



TRAFFIC PLANNING AND DESIGN, INC.

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MEETING MINUTES

*Oxford Valley Road Shared Use Path
Lower Makefield Township, Bucks County, PA,
SR 0000, Section LMT, MPMS No. 111468*

Meeting with Lower Makefield Township, March 8, 2019

Attendees: Jim Majewski
Kurt Ferguson
Greg Hucklebridge
Ken Coluzzi
Monica Tierney
Marty Rosen, Traffic Planning and Design, Inc. (TPD)
Phil Wursta, TPD

Project Information

TPD presented a brief overview of the project. The Scoping Field View was completed with PennDOT on 9/19/2019. The scoping form was completed/approved by PennDOT in early March which allows Environmental process to move to the next step the CE (Cateorgical Exclusion) Document. The CE is generally expected to be a formality for this project. The approval of the SFV Document allows TPD to submit the safety submission to PennDOT, which will be the main design review by the District. TPD advised that all of the major design items should be incorporated into this submission to avoid having to go back later to obtain re-approval. Marty then presented several of the issues for the project.

1. Per coordination in October 2018, the Multi-Use path has been designed to a width of 8' to match township standards and adjacent sections, as well as minimize the cost of the project. TPD noted that the minimum design standard for a multi-use path is 10', with exceptions allowed to narrow to 8'. The expectation is that the township standard should be sufficient to allow the narrower path.
2. TPD analyzed two locations to place a pedestrian crossings on Oxford Valley Road; Roeloffs Road and at the Community Center. The sight distance at Roeloffs is limited to 400' due to the existing vertical roadway geometry, while sight distance exceeds 800' at the Community Center. TPD selected the Community Center location based on the superior sight distance and expectation that it would have a higher usage, particularly since the driveway for the center is located at a mid-block location. Due to project cost constraints,

TPD eliminated the crossing at Roeloffs. After discussion it was determined, that the township would like to proceed with signalized pedestrian crossings at both locations, as there is a perceived expectation to connect that neighborhood to the park as part of this project.

3. TPD presented the crossing at the Community Center. A 4' raised "bump out" was provided into the existing 8' shoulder to minimize the crossing length and enhance visibility of a pedestrian to motorists. TPD noted the cost is relatively minimal, but since it can cause a potential maintenance issue, the question has been raised to the township. TPD noted that bump out would be marked by delineators, but may occasionally be hit. The signal equipment would be located beyond the normal curb line to reduce any crash impacts to the equipment.
4. The existing signalized intersection of Edgewood Road and Oxford Valley Road has crossings on two legs. TPD evaluated the installation of the 3rd eastern leg and noted there are constructability issues to get it up to the existing path. A bituminous path is proposed behind the signal equipment but provides no benefit to a pedestrian wishes to go from the SE corner of the intersection East on Edgewood Road. Monica noted most of the pedestrian traffic is west towards the pool and rec center.
5. TPD noted that after extensive coordination with their surveyor JMT, it appears the property mosaic for the Yardley Water Tower property is correct in that it shows the existing driveway outside the flag lot. The assumption is that when the driveway was built, the lot line was measured to the current location of Oxford Valley Road rather than the old location, resulting in a shift of the flag lot of about 30'. TPD noted that for purposes of this project, this is a non-issue. If necessary, an agreement can be drafted between the township and Water Company that allows them to continue to use the driveway in the location shown. TPD noted that an access easement (or formal right-of-way) is necessary for the trail to cross this property. Formal Right-of-Way plans will need to be developed and approved before formal negotiations can begin. TPD noted that the township should **NOT** approach the property owner until after the Right-of-Way plan is approved.
6. Township staff noted that the area adjacent to the flag lot is used during community days for handicapped vehicle parking. It was requested if the trail could be wide enough in the vicinity of the water tower driveway to accommodate directing traffic onto the trail to the open area adjacent to the stormwater basin. Marty noted that this would not be preferred since it would restrict access on the trail during a pedestrian event. Performing some vegetation clearing west of the trail crossing prior to the gate may be a more suitable alternative after the new path is constructed.
7. A discussion ensued on the cost of passive detection for a Pedestrian Warning System. After further research by TPD since the meeting, PennDOT has been strongly pushing for the use of passive systems (i.e. detectors instead of "active" push buttons). The push buttons would still be included in the project in case of system failure. The cost for thermal detection (preferred), is approximately \$15,000 per crossing or \$7,500 per device. This would push the previous estimate from \$50,000 per crossing to \$65,000. Thus the changes to the construction estimate, including the second crossing at Roeloffs would be as follows.

	Nov 2018 Est	Mar 2019 Est	Notes
Construction	\$570,000	\$670,000 ¹	Includes 15% contingency and no underground stormwater management
Inspection	\$85,000	\$100,000	15% of Construction
ROW Acquisition	\$10,000	\$10,000	Estimated cost for Appraisal with nominal cost for easement
Engineering	\$215,000	\$220,000*	* Additional design cost for 2 nd location
Total	\$880,000	\$1,000,000	

1- Includes additional pedestrian crossing at Roeloffs, additional \$15,000 per crossing for passive detection equipment, and miscellaneous costs associated with the additional crossing.

Action Items

TPD requests that the township review the following items in order to finalize the Safety Submission. Obtaining PennDOT approval is the main hurdle towards finalizing the plans and beginning the developing the NPDES Permit and Stormwater Management Plans for the project.

- a. Township to confirm it is acceptable to advance design for two crossings, based on the estimated construction and design costs noted above.
- b. Township to provide feedback to confirm if 4' bump out on Northbound side of Oxford Valley Road at the Community Center crossing is acceptable.
- c. Township to confirm that it is acceptable to **not** provide 3rd leg at Edgewood & Oxford Valley Road.
- d. Township Ordinance 178.B.1.e requires the path to be constructed with 2" of asphalt on 4" of aggregate base. Typical multi-use trail's are constructed with 5" of asphalt on 4" to 6" of aggregate base. The current cost estimate is based on the thicker pavement section, but could be reduced if so desired. The savings would be approximately \$80,000. The thinner pavement section may result in cracks and a shorter design life, but if the township is OK with the life expectancy of the existing paths constructed in the same manner, this would be ideal candidate to reduce over construction costs. A decision on the pavement section does not need to be made immediately.
- e. Township to provide stormwater management calculations for Community Center Basin for TPD to determine if it can be utilized and/or modified for Stormwater Management for this project. Without a significant reduction in project scope, the project will exceed 1 acre, requiring an NPDES Permit and stormwater mitigation.