



March 26, 2024

Mr. Robert Pfister, Chairman
Village of Pawling Planning Board
9 Memorial Avenue
Pawling, New York 12564

RE: Pawling Commons
Amended Site Plan
63, 67, 71 East Main Street
Tax Map No. 7056-05-101917

Dear Chairman Pfister and Members of the Board:

Enclosed please find six (6) copies of the following regarding the Amended Site Plan for the above referenced property:

- Site Plan Drawing Set (9 Sheets Total), last revised March 26, 2024 (6 full scale copies, 6 reduced scale copies).
- Stormwater Pollution Prevention Plan (SWPPP), dated March 26, 2024. (2 Copies)
- Letter from NYSDEC, dated March 14, 2024.

The enclosed plans have been revised based on comments received from the planning board consultants and comments from the public. With regards to comments received, we offer the following:

Memorandum from Sara Drury, EIT, LaBella Associates, dated March 7, 2024:

Note: Responses to comments previously addressed are not provided below.

Stormwater Pollution Prevention Plan

2. The enclosed letter from the NYSDEC, dated March 14, 2024 confirms that the project is not likely to impact bog turtles.

Details

7. Comments from the Dutchess County Department of Health were received on February 26, 2024 and comments from the New York City Department of Environmental Protection were received on March 11, 2024. Submissions are being prepared for both agencies to respond to all outstanding comments.

Public Comments from Public Hearing held during the March 12, 2024 Village of Pawling Planning Board Meeting:

Written comments were received from Mr. Phillip Ceradini on March 8, 2024 and from the residents of Sunset Avenue on March 10, 2024 in which written responses were provided by J Group Designs, LLC. Further public comments were announced by concerned residents of Sunset Avenue during the public hearing at the March 12, 2024 Village of Pawling Planning Board meeting and were largely in concern of the stormwater runoff from the project site which currently flows towards Sunset Avenue. It should be noted that, although the residents of Sunset Avenue expressed their concerns of the stormwater runoff from the project site, they acknowledged that the applicant has already made efforts to address their concerns of flooding. The applicant installed drain inlets and stormwater piping to convey some of the stormwater runoff from the existing westerly building to East Main Street and away from the neighboring properties. The existing drainage conveyance system is depicted on the project drawings.

In an effort to further remedy the concerns from the residents of Sunset Avenue, Evan Pendleton, PE of this office met with the Village Engineer, Sara Drury, EIT of LaBella Associates and the Village Planner, Caren LoBrutto of LaBella Associates on March 20, 2024 to discuss the stormwater management design for the proposed development included in the project SWPPP along with the alternate options that were explored during the design process and the site constraints that ultimately led to the stormwater management facilities depicted on the project drawings. In summary, the previously submitted project SWPPP meets and exceeds all stormwater management criteria in accordance with the NYSDEC and Village of Pawling requirements. With that being said, our office worked with LaBella Associates to revise the project SWPPP to direct more stormwater runoff from the project site towards East Main Street and away from the neighboring properties to the south along Sunset Avenue while still meeting the appurtenant regulations.

In order to show the overall reductions in stormwater runoff from the project site tributary to the neighboring properties to the south along Sunset Avenue the following table has been prepared to summarize the stormwater peak flows and runoff volumes for three separate conditions. The pre-development condition includes an analysis of the stormwater runoff prior to the drainage improvements previously installed by the applicant and the interim condition analyzes the stormwater runoff after the drainage improvements were installed. As shown in the table below and noted by the residents of Sunset Avenue, the installation of the additional drain inlets and conveyance piping provided a benefit to the neighboring properties and reduced the severity of the flooding experienced. The post-development condition includes an analysis of the stormwater runoff upon completion of the proposed development and stormwater management facilities included in the project SWPPP and depicted on the project drawings which shows a further substantial decrease in stormwater runoff peak flows and runoff volumes.

24-HOUR DESIGN STORM						
	1-YEAR		10-YEAR		100-YEAR	
	Peak Flow (cfs)	Runoff Volume (af)	Peak Flow (cfs)	Runoff Volume (af)	Peak Flow (cfs)	Runoff Volume (af)
Pre-Development	1.86	0.185	4.25	0.428	8.10	0.881
Interim	1.45	0.145	3.49	0.350	6.84	0.737
Post-Development	0.13	0.016	1.53	0.149	5.56	0.471

The NYDEC stormwater design criteria requires both stormwater quality and stormwater quantity treatment. Although the project is only required to at a minimum reduce the peak runoff rates to the pre-development conditions, the project SWPPP has been designed to significantly reduce the peak runoff flow rates and runoff volumes tributary to the neighboring residents on Sunset Avenue.

For stormwater quality, the project site is required to provide runoff reduction volume (RRv) for the increase in impervious surfaces and water quality volume (WQv) for the new and redeveloped impervious surfaces. In order to meet the RRv criteria, the NYS Stormwater Management Design Manual provides specific stormwater management practices that reduce, reuse or infiltrate stormwater runoff to replicate pre-development hydrology. These practices consist of green infrastructure techniques such as tree plantings that reduce the RRv required along with green infrastructure practices like vegetated swales, rain gardens, green roof, stormwater planters, cisterns and porous pavement. Standard stormwater management practices like infiltration practices, bioretention filters and dry swales may also be used to meet the RRv criteria. The NYSDEC stormwater criteria encourages infiltration practices to be used to the maximum extent practical as they can be used to meet both the stormwater quality and quantity criteria where feasible based on the existing soil conditions. As such, subsurface infiltration and porous pavement options were reviewed where RRv is required onsite. Due to the depth to bedrock in the northern and eastern areas of the site, areas where infiltration practices are feasible were limited to the southwest corner of the proposed parking lot. Due to the limited area of usable soils for infiltration, a Cultec subsurface infiltration system was chosen over the use of porous pavement for several reasons. Subsurface infiltration systems can provide a greater volume of storage over porous pavement for the same overall footprint due to the increase void space. Furthermore, due to the location of the infiltration

practice, the porous pavement section would have been located within the main driveway around the western building which will be subject to heavy vehicle traffic including delivery trucks and potential fire engines which is not ideal.

Although infiltration practices are preferred, other stormwater practices were also considered but were found to not be practical. Based on the site constraints, all the surface practices mentioned above were not feasible due to site layout and existing topography. These surface practices are also typically larger in size in order to meet the RRV requirements and would require more tree clearing and land disturbance. Finally, cisterns were reviewed to meet the RRV requirements. The design of a cistern requires the captured stormwater runoff to be reused onsite between rainfall events (24 hour period). Due to the volume of stormwater runoff required to be treated, the project is not capable of reusing the stormwater runoff on the project site in the required timeframe.

Furthermore, during the public hearing Mr. Phillip Ceradini asked about the potential of providing a taller concrete curb on the southwest side of the project site with the thought that it would retain the stormwater runoff on the project site in the event the capacity of the stormwater system were to reduce over time. It is our position that providing a taller curb with more than a 6" reveal from finish grade would provide more harm than good. First off, the proposed stormwater collection and conveyance system is designed to convey at a minimum the stormwater runoff from the 10-year, 24-hour design storm and the calculations account for the build up of debris in the conveyance system by sizing the pipes for 75% of their full capacity. The applicant is also required to perform routine maintenance of the stormwater facilities on the project site as part of the permitting with the NYSDEC to ensure the system capacity is maintained. A taller curb would provide a negative impact to public safety. Along the driveways, a curb reveal of greater than 6" has the potential to impact vehicle maneuvering through the site and behind the parking spaces, a taller curb would damage most vehicles utilizing the parking spaces.

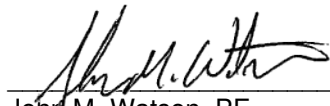
Finally, it should be known that although the project SWPPP has been designed in an effort to help remedy the flooding conditions experienced by the residents of Sunset Avenue there may be other causes that are out of the applicant's control. During the construction of the proposed 3-story multi-family building on the east side of the site, groundwater was observed during excavation for the footings. Therefore, some of the issues experienced on the neighboring properties may be due to subsurface conditions during extreme storm events. In summary, although the project SWPPP has been designed to reduce the surface runoff from the project site towards Sunset Avenue to the maximum extent practical, there may be other factors that cause the flooding conditions noted by the public which are out of the applicant's control.

Should you have any questions or comments regarding this information, please feel free to contact our office.

Very truly yours,

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

By:


John M. Watson, PE
Senior Principal Engineer

JMW:ejp

Enclosures: Curt Johnson, RA, J Group Designs, LLC (via email)

Insite File No. 18135.100