



February 16, 2022

Mr. Michael Malak, P.E.  
Director  
Engineering & Environmental Services Director  
Cranberry Township  
2525 Rochester Road, Suite 400  
Cranberry Township, PA 16066

Re: Route 19 and Short Street Signal Replacement Project – Proposal for Engineering Services

Dear Mr. Malak:

Whitman, Requardt & Associates, LLP (WRA) is pleased to submit this proposal for providing engineering services for the **Route 19 and Short Street Signal Replacement Project**.

**Our Project Manager will be Daniel Fritz, PE, PTOE**, an Associate with 18 years of experience in transportation engineering and project management. Dan Fritz can be reached at 724-687-8139 or [dfritz@wrallp.com](mailto:dfritz@wrallp.com).

WRA is a full-service engineering, planning, and architectural firm that has provided professional services for 100 plus years. WRA's talented local staff of 34 engineers, designers, and support personnel are located in Cranberry Township and have completed many similar traffic signal replacement design projects in Cranberry Township and the region over the past 20 years. We are a PennDOT registered business partner with up to date qualifications and a track record of success locally and throughout the state.

WRA will manage this project and provide all traffic engineering and design services. Our team also includes **PVE, LLC** (PVE) for field surveying. WRA has worked with PVE on past projects and can attest that they will provide cost effective, high-quality services to Cranberry Township for this project.

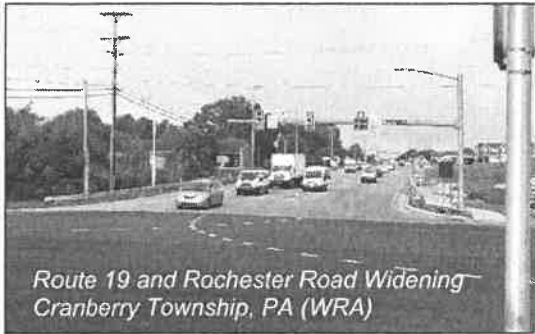
## Project Experience

WRA has recently completed several projects with Cranberry Township that had PennDOT District 10-0 coordination and oversight. These include:

- Route 19 and St. Francis Way Signal Replacement (Green Light-Go – E03579) | Highlighted Below
- Route 19 and Rochester Road Widening (Cranberry Twp.-Led) | Highlighted Below
- Route 19 and Old 19/Victory Drive Left Turn Phasing Evaluation (Cranberry Twp.-Led)
- SPC Regional Traffic Signal Program Cycles 1-4 (SPC-Led)
- Cranberry Township Signal Timing Contingency Plans (Green Light-Go – E03149)
- US 19 Corridor Study (E01095)

WRA completed the Route 19 and St. Francis Way Signal Replacement Project as part of our western region Green Light-Go Open End Agreement. This project included side street signal phasing conversion (permitted to permitted/protected), full signal design, curb ramps, and an Operation Analysis Tech Memo (analyzed phasing, turn lane warrants, lane designations, U-Turn prohibitions, and St. Francis Way and SR 228/Freedom Rd queue spillback). This signal replacement project was the first in Cranberry Township to specify their new black signal pole standard. The project was advertised and selected through PennBid with the low bid coming in within 4% of the engineering cost estimate.





WRA also completed the Route 19 and Rochester Road Widening Project which included roadway widening, culvert widening, sidewalks, curb ramps, traffic signal design, and updated signal coordination data. The signal design was a partial upgrade with the replacement of the northwest corner mast arm and northeast corner pedestrian pedestal. Side street operations were converted from split phased to concurrent protected/permitted left phasing. By completing a partial signal upgrade instead of a full replacement, it's estimated that Cranberry Township saved over \$375,000 in construction costs. This project was also integral as master planning for the Meeder property development was well underway.

## Project Understanding & Scope of Work

WRA will provide all engineering services and develop the contract documents needed for construction of the traffic signal replacement at the intersection of Route 19 and Short Street in Cranberry Township. WRA understands that the existing signal utilizes older (TC-7800 series) strain pole structural standards and that this is one of the oldest signal installations in the Township. The replacement of this signal has been a priority of the Township's for several years since the signal knockdown at St. Francis Way. WRA has previously assisted with concept development for this traffic signal and cost estimating to support Cranberry Township's applications for Green Light-Go and ARLE grants.

As WRA has done with past Cranberry Township projects, the design will reflect Cranberry Township best practices for decorative signal supports, controller assembly, detection, and communication system. All mast arms will include taller uprights and luminaires for highway and pedestrian lighting while adhering to all required overhead utility clearances. We are also aware that all signal projects need communication back to the Cranberry Township Traffic Operations Center and the Township's Centrac's ATMS.

WRA anticipates the project scope of work will entail survey, right-of-way line development, and property deed research (all provided by PVE) as well as utility coordination and traffic signal design and permit plans completed by WRA. We will also review truck turning radii for all turns and calculate revised yellow, red, and pedestrian clearance intervals as necessary depending on current or proposed stop bar locations. We are aware of the recent PennDOT Betterment Project that repaved Route 19 and included replacement of three of the five curb ramps at the intersection. Our design will utilize these new curb ramps, provide designs for the two remaining curb ramps, and add pedestrian pedestals or stub poles as needed to meet ADA standards and minimize impacts to the new curb ramps. It's noted that a curb ramp is missing in the southwest corner to complete the crossing across Nicklas Drive (Walmart Entrance). Completing this missing curb ramp will be discussed with Cranberry Township prior to beginning any design activities. New "piano key" high-visibility crosswalks will be designed as part of the project.

We do not anticipate reviewing turn lane storage lengths or proposing any changes to signal phasing. The current left turn phasing is fully protected for northbound and southbound left turns with split phased side streets, and no changes are recommended. This can easily be revisited after further discussions with the Township.

All signal timing development is currently being completed by WRA as part of the SPC Regional Traffic Signal Program Cycle 4; therefore, no additional traffic analysis is necessary as part of this project. The final traffic signal plan will include the updated coordination timing plans.

The scope of work does not include obtaining a Highway Occupancy Permit (HOP). We have confirmed with PennDOT District 10-0 Traffic Unit that an HOP is not necessary since there is no roadway widening or reconstruction. The project will follow a standard traffic signal design submission through the traffic unit.

WRA understands an aggressive project schedule is desired due to the age of the existing traffic signal and noted structural concerns. With our experience and expertise with traffic signal design and Cranberry Township's best practices, we will streamline the design process to expedite the schedule. WRA will also leverage our experience in the PennBid website to assist Cranberry Township in providing the necessary information for project advertising and awarding. WRA will be performing construction consultation that includes the following: address pre-bid questions, develop one addendum, bid review and recommend award (as needed), and attend a pre-construction meeting. If additional consultation is needed for shop drawings, source of supply, and attending field meetings to address contractor field questions this agreement can be supplemented.



## Schedule

WRA's proposed design/construction schedule assumes a Notice to Proceed (NTP) date of March 2022. This schedule can be adjusted depending on the Township's desired start date. Based on the nature of the project, we anticipate a Let Date of October 2022 with construction expected to take the majority of 2023 depending on the fabrication time of the new mast arms.

To help with the project schedule, it is anticipated Cranberry Township will distribute survey notice of intent to enter letters and handle any easement or right-of-way acquisition (WRA team to develop Metes and Bounds plans for the Township). WRA will make every attempt to design the new traffic signal within the existing right-of-way; however, the existing right-of-way appears limited on three of the four corners based on the existing traffic signal permit plan and Cranberry Township's Property Finder website.

Based upon our familiarity with the project site and the design process, we anticipate that ROW and PennDOT reviews will be the critical elements in delivering the project. We have developed our schedule to complete the project within the constraints provided and have shown the anticipated timeframe for Cranberry Township to acquire ROW.

## Assigned Personnel

WRA will lead this project from our Cranberry Township office, just a few minutes from the project site, where we have a large staff of talented transportation engineers who have performed similar work, and who also live and/or work in the Township. Our team is very familiar with the area's traffic operations, has excellent relationships with the Township, and has a vested interest in the success of this project. Our proximity will allow us to provide responsive, in-person communication and coordination with Cranberry Township for all aspects of this project.

The WRA team has immediate availability to work on this project and has assigned the following personnel:

### WRA Team Organizational Chart

Name	Firm	Project Role	Yrs. of Experience
Scott Thompson-Graves, PE, PTOE	WRA	Contract Manager/Quality Manager	25
Dan Fritz, PE, PTOE	WRA	Project Manager	18
Nick Streets, PE, PTOE	WRA	Lead Traffic Engineer	11
Alexa Janikowski, EIT	WRA	Traffic Design	1
Clifford Baker, IMSA II	WRA	Traffic Design	19
Tyler Steele, PE	WRA	ROW Plans & Curb Ramp Design	13
Tanner Baylor, EIT	WRA	ROW Plans & Curb Ramp Design	4
Martin Maytas	WRA	Utility Coordination	4
Joel Papcunik,	PVE	Survey Task Manager	15
Gregory Jones, PLS	PVE	Chief of Survey	30



## Price Proposal

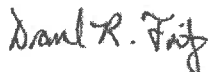
WRA and our subconsultants will provide all services specified in our Scope of Work for the following not-to-exceed lump sum costs:

<b>Task 1 – Project Management</b>	<b>\$2,100.00</b>
<b>Task 2 – Survey &amp; ROW</b>	<b>\$11,500.00</b>
<b>Task 3 – Traffic Signal Design</b>	<b>\$22,400.00</b>
<b>Task 4 – Construction Consultation</b>	<b>\$2,000.00</b>
<b>Total</b>	<b>\$38,000.00</b>

We look forward to working with Cranberry Township on this exciting project.

Sincerely,

**Whitman, Requardt and Associates, LLP**



**Daniel Fritz, PE, PTOE**

Associate

