

February 7, 2022

Chairman Bruce Flower, Town of Wappinger Planning Board 20 Middle Bush Road Wappingers Falls, NY 12590

RE: Wappinger Subaru Expansion- Stormwater Memo

Salutation:

Subaru is looking to construct an expansion on their existing showroom and service center located at 1162 Route 9 in the Town of Wappinger. In 2013 Prestige Mini received site plan approval for a 18,700 square foot sales and service center. A stormwater management plan was designed to treat impervious coverage associated with the approved design. Pervious pavement areas were used in line with pocket ponds to treat and attenuate stormwater on-site. Since the approval the property was consolidated with the lot to the north. Additional stormwater management practices were implemented to attenuate and treat stormwater associated with an additional parking expansion on property.

This letter is to describe the improvements to the site associated with the Subaru Expansion and how it will affect the on-site stormwater. The proposed building expansion is a total of 11,050 square feet. The proposed disturbance associated with building expansion is 0.90 acres and there is a 0.2-acres increase in impervious on the site, associated with the expansion. With the proposed disturbance being less than one-acre, a stormwater pollution and -prevention plan and report is not required to be designed for this Subaru Expansion. Existing drainage paths were maintained to send appropriate flows to the existing treatment practices and attenuation basins.

The increase in impervious area on-site is directly related to the minimal expansion of parking area on the east and north sides of the existing site. These areas of slight impervious expansion have been designed to convey stormwater to existing pervious pavement treatment systems. Stormwater details associated with the 2013 design of the pervious pavement areas were obtained to understand the treatment capacity of the on-site pervious pavement areas. It was calculated the pervious pavement areas tributary of the new impervious were large enough to handle the additional impervious area associated with this expansion. Attached to this letter report are the stormwater details, water quality volume (Wqv), and map showing areas of new impervious to be treated.

Respectfully submitted,

LaBella Associates

Kyle Bardwell, PE Senior Civil Engineer

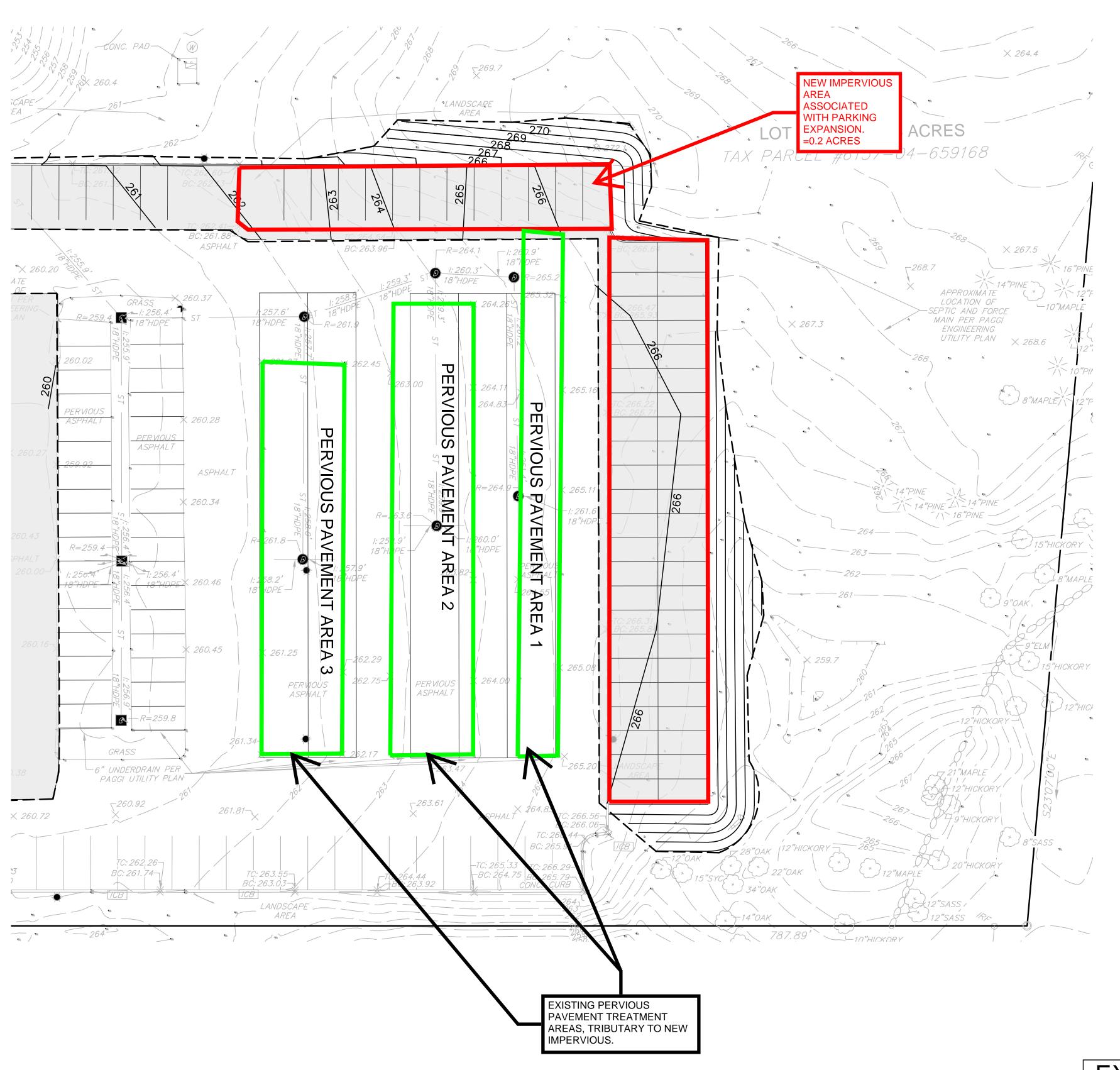
| Calculate Individual Stormwater Management Practice WQv |                  |                          |                                  |  |                                   |                            |      |              |                                |
|---|------------------|--------------------------|----------------------------------|--|-----------------------------------|----------------------------|------|--------------|--------------------------------|
| Subcatchment Area                                       | Development Type | Total<br>Area<br>(Acres) | Existing Impervious Area (Acres) | Existing Impervious Area to Remain (Acres) | New Impervious<br>Area<br>(Acres) | Percent<br>Impervious<br>% | Rv   | WQv<br>(ft³) | SMP or Green<br>Infrastructure |
| Pervious Areas<br>#1<br>#2<br>#3                        | New Development  | 0.600                    | 0.000                            | 0.000                                      | 0.600                             | 100%                       | 0.95 | 2,897        |                                |

| Pervious Pavement Area 1                            |        |  |  |  |  |  |  |
|---|--------|--|--|--|--|--|--|
| Square Footage:                                     | 2,300  |  |  |  |  |  |  |
| Depth of stone<br>reservoir below<br>overdrain (ft) | 0.75   |  |  |  |  |  |  |
| Void Ratio  | 0.4    |  |  |  |  |  |  |
| <b>Treatment Capacity:</b>                          | 690    |  |  |  |  |  |  |
|   |        |  |  |  |  |  |  |
| Pervious Pavement Area 2                            |        |  |  |  |  |  |  |
| Square Footage:                                     | 4,020  |  |  |  |  |  |  |
| Depth of stone reservoir below                      | 0.75   |  |  |  |  |  |  |
| Void Ratio  | 0.4    |  |  |  |  |  |  |
| <b>Treatment Capacity:</b>                          | 1206   |  |  |  |  |  |  |
|   |        |  |  |  |  |  |  |
| Pervious Pavement Area 2                            |        |  |  |  |  |  |  |
| Square Footage:                                     | 3,595  |  |  |  |  |  |  |
| Depth of stone reservoir below                      | 0.75   |  |  |  |  |  |  |
| Void Ratio  | 0.4    |  |  |  |  |  |  |
| <b>Treatment Capacity:</b>                          | 1078.5 |  |  |  |  |  |  |

**Total Treatment Capacity (Cf):** 

Chazen Job Number: 81532.00 The Chazen Companies

2974.5



EXISTING PERVIOUS PAVEMENT AREAS SCALE: 1"=20'