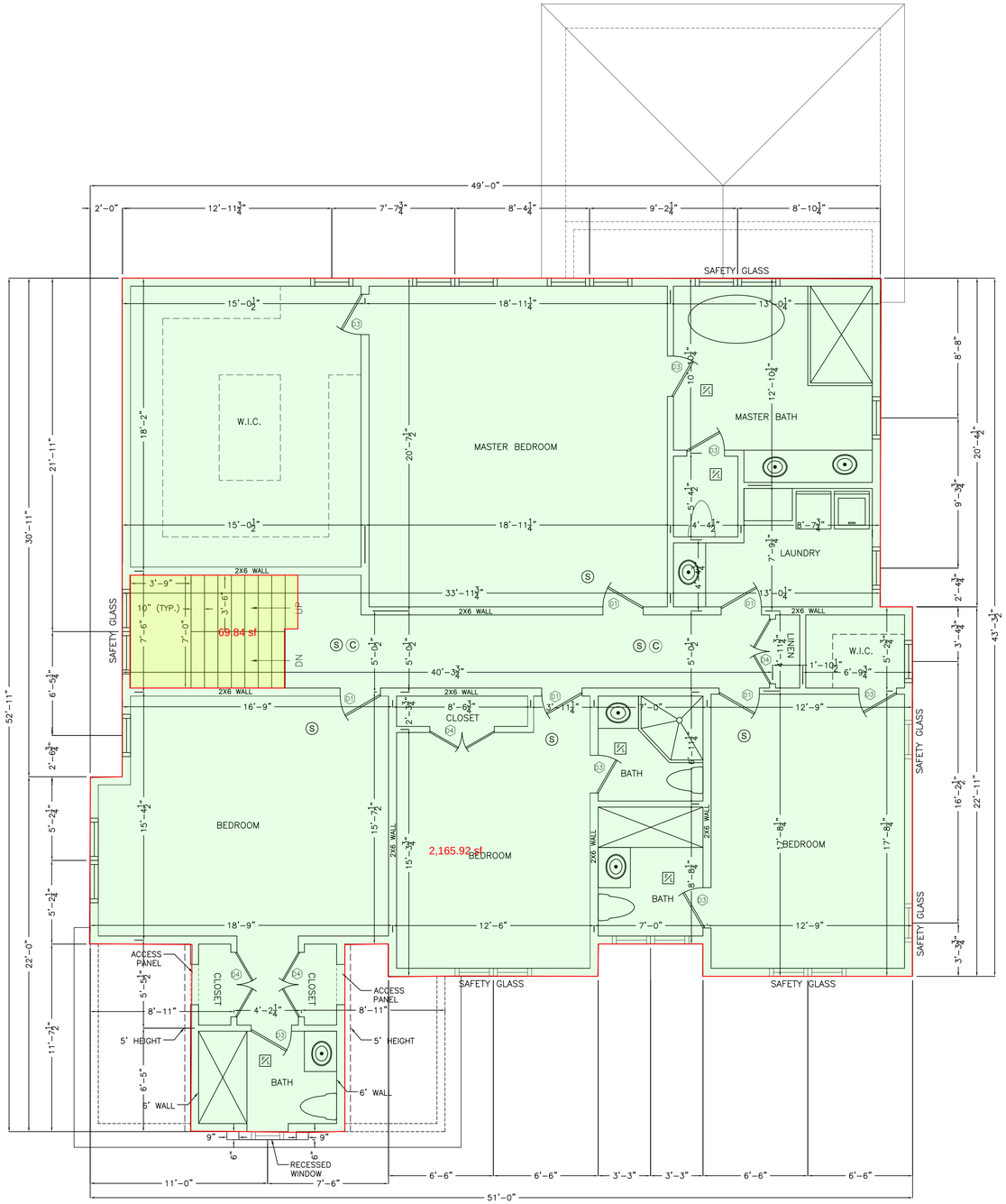
FIRST FLOOR PLAN

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VOLKAN
No. 22276
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"

APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 03/08/2022	DRAWN BY: I.K.	A-1
	CHECKED BY: R.A.V.	



SECOND FLOOR PLAN

INTERIOR DOORS SCHEDULE:

- (D1) 2'-6" X 8'-0"
- (D2) 2'-6" X 8'-0" FIRE RATED, 20M MIN
- (D3) 2'-4" X 8'-0"
- (D4) 4'-0" X 8'-0"
- (D5) 5'-0" X 8'-0"

FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

- (S) PHOTO ELECTRIC HARD WIRED SMOKE DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES
- FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE
- (C) CARBON MONOXIDE DETECTOR
- (H) HARD WIRED HEAT DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

DATE	REVISION

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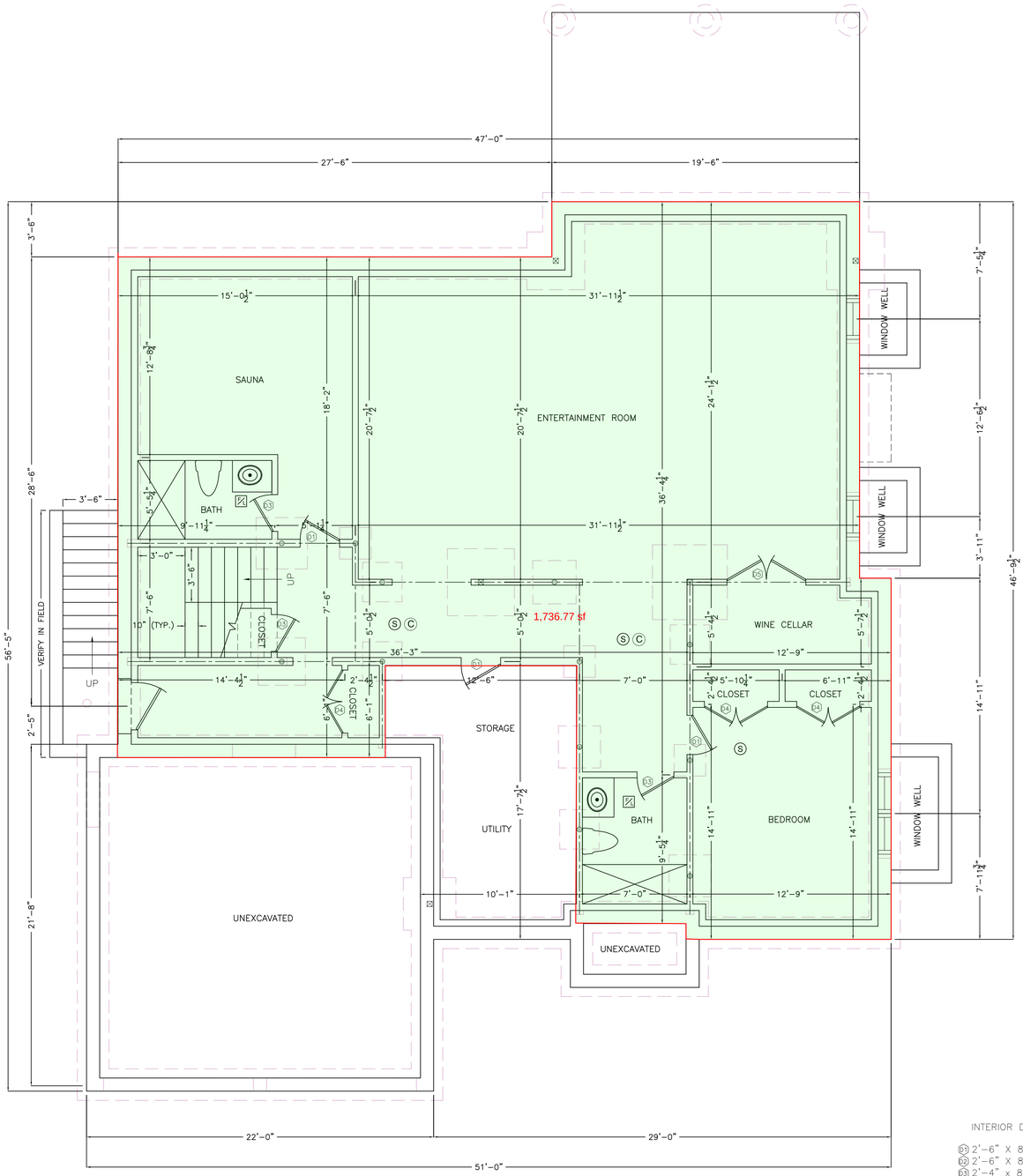
SECOND FLOOR PLAN

HOUSE # 08

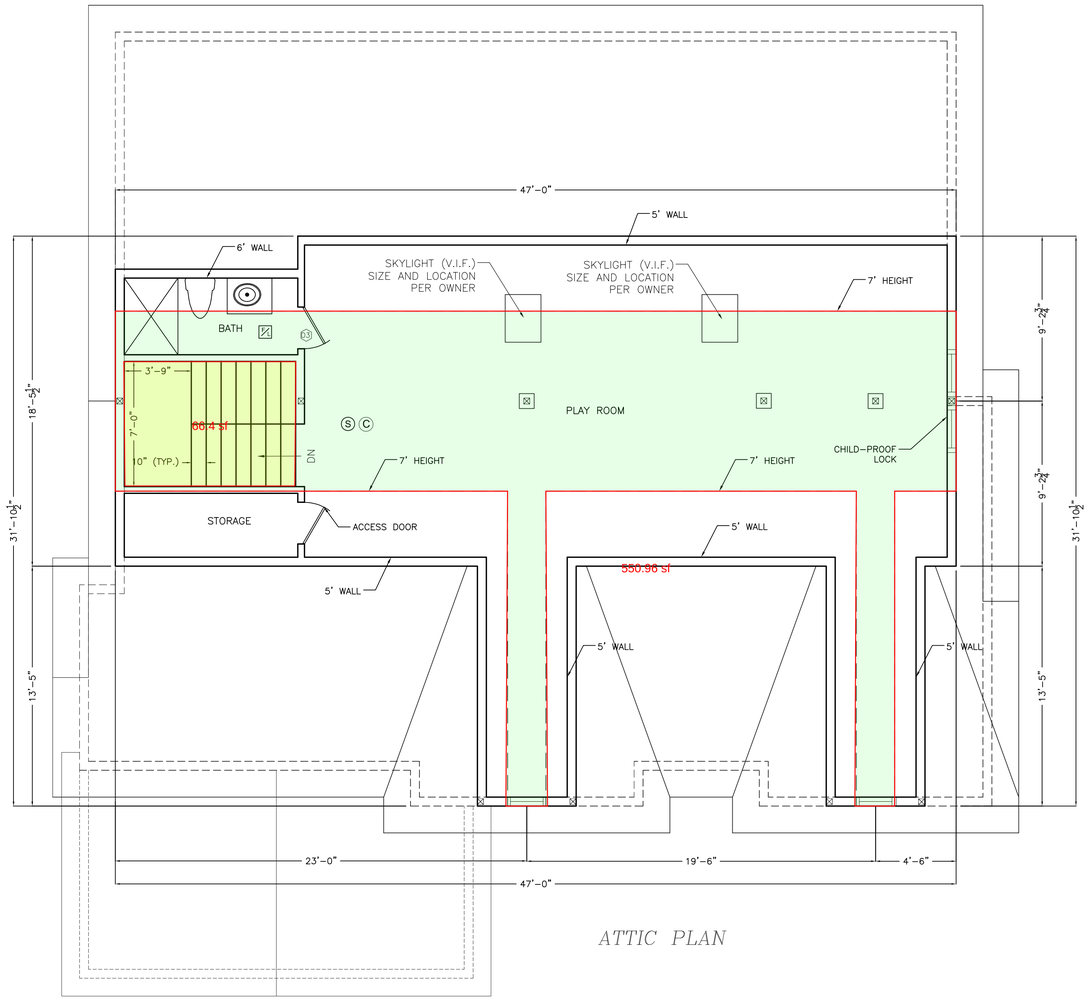
RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VOLK
No. 22276
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 03/08/2022	DRAWN BY: I.K.	A-2
	CHECKED BY: R.A.V.	



BASEMENT PLAN



ATTIC PLAN

INTERIOR DOORS SCHEDULE:

(D1) 2'-6" X 8'-0"
(D2) 2'-6" X 8'-0" FIRE RATED, 20M MIN
(D3) 2'-4" x 8'-0"
(D4) 4'-0" x 8'-0"
(D5) 5'-0" x 8'-0"

FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

(S) PHOTO ELECTRIC HARD WIRED SMOKE DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE

(C) CARBON MONOXIDE DETECTOR

(H) HARD WIRED HEAT DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

HOUSE # 08

DATE	REVISION

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BASEMENT AND ATTIC PLANS

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
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TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VOLKAN
No. 22261
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
	DRAWN BY: I.K.	A-3
DATE: 03/08/2022	CHECKED BY: R.A.V.	

EXTERIOR DOORS AND WINDOWS SCHEDULE

400–SERIES CASEMENT WINDOWS BY ANDERSEN WITH LOW–E INSULATING GLASS, UNLESS NOTED OTHERWISE

No.	UNIT DIMENSIONS	MODEL		REMARKS
1	3'–0" x 8'–0"	CUSTOM		ENTRY DOOR
1A	3'–0" x 1'–0"	CUSTOM		TRANSOM ABOVE ENTRY DOOR (OPTIONAL) / V.I.F.
2	1'–2" x 8'–0"	CUSTOM		SIDELIGHT
2A	1'–2" x 1'–0"	CUSTOM		TRANSOM ABOVE SIDELIGHT (OPTIONAL) / V.I.F.
3	9'–0" x 8'–0"	CUSTOM		GARAGE DOOR
4	2'–4 3/8" x 5'–4 13/16"	CW155	◊	
5	2'–4 3/8" x 4'–11 7/8"	CW15	◊	
6	2'–4 3/8" x 1'–5"	AR251		TRANSOM / SAFETY GLASS
7	2'–0 1/8" x 4'–0"	C14		
8	2'–4 3/8" x 2'–11 15/16"	CW13	*	
9	2'–7 1/2" x 5'–11 7/8"	CX16	*	
10	2'–7 1/2" x 4'–0"	CX14	*	
11	2'–0 1/8" x 5'–11 7/8"	C16		
12	2'–7 1/2" x 4'–11 7/8"	CX15	*	
12A	2'–7 1/2" x 4'–11 7/8"	CX15	*	SAFETY GLASS
13	2'–0 1/8" x 4'–4 13/16"	C145		
14	2'–7 1/2" x 4'–4 13/16"	CX145	*	
15	6'–0" x 8'–0"	CUSTOM		FRENCH DOOR
16	3'–0" x 8'–0"	CUSTOM		GARAGE SIDE DOOR
17	3'–0" x 7'–0"	CUSTOM		BASEMENT DOOR

* EGRESS WINDOW MEETS OR EXCEEDS CLEAR OPENING OF 5.7 SF, CLEAR WIDTH 20" AND CLEAR HEIGHT 24"

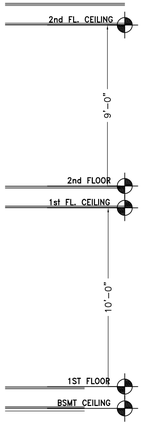
◊ AVAILABLE WITH STRAIGHT–ARM OPERATORS ONLY

** USE SILL HINGE CONTROL BRACKET W/ SPLIT–ARM OPERATOR

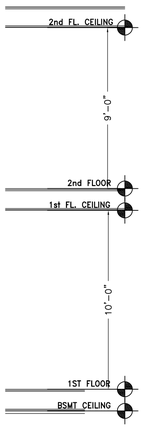
NOTES:

CONTRACTOR MUST VERIFY ALL SIZES AND ROUGH OPENINGS PRIOR TO ORDERING WINDOWS.
CONTACT WINDOW MANUFACTURER FOR DETAILS. CONTACT THE OWNER FOR FINAL SELECTION
OF DOORS AND WINDOWS PRIOR TO ORDERING AND PRIOR TO FRAMING DOOR AND WINDOW OPENINGS.
VERIFY CLEAR OPENINGS IN ALL BEDROOMS. MINIMUM CLEAR OPENING MUST BE 20 IN (W) x 24 IN (H) AND HAVE MINIMUM OF 5.7 S.F. OF CLEAR OPEN AREA FOR ANY WINDOW EXCEPT OF DOUBLE HUNG WINDOW (3.3 S.F. OF CLEAR OPEN AREA FOR DOUBLE HUNG WINDOW).
VERIFY LOCATIONS OF SAFETY GLASS WINDOWS AND DOORS PRIOR TO ORDERING WINDOWS AND DOORS.

SPECIFIC LOCATIONS:
1. GLAZING IN INGRESS AND MEANS OF EGRESS DOORS;
2. GLAZING IN FIXED AND SLIDING PANELS OF SLIDING DOORS AND SWINGING DOORS;
3. GLAZING IN STORM DOORS;
4. GLAZING IN UNFRAMED SWINGING DOORS;
5. GLAZING IN DOORS AND ENCLOSURES FOR BATHTUBS, STEAM ROOMS AND SHOWERS. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING THESE COMPONENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE.
6. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24–INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.
7. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL WHICH MEETS THE FOLLOWING CONDITIONS:
   a) EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 S.F.;
   b) EXPOSED BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR;
   c) EXPOSED TOP EDGE GREATER THAN 36" ABOVE THE FLOOR;
   d) ONE OR MORE WALKING SURFACES WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.



FRONT ELEVATION



REAR ELEVATION

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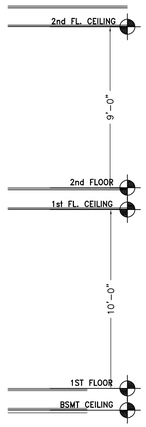
HOUSE # 08

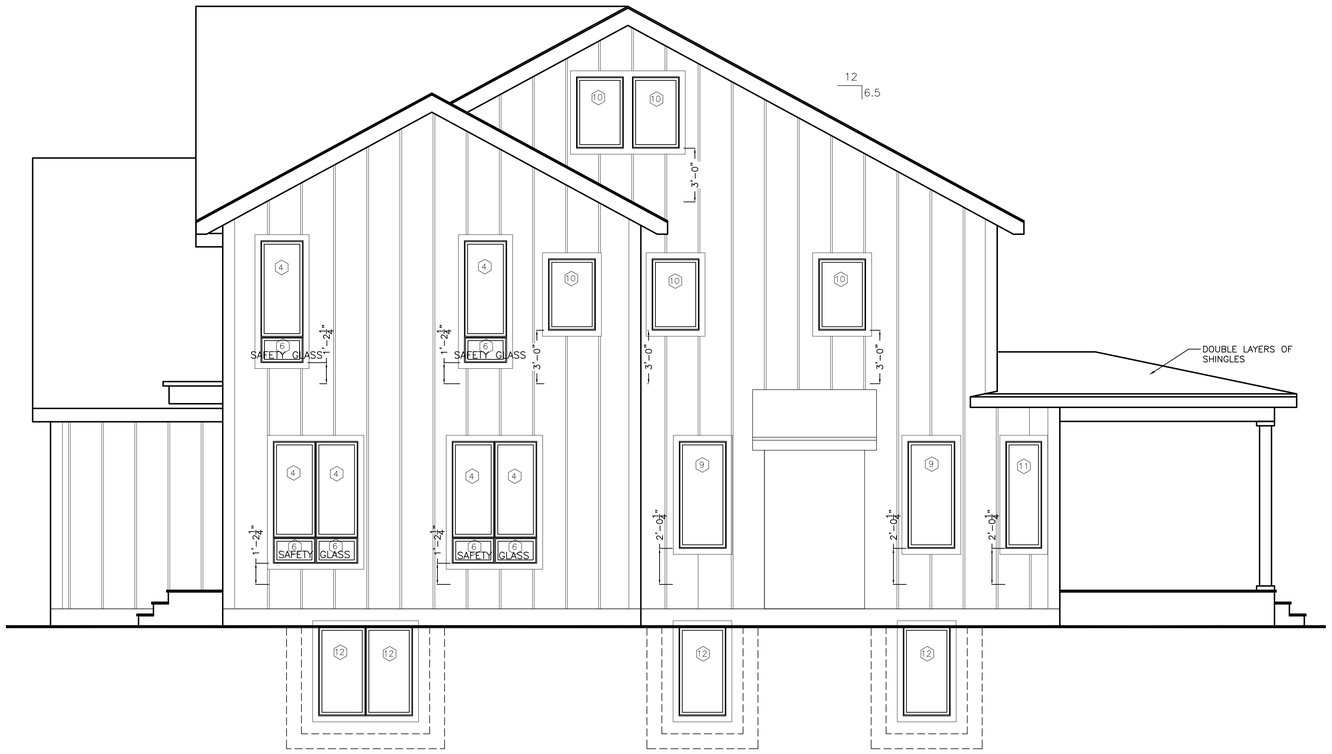
FRONT AND REAR ELEVATIONS

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

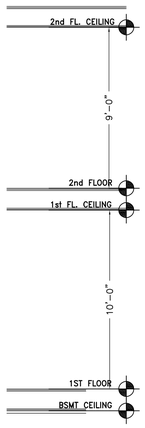
COMMONWEALTH OF MASSACHUSETTS — RICHARD A. VOLAN — No. 22263 — REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'–0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
	DRAWN BY: I.K.	A–4
DATE: 03/08/2022	CHECKED BY: R.A.V.	





RIGHT SIDE ELEVATION



LEFT SIDE ELEVATION

HOUSE # 08

DATE	REVISION

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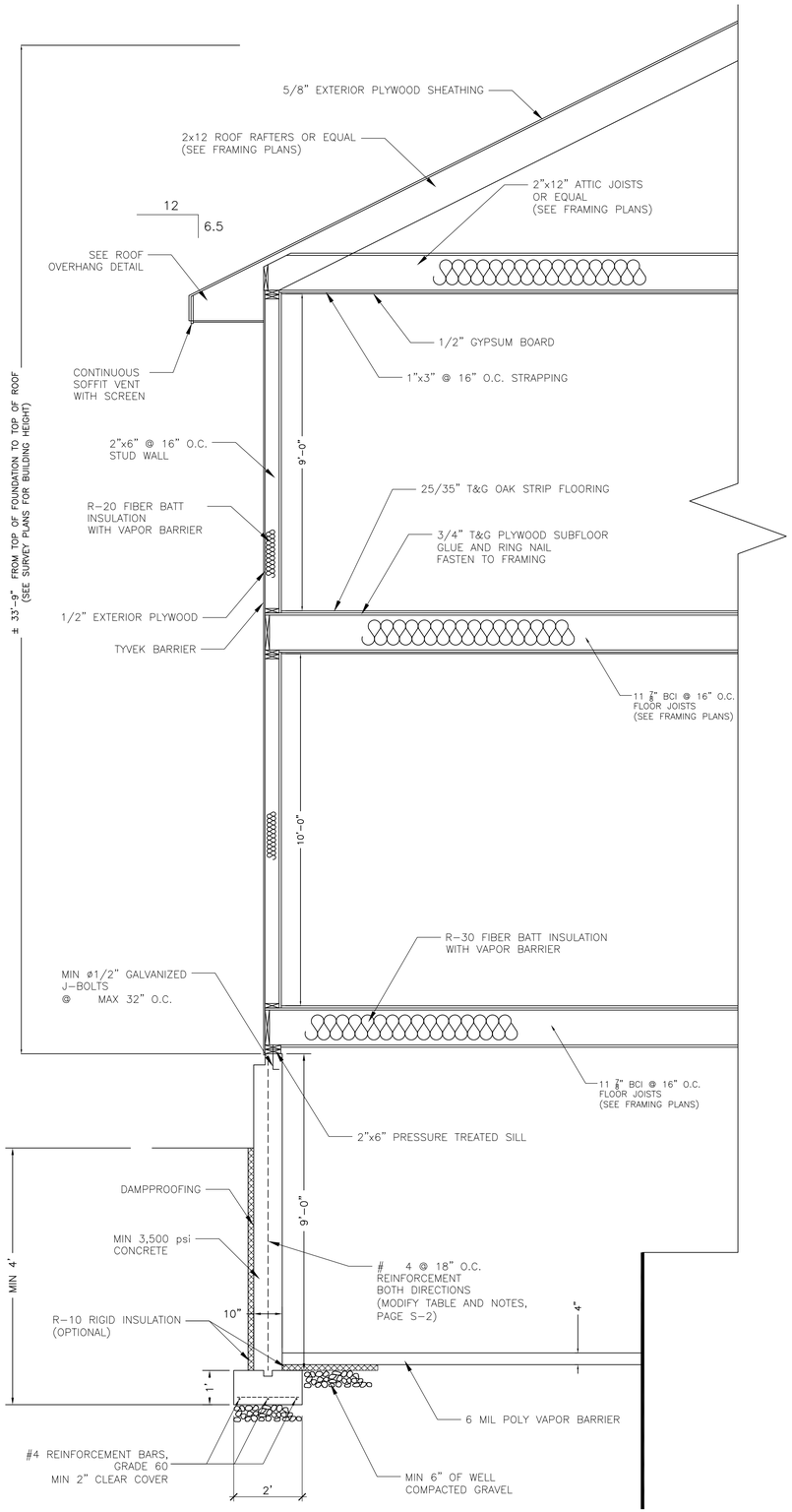
SIDE ELEVATIONS

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

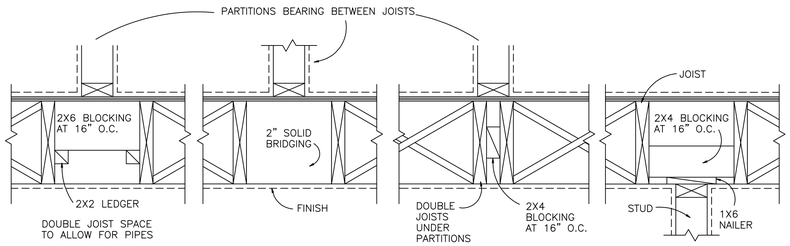
COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VOLKAY
NO. 22094
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
	DRAWN BY: I.K.	A-5
DATE: 03/08/2022	CHECKED BY: R.A.V.	

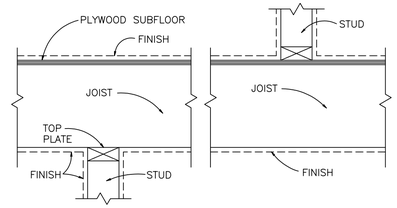


TYPICAL CROSS SECTION THROUGH THE WALL

SCALE: 1/2"=1'



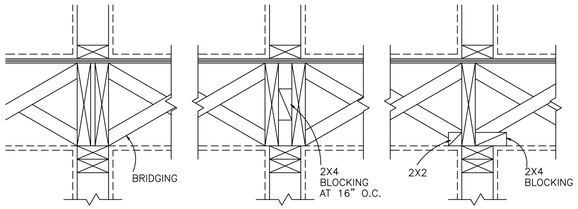
PARTITIONS PARALLEL TO JOISTS



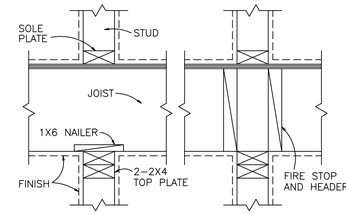
PARTITIONS PERPENDICULAR TO JOISTS

NONBEARING INTERIOR PARTITIONS

TYPICAL DETAILS



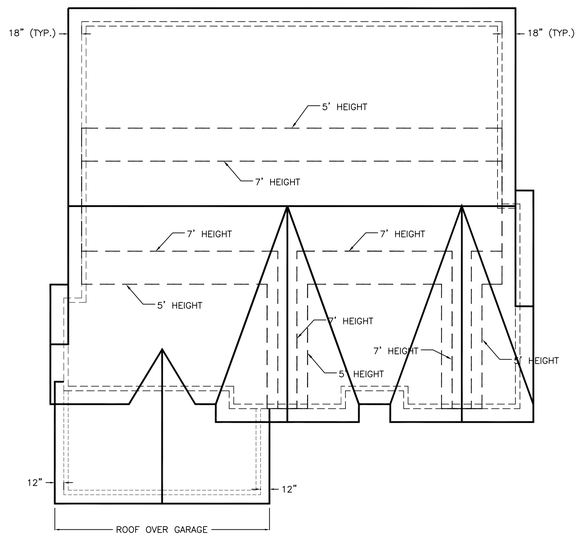
PARTITIONS PARALLEL TO JOISTS



PARTITIONS PERPENDICULAR TO JOISTS

BEARING INTERIOR PARTITIONS

TYPICAL DETAILS



ROOF PLAN

SCALE: 1/2"=1'

DATE	REVISION

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HOUSE # 08

CROSS SECTIONS AND DETAILS

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VOLKAR
NO. 22211
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
	DRAWN BY: I.K.	S-6
DATE: 03/08/2022	CHECKED BY: R.A.V.	

C: House #09
Google Earth

HOUSE #09

HOUSE #09

AVON CIR
HOUSE #09

TL140
HOUSE #09

Large House Study - FAR Rules/Tests

House 9

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0			
Lot Size	10,877	SF		
Lot Coverage	2,426	SF	22.3%	

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,986	-	1,986	
1	2,368	509	1,859	
2	2,146	-	2,146	
3	530	-	530	
Total	7,030	509	6,521	
TLAG	5,044	Real Estate Ad=	7,677	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,426	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	22.3%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	36.8%	4,005	6,649
FAR (Flr 1,2,3 Exclude Garage)	38%	41.7%	4,535	6,119
FAR (Flr 1,2,3,B Exclude Garage	38%	60.0%	6,521	4,133
FAR (Flr 1,2,3,+ Garage on 1)	38%	46.4%	5,044	6,119
FAR (Flr 1,2 + any Garage)	38%	41.5%	4,514	6,649

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessor"s Map & Parcel Number: _____

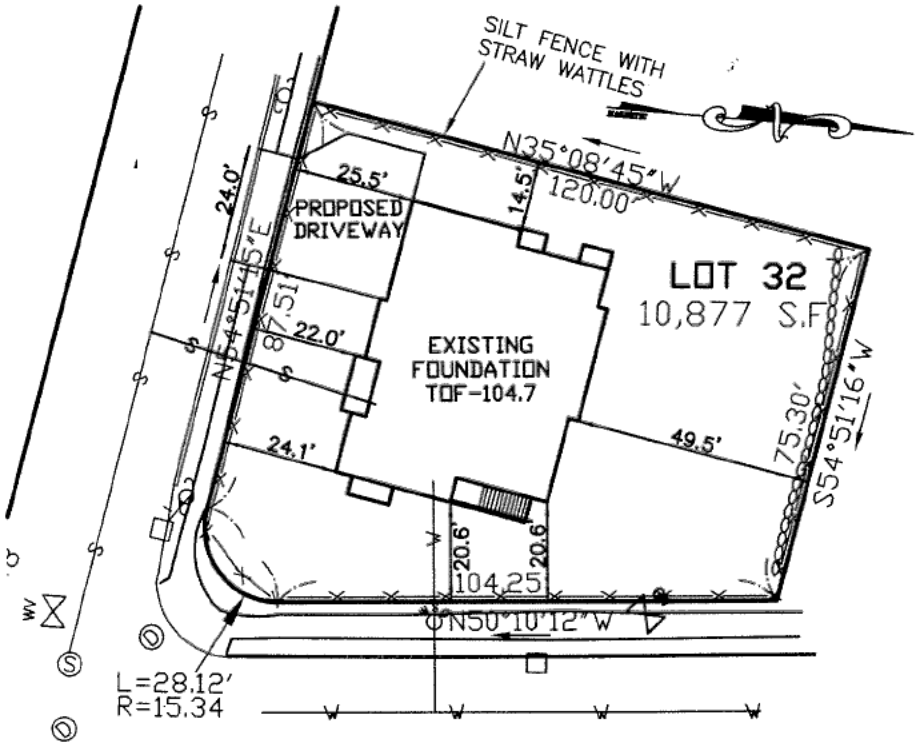
Building Permit No. _____ Zoning District: SRB

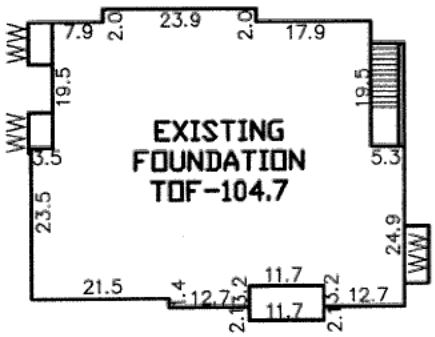
Lot Area 10887 S.F. Address: _____

Owner _____ Builder: _____

DEMO/PROPOSED PLOT PLAN/FOUNDATION AS-BUILT/FINAL AS-BUILT

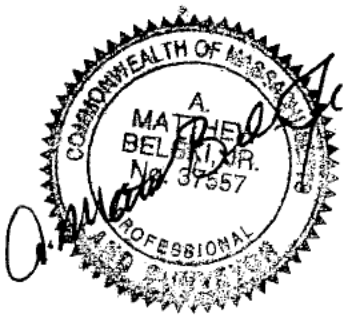
40' Scale





SCALE: 1"=30'

LOT COVERAGE= 22.3%
PROPOSED HEIGHT OF DWELLING 34.3'
FROM AVERAGE GRADE
TO THE RIDGE OF ROOF

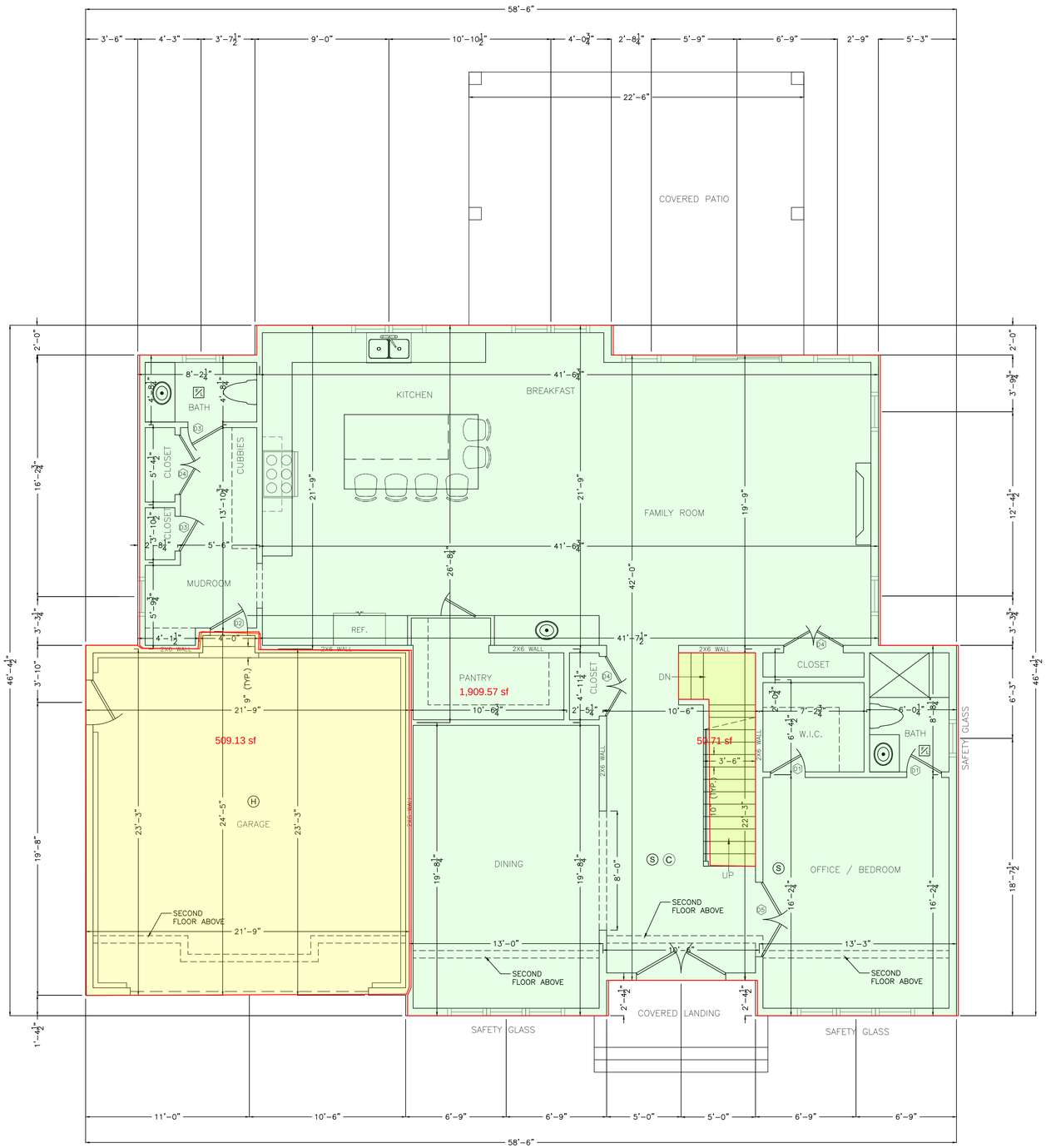


9/15/24

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the town or Needham. All plot plans shall show existing structures and public utilities, including water mains, sewers, drains, gaslines, etc.; driveways, Flood Plain and Wetland Areas, lot dimensions, dimensions of proposed structures, sideline offsets and setback distances, (allowing for overhangs) and elevation of top of foundations and garage floor. For new construction, elevation of lot corners at streetline and existing and approved street grades shall be shown for grading along lot line bordering streetline. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location in unsewered area.
(*Accessory structures may require a separate building permit— See Building Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this 14 day of SEPTEMBER 2024.
Name A. MATTHEW BELSKI, JR. Registered Land Surveyor No. 37557
Address 35 MAPLE ST. City W. NEWBURY State MA Zip _____
Approved _____ Director of Public Wo
Approved _____ Building Inspector

HOUSE # 09



FIRST FLOOR PLAN

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO MASSACHUSETTS BUILDING CODE AND ALL FEDERAL, STATE AND TOWN OF NEEDHAM LAWS, CODES AND REGULATIONS AS EACH MAY APPLY.

2. ALL EXISTING CONDITIONS MUST BE VERIFIED IN FIELD. IF DISCREPANCIES ARE FOUND, THEY HAVE TO BE REPORTED TO THE ENGINEER PRIOR TO START OF WORK. OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF SUCH WORK.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SCHEDULING AND WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED PRIOR TO PROCEEDING WITH THE WORK.

4. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, INCLUDING BUT NOT LIMITED TO BRACING AND SHORING.

5. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

6. ALL WORK SHALL BE PERFORMED IN A FIRST CLASS AND WORKMANLIKE MANNER IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS, AND SHALL BE IN GOOD USABLE CONDITION AT THE COMPLETION OF THE PROJECT.

7. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS AND STRUCTURE PLACEMENT, PRIOR TO START OF THE WORK. THE CONTRACTOR WILL OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID DAMAGE TO SAME. ANY DAMAGE TO EXISTING STRUCTURES AND UTILITIES, WHETHER SHOWN OR NOT ON THE DRAWINGS, SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

8. PRIOR TO BIDDING THE WORK THE CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS AND QUANTITIES, IF ANY. NO CLAIM AGAINST THE OWNER OR ENGINEER WILL BE ALLOWED FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OR RELATIVE.

9. CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND RELOCATION WORKS, IF ANY.

PROPOSED GFA (GROSS FLOOR AREA) CALCULATION:

ZONING DISTRICT: SR-B
LOT AREA 10,877 SF

ALLOWABLE FAR: 0.38=4,133 SF

PROPOSED FLOOR AREA OF THE BUILDING:

1. 1ST FLOOR: 1,904 SF (NOT INCLUDING GARAGE 516 SF)

2. 2ND FLOOR: 2,227 SF

3. ATTIC: 1,044 SF WITHIN 5' WALLS (NOT INCLUDED IN FAR)
554 SF WITHIN 7' WALLS (NOT INCLUDED IN FAR)

4. BASEMENT: 1,986 SF (NOT INCLUDED IN FAR)

TOTAL PROPOSED FLOOR AREA OF THE BUILDING:
1,904 (1ST FL.) + 2,227 (2ND FL.) = 4,131 SF

4,131 SF < 4,133

NOTES:

1. ALL EXTERIOR WALLS ARE 2"x6" @ 16" O.C. UNLESS NOTED OTHERWISE.

2. ALL INTERIOR WALLS ARE 2"x4" @ 16" O.C. UNLESS NOTED OTHERWISE.

3. INTERIOR (DEMISING) WALL BETWEEN THE GARAGE AND THE BUILDING IS 2"x6" @ 16" O.C.

4. DIMENSIONS TO THE OUTSIDE (PERIMETER) WALLS ARE TO FACE OF STUDS OR EXTERIOR FACE OF THE FOUNDATION WALL.

5. INTERIOR DIMENSIONS SHOWN BETWEEN CENTERS OF THE INTERIOR WALLS.

INTERIOR DOORS SCHEDULE:

(D1) 2'-6" X 8'-0"
(D2) 2'-6" X 8'-0" FIRE RATED, 20M MIN
(D3) 2'-4" x 8'-0"
(D4) 4'-0" x 8'-0"
(D5) 5'-0" x 8'-0"
(D6) 3'-0" x 7'-0" UTILITY ROOM

FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

NOTE:
ALL FIRST FLOOR DOORS ARE 8' HEIGHT.
ALL SECOND FLOOR DOORS ARE 7' HEIGHT.
ALL BASEMENT DOORS ARE 7' HEIGHT.

(S) PHOTO ELECTRIC HARD WIRED SMOKE DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE

(C) CARBON MONOXIDE DETECTOR

(H) HARD WIRED HEAT DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

DATE	REVISION
07/05/24	FLOOR PLAN UPDATED BASED ON NEW FOOTPRINT
07/01/24	FAR NOTE UPDATED

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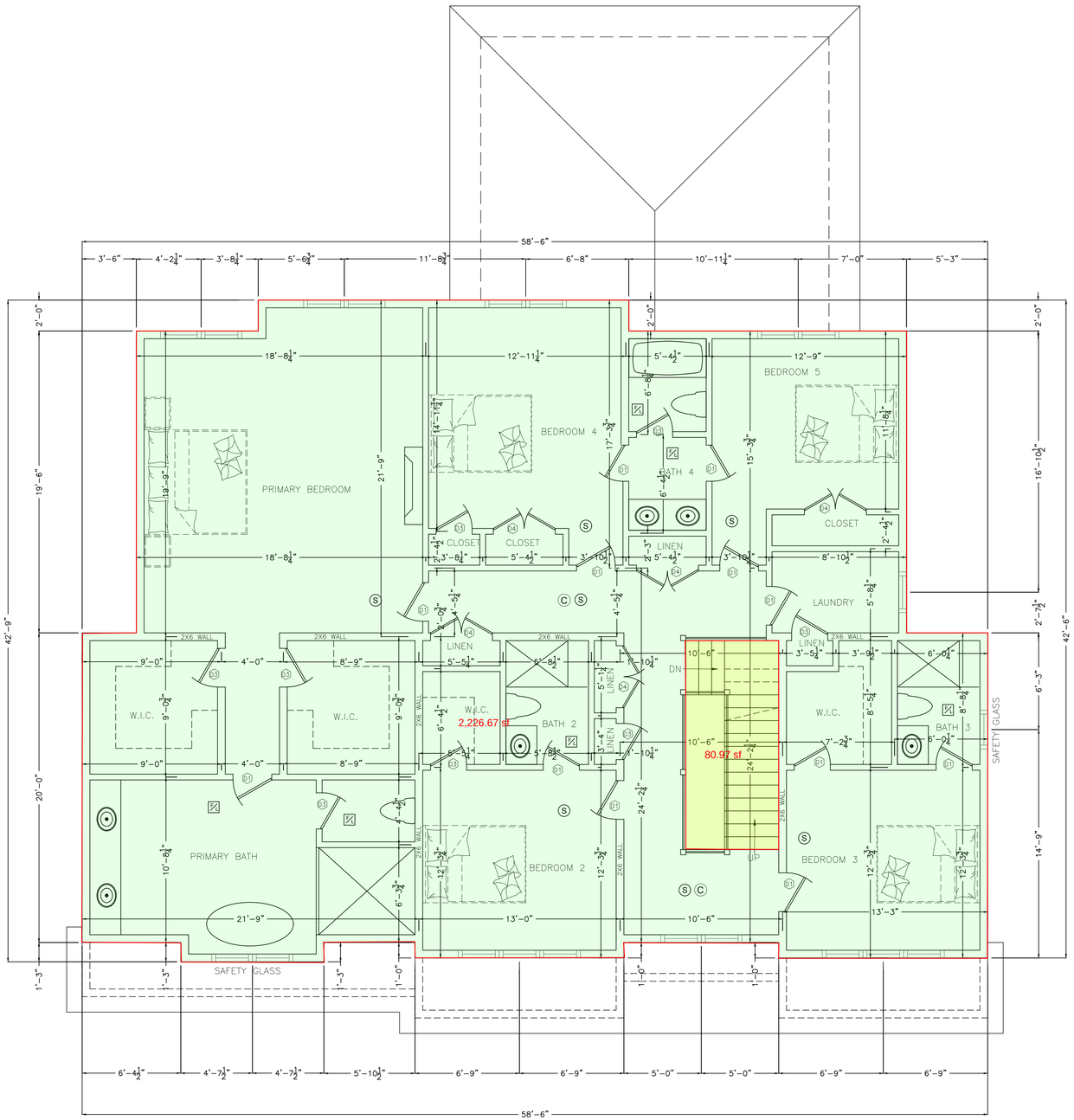
HOUSE # 09

FIRST FLOOR PLAN

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS · RICHARD A. VOLO · No. 22078 · REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.B.	DRAWING No.
	DRAWN BY: I.B.	A-1
DATE: 05/11/2024	CHECKED BY: R.A.V.	



SECOND FLOOR PLAN

NOTES:

1. ALL EXTERIOR WALLS ARE 2"x6" @ 16" O.C. UNLESS NOTED OTHERWISE.

2. ALL INTERIOR WALLS ARE 2"x4" @ 16" O.C. UNLESS NOTED OTHERWISE.

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FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

NOTE:
ALL FIRST FLOOR DOORS ARE 8' HEIGHT.
ALL SECOND FLOOR DOORS ARE 7' HEIGHT.
ALL BASEMENT DOORS ARE 7' HEIGHT.

- (S) PHOTO ELECTRIC HARD WIRED SMOKE DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES
- FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE
- (C) CARBON MONOXIDE DETECTOR
- (H) HARD WIRED HEAT DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

DATE	REVISION
07/05/24	FLOOR PLAN UPDATED BASED ON NEW FOOTPRINT

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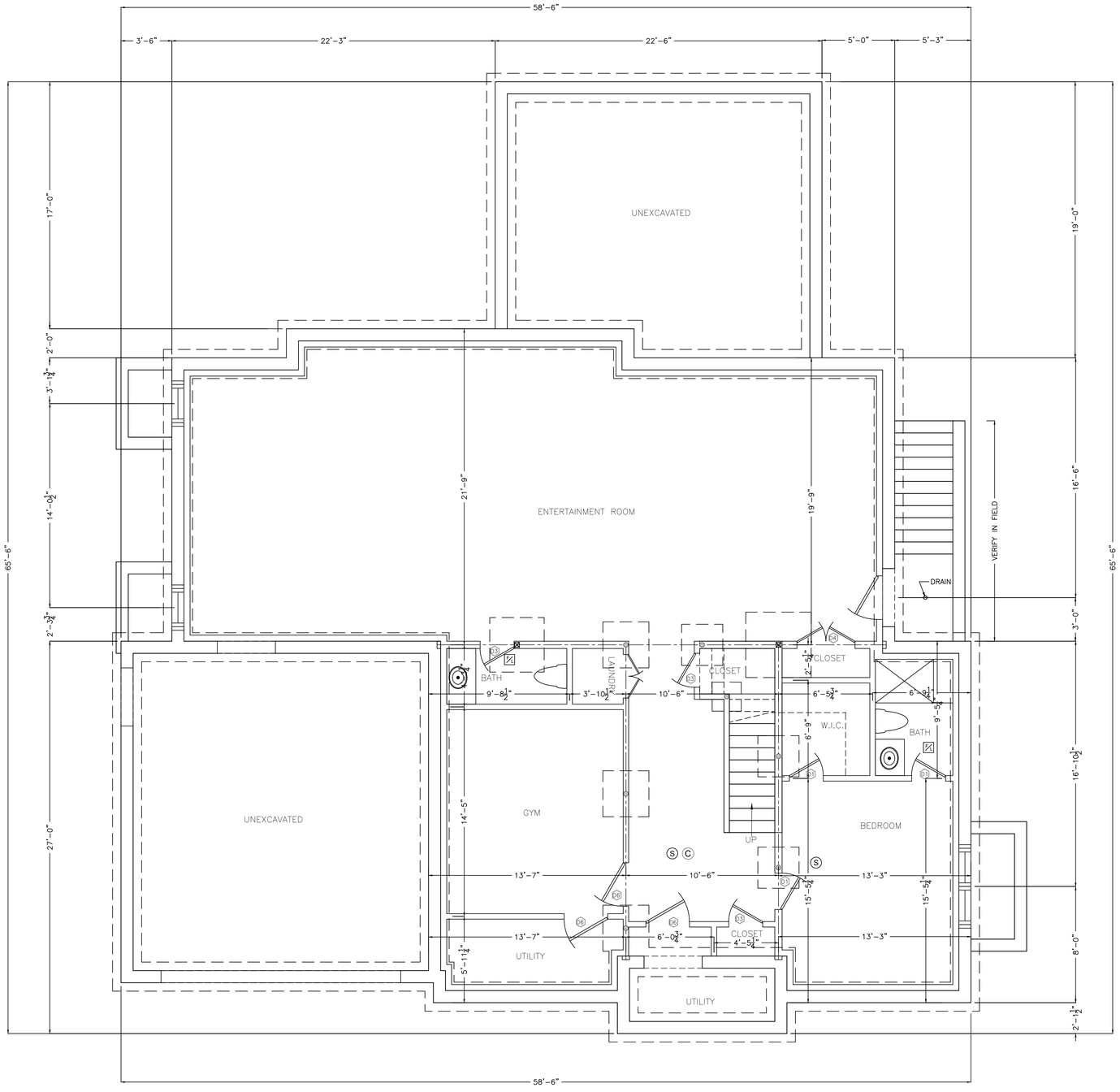
HOUSE # 09

COMMONWEALTH OF MASSACHUSETTS — RICHARD A. VOLPE — NO. 22676 — REGISTERED PROFESSIONAL ENGINEER

SECOND FLOOR PLAN

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.B.	DRAWING No. A-2
DATE: 05/11/2024	DRAWN BY: I.B.	
	CHECKED BY: R.A.V.	



BASEMENT PLAN

NOTES:

1. ALL EXTERIOR WALLS ARE 2"x6" @ 16" O.C. UNLESS NOTED OTHERWISE.

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(C) CARBON MONOXIDE DETECTOR

(H) HARD WIRED HEAT DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

DATE	REVISION
07/05/24	FLOOR PLAN UPDATED BASED ON NEW FOOTPRINT

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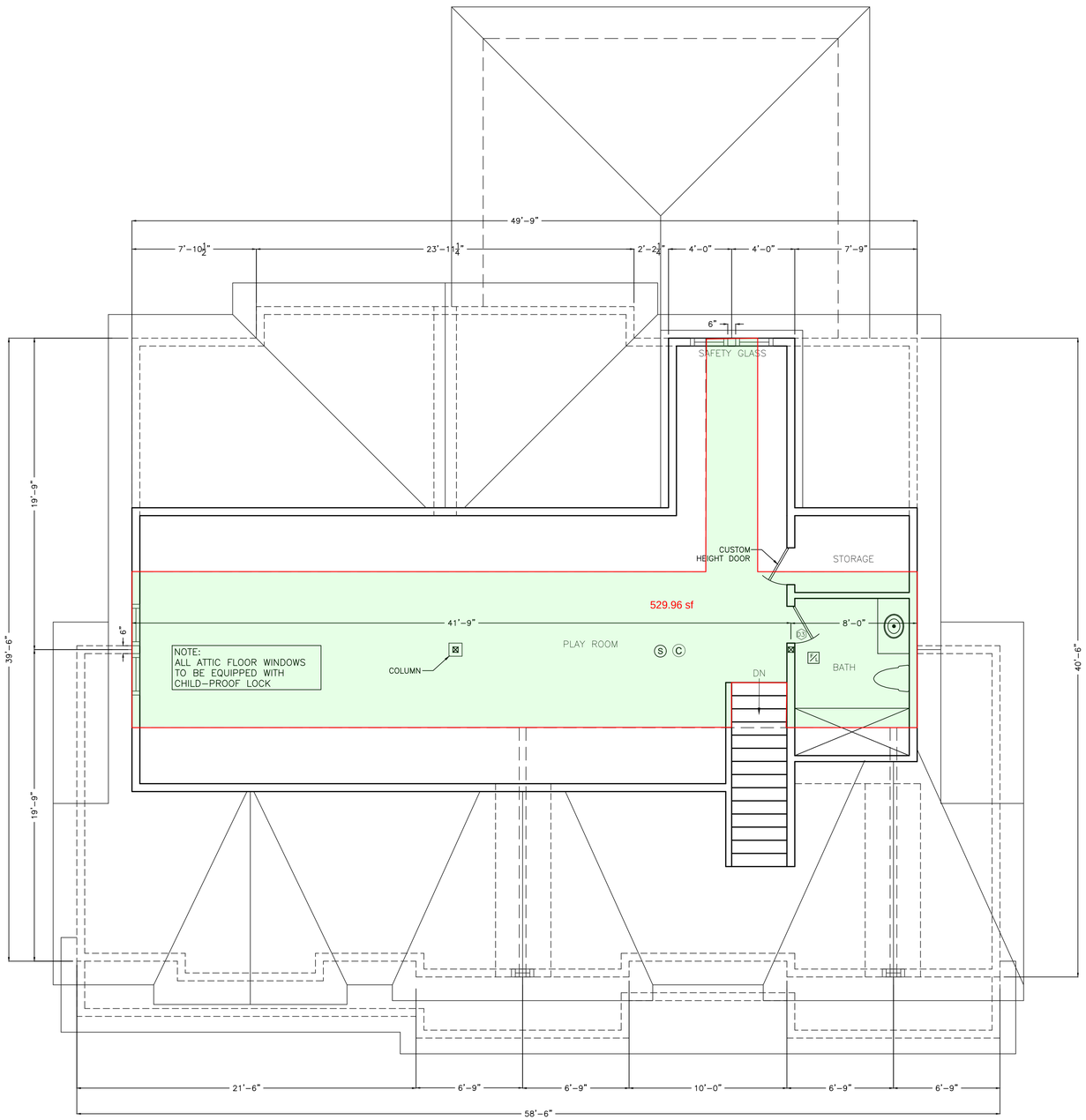
BASEMENT PLAN

HOUSE # 09

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VIOLA
No. 22076
REGISTERED PROFESSIONAL ENGINEER

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

SCALE: 1/4"=1'-0"
APPROVED: R.A.V.
DATE: 05/11/2024
DESIGNED BY: I.B.
DRAWN BY: I.B.
CHECKED BY: R.A.V.
DRAWING No. A-3



ATTIC PLAN

NOTES:

1. ALL EXTERIOR WALLS ARE 2"x6" @ 16" O.C. UNLESS NOTED OTHERWISE.

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01 2'-6" X 8'-0"
02 2'-6" X 8'-0" FIRE RATED, 20M MIN
03 2'-4" x 8'-0"
04 4'-0" x 8'-0"
05 5'-0" x 8'-0"
06 3'-0" x 7'-0" UTILITY ROOM

FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

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FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE

Ⓒ CARBON MONOXIDE DETECTOR

Ⓗ HARD WIRED HEAT DETECTOR WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

DATE	REVISION
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ATTIC PLAN

HOUSE # 09

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS — RICHARD A. VIOLA — No. 22076 — REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.B.	DRAWING No.
	DRAWN BY: I.B.	A-4
DATE: 05/11/2024	CHECKED BY: R.A.V.	

EXTERIOR DOORS AND WINDOWS SCHEDULE

400-SERIES CASEMENT WINDOWS BY ANDERSEN WITH LOW-E INSULATING GLASS, UNLESS NOTED OTHERWISE

No.	UNIT DIMENSIONS	MODEL		REMARKS
1	6-0" x 8'-0"	CUSTOM		ENTRY DOOR
2	16'-0" x 10'-0"	CUSTOM		GARAGE DOOR
3	2'-7 1/2" x 5'-11 7/8"	CX16	*	
4	2'-7 1/2" x 4'-11 7/8"	CX15	*	
4A	2'-7 1/2" x 4'-11 7/8"	CX15	*	SAFETY GLASS
5	2'-4 3/8" x 2'-11 15/16"	CW13	*	
6A	1'-5" x 3'-4 13/16"	CR135		SAFETY GLASS
7A	2'-7 1/2" x 1'-5"	AR281		
8	2'-4 3/8" x 4'-0"	CW14	*Δ	
8A	2'-4 3/8" x 4'-0"	CW14	*Δ	SAFETY GLASS
9	5-11 1/4" x 7'-11 1/4"	FWG6080		SLIDING DOOR
10	2'-7 1/2" x 4'-0"	CX14	*	
11	3-0" x 8'-0"	CUSTOM		GARAGE SIDE DOOR
12	2'-7 1/2" x 4'-4 13/16"	CX145	*	
13	3-0" x 7'-0"	CUSTOM		BASEMENT DOOR

* EGRESS WINDOW MEETS OR EXCEEDS CLEAR OPENING OF 5.7 SF, CLEAR WIDTH 20" AND CLEAR HEIGHT 24"

Δ MEET CLEAR OPENING WIDTH OF 20" USING SILL HINGE CONTROL BRACKET W/ SPLIT-ARM OPERATOR SPECIFIED (BRACKET CAN BE PIVOTED FOR CLEANING POSITION) & MEET CLEAR OPENING WIDTH OF 22" WITH STRAIGHT-ARM OPERATOR SPECIFIED.

NOTE:
ALL ATTIC FLOOR WINDOWS TO BE EQUIPPED WITH CHILD-PROOF LOCK

FRONT ELEVATION

REAR ELEVATION

NOTES:

CONTRACTOR MUST VERIFY ALL SIZES AND ROUGH OPENINGS PRIOR TO ORDERING WINDOWS.
CONTACT WINDOW MANUFACTURER FOR DETAILS. CONTACT THE OWNER FOR FINAL SELECTION
OF DOORS AND WINDOWS PRIOR TO ORDERING AND PRIOR TO FRAMING DOOR AND WINDOW OPENINGS.
VERIFY CLEAR OPENINGS IN ALL BEDROOMS. MINIMUM CLEAR OPENING MUST BE 20 IN (W) x 24 IN (H) AND HAVE MINIMUM OF 5.7 S.F. OF CLEAR OPEN AREA FOR ANY WINDOW EXCEPT OF DOUBLE HUNG WINDOW (3.3 S.F. OF CLEAR OPEN AREA FOR DOUBLE HUNG WINDOW).
VERIFY LOCATIONS OF SAFETY GLASS WINDOWS AND DOORS PRIOR TO ORDERING WINDOWS AND DOORS.

SPECIFIC LOCATIONS:
1. GLAZING IN INGRESS AND MEANS OF EGRESS DOORS;
2. GLAZING IN FIXED AND SLIDING PANELS OF SLIDING DOORS AND SWINGING DOORS;
3. GLAZING IN STORM DOORS;
4. GLAZING IN UNFRAMED SWINGING DOORS;
5. GLAZING IN DOORS AND ENCLOSURES FOR BATHTUBS, STEAM ROOMS AND SHOWERS. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING THESE COMPONENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE.
6. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24-INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.
7. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL WHICH MEETS THE FOLLOWING CONDITIONS:
   a) EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 S.F.;
   b) EXPOSED BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR;
   c) EXPOSED TOP EDGE GREATER THAN 36" ABOVE THE FLOOR;
   d) ONE OR MORE WALKING SURFACES WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.

07/05/24	ELEVATIONS REVISED
DATE	REVISION

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FRONT AND REAR ELEVATIONS

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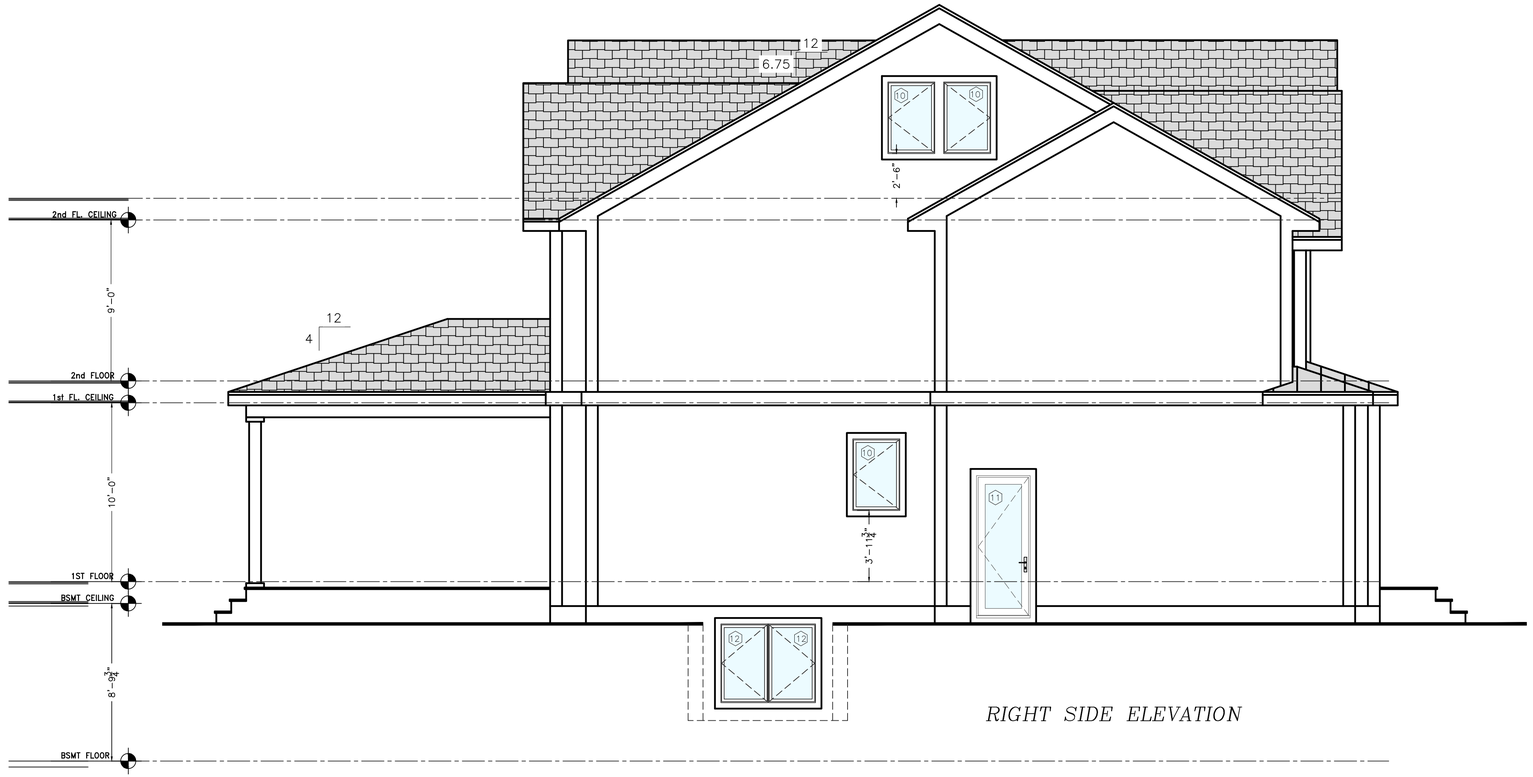
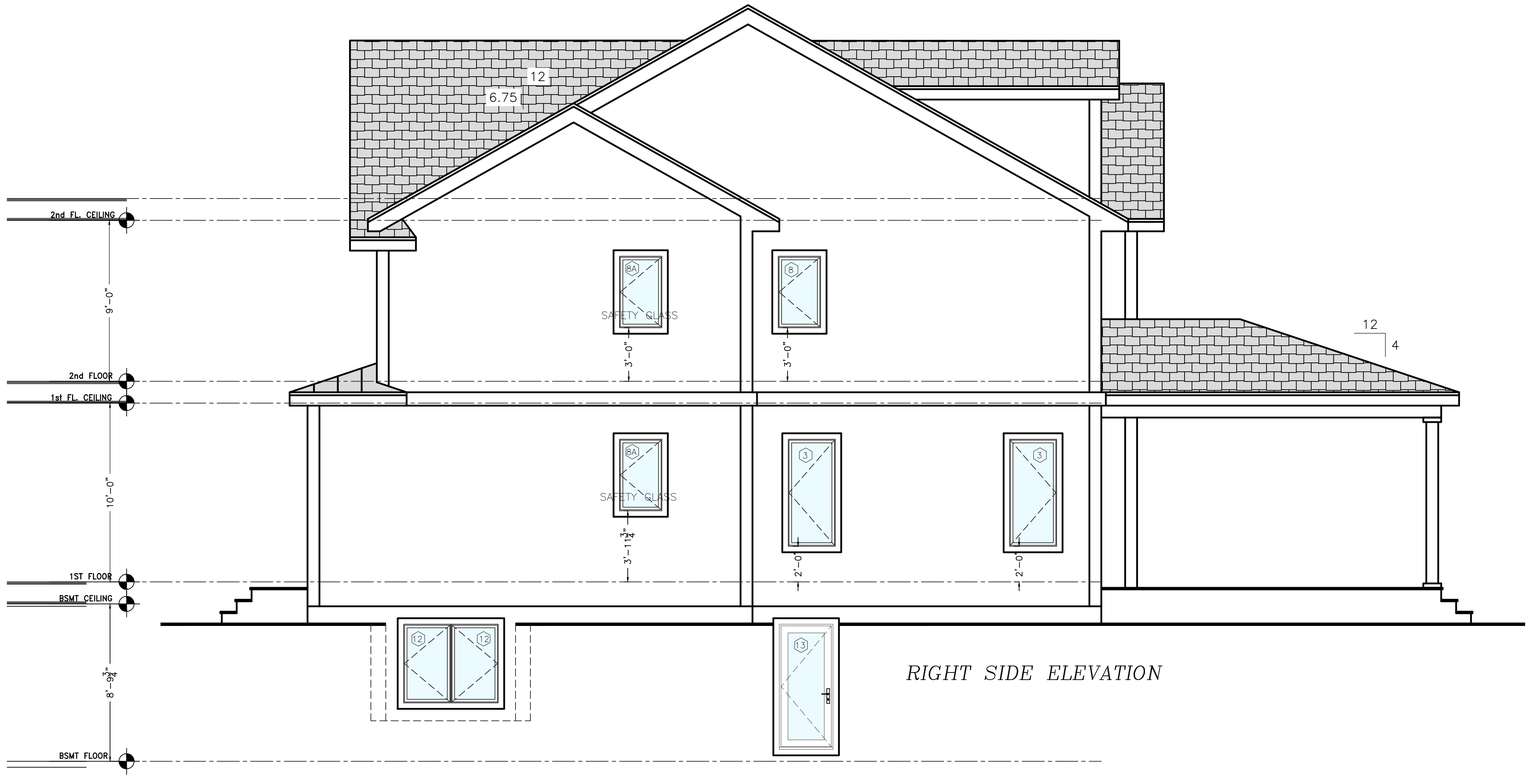
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS — RICHARD A. VISTEIN — No. 22076 — REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.B.	DRAWING No. A-5
DATE: 05/11/2024	DRAWN BY: I.B.	
	CHECKED BY: R.A.V.	



RIGHT SIDE ELEVATION



RIGHT SIDE ELEVATION

07/05/24	ELEVATIONS REVISED
DATE	REVISION

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SIDE ELEVATIONS

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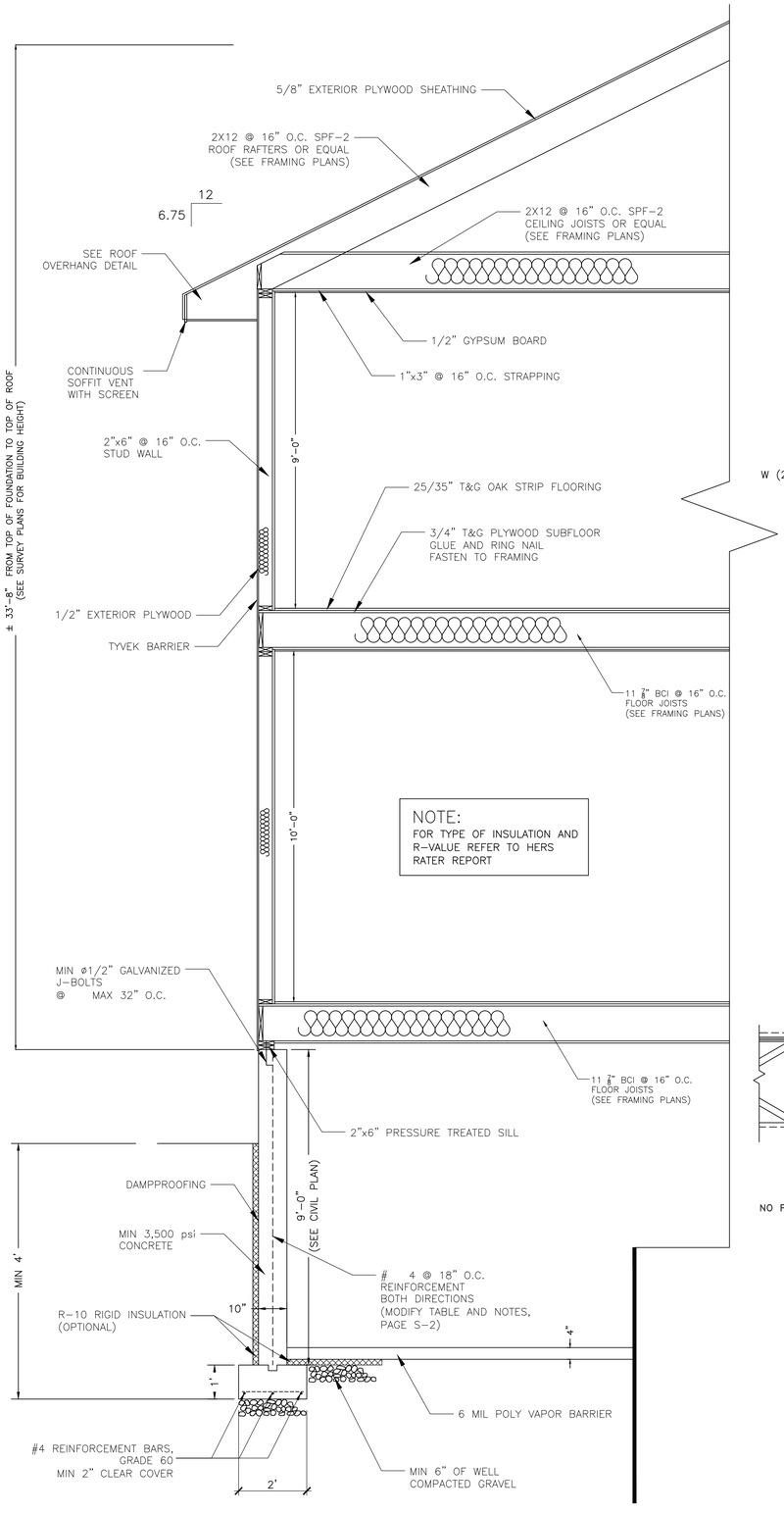
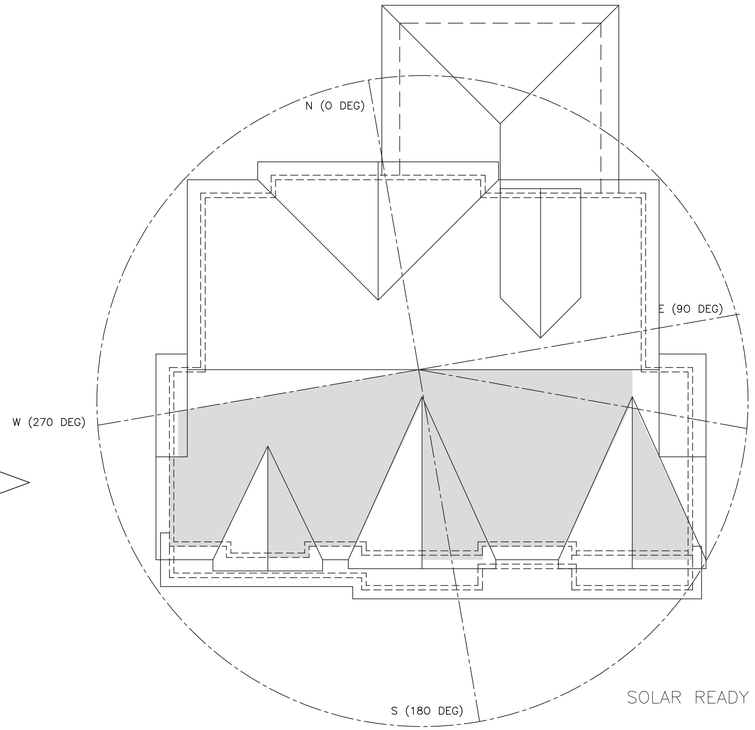
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

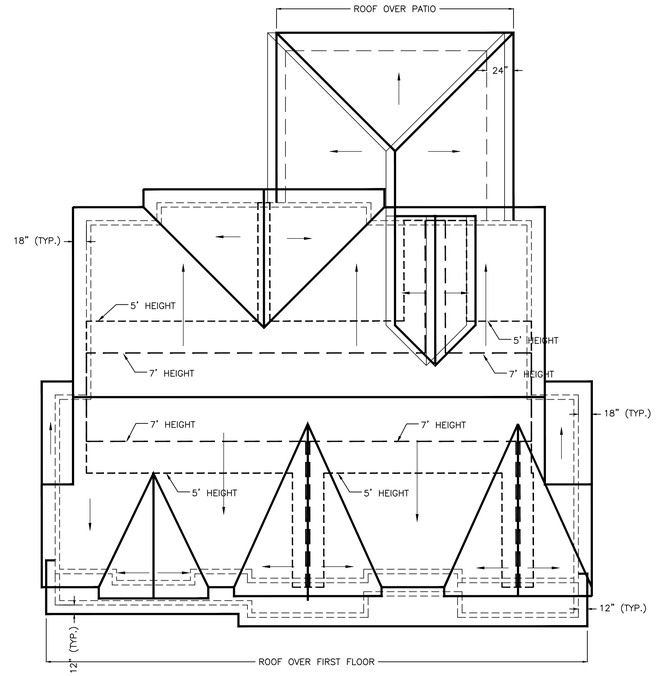
COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VACCARO
No. 22078
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.B.	DRAWING No.
	DRAWN BY: I.B.	A-6
DATE: 05/11/2024	CHECKED BY: R.A.V.	



TYPICAL CROSS SECTION THROUGH THE WALL





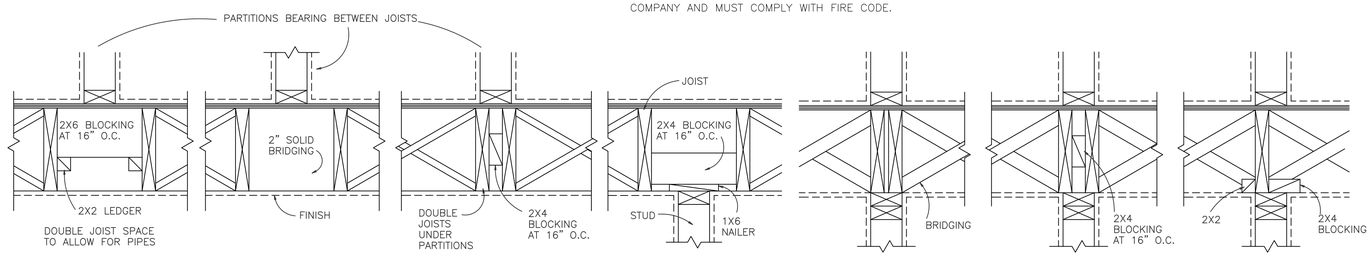
ROOF PLAN
SCALE: 1/2"=1'

SOLAR READY PANELING STRATEGY:

THE ROOF AREA ORIENTED BETWEEN 110 & 270 DEGREES OF TRUE NORTH IS 1,250 SF. THEREFORE UNOBSTRUCTED BUILDING'S ROOF AREA, WHICH IS APPROXIMATELY 920 SF, IS APPLICABLE FOR FUTURE SOLAR INSTALLATIONS. DEEPER DEMONSTRATION WITH A SOLAR SHADING/INSTALLATION STUDY IS TO BE PROVIDED BY ROOF SOLAR COMPANY.

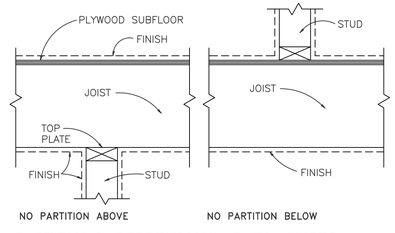
AREA AVAILABLE FOR SOLAR PANELS INSTALLATION MUST BE FREE OF ANY EXHAUSTS, VENTS, ETC.

INSTALLATION OF SOLAR WILL BE PROVIDED BY BY ROOF SOLAR COMPANY AND MUST COMPLY WITH FIRE CODE.



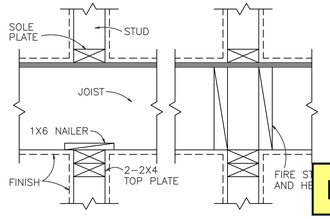
PARTITIONS PARALLEL TO JOISTS

PARTITIONS PARALLEL TO JOISTS



PARTITIONS PERPENDICULAR TO JOISTS

NONBEARING INTERIOR PARTITIONS
TYPICAL DETAILS



PARTITIONS PERPENDICULAR TO JOISTS

BEARING INTERIOR PARTITIONS
TYPICAL DETAILS

HOUSE # 09

DATE	REVISION
07/05/24	ROOF PLAN REVISED

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CROSS-SECTIONS AND DETAILS

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS — RICHARD A. VALENTI — No. 22076 — REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.B.	DRAWING No. S-6
DATE: 05/11/2024	DRAWN BY: I.B.	
	CHECKED BY: R.A.V.	

C: House #10
Google Earth

HOUSE #10

HOUSE #10

HOUSE #10

Large House Study - FAR Rules/Tests

House 10

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	11,761	SF	
Lot Coverage	2,658	SF	22.6%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,512	-	1,512
1	2,677	614	2,063
2	2,084	-	2,084
3	1,028	-	1,028
Total	7,301	614	6,687
TLAG	5,789	Real Estate Ad=	5,297 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,658	SF
Lot Coverage Limit	30%	
Lot Coverage Actual	22.6%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	38%	35.3%	4,147	7,009
FAR (Flr 1,2,3 Exclude Garage)	38%	44.0%	5,175	5,981
FAR (Flr 1,2,3,B Exclude Garage)	38%	56.9%	6,687	4,469
FAR (Flr 1,2,3,+ Include Garage 1)	38%	49.2%	5,789	5,981
FAR (Flr 1,2 + Include Garage 1)	38%	40.5%	4,761	7,009

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Building Permit No. _____ Assessor"s Map & Parcel Nunber: _____

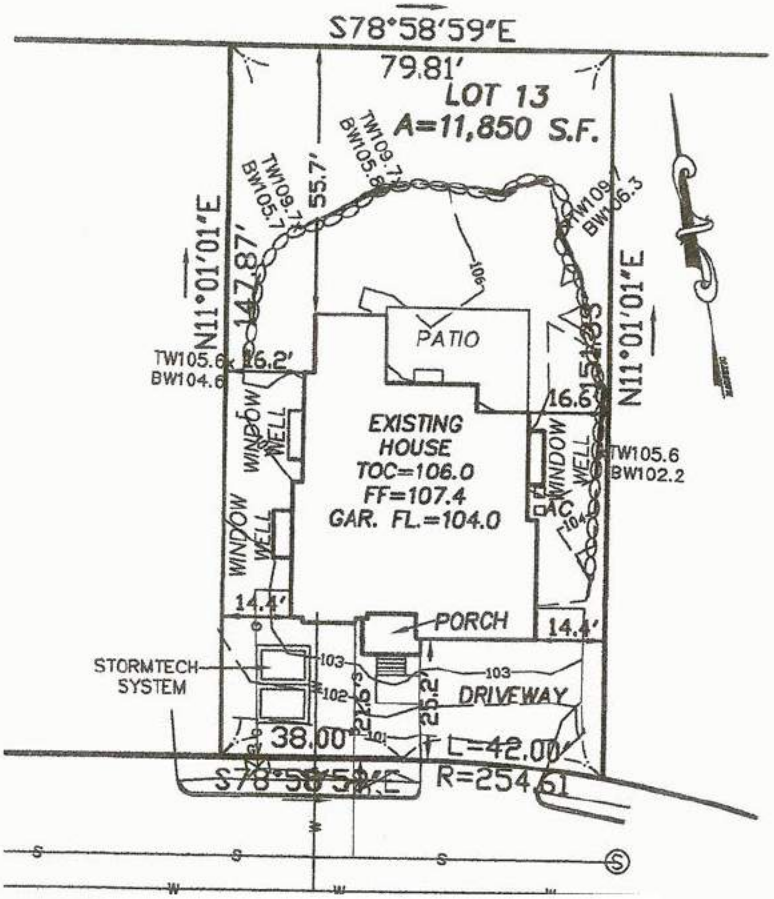
Zoning District: SRB

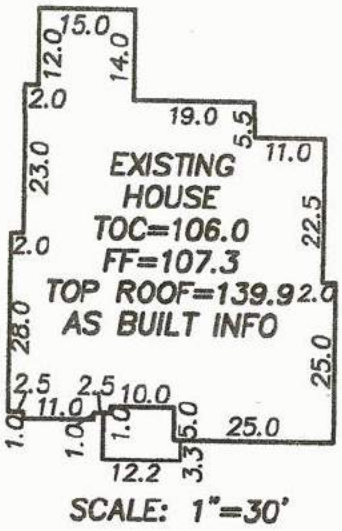
Lot Area 11,850 S.F. Address: _____

Owner _____ Builder: _____

DEMO/PROPOSED PLOT PLAN/FOUNDATION AS-BUILT (FINAL AS-BUILT)

40' Scale





PROPOSED LOT COVERAGE= 22.6%
HEIGHT OF DWELLING 34.7'
FROM AVERAGE GRADE
TO THE RIDGE OF ROOF

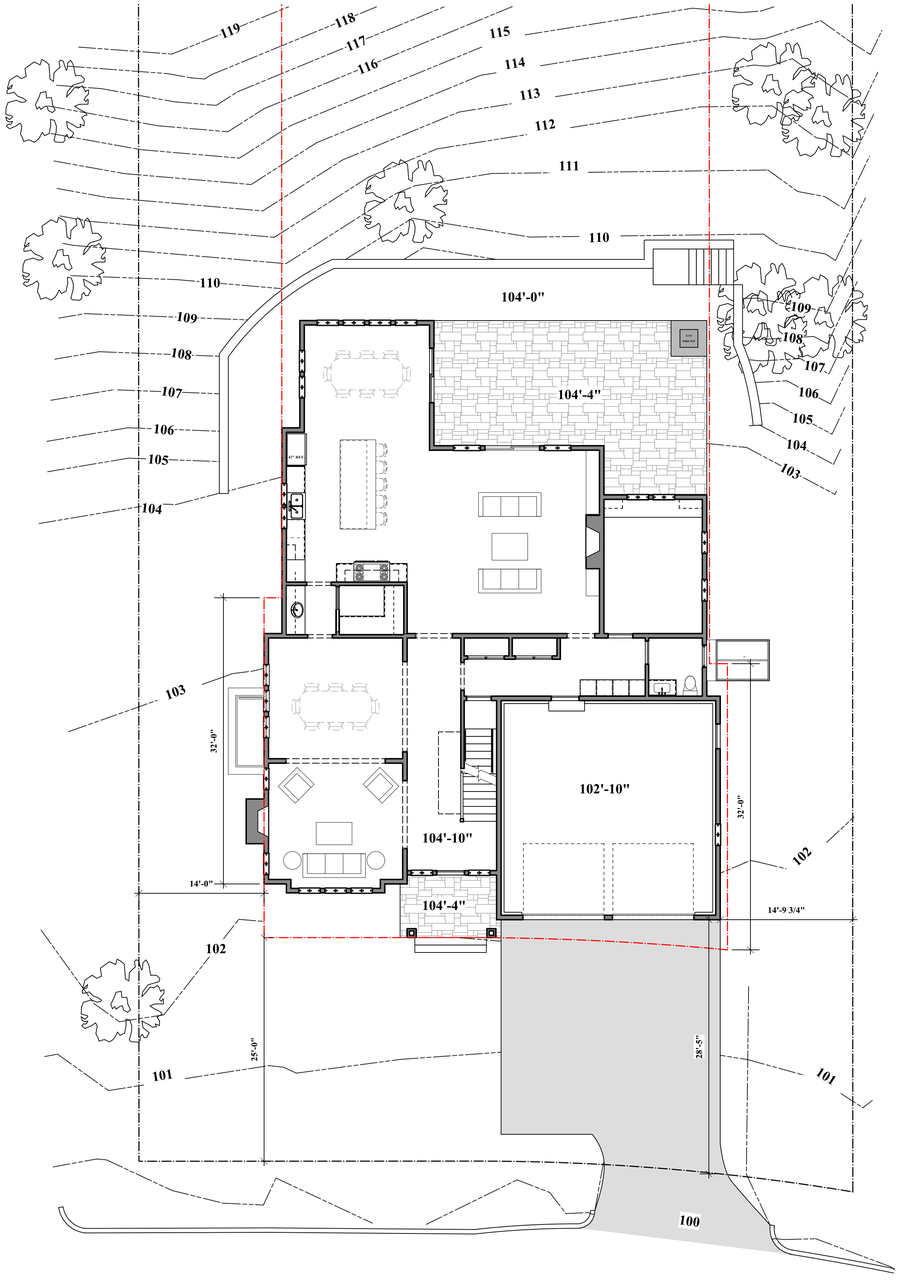
COMMONWEALTH OF MASSACHUSETTS
A. MATTHEW BELSKI JR.
No. 37557
PROFESSIONAL LAND SURVEYOR

10/19/22

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the town of Needham. All plot plans shall show existing structures and public utilities, including water mains, sewers, drains, gaslines, etc.; driveways, Flood Plain and Wetland Areas, lot dimensions, dimensions of proposed structures, sideline offsets and setback distances, (allowing for overhangs) and elevation of top of foundations and garage floor. For new construction, elevation of lot corners at streetline and existing and approved street grades shall be shown for grading along lot line bordering streetline. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location in unsewered area.
(*Accessory structures may require a separate building permit — See Building Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this 19 day of OCTOBER 20 22.
Name A. MATTHEW BELSKI, JR. Registered Land Surveyor No. 37557
Address 35 MAPLE ST. City W. NEWBURY State MA Zip _____
Approved _____ Director of Public Wo
Approved _____ Building Inspector

HOUSE # 10



1 L-1.1

Site Plan

Scale: 1/8" = 1'-0"

HOUSE # 10

OWNER

mckay architects

35 Bryant Street
Dedham, MA 02026

p: 781.326.5400

www.mckayarchitects.net

REGISTERED ARCHITECT
MICHAEL L. McKAY
NO. AR 6947
COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

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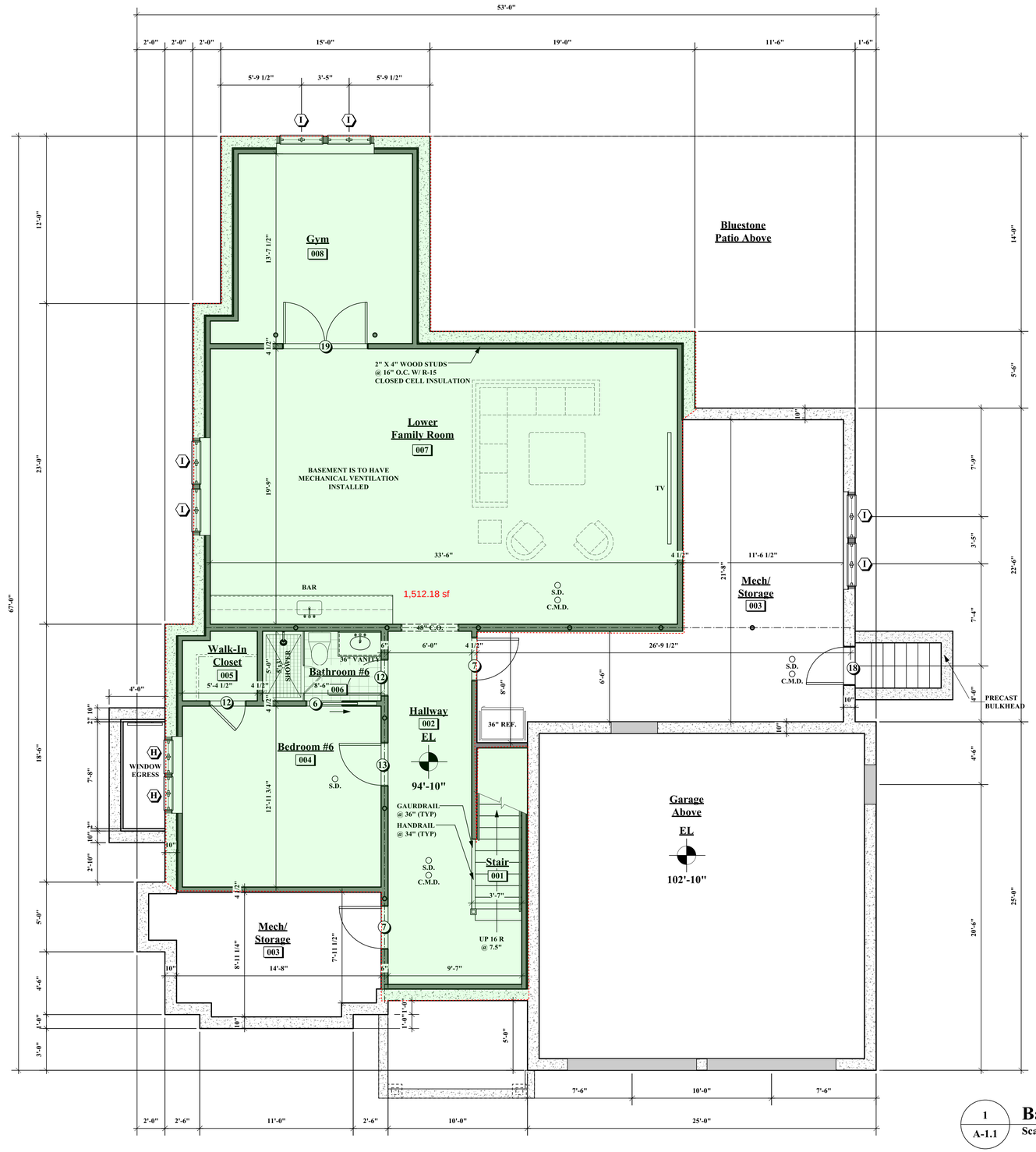
Contractor to verify all information and dimensions in the field prior to start of construction and is to notify McKay Architects of any discrepancies

Site Plan

JOB NO	0288
DATE	05.20.2021
DWG BY	EAL
CKD BY	MLM
SCALE	1/8" = 1'-0"

L-1.1



1 / A-1.1 **Basement Plan**
Scale: 1/4" = 1'-0"

HOUSE # 10

OWNER

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MICHAEL L. KAY
REGISTERED ARCHITECT
NO. 6947
COMMONWEALTH OF MASSACHUSETTS

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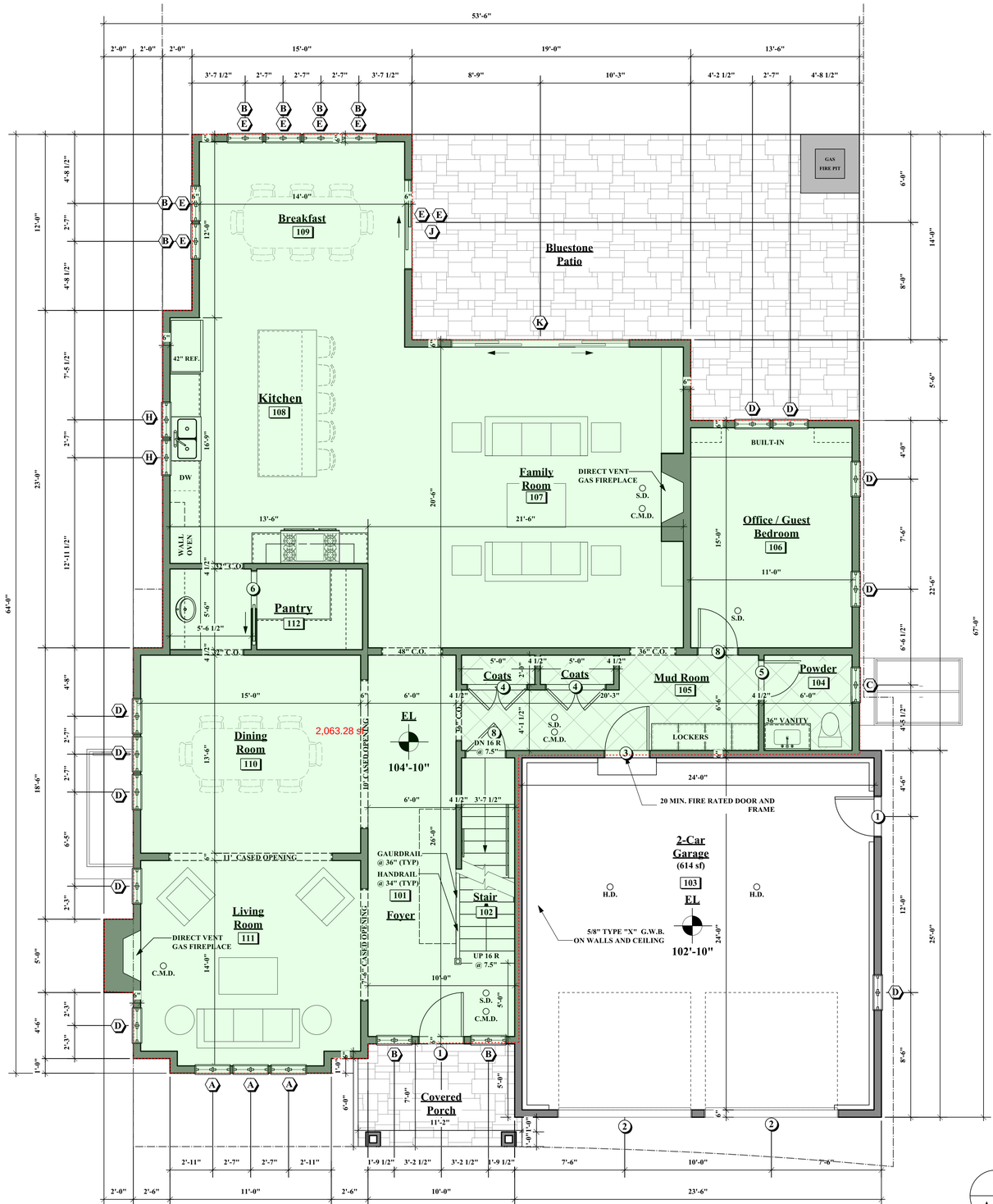
Basement Plan

JOB NO	0288
DATE	05.20.2021
DWG BY	EAL
CKD BY	MLM
SCALE	1/4" = 1'-0"

A-1.1



1 A-1.2 **First Floor Plan 2,063 SF**

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

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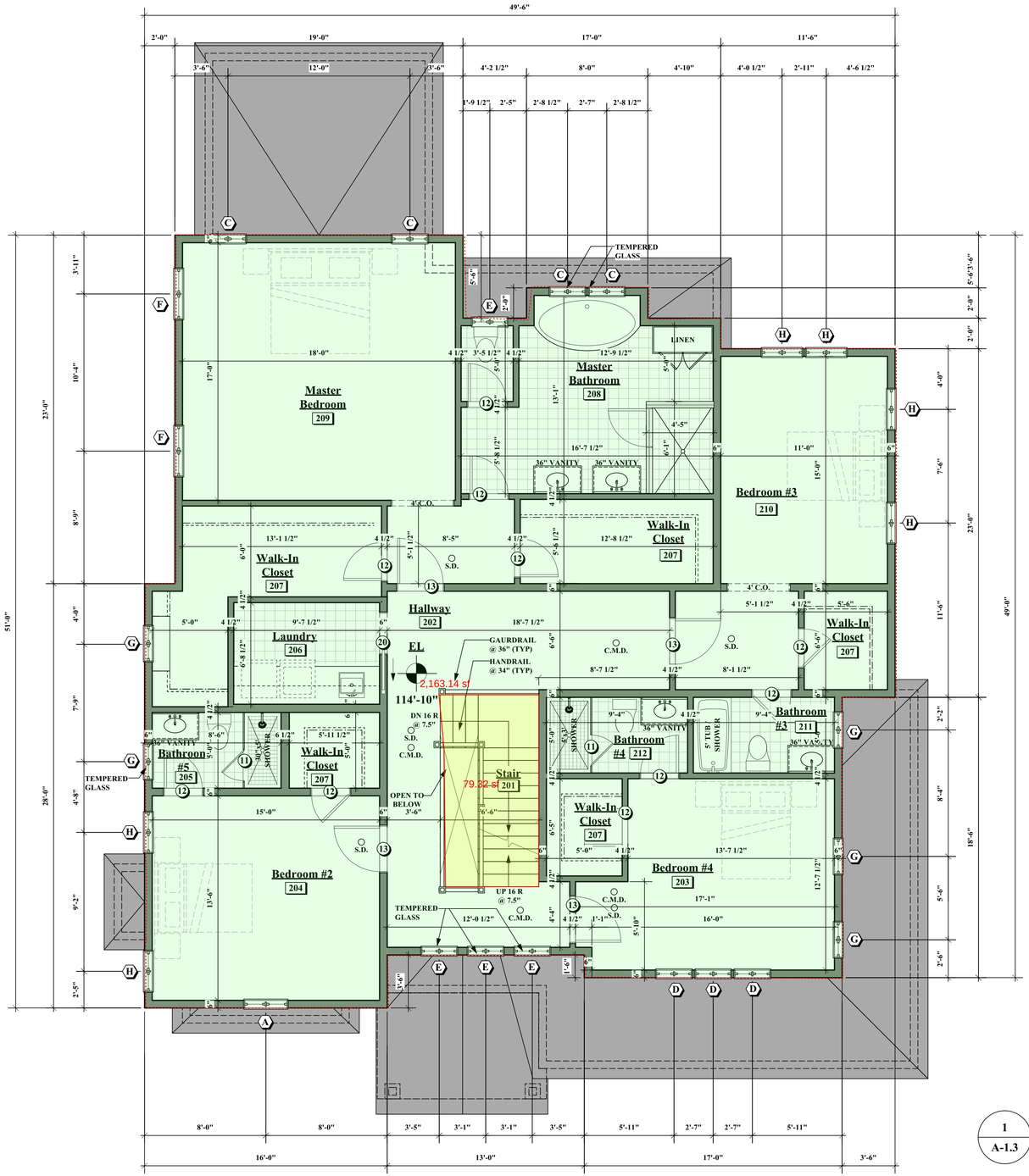
First Floor Plan

JOB NO	0288
DATE	05.20.2021
DWG BY	EAL
CKD BY	MLM
SCALE	1/4" = 1'-0"

A-1.2



1 / A-1.3 **Second Floor Plan 2,163 SF**
Scale: 1/4" = 1'-0"

HOUSE # 10

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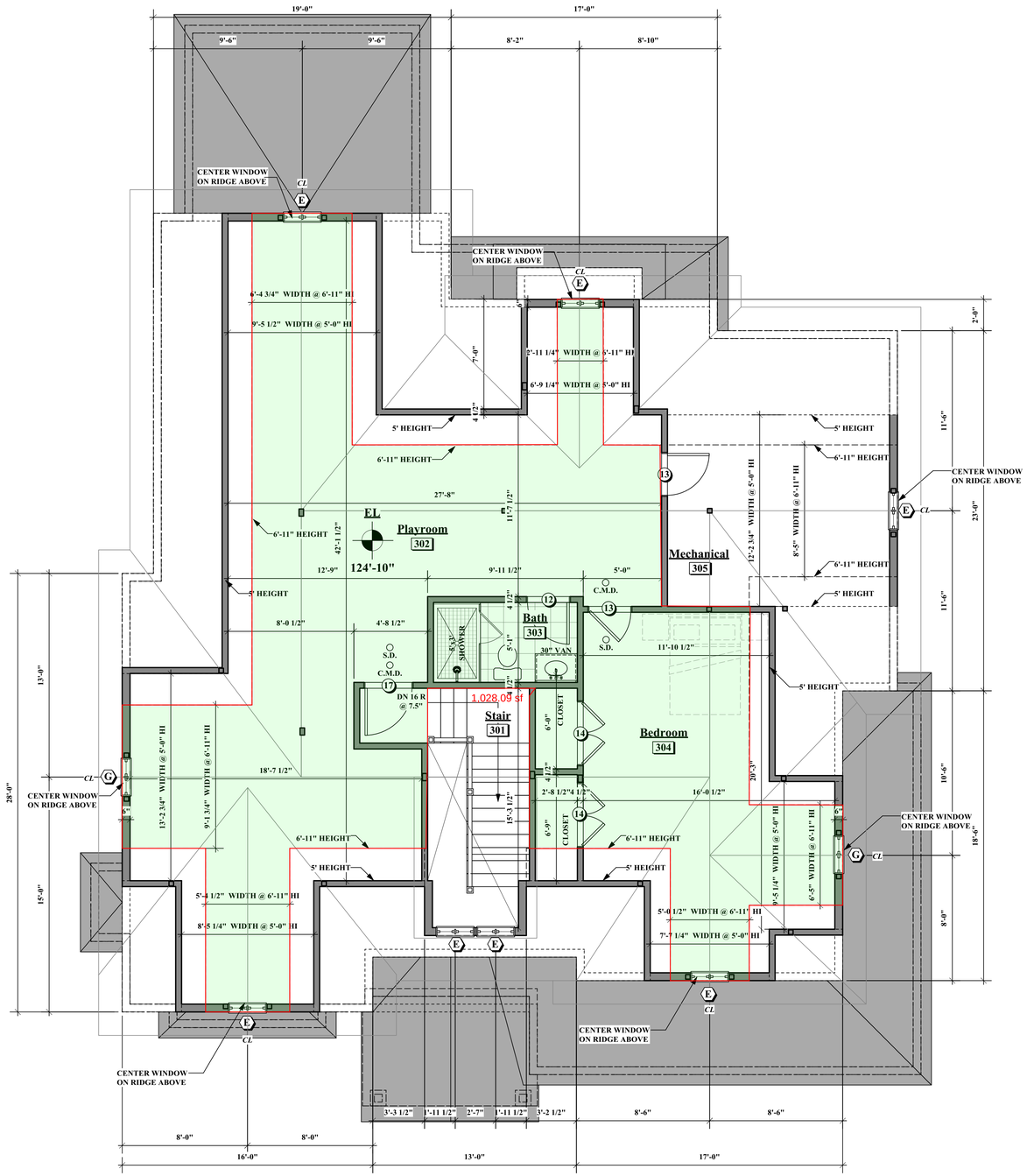
Second Floor Plan

JOB NO	0288
DATE	05.20.2021
DWG BY	EAL
CKD BY	MLM
SCALE	1/4" = 1'-0"

A-1.3



Attic = 1,028 SF

1 / A-1.4 **Attic Floor Plan**

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

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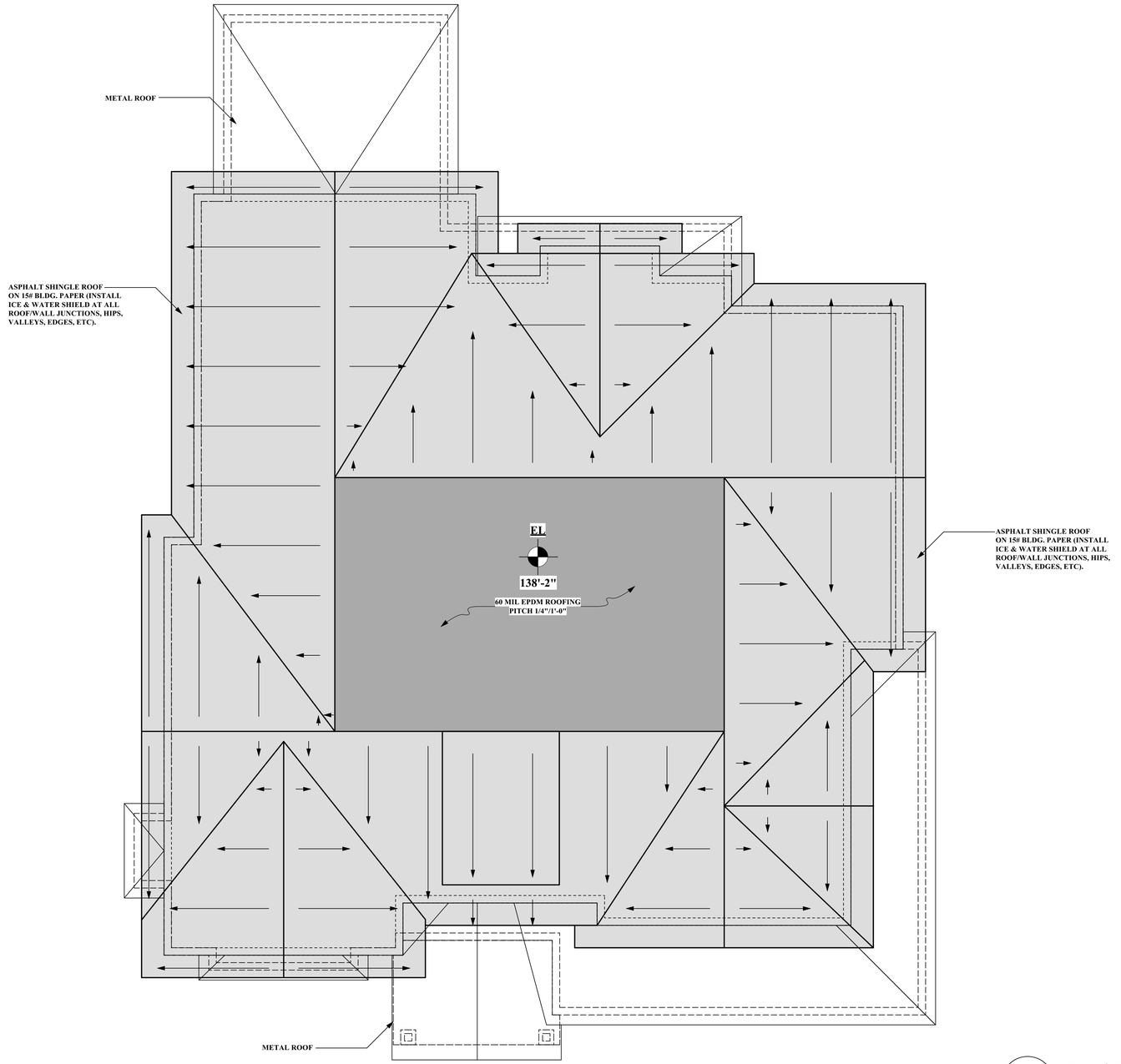
Attic Plan

JOB NO	0288
DATE	05.20.2021
DWG BY	EAL
CKD BY	MLM
SCALE	1/4" = 1'-0"

A-1.4



1 / A-1.5 **Roof Plan**
Scale: 1/4" = 1'-0"

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REV #	DATE	ISSUANCE

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Roof Plan

JOB NO	0288
DATE	05.20.2021
DWG BY	EAL
CKD BY	MLM
SCALE	1/4" = 1'-0"

A-1.5

1 / A-2.1 **Front Elevation**

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

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Front Elevation

JOB NO	0288
DATE	05.20.2021
DWG BY	EAL
CKD BY	MLM
SCALE	1/4" = 1'-0"

A-2.1

CONT. RIDGE VENT
ASPHALT SHINGLE ROOF ON 15# BLDG. PAPER (INSTALL ICE & WATER SHIELD AT ALL ROOF/WALL JUNCTIONS, HIPS, VALLEYS, EDGES, ETC).
1" X 2" OVER 1" X 8" EXTENDED RAKE
1" X 2" OVER 1" X 8" RAKE FRIEZE (TYP)
12" BOARD AND BATTEN VERTICAL SIDING PNTD.
Attic Floor
124'-10"
CONTINUOUS ALUMINUM GUTTERS (PAINTED)
5/4" X 5" DOOR & WINDOW CASING & HEADER W/ AZEK SILL
Second Floor
114'-10"
CEMENT BOARD SIDING @ 5" TO WEATHER
5/4" X 5" DOOR & WINDOW CASING & HEADER W/ AZEK SILL
First Floor
104'-10"
FINISH GRADE: ALL GRADING SHOWN ON THE ELEVATIONS ARE DIAGRAMMATIC. REFER TO SITE PLAN REPARED BY OTHERS FOR FINAL GRADING.
10" CONC. FOUNDATION WALL W/ 12" X 24" CONC. FOOTING MIN. 4'-0" BELOW FINISH GRADE
Basement
94'-10"
10'-0"
10'-0"
10'-0"
4'-0"
8" BOARD AND BATTEN VERTICAL SIDING PNTD.
12" BOARD AND BATTEN VERTICAL SIDING PNTD.
8" BOARD AND BATTEN VERTICAL SIDING PNTD.
6'-4 1/2" R.O.
6'-4 1/2" R.O.
2'-1 1/2" R.O.
9'-1 1/2" R.O.
9'-1 1/2" R.O.
11'-1 1/2" R.O.
16'-1 1/2" R.O.
12
15
12
12
12
12
15
12
12
12
12

1 / A-2.3 **Rear Elevation**
Scale: 1/4" = 1'-0"

HOUSE # 10

OWNER

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REV #	DATE	ISSUANCE

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Rear Elevation

JOB NO	0288
DATE	05.20.2021
DWG BY	EAL
CKD BY	MLM
SCALE	1/4" = 1'-0"

A-2.3

1 / A-2.4 **Left Side Elevation**
Scale: 1/4" = 1'-0"

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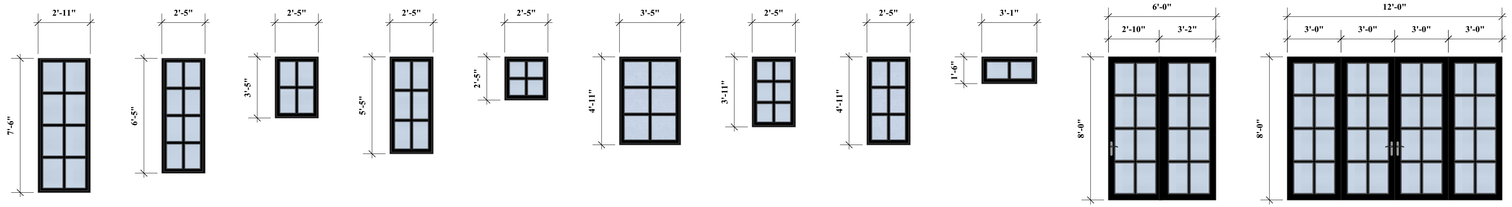
Left Side Elevation

JOB NO	0288
DATE	05.20.2021
DWG BY	EAL
CKD BY	MLM
SCALE	1/4" = 1'-0"

A-2.4

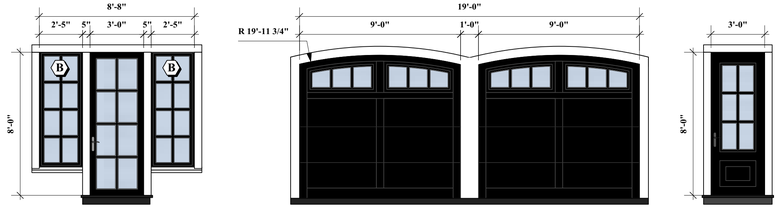
WINDOW SCHEDULE



A — QUANTITY = 3 | B — QUANTITY = 8 | C — QUANTITY = 4 | D — QUANTITY = 14 | E — QUANTITY = 18 | F — QUANTITY = 2 | G — QUANTITY = 8 | H — QUANTITY = 10 | I — QUANTITY = 6 | J — QUANTITY = 1 | K — QUANTITY = 1

SHOP DRAWINGS OF WINDOWS ARE TO BE PROVIDED PRIOR TO ORDERING.

ALL WINDOWS AND PATIO DOORS ARE TO BE MANUFACTURED BY PELLA WINDOWS OR OWNER APPROVED EQUAL. PROVIDE SIMULATED DIVIDED LITE PATTERNS AS INDICATED. ALL UNITS ARE TO BE WHITE CLAD. UNITS ARE TO HAVE 6 9/16" JAMB THICKNESS & WHITE HARDWARE WITH FACTORY PROVIDED SCREENS. INTERIOR OF UNIT IS TO BE FACTORY PRIMED WHITE. PATIO DOORS ARE TO HAVE LOCKING HARDWARE PROVIDED WITH SCREEN DOOR UNITS. ALL GLAZING IS TO BE LOW-E INSULATED GLASS WITH U-VALUE OF .29 OR BETTER.



1 — QUANTITY = 1 | 2 — QUANTITY = 2 | 3 — QUANTITY = 1

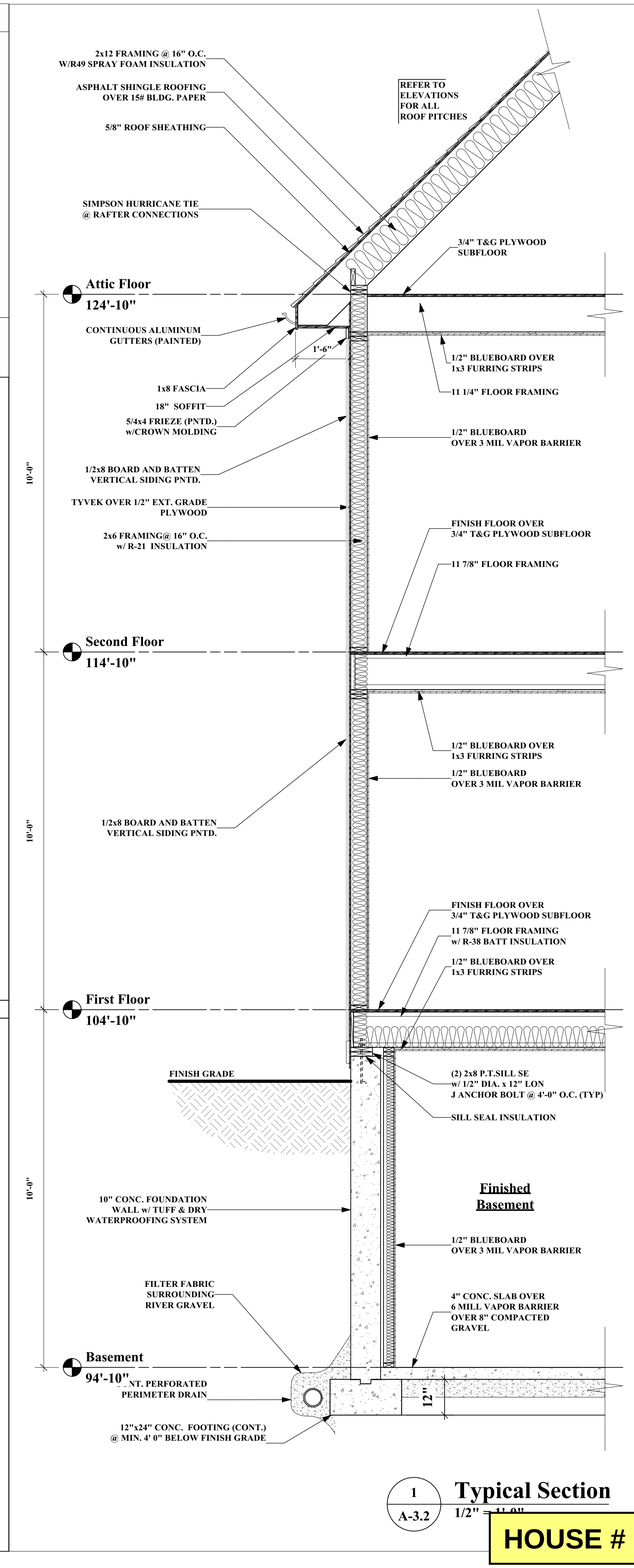
DOOR SCHEDULE

DOOR NO.	LOCATION / TYPE	SIZE	DETAILS		REMARKS
			HEAD	JAMB	
1	EXTERIOR / TYP	3'-0" X 8'-0"	WOOD	WOOD	ENTRY DOOR
2	EXTERIOR / GARAGE	9'-0" X 8'-0"	WOOD	WOOD	ARCHTOP GARAGE OVERHEAD
3	INTERIOR / GARAGE	3'-0" X 8'-0"	WOOD	WOOD	"C" LABEL DOOR
4	INTERIOR / (TYP)	(2) 2'-0" X 8'-0"	WOOD	WOOD	
5	INTERIOR / (TYP)	2'-6" X 8'-0"	WOOD	WOOD	
6	INTERIOR / (TYP)	2'-6" X 8'-0"	WOOD	WOOD	POCKET DOOR
7	INTERIOR / (TYP)	3'-0" X 8'-0"	WOOD	WOOD	
8	INTERIOR / (TYP)	2'-8" X 8'-0"	WOOD	WOOD	
9	INTERIOR / (TYP)	(2) 3'-0" X 8'-0"	WOOD	WOOD	POCKET DOORS
10	INTERIOR / (TYP)	(2) 2'-6" X 8'-0"	WOOD	WOOD	SLIDING DOORS
11	INTERIOR / (TYP)	2'-6" X 6'-8"	WOOD	WOOD	FRAMELESS SHOWER DOOR
12	INTERIOR / (TYP)	2'-6" X 6'-8"	WOOD	WOOD	
13	INTERIOR / (TYP)	2'-8" X 6'-8"	WOOD	WOOD	
14	INTERIOR / (TYP)	(2) 2'-0" X 6'-8"	WOOD	WOOD	
15	INTERIOR / (TYP)	(2) 2'-6" X 6'-8"	WOOD	WOOD	
16	INTERIOR / (TYP)	(2) 1'-6" X 6'-8"	WOOD	WOOD	
17	INTERIOR / (TYP)	3'-0" X 6'-8"	WOOD	WOOD	
18	INTERIOR / (TYP)	3'-0" X 6'-8"	WOOD	WOOD	BULKHEAD
19	INTERIOR / (TYP)	(2) 3'-0" X 6'-8"	WOOD	WOOD	PAIR
20	INTERIOR / (TYP)	2'-8" X 6'-8"	WOOD	WOOD	POCKET

NOTE:
SHOP DRAWINGS OF DOORS ARE TO BE PROVIDED PRIOR TO ORDERING.

FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING	REMARKS
				NORTH	EAST	SOUTH	WEST		
001	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
002	HALLWAY	WOOD	WOOD			GWB	GWB	GWB	
003	MECH / STORAGE			GWB	GWB				
004	BEDROOM 56	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
005	WIC	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
006	BATHROOM # 6	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
007	LOWER FAMILY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
008	GYM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
101	FOYER	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
102	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
103	2 CAR GARAGE			GWB	GWB	GWB	GWB	GWB	5/8" TYPE "X" GWB
104	POWDER	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
105	MUD	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
106	OFFICE / GUEST BEDROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
107	FAMILY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
108	KITCHEN	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
109	BREAKFAST	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
110	DINING	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
111	LIVING	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
112	PANTRY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
201	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
202	HALLWAY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
203	BEDROOM #4	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
204	BEDROOM #2	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
205	BATHROOM #5	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
206	LAUNDRY	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
207	WIC	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
208	MASTER BATHROOM	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
209	MASTER BEDROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
210	BEDROOM #3	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
211	BATHROOM #3	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
212	BATHROOM #4	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
301	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
302	PLAYROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
303	BATH	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
304	BEDROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
305	MECHANICAL								



1 / A-3.2 **Typical Section** 1/2" = 1'-0"

HOUSE # 10

OWNER

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REV #	DATE	ISSUANCE

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Schedules, Specifications & Typical Section

JOB NO	0288
DATE	05.20.2021
DWG BY	EAL
CKD BY	MLM
SCALE	VARIES

A-3.1

1/1
C: House #11

HOUSE #11

15
HOUSE #11

HOUSE #11

Large House Study - FAR Rules/Tests

House 11

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0			
Lot Size	12,092	SF		
Lot Coverage	2,624	SF		21.7%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,395	-	1,395	
1	2,642	570	2,072	
2	2,262	-	2,262	
3	818	-	818	
Total	7,117	570	6,547	
TLAG	5,722	Real Estate Ad=	6,548	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,624	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	21.7%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	35.8%	4,334	6,566
FAR (Flr 1,2,3 Exclude Garage)	36%	42.6%	5,152	5,748
FAR (Flr 1,2,3,B Exclude Garage	36%	54.1%	6,547	4,353
FAR (Flr 1,2,3,+ Garage on 1)	36%	47.3%	5,722	5,748
FAR (Flr 1,2 + any Garage)	36%	40.6%	4,904	6,566

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessor's Map & Parcel Number: _____

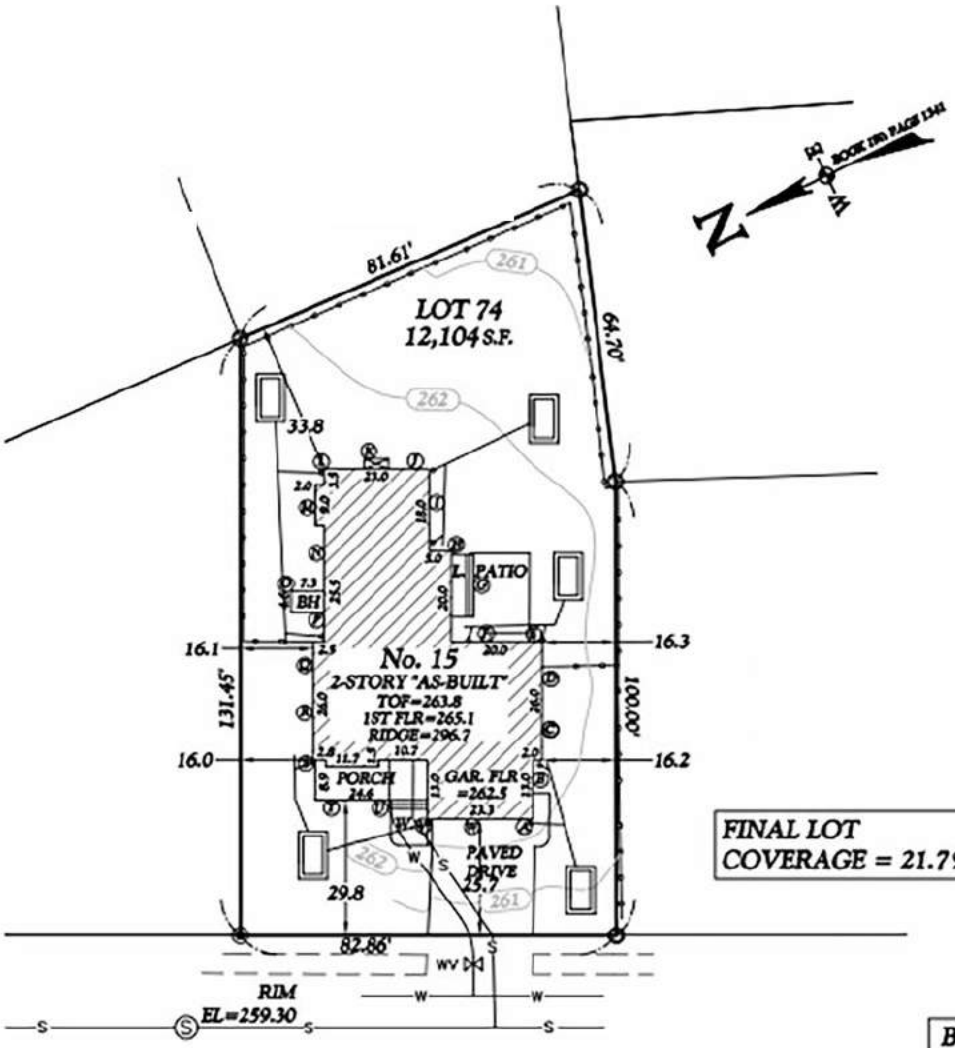
Building Permit Number: _____ Zoning District: *SRB*

Lot Area: *12,104 S.F.* Address: _____

Owner: _____ Builder: _____

FINAL AS-BUILT PLOT PLAN

40' Scale



FINAL LOT COVERAGE = 21.7%

SPOT LOCATION	PRE-EXIST. ELEV.	AS-BUILT ELEV.
A	261.9	262.3
B	261.8	262.3
C	261.8	262.3
D	262.1	262.4
E	262.3	262.5
F	262.4	262.7
G	262.5	262.8
H	262.8	262.8
I	262.8	262.6
J	262.8	262.4
K	262.7	262.5
L	262.6	262.5
M	262.7	262.6
N	262.8	262.6
O	262.7	262.5
P	263.8	262.5
Q	263.3	262.4
R	263.4	262.5
S	262.6	262.6
T		262.7
U		262.6
V		262.6
W		262.4
TOTAL	4990.3	6,038.1
AVERAGE	262.6	262.5

BUILDING HEIGHT
RIDGE - AVG. GRADE = HEIGHT
296.7 - 262.5 = 34.2

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gaslines, etc.; driveways, septic systems, wells, Flood Plain and Wetland Areas, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances, (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations proposed grading and drainage of recharge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location in areas with no public sewer.
(*Accessory structures may require a separate building permit — See Building Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.

The above is subscribed to and executed by me this *9 th* day of *JULY* 20 *24* .

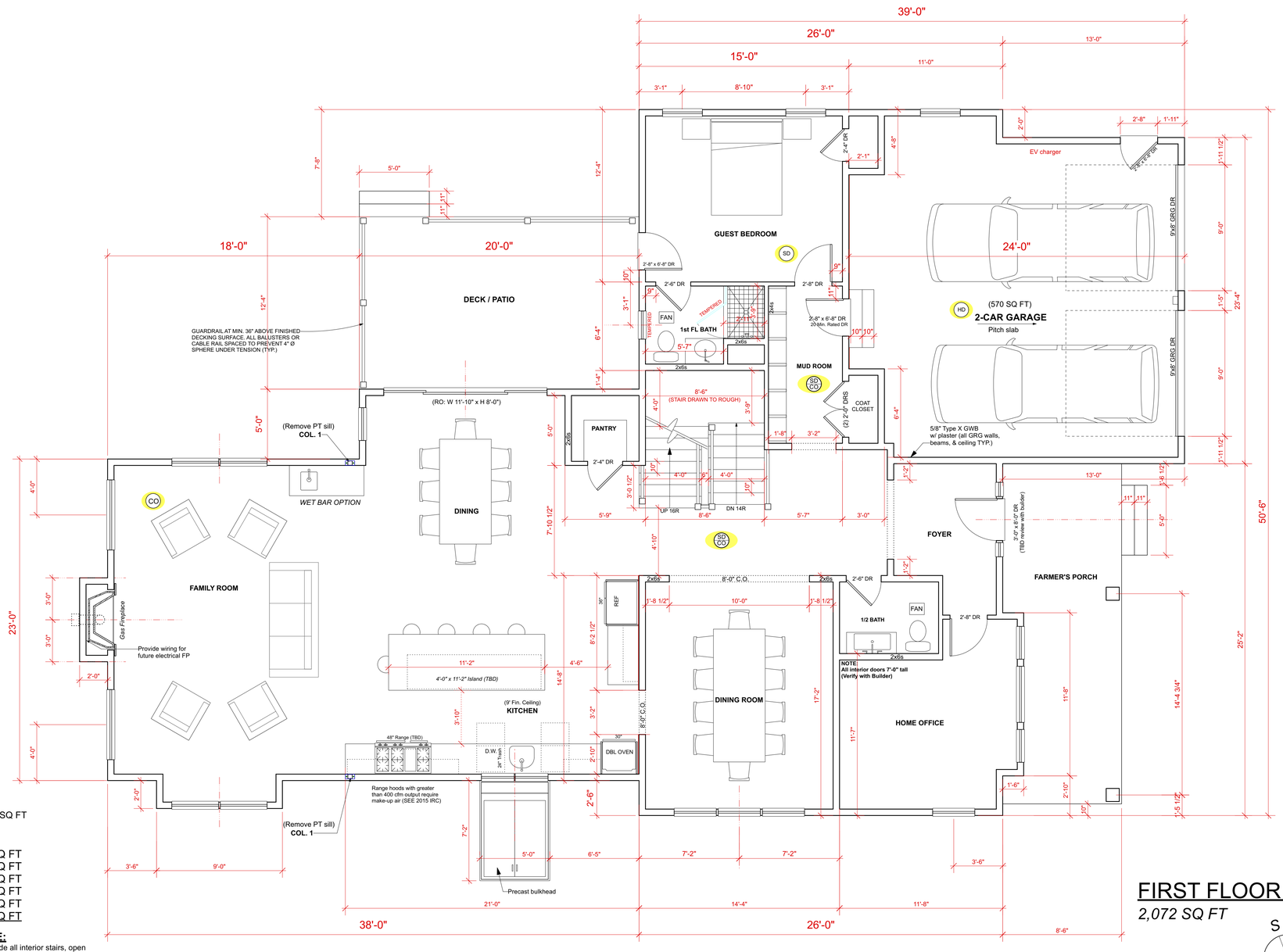
Name *CHRISTOPHER C. CHARLTON* Registered Land Surveyor No. [redacted] License Expiration Date *06/30/2026*

Address *105 BEAVER STREET* City *FRANKLIN* State *MA* Zip *02038* Tel. No. [redacted]

Approved _____ Director of Public Works

Approved _____ Building Inspector

HOUSE # 11



12,104 SQ FT Lot .36 FAR = 4,357 Max. SQ FT
(Total 1st and 2nd floor areas only, 4,334
Proposed per floor areas noted below)

GARAGE FLOOR AREA:	570	SQ FT
FIRST FLOOR AREA:	2,072	SQ FT
SECOND FLOOR AREA:	2,262	SQ FT
ATTIC FLOOR AREA:	818	SQ FT
BSMNT. FLOOR AREA:	1,395	SQ FT
TOTAL FLOOR AREA:	6,548	SQ FT

NEEDHAM, MA FAR SQ FT NOTE:
Per Needham Zoning By-laws: SQ FT areas include all interior stairs, open to above conditions, and wall thicknesses. No deduction has been made for fireplaces, chimneys, interior wall thickness, or duct chases. Basement and attic factored at 0 FAR (not applicable areas).

FIRST FLOOR PLAN

2,072 SQ FT

S E W N

HOUSE # 11

R D K
ARCHITECTS
825 BEACON STREET #10
NEWTON CENTRE, MA 02459
PHONE: 617-571-0645
ralphk@rdkarchitects.com
www.rdkarchitects.com

PROJECT:

BUILDER CONTACT:
BOB ROACH
CELL: 508-958-6070

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DATE:
MAY 24, 2023
BUILDING PERMIT SET
9th EDITION MA CODE

REVISIONS:

BUILDER / GENERAL CONTRACTOR IS RESPONSIBLE FOR MAKING SURE ALL SUB-CONTRACTORS ARE WORKING FROM MOST CURRENT ISSUE DATE OF PLANS.

REGISTRATION:

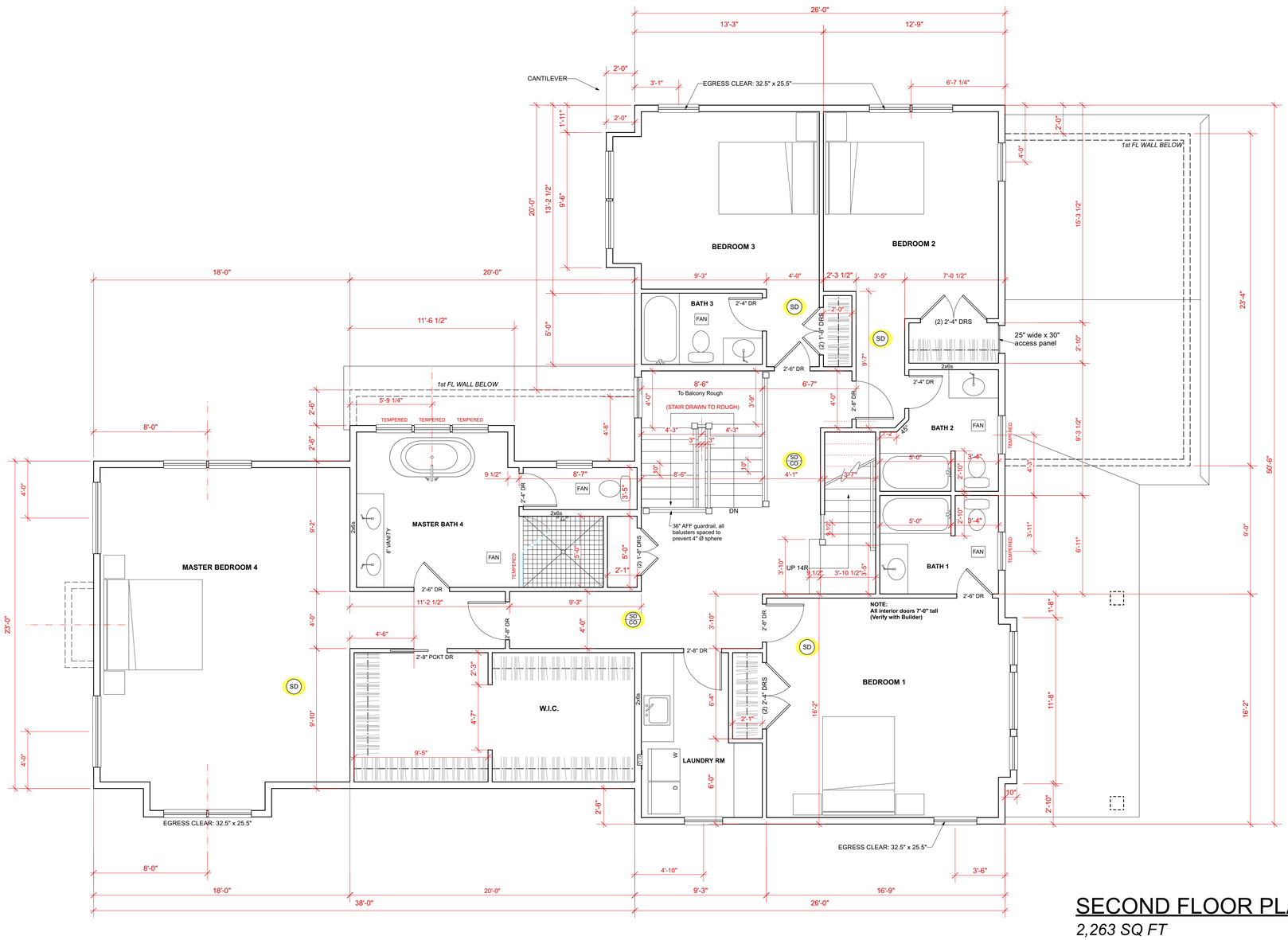
RALPH D. KELTOS REGISTERED ARCHITECT No. 20379 BOSTON MA COMMONWEALTH OF MASSACHUSETTS

SCALE:
1/4" = 1'-0"
0 1 2 4 8

DO NOT SCALE DRAWINGS. CONSULT ARCHITECT OF ANY DIMENSIONAL CONFLICTS OR REQUIRED DIMENSIONS NOT INDICATED ON THE DRAWINGS.

SHEET TITLE:
FIRST FLOOR PLAN

SHEET NUMBER:
A-1
SET TOTAL: A-1 - A-12



SECOND FLOOR PLAN

2,263 SQ FT

HOUSE # 11

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REGISTRATION:

SCALE:
1/4" = 1'-0"

0 1 2 4 8

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SHEET TITLE:
SECOND FLOOR PLAN

SHEET NUMBER:
A-2

SET TOTAL: A-1 - A-12

GENERAL CONSTRUCTION SPECIFICATIONS:

Interior Walls: 2x4 wood frame construction @ 16" o.c. with 3 1/2" sound reduction *Rockwool* or fiberglass batt insulation between studs for all walls between bedrooms (TBD). Finish both sides with 1/2" blueboard w/ skimcoat of plaster (BBSP).

Exterior Walls: 2x6 wood frame construction @ 16" o.c. (unless otherwise noted). Owens Corning or equal 5.5" R-21 Craft-Faced High Density Fiberglass between studs. Verify min. required wall R-values per HERS rating. Finish interior face with BBSP over polyethylene vapor barrier applied over all exterior walls. Exterior stud face to have min. 7/16" *Advantech Zip System* or 1/2" CDX fir plywood sheathing. Cement board or cedar siding shall be installed over fully taped Advantech Zip-System sheathing or Tyvek Housewrap.

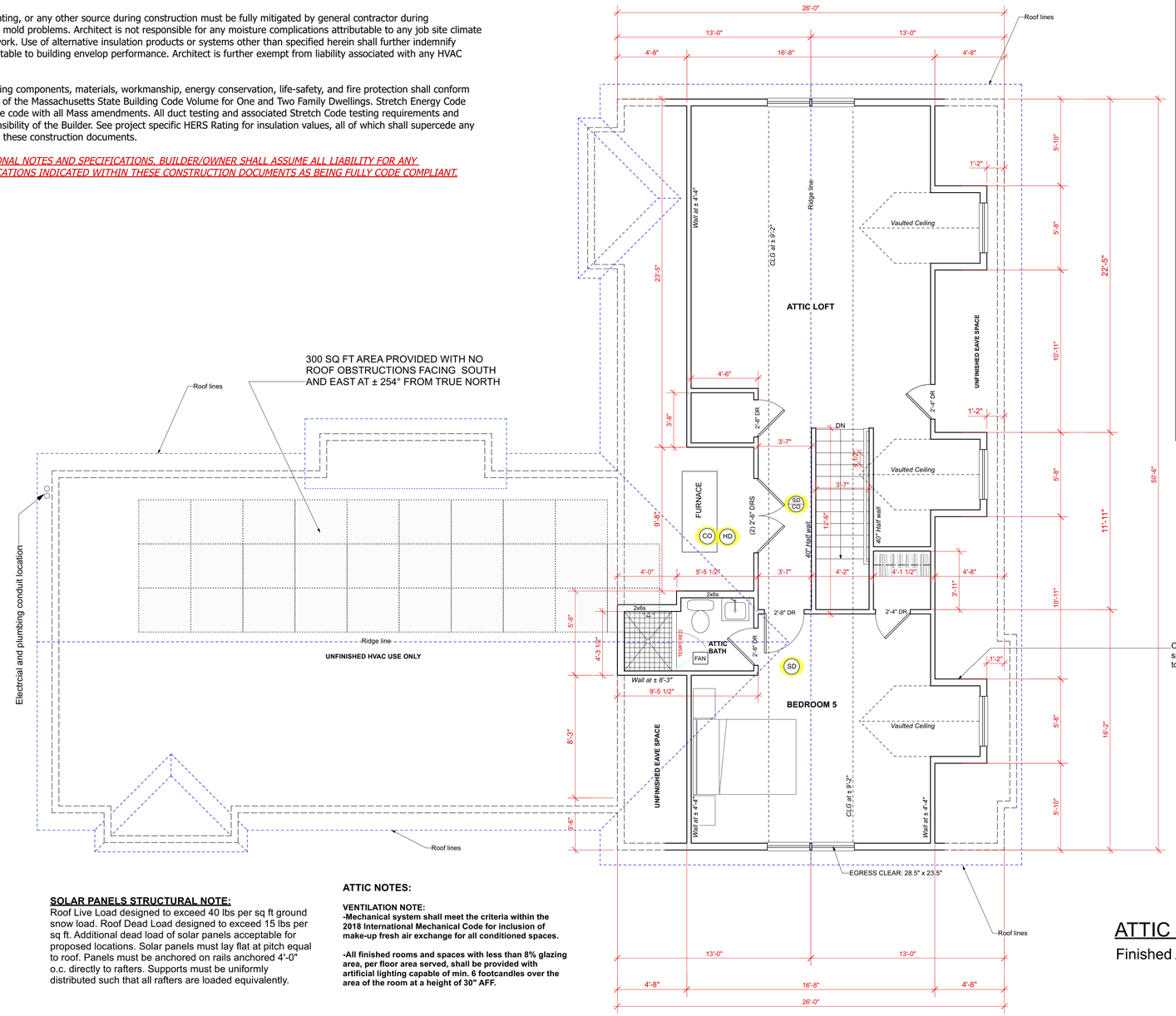
Floors: Framing sizes as noted on framing plans with kraftfaced fiberglass insulation (if applicable) in R values per HERS rating. Subfloor shall be min. 3/4" T&G *Advantech* / Equal glued & nailed 6" o.c. to joists.

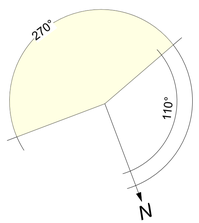
Roofs & Vaulted Ceilings: R-49 min. all roofs. Provide min. 3" closed cell against roof sheathing, then cover with open cell or dense-packed fiberglass or cellulose. Dense-packing requires **INTELLO Plus®** / eqial air-barrier at the bottom side such as sheetrock. Do not need ridge or soffit vents if creating hot roof as should be unvented. Framing sizes as noted on framing plans. Exterior face of rafters shall have 1/2" CDX fir plywood or 9/16" Advantech roof sheathing with Certainteed (or equal) 30 year roof shingles installed over 15# felt paper or shingle manufacture's required underlayment. Provide ice & water shield at all valleys and eaves and along wall transitions and projections.

Moisture from plaster job, painting, or any other source during construction must be fully mitigated by general contractor during construction to avoid potential mold problems. Architect is not responsible for any moisture complications attributable to any job site climate conditions or any performed work. Use of alternative insulation products or systems other than specified herein shall further indemnify architect of any liability attributable to building envelop performance. Architect is further exempt from liability associated with any HVAC systems installed.

All structural assemblies, building components, materials, workmanship, energy conservation, life-safety, and fire protection shall conform fully with 780 CMR 9th Edition of the Massachusetts State Building Code Volume for One and Two Family Dwellings. Stretch Energy Code shall utilize the 2021 IECC base code with all Mass amendments. All duct testing and associated Stretch Code testing requirements and procedures shall be the responsibility of the Builder. See project specific HERS Rating for insulation values, all of which shall supercede any insulation values stated herein these construction documents.

SEE DRAWINGS FOR ADDITIONAL NOTES AND SPECIFICATIONS. BUILDER/OWNER SHALL ASSUME ALL LIABILITY FOR ANY MODIFICATIONS TO SPECIFICATIONS INDICATED WITHIN THESE CONSTRUCTION DOCUMENTS AS BEING FULLY CODE COMPLIANT.





SOLAR PANELS STRUCTURAL NOTE:
Roof Live Load designed to exceed 40 lbs per sq ft ground snow load. Roof Dead Load designed to exceed 15 lbs per sq ft. Additional dead load of solar panels acceptable for proposed locations. Solar panels must lay flat at pitch equal to roof. Panels must be anchored on rails anchored 4'-0" o.c. directly to rafters. Supports must be uniformly distributed such that all rafters are loaded equivalently.

ATTIC NOTES:

VENTILATION NOTE:
-Mechanical system shall meet the criteria within the 2018 International Mechanical Code for inclusion of make-up fresh air exchange for all conditioned spaces.

-All finished rooms and spaces with less than 8% glazing area, per floor area served, shall be provided with artificial lighting capable of min. 6 footcandles over the area of the room at a height of 30" AFF.

Optional 2x4 side walls with closed cell spray foam. All side walls framed on top of triple rafter rough opening

INSULATION NOTES:
See HERS rating for all required insulation values. Builder shall coordinate and verify all assemblies and testing procedures per stretch energy code compliance.

GENERAL STRUCTURAL CRITERIA:
Wind Speed: 126 mph
Wind Exposure Category: B
(All Sides of Building)
Living Space Live Load: 40 #s / sq ft
Bedroom Live Load: 30 #s / sq ft
All roof structures designed to meet or exceed 40# ground snow load LEXINGTON, MA

BATHROOM VENTILATION NOTES:
All bathroom exhaust fans vented to outside, place fans remote in attic, review with architect and owner on site.

STAIR AND GUARDRAIL NOTES:
Type I 2" Ø graspable handrail
set @ 34" above nosing (Typ.)
Guardrail @ 36" AFF with balusters spaced to prevent 4" Ø sphere (Typ.)

—ALL DIMENSIONS TO STUD FACE
—2x4 WALLS @ 3 1/2" WIDTH (TYPICAL INTERIOR WALLS)
—2x6 WALLS @ 5 1/2" WIDTH (TYPICAL EXTERIOR WALLS)
CO SD —CARBON MONOXIDE AND PHOTO-ELECTRIC SMOKE DETECTOR
SD —PHOTO-ELECTRIC SMOKE DETECTOR
HD —HEAT DETECTOR HD shall be interconnected with SD (household fire alarm system) inside the main dwelling. Location: 1 detector centered on garage ceiling

NOTES:
All first floor walls framed as 2x6 bearing walls with horizontal blocking at mid height.

Range hoods with greater than 400 cfm out put require make-up air.

Review vent path for range hood with architect prior to any framing work.

ATTIC FLOOR PLAN

Finished Area at 5'-0": ±818 SQ FT

HOUSE # 11

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www.rdkarchitects.com

PROJECT:

BUILDER CONTACT:
BOB ROACH
CELL: 508-958-6070

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DATE:
MAY 24, 2023
BUILDING PERMIT SET
9th EDITION MA CODE

REVISIONS:

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REGISTRATION:

SCALE:
1/4" = 1'-0"
0 1 2 4 8

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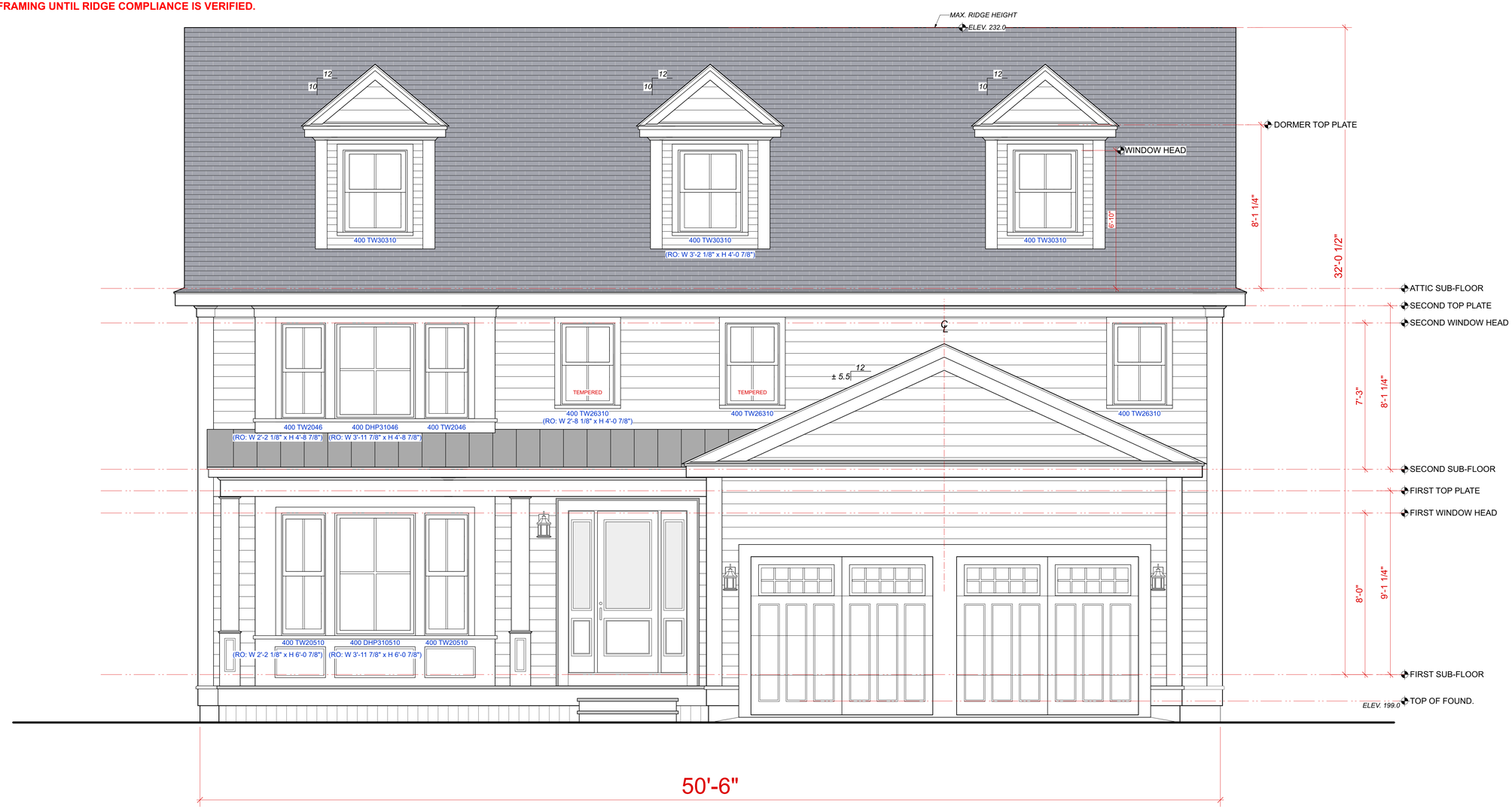
SHEET TITLE:
ATTIC FLOOR PLAN

SHEET NUMBER:
A-3
SET TOTAL: A-1 - A-12

35'-0" MAX. ROOF HEIGHT. ROOF PITCH TO BE FIELD ADJUSTED IF NECESSARY BASED ON AS-BUILT AVERAGE GRADE AND TOP OF FOUNDATION ELEVATION. BUILDER TO VERIFY ROOF HEIGHT COMPLIANCE DURING CONSTRUCTION. DO NOT BEGIN ANY ROOF FRAMING UNTIL RIDGE COMPLIANCE IS VERIFIED.



FRONT ELEVATION

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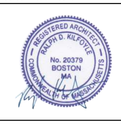

SCALE:
3/8" = 1'-0"

DO NOT SCALE DRAWINGS. CONSULT ARCHITECT OF ANY DIMENSIONAL CONFLICTS OR REQUIRED DIMENSIONS NOT INDICATED ON THE DRAWINGS.

SHEET TITLE:
FRONT ELEVATION

SHEET NUMBER:
A-5
SET TOTAL: A-1 - A-12

HOUSE # 11

LEFT SIDE ELEVATION

HOUSE # 11

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PROJECT:

BUILDER CONTACT:

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REVISIONS:

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REGISTRATION:

REGISTERED ARCHITECT
RALPH D. ROACH
No. 20379
BOSTON
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE:
3/8" = 1'-0"

DO NOT SCALE DRAWINGS. CONSULT ARCHITECT OF ANY DIMENSIONAL CONFLICTS OR REQUIRED DIMENSIONS NOT INDICATED ON THE DRAWINGS.

SHEET TITLE:
ELEVATIONS

SHEET NUMBER:
A-6

SET TOTAL: A-1 - A-12

RIGHT SIDE ELEVATION

HOUSE # 11

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PROJECT:

BUILDER CONTACT:

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REVISIONS:

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REGISTRATION:

REGISTERED ARCHITECT
RALPH D. ROACH
No. 20379
BOSTON
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE:
3/8" = 1'-0"

DO NOT SCALE DRAWINGS. CONSULT ARCHITECT OF ANY DIMENSIONAL CONFLICTS OR REQUIRED DIMENSIONS NOT INDICATED ON THE DRAWINGS.

SHEET TITLE:
ELEVATIONS

SHEET NUMBER:
A-7

SET TOTAL: A-1 - A-12

REAR ELEVATION

HOUSE # 11

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SHEET TITLE:
ELEVATIONS

SHEET NUMBER:
A-8

SET TOTAL: A-1 - A-12

1/1
C: House #11

HOUSE #11

15
HOUSE #11

HOUSE #11

Large House Study - FAR Rules/Tests

House 11

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0			
Lot Size	12,092	SF		
Lot Coverage	2,624	SF		21.7%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,395	-	1,395	
1	2,642	570	2,072	
2	2,262	-	2,262	
3	818	-	818	
Total	7,117	570	6,547	
TLAG	5,722	Real Estate Ad=	6,548	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,624	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	21.7%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	35.8%	4,334	6,566
FAR (Flr 1,2,3 Exclude Garage)	36%	42.6%	5,152	5,748
FAR (Flr 1,2,3,B Exclude Garage	36%	54.1%	6,547	4,353
FAR (Flr 1,2,3,+ Garage on 1)	36%	47.3%	5,722	5,748
FAR (Flr 1,2 + any Garage)	36%	40.6%	4,904	6,566

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Building Permit Number: _____ Assessor's Map & Parcel Number: _____

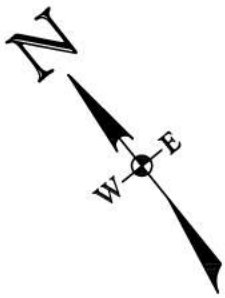
Lot Area: ***12,600 S.F.*** Zoning District: ***SR-B***

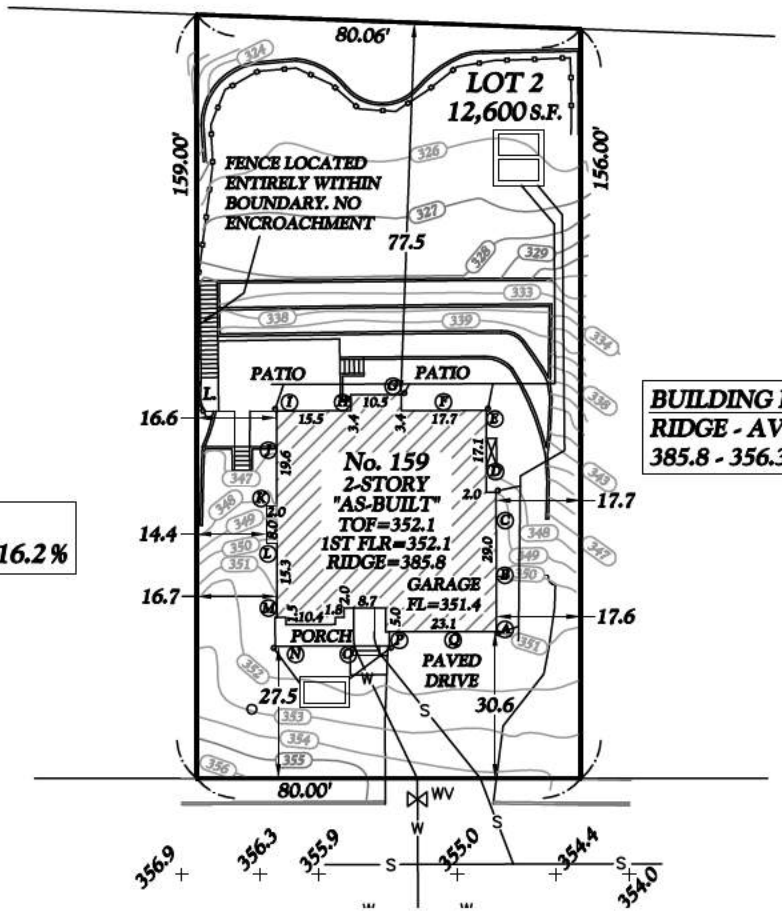
Owner: _____ Address: _____

Builder: _____

FINAL AS-BUILT PLOT PLAN

40' Scale





BUILDING HEIGHT
RIDGE - AVG. ℄ GRADE @ HIGH 1/3 FRONTAGE = 385.8 - 356.3 = 29.5

FINAL LOT COVERAGE = 16.2 %

SPOT LOCATION	PRE-EXIST. ELEV.	AS-BUILT ELEV.
A	351.5	351.0
B	350.0	350.0
C	345.3	349.0
D	345.2	347.5
E	344.6	347.3
F	344.4	347.4
G	341.1	347.3
H	347.1	343.9
I	351.8	343.7
J	352.2	346.8
K	351.6	348.2
L	351.7	350.3
M	352.0	351.2
N	351.9	351.3
O		351.1
P		351.2
Q		351.2
TOTAL	4880.4	5928.4
AVERAGE	348.6	348.7

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gaslines, etc.; driveways, septic systems, wells, Flood Plain and Wetland Areas, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances, (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations proposed grading and drainage of recharge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location in areas with no public sewer.
(*Accessory structures may require a separate building permit — See Building Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this ***16 th*** day of ***NOVEMBER*** 20 ***22***.
Name ***CHRISTOPHER C. CHARLTON*** Registered Land Surveyor No. ***48649***
Address ***105 BEAVER STREET*** City ***FRANKLIN*** State ***MA*** Zip ***020***
Approved _____ Director of Public Wo
Approved _____ Building Inspector

HOUSE # 11

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WINDOW SCHEDULE

WINDOW	MANUFACTURER	R.O. W x H	CLEAR OPENING	U-VALUE	SAFETY GLASS
W1	244 DH2856-3	8'-1" x 5'-6"	28.5" x 30"	.30 LOW E	NOT REQ.
W2	244 DH3056-2	6'-0 1/2" x 5'-6"	32.5" x 30"	.30 LOW E	NOT REQ.
W3	244 DH3056-3	9'-1" x 5'-6"	32.5" x 30"	.30 LOW E	NOT REQ.
W4	244 DH2836	2'-8" x 3'-6"	28.5" x 18"	.30 LOW E	NOT REQ.
W5	244 CN345	5'-1 3/8" x 4'-5 3/8"	N/A	.28 LOW E	NOT REQ.
W6	244 DH2840-2	5'-4 1/2" x 4'-0"	28.5" x 21"	.30 LOW E	NOT REQ.
W7	244 DH3049	3'-0" x 4'-9"	32.5" x 25.5"	.30 LOW E	NOT REQ.
W8	244 DH3049-2	6'-0 1/2" x 4'-9"	32.5" x 25.5"	.30 LOW E	**PER PLAN**
W9	244 DH2440	2'-4" x 4'-0"	24.5" x 21"	.30 LOW E	**PER PLAN**
W10	244 DH2440-2	4'-8 1/2" x 4'-0"	24.5" x 21"	.30 LOW E	**PER PLAN**
W11	244 DH2849-2	5'-4 1/2" x 4'-9"	28.5" x 25.5"	.30 LOW E	NOT REQ.
W12	244 DH2849-3	8'-1" x 4'-9"	28.5" x 25.5"	.30 LOW E	NOT REQ.
W13	244 DH2050	2'-0" x 5'-0"	20.5" x 27"	.30 LOW E	NOT REQ.
W14	244 DH3056	3'-0" x 5'-6"	32.5" x 30"	.30 LOW E	NOT REQ.
W15	200 AW31	3'-0 1/2" x 2'-5"	N/A	.30 LOW E	NOT REQ.
W16	244 DH3049-2	6'-0 1/2" x 4'-9"	32.5" x 25.5"	.30 LOW E	NOT REQ.
W17	244 DH2830	2'-8" x 3'-0"	N/A	.30 LOW E	NOT REQ.

DOOR SCHEDULE

D1	ANDERSEN FWG 60611L	RO: 6'-0" x 6'-11"	NA	.30	**TEMPERED**
D2	FRONT DOOR (Product TBD)	Actual: 3'-0" x 6'-8"	NA	.16	
D3	THERMA-TRU (20 min. rated)	Actual: 2'-8" x 6'-8"	NA	.16	
D4	THERMA-TRU 210 (9-LITE)	Actual: 2'-8" x 6'-8"	NA	.26	**TEMPERED**

ANDERSEN 200 SERIES TYP. ALL WINDOWS VERIFY ALL PRODUCT OPTIONS WITH PINEWOOD CUSTOM HOMES, GRILLE BARS PER ELEVATION VIEWS

Wind Speed: 100 mph
Wind Exposure Category: B (All Sides of Building)
1st Floor Live Load: 40 #s / sq ft
2nd Floor Live Load: 30 #s / sq ft
Attic Floor Live Load: 40 #s / sq ft
All roof structures designed to meet or exceed 40# ground snow load NEEDHAM, MA
Sandy Gravel 3,000 PSI
All Concrete Min. 3,000 PSI

—ALL DIMENSIONS TO STUD FACE
—2x4 WALLS @ 3 1/2" WIDTH FRAMED AS BEARING WALLS PER PLAN
—2x6 WALLS @ 5 1/2" WIDTH FRAMED AS BEARING WALLS
(SD) —PHOTO-ELECTRIC SMOKE DETECTOR
(HD) —HEAT DETECTOR HD shall be interconnected with SD (household fire alarm system) inside the main dwelling. Location: 1 detector centered on garage ceiling
(CO) —CARBON MONOXIDE DETECTOR 10'-0" max. from all bedrooms and min. (1) on first floor

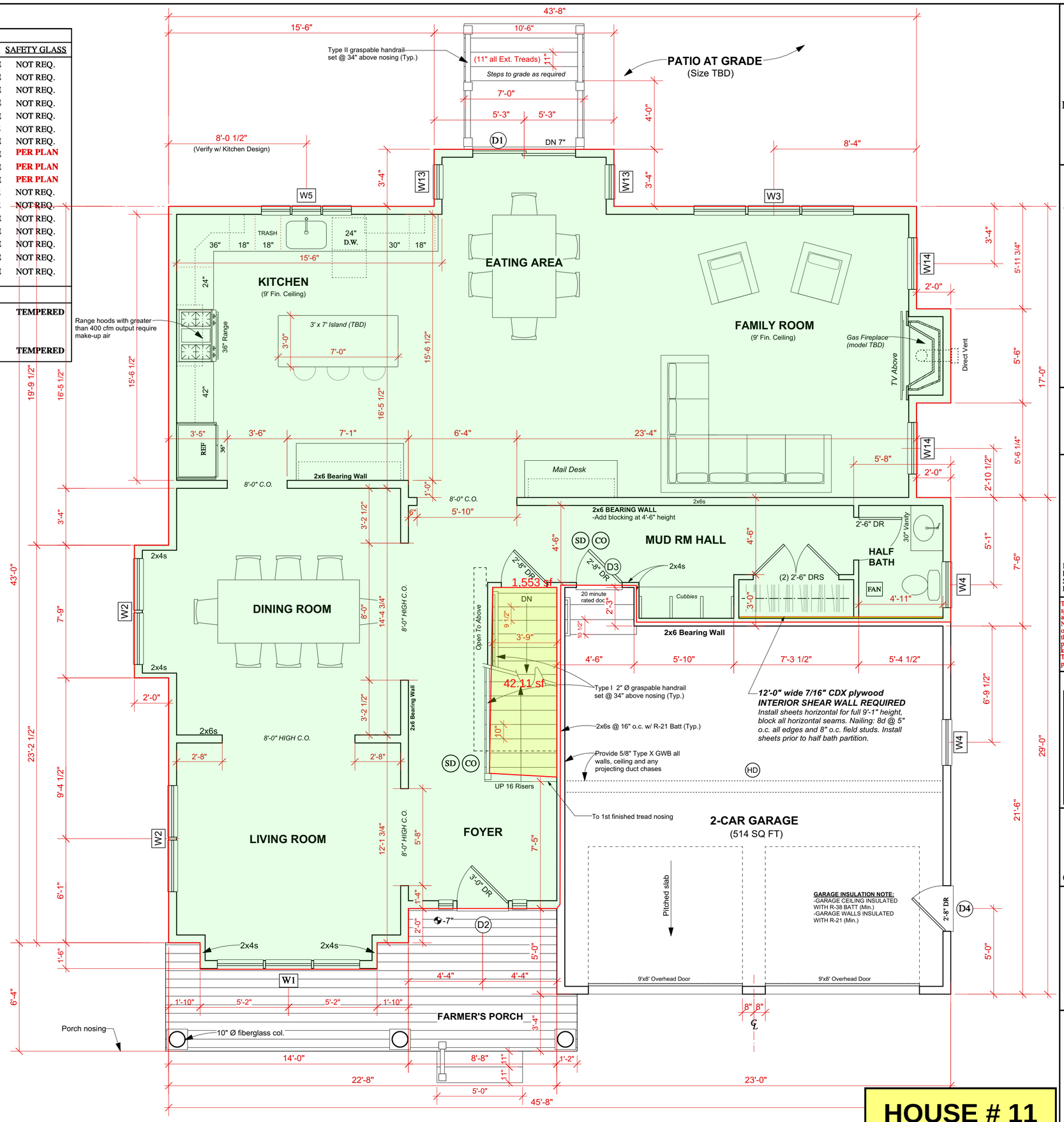
BATHROOM NOTES:
All bathroom exhaust fans vented to outside

STAIR AND GUARDRAIL NOTES:
Type I 2" Ø graspable handrail set @ 34" above nosing (Typ.)
Guardrail @ 36" AFF with balusters spaced to prevent 4" Ø sphere (Typ.)

12,600 SQ FT Lot .36 FAR = 4,536 Max. SQ FT
(Total 1st and 2nd floor areas only)

GARAGE FLOOR AREA:	514	SQ FT
FIRST FLOOR AREA:	1,545	SQ FT
SECOND FLOOR AREA:	1,875	SQ FT
ATTIC FLOOR AREA:	800	SQ FT
BSMNT. FLOOR AREA:	1,150	SQ FT
TOTAL FLOOR AREA:	5,370	SQ FT

NEEDHAM, MA FAR SQ FT NOTE:
Per Needham Zoning By-laws: All floor areas taken at outside face of siding. SQ FT areas include all interior stairs, open to above conditions, and wall thicknesses. No deduction has been made for fireplaces, chimneys, interior wall thickness, or duct chases. Basement and attic factored at 0 FAR (not applicable areas).



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ralphk@rdkarchitects.com
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PROJECT:

BUILDER:
Pinewood Custom Homes, Inc.
PO BOX 920018
Needham, MA 02492
781-449-0014

DATE:
JUNE 8, 2022
Per 9th Edition 1 & 2 Family State Building Code

REVISIONS:

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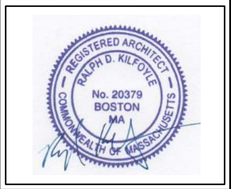

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
FIRST FLOOR PLAN

SHEET NUMBER:
A-1

SET TOTAL: A-1 - A-12

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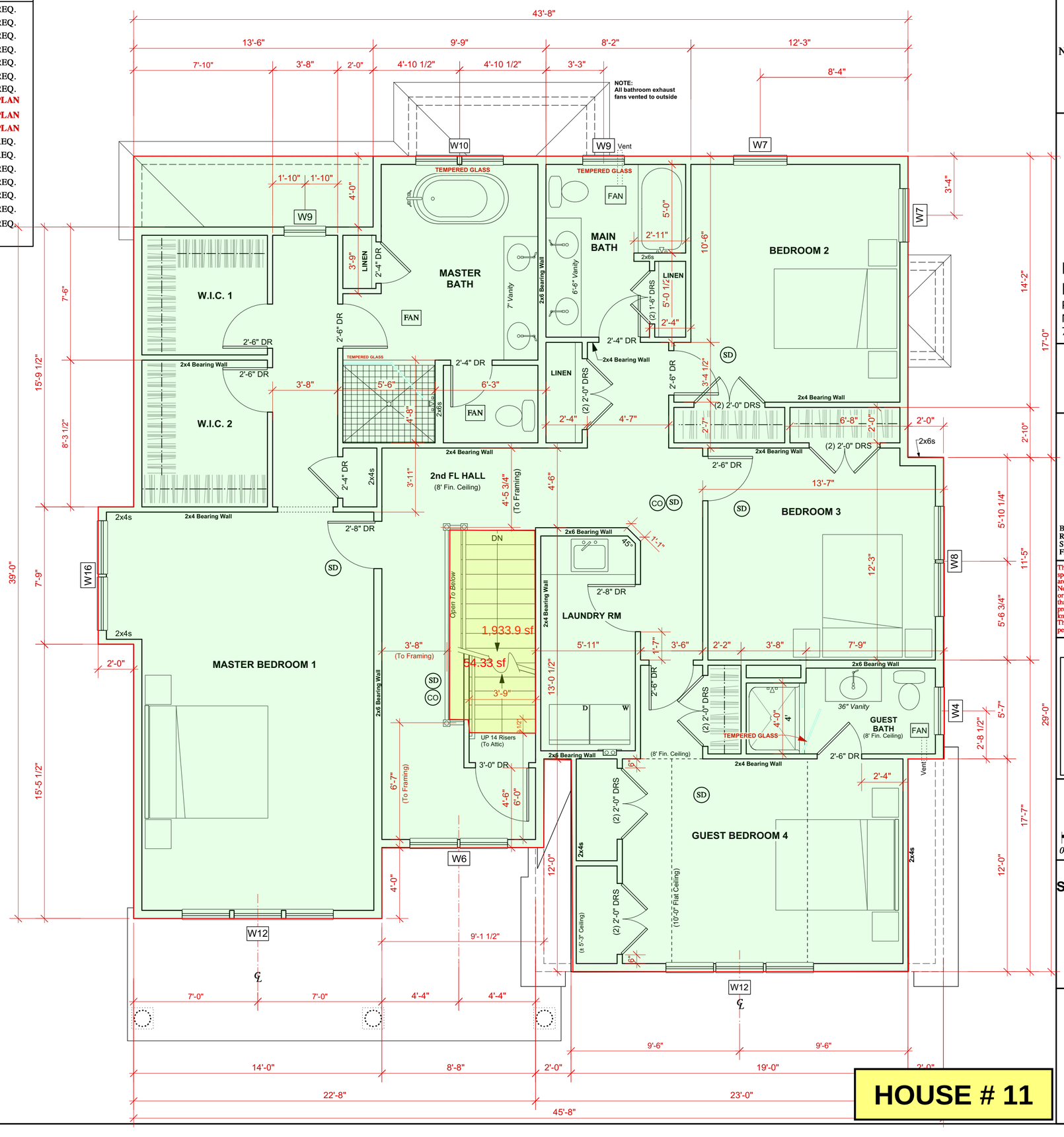
WINDOW SCHEDULE

WINDOW	MANUFACTURER	R.O. W x H	CLEAR OPENING	U-VALUE	SAFETY GLASS
W1	244 DH2856-3	8'-1" x 5'-6"	28.5" x 30"	.30 LOW E	NOT REQ.
W2	244 DH3056-2	6'-0 1/2" x 5'-6"	32.5" x 30"	.30 LOW E	NOT REQ.
W3	244 DH3056-3	9'-1" x 5'-6"	32.5" x 30"	.30 LOW E	NOT REQ.
W4	244 DH2836	2'-8" x 3'-6"	28.5" x 18"	.30 LOW E	NOT REQ.
W5	244 CN345	5'-1 3/8" x 4'-5 3/8"	N/A	.28 LOW E	NOT REQ.
W6	244 DH2840-2	5'-4 1/2" x 4'-0"	28.5" x 21"	.30 LOW E	NOT REQ.
W7	244 DH3049	3'-0" x 4'-9"	32.5" x 25.5"	.30 LOW E	NOT REQ.
W8	244 DH3049-2	6'-0 1/2" x 4'-9"	32.5" x 25.5"	.30 LOW E	**PER PLAN**
W9	244 DH2440	2'-4" x 4'-0"	24.5" x 21"	.30 LOW E	**PER PLAN**
W10	244 DH2440-2	4'-8 1/2" x 4'-0"	24.5" x 21"	.30 LOW E	**PER PLAN**
W11	244 DH2849-2	5'-4 1/2" x 4'-9"	28.5" x 25.5"	.30 LOW E	NOT REQ.
W12	244 DH2849-3	8'-1" x 4'-9"	28.5" x 25.5"	.30 LOW E	NOT REQ.
W13	244 DH2050	2'-0" x 5'-0"	20.5" x 27"	.30 LOW E	NOT REQ.
W14	244 DH3056	3'-0" x 5'-6"	32.5" x 30"	.30 LOW E	NOT REQ.
W15	200 AW31	3'-0 1/2" x 2'-5"	N/A	.30 LOW E	NOT REQ.
W16	244 DH3049-2	6'-0 1/2" x 4'-9"	32.5" x 25.5"	.30 LOW E	NOT REQ.
W17	244 DH2830	2'-8" x 3'-0"	N/A	.30 LOW E	NOT REQ.

ANDERSEN 200 SERIES TYP. ALL WINDOWS VERIFY ALL PRODUCT OPTIONS WITH PINEWOOD CUSTOM HOMES, GRILLE BARS PER ELEVATION VIEWS



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REGISTRATION:

REGISTERED ARCHITECT
RALPH D. KILFOYLE
No. 20379
BOSTON
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
SECOND FLOOR PLAN

SHEET NUMBER:
A-2

SET TOTAL: A-1 - A-12

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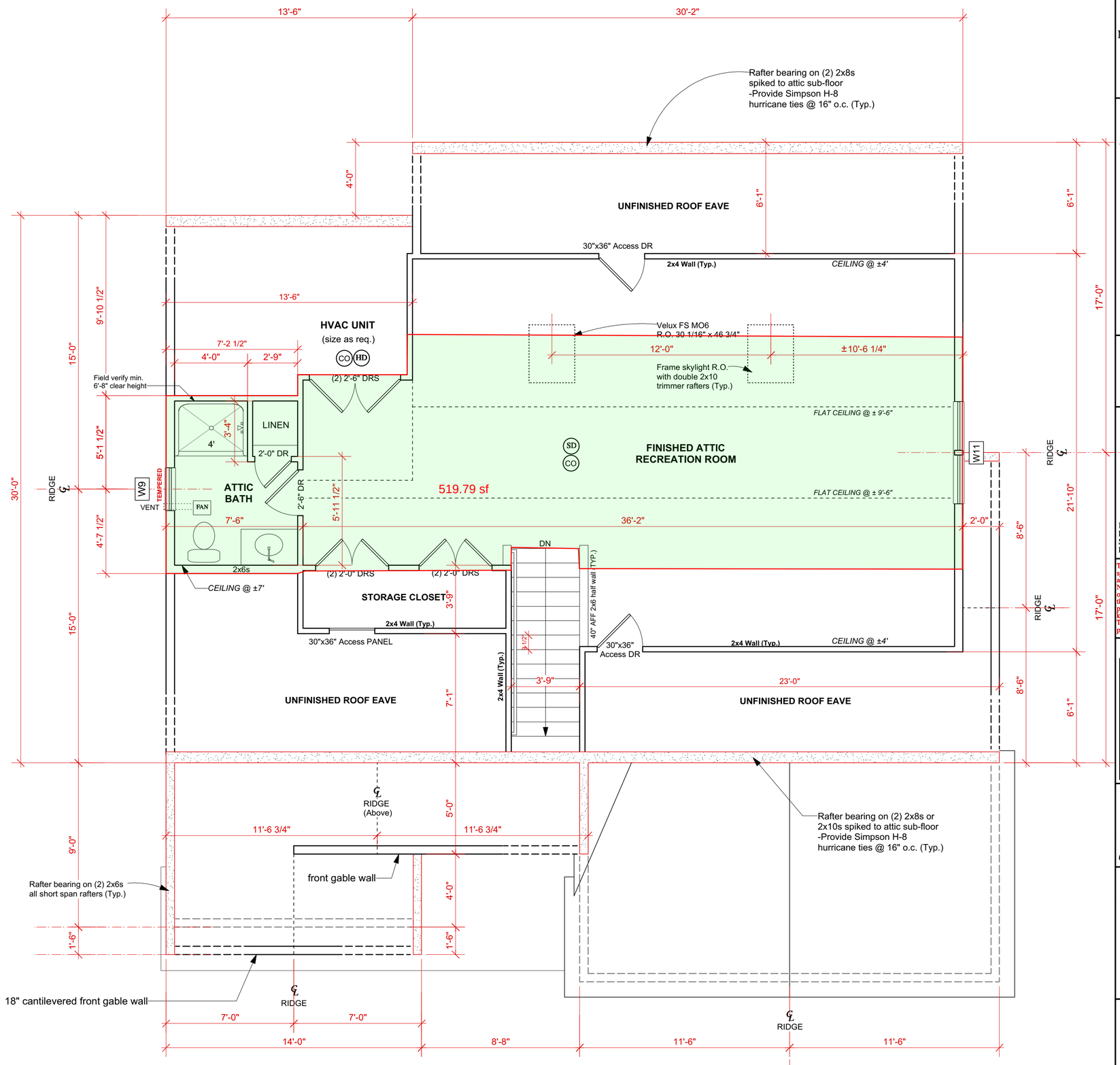

All finished rooms and spaces with less than 8% glazing area, per floor area served, shall be provided with artificial lighting capable of min. 6 footcandles over the area of the room at a height of 30" AFF.

FINISHED ATTIC FLOOR PLAN

± 800 SQ FT

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No. 20379
BOSTON
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
ATTIC FLOOR PLAN

SHEET NUMBER:
A-3
SET TOTAL: A-1 - A-12

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—2 x 4 WALLS

—10" FOUNDATION WALLS

—FOUNDATION DROP

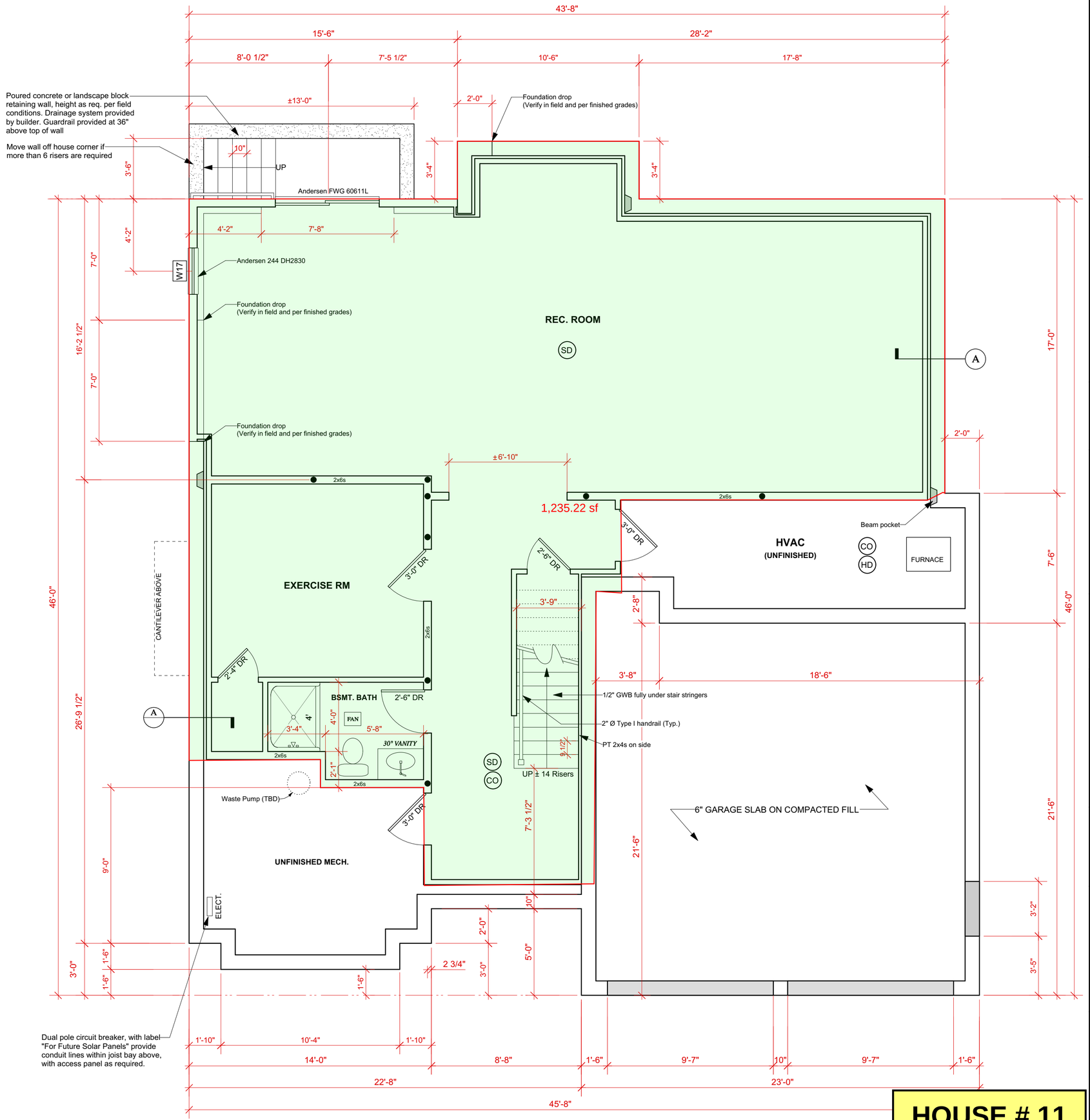
—ALL DIMENSIONS TO FACE OF CONCRETE

(SD) —SMOKE DETECTOR

(CO) —CARBON MONOXIDE DETECTOR

(HD) —HEAT DETECTOR

NOTE:
-All finished rooms and spaces with less than 8% glazing area, per floor area served, shall be provided with artificial lighting capable of min. 6 footcandles over the area of the room at a height of 30" AFF.



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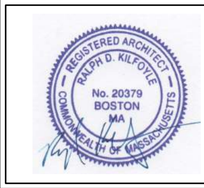

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
FINISHED BASEMENT FLOOR PLAN
1,150 SQ FT Finished

SHEET NUMBER:
A-4

SET TOTAL: A-1 - A-12

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GENERAL CONSTRUCTION SPECIFICATIONS:

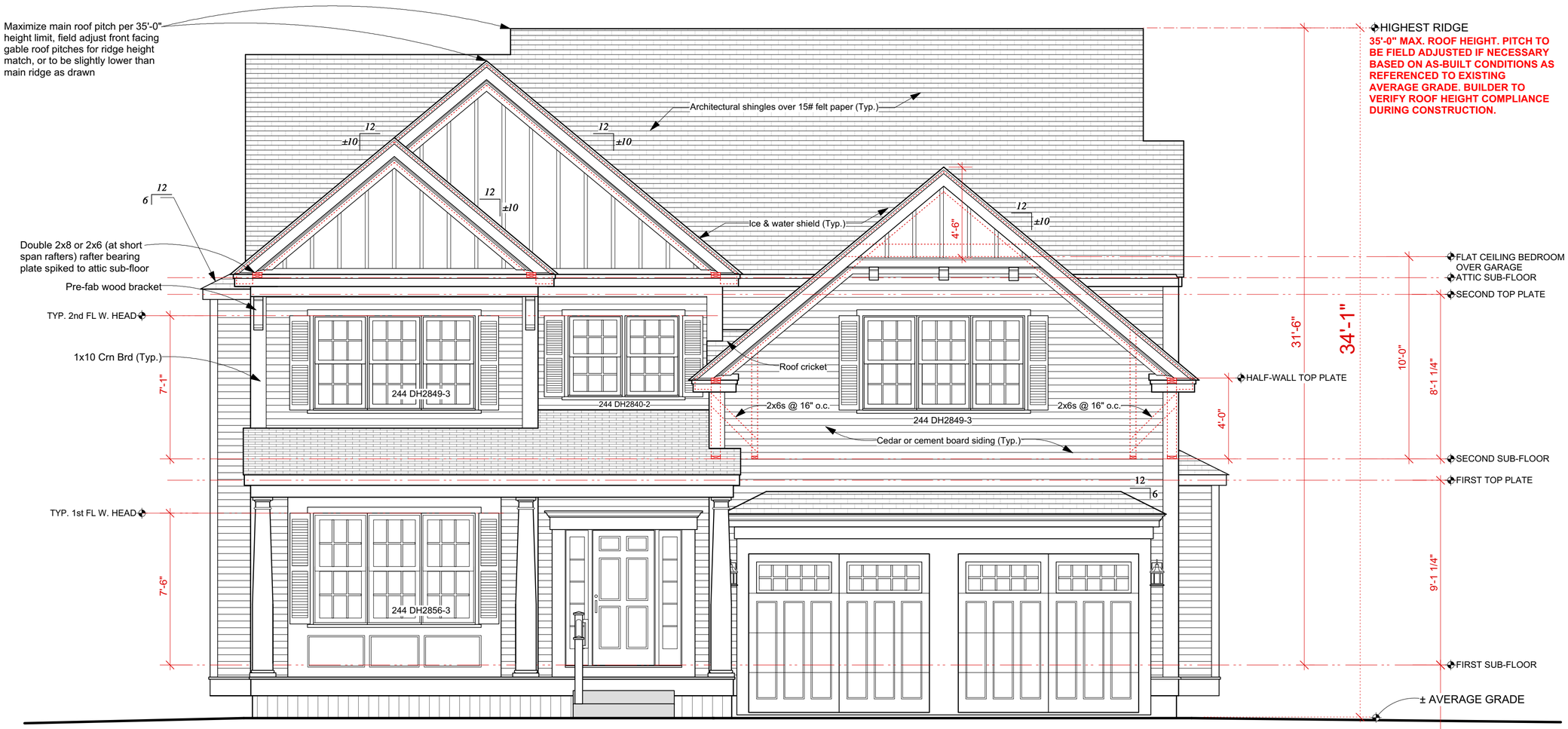
Interior Walls: 2x4 wood frame construction @ 16" o.c. with 3 1/2" sound reduction fiberglass batt insulation between studs for all walls between bedrooms (TBD). Finish both sides with 1/2" blueboard w/ skimcoat of plaster (BBSP).

Exterior Walls: 2x6 wood frame construction @ 16" o.c. (unless otherwise noted). Owens Corning or equal 5 1/2" R-21 unfaced fiberglass batt insulation between studs. Verify min. required wall R-values per HERS rating. Finish interior face with BBSP over polyethylene vapor barrier applied over all exterior walls. Exterior stud face to have 7/16" *Advantech Zip System* or 1/2" CDX plywood sheathing. Cement board or cedar siding shall be installed over fully taped Advantech Zip-System sheathing or Tyvek Housewrap.

Floors: Framing sizes as noted on framing plans with kraftfaced fiberglass insulation (if applicable) in R values per HERS rating. Subfloor shall be min. 3/4" T&G *Advantech* / Equal glued & nailed 6" o.c. to joists.

Roof & Ceilings: Framing sizes as noted on framing plans with R values per HERS rating. Provide full coverage all rafter bays with spray foam insulation, no roof venting required. Exterior face of rafters shall have 1/2" CDX fir plywood or 1/2" Advantech roof sheathing with Certainteed (or equal) 30 year roof shingles installed over 15# felt paper or shingle manufacture's required underlayment. Provide ice & water shield at all valleys and eaves and along wall transitions and projections.

Moisture from plaster job, painting, or any other source during construction must be fully mitigated by general contractor during construction to avoid potential mold problems. Architect is not responsible for any moisture complications attributable to any job site climate conditions or any performed work. Use of alternative insulation products or systems other than specified herein shall further indemnify architect of any liability attributable to building envelop performance. Architect is further exempt from liability associated with any HVAC systems installed. All structural assemblies, building components, materials, workmanship, energy conservation, life-safety, and fire protection shall conform fully with 780 CMR 9th Edition of the Massachusetts State Building Code Volume for One and Two Family Dwellings. Stretch Energy Code shall utilize the 2015 IECC base code with all Mass amendments. All duct testing and associated Stretch Code testing requirements and procedures shall be the responsibility of the Builder. See project specific HERS Rating for insulation values, all of which shall supercede any insulation values stated herein these construction documents.
SEE DRAWINGS FOR ADDITIONAL NOTES AND SPECIFICATIONS. OWNER SHALL REVIEW WITH BUILDER MODIFICATIONS TO ANY SPECIFICATIONS INDICATED WITHIN THESE CONSTRUCTION DOCUMENTS.



FRONT ELEVATION

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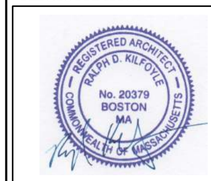

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
FRONT ELEVATION

SHEET NUMBER:
A-5

SET TOTAL: A-1 - A-12

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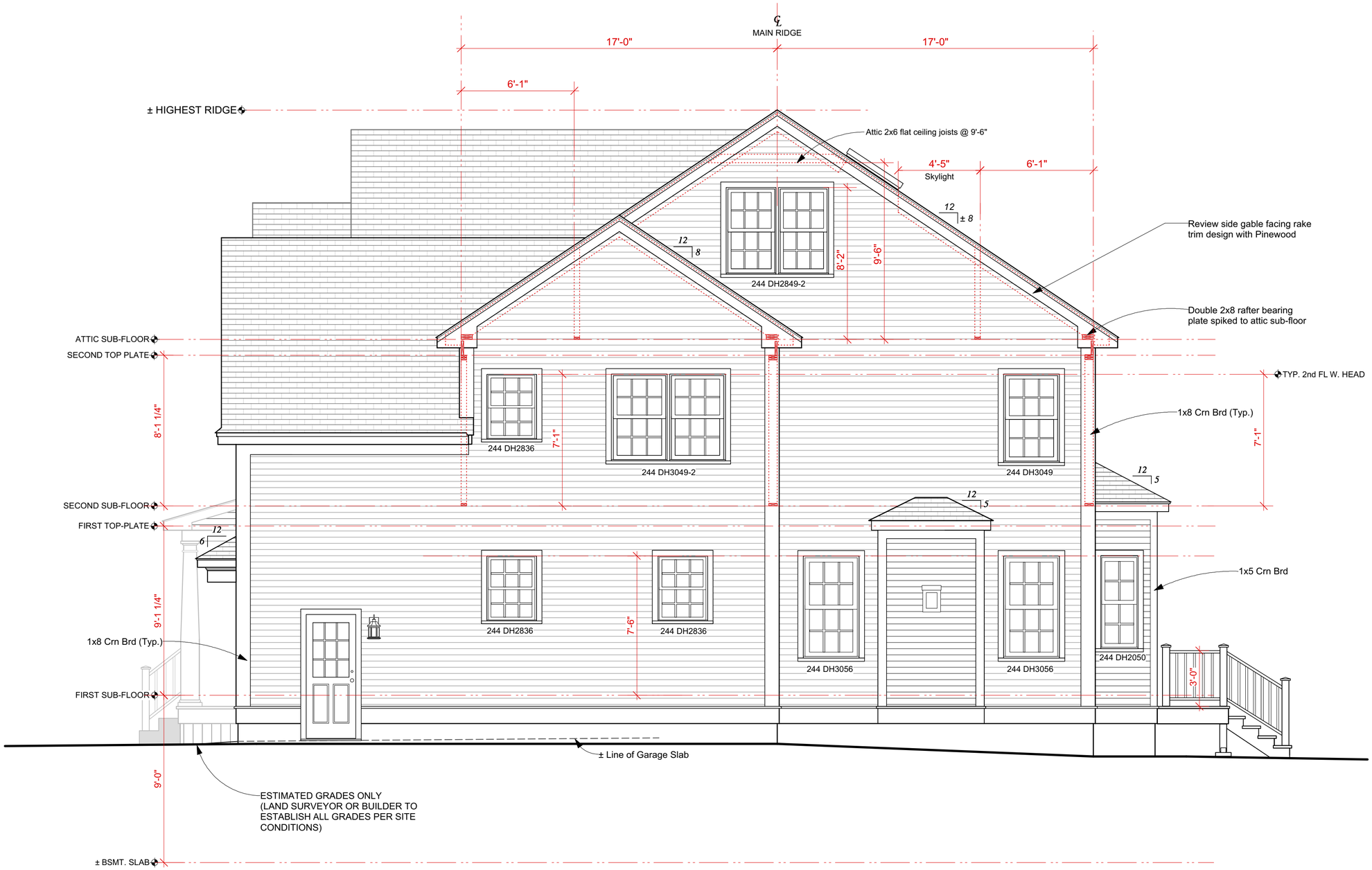

RIGHT SIDE ELEVATION

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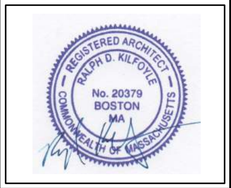

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
RIGHT SIDE ELEVATION

SHEET NUMBER:
A-6
SET TOTAL: A-1 - A-12

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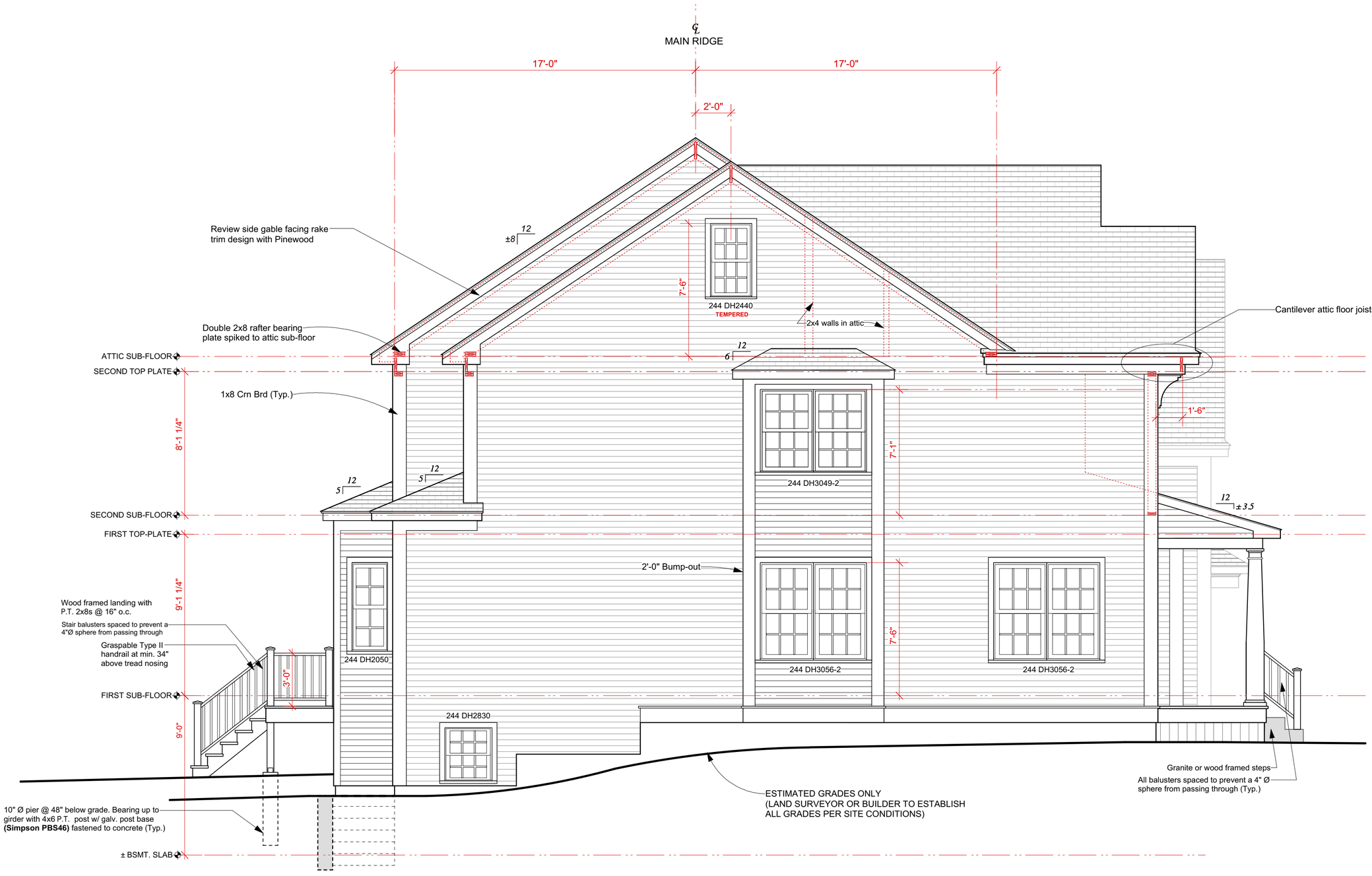

LEFT SIDE ELEVATION

HOUSE # 11

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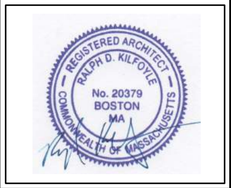

SCALE:
1/4" = 1'-0"
0 1 2 4 8

SHEET TITLE:
LEFT SIDE ELEVATION

SHEET NUMBER:
A-7
SET TOTAL: A-1 - A-12

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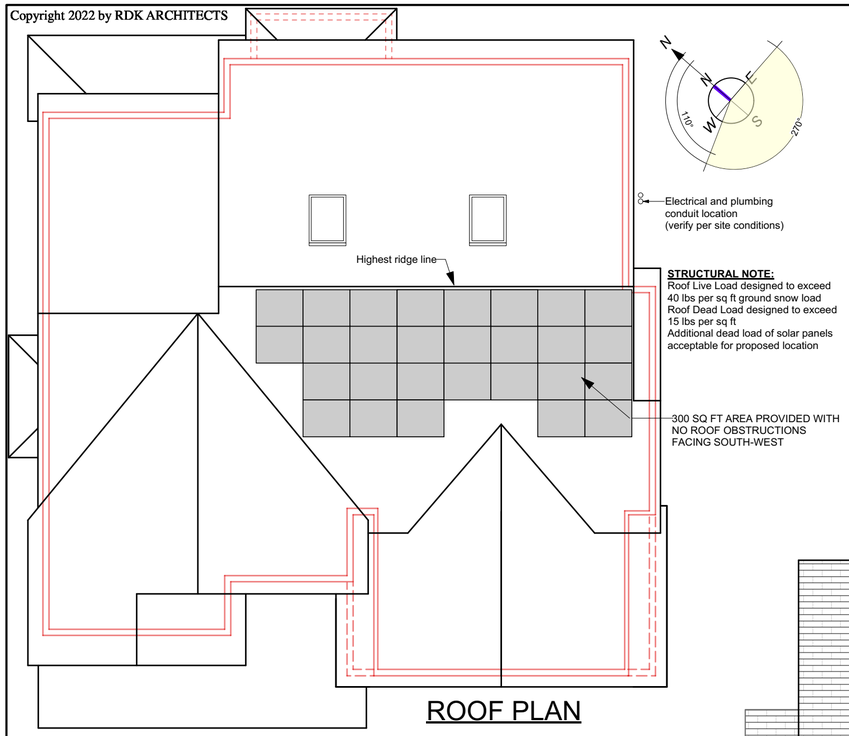

ROOF PLAN

REAR ELEVATION

HOUSE # 11

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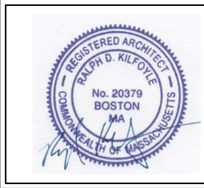


SCALE:
1/4" = 1'-0"

0 1 2 4 8

SHEET TITLE:
REAR ELEVATION

FUTURE SOLAR PANELS LOCATION

SHEET NUMBER:
A-8

SET TOTAL: A-1 - A-12

NTED
C: House #13

HOUSE #13

HOUSE #13

HOUSE #13

Large House Study - FAR Rules/Tests

House 13

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	12,932	SF	
Lot Coverage	2,573	SF	0.199

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	1,334	-	1,334
1	2,526	575	1,951
2	2,047	-	2,047
3	466	-	466
Total	6,373	575	5,798
TLAG	5,039	Real Estate Ad=	6,089 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,573	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	19.9%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	30.9%	3,998	6,456
FAR (Flr 1,2,3 Exclude Garage)	36%	34.5%	4,464	5,990
FAR (Flr 1,2,3,B Exclude Garage)	36%	44.8%	5,798	4,656
FAR (Flr 1,2,3,+ Include Garage 1)	36%	39.0%	5,039	5,990
FAR (Flr 1,2 + Include Garage 1)	36%	35.4%	4,573	6,456

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessors Map & Parcel Number: _____

Building Permit Number: _____ Zoning District: SRB

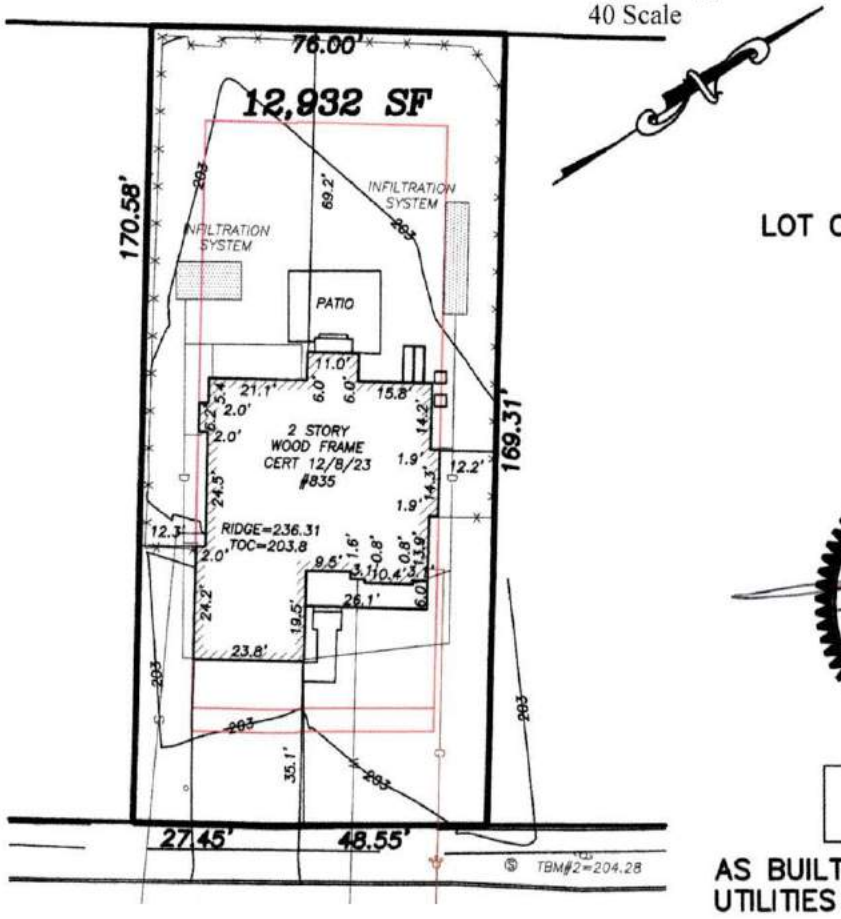
Lot Area: 12,932 SF Address: _____

Owner: _____ Builder: _____

DEMO / PROPOSED PLOT PLAN / FOUNDATION ASBUILT / FINAL AS-BUILT

Circle One That Applies

40 Scale



Field Resources, Inc.
LAND SURVEYORS
P.O. Box 324 281 Chestnut Street
Auburn, MA 01501 Needham, MA 02492
781 444 5936
office@fieldresources.net

LOT COVERAGE =19.9%

COMMONWEALTH OF MASSACHUSETTS
BRADLEY J. SIMONELLI #47581
PROFESSIONAL LAND SURVEYOR

082-22

AS BUILT LOCATION OF UNDERGROUND UTILITIES PROVIDED BY CONTRACTOR

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the Town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gaslines, etc.; driveways, septic systems, wells,Flood Plain and Wetland Areas, lot dimensions, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances, (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations, proposed grading and drainage of rechardge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures* offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location areas with no public sewer.

*Accessory structures may require a separate building permit - See Building Code

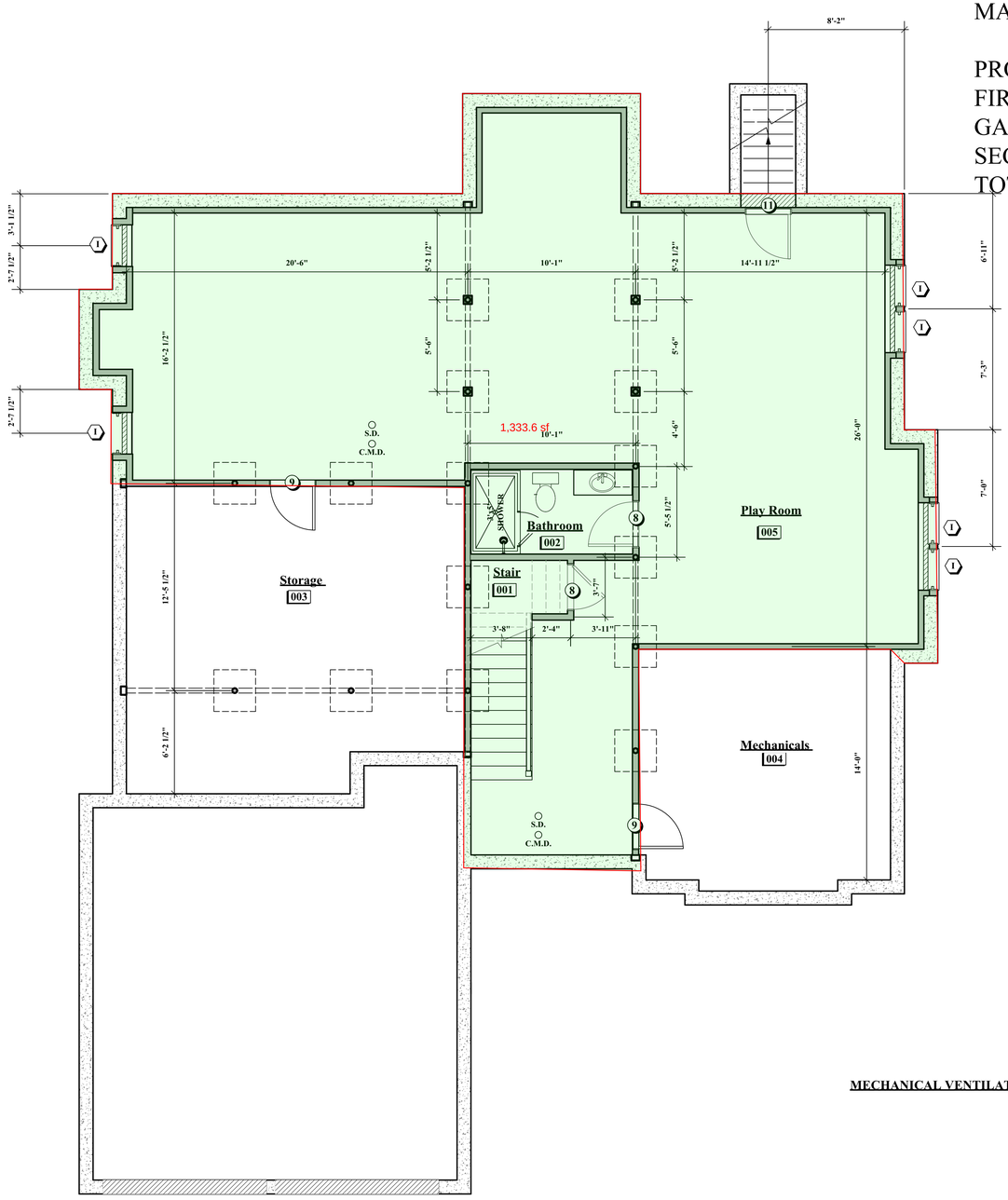
I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this 14TH day of DECEMBER ,20 23 .

Name: Bradley J. Simonelli, PLS. #47581 Registered Land Surveyor Date: _____
Address: 281 Chestnut Street City: Needham State: MA Zip: 02492 Phone: 781-444-5936
Approved: _____ Director of Public Works: Date: _____
Approved: _____ Building Inspector: Date: _____

HOUSE # 13

FAR SUMMARY:
LOT SIZE: 12932 SF
MAXIMUM FAR ALLOWED : 12932 X .36 = 4655 SF

PROPOSED FAR
FIRST FLOOR: 1951 SF LIVING
GARAGE: 575 SF (NOT INCLUDED IN FAR)
SECOND FLOOR: 2218 SF
TOTAL: 4169 SF



MECHANICAL VENTILATION REQUIRED

1 / A-1.1 Basement Plan
Scale: 1/4" = 1'-0"

HOUSE # 13

OWNER

mckay architects
35 Bryant Street
Dedham, MA 02026
ph:781.326.5400
www.mckayarchitects.net

REGISTERED ARCHITECT MICHAEL L. MCKAY NO. AR 6947 COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

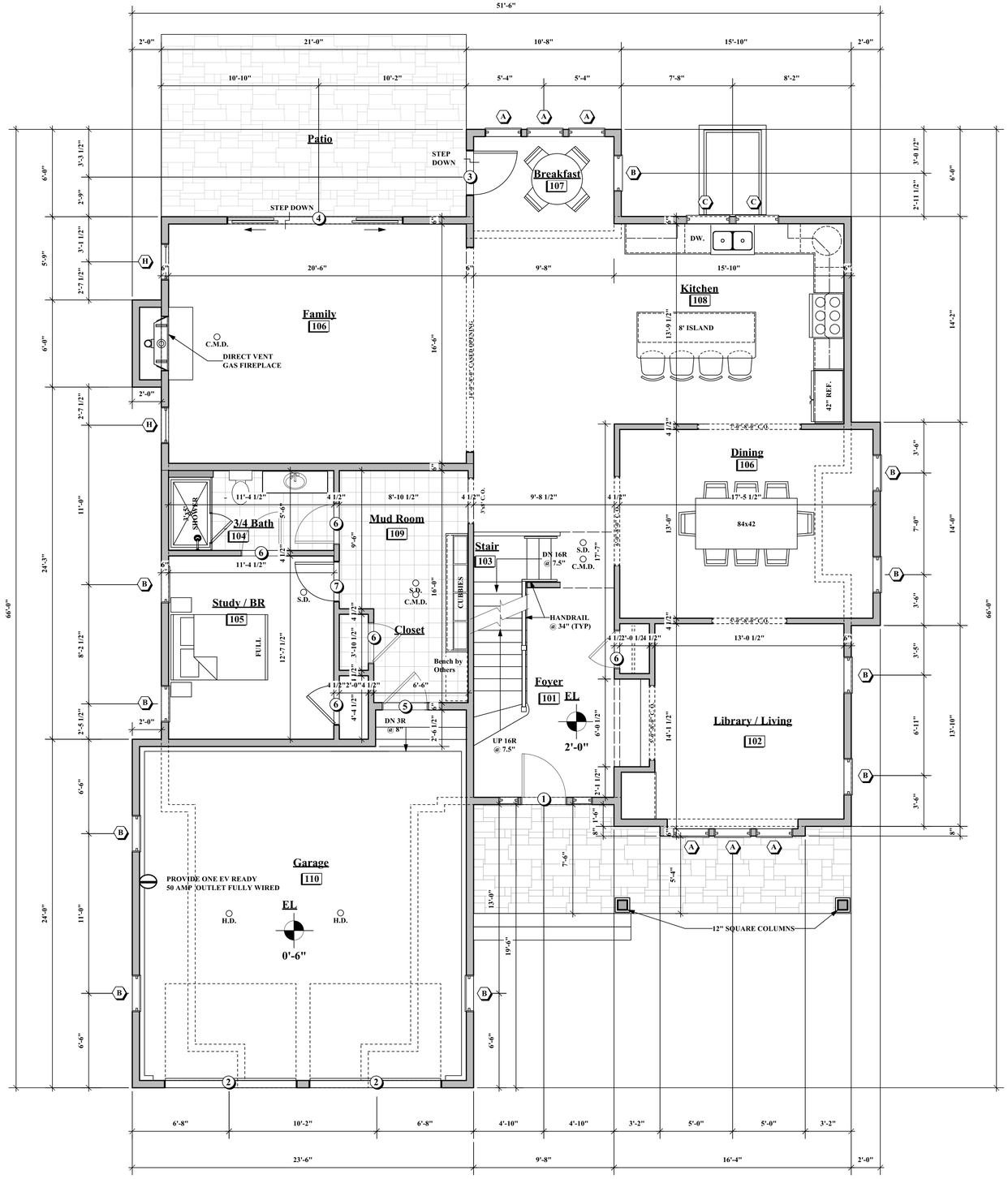
OWNERSHIP & USE OF DOCUMENTS

These drawings and specifications are the property and copyright of McKay Architects and shall not be used in whole or in part, or shall be assigned to a third party without the express written permission of McKay Architects.
Contractor to verify all information and dimensions in the field prior to start of construction and is to notify McKay Architects of any discrepancies

Basement Floor Plan

JOB NO	0070
DATE	4.11.2023
DWG BY	JB
CKD BY	MLM
SCALE	

A-1.1



1 / A-1.2 First Floor Plan (1,951 sf)

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

575 SF Garage

HOUSE # 13

OWNER

mckay architects

35 Bryant Street
Dedham, MA 02026

ph:781.326.5400
www.mckayarchitects.net

MICHAEL L. MCKAY
REGISTERED ARCHITECT
NO. 6947
COMMONWEALTH OF MASSACHUSETTS

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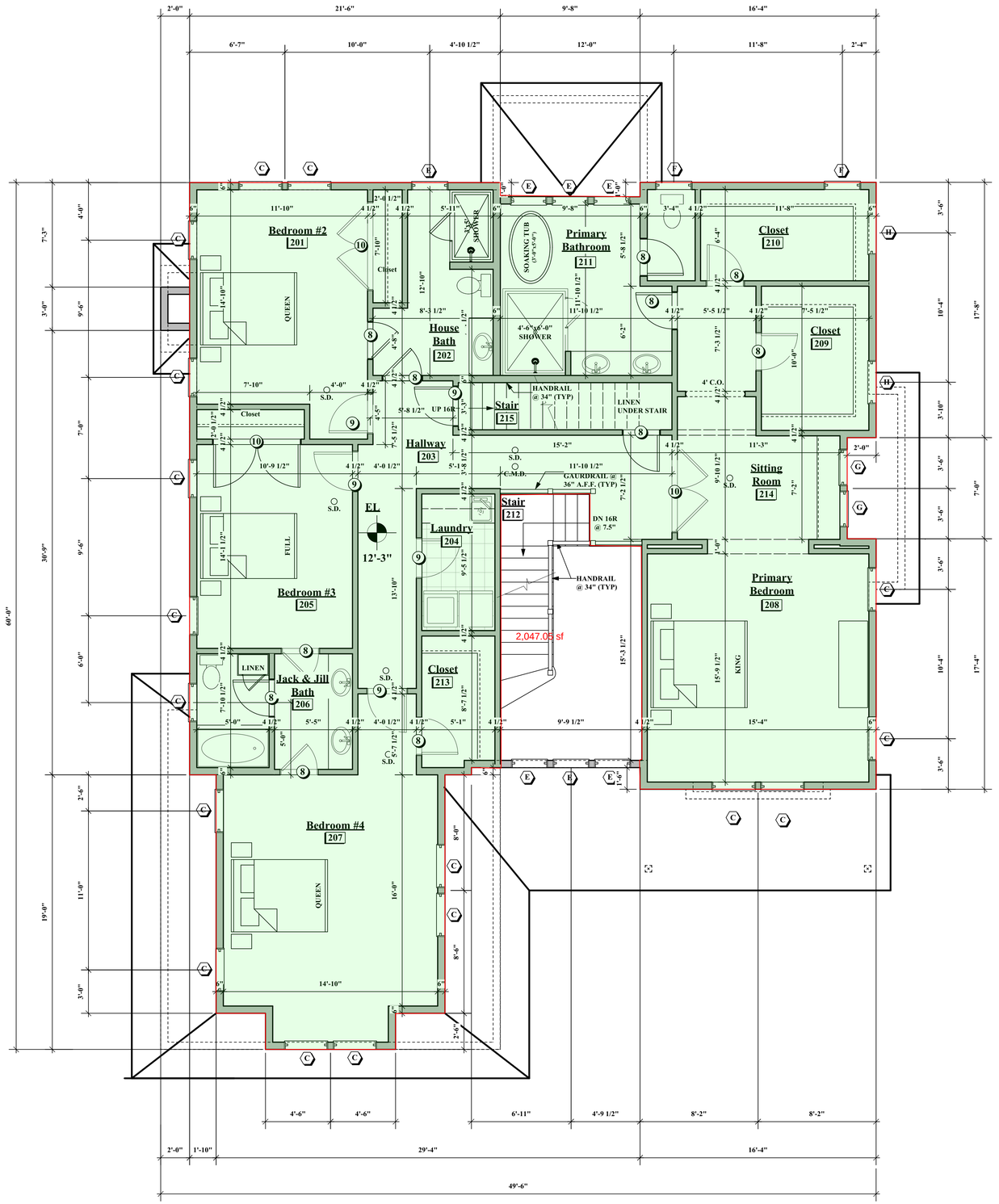
First Floor Plan

JOB NO	0070
DATE	4.11.2023
DWG BY	JB
CKD BY	MLM
SCALE	

A-1.2



1 / A-1.3 Second Floor Plan (2,218 sf)
Scale: 1/4" = 1'-0"

HOUSE # 13

OWNER

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MICHAEL L. MCKAY
REGISTERED ARCHITECT
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COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

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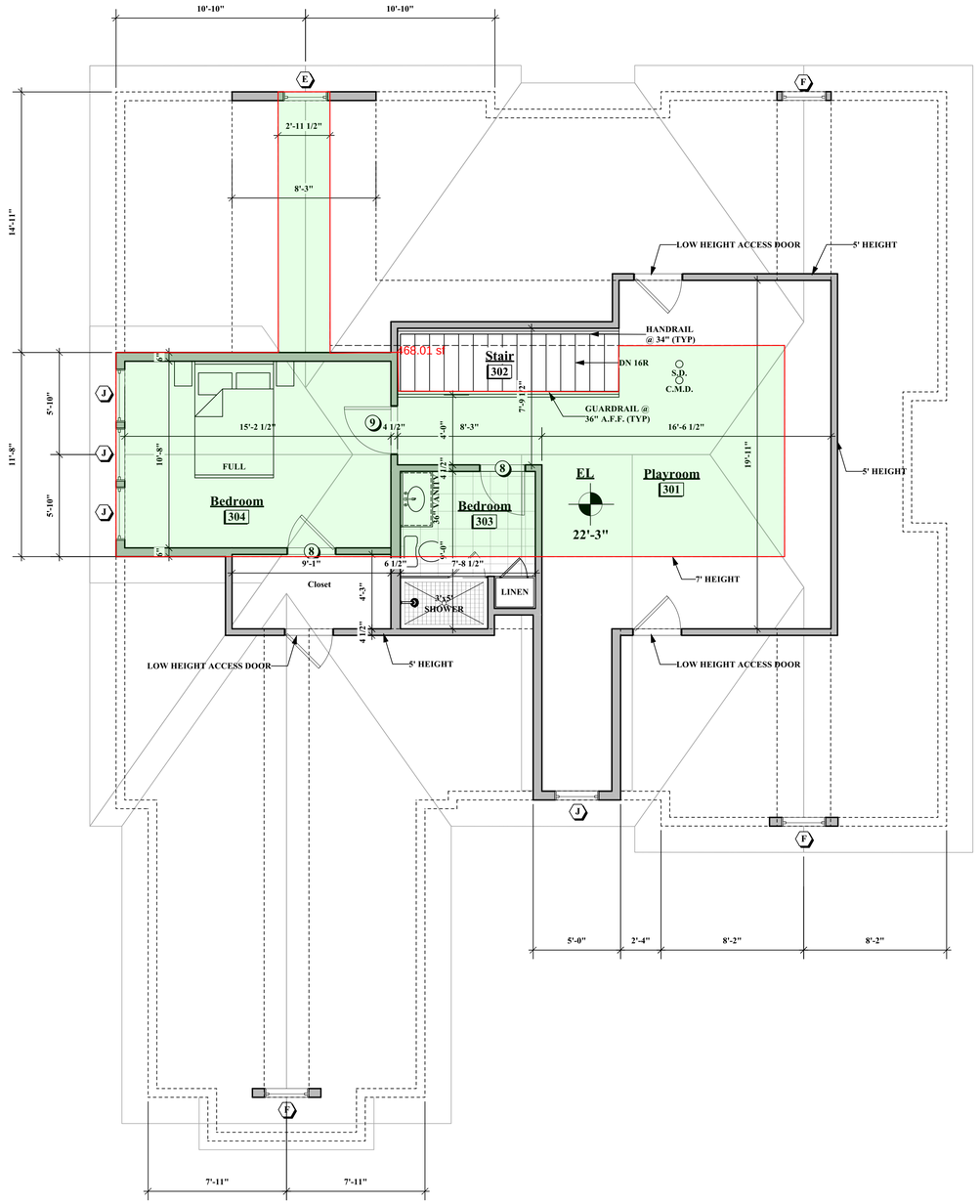
Second Floor Plan

JOB NO	0070
DATE	4.11.2023
DWG BY	JB
CKD BY	MLM
SCALE	

A-1.3



1 / A-1.4 Attic Floor Plan
Scale: 1/4" = 1'-0"

HOUSE # 13

OWNER

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35 Bryant Street
Dedham, MA 02026
ph:781.326.5400
www.mckayarchitects.net

REGISTERED ARCHITECT MICHAEL L. MCKAY NO. AR 6947 COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE
1	04.25.2023	FINISHED ATTIC

OWNERSHIP & USE OF DOCUMENTS

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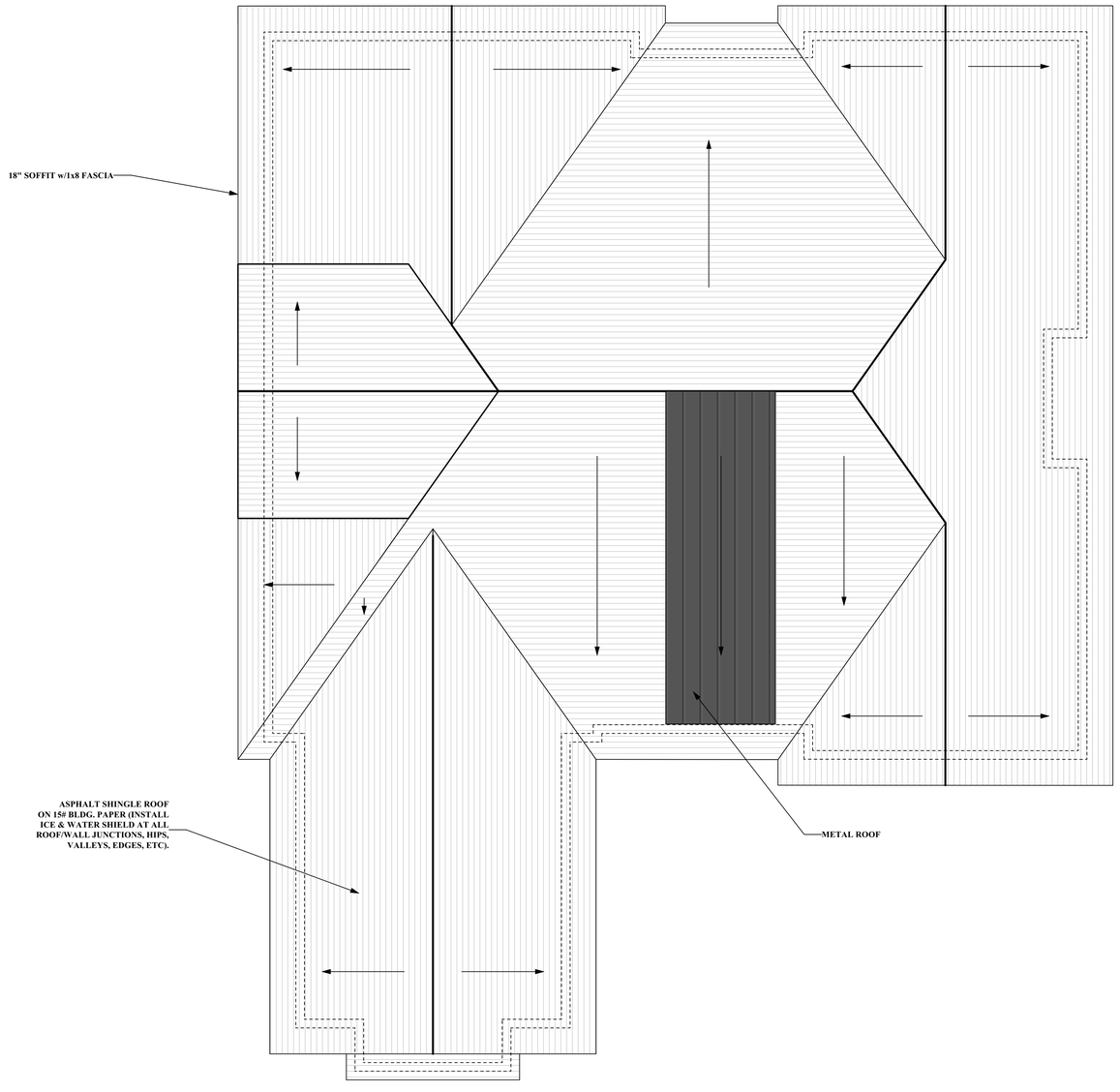
Attic Floor Plan

JOB NO	0070
DATE	4.11.2023
DWG BY	JB
CKD BY	MLM
SCALE	

A-1.4



1 / A-1.5 Roof Plan
Scale: 1/4" = 1'-0"

HOUSE # 13

OWNER

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MICHAEL L. MCKAY
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COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

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Roof Plan

JOB NO	0070
DATE	4.11.2023
DWG BY	JB
CKD BY	MLM
SCALE	

A-1.5

1 / A-2.1 Front Elevation
Scale: 1/4" = 1'-0"

HOUSE # 13

OWNER

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REV #	DATE	ISSUANCE

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Front Elevation

JOB NO	0070
DATE	4.11.2023
DWG BY	JB
CKD BY	MLM
SCALE	

A-2.1

1 / A-2.2 Right Elevation
Scale: 1/4" = 1'-0"

HOUSE # 13

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REGISTERED ARCHITECT
COMMONWEALTH OF MASSACHUSETTS
MICHAEL L. MACKAY
NO. AR 6947

REV #	DATE	ISSUANCE

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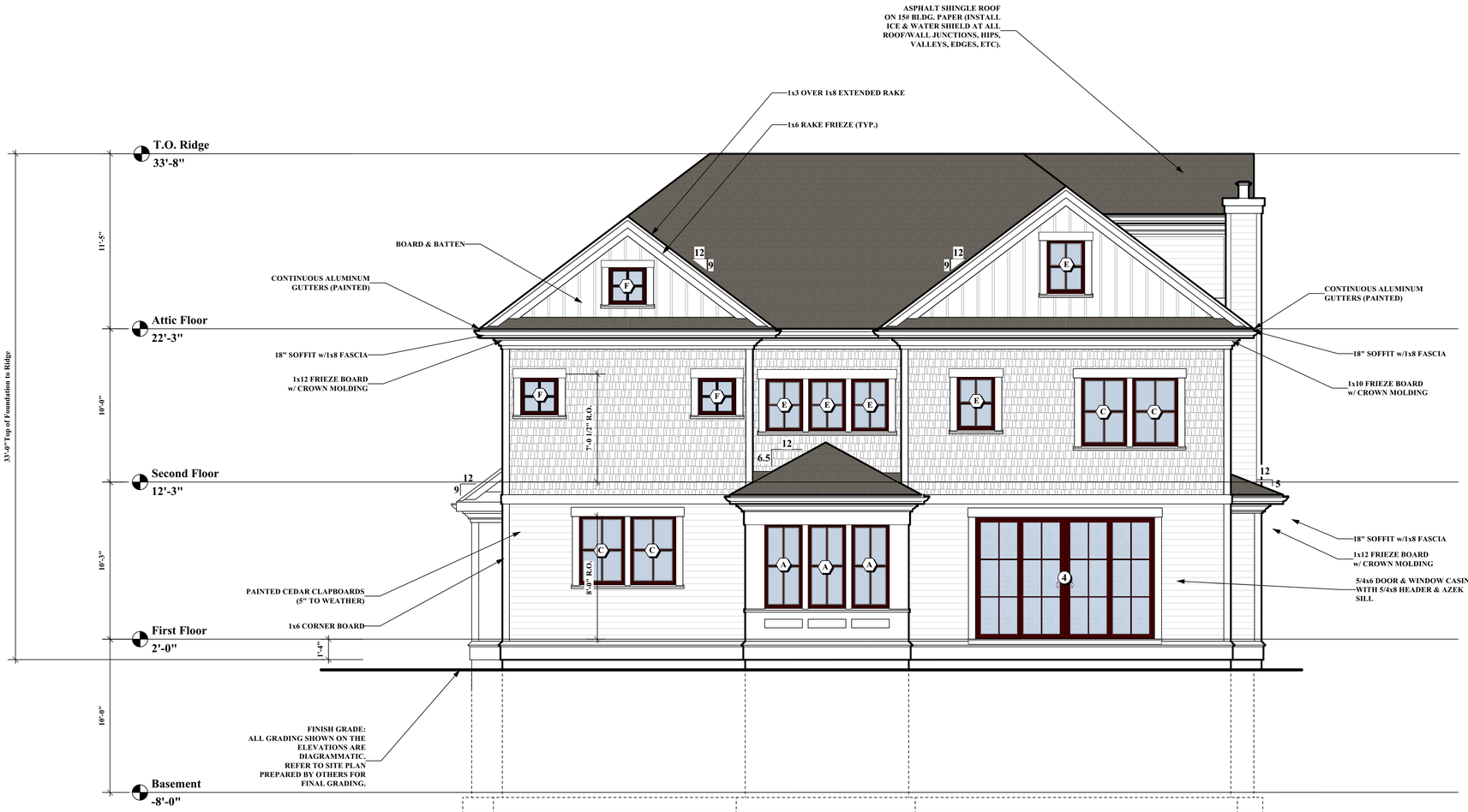
Right Elevation

JOB NO	0070
DATE	4.11.2023
DWG BY	JB
CKD BY	MLM
SCALE	

A-2.2



1 / A-2.3 Rear Elevation
Scale: 1/4" = 1'-0"

HOUSE # 13

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REGISTERED ARCHITECT MICHAEL L. McKAY NO. AR 6947 COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

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Rear Elevation

JOB NO	0070
DATE	4.11.2023
DWG BY	JB
CKD BY	MLM
SCALE	

A-2.3

1 / A-2.4 Left Elevation
Scale: 1/4" = 1'-0"

HOUSE # 13

OWNER

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Dedham, MA 02026
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REGISTERED ARCHITECT
MICHAEL L. MCKAY
NO. AR 6947
COMMONWEALTH OF MASSACHUSETTS

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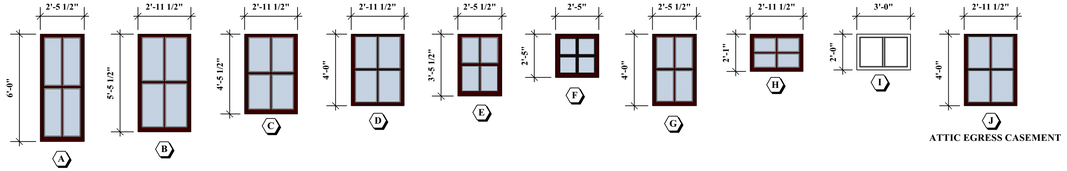
Left Elevation

JOB NO	0070
DATE	4.11.2023
DWG BY	JB
CKD BY	MLM
SCALE	

A-2.4

WINDOW SCHEDULE



ATTIC EGRESS CASEMENT

SHOP DRAWINGS OF WINDOWS ARE TO BE PROVIDED PRIOR TO ORDERING.

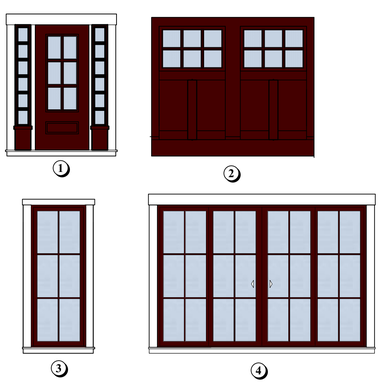
ALL WINDOWS AND PATIO DOORS ARE TO BE MANUFACTURED BY PELLA WINDOWS OR OWNER APPROVED EQUAL. PROVIDE SIMULATED DIVIDED LITE PATTERNS AS INDICATED. ALL UNITS ARE TO BE BLACK CLAD. UNITS ARE TO HAVE 6 5/16" JAMB THICKNESS & WHITE HARDWARE WITH FACTORY PROVIDED SCREENS. INTERIOR OF UNIT IS TO BE FACTORY PRIMED WHITE. PATIO DOORS ARE TO HAVE LOCKING HARDWARE PROVIDED WITH SCREEN DOOR UNITS. ALL GLAZING IS TO BE LOW-E INSULATED GLASS WITH U-VALUE OF .30 OR BETTER.

DOOR SCHEDULE

DOOR NO.	LOCATION / TYPE	SIZE	DETAILS		REMARKS
			HEAD	JAMB	
1	EXTERIOR / ENTRY	3'-0x8'-0" w/ 1' SIDELIGHTS	WOOD	WOOD	
2	EXTERIOR / GARAGE	9'-0"x8'-0"	WOOD	WOOD	GARAGE OVERHEAD
3	EXTERIOR / BREAKFAST	3'-0"x8'-0"	WOOD	WOOD	
4	EXTERIOR / FAMILY	12'-0"x8'-0"	WOOD	WOOD	SLIDER
5	INTERIOR / GARAGE	3'-0"x8'-0"	WOOD	WOOD	"C" LABEL DOOR
6	INTERIOR / (TYP)	2'-6"x8'-0"	WOOD	WOOD	
7	INTERIOR / (TYP)	2'-8"x8'-0"	WOOD	WOOD	
8	INTERIOR / (TYP)	2'-6"x6'-8"	WOOD	WOOD	
9	INTERIOR / (TYP)	2'-8"x6'-8"	WOOD	WOOD	
10	INTERIOR / (TYP)	(2) 2'-0"x6'-8"	WOOD	WOOD	PAIR
11	EXTERIOR / (TYP)	3'-0"x6'-8"	WOOD	WOOD	
12			WOOD	WOOD	
13			WOOD	WOOD	
14			WOOD	WOOD	
15			WOOD	WOOD	
16			WOOD	WOOD	
17			WOOD	WOOD	
			WOOD	WOOD	

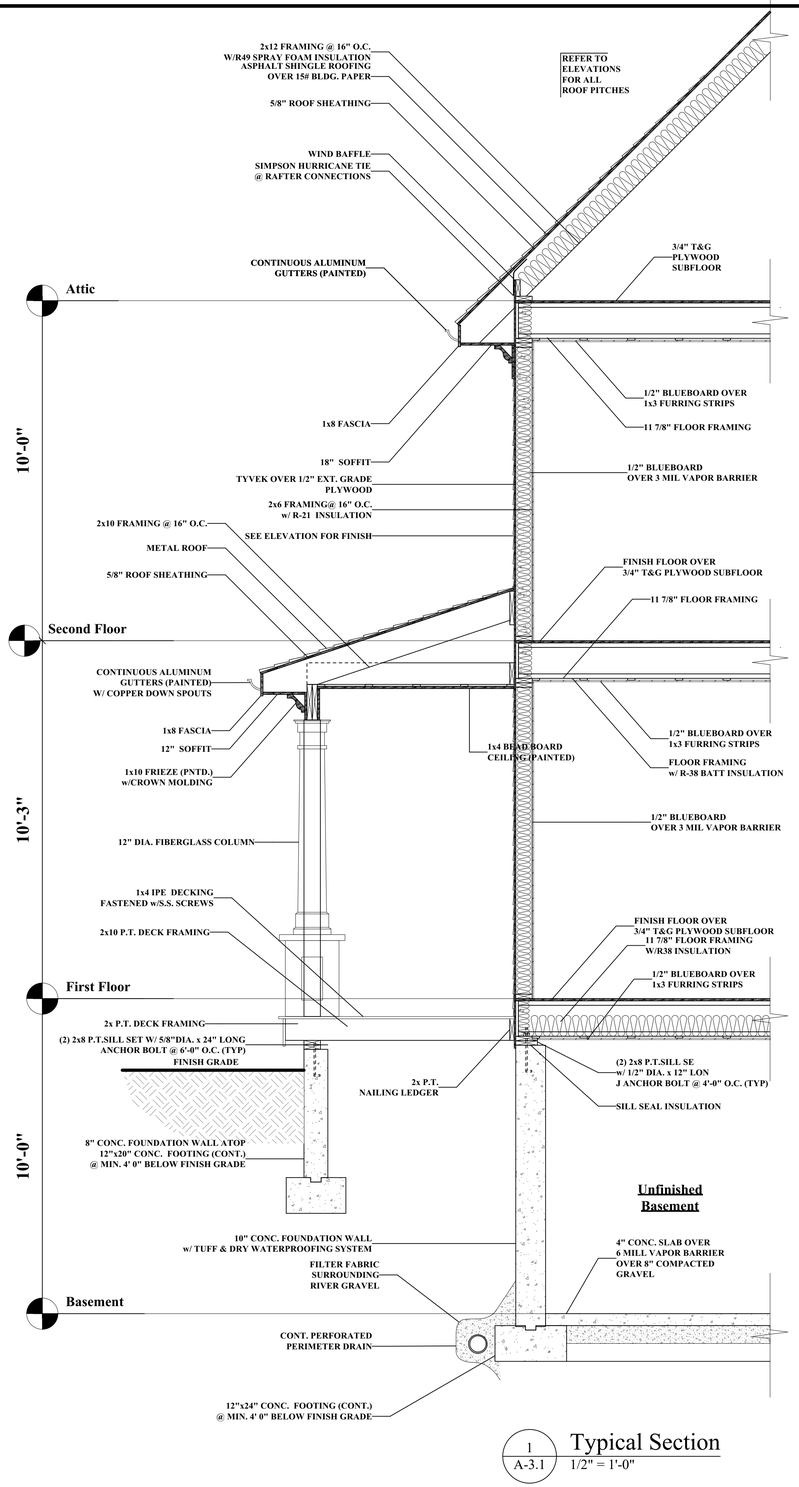
NOTE:

SHOP DRAWINGS OF DOORS ARE TO BE PROVIDED PRIOR TO ORDERING.



FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING	REMARKS
				NORTH	EAST	SOUTH	WEST		
001	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
002	BATH	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
003	STORAGE								
004	MECHANICAL		WOOD	GWB	GWB	GWB	GWB	GWB	
005	PLAYROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
101	ENTRY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
102	LIBRARY / LIVING	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
103	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
104	BATH	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
105	STUDY/BEDROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
106	FAMILY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
107	BREAKAST	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
108	KITCHEN	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
109	MUD ROOM	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
110	GARAGE			GWB	GWB	GWB	GWB	GWB	5/8" TYPE "X" GWB
201	BEDROOM 2	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
202	HOUSE BATH 2	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
203	HALL	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
204	LAUNDRY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
205	BEDROOM 3	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
206	JACK & JILL	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
207	BEDROOM 4	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
208	PRIMARY BEDROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
209	CLOSET	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
210	CLOSET	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
211	PRIMARY BATH	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
212	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
213	CLOSET	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
214	SITTING ROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
215	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
301	PLAYROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
302	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
301	BATH	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
302	BEDROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	



1 / A-3.1 Typical Section
1/2" = 1'-0"

HOUSE # 13

OWNER

mckay architects
35 Bryant Street
Dedham, MA 02026
ph:781.326.5400
www.mckayarchitects.net

REGISTERED ARCHITECT
MICHAEL L. MCKAY
NO. AR 6947
COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE

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Schedules & Typical Section

JOB NO	0070
DATE	4.11.2023
DWG BY	JB
CKD BY	MLM
SCALE	

A-3.1

C: House #14
Google Earth

HOUSE #14

HOUSE #14

HOUSE #14

Large House Study - FAR Rules/Tests

House 14

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	14,326	SF	19.6%
Lot Coverage	2,808	SF	

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	2,458	594	1,864
1	2,616	-	2,616
2	2,088	-	2,088
3	700	-	700
Total	7,862	594	7,268
TLAG	5,404	Real Estate Ad=	6,533 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	2,808	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	19.6%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	32.8%	4,704	7,721
FAR (Flr 1,2,3 Exclude Garage)	36%	37.7%	5,404	7,021
FAR (Flr 1,2,3,B Exclude Garage)	36%	50.7%	7,268	5,157
FAR (Flr 1,2,3,+ Include Garage 1)	36%	37.7%	5,404	7,021
FAR (Flr 1,2 + Include Garage 1)	36%	32.8%	4,704	7,721

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

TOWN OF NEEDHAM, MASSACHUSETTS
BUILDING INSPECTION DEPARTMENT

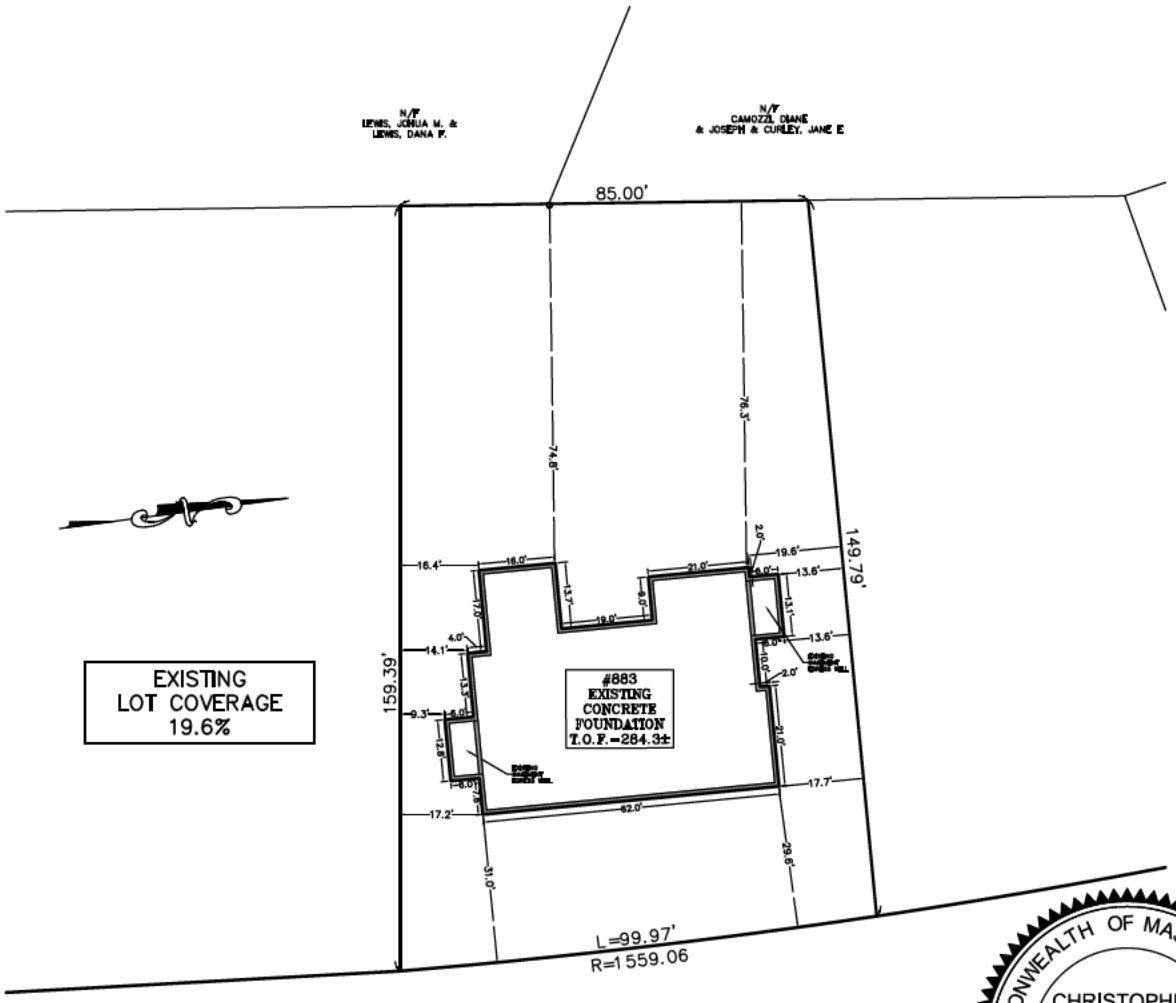
Assessor's Map & Parcel No. _____

Building Permit No. _____ Zoning District SR–B

Lot Area 14,326± S.F Address No.

Owner _____ Builder _____

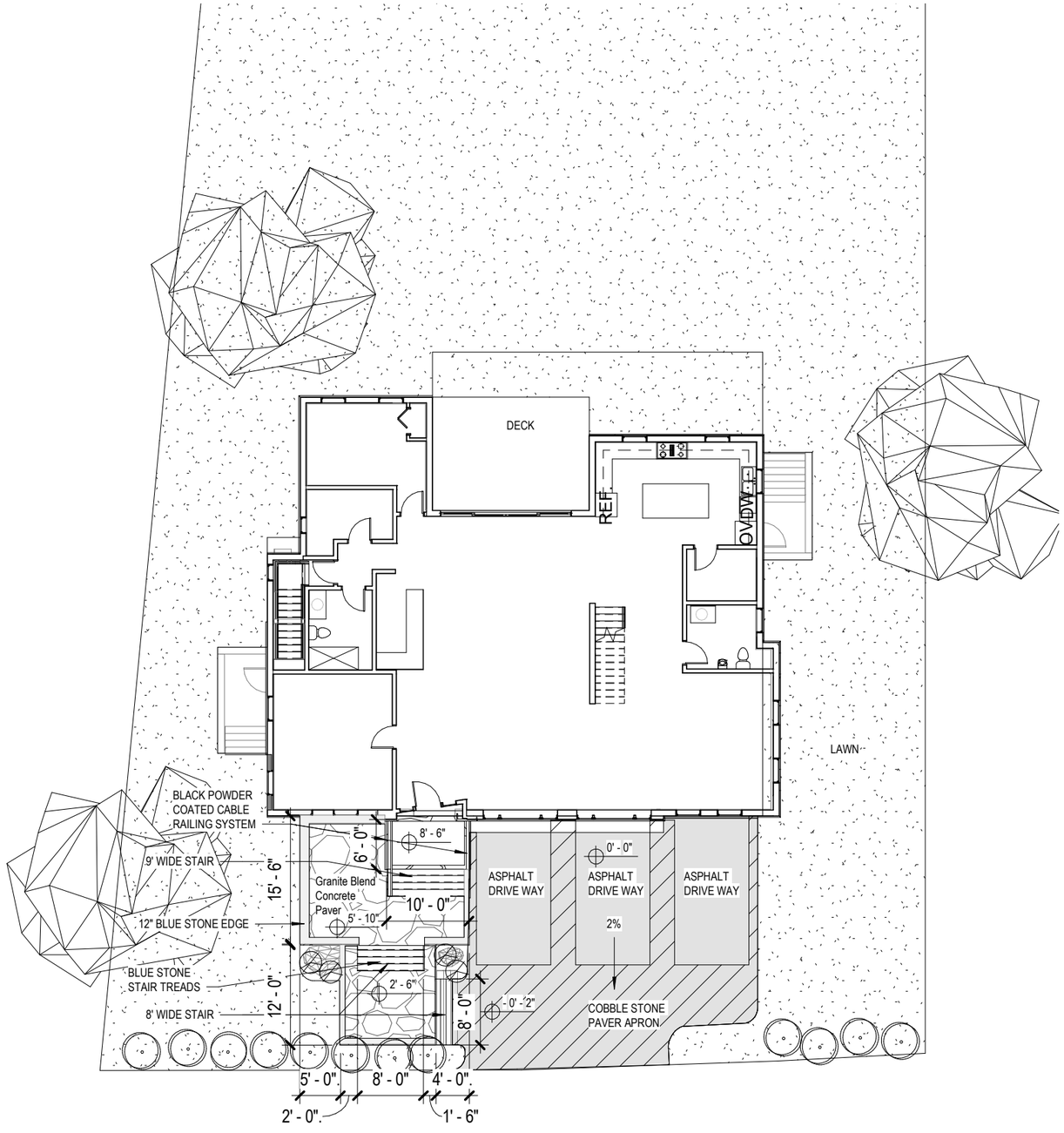
DEMO / PROPOSED PLAN / FOUNDATION AS-BUILT / FINAL AS-BUILT
Circle One that Applies
40' Scale



Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gaslines, etc.; driveways, septic systems, wells, Flood Plain and Wetland Areas, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances, (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations proposed grading and drainage of recharge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location in areas with no public sewer.
(*Accessory structures may require a separate building permit ¾ See Building Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this 6 day of JANUARY 20 23 .
Name CHRISTOPHER C. CHARLTON Registered Land S
Address 105 BEAVER STREET City NEWTON State MA Zip
Approved _____ Director of Public W
Approved _____ Building Inspector

HOUSE # 14



883 GREENDALE AVE. NEEDHAM			
ZONING DISTRICT: SR-B			
	REQUIRED	EXISTING	PROPOSED
MAX FAR	0.36	0.09	0.359
MIN. LOT SIZE	10,000 SF	14,236 SF	14,236 SF
MIN. FRONTAGE	80 FT	99.97 FT	99.97 FT
MIN. FRONT SETBACK	20 FT	28.7 FT	24.4 FT
MIN. SIDE SETBACK	14 FT	14 FT(L), 31 FT (R)	14 FT(L), 19.6 FT (R)
MIN. REAR SETBACK	10 FT	91 FT	71.3 FT
MIN. LOT WIDTH	80 FT	85 FT	85 FT
MAX COVERAGE	25%	9%	SEE SURVEY
MAX HEIGHT	36 FT	19.87 FT	SEE SURVEY

FLOOR	AREA
BASEMENT	2655 SF *
1ST FLOOR	2655 SF
2ND FLOOR	2445 SF
ATTIC	1075 SF *
TOTAL	5100 SF *

* NOT INCLUDED IN F.A.R

ISSUE CHART

REGISTERED ARCHITECT
HAOSHENG ZHANG
951626
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

NO	ISSUE	DATE

Job Number

Checked Checker

Approved Approver

TITLE

SITE PLAN

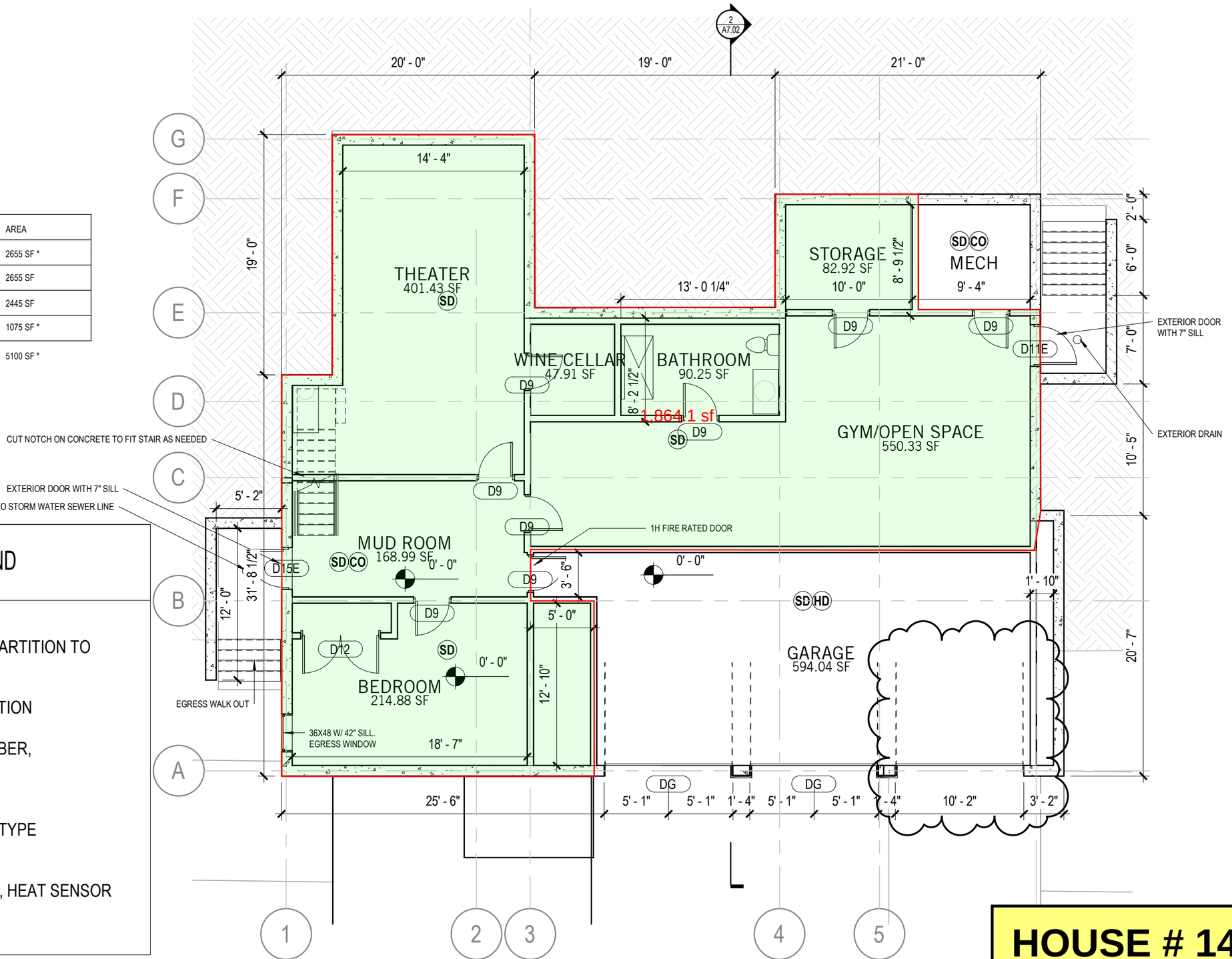
SHEET NUMBER

_G1.02

HOUSE # 14

FLOOR	AREA
BASEMENT	2655 SF *
1ST FLOOR	2655 SF
2ND FLOOR	2445 SF
ATTIC	1075 SF *
TOTAL	5100 SF *

* NOT INCLUDED IN F.A.R



FLOOR PLAN LEGEND

- EXISTING PARTITION TO REMAIN
- NEW PARTITION
- 101 — DOOR NUMBER,
- B11 — PARTITION TYPE
- SD CO HD — SMOKE, CO, HEAT SENSOR

HOUSE # 14

ISSUE CHART

REGISTERED ARCHITECT
HAOSHENG ZHANG
951626
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

NO	ISSUE	DATE
1	Revision 1	Date 1

Job Number
Checked — Checker
Approved — Approver

TITLE

BASEMENT PLAN

SHEET NUMBER

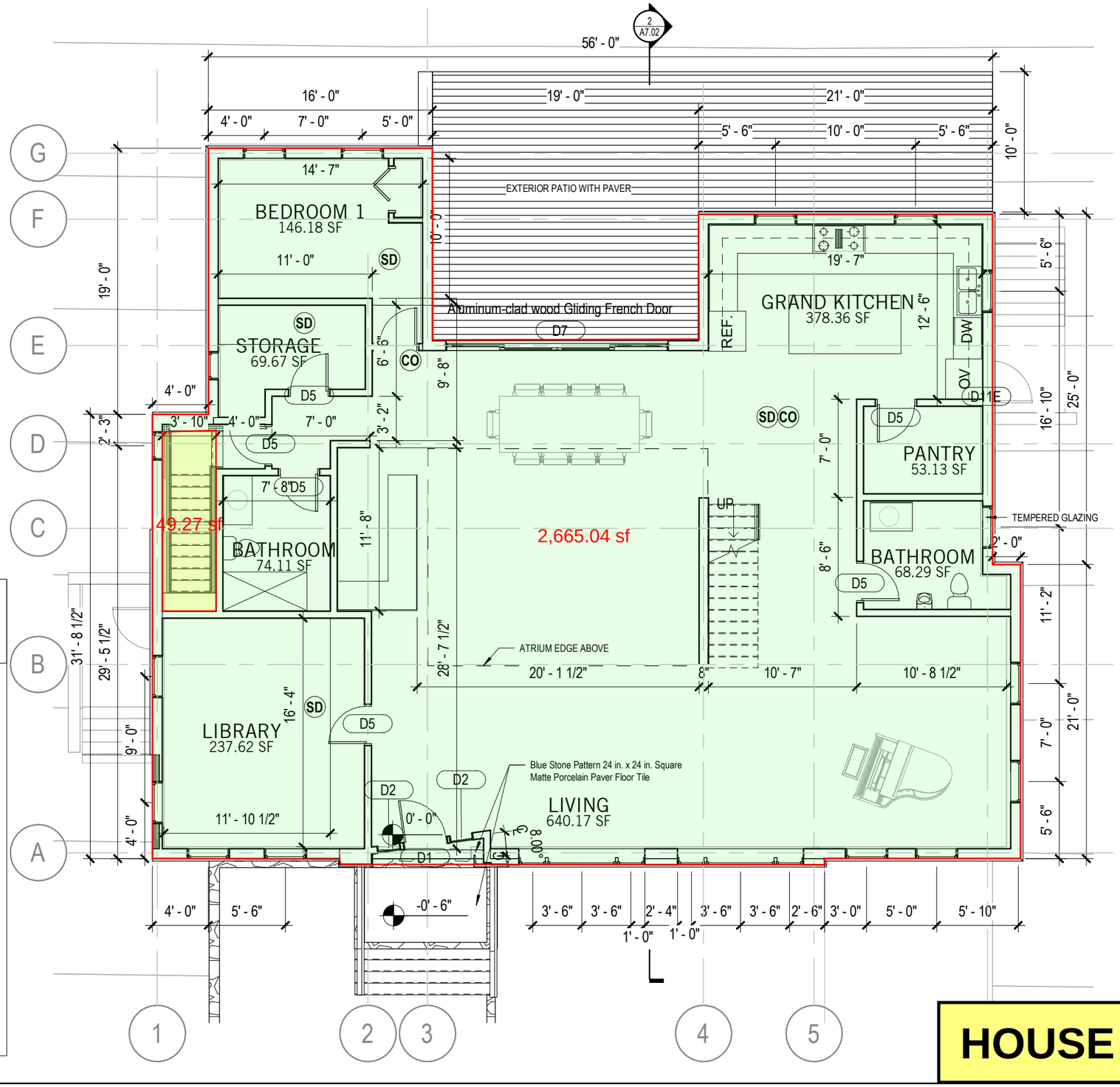
A1.00

FLOOR	AREA
BASEMENT	2655 SF *
1ST FLOOR	2655 SF
2ND FLOOR	2445 SF
ATTIC	1075 SF *
TOTAL	5100 SF *

* NOT INCLUDED IN F.A.R

FLOOR PLAN LEGEND

- EXISTING PARTITION TO REMAIN
- NEW PARTITION
- 101 — DOOR NUMBER,
- B11 — PARTITION TYPE
- SD CO HD — SMOKE, CO, HEAT SENSOR



HOUSE # 14

ISSUE CHART

REGISTERED ARCHITECT
HAOSHENG ZHANG
951626
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

NO	ISSUE	DATE

Job Number

Checked — Checker

Approved — Approver

TITLE

1ST FLOOR PLAN

SHEET NUMBER

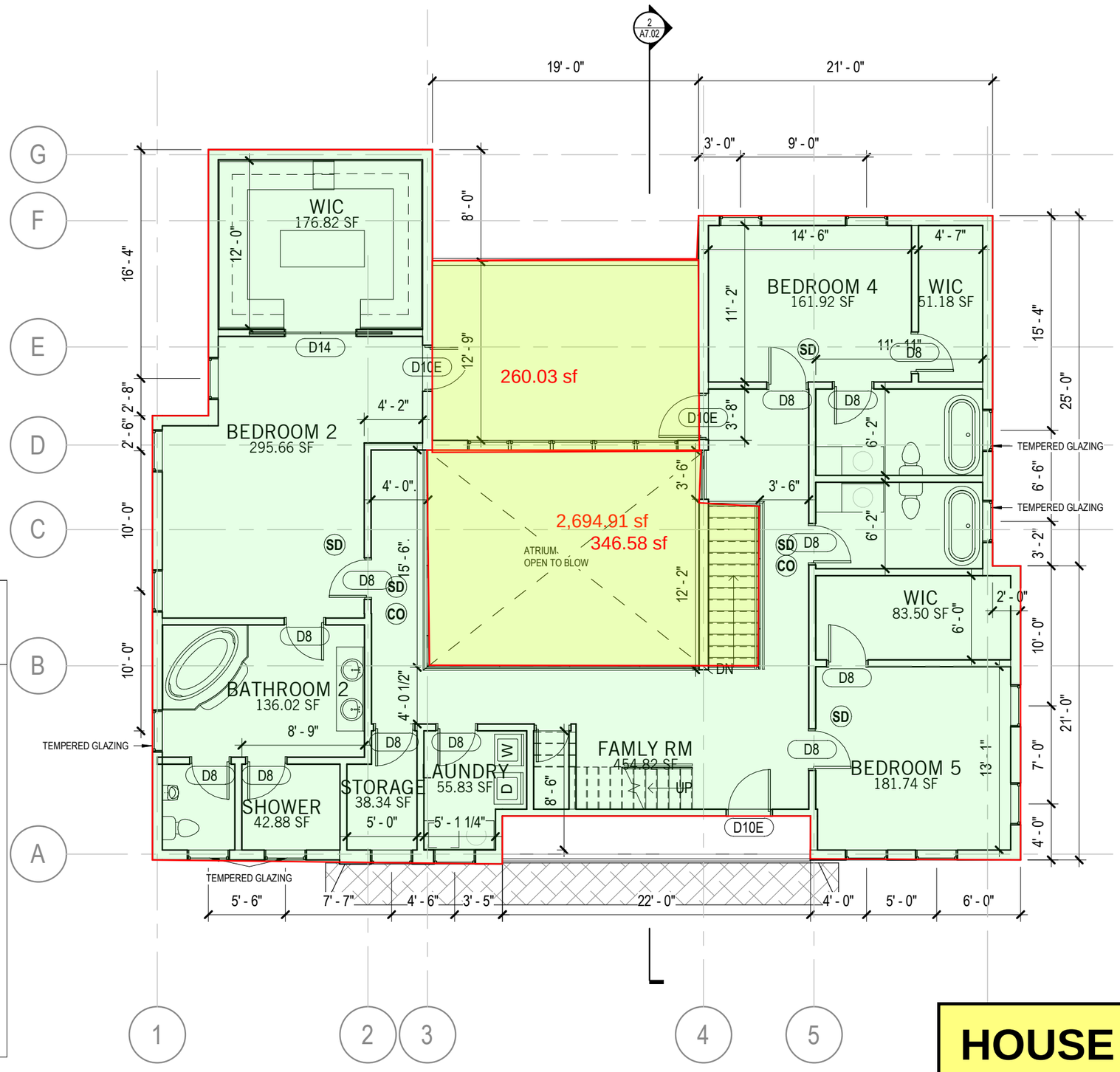
A1.01

FLOOR	AREA
BASEMENT	2655 SF *
1ST FLOOR	2655 SF
2ND FLOOR	2445 SF
ATTIC	1075 SF *
TOTAL	5100 SF *

* NOT INCLUDED IN F.A.R

FLOOR PLAN LEGEND

- EXISTING PARTITION TO REMAIN
- NEW PARTITION
- 101 — DOOR NUMBER,
- B11 — PARTITION TYPE
- SD CO HD — SMOKE, CO, HEAT SENSOR



HOUSE # 14

ISSUE CHART

REGISTERED ARCHITECT
HAOSHENG ZHANG
951626
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

NO	ISSUE	DATE

Job Number
Checked — Checker
Approved — Approver

TITLE

2ND FLOOR PLAN

SHEET NUMBER

A1.02

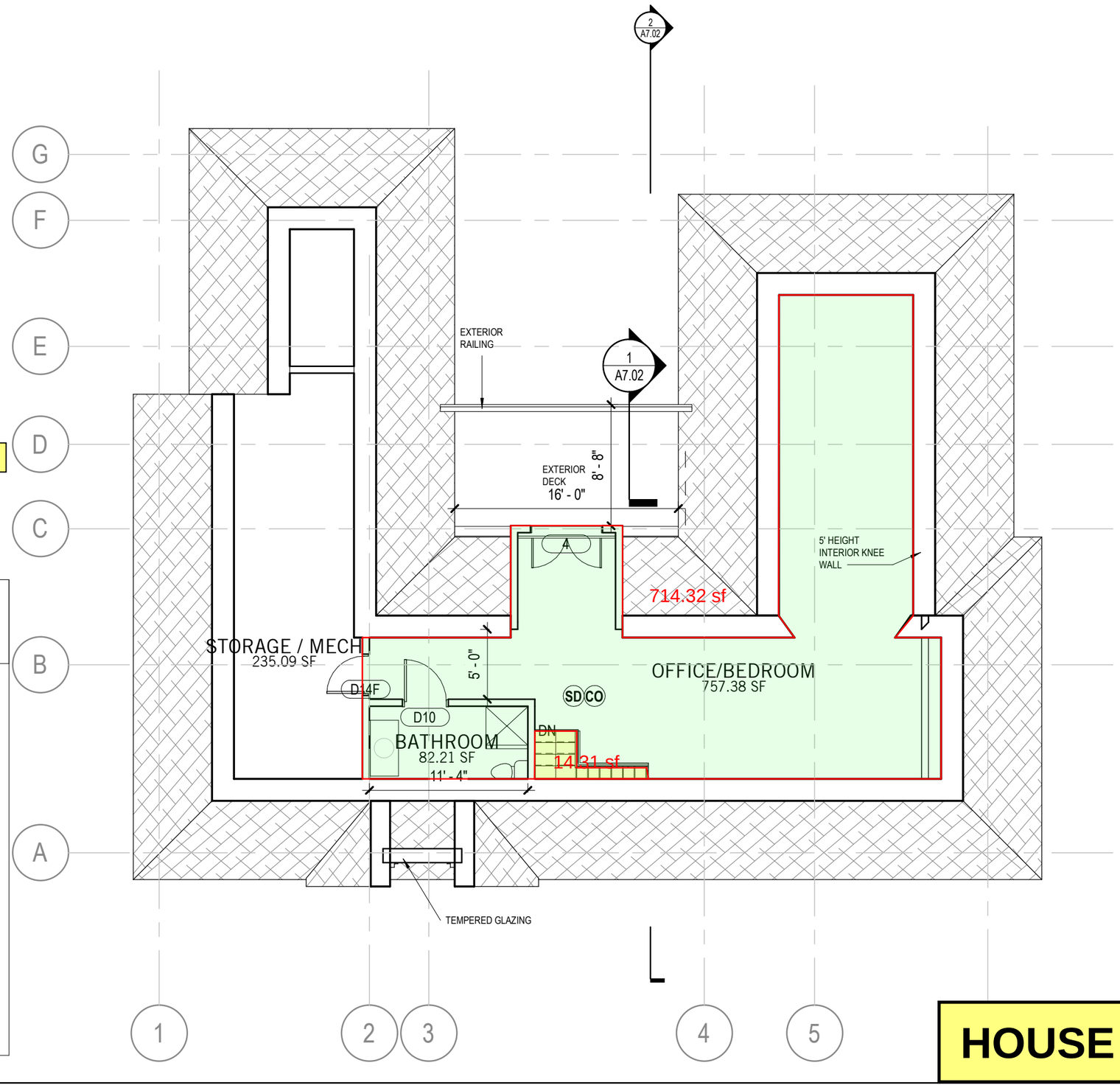
FLOOR	AREA
BASEMENT	2655 SF *
1ST FLOOR	2655 SF
2ND FLOOR	2445 SF
ATTIC	1075 SF *
TOTAL	5100 SF *

714 sf

* NOT INCLUDED IN F.A.R

FLOOR PLAN LEGEND

- EXISTING PARTITION TO REMAIN
- NEW PARTITION
- 101 — DOOR NUMBER,
- B11 — PARTITION TYPE
- SD CO HD — SMOKE, CO, HEAT SENSOR



HOUSE # 14

ISSUE CHART

REGISTERED ARCHITECT
HAOSHENG ZHANG
951626
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

NO	ISSUE	DATE

Job Number

Checked Checker

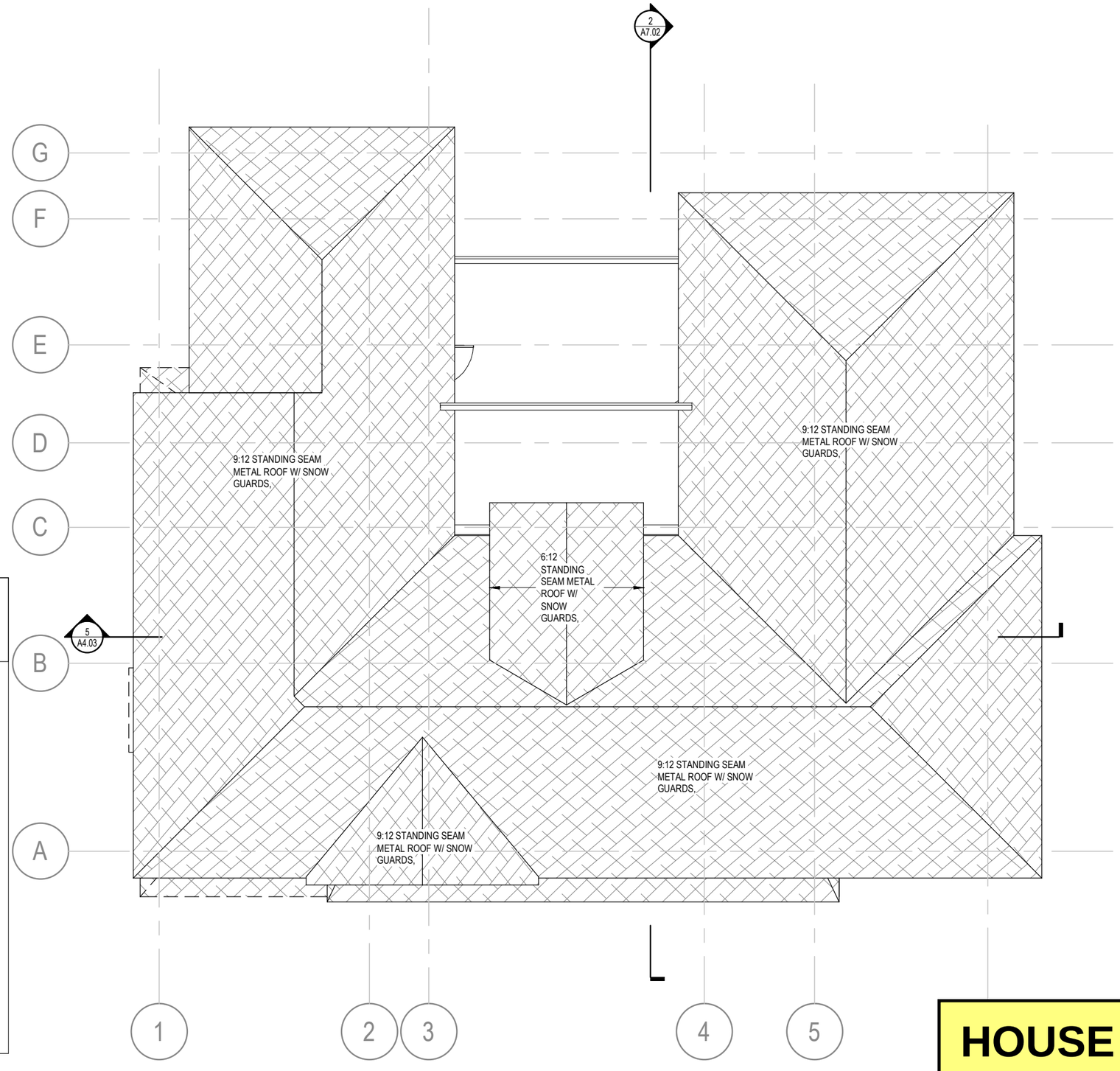
Approved Approver

TITLE

ATTIC FLOOR PLAN

SHEET NUMBER

A1.03



FLOOR PLAN LEGEND

- EXISTING PARTITION TO REMAIN
- NEW PARTITION
- 101 — DOOR NUMBER,
- B11 — PARTITION TYPE
- SD CO HD — SMOKE, CO, HEAT SENSOR

HOUSE # 14

ISSUE CHART

REGISTERED ARCHITECT
HAOSHENG ZHANG
951626
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

NO	ISSUE	DATE

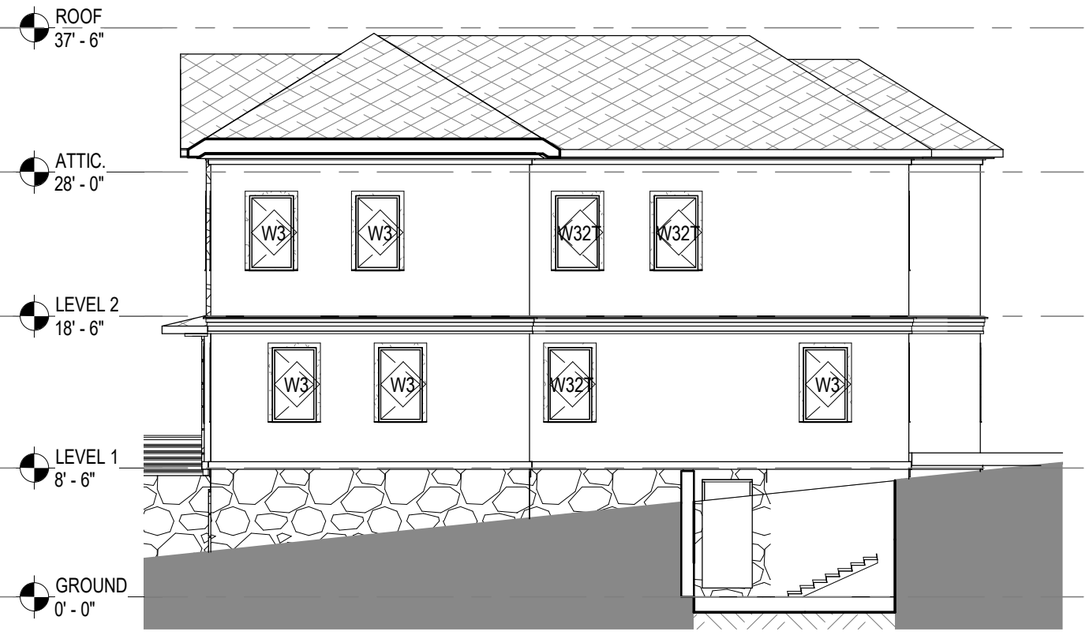
Job Number
Checked — Checker
Approved — Approver

TITLE

ROOF PLAN

SHEET NUMBER

A1.04



44 PROPOSED EAST ELEVATION

1" = 10'-0"

3 PROPOSED NORTH ELEVATION

1" = 10'-0"

2 PROPOSED WEST ELEVATION

1" = 10'-0"

1 PROPOSED SOUTH ELEVATION

1" = 10'-0"

HOUSE # 14

EXTERIOR ELEVATIONS LEGEND

- A — EXTERIOR WINDOW ASSEMBLY
- 5" EXTERIOR HARDIE BOARD SIDING, WHITE
- 8" EXTERIOR HARDIE BOARD SIDING, COBBLE STONE
- DELTA MILLWORKS Accoya | Colorado Barnwood | Pueblo T&G
- VERTICAL EXTERIOR HARDIE BOARD SIDING, COBBLE STONE
- BUECHEL STONE VENEER ASHLAR WHITE COUNTRY SQUIRE

GENERAL NOTE:
GC TO REFER TO SIDING PRODUCT MANUFACTURE INSTALLATION GUIDE FOR PANEL JOINTS AND WINDOW OPENING DETAILS.

ISSUE CHART

REGISTERED ARCHITECT
HAOSHENG ZHANG
951626
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

NO	ISSUE	DATE
1	Revision 1	Date 1

Job Number

Checked Checker

Approved Approver

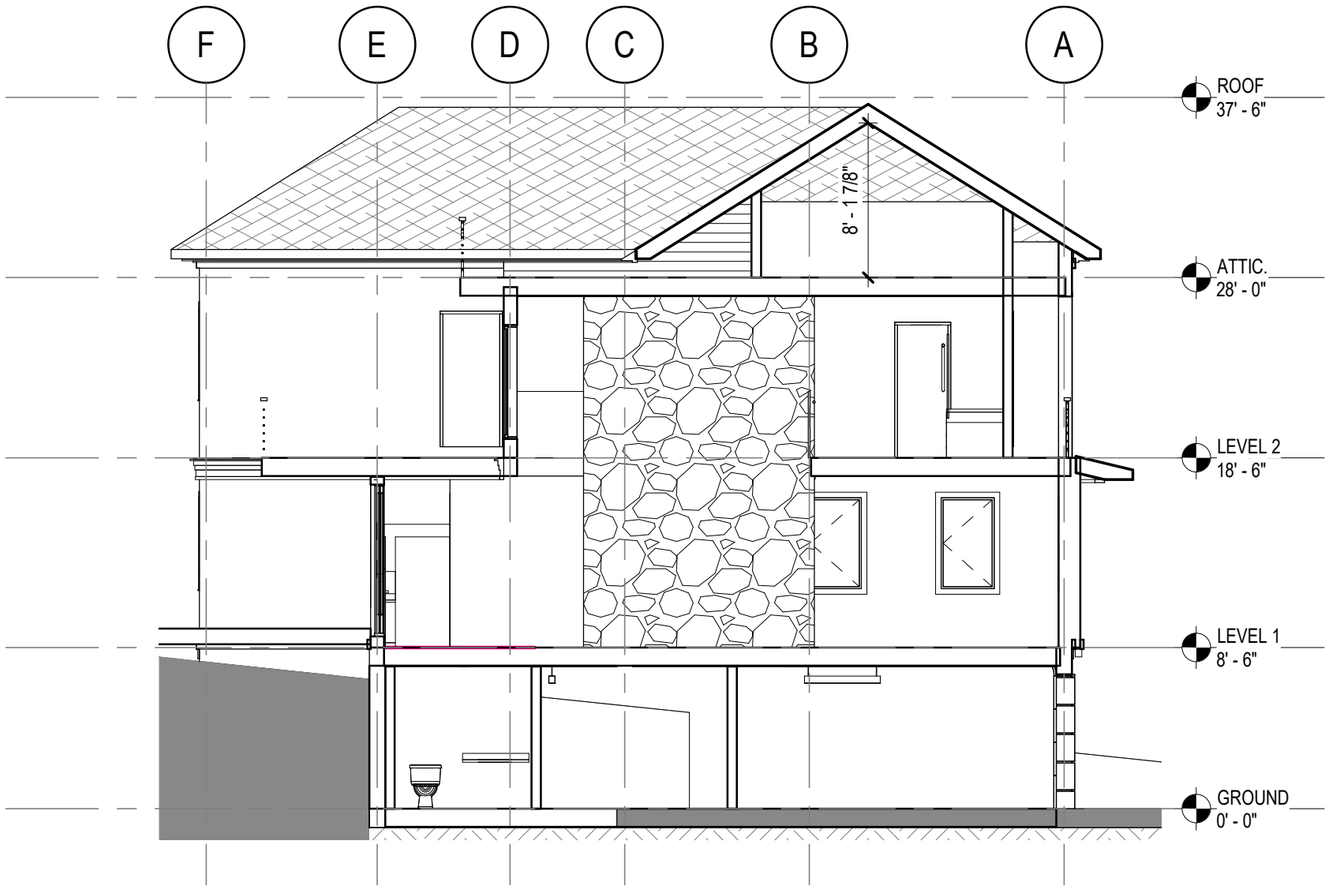
TITLE

PROPOSED EXTERIOR ELEVATIONS

U - U'

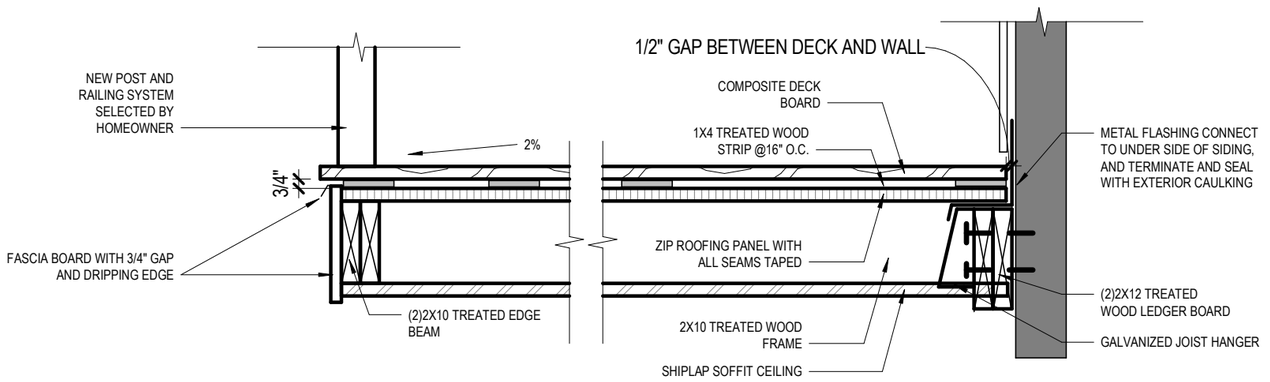
SHEET NUMBER

A4.02



2 BUILDING SECTION

1/8" = 1'-0"



1 ROOF DECK DTL

1" = 1'-0"

HOUSE # 14

ISSUE CHART

REGISTERED ARCHITECT
HAOSHENG ZHANG
951626
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

NO	ISSUE	DATE

Job Number

Checked Checker

Approved Approver

TITLE

EXTERIOR DETAILS

SHEET NUMBER

A7.02

C: House #15
Google Earth

HOUSE #15

HOUSE #15

HOUSE #15

HOUSE #15

Large House Study - FAR Rules/Tests

House 15

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	14,314	SF	
Lot Coverage	3,722	SF	0.260

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	1,395	-	1,395	
1	3,156	598	2,558	
2	2,462	-	2,462	
3	810	-	810	
Total	7,823	598	7,225	
TLAG	6,428	Real Estate Ad=	9,300	SF 7bds10 bath

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	3,722	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	26.0%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	35.1%	5,020	7,358
FAR (Flr 1,2,3 Exclude Garage)	36%	40.7%	5,830	6,548
FAR (Flr 1,2,3,B Exclude Garage)	36%	50.5%	7,225	5,153
FAR (Flr 1,2,3,+ Include Garage 1)	36%	44.9%	6,428	6,548
FAR (Flr 1,2 + Include Garage 1)	36%	39.2%	5,618	7,358

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessor's Map & Parcel Number: ____

Building Permit Number: _____ Zoning District: SR-B

Lot Area: 14,314±s.f. Address: _____

Owner: _____ Builder: _____

~~DEMO / PROPOSED PLOT PLAN / FOUNDATION AS-BUILT~~ / FINAL AS-BUILT

Circle One that Applies

40' Scale

SEE PROPOSED CONDITIONS PLAN
AT STREET ATTACHED TO
THIS FORM

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By-Laws for the Town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gas lines, etc.; driveways, septic systems, wells, Flood Plain and Wetland Areas, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations, proposed grading and drainage of recharge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and sewage disposal system location in areas with no public sewer.
**Accessory structures may require a separate building permit — See Building Code.*

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this 5th day of DECEMBER, 2024.

Name: VTP ASSOCIATES, Registered Land Surveyor Date: _____
Address: 132 ADAM STREET, SUITE 3 City: NEWTON, State: MA Zip: 02458 Phone: 617-332-8271
Approved: _____, Director of Public Works Date: _____
Approved: _____, Building Inspector

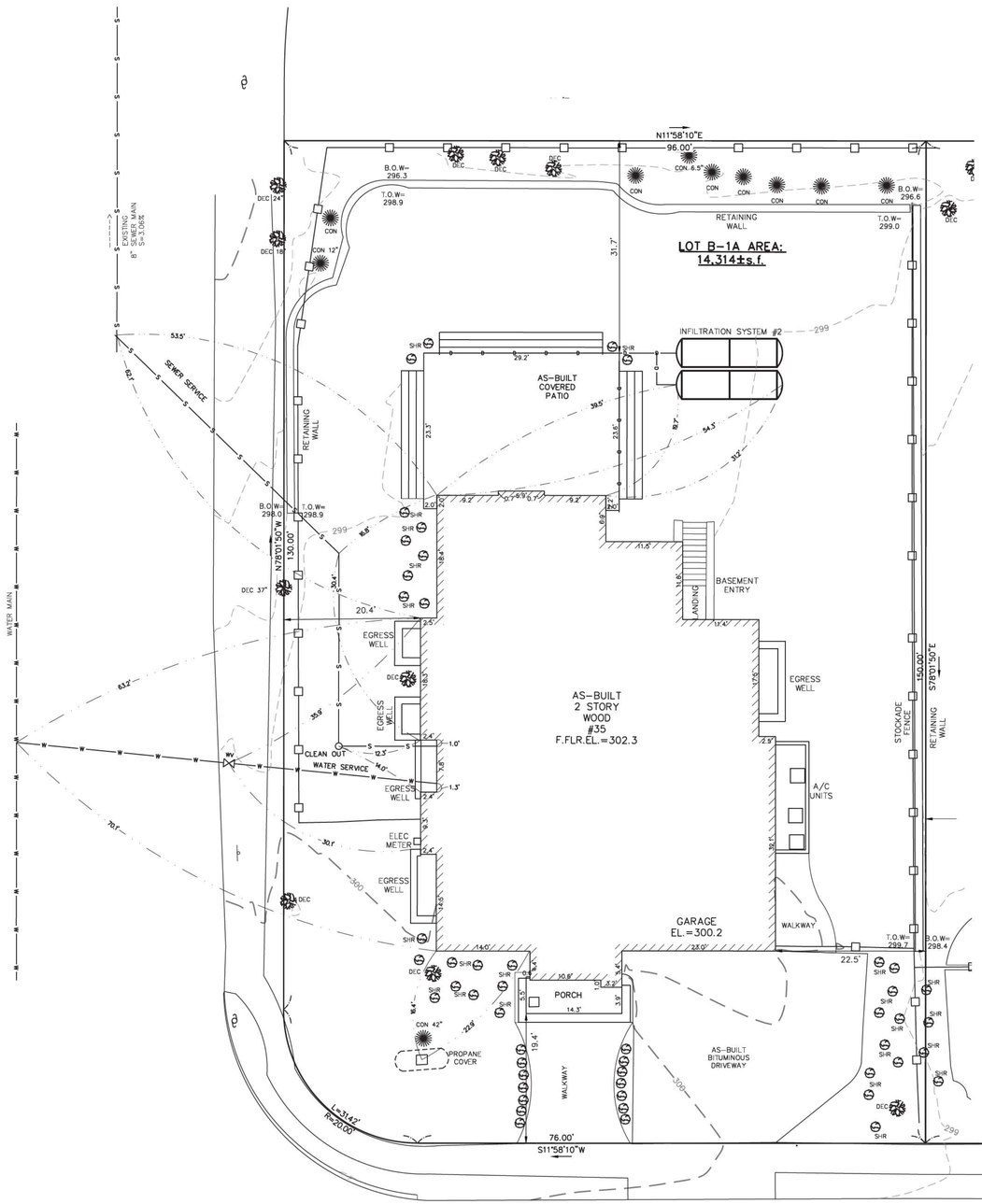
HOUSE # 15

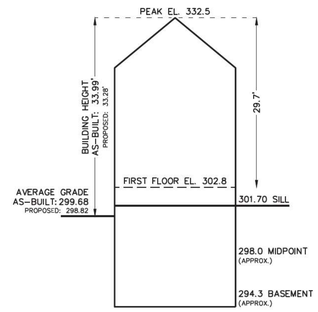
223184_tob.dwg

LEGEND

EXISTING BUILDING
PROPERTY LINE
CONTOUR
STOCKADE FENCE
CHAINLINK FENCE
PICKET FENCE
SEWER LINE
DRAIN LINE
WATER LINE
WATER/GAS VALVE
DRAIN/SEWER MANHOLE
CATCH BASIN
UTILITY/LIGHT POLE
DECIDIOUS TREE
CONIFEROUS TREE
SHRUB
BUSH
FIRE HYDRANT
WETLAND FLAG

NORFOLK COUNTY REGISTRY OF DEEDS





AS-BUILT BUILDING HEIGHT
NOT TO SCALE

AVERAGE FINISHED GRADE
(300.11+300.04+300.35+300.41+300.17+
+300.13+299.83+299.71+299.70+299.18+
+299.10+299.08+299.05+298.99+299.93+
+299.50+299.49+299.58)/18=299.68

ZONING CHART				
NEEDHAM, MASSACHUSETTS				
ZONE: SR-B		SUBMISSION: AS-BUILT		
REGULATION	REQUIRED	EXISTING	PROPOSED	AS-BUILT
LOT AREA	10,000s.f.	14,314±s.f.	14,314±s.f.	14,314±s.f.
LOT FRONTAGE	80.0'	107.42'	107.42'	107.42'
FRONT SETBACK	20.0'	–	20.5'	19.4'
SIDE SETBACK	14.0'	–	20.5'	20.4'
REAR SETBACK	10.0'	–	23.5'	31.7'
BUILDING HEIGHT	35.0'	–	33.28'	33.99'
AVERAGE GRADE	–	–	298.82	288.68
LOT COVERAGE	25%-30%	–	26.0%	22.4%

UTILITY NOTE:
ALL UTILITY INFORMATION SHOWN IS FROM AVAILABLE RECORDS. TO BE VERIFIED IN FIELD PRIOR TO ANY CONSTRUCTION

0 10 20 30 40
SCALE: 1" = 10'

TOPOGRAPHIC SITE PLAN
NEEDHAM, MASSACHUSETTS

SHOWING AS-BUILT CONDITIONS AT
#35 TOLMAN STREET

SCALE: 1in.=10ft. DATE: DECEMBER 5, 2024

PROJECT: 223184

COMMONWEALTH OF MASSACHUSETTS
JOSEPH R. PORTER
NO. 39901
REGISTERED PROFESSIONAL LAND SURVEYOR

VTP ASSOCIATES INC.

LAND SURVEYORS – CIVIL ENGINEERS.
132 ADAMS STREET
NEWTON, M
(617) 33

SHEET 1

HOUSE # 15

© 2020 VTP ASSOCIATES, INC.

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO MASSACHUSETTS BUILDING CODE AND ALL FEDERAL, STATE AND TOWN OF NEEDHAM LAWS, CODES AND REGULATIONS AS EACH MAY APPLY.

2. ALL EXISTING CONDITIONS MUST BE VERIFIED IN FIELD. IF DISCREPANCIES ARE FOUND, THEY HAVE TO BE REPORTED TO THE ENGINEER PRIOR TO START OF WORK. OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF SUCH WORK.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SCHEDULING AND WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED PRIOR TO PROCEEDING WITH THE WORK.

4. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, INCLUDING BUT NOT LIMITED TO BRACING AND SHORING.

5. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

6. ALL WORK SHALL BE PERFORMED IN A FIRST CLASS AND WORKMANLIKE MANNER IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS, AND SHALL BE IN GOOD USABLE CONDITION AT THE COMPLETION OF THE PROJECT.

7. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS AND STRUCTURE PLACEMENT, PRIOR TO START OF THE WORK. THE CONTRACTOR WILL OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID DAMAGE TO SAME. ANY DAMAGE TO EXISTING STRUCTURES AND UTILITIES, WHETHER SHOWN OR NOT ON THE DRAWINGS, SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

8. PRIOR TO BIDDING THE WORK THE CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS AND QUANTITIES, IF ANY. NO CLAIM AGAINST THE OWNER OR ENGINEER WILL BE ALLOWED FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OR RELATIVE.

9. CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND RELOCATION WORKS, IF ANY.

PROPOSED GFA (GROSS FLOOR AREA) CALCULATION:

ZONING DISTRICT: SR-B
LOT AREA 14,316 SF

ALLOWABLE FAR: 0.36

ALLOWABLE FLOOR AREA: 5,153 SF

PROPOSED FLOOR AREA OF THE BUILDING:

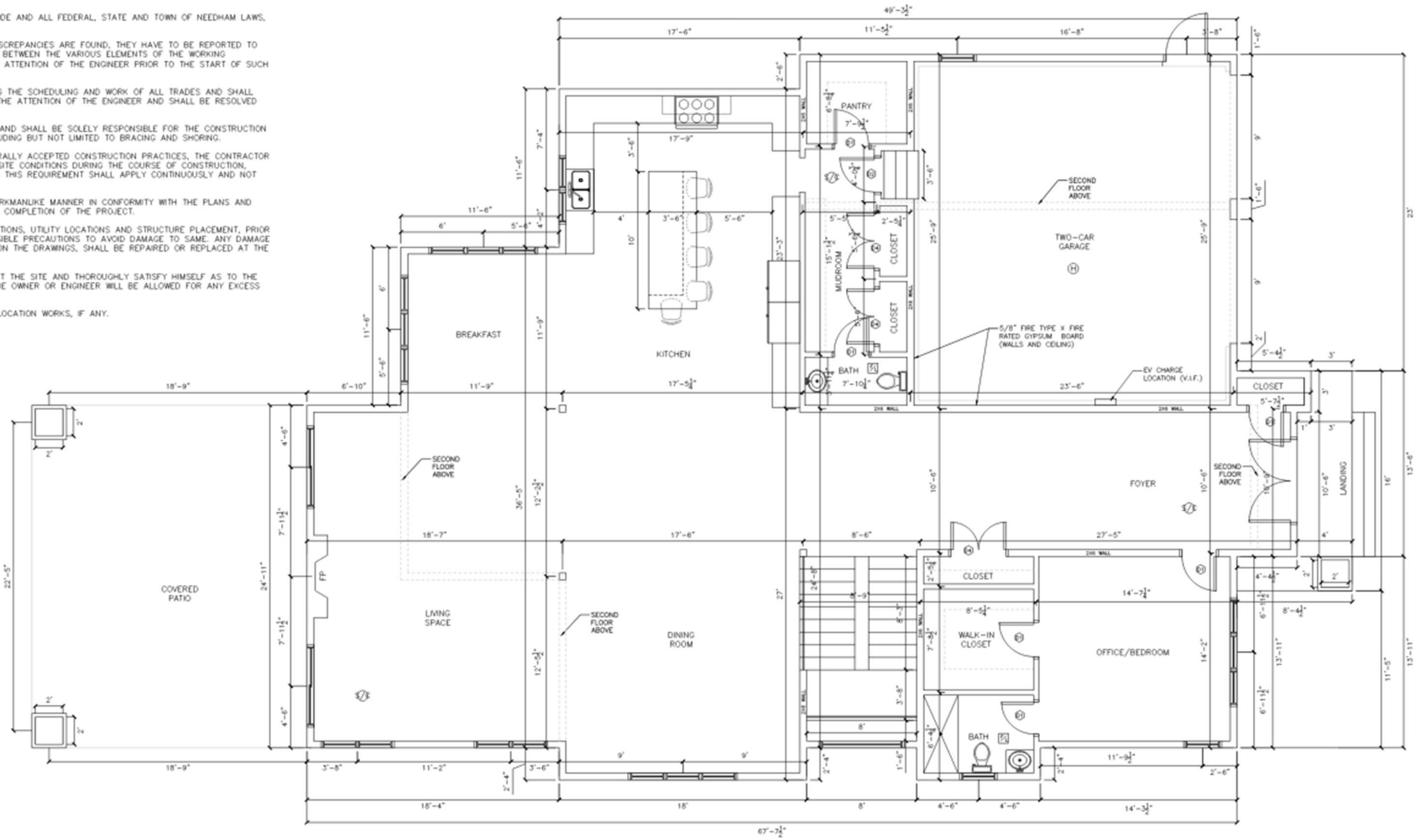
1. 1ST FLOOR: 2,557.5 SF

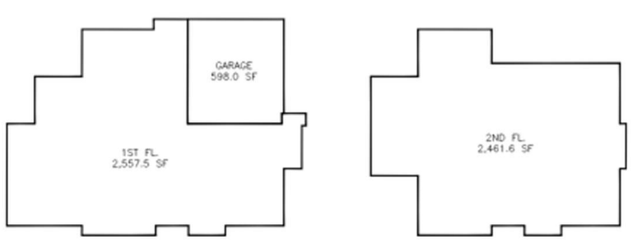
2. 2ND FLOOR: 2,461.6 SF

3. BASEMENT: N/A

TOTAL PROPOSED FLOOR AREA OF THE BUILDING:
2,557.5 (1ST FL.) + 2,461.6 (2ND FL.)= 5,019.1 SF

5,019.1 SF < 5,153 SF





NOTES:

1. ALL EXTERIOR WALLS ARE 2"x6" @ 16" O.C. UNLESS NOTED OTHERWISE.
2. ALL INTERIOR WALLS ARE 2"x4" @ 16" O.C. UNLESS NOTED OTHERWISE.
3. INTERIOR (DEMISING) WALL BETWEEN THE GARAGE AND THE BUILDING IS 2"x6" @ 16" O.C.
4. DIMENSIONS TO THE OUTSIDE (PERIMETER) WALLS ARE TO FACE OF STUDS OR EXTERIOR FACE OF THE FOUNDATION WALL.
5. INTERIOR DIMENSIONS SHOWN BETWEEN CENTERS OF THE INTERIOR WALLS.

LEGEND:

PHOTO ELECTRIC HARD WIRED COMBINATION OF SMOKE AND CARBON MONOXIDE DETECTORS WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES

FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE

(H) HEAT DETECTOR

INTERIOR DOORS SCHEDULE:

(1) 2'-6" X 8'-0"
(2) 2'-6" X 8'-0" FIRE RATED, 20M MIN
(3) 2'-4" x 8'-0"
(4) 4'-0" x 8'-0"
(5) 5'-0" x 8'-0"
(6) 2'-6" X 6'-8"

FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

NOTE:
ALL FIRST FLOOR DOORS ARE 8' HEIGH
ALL SECOND FLOOR DOORS ARE 7' HE
ALL BASEMENT DOORS ARE 7' HEIGHT.

HOUSE # 15

DATE	REVISION

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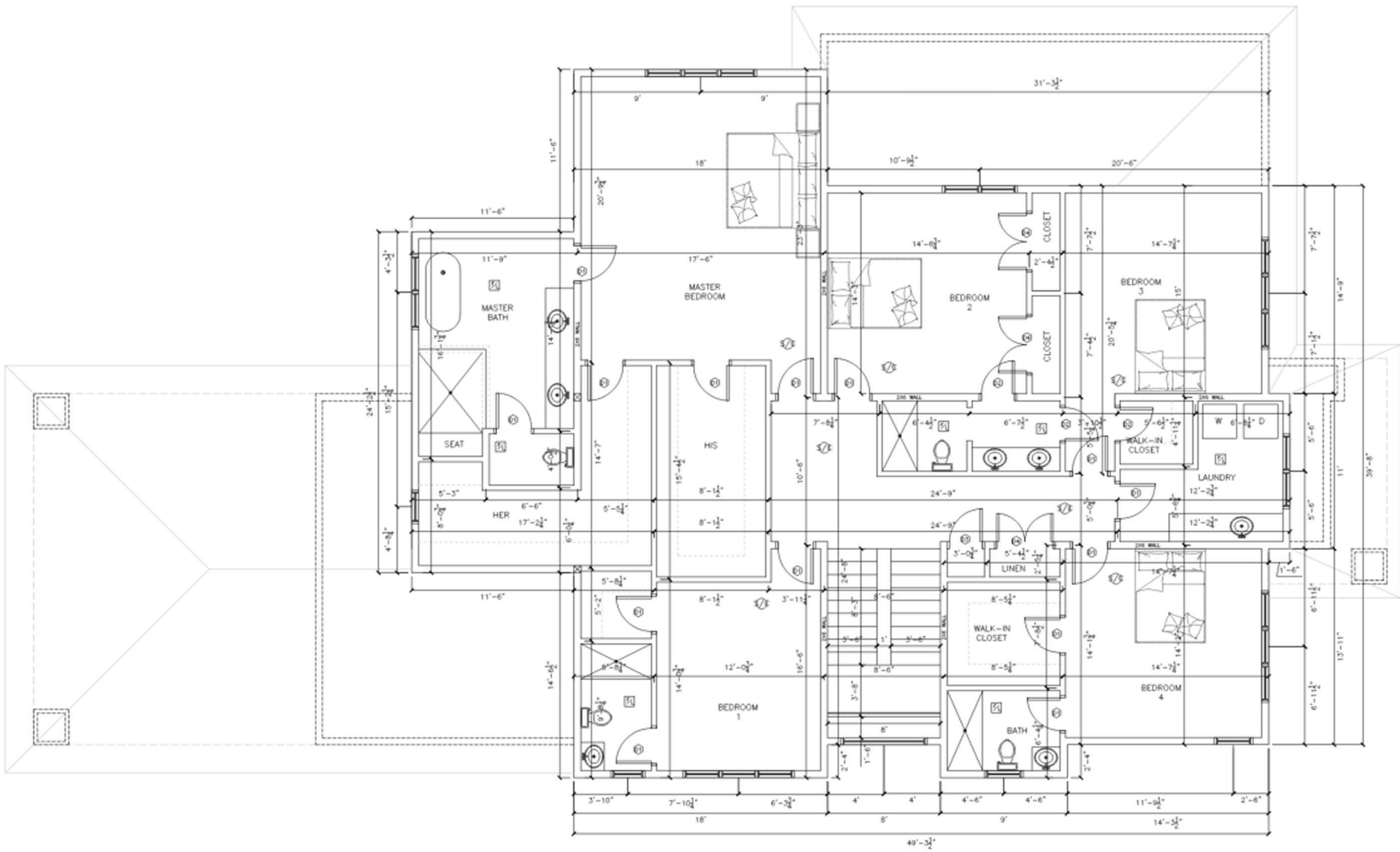
FIRST FLOOR PLAN

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 12/07/2023	DRAWN BY: E.F.	A-1
	CHECKED BY: R.A.V.	



NOTES:

1. ALL EXTERIOR WALLS ARE 2"x6" @ 16" O.C. UNLESS NOTED OTHERWISE.
2. ALL INTERIOR WALLS ARE 2"x4" @ 16" O.C. UNLESS NOTED OTHERWISE.
3. INTERIOR (DEMISING) WALL BETWEEN THE GARAGE AND THE BUILDING IS 2"x6" @ 16" O.C.
4. DIMENSIONS TO THE OUTSIDE (PERIMETER) WALLS ARE TO FACE OF STUDS OR EXTERIOR FACE OF THE FOUNDATION WALL.
5. INTERIOR DIMENSIONS SHOWN BETWEEN CENTERS OF THE INTERIOR WALLS.

LEGEND:

- PHOTO ELECTRIC HARD WIRED COMBINATION OF SMOKE AND CARBON MONOXIDE DETECTORS WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES
- FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE
- (H) HEAT DETECTOR

INTERIOR DOORS SCHEDULE:

- (1) 2'-6" X 8'-0"
- (2) 2'-6" X 8'-0" FIRE RATED, 20M MIN
- (3) 2'-4" x 8'-0"
- (4) 4'-0" x 8'-0"
- (5) 5'-0" x 8'-0"
- (6) 2'-6" X 6'-8"

FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

NOTE:
ALL FIRST FLOOR DOORS ARE 8' HEIGHT.
ALL SECOND FLOOR DOORS ARE 7' HEIGHT.
ALL BASEMENT DOORS ARE 7' HEIGHT.

DATE	REVISION

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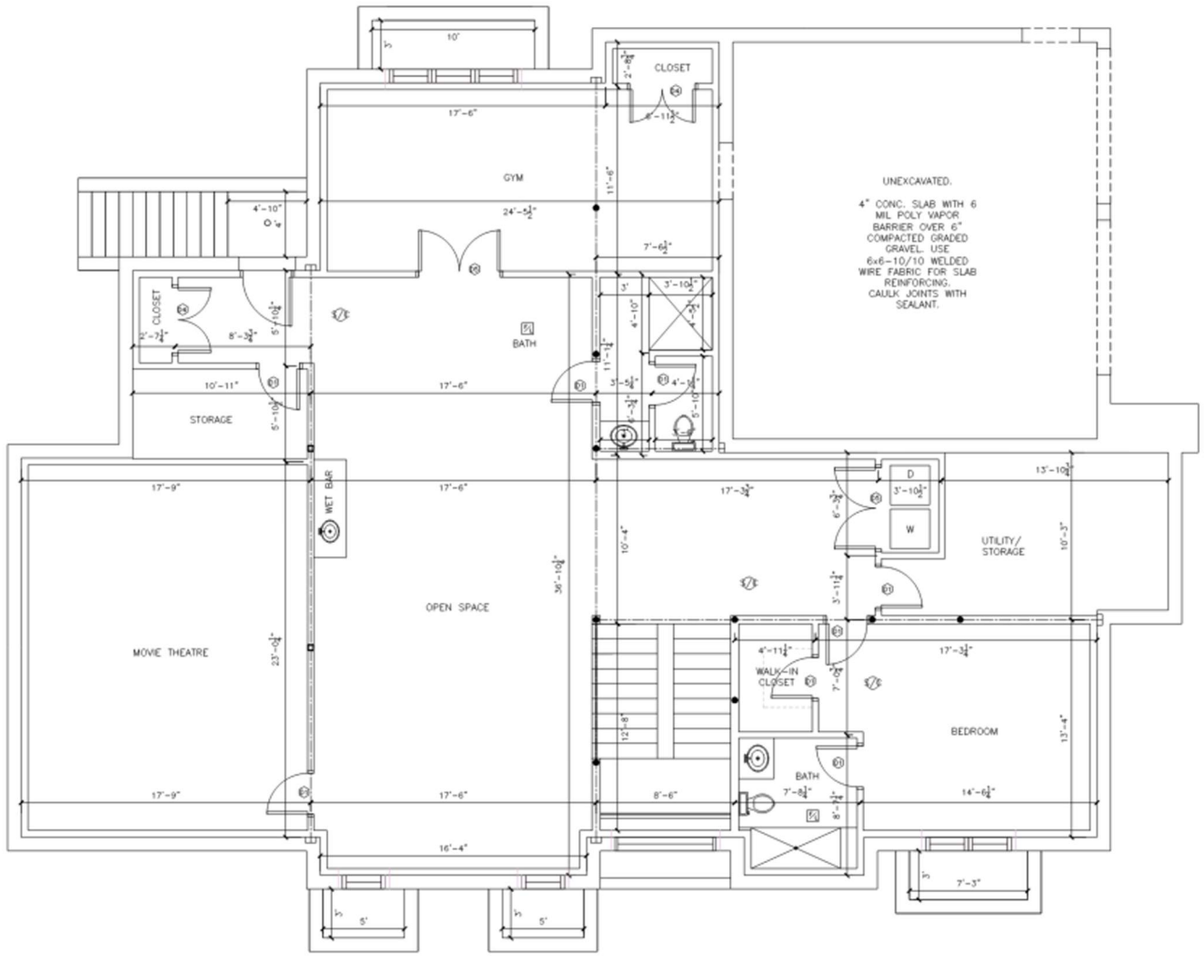
SECOND FLOOR PLAN

HOUSE # 15

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

RICHARD A. VOLKIN No. 22210 REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 12/07/2023	DRAWN BY: E.F.	A-2
	CHECKED BY: R.A.V.	



NOTES:

1. ALL EXTERIOR WALLS ARE 2"x6" @ 16" O.C. UNLESS NOTED OTHERWISE.
2. ALL INTERIOR WALLS ARE 2"x4" @ 16" O.C. UNLESS NOTED OTHERWISE.
3. INTERIOR (DEMISING) WALL BETWEEN THE GARAGE AND THE BUILDING IS 2"x6" @ 16" O.C.
4. DIMENSIONS TO THE OUTSIDE (PERIMETER) WALLS ARE TO FACE OF STUDS OR EXTERIOR FACE OF THE FOUNDATION WALL.
5. INTERIOR DIMENSIONS SHOWN BETWEEN CENTERS OF THE INTERIOR WALLS.

LEGEND:

- PHOTO ELECTRIC HARD WIRED COMBINATION OF SMOKE AND CARBON MONOXIDE DETECTORS WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES
- FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE
- (H) HEAT DETECTOR

INTERIOR DOORS SCHEDULE:

(1) 2'-6" X 8'-0"
(2) 2'-6" X 8'-0" FIRE RATED, 20M MIN
(3) 2'-4" X 8'-0"
(4) 4'-0" X 8'-0"
(5) 5'-0" X 8'-0"
(6) 2'-6" X 6'-8"

FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

NOTE:
ALL FIRST FLOOR DOORS ARE 8' HEIGHT.
ALL SECOND FLOOR DOORS ARE 7' HEIGHT.
ALL BASEMENT DOORS ARE 7' HEIGHT.

DATE	REVISION

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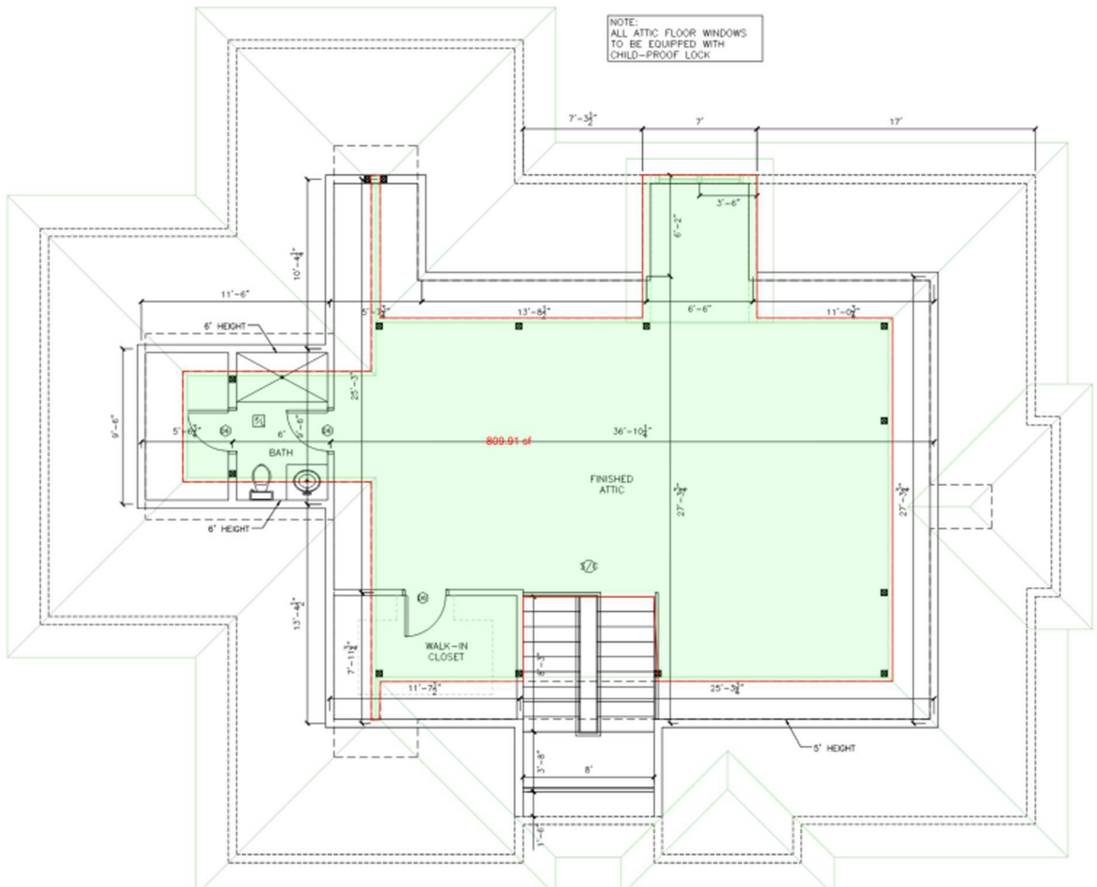
BASEMENT PLAN

HOUSE # 15

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. VOLKIN
No. 22282
REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 12/07/2023	DRAWN BY: E.F.	A-3
	CHECKED BY: R.A.V.	



NOTES:

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LEGEND:

- (17)E PHOTO ELECTRIC HARD WIRED COMBINATION OF SMOKE AND CARBON MONOXIDE DETECTORS WITH SECONDARY (STANDBY) POWER SUPPLIED FROM MONITORED BATTERIES
- (F) FAN/LIGHT TO BE VENTED DIRECTLY TO OUTSIDE
- (H) HEAT DETECTOR

INTERIOR DOORS SCHEDULE:

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(2) 2'-6" X 8'-0" FIRE RATED, 20M MIN
(3) 2'-4" x 8'-0"
(4) 4'-0" x 8'-0"
(5) 5'-0" x 8'-0"
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FOR EXTERIOR DOORS AND WINDOWS SEE WINDOW SCHEDULE AND BUILDING ELEVATIONS

DOOR HEIGHT TO BE VERIFIED WITH OWNER PRIOR TO DOOR ORDERING AND FRAMING

NOTE:
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ALL BASEMENT DOORS ARE 7' HEIGHT.

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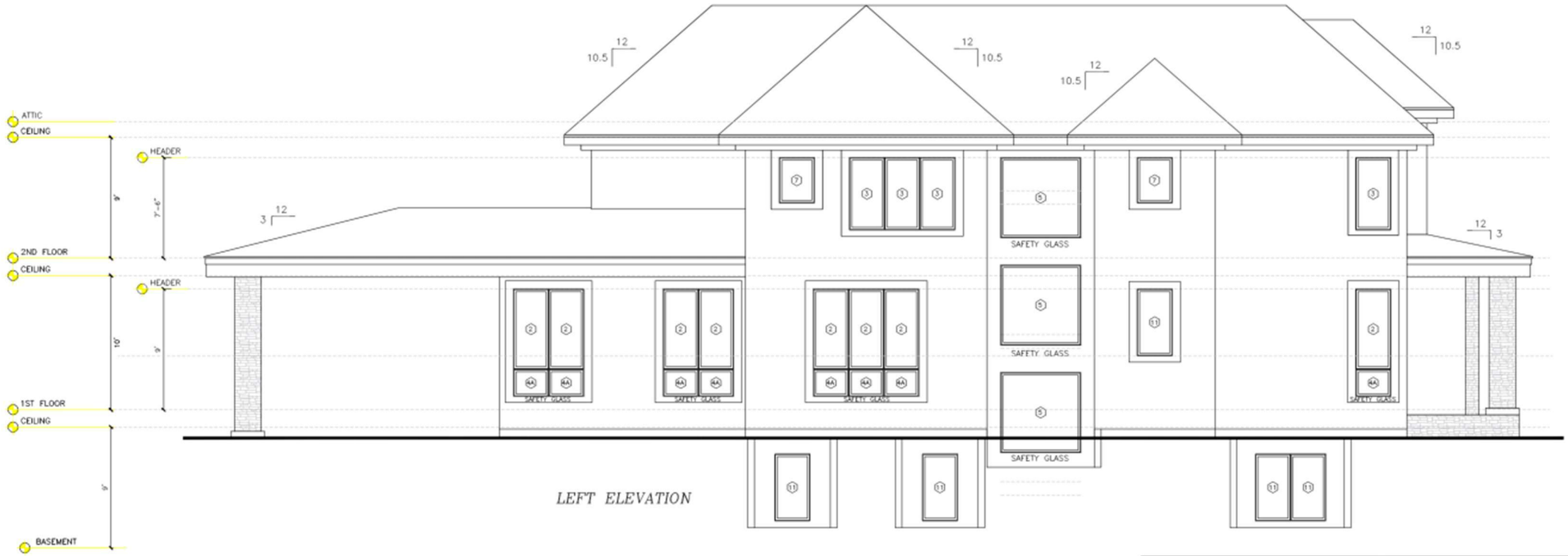
ATTIC PLAN

HOUSE # 15

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

RICHARD A. VOLKIN No. 22292 REGISTERED PROFESSIONAL ENGINEER

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 12/07/2023	DRAWN BY: E.F.	A-4
	CHECKED BY: R.A.V.	



LEFT ELEVATION

FRONT ELEVATION

EXTERIOR DOORS AND WINDOWS SCHEDULE

400-SERIES CASEMENT WINDOWS BY ANDERSEN WITH LOW-E INSULATING GLASS, UNLESS NOTED OTHERWISE

No.	UNIT DIMENSIONS	MODEL		REMARKS
1	6'-0"± x 8'-0"±	CUSTOM		DOUBLE ENTRY DOOR
2	2'-7 1/2" x 5'-11 7/8"	CX16	*	
3	2'-7 1/2" x 5'-4 13/16"	CX155	*	
4	2'-7 1/2" x 2'-0 1/8"	A281		TRANSOM WINDOW
4A	2'-7 1/2" x 2'-0 1/8"	A281		SAFETY GLASS, TRANSOM WINDOW
5	6'-0"± x 6'-0"±	CUSTOM		PICTURE WINDOW
6	2'-7 1/2" x 4'-4 13/16"	CX145	*	
6A	2'-7 1/2" x 4'-4 13/16"	CX145	*	TRANSOM WINDOW
7	2'-7 1/2" x 3'-4 13/16"	CX135	*	
8	9'-0"± x 9'-0"±	CUSTOM		GARAGE DOOR
9	3'-0"± x 8'-0"±	CUSTOM		GARAGE ENTRY DOOR
10	6'-0"± x 9'-0"±	CUSTOM		SLIDING DOOR
11	2'-7 1/2" x 4'-11 7/8"	CX15	*	

* EGRESS WINDOW MEETS OR EXCEEDS CLEAR OPENING OF 5.7 SF, CLEAR WIDTH 20" AND CLEAR HEIGHT 24"

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ELEVATIONS

HOUSE # 15

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TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

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APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 12/07/2023	DRAWN BY: E.F.	A-5
	CHECKED BY: R.A.V.	

NOTE:
ALL ATTIC FLOOR WINDOWS TO BE EQUIPPED WITH CHILD-PROOF LOCK

RIGHT ELEVATION

REAR ELEVATION

NOTES:

CONTRACTOR MUST VERIFY ALL SIZES AND ROUGH OPENINGS PRIOR TO ORDERING WINDOWS.
CONTACT WINDOW MANUFACTURER FOR DETAILS. CONTACT THE OWNER FOR FINAL SELECTION OF DOORS AND WINDOWS PRIOR TO ORDERING AND PRIOR TO FRAMING DOOR AND WINDOW OPENINGS.
VERIFY CLEAR OPENINGS IN ALL BEDROOMS. MINIMUM CLEAR OPENING MUST BE 20 IN (W) x 24 IN (H) AND HAVE MINIMUM OF 5.7 S.F. OF CLEAR OPEN AREA FOR ANY WINDOW EXCEPT OF DOUBLE HUNG WINDOW (3.3 S.F. OF CLEAR OPEN AREA FOR DOUBLE HUNG WINDOW).
VERIFY LOCATIONS OF SAFETY GLASS WINDOWS AND DOORS PRIOR TO ORDERING WINDOWS AND DOORS.

SPECIFIC LOCATIONS:
1. GLAZING IN INGRESS AND MEANS OF EGRESS DOORS;
2. GLAZING IN FIXED AND SLIDING PANELS OF SLIDING DOORS AND SWINGING DOORS;
3. GLAZING IN STORM DOORS;
4. GLAZING IN UNFRAMED SWINGING DOORS;
5. GLAZING IN DOORS AND ENCLOSURES FOR BATHTUBS, STEAM ROOMS AND SHOWERS. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING THESE COMPONENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE.
6. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24-INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.
7. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL WHICH MEETS THE FOLLOWING CONDITIONS:
   a) EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 S.F.;
   b) EXPOSED BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR;
   c) EXPOSED TOP EDGE GREATER THAN 36" ABOVE THE FLOOR;
   d) ONE OR MORE WALKING SURFACES WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.

DATE	REVISION

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HOUSE # 15

ELEVATIONS

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21 HIGHLAND AVENUE
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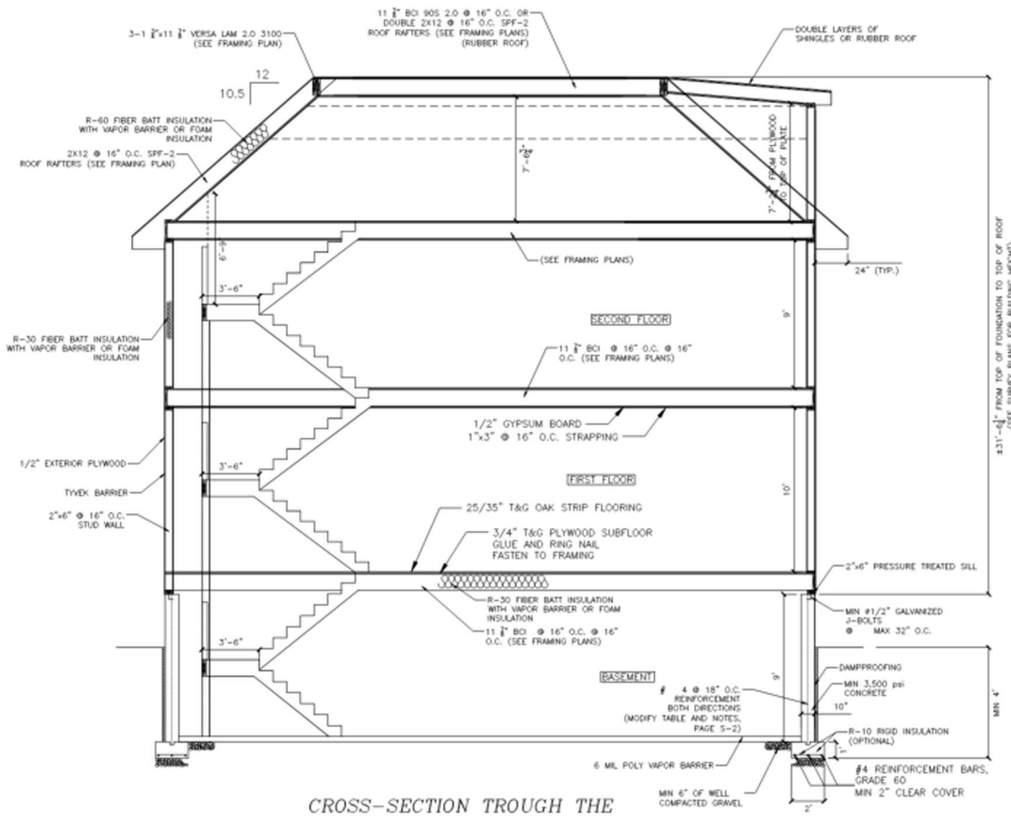
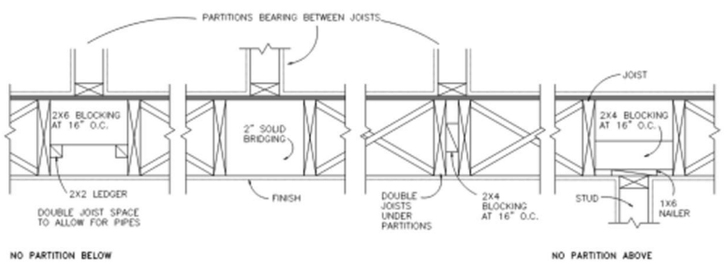
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

RICHARD A. VOLKIN No. 22282 REGISTERED PROFESSIONAL ENGINEER

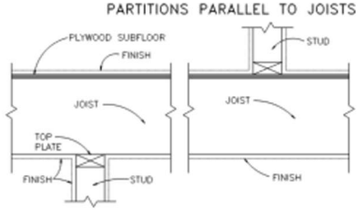
SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 12/07/2023	DRAWN BY: E.F.	A-6
	CHECKED BY: R.A.V.	



CROSS-SECTION TROUGH THE STAIRCASE

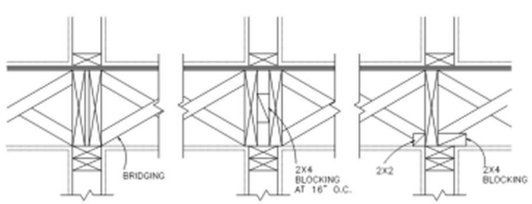


PARTITIONS PARALLEL TO JOISTS

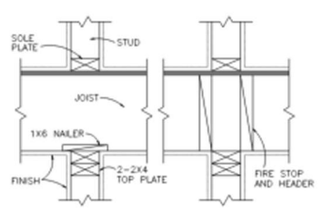


PARTITIONS PERPENDICULAR TO JOISTS

NONBEARING INTERIOR PARTITIONS
TYPICAL DETAILS

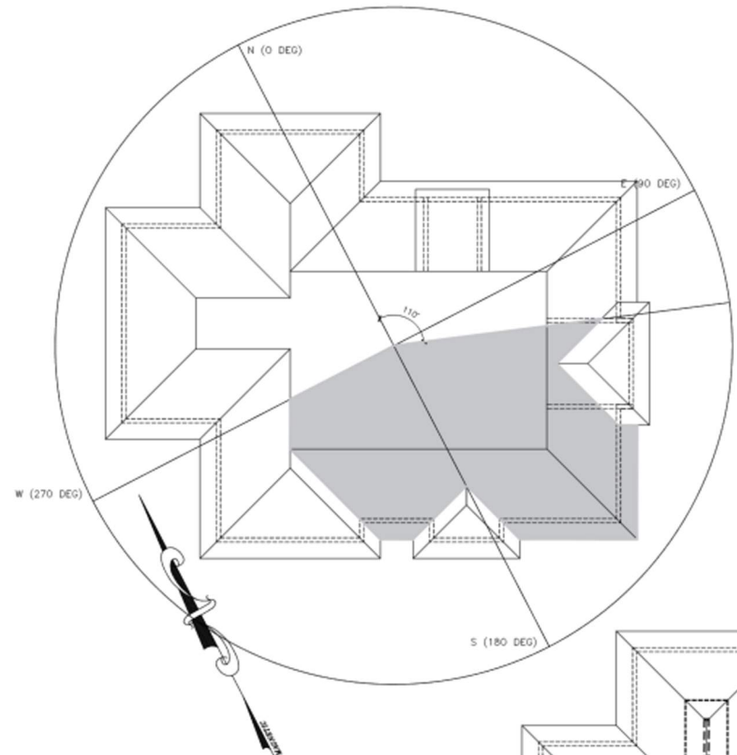


PARTITIONS PARALLEL TO JOISTS



PARTITIONS PERPENDICULAR TO JOISTS

BEARING INTERIOR PARTITIONS
TYPICAL DETAILS

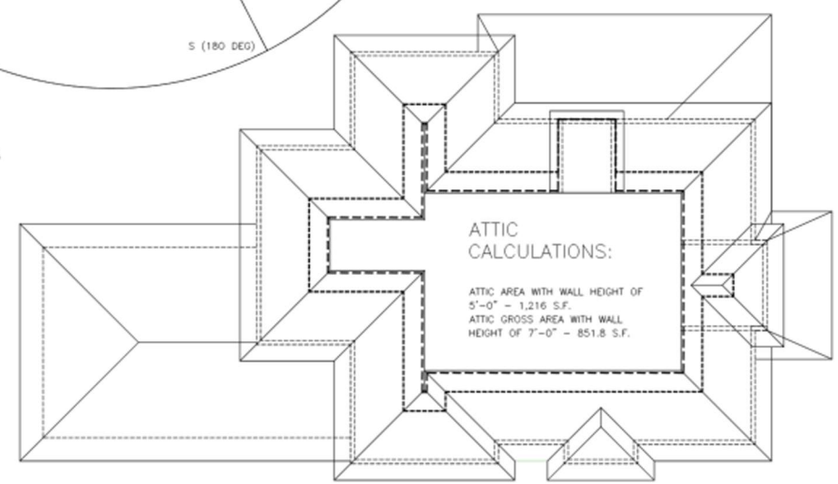


SOLAR READY PANELING STRATEGY:

UNOBSTRUCTED BUILDING'S ROOF AREA ORIENTED BETWEEN 110 & 270 DEGREES OF TRUE NORTH, WHICH IS APPLICABLE FOR FUTURE SOLAR INSTALLATIONS IS APPROXIMATELY 825 SF. DEEPER DEMONSTRATION WITH A SOLAR SHADING/INSTALLATION STUDY IS TO BE PROVIDED BY ROOF SOLAR COMPANY.

AREA AVAILABLE FOR SOLAR PANELS INSTALLATION MUST BE FREE OF ANY EXHAUSTS, VENTS, ETC.

INSTALLATION OF SOLAR WILL BE PROVIDED BY BY ROOF SOLAR COMPANY AND MUST COMPLY WITH FIRE CODE.



ROOF PLAN
SCALE: 1/2"=1'

DATE	REVISION

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ROOF FRAMING PLAN, TYPICAL DETAILS

HOUSE # 15

RAV & Assoc., Inc.
21 HIGHLAND AVENUE
NEEDHAM, MASSACHUSETTS 02494
TELEPHONE: (781) 449-8200 FAX: (781) 449-8205

SCALE: 1/4"=1'-0"		
APPROVED: R.A.V.	DESIGNED BY: I.M.	DRAWING No.
DATE: 12/07/2023	DRAWN BY: E.F.	S-6
	CHECKED BY: R.A.V.	

C: House #16

HOUSE #16

HOUSE #16

HOUSE #16

Large House Study - FAR Rules/Tests

House 16

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	3.0		
Lot Size	16,406	SF	
Lot Coverage	3,741	SF	22.8%

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)	
B	3,239	-	3,239	
1	3,740	530	3,210	
2	2,487	-	2,487	
3	-	-	-	
Total	9,466	530	8,936	
TLAG	6,227	Real Estate Ad=	9,466	SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	3,741	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	22.8%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	34.7%	5,697	9,145
FAR (Flr 1,2,3 Exclude Garage)	36%	34.7%	5,697	9,145
FAR (Flr 1,2,3,B Exclude Garage)	36%	54.5%	8,936	5,906
FAR (Flr 1,2,3,+ Include Garage 1)	36%	38.0%	6,227	9,145
FAR (Flr 1,2 + Include Garage 1)	36%	38.0%	6,227	9,145

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

TOWN OF NEEDHAM, MASSACHUSETTS
Building Inspection Department

Assessor's Map & Parcel No. _____

Building Permit No. _____ At No. _____

Lot Area 16,406 S.F. Zoning District SRB

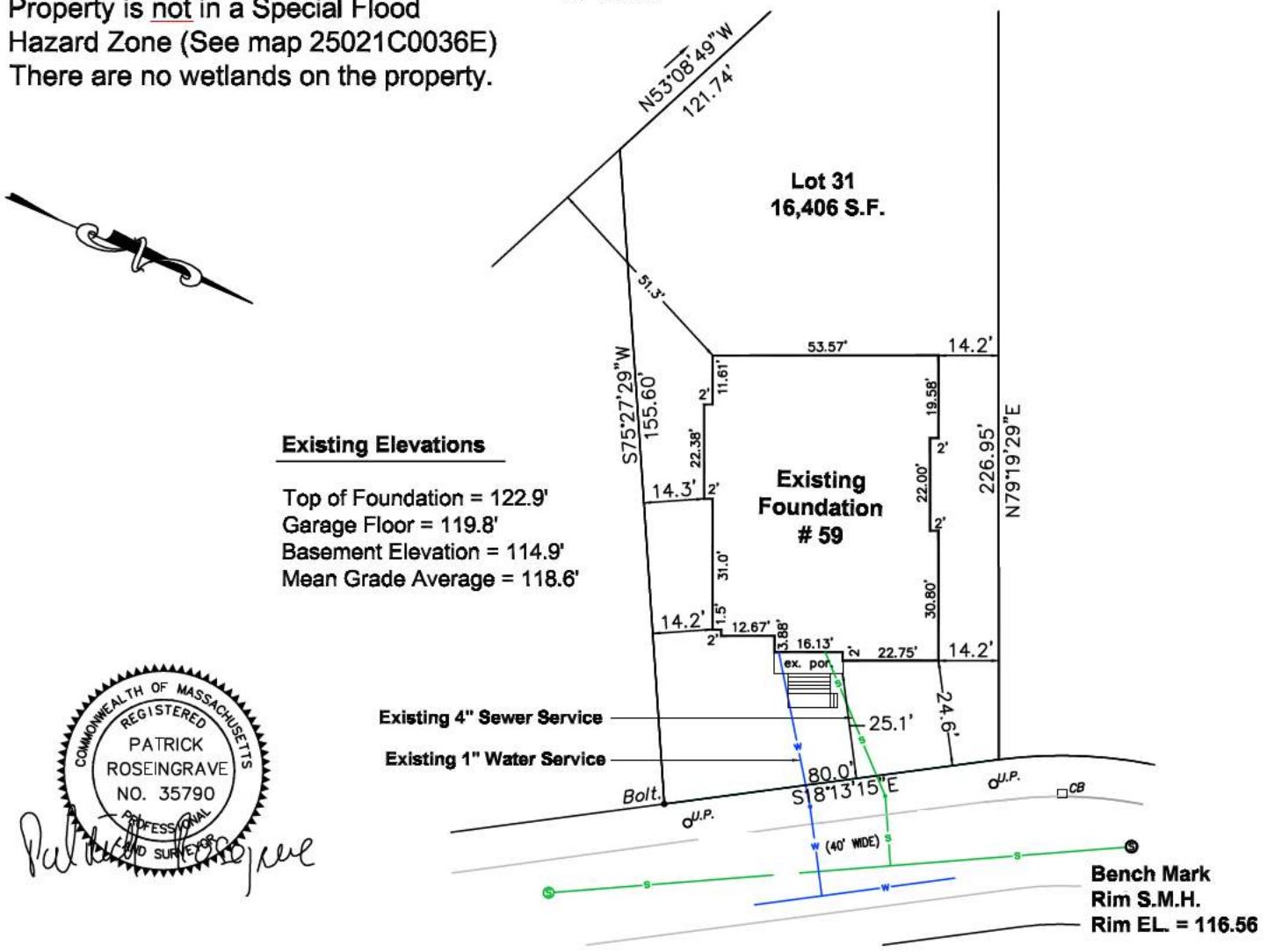
Owner _____ Builder _____

DEMO / PROPOSED PLOT PLAN / ~~FOUNDATION AS-BUILT~~ / FINAL AS-BUILT

Circle One that Applies

40' Scale

Property is not in a Special Flood Hazard Zone (See map 25021C0036E)
There are no wetlands on the property.



Existing Elevations

Top of Foundation = 122.9'
Garage Floor = 119.8'
Basement Elevation = 114.9'
Mean Grade Average = 118.6'

COMMONWEALTH OF MASSACHUSETTS
REGISTERED
PATRICK
ROSEINGRAVE
NO. 35790
PROFESSIONAL
LAND SURVEYOR

Note: Plot Plans shal be drawn in accordance with Section 7.2.1 and 7.2.2 of the Zoning By-lAws for the Town of Needham. All plot plans shall show existing structures and public utilities, including water mains, sewers, drains, gaslines, etc.; driveways, Flood Plain and Wetland Areas, lot dimensions, dimensions of proposed structures, sideline offsets and setback distances, (allowing for overhangs) and elevation of top of foundations and garage floor. For new construction, elevation of lot corners at street line and existing and approved street grades shall be shown for grading along lot line bordering streetline. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory strucures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and, sewage disposal system location in unsewered area.
(*Accessory structures may require a separate building permit - See Buildin Code)

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.

The above is subscribed to and executed by me this 2nd day of December 2023

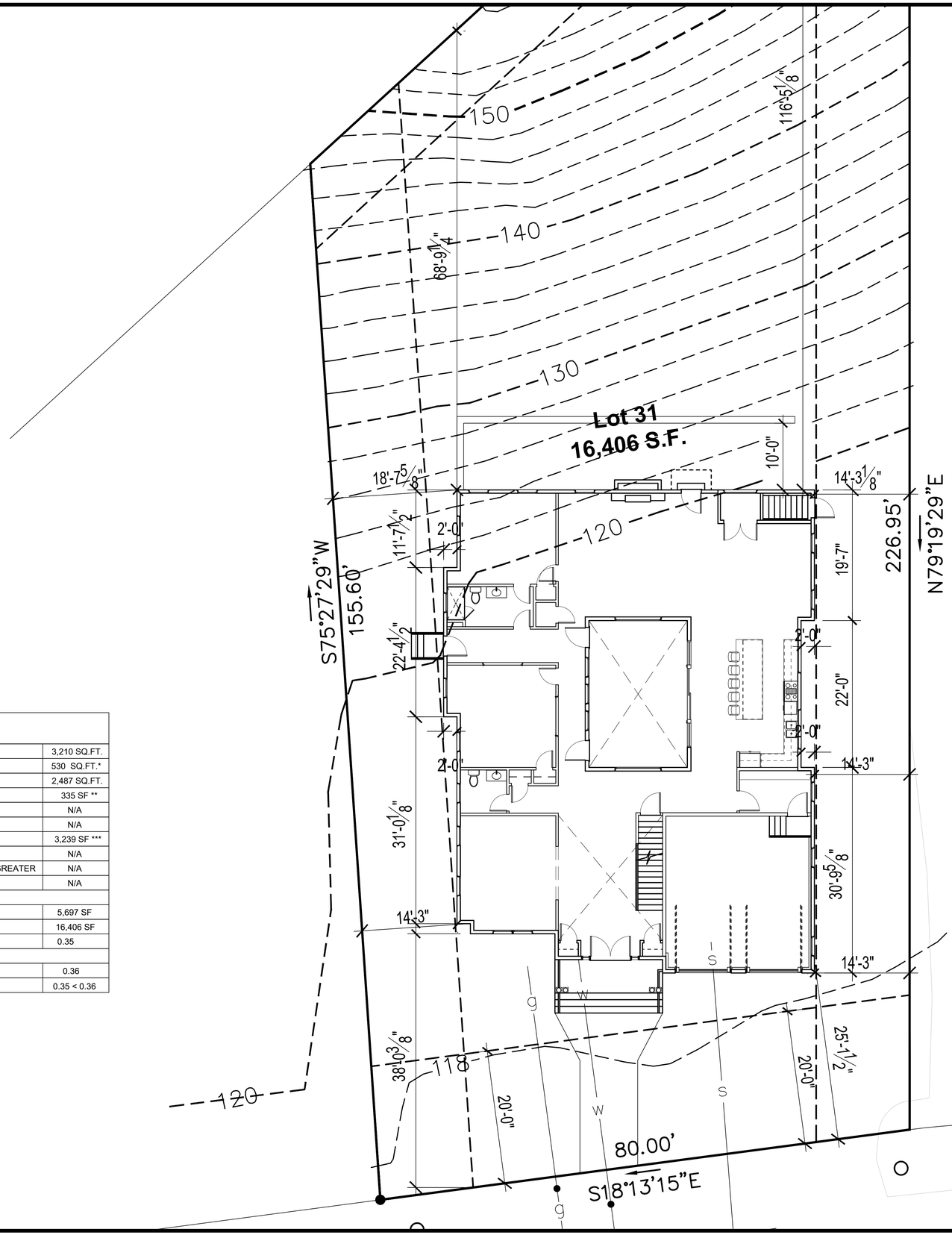
Name Patrick Roseingrave Registered Land Surveyor No. 35790

Address 40 Mears Ave City Quincy State MA Zip 02169 Tel. No. 781-706-1335

Approved _____ Director of Public Works

Approved _____ Building Inspector

HOUSE # 16



BASEMENT FLOOR:	3,239 SQ.FT.
FIRST FLOOR:	3,210 SQ.FT.
SECOND FLOOR:	2,487 SQ.FT.
ATTIC FLOOR:	0 SQ.FT.
TOTAL GROSS SF:	8,936 GROSS SQ.FT.

FLOOR AREA RATIO CALCULATION		
1.	FIRST STORY	3,210 SQ.FT.
2.	ATTACHED GARAGE	530 SQ.FT.*
3.	SECOND STORY	2,487 SQ.FT.
4.	ATRIA, OPEN WELLS, AND OTHER VERTICAL SPACE	335 SF **
5.	CERTAIN FLOOR AREA ABOVE THE SECOND STORY	N/A
6.	ENCLOSED PORCHES	N/A
7.	MASS BELOW FIRST STORY	3,239 SF ***
8.	DETACHED GARAGE	N/A
9.	AREA ABOVE DETACHED GARAGES WITH CEILING HEIGHT OF 7'-0" OR GREATER	N/A
10.	OTHER DETACHED ACCESSORY BUILDINGS	N/A
F.A.R. OF PROPOSED STRUCTURE(S)		
A.	TOTAL GROSS FLOOR AREA (#1 + #3)	5,697 SF
B.	LOT SIZE	16,406 SF
C.	FAR = A/B	0.35
ALLOWED F.A.R.		
	ALLOWABLE F.A.R.	0.36
		0.35 < 0.36

* EXCLUDED IN THE 1ST FLOOR GROSS FLOOR AREA
** INCLUDED IN THE 2ND FLOOR GROSS FLOOR AREA
*** BASEMENT AREA EXCLUDED IN THE BASEMENT GROSS FLOOR AREA

HOUSE # 16

JC BT
ARCHITECT
585 WASHINGTON STREET, QUINCY, MA 02169
ADMIN@JCBTARCHITECT.COM
TEL: (617) 404-8182

CONSULTANT

REGISTRATION

REGISTERED ARCHITECT JIM CHEN No. 51071 QUINCY, MA COMMONWEALTH OF MASSACHUSETTS

REVISIONS

NO.	BY	DESCRIPTION	DATE

PROJECT

PROJECT NO. 22128

SHEET TITLE

PROPOSED SITE PLAN

DRAWN: J.C.	DRAWING NO:
SCALE: NOTED	
DATE: 10/05/2022	
CHECKED:	
SHEET OF	A1.0

BASEMENT FLOOR:	3,239 SQ.FT.
FIRST FLOOR:	3,210 SQ.FT.
SECOND FLOOR:	2,487 SQ.FT.
ATTIC FLOOR:	0 SQ.FT.
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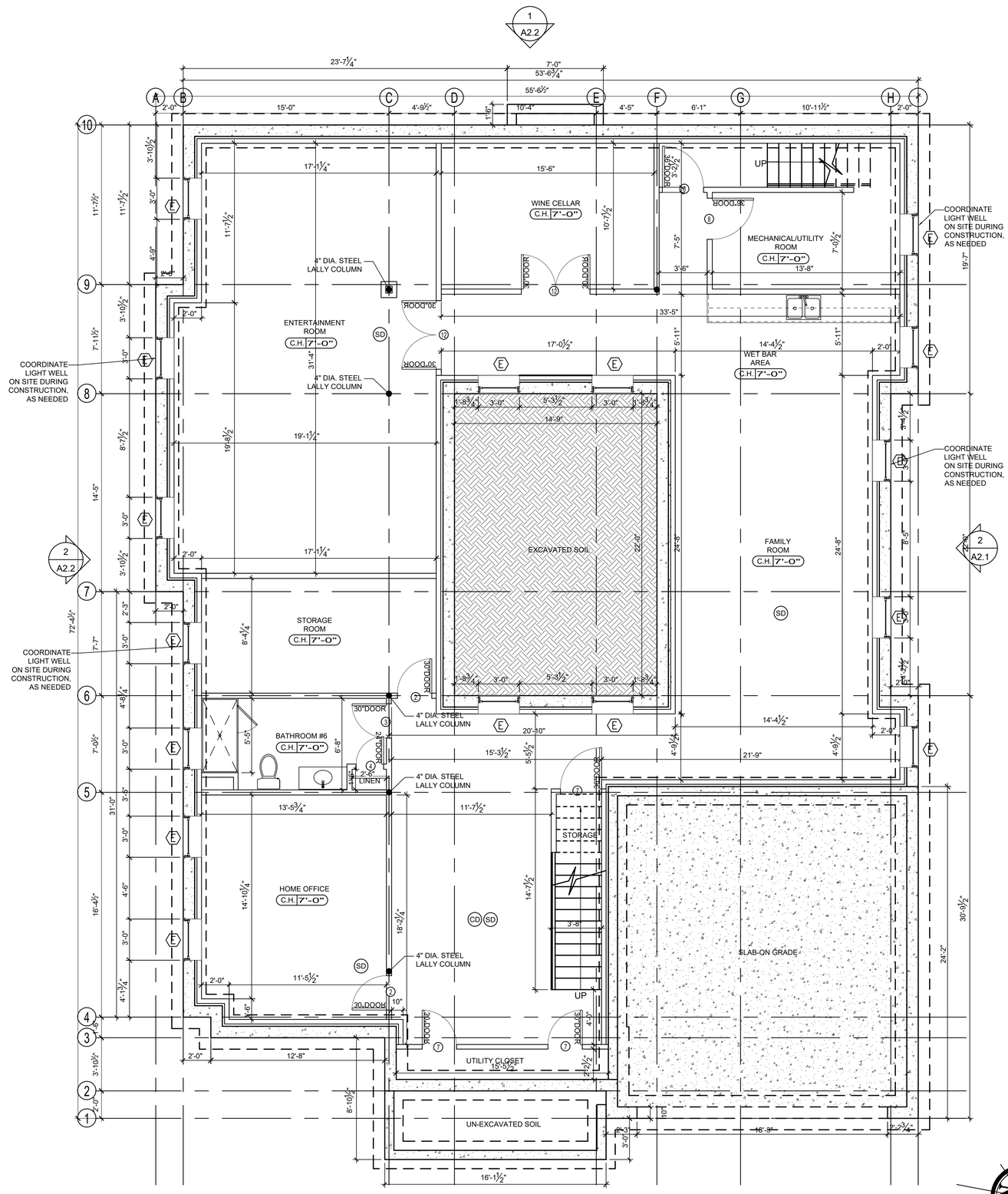
4.	ATRIA, OPEN WELLS, AND OTHER VERTICAL SPACE	335 SF **
5.	CERTAIN FLOOR AREA ABOVE THE SECOND STORY	N/A
6.	ENCLOSED PORCHES	N/A
7.	MASS BELOW FIRST STORY	3,239 SF ***
8.	DETACHED GARAGE	N/A
9.	AREA ABOVE DETACHED GARAGES WITH CEILING HEIGHT OF 7'-0" OR GREATER	N/A
10	OTHER DETACHED ACCESSORY BUILDINGS	N/A
F.A.R. OF PROPOSED STRUCTURE(S)		
A.	TOTAL GROSS FLOOR AREA (#1 + #3)	5,697 SF
B.	LOT SIZE	16,406 SF
C.	FAR = A/B	0.35
ALLOWED F.A.R.		
	ALLOWABLE F.A.R.	0.36
		0.35 < 0.36

* EXCLUDED IN THE 1ST FLOOR GROSS FLOOR AREA
** INCLUDED IN THE 2ND FLOOR GROSS FLOOR AREA
*** BASEMENT AREA EXCLUDED IN THE BASEMENT GROSS FLOOR AREA



PROPOSED BASEMENT FLOOR PLAN
SCALE: 1/4"=1'-0"

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ARCHITECT
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ADMIN@JCBTARCHITECT.COM
TEL: (617) 404-8182

CONSULTANT

REGISTRATION

REGISTERED ARCHITECT JIM CHEN No. 51071 QUINCY, MA COMMONWEALTH OF MASSACHUSETTS

REVISIONS

NO.	BY	DESCRIPTION	DATE

PROJECT

PROJECT NO. 22128

SHEET TITLE

PROPOSED FLOOR PLAN

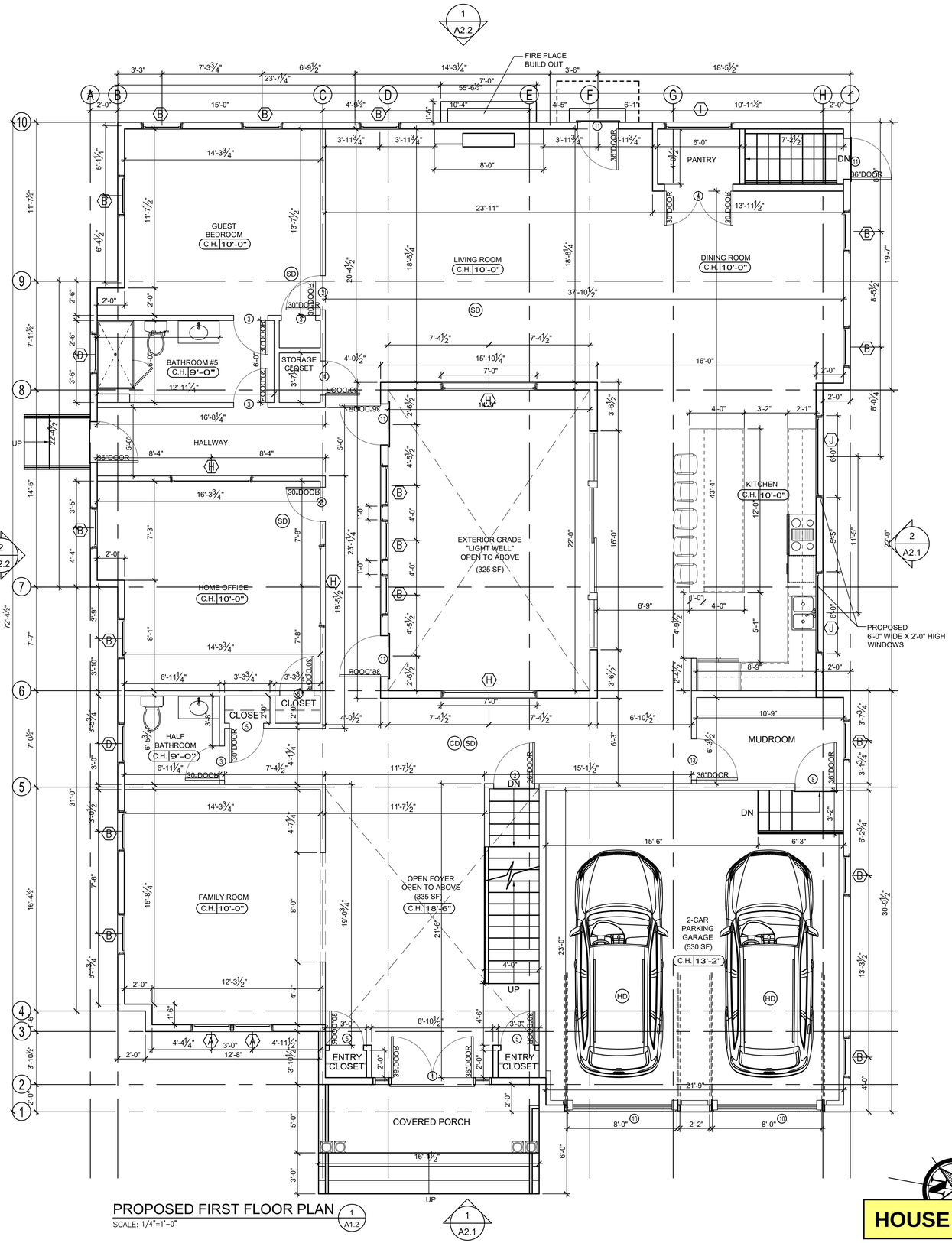
DRAWN:	J.C.	DRAWING NO:	
SCALE:	NOTED		
DATE:	10/05/2022		
CHECKED:			A1.1
SHEET	OF		

HOUSE # 16

BASEMENT FLOOR:	3,239 SQ.FT.
FIRST FLOOR:	3,210 SQ.FT.
SECOND FLOOR:	2,487 SQ.FT.
ATTIC FLOOR:	0 SQ.FT.
TOTAL GROSS SF:	8,936 GROSS SQ.FT.

FLOOR AREA RATIO CALCULATION		
1.	FIRST STORY	3,210 SQ.FT.
2.	ATTACHED GARAGE	530 SQ.FT.*
3.	SECOND STORY	2,487 SQ.FT.
4.	ATRIA, OPEN WELLS, AND OTHER VERTICAL SPACE	335 SF **
5.	CERTAIN FLOOR AREA ABOVE THE SECOND STORY	N/A
6.	ENCLOSED PORCHES	N/A
7.	MASS BELOW FIRST STORY	3,239 SF ***
8.	DETACHED GARAGE	N/A
9.	AREA ABOVE DETACHED GARAGES WITH CEILING HEIGHT OF 7'-0" OR GREATER	N/A
10	OTHER DETACHED ACCESSORY BUILDINGS	N/A
F.A.R. OF PROPOSED STRUCTURE(S)		
A.	TOTAL GROSS FLOOR AREA (#1 + #3)	5,697 SF
B.	LOT SIZE	16,406 SF
C.	FAR = A/B	0.35
ALLOWED F.A.R.		
	ALLOWABLE F.A.R.	0.36
		0.35 < 0.36

* EXCLUDED IN THE 1ST FLOOR GROSS FLOOR AREA
** INCLUDED IN THE 2ND FLOOR GROSS FLOOR AREA
*** BASEMENT AREA EXCLUDED IN THE BASEMENT GROSS FLOOR AREA



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

HOUSE # 16

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REGISTERED ARCHITECT JIM CHEN No. 51071 QUINCY, MA

REVISIONS

NO.	BY	DESCRIPTION	DATE

PROJECT

PROJECT NO. 22128

SHEET TITLE

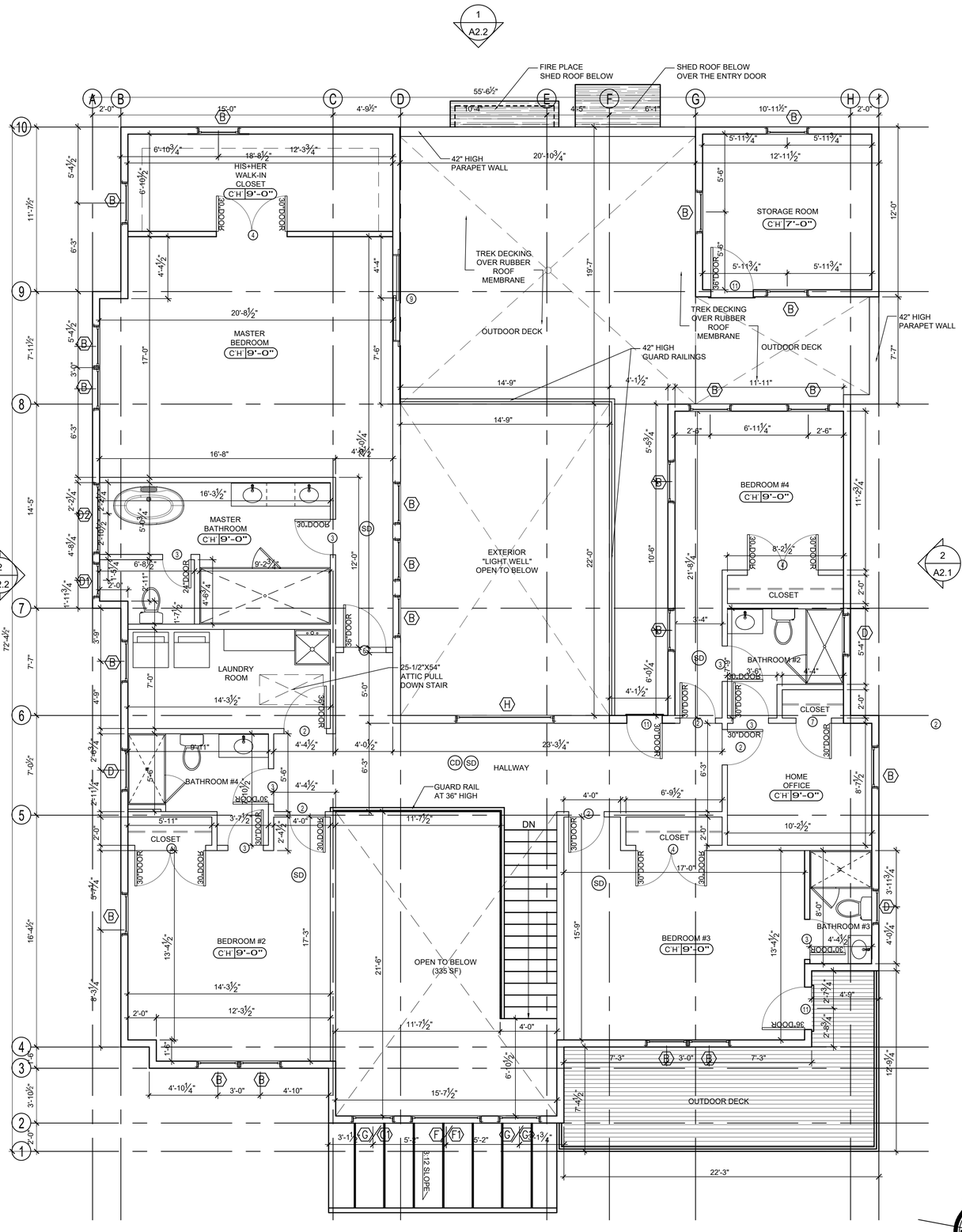
PROPOSED FLOOR PLAN

DRAWN:	J.C.	DRAWING NO:
SCALE:	NOTED	
DATE:	10/05/2022	A1.2
CHECKED:		
SHEET	OF	

BASEMENT FLOOR:	3,239 SQ.FT.
FIRST FLOOR:	3,210 SQ.FT.
SECOND FLOOR:	2,487 SQ.FT.
ATTIC FLOOR:	0 SQ.FT.
TOTAL GROSS SF:	8,936 GROSS SQ.FT.

FLOOR AREA RATIO CALCULATION		
1.	FIRST STORY	3,210 SQ.FT.
2.	ATTACHED GARAGE	530 SQ.FT.*
3.	SECOND STORY	2,487 SQ.FT.
4.	ATRIA, OPEN WELLS, AND OTHER VERTICAL SPACE	335 SF **
5.	CERTAIN FLOOR AREA ABOVE THE SECOND STORY	N/A
6.	ENCLOSED PORCHES	N/A
7.	MASS BELOW FIRST STORY	3,239 SF ***
8.	DETACHED GARAGE	N/A
9.	AREA ABOVE DETACHED GARAGES WITH CEILING HEIGHT OF 7'-0" OR GREATER	N/A
10	OTHER DETACHED ACCESSORY BUILDINGS	N/A
F.A.R. OF PROPOSED STRUCTURE(S)		
A.	TOTAL GROSS FLOOR AREA (#1 + #3)	5,697 SF
B.	LOT SIZE	16,406 SF
C.	FAR = A/B	0.35
ALLOWED F.A.R.		
	ALLOWABLE F.A.R.	0.36
		0.35 < 0.36

* EXCLUDED IN THE 1ST FLOOR GROSS FLOOR AREA
** INCLUDED IN THE 2ND FLOOR GROSS FLOOR AREA
*** BASEMENT AREA EXCLUDED IN THE BASEMENT GROSS FLOOR AREA



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

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REGISTRATION

REGISTERED ARCHITECT
JIM CHEN
No. 51071
QUINCY, MA

REVISIONS

NO.	BY	DESCRIPTION	DATE

PROJECT

PROJECT NO. 22128

SHEET TITLE

PROPOSED
FLOOR
PLAN

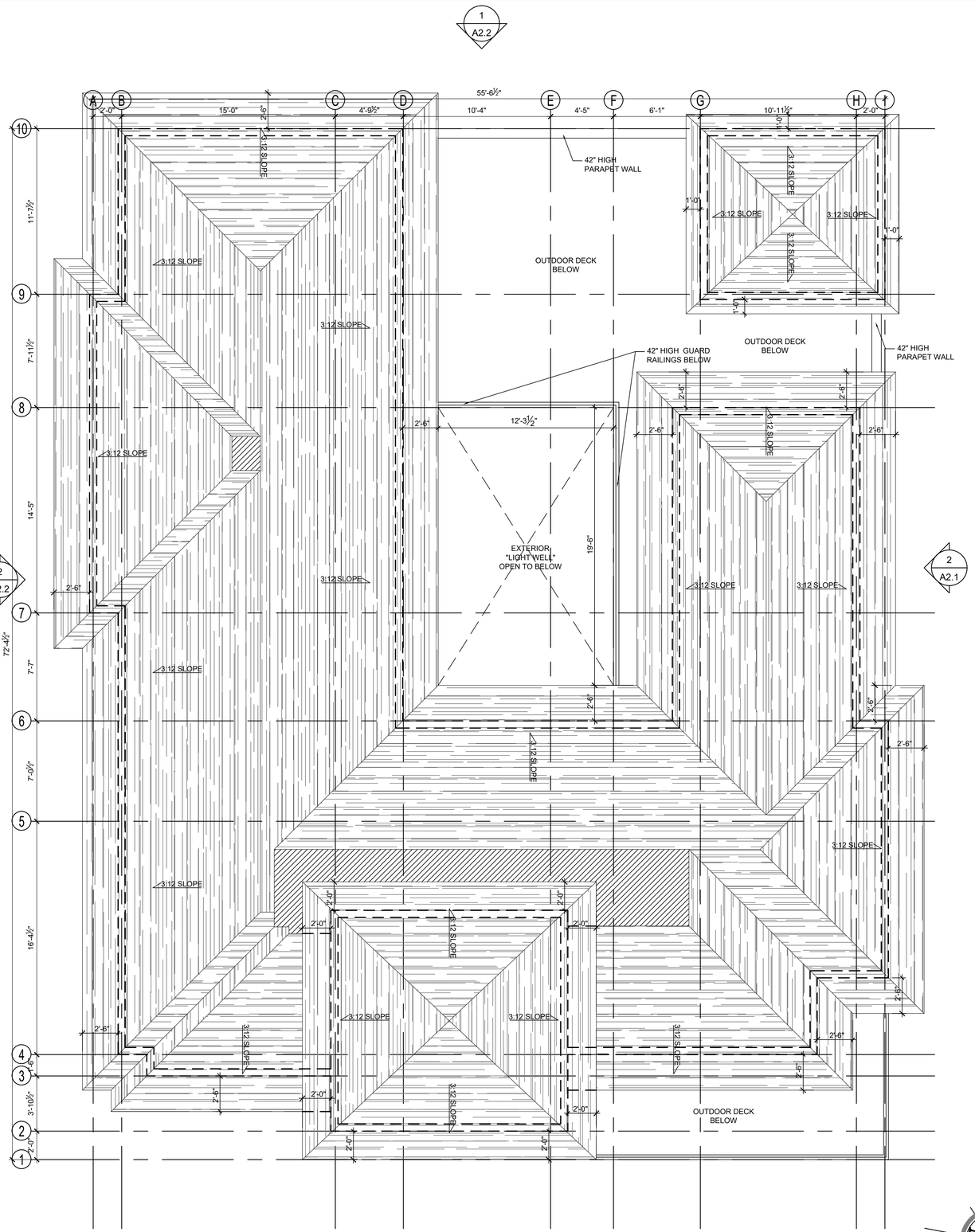
DRAWN:	J.C.	DRAWING NO:
SCALE:	NOTED	
DATE:	10/05/2022	
CHECKED:		A1.3
SHEET	OF	

HOUSE # 16

BASEMENT FLOOR:	3,239 SQ.FT.
FIRST FLOOR:	3,210 SQ.FT.
SECOND FLOOR:	2,487 SQ.FT.
ATTIC FLOOR:	0 SQ.FT.
TOTAL GROSS SF:	8,936 GROSS SQ.FT.

FLOOR AREA RATIO CALCULATION		
1.	FIRST STORY	3,210 SQ.FT.
2.	ATTACHED GARAGE	530 SQ.FT.*
3.	SECOND STORY	2,487 SQ.FT.
4.	ATRIA, OPEN WELLS, AND OTHER VERTICAL SPACE	335 SF **
5.	CERTAIN FLOOR AREA ABOVE THE SECOND STORY	N/A
6.	ENCLOSED PORCHES	N/A
7.	MASS BELOW FIRST STORY	3,239 SF ***
8.	DETACHED GARAGE	N/A
9.	AREA ABOVE DETACHED GARAGES WITH CEILING HEIGHT OF 7'-0" OR GREATER	N/A
10	OTHER DETACHED ACCESSORY BUILDINGS	N/A
F.A.R. OF PROPOSED STRUCTURE(S)		
A.	TOTAL GROSS FLOOR AREA (#1 + #3)	5,697 SF
B.	LOT SIZE	16,406 SF
C.	FAR = A/B	0.35
ALLOWED F.A.R.		
	ALLOWABLE F.A.R.	0.36
		0.35 < 0.36

* EXCLUDED IN THE 1ST FLOOR GROSS FLOOR AREA
** INCLUDED IN THE 2ND FLOOR GROSS FLOOR AREA
*** BASEMENT AREA EXCLUDED IN THE BASEMENT GROSS FLOOR AREA



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

1 A1.4

1 A2.1

HOUSE # 16

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REGISTRATION

REGISTERED ARCHITECT JIM CHEN No. 51071 QUINCY, MA COMMONWEALTH OF MASSACHUSETTS

REVISIONS

NO.	BY	DESCRIPTION	DATE

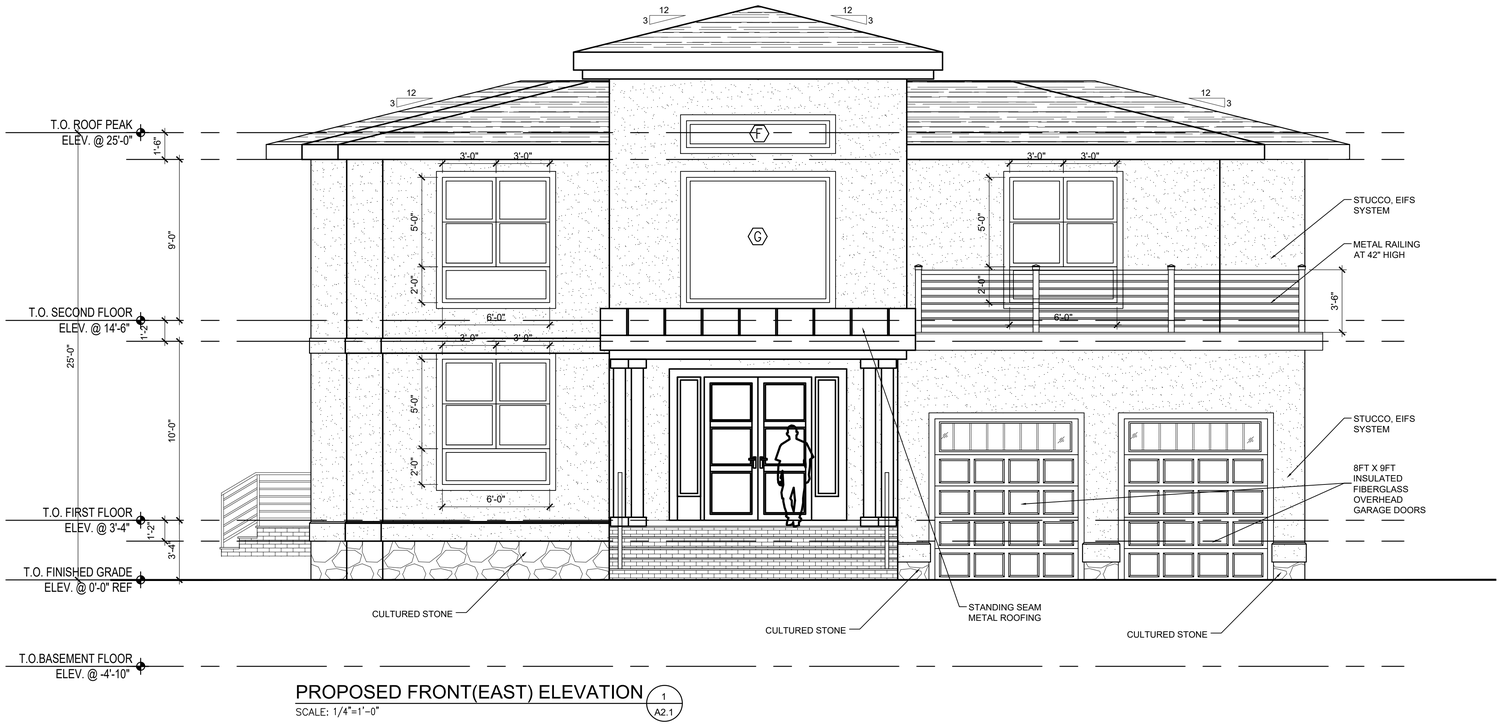
PROJECT

PROJECT NO. 22128

SHEET TITLE

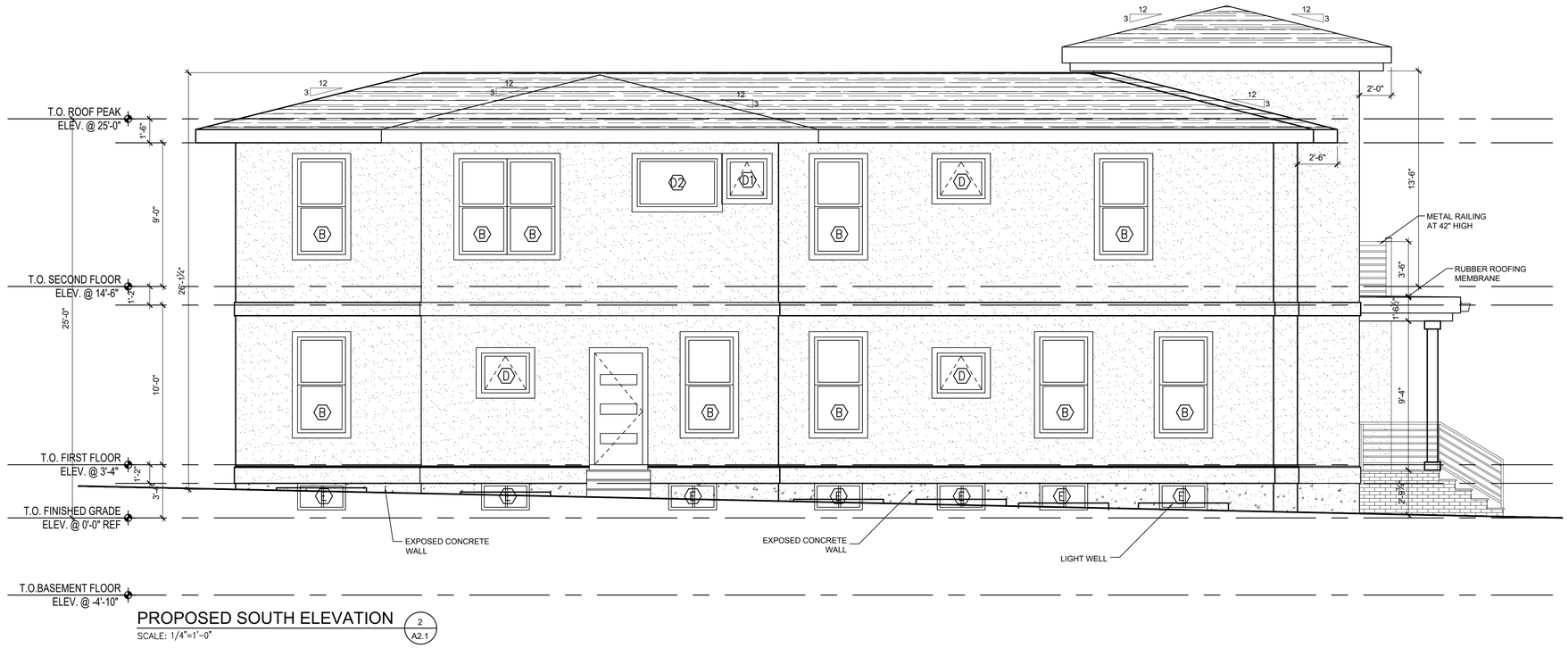
PROPOSED FLOOR PLAN

DRAWN:	J.C.	DRAWING NO:
SCALE:	NOTED	
DATE:	10/05/2022	A1.4
CHECKED:		
SHEET	OF	



PROPOSED FRONT(EAST) ELEVATION (1 / A2.1)

SCALE: 1/4"=1'-0"



PROPOSED SOUTH ELEVATION (2 / A2.1)

SCALE: 1/4"=1'-0"

HOUSE # 16

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REGISTERED ARCHITECT
JIM CHEN
No. 51071
QUINCY, MA
COMMONWEALTH OF MASSACHUSETTS

REVISIONS

NO.	BY	DESCRIPTION	DATE

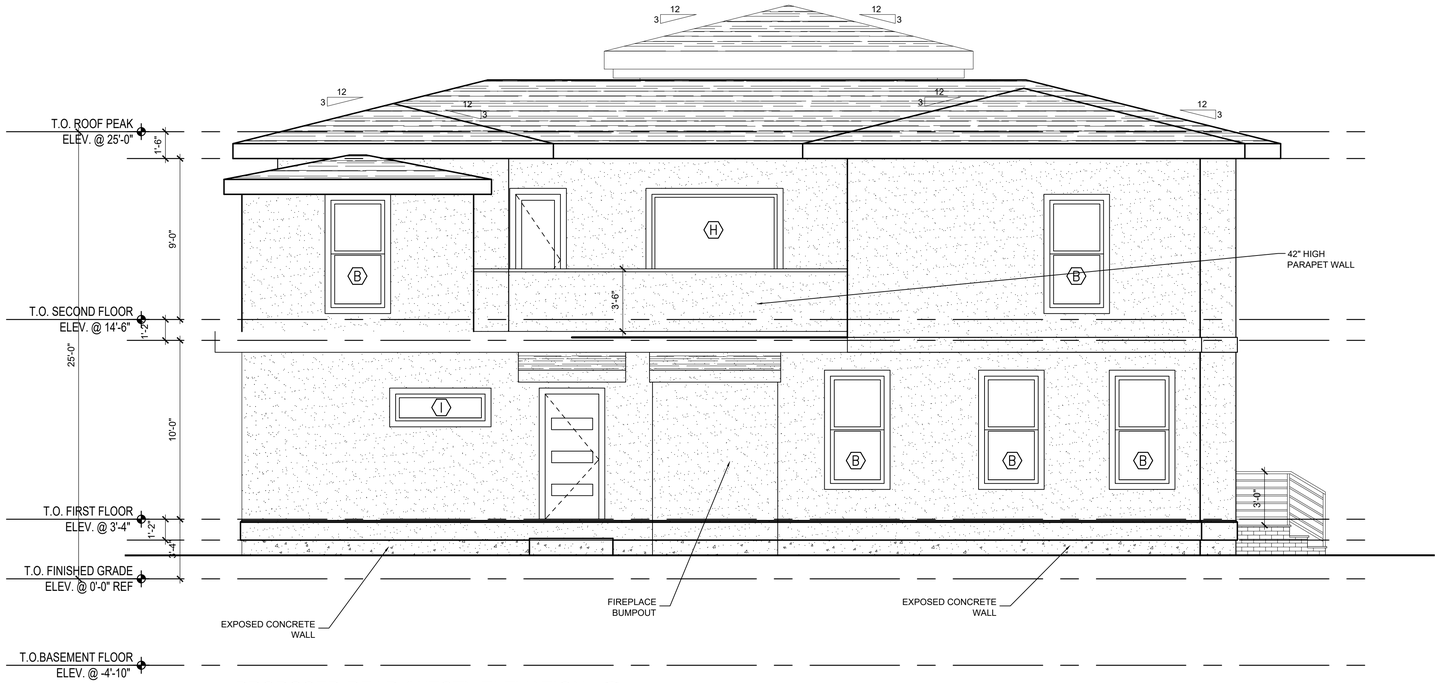
PROJECT

PROJECT NO. 22128

SHEET TITLE

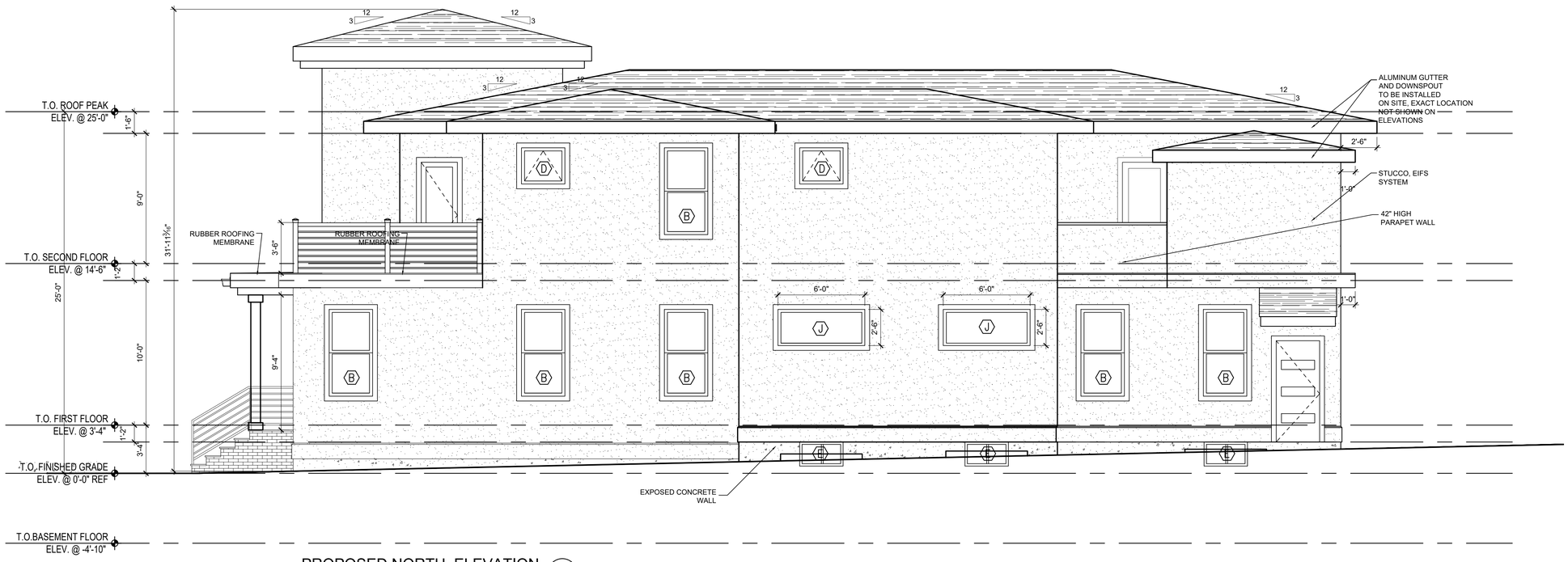
PROPOSED EXTERIOR ELEVATIONS

DRAWN: J.C.	DRAWING NO:
SCALE: NOTED	
DATE: 10/05/2022	
CHECKED:	
SHEET OF	A2.1



PROPOSED REAR (WEST) ELEVATION (1 / A2.2)

SCALE: 1/4"=1'-0"



PROPOSED NORTH ELEVATION (2 / A2.2)

SCALE: 1/4"=1'-0"

HOUSE # 16

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REGISTERED ARCHITECT
JIM CHEN
No. 51071
QUINCY, MA

REVISIONS

NO.	BY	DESCRIPTION	DATE

PROJECT

PROJECT NO. 22128

SHEET TITLE

PROPOSED
EXTERIOR
ELEVATIONS

DRAWN:	J.C.	DRAWING NO:
SCALE:	NOTED	A2.2
DATE:	10/05/2022	
CHECKED:		
SHEET	OF	

C: House #17
Google Earth

HOUSE #17

HOUSE #17

164
HOUSE #17

HOUSE #17

Large House Study - FAR Rules/Tests

House 17

3/26/2025

Please Note

These values are adjustable
This is the current Bylaw
These are calculated values - don't modify

House and Lot Information

# Floors	4.0		
Lot Size	32,679	SF	
Lot Coverage	4,575	SF	0.14

Floor	Gross SF (inc Garage)	Garage	Livable SF (N.I. Garage)
B	2,698	-	2,698
1	4,119	950	3,169
2	3,637	-	3,637
3	613	-	613
Total	11,067	950	10,117
TLAG	8,369	Real Estate Ad=	9,466 SF

Bylaw Compliance "Tests" (Green = Pass, Red = Fail)

Min Lot Size Test

Lot Coverage	4,575	SF
Lot Coverage Limit	25%	
Lot Coverage Actual	14.0%	

FAR Options	Bylaw FAR	House FAR	FAR SF	Max Allowed Livable SF (N.I. Garage)
FAR (Flr 1,2 Exclude Garage)	36%	20.8%	6,806	15,075
FAR (Flr 1,2,3 Exclude Garage)	36%	22.7%	7,419	14,462
FAR (Flr 1,2,3,B Exclude Garage)	36%	31.0%	10,117	11,764
FAR (Flr 1,2,3,+ Include Garage 1)	36%	25.6%	8,369	14,462
FAR (Flr 1,2 + Include Garage 1)	36%	23.7%	7,756	15,075

Bylaw Requirements

X = FAR Changeover	12,000	SF
FAR for lot < X	38%	
FAR for lot >= X	36%	
Lot Coverage Factor when < X	30%	
Lot Coverage Factor when >= X	25%	

Prepared by Ed Quinlan

TOWN OF NEEDHAM, MASSACHUSETTS

BUILDING INSPECTION DEPARTMENT

Assessor's Map & Parcel Number. _____

Building Permit No.: _____ Zoning District: SR–B

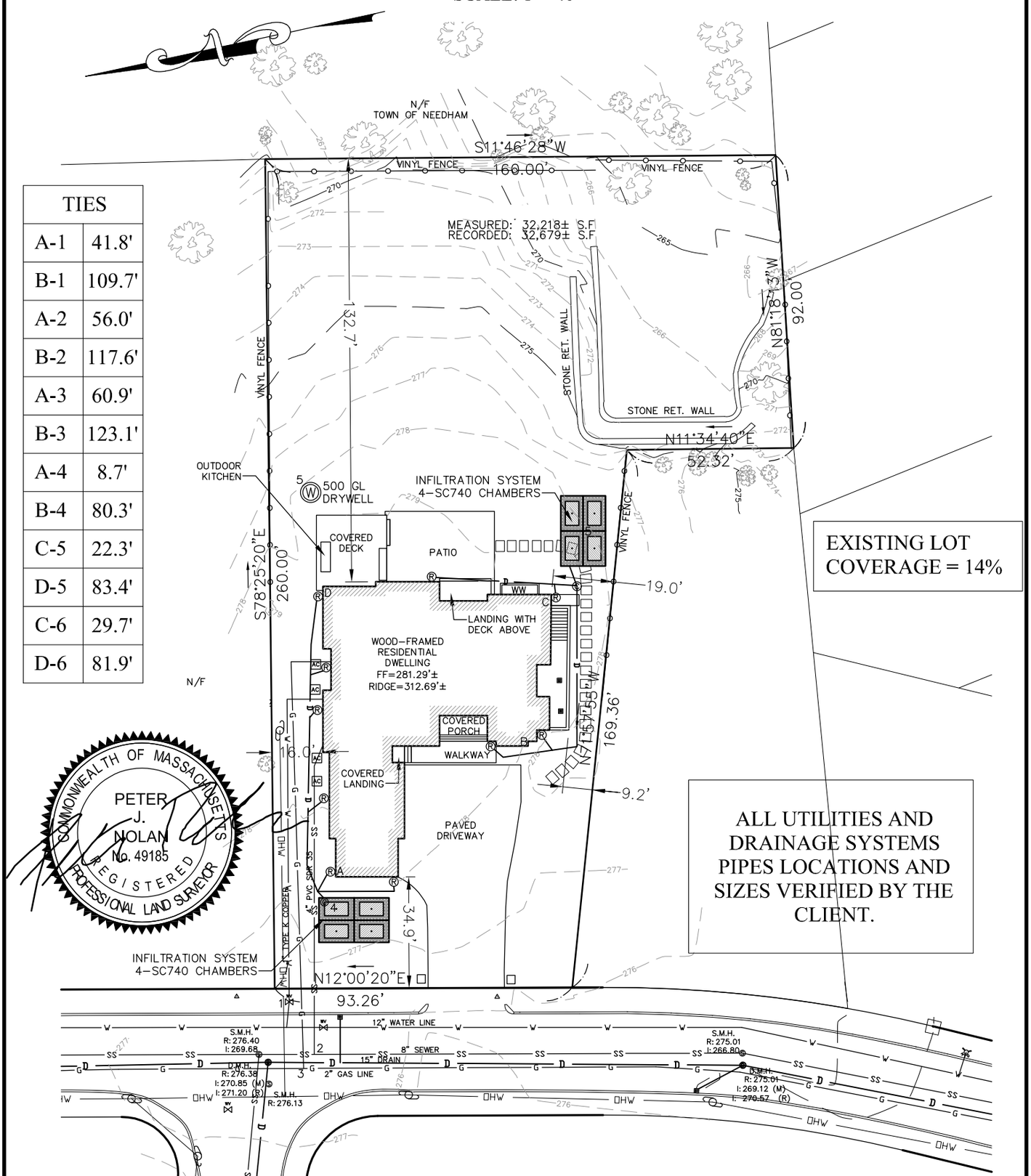
Lot Area: _____ Address: _____

Owner: _____ Builder: SAGA PARTNERS MA, LLC

FINAL AS–BUILT PLAN

SCALE: 1"= 40'

TIES	
A-1	41.8'
B-1	109.7'
A-2	56.0'
B-2	117.6'
A-3	60.9'
B-3	123.1'
A-4	8.7'
B-4	80.3'
C-5	22.3'
D-5	83.4'
C-6	29.7'
D-6	81.9'



EXISTING LOT COVERAGE = 14%

ALL UTILITIES AND DRAINAGE SYSTEMS PIPES LOCATIONS AND SIZES VERIFIED BY THE CLIENT.

COMMONWEALTH OF MASSACHUSETTS
PETER J. NOLAN
No. 49185
REGISTERED PROFESSIONAL LAND SURVEYOR

Note: Plot Plans shall be drawn in accordance with Sections 7.2.1 and 7.2.2 of the Zoning By–Laws for the Town of Needham. All plot plans shall show existing structures and public & private utilities, including water mains, sewers, drains, gas lines, etc.; driveways, septic systems, wells, Flood Plain and Wetland Areas, lot dimensions, lot size, dimensions of proposed structures, sideline, front and rear offsets and setback distances (measured to the face of structure) and elevation of top of foundations and garage floor. For new construction, lot coverage, building height calculations, proposed grading and drainage of recharge structures. For pool permits, plot plans shall also show fence surrounding pool with a gate, proposed pool and any accessory structures*, offsets from all structures and property lines, existing elevations at nearest house corners and pool corners, nearest storm drain catch basin (if any) and sewage disposal system location in areas with no public sewer.

*Accessory structures may require a separate building permit – See Building Code.

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.

The above is subscribed to and executed by me this: 7TH day of: AUGUST 2024

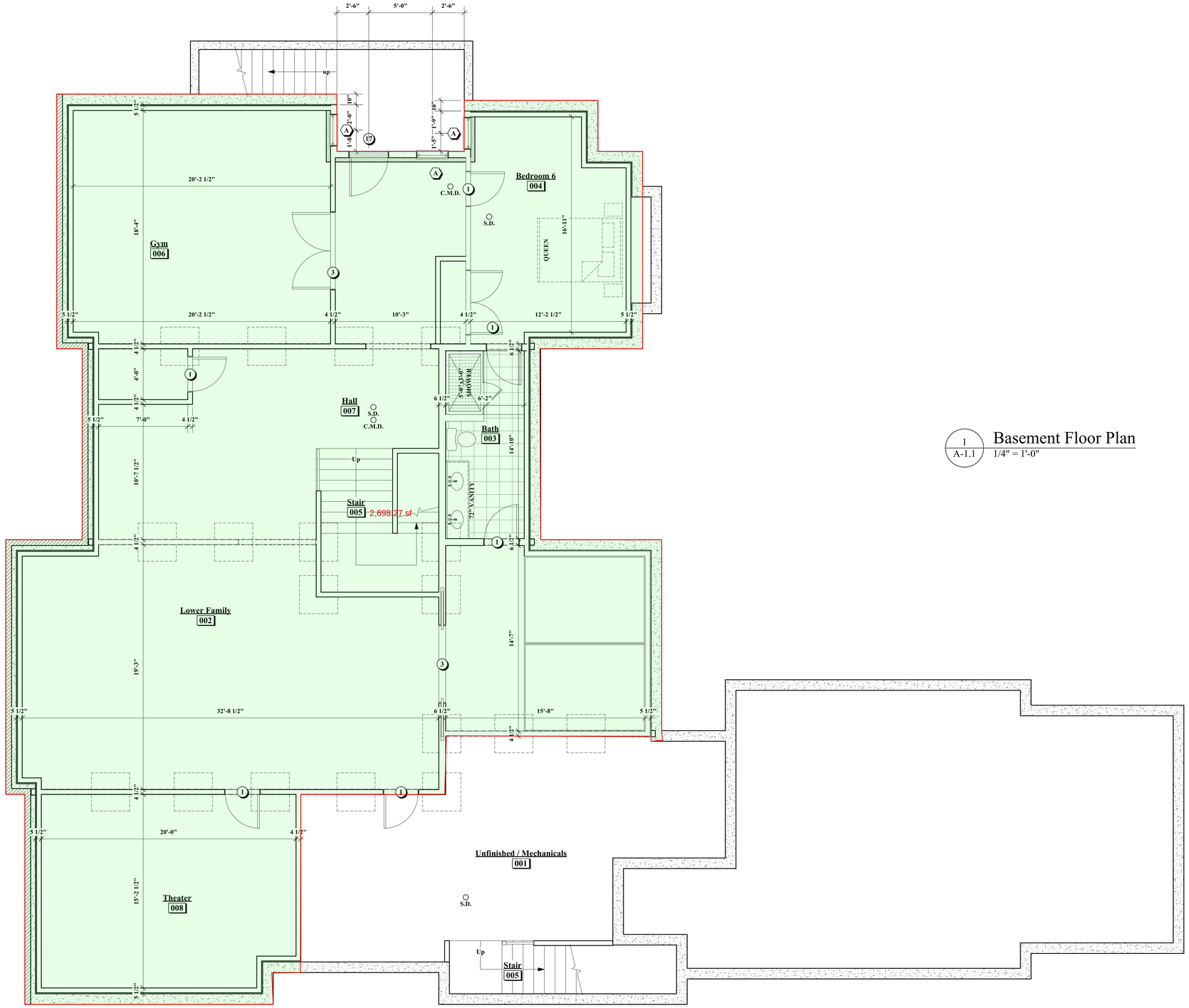
Name: PETER J. NOLAN Registered Land Surveyer #: 49185

Address: 80 JEWETT STREET, SUITE 1 City: NEWTON State: MA Z

Approved: _____ Director of Public Works: _____

Approved: _____ Building Inspector: _____

HOUSE # 17



1 / A-1.1 Basement Floor Plan
1/4" = 1'-0"

HOUSE # 17

OWNER

mckay architects

35 Bryant Street
Dedham, MA 02026

p: 781.326.5400

www.mckayarchitects.net

REGISTERED ARCHITECT
MICHAEL L. McKAY
NO. AR 6947
COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE
1	09/21/22	First Draft
2	09/22/22	Second Draft
3	10/14/22	Third Draft
4	10/24/22	Fourth Draft
5	10/31/22	CDs

OWNERSHIP & USE OF DOCUMENTS

These drawings and specifications are the property and copyright of McKay Architects and shall not be used in whole or in part, or shall be assigned to a third party without the express written permission of McKay Architects.

Contractor to verify all information and dimensions in the field prior to start of construction and is to notify McKay Architects of any discrepancies

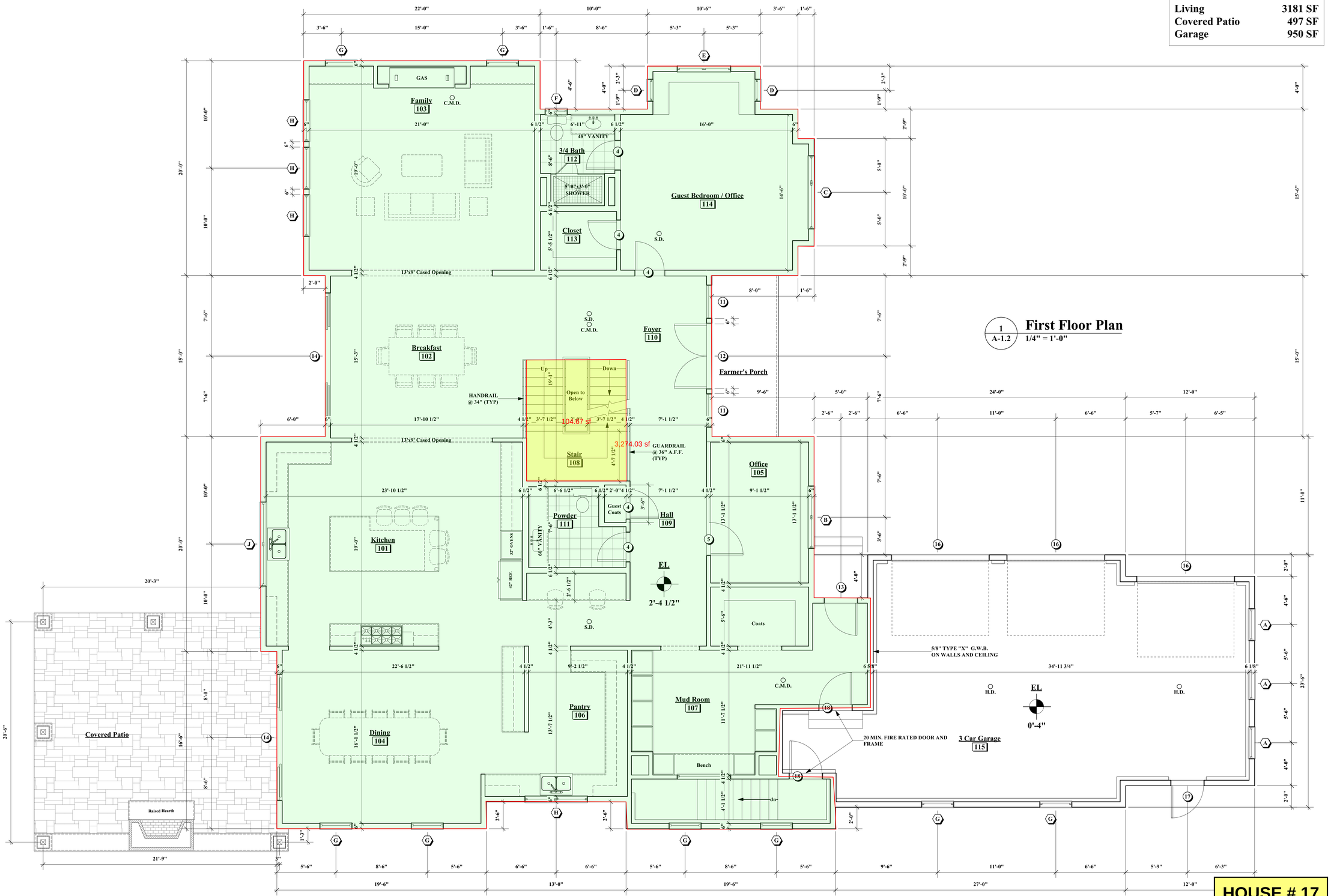
Basement Floor Plan

JOB NO	
DATE	10/31/22
DWG BY	
CKD BY	MLM
SCALE	AS NOTED

A-1.1

SQUARE FOOTAGE:

Gross	4628 SF
Living	3181 SF
Covered Patio	497 SF
Garage	950 SF



1 / A-1.2 **First Floor Plan**
1/4" = 1'-0"

OWNER

mckay architects

35 Bryant Street
Dedham, MA 02026

p: 781.326.5400

www.mckayarchitects.net

REGISTERED ARCHITECT — MICHAEL L. MCKAY — NO. AR 6947 — COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE
1	09/21/22	First Draft
2	09/22/22	Second Draft
3	10/14/22	Third Draft
4	10/24/22	Fourth Draft
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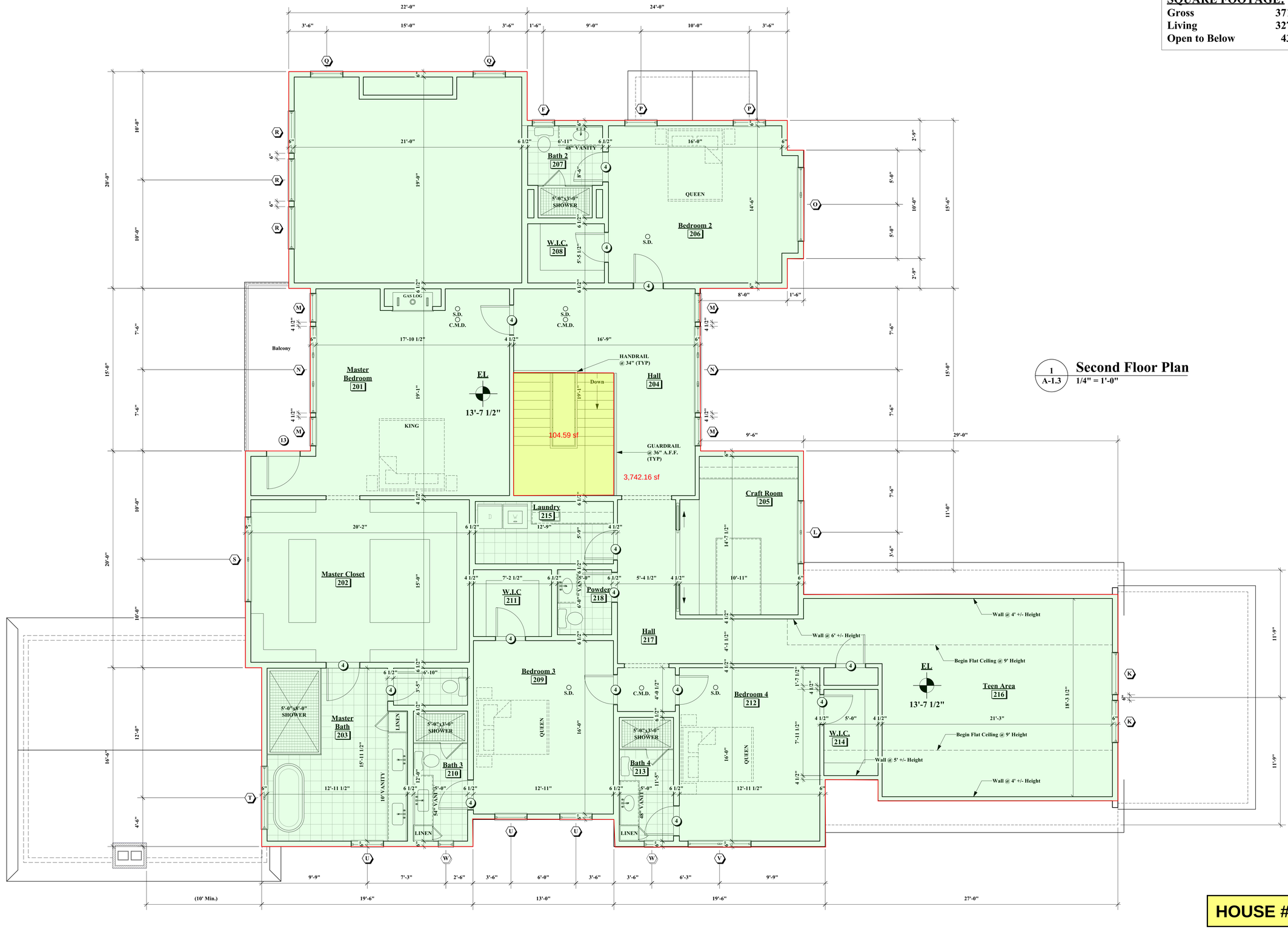
First Floor Plan

JOB NO	
DATE	10/31/22
DWG BY	
CKD BY	MLM
SCALE	AS NOTED

A-1.2

HOUSE # 17



SQUARE FOOTAGE:

Gross	3710 SF
Living	3278 SF
Open to Below	432 SF

1 / A-1.3 **Second Floor Plan**
1/4" = 1'-0"

HOUSE # 17

OWNER

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REGISTERED ARCHITECT
MICHAEL L. MCKAY
NO. RA 6947
COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE
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3	10/14/22	Third Draft
4	10/24/22	Fourth Draft
5	10/31/22	CDs

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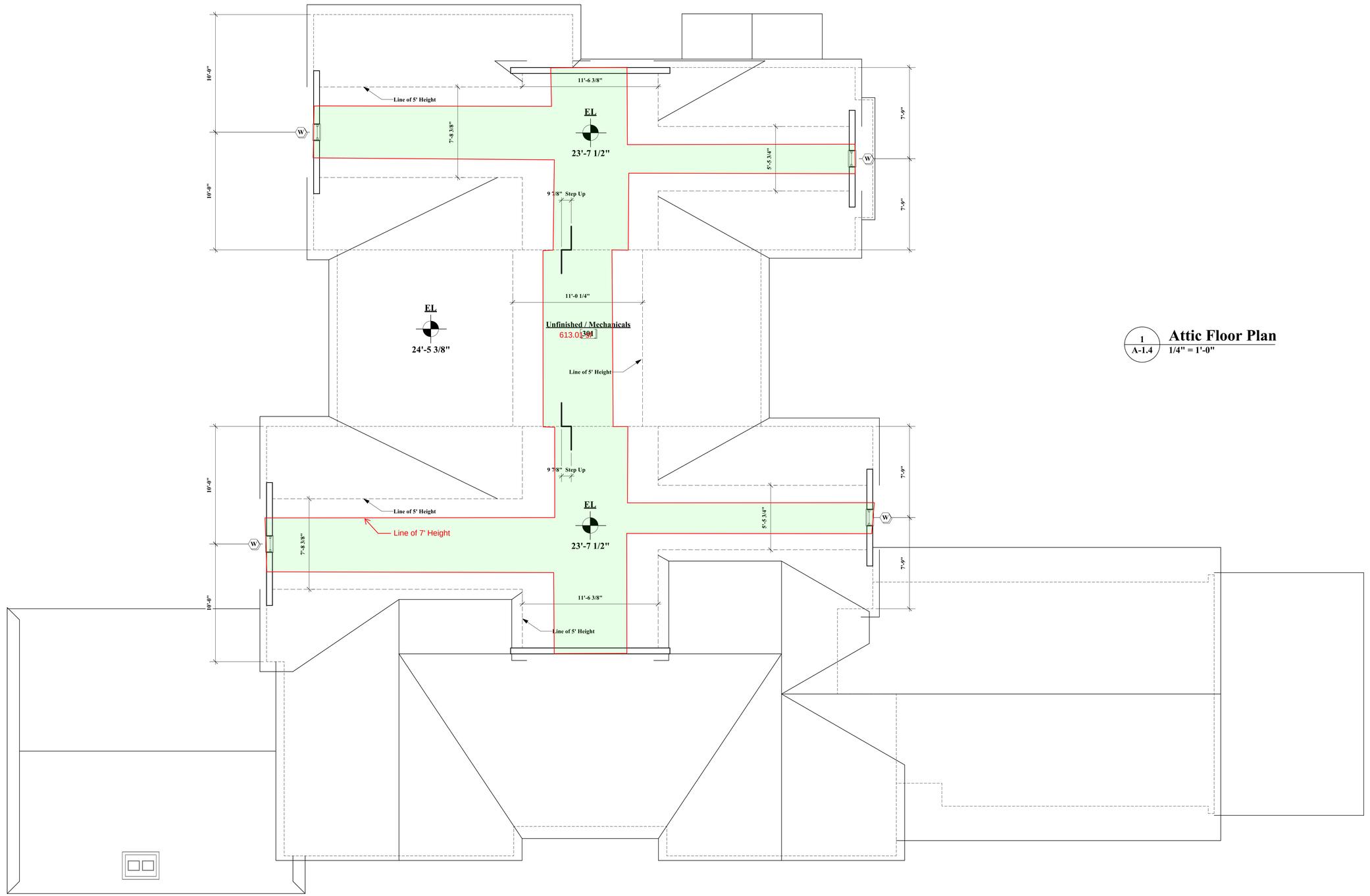
Second Floor Plan

JOB NO	
DATE	10/31/22
DWG BY	
CKD BY	MLM
SCALE	AS NOTED

A-1.3

SQUARE FOOTAGE:

Gross (below 5' Ht.)	**1062 SF**
Living	**0 SF**



1 / A-1.4 **Attic Floor Plan**
1/4" = 1'-0"

HOUSE # 17

OWNER

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Dedham, MA 02026
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REGISTERED ARCHITECT MICHAEL L. McKAY NO. AR 6947 COMMONWEALTH OF MASSACHUSETTS

REV #	DATE	ISSUANCE
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3	10/14/22	Third Draft
4	10/24/22	Fourth Draft
5	10/31/22	CDs

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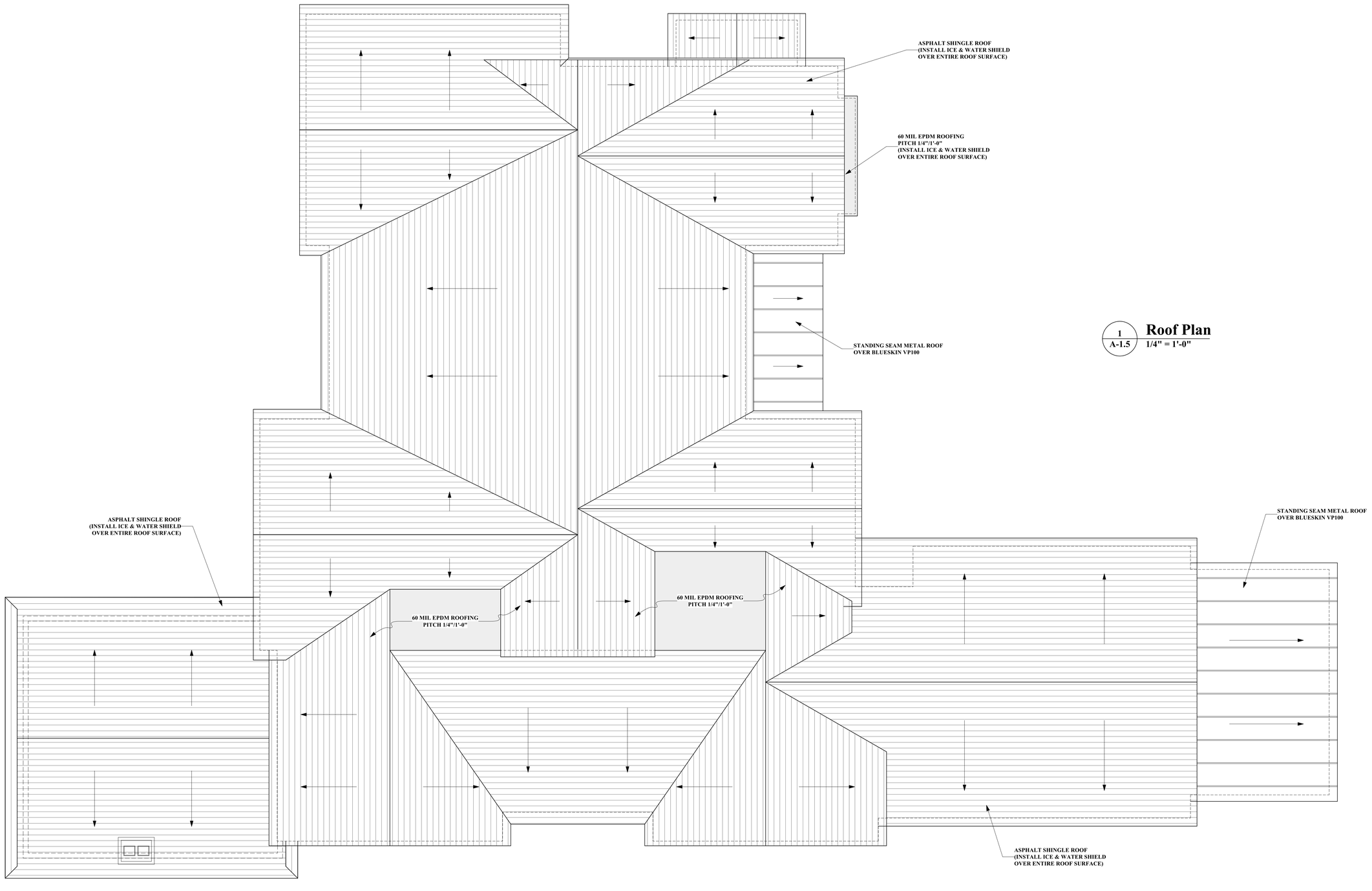
Attic Floor Plan

JOB NO	
DATE	10/31/22
DWG BY	
CKD BY	MLM
SCALE	AS NOTED

A-1.4



1 / A-1.5 **Roof Plan**
1/4" = 1'-0"

HOUSE # 17

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Roof Plan

JOB NO	
DATE	10/31/22
DWG BY	
CKD BY	MLM
SCALE	AS NOTED

A-1.5

1 / A-2.1 Front Elevation
1/4" = 1'-0"

HOUSE # 17

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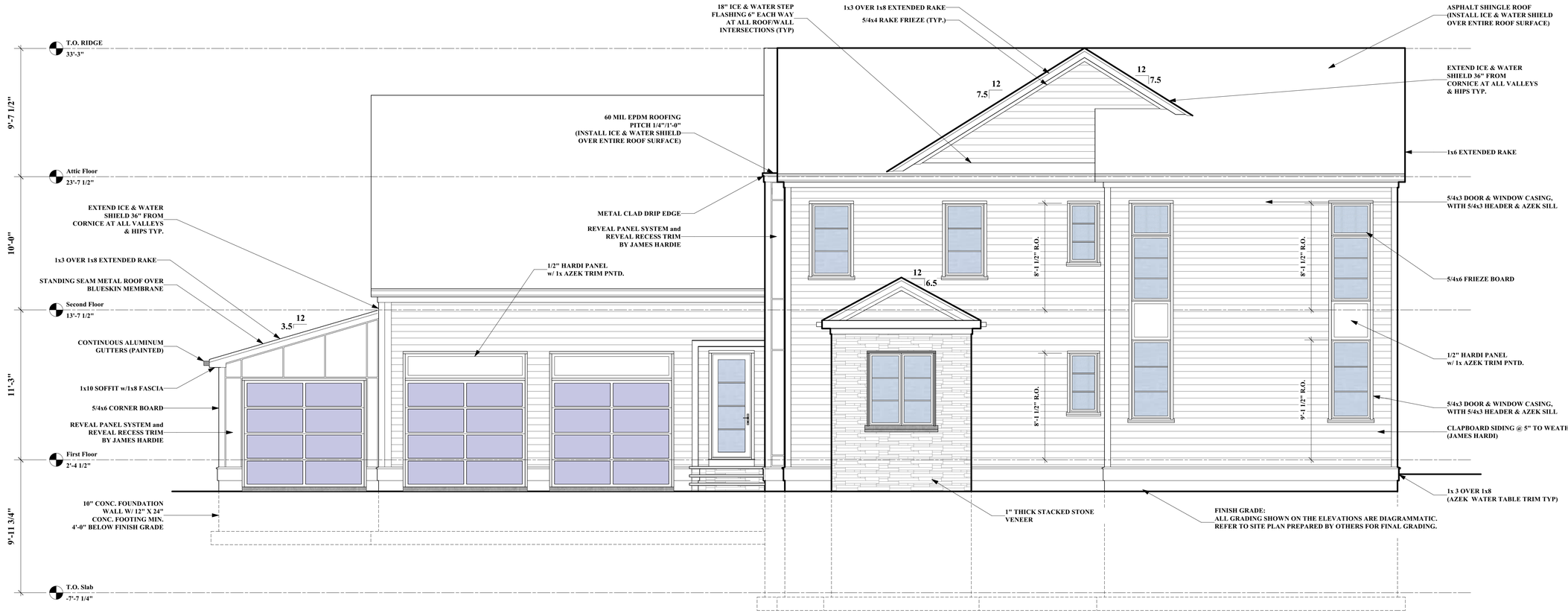
Front Elevation

JOB NO	
DATE	10/31/22
DWG BY	
CKD BY	MLM
SCALE	AS NOTED

A-2.1



1 / A-2.2 Right Side Elevation

1/4" = 1'-0"

HOUSE # 17

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2	09/22/22	Second Draft
3	10/14/22	Third Draft
4	10/24/22	Fourth Draft
5	10/31/22	CDs

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Right Side Elevation

JOB NO	
DATE	10/31/22
DWG BY	
CKD BY	MLM
SCALE	AS NOTED

A-2.2

1 / A-2.3 Rear Elevation
1/4" = 1'-0"

HOUSE # 17

OWNER

mckay architects

35 Bryant Street
Dedham, MA 02026

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REGISTERED ARCHITECT
MICHAEL L. MCKAY
NO. AR 6947
COMMONWEALTH OF MASSACHUSETTS

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Rear Elevation

JOB NO	
DATE	10/31/22
DWG BY	
CKD BY	MLM
SCALE	AS NOTED

A-2.3

1 / A-2.4 Left Side Elevation

1/4" = 1'-0"

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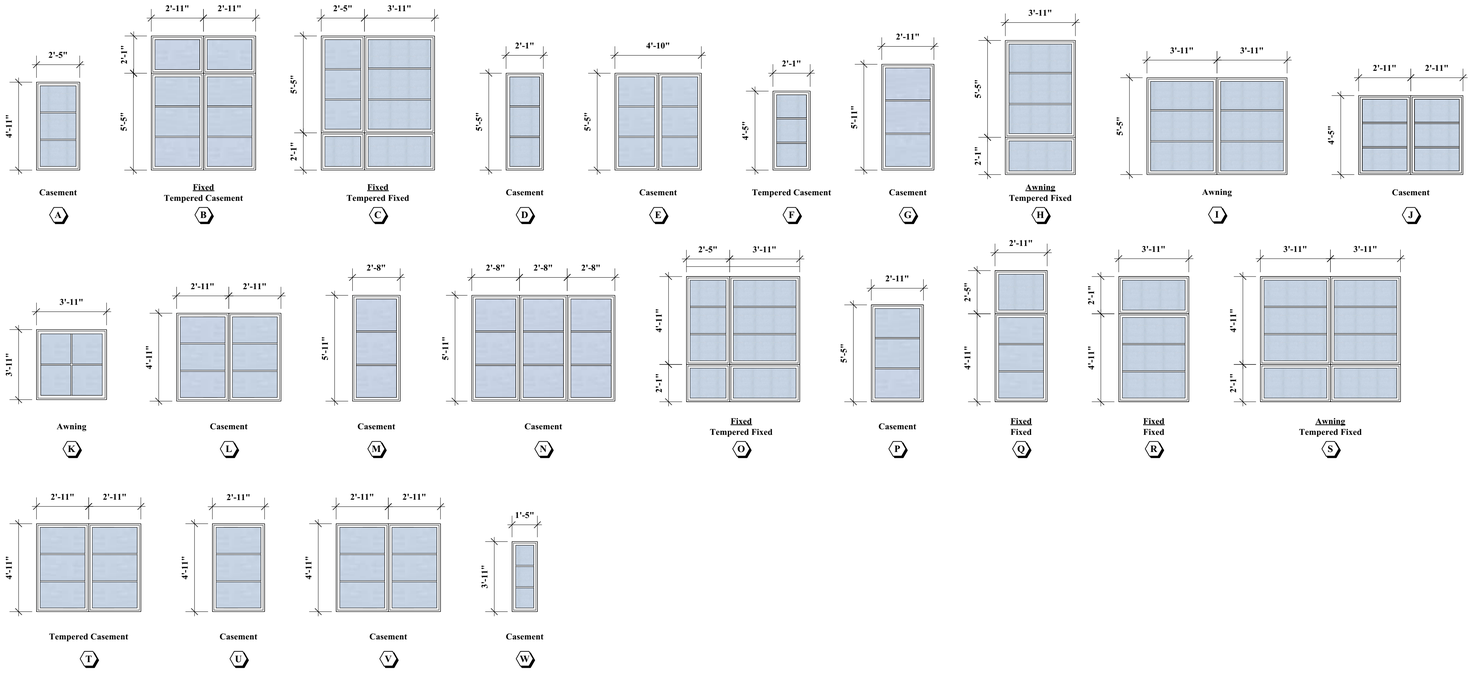
Left Side Elevation

JOB NO	
DATE	10/31/22
DWG BY	
CKD BY	MLM
SCALE	AS NOTED

A-2.4

WINDOW SCHEDULE



SHOP DRAWINGS OF WINDOWS ARE TO BE PROVIDED PRIOR TO ORDERING.

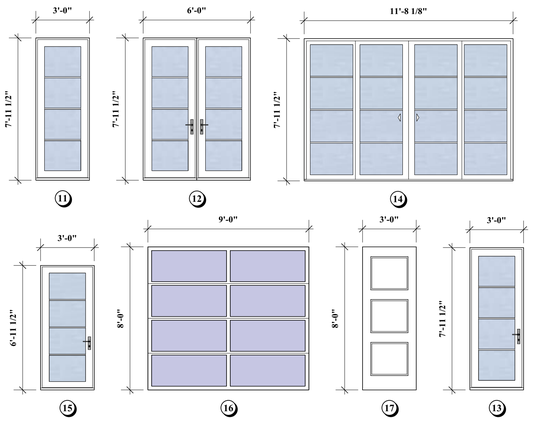
ALL WINDOWS AND PATIO DOORS ARE TO BE MANUFACTURED BY PELLA WINDOWS OR OWNER APPROVED EQUAL. PROVIDE SIMULATED DIVIDED LITE PATTERNS AS INDICATED. ALL UNITS ARE TO BE BLACK CLAD. UNITS ARE TO HAVE 6 1/8" JAMB THICKNESS & WHITE HARDWARE WITH FACTORY PROVIDED SCREENS. INTERIOR OF UNIT IS TO BE FACTORY PRIMED WHITE. PATIO DOORS ARE TO HAVE LOCKING HARDWARE PROVIDED WITH SCREEN DOOR UNITS. ALL GLAZING IS TO BE LOW-E INSULATED GLASS WITH U-VALUE OF .30 OR BETTER.

DOOR SCHEDULE

DOOR NO.	LOCATION / TYPE	SIZE	DETAILS		REMARKS
			HEAD	JAMB	
1	INTERIOR / (TYP)	2'-8"x7'-0"	WOOD	WOOD	
2	INTERIOR / (TYP)	(2) 2'-0"x7'-0"	WOOD	WOOD	
3	INTERIOR / (TYP)	(2) 3'-0"x7'-0"	WOOD	WOOD	
4	INTERIOR / (TYP)	2'-8"x8'-0"	WOOD	WOOD	
5	INTERIOR / (TYP)	(2) 3'-0"x8'-0"	WOOD	WOOD	
6			WOOD	WOOD	
7			WOOD	WOOD	
8			WOOD	WOOD	
9			WOOD	WOOD	
10			WOOD	WOOD	
11	EXTERIOR / FOYER	3'-0"x8'-0"	WOOD	WOOD	FIXED PANEL
12	EXTERIOR / FOYER	(2) 3'-0"x8'-0"	WOOD	WOOD	
13	EXTERIOR / MUD ROOM	3'-0"x8'-0"	WOOD	WOOD	
14	EXTERIOR / BREAKFAST / DINING	12'-0"x8'-0"	WOOD	WOOD	
15	EXTERIOR / BASEMENT ACCESS	3'-0"x7'-0"	WOOD	WOOD	
16	EXTERIOR / GARAGE	8'-0"x9'-0"	WOOD	WOOD	GARAGE OVERHEAD
17	EXTERIOR / GARAGE	3'-0"x8'-0"	WOOD	WOOD	
18	INTERIOR / GARAGE	3'-0"x8'-0"	WOOD	WOOD	"C" LABEL DOOR

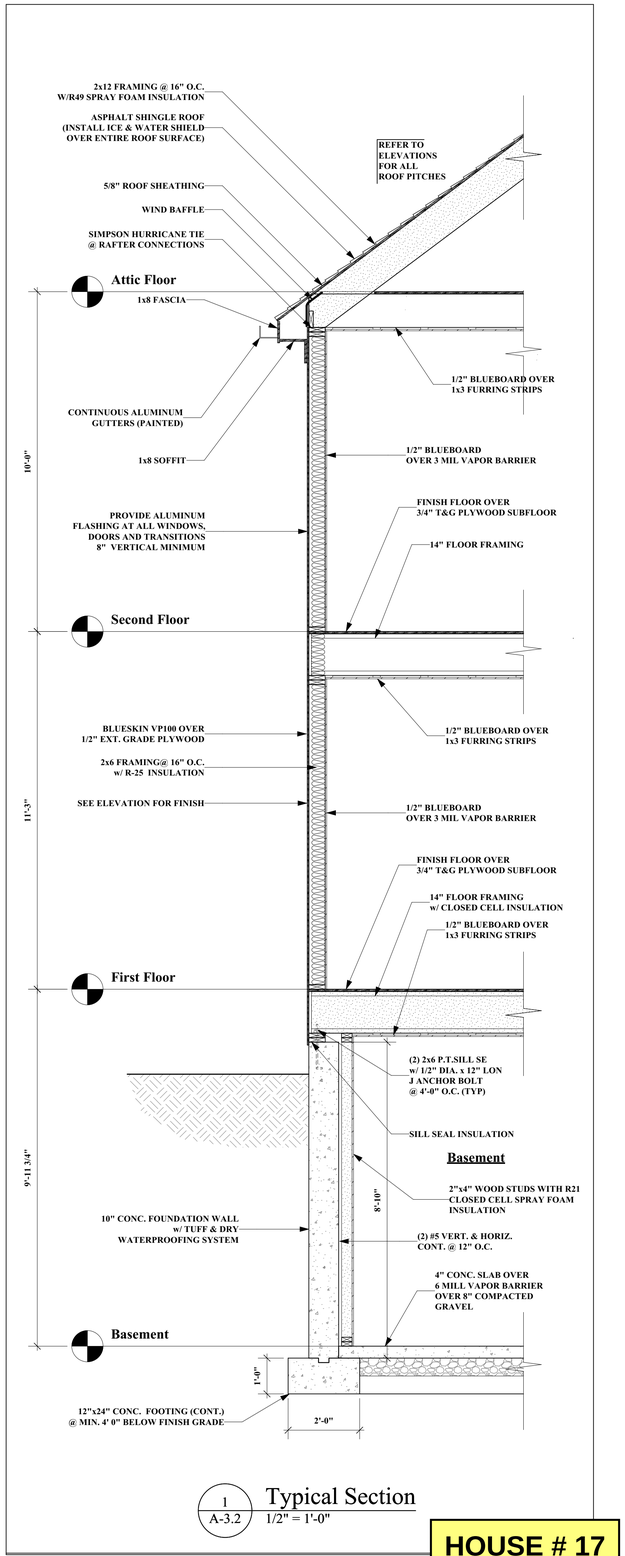
NOTE:

SHOP DRAWINGS OF DOORS ARE TO BE PROVIDED PRIOR TO ORDERING.



FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING	REMARKS
				NORTH	EAST	SOUTH	WEST		
001	UNFINISHED/MECHANICALS								
002	LOWER FAMILY								
003	3/4 BATH	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
004	BEDROOM 6	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
005	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
006	GYM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
007	HALL	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
008	THEATER	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
101	KITCHEN	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
102	BREAKFAST	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
103	FAMILY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
104	DINING	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
105	BUTLER'S PANTRY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
106	PANTRY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
107	MUD ROOM	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
108	STAIR	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	ENGINEERED LUMBER
109	HALL	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
110	FOYER	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
111	POWDER ROOM	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
112	3/4 BATH	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
113	CLOSET	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
114	BEDROOM 5	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
115	2 CAR GARAGE			GWB	GWB	GWB	GWB	GWB	5/8" TYPE "X" GWB
201	MASTER BEDROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
202	WALK IN CLOSET	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
203	MASTER BATH	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
204	HALL	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
205	CRAFT ROOM	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
206	BEDROOM 2	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
207	BATH 2	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
208	WALK IN CLOSET	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
209	BEDROOM 3	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
210	BATH 3	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
211	WALK IN CLOSET	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
212	BEDROOM 4	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
213	BATH 4	WOOD		GWB	GWB	GWB	GWB	GWB	
214	WALK IN CLOSET	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
215	LAUNDRY	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
216	TEEN AREA	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
216	HALL	WOOD	WOOD	GWB	GWB	GWB	GWB	GWB	
216	POWDER	TILE	WOOD	GWB	GWB	GWB	GWB	GWB	
301	UNFINISHED/MECHANICALS								



1 / A-3.2 Typical Section
1/2" = 1'-0"

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Schedules and Typical Section

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DATE	10/31/22
DWG BY	
CKD BY	MLM
SCALE	AS NOTED

A-3.1

Status Update

APRIL 2025

Current dimensional regulations

- Setbacks – no consensus
- Height limit – desire for lower height
- Lot coverage – possible reduction
- Floor Area Ratio – change definition, reduce
- Garage – reduce garage slightly and count
- Design rules – possible design changes
- Lot size – N/A
- Tree by-law – N/A (other committee)
- Stormwater/drainage regulation – N/A (other committee)

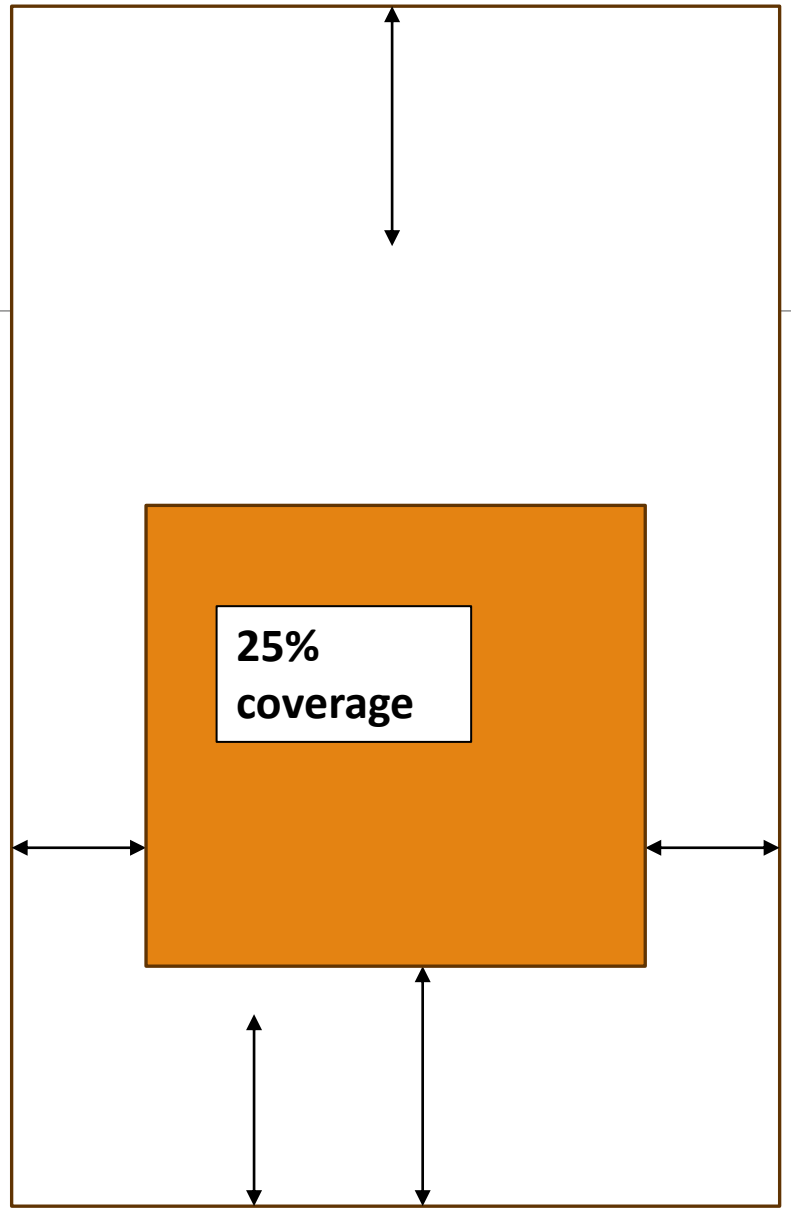
4.2.3 Table of Regulations for Rural Residence-Conservation, Single Residence A, Single Residence B, and General Residence Districts, for Buildings and Structures Created Through New Construction on any Lot

Except as otherwise provided in Section 4.2.4 for public, semi-public and institutional uses, no building or structure created through New Construction shall be constructed, altered, or relocated on any lot except in conformance with these regulations:

District	Min. Lot Area (sf)	Min. Frontage (ft)	Front Setback (ft)	Side Setback (ft)	Rear Setback (ft)	Max. Floor Area Ratio (F.A.R.)	Max. % Lot Coverage	Max. Stories	Max. Height (ft)
Rural Residence Conser-vation	43,560	150	50	25	25	NR	15%	2-1/2	35
Single Residence A	43,560	150	30	25	15	NR	NR	2-1/2	35
Single Residence B	10,000	80	20 (h)(i)	14 (a)(j)	20	.36-.38 (g)	25%-30% (b)	2-1/2	35 (e)(f)
General Residence	10,000	80	20 (h)(i)	14 (a)(j)	20	NR	30%-35% (c)	2-1/2	35 (e)(f)

Setbacks

- **Side setbacks:** limited appetite to change
- **Front setbacks:** some interest, although may be ameliorated by either A) reduction in height or B) some design changes
- **Back setbacks:** desire for bigger backyards, but no specific ideas



Height limit

- **Height limit:** Clear interest in reducing height limit from 35’. To 33’ would have little functional impact on house. To 32’/31’ begins to create some functional/design changes. Below that begins to prevent habitable third floor spaces.
- **Designs:** Interest in preventing the full third floor on side of house. Some interest in gables/dormers? to reduce size perception of house
- **Lot height changing/retaining walls:** interest in more regulation of manipulation of land to create taller house. However, can be addressed apart from dimensional regulations

Potential proposal:

- Height limit reduced to 32’ 6”

- Half stories must have sloping roof on sides

Max Height	Acceptance
33.0’	
32.5’	
32.0’	
31.5’	
31.0’	

Lot coverage

- Some interest in reducing lot coverage given review of smaller lots. Some could not believe that those houses were in 25-30% range.
- Could be interest in reducing limits, but will need to examine some houses on medium and larger lots.
- No specific numbers put out for a reduction.

Potential proposal:

- Lot coverage reduced by 1-3% for all lots

Floor Area Ratio

- Apparent agreement on counting 3rd floor space
- Divided on whether to count basement. Could be a moot point regardless as “shape” of FAR limit is likely to be redone.
- Question: best way to count FAR?
  - Interior space of 5’ or greater is done in several towns. Confirmed to be able to achieve goal.
  - Finished/conditioned space are possible.
- The main question: where is the limit going to be?

Potential proposal:

- 3rd floor space with interior ceiling height of 5’ or greater now counts towards FAR. Garage space also counts towards FAR.

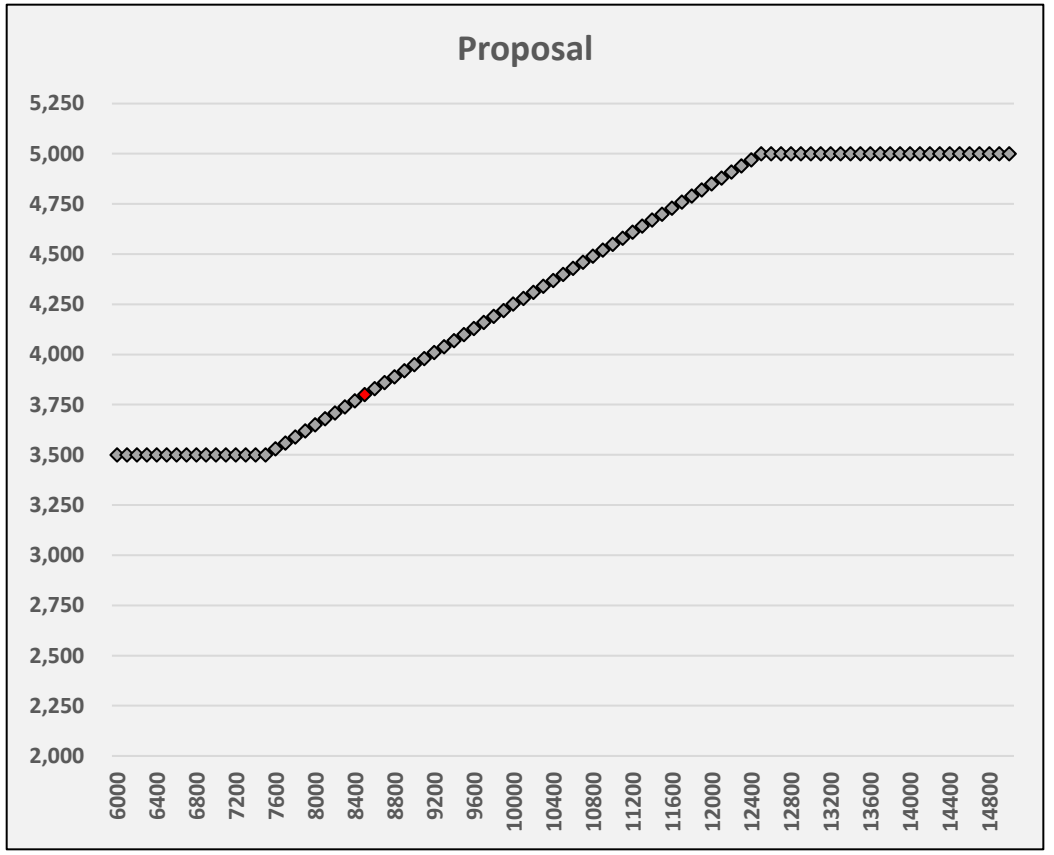
- As of right FAR limits changed to allow houses which are smaller than currently allowed

- FAR limits changed to create less of a discrepancy between houses on lot sizes

- Consider minimum/maximum FAR limit for SRB regardless of lot size.

Floor Area Ratio (shape)

- Example new curve. Includes minimum allowance at low end of lots and maximum allowance at higher end.
- More parity between smaller and larger lots.
- Highly dependent on what is included in FAR.



Example with numbers to change based on meetings

Summary of potential proposals

Proposal

- 3rd floor space with interior ceiling height of 5’ or greater and garages count towards FAR
- FAR limits changed to allow only houses which are smaller than current restrictions
- FAR limits changed to create less of a discrepancy between houses on lot sizes
- Lot coverage limit set to 22-28% based on lot size
- Height limit reduced to 32’ 6”
- Half stories must have sloping roof on sides
- Setbacks unchanged, or perhaps front setbacks increased slightly for 100% new construction

Ideas from Wellesley

- The group's current approach is to have firm as-of-right limits for all lots. Wellesley introduces potential for other option – soft limits coupled with more permissive limits under a review process.
  - In any case – working group did not favor the tiered approach of Wellesley's limits - dimensional regulations like FAR should be tied to square footage of lot.
- Wellesley approach would certainly be time intensive, requiring hiring of additional staff and/or the establishment of an appointed/elected entity to evaluate new construction.
- A process for evaluation would have to be created. Wellesley offers a blueprint, but there has not yet been a discussion on whether that was seen as desirable for Needham.
- Wellesley offers a useful example given relative similarity in lot sizes, strong property values, and limited controversy over process. The obvious downside is the increased complexity and need for additional staff and/or volunteers.

Tentative Schedule for Large House Review Committee

April 7 – LHR mtg

April 15 – LHR Report to Planning Board

May 21 – LHR mtg

June 2 – first Community meeting (listening meeting; presenting what we have learned so far; presenting concept of measuring FAR by measuring everything above ground; presenting different strategies for measuring FAR; presenting regulatory options including imposing a fixed FAR as is Needham's current practice vs. the Wellesley approach which incorporates a Large House Review option; other issues Committee members wish to have addressed)

June 9 – added LHR mtg (community meeting regroup; agree on definition and regulatory approach)

June 23 – LHR - extra meeting if needed

July 7 – LHR mtg

July 21 - LHR - extra meeting if needed

August 4 – LHR mtg

August 18 – LHR mtg *(alex not present)*

September 8 – second community meeting (presentation of recommendation – definition, FAR, showing volumes etc, fiscal impacts, any process)

September 15 – LHR meeting

September 16 - LHR to Planning Board

October 6 – LHR meeting

October 27 – LHR meeting

November 3 - third community meeting (final presentation of proposal, fiscal impacts, etc)

Nov. 10 / 12 – LHR meeting

November 18 – Planning Board meeting – present to PB final recommendation

Tentative Schedule for Zoning article - Annual Town Meeting 2026

****All Board meeting dates are estimates**

Tuesday December 16, 2025 – Planning Board to finalize language to include in legal notice

Vote to send language to Select Board

Tuesday December 23, 2025 – Select Board refer back zoning article to Planning Board *(not sure if this will be SB meeting date)*

Friday January 2, 2026 – Send legal notice to the newspaper

Thursday January 8, 2026 – Post notice with Town Clerk, first run in newspaper

Thursday January 15, 2026 – second run in paper

Tuesday January 27, 2026 – Planning Board Hearing (first) *(not PB normal meeting date)*

Tuesday February 10, 2026 – Planning Board Hearing (second) *(not PB normal meeting date)*

Tuesday February 25, 2026 – Planning Board Hearing (third) *(not PB normal meeting date – avoiding school vacation week)*

Tuesday March 3, 2026 – Planning Board meeting, finalize language for warrant

Wednesday March 18, 2026 – final language for warrant to Myles.

Monday May 4, 2026 – Annual Town Meeting date

Tentative Schedule for Zoning – May Special Town Meeting

Tuesday January 20, 2026 - Finalize language for legal notice

Planning Board to finalize language to include in legal notice

Vote to send language to Select Board

Tuesday, January 27, 2026 – Select Board refer back zoning article to Planning Board

Friday January 30, 2026 – Send legal notice to the newspaper

Thursday February 5, 2026 – Post notice with Town Clerk, first run in newspaper

Thursday February 12, 2026 – second run in paper

Tuesday February 24, 2026 – Planning Board Hearing date – first *(not PB normal meeting date)*

Tuesday March 10, 2026 – Planning Board Hearing date – second *(not PB normal meeting date)*

Tuesday March 24, 2026 – Planning Board Hearing date – third *(not PB normal meeting date)*

Tuesday March 31, 2026 – finalize language at Planning Board meeting *(not PB normal meeting date – just one week later)*

Wednesday April 8, 2026 (or earlier) – final language for warrant to Myles.

Monday May 11, 2026 – Special Town Meeting date