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Memorandum

To: Town of Cortlandt Planning Board
From: Marissa Tarallo, PE, PTOE
Date: January 12, 2022
Re: Sinclair Gas and Popeyes Pub Property – Revised Site Circulation Review
cc: Michael Preziosi, PE and Chris Kehoe, AICP
Michael Beattie, PE, PTOE, AKRF

AKRF has reviewed the revised site plan dated December 20, 2021 for the Redevelopment of Sinclair Gas and Popeyes Pub Property prepared by Ralph G. Mastro Monaco, P.E., P.C. Consulting Engineers as well as the memorandum dated December 21, 2021 prepared by Kimley-Horn of New York, P.C. Below are AKRF's comments.

DEVELOPMENT PROGRAM

AKRF understands that per the December 21, 2021 memorandum prepared by Kimley-Horn that the convenience store will no longer include drive-thru operations as part of the current application. While the drive aisle around the building still exists, it is anticipated to be utilized by a reduced number of vehicles and the trip generation presented in the Traffic Impact Study (TIS) sufficiently estimates the number of vehicles that would enter and exit the site during peak hours.

SITE CIRCULATION

The revised site plan dated December 20, 2021 includes additional striping to create one-way clockwise circulation around the site with the exception of the center drive aisle in front of the convenience store which remains two-way as recommended in AKRF's November 22, 2021 memorandum. "Do Not Enter" Signage and limited "One Way" signage has also been included. However, the Applicant should consider additional "One Way" signage as shown below in Figure 1 to support the proposed striping and circulation.

In addition, the revised site plan relocates the proposed gas pumps and overhead canopy approximately 6 feet to the east, widening the two-way drive aisle in front of the gas station by 6 feet, and widens the northern drive aisle at the back of the site by approximately 5 feet. A review of the truck turning analysis with the proposed revisions demonstrates the design vehicle and emergency vehicles can circulate the site efficiently without conflicting with the northernmost pump stations.

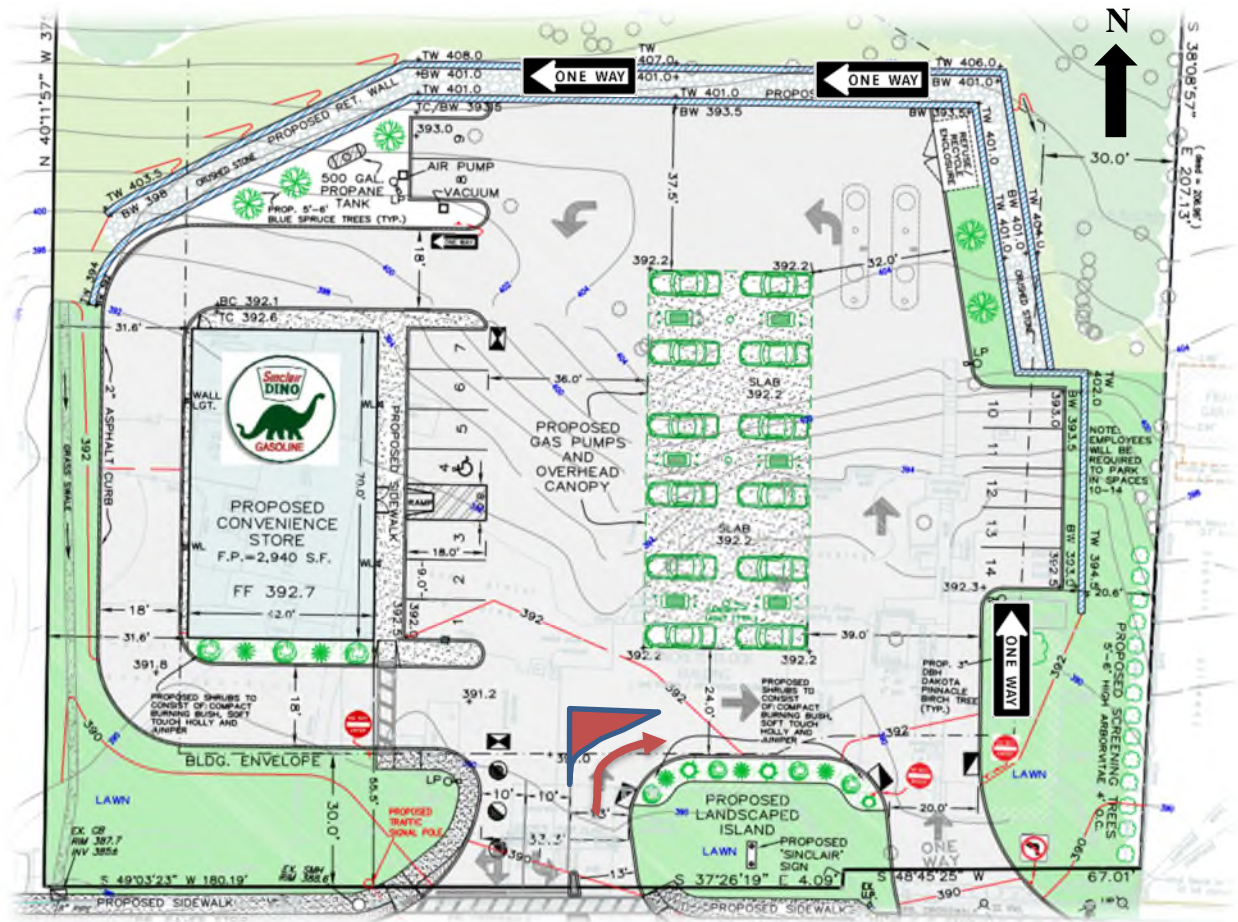


Figure 1: Recommended Site Plan Improvements

In response to the discussion regarding site circulation safety at the January 4, 2022 Planning Board meeting, while specific safety data for gas station circulation planning is not well documented, many of the same methods of evaluating safety for roadways and intersections apply to site plan design. In particular, the circulation of the site can be “optimized” to minimize as many user conflict points (vehicle-to-vehicle, vehicle-to-pedestrian) as possible.

Allowing vehicles entering from the parkway to continue straight into the site creates an additional point of conflict in front of the convenience store as shown in Figure 2. In addition, vehicles continuing straight also creates additional conflict with any current or future vehicle exiting the drive aisle behind the convenience store. Channelizing the vehicles entering from the parkway to the right may introduce additional conflict with vehicles entering from the secondary driveway; however this would be a single conflict with two one-way traffic patterns which would be less impactful than adding conflict to the drive aisle in front of the gas station. As such, it is recommended that the applicant provide a physical barrier, such as striping and bollards or a raised median, to channelize vehicles entering from the parkway to the right as shown in Figure 1 and as recommended in AKRF’s November 22, 2021 memorandum.

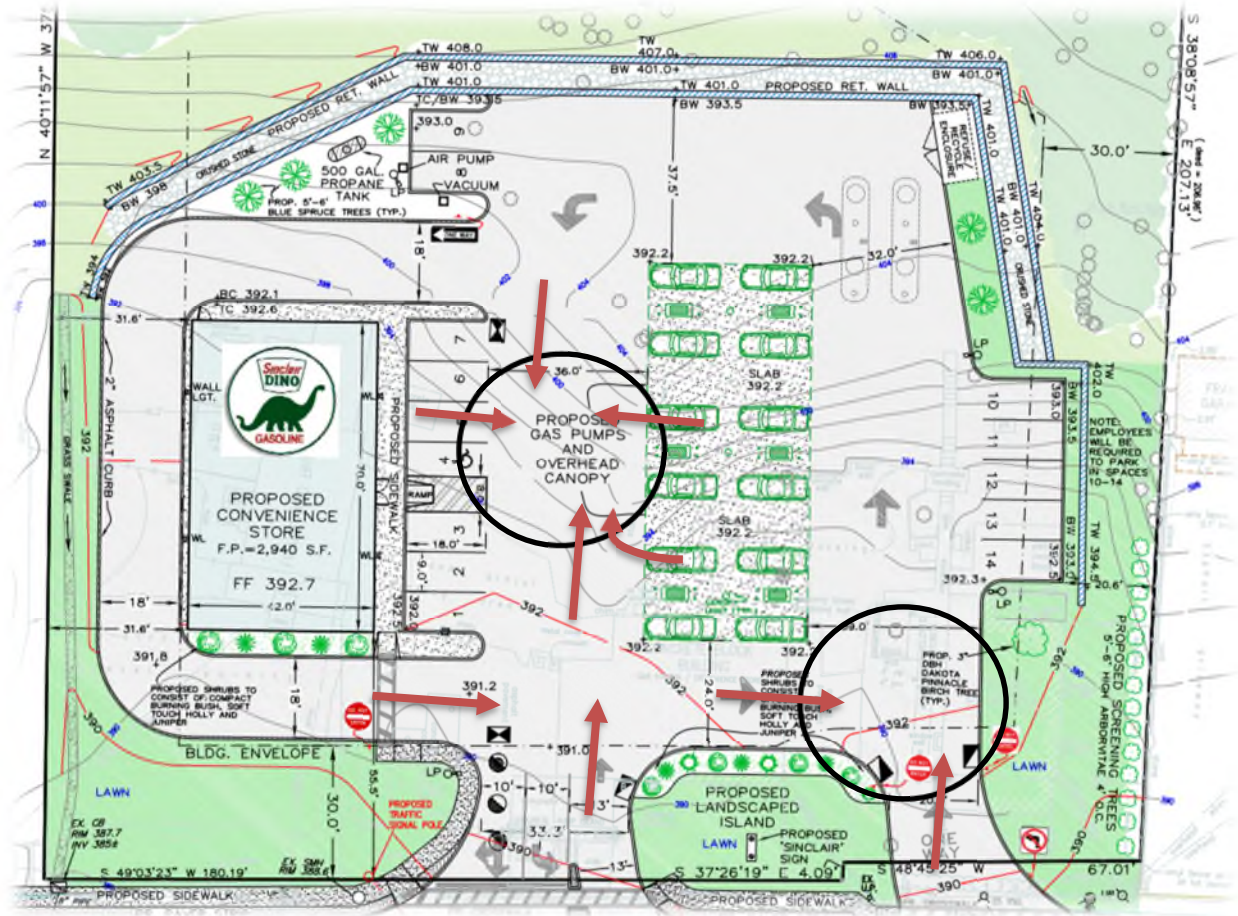


Figure 2: Conflict Points

DUMPSTER LOCATION

The location of the dumpster on the revised site plan has been relocated to the northeast corner away from the pumps which removes the previous conflict with the waste removal operations and northern pumps.