

**AGENDA  
POQUOSON CITY COUNCIL  
WORK SESSION  
MONDAY, JUNE 24, 2019  
COUNCIL CHAMBERS  
6:00 P.M.**

- 1. Shipwreck Island**
- 2. Streetscape Improvements – City Hall Clock**



# CITY OF POQUOSON

## ENGINEERING

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June 24, 2019

TO: Poquoson City Council  
THROUGH: Randy Wheeler, City Manager  
FROM: Ellen Roberts, City Engineer  
  
RE: Shipwreck Island (Poquoson Avenue/Little Florida Road/Laydon Way Intersection)

Engineering has been tasked with developing improvements for the Shipwreck Island intersection. This intersection is important to Poquoson because it is located on the only way out for citizens travelling westward from the middle and elementary schools and from the eastern end of the City. Improvements are targeted at improving safety and decreasing the number of accidents that could block the only way in and out for east end residents.

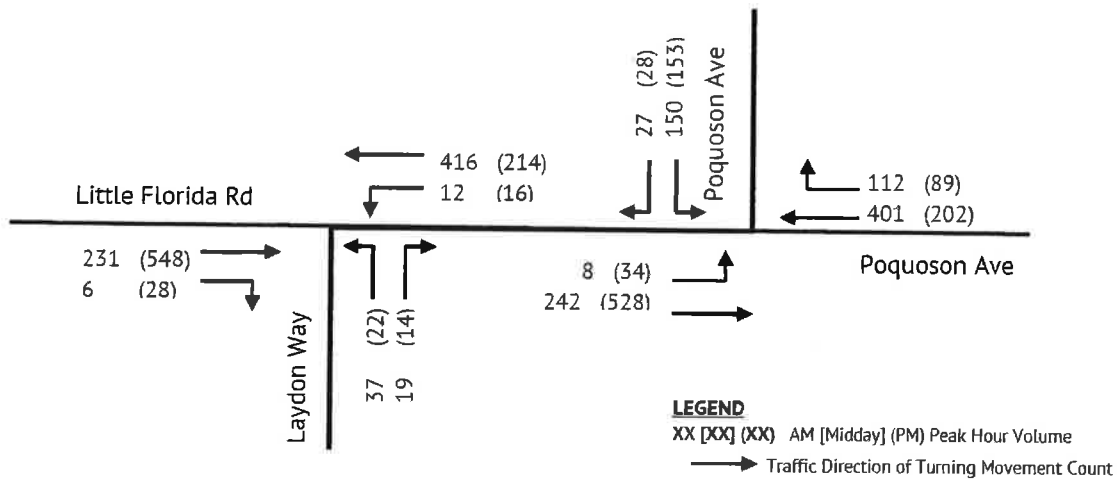
The proposed improvements would align the northerly leg of Poquoson Avenue with Laydon Way. These two roads are offset by a distance of approximately 80 feet. Federal Highway Administration Standards call for legs of intersection to be located directly across from one another. Alternatively, two adjacent intersections must be separated by a distance of at least 440 linear feet to meet highway standards. Offset intersections like Shipwreck create driver confusion, increased conflict points (locations where one car turns into another vehicle's lane), increase queuing and congestion at the intersection, and decrease lines of sight.

Other possible improvements include adding right hand turn lanes to increase throughput capacity at the intersection and providing curbed medians on Little Florida Road to reduce speed. This will help reduce the average speed of vehicles as they enter the school zone to the east and the sharp "S" curve section to the west.

Conceptual layouts and cost estimates were presented to City Council at its February 25, 2019 work session. The cost to realign Laydon Way but make no other improvements was \$375,000. A second option had a price tag of \$600,000 and included the realignment of Laydon Way and the addition of right hand turn lanes and traffic calming islands. The material presented at the February Council meeting is attached. Council directed staff to gather traffic volume and vehicle accident data. This information is provided below.

Traffic volume:

Clark Nexsen performed a traffic count for this area. The following diagram shows peak morning and afternoon counts:



**Figure 1.1 Existing 2019 Peak Hour Turning Movement Counts**

The morning turning movement peak occurred from 7:00 – 8:00 a.m., and the afternoon peak took place between 5:00 – 6:00 p.m. The turning movement analysis showed that 85% of the southbound traffic on Poquoson Avenue turned left to remain on Poquoson Avenue eastbound.

The average daily traffic volume along Poquoson Avenue north of Little Florida was found to be 9771 vehicles per day. The ADT along Poquoson Avenue east of the intersection east of Laydon Way was found to be 3397 vehicles per day.

In order to provide some context, VDOT traffic counts completed in 2018 indicate that the intersection excluding Laydon Way traffic sees more daily flow than three of Poquoson's four signalized intersections. In addition, the intersection experiences a high percentage of turning movements, especially left hand turns. Turning movements create a greater potential for traffic backups and accidents.

### Speed

The consultant measured speeds at the intersection. It must be noted that speed studies typically do not take place at intersections because turning vehicles decelerate. This skews data and can provide the impression that speeding is not an issue. Intersections with a high percentage of turning vehicles would typically exhibit lower speeds than the roads leading to and away from the intersection. The 85<sup>th</sup> percentile speeds at the intersection all fell within the 30-35 mph range. However, the consultant stressed that the through traffic speeds averaged significantly higher than the average speed. A more detailed speed study would be needed to confirm the average speed leading to and away from the intersection.

### Accidents

The Poquoson Police Department provided vehicular accident data for the area surrounding and including the intersection. The attached figure shows the location of accidents in 2017 and 2018. Please note that the locations shown are approximate and indicate where the vehicles came to a stop rather than some collision points or where the driver may have lost control. The attached table provides information on the locations and cause of the incident.

Three incidents occurred at the intersection during this period. Two were caused by vehicles making improper turns and colliding with vehicles in the adjacent lane. One was caused by a driver backing up while waiting to make a turn. This action was intended to correct a perceived problem with their position at the intersection. All three events took place during daylight hours.

### Next Steps

Council can opt to fund this project completely or to seek transportation funding. The most likely source of funding is Revenue Sharing funds. This project appears to qualify for this program. Revenue Sharing monies can fund up to 50% of a project's cost. Applications are accepted and funding awarded every two years. VDOT is currently accepting applications for Fiscal Years 2021 and 2022. In order to participate in this application process, City Council would have to pass a resolution before August that supports the project and commits to funding 50% of the cost. The engineering department would complete an application and submit it to VDOT by October of 2019. The Commonwealth Transportation Board would select projects for funding in early 2020. Work on selected projects could begin in Fiscal year 2021 beginning July 1, 2020. Project completion would depend on workload, VDOT review times and the time needed to both design and construct the project.



# CITY OF POQUOSON

ECONOMIC DEVELOPMENT OFFICE

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## MEMORANDUM

June 24, 2019

TO: City Council

THROUGH: City Manager

FROM: Economic Development & Community Recreation Director

SUBJ: City Hall Clock Initiative

Staff is pleased to provide the following resource and cost estimate information for a potential City Hall two-sided decorative clock project. Included in this overview are the following required elements necessary for project engagement. They are:

- \*potential location
- \*clock price
- \*concrete foundation
- \*electrical work
- \*clock lighting and custom painting

### **Potential Location**

City Hall Entrance median.

### **Clock Price**

Clock Price: \$12,355

### **Concrete Foundation**

A concrete base is needed to anchor the clock. An estimate of \$6,900 has been provided.

### Electrical Work

To supply electrical service to the clock will require the work of both Dominion Power to bring service to a meter/base from a nearby pole for Primary Service (\$4,500 & \$6,500) and an outside contractor such as Price Electrical to run service from the meter base to the median near the clock. To run the secondary service will likely require underground boring and service installation. Price Electric has provided an estimate of approx. \$4,000 for this portion. Staff estimates electrical work for Dominion at \$4500-6500 + Price Electrical \$4000 approx.

**Total: \$8,500-10,500.** *If power were acquired through the adjacent property owner the cost could be reduced by \$4,500-\$6,500, though a monthly payment to the landowner for clock power of \$20.00+/- would be incurred.*

### Clock Lighting and Custom Painting

-Backlighting (clock interior illumination) included at no extra cost  
-Custom Painting (i.e. burgundy/gold) included at no extra cost

### PROJECT ESTIMATE (Purchase, Infrastructure and Installation)

2-Sided Clock	\$12,355 (Verdin 4N Model: Height: 10' 11")* (includes installation & shipping from Verdin)
Concrete/Brick Foundation Work	up to \$6,900
Electrical Work	\$4,000-\$10,500
Contingencies	+ <u>\$4,463.25</u> (15% of highest estimated pricing)
<b>Total Estimated Project Cost Range (with contingencies)</b>	<b>\$27,718.25-\$34,218.25</b>

\*Other clock models are available for purchase including the Verdin 4Z, 4K and 4U. Pictures of these three (3) are provided on the accompanying page. Please note the specific amounts to be added to the total project estimate for these clock should one be selected:

<u>Model Type</u>	<u>Add \$</u>
Model 4Z (Height: 10' 9"):	\$1,795 (no hydraulic lift needed for clock installation)
Model 4U (Height: 15' 1"):	\$4,215 (plus \$1,500: hydraulic lift rental for clock installation)
Model 4K (Height: 15' 7"):	\$8,985 (plus \$1,500: hydraulic lift rental for clock installation)

### Potential Funding Option:

In March 2019 City Council appropriated streetscape improvement funding in the amount of \$37,373. Additionally, there is \$19,536 that was raised for the Heritage Park Clock Project approximately 10 years ago that was later re-designated by City Council to support the Waterman's Memorial which remains in the City's General Fund balance as restricted fund balance. Should the Clock Project be approved, these funds may offer possible funding options.