



February 2, 2022
Revised February 7, 2022

Bruce Makous
83 King George Road
Poughkeepsie NY, 12603

RE: **Engineering Services – un-permitted renovation**
LaBella Job: 2220691

Dear Mr. Makous:

As requested by you (Client, Owner), LaBella Associates visited the residential structure (subject structure) located at 83 King George Road in the City of Poughkeepsie, Dutchess County, New York (project site) on January 18, 2022.

PROJECT UNDERSTANDING

We understand that you entered into a contract with HV Home Services Inc. (Contractor) to renovate select areas of ground floor of the subject structure. It is our understanding the subject structure was previously utilized and permitted as two-family home. In general, the contractor's scope of work for the renovation included:

- Remove and re-install finishes throughout the unit
- Renovate existing bathroom and kitchen
- Convert space into a half bathroom
- Minor reconfiguration of non-load bearing walls for renovated bathroom and utility / laundry area
- Install new windows and doors in new and existing openings
- New hydronic heating system connected to existing furnace flue
- Associated electrical power and lighting
- Associated plumbing improvements including trenching to connect into an existing pump system
- Secure all permits and inspections

The contractor's scope of work and associated contract is attached in Appendix B.

We understand the work was generally completed to your satisfaction. However, we also understand you have recently become aware that the project was not properly permitted with the Authority Having Jurisdiction (AHJ) as outlined in the Contractor's scope of work. Obtaining building permits is required for the scope of work completed and the lack of proper permitting has implications associated with the resale of the house, tax liability, and the construction may potentially be non-code compliant and / or contain unsafe systems due to lack of oversight and / or code required inspections. The code in effect at the time of construction is the current code: 2020 Residential Code of NYS (code).

We understand that you have retained the services of LaBella Associates to provide an initial assessment of the completed construction. The intent of this initial assessment is to establish a baseline for discussion with the AHJ in order to define next-steps with the primary end-goal of applying



for a certificate of occupancy (c/o). We visited the project site on January 18, 2022. Our observations were limited to visible systems and components and did not include testing equipment.

OBSERVATIONS AND ASSESSMENTS

Based upon review of the contract, visual observations made on site, and our understanding of the work completed based on conversations with you, we offer the following observations and assessments:

General

1. No permits were secured and therefore no AHJ code inspections were provided. Inspections by the AHJ are required as part of the permit process for nearly all aspects of the scope of work such as electrical, plumbing, HVAC, egress, life safety, building envelope and structural systems. Reference Appendix A for photographic log of observed conditions. Reference Photograph #1 for general view of subject structure.
2. No functioning smoke or carbon monoxide alarms were installed as part of the renovation. These life-saving devices are a critical element of the life safety system.
3. There is a low headroom condition in the hallway. However, it appears this is an existing condition and not related to this renovation. The low headroom is due to ductwork from the existing HVAC system which has been enclosed in wood trim. The reduction in headroom due to the wood trim is inconsequential.
4. No exterior lighting has been provided as part of this renovation.
5. Perimeter doors and windows appear to generally align with existing openings. However, it seems the new door may have been cut into the load bearing wall. It is not clear that proper structural support has been provided including a header and jack system to support the floor joists and wall above.

Utility room

6. A new oil-fired furnace was added in the utility room with all new hydronic piping and wood diffusers throughout providing primary heat to the unit. Secondary heat is provided by the original forced-air furnace located in the same utility room which provides heat to the primary residence above. Reference Photograph #8.
 - a. The new furnace exhaust ties into an existing flue and chimney at the rear of the subject structure.
 - b. Makeup air appears to be provided to the utility room with louvers connected to the hallway which were covered with photograph frames. Fresh makeup air does not appear to be provided.
 - c. A gas disconnect switch is located within the utility room with unsupported NM wires. Reference Photograph #10.
 - i. Disconnect switches should be located outside of utility rooms and NM wiring should be supported.
 - d. Heat detection is provided in the utility room, but was not tested. The wiring appears to be repaired or spliced with electrical tape and is unsupported in some areas. Reference Photograph #9 and 10.
 - e. An air admittance valve for the renovated bathroom is located in the utility room.



Bathroom / Powder room

7. The renovated bathroom and new powder room utilize existing sanitary and plumbing service. Reference Photographs #2-4.
 - a. Existing sanitary system utilizes a sump and pump to push sanitary waste to municipal service at the street which is at a higher elevation utilizing 4-inch cast pipe. Reference Photograph #11.
 - b. New sanitary line was trenched into the slab for the new powder room, connecting to the existing system.
8. Bathroom exhaust fans appear to connect to the existing ductwork which may not satisfy the minimum ventilation requirements per the residential code. Reference Photograph #3.

Pumproom

9. Exposed / unsupported wires were observed in the pump room.
 - a. It seems the yellow wire may be disconnected at the panel but is not labeled and unsupported with exposed ends. The black wire is for the new 220V outlet for the laundry room and is also unsupported.
 - b. The wires extend to the main service panel in the garage. Reference Photograph #13.

Kitchen

10. The kitchen was renovated with all new cabinets, fixtures, appliances, plumbing and electric.
11. It appears there may be an electrical issue with one of the outlets (backsplash outlet nearest to the bedroom door). The outlet reportedly does not work and may also be related to an inoperable switch in a nearby closet.
 - a. Note: all outlets along the backsplash are GFCI which may be redundant if daisy-chained potentially resulting in frequent breaker trips.

Bedroom / Office

12. Egress windows are provided in the bedroom and office area.
13. No observable code violations beyond the smoke / CO detection noted elsewhere.

Garage

14. Damaged electrical panel and unsupported (and bare end) wires were observed in the garage.

RECOMMENDATIONS

Based upon our observations, initial assessment, and experience with similar projects, we have the following recommendations:

1. Install combination smoke / CO detectors as follows (and as recommended in email correspondence dated January 19, 2022):
 - a. In the hallway between the furnace room and bathroom (within 3' of the bathroom).
 - b. In the bedroom within 3' of the bathroom.
 - c. Outside (but close to) the bedroom. The code would typically not require one in the kitchen (as it would alarm too often), but since the bedroom opens directly to the kitchen, one is needed.
2. We recommend contacting the local AHJ to review the site and our letter and to discuss potential next steps. The AHJ may require specific systems be exposed and or tested as part



of the building permit and c/o application process. At a minimum, we recommend the following:

- a. While not a code requirement, we recommend installing exterior path lighting.
- b. Provide a probe in the ceiling in front of the door to verify that a properly sized header has been installed per code.
- c. Retain a qualified HVAC contractor to review the furnace installation for code compliance, specifically makeup air. The contractor should furnish a letter of compliance as part of their deliverable.
- d. Move the gas disconnect switch to the hallway.
- e. Remove spliced wire at utility room smoke detector and replace with continuous and supported wire per code.
- f. Review bathroom exhausts and verify they exhaust directly to the building exterior (and not recirculating in the building by returning bathroom exhaust into the primary HVAC return air system. New exhaust ducts and outlets may be required.
- g. Support NM wires within the pump room and garage.
- h. Remove decommissioned wire or properly terminate ends within junction boxes.
- i. Repair damaged breaker panel.
- j. Retain a qualified electrician to review and repair the malfunctioning outlet and switch.
 - i. Review kitchen GFCI and remove redundant GFCIs (if redundant) and provide GFCI protected labels as needed at new non-GFCI outlets protected by GFCI (where needed / within 6-ft of water source).



CONCLUSION

Our assessment is based upon visual observations of systems and components exposed to view. Therefore, we were not able to review critical systems such as but not limited to sanitary, exhaust and electrical systems.

In summary, while it appears the Contractor executed the work in accordance with generally accepted industry standards, the work was advanced without AHJ oversight and / or third-party inspections. Additional testing and / or probes may be required to demonstrate compliance retroactively as required by code and the AHJ.

Closing

LaBella makes no express or implied warranties concerning the building systems. Observations were limited to visible systems and components and no equipment was tested.

This correspondence and the opinions contained herein have been prepared in accordance with generally accepted engineering practices for the exclusive use of you and your representatives for specific application to the referenced investigation. This report constitutes the complete and exclusive expression of the opinions of LaBella.

Please feel free to contact me directly at (518) 266-7329 if you have any comments or questions regarding this matter.

Respectfully submitted,

LaBella Associates

Lanson A. Cosh, PE, NYSCEO
Senior Structural Engineer

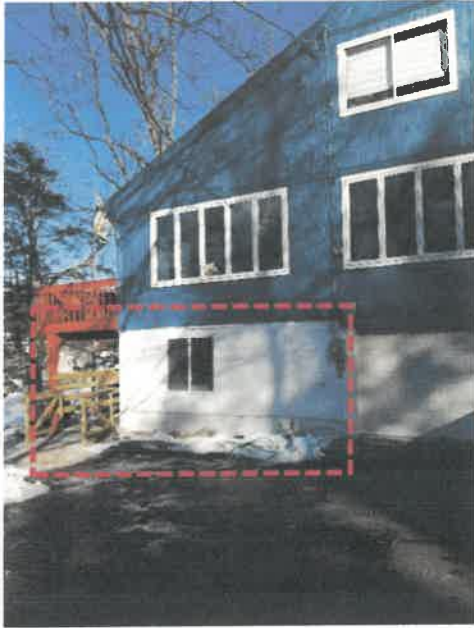
Attachments:

Appendix A – Photographic Documentation – January 18, 2022

Appendix B – Contract



**APPENDIX A - PHOTOGRAPHIC DOCUMENTATION
JANUARY 18, 2022**



Photograph (1): General view of subject structure.



Photograph (2): View of new powder room.



Photograph (3): View of renovated bathroom.



Photograph (4): View of renovated bathroom.



Photograph (5): non-working smoke detector outside of utility room.



Photograph (6): New egress windows in bedroom and office.



Photograph (7): New window in existing opening, new door in new opening.



Photograph (8): New hydronic gas-fired furnace.



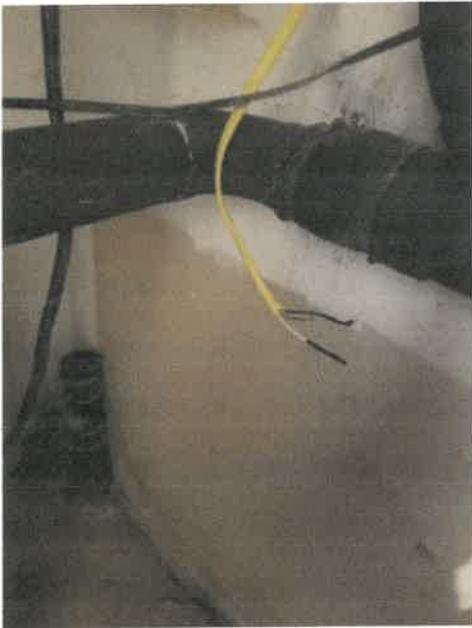
Photograph (9): Smoke detection in utility room with electrical tape splice.



Photograph (10): Gas shut off switch inside of utility room. Unsupported NM wire. Air admittance value behind renovated bathroom.



Photograph (11): Existing 4" force main sanitary line



Photograph (12): Exposed / unsupported wires.



Photograph (13): Unsupported nm wires.



Photograph (14): Low headroom – existing condition.



APPENDIX B - CONTRACT



ESTIMATE

HV Home Services, Inc.

INVOICE # 20139
DATE: 10/24/2020

www.hvhomeservicesinc.com
845-867-8764

TO Bruce Makous
83 King George Rd.
Poughkeepsie, NY 12603

SALESPERSON	JOB	EMAIL	PHONE #

QTY	DESCRIPTION	UNIT PRICE	LINE TOTAL
	Install new recessed lighting, wiring and switches throughout. Includes Bedroom, Bedroom closet, Kitchen, Living room, Office, Office closet, Hallway, Furnace room, Linen closet and Laundry. Install new outlets as per code along all walls. Kitchen, Half Bath and Full Bath already included in original contract. Install new bath fan in Powder room and properly vent to the exterior. Install new Floor GFI in conduit in Kitchen. Install new breakers. Additional drywall repair and replacement. Several areas of the ceiling must be opened to allow for new wiring. Finish with three coats of compound.		\$5,800
	Cut open block wall in Full Bath and Powder room for installation of new windows (Supplied by owner). Cut open block wall in Living room to install triple window (Supplied by owner). Install steel plates to support new openings. Trim all windows and repair exterior.		\$2,700
	Additional floor trenching required for relocated Powder room. Create deeper well to hold new ejection pump system. Install new system with all associated piping.		\$12,800
	Install faux ceiling beams and wrap soffit with reclaimed wood (Supplied by owner).		\$800
	Split heating system for new zone. Install new ductwork and thermostat.		\$9,600

	Frame new Bath. Trench through concrete slab for new drain lines and repair. Relocate new water lines. Install toilet, vanity, sink, faucet, shut off valves, supply lines and shower body with multiple heads. Install new switches, GFI outlets and lighting fixtures, Install new door, moldings and tile flooring. Build new custom flush floor shower for accessibility. Tile floor and complete surround to ceiling. Hang drywall, finish with three coats of compound and paint. (Owner to supply toilet, vanity, sink, faucet, shower body with heads, lighting fixtures and tiles)		\$9,225
	Frame new Laundry area. Install new plumbing and washer valve. Install new 220v outlet. Hang new drywall and finish with three coats of compound. Install new flooring, door and moldings. Finish with paint.		\$2,675
	Frame new Powder room. Trench through concrete slab for new drain lines and repair. Relocate new water lines. Install toilet, vanity, sink, faucet, shut off valves and supply lines. Install new switches, GFI outlets and lighting fixtures, Install new door, moldings and flooring. Hang drywall, finish with three coats of compound and paint. (Owner to supply toilet, vanity, sink, faucet, lighting fixtures and flooring)		\$6,125
	Frame in new bedroom. Frame new closet. Install drywall, three coats of compound and paint. Install new doors, molding, base molding, window molding, flooring and closet shelf. Install egress window to comply with code. (Owner to supply new flooring and window)		\$6,950
	Install new egress window in Office to comply with code. Move wall to expand Living room. Install new door, molding, base molding, window molding and flooring. Install drywall, three coats of compound and paint. (Owner to supply new flooring and window)		\$6,350
	Install plumbing lines for new Kitchen in main room. Trench through concrete slab from Pump room to Kitchen for 2" drain line and repair. Install new cabinets, island, countertops, sink, faucet, shut off valves, supply line and drain lines. Install new sliding door and trim. Install new flooring. Patch drywall, finish with three coats of compound and paint. (Owner to supply cabinets, countertops, sink, faucet, sliding door and flooring)		\$15,735
	New gas insert fireplace with wood mantle and floor to ceiling tile surround to be priced later when specifications are established.		
	Price includes all permit and inspection fees.		
	** Please remit second payment for \$30,000 **		
	Thank You		
		SUBTOTAL	
		SALES TAX	
		TOTAL	\$81,000

Quotation prepared by: Christopher Longo VP/COO, HV Home Services Inc. _____

This is a quotation on the goods named, subject to the conditions noted below: Describe any conditions pertaining to these prices and any additional terms of the agreement. You may want to include contingencies that will affect the quotation. Price is guaranteed for 60 days.

To accept this quotation, sign here and return: Bruce Makous 12/13/2020.

THANK YOU FOR YOUR BUSINESS!