



The Falcon Group

ENGINEERS, ARCHITECTS AND ENERGY CONSULTANTS



Chesterfield II Condominium Association

Roadway and Driveway Pavement Improvement Project

PROJECT LOCATION

Stamford, CT

BUILDING TYPE

150 Townhouse Style
Condominium Units

PROJECT VALUE

\$175,000- Phase I

The community is approximately 8 acres in size and consists of 20 buildings, which contain 150 townhouse style condominium units, each with a private garage and brick paver driveway. There are two entrances to the community and several parking areas alongside the roads for resident overflow parking and visitors.

As part of the design process, we initially performed asphalt core sampling to determine the average sectional thickness of the pavement throughout the community. The results from the core sampling indicated an inadequate total thickness of 3 inches. Because of the discovery of inadequate, thin pavement, the scope of work for the project involved full depth reconstruction. Failure to recognize an inadequate pavement section could result in poor roadway performance and/or increased construction costs. In addition, the Falcon Team also surveyed areas that were observed to have poor surface drainage so that those areas could be corrected during reconstruction.

The project was phased over 3 years in order to distribute the construction costs over time. The first phase of the project was completed in 2018. Since the community is densely populated, phasing helped to reduce the inconvenience of ongoing construction to residents. For example, the residents that were affected by phase 1 could park in the phase 2 or 3 parking areas. The first phase also had two entrances to the work zone, which was very conducive to ease traffic control and construction vehicle access.

This was a full-depth reconstruction project, which was a more involved than typical mill and pave practices. Milling and paving involves removing the top course of asphalt, repairing failed areas of the base course of asphalt, and paving a new top course. However, this project involved removing the entire section of asphalt down to the subgrade, which was re-compacted to increase stability in the new pavement. Since the base course was very thin, it would have been severely damaged due to construction vehicle loading if it had not been removed. This is why it is important to core sample and know the pavement thickness during the design process. Falcon was effective in communicating the importance of the residents' satisfaction to the contractor and they happily agreed.



BEFORE



IN PROGRESS



DURING