

APPLICATION FOR BUILDING PERMIT

The Village of Irvington | 85 Main St | Irvington NY 10533

Application Number:	668	Date:	04/26/2023
Job Location:	1 SHADY LN	Parcel ID:	2.90-51-14
Property Owner:	Stacy Ciaravella and Neil Maher	Property Class:	1 FAMILY RES
Occupancy:	One/ Two Family	Zoning:	
Common Name:			

Applicant	Contractor
John Malone	
Ferguson Malone Architecture	
One Bridge Street Suite 29 Irvington NY 10533	
9145643166	

Description of Work

Type of Work:	New Construction	Applicant is:	Architect
Work Requested by:	The Owner	In association with:	
Cost of Work (Est.):	150000.00	Property Class:	1 FAMILY RES

Description of Work

The proposed project includes the demolition of an existing one story accessory building and proposing to build a new 1 1/2 story structure on the existing foot print, including associated hardscape.

Please Note: Completing the application does not constitute a permit to commence construction. To obtain your permit follow the instructions on the instruction page provided on page 3.

Job Location: 1 SHADY LN

Parcel Id: 2.90-51-14

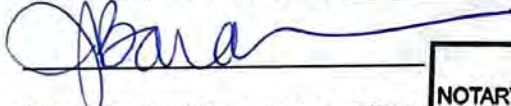
AFFIDAVIT OF APPLICANT

I **John Malone** being duly sworn, depose and says: That s/he does business as: **Ferguson Malone Architecture** with offices at: **One Bridge Street Suite 29 Irvington NY 10533** and that s/he is:

- ☐ The owner of the property described herein.
- ☐ The _____ of the New York Corporation _____ with offices at: _____ duly authorized by resolution of the Board of Directors, and that said corporation is duly authorized by the owner to make this application.
- ☐ A general partner of _____ with offices _____ and that said Partnership is duly authorized by the Owner to make this application.
- ☐ The Lessee of the premises, duly authorized by the owner to make this application.
- ☒ The Architect of Engineer duly authorized by the owner to make this application.
- ☐ The contractor authorized by the owner to make this application.

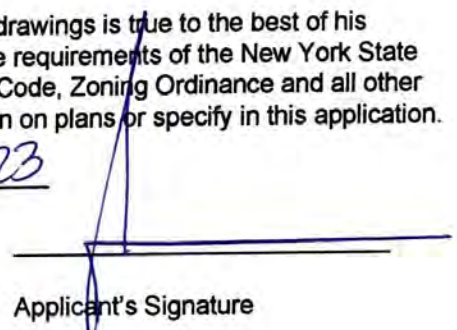
That the information contained in this application and on the accompanying drawings is true to the best of his knowledge and belief. The undersigned hereby agrees to comply with all the requirements of the New York State Uniform Fire Prevention and Building Code, the Village of Irvington Building Code, Zoning Ordinance and all other laws pertaining to same, in the construction applied for, whether or not shown on plans or specify in this application.

Sworn to before me this 27th day of APRIL of 2023



Notary Public / Commission of Deeds

Jessica Emilia Baran
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01BA6355917
Qualified in Westchester County
Commission Expires March 20, 2025


Applicant's Signature

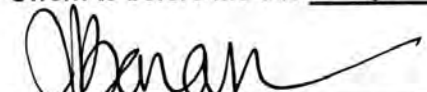
OWNER'S AUTHORIZATION

I **Stacey Ciaravella and Neil Maher** as the owner of the subject premises and have authorized the contractor named above to perform the work under the subject application.

Owner phone number 646-325-3704 Owner email address maher@njit.edu

- ☒ Neil Maher I hereby acknowledge that it is my responsibility as the **property owner** to ensure that if the permit (if issued) receives a Final Certificate of Approval from the Building Department and further that if a Final Certificate of Approval is not obtained upon completion of the construction, a property violation may be placed on the property for which this permit is being requested.

Sworn to before me this 28th day of APRIL of 2023


Notary Public / Commission of Deeds


Applicant's Signature

INSTRUCTIONS

REQUIREMENTS FOR OBTAINING A PERMIT:

The following items must be submitted in order to obtain a Building Permit:

1. One (1) Building Permit application signed by the owner or a notarized Agent Letter.
2. One (1) property survey (signed and sealed), reflecting existing conditions.
3. Two (2) sets of construction drawings and specifications, including existing and proposed conditions, state design criteria, structural and architectural details, plans, and cross sections, mechanical, electrical, and plumbing drawings (signed and sealed by a licensed professional).
4. One USB with all plans (with Licensed Professionals certification/stamp) and specifications in PDF (file size must be less than 25MB).
5. Copy of approved site plan from the Irvington Planning Board when applicable (required on all increases of FAR, footprint, coverage, driveways and increases of cubic content under a roof).
6. Approval by the Architectural Review Board (ARB) when applicable. An additional five (5) sets of construction drawings and specifications (please see ARB requirements (available on the village web site www.irvingtonny.gov) prior to submission).
7. Visit the Village of Irvington website www.irvingtonny.gov for additional check list for solar panels, generators, underground propane tanks, signs and awnings(found in forms and documents in the Building & Planning General Information folder).
8. Village Zoning Code is available on the Village website: www.irvingtonny.gov.
9. Provide evidence that the application meets the NYS Energy code as described by www.dos.state.ny.us/code/energycode/overview.htm

Contractor Requirements in order to obtain a Building Permit:

10. Contractor's Certificate of Liability listing the Village of Irvington as the Certificate Holder with no disclaimer in the description other than certificate holder is named additional insured (any additional comments will not be accepted).
11. Contractor's Workers Compensation C-105 form (or equivalent) listing the Village of Irvington as Certificate Holder.
12. Copy of Contractor's Westchester County Home Improvement License.
13. All information above uploaded into permit application with the contractor's contact information, including mailing address, phone number, and email address.
14. Contractor's signature on Affidavit of Contractor (required prior to issuance of the permit).

Please Note:

-State Law requires that the contractor submits a copy of Workman's Compensation as required by the New York State Disability Insurance naming the Department of Buildings, Village of Irvington as certificate holder and showing coverage for general contracting and the locations covered by such insurance. If structure is to be demolished a copy of Liability Insurance must also be submitted.

- Please be advised under State and Municipal Laws, the Workman's Compensation and Disability benefits insurance must be submitted on separate state approved forms. The "Acord Form" is no longer acceptable as proof of Workman's Compensation coverage. Further information or questions may be answered by calling the NYS Bureau of Compliance at (518) 486-6307 or by visiting their website or by contacting your insurance provider.

FEES ASSOCIATED WITH BUILDING PERMIT APPLICATION (All fees must be paid at time of application):

Fee schedule

Building Permit (Non-Refundable)

* Application fee \$85

* Permit fee \$17 per thousand dollars (\$1000) of estimated cost of construction, or fraction thereof

85
2,550

• Inspection Fees (as applicable)

• Insulation: \$50

• Solid Fuel: \$50

• Foundation and footing drain: \$50

• Energy Code Compliance: \$50

• Sediment and erosion control: \$50

• Footing: \$50

• Preparation for concrete slabs and walls: \$50

• Footing: \$50

• Preparation for concrete slabs and walls: \$50

• Framing: \$50

• Building systems, including underground and rough-in: \$50

• Fire resistant construction and penetrations: \$50

• Final Inspection for C.O.: \$50

• State and local laws (per re-inspection): \$50

Total Inspections 500

* Certificate of Occupancy Fees: One dollar (\$1.00) per thousand dollars of estimated cost. Minimum Fee \$25.00

* Permit Revisions or Amendment: \$50.00 (plus \$17 per thousand (\$1000), of the estimated cost of construction and any additional inspections fees).

150

* Re-inspection fee for work not ready at time of inspection or not in compliance: \$50

* Applications for Undocumented Work/ Legalizing: Applications to legalize work done prior to applying for and receiving a building permit shall pay double all applicable fees and inspections, including the cost of construction based on the cost of all proposed work being legalized at the time of application. Minimum fee \$500.00.

(To be collected at time of submission of application) **Total** \$3,285

(Note: pursuant to 224-54A all permits are valid for one (1) year from date on permit
Any permit that expires will be subject to additional fees.)



Belgium Handmade Thin Brick

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Product Information:

Brand: Glen-Gery

Type: Thin Brick

Color: Red

Style: Handmade

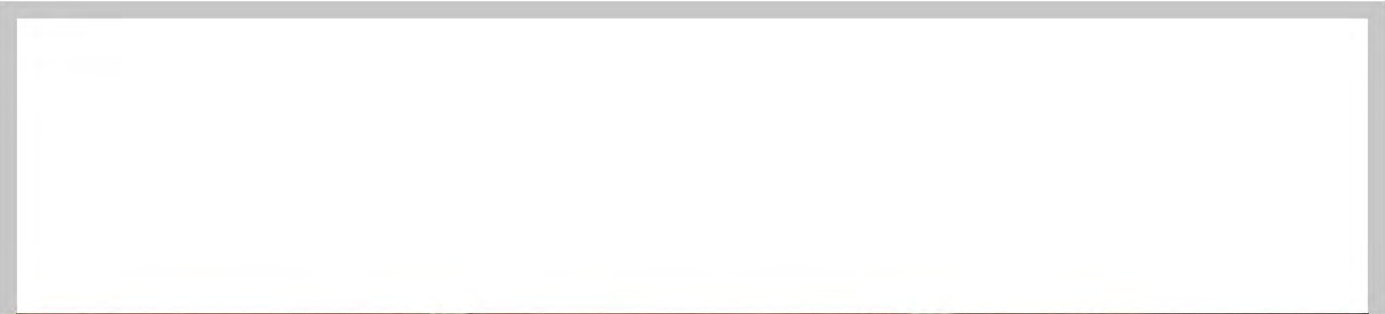
Plant: Mid-Atlantic

Series: Craftsman Handmade Series

Sizes	Technical Information	Mortar Colors
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General Availability	T	H	L		Brick per sq ft
Oversize Thin Brick	1	2-3/4	8-1/2	in.	5.20

You May Also Like



Calen Flushmount
By Alder & Ore

Calen Flushmount
By Alder & Ore

Product Options

Finish: Matte Black

Dimensions

Canopy: Diameter 6.25"
Fixture: Height 6.9", Diameter 10", Weight 2Lbs

Lighting

Lamp Type	LED
Total Lumens	650.0
# of Bulbs	1 (Not Included)
Bulb Type	7W ST18 E26
Volts	120
Color Temp	2100 (Warm)
Average Lifespan (Hours)	15,000
CRI	80
Equivalent Halogen, CFL or LED Bulb Can Be Used	Yes



Notes:

Prepared
by:

Prepared for:
Project:
Room:
Placement:
Approval:

Additional Details

Product URL:
[https://www.lumens.com/calen-flushmount-by-alder-an
d-ore-INV2223006.html](https://www.lumens.com/calen-flushmount-by-alder-and-ore-INV2223006.html)
Rating: UL Listed Damp

ITEM#: INV2223006



A classic look that stands the test of time.

Hardie® Plank

From Victorians to Colonials, Hardie® Plank is the perfect siding for your style, and has the durability and long-lasting beauty that can transform your home exterior. With endless gorgeous color and plank pairings available, you'll discover a Hardie® Plank style that transforms your home's aesthetic.



Hardie® Plank



Select Cedarmill®



Smooth



Beaded Select Cedarmill®

Select Cedarmill® & Smooth			Thickness 5/16 in		Length 12 ft planks	
Width	5.25 in	6.25 in	7.25 in	8.25 in	9.25 in*	12 in*
Exposure	4 in	5 in	6 in	7 in	8 in	10.75 in
Prime Pcs/Pallet	360	308	252	230	190	152
ColorPlus® Pcs/Pallet	324	280	252	210	—	—
Pcs/Sq.	25.0	20.0	16.7	14.3	12.5	9.3

Select Cedarmill®		5.25 in	6.25 in	7.25 in	8.25 in	9.25 in*	12 in*
Statement Collection™			•		•		
Dream Collection™		•	•	•	•		
Prime		•	•	•	•	•	•

Smooth		5.25 in	6.25 in	7.25 in	8.25 in	9.25 in*	12 in*
Statement Collection™			•		•		
Dream Collection™		•	•	•	•		
Prime		•	•	•	•	•	•

Beaded Select Cedarmill®

Width	8.25 in
Exposure	7 in
ColorPlus® Pcs/Pallet	210
Pcs/Sq.	14.3
Statement Collection™	
Dream Collection™	•
Prime	

*9.25 in and 12 in widths do not feature the drip edge

MODELS ECO-10 • ECO-20 • UCO-10 • UCO-20

SINGLE & DOUBLE DEFLECTION SUPPLY REGISTERS

3/4" SPACING

				Vel Press. P _v	.01				.01				.02				.02				.03				.04				.05				.06				
Grille Size		Minimum Duct Diameter Required	Grille Core Area ft ²	Core Velocity	300				400				500				600				700				800				900				1000				
Nom Width W	Nom Height H			P _s	0°	.02				.03				.05				.07				.09				.12				.15				.19			
					22.5°	.02				.04				.06				.09				.12				.15				.19				.24			
				45°	.03				.05				.07				.11				.15				.19				.24				.30				
12	3	5" □	.18	CFM	50				70				90				110				130				150				160				180				
				NC	<20				<20				<20				<20				21				25				28				31				
				Throw	0°	4	5	10	5	7	12	6	9	13	7	11	15	8	11	16	10	12	17	10	13	18	11	13	19								
					22.5°	3	4	7	4	5	9	5	7	10	5	8	11	6	8	12	7	9	12	7	9	13	8	10	14								
45°	2	3	5		3	4	7	3	5	7	4	6	8	5	6	9	5	7	9	5	7	10	6	7	10												
12	4	6" □	.26	CFM	80				100				130				160				180				210				230				260				
				NC	<20				<20				<20				<20				23				26				30				33				
				Throw	0°	4	6	13	6	8	14	7	11	16	9	13	18	10	13	19	12	14	20	12	15	21	13	16	22								
					22.5°	3	5	9	4	6	10	5	8	12	7	9	13	7	10	14	9	10	15	9	11	15	9	12	16								
45°	2	3	7		3	5	8	4	6	9	5	7	10	5	7	10	7	8	11	7	8	12	7	9	12												
18	3	5" □	.28	CFM	80				110				140				170				190				220				250				280				
				NC	<20				<20				<20				<20				23				27				30				33				
				Throw	0°	4	6	13	6	9	15	8	11	16	9	13	18	11	13	19	12	15	20	13	15	22	13	16	23								
					22.5°	3	5	9	4	7	11	6	8	12	7	9	13	8	10	14	9	11	15	9	11	16	10	12	17								
45°	2	3	7		3	5	8	4	6	9	5	7	10	6	7	10	7	8	11	7	8	12	7	9	13												
10	6	8" □	.34	CFM	100				140				170				210				240				270				310				340				
				NC	<20				<20				<20				<20				24				28				31				34				
				Throw	0°	5	7	14	7	10	16	8	13	18	10	14	20	11	15	22	13	16	23	14	18	25	15	18	26								
					22.5°	4	5	10	5	7	12	6	9	13	7	10	15	8	11	16	10	12	17	10	13	18	11	13	19								
45°	3	4	8		4	5	9	5	7	10	5	8	11	6	8	12	7	9	13	8	10	13	8	10	14												
24	3	5" □	.37	CFM	110				150				190				220				260				300				340				370				
				NC	<20				<20				<20				20				24				28				31				34				
				Throw	0°	5	8	15	7	11	17	9	13	19	10	15	20	12	16	22	14	17	24	15	18	26	15	19	27								
					22.5°	4	6	11	5	8	12	7	10	14	7	11	15	9	12	16	10	12	17	11	13	19	11	14	19								
45°	3	4	8		4	6	9	5	7	10	5	8	11	7	9	12	8	9	13	8	10	14	8	10	15												
18	4	6" □	.40	CFM	120				160				200				240				280				320				360				400				
				NC	<20				<20				<20				20				24				28				32				35				
				Throw	0°	6	8	15	7	11	18	9	13	20	11	15	22	13	16	23	14	18	25	15	19	27	16	20	28								
					22.5°	4	6	11	5	8	13	7	10	14	8	11	16	9	12	17	10	13	18	11	14	19	12	14	20								
45°	3	4	8		4	6	10	5	7	11	6	8	12	7	9	13	8	10	13	8	10	15	9	11	15												
10	8	12" □	.47	CFM	140				190				240				280				330				380				430				470				
				NC	<20				<20				<20				21				25				29				32				35				
				Throw	0°	6	8	16	8	12	19	10	15	22	11	16	23	13	18	25	15	19	27	17	20	29	18	21	30								
					22.5°	4	6	12	6	9	14	7	11	16	8	12	17	10	13	18	11	14	20	12	15	21	13	15	22								
45°	3	5	9		4	7	10	5	8	12	6	9	13	7	10	14	8	10	15	9	11	16	10	12	17												
14	6	8" □	.49	CFM	150				200				250				290				340				390				440				490				
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				Throw	0°	6	9	17	8	12	20	10	15	22	12	17	24	14	18	26	15	20	27	17	20	29	18	22	31								
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45°	3	5	9		4	7	11	5	8	12	7	9	13	8	10	14	8	11	15	9	11	16	10	12	17												
24	4	6" □	.54	CFM	160				210				270				320				380				430				480				540				
				NC	<20				<20				<20				21				26				29				33				36				
				Throw	0°	6	9	18	8	12	20	11	15	23	13	18	25	15	19	27	17	20	29	18	22	30	19	23	32								
					22.5°	5	7	13	6	9	15	8	11	17	9	13	18	11	14	20	12	15	21	13	16	22	14	17	23								
45°	3	5	10		5	7	11	6	8	13	7	10	13	8	10	15	9	11	16	10	12	17	10	13	18												
36	3	5" □	.57	CFM	170				230				280				340				400				450				510				570				
				NC	<20				<20				<20				21				26				30				33				36				
				Throw	0°	6	10	18	8	13	21	11	15	23	13	18	26	15	20	28	17	21	29	18	22	32	19	23	33								
					22.5°	5	7	13	6	9	15	8	11	17	9	13	19	11	14	20	12	15	21	13	16	23	14	17	24								
45°	3	5	10		5	7	12	6	8	13	7	10	14	8	11	15	9	12	16	10	12	17	10	13	18												
18	6	8" □	.64	CFM	190				260				320				380				450				510				570				640				
				NC	<20				<20				<20				22				26				30				34				37				
				Throw	0°	7	10	19	9	14	22	11	17	25	13	19	27	16	21	29	18	22	32	19	23	33	20	25	35								
					22.5°	5	7	14	7	10	16	8	12	18	10	14	20	12	15	21	13	16	23	14	17	24	15	18	25								
45°	4	5	10		5	8	12	6	9	13	7	10	15	9	12	16	10	12	17	10	13	18	11	13	19												

SEE PAGE A-19 FOR PERFORMANCE DATA NOTES



MODELS ECO-10 • ECO-20 • UCO-10 • UCO-20

SINGLE & DOUBLE DEFLECTION SUPPLY REGISTERS

3/4" SPACING

					Vel Press, Pv		.01		.01		.02		.02		.03		.04		.05		.06									
Grille Size		Minimum Duct Diameter Required	Grille Core Area ft ²	Core Velocity		300		400		500		600		700		800		900		1000										
Nom Width W	Nom Height H			P ₀	0°		.02		.03		.05		.07		.09		.12		.15		.19									
					22.5°		.02		.04		.06		.09		.12		.15		.19		.24									
					45°		.03		.05		.07		.11		.15		.19		.24		.30									
14	8	12" x 12"	.68	CFM		200		270		340		410		470		540		610		680										
				NC		<20		<20		<20		22		27		31		34		37										
				Throw	0°		7	11	20	9	14	23	12	18	26	14	20	28	16	21	30	18	23	32	20	25	34	21	26	36
					22.5°		5	8	14	7	10	17	9	13	19	10	14	20	12	15	22	13	17	23	14	18	25	15	19	26
					45°		4	6	11	5	8	13	7	10	14	8	11	15	9	12	17	10	13	18	11	13	19	12	14	20
12	10	14" x 14"	.73	CFM		220		290		370		440		510		590		660		730										
				NC		<20		<20		<20		23		27		31		34		37										
				Throw	0°		7	11	20	10	14	24	12	18	27	15	20	29	17	22	32	20	24	34	20	25	36	22	27	37
					22.5°		5	8	15	7	10	17	9	13	19	11	15	21	12	16	23	14	17	24	15	18	26	16	19	27
					45°		4	6	11	5	8	13	7	10	15	8	11	16	9	12	17	11	13	18	11	14	20	12	15	20
36	4	6" x 6"	.81	CFM		240		320		410		490		570		650		730		810										
				NC		<20		<20		<20		23		27		31		35		38										
				Throw	0°		8	11	22	10	15	25	13	19	28	15	22	31	18	23	33	20	25	35	22	27	37	23	28	39
					22.5°		6	8	16	7	11	18	9	14	20	11	16	22	13	17	24	15	18	25	16	19	27	17	20	28
					45°		4	6	12	5	8	13	7	10	15	8	12	17	10	13	18	11	14	19	12	15	20	13	15	22
24	6	8" x 8"	.86	CFM		260		340		430		520		600		690		770		860										
				NC		<20		<20		<20		23		28		32		35		38										
				Throw	0°		8	12	22	11	15	26	13	20	29	16	22	32	18	24	34	21	26	36	22	27	39	24	29	41
					22.5°		6	9	16	8	11	19	10	14	21	12	16	23	13	17	24	15	19	26	16	20	28	17	21	29
					45°		4	7	12	6	8	14	7	11	16	9	12	17	10	13	18	12	14	20	12	15	21	13	16	22
18	8	12" x 12"	.88	CFM		260		350		440		530		620		700		790		880										
				NC		<20		<20		<20		23		28		32		35		38										
				Throw	0°		8	12	22	11	16	26	13	20	29	16	22	32	19	25	34	21	26	36	22	27	39	24	29	41
					22.5°		6	9	16	8	12	19	10	14	21	12	16	23	14	18	25	15	19	26	16	20	28	17	21	30
					45°		4	7	12	6	9	14	7	11	16	9	12	18	10	13	19	12	14	20	12	15	22	13	16	23
12	12	18" x 18"	.89	CFM		270		360		440		530		620		710		800		890										
				NC		<20		<20		<20		23		28		32		35		38										
				Throw	0°		8	12	23	11	16	27	13	20	29	16	22	32	19	25	34	21	26	37	22	28	39	24	29	41
					22.5°		6	9	17	8	12	19	10	14	21	12	16	23	14	18	25	15	19	27	16	20	28	17	21	30
					45°		5	7	13	6	9	15	7	11	16	9	12	18	10	13	19	12	14	20	12	15	22	13	16	23
18	10	14" x 14"	1.12	CFM		340		450		560		670		780		900		1010		1120										
				NC		<20		<20		<20		24		29		33		36		39										
				Throw	0°		9	13	26	12	18	29	15	22	33	18	25	36	21	27	39	24	29	41	25	31	44	27	33	46
					22.5°		7	10	19	9	13	21	11	16	24	13	18	26	15	20	28	17	21	30	18	22	32	19	24	33
					45°		5	7	14	7	10	16	8	12	18	10	14	20	12	15	21	13	16	23	14	17	24	15	18	25
24	8	12" x 12"	1.18	CFM		360		470		590		710		830		950		1070		1180										
				NC		<20		<20		<20		25		29		33		36		39										
				Throw	0°		9	14	27	12	18	30	15	23	34	18	26	37	22	28	40	25	30	43	26	32	46	27	34	48
					22.5°		7	10	19	9	13	22	11	17	24	13	19	27	18	20	29	18	22	31	19	23	33	20	24	34
					45°		5	8	15	7	10	17	8	13	18	10	14	20	12	15	22	13	17	23	14	18	25	15	18	26
36	6	8" x 8"	1.30	CFM		390		520		650		780		910		1040		1170		1300										
				NC		<20		<20		20		25		29		33		37		40										
				Throw	0°		10	15	27	13	20	32	16	24	35	20	27	39	22	29	42	26	32	45	27	34	48	29	35	50
					22.5°		7	11	20	9	14	23	12	17	25	14	20	28	16	21	30	19	23	32	20	24	34	21	25	36
					45°		5	8	15	7	11	17	9	13	19	11	15	21	12	16	23	14	17	25	15	18	26	16	19	27
18	12	18" x 18"	1.36	CFM		410		540		680		820		950		1090		1220		1360										
				NC		<20		<20		20		25		30		34		37		40										
				Throw	0°		10	15	28	13	20	32	16	25	36	20	28	40	23	30	43	27	32	46	28	34	48	29	36	51
					22.5°		7	11	20	10	14	23	12	18	26	14	20	29	17	22	31	19	23	33	20	25	35	21	26	37
					45°		5	8	15	7	11	18	9	13	20	11	15	22	13	17	23	15	18	25	15	19	27	16	20	28
24	10	14" x 14"	1.51	CFM		450		600		750		900		1050		1210		1360		1510										
				NC		<20		<20		20		26		30		34		37		40										
				Throw	0°		11	15	29	14	21	34	18	26	38	21	29	41	25	32	45	28	34	48	29	36	51	31	38	54
					22.5°		8	11	21	10	15	24	13	19	27	15	21	30	18	23	32	20	25	35	21	26	37	22	27	39
					45°		6	8	16	8	12	18	10	14	21	12	16	23	13	18	25	15	19	27	16	20	28	17	21	30

MODELS ECO-10 • ECO-20 • UCO-10 • UCO-20

SINGLE & DOUBLE DEFLECTION SUPPLY REGISTERS

3/4" SPACING

				Vel Press, P _v	.01		.01		.02		.02		.03		.04		.05		.06										
Grille Size		Minimum Duct Diameter Required	Grille Core Area ft ²	Core Velocity	300		400		500		600		700		800		900		1000										
Nom Width W	Nom Height H			P _s	0°	.02		.03		.05		.07		.09		.12		.15		.19									
					22.5°	.02		.04		.06		.09		.12		.15		.19		.24									
				45°	.03		.05		.07		.11		.15		.19		.24		.30										
36	18	26" ^{dia}	4.25	CFM	1270		1700		2120		2550		2970		3400		3820		4250										
				NC	<20		<20		25		30		35		38		42		45										
				Throw	0°	18	26	50	23	35	57	29	43	64	35	50	70	41	53	76	46	57	81	50	61	85	53	64	90
					22.5°	13	19	36	17	25	41	21	31	46	25	36	50	29	38	54	33	41	58	36	44	61	38	46	65
					45°	10	14	27	13	19	32	16	24	35	19	27	39	22	29	42	25	32	44	27	33	47	29	35	50
24	12	18" ^{dia}	1.83	CFM	550		730		920		1100		1280		1470		1650		1830										
				NC	<20		<20		21		27		31		35		38		41										
				Throw	0°	11	18	32	15	23	37	19	29	42	23	32	46	27	35	50	31	38	53	32	40	56	34	42	60
					22.5°	8	13	23	11	17	27	14	21	30	17	23	33	19	25	36	22	27	38	23	29	40	25	30	43
					45°	6	10	18	8	13	20	10	16	23	13	18	25	15	19	27	17	21	29	18	22	31	19	23	33
36	10	14" ^{dia}	2.28	CFM	690		910		1140		1370		1600		1830		2060		2280										
				NC	<20		<20		22		27		32		36		39		42										
				Throw	0°	13	20	36	17	25	42	21	32	47	26	36	51	30	39	55	34	42	60	36	45	63	39	47	67
					22.5°	9	14	26	12	18	30	15	23	34	19	26	37	22	28	40	25	30	43	26	32	45	28	34	48
					45°	7	11	20	9	14	23	12	18	26	14	20	28	17	22	30	19	23	33	20	25	36	21	26	37
36	12	18" ^{dia}	2.77	CFM	830		1110		1390		1680		1940		2220		2500		2770										
				NC	<20		<20		23		28		33		37		40		43										
				Throw	0°	14	21	40	19	28	46	24	35	52	28	40	57	33	43	61	38	46	65	40	49	69	42	52	73
					22.5°	10	15	29	14	20	33	17	25	37	20	29	41	24	31	44	27	33	47	29	35	50	30	37	52
					45°	8	12	22	10	15	25	13	19	28	16	22	31	18	24	33	21	25	36	22	27	38	23	28	40
12	14	20" ^{dia}	1.05	CFM	310		420		520		630		730		840		940		1050										
				NC	<20		<20		<20		24		29		32		36		39										
				Throw	0°	8	13	25	12	18	29	14	22	32	18	25	35	20	27	37	23	29	40	25	30	43	26	32	45
					22.5°	6	9	18	9	13	21	10	16	23	13	18	25	15	19	27	17	21	29	18	22	31	19	23	32
					45°	5	7	13	7	10	16	8	12	17	10	13	19	11	15	20	13	16	22	13	17	23	14	17	25
18	14	20" ^{dia}	1.60	CFM	480		640		800		960		1120		1280		1440		1600										
				NC	<20		<20		21		26		30		34		38		41										
				Throw	0°	11	16	30	14	22	35	18	27	39	22	30	43	25	33	46	29	35	50	30	37	53	32	39	55
					22.5°	8	12	22	10	16	25	13	19	28	16	22	31	18	24	33	21	25	36	22	27	38	23	28	40
					45°	6	9	17	8	12	19	10	15	22	12	17	23	14	18	25	16	19	27	17	20	29	18	22	30
24	14	20" ^{dia}	2.16	CFM	650		860		1080		1290		1510		1720		1940		2160										
				NC	<20		<20		22		27		32		36		39		42										
				Throw	0°	13	19	35	17	25	41	21	31	46	25	35	50	29	38	54	33	41	57	35	43	61	37	46	64
					22.5°	9	14	25	12	18	29	15	22	33	18	25	36	21	27	39	24	29	41	25	31	44	27	33	46
					45°	7	10	19	9	13	22	12	17	25	13	19	27	16	21	30	18	22	32	19	24	33	20	25	35
30	14	20" ^{dia}	2.71	CFM	810		1080		1350		1630		1900		2170		2440		2710										
				NC	<20		<20		23		28		33		37		40		43										
				Throw	0°	14	21	39	18	28	46	23	35	51	28	40	56	33	43	60	37	46	64	39	48	69	42	51	72
					22.5°	10	15	28	13	20	33	17	25	37	20	29	40	24	31	43	27	33	46	28	35	49	30	37	52
					45°	8	12	22	10	15	25	13	19	28	16	22	31	18	23	33	20	25	35	22	27	38	23	28	40
36	14	20" ^{dia}	3.26	CFM	980		1310		1630		1960		2290		2610		2940		3260										
				NC	<20		<20		24		29		33		37		41		44										
				Throw	0°	16	23	43	20	31	50	25	39	56	31	43	62	36	47	67	41	50	71	43	53	75	46	56	79
					22.5°	11	17	31	15	22	36	18	28	40	22	31	44	26	34	48	29	36	51	31	38	54	33	40	57
					45°	8	13	24	11	17	28	14	21	31	17	24	34	20	26	37	22	28	39	24	29	41	25	31	44
42	14	20" ^{dia}	3.82	CFM	1150		1530		1910		2290		2670		3050		3430		3810										
				NC	<20		<20		24		30		34		38		41		44										
				Throw	0°	17	25	47	22	33	54	27	41	61	33	47	67	39	50	71	44	54	77	47	57	81	50	61	85
					22.5°	12	18	34	16	24	39	20	30	44	24	34	48	28	36	51	32	39	55	34	41	58	36	44	61
					45°	9	14	26	12	18	30	15	23	33	18	26	37	21	28	39	24	30	42	26	32	45	27	33	47
48	14	20" ^{dia}	4.37	CFM	1310		1750		2190		2620		3050		3500		3940		4370										
				NC	<20		<20		25		30		35		39		42		45										
				Throw	0°	18	27	50	24	36	58	29	44	65	35	50	71	41	54	77	47	58	82	50	62	87	53	65	92
					22.5°	13	19	36	17	26	42	21	32	47	25	36	51	30	39	55	34	42	59	36	44	62	38	47	66
					45°	10	15	28	13	20	32	16	24	36	19	28	39	23	30	42	26	32	45	28	34	48	29	36	55

SEE PAGE A-19 FOR PERFORMANCE DATA NOTES



MODELS ECO-10 • ECO-20 • UCO-10 • UCO-20

SINGLE & DOUBLE DEFLECTION SUPPLY REGISTERS

3/4" SPACING

				Vel. Press. Pv		.01		.01		.02		.02		.03		.04		.05		.06										
Grille Size		Minimum Duct Diameter Required	Grille Core Area ft ²	Core Velocity		300		400		500		600		700		800		900		1000										
Nom Width W	Nom Height H			P _s	0°		.02		.03		.05		.07		.09		.12		.15		.19									
					22.5°		.02		.04		.06		.09		.12		.15		.19		.24									
				45°		.03		.05		.07		.11		.15		.19		.24		.30										
18	16	24" ø	1.84	CFM		550		740		920		1100		1290		1470		1660		1840										
				NC		<20		<20		21		27		31		35		38		41										
				Throw	0°		11	18	32	15	23	38	19	29	42	23	32	46	27	35	50	31	38	53	33	40	57	34	42	60
					22.5°		8	13	23	11	17	27	14	21	30	17	23	33	19	25	36	22	27	38	24	29	41	25	30	43
				45°		6	10	18	8	13	21	10	16	23	13	18	25	15	19	27	17	21	29	18	22	31	19	23	33	
24	16	24" ø	2.48	CFM		740		990		1240		1490		1740		1980		2230		2480										
				NC		<20		<20		23		28		32		36		40		43										
				Throw	0°		13	20	38	18	27	43	22	34	49	27	38	53	32	41	58	36	43	62	38	46	65	40	49	69
					22.5°		10	14	27	13	19	31	16	24	35	19	27	38	23	29	42	26	31	44	27	33	47	29	35	50
				45°		7	11	21	10	15	24	12	18	27	15	21	29	17	22	32	20	24	34	21	25	36	22	27	38	
30	16	24" ø	3.12	CFM		940		1250		1560		1870		2180		2490		2810		3120										
				NC		<20		<20		24		29		33		37		41		44										
				Throw	0°		15	22	43	20	30	49	25	37	55	30	43	60	35	46	64	40	49	69	43	52	74	45	55	78
					22.5°		11	16	31	15	22	35	18	27	39	22	31	43	25	33	46	29	35	50	31	37	53	32	39	56
				45°		8	12	23	11	17	27	14	20	30	17	23	33	19	25	35	22	27	38	23	28	40	25	30	43	
36	16	24" ø	3.75	CFM		1130		1500		1880		2250		2630		3000		3380		3750										
				NC		<20		<20		24		30		34		38		41		44										
				Throw	0°		16	25	47	22	33	54	27	41	60	33	46	66	39	50	71	43	54	76	46	57	81	49	60	85
					22.5°		12	18	34	16	24	39	20	30	43	24	33	47	28	36	51	31	39	54	33	41	58	35	43	61
				45°		9	13	26	12	18	30	15	23	33	18	25	36	21	28	39	24	30	42	25	31	44	27	33	47	
42	16	24" ø	4.39	CFM		1320		1760		2200		2640		3070		3510		3950		4390										
				NC		<20		<20		25		30		35		39		42		45										
				Throw	0°		18	27	50	24	36	58	29	44	65	36	50	71	41	55	77	47	58	82	50	62	87	53	65	92
					22.5°		13	19	36	17	26	42	21	32	47	26	36	51	30	39	55	34	42	59	36	44	62	38	47	66
				45°		10	15	28	13	20	32	16	24	36	20	28	39	23	30	42	26	32	45	28	34	48	29	36	50	
48	16	24" ø	5.03	CFM		1510		2010		2520		3020		3520		4020		4530		5030										
				NC		<20		<20		26		31		36		39		43		46										
				Throw	0°		19	29	54	25	38	62	32	48	69	38	54	76	44	58	82	50	62	88	54	66	93	57	69	98
					22.5°		14	21	39	18	27	45	23	34	50	27	39	55	32	42	59	36	45	64	39	47	67	41	50	71
				45°		10	16	30	14	21	34	17	26	38	21	30	42	24	32	45	28	34	49	30	36	51	31	38	54	

Test Standard

- ANSI / ASHRAE Std 70

Sound Levels

- NC (Noise Criteria) shown is for 0° blade angle setting, no diverter / scoop damper, and is the noise criteria curve that will not be exceeded at the operating point. This is determined by assuming a 10 dB (ref: 10⁻¹² watts) room attenuation that is subtracted from the sound power levels in each of the 2nd thru 7th octave bands.

- For 22-1/2° blade angle, add + 2NC
- For 45° blade angle, add + 6 NC
- Optional Diverter / Scoop damper, add + 4 NC

Throw Distance

- The numbers shown are throw distances, in feet, measured along the jet trajectory axis relating to terminal velocities of 150, 100, & 50 fpm.
- Terminal velocity is the air speed, in feet per minute, measured in the supply air stream.
- For exposed duct applications, above data assumes a free, unattached jet (no surface effect).

Pressure

- Pv is the air velocity pressure for the grille size and CFM shown.
- Ps is Static Pressure
- Pt is Total Pressure and can be calculated as Pt = Ps + Pv
- All pressures are stated and calculated in inches of water

Calculating other Sizes

- Core Area = (Width - 11/16") x (Height - 11/16") / 144
- Find grille in table with similar core area and read across to find the Air Flow rate (CFM) desired.



GENERAL

Total pressure in a duct consists of static pressure (P_s) and velocity pressure (P_v) components. With a hole (grille) in the sidewall of a duct, it is the static pressure component that pushes the air out through the hole perpendicularly, while the velocity pressure component imparts an angular discharge:

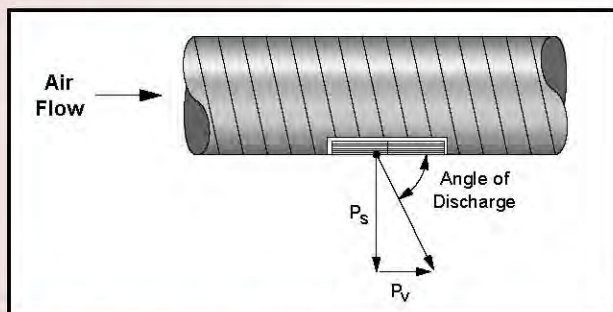


Figure A: High Static - Low Velocity

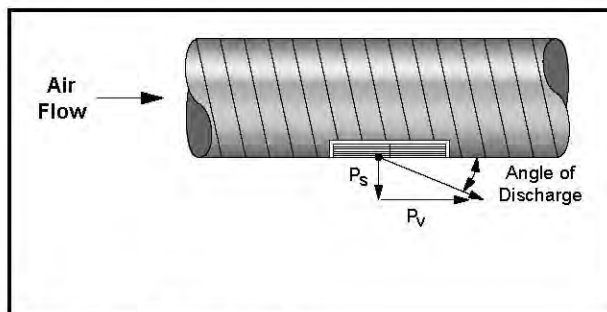


Figure B: Low Static - High Velocity

When comparing the extreme cases of high static - low velocity pressure (fig A.) vs. low static - high velocity pressure (fig B.) for analysis purposes, it becomes clear that the high static / low velocity pressure condition is preferred for the following reasons:

1. The system can be designed such that diverting dampers / extractors for turning the air can be eliminated. These devices create noise and add cost.
2. The system will be nearly self-balancing with grilles requiring equal pressure.
3. Double deflection supply grilles with rear vertical blades will effectively redirect or straighten the air stream with minimal acoustical impact. Often, one or more rear louvers can be closed to "tweak" the air quantity.

DUCT DESIGN RECOMMENDATIONS

1. Design with a duct velocity of less than 1000 fpm, keeping the diameter as large as practical.
2. Do not step the duct diameter down. Maintain a constant diameter to keep the velocity pressure low and regain the static pressure.
3. Refer to Fig C & Table 1 for guidance on minimizing grille total pressure loss. Design to stay within shaded area in Table 1.
4. With small duct diameters, staggering grilles rather than installing back to back will reduce the pressure drop for that duct run.

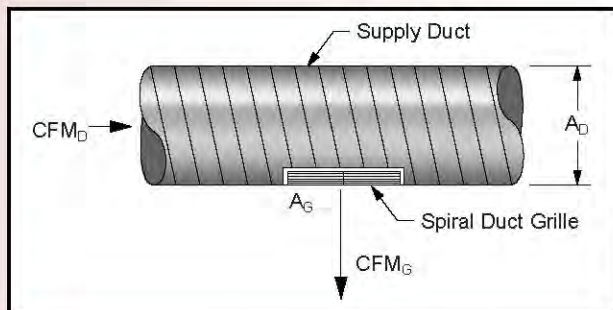


Figure C

A_G / A_D	ECO/UCO Grille Loss Coefficients (smaller is better)									
	CFM_G / CFM_D									
	.10	.20	.30	.40	.50	.60	.70	.80	.90	1.00
.10	1.9	1.1	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8
.20	5.0	1.9	1.3	1.1	1.0	1.0	1.0	0.9	0.9	0.9
.30	10.4	3.2	1.9	1.4	1.2	1.1	1.1	1.0	1.0	1.0
.40	17.8	5.0	2.7	1.9	1.5	1.3	1.2	1.1	1.1	1.0
.50	-	7.4	3.8	2.5	1.9	1.6	1.4	1.3	1.2	1.1
.60	-	10.4	5.0	3.2	2.4	1.9	1.6	1.4	1.3	1.2
.70	-	13.8	6.6	4.1	2.9	2.3	1.9	1.7	1.5	1.4
.80	-	17.8	8.3	5.0	3.5	2.7	2.2	1.9	1.7	1.6
.90	-	-	10.4	6.2	4.2	3.2	2.6	2.2	1.9	1.7
1.00	-	-	13.0	7.6	5.1	3.9	3.0	2.5	2.1	1.8

Table 1



Model **ECO20**
SPIRAL DUCT GRILLES
DOUBLE DEFLECTION
3/4" LOUVER SPACING

PRODUCT FEATURES

- Adjustable supply grille for installation into spiral duct
- Durable Arctic White finish
- 3/4" Louver Spacing
- Louvers independently adjustable
- Screws & screw holes in outer frame provided
- Frame Gasketing

CONSTRUCTION DETAILS

Material: 20 GA Cold Rolled Steel Frame (std)

- ☐ Steel
☐ Aluminum

Finish: Arctic White (std)

- ☐ Custom Colors (opt)

Front Louvers:

☐ (L) Long

☐ (S) Short

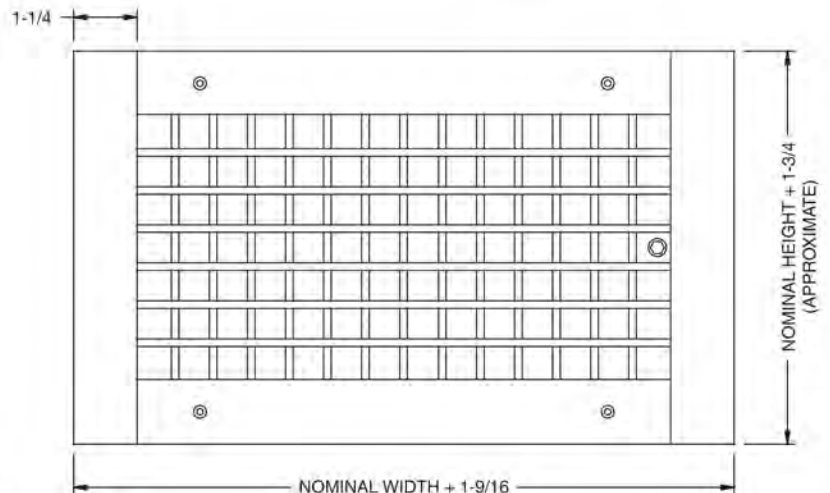
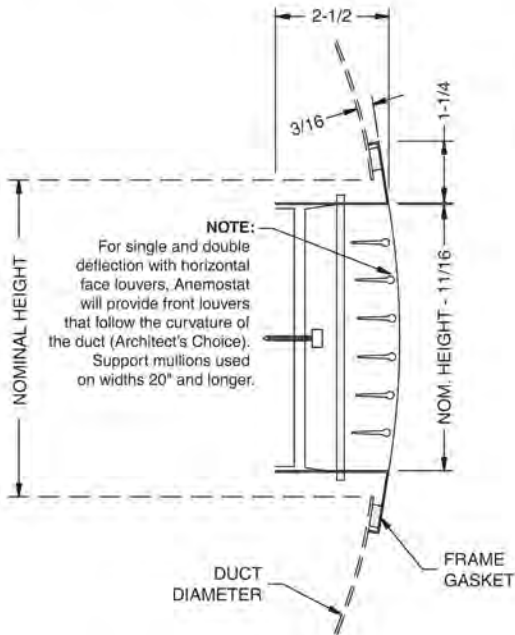
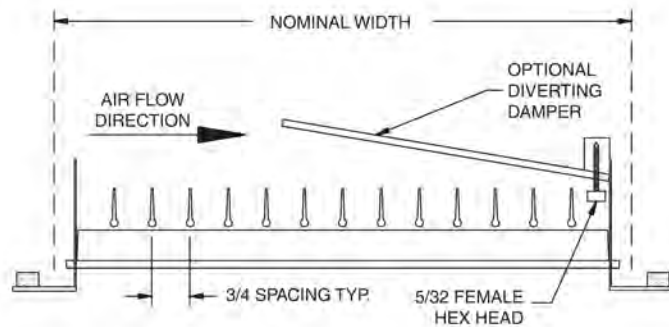
Volume Damper:

☐ None

☐ Diverter (must be factory installed)

Model ECO20, Front Blade Direction Long (L) Shown

SIZE AVAILABILITY										
NOM. GRILLE WIDTH	6" TO 48"									
NOM. GRILLE HEIGHT	3"	4"	6"	8"	10"	12"	14"	16"	18"	
MINIMUM DUCT DIAMETER	5"	6"	8"	12"	14"	18"	20"	24"	26"	



NOMINAL = DUCT OPENING

All dimensions are in inches.

JOB NAME:

SUBMITTED BY:



Camelot® II Shingles

Camelot® II Shingles complete a home with their classic, artisan-crafted look — at a surprisingly affordable price. Now with GAF Time-Release Algae-Fighting Technology for long-lasting algae-fighting power so strong it allows us to offer a 25-year StainGuard Plus™ Algae Protection Limited Warranty against blue-green algae discoloration.⁴



Camelot® II Shingles

Benefits:

- **Affordable Luxury** — Camelot® II Shingles are only a fraction of the cost of traditional slate or wood shakes
- **Sophisticated Design** — Artisan-crafted shapes combined with a dimensional design result in a sophisticated beauty unmatched by typical shingles
- **Custom Color Palette** — Specially formulated color palette is designed to accentuate the shingle's natural appeal
- **High-Performance** — Designed with Advanced Protection® Shingle Technology, which reduces the use of natural resources while providing excellent protection for your home (visit gaf.com/aps to learn more)
- **StainGuard Plus™ Algae Protection Limited Warranty** — Specially engineered capsules release copper over time for long-lasting algae-fighting power. It's protection so strong, it allows us to offer a 25-year limited warranty against blue-green algae discoloration.⁴
- **Highest Roofing Fire Rating** — UL Class A, Listed to ANSI/UL 790
- **Stays in Place** — Dura Grip™ Adhesive seals each shingle tightly and reduces the risk of shingle blow-offs; shingles warranted to with-stand winds up to 130 mph (209 km/h)³
- **The Ultimate Peace of Mind** — Lifetime¹ limited transferable warranty with Smart Choice® Protection (non-prorated material and installation labor coverage) for the first ten years
- **Perfect Finishing Touch** — Use TimberTex® Premium Ridge Cap Shingles or TimberCrest® Premium SBS-Modified Ridge Cap Shingles⁵

Product details:

Product/System Specifics

- Fiberglass asphalt construction
- **Dimensions (approx.):** 17" x 34 1/2" (432 x 876 mm)
- **Exposure:** 7.5" (190.5 mm)
- **Bundles/Square:** 4
- **Pieces/Square:** 56
- **Nails/Square:** 280 (336 where 6 nails per shingle is required)⁶
- **StainGuard Plus™ Algae Protection Limited Warranty⁴**
- **Hip/Ridge:**^{5,6} TimberTex®; TimberCrest®
- **Starter:** WeatherBlocker™

Applicable Standards & Protocols

- UL Listed to ANSI/UL 790 Class A
- Miami-Dade County Product Control approved
- State of Florida approved
- Classified by UL in accordance with ICC-ES AC438
- Meets ASTM D7158, Class H
- Meets ASTM D3161, Class F
- Meets ASTM D3018, Type 1
- Meets ASTM D3462¹
- ICC-ES Evaluation Reports ESR-1475 and ESR-3267
- Texas Department of Insurance listed
- Meets CSA A123.5²

Installation

Detailed installation instructions are provided on the inside of each bundle wrapper of Camelot® II Shingles. Installation instructions may also be obtained at gaf.com.

¹ Lifetime refers to the length of warranty coverage provided and means as long as the original individual owner(s) of a single-family detached residence (or eligible second owner(s)) owns the property where the qualifying GAF products are installed. For other owners/structures, Lifetime coverage is not applicable. Lifetime coverage on shingles requires the use of GAF Lifetime Shingles only. See the *GAF Shingle & Accessory Limited Warranty* for complete coverage and restrictions. Visit gaf.com/LRS for qualifying GAF products.

² Periodically tested by independent and internal labs to ensure compliance with ASTM D3462 at time of manufacture.

³ Refers to shingles sold in Canada only.

⁴ 15-year 130 mph wind speed coverage requires special installation and use of GAF Starter Strip Shingles; see *GAF Shingle & Accessory Limited Warranty* for complete coverage and restrictions.

⁵ 25-year StainGuard Plus™ Algae Protection Limited Warranty against blue-green algae discoloration is available only on products sold in packages bearing the StainGuard Plus™ logo. See *GAF Shingle & Accessory Limited Warranty* for complete coverage and restrictions, and qualifying products.

⁶ Required by some local codes and required for enhanced wind coverage on certain products.

⁷ These products are not available in all areas. See gaf.com/RidgeCapAvailability for details.

Note: It is difficult to reproduce the color clarity and actual color blends of these products. Before selecting your color, please ask to see several full-size shingles.

Colors:



We protect what matters most™



Project Name: Maher Barn

Address: 1 Shady Lane, Irvington, NY

OUTDOOR DESIGN CONDITIONS

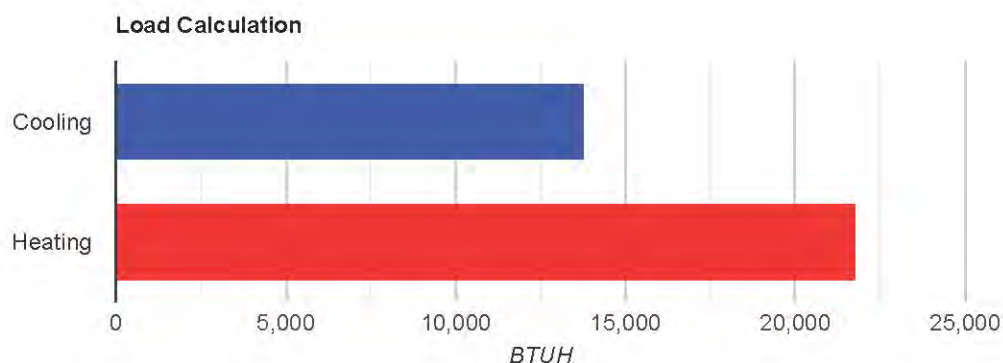
Weather station: White Plains, Westchester Co. AP

Summer Outdoor F:	87	Summer Indoor F:	75	Design Grains:	33	Daily Range:	Medium
Winter Outdoor F:	12	Winter Indoor F:	70	Cooling RH:	50	Elevation (Ft):	397

LOAD CALCULATION TOTALS

HVAC System: Heat Pump System

Heated square footage:	594	Heating BTUH:	21,769
Cooled square footage:	594	Cooling BTUH:	13,745
Heated volume (above grade CF):	6,534	CFM:	632
Cooled volume (above grade CF):	6,534	Sensible cooling:	12,514
Exposed wall area (SF):	1,078	Latent cooling:	1,231
		SHR:	0.91



Approved ACCA MJ8 Calculations

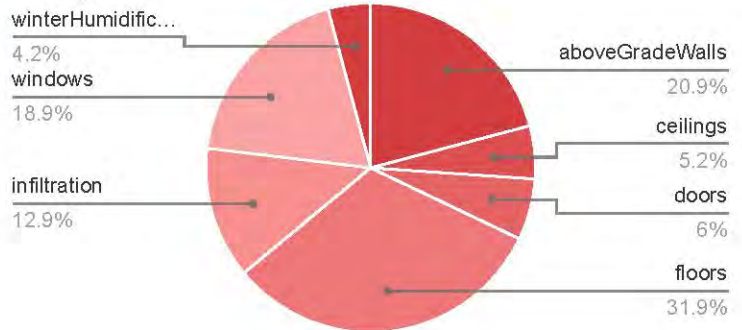
Calculations are based on the ACCA Manual J 8th Edition and are approved by ACCA. All computed calculations are estimates on building use, weather data, and inputted values such as R-Values, window types, duct loss, etc. Equipment selections should meet both the latent and sensible gain as well as building heat loss.



HEATING AND COOLING LOADS

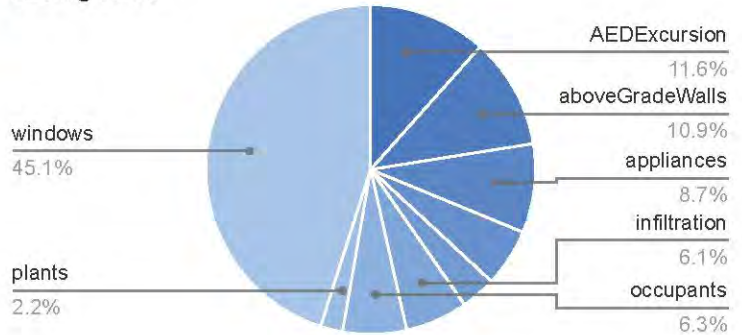
HEATING LOADS		
SECTION	AREA	HEAT LOSS
aboveGradeWalls	808	4,546
ceilings	672.7	1,131
doors	48	1,308
floors	594	6,940
infiltration	0	2,814
skylights	0	0
windows	222	4,120
winterHumidification	0	909
Totals		21,769

Heating Loads



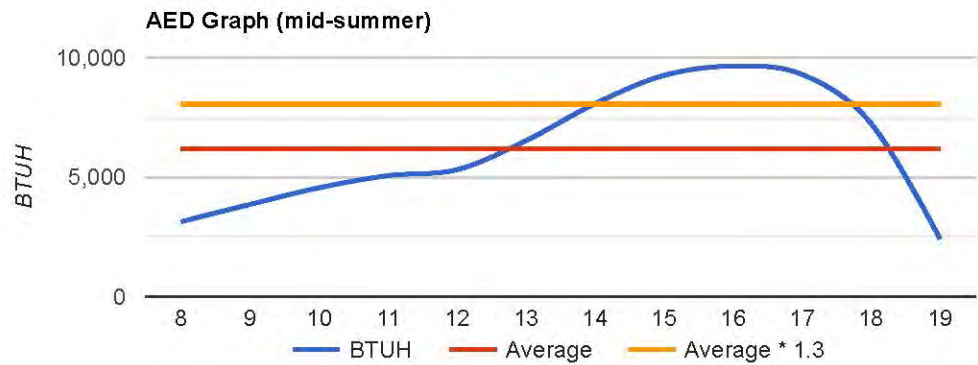
COOLING LOADS			
SECTION	AREA	SENSIBLE	LATENT
AEDExcursion	0	1,594	0
aboveGradeWalls	808	1,497	0
appliances	0	1,200	0
ceilings	672.7	780	0
doors	48	474	0
floors	594	0	0
infiltration	0	312	531
occupants	0	460	400
plants	0	0	300
skylights	0	0	0
windows	222	6,197	0
winterHumidification	0	0	0
Totals		12,514	1,231

Cooling Loads

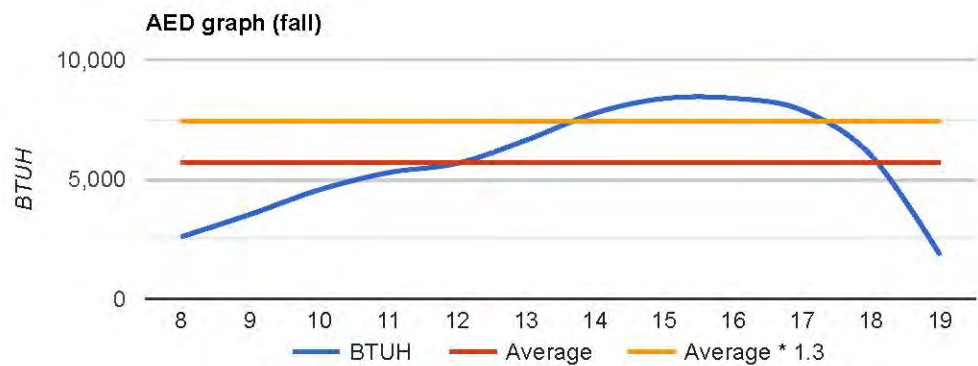


FENESTRATION LOADS

Warning (0): This application has glass areas that produced large cooling loads for part of the day. Zoning may be required to overcome solar load spikes for one or more rooms. Consider a zoned system, or provide zone control (individual, motorized, thermostatically controlled dampers) for problem rooms. Single speed equipment may not be suitable for the application.



This graph represents hourly aggregate fenestration loads in mid-summer.



This graph represents hourly aggregate fenestration loads in October.

COMPONENT LOADS

ABOVE GRADE WALLS					
System generated wall - N Frame Wall, Wood framing, R-11 cavity insulation, Stucco or Siding.	Construction nr: U Value:	12B-0s w 0.097	Exposure: Area:	N 170	Heating BTUH: 956 Cooling BTUH: 315
System generated wall - E Frame Wall, Wood framing, R-11 cavity insulation, Stucco or Siding.	Construction nr: U Value:	12B-0s w 0.097	Exposure: Area:	E 279	Heating BTUH: 1,570 Cooling BTUH: 517
System generated wall - S Frame Wall, Wood framing, R-11 cavity insulation, Stucco or Siding.	Construction nr: U Value:	12B-0s w 0.097	Exposure: Area:	S 194	Heating BTUH: 1,091 Cooling BTUH: 359
System generated wall - W Frame Wall, Wood framing, R-11 cavity insulation, Stucco or Siding.	Construction nr: U Value:	12B-0s w 0.097	Exposure: Area:	W 165	Heating BTUH: 928 Cooling BTUH: 306

BELOW GRADE WALLS					
There are no components for this section.					

WINDOWS					
Default small windows for wall id 4068253 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 12 N	U Value: SHGC:	0.32 0.68	Heating BTUH: 223 Cooling BTUH: 149
Default medium windows for wall id 4068253 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 36 N	U Value: SHGC:	0.32 0.68	Heating BTUH: 668 Cooling BTUH: 448
Default small windows for wall id 4068252 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 6 E	U Value: SHGC:	0.32 0.68	Heating BTUH: 111 Cooling BTUH: 178
Default medium windows for wall id 4068252 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 12 E	U Value: SHGC:	0.32 0.68	Heating BTUH: 223 Cooling BTUH: 356
Default small windows for wall id 4068251 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 12 S	U Value: SHGC:	0.32 0.68	Heating BTUH: 223 Cooling BTUH: 337
Default medium windows for wall id 4068251 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 36 S	U Value: SHGC:	0.32 0.68	Heating BTUH: 668 Cooling BTUH: 1,027
Default small windows for wall id 4068250 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 12 W	U Value: SHGC:	0.32 0.68	Heating BTUH: 223 Cooling BTUH: 411
Default medium windows for wall id 4068250 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 24 W	U Value: SHGC:	0.32 0.68	Heating BTUH: 445 Cooling BTUH: 823
Default large windows for wall id 4068250 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 72 W	U Value: SHGC:	0.32 0.68	Heating BTUH: 1,336 Cooling BTUH: 2,468

Window cooling BTUHs shown here are daily average values. See AED graphs for details of fenestration loads during the day.

CEILINGS					
System generated ceiling. Ceiling below roof joists, Asphalt shingles, Dark, R-38.	Construction nr: U Value:	18A-38 ad 0.029	Area:	672.7	Heating BTUH: 1,131 Cooling BTUH: 780

SKYLIGHTS

There are no components for this section.

Skylight cooling BTUHs shown here are daily average values. See AED graphs for details of fenestration loads during the day.

DOORS

Default doors for wall id 4068253

Wood Door, Hollow Core.

Construction nr:	11	Area:	24	Heating BTUH:	654
U Value:	0.47	Exposure:	N	Cooling BTUH:	237

Default doors for wall id 4068250

Wood Door, Hollow Core.

Construction nr:	11	Area:	24	Heating BTUH:	654
U Value:	0.47	Exposure:	W	Cooling BTUH:	237

FLOORS

System generated floor.

Concrete slab on grade floor, R-10 slab insulation.

Construction nr:	22C-10ph	Heating U Value:	0	Heating BTUH:	6,940
Area:	594	Cooling U Value:	0	Cooling BTUH:	0
				F Value:	1.221

VENTILATION

There are no components for this section.

HOT WATER PIPING

There are no components for this section.

DUCTS

There are no components for this section.

INFILTRATION

Leakage Category: Semi-Tight

NCFM Heating:	45	Heating BTUH:	2,814
NCFM Cooling:	24	Sensible BTUH:	312
		Latent BTUH:	531

BLOWER MOTOR

There are no components for this section.

WINTER HUMIDIFICATION

Desired Indoor RH:	35	Gallons Per Day:	2.5	Heating BTUH:	909
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OCCUPANTS

Nr. Occupants:	2	Sensible BTUH:	460	Latent BTUH:	400
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APPLIANCES

Small kitchen: 1,200 BTUH	Quantity:	Sensible BTUH:	1,200
		Latent BTUH:	

PLANTS

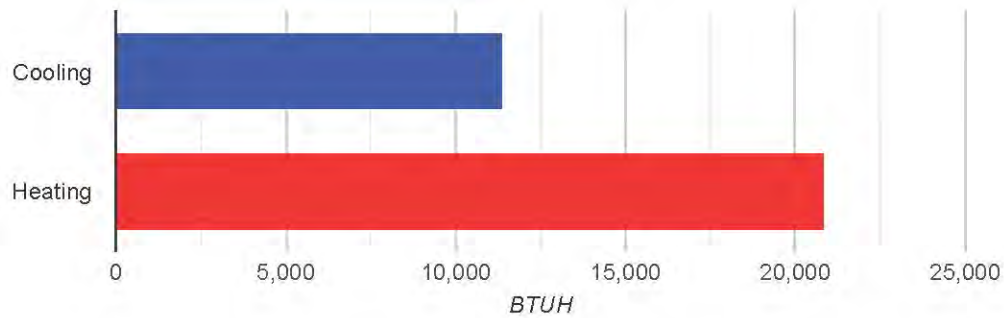
Plant Size:	small	Quantity:	5	Latent BTUH:	50
Plant Size:	medium	Quantity:	5	Latent BTUH:	100
Plant Size:	large	Quantity:	5	Latent BTUH:	150

ROOM DETAIL

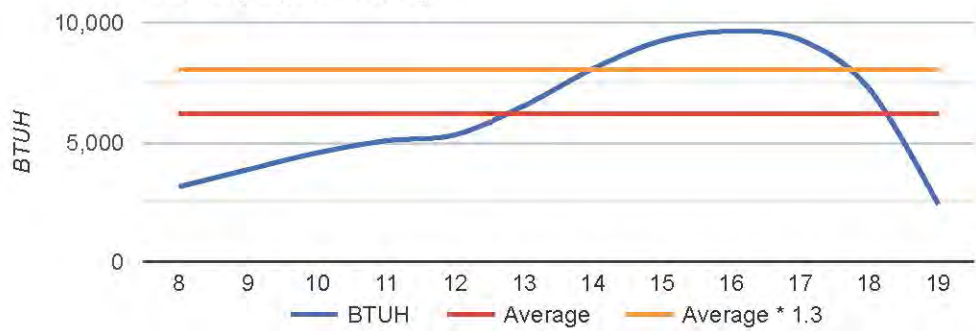
Room name: Studio

Heated square footage:	594	Total Cooling BTUH:	11,385
Cooled square footage:	594	Total Heating BTUH:	20,860
Heated volume (above grade CF):	6,534	CFM:	548
Cooled volume (above grade CF):	6,534		
Exposed wall area (SF):	1,078		

Load Calculation



AED Graph (mid-summer)



AED graph (fall)





MILLER MASTERCUT SHINGLES

Our Miller MasterCut Shingles (decorative shingles) are available in 8 patterns.

- Round
- Fish Scale
- Half Cove
- Diamond
- Hexagon
- Octagon
- Arrow
- Square

They are manufactured from our #1 18" RR shingles and are sanded on one face. They are 17" long and 4 15/16" wide.

There are 104 Miller MasterCut shingles per carton.
Four cartons will cover 100 square feet at a 7" exposure.
Custom pre-staining is available.

[See Custom Pre-Stained Shingles](#)
[Pre-Stained Color Options](#)
[Product Coverage Calculator](#)

[Back to Products](#)



Round



Hexagon



Fish Scale



Octagon



Half Cove



Arrow



Diamond



Square

SVZ-KP24NA & SUZ-KA24NAHZ
24,000 BTU/H HYPER-HEATING UNIVERSAL OUTDOOR UNIT
24,000 BTU/H MULTI-POSITION AIR HANDLER



Job Name:

System Reference:

Date:

Indoor Unit.....SVZ-KP24NA

Outdoor Unit.....SUZ-KA24NAHZ



INDOOR UNIT FEATURES

- Ducted air handler provides a solution to cool and heat large zones
- Highly efficient totally enclosed ECM motor
- Selectable external static pressure: 0.30, 0.50 and 0.80 in.WG with 3 fan speeds at each static setting
- 1 inch R4.2 fiberglass free insulation reduces condensation and boosts efficiency
- Positive pressure cabinet with air leakage of less than 2.0% at 1.0 In.WG (Tested per ASHRAE Standard 193)
- Unique blow through design allows simple coil cleaning when the blower is removed
- Multi-position installation: horizontal (left or right), vertical (up or down)
- Optional electric heat kit for additional heat capacity
- Optional humidifier control and ERV control
- Built-in humidifier control, ERV control and auxiliary heat control
- Optional downflow kit
- Multiple control options available:
 - kumo cloud® smart device app for remote access
 - Third-party interface options
 - Wired or wireless controllers

OUTDOOR UNIT FEATURES

- The outdoor unit powers the indoor unit, and should a power outage occur, the system is automatically restarted when power returns
- INVERTER-driven compressor and LEV provide high efficiency and comfort while using only the energy needed to maintain maximum performance
- Hyper-heating performance offers 100% heating capacity at 5° F
- Hot-Start Technology: no cold air rush at equipment startup or when restarting after Defrost Cycle
- Quiet operation
- Built-in base pan heater
- Innovative Joint Lap DC Motor leads to high efficiency and reliability
- Pulse Amplitude Modulation technology

SPECIFICATIONS: SVZ-KP24NA & SUZ-KA24NAHZ

Cooling at 95°F ¹	Maximum Capacity	BTU/H	24,000
	Rated Capacity	BTU/H	24,000
	Minimum Capacity	BTU/H	8,800
	Maximum Power Input	W	2,420
	Rated Power Input	W	2,420
	Moisture Removal	Pints/h	4.7
	Sensible Heat Factor		0.78
Heating at 47°F ²	Power Factor [208V / 230V]	%	97.0 / 97.0
	Maximum Capacity	BTU/H	28,800
	Rated Capacity	BTU/H	23,000
	Minimum Capacity	BTU/H	9,400
	Maximum Power Input	W	2,790
	Rated Power Input	W	2,140
Heating at 17°F ³	Power Factor [208V / 230V]	%	97.0 / 97.0
	Maximum Capacity	BTU/H	23,000
	Rated Capacity	BTU/H	19,200
	Maximum Power Input	W	3,700
Heating at 5°F ⁴	Rated Power Input	W	2,566
	Maximum Capacity	BTU/H	23,000
Heating at -13°F ⁷	Maximum Power Input	W	4,146
	Maximum Capacity	BTU/H	18,400
Efficiency	SEER		16.0
	EER ¹		9.9
	HSPF [IV]		9.2
	COP at 47°F ²		3.1
	COP at 17°F at Maximum Capacity ³		1.8
	COP at 5°F at Maximum Capacity ⁴		1.6
	ENERGY STAR® Certified		No
Electrical	Voltage, Phase, Frequency		208/230, 1, 60
	Guaranteed Voltage Range	V AC	187 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	25
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Power Supply		Indoor unit is powered by the outdoor unit
Indoor Unit	MCA	A	3.0
	Fan Motor Full Load Amperage	A	2.4
	Fan Motor Type		DC Motor
	Airflow Rate at Cooling, Dry	CFM	515-625-735
	Airflow Rate at Heating, Dry	CFM	515-625-735
	Sound Pressure Level [Cooling]	dB[A]	33-36-41
	Sound Pressure Level [Heating]	dB[A]	33-36-41
	External Static Pressure	in. WG	0.30-0.5-0.8
	Drain Pipe Size	In. [mm]	3/4 [19.05]
	Coating on Heat Exchanger		—
	External Finish Color		Hot-dip coated steel (ZAM)
	Unit Dimensions	W x D x H: In. [mm]	17 x 21-5/8 x 39-13/16 [432 x 549 x 1,011]
	Package Dimensions	W x D x H: In. [mm]	21 x 28-3/4 x 44-3/8 [460 x 730 x 1,127]
	Unit Weight	Lbs. [kg]	93 [42]
	Package Weight	Lbs. [kg]	106 [48]
Indoor Unit Operating Temperature Range	Cooling Intake Air Temp [Maximum / Minimum]*	°F	90 DB, 72 WB / 68 DB, 61 WB
	Heating Intake Air Temp [Maximum / Minimum]	°F	77 DB / 59 DB

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor)

²Heating at 47°F (Indoor // Outdoor)

³Heating at 17°F (Indoor // Outdoor)

⁴Heating at 5°F (Indoor // Outdoor)

⁷Heating at -13°F (Indoor // Outdoor)

°F 90 DB, 67 WB // 95 DB, 75 WB

°F 70 DB, 60 WB // 47 DB, 43 WB

°F 70 DB, 60 WB // 17 DB, 15 WB

°F 70 DB, 60 WB // 5 DB, 4 WB

°F 70 DB, 60 WB // -13 DB, -14 WB

Conditions

*Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

• Applications should be restricted to comfort cooling only, equipment cooling applications are not recommended for low ambient temperature conditions.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

• System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

SPECIFICATIONS: SVZ-KP24NA & SUZ-KA24NAHZ

Outdoor Unit	MCA	A	17.0
	MOCP	A	27
	Fan Motor Output	W	74
	Airflow Rate [Cooling / Heating]	CFM	800 / 800
	Refrigerant Control		LEV
	Defrost Method		Reverse Cycle
	Sound Pressure Level, Cooling ¹	dB(A)	52
	Sound Pressure Level, Heating ²	dB(A)	53
	Compressor Type		Scroll
	Compressor Model		DNB28FBAMT
	Compressor Rated Load Amps	A	9
	Compressor Locked Rotor Amps	A	18.0
	Compressor Oil [Type // Charge]	oz.	FVC68D // 1.34
	External Finish Color		Ivory Munsell 3Y 7.8/1.1
	Base Pan Heater		Built-in
	Unit Dimensions	W x D x H: in. [mm]	37-13/32 x 14-3/16 x 37-1/8 [950 x 360 x 943]
	Package Dimensions	W x D x H: in. [mm]	41 x 18 x 41 [1040 x 450 x 1033]
Outdoor Unit Operating Temperature Range	Unit Weight	Lbs. [kg]	190 [86]
	Package Weight	Lbs. [kg]	210 [95]
	Cooling Air Temp [Maximum / Minimum]*	°F	115 DB / 0 DB
	Heating Air Temp [Maximum / Minimum]	°F	75 DB, 65 WB / -13 DB, -14 WB
Refrigerant	Heating Thermal Lock-out / Re-start Temperatures**	°F	-22 / -13
	Type		R410A
	Maximum Charge Quantity	Lbs, oz	7.0, 11.0
	Initial Charge Quantity	Ft. [m]	70.0 [30.0]
Piping	Additional Refrigerant Charge Per Additional Piping Length	oz / Ft. [g/m]	0.7 [65]
	Gas Pipe Size O.D. [Flared]	in [mm]	5/8 [15.88]
	Liquid Pipe Size O.D. [Flared]	in [mm]	3/8 [9.52]
	Maximum Piping Length	Ft. [m]	100 [30]
	Maximum Height Difference	Ft. [m]	100 [30]
	Maximum Number of Bends		15

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor) °F 80 DB, 67 WB // 95 DB, 75 WB

²Heating at 47°F (Indoor // Outdoor) °F 70 DB, 60 WB // 47 DB, 43 WB

³Heating at 17°F (Indoor // Outdoor) °F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

⁴Heating at 5°F (Indoor // Outdoor) °F 70 DB, 60 WB // 5 DB, 4 WB

⁵Heating at -13°F (Indoor // Outdoor) °F 70 DB, 60 WB // -13 DB, -14 WB

*Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

- Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

**Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures, Heating Thermal Lock-out / Re-start Temperatures):

- System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

INDOOR UNIT ACCESSORIES: SVZ-KP24NA

Control Interface	BACnet® and Modbus® Interface	☐ PAC-UKPRC001-CN-1
	CN24 Relay Kit	☐ CN24RELAY-KIT-CM3
	Connector cable for remote display	☐ PAC-SA88HA-EP
	IT Extender	☐ PAC-WHS01IE-E
	kumo station® for kumo cloud®	☐ PAC-WHS01HC-E
	Remote Operation Adapter*	☐ PAC-SF40RM-E
	Thermostat Interface	☐ PAC-US444CN-1
	Thermostat Interface	☐ PAC-US445CN-1
	USNAP Adapter	☐ PAC-WHS01UP-E
	Wireless Interface for kumo cloud®	☐ PAC-USWHS002-WF-2
Remote Sensor	Flush Mount Remote Temperature Sensor	☐ PAC-USSEN002-FM-1
	Flush Mount Temperature Sensor	☐ PAC-USSEN001-FM-1
	Remote Temperature Sensor	☐ PAC-SE41TS-E
	Wireless temperature and humidity sensor for kumo cloud®	☐ PAC-USWHS003-TH-1
Wired Remote Controller	Airzone ZBS Wired Blueface Principal Controller White	☐ AZZBSBLUEFACECB
	Airzone ZBS Wired Lite Controller White	☐ AZZBSLITECB
	Airzone ZBS Wired Think Controller White	☐ AZZBSTHINKCB
	Airzone ZBS Wireless Lite Controller White	☐ AZZBSLITERB
	Airzone ZBS Wireless Think Controller White	☐ AZZBSTHINKRB
	Deluxe Wired MA Remote Controller†	☐ PAR-40MAAU
	Simple MA Remote Controller†	☐ PAC-YT53CRAU-J
	Touch MA Controller†	☐ PAR-CT01MAU-SB
Wireless Remote Controller	kumo touch™ RedLINK™ Wireless Controller	☐ MHK2
	Wireless MA Receiver	☐ PAR-FA32MA-W
	Wireless MA Remote Controller	☐ PAR-FL32MA-E
Condensate	Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	☐ X87-721
	Blue Diamond (MegaBlue Advanced) Condensate Pump w/ Reservoir & Sensor	☐ X87-835
	Blue Diamond Sensor Extension Cable — 15 Ft.	☐ C13-103
	Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H	☐ COMBI
Control Wire	20/2PR, 1PR shielded + 1PR plenum wire for Airzone, 100 ft reel	☐ CW2042S2-100
	20/2PR, shielded + 1PR plenum wire for Airzone, 500 ft reel	☐ CW2042S2-500
Disconnect Switch	(30A/600V/UL) [fits 2" X 4" utility box] - Black	☐ TAZ-MS303
	(30A/600V/UL) [fits 2" X 4" utility box] - White	☐ TAZ-MS303W
Downflow Kit	Downflow Kit	☐ DFK-S
Electric Heat Lockout	Electric Heat Lockout	☐ ETC-211020-MIT
Electric Kit Heats	3kW Electric Heater	☐ EH03-SVZ-S
	5kW Electric Heater	☐ EH05-SVZ-S
	8kW Electric Heater	☐ EH08-SVZ-S
Lineset	10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation)††	☐ MPLS385812T-10
	100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation)††	☐ MPLS385812T-100
	15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation)††	☐ MPLS385812T-15
	30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation)††	☐ MPLS385812T-30
	50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation)††	☐ MPLS385812T-50
	65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation)††	☐ MPLS385812T-65
Terminal Block	Separate Terminal Power Block	☐ SPTB1

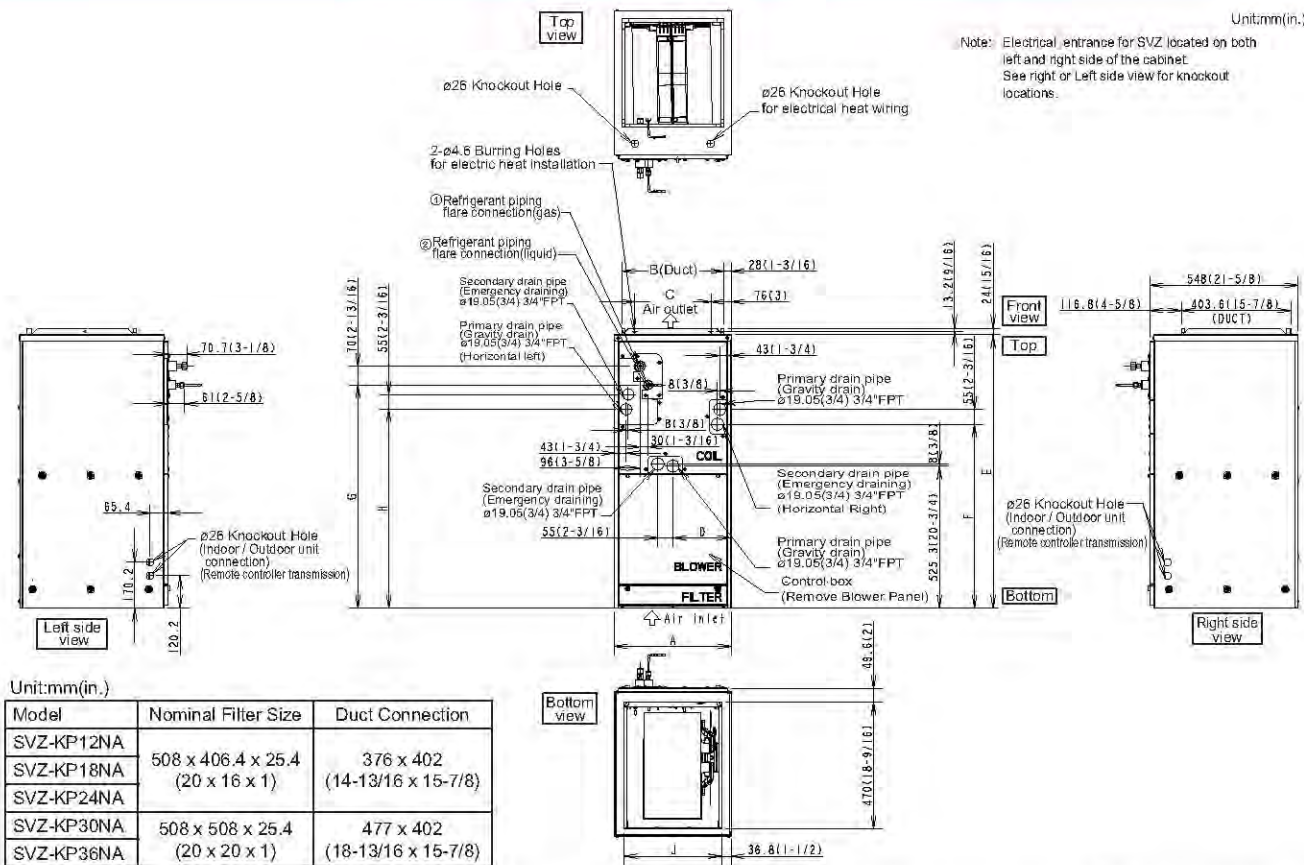
NOTES:

*PAC-SF40RM-E (Unable to use with wireless remote controller)

OUTDOOR UNIT ACCESSORIES: SUZ-KA24NAHZ

Air Outlet Guide	Air Outlet Guide (1 Piece)	☐ PAC-SG59SG-E
Centralized Drain Pan	Centralized Drain Pan	☐ PAC-SG63DP-E
	Drain Pan	☐ PAC-SG64DP-E
Control/Service Tool	M- & P-Series Maintenance Tool Cable Set	☐ M21EC0397
Drain Socket	Drain Socket	☐ PAC-SH71DS-E
Hail Guards	Hail Guard	☐ HG-A6
Mounting Pad	Condensing Unit Mounting Pad: 24" x 42" x 3"	☐ ULTRILITE2
Stand	18" Single Fan Stand	☐ QSMS1801M
	24" Single Fan Stand	☐ QSMS2401M
	Outdoor Unit Stand — 12" High	☐ QSMS1201M

INDOOR UNIT DIMENSIONS: SVZ-KP24NA



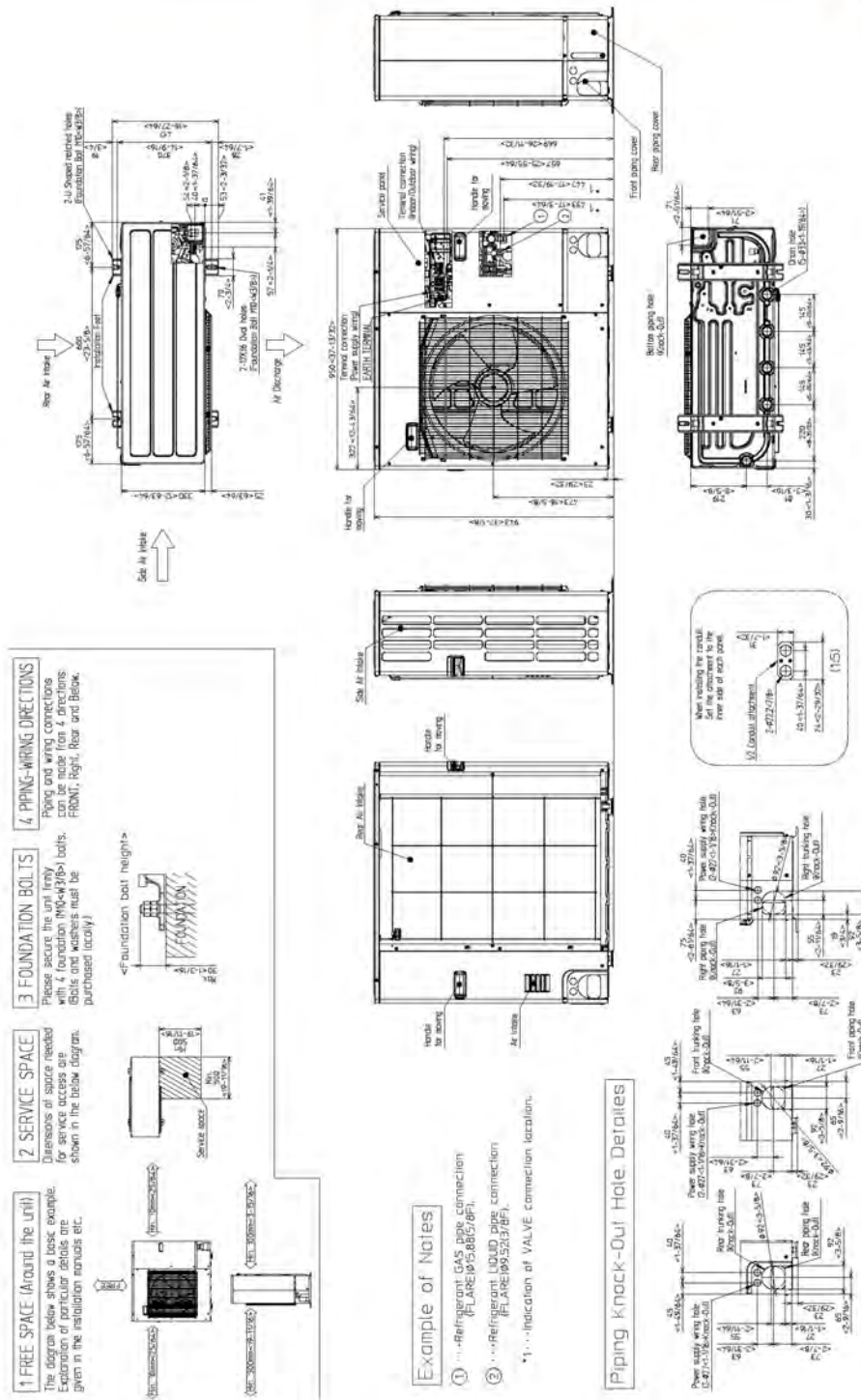
Unit:mm(in.)

Model	Nominal Filter Size	Duct Connection
SVZ-KP12NA	508 x 406.4 x 25.4 (20 x 16 x 1)	376 x 402 (14-13/16 x 15-7/8)
SVZ-KP18NA		
SVZ-KP24NA		
SVZ-KP30NA	508 x 508 x 25.4 (20 x 20 x 1)	477 x 402 (18-13/16 x 15-7/8)
SVZ-KP36NA		

Model	A	B	C	D	E	F	G	H	J	Gas Pipe	Liquid pipe
SVZ-KP12NA	432 (17)	376 (14-13/16)	281 (11-1/8)	224 (8-7/8)	1,010.8 (39-13/16)	680 (26-13/16)	823 (32-7/16)	735.5 (29)	360 (14-3/16)	ø 9.52 (3/8) ø 12.7 (1/2)	ø 6.35 (1/4)
SVZ-KP18NA	534 (21)	477 (18-13/16)	382.6 (15-1/8)	266.5 (10-1/2)	1,113.8 (43-7/8)	737 (29-1/16)	953.5 (37-9/16)	792 (31-3/16)	461 (18-3/16)	ø 15.88 (5/8)	ø 9.52 (3/8)
SVZ-KP24NA											
SVZ-KP30NA											
SVZ-KP36NA											

OUTDOOR UNIT DIMENSIONS: SUZ-KA24NAHZ

Unit: mm<in>



1340 Satellite Boulevard Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com



Job Name:

System Reference:

Date:



CAPABILITIES

- Supports both Fahrenheit and Celsius
- Basic functions:
 - ON/OFF
 - Operation mode: AUTO, COOL, HEAT, FAN
 - Vane Setting: Auto, Step 1-5, Swing
 - Airflow direction
 - Daylight Savings Time (DST)
- Restriction
 - Set temperature range limits (dependent on system connected):
 - Cooling from 67°F to 95°F
 - Heating from 63°F to 83°F
 - Auto (Single Set Point) from 67°F to 83°F
 - Operation lock: On/Off, Mode, Set Temperature, Vane, Menu, Fan, Louver, Hold
 - Ventilation (Lossnay): Off, Low, High
 - Manual vane angle: No Setting, Step 1-5, Draft Reduction, All outlet
 - Draft reduction mode keeps the vane angle more horizontal than the angle of Step 1
 - Room Temperature can be sensed either at the indoor unit (default) or the remote controller
- Error code notification
 - Displays error code and error unit address
 - Error time occurrence
 - Contact information is accessible
- Grouping:
 - Only one remote controller can be connected to a group made up of indoor units
 - The MA Touch Remote Controller cannot be used in combination with other MA remote controllers
- Customizable display
 - Customizable Text and background color
 - Background Logo: load a custom image onto the screen using the smartphone app
- Main Display
 - Full: Shows all icons and values
 - Basic: Limited to Mode, Set Temperature, Fan, Time & Day
 - Temporarily disable display for cleaning (30 seconds)
 - Adjustable contrast level
 - Language - English, French, Spanish
- Bluetooth connection to remotely control settings on Touch MA controller
 - Clock synchronization
 - Copy settings from one controller to others
- 22/2 AWG required, stranded recommended
- High Power
 - Temporarily operate at maximum capacity until set temperature has been met or 30 minutes have passed
- On/Off Timer
 - Set On Time (5-minute increments)
 - Set Off Time (5-minute increments)
 - Repeat daily
- Auto-Off Timer
 - Automatically turns unit off after preset time is reached
 - Time range: 30 to 240 minutes (10-minute increments)

- Weekly Schedule
 - Schedulable: Mon, Tue, Wed, Thu, Fri, Sat, Sun
 - 1 to 8 time periods per day (5-minute increments)
- Set Mode: On/Off/Auto (Dual set point)
- Outdoor Unit silent mode
 - Schedulable: Mon, Tue, Wed, Thu, Fri, Sat, Sun
 - Start/Stop times (5-minute increments)
 - Silent levels: Normal, Middle, Quiet
- Energy saving features:
 - Automatic return to the preset temperature set point if the set point is changed from the remote controller after a preset time range
 - Cool preset temperature: Cool, Dry, Auto-Cool
 - Heat preset temperature: Heat, Auto-Heat
 - Range: 30 to 120 minutes (10-minute increments)
 - Energy-saving Operation Schedule
- Schedulable: Mon, Tue, Wed, Thu, Fri, Sat, Sun
- 1 to 4 time periods per day (5-minute increments)
- Four daily patterns with time periods (5 minute increments) and energy-saving rate 0% to 90%
- Home screen display icon
- Night setback
 - Starts Heat/Cool operation when room temperature exceeds preset temperature range
 - Adjustable time range (5-minute increments)
- Filter maintenance notification

SPECIFICATIONS

Product Size (W x H x D)	In. (mm)	2-9/16 x 4-3/4 x 9/16 (65 x 120 x 14.1)
Net Weight	Lbs. (kg)	13/64 (0.09)
Rated Power Supply Voltage		12 VDC (supplied from indoor units)
Power Consumption		0.6
Usage Environment		Temperature: 32 ~ 104°F (0 ~ 40°C) Humidity: 25 ~ 90%RH (with no dew condensation)
Material	W	Main Body: ABS

Universal Clamp



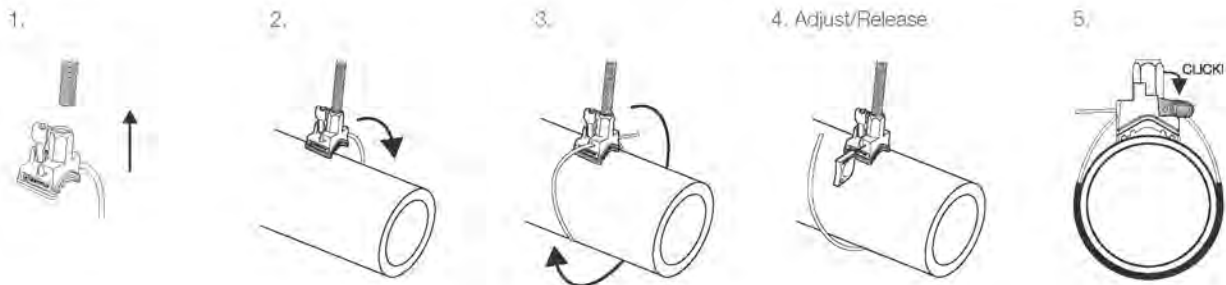
The Universal Clamp is engineered for hanging all types of pipework and ductwork within mechanical and plumbing services.

FEATURES / BENEFITS

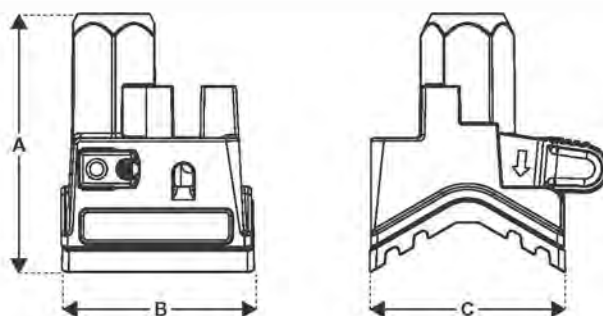
- Up to ten times faster than traditional methods
- For pipe sizes 15 mm Copper (OD15) to 6" (OD168) pipework (> OD104 requires 600 mm variant)
- Replaces more than 13 different pipe ring sizes
- Simplifies 'take-off' process
- Easy site storage, reduces waste
- Retractable sleeve, pre-fitted to wire rope to prevent galvanic corrosion
- M8/M10 dual thread for versatility during install
- Available with Kooltherm / Armaflex pipe collars for insulated pipe
- Supplied in kits with GripplE Universal Brackets
- Provides insulation against vibration



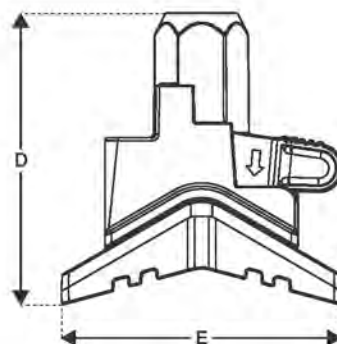
INSTALLATION



SPECIFICATION



Dimension	Size (mm)
A	40
B	29
C	29.5
D (Large Pad)	45
E (Large Pad)	40



AVAILABLE ACCESSORIES



For more options on available accessories please contact us or visit www.gripplE.com

SUBMITTAL INFORMATION

Load Rating:

75 kg @ 3:1 safety factor

Material:

Housing - Type ZA2 Zinc

Wedge - Sintered steel hardened to min. 56 Rockwell C

Spring - Stainless Steel (Type 302)

Pad - EPDM 4015 Shore A

Approvals:

Lloyds certified

TUV tested

APAVE tested



3/4" SPACING

45° DEFLECTION

Nominal Size		Nom Duct ft2	Core Area ft2	Core Vel, fpm	250	300	350	400	450	500	600	700	800
W Width	H Height				Ps	-0.02	-0.04	-0.05	-0.06	-0.08	-0.10	-0.14	-0.19
6	6	0.25	0.20	CFM	50	60	70	80	90	100	120	140	160
				NC	<20	<20	<20	21	25	28	33	37	40
8	6	0.33	0.27	CFM	70	80	90	110	120	130	160	190	220
				NC	<20	<20	<20	23	26	29	34	38	42
8	8	0.44	0.37	CFM	90	110	130	150	170	190	220	260	300
				NC	<20	<20	21	24	27	30	35	40	43
12	6	0.50	0.42	CFM	100	130	150	170	190	210	250	290	330
				NC	<20	<20	21	25	28	31	36	40	44
10	10	0.69	0.60	CFM	150	180	210	240	270	300	360	420	480
				NC	<20	<20	23	26	30	32	37	42	45
14	8	0.78	0.68	CFM	170	200	240	270	300	340	410	470	540
				NC	<20	<20	23	27	30	33	38	42	46
16	8	0.89	0.78	CFM	190	230	270	310	350	390	470	540	620
				NC	<20	20	24	27	31	34	39	43	46
12	12	1.00	0.89	CFM	220	270	310	360	400	440	530	620	710
				NC	<20	20	24	28	31	34	39	43	47
20	8	1.11	0.98	CFM	250	290	340	390	440	490	590	690	780
				NC	<20	21	25	28	32	35	40	44	47
18	10	1.25	1.12	CFM	280	340	390	450	500	560	670	780	900
				NC	<20	21	25	29	32	35	40	44	48
14	14	1.36	1.23	CFM	310	370	430	490	550	620	740	860	980
				NC	<20	22	26	29	33	36	41	45	48
24	10	1.67	1.51	CFM	380	450	530	600	680	750	900	1060	1210
				NC	<20	22	27	30	34	36	41	46	49
16	16	1.78	1.63	CFM	410	490	570	650	730	810	980	1140	1300
				NC	<20	23	27	31	34	37	42	46	50
24	12	2.00	1.83	CFM	460	550	640	730	820	920	1100	1280	1470
				NC	<20	23	27	31	34	37	42	46	50
22	16	2.44	2.27	CFM	570	680	790	910	1020	1130	1360	1590	1810
				NC	<20	24	28	32	35	38	43	47	51
20	20	2.78	2.59	CFM	650	780	910	1040	1170	1290	1550	1810	2070
				NC	20	25	29	33	36	39	44	48	52
22	22	3.36	3.15	CFM	790	950	1100	1260	1420	1580	1890	2210	2520
				NC	21	26	30	34	37	40	45	49	53
24	24	4.00	3.77	CFM	940	1130	1320	1510	1700	1890	2260	2640	3020
				NC	21	26	31	34	38	40	45	50	53
36	18	4.50	4.25	CFM	1060	1270	1490	1700	1910	2120	2550	2970	3400
				NC	22	27	31	35	38	41	46	50	54
30	24	5.00	4.75	CFM	1190	1420	1660	1900	2140	2370	2850	3320	3800
				NC	22	27	32	35	39	41	46	51	54
36	24	6.00	5.72	CFM	1430	1710	2000	2290	2570	2860	3430	4000	4570
				NC	23	28	32	36	39	42	47	51	55
30	30	6.25	5.97	CFM	1490	1790	2090	2390	2680	2980	3580	4180	4770
				NC	23	28	33	36	40	42	47	52	55
42	24	7.00	6.69	CFM	1670	2010	2340	2680	3010	3340	4010	4680	5350
				NC	24	29	33	37	40	43	48	52	56
48	24	8.00	7.66	CFM	1910	2300	2680	3060	3450	3830	4600	5360	6130
				NC	24	29	34	37	41	43	48	53	56
36	36	9.00	8.66	CFM	2160	2600	3030	3460	3900	4330	5200	6060	6930
				NC	25	30	34	38	41	44	49	53	57
38	38	10.03	9.67	CFM	2420	2900	3380	3870	4350	4830	5800	6770	7730
				NC	25	30	35	38	42	44	49	54	57
42	38	11.08	10.70	CFM	2680	3210	3750	4280	4820	5350	6420	7490	8560
				NC	26	31	35	39	42	45	50	54	58
48	40	13.33	12.92	CFM	3230	3870	4520	5170	5810	6460	7750	9040	10330
				NC	27	32	36	40	43	46	51	55	59
48	44	14.67	14.23	CFM	3560	4270	4980	5690	6400	7120	8540	9960	11380
				NC	27	32	36	40	43	46	51	55	59
48	48	16.00	15.54	CFM	3890	4660	5440	6220	7000	7770	9330	10880	12440
				NC	28	33	37	40	44	47	52	56	59

Notes:

- Nominal size represents duct size. For lay-in applications, use neck size to determine data, not module size.

Test Standard

- ANSI / ASHRAE standard 70

Sound Levels

- NC is noise criteria curve that will not be exceeded at the operating point. This is determined by assuming a 10dB (ref: 10⁻¹² watts) room attenuation that is subtracted from the power levels in each of the 2nd thru 7th octave bands

Pressure

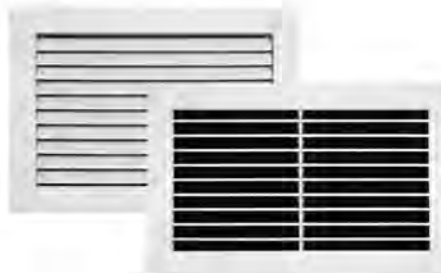
- P_s represents static pressure requirement. Total pressure can be calculated as P_t = P_s + P_v
- P_v is the air velocity pressure in the duct and is calculated as P_v = (Velocity/4005)²
- All pressures are stated and calculated in inches of water



Anemostat®
AIR DISTRIBUTION

SUBMITTAL SHEET

www.anemostat-hvac.com



Model **30 / 35**
FIXED BLADE RETURN
ALUMINUM

PRODUCT FEATURES

- 1/2" (13) or 3/4" (19) Louver spacing
- Registers include a factory attached steel opposed blade volume control damper (aluminum damper available)
- Surface mounted holes in frame neatly countersunk for supplied #8 x 1-1/2" oval head screws

CONSTRUCTION DETAILS

Material:

Aluminum Construction

Finish:

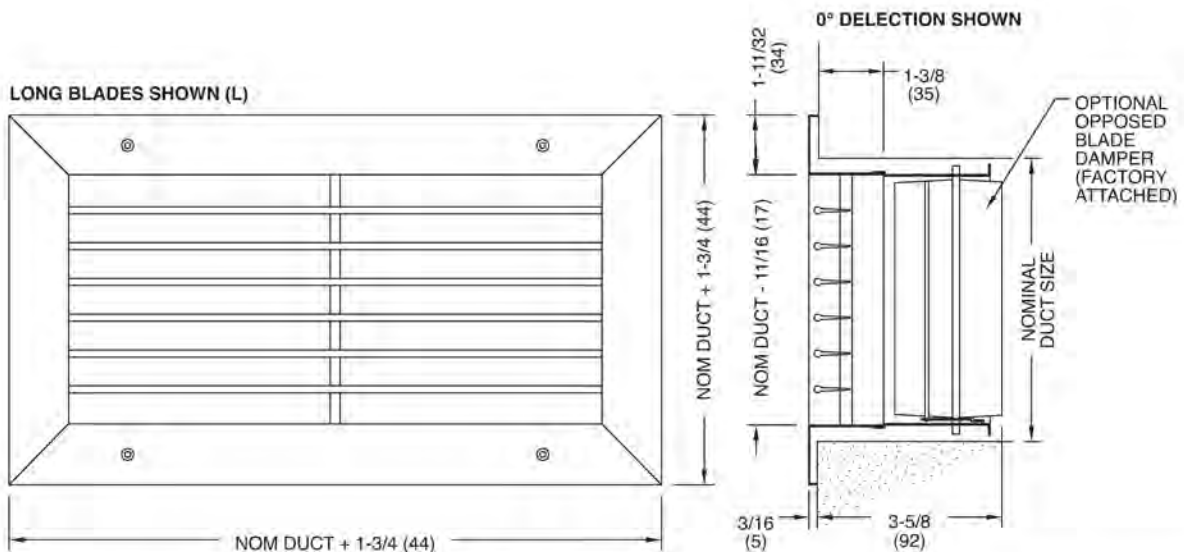
- ☐ Arctic White (std)
☐ Custom Color (opt)

Models

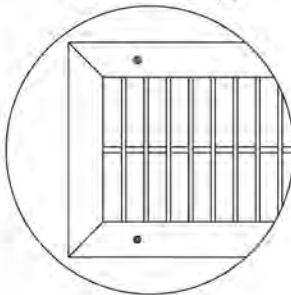
- ☐ **30-0** 3/4" (19) Blade Spacing, 0° Deflection
☐ **30-45** 3/4" (19) Blade Spacing, 45° Deflection
☐ **35-0** 1/2" (13) Blade Spacing, 0° Deflection
☐ **35-45** 1/2" (13) Blade Spacing, 45° Deflection

Accessories

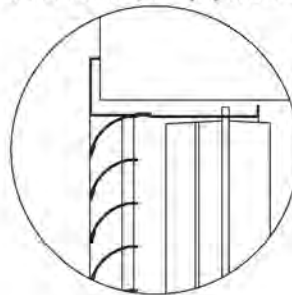
- ☐ **OB** Opposed Blade Damper
☐ **RC** Removable Core Frame



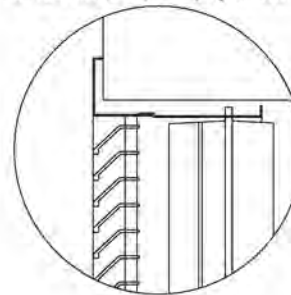
SHORT BLADES (S)



45° DEFECTION, 3/4" (19) SPACING



45° DEFECTION, 1/2" (13) SPACING

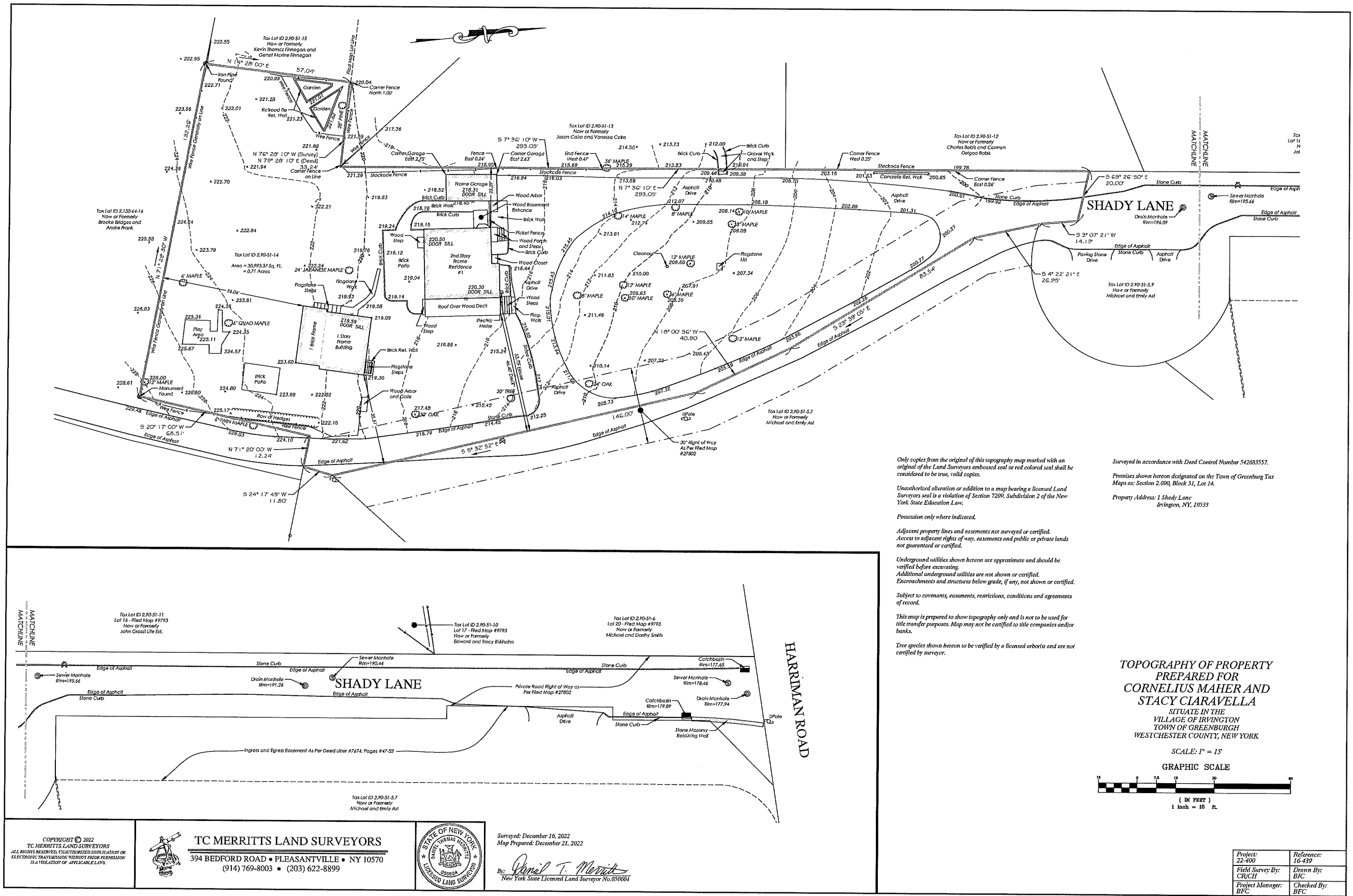


Dimensions in () are millimeters

All dimensions are in inches.

JOB NAME:

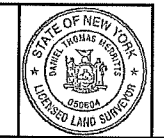
SUBMITTED BY:



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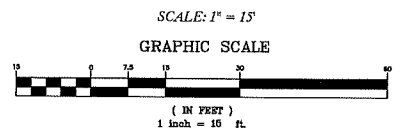


TC MERRITTS LAND SURVEYORS
394 BEDFORD ROAD • PLEASANTVILLE • NY 10570
(914) 769-8003 • (203) 622-8899



Surveyed: December 16, 2022
Map Prepared: December 21, 2022
By: *Daniel T. Merritt*
New York State Licensed Land Surveyor No. 050604

TOPOGRAPHY OF PROPERTY
PREPARED FOR
CORNELIUS MAHER AND
STACY CIARAVELLA
SITUATE IN THE
VILLAGE OF IRVINGTON
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK



Project: 22-400	Reference: 16-439
Field Survey By: CR/CH	Drawn By: B/C
Project Manager: BFC	Checked By: BFC

Ciaravella / Maher Residence

1 Shady Lane
Irvington, New York 10533

- Submission to Irvington Planning Board
for Site Development Plan Approval
January 18, 2023
- Re-Submission to Irvington Planning Board
for Site Development Plan Approval
February 15, 2023 REVISION ⚠
- Submission for Zoning Board of Appeals Approval
March 06,2023
- Submission for Architectural Review Board Approval
May 01, 2023 REVISION ⚠



ZONING ANALYSIS

GENERAL INFORMATION

ADDRESS	ZONING DISTRICT	PARCEL ID
1 Shady Lane, Irvington, NY	1F-20	2.90-51-14

USE REQUIREMENTS - AS PER SECTION 224-8

CATEGORY	REQUIRED / ALLOWED	EXISTING	PROPOSED	REMARK
Use	One-Family	One-Family	No Change	

LOT REQUIREMENTS - AS PER SECTION 224-10

CATEGORY	REQUIRED / ALLOWED	EXISTING	PROPOSED	REMARK
Lot Area	S.F. 20,000 S.F. Min.	30,993 S.F.	No Change	
Lot Width	FT. 100.00' Min.	132.74'	No Change	
Lot Depth	FT. 125.00' Min.	349.52'	No Change	

YARD REQUIREMENTS - AS PER SECTION 224-11

CATEGORY	REQUIRED / ALLOWED	EXISTING	PROPOSED	REMARK
Front Yard (East)	FT. 35' Min.	26.37'	25.48'	Variance Required
Rear Yard (South)	FT. 35' Min.	56.04'	56.13'	
Side Yard (West)	FT. 15' Min.	2.63'	No Change	
Side Yard	FT. 15' Min.	NA	No Change	

COVERAGE REQUIREMENTS - AS PER SECTION 224-13

CATEGORY	REQUIRED / ALLOWED	EXISTING	PROPOSED	REMARK
Building Coverage	3,860 S.F. Max.	2,860 S.F.	2,933 S.F. ⚠	

FLOOR AREA REQUIREMENTS - AS PER SECTION 224-136A

CATEGORY	REQUIRED / ALLOWED	EXISTING	PROPOSED	REMARK
Floor Area Ratio	.178	.076	.082	
Floor Area S.F.	5,579 S.F. Max.	2,344 S.F.	2,568 S.F.	

BUILDING SIZE REQUIREMENTS - AS PER SECTION 224-3

CATEGORY	REQUIRED / ALLOWED	EXISTING	PROPOSED	REMARK
Building Height	2.5 STY/ 35 FT	2.5 STY/ 35 FT	No Change	

OFF-STREET PARKING REQUIREMENTS - AS PER SECTION 224-14

CATEGORY	REQUIRED / ALLOWED	EXISTING	PROPOSED	REMARK
Parking Space	2 Min.	>4Spaces	No Change	

General Notes:

¹ Basement has been excluded as per section 224-137 B of the Village of Irvington Zoning Code

The building is to be used as a home office, which is an allowed accessory use as per Section 224-8 B (1) of the Village of Irvington Zoning Code

(a) The home occupation will be carried by the resident of the premises.

(b) The home occupation is incidental and subordinate to the residential use of the premises.

(c) There will not be more than the equivalent of one nonresident full-time employee, associate, or assistant.

(d) The home occupation will not be carried on in the area outside of the dwelling unit and any accessory building.

(e) There will be no display of goods, supplies or advertising visible from any street and there will be no outdoor storage of goods or supplies.

(f) There will be no sign identifying the permitted home occupation.

(g) Delivery or pickup of parcels will not be significantly different from what would be expected for a residence without such home occupation.

(h) There will be no offensive: noise, vibration, smoke, dust, odor or other emission and no lighting or heat generated by the home occupation noticeable to persons on nearby premises; and there will be no electrical, television or radio interference to neighboring properties and no storage for sale or sale of dangerous materials.

(i) The home occupation will not add significantly to the quantity of waste material that would be expected for a residence without such home occupation.

(j) The home occupation will not discharge into any sewer, drain or the ground any material other than domestic sanitary sewage or any material that is radioactive, poisonous, detrimental to normal sewer plant operation or corrosive to sewer or stormwater pipes and installations.

(k) Such occupation will in no manner change the residential character of the dwelling unit.

Ciaravella /
Maher
Residence

1 Shady Lane
Irvington, New York 10533

NO.	DATE	ISSUE/REVISION
	03/04/23	Submission for ZBA Approval
	02/15/23	Resubmission for IPB Approval
	01/18/23	Submission for IPB Approval



FERGUSON MALONE ARCHITECTURE
ONE BRIDGE STREET
IRVINGTON NY 10533
T 914 591 5066 F 914 591 5031

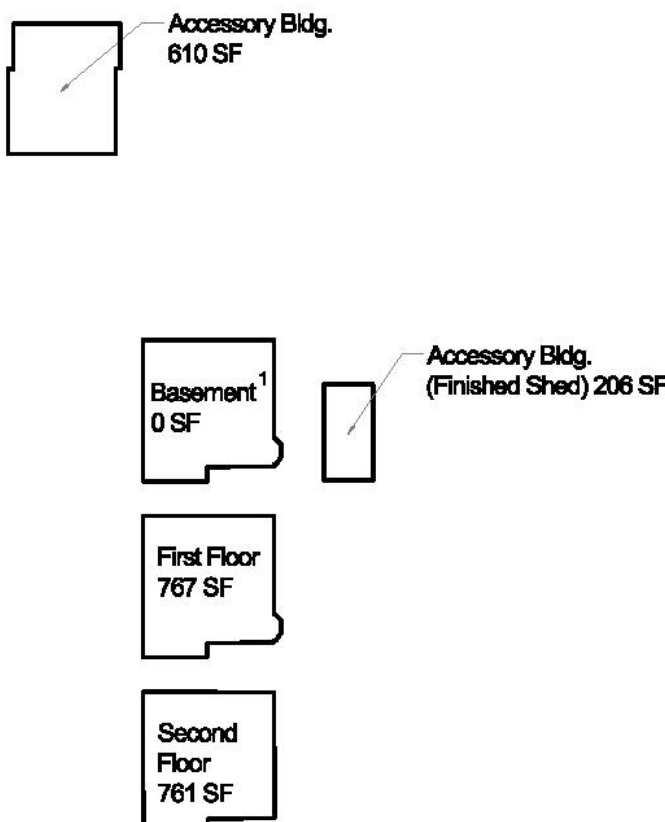
COVERAGE DIAGRAMS

Existing	Coverage Calculations
Primary Building	767
Accessory Building	816
Walks	392
Deck	202
Porches	28
Patio	608
Equipment Pads	0
Retaining Walls	46
Swimming Pool	0
Pool Patios	0
Pool Equipment Pad	0
Other (window wells)	0
Total Existing Coverage:	2,960 (74% of Allowable)

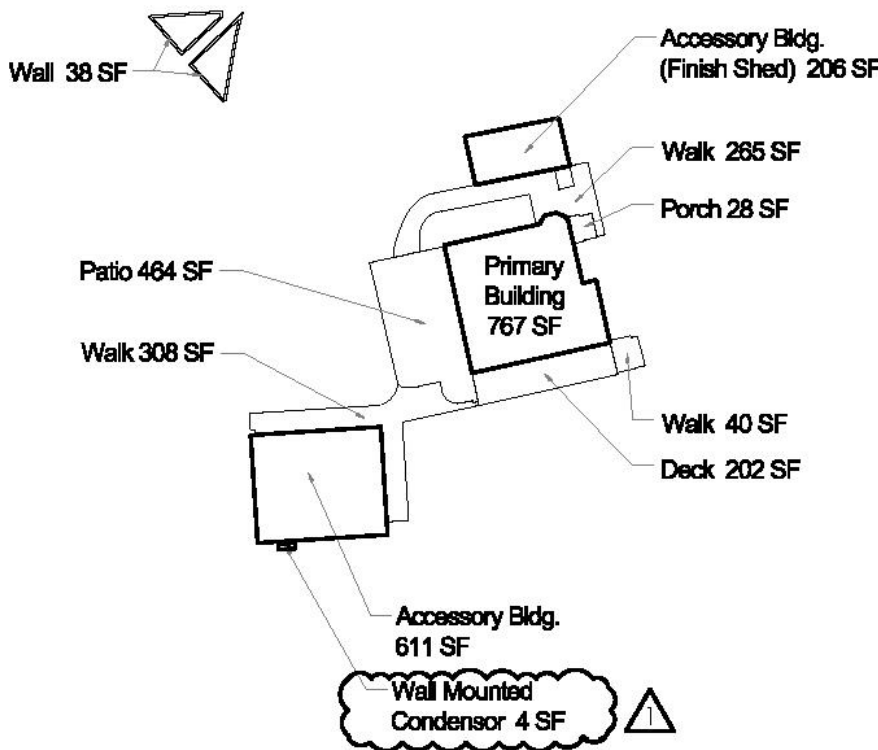
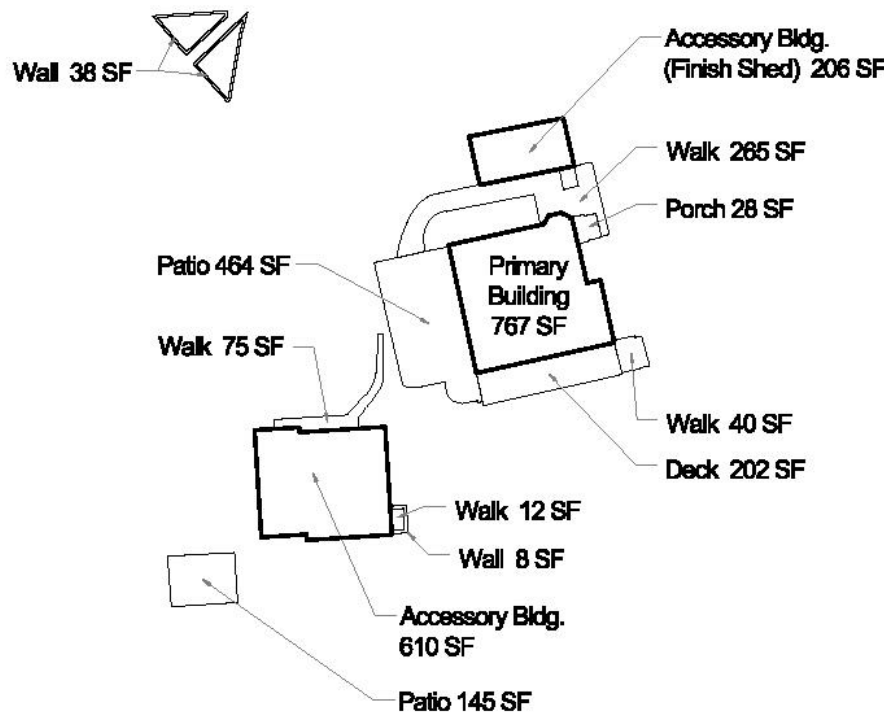
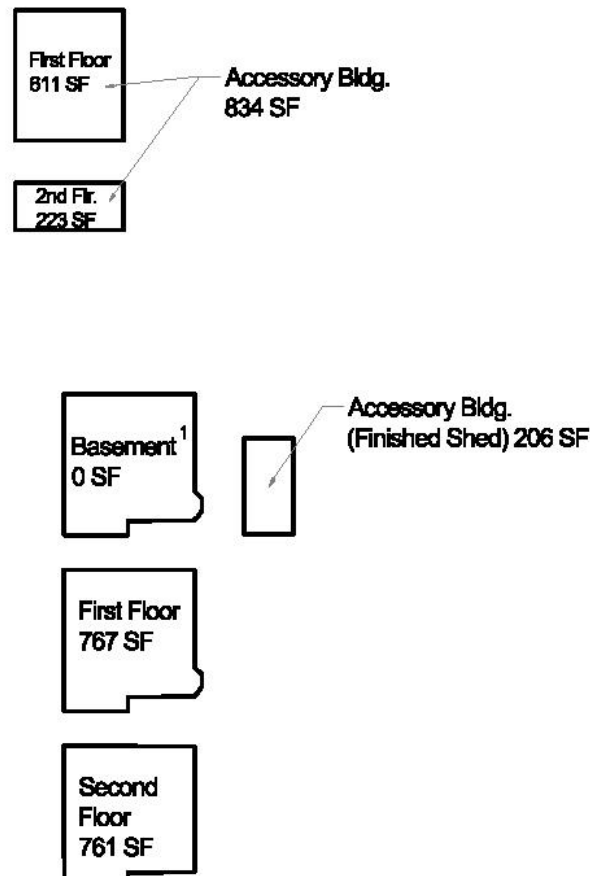
Proposed	Coverage Calculations
Primary Building	767
Accessory Building	817
Walks	613
Deck	202
Porches	28
Patio	464
Equipment Pads	0
Retaining Walls	38
Swimming Pool	0
Pool Patios	0
Pool Equipment Pad	0
Other (overhang, misc. pads)	4
Total Existing Coverage:	2,933 (76% of Allowable) ⚠

FLOOR AREA DIAGRAMS

Existing	FAR Calculations
Basement	0 ¹
First Floor	767
Second Floor	761
Accessory Bldg.	610
Accessory Bldg. (Finished Shed)	206
Total Existing FAR:	2,344 (42% of Allowable)



Proposed	FAR Calculations
Basement	0 ¹
First Floor	767
Second Floor	761
Accessory Bldg.	834
Accessory Bldg. (Finished Shed)	206
Total Existing FAR:	2,568 (46% of Allowable)



Zoning Analysis

SCALE: As Noted

DATE: 01/18/23

JOB: 2202

G-1.00

Ciaravella /
Maher
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1 Shady Lane
Irvington, New York 10533



1 Existing North Facade

No Scale



2 Existing West Facade



3 Existing South Facade

No Scale



4 Existing West Facade

A	06/01/23	Submission for ARB Approval
	09/06/23	Submission for ZBA Approval
B	02/15/23	Resubmission for IPB Approval
	01/18/23	Submission for IPB Approval
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Images of Existing

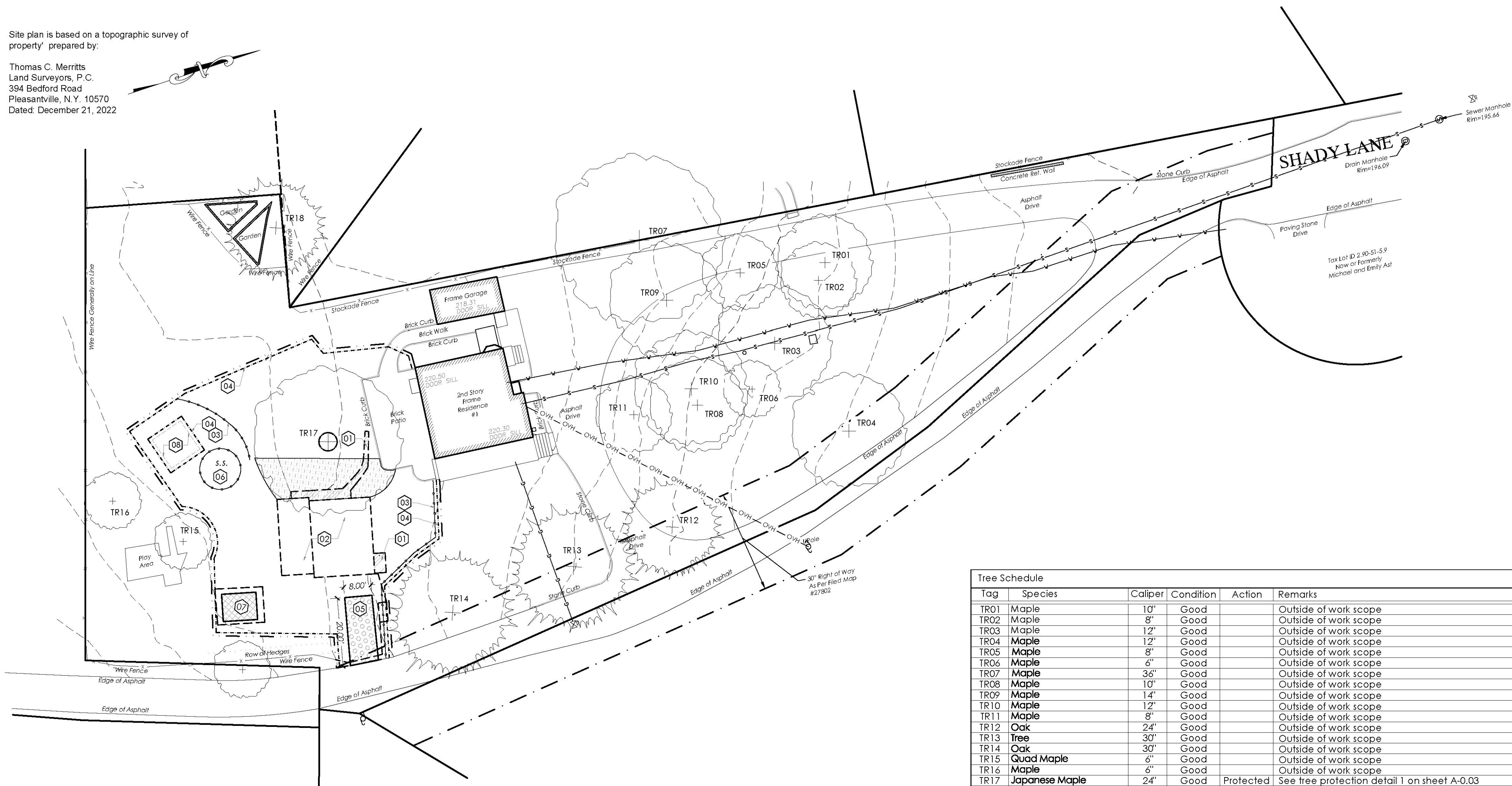
SCALE: As Noted

DATE: 01/18/23

JOB: 2202

G-1.01

Thomas C. Merritts
Land Surveyors, P.C.
394 Bedford Road
Pleasantville, N.Y. 10570
Dated: December 21, 2022



1' = 30'-0'

Tree Schedule					
Tag	Species	Caliper	Condition	Action	Remarks
TR01	Maple	10"	Good		Outside of work scope
TR02	Maple	8"	Good		Outside of work scope
TR03	Maple	12"	Good		Outside of work scope
TR04	Maple	12"	Good		Outside of work scope
TR05	Maple	8"	Good		Outside of work scope
TR06	Maple	6"	Good		Outside of work scope
TR07	Maple	36"	Good		Outside of work scope
TR08	Maple	10"	Good		Outside of work scope
TR09	Maple	14"	Good		Outside of work scope
TR10	Maple	12"	Good		Outside of work scope
TR11	Maple	8"	Good		Outside of work scope
TR12	Oak	24"	Good		Outside of work scope
TR13	Tree	30"	Good		Outside of work scope
TR14	Oak	30"	Good		Outside of work scope
TR15	Quad Maple	6"	Good		Outside of work scope
TR16	Maple	6"	Good		Outside of work scope
TR17	Japanese Maple	24"	Good	Protected	See tree protection detail 1 on sheet A-0.03
TR18	Pine	28"	Good		Outside of work scope

- 01 Existing walk to be removed.
- 02 Existing structure including foundation is to be removed in its entirety.
- 03 Silt Fence - See detail #6 on sheet A-1.03 for further information.
- 04 Construction Fence - See detail #5 on sheet A-1.03 for further information.
- 05 Stabilized Construction Entrance - See detail #7 on sheet A-1.03 for further information .
- 06 Soil Stockpiling - See detail #4 on sheet A-1.03 for further information.
- 07 Material Storage - Material and equipment storage area - lawn areas is to be reestablished as soon as material storage area is no longer needed. Silt fencing to stay in place until lawn has been reestablished and there is no risk of erosion.
- 08 Location of stormwater system - See Proposed Architectural Site plan on sheet A-0.02.

Structure to remain.

Landscape to be removed

Protected tree to remain.
Armor Type Protection - see detail 1 on sheet A-0.03

Existing tree to be removed

Tree to remain

Protected tree to remain.
Snow Type Protection - see detail 2 on sheet A-0.03

Root Compaction Protection - see detail 3 on sheet A-0.03

Line of disturbance ~ -5.841 S.F.

Approximate location of electrical line

Approximate location of water line

Approximate location of gas line

Approximate location of sewer line


Approximate location of overhead electrical line

1. As-built drawings of the site improvements shall be submitted to the village engineer for review prior to obtaining certificate of occupancy.
2. Inspection ports are to be shown on the as-built drawings of the site.
3. When tree roots are encountered during excavation, they shall never be pulled with machinery. Where necessary cut roots cleanly and bridge when possible.
4. Excavation within tree drip lines shall be completed by hand.
5. Existing utilities will not be disturbed by proposed work.
6. Existing roof leaders will not be disturbed by proposed work.
7. No soil is to be brought to the site, excess soil associated with excavation for footings and stormwater system is to be removed and disposed of as approved by the regulatory authority.

1. Place orange construction fencing around areas to be used for infiltration to avoid compaction
2. Install construction entrance to the development area
3. Establish construction staging area
4. Install free protection and roof protection as noted on plans.
5. Areas where construction equipment is brought in should be protected by reducing soil compaction with a cushion of woodchips and plywood.
6. Root zones should be fenced off where activity is not to take place.
7. When excavation intrusion has to take place root pruning within a reasonable distance to avoid destabilizing the structural integrity of a tree can be accomplished using a stump grinding machine.
8. Install slip fence down slope of all areas to be disturbed as shown on plans
9. Strip topsoil and stockpile at the locations specified on the plans (up gradient of erosion control measures). Temporally stabilize topsoil stockpiles (hydroseed during May 1st through October 31st planting season or by covering with a tarpaulin)(s November 1st through April 30th) install slip fence around toe of slip
10. Demolish any existing site features and/or structures noted as being removed on the construction documents, and dispose of off site
11. Rough grade site
12. Excavate on install stormwater units per manufacturer's recommendations and requirements. Stowwater units shall be temporarily plugged until the completion of construction and the site is stabilized
13. Install all pretreatment devices, catch basins and piping
14. Excavate and construct foundations for addition
15. Construct building additions
16. Fine grade and seed all disturbed areas. Clean drain lines and exfiltration galleries. Ensure grass stand is achieved
17. Unplug stormwater system. Install and connect all roof drain leaders.
18. Install 4'-6" of topsoil, fine grade, seed in all disturbed areas and install landscape plantings. Spread soil hay over seeded areas
19. Remove all temporary soil erosion and sediment control measures after the site is stabilized with vegetation
20. Soil erosion and sediment control maintenance must occur weekly and prior to and after every 1/2" or greater rainfall event.
21. Post-construction practices where root loss has occurred would include Cambistat application and if soil compaction is present sub-surface injection of water at 75 lbs pressure is recommended.

1. Install all erosion control measures prior to the start of construction. Call for inspection from appropriate municipal authority.
2. The village engineer may require additional erosion control measures if deemed necessary.
3. Erosion control measures must be uniform across all areas of erosion of disturbed soils.
4. After rain causing runoff, contractor is to inspect all erosion control measure and correct any problems.
5. Remove unneeded subgrade soil from site and provide final grading.
6. Spread topsoil evenly over areas to be seeded and seed with fast growing variety of grass seed and install all landscaping.
7. Once grass and planting beds are established remove all erosion control measure and call for final inspection.
8. Erosion control shall be inspected of debris twice a year. Stormwater channels shall be inspected yearly. Debris and sediment shall be removed if found.

1 Shady Lane
Irvington, New York 10533

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	02/15/23	Resubmission for IPB Approval
	01/18/23	Submission for IPB Approval
NO.	DATE	ISSUE/REVISION



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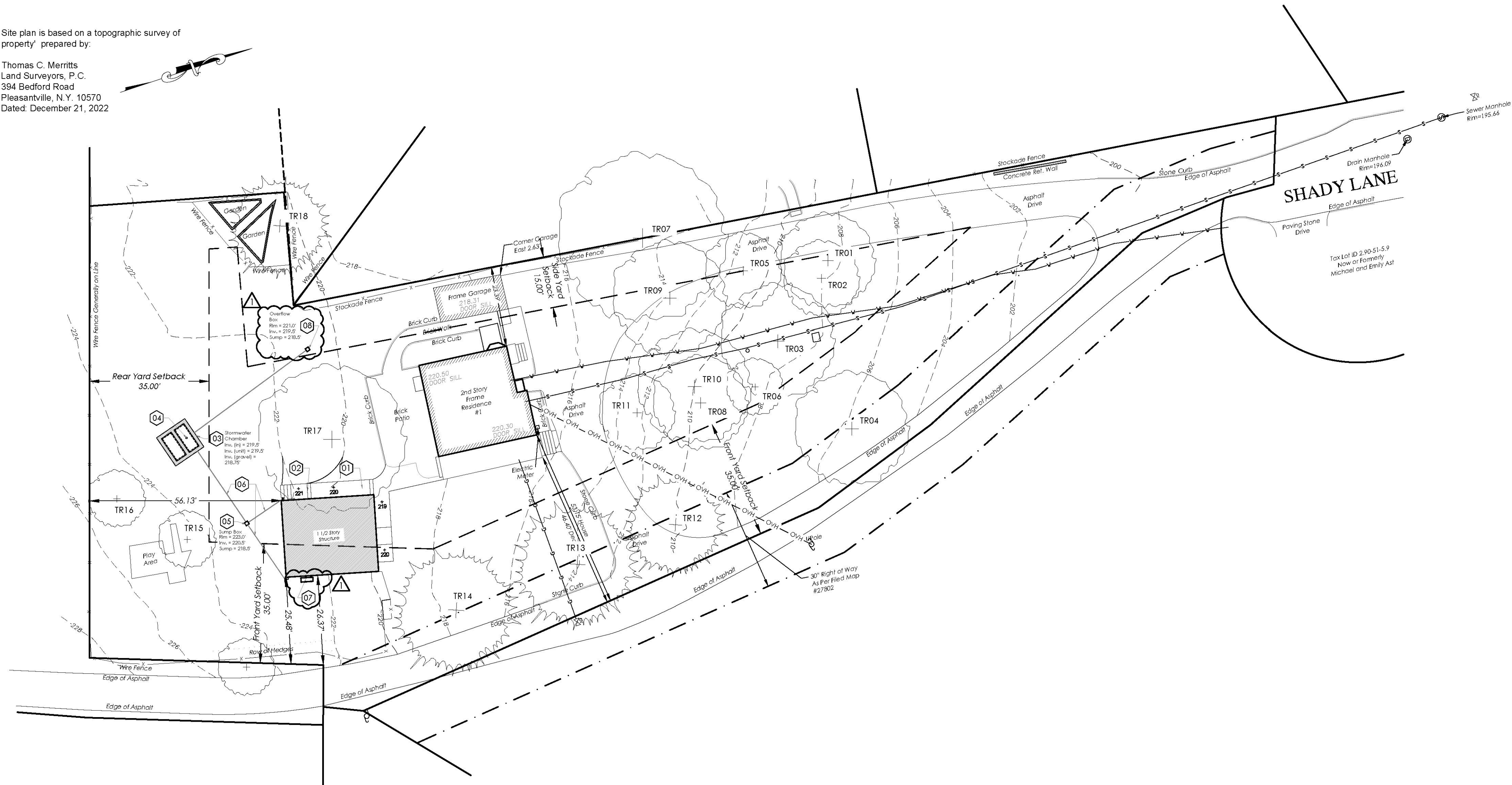
Proposed Site Demolition, Tree Protection & Erosion Control Mitigation Plan

JOB: 2202

A-0.01

Site plan is based on a topographic survey of property prepared by:

Thomas C. Merritts
Land Surveyors, P.C.
394 Bedford Road
Pleasantville, N.Y. 10570
Dated: December 21, 2022



1 Proposed Architectural Site and Landscape Plan

1" = 20'-0"

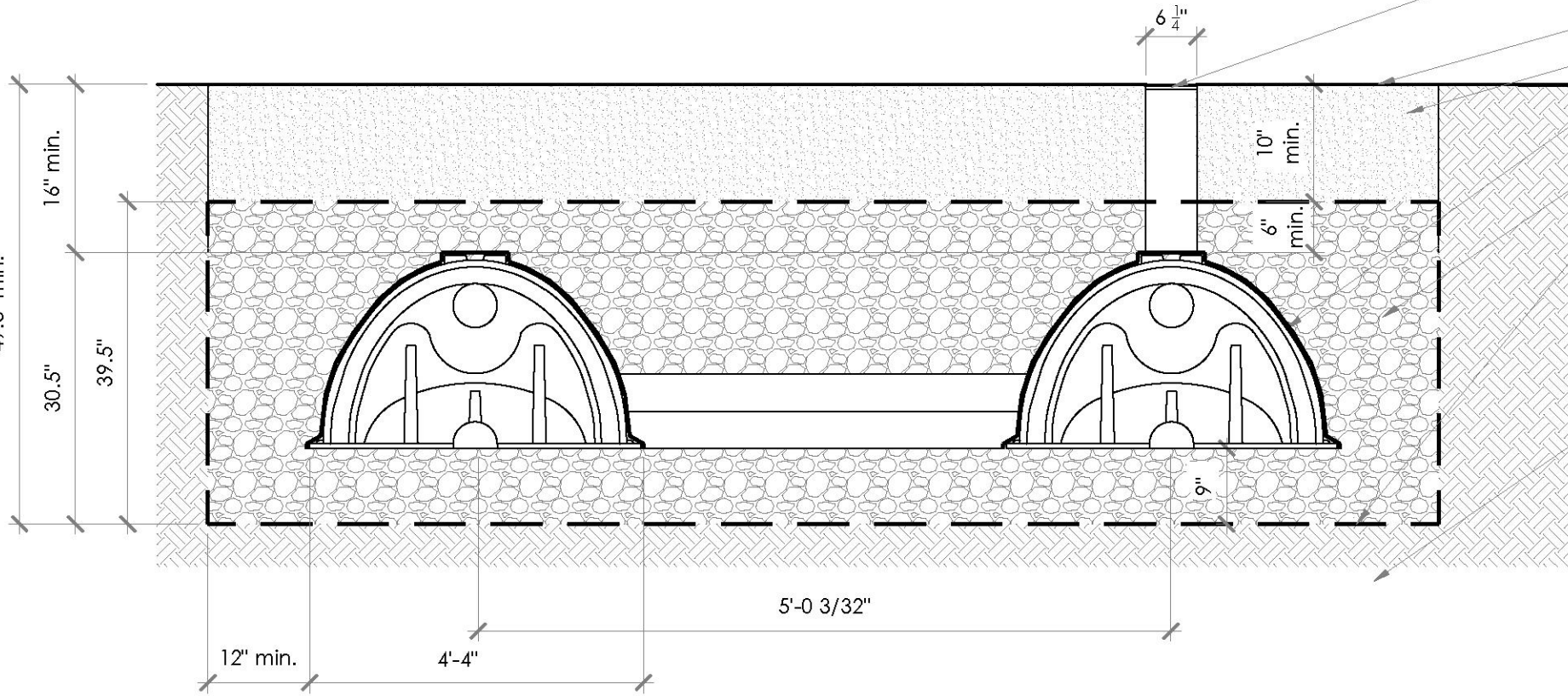
General Notes

Stormwater is designed as per Condition 1 Re-development up to 1,000SF w/ no change to runoff patterns of the Village of Irvington Stormwater Management Requirements and Guidelines.

Deep test pits will be performed prior to installation to confirm that there is no rock or ground water at the required depth.

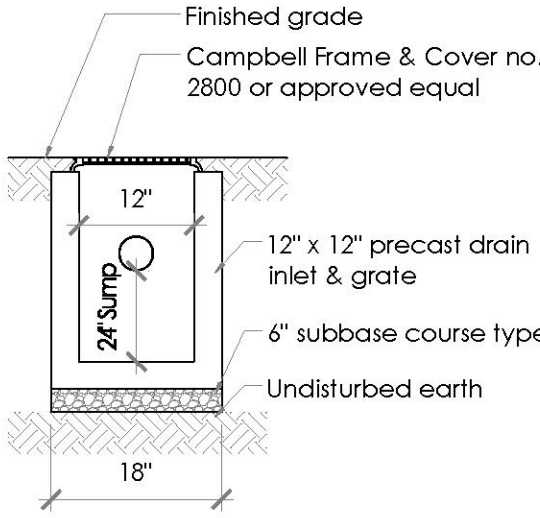
Stormwater System Capacity

- Proposed additional impervious surface: 1 sf
- Proposed redeveloped impervious surface: 610 sf
- Total impervious surface to be mitigated: 611 sf
- Required Retention Capacity (as per Condition 1 of the Irvington Stormwater Management Requirements and Guidelines - 100yr storm, CN-pre S9, CN-post 98): $(0.4F \times 611 \text{ sf})/2 = 122.2 \text{ cf}$
- Total Proposed Capacity of Proposed System: 257.9 cf - See attached calculations.
- Soil testing to confirm sizing and infiltration requirements will be performed prior to construction and results submitted to the Village.



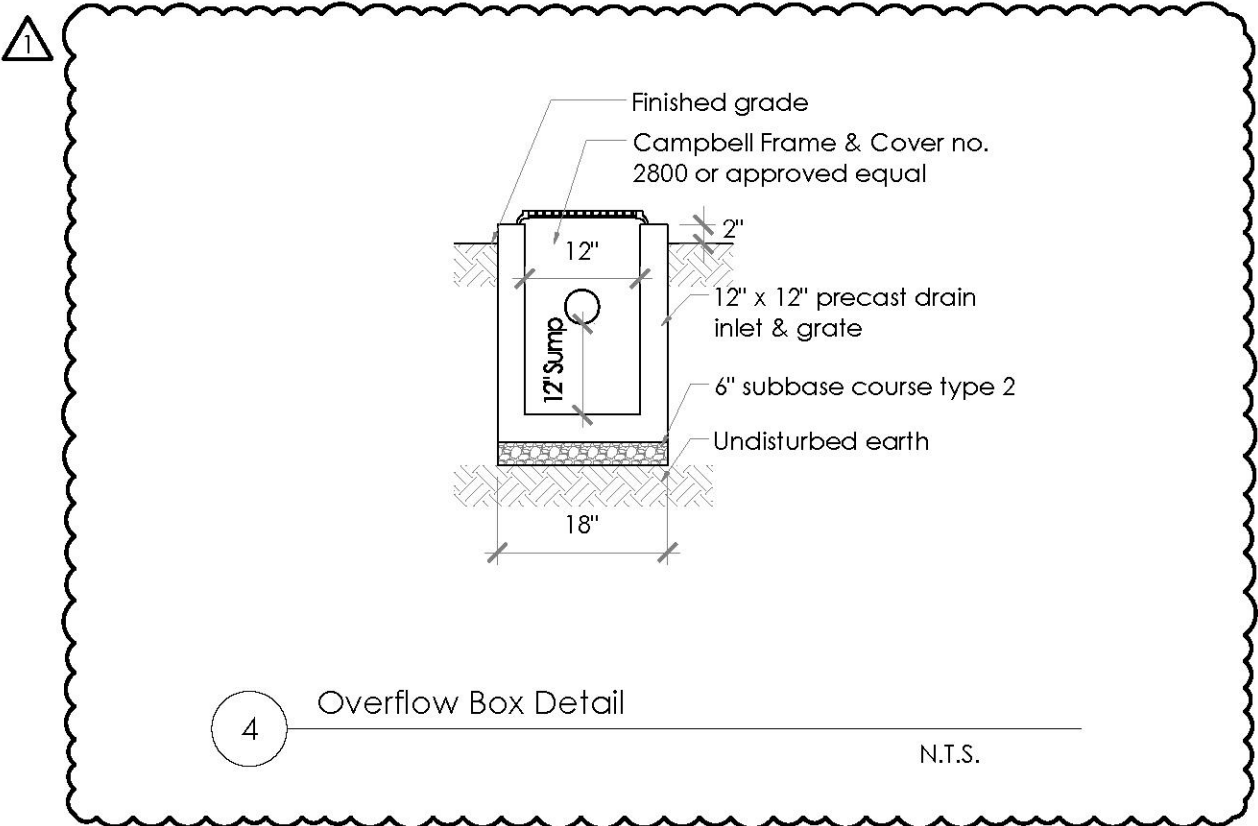
2 Stormwater Detail

N.T.S.



3 Sump Box Detail

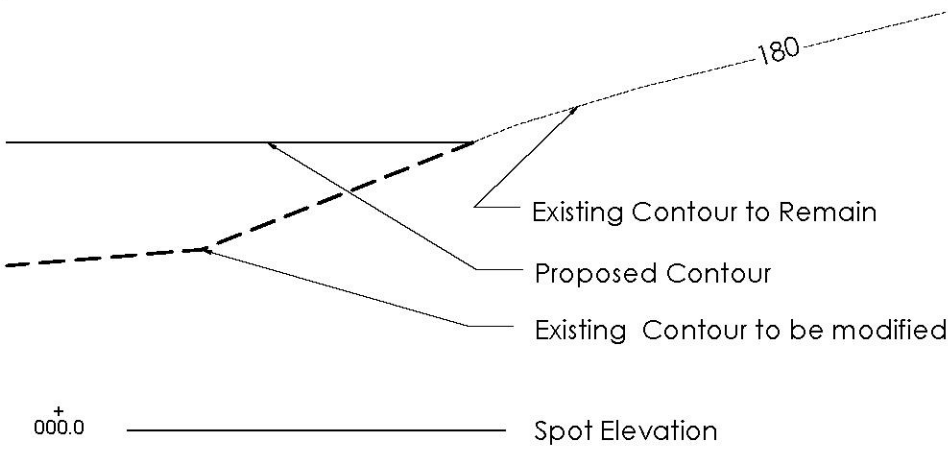
N.T.S.



4 Overflow Box Detail

N.T.S.

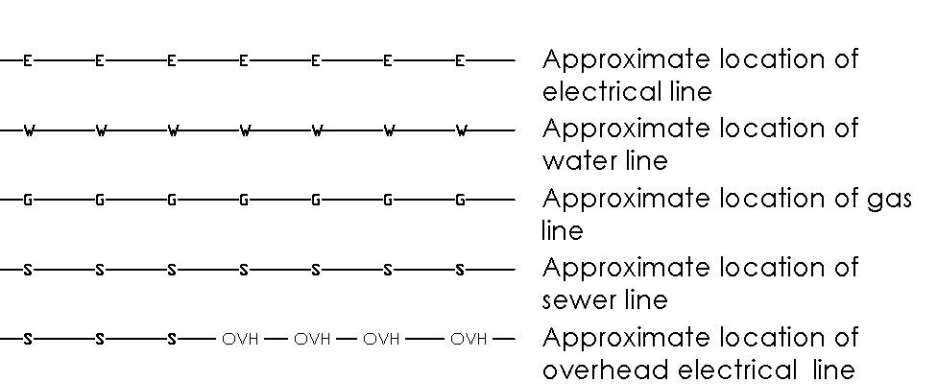
Proposed and Existing Grading



Landscape



Utilities Legend



General Notes

- The Building Inspector or Village Engineer may require additional erosion control measures if deemed appropriate to mitigate unforeseen siltation and erosion of disturbed soils.
- As-built drawings of the site improvements shall be submitted to the Village Engineer for review prior to obtaining certificate of occupancy.
- Existing utilities will be revised and reinstalled for the new structure.
- The infiltration system must not be connected until construction is complete and the site is stabilized.
- Infiltration system access ports shall be shown on the 'As-Built'.
- All disturbed areas not indicated to be planted with groundcover or other plantings are to be seeded as lawn.
- Cut/fill material shall not be imported to or exported from the site.

Post Construction Stormwater Management

Inspections shall be performed once per year, in the spring or early summer, to determine if the sediment deposition within the drain inlet sump needs to be removed. At that time, drain inlet cleaning shall be performed and shall consist of the removal of all accumulated sediment or leaves and their proper disposal as well as any necessary repairs to the drain inlet frame or gate.

Site Lighting General Notes

All outdoor lighting to be dark-sky compliant and to meet requirements of Section 224-72.C (4) of the Village Code.

All lighting shall be dark-sky compliant. All lighting fixtures shall be full cutoff and shall utilize light shields as necessary to reduce light trespass and glare. Lighting shall be designed to the minimum level required for health and safety and shall not exceed five footcandles.

Refer to proposed exterior elevations for lighting locations.

Key Notes

- Proposed Walk - Proposed masonry walk. Refer to detail #8 on sheet A-0.03.
- Proposed Steps - Proposed steps. Refer to detail #8 on sheet A-0.03.
- Proposed Stormwater chamber - See detail #2.
- Inspection Port - See detail #2 on this sheet.
- Sump Box - 12 x 12 precast sump box with 24" sump below invert of pipe. Campbell Frame and Cover No. 2800 o.a.e.; see detail #3 on this sheet.
- Stormwater Piping - 6" Ø HDPE N-12 @ 1% Min.
- Proposed wall mounted condensor unit.
- Overflow Box - 12 x 12 precast sump box with 12" sump below invert of pipe. Campbell Frame and Cover No. 2800 o.a.e.; see detail #4 on this sheet.

Ciaravella /
Maher
Residence

1 Shady Lane
Irvington, New York 10533

NO.	DATE	ISSUE/REVISION
	03/04/23	Submission for ZBA Approval
	02/15/23	Resubmission for IPB Approval
	01/18/23	Submission for IPB Approval



FERGUSON MALONE ARCHITECTURE
ONE BRIDGE STREET
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Proposed
Architectural
Site Plan

SCALE: As Noted

DATE: 01/18/23

JOB: 2202

A-0.02

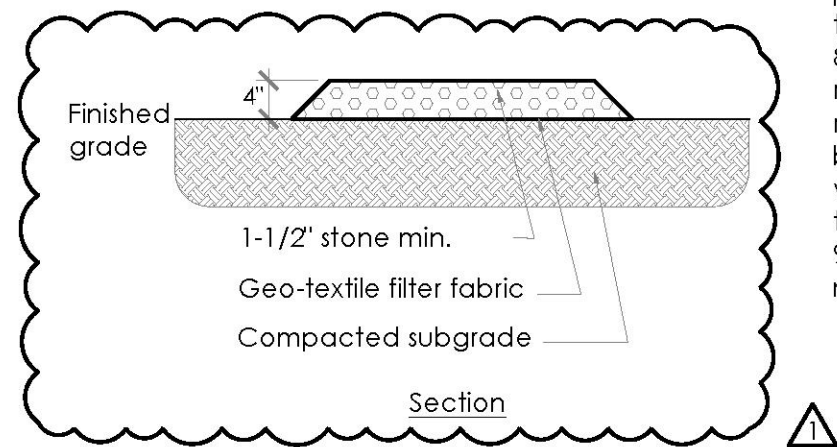
1 Shady Lane
Irvington, New York 10533



1. In areas outside of root zones, excavate a 4" x 4" trench along the line of the fence where indicated. In root zone areas, no trench is to be used and fencing is to be left on top of the existing grade with soil or root protection material used to hold bottom of fencing material in place as to not disturb existing roots.
2. Unroll a section at a time and position the posts against the back (downstream) wall of the trench (net side away from direction of flow)
3. Drive the post into the ground until the netting is approx. 2 inches from the trench bottom.
4. Lay the toe-in-flap of fabric onto the undisturbed bottom of the trench, backfill the trench and tap the soil. steeper slopes require an intercept trench.
5. Join sections as shown above.

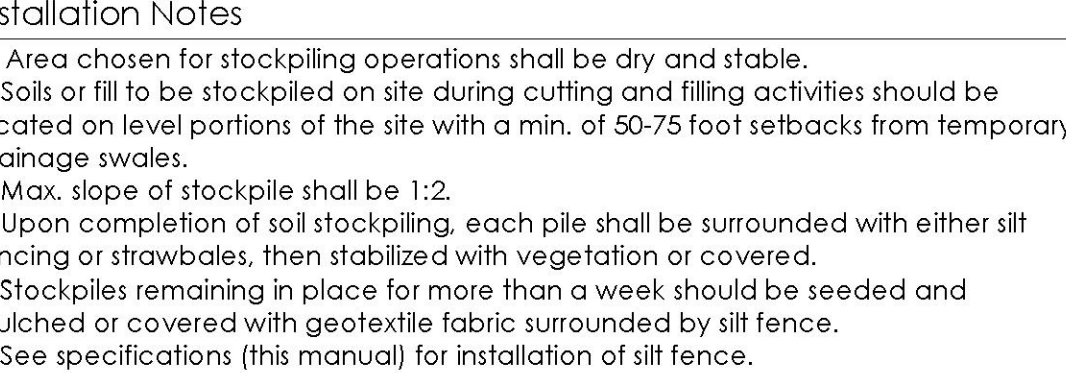


6	N.T.S.
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1. Stone size - use 1-1/2" stone
2. Length - As indicated on site plan
3. Thickness - not less than 4-6 inches
4. Width - As indicated on site plan
5. Filter cloth - will be placed over entire area
6. Surface water - all surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right of way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment, all sediment spilled, dropped, washed or tracked onto public right of way must be removed thoroughly.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public right of way. When Washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall occur each rainfall event

7	Stabilized Construction Entrance	N.T.S.
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Soil Stockpiling	N.T.S.
------------------	--------

5 Construction Fence

8 1 1/2" = 1'-0"

2202



Window Notes

All new windows to meet the requirements of NY Stretch Energy Code 2020 - Refer to Table R402.1.2 Insulation and Fenestration Requirements by Components and Table R402.1.4 Equivalent U-Factors on sheet A-0.00 General Notes and List of Drawings.
Operable windows hardware to match existing windows.

Verify rough opening and wall thickness for window jamb dimensions in field.



Type	Description	Manufacturer	Product No.	Width	Material	Finish	Remark
A	Entry Door System	TruStile	PL229	1 3/4"	Mahogany	Primed	6 9/16" Jamb Width, CB - Sticking Option w/ A - Raised Panel
B	Elevate Sliding Patio Door	Marvin	ELSPD12070		Fiberglass / Pine	Primed	6 9/16" Jamb Width
C	Interior 1 Panel Door	TruStile	TS1000	1 3/4"	Poplar	Primed	4 9/16" Jamb Width, OG Sticking Option w/ A - Raised Panel

Door Notes

All new doors to meet the requirements of NY Stretch Energy Code 2020 - Refer to Table R402.1.2 Insulation and Fenestration Requirements by Components and Table R402.1.4 Equivalent U-Factors on sheet A-0.00 General Notes and List of Drawings.

Submit door and hardware specifications and shop drawings for architects approval.

See door details for casing information.

Saddle Types

1. As per manufacturer 2. Flush Wood 3. Stone

Door Hardware Schedule

Category	Type	Description	Manufacturer	Product Number	Finish	Remark
Entry	1	Hinges	TBD	TBD	TBD	
		Mortise Entry Set	TBD	TBD	TBD	
		Lever	TBD	TBD	TBD	
Privacy	2	Hinges	Emtek	96213	TBD	
		Knob	Emtek	Winchester Knob	TBD	
		Rosette	Emtek	#2 Rosette	TBD	
		Function	Emtek	Privacy Set - 7206	TBD	
Passage / Closet	3	Hinges	Emtek	96213	TBD	
		Knob	Emtek	Winchester Knob	TBD	
		Rosette	Emtek	#2 Rosette	TBD	
		Function	Emtek	Passage Set - 7106	TBD	

Door Hardware Notes

Submit door and hardware specifications and shop drawings for architects approval.

Finish hardware shall be premium grade Baldwin or as indicated in hardware schedule.

Functional and finish hardware shall be provided by and installed by contractor and shall be installed as per manufacturer's specifications.

Verify backset distance and door thickness and coordinate with selected door hardware.

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SCALE: As Noted

DATE: 01/18/23

JOB: 2202

A-0.10

1 Shady Lane
Irvington, New York 10533

Existing Partition to be Removed

Existing Partition Wall to Remain

Demolition: Demolish and remove existing construction in its entirety. Use methods required to complete the work within limitations of governing regulations. Remove foundation, footing, drains and all related appurtenances.

Dispose of demolished items and materials promptly.

Preparation: Conduct demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and adjacent properties.

Utility service and mechanical and electrical systems: Maintain existing utilities indicated to remain in service and protect them against damage during demolition operations. Locate, identify, disconnect, and seal or cap off indicated utility services.

Disposal of demolished materials: Remove demolished materials from project site and legally dispose of them in an epa-approved landfill. Do not burn demolished materials.

Refer to Site Demolition and Tree Protection Plan for additional demolition scope.

2	05/01/23	Submission for ARB Approval
	03/06/23	Submission for ZBA Approval
1	02/15/23	Resubmission for IPB Approval
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NO.	DATE	ISSUE/REVISION



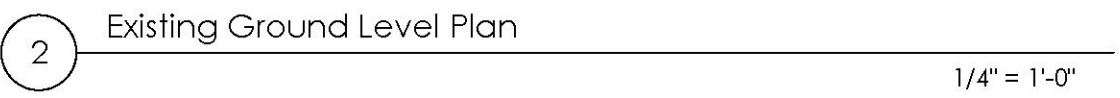
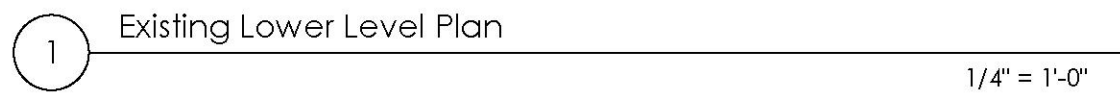
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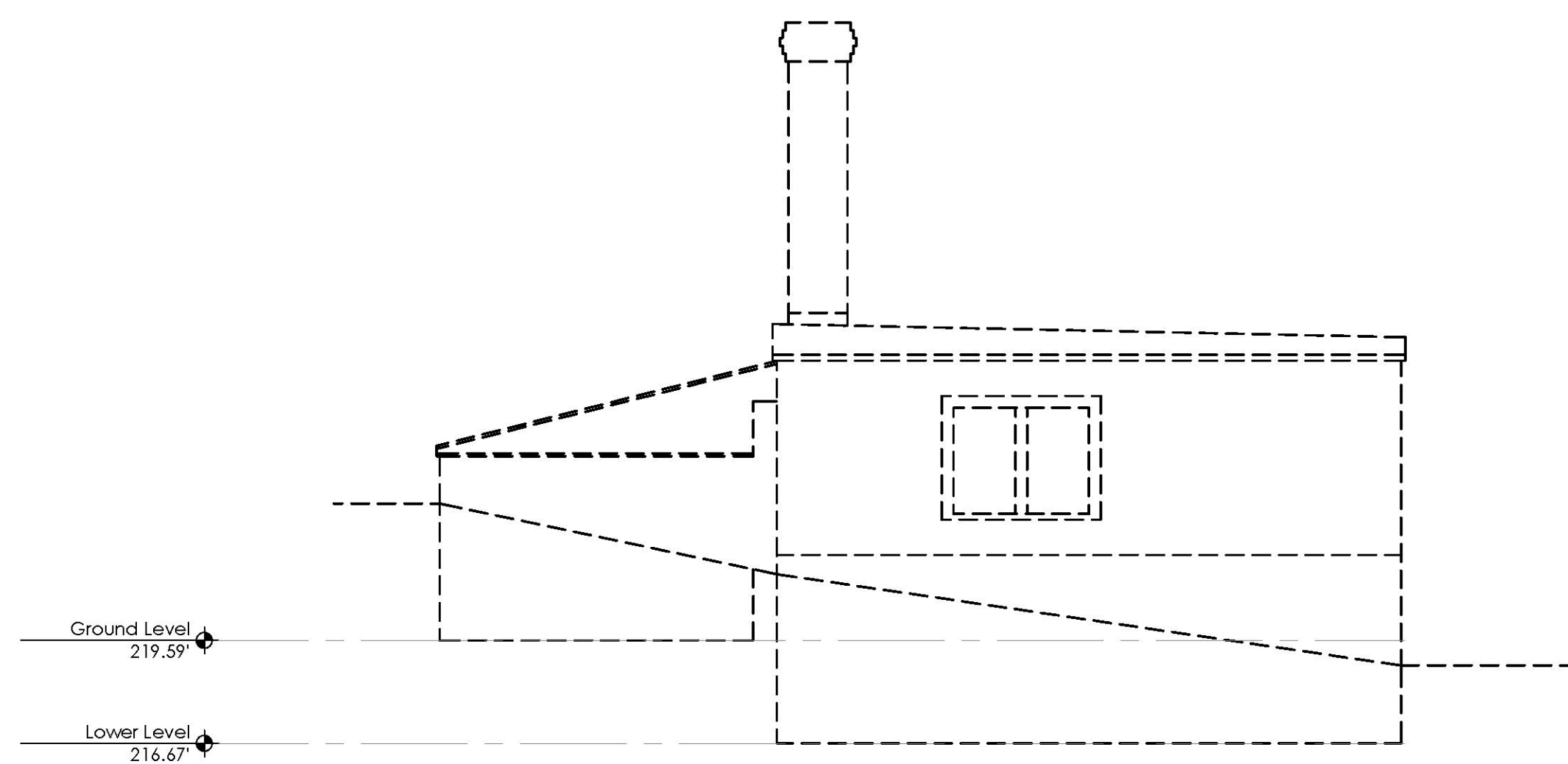
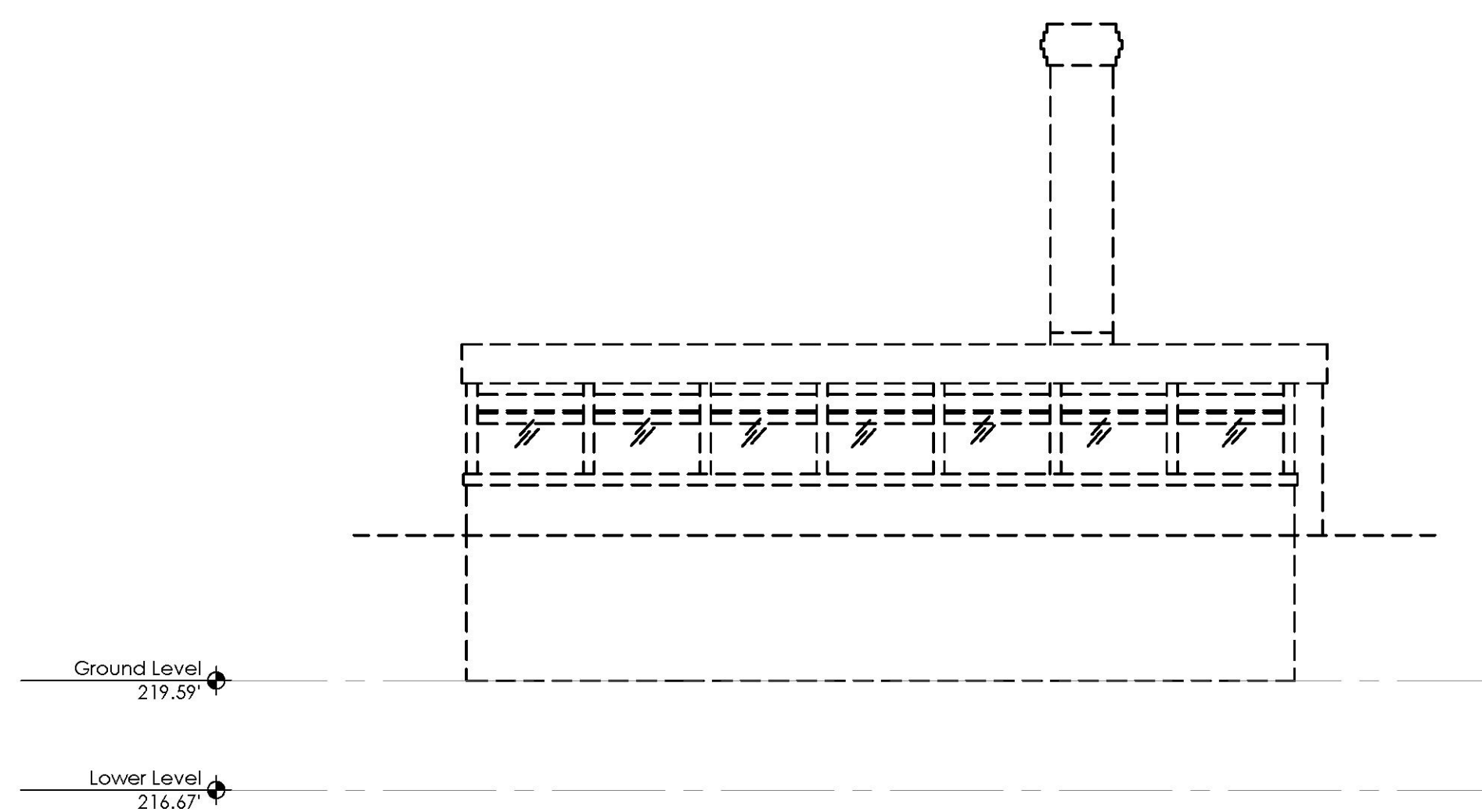
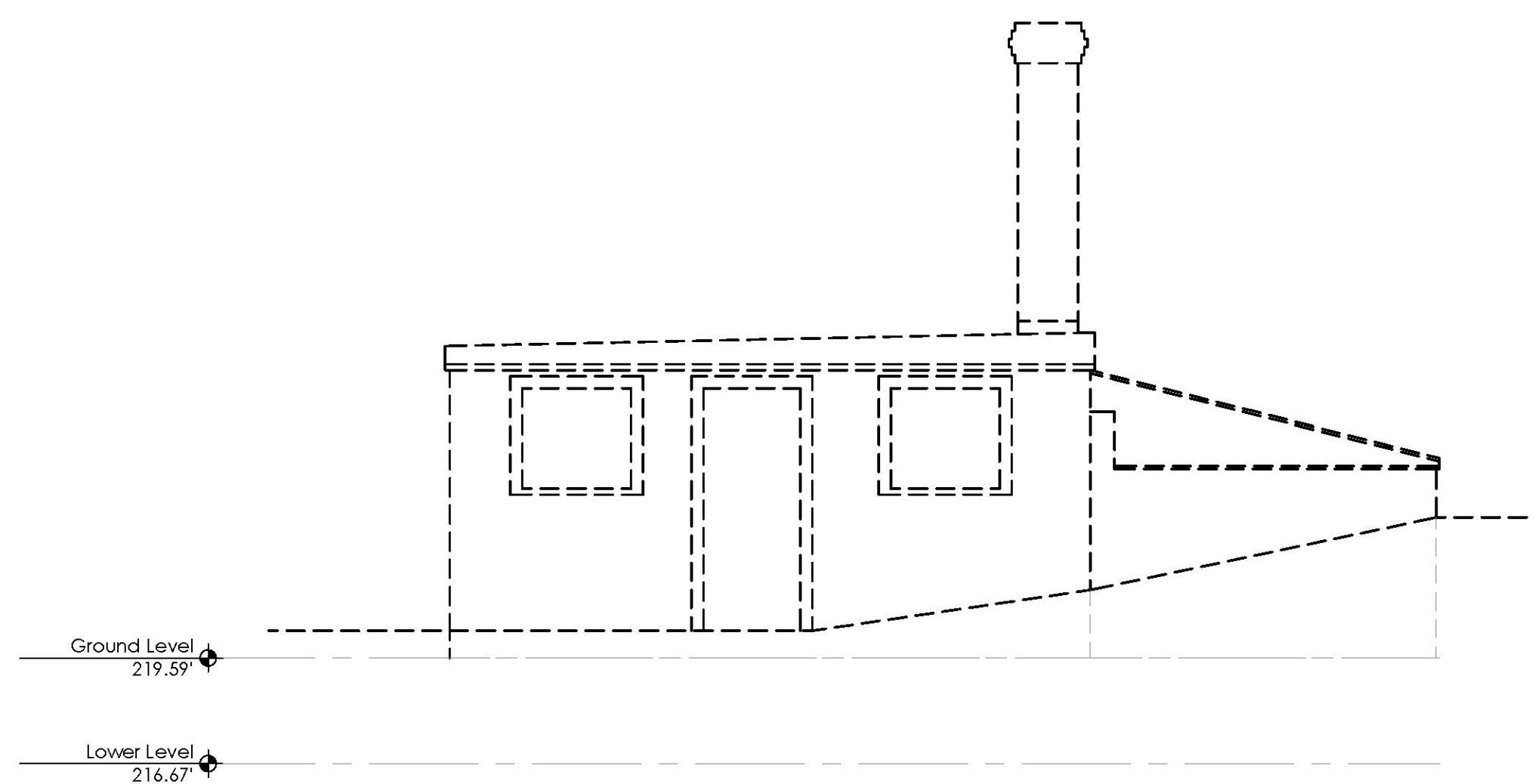
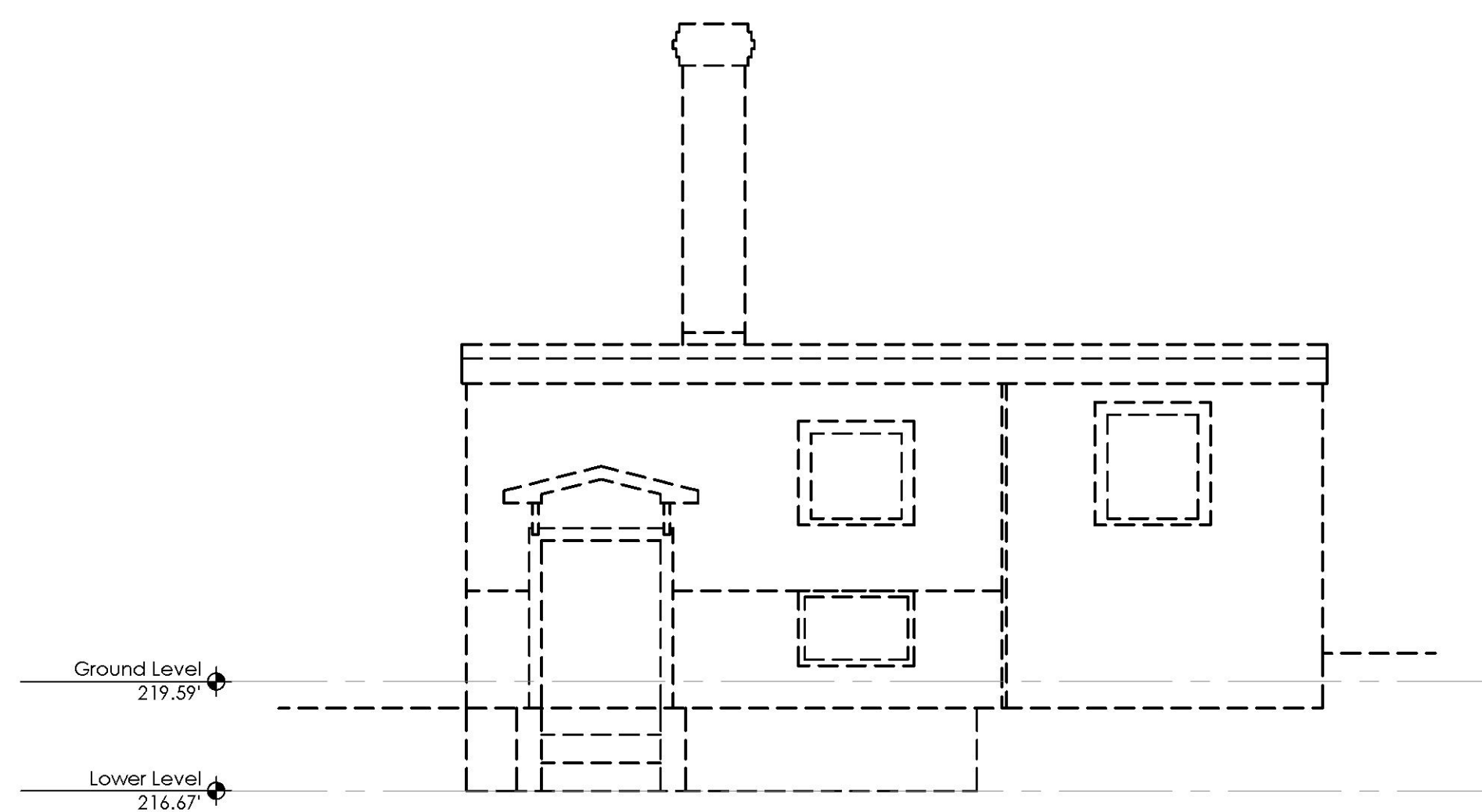
SCALE: As Noted

DATE: 01/18/23

JOB: 2202

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Demolition Notes

Demolition: Demolish and remove existing construction in its entirety. Use methods required to complete the work within limitations of governing regulations. Remove foundation, footing, drains and all related appurtenances.

Dispose of demolished items and materials promptly.

Preparation: Conduct demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and adjacent properties.

Utility service and mechanical and electrical systems: Maintain existing utilities indicated to remain in service and protect them against damage during demolition operations. Locate, identify, disconnect, and seal or cap off indicated utility services.

Disposal of demolished materials: Remove demolished materials from project site and legally dispose of them in an epa-approved landfill. Do not burn demolished materials.

Refer to Site Demolition and Tree Protection Plan for additional demolition scope.

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1 Shady Lane
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2	05/01/23	Submission for ARB Approval
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Demolition Elevations

SCALE: As Noted

DATE: 01/18/23

JOB: 2202

A-1.10

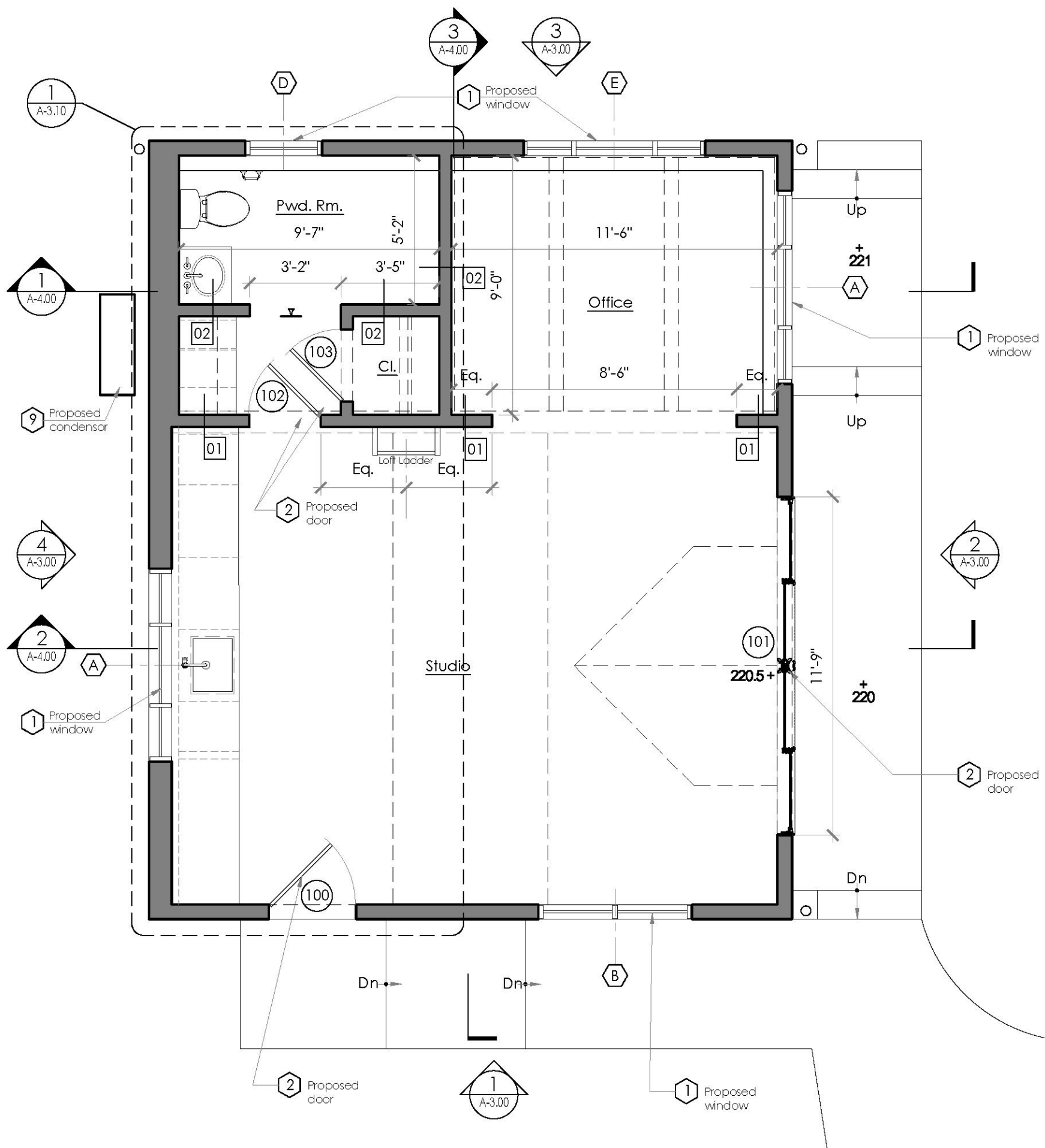
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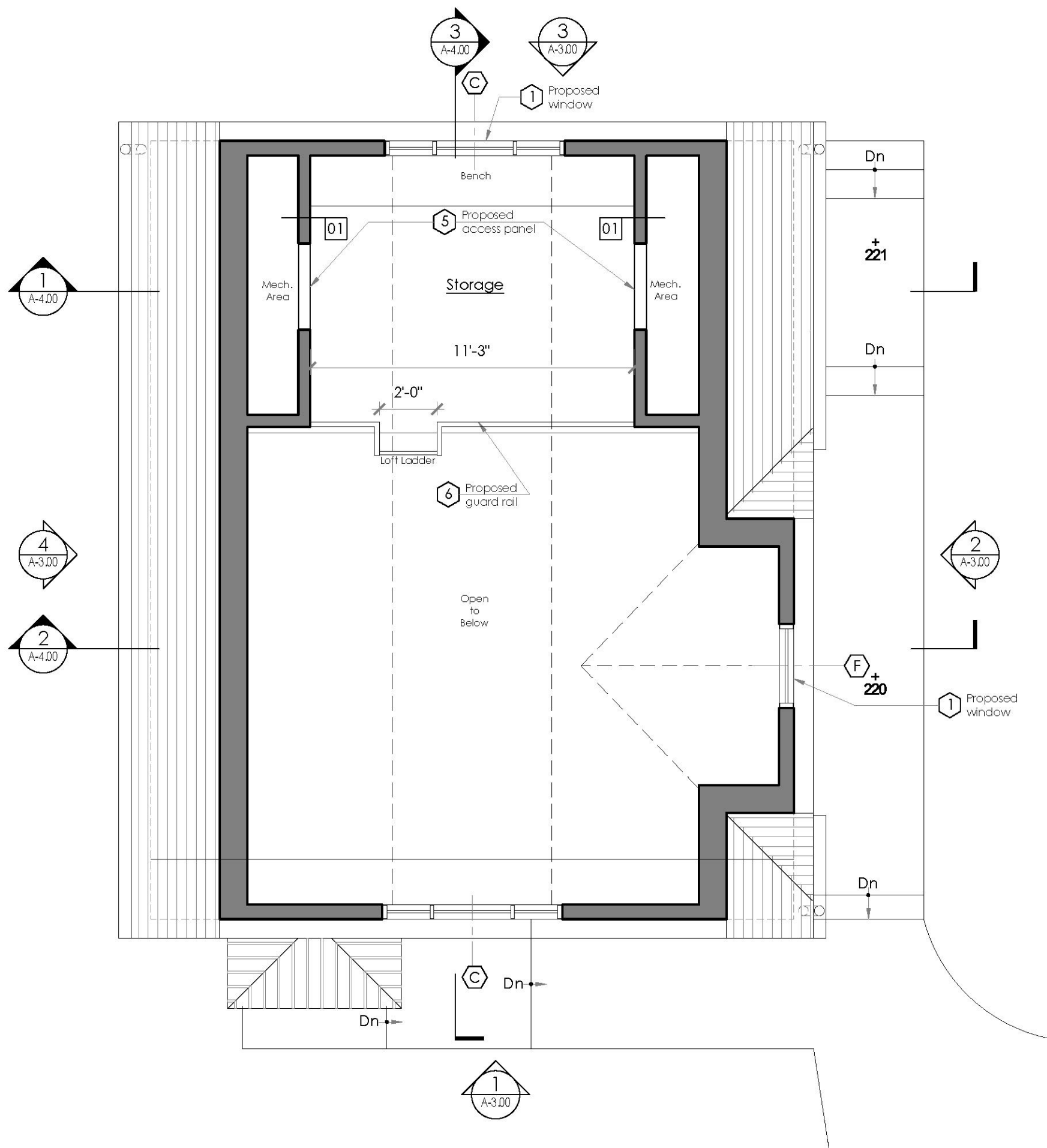
NO.	DATE	ISSUE/REVISION
2	05/01/23	Submission for AIB Approval
	03/04/23	Submission for ZBA Approval
1	02/15/23	Resubmission for IPB Approval
	01/18/23	Submission for IPB Approval



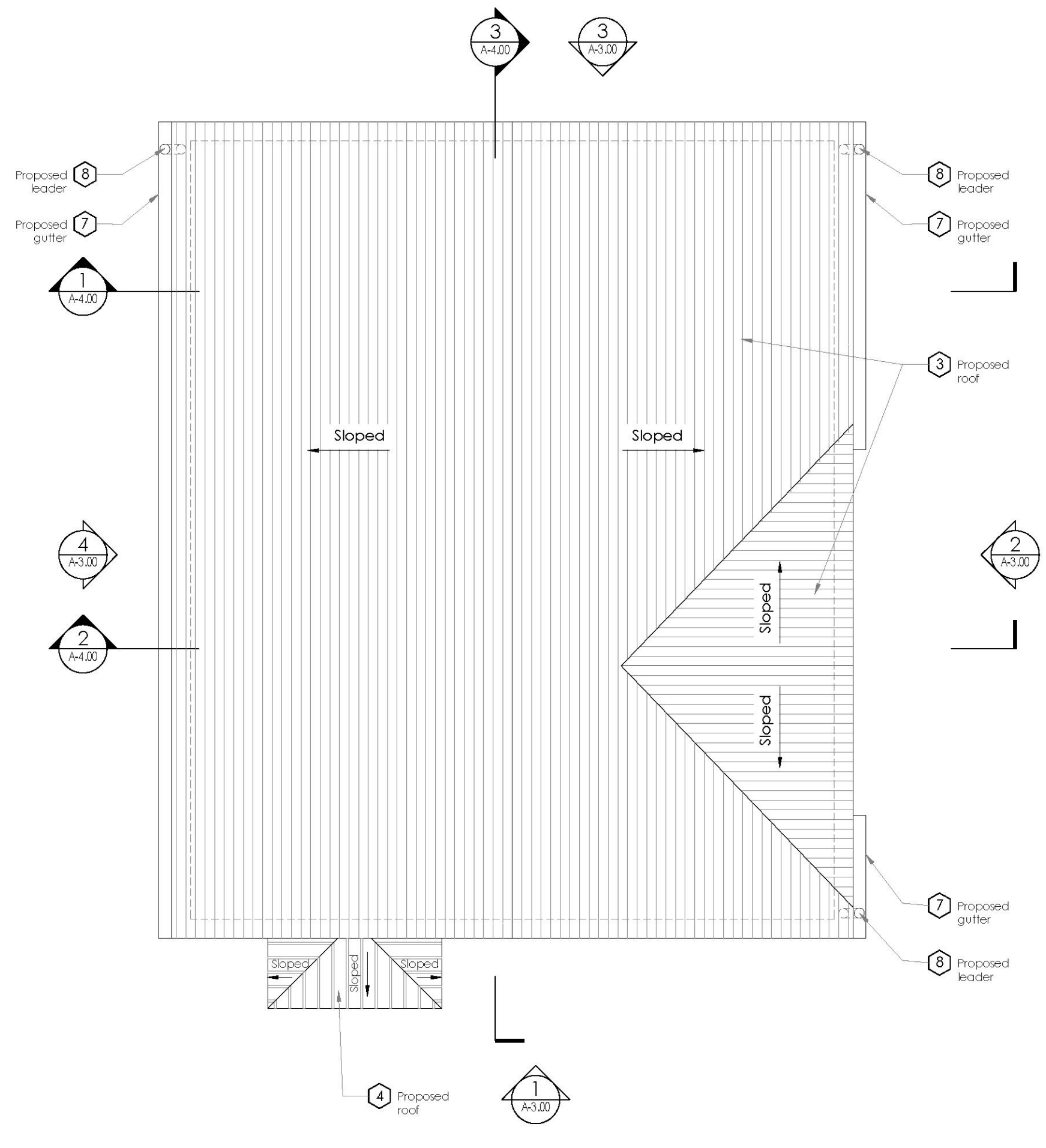
FERGUSON MALONE ARCHITECTURE
ONE BRIDGE STREET
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1 Proposed Floor Plan - Ground Level
1/4" = 1'-0"



2 Proposed Floor Plan - Upper Level
1/4" = 1'-0"



3 Proposed Floor Plan - Roof Level
1/4" = 1'-0"

Partition Notes

All gypsum board materials and accessories shall conform to ASTM C36, C79, C475, C514, C630, C931, C940, C1002, C1047, C1177, C1178, C1278, C1395 OR C1396. And shall be installed in accordance w/ The 2010 Residential Code of New York State.

Use moisture resistance GWB at all wet areas including bathrooms.

Use cement board as substrate for tile in all showers.

Dimensions are from finish to finish unless otherwise noted.

Contractor shall use corner beads at all exposed corners at soffits and ends in drywall partitions u.o.n. Partitions shall be anchored firmly as per U.S. gypsum specifications and building code requirements.

All mechanical, plumbing and electrical lines are to be concealed unless otherwise specified. Where such are to be sealed, partitions or ceilings shall not be closed-in until the lines have been tested.

Partition Types

- 01 Full Height Partition
One layer of 5/8" GWB each side, 2x wood studs & 16" o.c., from floor to ceiling, w/ 3 1/2" thick sound attenuation batt insulation.
- 02 Moisture Resistant Partition
One layer of 5/8" moisture resistant GWB on side facing wet area and one 5/8" GWB on side facing dry area, 2x wood studs @ 16" o.c., from floor to ceiling.

Key Notes

- 1 Proposed window - Refer to window schedule for more information.
- 2 Proposed door - Refer to door schedule for more information.
- 3 Proposed roof - New asphalt shingles - GAF Camelot II shingles, charcoal.
- 4 Proposed roof - New standing seam copper roof.
- 5 Proposed access panel - New 36" x36" access and Flush Access Door Panel Acudor DW-5040.
- 6 Proposed guard rail - New guard rail to be 1 3/4" x 1 3/4" stainless steel tube, with 3/8" stainless steel rod rails.
- 7 Proposed gutter - New 5" half round copper gutter.
- 8 Proposed leader - New 4" round copper downspout.
- 9 Proposed condensor - New wall mounted condenser - Mitsubishi outdoor unit SVL-KP24NA. Refer to Mechanical Plans for further information.

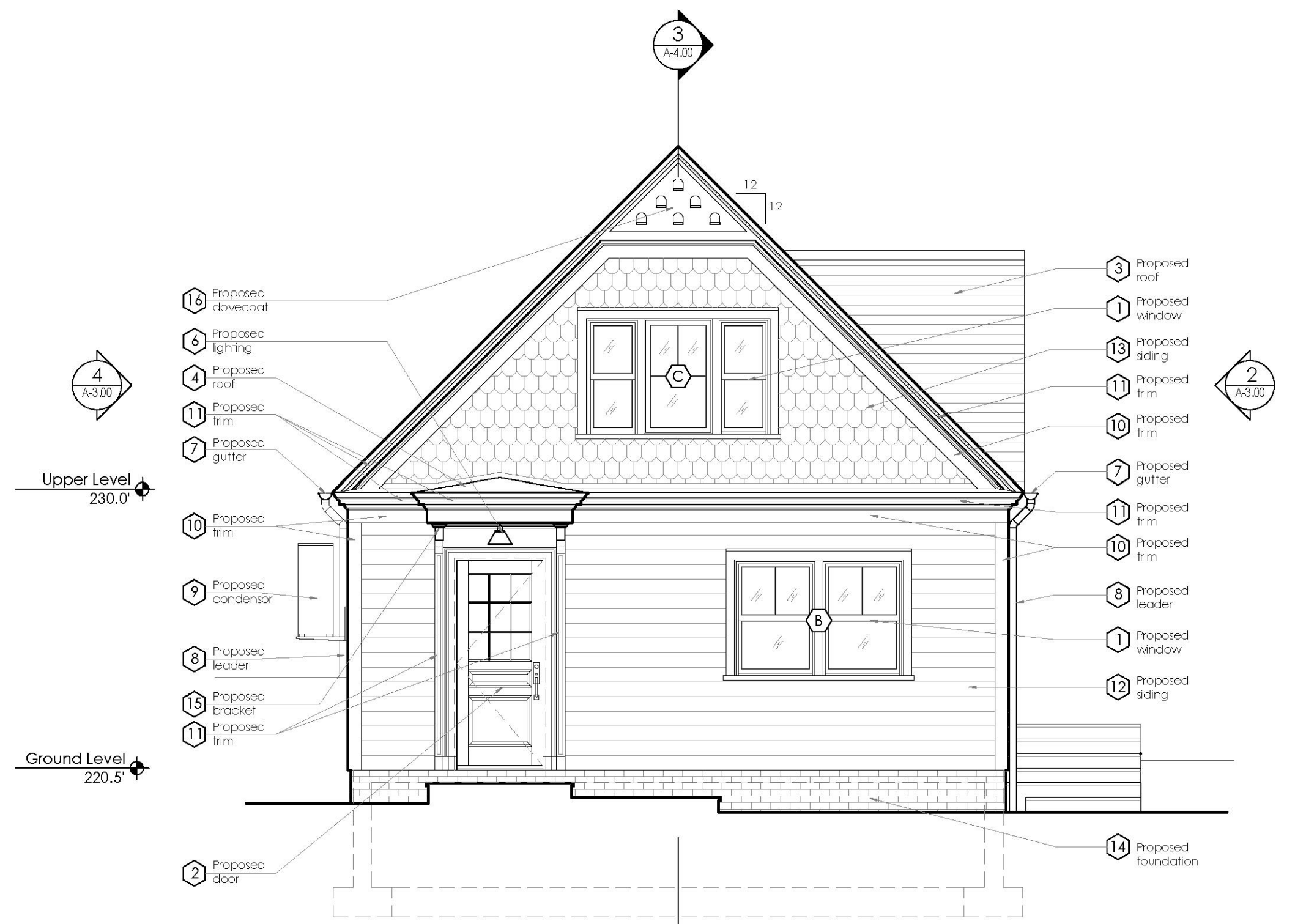
Proposed
Floor Plans

SCALE: As Noted

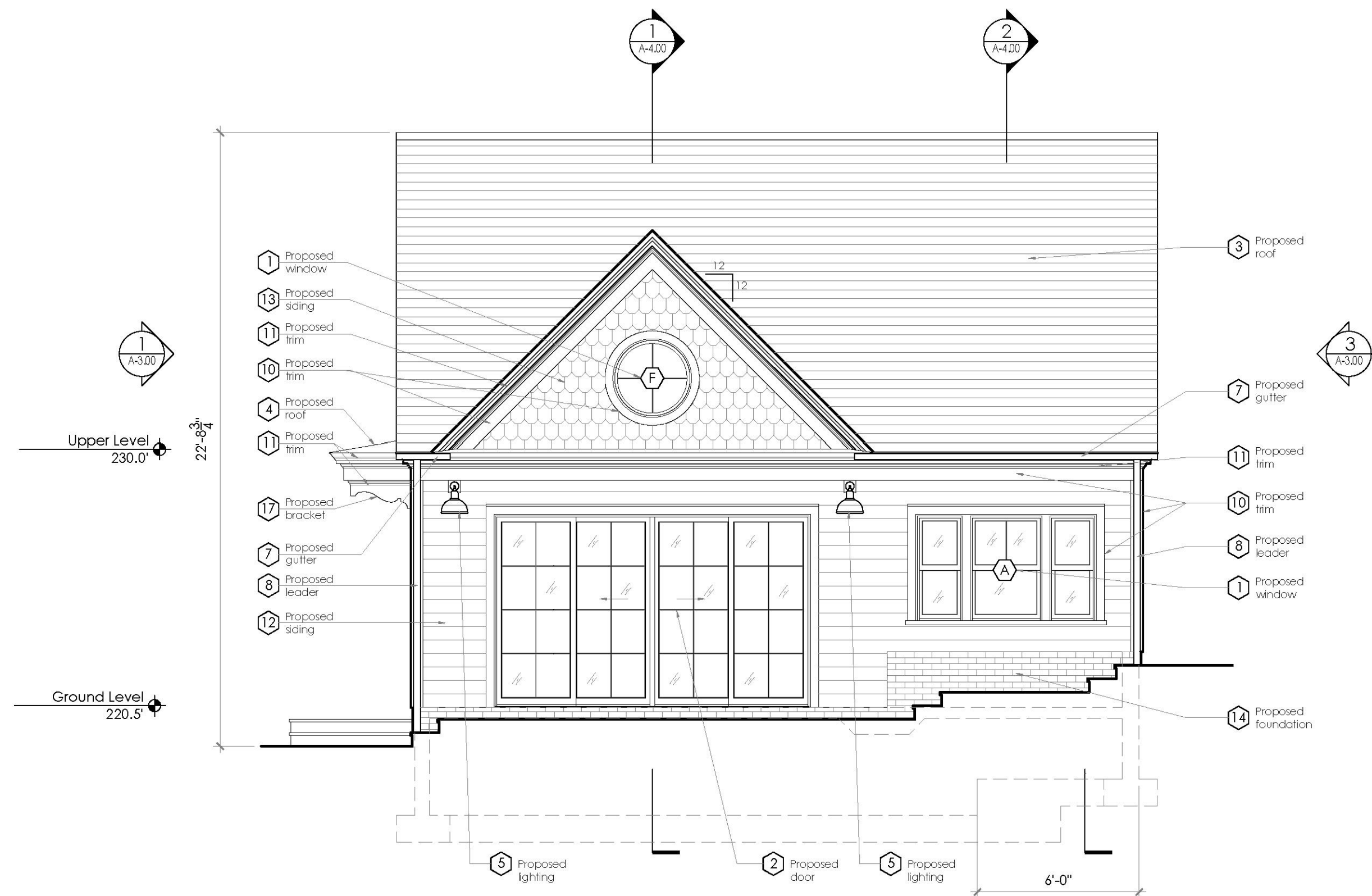
DATE: 01/18/23

JOB: 2202

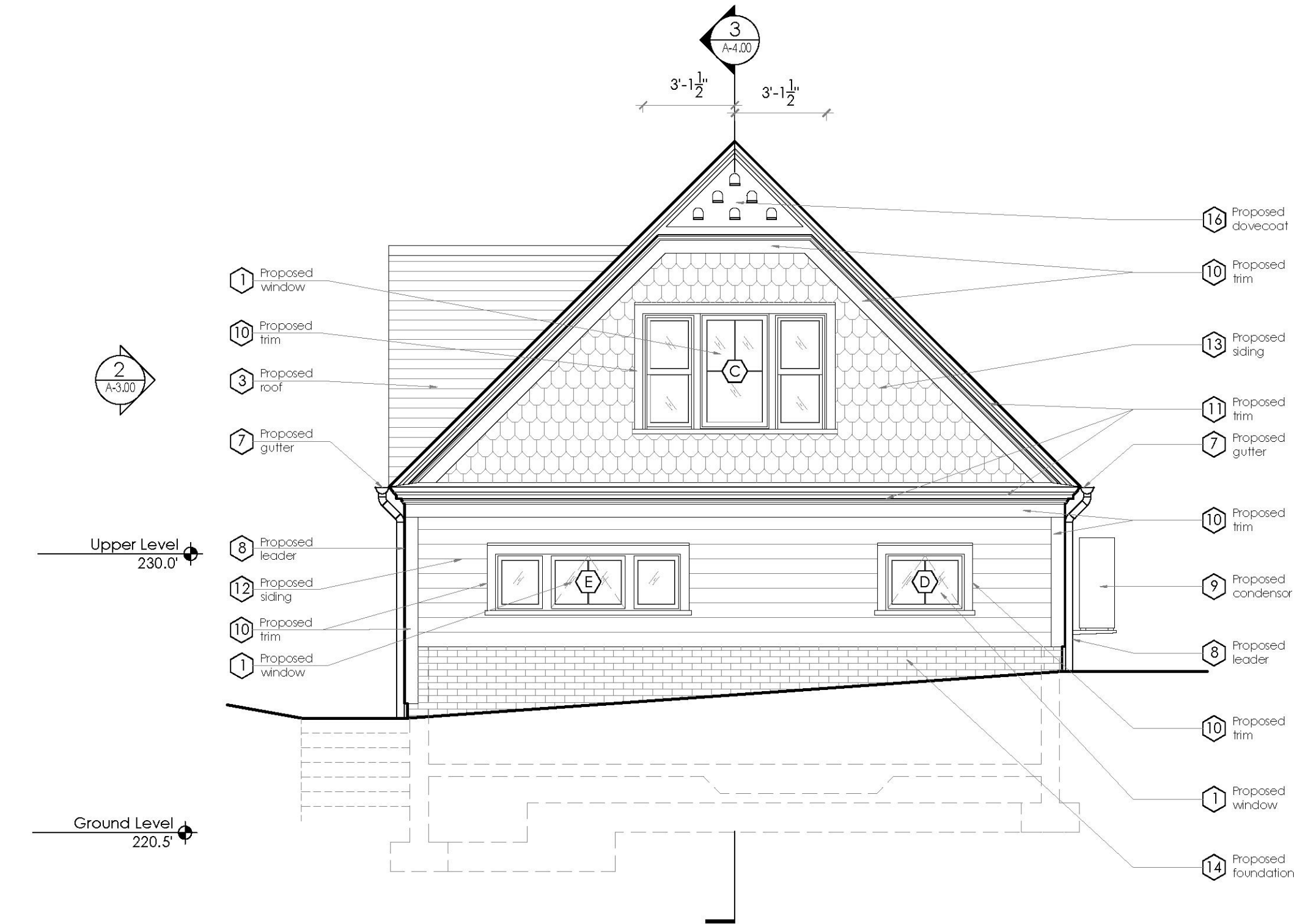
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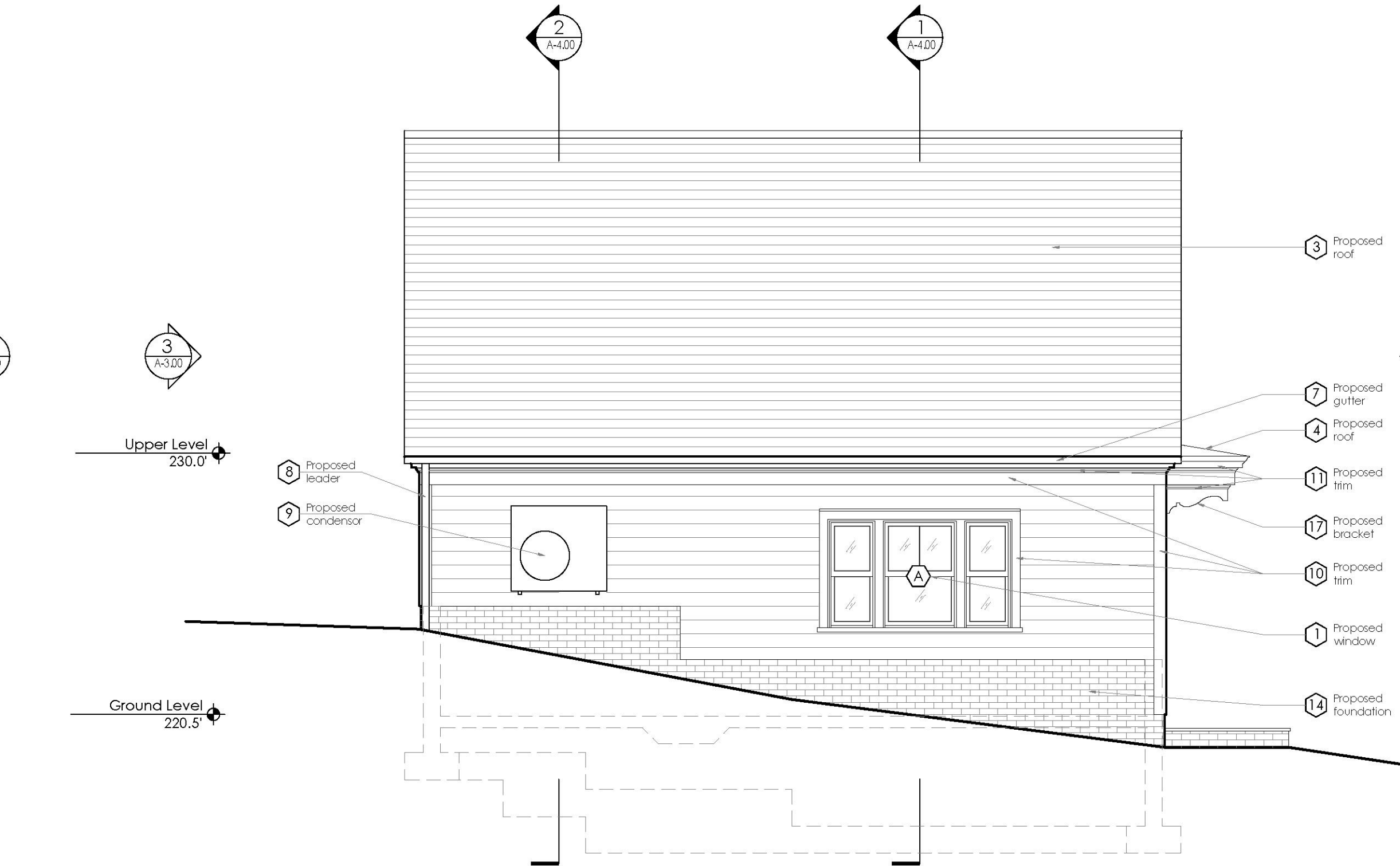
1 Proposed North Elevation
1/4" = 1'-0"



2 Proposed West Elevation
1/4" = 1'-0"



3 Proposed South Elevation
1/4" = 1'-0"



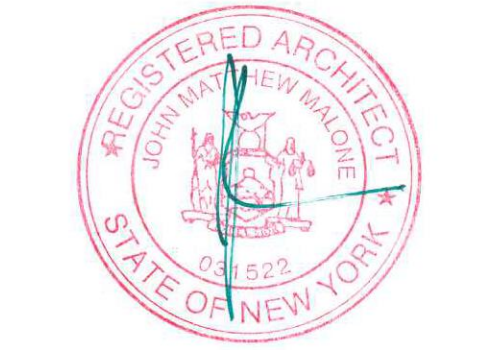
4 Proposed East Elevation
1/4" = 1'-0"

- Key Notes
- 1 Proposed window - Refer to window schedule for more information.
 - 2 Proposed door - Refer to door schedule for more information.
 - 3 Proposed roof - New asphalt shingles - GAF Camelot II shingles, charcoal.
 - 4 Proposed roof - Proposed standing seam copper roof.
 - 5 Proposed lighting - New exterior dark sky compliant wall mounted light fixtures - 10" Rhoda Outdoor Straight Arm Wall Sconce by Alder & Ore, Black. Refer to reflected ceiling plan for further information.
 - 6 Proposed lighting - New exterior dark sky compliant ceiling mounted light fixture - 10" Calen Flushmount by Alder & Ore, Black. Refer to reflected ceiling plan for further information.
 - 7 Proposed gutter - New 5" half round copper gutter.
 - 8 Proposed leader - New 4" round copper downspout.
 - 9 Proposed condenser - New wall mounted condenser - Mitsubishi outdoor unit SVZ-KP24NA. Refer to Mechanical Plans for further information.
 - 10 Proposed trim - New TruExterior Flyash Composite trim, ptd. to match trim of the existing main house. - Refer to wall sections for further information.
 - 11 Proposed trim - New solid wood trim, ptd. to match trim of the existing main house trim. - Refer to wall sections for further information.
 - 12 Proposed siding - New Horizontal Siding - James Hardie Fiber Cement Siding - Plank Lap Siding, smooth 8.25" width, primed and painted. - Color to match the siding of the existing main house.
 - 13 Proposed siding - New Octagon Shingles Siding - Miller Shingle Company - Miller Mastercut Shingles - Octagon, primed and painted. Color to match the siding of the existing main house.
 - 14 Proposed foundation - New CMU foundation faced with Belgium Handmade Thin Brick by Glen-Gery where visible, refer to wall sections for more information
 - 15 Proposed bracket - New solid wood bracket, painted to match trim.
 - 16 Proposed dovetail - Solid Wood, painted to match trim. Refer to detail in wall sections.

Ciaravella /
Maher
Residence

1 Shady Lane
Irvington, New York 10533

NO.	DATE	ISSUE/REVISION
2	05/01/23	Submission for ARB Approval
	03/04/23	Submission for ZBA Approval
1	02/15/23	Resubmission for IPB Approval
	01/18/23	Submission for IPB Approval



FERGUSON MALONE ARCHITECTURE
ONE BRIDGE STREET
IRVINGTON NY 10533
T 914 591 5066 F 914 591 5031

Proposed
Elevations

SCALE: As Noted

DATE: 01/18/23

JOB: 2202

A-3.00

1 Shady Lane
Irvington, New York 10533

Accessory Schedule						
Tag	Description	Location	Manufacturer	Product Name /Number	Finish	Remark
A01	Toilet Paper Holder	Powder Room	TBD	TBD	TBD	Owner supplied and contractor installed.
A02	Mirror	Powder Room	TBD	TBD	TBD	Owner supplied and contractor installed.

Design and installation of plumbing shall be performed by licensed personnel as per applicable codes.

Cold water piping shall be insulated with min. 1/2 inch fiberglass as manufactured by Owens Corning. Install continuous on pipes and through walls and floors. All underground water lines shall be run with Insulplex or approved equal. size of main water lines from well tank across building shall be min. 1". Then 3/4" branch lines up or down to local areas.

Contractor shall supply and install all necessary plumbing to complete the project as implied in the drawings. This shall include all new rough-in, including all miscellaneous valves fixtures, hangers, valves etc. To meet both code and professional standards. This shall also include installing all fixtures and faucets supplied by owner or provided as otherwise specified. Protect fixtures and fittings throughout construction.

Coordinate with tile contractor and other finishing trades.

Newly installed toilet or replaced toilet must be either low flush toilets or equal to or less than 1.28 gallons per flush (gpf) or dual -flush toilets where the low flush feature is no more than 1.28 gpf.

Newly installed or replaced shower head must provide an average flow of no more than 2 gallons per minute (gpm).

Newly installed or replaced lavatory faucet must provide an average flow rate of no more than 2 gallons per minute (gpm).

All accessories to be installed as per manufacturer's specification.

Confirm locations of installation with architect prior to installing.

SCALE: As Noted

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1 Shady Lane
Irvington, New York 10533

1 Shady Lane
Irvington, New York 10533

A	05/01/23	Submission for ARB Approval
	09/06/23	Submission for ZBA Approval
B	02/15/23	Resubmission for IFB Approval
	01/18/23	Submission for IFB Approval
NO.	DATE	ISSUE/REVISION

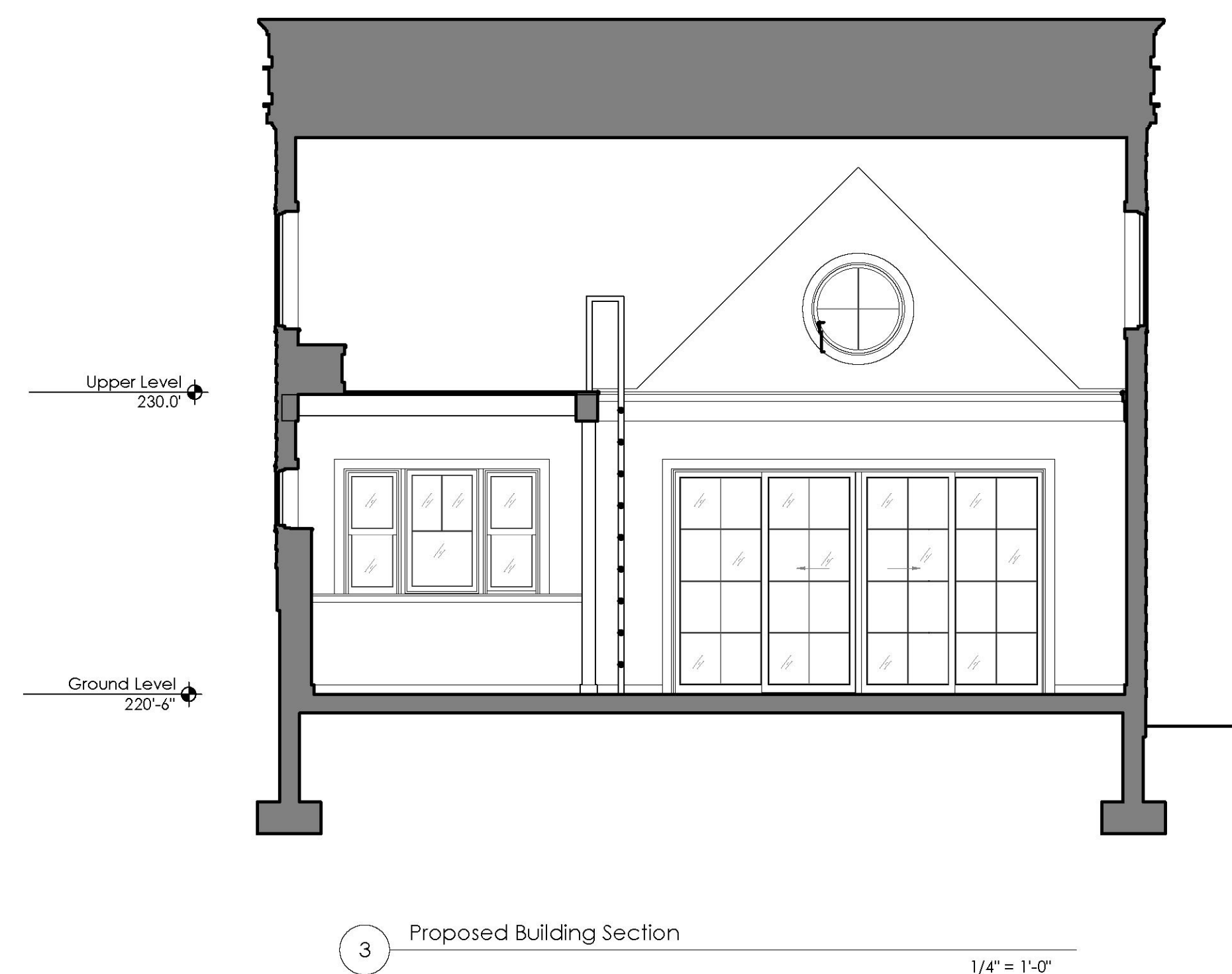
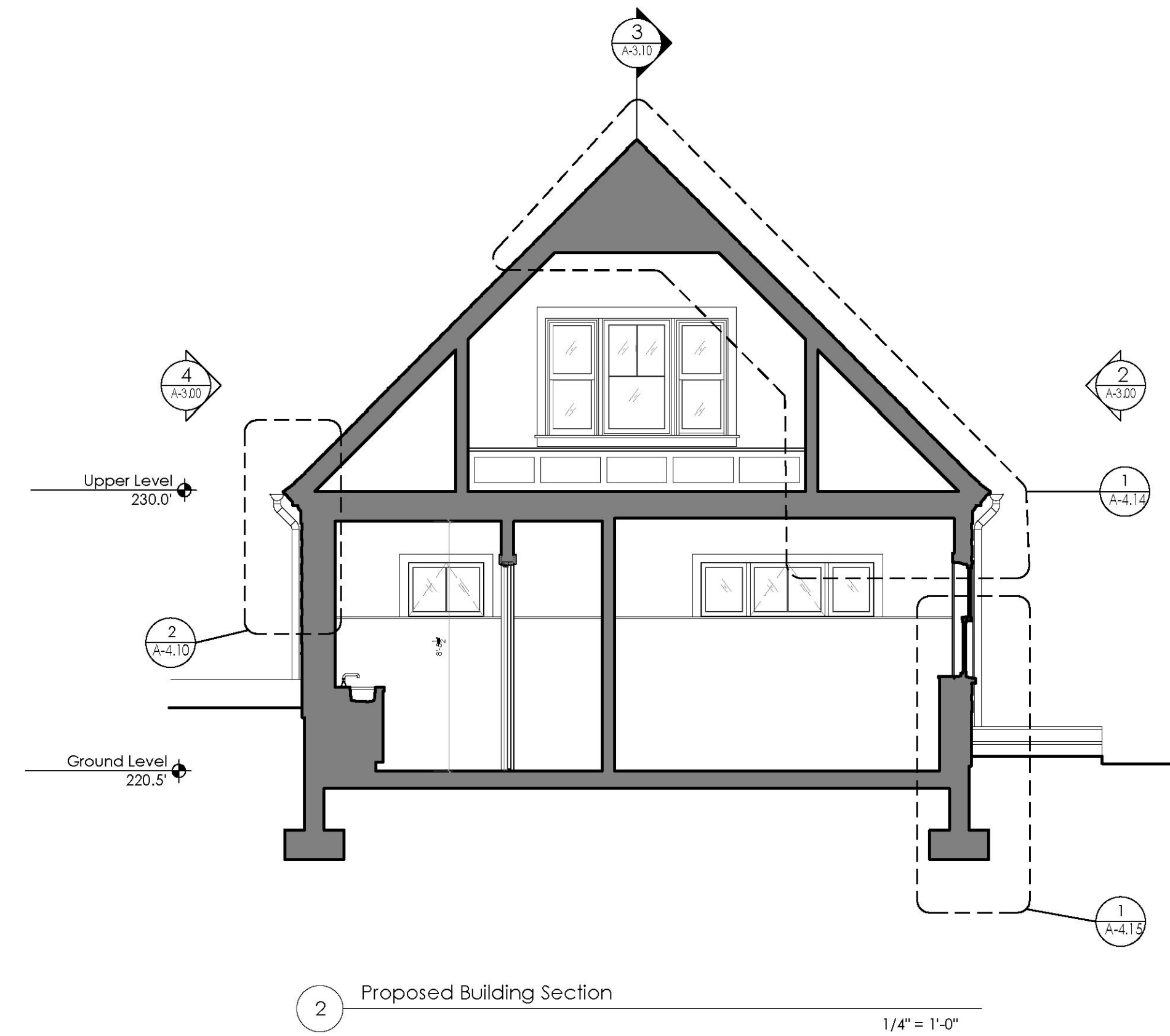
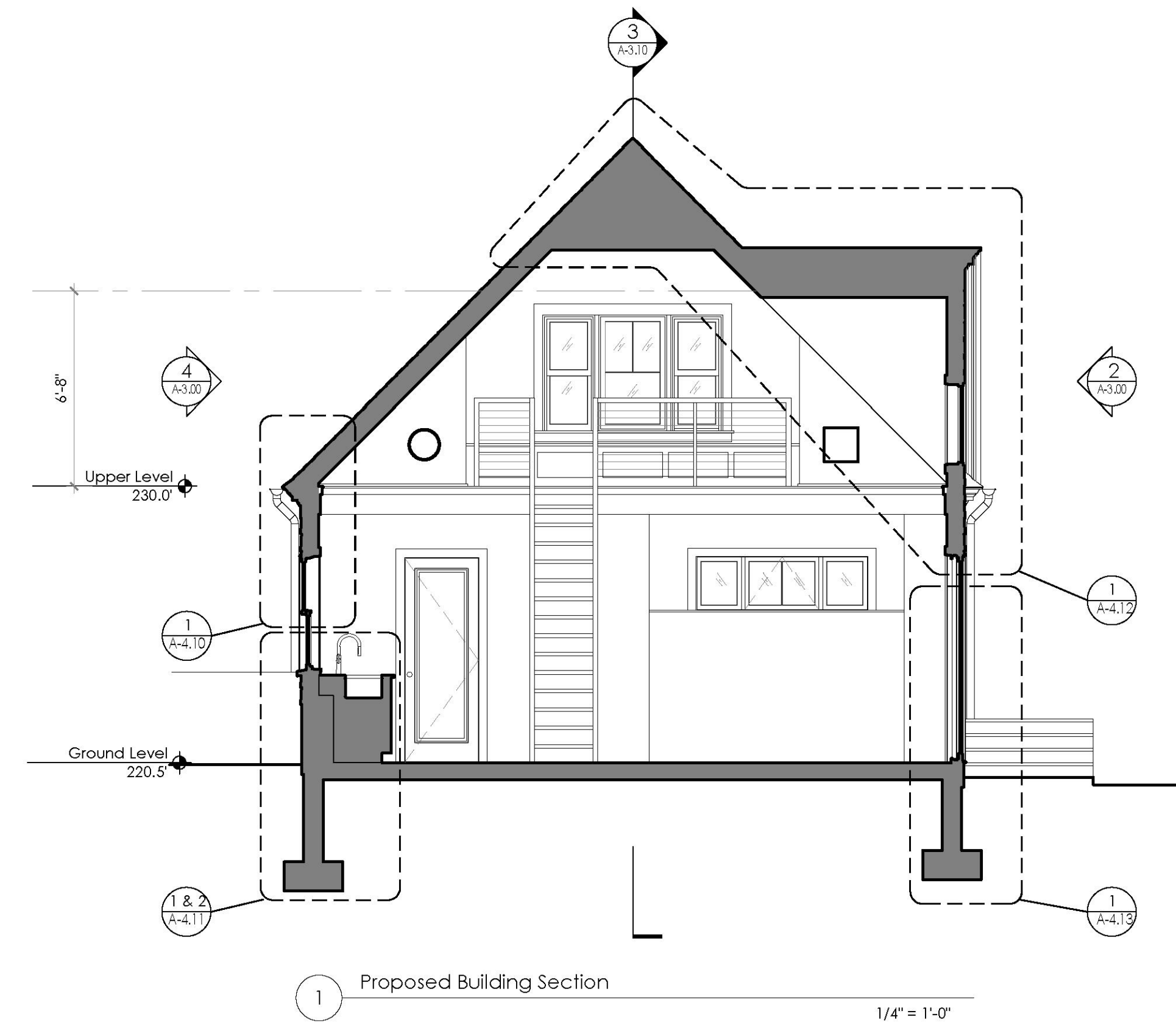


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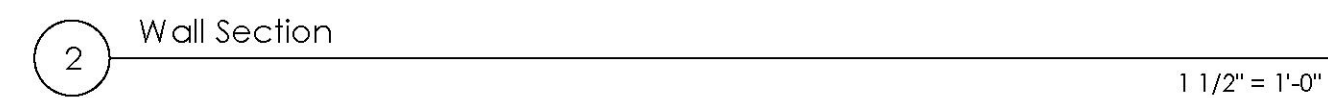
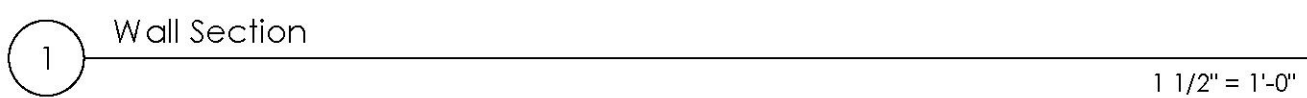
JOB: 2202



1 Shady Lane
Irvington, New York 10533

A circular professional engineer seal for the State of New York. The outer ring contains the text "REGISTERED ARCHITECT" at the top and "STATE OF NEW YORK" at the bottom, separated by two stars. The center of the seal features a coat of arms with a plow and a sheaf of wheat. Below the coat of arms is the number "051522". The name "JOHN MALONE" is written in a semi-circle above the coat of arms. A blue ink signature is written across the seal.

A-4.10



1 Shady Lane
Irvington, New York 10533

A circular professional seal for John Matthew Malone, a Registered Architect in the State of New York. The seal features the text "REGISTERED ARCHITECT" at the top and "STATE OF NEW YORK" at the bottom. In the center, there is a coat of arms with the number "031522" below it. The seal is stamped in red ink.

Proposed Wall Sections

JOB: 2202

1 Shady Lane
Irvington, New York 10533

CALE: As Noted

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1 Shady Lane
Irvington, New York 10533

A circular professional engineer seal for John Matthew Malone, State of New York, No. 031522. The seal features a central emblem with a building and a figure, surrounded by the text "REGISTERED ARCHITECT", "JOHN MATTHEW MALONE", and "STATE OF NEW YORK". The number "031522" is at the bottom. A blue ink signature is written across the seal.

JOB: 2202

1 Wall Section

$$1\ 1/2' = 1'-0''$$

1 Shady Lane
Irvington, New York 10533

1 Shady Lane
Irvington, New York 10533

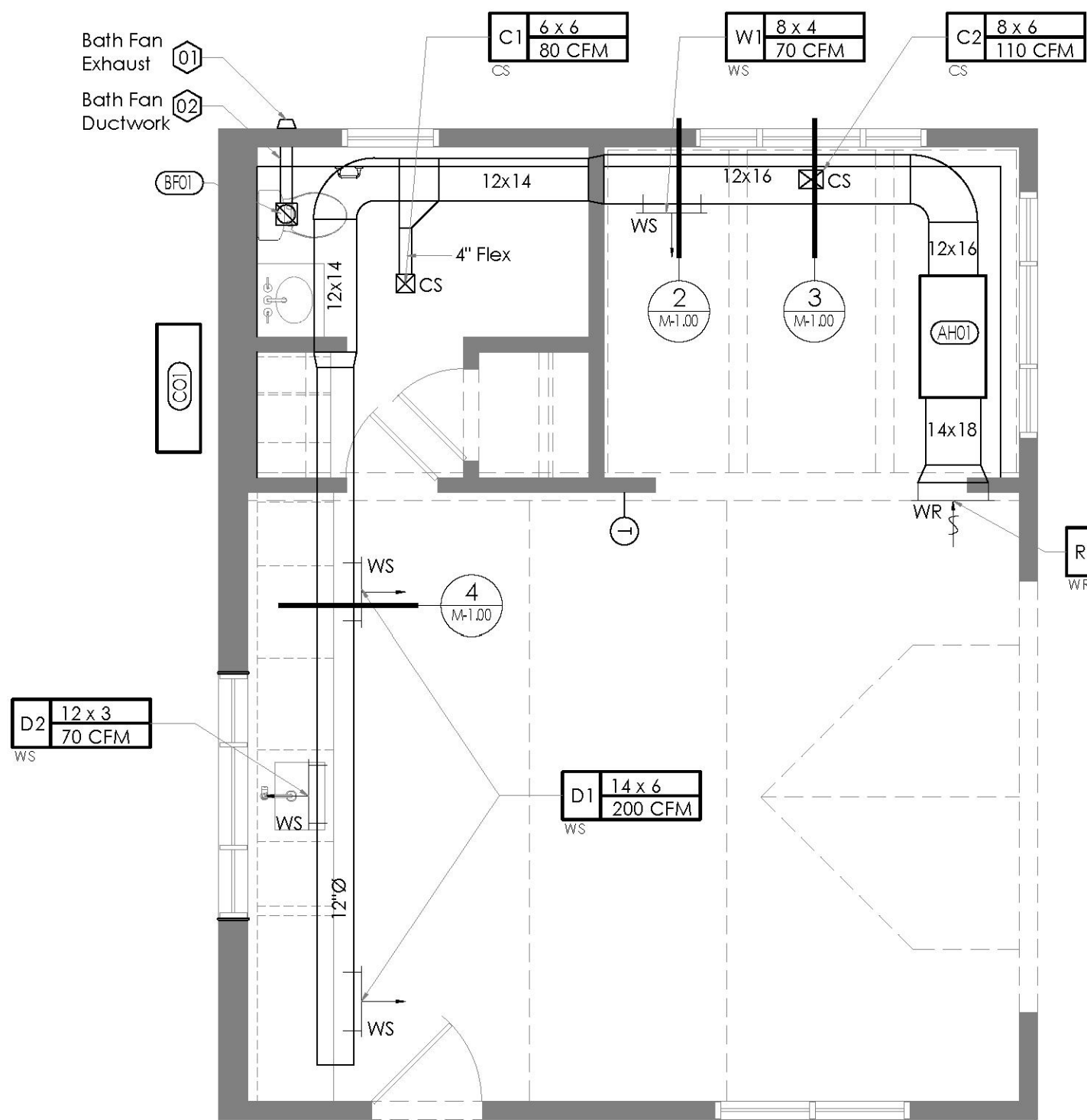
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SCALE: As Noted

DATE: 01/18/23

JOB: 2202





1 Proposed Mechanical Plan
1/4" = 1'-0"

HVAC Legend	
WR	Wall Return
WS	Wall Supply
CS	Ceiling Supply
FR	Floor Return
FS	Floor Supply
X" x X" Up/Dn	Proposed duct riser / drop supply
X" x X" Up/Dn	Proposed duct riser / drop return
FS	Proposed Floor Supply Diffuser
FR	Proposed Floor Return Register
	Proposed supply grill wall mounted Proposed return grill wall mounted
CS	Proposed supply diffuser ceiling mounted
CR	Proposed return grill ceiling mounted
	New Flex ductwork
WxD	New Hard ductwork
	Programmable Thermostat - Mitsubishi Electric- PAR-CT01MAU-SB Touch MA Controller.

- HVAC Key Notes**
- 01 Bath Fan Exhaust - Metal roof or wall exhaust with gravity damper, coordinate with ductwork size.
 - 02 Bath Fan Ductwork - Bath fan rigid ductwork - coordinate size with specified fan system.

System Design Calculations

Equipment has been sized as per Manual S and based on building loads calculate in accordance with ACCA Manual J: Residential Load Calculation:

Construction Feature Performance:

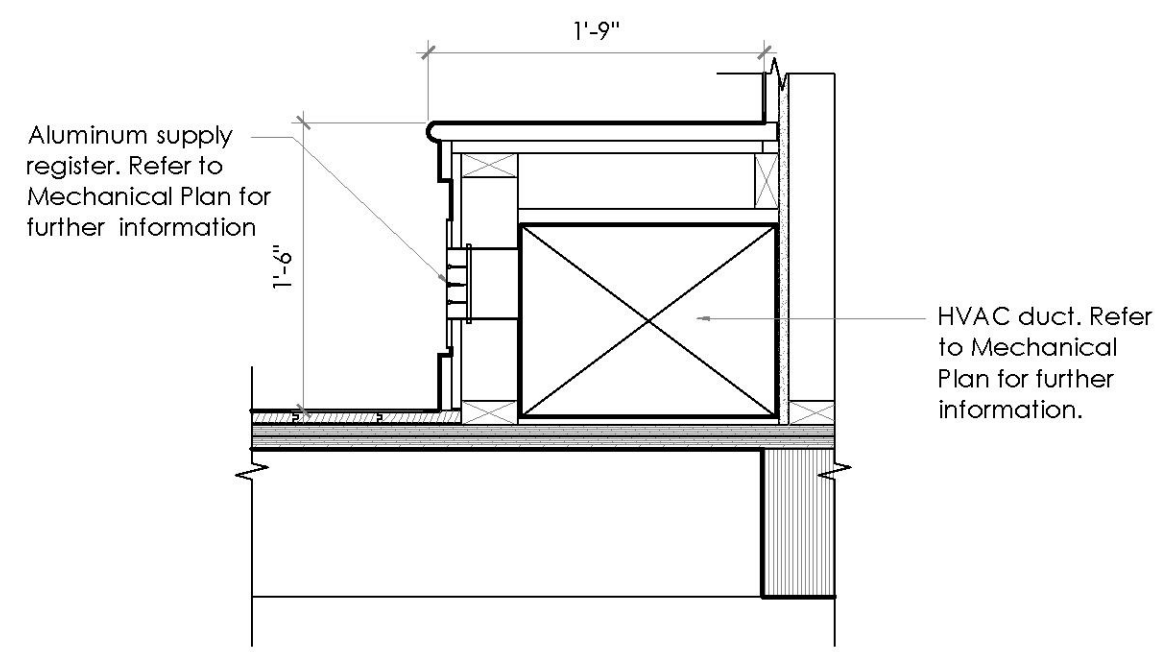
Above Grade Walls	U Value	0.097
Below Grade Walls	U Value	NA
Roof	U Value	0.029
Door	U Value	0.47
Windows	U Value	0.32
	SHGC	0.68
Floors (Basement)	U Value	NA

Design Condition

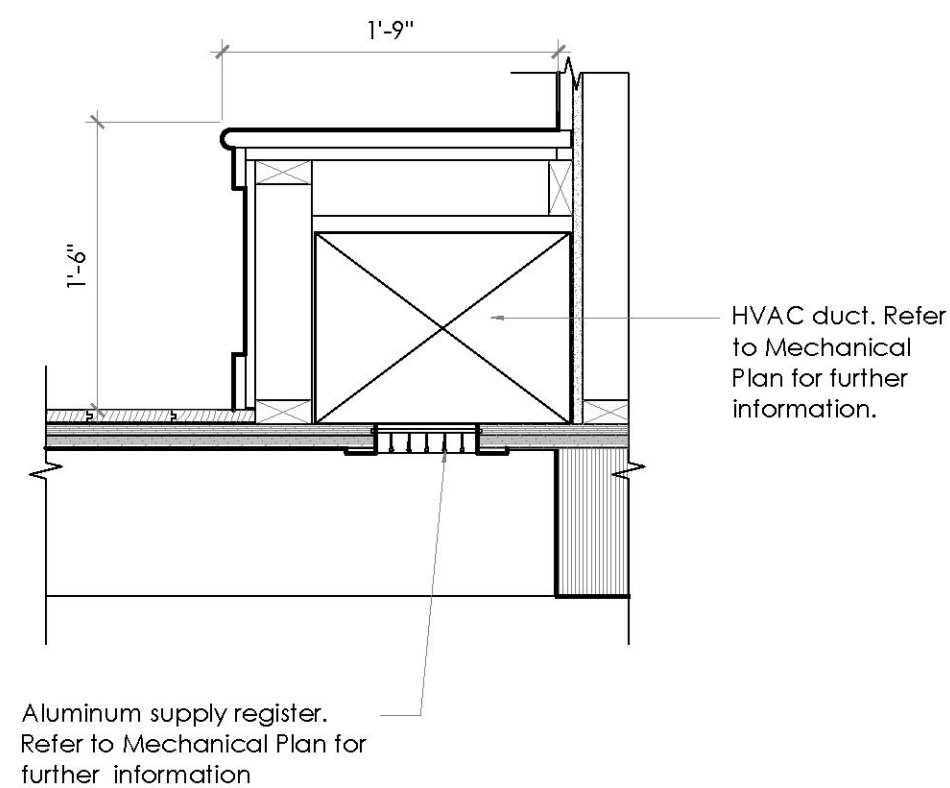
ACCA Weather Station: White Plains
Heating Design Temperature: 12° F
Cooling Design Temperature: 87° F

Load Calculation:

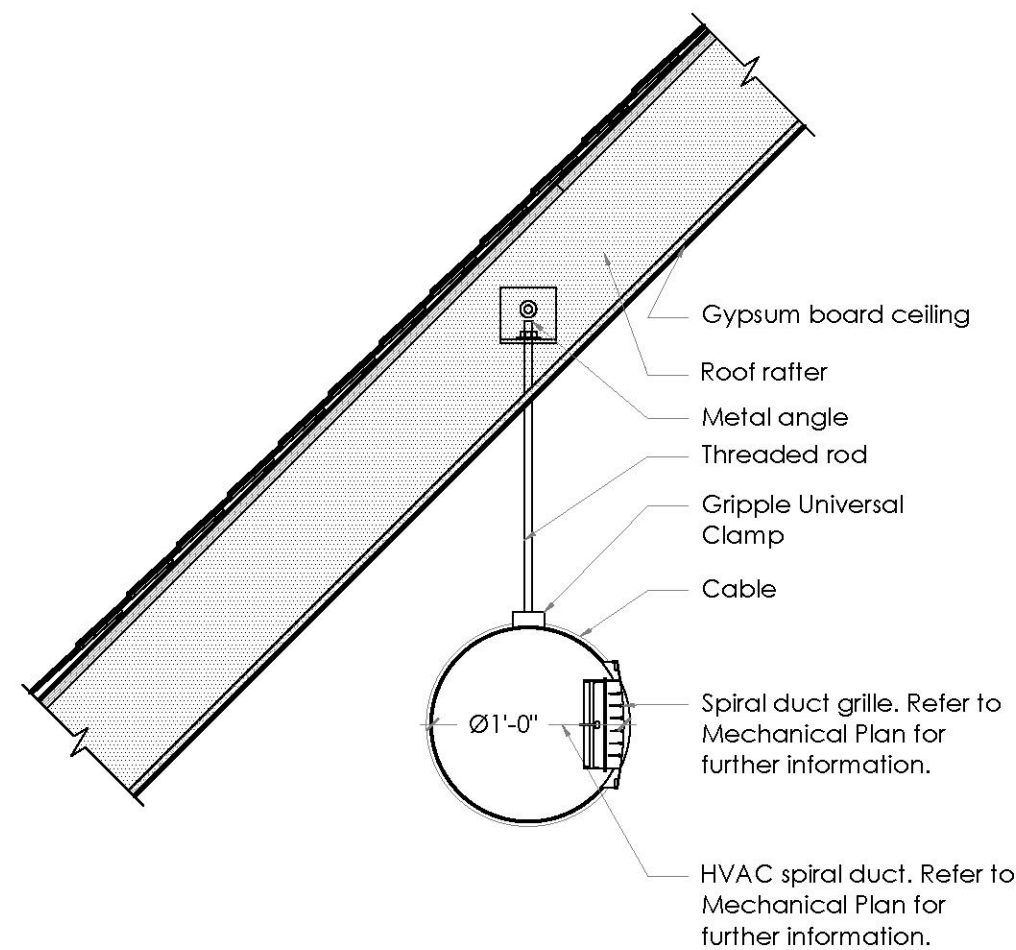
Lower Level System (AH01):	
Heating BTUH:	21,769
Cooling BTUH:	13,745
CFM:	632
Sensible Cooling:	12,514
Latent Cooling	1,231
SHR:	0.91



2 Wall Diffuser in Bench
1/4" = 1'-0"



3 Ceiling Diffuser in Timber Ceiling
1/4" = 1'-0"



4 Ceiling Diffuser in Timber Ceiling
1/4" = 1'-0"

HVAC Notes

New heating and cooling system equipment shall be installed as per manufacturer's instructions and shall include all required accessories.

Attic air Handlers shall be hung. All air handler shall be mounted on vibration isolators. Inverters and outdoor units shall be wall mounted.

Include alternate to provide Fantech Atmo 200E ERV to air handler AH02.

Heating and cooling system work shall be provided and installed by licensed personnel. Installers must be certified by the manufacturer of the equipment specified. (Installers for Mitsubishi systems must have Diamond Contractor certification, preferred level minimum. The installer must be able to provide the manufacturer's extended warranty.)

Duct final routing is to be provided in shop drawing form. All ductwork is to be coordinated with other building systems.

Specified grilles to be from Hart & Cooley or equal. Provide shop drawings for review. Floor diffusers and return registers are to be wood to match flooring. HVAC installer to coordinate with GC and to confirm performance requirements for wood registers.

Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55° (13°C) shall be insulated to minimum of R-3.

All joints, seams and connections in metallic and non-metallic ducts shall be constructed as specified in SMACNA HVAC Duct Construction Standards: Metal and Flexible.

All joints and seams, and connections in ductwork shall be securely fastened and sealed with welds, gaskets, mastics (adhesives), plastic-plus-embedded-fabric-systems, liquid sealants or tapes.

Tapes and mastics used to seal metallic and flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked "181 B-FX" for pressure-sensitive tape or "181 B-M" for mastic. Duct connections to flanges of air distribution system equipment shall be sealed and mechanically fastened. Mechanical fasteners for use with flexible nonmetallic air ducts shall comply with UL 181B and shall be marked 181B-C. Crimp joints for round metallic ducts shall have a contact lap of not less than 1 inch(25mm) and shall be mechanically fastened by means of not less than three steel-metal screws or rivets equally spaced around the joint.

Closure systems used to seal all ductwork shall be installed in accordance with the manufacturer's instructions.

Ducts, air handlers and filter boxes shall be sealed with joints/seams compliant with International Mechanical Code or International Residential Code, as applicable.

Ducts outside of the conditioned space to be pressure tested to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure. Ducts declared to be within the conditioned space are either 1) completely within the continuous air barrier and within the building thermal envelope, 2) buried within ceiling insulation in accordance with Section R403.3.6 and the air handler is located completely within the continuous air barrier and within the building thermal envelope and the duct leakage is <= 1.5 cfm / 100 square feet of conditioned floor area served by the duct system, or 3) the ceiling insulation R-value installed against and above the insulated duct >= to the proposed ceiling insulation R-value, less the R-value of the insulation on the duct

Ducts outside of the conditioned space to have tightness test result of <=4 cfm/100 ft2 across the system or <=3 cfm/100 ft2 without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection.

Provide duct testing at rough-in and post construction. Leakage not to exceed 4 CFM per 100 SF of conditioned space.

Contractor to provide load calculations for approval confirming design calculations.

Ductwork sizing to be confirmed by the contractors. Any sizing indicated is to be confirmed based on the contractor's approved load calculations and final equipment specification and shop drawings.

Contractor to confirm all required equipment clearances.

Supply and return ducts in attics to be insulated >= R-8 where duct is >= 3 inches in diameter and >= R-6 where < 3 inches. Supply and return ducts in other portions of the building to be insulated >= R-6 for diameter >= 3 inches and R-4.2 for < 3 inches in diameter. Return ductwork to be insulated for sound.

Automatic or gravity dampers to be installed on all outdoor air intakes and exhausts.

Air handler leakage designated by manufacturer at <=2% of design air flow.

Programmable thermostats shall be installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications. Heat pump thermostat installed on heat pumps.

GC to provide owner with manuals for mechanical and water heating systems.

HVAC Equipment Schedule								
Tag	Description	Manufacturer	Model	Cooling Capacity	Heating Capacity	% Req.	CFM	Remark
AH01	Multi-position Air Handler	Mitsubishi	SVZ-KP24-NA	24,000 BTU/h	23,000 BTU/h	117%	515-625-735	Connected to CO1
C01	Condensor	Mitsubishi	SUZ-KA24NAHZ					Wall mounted
BF01	Bathroom Exhaust Fan /Light	Aero Pure	AP80	N/A	N/A	N/A	80 CFM	Fan

Diffusers and Return Grills					
Tag	Description	Manufacturer	Model/Size	CFM @ 400 FPM	Remark
C1	Aluminum Supply Register	Anemostat	20 / 6x6	80 CFM	Double deflection, 3/4" blade spacing, white.
C2	Aluminum Supply Register	Anemostat	20 / 8x6	110 CFM	Double deflection, 3/4" blade spacing, white.
D1	Spiral Duct Grill	Anemostat	ECO20 / 14x6	200 CFM	Double deflection, 3/4" louver spacing, ptd. black.
D2	Spiral Duct Grill	Anemostat	ECO20 / 12x3	70 CFM	Double deflection, 3/4" louver spacing, ptd. black.
W1	Aluminum Supply Register	Anemostat	20 / 8x4	70 CFM	Double deflection, 3/4" blade spacing, white.
R1	Aluminum Return Register	Anemostat	35/L/45	730 CFM	Long blade, 45° deflection, 3/4" spacing, white.

Ciaravella / Maher Residence

1 Shady Lane
Irvington, New York 10533

NO.	DATE	ISSUE/REVISION
2	05/01/23	Submission for ARB Approval
3	03/04/23	Submission for ZBA Approval
4	02/15/23	Resubmission for IPB Approval
5	01/18/23	Submission for IPB Approval



FERGUSON MALONE ARCHITECTURE
ONE BRIDGE STREET
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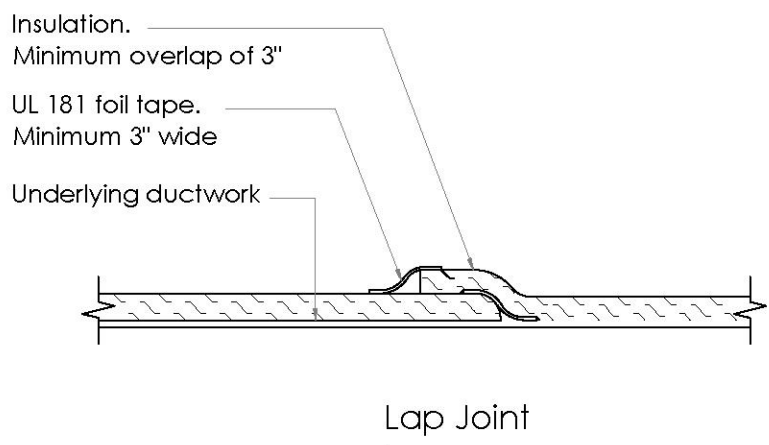
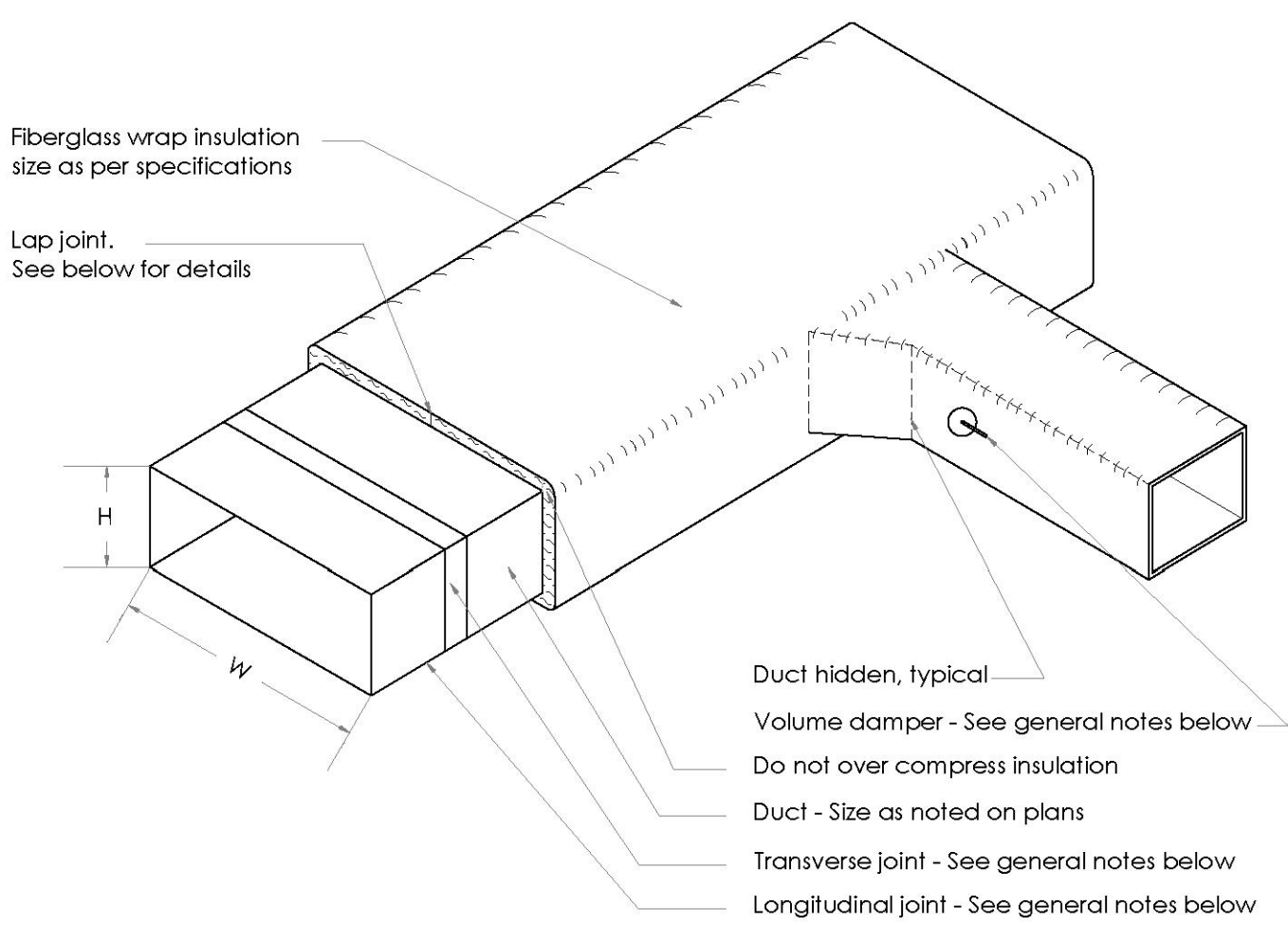
Proposed Mechanical Plans

SCALE: As Noted

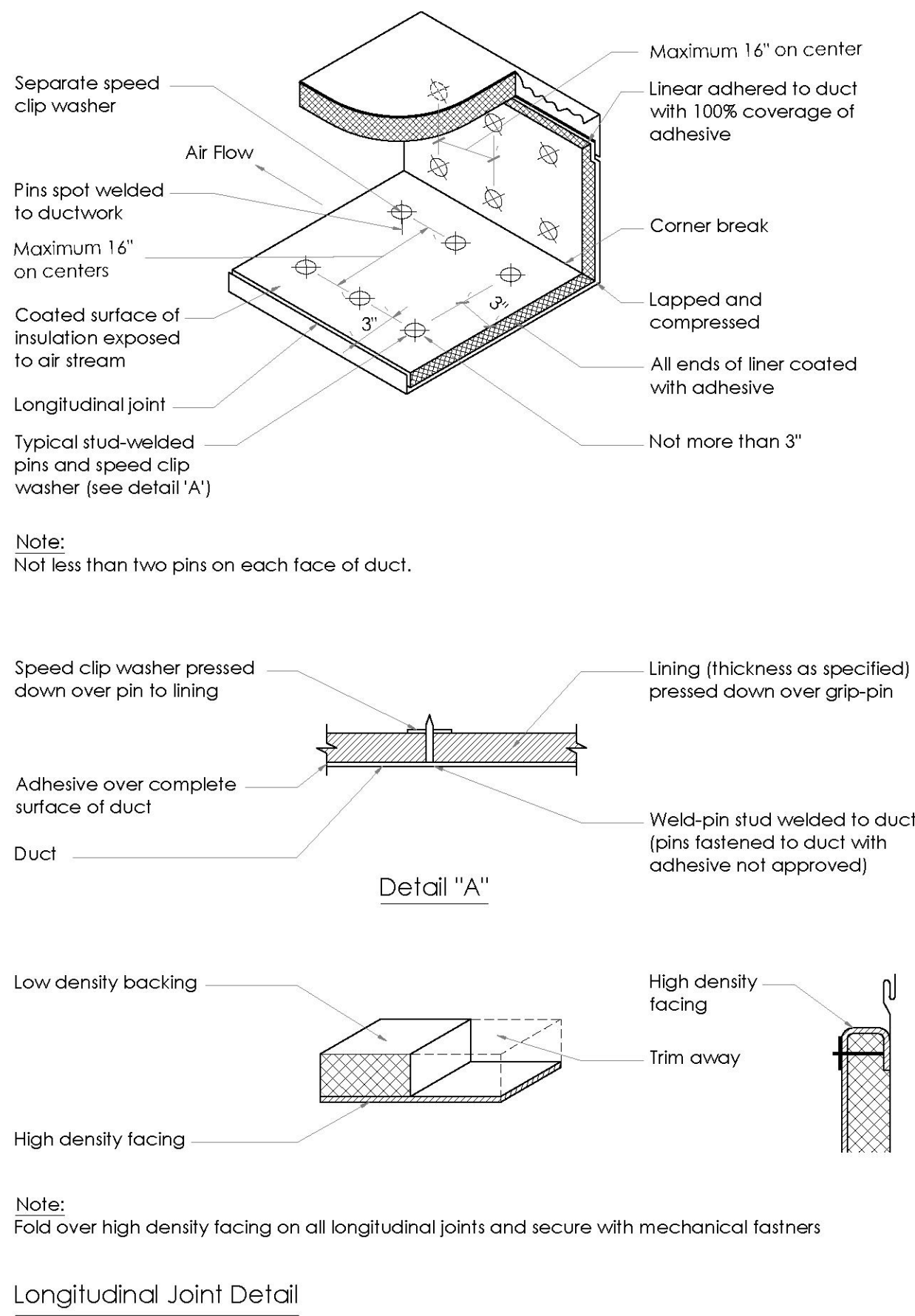
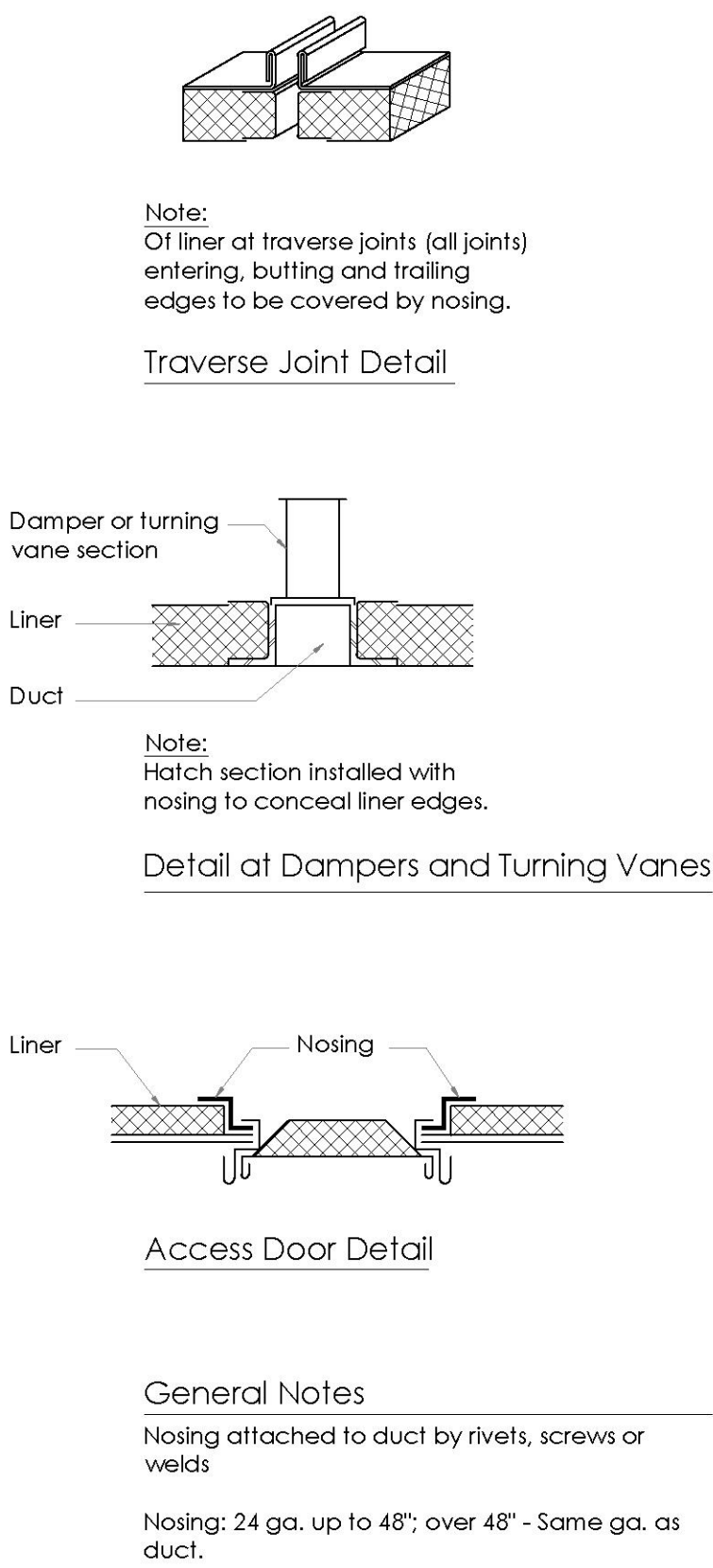
DATE: 01/18/23

JOB: 2202

M-1.00



General Notes
Insulation shall be installed according to manufacturer's recommendations.
Devices installed inside duct shall not be hidden by insulation.
Access doors and volume dampers shall be fully functional after insulation has been installed.
All transverse and longitudinal joints and seams in supply air duct shall be sealed air tight with DAP CMC duct sealer. Joints also shall be riveted or connected with sheet metal screws.
Soft elastomer butyl gaskets with adhesive backing shall be used to seal flanged joints.



1 Interior Ductwork Insulation and Sealing Detail
Not to Scale

2 Sound Lining Installation & Nosing Details
Not to Scale

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1 Shady Lane
Irvington, New York 10533

	03/22/23	Client Review
	03/04/23	Submission for ZBA Approval
⚠	02/15/23	Resubmission for IPB Approval
	01/18/23	Submission for IPB Approval
NO.	DATE	ISSUE/REVISION



FERGUSON MALONE ARCHITECTURE
ONE BRIDGE STREET
IRVINGTON NY 10533
T 914 591 5066 F 914 591 5031

Proposed
Mechanical
Details

SCALE: As Noted

DATE: 01/18/23

JOB: 2202

M-1.01

1 Shady Lane
Irvington, New York 10533

A circular professional seal for John Matthew Malone, a Registered Architect in the State of New York. The seal features the text "REGISTERED ARCHITECT" at the top and "STATE OF NEW YORK" at the bottom. In the center is a coat of arms with a sun rising over mountains and water, flanked by two figures. Below the coat of arms is the number "0341522". The seal is stamped in red ink on a white background.

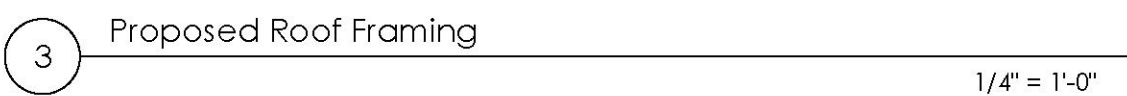
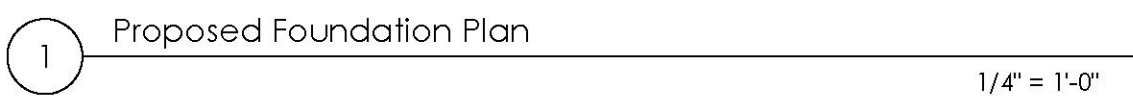


Figure 10: Detail of new concrete slab and foundation wall. The diagram shows a cross-section of a foundation wall and a new concrete slab. The wall is labeled "New CMU foundation wall or modification". The slab is labeled "New concrete slab". The wall is supported by a "New concrete spread footing". A "Line of shelf" is indicated. The wall is shown with a "Beam" and "Double joist or rafter" above it. The wall is shown with a "Joist or rafter" below it.

1. All framing lumber and details of wood construction shall conform to national design specifications for stress grade lumber and its fastenings (including supplement no. 1). All new framing lumber shall be grade marked at mill and shall be surfaced dry new joists shall comply with PS 20-70 for sizes and shall be as noted or conform to the following minimum specie and grade.

All factory manufactured glue laminated wood framing members (LVL, TJI, PSL) shall be Microllam, TJI joists or Parallam members as manufactured by Trus Joist Corporation or architect approved equal.

3. Framing standard: comply with AF&PA's "details for conventional wood frame construction," unless otherwise indicated.

5. Do not splice structural members between supports, unless otherwise indicated.

7. All doors, windows and openings shall have minimum header to be as follows, u.o.n. on structural plans:

- Up to 5'-0" wide, use (2) 2x10
- Up to 8'-0" wide, use (3) 2x10 or (2) 2x12
- Openings greater than 8'-0", see plans for header sizes or as specified by P.E.

*Distance shall be permitted to be reduced to 4.5" if lag screws are used or bolt spacing is reduced to that of lag screws to attach 2 x 8 ledgers to 2 x 8 band joists.

Notes: T = Footing thickness
The minimum footing thickness, T, in stepped areas shall equal the footing thickness in those unstepped areas. The reinforcing bar size in stepped areas shall equal the bar size in those unstepped areas. A minimum of 3 inches of concrete is required around all reinforcing bars.

$$1/2'' = 1'-0''$$