



Woodbourne Rd and Swift Rd/Lower Silver Lake Intersection Improvements

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Introduction

- » Project Overview
- » Intersection Improvements
- » Current Design
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Intersection Improvements

- » Roadway Improvements:
 - Widening for left turn lanes
 - Improved drainage
 - Upgrade guiderail to current standards
- » Signal Installation
 - Adaptive system, ties into Bypass only
 - Pedestrian crossings
 - Southbound left turn arrow on Lower Silver Lake Rd

Current Design

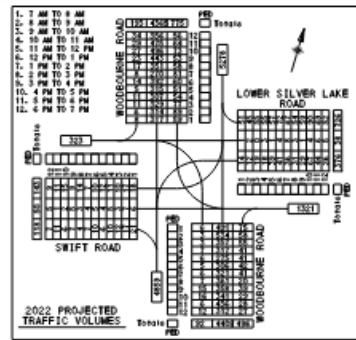
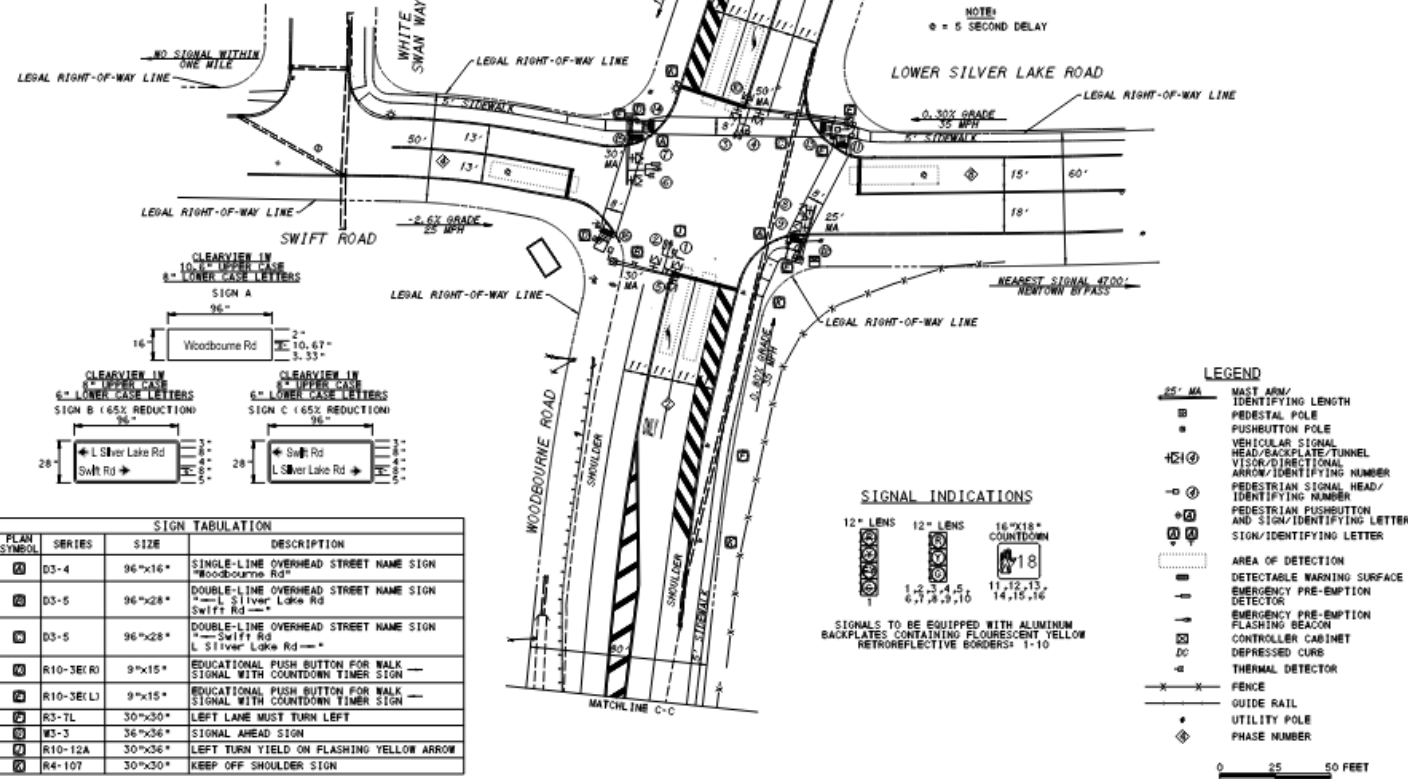
MOVEMENT, SEQUENCE, AND TIMING DIAGRAM

PHASE	1+6	2+6	4+8
1	R	R	R
2	G	G	G
3	R	R	R
4	Y	Y	Y
5	R	R	R
6	Y	Y	Y
7	R	R	R
8	G	G	G
9	R	R	R
10	Y	Y	Y
11	R	R	R
12	Y	Y	Y
13	H	H	H
14	H	H	H
15	PH	PH	PH
16	H	H	H

FIXED	3	4	2	15	4	2	3	4	3
MINIMUM									
PASSAGE	1#			1#			1#		1#
MAX 1	7			34			27		27
MAX 2	7			54			27		27
PEDESTRIAN*	(1)			7	12		7	20	
MEMORY	NL			SVR			NL		NL

REFER TO SYSTEM PERMIT #1-0048 FOR PROGRAM TIMINGS AND WEEKLY PROGRAM CHART

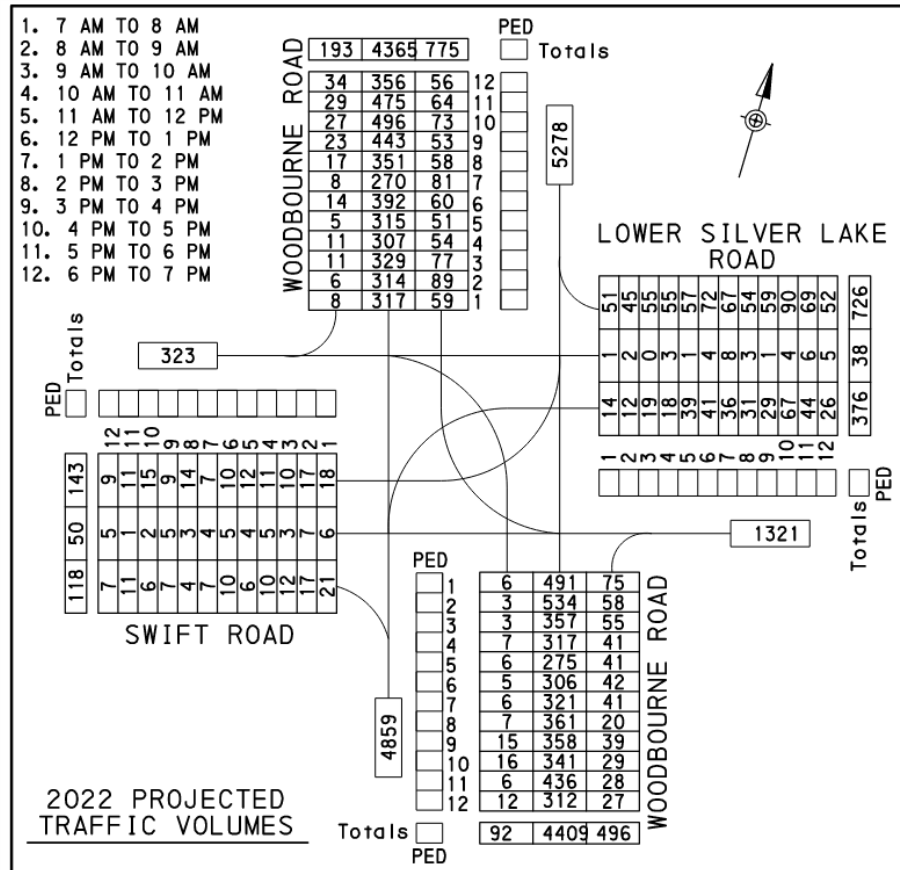
- REFER TO SYSTEM PERMIT #1-0048 FOR TRAFFIC ADAPTIVE OPERATION
 - PHASE PASSAGE CALCULATED BY TRAFFIC ADAPTIVE PROCESSOR
 - PHASE SEQUENCE SELECTED BY TRAFFIC ADAPTIVE PROCESSOR
 - TRAFFIC ADAPTIVE SHALL NOT ALLOW YELLOW TRAP
 - TRAFFIC ADAPTIVE SYSTEM TO OPERATE WITH PEDESTRIAN MODULE
 - UPON PEDESTRIAN ACTIVATION, OTHERWISE HAND SYMBOL AT ALL TIMES
 - PEDESTRIAN COUNTDOWN TIMER TO COUNT DOWN DURING FLASHING HAND INTERVAL
- ① TIMING WILL BE AS SHOWN IN PHASE 2+6. IT MAY TIME OUT IN THIS PHASE OR BE COMPLETED IN PHASE 2+6



» Study Findings

- Signal was warranted by volume and speed in 2018 and 2022
 - Side Street Volume threshold is 60 vehicles.
 - Speed study:
 - *85th Percentile 46 mph NB, 44 mph SB*
- Crash history was not reason for improvements
 - 19 years of crash history showed six moderate or significant accidents. Per PennDOT and industry standards, improvements are warranted based on crash history when there are five or more moderate or significant accidents occur that are correctable.

» Traffic Volumes



Project Timeline

- » Initial Complaint Made: Winter Fall 2017
- » Intersection Review Study: February 2018
- » Conceptual Plans Developed: February 2019
- » Field Survey: Spring 2021
- » Preliminary Design: Spring 2021
- » PennDOT Approval on Preliminary Design: Summer 2021
- » Final Design: Spring 2022
- » Bid Documents Summer 2022

Next Steps

- » Solicit additional feedback and modify plan if necessary.
- » Finalize Bid documents and solicit bids
- » Begin Construction
- » Complete Construction
- » Monitor operation of Signal
 - Make timing modifications if necessary.



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