

3 Elmwood Ave. Pedestrian and Bicycle Connections Analysis

Existing Conditions

Three Elmwood Avenue is a 1.8-acre property located in Narberth Borough and Lower Merion Township. The site has frontage on Elmwood Avenue and E. Wynnewood Road (a PennDOT road). The Elmwood Avenue vehicular connection terminates in a dead end prior to reaching E. Wynnewood Road. The two frontages are connected, however, via a deteriorating wooden pedestrian bridge that spans a tributary of the East Branch of Indian Creek that bisects the site.

Along E. Wynnewood Road there is a sidewalk on both sides of the street. The sidewalk on the west side of E. Wynnewood Road features a grass buffer (a “verge”) between the sidewalk and the roadway. Along the site frontage of E. Wynnewood Road, there is no verge, and the sidewalk is immediately adjacent to the roadway. The sidewalk is approximately 4’ to 4 ½’ in width connecting the vehicular tunnel under the train line from Narberth Borough to the controlled / signalized intersection and crosswalk that connects pedestrians and bicyclists to the west side of E. Wynnewood Road. This crosswalk is the main pedestrian connection in the area to safely access sidewalks across the street that, in turn, access nearby commercial destinations and parks. The two painted lines making up the crosswalk do not create a strong visual cue to oncoming motorists that this is a pedestrian crossing environment.

The Traffic Engineering Investigations Study, by F. Tavani Associates, Inc. (FTA), dated 4/21/2021 describes the crosswalk as follows:

“The signalized intersection of E. Wynnewood Road and N. Wynnewood Avenue features one painted crosswalk on the eastern leg, which is the leg closest to the site. It features an existing “pedestrian lead interval” (PLI) signal timing feature, which provides additional efficiency and reduced anxiety for pedestrians. When a pedestrian crossing button is pressed and the pedestrian phase is called, a 5- second “all-red” interval starts the pedestrian phase. During this interval, pedestrian WALK (walking person depictions) are illuminated in the pedestrian signal heads. Thus, pedestrians can enter the crosswalk and begin crossing the street while all motor vehicle traffic is stopped for 5 seconds. For some pedestrians, this itself is nearly enough time to cross the street. After the PLI has ended, an additional 17 seconds is provided for more pedestrian crossing opportunity. ...The signalized intersection is a recent PennDOT project, having been installed within the last 5 years. There are no other known planned roadway improvements in the vicinity of the site.”

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Moving southward along the site frontage beyond the crosswalk, the sidewalk narrows and is further limited by adjacent vegetation (see constraint 6 and 7 for location) creating a challenging pedestrian experience from the signal to the pedestrian bridge on Elmwood Ave.

The condition of the pedestrian bridge on Elmwood Avenue is in decline (see constraint 6 for location.) The bridge is supported by gabion baskets along the stream channel. The gabion baskets are failing and as a result, weakening the structural integrity of the bridge. These gabion baskets should be replaced or repaired before any repair or replacement of the bridge itself is made.

The sidewalk extending from the pedestrian bridge to the intersection at Woodside Ave. is also narrow and limited by vegetation. The Woodside Avenue intersection has four improved sidewalk corners with truncated domes on three of them, but there are no crosswalks (see constraint 8 for location.) This intersection is a convenient connection with the northern boundary of Shortridge Park. A long-term goal may be to create additional crosswalk locations across East Wynnewood Road to strengthen the pedestrian and bicycle connection between neighborhoods and significant destinations. The intersection at Woodside Avenue would be an ideal location for additional crosswalks.

At the northern end of the site, the sidewalk extending under the train bridge into Narberth Borough narrows from 4' to 4 ½' in width to 3' and is directly adjacent to vehicular traffic making it uncomfortable and challenging for pedestrian and bicycle travel (see constraint 4 for location). This makes the connection to the existing pedestrian bridge on Elmwood Avenue the safer route into Narberth Borough. Any improvements to the pedestrian and bicycle environment through the N. Wynnewood Ave. underpass would be a significant undertaking and require extensive construction.

Potential Improvements

As identified in the FTA Study, pedestrian traffic generated by the addition of six new residential units will be minimal.

“Site pedestrian traffic was estimated using the Institute of Transportation Engineers (ITE) publication, Trip Generation Manual, 10th edition. The option to trip generate for pedestrian traffic is a new option and datasets containing pedestrian traffic is an emerging science. ITE data suggests that, at most, pedestrian trip generation is on the order of about 10 to 11 percent ped trips per unit at most, so this 6 unit development will generate about 1 pedestrian trip per hour (rounded up). Thus, the pedestrian impact of the site is very small and almost immeasurable.”

The proposed project, if completed, will improve the sidewalk connection from the N. Wynnewood Ave. vehicular underpass to Elmwood Avenue at the pedestrian bridge. This 430 LF sidewalk improvement will include a new 2' landscape verge and 5' sidewalk for the length of the site's frontage. This will enhance the pedestrian experience along this strategic portion of E. Wynnewood Road for residents walking or biking to commercial uses or the Wynnewood Train Station, to the west, Narberth Park or the Borough to the north, and Shortridge Park to the south. This sidewalk improvement also strengthens the pedestrian connection from the Elmwood Ave. pedestrian bridge and the N. Wynnewood Ave. underpass to the existing signalized crosswalk at the intersection of N. Wynnewood Ave. and E. Wynnewood Road. Narberth residents, in turn, will be able to access the destinations mentioned above with enhanced safety and comfort. As part of the project, the crosswalk at this signalized intersection may be enhanced to include a wider, painted "ladder" crosswalk, as seen along the commercial section of E. Wynnewood Road. This more robust painted roadway surface could help strengthen the visual cue to motorists that a pedestrian crossing exists. Of course, this would rely on review and approval from PennDOT and possibly other regulating authorities.