



*Civil & Environmental Engineering Consultants
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www.HudsonLandDesign.com*

July 26, 2018
Revised April 30, 2019

Mr. Dave Buckley
City of Building Inspector
1 Municipal Center
Beacon, NY 12508

Re: Infiltration and Inflow Investigation
208 Main Street Site Plan
City of Beacon, New York
Tax ID: 6054-39-349638

Dear Mr. Buckley,

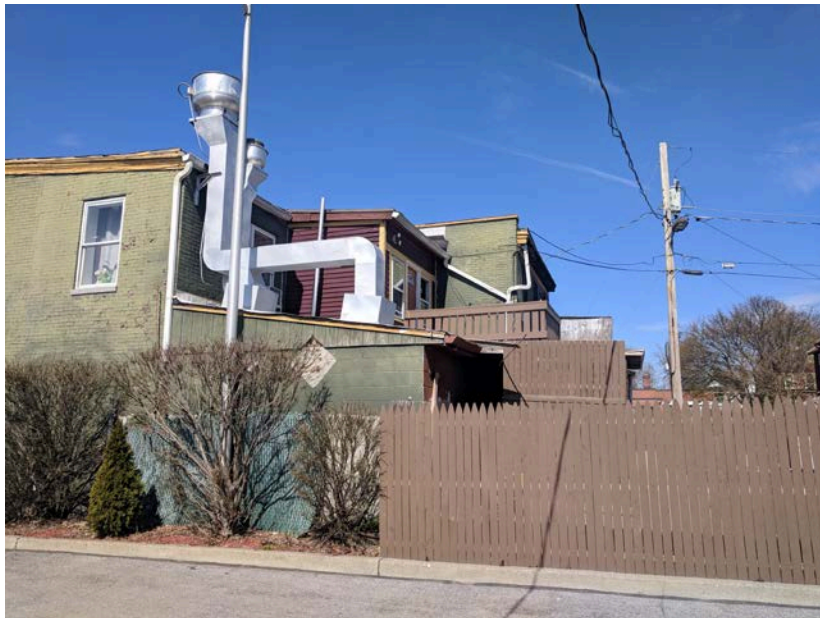
Hudson Land Design (HLD) has completed an infiltration and inflow investigation (I&I) at the above referenced parcel as required by the City of Beacon. The investigation was conducted on May 24, 2018 and May 31, 2018 at the existing building located at 208 Main Street, which consists of a two-story brick building currently used as commercial and residential space.

The first phase of the study consisted of an exterior inspection of the building on May 24, 2018 to determine the location of roof leader discharge points. The existing two-story building is split into two halves – left and right as you look at the building from main street. The left portion of the building's roof is relatively flat roof with a slight pitch toward the rear of the building. There is a gutter along the rear roof line with a single roof leader that discharges to the ground surface.

The right portion of the building has a gentle sloping roof from front to back. It also has a small colonial style shed roof that slopes toward the front with no gutter. This roof discharges onto a lower sloped roof with no gutter. The roof runoff currently discharges to the sidewalk in front of the building; however, this only accounts for about 15% of the roof area. The rest of the right-side roof pitches to a gutter along the rear of the building with two roof leaders discharging to the ground surface. Based on these observations, none of the rooftop runoff is connected to the sanitary sewer system.



View of roof gutter and roof leader on rear of left portion of the building

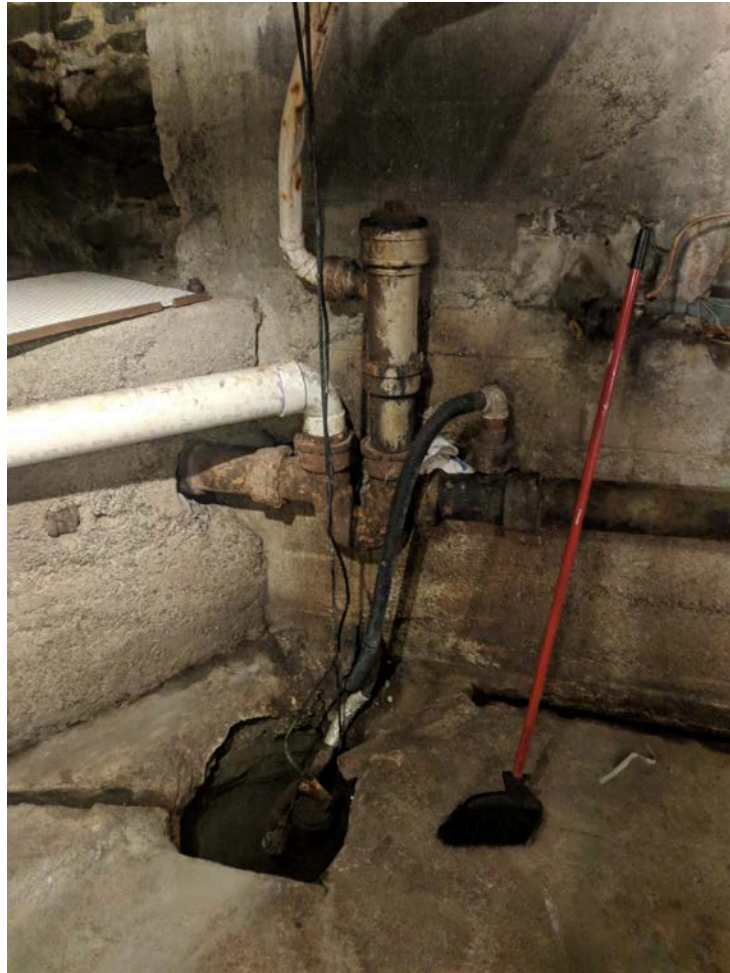


View of roof gutter and roof leaders on the rear of right portion of the building

The second phase of the study consisted of interior inspection of the building on May 31, 2018 to determine if there are any illicit connections to the building sewer line from sump pumps, floor drains and the like. HLD personnel located the last section of the interior sanitary sewer plumbing. The sanitary sewer lateral flows southerly out of the southwest corner of the building towards Main Street's sanitary sewer collection system from the southern building foundation. At this time, no dye tests were conducted to verify flow direction.

A single sump pump was observed in the southwest corner of the basement of the existing building adjacent to the building sewer lateral. It was observed that the sump

pump discharges directly into the sewer lateral, and ultimately to the City of Beacon's sanitary sewer system. The photo below shows the sump pump and force main pipe discharging to the sanitary sewer lateral.



On an average day, during a 1-year storm event, it is assumed that the existing sump pump will cycle approximately 20 times, discharging 120 gallons of water to the City of Beacon's sanitary sewer system.

Based on our observations, HLD believes that there are illicit stormwater connections from the building located at 208 Main Street to the City of Beacon's sanitary sewer collection system. The sump pump will be disconnected from the sanitary sewer and re-directed to discharge to the existing catch basin located at the corner of Main Street and Digger Phelps Court.

Should you have any questions, please feel free to call me at 845-440-6926.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael A. Bodendorf".

Michael A. Bodendorf, P.E.

cc: 206-208 Main Street, LLC (via email)
Jon D. Bodendorf, P.E. (HLD file)