# East Whiteland Train Station Feasibility Study

## **Executive Summary**

This report provides a comprehensive inventory and assessment of the existing conditions to identify feasible and viable locations for a new Regional Rail station in East Whiteland Township, Chester County, PA. A new train station is a cornerstone of the township's revitalization efforts for Route 30 in the Village of Frazer, and supports Chester County's commitment to expanding public transit options. This project was sponsored by the Delaware Valley Regional Planning Commission.



A train station on SEPTA's Paoli/Thorndale Rail Line has long been proposed for this area of Chester County due to its strategic location and potential to provide an alternative to the busy and constrained Exton, Malvern, and Paoli stations. The study area is located approximately midway between Malvern and Exton and it is in close proximity to regional highways such as US 202 and US 30. East Whiteland Township is home to many potential ridership generating uses, and is expected to see significant growth in population and employment by 2045.

Various factors were considered when identifying feasible and viable locations for a new station. Those considerations included existing conditions, railroad requirements, station program elements, and train service. Taking these, and additional factors, into consideration, two viable train station sites were identified for further evaluation: **Immaculata Station Site** and **Three Tun Station Site**.

Station concept plans, access and circulation improvements, operations and service, ridership forecasts, and cost estimates were developed for both sites.

Prepared for	Stakeholders	
Delaware Valley Regional Planning Commission (DVRPC)	SEPTA	
	Amtrak	
Consultant Team	PennDOT	
McMahon Associates, Inc. Michael Baker International Sowinski Sullivan Architects Thomas Comitta Associates, Inc. IBI Group	Chester County East Whiteland Township	
	Immaculata University Sisters, Servants of Immaculate Heart of Mary	

## **Executive Summary**

#### **Immaculata Station Site Profile**

The Immaculata Station Site is located west of Sproul Road (Route 352) on property owned by Amtrak, SEPTA, Norfolk Southern, and the Sister Servants of the Immaculate Heart of Mary The site is immediately adjacent to the Immaculata University Campus and SEPTA's Frazer Maintenance yard on land that is primarily vacant and wooded.



#### **Key Characteristics**

- Strongly supports East Whiteland Township's plans for revitalization of the Route 30 Corridor and the Village of Frazer
- Unlikely to be developed in the near term due to property ownership and existing access limitations
- Current track infrastructure supports hourly train service on SEPTA's Paoli/Thorndale Regional Rail Line, but planned track improvements may support half hourly service in the future
- More direct access and shorter walking times to/from Route 30 and Immaculata University

#### 2035 Ridership Forecasts

The Delaware Valley Regional Planning Commission developed ridership forecasts for two future operating alternatives involving the Immaculata Station Site. DVRPC forecasted that 530 people will access SEPTA's Regional Rail using the new Immaculata Station on an average weekday in 2035 if service is provided every half hour. Forecasted weekday ridership decreases to 385 boardings if service is only hourly. The Immaculata Station is forecasted to support a higher number of non-drivers and a higher number of "new" riders to the regional rail system than the Three Tun site. Additionally, the site has greater potential for future growth in ridership beyond 2035 given proximity to Immaculata University and the connection to Route 30.

	# of Trains (Inbound)	Total Weekday Boardings	Park-n-Ride Vehicles
Half Hourly Service	36	530	175
Hourly Service	21	385	90

#### **Rough Order of Magnitude Cost Estimates**

The estimated total cost for design and construction of the Immaculata Station is \$121.5 million in 2019 dollars. This rough order of magnitude cost estimate includes the train station elements, railroad infrastructure, and identified access and circulation improvements. The access and circulation improvements for the Immaculata site include two new access roadways, intersection improvements at four key intersections, and pedestrian infrastructure to provide connections to Route 30 and Immaculata University's campus. The cost estimate does not include the cost of additional rail vehicles, crew costs, or railroad infrastructure improvements necessary to provide half hourly service.

Train Station & Railroad Infrastructure (2019)	Multimodal Access & Circulation (2019)
\$ 97,518,000	\$ 24,049,000
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#### Immaculata Station Concept Plan



## Immaculata Station Conceptual Aerial Rendering



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## **Executive Summary**

#### **Three Tun Station Site Profile**

The Three Tun site is located to the east Sproul Road (Route of 352) on undeveloped, private property along Three Tun Road. Existing roadway infrastructure provides a connection to Sproul Road (Route 352). The site is primarily vacant and wooded, but is surrounded by light industrial development with an established residential neighborhood south of Amtrak's tracks.



#### **Key Characteristics**

- Vehicular access to regional highways including Route 30 via Sproul Road (Route 352) and Three Tun Road
- Land must be assembled from multiple private owners and is likely to be developed with commercial uses in the near future (before a train station can be designed and built)
- Access to Amtrak's tracks and platform configurations are limited due to steep slopes and the nearby Frazer interlocking
- Current track infrastructure supports half hourly service on SEPTA's Paoli/Thorndale Regional Rail Line
- Longer walking times and uncomfortable conditions for walking to/from Route 30, Immaculata University, and nearby residential neighborhoods

#### 2035 Ridership Forecasts

DVRPC forecasted that 360 people will access SEPTA's Regional Rail at the new Three Tun Station on an average weekday in 2035, assuming half hourly train service to this new station. The Three Tun Station is attractive for riders driving to the station, but does not attract new riders to the regional rail system.

	<pre># of Trains (Inbound)</pre>	Total Weekday Boardings	Park-n-Ride Vehicles
Half Hourly Service	36	360	240

#### **Rough Order of Magnitude Cost Estimates**

The estimated total cost for design and construction of the Three Tun Station is \$92.8 million in 2019 dollars. This cost estimate includes the train station elements, railroad infrastructure, and identified access and circulation improvements. The access and circulation improvements for the Three Tun site include intersection improvements at Route 30/Sproul Road (Route 352) and Sproul Road (Route 352)/Three Tun Road, as well as sidewalk connections along Sproul Road (Route 352) and Three Tun Road. The cost estimates do not include operational or vehicle purchase costs.

Train Station & Railroad Infrastructure (2019)	Multimodal Access & Circulation (2019)
\$ 79,512,000	\$ 13,340,000
See Part 2   Findings and Recommendations and Part 3   Ridership Forecasts for more details on station concept plans, access improvements, cost estimates, and ridership forecasts	
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### **Three Tun Station Concept Plan**



## Three Tun Station Conceptual Aerial Rendering



#### Alternative Site Comparison

This study determined that there are two feasible locations for a train station in East Whiteland Township, Chester County: Immaculata and Three Tun. Each of the two station sites have their distinct benefits and disadvantages. The Three Tun Site has a lower capital cost and more direct vehicular access to Route 30, but would divert existing regional rail riders from other stations rather than attracting new riders. The Immaculata Site provides direct multimodal access between the station, Route 30, and Immaculata University. Additionally, the Immaculata site has higher forecasted ridership and greater potential for future ridership growth.

#### Factors for Success—Preferred Station Site

While a variety of factors need to fall in line in order for a new station in East Whiteland to become a reality, one of the key factors for success is local and regional support. Project support and leadership is critical for identifying, advocating, and securing funding for continued planning, design and construction of the train station. During this study process, all of the local stakeholder organizations and institutions involved expressed their strong support and preference for the Immaculata Station site. With strong local support for the Immaculata Station site and lack of clear and distinct advantages for the Three Tun Station site, continued planning efforts should focus on advancing the Immaculata Station site.

#### Implementation

A new train station in East Whiteland Township is a long-term capital project that will require significant investment of time and resources. Notably, local and regional support needs to be built, a funding strategy needs to be developed, and key supportive infrastructure projects need to be advanced. High levels of local and regional support are required for a project of this scale and magnitude to succeed.

#### Next Steps

- Form a Train Station Coalition to lead implementation of next steps
- Evaluate funding options
- Complete additional plans and studies
- Advance design/construction for early-action access and circulation improvements
- Support track and railroad infrastructure improvements along the Keystone Corridor/Paoli-Thorndale line
  - See Part 4 | Conclusions for more details about next steps