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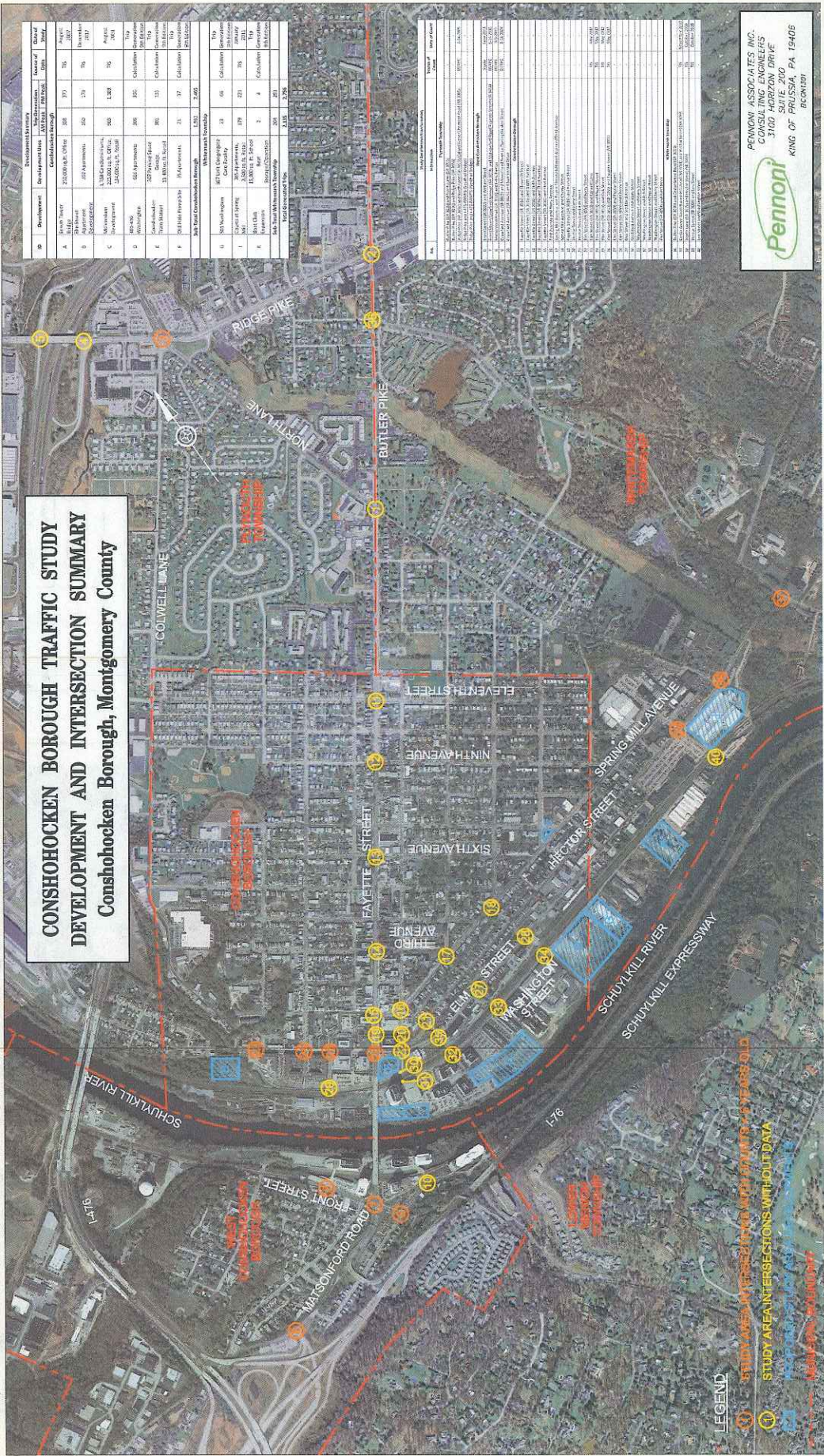
# AGENDA – FEBRUARY 19, 2014 UPDATE

- Purpose of Study
- Current Development Summary
- Review Methodology
- Review Preliminary Findings
- Discuss Potential Next Steps



# CONSHOHOCKEN AREA TRAFFIC STUDY

## CONSHOHOCKEN BOROUGH TRAFFIC STUDY DEVELOPMENT AND INTERSECTION SUMMARY Conshohocken Borough, Montgomery County



ID	Development	Development Summary		Year
		ADU's	Units	
A	15000 sq ft Office	300	370	2022
B	100 Apartments	100	75	2021
C	1000 sq ft Office	1000	1300	2021
D	1000 sq ft Office	1000	1300	2021
E	1000 sq ft Office	1000	1300	2021
F	1000 sq ft Office	1000	1300	2021
G	1000 sq ft Office	1000	1300	2021
H	1000 sq ft Office	1000	1300	2021
I	1000 sq ft Office	1000	1300	2021
J	1000 sq ft Office	1000	1300	2021
K	1000 sq ft Office	1000	1300	2021
L	1000 sq ft Office	1000	1300	2021
M	1000 sq ft Office	1000	1300	2021
N	1000 sq ft Office	1000	1300	2021
O	1000 sq ft Office	1000	1300	2021
P	1000 sq ft Office	1000	1300	2021
Q	1000 sq ft Office	1000	1300	2021
R	1000 sq ft Office	1000	1300	2021
S	1000 sq ft Office	1000	1300	2021
T	1000 sq ft Office	1000	1300	2021
U	1000 sq ft Office	1000	1300	2021
V	1000 sq ft Office	1000	1300	2021
W	1000 sq ft Office	1000	1300	2021
X	1000 sq ft Office	1000	1300	2021
Y	1000 sq ft Office	1000	1300	2021
Z	1000 sq ft Office	1000	1300	2021

ID	Development	Development Summary		Year
		ADU's	Units	
1	1000 sq ft Office	1000	1300	2021
2	1000 sq ft Office	1000	1300	2021
3	1000 sq ft Office	1000	1300	2021
4	1000 sq ft Office	1000	1300	2021
5	1000 sq ft Office	1000	1300	2021
6	1000 sq ft Office	1000	1300	2021
7	1000 sq ft Office	1000	1300	2021
8	1000 sq ft Office	1000	1300	2021
9	1000 sq ft Office	1000	1300	2021
10	1000 sq ft Office	1000	1300	2021
11	1000 sq ft Office	1000	1300	2021
12	1000 sq ft Office	1000	1300	2021
13	1000 sq ft Office	1000	1300	2021
14	1000 sq ft Office	1000	1300	2021
15	1000 sq ft Office	1000	1300	2021
16	1000 sq ft Office	1000	1300	2021
17	1000 sq ft Office	1000	1300	2021
18	1000 sq ft Office	1000	1300	2021
19	1000 sq ft Office	1000	1300	2021
20	1000 sq ft Office	1000	1300	2021

ID	Development	Development Summary		Year
		ADU's	Units	
21	1000 sq ft Office	1000	1300	2021
22	1000 sq ft Office	1000	1300	2021
23	1000 sq ft Office	1000	1300	2021
24	1000 sq ft Office	1000	1300	2021
25	1000 sq ft Office	1000	1300	2021
26	1000 sq ft Office	1000	1300	2021
27	1000 sq ft Office	1000	1300	2021
28	1000 sq ft Office	1000	1300	2021
29	1000 sq ft Office	1000	1300	2021
30	1000 sq ft Office	1000	1300	2021
31	1000 sq ft Office	1000	1300	2021
32	1000 sq ft Office	1000	1300	2021
33	1000 sq ft Office	1000	1300	2021
34	1000 sq ft Office	1000	1300	2021
35	1000 sq ft Office	1000	1300	2021
36	1000 sq ft Office	1000	1300	2021
37	1000 sq ft Office	1000	1300	2021
38	1000 sq ft Office	1000	1300	2021
39	1000 sq ft Office	1000	1300	2021
40	1000 sq ft Office	1000	1300	2021

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# CONSHOHOCKEN AREA TRAFFIC STUDY



Development Summary										
ID	Development	Development Uses	Trip Generation Including Transit Reduction				Total			
			Enter	Exit	AM Peak	PM Peak	Enter	Exit	Total	
Conshohocken Borough										
A	Seven Tower Bridge	250,000 sq. ft. Office	307	42	349	57	279	336		
B	Elm Street Apartment Development (Conson Street LP)	356 Apartments	31	121	151	117	64	181		
C	Millennium Development Phase 2	396 Apartments	36	142	178	138	74	212		
D	401-430 Washington	617 Apartments	55	221	275	209	113	321		
E	Conshohocken Train Station	307 Parking Space Garage, Conshohocken 11,400 sq. ft. Retail	70	31	101	41	90	131		
F	Old Hale Pump Site	31 Single Family Detached, Semi-Detached & Row Home	7	21	28	16	9	25		
L	Keystone Property Group	159,500 sq. ft. office, 200 Room Hotel, 26,600 sq. ft. Sit Down Restaurant (Firehouse Redevelopment) [6]	432	196	628	159	285	445		
M	51 Washington Street	319 Apartments	29	115	144	113	61	174		
N	Verizon Building Redevelopment	50,000 sq. ft. office	87	12	99	21	100	121		
Sub-Total Conshohocken Borough			1,054	301	1,954	870	1,074	1,945		
Whitemarsh Township										
G	501 Washington	387 Unit Congregate Care Facility	13	8	21	32	27	59		
J	Courts at Spring Mill	385 Apartments, 2,500 sq. ft. Retail	37	142	179	143	78	221		
K	Boat Club Expansion	15,000 sq. ft. School Boat Storage/Operation	1	1	2	2	2	4		
Sub-Total Whitemarsh Township			51	151	202	177	107	284		
Total Generated Trips			1,104	1,052	2,156	1,048	1,181	2,229		





# AGENDA

- **Methodology**
  - Reviewed available studies/traffic information
  - Background growth (10 year period)
  - New development traffic (with transit reduction)
    - AM 2,156 new trips
    - PM 2,229 new trips
  - Evaluate directional distribution
    - To/From East – 10%
    - To/From West – 5%
    - To/From North – 35%
    - To/From South – 50%
  - Evaluate impact on intersections
  - Focus on key intersections/constraint areas
  - Develop feasible short-term improvements
  - Identify ultimate longer-term improvements
  - Consider pedestrian and transit issues



# CONSHOHOCKEN AREA TRAFFIC STUDY

Potential Traffic Volume Increases Resulting from Development Conshohocken Borough Intersections			
Intersection	2023 Peak Hour Volume without Development AM(PM)	2023 Peak Hour Volume with Development AM(PM)	% Increase AM(PM)
Fayette Street (SR 3016) and Eleventh Street	1,408 (1,889)	1,894 (2,385)	34.5% (26.3%)
Fayette Street (SR 3016) and Ninth Avenue	1,331 (1,636)	1,742 (2,049)	30.9% (25.2%)
Fayette Street (SR 3016) and Sixth Avenue	2,308 (1,786)	2,719 (2,199)	17.8% (23.1%)
Fayette Street (SR 3016) and Third Avenue	1,628 (1,635)	2,086 (2,117)	28.1% (29.5%)
Fayette Street (SR 3016) and First Avenue	1,683 (2,255)	2,365(2,880)	40.5% (27.7%)
First Avenue and Harry Street	560 (500)	638 (542)	13.9% (8.4%)
Elm Street (SR 3059) and Harry Street	1,443 (1,605)	2,134 (2,313)	47.9% (44.1%)
Elm Street (SR 3013) and Colwell Lane	981 (1,342)	1,338 (1,716)	36.4% (27.9%)
Elm Street (SR 3013) and Maple Street	895 (1,318)	1,223 (1,663)	36.7% (26.2%)
Elm Street (SR 3013) and Oak Street	913 (1,373)	1,455 (2,068)	59.4% (50.6%)
<b>Fayette Street (SR 3016) &amp; Elm Street (SR 3013/3059)</b>	<b>3,960 (4,562)</b>	<b>5,319 (5,971)</b>	<b>34.3% (30.9%)</b>

Key Regional Intersections



# CONSHOHOCKEN AREA TRAFFIC STUDY

Potential Traffic Volume Increases Resulting from Development Conshohocken Borough Intersections (Cont.)			
Intersection	2023 Peak Hour Volume without Development AM(PM)	2023 Peak Hour Volume with Development AM(PM)	% Increase AM(PM)
Elm Street (SR 3059) and Poplar Street	857 (1,122)	936 (1,278)	9.2% (13.9%)
Elm Street (SR 3059) and Cherry Street	914 (790)	992 (919)	8.5% (16.3%)
Stoddard Avenue and Harry Street	644 (695)	1,455 (1,590)	125.9% (128.8%)
Washington Street and Harry Street	547 (586)	1,310 (1,429)	139.5% (143.9%)
Washington Street and Ash Street	506 (442)	919 (956)	81.6% (116.3%)
Washington Street and Poplar Street	150 (128)	505 (576)	236.7% (350.0%)
Washington Street and Cherry Street	130 (83)	404 (437)	210.8% (426.5%)
Elm Street (SR 3059) and Ash Street	742 (1,178)	940 (1,470)	26.7% (24.8%)

**Key Regional Intersections**





# CONSHOHOCKEN AREA TRAFFIC STUDY

Potential Traffic Volume Increases Resulting from Development West Conshohocken Borough Intersections			
Intersection	2023 Peak Hour Volume without Development AM(PM)	2023 Peak Hour Volume with Development AM(PM)	% Increase AM(PM)
Front Street (SR 0023) and William Street	1,268 (1,417)	1,500 (1,652)	18.3% (16.6%)
<i>Front Street/Crawford Avenue (SR 0023) and Matsonford Road/Fayette Street (SR 3016)</i>	5,226 (6,436)	6,293 (7,524)	20.4% (16.9%)
<i>Matsonford Road (SR 3016) and I-476 Ramps</i>	3,807 (3,649)	4,125 (3,973)	8.4% (8.9%)
<i>Crawford Avenue (SR 0023) and Moorehead Avenue/Spring Garden Street</i>	2,137 (1,523)	2,550 (1,944)	19.3% (27.6%)
Crawford Avenue (SR 0023) and Barr Harbor Drive	2,416 (2,416)	2,829 (2,837)	17.1% (17.4%)

**Key Regional Intersections**





# CONSHOHOCKEN AREA TRAFFIC STUDY

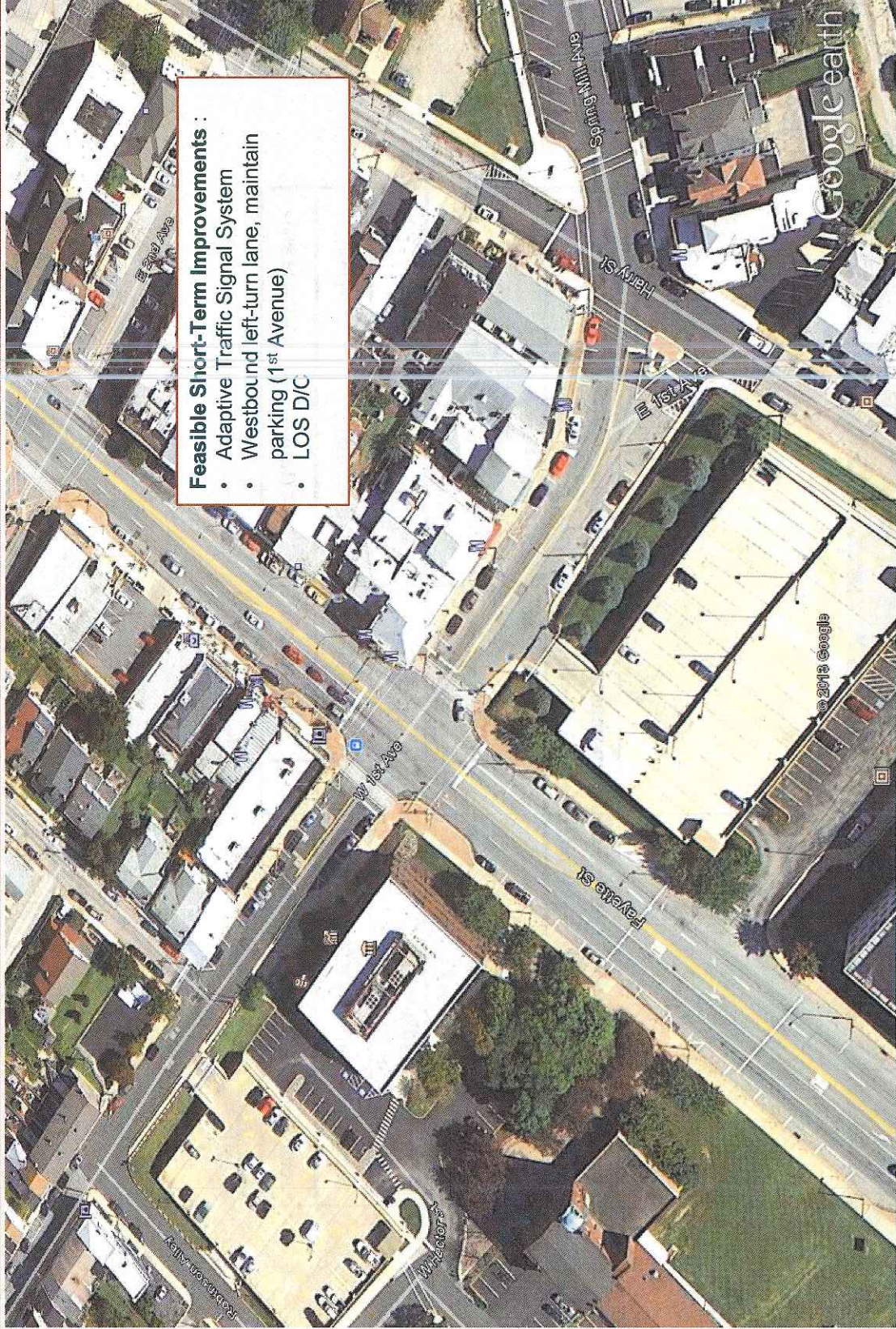
Potential Traffic Volume Increases Resulting from Development Whitemarsh Township Intersections			
Intersection	2023 Peak Hour Volume without Development AM(PM)	2023 Peak Hour Volume with Development AM(PM)	% Increase AM(PM)
Cedar Grove Road/Barren Hill Road (SR 3011) and Hector Street (SR 3059)	1,449 (1,792)	1,670 (2,040)	15.3% (13.8%)
North Lane (SR 3015) and Hector Street (SR 3059)	1,721 (2,094)	2,018 (2,438)	17.3% (16.4%)
Hector Street (SR 3059) and Lee Street	1,534 (1,724)	1,744 (1,961)	13.7% (13.8%)

**Key Regional Intersections**





# CONSHOHOCKEN AREA TRAFFIC STUDY



**Feasible Short-Term Improvements :**

- Adaptive Traffic Signal System
- Westbound left-turn lane, maintain parking (1st Avenue)
- LOS D/C

Fayette Street @ 1st Avenue





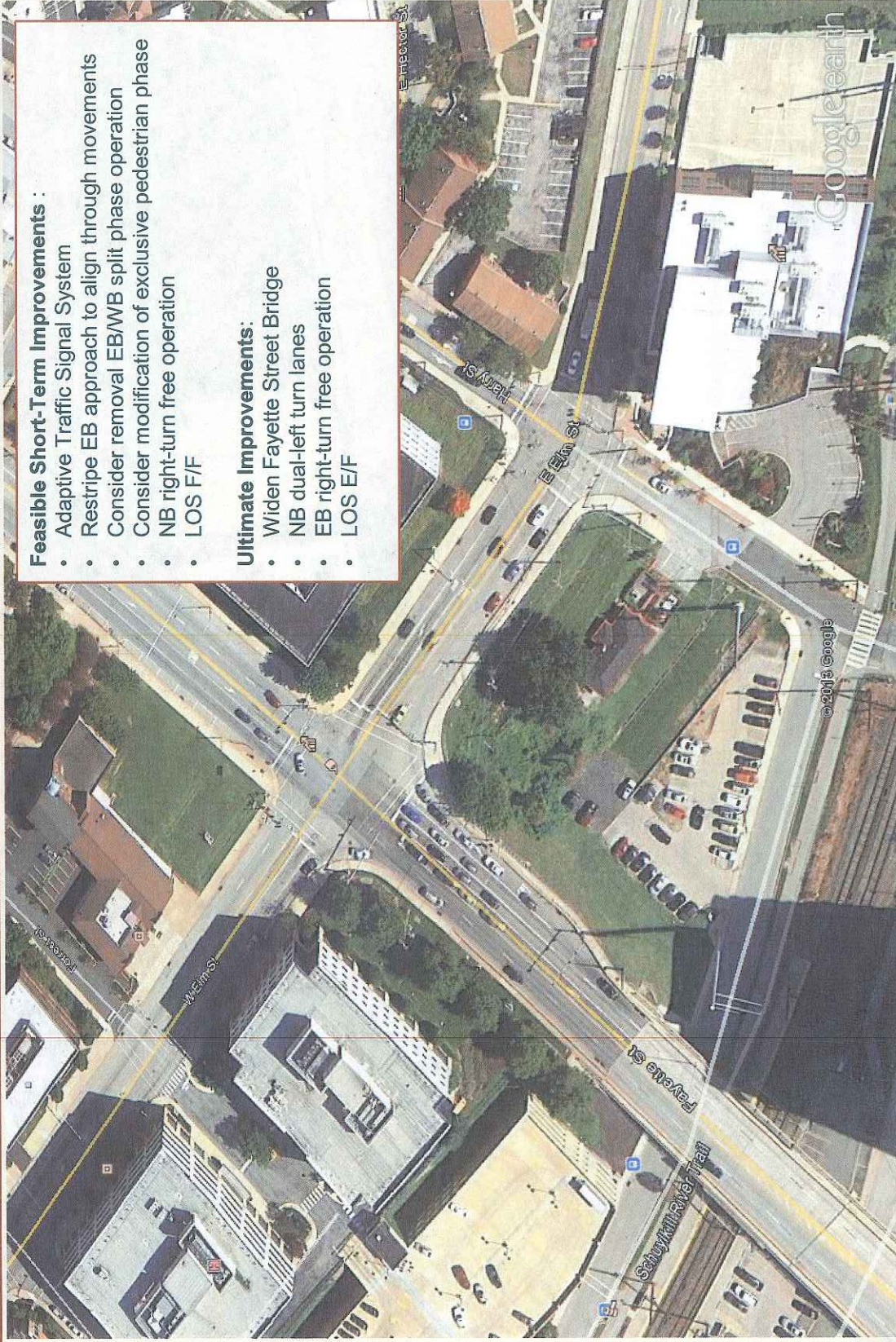
# CONSHOHOCKEN AREA TRAFFIC STUDY

## Feasible Short-Term Improvements :

- Adaptive Traffic Signal System
- Restripe EB approach to align through movements
- Consider removal EB/WB split phase operation
- Consider modification of exclusive pedestrian phase
- NB right-turn free operation
- LOS F/F

## Ultimate Improvements:

- Widen Fayette Street Bridge
- NB dual-left turn lanes
- EB right-turn free operation
- LOS E/F

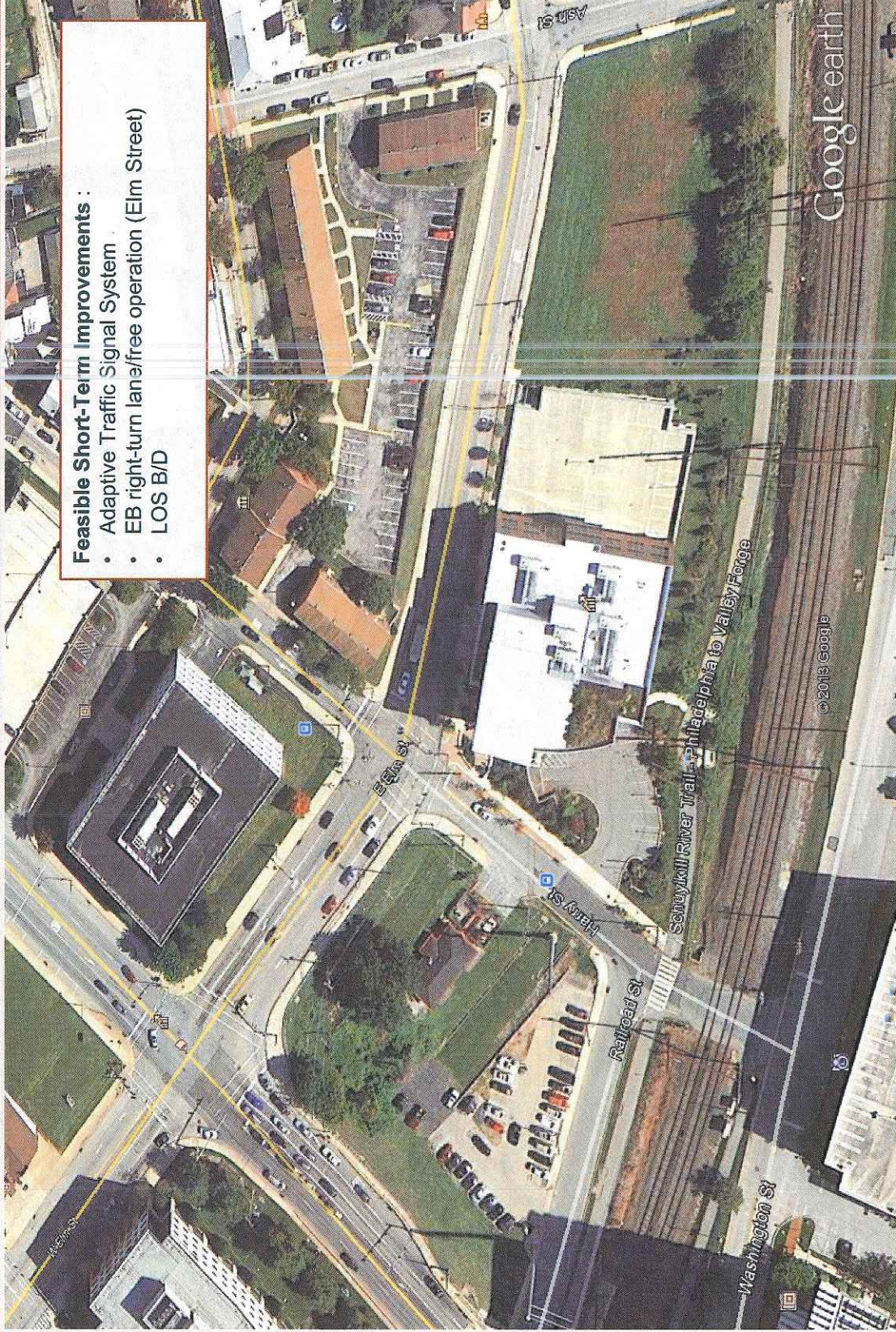


Fayette Street @ Elm Street

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# CONSHOHOCKEN AREA TRAFFIC STUDY



**Feasible Short-Term Improvements :**

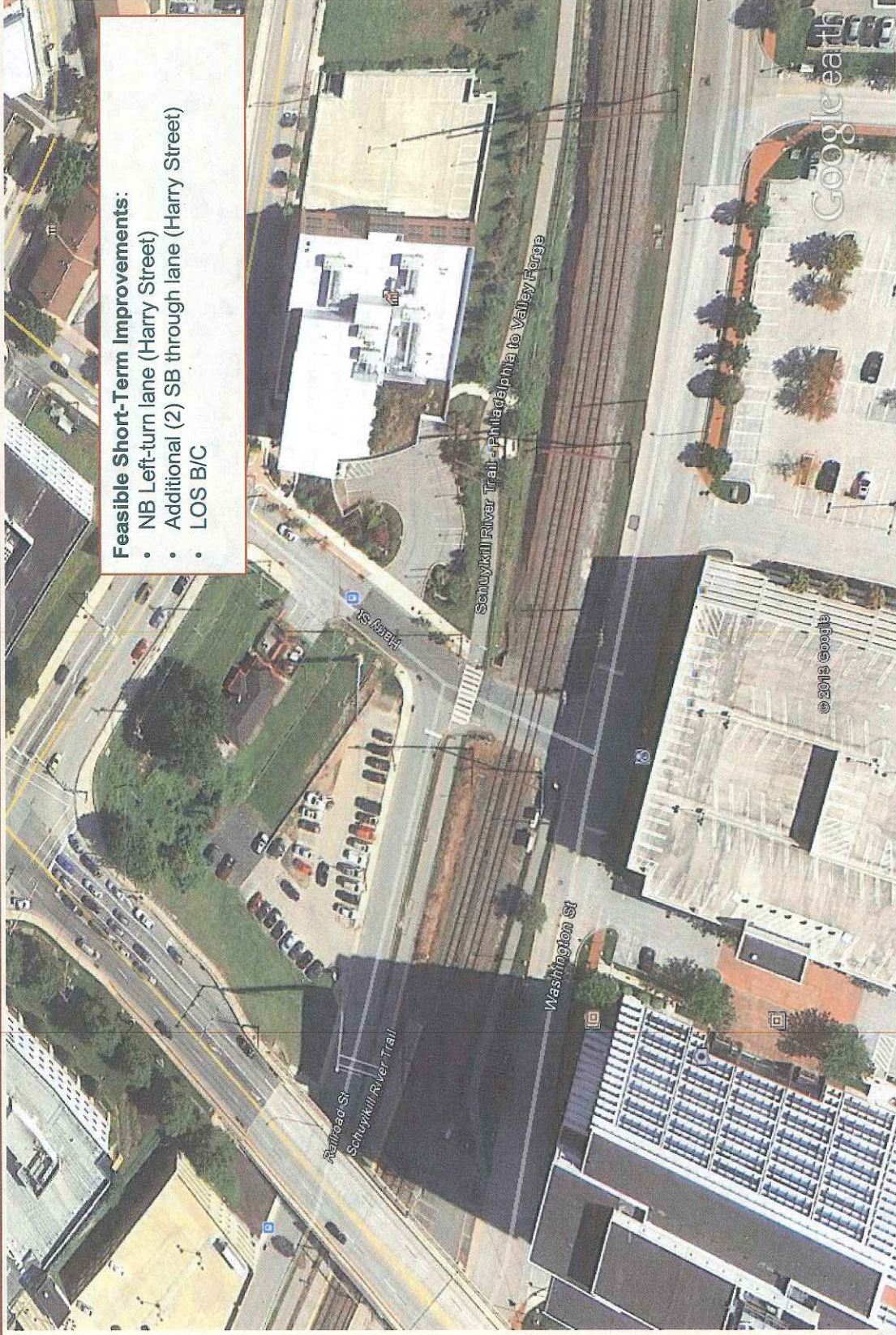
- Adaptive Traffic Signal System
- EB right-turn lane/free operation (Elm Street)
- LOS B/D

Elm Street @ Harry Street





# CONSHOHOCKEN AREA TRAFFIC STUDY

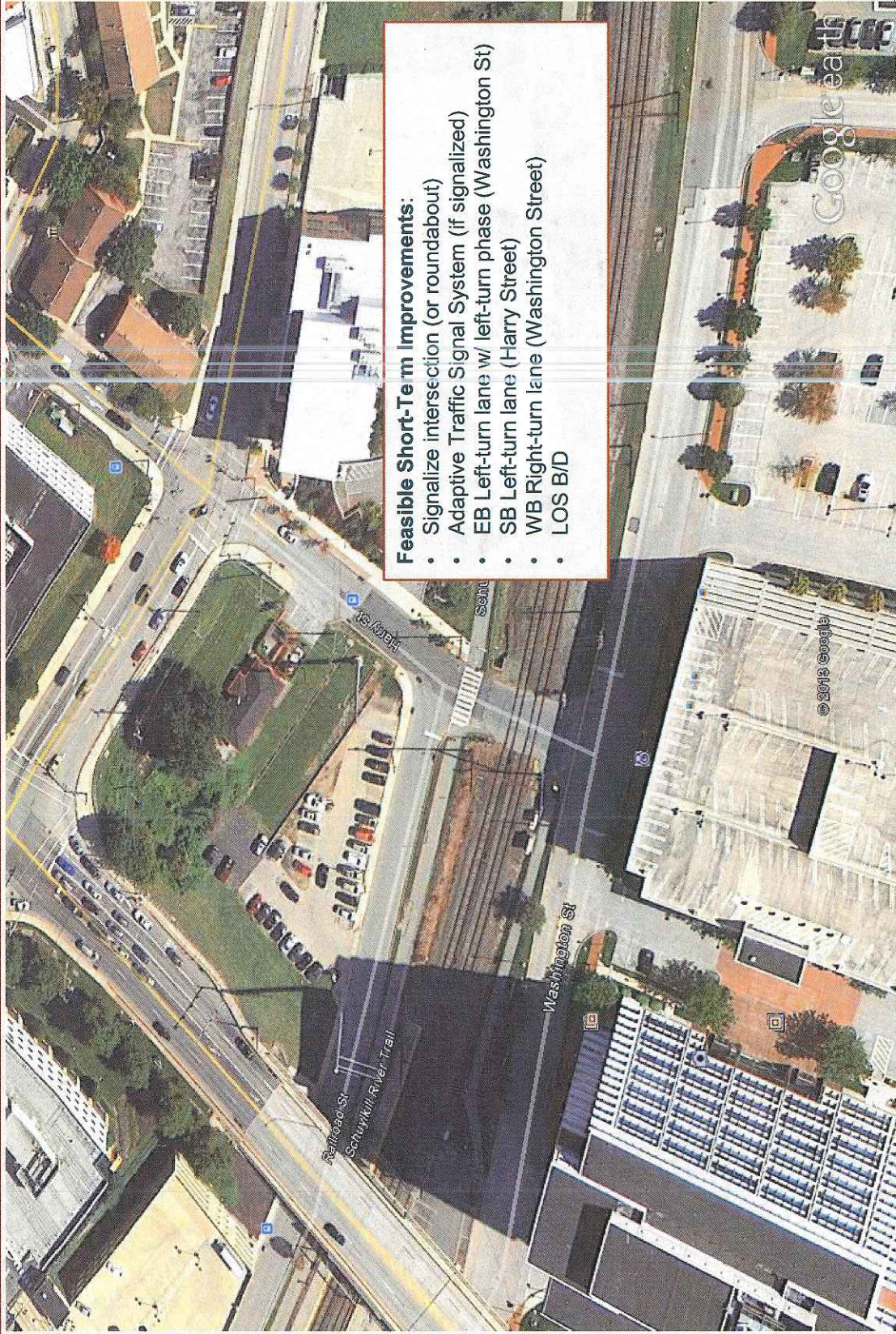


Harry Street @ Stoddard Avenue

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# CONSHOHOCKEN AREA TRAFFIC STUDY



**Feasible Short-Term Improvements:**

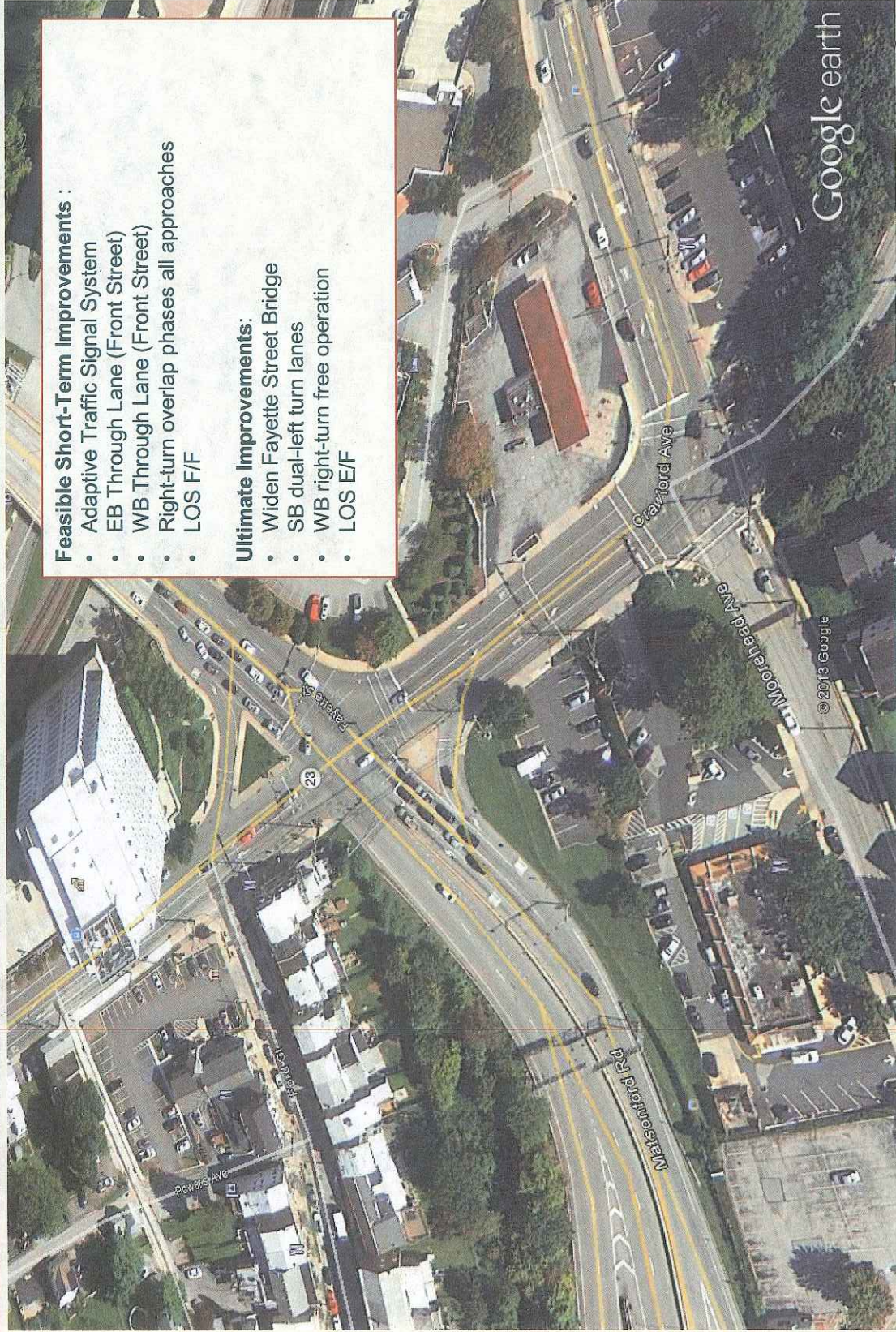
- Signalize intersection (or roundabout)
- Adaptive Traffic Signal System (if signalized)
- EB Left-turn lane w/ left-turn phase (Washington St)
- SB Left-turn lane (Harry Street)
- WB Right-turn lane (Washington Street)
- LOS B/D

Washington Street @ Harry Street

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# CONSHOHOCKEN AREA TRAFFIC STUDY



**Feasible Short-Term Improvements :**

- Adaptive Traffic Signal System
- EB Through Lane (Front Street)
- WB Through Lane (Front Street)
- Right-turn overlap phases all approaches
- LOS F/F

**Ultimate Improvements:**

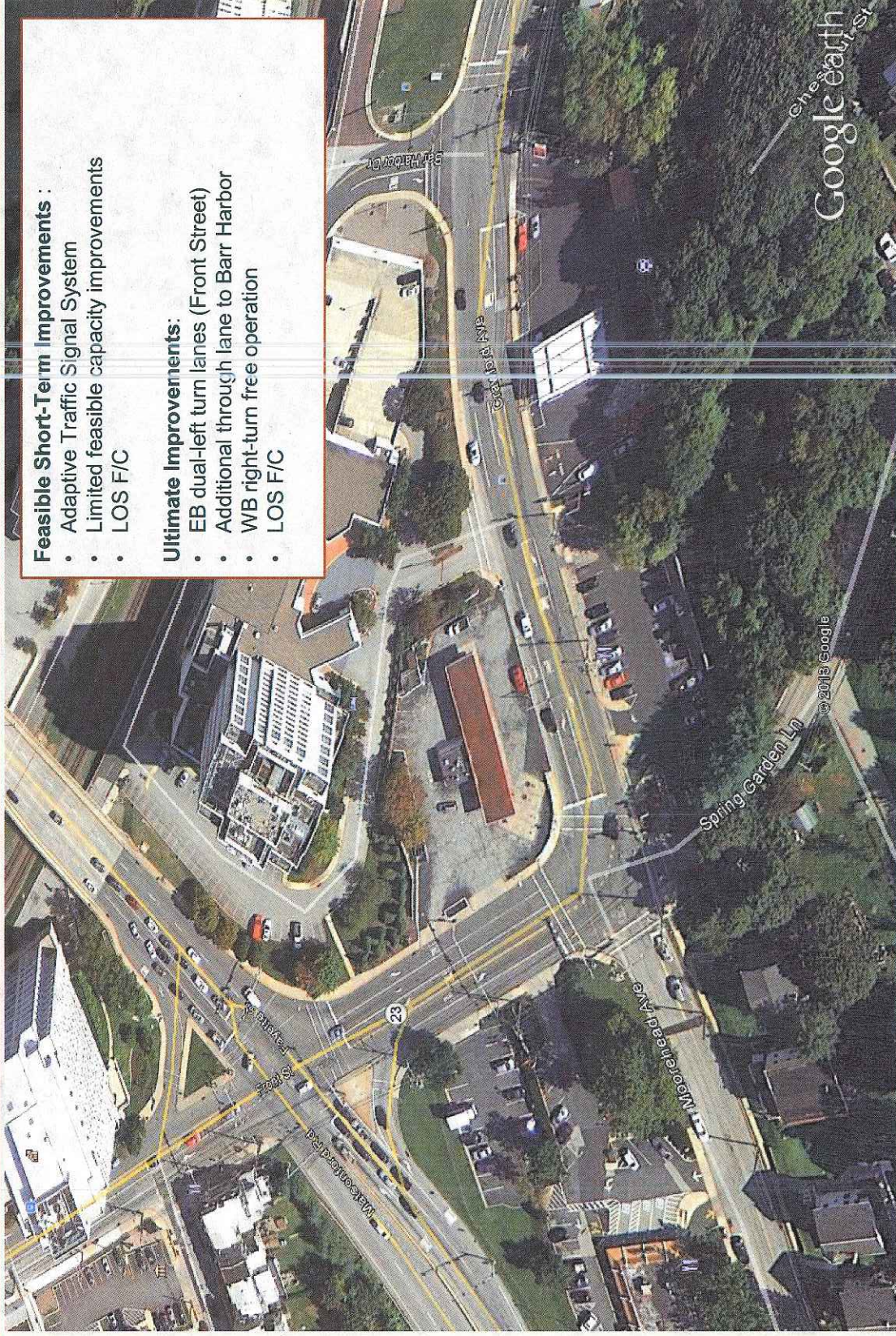
- Widen Fayette Street Bridge
- SB dual-left turn lanes
- WB right-turn free operation
- LOS E/F

Front Street/Crawford Avenue @ Matsonford Road/Fayette Street





# CONSHOHOCKEN AREA TRAFFIC STUDY



**Feasible Short-Term Improvements :**

- Adaptive Traffic Signal System
- Limited feasible capacity improvements
- LOS F/C

**Ultimate Improvements:**

- EB dual-left turn lanes (Front Street)
- Additional through lane to Barr Harbor
- WB right-turn free operation
- LOS F/C

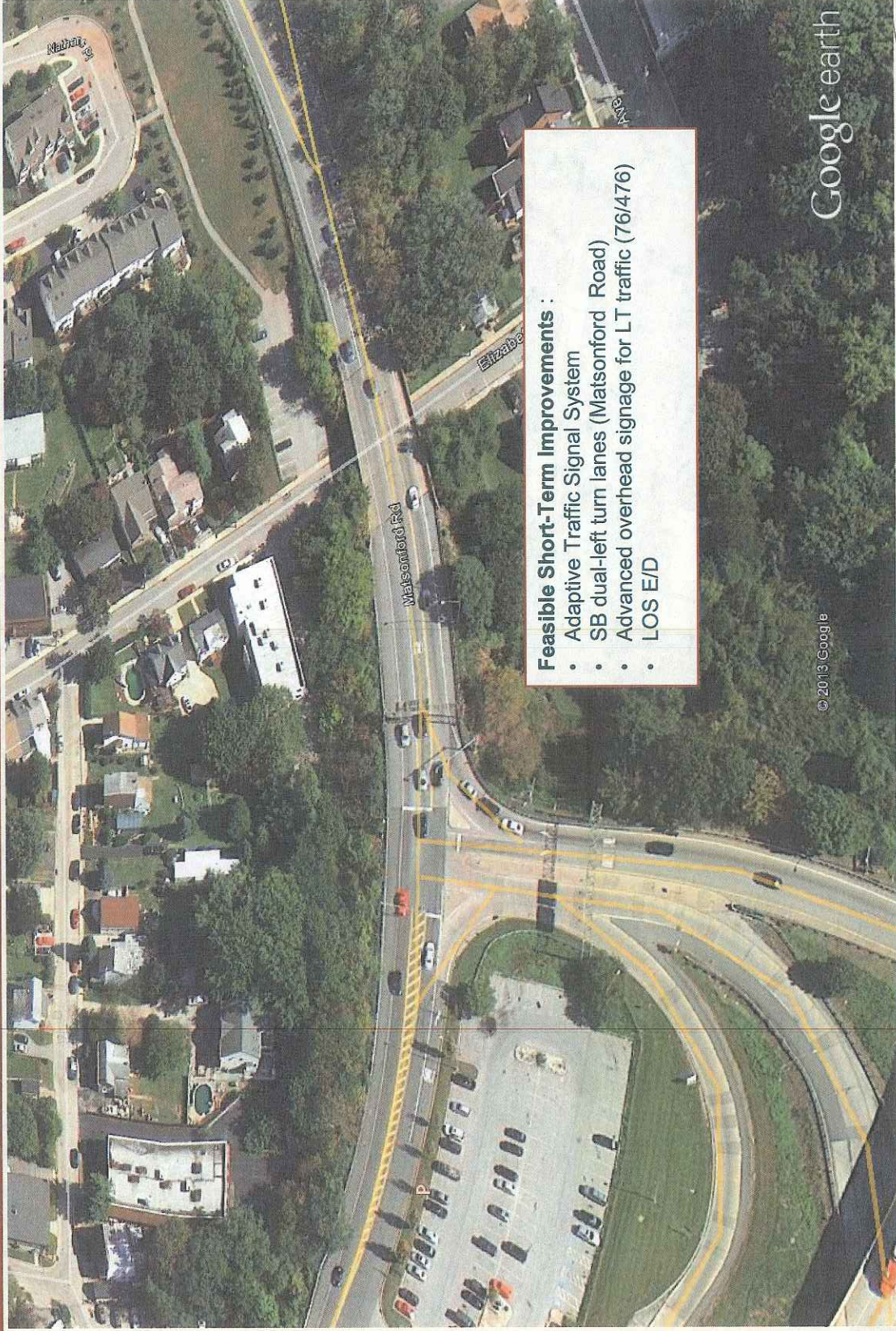
Google earth  
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Crawford Avenue @ Spring Garden Street/Moorehead Avenue





# CONSHOHOCKEN AREA TRAFFIC STUDY



- Feasible Short-Term Improvements :**
- Adaptive Traffic Signal System
  - SB dual-left turn lanes (Matsonford Road)
  - Advanced overhead signage for LT traffic (76/476)
  - LOS E/D

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Matsonford Road @ I-476 Ramps



# CONSHOHOCKEN AREA TRAFFIC STUDY



Hector Street @ Lee Street





# CONSHOHOCKEN AREA TRAFFIC STUDY



**Feasible Short-Term Improvements :**

- SB left turn lane (Whitemarsh Township TCIP)
- EB through lane (Whitemarsh Township TCIP)

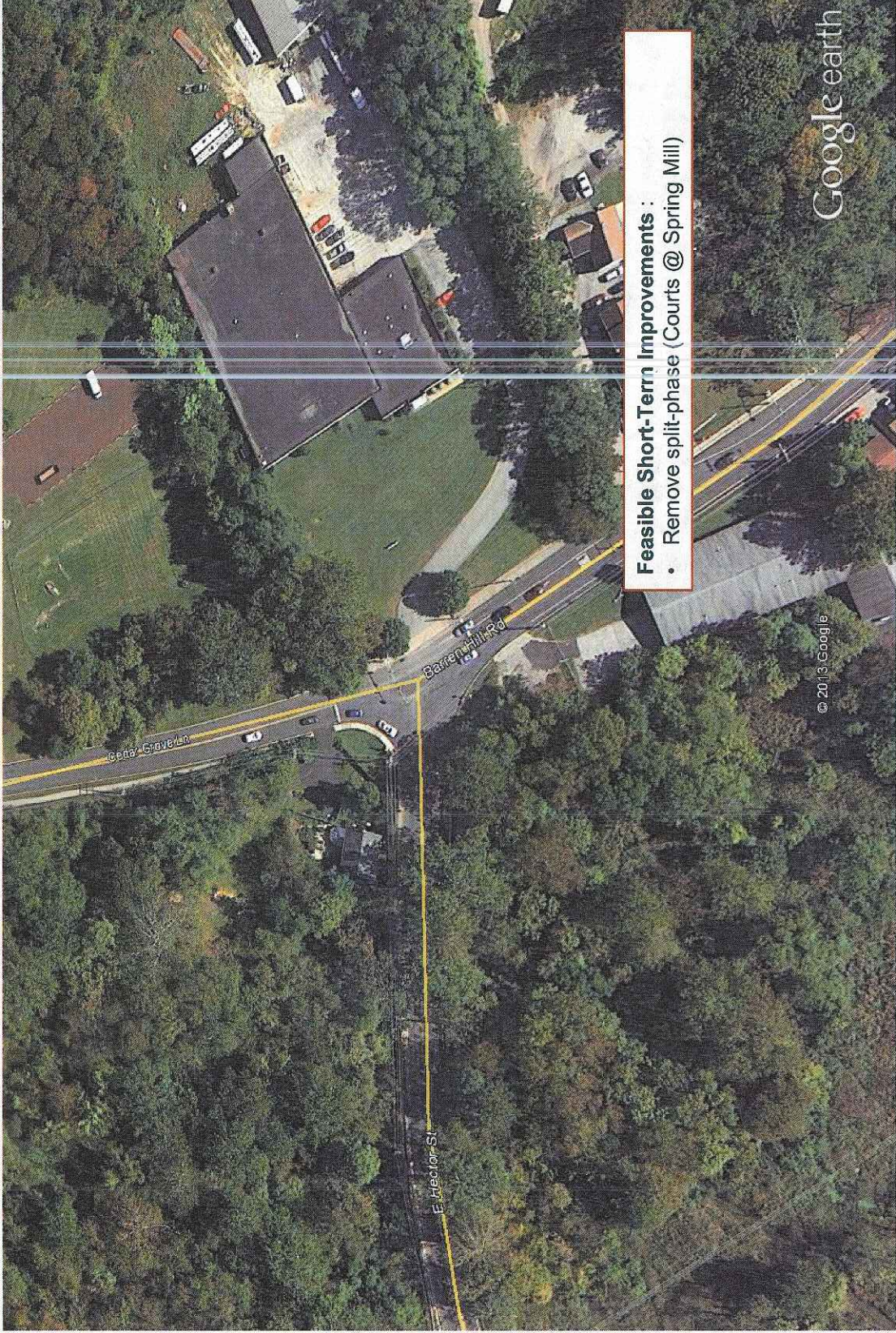
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Hector Street @ North Lane/Station Avenue





# CONSHOHOCKEN AREA TRAFFIC STUDY



**Feasible Short-Term Improvements :**

- Remove split-phase (Courts @ Spring Mill)

Google earth

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Hector Street @ Barren Hill Road/Cedar Grove Lane



# OTHER IMPROVEMENT PROJECTS

- DVRPC I-76 Schuylkill Expressway Report



Concept of the relocated Conshohocken Interchange ramps along Matsonford Road. (Drawing prepared for DVRPC by the Louis Berger Group, Inc., 2008)



Concept of the right-sided ramp from I-476 southbound to I-76 eastbound. (DVRPC)





## POTENTIAL NEXT STEPS

- Inter-municipal cooperation/committee to develop Implementation Program
- Select and Prioritize Improvements
  - Short-Term Feasible Improvements
  - Medium-Term Improvements
  - Ultimate Improvements
- Identify Funding Mechanisms
- Periodic Review/Update