



**HAVERFORD**

**WALKS &  
BIKES**



# **Bikeable Roads without Bike Lanes**

## **How to Shoulder Stripe Your Way to Bike Safety**

Evaluation of Road Shoulder Safety Striping Evaluation  
Presented 2012 and Implemented 2014

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# Goals and Objectives

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## Goals

- Improve Township livability and desirability
- Improve road safety
- Offer information to help residents find safest roads

## Objectives

- Analyze major roads for “bike suitability”
- Determine possible safety/bicycling improvements
- Focus on no-cost / low-cost possibilities

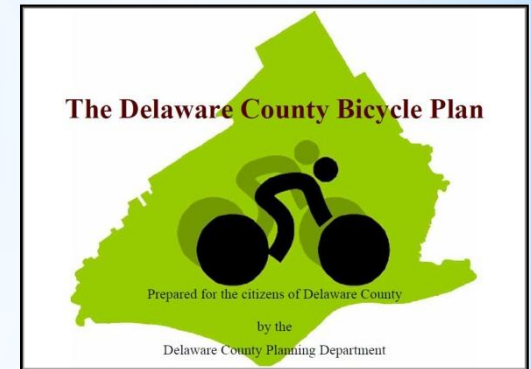


# Approach



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- Begin with Delaware County Bicycle Plan (2009)
- Use the Bicycle “Level of Service” (LOS) analysis model
- Data: traffic volumes, speed limits, road geometry, etc.
- Results: “A” - “F” grade for each road segment
- Map out the results
- A “ringer” - Rich Kerr, retired Transportation Engineer working with a “core team” calibrating LOS results



# Grading Our Roads

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- A** or **B** = Excellent or Good, suitable for all cyclists
- C** = Fair Grade, suitable for adults; kids with consent
- D** = Poor, suitable for advanced bicyclists only
- E** = Deficient, not conducive to bicycle travel



# Minor Roads



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*Chatham Glen Park*

- Most neighborhood roads are suitable for bicycling
- Certain ones create a sub-network through Township
- Park paths contribute to this network
- Offers possibilities that are not on major roads
- “Best way to go” different for bicycling than driving



# Improvements



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*Bicyclists Baltimore Pike*

- Paint and signs only - no widening or added paving
- Stripe off useable road shoulders
- Road width at least 26-28 feet wide recommended for useable shoulders (though any stripe is good)
- Retain street parking where it exists now
- Use Bicycle LOS model to evaluate changes





# Recommendations



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*Earlington Road*

- Improve bicycling safety on 11 miles of roads
- Improve motor vehicle compliance with speed limits
- Create better sense of community
- Make Township a more desirable place to live
- Reduce some auto trips (chauffeuring children, etc.)
- Reduce congestion, fuel use, greenhouse gas emissions



# Haverford Bike Network “Before” Conditions



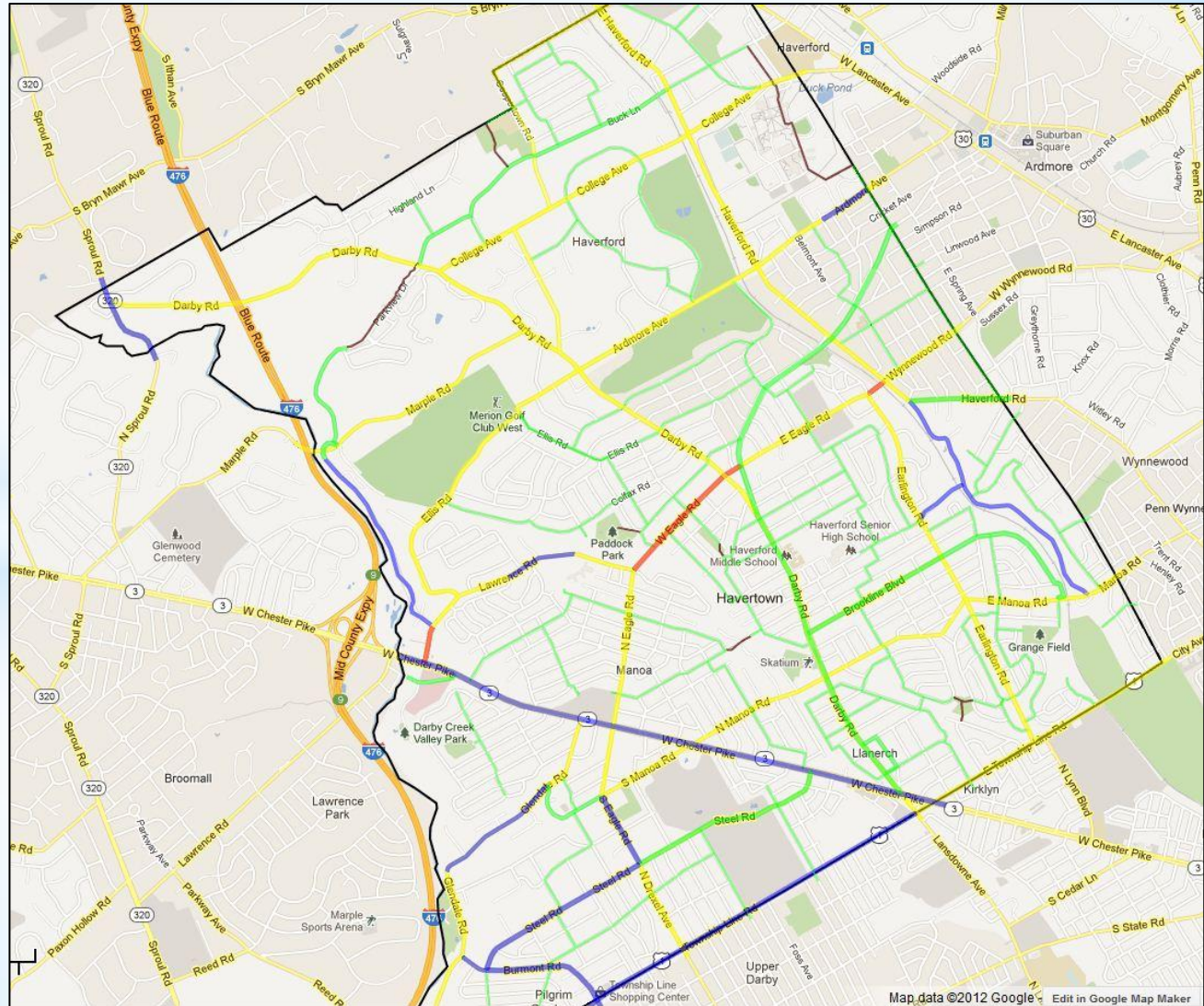
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# Haverford Bike Network Basic Improvements



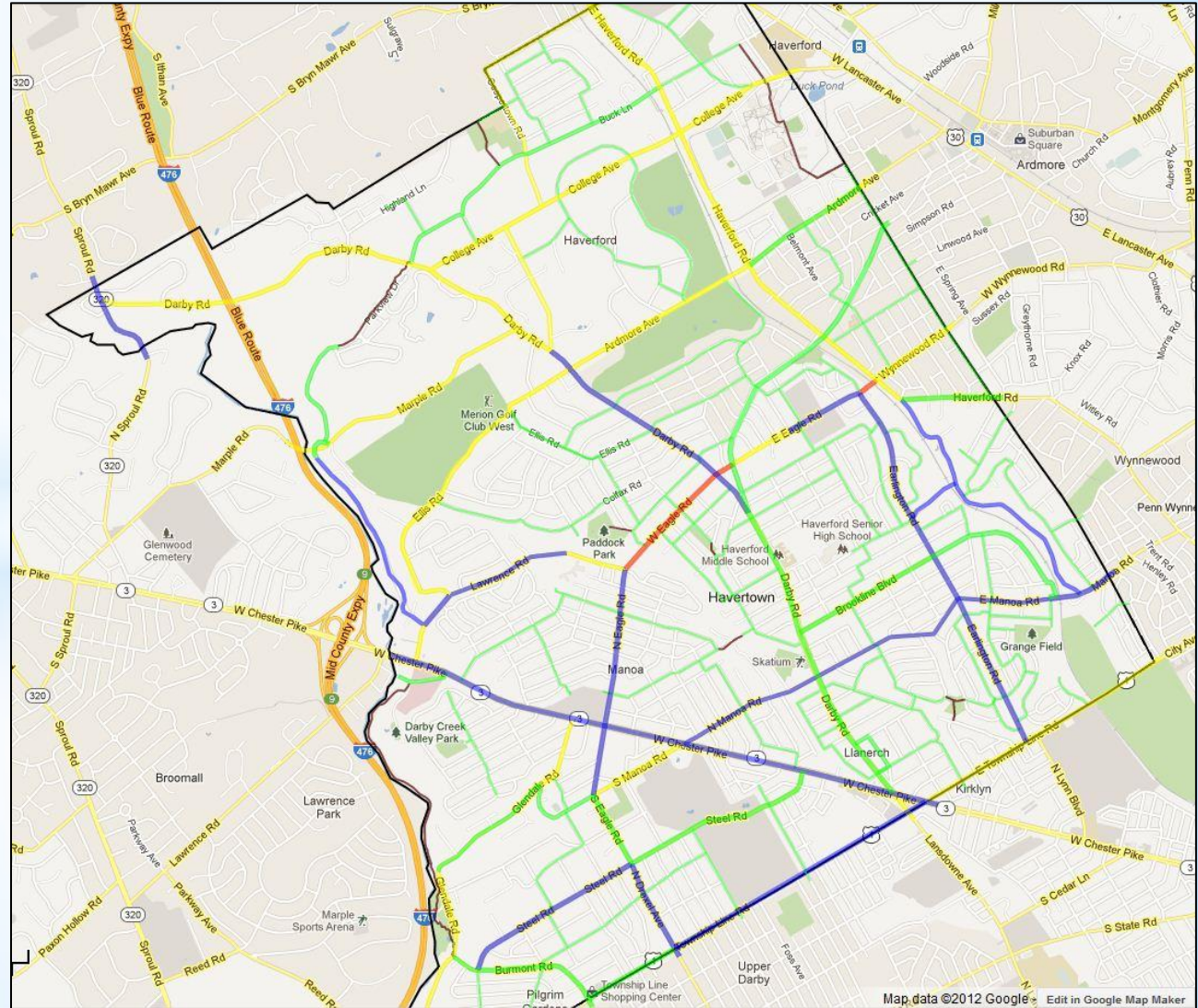
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# Implementation



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*Campus Blvd, Newtown Twp.*

- Role of PennDOT - nearly all major roads are state roads
- County Planning Dept. requests safety improvements
- Do Shoulder striping as part of annual restriping
- Do whole road redesign as part of resurfacing / restriping
- Township Board resolution requested PennDOT implement
- Friends of Haverford Trails follow-up - “bugged” whole year

*Safer roads with no or very little budget impact*



# Striping Takeaways



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- Easy to assess
  - Can be easier than we made it, i.e., don't use LOS
  - Google Earth to measure and ID all  $\geq 26$  ft wide 2 lane roads to confirm suitability
- Easy to implement, concurrent with annual striping
  - Requires PennDOT engineering field verification / marking
- Narrower lanes cut speeding average 7 mph
- Done by PennDOT after serious incidents
- Why not implement everywhere before a problem manifests?





# Example Opportunity Lansdowne Avenue



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Most 2 lane segments  
Suitable for Shoulder  
Striping:

> 28 ft width or more  
typical of most of  
its length

### “Simple” Process:

- UD Propose to DOT
- DOT evaluate and concur
- DOT implements at next annual restriping
- Any needing moving center line must wait until repaving

