

To: Dan O'Connor, PE
From: Ralph G. Mastromonaco, PE
Date: March 31, 2021
Re: Hudson National Maintenance Area Improvements



This report indicates the history and current conditions of the maintenance area of the Golf Club to provide information on the Club's application for amended Site Plan approval.

Map of Conditions at the Maintenance Area at the 1995-1997 Site Plan Approval

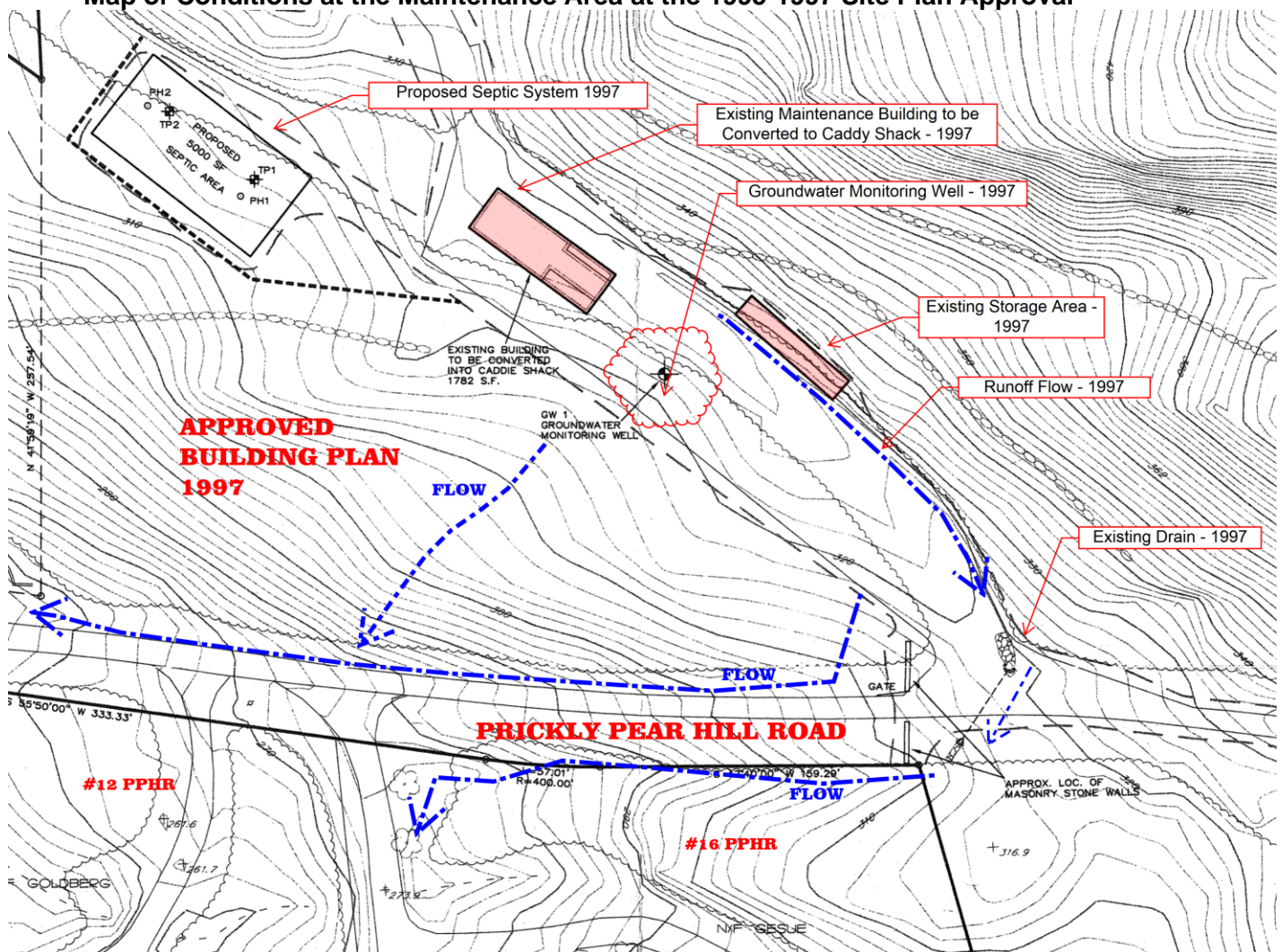
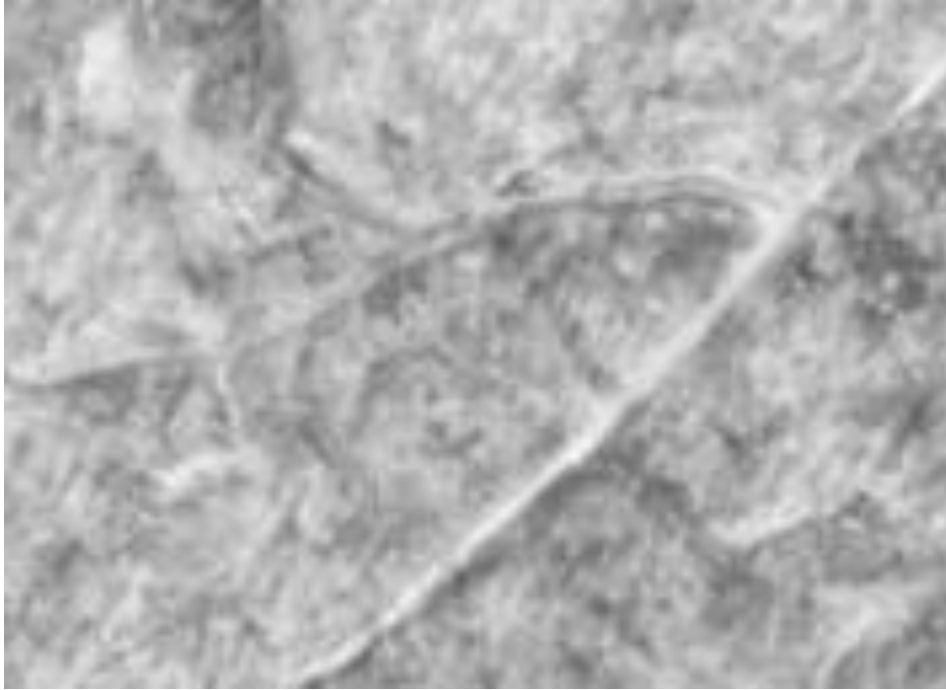


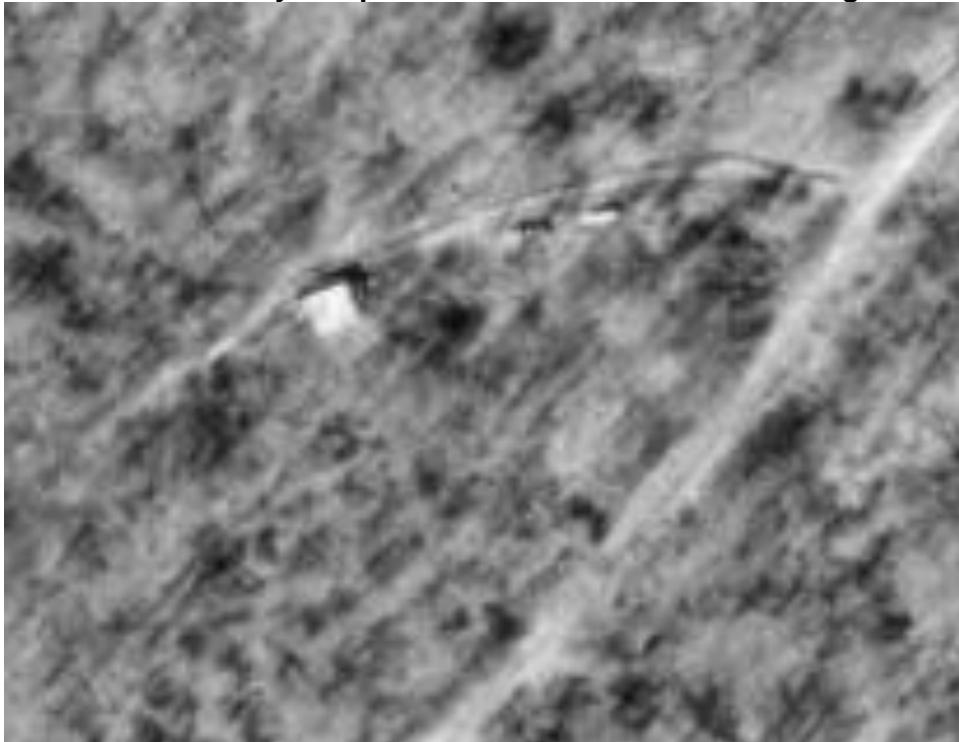
Photo History of the Maintenance Area

The following is a sequence of aerial photographs that show the Maintenance Area since about 1960 being used for various purposes. The 1995 base mapping also shows the direction of runoff flows as they existed at that time.

1960 – The Driveway to the current Maintenance Area is first observed.



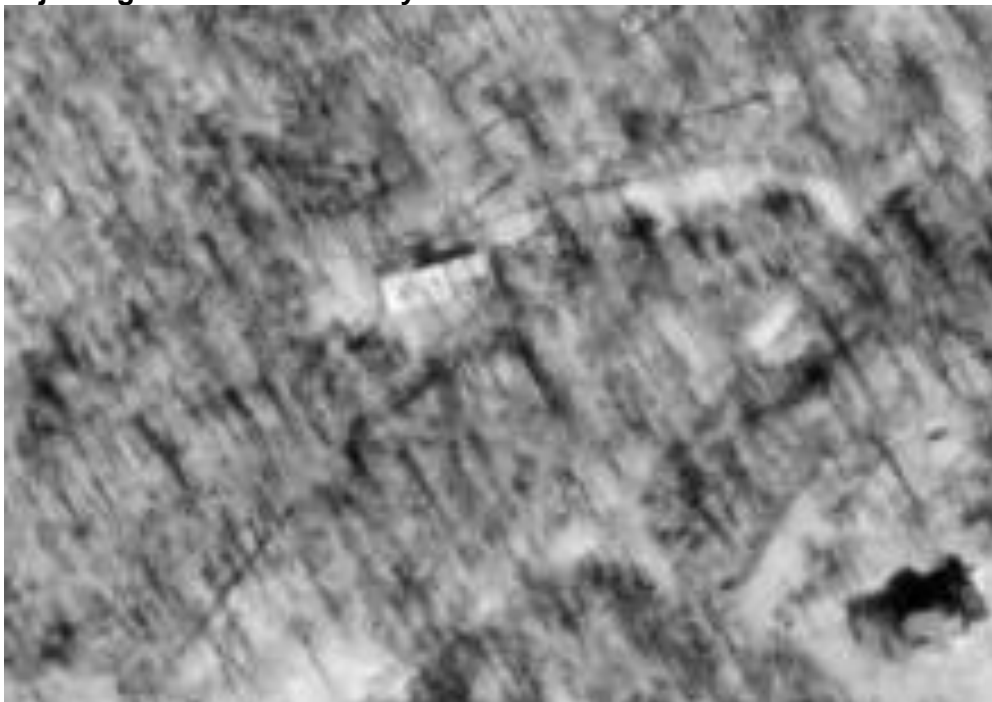
1976 – The Driveway and previous maintenance area building is shown with two vehicles.



1986 – The maintenance driveway and vehicles are noted. The house at #16 has been completed.



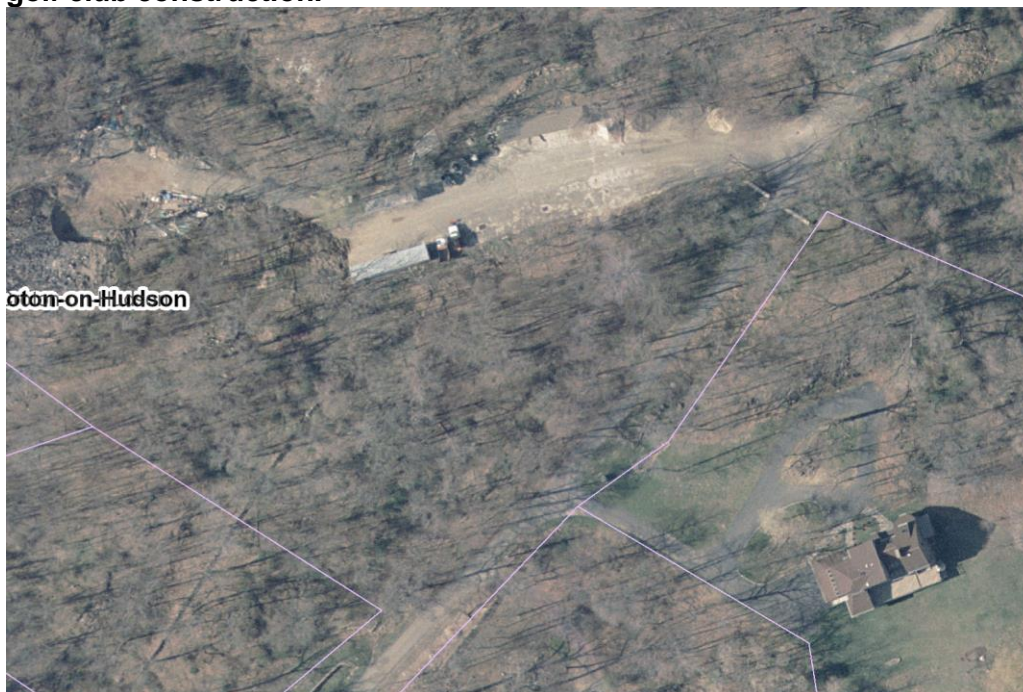
1990 – The driveway and previous maintenance building are visible as well as the adjoining home at #16 Prickly Pear Hill Road



1995 – The driveway and previous maintenance area are shown as well as the house on #16 Prickly Pear Hill Road. The Course is constructed at this time.



2000 – The maintenance building is now demolished and the site is cleared as part of the golf club construction.



2004 – The storage shed and storage of materials are visible.



2007 – The maintenance shed and minor storage of materials are visible.



2009 – The storage shed and storage of materials are visible.



2013 – The storage shed and material supplies are visible.



2016 – The storage shed and material storage are visible.



2018 – The storage shed and material storage are visible.



March 2021 – Current Maintenance Area showing shed and material storage.



In general, the maintenance area has been constrained to the space originally used for maintenance purposes since about 1960.

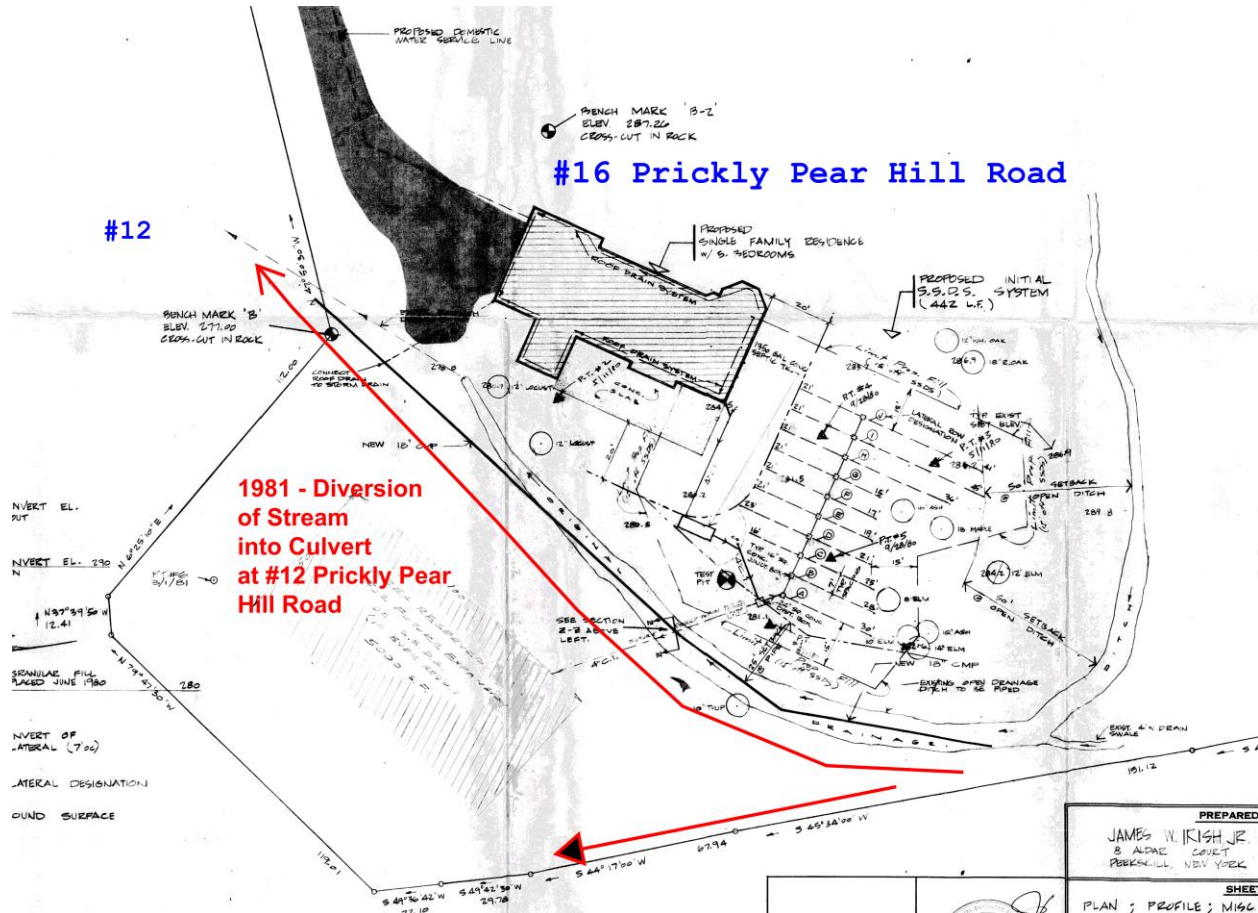
It is clear from the photographs that there has been no major increase in the use of the property over the course of years from the approval in 1997.

Flow Routes at #12 Prickly Pear Hill Road

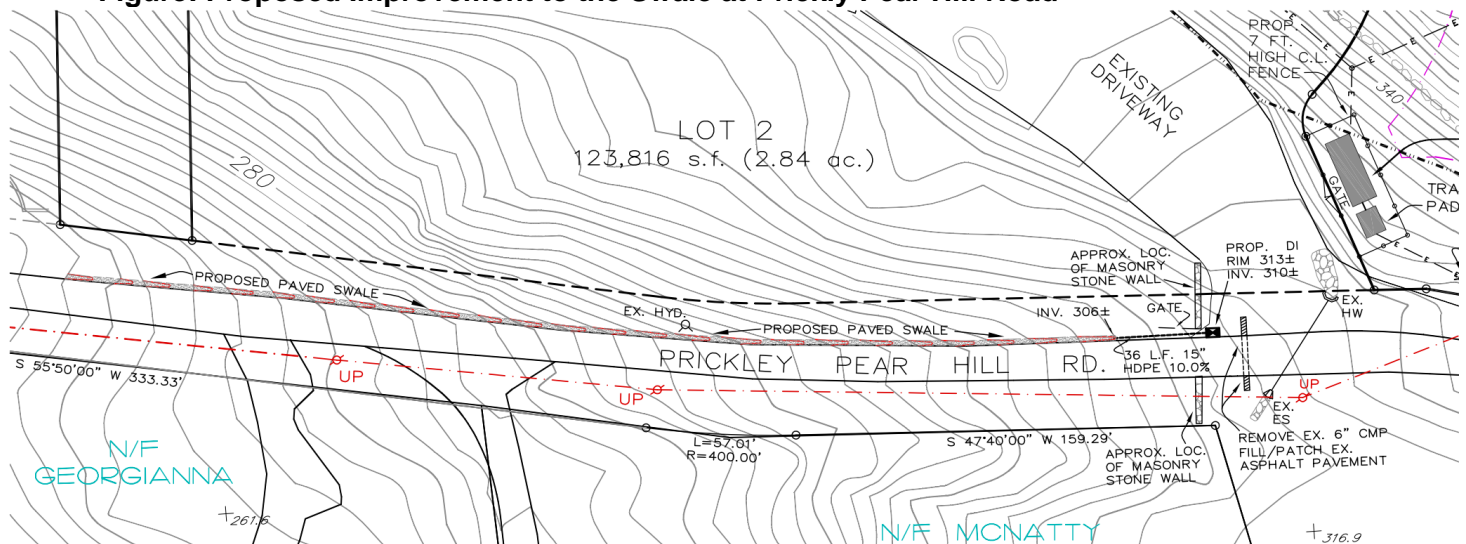
In 1981 the builder of the house at #16 prickly Pear Hill Road diverted a significant portion of the upstream flow to the small channel that runs along the roadway. This diversion added flows to that channel that overtaxes the capacity of the conveyance.

The figure below shows that a new 18" CMP was installed to dry out the proposed septic expansion area of Lot #16 but at the burden of the lots below. This diversion continues today.

Map of Septic System and Stream Diversion for #16 Prickly Pear Hill Road - 1981



Above: the red arrows indicate the direction of stream flows and the diversion to Lot #12 that occurred around 1981 to 1984.

Figure: Proposed Improvement to the Swale at Prickly Pear Hill Road

Several years ago, in an attempt to prevent flow from entering the driveway of a neighbor, the Club installed a pipe and swale to the channel along the frontage of the neighboring properties. To restore the normal flow of runoff, the Club proposes to direct about 1 acre of runoff back to the drainage system on Prickly Pear Hill Road.

This is to be done by installing a catch basin at the driveway that will collect flow and convey it to a short pipe and a new asphalt gutter. This system is capable of handling in excess of the 100-year storm event.

Further, the trench that was cut across the roadway years ago will be filled to grade and the pipe will be removed. The original 12" corrugated metal pipe that has been in operation since before 1995 will remain in place.

Summary:

The operations at the maintenance area have historically been for the storage of materials and equipment as approved by the 1997 Site Plan amendments. The Caddy Shack and septic areas were never constructed however, the maintenance and storage activities have continued.

The enclosed aerial photographs show maintenance activities since about the year 1960 to the present day. The only changes to the Maintenance area that were not approved specifically were the addition of a roof to the original storage bins and a lengthening of these bins. Further, the Club constructed a new bin out of concrete blocks for the storage of soil materials.

The Club's storage and handling of chemicals are, and have been, regulated by the NYS DEC and the Village. All chemicals are stored in approved containment areas elsewhere on the site of the Golf Club. There has never been chemical storage at the Maintenance area.

There are six sites that are inspected annually by the Village's consultant, "Environmental Turf Services", for both normal and storm surface water flow. The nearby sampling site along Prickly Pear Hill Road has had no flags as to water quality since the inception of the sampling. The results at all of the Club sampling sites have been filed with the Village Engineer's office, as required.