520 Virginia Drive Access Presentation

Upper Dublin Township

Board of Commissioners Meeting

July 10th, 2018

Boles Smyth

TIME RUN NOTES:

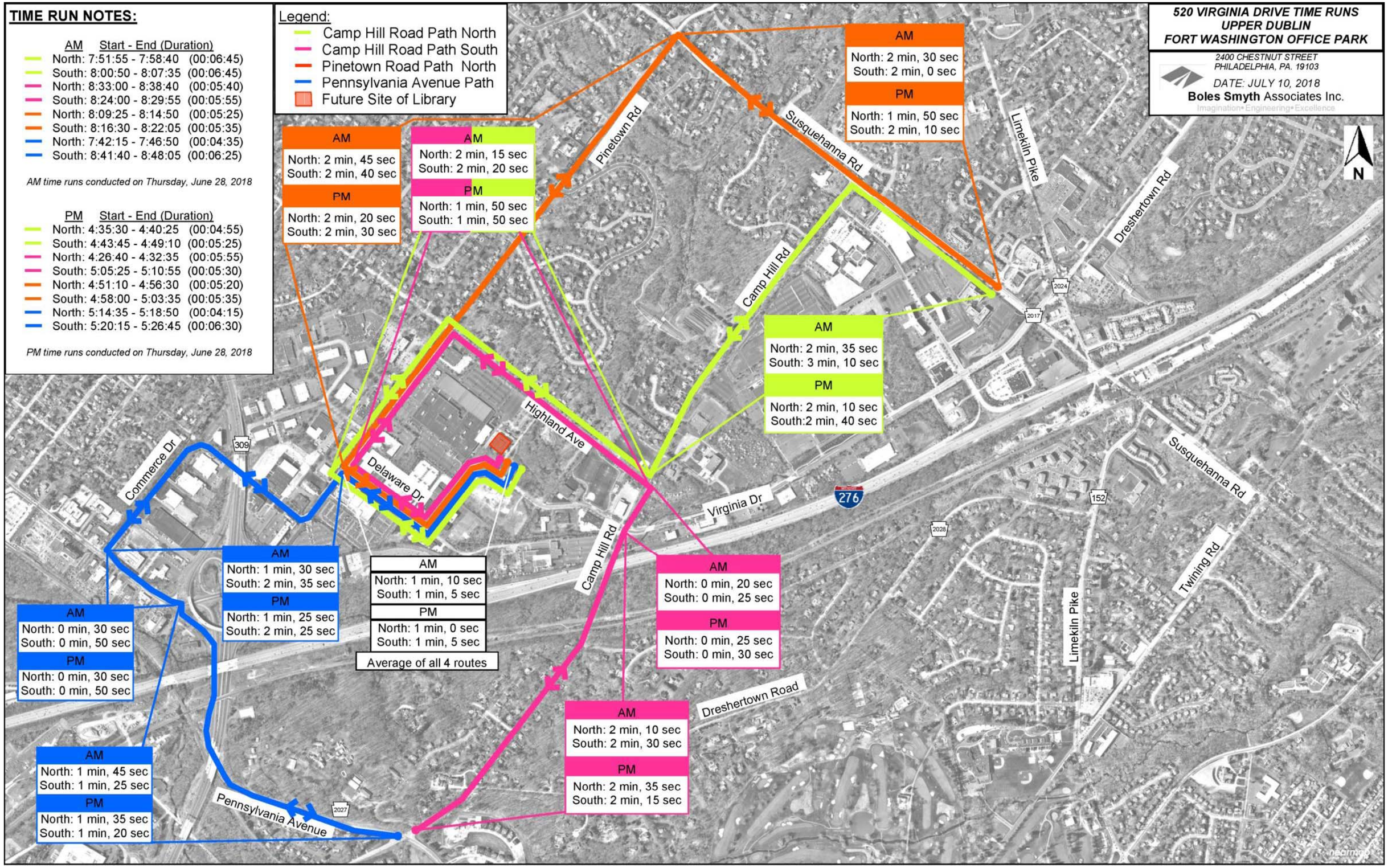
AM	Start - End (Duration)
North:	7:51:55 - 7:58:40 (00:06:45)
South:	8:00:50 - 8:07:35 (00:06:45)
North:	8:33:00 - 8:38:40 (00:05:40)
South:	8:24:00 - 8:29:55 (00:05:55)
North:	8:09:25 - 8:14:50 (00:05:25)
South:	8:16:30 - 8:22:05 (00:05:35)
North:	7:42:15 - 7:46:50 (00:04:35)
South:	8:41:40 - 8:48:05 (00:06:25)

AM time runs conducted on Thursday, June 28, 2018

PM	Start - End (Duration)
North:	4:35:30 - 4:40:25 (00:04:55)
South:	4:43:45 - 4:49:10 (00:05:25)
North:	4:26:40 - 4:32:35 (00:05:55)
South:	5:05:25 - 5:10:55 (00:05:30)
North:	4:51:10 - 4:56:30 (00:05:20)
South:	4:58:00 - 5:03:35 (00:05:35)
North:	5:14:35 - 5:18:50 (00:04:15)
South:	5:20:15 - 5:26:45 (00:06:30)

PM time runs conducted on Thursday, June 28, 2018

Legend:
- Camp Hill Road Path North
- Camp Hill Road Path South
- Pinetown Road Path North
- Pennsylvania Avenue Path
- Future Site of Library



520 VIRGINIA DRIVE TIME RUNS
UPPER DUBLIN
FORT WASHINGTON OFFICE PARK

2400 CHESTNUT STREET
PHILADELPHIA, PA. 19103

DATE: JULY 10, 2018

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TIME RUN NOTES:

AM	Start - End (Duration)
North:	8:26:20 - 8:37:45 (00:11:25)
South:	8:37:45 - 8:44:15 (00:06:30)
North:	7:54:30 - 8:03:30 (00:09:00)
South:	8:18:20 - 8:24:30 (00:06:10)
North:	N/A - N/A (00:04:45)
South:	N/A - N/A (00:03:45)

AM time runs conducted on Wednesday, June 27, 2018
Virginia North/South AM conducted on Thursday, June 28, 2018

PM	Start - End (Duration)
North:	4:38:00 - 4:43:30 (00:05:30)
South:	4:46:05 - 4:52:20 (00:06:15)
North:	4:20:25 - 4:27:30 (00:07:05)
South:	4:29:10 - 4:34:50 (00:05:40)
North:	N/A - N/A (00:03:15)
South:	N/A - N/A (00:03:05)

PM time runs conducted on Wednesday, June 27, 2018

N/A means due to turning restrictions, time run duration was combined from two separate time runs.

Legend:
- Camp Hill Road and Virginia Drive Path
- Camp Hill Road Path South
- Dreshertown Road Path
- Destination

OFFICE CENTER DRIVE TIME RUNS
UPPER DUBLIN
FORT WASHINGTON OFFICE PARK

2400 CHESTNUT STREET
PHILADELPHIA, PA. 19103
DATE: JULY 10, 2018
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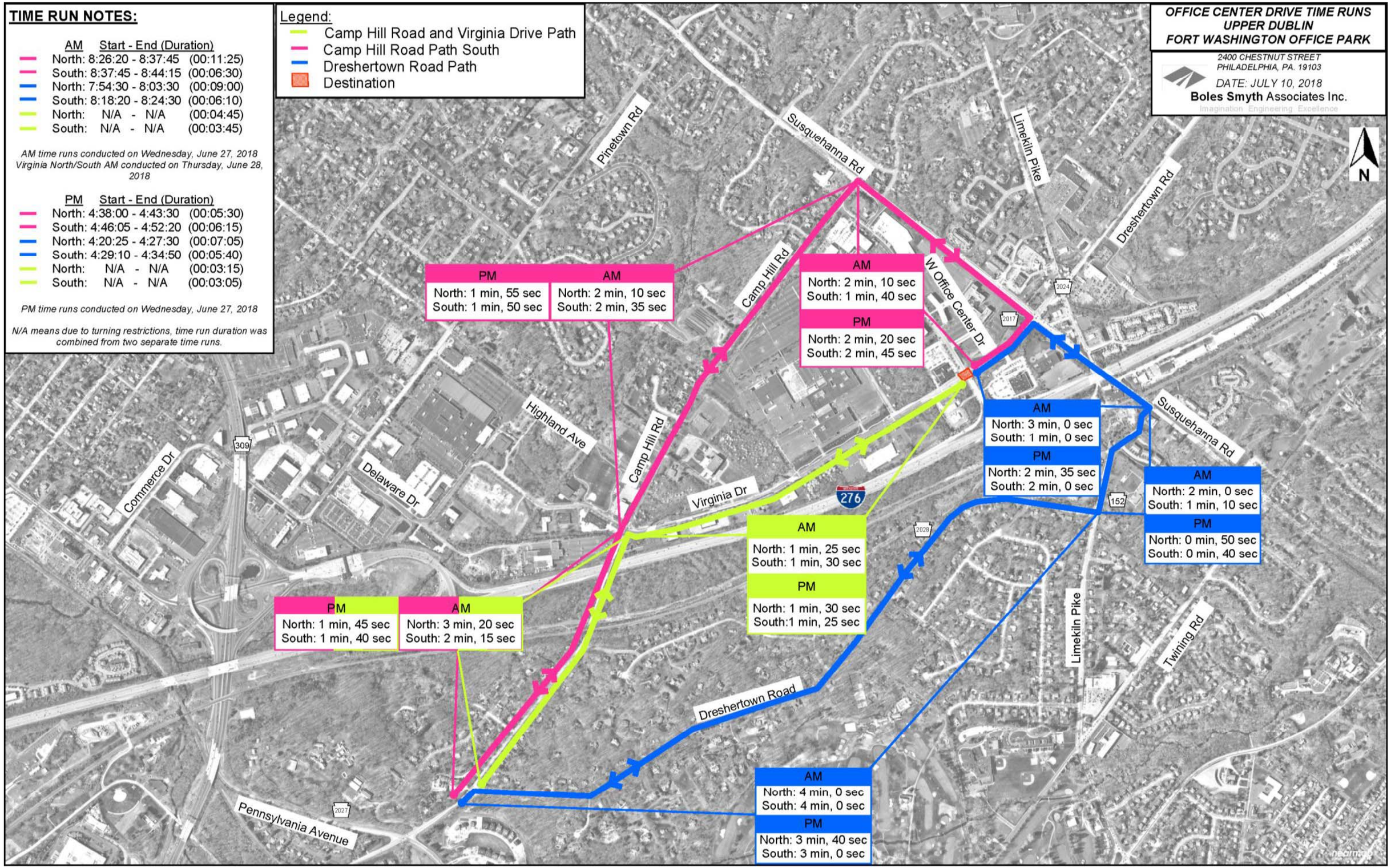
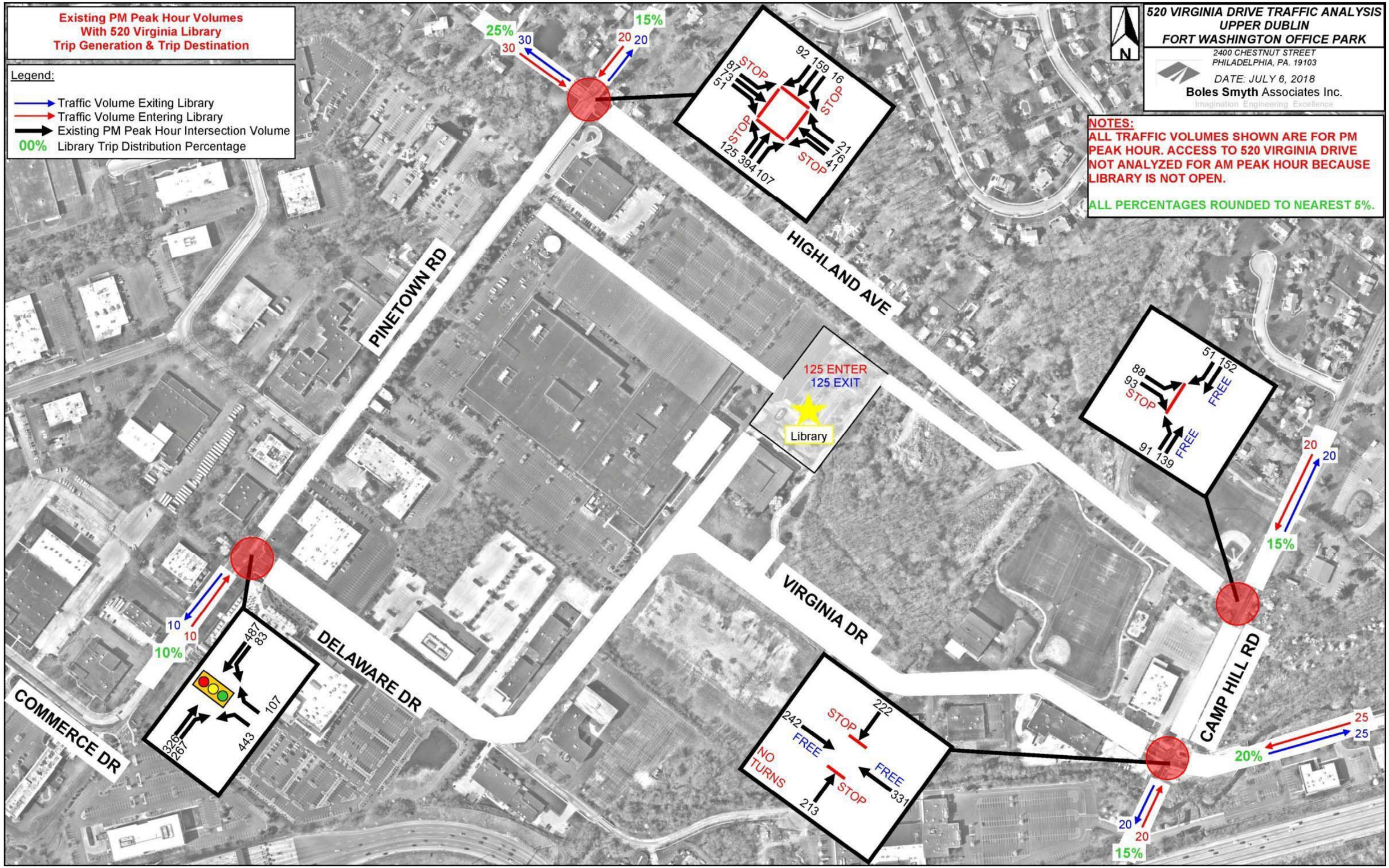
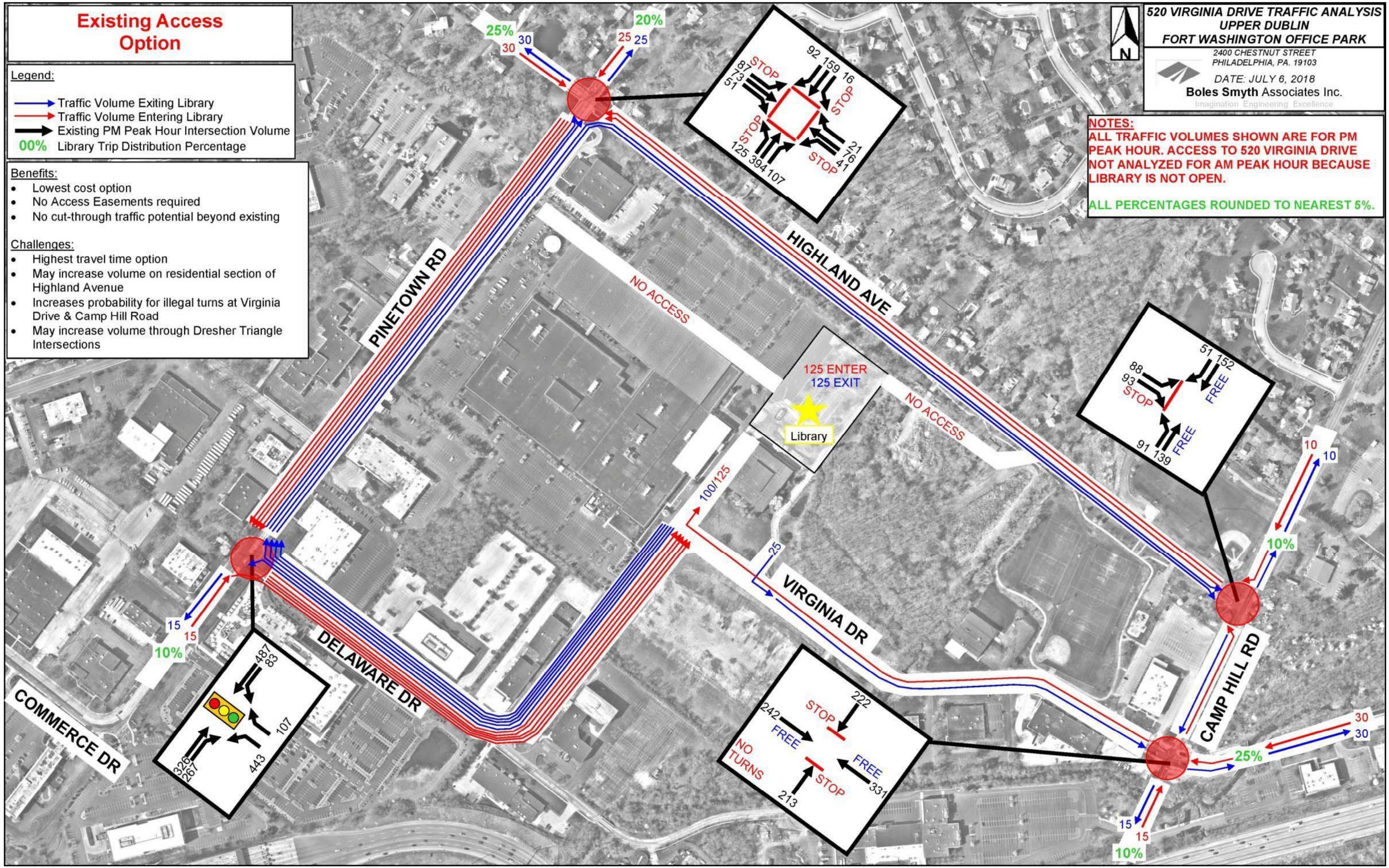




Existing PM Peak Hour Volumes
With 520 Virginia Library
Trip Generation & Trip Destination
Legend:
Traffic Volume Exiting Library
Traffic Volume Entering Library
Existing PM Peak Hour Intersection Volume
00% Library Trip Distribution Percentage
520 VIRGINIA DRIVE TRAFFIC ANALYSIS
UPPER DUBLIN
FORT WASHINGTON OFFICE PARK
2400 CHESTNUT STREET
PHILADELPHIA, PA. 19103
DATE: JULY 6, 2018
Boles Smyth Associates Inc.
Imagination Engineering Excellence
N
NOTES:
ALL TRAFFIC VOLUMES SHOWN ARE FOR PM PEAK HOUR. ACCESS TO 520 VIRGINIA DRIVE NOT ANALYZED FOR AM PEAK HOUR BECAUSE LIBRARY IS NOT OPEN.
ALL PERCENTAGES ROUNDED TO NEAREST 5%.
25%
30
30
15%
20
20
92 159 16
STOP
87
73
51
STOP
STOP
125 394 107
21
76
41
STOP
PINETOWN RD
HIGHLAND AVE
125 ENTER
125 EXIT
Library
51 152
88
93
STOP
FREE
91 139
FREE
20
20
15%
10
10
10%
487
83
107
443
326
267
DELAWARE DR
COMMERCE DR
VIRGINIA DR
CAMP HILL RD
222
STOP
242
FREE
NO TURNS
FREE
331
STOP
213
25
25
20%
20
20
15%


Existing Access Option
Legend:
Traffic Volume Exiting Library
Traffic Volume Entering Library
Existing PM Peak Hour Intersection Volume
00% Library Trip Distribution Percentage
Benefits:
• Lowest cost option
• No Access Easements required
• No cut-through traffic potential beyond existing
Challenges:
• Highest travel time option
• May increase volume on residential section of Highland Avenue
• Increases probability for illegal turns at Virginia Drive & Camp Hill Road
• May increase volume through Dresher Triangle Intersections
520 VIRGINIA DRIVE TRAFFIC ANALYSIS
UPPER DUBLIN
FORT WASHINGTON OFFICE PARK
2400 CHESTNUT STREET
PHILADELPHIA, PA. 19103
DATE: JULY 6, 2018
Boles Smyth Associates Inc.
Imagination Engineering Excellence
NOTES:
ALL TRAFFIC VOLUMES SHOWN ARE FOR PM PEAK HOUR. ACCESS TO 520 VIRGINIA DRIVE NOT ANALYZED FOR AM PEAK HOUR BECAUSE LIBRARY IS NOT OPEN.
ALL PERCENTAGES ROUNDED TO NEAREST 5%.
N
PINETOWN RD
HIGHLAND AVE
VIRGINIA DR
DELAWARE DR
COMMERCE DR
CAMP HILL RD
NO ACCESS
NO ACCESS
125 ENTER
125 EXIT
Library
100/125
25
25%
30
30
20%
25
25
STOP
87
73
51
92
159
16
STOP
STOP
125
394
107
21
76
41
STOP
51
152
88
93
STOP
FREE
91
139
FREE
10
10
10%
15
15
10%
487
83
107
443
326
267
222
STOP
242
FREE
NO TURNS
FREE
331
STOP
213
30
30
25%
15
15
10%

Option A
Full Move Driveways at Virginia Dr & Highland Ave

Legend:

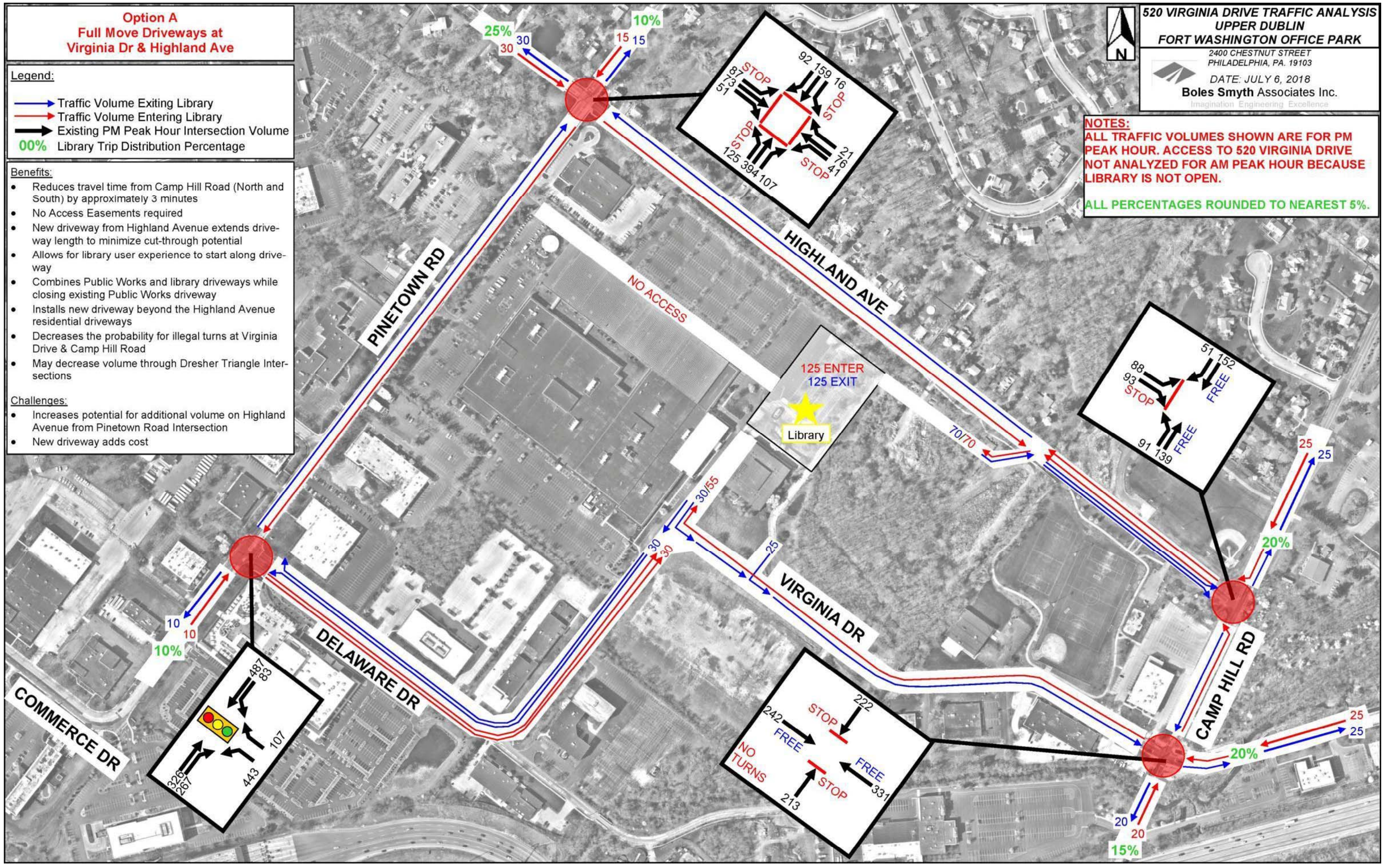
- Traffic Volume Exiting Library
- Traffic Volume Entering Library
- Existing PM Peak Hour Intersection Volume
- 00% Library Trip Distribution Percentage

Benefits:

- Reduces travel time from Camp Hill Road (North and South) by approximately 3 minutes
- No Access Easements required
- New driveway from Highland Avenue extends driveway length to minimize cut-through potential
- Allows for library user experience to start along driveway
- Combines Public Works and library driveways while closing existing Public Works driveway
- Installs new driveway beyond the Highland Avenue residential driveways
- Decreases the probability for illegal turns at Virginia Drive & Camp Hill Road
- May decrease volume through Dresher Triangle Intersections

Challenges:

- Increases potential for additional volume on Highland Avenue from Pinetown Road Intersection
- New driveway adds cost



520 VIRGINIA DRIVE TRAFFIC ANALYSIS
UPPER DUBLIN
FORT WASHINGTON OFFICE PARK

2400 CHESTNUT STREET
PHILADELPHIA, PA. 19103

DATE: JULY 6, 2018

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NOTES:

ALL TRAFFIC VOLUMES SHOWN ARE FOR PM PEAK HOUR. ACCESS TO 520 VIRGINIA DRIVE NOT ANALYZED FOR AM PEAK HOUR BECAUSE LIBRARY IS NOT OPEN.

ALL PERCENTAGES ROUNDED TO NEAREST 5%.

Option B
Full Movement Driveways at
Virginia Dr, Highland Ave & Pinetown Rd

Legend:

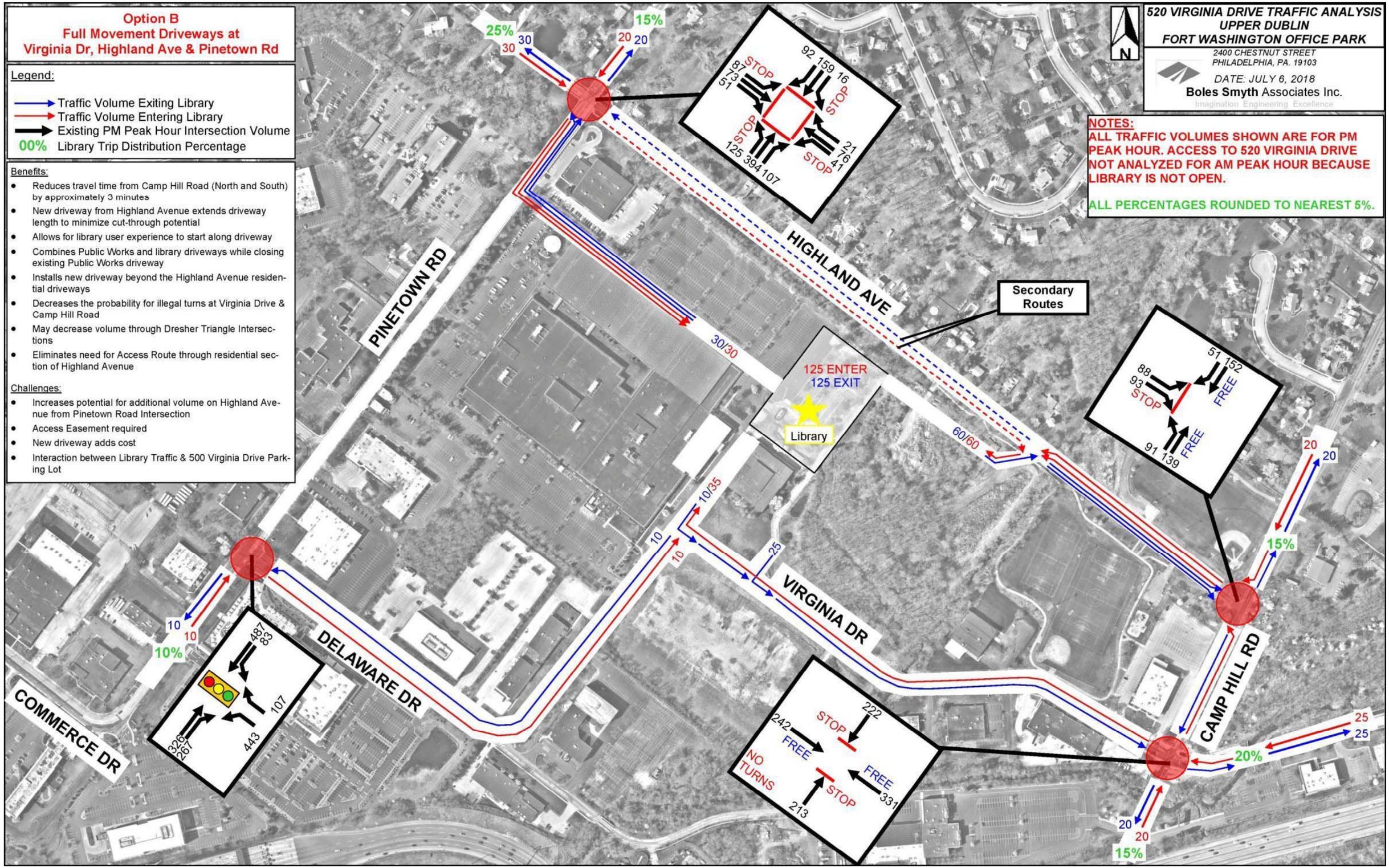
- Traffic Volume Exiting Library
- Traffic Volume Entering Library
- Existing PM Peak Hour Intersection Volume
- 00% Library Trip Distribution Percentage

Benefits:

- Reduces travel time from Camp Hill Road (North and South) by approximately 3 minutes
- New driveway from Highland Avenue extends driveway length to minimize cut-through potential
- Allows for library user experience to start along driveway
- Combines Public Works and library driveways while closing existing Public Works driveway
- Installs new driveway beyond the Highland Avenue residential driveways
- Decreases the probability for illegal turns at Virginia Drive & Camp Hill Road
- May decrease volume through Dresher Triangle Intersections
- Eliminates need for Access Route through residential section of Highland Avenue

Challenges:

- Increases potential for additional volume on Highland Avenue from Pinetown Road Intersection
- Access Easement required
- New driveway adds cost
- Interaction between Library Traffic & 500 Virginia Drive Parking Lot



520 VIRGINIA DRIVE TRAFFIC ANALYSIS
UPPER DUBLIN
FORT WASHINGTON OFFICE PARK

2400 CHESTNUT STREET
PHILADELPHIA, PA. 19103

DATE: JULY 6, 2018

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NOTES:
ALL TRAFFIC VOLUMES SHOWN ARE FOR PM PEAK HOUR. ACCESS TO 520 VIRGINIA DRIVE NOT ANALYZED FOR AM PEAK HOUR BECAUSE LIBRARY IS NOT OPEN.

ALL PERCENTAGES ROUNDED TO NEAREST 5%.

Option C
Enter Only Driveway at Highland Ave & Full Driveways at Virginia Dr & Pinetown Rd

Legend:

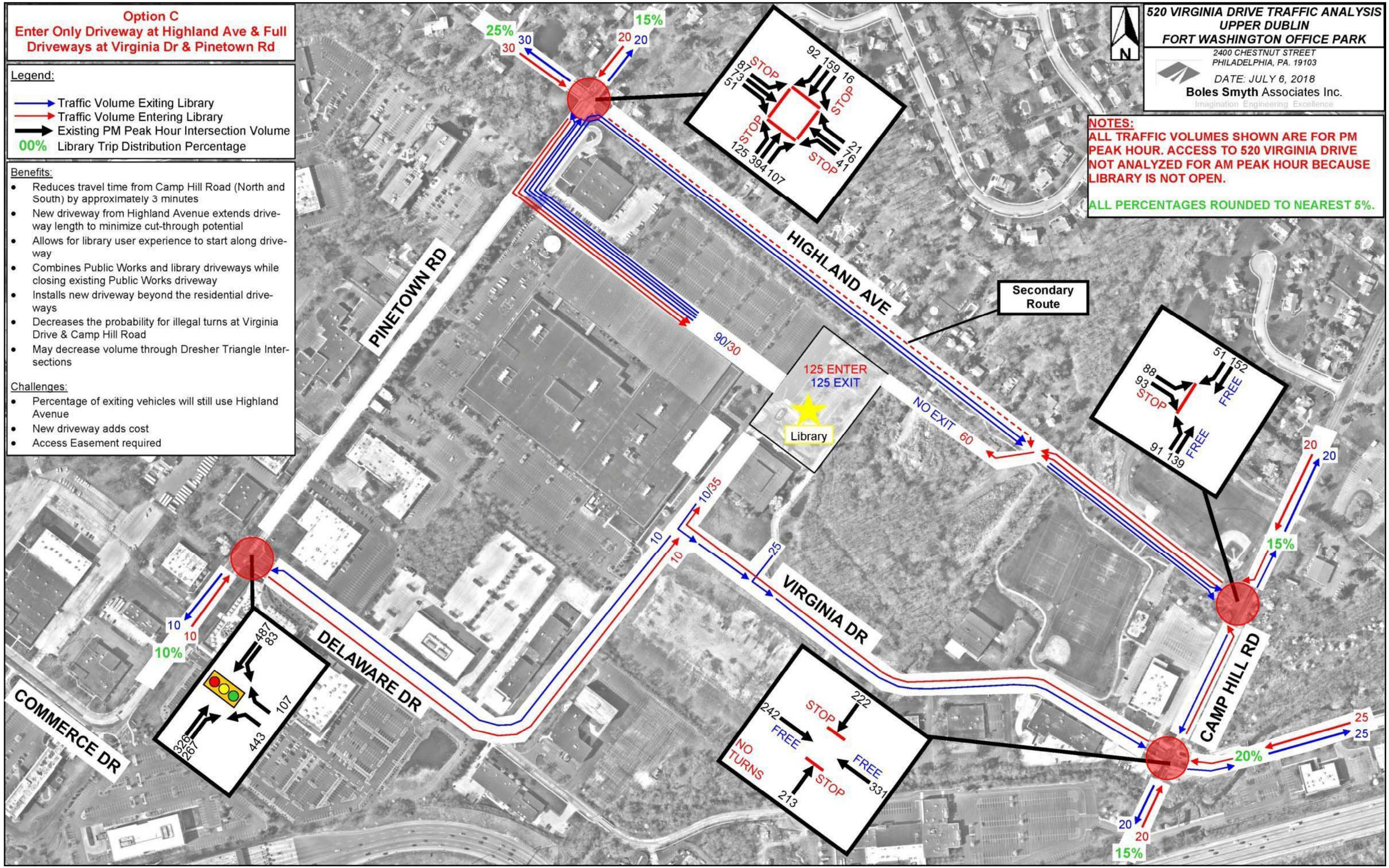
- Traffic Volume Exiting Library
- Traffic Volume Entering Library
- Existing PM Peak Hour Intersection Volume
- 00% Library Trip Distribution Percentage

Benefits:

- Reduces travel time from Camp Hill Road (North and South) by approximately 3 minutes
- New driveway from Highland Avenue extends driveway length to minimize cut-through potential
- Allows for library user experience to start along driveway
- Combines Public Works and library driveways while closing existing Public Works driveway
- Installs new driveway beyond the residential driveways
- Decreases the probability for illegal turns at Virginia Drive & Camp Hill Road
- May decrease volume through Dresher Triangle Intersections

Challenges:

- Percentage of exiting vehicles will still use Highland Avenue
- New driveway adds cost
- Access Easement required



520 VIRGINIA DRIVE TRAFFIC ANALYSIS
UPPER DUBLIN
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2400 CHESTNUT STREET
PHILADELPHIA, PA. 19103

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NOTES:
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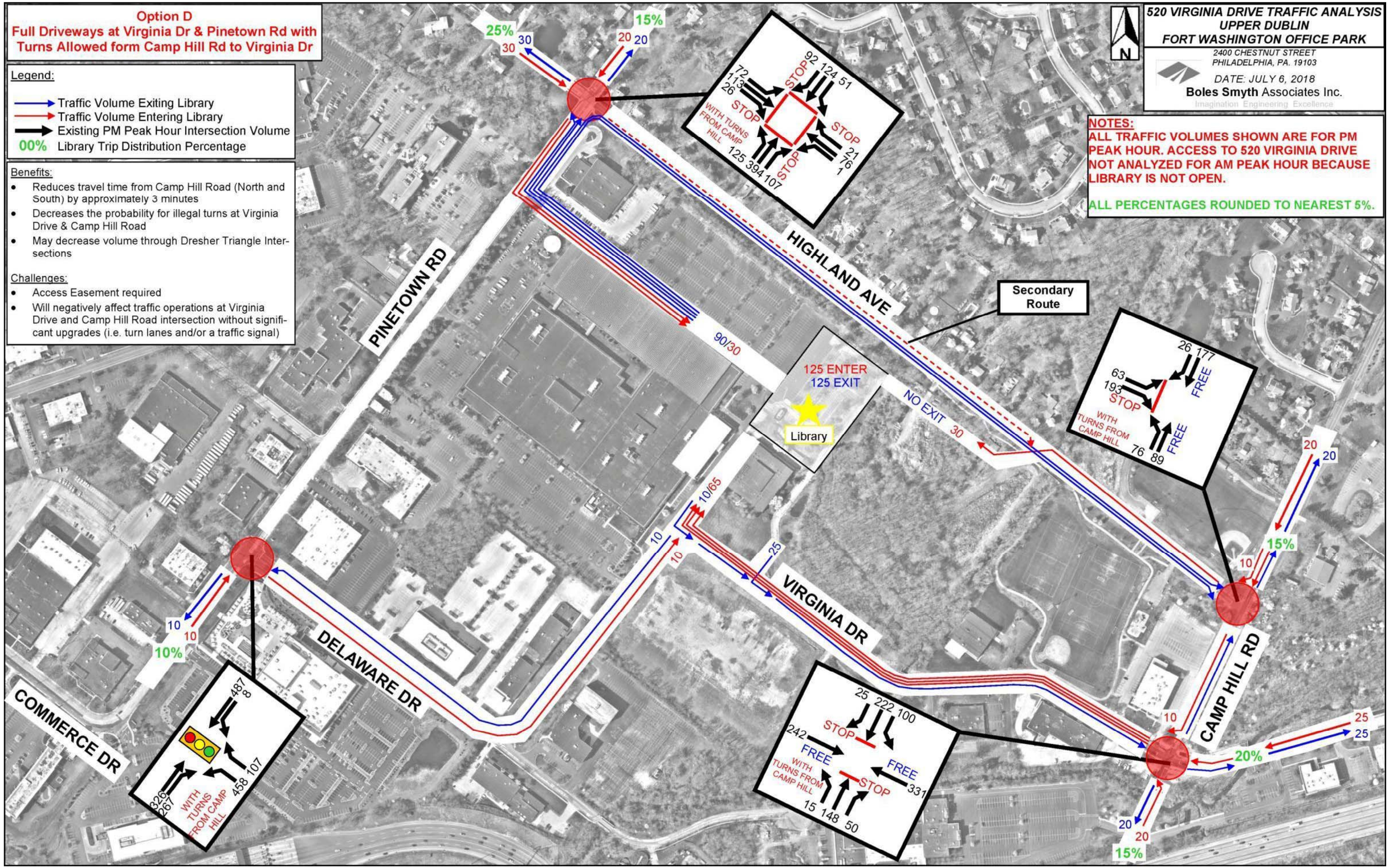
ALL PERCENTAGES ROUNDED TO NEAREST 5%.



Option D
Full Driveways at Virginia Dr & Pinetown Rd with Turns Allowed form Camp Hill Rd to Virginia Dr
Legend:
Traffic Volume Exiting Library
Traffic Volume Entering Library
Existing PM Peak Hour Intersection Volume
00% Library Trip Distribution Percentage
Benefits:
• Reduces travel time from Camp Hill Road (North and South) by approximately 3 minutes
• Decreases the probability for illegal turns at Virginia Drive & Camp Hill Road
• May decrease volume through Dresher Triangle Intersections
Challenges:
• Access Easement required
• Will negatively affect traffic operations at Virginia Drive and Camp Hill Road intersection without significant upgrades (i.e. turn lanes and/or a traffic signal)
520 VIRGINIA DRIVE TRAFFIC ANALYSIS
UPPER DUBLIN
FORT WASHINGTON OFFICE PARK
2400 CHESTNUT STREET
PHILADELPHIA, PA. 19103
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N
NOTES:
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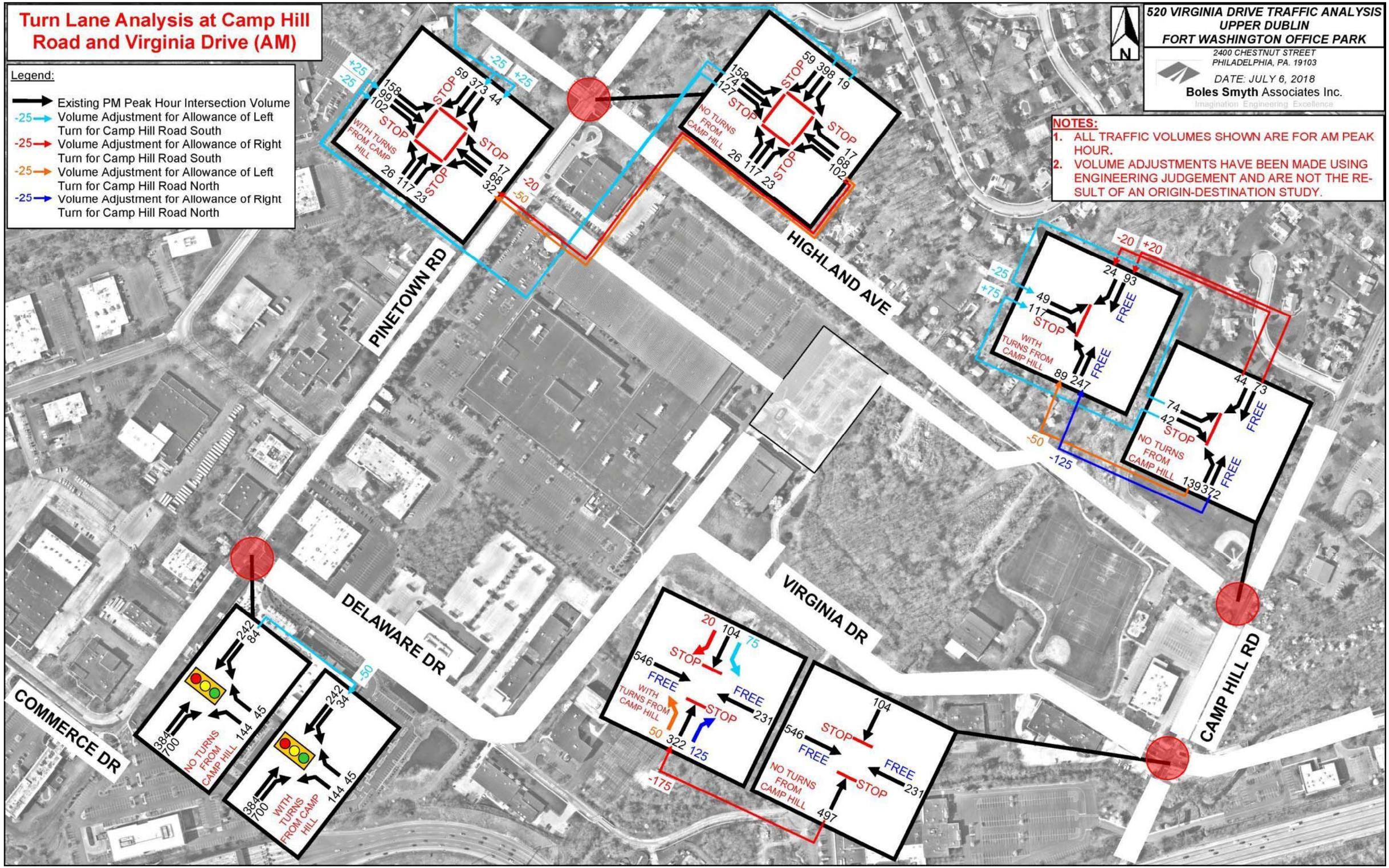
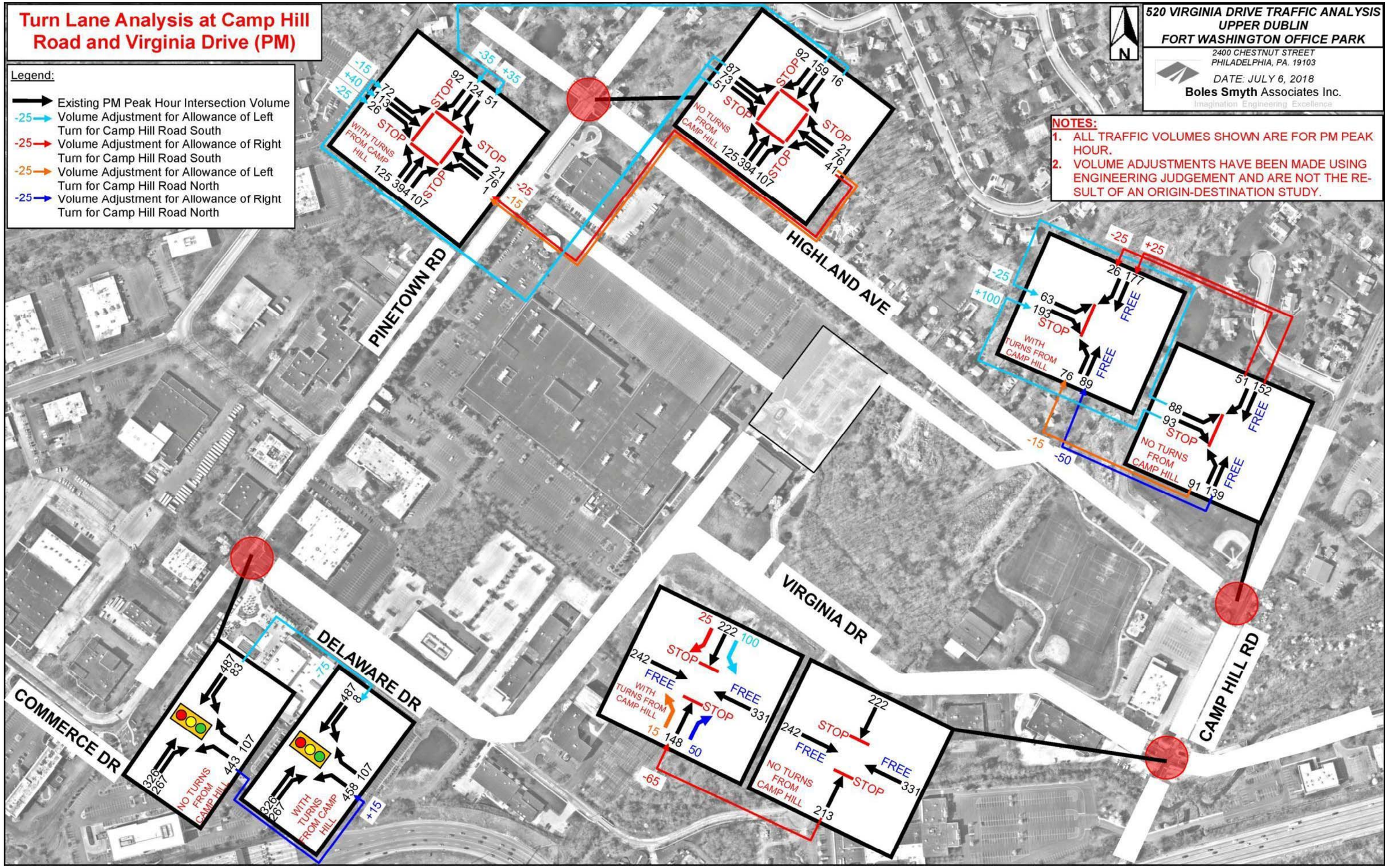
ALL PERCENTAGES ROUNDED TO NEAREST 5%.
PINETOWN RD
HIGHLAND AVE
Secondary Route
125 ENTER
125 EXIT
Library
NO EXIT
VIRGINIA DR
DELAWARE DR
COMMERCE DR
CAMP HILL RD
90/30
10/65
25%
15%
10%
20%
STOP
FREE
WITH TURNS FROM CAMP HILL

Turn Lane Analysis at Camp Hill Road and Virginia Drive (AM)




Turn Lane Analysis at Camp Hill Road and Virginia Drive (PM)
Legend:
Existing PM Peak Hour Intersection Volume
-25 Volume Adjustment for Allowance of Left Turn for Camp Hill Road South
-25 Volume Adjustment for Allowance of Right Turn for Camp Hill Road South
-25 Volume Adjustment for Allowance of Left Turn for Camp Hill Road North
-25 Volume Adjustment for Allowance of Right Turn for Camp Hill Road North
520 VIRGINIA DRIVE TRAFFIC ANALYSIS
UPPER DUBLIN
FORT WASHINGTON OFFICE PARK
2400 CHESTNUT STREET
PHILADELPHIA, PA. 19103
DATE: JULY 6, 2018
Boles Smyth Associates Inc.
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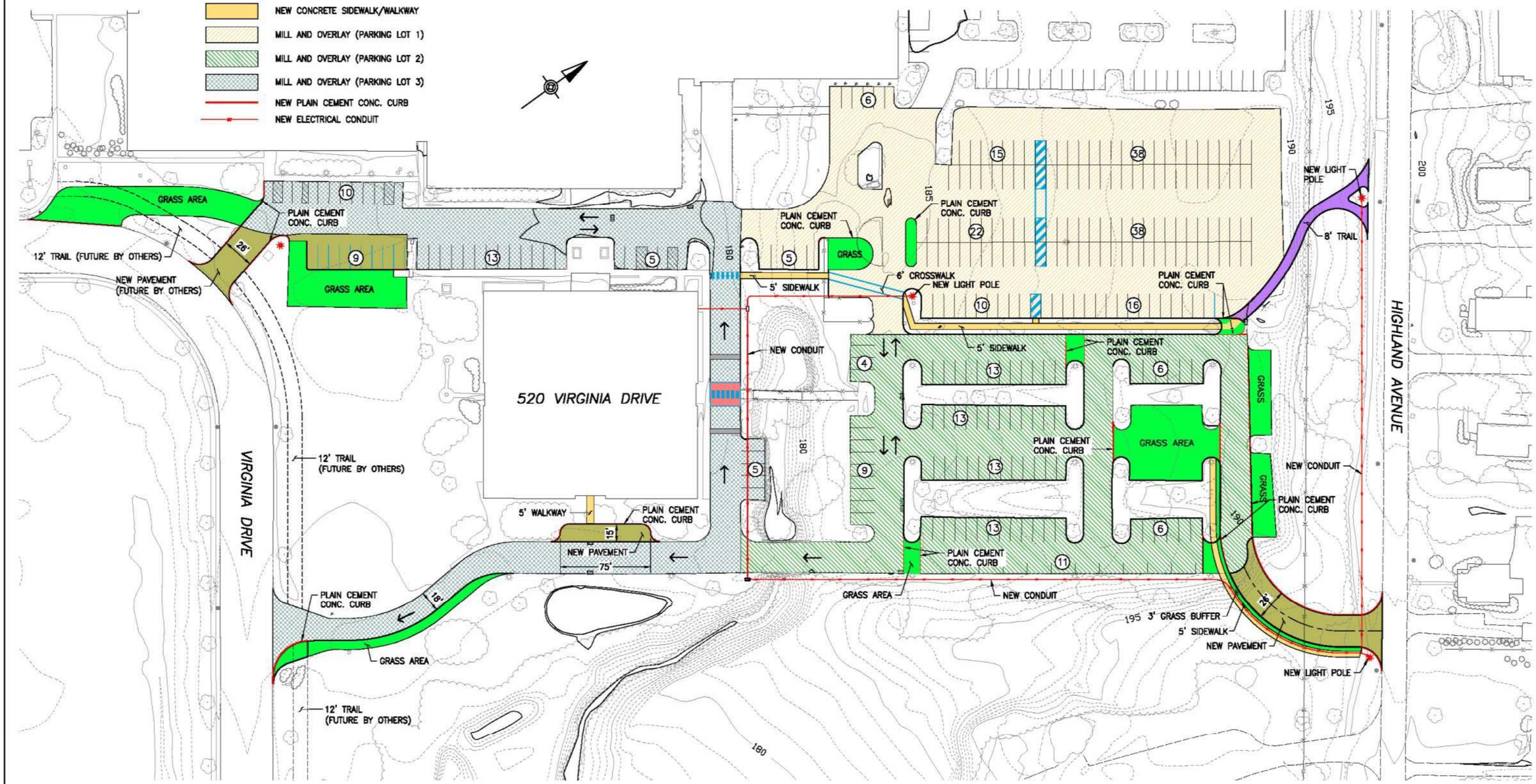
N
NOTES:
1. ALL TRAFFIC VOLUMES SHOWN ARE FOR PM PEAK HOUR.
2. VOLUME ADJUSTMENTS HAVE BEEN MADE USING ENGINEERING JUDGEMENT AND ARE NOT THE RESULT OF AN ORIGIN-DESTINATION STUDY.
PINETOWN RD
HIGHLAND AVE
VIRGINIA DR
CAMP HILL RD
DELAWARE DR
COMMERCE DR
WITH TURNS FROM CAMP HILL
NO TURNS FROM CAMP HILL
STOP
FREE

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6–0	MONTGOMERY	VIRGINIA DR.	–	–
UPPER DUBLIN TOWNSHIP				

REVISION NUMBER	REVISIONS	BY	DATE



PLAN

0 40 80 FEET

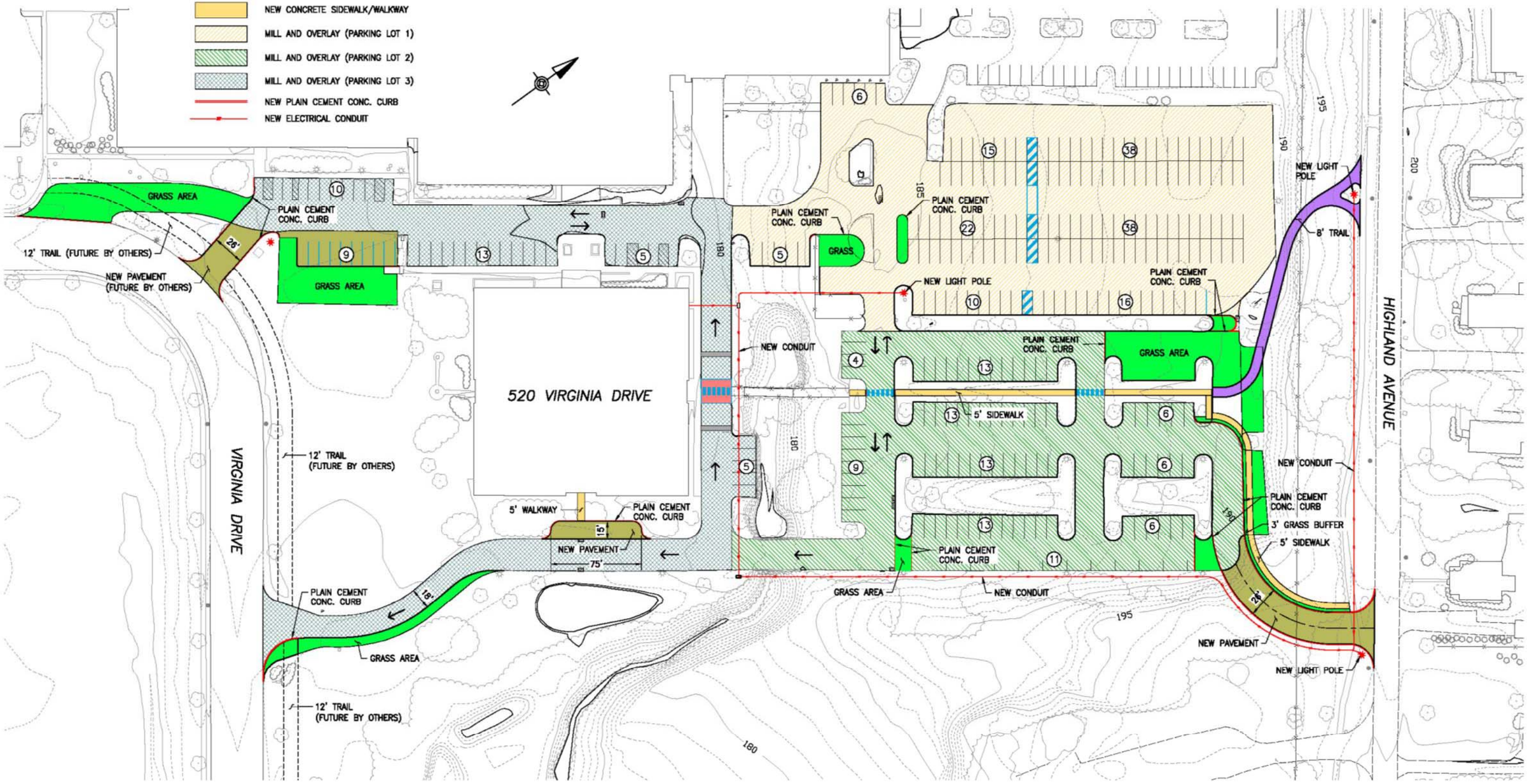
520 VIRGINIA DRIVE
PROPOSED CONSTRUCTION – CONCEPT 1

File: 520 VirginiaDr.dwg Layout: 520 VADR_1 Plotted: 7/10/18 at 10:45am By: evjacinto

TRACED BY _____ FINAL BY _____

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	MONTGOMERY	VIRGINIA DR.	–	–
UPPER DUBLIN TOWNSHIP				

REVISION NUMBER	REVISIONS	BY	DATE



PLAN

0 40 80 FEET

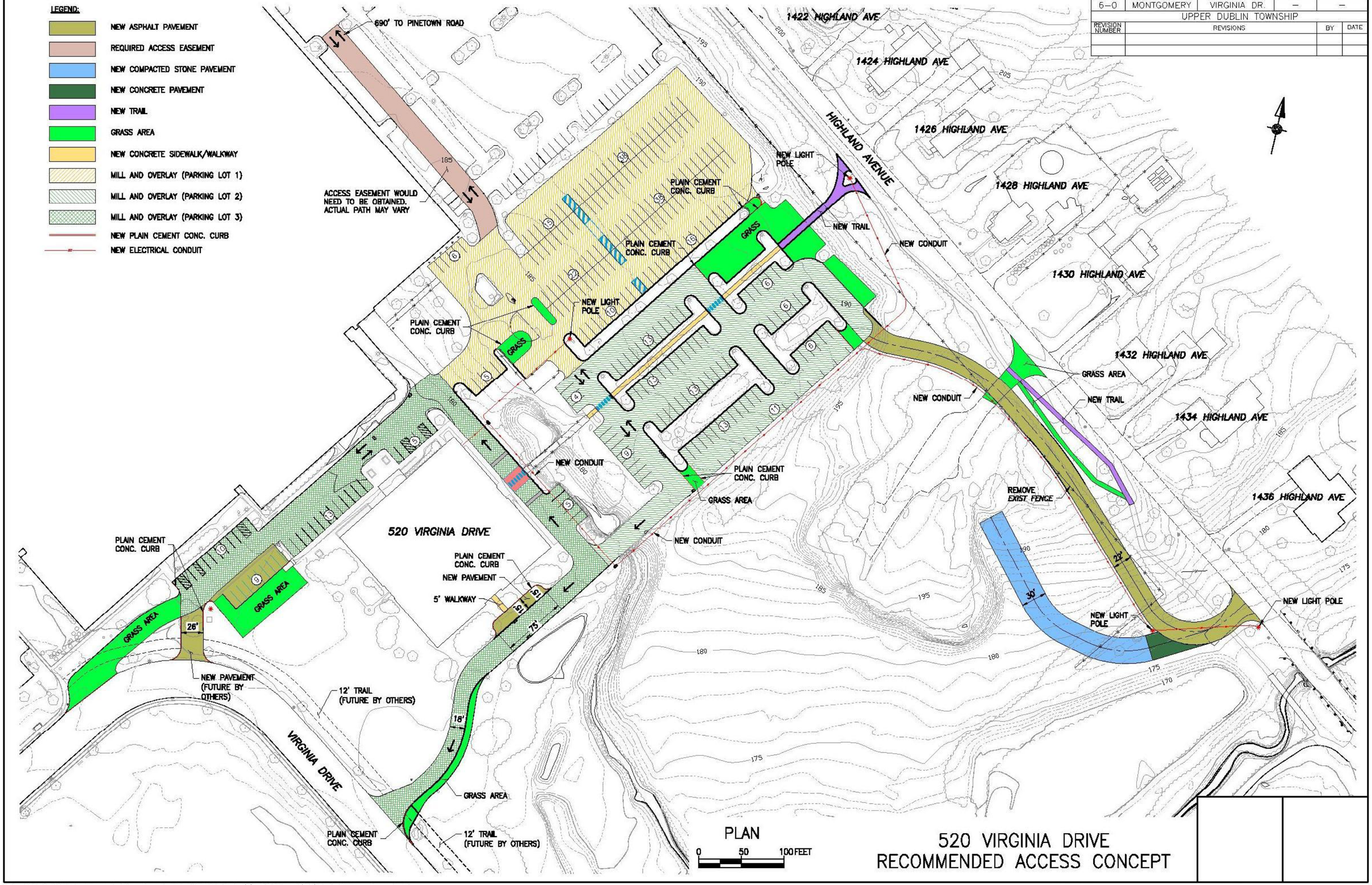
520 VIRGINIA DRIVE
PROPOSED CONSTRUCTION – CONCEPT 2

File: 520 VirginiaDr.dwg Layout: 520 VADR_2 Plotted: 7/10/18 at 10:46am By: evjacinto

TRACED BY _____ FINAL BY _____

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6–0	MONTGOMERY	VIRGINIA DR.	–	–
UPPER DUBLIN TOWNSHIP				

REVISION NUMBER	REVISIONS	BY	DATE



520 VIRGINIA DRIVE
RECOMMENDED ACCESS CONCEPT

File: 520–VirginiaDr_Recommended.dwg Layout: 520 VADR_50–Scale (2) Plotted: 7/10/18 at 10:52am By: evjacinto

TRACED BY _____ FINAL BY _____