APPENDIX A

CORRESPONDENCE BETWEEN STS LTD AND MNCPPC

MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

February 11, 2009

Mr. Carl F. Starkey, P.E.
Senior Transportation Engineer
Street Traffic Studies, Ltd.
400 Crain Highway, N.W.
Glen Burnie, MD 21061

Re: Scope for Traffic Study
Mandatory Referral for Proposed Silver Spring Library Replacement Project
Southwest quadrant of Fenton Street and Wayne Avenue
Silver Spring CBD Policy Area

Dear Carl:

As requested, the following provides the scope to conduct a traffic study for the Silver Spring Replacement Library project proposed on Fenton Street between Wayne Avenue and Bonifant Street. My understanding is that the project will consist of a 63,000 square-foot public library, a 20,000 square-foot arts center, 22,000 square-feet of retail, 15,000 square-feet of county offices, and approximately 146 high-rise dwelling units.

The above mandatory referral requires a traffic study based on the *2007 Local Area Transportation Review (LATR) and Policy Area Mobility Review (PAMR) Guidelines* since the density proposed on the site will generate 30 or more total peak-hour trips during the typical weekday morning (6:30 – 9:30 a.m.) and evening (4:00 – 7:00 p.m.) peak periods.

The scope for the traffic study is provided below.

1. **Study Intersections:** Based on an estimate that the density being proposed on the site will generate between 250 and 750 weekday peak-hour trips, the traffic study must include the following major intersections (in addition to any future site driveway intersections with Fenton Street, Wayne Avenue, and Bonifant Street):

   a. Colesville Road and Spring Street/Cedar Street,
   b. Colesville Road and Georgia Avenue,
   c. Ellsworth Drive and Cedar Street,
   d. Ellsworth Drive and Fenton Street,
   e. Wayne Avenue and Dale Drive,
   f. Wayne Avenue and Cedar Street,
   g. Wayne Avenue and Fenton Street,
   h. Wayne Avenue and Georgia Avenue,
   i. Wayne Avenue and Dixon Avenue,
   j. Bonifant Street and Fenton Street,
   k. Bonifant Street/Thayer Avenue and Georgia Avenue.

l. Thayer Avenue and Fenton Street,
m. Silver Spring Avenue and Fenton Street, and
n. Silver Spring Avenue and Georgia Avenue.

2. **Background Developments:** See enclosed information.

3. **Site Trip Generation/Trip Assignment:** Site trip generation and assignment must be submitted for staff review prior to finalizing the traffic study.

4. **Policy Area Mobility Review:** The traffic study must include a PAMR analysis as required by the *LATR/PAMR Guidelines*. Developments within the Silver Spring CBD Policy Area are currently required to mitigate 10% of "new" site peak hour trips to satisfy PAMR requirements of the APF test.

5. **Traffic Count Data:** Traffic count data collected as part of this traffic study must be submitted to the attention of Mr. Jose Dory at the following address:

   mcp-trafficcounts@mncppc-mc.org.

6. **Purple Line Alternatives:** The traffic study must take into consideration alternative alignments and modes considered for the proposed Purple Line through the Library site and along Wayne Avenue. See enclosed information.

Once the traffic study is completed, please provide me two copies for review and comment. In the meantime, if you have questions regarding the traffic study scope, please call me at 301-495-4525.

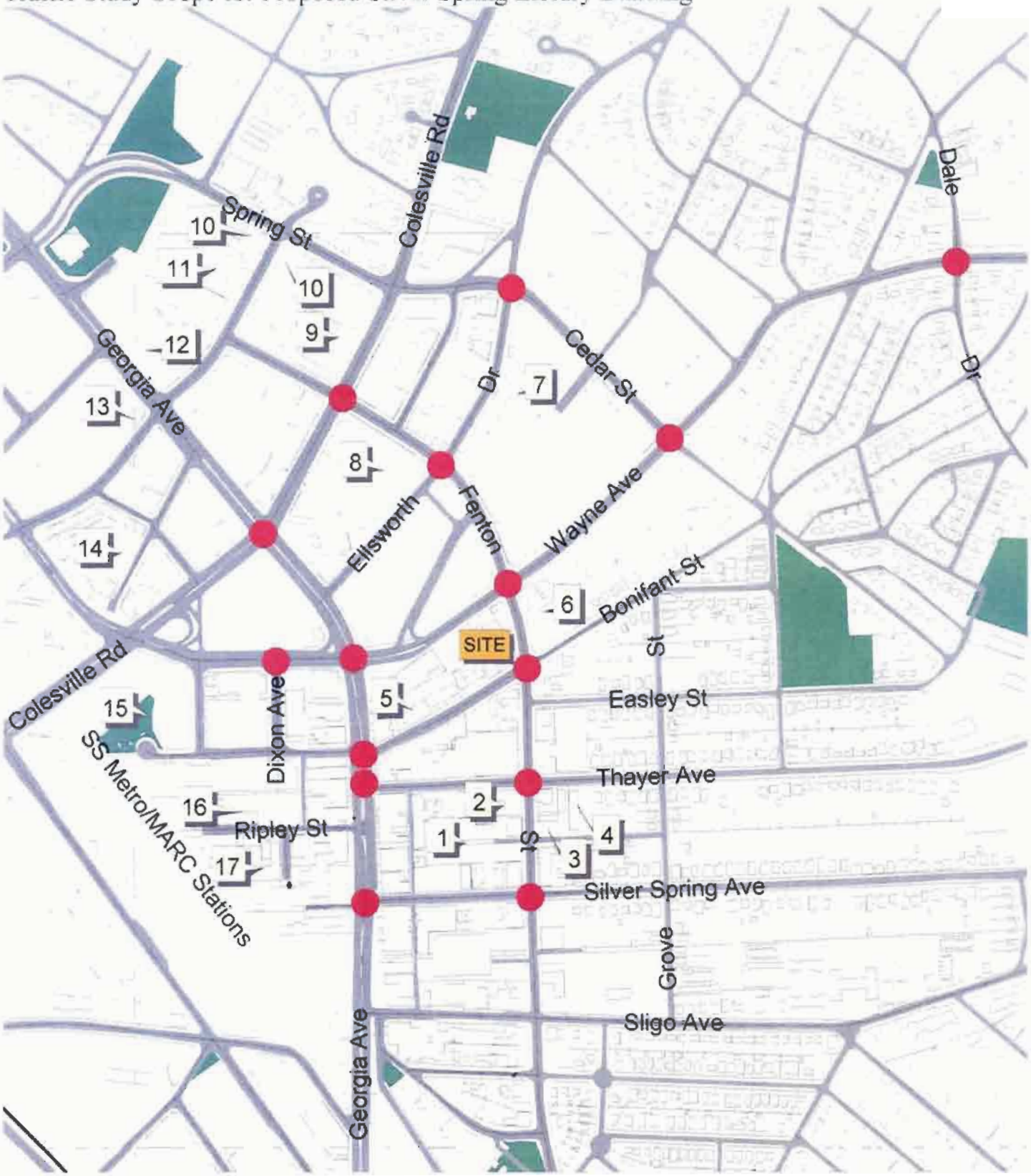
Sincerely,

Cherian Eapen, Planner/Coordinator
Transportation Planning Division

CE:tc
Enclosures

cc: Bill Barron
Jose Dory
Cathy Conlon
Shahriar Etemadi
Tom Autrey
Corren Giles
Greg Leck

Traffic Study Scope for Proposed Silver Spring Library Building



Recommended Study Intersections

xx Background Developments

Map Compiled On 02-06-2009 at 11:42 AM
Map Scale: 1 inch = 600 feet or 1:7200

0 600 Feet

The Maryland-National Capital Park and Planning Commission
Montgomery County Department of Park and Planning
Transportation Planning Unit
8787 Georgia Avenue | Silver Spring, Maryland 20910
301.495.4525 voice | 301.495.1302 fax | http://www.mc-mncppc.org

Master Plan of Highways Centerline 2
Street Pavement
Buildings
All Parks
Property
Municipalities
Montgomery County

NOTICE
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Background Developments
Traffic Study for the Proposed Silver Spring Library Replacement Project Mandatory Referral

#	Application No.	Project Name	Location	Number of Units or SF or Other
1	920070010 (Revised)	Studio Plaza* (see enclosed info)	Between Thayer Ave and Silver Spring Ave, West of Fenton St	60,862 SF Retail, 344,713 SF Office, 420 High-Rise DU's
2	120050770/820060200	Easley Subdivision (The Adele)	Southwest corner of Fenton St/Thayer Ave	15,000 SF Retail, 18,200 SF Office, 95 High-Rise DU's
3	820070210	R. Holt Easley Subdivision (8227 Fenton St)	Southeast quadrant of Fenton St/Thayer Ave	4613 SF Retail, 4613 SF Office
4	120070410/820080070	814 Thayer Avenue	Southeast quadrant of Fenton St/Thayer Ave	52 Multi-Family DU's
5	920070060	Bonifant Plaza	Northeast quadrant of Georgia Ave/Bonifant St	72 High-Rise DU's
6	--	8415 Fenton Street*	Northeast corner of Fenton St/Bonifant St	84,100 SF Retail, 91,000 SF Office, 45,000 SF Church
7	--	Veteran's Plaza	Between Fenton St and Cedar St, South of Ellsworth Dr	41,986 SF Civic Center, 222 High-Rise DU's
8	91987001A/11987190A	City Place Office	Between Ellsworth Dr and Colesville Rd, West of Fenton St	299,307 SF Office
9	820070030	8727 Colesville Road/Homewood Suites	Southwest quadrant of Colesville Rd/Spring St	272 Room Hotel
10	920040070/120040870	United Therapeutics	Southeast and southwest corners of Spring St/Cameron St	16,000 SF Retail, 148,598 SF Office, 48,000 SF Lab
11	120060180	Cameron House	Southwest quadrant of Spring St/Cameron St	7,330 SF Retail, 325 High-Rise DU's
12	920060020	8711 Georgia Avenue	Northeast quadrant of Georgia Ave/Cameron St	4,462 SF Retail, 148,278 SF Office
13	920070100	8700 Georgia Avenue*	Northwest corner of Georgia Ave/Cameron St	7,980 SF Retail, 21,540 SF Office, 106 High-Rise DU's
14	820050200	Portico	Southwest quadrant of Ramsey Ave/Fidler Ln	158 High-Rise DU's (Confirm unit occupancy level)
15	Mandatory Referral	Sarbanes Transit Center	Southeast corner of Colesville Rd/Wayne Ave	467 High-Rise DU's, 196 Room Hotel
16	920040060/120060540 820060250	Mid-town Silver Spring (Ripley North)	Northwest quadrant of Ripley St/Dixon Ave	5,380 SF Retail, 317 High-Rise DU's
17	920070040/120080210 820080150	1050 Ripley Street (Ripley South) (see enclosed info)	Southwest quadrant of Ripley St/Dixon Ave	7,460 SF Retail, 318 High-Rise DU's

SF - Square Feet; MFDU - Multi-Family Dwelling Units
* Pending/Anticipated Plan

WELLS + ASSOCIATES

MEMORANDUM

TO: Shahriar Etemadi
David Paine
Maryland-National Capital Park and Planning Commission

CC: Robert Paul Hillerson
Michael, L.L.C. (the "Applicant")

Robert Dalrymple, Esq.
Linowes & Blocher, L.L.P.

FROM: Christopher L. Kabatt, P.E.

DATE: December 22, 2008

RE: Project Plan Amendment No. 920070010
Montgomery County, Maryland

Introduction

This memorandum provides a traffic statement for the proposed redevelopment of the Property ("Studio Plaza" or the "Project") located in the Fenton Village area of the Silver Spring Central Business District (the "CBD") as more particularly described in the Project Plan "Justification Statement". A majority of the Property proposed for redevelopment is located between Thayer Avenue and Silver Spring Avenue, east of Mayor Lane and west of Fenton Street with a small portion located south of Silver Spring Avenue between Georgia Avenue and Fenton Street.

A portion of the Property is currently improved with public parking lot No. 3, which is a surface parking lot owned and operated by Montgomery County Department of Transportation ("MCDOT"). The remainder of the Property to be redeveloped consists of surface parking lots, vacant parcels, and functionally obsolete, deteriorating one and two-story retail and office uses.

The Applicant proposes a Project consisting of a mix of residential, office, street level retail and possibly hotel uses contained within four (4) buildings and constructed in three (3) separate phases. For purposes of project plan and this traffic statement, we have assumed the following development program which represents the more intensive mix of potential uses:

1420 Spring Hill Road, Suite 600 • McLean, Virginia 22102 • 703 / 917-6620 • Fax: 703 / 917-0739

Building #1: A commercial building containing 174,805 S.F. of office space and 15,653 S.F. of retail space located on the south side of Thayer Avenue, east of Mayor Lane.

Building #2: A commercial building containing 169,908 S.F. of office space and 13,703 S.F. of retail space located on the north side of Silver Spring Avenue, between Mayor Lane and the proposed new mid-block north-south street ("Street A").

Building #3: A residential building containing approximately 333 residential units and 26,346 S.F. of retail space located on the north side of Silver Spring Avenue, between Street A and Fenton Street.

Building #4: A residential building containing approximately 87 residential units and 5,160 S.F. of retail space located on the south side of Silver Spring Avenue, between Georgia Avenue and Fenton Street.

The final mix of uses, number of residential units (and types), and the amount of office, retail and hotel square footage will be determined at site plan and tested under the Adequate Public Facilities Ordinance ("APFO") at the time of preliminary plan (concurrent with site plan).

Because the Property is located in the Silver Spring Parking District, no private parking is required and instead a parking district tax can be paid. The amount of on-site private parking to be provided will be market driven and determined at the time of site plan review. The Project will also include a 152 space underground, public parking garage, replacing the existing 152 surface spaces on public parking Lot 3.

The entrance to the public parking garage will be toward the southern end of Street A (just north of the intersection with Silver Spring Avenue), which has access to Silver Spring Avenue to the south and Thayer Avenue to the north. This public garage will be owned and operated by MCDOT.

For Buildings #1 and #2 access to the private parking garage is provided from the southern end of Mayor Lane, just north of its intersection with Silver Spring Avenue. Mayor Lane is currently one way in the northerly direction, and is utilized as a service alley. Applicant proposes to maintain the one way status except that Mayor Lane shall be two way from Silver Spring Avenue to the parking garage entrance. In order to reduce traffic on this service alley, vehicles using this garage would enter from Silver Spring Avenue and would be required to exit to Silver Spring Avenue. To accommodate this additional use, Applicant proposes to widen Mayor Lane from Silver Spring Avenue to the entrance of the parking garage from 20 feet to 28 feet.

In addition, there are three properties fronting Georgia Avenue (Bell Flowers, Hertz and Plaza Art) (the "Affected Properties") that use Mayor Lane for loading that are located between Silver Spring Avenue and the entrance to the parking garage for Buildings #1 and #2. In addition to widening Mayor Lane near the Affected Properties, Applicant proposes to construct on its own property a community loading area that will be made available to the Affected Properties. This will provide the existing property owners and tenants of the Affected Properties fronting Georgia Avenue with continued loading and service access via Mayor Lane.

Mayor Lane will remain 20 feet wide north of the garage entrance for Buildings #1 and #2, and vehicular travel will be one-way northbound in order to provide loading and service facilities for the remainder of the Georgia Avenue retail uses backing onto Mayor Lane. Loading and Services for Buildings #1 and #2 shall be provided per code off of Mayor Lane.

The parking garage entrance, loading and service areas for Building #3 will be provided from a single access along Silver Spring Avenue.

The parking garage entrance, loading and service area for Building #4 will be provided from the south side of the Building from an existing 16' wide unnamed alley. The building will be set back from the alley to provide a 22' wide lane behind the proposed building to accommodate these uses.

Public Road Network

Existing Network, Regional access to Studio Plaza is provided by MD 97 (Georgia Avenue). Local Access is provided by Fenton Street, Bonifant Street, Thayer Avenue, Silver Spring Avenue and Sligo Avenue.

MD 97 (Georgia Avenue), is a major, six-lane, north-south roadway, which extends from the District of Columbia through central Montgomery County. It has a full-movement, grade-separated interchange with the Capital Beltway (I-495), which is located approximately 1.5 miles north of the Silver Spring CBD. Traffic signals are located in the site vicinity at Bonifant Street, Thayer Avenue, Silver Spring Avenue, and Sligo Avenue. Pedestrian crosswalks and pedestrian heads are provided for on either one or both of the Georgia Avenue and side street legs of the Georgia Avenue study intersections.

Fenton Street is a north-south street east of Georgia Avenue, which extends from Cameron Street to Burlington Avenue. In the immediate site vicinity, Fenton Street is under signal control at Bonifant Street, Thayer Avenue, Silver Spring Avenue, and Sligo Avenue. Pedestrian crosswalks and pedestrian heads are provided at the study intersections along Fenton Street.

Bonifant Street is an east-west street, which extends from west of the Georgia Avenue intersection through the Dale Drive intersection. In the immediate site vicinity, Bonifant Street is under signal control at Georgia Avenue and Fenton Street.

Thayer Avenue is an east-west, street, which extends from Georgia Avenue to Dale Drive. In the immediate site vicinity, Thayer Avenue is under signal control at Georgia Avenue and Fenton Street.

Silver Spring Avenue and Sligo Avenue are east-west streets, which extend from Georgia Avenue to Piney Branch Road. The Silver Spring Avenue and Sligo Avenue intersections with Georgia Avenue and Fenton Street are under signal control.

Transit Facilities and Services

Existing Facilities and Services. The CBD is served by Metrorail, Metrobus, Ride-On, and MARC commuter rail. These services offer an alternative to the private automobile.

Metrorail. The Silver Spring Metrorail station on the Red Line is located on Colesville Road between East-West Highway and Wayne Avenue. Service is provided on the Red Line at three- to six-minute headways during peak commuting periods and at 12-minute headways during non-peak periods.

MARC Commuter Rail. Regional commuter rail service is provided on three (3) lines that serve Silver Spring and terminate at Union Station in Washington, D.C. The MARC rail station is located on Georgia Avenue at Sligo Avenue. Service is provided during peak commuter periods only, in the peak direction, by six (6) trains.

Metrobus and Ride-On Bus Service. The Metrobus service operated by the Washington Metropolitan Area Transit Authority (WMATA) and Ride-On service operated by Montgomery County provide over 150 peak hour bus trips to and from the CBD.

The J1, 2, and 3 Bethesda-Silver Spring Line operates between the Silver Spring station and the Montgomery Mall Transit Center. The J5 line operates between Silver Spring and Twinbrook. The Y5, 7, 8, and 9 lines operate between Silver Spring and Montgomery General Hospital. Stops for the J and Y lines are located at the Silver Spring station.

The F4 and 6 lines operate between the Silver Spring Station and the New Carrollton station with stops along Fenton Street.

The Ride On line 28 (Van Go, free Silver Spring downtown shuttle).

Trip Generation Analysis

The number of trips generated by the proposed project was estimated based on the Local Area Transportation Review ("LATR" and Policy Area Mobility Review ("PAMR") Guidelines trip rates for the CBD. As shown in Table 1, Studio Plaza (as conceptually described in this statement) will generate 639 (450 in and 188 out) AM peak hour trips and 731 (221 in and 509 out) PM peak hour trip.

The existing uses (20,647 square feet of office and retail uses) generates 18 (13 in and 5 out) AM peak hour trips and 38 PM (16 in and 22 out) PM peak hour trips, based on the CBD rates. Therefore as shown in Table 1, Studio Plaza will generate 621 additional AM peak hour trips and 693 additional PM peak hour trips than the existing uses. Vehicle trips associated with the existing surface parking lot would remain and utilize the new parking garage.

Table 1
Studio Plaza
Site-Trip Generation Analysis

				AM Peak Hour			PM Peak Hour		
Land Use	Size	Units	Measure	In	Out	Total	In	Out	Total
Existing Uses									
Retail	13,747	S.F.	Trips	4	3	7	14	13	27
Office	6,900	S.F.	Trips	9	2	11	2	9	11
Existing Total				**13**	**5**	**18**	**16**	**22**	**38**
Proposed Studio Plaza									
Retail	60,862	S.F.	Trips	15	15	30	61	61	122
Residential (high rise)	420	DU	Trips	25	101	126	88	38	126
Office	344,713	S.F.	Trips	411	72	483	72	411	483
Proposed Total				**451**	**188**	**639**	**221**	**510**	**731**
Proposed minus Existing				**438**	**183**	**621**	**205**	**488**	**693**

Notes: (1) MNCPPC, Local Area Transportation Review and Policy Area Mobility Review Guidelines, Silver Spring CBD trip generation rates

At the time of preliminary plan, based on the number of trips anticipated to be generated by Studio Plaza, a minimum of two signalized intersections in each direction of the sites driveways would be evaluated as part of a LATR traffic study.

Policy Area Mobility Review

According the LATR and PAMR Guidelines (as of July 1, 2008), the required trip mitigation for projects in the Silver Spring/Takoma Park Policy Area is 10 percent of new trips generated by the project.

The LATR and PAMR Guidelines provide: (1) county-wide trip generation rates for office, retail and residential uses and (2) special rates for office, retail and residential uses in the CBD.

M-NCPPC's county-wide rates were used to project base office, retail and residential trips. The 60,862 S.F. of retail space, 420 residential units and 344,713 S.F. of office were estimated to generate a base of 828 AM peak hour vehicle-trips and 1,141 PM peak hour vehicle-trips, as shown in Table 2. The existing uses generate 18 AM peak hour trips and 38 PM peak hour trips, based on the CBD rates. Thus, as shown in Table 2 and net of existing trips, Studio Plaza's proposed project would generate a base of 810 new trips during the AM peak hour and 1,103 new trips during the PM peak hour.

The PAMR Guidelines require a 10 percent reduction in new base trips in the CBD. Thus, the required reduction is 81 AM peak hour trips and 110 PM peak hour trips, for a target goal of 729 new AM peak hour trips and 993 new PM peak hour trips using county-wide trip rates.

The special CBD rates were used to estimate the actual number of trips that would be generated by the proposed retail and residential uses.

Studio Plaza is projected to generate 639 new AM peak hour vehicle-trips and 731 new PM peak hour vehicle-trips, as shown in Table 2. With the targeted mitigation goal (based on county-wide rates) of 729 new AM and 993 new PM peak hour trips, the project satisfies PAMR during the both the AM and PM peak.

Table 2
Studio Plaza
PAMR Trip Generation Analysis

Land Use	Size	Units	Measure	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Base Estimates (1)									
Retail	60,862	S.F.	Trips	61	56	117	244	225	470
Residential (high rise)	420	DU	Trips	33	100	133	94	60	155
Office	344,713	S.F.	Trips	503	75	578	88	429	516
Subtotal				597	231	828	426	714	1,141
Existing CBD Trips				13	5	18	16	22	38
New Trips				584	226	810	410	692	1,103
PAMR Requirement (10 Percent of New Trips)									
Trips to be Mitigated (New Trips x 10 percent)				58	23	81	41	69	110
Projected Trips (2)									
Retail	60,862	S.F.	Trips	15	15	30	61	61	122
Residential (high rise)	420	DU	Trips	25	101	126	88	38	126
Office	344,713	S.F.	Trips	411	72	483	72	411	483
Subtotal				451	188	639	221	510	731
Difference (Base Estimate New Trips minus Project New Tri				133	38	171	189	183	372
Percent Difference				23%	17%	21%	46%	26%	34%
Pass/Fail						Pass			Pass

Notes: (1) MNCPPC, Local Area Transportation Review and Policy Area Mobility Review Guidelines, Montgomery County trip generation rates.
(2) MNCPPC, Local Area Transportation Review and Policy Area Mobility Review Guidelines, Silver Spring CBD trip generation rates.

Pedestrian Statement

The CBD has a sidewalk network that connects pedestrians from the residences, places of employment, and retail shops with transit services and destinations within the CBD. Sidewalks are located on both sides of the streets that are included in the study area. The Applicant proposes to enhance the existing CBD sidewalk network by adopting and redeveloping the sidewalks adjacent to the Project with the Silver Spring streetscape standards per the Sector Plan requirements including new pavers, streetlights, street trees and site furnishings. Additionally, the Project proposes to provide an east/west extension of Mayor's Promenade as

a pedestrian connection through the site and linking Georgia Avenue to Street A and beyond to Fenton Street. Also, Street A will provide a new mid-block pedestrian connection between Silver Spring Avenue and Thayer Avenue.

Marked crosswalks and pedestrian heads are located on either one or both legs of the Georgia Avenue and Fenton Street intersections, as well as on the cross streets. As outlined previously, vehicular access to the parking garages for Studio Plaza is provided via driveways on Mayor Lane, Street A, Silver Spring Avenue and an unnamed alley to the south of Silver Spring Avenue behind Building #4. With the exception of the loading dock for Building #3 serviced from Silver Spring Avenue, service vehicles will use Mayor Lane and the unnamed alley south of Silver Spring Avenue.

Based on the connected road and sidewalk system provided in the CBD, the location of the site driveways to the parking garages provides a safe and efficient network for pedestrians in and around the Studio Plaza project.

Public Parking

On Street, metered parking is located along Georgia Avenue, Thayer Avenue, Fenton Street and Silver Spring Avenue. The proposed Project will replace the existing 152 public parking spaces located on public parking lot #3 with a new underground public parking garage with an equal number of parking spaces. Access to the public garage will be gained via Street A. .

Summary

As conceptually proposed with the project plan, the proposed Studio Plaza project will generate 639 AM peak hour trips and 731 PM peak hour trips to the adjacent road network. Sidewalks and the bus service In the CBD provide access for pedestrians to the mixed uses in the area and the Silver Spring station.

Garage access and loading access are provided mainly on alleys and the new Street A. A driveway for parking and loading servicing Building #3 will be located on Silver Spring Avenue.

At time of preliminary plan, a LATR evaluating a minimum of two signalized intersection in each direction from the site driveways would be required.

Since the project is located in the CBD, Studio Plaza would pass PAMR, comparing countywide trip rates to the CBD rates.

Please contact Wells + Associates with any questions relating to this statement.

Site Generated Traffic Volumes

Site generated traffic volumes were calculated for the 1050 Ripley Street development. The resulting AM and PM peak hour trips are shown in Table 3.

Table 3
1050 Ripley Street Development
Site Generated Traffic Volumes

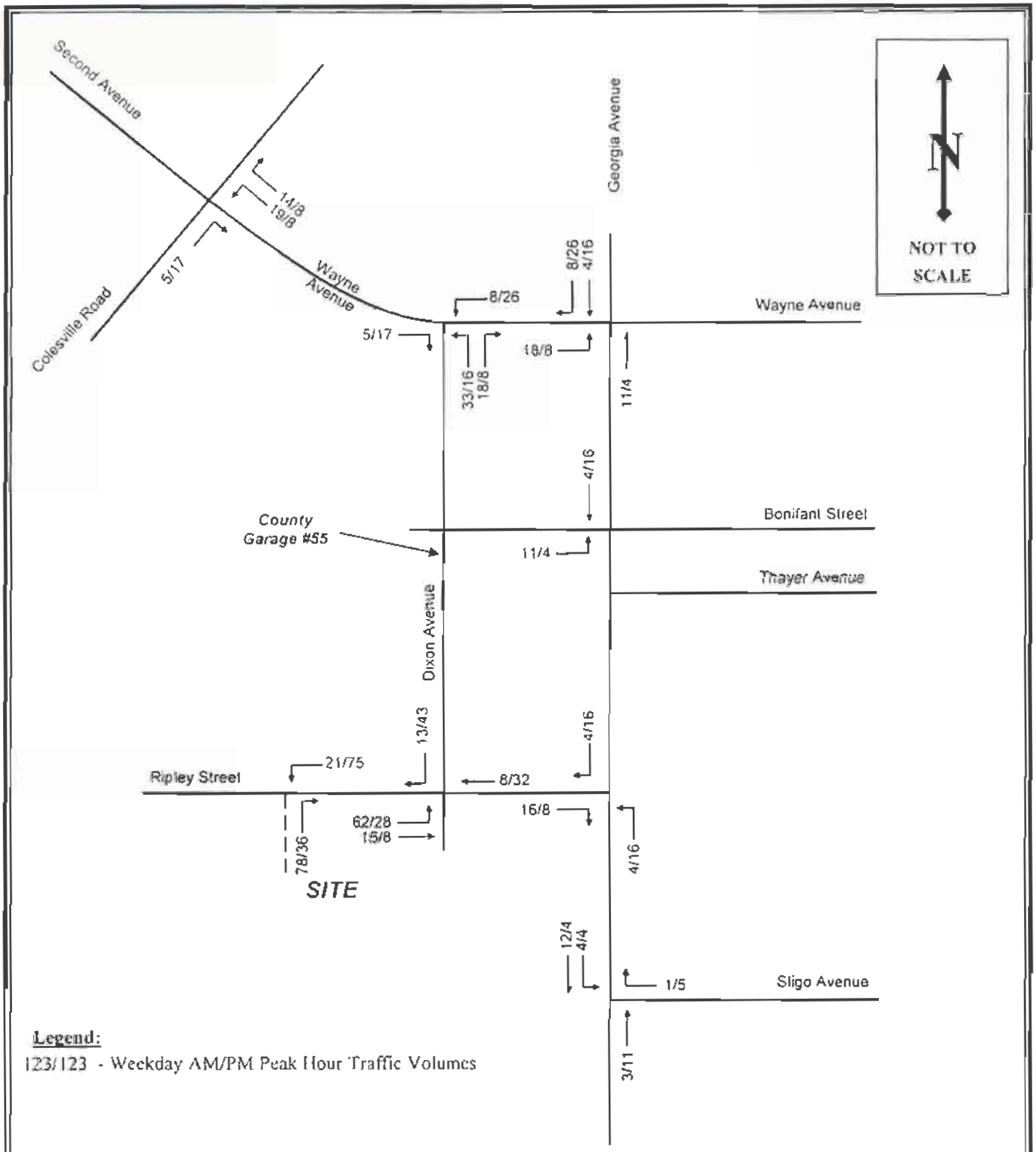
Land Use	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Residential: High Rise 318 DUs	19	76	95	67	28	95
Retail: 7,460 SF	2	2	4	8	7	15
Total Development	**21**	**78**	**99**	**75**	**35**	**110**

These AM and PM peak hour traffic volumes were assigned to the area roadways based upon the regional distributions and the location of the site access point. The resulting percent distributions on the key roadways are listed in Table 4 below. Included in the trip assignment is the presence of Dixon Avenue from Ripley Street, through Garage 55, to Bonifant Street.

Table 4
Distribution of Site Generated Traffic

	Residential	Office and Retail
To/From North on Colesville Road	17%	36%
To/From South on Colesville Road	16%	4%
To/From the North on Georgia Avenue	35%	46%
To/From the South on Georgia Avenue	16%	4%
To/From West on East-West Highway	10%	2%
To/From East on Sligo Avenue	6%	8%

The assignment of site generated trips is shown on Figure 8.



Kimley-Horn and Associates, Inc.

KHA Project # 110121000

Site Generated Peak Hour Traffic Volumes

Washington Property Company
1050 Ripley Street
Silver Spring, Maryland

Figure 8

MTA Maryland

Carl Starkey

From: Eapen, Cherian [Cherian.Eapen@mncppc-mc.org]
Sent: Tuesday, April 28, 2009 11:46 AM
To: Carl Starkey
Subject: RE: Silver Spring Library

Hi Carl:

I suggest you use the following:

Civic Center: Assume ITE LUC 730 Government Office or SS CBD rates for Office (pending + future)
Lab: Assume this to be part of the office; combine with the office – I think that will how UT will use this space
814 Thayer: Assume residential HR rate for SS CBD

I am curious how you will be estimating site trips. ITE Library trip gen you have for the site are unrealistic for SS. Are you planning to count the existing library? What are you going to do with the arts center?

Cherian Eapen, PTP
Planner/Coordinator
Move | Transportation Planning Division
Maryland-National Capital Park and Planning Commission
8787 Georgia Avenue | Silver Spring | MD 20910
301-495-4539 : Phone | Fax : 301-495-1302

cherian.eapen@mncppc-mc.org
www.mc-mncppc.org | www.montgomeryplanning.org

From: Carl Starkey [mailto:Cstarkey@streettrafficstudies.com]
Sent: Tuesday, April 21, 2009 9:53 AM
To: Eapen, Cherian
Subject: Silver Spring Library

Cherian,

STS LTD recently received a NTP for the library TIS. In reviewing the background sites, I am not sure what to use to generate trips for the civic center or lab. I reviewed ITE Land Use Code 495, Recreational Community Center for the civic center, however, I am at a loss with respect to the lab use.

Also, 814 Thayer Avenue is listed as multi-family, do I use the standard County rate?

Carl F. Starkey, P.E.
Street Traffic Studies, Ltd.
400 Crain Highway, NW
Glen Burnie, MD 21061
410-590-5500 v
410-590-6637 f
410-591-2160 c

APPENDIX B

VEHICLE TURNING MOVEMENT COUNTS

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD

VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Colesville Rd
and: Fenton St
Counted by: PWC & RW

Location: Montgomery Co
Date: 5/13/09
Weather: Clear
Entered by: CFC

Day: Tuesday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Colesville Rd				TRAFFIC FROM SOUTH on: Colesville Rd				TRAFFIC FROM WEST on: Fenton St				TRAFFIC FROM EAST on: Fenton St				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	11	478	18	507	0	63	8	71	1	4	3	8	10	6	7	22	608
45-00	15	436	26	477	2	98	9	109	2	5	3	10	11	18	12	41	637
07:00-15	13	404	25	442	2	140	13	155	1	4	11	16	8	19	8	35	648
15-30	38	497	38	573	2	130	13	145	2	6	15	23	10	20	11	41	782
30-45	36	455	42	533	1	146	14	161	0	5	7	12	11	26	9	46	752
45-00	33	452	41	526	7	122	22	151	9	5	9	23	13	35	17	65	765
08:00-15	41	431	46	518	1	170	20	191	1	12	14	27	10	26	22	58	794
15-30	50	410	33	493	5	139	21	165	1	4	5	10	18	44	17	79	747
30-45	60	495	40	595	2	138	19	159	0	6	9	15	18	38	21	77	846
45-00	62	493	21	576	5	136	21	162	1	16	12	29	12	42	18	72	839
09:00-15	55	496	31	582	3	128	21	152	0	15	10	25	15	28	22	65	824
15-30	37	467	15	519	1	120	15	136	2	10	22	34	14	34	28	76	765
AM 3 HOUR TOTALS	451	5514	376	6341	31	1530	196	1757	20	92	120	232	150	335	192	677	9007
1 HOUR TOTALS																	
630-730	77	1815	107	1999	6	431	43	480	6	19	32	57	39	62	38	139	2675
645-745	102	1792	131	2025	7	514	49	570	5	20	36	61	40	83	40	163	2819
07-08	120	1808	146	2074	12	538	62	612	12	20	42	74	42	100	45	187	2947
715-815	148	1835	167	2150	11	568	69	648	12	28	45	85	44	107	59	210	3093
730-830	160	1748	162	2070	14	577	77	668	11	26	35	72	52	131	65	248	3058
745-845	184	1788	160	2132	15	569	82	666	11	27	37	75	59	143	77	279	3152
08-09	213	1829	140	2182	13	583	81	677	3	38	40	81	58	150	78	286	3226
815-915	227	1894	125	2246	15	541	82	638	2	41	36	79	63	152	78	293	3256
830-930	214	1951	107	2272	11	522	76	609	3	47	53	103	59	142	89	290	3274
PEAK HOUR 830-930	214	1951	107	2272	11	522	76	609	3	47	53	103	59	142	89	290	3274
PM																	
04:00-15	10	125	16	151	4	339	32	375	4	25	10	39	19	32	41	92	657
15-30	26	101	27	154	3	384	32	419	1	16	15	32	21	33	41	95	700
30-45	5	142	16	163	7	404	39	450	6	18	18	42	27	19	36	82	737
45-00	19	155	19	193	4	430	45	479	7	14	13	34	10	30	59	99	805
05:00-15	9	156	15	180	6	451	37	494	3	18	14	35	17	33	43	93	802
15-30	13	140	22	175	2	386	28	416	2	30	19	51	21	30	56	107	749
30-45	15	161	23	199	2	412	31	445	4	23	12	39	18	31	41	90	773
45-00	17	144	15	176	1	428	29	458	1	21	7	29	17	33	37	87	750
06:00-15	16	159	19	194	2	398	37	437	1	18	13	32	16	30	40	88	751
15-30	14	134	7	155	2	393	47	442	1	25	16	42	17	28	47	92	731
30-45	13	150	15	178	0	382	30	412	2	18	12	32	17	31	37	85	707
45-00	9	106	12	127	0	344	52	396	1	14	9	24	17	32	40	89	636
PM 3 HOUR TOTALS	166	1673	206	2045	33	4751	439	5223	33	240	158	431	219	362	518	1099	8798
1 HOUR TOTALS																	
04-05	60	523	78	661	18	1557	148	1723	18	73	56	147	77	114	177	368	2899
415-515	59	554	77	690	20	1669	153	1842	17	66	60	143	75	115	179	369	3044
430-530	46	593	72	711	19	1671	149	1839	18	80	64	162	75	112	194	381	3093
445-545	56	612	79	747	14	1679	141	1834	16	85	58	159	66	124	199	389	3129
05-06	54	601	75	730	11	1677	125	1813	10	92	52	154	73	127	177	377	3074
515-615	61	604	79	744	7	1624	125	1756	8	92	51	151	74	124	174	372	3023
530-630	62	598	64	724	7	1631	144	1782	7	87	48	142	70	122	165	357	3005
545-645	60	587	56	703	5	1601	143	1749	5	82	48	135	69	122	161	352	2939
06-07	52	549	53	654	4	1517	166	1687	5	75	50	130	69	121	164	354	2825
PEAK HOUR 445-545	56	612	79	747	14	1679	141	1834	16	85	58	159	66	124	199	389	3129

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Colesville Rd
and: Fenton St
Counted by: PWC & RW

Location: Montgomery Co
Date: 5/12/09 Day: Tuesday
Weather: Clear
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	1	1	2	11	6	3	1	16	41
45-00	0	0	2	8	4	2	3	10	29
07:00-15	0	5	6	35	4	3	1	21	75
15-30	0	0	4	27	12	3	0	9	55
30-45	0	2	20	27	5	5	4	18	81
45-00	0	2	9	20	13	6	4	21	75
08:00-15	0	0	11	25	10	3	4	26	79
15-30	1	0	9	20	12	6	10	20	78
30-45	0	0	10	25	12	4	11	20	82
45-00	0	0	13	21	9	16	3	12	74
09:00-15	0	0	9	14	8	11	2	12	56
15-30	0	2	14	10	8	14	8	15	71
AM 3 HOUR TOTALS	2	12	109	243	103	76	51	200	796
1 HOUR TOTALS									
630-730	1	6	14	81	26	11	5	56	200
645-745	0	7	32	97	25	13	8	58	240
07-08	0	9	39	109	34	17	9	69	286
715-815	0	4	44	99	40	17	12	74	290
730-830	1	4	49	92	40	20	22	85	313
745-845	1	2	39	90	47	19	29	87	314
08-09	1	0	43	91	43	29	28	78	313
815-915	1	0	41	80	41	37	26	64	290
830-930	0	2	46	70	37	45	24	59	283
PEAK HOUR 745-845	1	2	39	90	47	19	29	87	314
PM									
04:00-15	0	0	13	23	37	16	5	27	121
15-30	0	1	8	21	39	17	7	35	128
30-45	1	1	20	23	31	19	19	18	132
45-00	0	0	14	13	40	17	12	27	123
05:00-15	1	7	17	18	71	21	18	28	181
15-30	0	1	21	25	44	18	6	14	129
30-45	2	2	25	26	38	33	13	19	158
45-00	1	2	40	31	50	37	23	21	205
06:00-15	0	1	30	22	49	28	8	24	162
15-30	0	0	25	31	40	22	21	18	157
30-45	0	1	26	35	34	32	13	16	157
45-00	0	0	26	21	54	27	9	19	156
PM 3 HOUR TOTALS	5	16	265	289	527	287	154	266	1809
1 HOUR TOTALS									
04-05	1	2	55	80	147	69	43	107	504
415-515	2	9	59	75	181	74	56	108	564
430-530	2	9	72	79	186	75	55	87	565
445-545	3	10	77	82	193	89	49	88	591
05-06	4	12	103	100	203	109	60	82	673
515-615	3	6	116	104	181	116	50	78	654
530-630	3	5	120	110	177	120	65	82	682
545-645	1	4	121	119	173	119	65	79	681
06-07	0	2	107	109	177	109	51	77	632
PEAK HOUR 530-630	3	5	120	110	177	120	65	82	682

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Georgia Ave
and: Wayne Ave
Counted by: LK & RW

Location: Montgomery Co
Date: 4/28/09
Weather: Clear
Entered by: CFC

Day: Tuesday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Georgia Ave				TRAFFIC FROM SOUTH on: Georgia Ave				TRAFFIC FROM WEST on: Wayne Ave				TRAFFIC FROM EAST on: Wayne Ave				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	30	373	11	414	5	121	6	132	5	11	9	25	14	50	4	68	639
45-00	35	360	11	406	5	161	4	173	12	16	11	39	20	69	11	100	718
07:00-15	36	378	7	421	4	188	12	204	13	20	7	40	32	67	15	114	779
15-30	35	411	13	459	16	203	5	224	23	29	13	65	24	73	14	111	859
30-45	25	398	21	444	13	221	11	245	13	21	9	43	39	85	19	143	875
45-00	41	434	15	490	16	242	3	261	21	26	9	56	58	95	16	169	976
08:00-15	45	390	25	460	21	278	12	308	22	27	14	63	53	109	15	177	1008
15-30	53	360	27	440	17	239	13	269	19	26	6	51	40	95	13	148	908
30-45	53	344	19	416	15	238	13	266	21	33	17	71	42	102	26	170	923
45-00	79	357	37	473	20	194	9	223	23	39	11	73	29	80	21	130	899
09:00-15	80	284	41	405	24	206	15	245	19	35	18	72	35	109	16	160	882
15-30	69	373	46	488	17	182	14	213	25	46	18	89	31	84	27	142	932
AM 3 HOUR TOTALS	581	4462	273	5316	176	2470	117	2763	216	329	142	687	417	1018	197	1632	10398
1 HOUR TOTALS																	
630-730	135	1522	42	1700	33	673	27	733	53	76	40	169	90	259	44	393	2995
645-745	131	1547	52	1730	41	773	32	846	61	86	40	187	115	294	59	468	3231
07-08	137	1621	56	1814	49	854	31	934	70	96	38	204	153	320	64	537	3489
715-815	146	1633	74	1853	66	941	31	1038	79	103	45	227	174	362	64	600	3718
730-830	164	1582	88	1834	67	977	39	1083	75	100	38	213	190	384	63	637	3767
745-845	192	1528	86	1806	69	994	41	1104	83	112	46	241	193	401	70	664	3815
08-09	230	1451	108	1789	73	946	47	1066	85	125	48	258	164	386	75	625	3738
815-915	265	1345	124	1734	76	877	50	1003	82	133	52	267	146	386	76	608	3612
830-930	281	1358	143	1782	76	820	51	947	88	153	64	305	137	375	90	602	3636
PEAK HOUR 745-845	192	1528	86	1806	69	994	41	1104	83	112	46	241	193	401	70	664	3815
PM																	
04:00-15	35	190	23	248	13	347	40	400	17	78	26	121	18	51	31	100	869
15-30	16	203	26	245	15	291	24	330	23	76	28	127	14	52	29	95	797
30-45	23	195	33	251	17	351	40	408	26	67	23	116	18	46	27	91	866
45-00	21	219	29	269	12	313	20	345	18	99	37	154	24	56	43	123	891
05:00-15	27	221	26	274	9	345	23	377	20	76	30	126	24	53	49	126	903
15-30	21	220	41	282	11	302	30	343	26	103	30	159	35	79	43	157	941
30-45	18	214	30	262	15	287	31	333	31	100	33	164	28	62	41	131	890
45-00	20	252	37	309	15	297	29	341	31	103	39	173	44	70	41	155	978
06:00-15	26	214	36	276	12	354	47	413	18	82	31	131	26	56	29	111	931
15-30	14	273	38	325	17	290	40	347	26	101	31	158	25	58	42	125	955
30-45	25	243	31	299	13	337	40	390	21	96	29	146	27	72	41	140	975
45-00	27	201	34	262	14	288	27	329	20	90	40	150	24	48	44	116	857
PM 3 HOUR TOTALS	273	2645	384	3302	163	3802	391	4356	277	1071	377	1725	307	703	460	1470	10853
1 HOUR TOTALS																	
04-05	95	807	111	1013	57	1302	124	1483	84	320	114	518	74	205	130	409	3423
415-515	87	838	114	1039	53	1300	107	1460	87	318	118	523	80	207	148	435	3457
430-530	92	855	129	1076	49	1311	113	1473	90	345	120	555	101	234	162	497	3601
445-545	87	874	126	1087	47	1247	104	1398	95	378	130	603	111	250	176	537	3625
05-06	86	907	134	1127	50	1231	113	1394	108	382	132	622	131	264	174	569	3712
515-615	85	900	144	1129	53	1240	137	1430	106	388	133	627	133	267	154	554	3740
530-630	78	953	141	1172	59	1228	147	1434	106	386	134	626	123	246	153	522	3754
545-645	85	982	142	1209	57	1278	156	1491	96	382	130	608	122	256	153	531	3839
06-07	92	931	139	1162	56	1269	154	1479	85	369	131	585	102	234	156	492	3718
PEAK HOUR 545-645	85	982	142	1209	57	1278	156	1491	96	382	130	608	122	256	153	531	3839

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Georgia Ave
and: Wayne Ave
Counted by: UK & RW

Location: Montgomery Co
Date: 4/28/09 Day: Tuesday
Weather: Clear
Entered By: CPC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	2	28	2	2	1	5	1	5	46
45-00	5	30	1	3	4	5	2	2	52
07:00-15	4	33	1	4	5	9	5	10	71
15-30	2	38	1	8	3	17	3	9	81
30-45	7	39	3	4	6	19	6	9	95
45-00	9	26	4	9	4	19	8	9	88
08:00-15	5	56	7	10	14	15	10	9	126
15-30	6	32	2	17	17	29	8	7	118
30-45	6	35	2	15	8	27	7	12	112
45-00	5	24	6	8	12	23	6	2	86
09:00-15	14	27	5	11	17	12	13	9	108
15-30	10	34	8	14	12	16	6	7	109
AM 3 HOUR TOTALS	75	404	42	105	105	196	77	90	1094
1 HOUR TOTALS									
630-730	13	129	5	17	13	36	11	26	250
645-745	18	140	6	19	20	50	16	30	299
07-08	22	136	9	25	20	64	22	37	335
715-815	23	161	15	31	29	70	27	36	392
730-830	27	155	16	40	43	82	32	34	429
745-845	26	151	15	51	43	90	33	37	446
08-09	22	149	17	50	51	94	31	30	444
815-915	31	118	15	51	54	91	34	30	424
830-930	35	120	21	48	49	78	34	30	415
PEAK HOUR 745-845	26	151	15	51	43	90	33	37	446
PM									
04:00-15	22	12	26	18	14	9	19	10	130
15-30	29	20	16	22	26	18	14	14	159
30-45	20	15	14	19	26	20	36	10	162
45-00	16	27	25	15	29	17	22	7	158
05:00-15	25	26	20	16	57	13	14	22	195
15-30	26	18	29	18	42	13	16	10	172
30-45	26	24	33	16	32	17	18	18	188
45-00	22	10	18	19	41	18	13	17	158
06:00-15	32	18	20	22	21	21	17	16	167
15-30	36	15	23	7	37	20	19	7	164
30-45	18	10	37	16	41	12	19	6	159
45-00	26	11	17	25	43	12	9	12	157
PM 3 HOUR TOTALS	302	206	278	217	409	190	218	149	1969
1 HOUR TOTALS									
04-05	87	74	81	74	95	64	93	41	609
415-515	90	88	75	74	138	68	88	53	674
430-530	87	86	88	70	154	63	90	49	687
445-545	95	95	107	69	160	60	70	57	713
05-06	101	78	100	73	172	61	61	67	713
515-615	108	70	100	77	136	69	64	61	685
530-630	118	67	94	66	131	76	67	58	677
545-645	108	53	98	64	140	71	68	46	648
06-07	114	54	97	70	142	65	64	41	647
PEAK HOUR 445-545	95	95	107	69	160	60	70	57	713

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Georgia Ave
and: Bonifant St
Counted by: BM & EZ

Location: Montgomery Co
Date: 4/15/09
Weather: Rain
Entered by: CFC

Day: Wednesday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Georgia Ave				TRAFFIC FROM SOUTH on: Georgia Ave				TRAFFIC FROM WEST on: Bonifant St				TRAFFIC FROM EAST on: Bonifant St				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	22	373	5	400	4	114	2	120	2	0	6	8	2	0	5	7	535
45-00	19	349	3	371	6	150	1	157	4	0	4	8	2	0	3	5	541
07:00-15	31	405	4	440	11	131	0	142	1	0	11	12	1	0	11	12	606
15-30	32	397	2	431	9	202	4	215	3	0	14	17	5	2	6	13	676
30-45	40	482	4	526	8	219	2	229	8	0	9	17	6	0	8	14	786
45-00	23	416	9	448	15	255	1	271	5	0	10	15	3	1	10	14	748
08:00-15	30	421	5	456	13	347	2	362	2	0	10	12	4	0	10	14	844
15-30	42	348	4	394	3	255	5	263	4	0	12	16	5	1	8	14	687
30-45	53	369	6	428	10	229	3	242	5	0	8	13	12	1	9	22	705
45-00	44	296	8	348	13	233	1	247	15	0	10	25	2	0	7	9	629
09:00-15	48	336	5	389	19	232	7	258	11	0	5	16	12	0	9	21	684
15-30	49	300	7	356	21	221	5	247	5	0	9	14	4	1	9	14	631
AM 3 HOUR TOTALS	433	4492	62	4987	132	2588	33	2753	65	0	108	173	58	6	95	159	8072
1 HOUR TOTALS																	
630-730	104	1524	14	1642	30	597	7	634	10	0	35	45	10	2	25	37	2358
645-745	122	1633	13	1768	34	702	7	743	16	0	38	54	14	2	28	44	2609
07-08	126	1700	19	1845	43	807	7	857	17	0	44	61	15	3	35	53	2816
715-815	125	1716	20	1861	45	1023	9	1077	18	0	43	61	18	3	34	55	3054
730-830	135	1667	22	1824	39	1076	10	1125	19	0	41	60	18	2	36	56	3065
745-845	148	1554	24	1726	41	1086	11	1138	16	0	40	56	24	3	37	64	2984
08-09	169	1434	23	1626	39	1064	11	1114	26	0	40	66	23	2	34	59	2865
815-915	187	1349	23	1559	45	949	16	1010	35	0	35	70	31	2	33	66	2705
830-930	194	1301	26	1521	63	915	16	994	36	0	32	68	30	2	34	66	2649
PEAK HOUR 730-830	135	1667	22	1824	39	1076	10	1125	19	0	41	60	18	2	36	56	3065
PM																	
04:00-15	14	240	8	262	2	423	15	440	15	0	6	21	3	0	5	8	731
15-30	17	217	6	240	7	333	12	352	20	0	11	31	3	0	4	7	630
30-45	22	242	9	273	3	328	27	358	15	0	17	32	0	0	8	8	671
45-00	21	225	9	255	2	356	10	368	13	0	16	29	3	0	1	4	656
05:00-15	14	236	13	263	2	328	24	354	17	0	8	25	0	0	2	2	644
15-30	22	249	6	277	1	327	14	342	14	0	18	32	6	0	5	11	662
30-45	15	269	9	294	0	388	15	403	22	0	18	40	5	0	2	7	744
45-00	10	265	11	286	1	320	18	339	27	0	19	46	1	0	3	4	675
06:00-15	16	279	8	303	0	369	18	387	25	0	23	48	1	0	5	6	744
15-30	18	238	21	277	1	313	21	335	28	0	17	45	0	0	2	2	659
30-45	30	248	11	289	0	327	25	352	24	0	23	47	2	0	3	5	693
45-00	21	232	9	262	1	299	20	320	24	0	18	42	4	0	0	4	628
PM 3 HOUR TOTALS	221	2940	120	3281	20	4111	219	4350	244	0	194	438	28	0	40	68	8137
1 HOUR TOTALS																	
04-05	74	924	32	1030	14	1440	64	1518	63	0	50	113	9	0	18	27	2688
415-515	74	920	37	1031	14	1345	73	1432	65	0	52	117	6	0	15	21	2601
430-530	79	952	37	1068	8	1339	75	1422	59	0	59	118	9	0	16	25	2633
445-545	73	979	37	1089	5	1399	63	1467	66	0	60	126	14	0	10	24	2706
05-06	62	1019	39	1120	4	1363	71	1438	80	0	63	143	12	0	12	24	2725
515-615	64	1062	34	1160	2	1404	65	1471	88	0	78	166	13	0	15	28	2825
530-630	60	1051	49	1160	2	1390	72	1464	102	0	77	179	7	0	12	19	2822
545-645	74	1030	51	1155	2	1329	82	1413	104	0	82	186	4	0	13	17	2771
06-07	85	997	49	1131	2	1308	84	1394	101	0	81	182	7	0	10	17	2724
PEAK HOUR 515-615	64	1062	34	1160	2	1404	65	1471	88	0	78	166	13	0	15	28	2825

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Georgia Ave
and: Bonifant St
Counted by: BM & EZ

Location: Montgomery Co
Date: 4/15/09 Day: Wednesday
Weather: Rain
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	0	3	2	2	2	9	2	5	25
45-00	1	8	1	2	2	13	6	2	35
07:00-15	0	3	2	0	1	13	1	3	23
15-30	0	10	5	0	1	19	6	10	51
30-45	0	15	14	0	7	30	7	1	74
45-00	0	15	5	3	4	27	10	3	67
08:00-15	1	22	10	3	6	42	7	9	100
15-30	9	10	3	2	12	36	16	8	96
30-45	4	14	4	10	12	32	6	10	92
45-00	2	17	5	1	13	18	9	6	71
09:00-15	5	14	5	6	8	22	9	10	79
15-30	3	13	7	6	4	20	6	6	65
AM 3 HOUR TOTALS	25	144	63	35	72	281	85	73	778
1 HOUR TOTALS									
630-730	1	24	10	4	6	54	15	20	134
645-745	1	36	22	2	11	75	20	16	183
07-08	0	43	26	3	13	89	24	17	215
715-815	1	62	34	6	18	118	30	23	292
730-830	10	62	32	8	29	135	40	21	337
745-845	14	61	22	18	34	137	39	30	355
08-09	16	63	22	16	43	128	38	33	359
815-915	20	55	17	19	45	108	40	34	338
830-930	14	58	21	23	37	92	30	32	307
PEAK HOUR 08-09	16	63	22	16	43	128	38	33	359
PM									
04:00-15	17	7	5	8	7	5	5	15	69
15-30	20	12	13	17	1	6	1	2	72
30-45	4	2	14	8	3	3	9	3	46
45-00	7	8	14	18	10	12	5	6	80
05:00-15	8	7	13	10	10	11	3	12	74
15-30	11	6	17	14	11	8	6	8	81
30-45	12	7	18	18	13	3	2	9	82
45-00	20	12	13	13	13	3	6	8	88
06:00-15	4	2	17	18	6	8	2	11	66
15-30	18	13	16	10	18	3	5	8	89
30-45	6	6	19	12	10	5	12	14	84
45-00	6	4	18	22	23	3	4	7	87
PM 3 HOUR TOTALS	133	86	177	166	123	70	60	103	918
1 HOUR TOTALS									
04-05	48	29	46	51	21	26	20	26	267
415-515	39	29	54	53	24	32	18	23	272
430-530	30	23	58	50	34	34	23	29	281
445-545	38	28	62	60	44	34	16	35	317
05-06	51	32	61	55	47	25	17	37	325
515-615	47	27	65	61	43	22	16	36	317
530-630	54	34	64	57	48	17	15	36	325
545-645	48	33	65	51	45	19	25	41	327
06-07	34	25	70	60	55	19	23	40	326
PEAK HOUR 545-645	48	33	65	51	45	19	25	41	327

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Georgia Ave
and: Thayer Ave
Counted by: RW

Location: Montgomery Co
Date: 4/15/08
Weather: Rain
Entered by: CFC

Day: Wednesday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Georgia Ave				TRAFFIC FROM SOUTH on: Georgia Ave				TRAFFIC FROM WEST on:				TRAFFIC FROM EAST on: Thayer Ave				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	0	374	5	379	0	113	2	115	0	0	0	0	4	0	7	11	505
45-00	0	350	5	355	0	149	1	150	0	0	0	0	5	0	8	13	518
07:00-15	0	404	3	407	0	138	1	139	0	0	0	0	3	0	4	7	553
15-30	0	403	2	405	0	198	1	199	0	0	0	0	7	0	17	24	628
30-45	0	489	7	496	0	214	9	223	0	0	0	0	6	0	15	21	740
45-00	0	421	3	424	0	248	4	252	0	0	0	0	9	0	22	31	707
08:00-15	0	419	8	427	0	340	2	342	0	0	0	0	11	0	22	33	802
15-30	0	349	8	357	0	243	9	252	0	0	0	0	8	0	20	28	637
30-45	0	374	12	386	0	218	6	224	0	0	0	0	7	0	24	31	641
45-00	0	306	7	313	0	237	8	245	0	0	0	0	5	0	19	24	582
09:00-15	0	347	12	359	0	238	10	248	0	0	0	0	11	0	20	31	638
15-30	0	302	7	309	0	221	6	227	0	0	0	0	6	0	16	22	558
AM 3 HOUR TOTALS	0	4538	79	4617	0	2557	59	2616	0	0	0	0	82	0	194	276	7509
1 HOUR TOTALS																	
630-730	0	1531	15	1546	0	598	5	603	0	0	0	0	19	0	36	55	2204
645-745	0	1646	17	1663	0	699	12	711	0	0	0	0	21	0	44	65	2439
07-08	0	1717	15	1732	0	798	15	813	0	0	0	0	25	0	58	83	2628
715-815	0	1732	20	1752	0	1000	16	1016	0	0	0	0	33	0	76	109	2877
730-830	0	1678	26	1704	0	1045	24	1069	0	0	0	0	34	0	79	113	2886
745-845	0	1563	31	1594	0	1049	21	1070	0	0	0	0	35	0	88	123	2787
08-09	0	1448	35	1483	0	1038	25	1063	0	0	0	0	31	0	85	116	2662
815-915	0	1376	39	1415	0	936	33	969	0	0	0	0	31	0	83	114	2498
830-930	0	1329	38	1367	0	914	30	944	0	0	0	0	29	0	79	108	2419
PEAK HOUR 730-830	0	1678	26	1704	0	1045	24	1069	0	0	0	0	34	0	79	113	2886
PM																	
04:00-15	0	244	14	258	0	420	17	437	0	0	0	0	9	0	20	29	724
15-30	0	223	17	240	0	335	16	351	0	0	0	0	10	0	17	27	618
30-45	0	231	26	257	0	336	8	344	0	0	0	0	6	0	22	28	629
45-00	0	222	19	241	0	354	18	372	0	0	0	0	11	0	12	23	636
05:00-15	0	225	28	253	0	347	16	363	0	0	0	0	10	0	7	17	633
15-30	0	253	16	269	0	322	12	334	0	0	0	0	8	0	19	27	630
30-45	0	272	22	294	0	390	15	405	0	0	0	0	15	0	13	28	727
45-00	0	279	14	293	0	316	15	331	0	0	0	0	7	0	22	29	653
06:00-15	0	284	21	305	0	366	22	388	0	0	0	0	8	0	21	29	722
15-30	0	239	27	266	0	322	24	346	0	0	0	0	10	0	13	23	635
30-45	0	250	24	274	0	338	8	346	0	0	0	0	10	0	14	24	644
45-00	0	236	24	260	0	308	22	330	0	0	0	0	9	0	11	20	610
PM 3 HOUR TOTALS	0	2958	252	3210	0	4154	193	4347	0	0	0	0	113	0	191	304	7861
1 HOUR TOTALS																	
04-05	0	920	76	996	0	1445	59	1504	0	0	0	0	36	0	71	107	2607
415-515	0	901	90	991	0	1372	58	1430	0	0	0	0	37	0	58	95	2516
430-530	0	931	89	1020	0	1359	54	1413	0	0	0	0	35	0	60	95	2528
445-545	0	972	85	1057	0	1413	61	1474	0	0	0	0	44	0	51	95	2626
05-06	0	1029	80	1109	0	1375	58	1433	0	0	0	0	40	0	61	101	2643
515-615	0	1088	73	1161	0	1394	64	1458	0	0	0	0	38	0	75	113	2732
530-630	0	1074	84	1158	0	1394	76	1470	0	0	0	0	40	0	69	109	2737
545-645	0	1052	86	1138	0	1342	69	1411	0	0	0	0	35	0	70	105	2654
06-07	0	1009	96	1105	0	1334	76	1410	0	0	0	0	37	0	59	96	2611
PEAK HOUR 530-630	0	1074	84	1158	0	1394	76	1470	0	0	0	0	40	0	69	109	2737

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Georgia Ave
and: Thayer Ave
Counted by: RW

Location: Montgomery Co
Date: 4/15/09 Day: Wednesday
Weather: Rain
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	0	0	2	3	0	3	0	0	8
45-00	1	0	2	1	0	1	0	0	5
07:00-15	0	1	4	0	0	1	0	0	6
15-30	0	0	3	0	1	2	0	0	6
30-45	0	0	10	2	1	1	0	0	14
45-00	0	0	4	3	2	6	0	0	15
08:00-15	0	0	9	8	4	1	0	0	22
15-30	1	4	9	8	3	9	0	0	34
30-45	0	0	8	13	1	0	0	0	22
45-00	0	0	8	9	5	5	0	0	27
09:00-15	1	0	5	8	3	4	0	0	21
15-30	0	0	3	8	2	1	0	0	14
AM 3 HOUR TOTALS	3	5	67	63	22	34	0	0	194
1 HOUR TOTALS									
630-730	1	1	11	4	1	7	0	0	25
645-745	1	1	19	3	2	5	0	0	31
07-08	0	1	21	5	4	10	0	0	41
715-815	0	0	26	13	8	10	0	0	57
730-830	1	4	32	21	10	17	0	0	85
745-845	1	4	30	32	10	16	0	0	93
08-09	1	4	34	38	13	15	0	0	105
815-915	2	4	30	38	12	18	0	0	104
830-930	1	0	24	38	11	10	0	0	84
PEAK HOUR 08-09	1	4	34	38	13	15	0	0	105
PM									
04:00-15	1	1	6	8	1	1	0	0	18
15-30	0	0	11	10	2	5	0	0	28
30-45	0	0	12	13	3	0	0	0	28
45-00	1	0	9	11	1	2	0	0	24
05:00-15	0	0	16	7	5	4	0	0	32
15-30	1	0	11	11	5	1	0	0	29
30-45	0	0	9	11	3	5	0	0	28
45-00	0	0	9	15	6	7	0	0	37
06:00-15	1	0	11	9	1	0	0	0	22
15-30	1	0	13	7	1	5	0	0	27
30-45	0	0	6	7	2	3	0	0	18
45-00	0	0	10	18	4	1	0	0	33
PM 3 HOUR TOTALS	5	1	123	127	34	34	0	0	324
1 HOUR TOTALS									
04-05	2	1	38	42	7	8	0	0	98
415-515	1	0	48	41	11	11	0	0	112
430-530	2	0	48	42	14	7	0	0	113
445-545	2	0	45	40	14	12	0	0	113
05-06	1	0	45	44	19	17	0	0	126
515-615	2	0	40	46	15	13	0	0	116
530-630	2	0	42	42	11	17	0	0	114
545-645	2	0	39	38	10	15	0	0	104
06-07	2	0	40	41	8	9	0	0	100
PEAK HOUR 05-06	1	0	45	44	19	17	0	0	126

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

STREET TRAFFIC STUDIES LTD

Intersection of: Georgia Ave
and: Silver Spring Ave
Counted by: PWC & HS

Location: Montgomery Co
Date: 4/15/09
Weather: Rain
Entered by: CFC

Day: Wednesday

TIME	TRAFFIC FROM NORTH on: Georgia Ave				TRAFFIC FROM SOUTH on: Georgia Ave				TRAFFIC FROM WEST on: Silver Spring Ave				TRAFFIC FROM EAST on: Silver Spring Ave				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	0	370	2	372	0	110	0	110	0	0	0	0	2	0	3	5	487
45-00	1	350	5	356	0	143	0	143	0	0	0	0	4	0	9	13	512
07:00-15	0	419	8	427	2	136	1	139	0	0	0	0	4	0	5	9	575
15-30	4	427	4	435	2	194	1	197	0	0	1	1	6	2	9	19	652
30-45	1	444	13	458	5	210	3	218	2	1	2	5	7	2	6	15	696
45-00	5	334	14	353	2	222	3	227	3	3	3	9	7	9	17	33	622
08:00-15	3	345	9	357	1	221	2	224	2	0	4	6	7	2	13	22	609
15-30	4	340	9	353	2	244	2	248	2	2	2	6	8	7	15	30	637
30-45	3	360	14	377	1	213	2	216	1	0	2	3	6	3	13	22	618
45-00	10	289	19	318	1	238	6	245	2	3	6	11	6	5	20	31	605
09:00-15	3	359	10	372	1	188	12	201	3	2	3	8	9	3	9	21	602
15-30	3	292	10	305	3	219	7	229	2	2	2	6	3	2	14	19	559
AM 3 HOUR TOTALS	37	4329	117	4483	20	2338	39	2397	17	13	25	55	71	35	133	239	7174
1 HOUR TOTALS																	
630-730	5	1566	19	1590	4	583	2	589	0	0	1	1	18	2	26	46	2226
645-745	6	1640	30	1676	9	683	5	697	2	1	3	6	23	4	29	56	2435
07-08	10	1624	39	1673	11	762	8	781	5	4	6	15	26	13	37	76	2545
715-815	13	1550	40	1603	10	847	9	866	7	4	10	21	29	15	45	89	2579
730-830	13	1463	45	1521	10	897	10	917	9	6	11	26	29	20	51	100	2564
745-845	15	1379	46	1440	6	900	9	915	8	5	11	24	28	21	58	107	2486
08-09	20	1334	51	1405	5	916	12	933	7	5	14	26	27	17	61	105	2469
815-915	20	1348	52	1420	5	883	22	910	8	7	13	28	29	18	57	104	2462
830-930	19	1300	53	1372	6	858	27	891	8	7	13	28	24	13	56	93	2384
PEAK HOUR 715-815	13	1550	40	1603	10	847	9	866	7	4	10	21	29	15	45	89	2579
PM																	
04:00-15	4	207	25	236	2	335	13	350	1	3	4	8	8	1	11	20	614
15-30	6	225	15	246	1	353	31	385	3	4	4	11	1	0	12	13	655
30-45	2	178	21	201	4	309	25	338	2	5	3	10	9	3	19	31	580
45-00	4	250	22	276	4	330	22	356	1	6	5	12	5	2	15	22	666
05:00-15	4	237	27	268	3	327	27	357	6	11	4	21	8	6	17	31	677
15-30	1	216	19	236	3	337	24	364	5	8	4	17	10	4	18	32	649
30-45	6	244	20	270	1	336	24	361	2	12	5	19	14	10	30	54	704
45-00	2	233	23	258	3	336	37	376	1	6	9	16	8	4	23	35	685
06:00-15	1	238	15	254	4	349	28	381	5	6	7	18	6	1	25	32	685
15-30	1	287	15	303	4	348	26	378	3	3	4	10	7	1	16	24	715
30-45	1	213	20	234	0	301	12	313	2	4	3	9	7	2	8	17	573
45-00	1	206	19	226	3	332	8	343	1	6	1	8	7	2	16	25	602
PM 3 HOUR TOTALS	33	2734	241	3008	32	3993	277	4302	32	74	53	159	90	36	210	336	7805
1 HOUR TOTALS																	
04-05	16	860	83	959	11	1327	91	1429	7	18	16	41	23	6	57	86	2515
415-515	16	890	85	991	12	1319	105	1436	12	26	16	54	23	11	63	97	2578
430-530	11	881	89	981	14	1303	98	1415	14	30	16	60	32	15	69	116	2572
445-545	15	947	88	1050	11	1330	97	1438	14	37	18	69	37	22	80	139	2696
05-06	13	930	89	1032	10	1336	112	1458	14	37	22	73	40	24	88	152	2715
515-615	10	931	77	1018	11	1358	113	1482	13	32	25	70	38	19	96	153	2723
530-630	10	1002	73	1085	12	1369	115	1496	11	27	25	63	35	16	94	145	2789
545-645	5	971	73	1049	11	1334	103	1448	11	19	23	53	28	8	72	108	2658
06-07	4	944	69	1017	11	1330	74	1415	11	19	15	45	27	6	65	98	2575
PEAK HOUR 530-630	10	1002	73	1085	12	1369	115	1496	11	27	25	63	35	16	94	145	2789

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Georgia Ave
and: Silver Spring Ave
Counted by: PWC & HS

Location: Montgomery Co
Date: 4/15/09 Day: Wednesday
Weather: Rain
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	0	0	2	1	0	0	1	1	5
45-00	0	0	1	1	0	0	2	2	6
07:00-15	0	0	0	0	0	1	3	4	8
15-30	2	2	3	2	2	0	3	6	20
30-45	0	1	3	2	0	0	3	6	15
45-00	2	2	4	7	0	2	4	3	24
08:00-15	2	6	4	8	0	0	2	3	25
15-30	2	2	3	7	0	1	2	4	21
30-45	2	0	3	8	0	0	5	2	20
45-00	0	1	2	7	0	0	5	6	21
09:00-15	0	1	5	5	1	0	3	10	25
15-30	0	1	5	5	0	0	5	5	21
AM 3 HOUR TOTALS	10	16	35	53	3	4	38	52	211
1 HOUR TOTALS									
630-730	2	2	6	4	2	1	9	13	39
645-745	2	3	7	5	2	1	11	18	49
07-08	4	5	10	11	2	3	13	19	67
715-815	6	11	14	19	2	2	12	18	84
730-830	6	11	14	24	0	3	11	16	85
745-845	8	10	14	30	0	3	13	12	90
08-09	6	9	12	30	0	1	14	15	87
815-915	4	4	13	27	1	1	15	22	87
830-930	2	3	15	25	1	0	18	23	87
PEAK HOUR 745-845	8	10	14	30	0	3	13	12	90
PM									
04:00-15	5	2	5	4	0	0	7	4	27
15-30	1	2	9	5	0	0	2	4	23
30-45	1	1	6	4	0	0	4	1	17
45-00	2	4	6	3	0	0	9	4	28
05:00-15	3	2	5	6	1	0	3	3	23
15-30	1	0	6	4	0	0	4	3	18
30-45	1	2	5	4	1	0	5	9	27
45-00	0	1	3	6	0	1	4	2	17
06:00-15	3	0	11	5	0	0	18	9	46
15-30	4	3	8	4	0	1	8	5	33
30-45	4	4	6	3	1	0	2	2	22
45-00	5	4	9	4	0	0	3	5	30
PM 3 HOUR TOTALS	30	25	79	52	3	2	69	51	311
1 HOUR TOTALS									
04-05	9	9	26	16	0	0	22	13	95
415-515	7	9	26	18	1	0	18	12	91
430-530	7	7	23	17	1	0	20	11	86
445-545	7	8	22	17	2	0	21	19	96
05-06	5	5	19	20	2	1	16	17	85
515-615	5	3	25	19	1	1	31	23	108
530-630	8	6	27	19	1	2	35	25	123
545-645	11	8	28	18	1	2	32	18	118
06-07	16	11	34	16	1	1	31	21	131
PEAK HOUR 06-07	16	11	34	16	1	1	31	21	131

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Discovery Place / Dixon Ave
and: Wayne Ave
Counted by: PWC & HS

Location: Montgomery Co
Date: 4/28/09
Weather: Clear
Entered by: CFC

Day: Tuesday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Discovery Place				TRAFFIC FROM SOUTH on: Dixon Ave				TRAFFIC FROM WEST on: Wayne Ave				TRAFFIC FROM EAST on: Wayne Ave				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	0	0	0	0	2	0	10	12	3	25	0	28	18	66	1	85	125
45-00	0	0	0	0	4	0	12	16	6	25	0	31	22	103	0	125	172
07:00-15	1	0	0	1	5	0	12	17	6	27	0	33	27	81	0	108	159
15-30	1	0	0	1	2	0	20	22	6	39	0	45	17	107	1	125	193
30-45	0	0	0	0	3	0	11	14	6	26	0	32	24	106	0	130	176
45-00	1	0	0	1	4	0	12	16	5	32	2	39	32	137	0	169	225
08:00-15	0	0	0	0	5	0	12	17	7	36	0	43	48	127	0	175	235
15-30	2	0	1	3	5	0	11	16	11	26	1	38	36	150	4	190	247
30-45	2	1	0	3	5	0	13	18	9	35	0	44	38	131	3	172	237
45-00	4	0	2	6	6	0	14	20	6	46	2	54	51	149	6	206	286
09:00-15	5	2	0	7	5	0	14	19	4	40	1	45	39	148	5	192	263
15-30	2	0	6	8	6	0	10	16	6	49	4	59	25	131	4	160	243
AM 3 HOUR TOTALS	18	3	9	30	52	0	151	203	75	406	10	491	377	1436	24	1837	2561
1 HOUR TOTALS																	
630-730	2	0	0	2	13	0	54	67	21	116	0	137	84	357	2	443	649
645-745	2	0	0	2	14	0	55	69	24	117	0	141	90	397	1	488	700
07-08	3	0	0	3	14	0	55	69	23	124	2	149	100	431	1	532	753
715-815	2	0	0	2	14	0	55	69	24	133	2	159	121	477	1	599	829
730-830	3	0	1	4	17	0	46	63	29	120	3	152	140	520	4	664	883
745-845	5	1	1	7	19	0	48	67	32	129	3	164	154	545	7	706	944
08-09	8	1	3	12	21	0	50	71	33	143	3	179	173	557	13	743	1005
815-915	13	3	3	19	21	0	52	73	30	147	4	181	164	578	18	760	1033
830-930	13	3	8	24	22	0	51	73	25	170	7	202	153	559	18	730	1029
PEAK HOUR 815-915	13	3	3	19	21	0	52	73	30	147	4	181	164	578	18	760	1033
PM																	
04:00-15	3	1	1	5	11	0	35	46	6	76	1	83	6	75	2	83	217
15-30	2	0	0	2	9	0	39	48	4	72	3	79	4	74	1	79	208
30-45	0	2	2	4	13	0	37	50	6	99	3	108	10	77	1	88	250
45-00	0	0	2	2	14	0	49	63	5	86	1	92	9	74	1	84	241
05:00-15	3	0	1	4	19	0	40	59	7	88	0	95	11	79	3	93	251
15-30	0	1	3	4	18	0	53	71	5	114	2	121	10	97	2	109	305
30-45	1	1	2	4	9	0	45	54	5	88	1	94	11	84	2	97	249
45-00	1	1	1	3	13	0	35	48	3	95	1	99	16	91	1	108	258
06:00-15	1	0	5	6	9	0	44	53	11	92	1	104	9	88	3	100	263
15-30	0	0	1	1	20	0	42	62	7	89	1	97	11	72	3	86	246
30-45	1	1	2	4	16	0	31	47	5	82	1	88	12	94	5	111	250
45-00	1	0	1	2	18	0	38	56	3	85	0	88	16	68	4	88	234
PM 3 HOUR TOTALS	13	7	21	41	169	0	488	657	67	1066	15	1148	125	973	28	1126	2972
1 HOUR TOTALS																	
04-05	5	3	5	13	47	0	160	207	21	333	8	362	29	300	5	334	916
415-515	5	2	5	12	55	0	165	220	22	345	7	374	34	304	6	344	950
430-530	3	3	8	14	64	0	179	243	23	387	6	416	40	327	7	374	1047
445-545	4	2	8	14	60	0	187	247	22	376	4	402	41	334	8	383	1046
05-06	5	3	7	15	59	0	173	232	20	385	4	409	48	351	8	407	1063
515-615	3	3	11	17	49	0	177	226	24	389	5	418	46	360	8	414	1075
530-630	3	2	9	14	51	0	166	217	26	364	4	394	47	335	9	391	1016
545-645	3	2	9	14	58	0	152	210	26	358	4	388	48	345	12	405	1017
06-07	3	1	9	13	63	0	155	218	26	348	3	377	48	322	15	385	993
PEAK HOUR 515-615	3	3	11	17	49	0	177	226	24	389	5	418	46	360	8	414	1075

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Discovery Place / Dixon Ave
and: Wayne Ave
Counted by: PWC & HS

Location: Montgomery Co
Date: 4/28/09 Day: Tuesday
Weather: Clear
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	31	27	11	11	19	34	9	26	168
45-00	15	27	15	12	27	29	6	14	145
07:00-15	27	24	11	12	20	58	8	26	186
15-30	12	78	11	13	23	51	16	38	242
30-45	20	45	6	11	42	52	18	39	233
45-00	23	55	15	11	30	43	12	32	221
08:00-15	19	42	23	9	56	45	20	25	239
15-30	18	40	15	20	44	43	15	48	243
30-45	13	55	8	11	43	39	21	17	207
45-00	29	67	15	10	59	16	12	12	220
09:00-15	16	40	14	26	58	25	10	4	193
15-30	12	34	16	12	53	22	11	14	173
AM 3 HOUR TOTALS	235	534	159	158	474	457	158	295	2470
1 HOUR TOTALS									
630-730	85	156	48	48	89	172	39	104	741
645-745	74	174	43	48	112	190	48	117	806
07-08	82	202	43	47	115	204	54	135	882
715-815	74	220	55	44	151	191	66	134	935
730-830	80	182	59	51	172	183	65	144	936
745-845	73	192	61	51	173	170	68	122	910
08-09	79	204	61	50	202	143	68	102	909
815-915	76	202	52	67	204	123	58	81	863
830-930	70	196	52	59	213	102	54	47	793
PEAK HOUR 730-830	80	182	59	51	172	183	65	144	936
PM									
04:00-15	19	40	12	8	65	15	11	6	176
15-30	25	27	11	17	64	45	24	6	219
30-45	28	45	18	18	72	39	38	20	278
45-00	29	27	11	18	62	32	22	14	215
05:00-15	23	40	15	16	68	40	15	12	229
15-30	16	51	18	13	91	49	19	14	271
30-45	26	39	19	12	56	72	11	15	250
45-00	32	28	16	13	67	32	21	12	221
06:00-15	24	38	7	10	79	47	12	10	227
15-30	29	36	12	12	72	39	15	10	225
30-45	24	29	12	10	63	32	12	8	190
45-00	19	27	6	6	58	28	11	6	165
PM 3 HOUR TOTALS	294	427	159	155	817	470	211	133	2666
1 HOUR TOTALS									
04-05	101	139	52	61	263	131	95	46	888
415-515	105	139	55	69	266	156	99	52	941
430-530	96	163	62	65	293	160	94	60	993
445-545	94	157	63	59	277	193	67	55	965
05-06	97	158	68	54	282	193	66	53	971
515-615	98	156	60	48	293	200	63	51	969
530-630	111	141	54	47	274	190	59	47	923
545-645	109	131	47	45	281	150	60	40	863
06-07	96	130	39	40	272	146	50	34	807
PEAK HOUR 430-530	96	163	62	65	293	160	94	60	993

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Georgia Ave
and: Colesville Rd
Counted by: BM & EZ

Location: Montgomery Co
Date: 4/28/09
Weather: Clear
Entered by: CFC

Day: Tuesday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Georgia Ave				TRAFFIC FROM SOUTH on: Georgia Ave				TRAFFIC FROM WEST on: Colesville Rd				TRAFFIC FROM EAST on: Colesville Rd				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	11	254	0	265	0	103	31	134	4	44	0	48	172	313	11	496	943
45-00	8	227	0	235	0	189	33	222	3	31	0	34	151	302	10	463	954
07:00-15	14	295	0	309	0	166	47	213	8	91	0	99	128	301	15	444	1065
15-30	10	275	0	285	0	196	54	250	7	75	0	82	139	312	15	466	1083
30-45	13	301	0	314	0	211	35	246	6	100	0	106	163	340	11	514	1180
45-00	26	322	3	351	0	223	63	286	9	104	0	113	141	307	11	459	1209
08:00-15	8	321	0	329	0	226	48	274	11	142	1	154	145	320	13	478	1235
15-30	7	310	1	318	0	229	70	299	10	122	3	135	136	301	11	448	1200
30-45	7	288	0	295	0	213	53	266	7	111	0	118	145	368	10	523	1202
45-00	13	297	0	310	0	222	24	246	11	92	0	103	153	306	12	471	1130
09:00-15	15	266	0	281	0	197	36	233	8	103	1	112	171	310	16	497	1123
15-30	15	330	0	345	0	208	43	251	17	102	0	119	144	340	10	494	1209
AM 3 HOUR TOTALS	147	3486	4	3637	0	2383	537	2920	101	1117	5	1223	1788	3820	145	5753	13533
1 HOUR TOTALS																	
630-730	43	1051	0	1094	0	654	165	819	22	241	0	263	590	1228	51	1869	4045
645-745	45	1098	0	1143	0	762	169	931	24	297	0	321	581	1255	51	1887	4282
07-08	63	1193	3	1259	0	796	199	995	30	370	0	400	571	1260	52	1883	4537
715-815	57	1219	3	1279	0	856	200	1056	33	421	1	455	588	1279	50	1917	4707
730-830	54	1254	4	1312	0	889	216	1105	36	468	4	508	585	1268	46	1899	4824
745-845	48	1241	4	1293	0	891	234	1125	37	479	4	520	567	1296	45	1908	4846
08-09	35	1216	1	1252	0	890	195	1085	39	467	4	510	579	1295	46	1920	4767
815-915	42	1161	1	1204	0	861	183	1044	36	428	4	468	605	1285	49	1939	4655
830-930	50	1181	0	1231	0	840	156	996	43	408	1	452	613	1324	48	1985	4664
PEAK HOUR 745-845	48	1241	4	1293	0	891	234	1125	37	479	4	520	567	1296	45	1908	4846
PM																	
04:00-15	11	218	0	229	0	264	139	403	10	277	0	287	50	102	18	170	1089
15-30	12	214	0	226	0	289	131	420	8	247	2	257	39	67	11	117	1020
30-45	14	163	0	177	0	239	161	400	10	336	2	348	72	103	11	186	1111
45-00	7	183	0	190	0	283	172	455	7	342	6	355	74	97	10	181	1181
05:00-15	6	224	0	230	0	288	168	456	17	329	2	348	76	102	10	188	1222
15-30	8	237	0	245	0	317	105	422	11	315	0	326	58	122	11	192	1185
30-45	14	194	1	209	0	316	141	457	14	339	1	354	57	110	13	180	1200
45-00	18	236	0	254	0	330	132	462	22	298	0	320	62	89	16	167	1203
06:00-15	10	200	3	213	0	297	119	416	10	312	0	322	64	96	10	190	1141
15-30	10	246	1	257	0	298	98	396	13	329	5	347	65	79	16	160	1160
30-45	14	179	0	193	0	270	93	363	17	322	1	340	61	120	10	191	1087
45-00	8	213	0	221	0	325	108	433	16	259	0	275	66	51	10	127	1056
PM 3 HOUR TOTALS	132	2507	5	2644	0	3516	1567	5083	155	3705	19	3879	765	1138	146	2049	13655
1 HOUR TOTALS																	
04-05	44	778	0	822	0	1075	603	1678	35	1202	10	1247	235	369	50	654	4401
415-515	39	784	0	823	0	1099	632	1731	42	1254	12	1308	261	369	42	672	4534
430-530	35	807	0	842	0	1127	606	1733	45	1322	10	1377	281	424	42	747	4699
445-545	35	838	1	874	0	1204	586	1790	49	1325	9	1383	266	431	44	741	4788
05-06	46	891	1	938	0	1251	546	1797	64	1281	3	1348	254	423	50	727	4810
515-615	50	867	4	921	0	1260	497	1757	57	1264	1	1322	262	417	50	729	4729
530-630	52	876	5	933	0	1241	490	1731	59	1278	6	1343	268	374	55	697	4704
545-645	52	861	4	917	0	1195	442	1637	62	1261	6	1329	272	384	52	708	4591
06-07	42	838	4	884	0	1190	418	1608	56	1222	6	1284	276	346	46	668	4444
PEAK HOUR 05-06	46	891	1	938	0	1251	546	1797	64	1281	3	1348	254	423	50	727	4810

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Georgia Ave
and: Colesville Rd
Counted by: BM & EZ

Location: Montgomery Co
Date: 4/28/09 Day: Tuesday
Weather: Clear
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	4	7	3	5	6	10	3	5	43
45-00	3	13	9	13	12	12	2	7	71
07:00-15	6	15	6	5	5	21	6	14	78
15-30	2	6	4	10	11	27	7	4	71
30-45	6	8	8	6	12	31	3	12	90
45-00	9	15	5	8	16	23	7	17	100
08:00-15	6	14	6	5	17	22	7	5	82
15-30	14	32	7	8	22	20	10	10	123
30-45	22	36	8	11	20	54	17	12	180
45-00	22	15	15	15	29	28	12	9	145
09:00-15	15	14	13	16	49	25	8	16	156
15-30	15	17	9	5	26	26	10	21	131
AM 3 HOUR TOTALS	126	192	93	109	225	301	92	132	1270
1 HOUR TOTALS									
630-730	15	41	22	33	34	70	18	30	263
645-745	19	42	27	36	40	91	18	37	310
07-08	25	44	23	31	44	102	23	47	339
715-815	25	43	23	31	56	103	24	38	343
730-830	37	69	26	29	67	96	27	44	395
745-845	51	97	26	32	75	119	41	44	485
08-09	64	97	36	39	88	124	46	36	530
815-915	73	97	43	50	120	127	47	47	604
830-930	74	82	45	47	124	135	47	58	612
PEAK HOUR 830-930	74	82	45	47	124	135	47	58	612
PM									
04:00-15	15	10	13	25	41	19	20	19	162
15-30	25	16	8	19	36	22	16	19	161
30-45	11	19	17	23	44	32	16	20	182
45-00	38	12	18	21	35	30	8	16	178
05:00-15	23	18	7	22	43	22	24	24	183
15-30	29	16	24	20	68	33	21	31	244
30-45	39	19	13	27	66	37	14	23	238
45-00	31	24	20	19	72	39	25	44	274
06:00-15	23	21	8	23	81	28	25	20	229
15-30	20	11	7	17	94	37	17	21	224
30-45	29	6	15	13	47	45	24	25	204
45-00	29	19	19	13	97	24	18	26	245
PM 3 HOUR TOTALS	312	193	169	242	724	368	228	288	2524
1 HOUR TOTALS									
04-05	89	57	56	88	156	103	60	74	683
415-515	97	65	50	85	158	106	64	79	704
430-530	101	67	66	86	190	117	69	91	787
445-545	129	67	62	90	212	122	67	94	843
05-06	122	79	64	88	249	131	84	122	939
515-615	122	82	65	89	287	137	85	118	985
530-630	113	75	48	86	313	141	81	108	965
545-645	103	62	50	72	294	149	91	110	931
06-07	101	57	49	66	319	134	84	92	902
PEAK HOUR 515-615	122	82	65	89	287	137	85	118	985

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Fenton St
and: Ellsworth Dr
Counted by: LK

Location: Montgomery Co
Date: 4/16/09
Weather: Clear
Entered by: CFC

Day: Thursday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Fenton St				TRAFFIC FROM SOUTH on: Fenton St				TRAFFIC FROM WEST on: Ellsworth Dr				TRAFFIC FROM EAST on: Ellsworth Dr				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	3	22	2	27	1	31	3	35	0	0	0	0	9	0	0	9	71
45-00	3	29	3	35	4	26	2	32	0	0	0	0	3	3	3	9	76
07:00-15	1	49	2	52	4	49	5	58	0	3	0	3	3	3	4	10	123
15-30	6	70	0	76	3	38	2	43	1	3	0	4	9	3	2	14	137
30-45	4	59	1	64	3	53	8	64	3	1	0	4	6	4	2	12	144
45-00	4	67	4	75	4	55	4	63	0	0	0	0	11	8	5	24	162
08:00-15	5	82	1	88	5	75	7	87	0	1	2	3	8	3	4	15	193
15-30	5	70	1	76	6	71	5	82	2	2	0	4	7	3	1	11	173
30-45	5	68	4	77	5	69	4	78	4	1	2	7	13	3	4	20	182
45-00	6	75	3	84	6	81	8	95	1	0	1	2	11	2	1	14	195
09:00-15	5	92	4	101	9	92	15	116	1	2	0	3	14	2	0	16	236
15-30	8	74	5	87	2	92	6	100	0	0	0	0	11	8	1	20	207
AM 3 HOUR TOTALS	55	757	30	842	52	732	69	853	12	13	5	30	105	42	27	174	1899
1 HOUR TOTALS																	
630-730	13	170	7	190	12	144	12	168	1	6	0	7	24	9	9	42	407
645-745	14	207	6	227	14	166	17	197	4	7	0	11	21	13	11	45	480
07-08	15	245	7	267	14	195	19	228	4	7	0	11	29	18	13	60	566
715-815	19	278	6	303	15	221	21	257	4	5	2	11	34	18	13	65	636
730-830	18	278	7	303	18	254	24	296	5	4	2	11	32	18	12	62	672
745-845	19	287	10	316	20	270	20	310	6	4	4	14	39	17	14	70	710
08-09	21	295	9	325	22	296	24	342	7	4	5	16	39	11	10	60	743
815-915	21	305	12	338	26	313	32	371	8	5	3	16	45	10	6	61	786
830-930	24	309	16	349	22	334	33	389	6	3	3	12	49	15	6	70	820
PEAK HOUR 830-930	24	309	16	349	22	334	33	389	6	3	3	12	49	15	6	70	820
PM																	
04:00-15	8	64	5	77	7	68	20	95	8	3	2	13	9	7	10	26	211
15-30	9	87	6	102	6	85	18	109	4	1	7	12	20	9	11	40	263
30-45	8	81	11	100	6	109	21	136	2	6	1	9	20	4	8	32	277
45-00	9	84	11	104	4	74	32	110	1	3	3	7	10	7	11	28	249
05:00-15	7	74	13	94	3	111	16	130	1	3	6	10	11	6	13	30	264
15-30	8	78	13	99	5	91	19	115	4	2	1	7	18	4	13	35	256
30-45	12	91	11	114	4	86	24	114	5	3	3	11	12	5	10	27	266
45-00	14	92	15	121	6	91	28	125	6	6	9	21	15	5	11	31	298
06:00-15	14	71	8	93	6	96	29	131	1	4	0	5	21	11	10	42	271
15-30	12	74	15	101	5	85	32	122	7	6	4	17	23	3	10	36	276
30-45	9	80	13	102	4	98	30	132	3	9	3	15	23	7	9	39	288
45-00	16	72	9	97	4	100	22	126	0	5	3	8	21	9	20	50	281
PM 3 HOUR TOTALS	126	948	130	1204	60	1094	291	1445	42	51	42	135	203	77	136	416	3200
1 HOUR TOTALS																	
04-05	34	316	33	383	23	336	91	450	15	13	13	41	59	27	40	126	1000
415-515	33	326	41	400	19	379	87	485	8	13	17	38	61	26	43	130	1053
430-530	32	317	48	397	18	385	88	491	8	14	11	33	59	21	45	125	1046
445-545	36	327	48	411	16	362	91	469	11	11	13	35	51	22	47	120	1035
05-06	41	335	52	428	18	379	87	484	16	14	19	49	56	20	47	123	1084
515-615	48	332	47	427	21	364	100	485	16	15	13	44	66	25	44	135	1091
530-630	52	328	49	429	21	358	113	492	19	19	16	54	71	24	41	136	1111
545-645	49	317	51	417	21	370	119	510	17	25	16	58	82	26	40	148	1133
06-07	51	297	45	393	19	379	113	511	11	24	10	45	88	30	49	167	1116
PEAK HOUR 545-645	49	317	51	417	21	370	119	510	17	25	16	58	82	26	40	148	1133

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Fenton St
and: Ellsworth Dr
Counted by: LK

Location: Montgomery Co
Date: 4/16/09 Day: Thursday
Weather: Clear
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	2	4	2	4	2	2	1	1	18
45-00	4	11	4	5	0	0	2	2	28
07:00-15	3	12	7	6	1	4	3	2	38
15-30	9	5	5	4	0	9	1	5	42
30-45	4	8	6	3	4	5	1	4	35
45-00	6	3	4	4	2	2	4	3	28
08:00-15	6	14	3	7	8	9	3	4	56
15-30	4	11	2	6	6	9	2	3	43
30-45	6	17	2	5	8	11	4	2	55
45-00	8	13	3	7	5	9	5	3	53
09:00-15	9	19	4	8	5	7	2	1	55
15-30	10	20	5	6	7	12	2	3	65
AM 3 HOUR TOTALS	73	141	47	65	48	79	30	33	516
1 HOUR TOTALS									
630-730	18	36	18	19	3	15	7	10	126
645-745	20	40	22	18	5	18	7	13	143
07-08	22	32	22	17	7	20	9	14	143
715-815	27	34	18	18	14	25	9	16	161
730-830	22	36	15	20	20	25	10	14	162
745-845	24	45	11	22	24	31	13	12	182
08-09	26	55	10	25	27	38	14	12	207
815-915	27	60	11	26	24	36	13	9	206
830-930	33	69	14	26	25	39	13	9	228
PEAK HOUR 830-930	33	69	14	26	25	39	13	9	228
PM									
04:00-15	71	43	5	5	43	46	4	15	232
15-30	61	55	6	10	53	65	6	22	278
30-45	58	55	8	4	47	53	8	16	249
45-00	56	46	10	3	54	80	8	15	272
05:00-15	57	70	8	15	48	54	10	19	279
15-30	48	50	6	6	42	46	12	18	228
30-45	43	51	6	5	43	43	5	25	221
45-00	49	57	7	4	56	57	4	16	250
06:00-15	54	80	10	6	69	47	15	24	305
15-30	56	68	12	10	65	69	14	25	319
30-45	62	77	15	12	66	56	12	19	319
45-00	60	106	19	15	59	74	10	10	353
PM 3 HOUR TOTALS	675	758	112	95	643	690	108	224	3305
1 HOUR TOTALS									
04-05	246	199	29	22	197	244	26	68	1031
415-515	232	226	32	32	200	252	32	72	1078
430-530	219	221	32	28	189	233	38	68	1028
445-545	204	217	30	29	185	223	35	77	1000
05-06	197	228	27	30	187	200	31	78	978
515-615	194	238	29	21	210	193	36	83	1004
530-630	202	256	35	25	233	216	38	90	1095
545-645	221	282	44	32	256	229	45	84	1193
06-07	232	331	56	43	259	246	51	78	1296
PEAK HOUR 06-07	232	331	56	43	259	246	51	78	1296

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Fenton St
and: Bonifant St
Counted by: BM

Location: Montgomery Co
Date: 4/16/09
Weather: Clear
Entered by: CFC

Day: Thursday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Fenton St				TRAFFIC FROM SOUTH on: Fenton St				TRAFFIC FROM WEST on: Bonifant St				TRAFFIC FROM EAST on: Bonifant St				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	0	51	0	51	3	37	1	41	2	2	0	4	1	0	0	1	97
45-00	5	54	2	61	3	57	0	60	0	0	2	2	3	2	3	8	131
07:00-15	3	69	1	73	3	52	1	56	1	1	3	5	2	1	0	3	137
15-30	6	102	2	110	7	65	0	72	1	0	1	2	2	1	3	6	190
30-45	5	111	0	116	6	58	1	65	1	1	1	3	6	1	1	8	192
45-00	3	136	4	142	2	94	0	96	1	0	3	4	1	6	2	9	251
08:00-15	5	132	4	141	5	164	0	169	2	1	4	7	3	2	2	7	324
15-30	4	140	6	150	4	142	1	147	3	1	2	6	1	0	0	1	304
30-45	7	114	3	124	4	71	0	75	2	2	3	7	1	7	0	8	214
45-00	7	113	8	128	5	110	0	115	1	5	1	7	3	4	1	8	258
09:00-15	7	161	8	176	3	115	3	121	1	1	11	13	1	4	1	6	316
15-30	7	116	7	130	6	121	1	128	6	5	14	25	7	9	5	21	304
AM 3 HOUR TOTALS	58	1299	45	1402	51	1086	8	1145	21	19	45	85	31	37	18	86	2718
1 HOUR TOTALS																	
630-730	14	276	5	295	16	211	2	229	4	3	6	13	8	4	6	18	555
645-745	19	336	5	360	19	232	2	253	3	2	7	12	13	5	7	25	650
07-08	16	418	7	441	18	269	2	289	4	2	8	14	11	9	6	26	770
715-815	18	481	10	509	20	381	1	402	5	2	9	16	12	10	8	30	957
730-830	16	519	14	549	17	458	2	477	7	3	10	20	11	9	5	25	1071
745-845	18	522	17	557	15	471	1	487	8	4	12	24	6	15	4	25	1093
08-09	23	499	21	543	18	487	1	506	8	9	10	27	8	13	3	24	1100
815-915	25	528	25	578	16	438	4	458	7	9	17	33	6	15	2	23	1092
830-930	28	504	26	558	18	417	4	439	10	13	29	52	12	24	7	43	1092
PEAK HOUR 08-09	23	499	21	543	18	487	1	506	8	9	10	27	8	13	3	24	1100
PM																	
04:00-15	4	123	10	137	2	150	16	168	7	18	11	36	4	2	2	8	349
15-30	8	144	8	160	3	97	8	108	8	10	18	36	0	3	0	3	307
30-45	7	147	7	161	5	101	18	124	10	6	22	38	3	4	2	9	332
45-00	9	144	7	160	5	91	6	102	12	8	14	34	1	3	4	8	304
05:00-15	5	164	5	174	6	136	24	166	15	13	13	41	0	7	4	11	392
15-30	3	133	12	148	6	108	10	124	5	16	22	43	1	1	2	4	319
30-45	3	131	5	139	2	133	19	154	3	16	20	39	2	2	5	9	341
45-00	2	123	7	132	6	111	9	126	5	8	8	21	4	2	4	10	289
06:00-15	4	146	5	155	2	157	7	166	5	16	13	34	3	4	10	17	372
15-30	4	134	5	143	13	127	15	155	10	16	11	37	1	5	8	14	349
30-45	1	112	9	122	10	151	16	177	7	17	13	37	3	5	0	8	344
45-00	6	145	9	160	9	134	16	159	15	17	8	40	5	5	5	15	374
PM 3 HOUR TOTALS	56	1646	89	1791	69	1496	164	1729	102	161	173	436	27	43	46	116	4072
1 HOUR TOTALS																	
04-05	28	558	32	618	15	439	48	502	37	42	65	144	8	12	8	28	1292
415-515	29	599	27	655	19	425	56	500	45	37	67	149	4	17	10	31	1335
430-530	24	588	31	643	22	436	58	516	42	43	71	156	5	15	12	32	1347
445-545	20	572	29	621	19	468	59	546	35	53	69	157	4	13	15	32	1356
05-06	13	551	29	593	20	488	62	570	28	53	63	144	7	12	15	34	1341
515-615	12	533	29	574	16	509	45	570	18	56	63	137	10	9	21	40	1321
530-630	13	534	22	569	23	528	50	601	23	56	52	131	10	13	27	50	1351
545-645	11	515	26	552	31	546	47	624	27	57	45	129	11	16	22	49	1354
06-07	15	537	28	580	34	569	54	657	37	66	45	148	12	19	23	54	1439
PEAK HOUR 06-07	15	537	28	580	34	569	54	657	37	66	45	148	12	19	23	54	1439

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Fenton St
and: Bonifant St
Counted by: BM

Location: Montgomery Co
Date: 4/16/09 Day: Thursday
Weather: Clear
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	1	0	1	1	1	1	5	1	11
45-00	1	3	2	0	1	2	5	0	14
07:00-15	2	10	1	0	1	4	9	1	28
15-30	4	2	0	1	2	2	5	2	18
30-45	0	15	1	3	1	6	5	4	35
45-00	0	14	2	2	2	8	8	3	39
08:00-15	1	10	9	1	3	6	12	3	45
15-30	1	16	8	2	4	5	1	4	41
30-45	3	14	4	1	2	10	7	1	42
45-00	1	15	8	1	1	8	6	1	39
09:00-15	2	19	5	3	1	5	9	2	46
15-30	1	13	9	5	2	7	8	4	49
AM 3 HOUR TOTALS	17	131	48	20	21	64	80	26	407
1 HOUR TOTALS									
630-730	8	15	4	2	5	9	24	4	71
645-745	7	30	4	4	5	14	24	7	95
07-08	6	41	4	6	6	20	27	10	120
715-815	5	41	12	7	8	22	30	12	137
730-830	2	55	20	8	10	25	26	14	160
745-845	5	54	23	6	11	29	28	11	167
08-09	6	55	27	5	10	29	26	9	167
815-915	7	64	23	7	8	28	23	8	168
830-930	7	61	24	10	6	30	30	8	176
PEAK HOUR 830-930	7	61	24	10	6	30	30	8	176
PM									
04:00-15	9	1	9	3	5	1	15	26	69
15-30	6	1	10	4	6	2	18	22	69
30-45	6	0	12	5	4	1	16	23	67
45-00	4	4	6	6	5	0	18	13	56
05:00-15	2	6	7	2	2	2	22	28	71
15-30	2	0	6	5	2	3	13	25	56
30-45	7	0	5	2	4	1	5	10	34
45-00	6	2	8	5	3	2	13	10	49
06:00-15	14	5	11	7	6	2	13	8	66
15-30	10	1	10	6	5	1	16	20	71
30-45	8	0	6	4	5	1	12	13	51
45-00	6	1	6	3	8	0	15	14	53
PM 3 HOUR TOTALS	80	21	98	52	55	16	178	212	712
1 HOUR TOTALS									
04-05	25	6	37	18	20	4	67	84	261
415-515	18	11	35	17	17	5	74	86	263
430-530	14	10	31	18	13	6	69	89	250
445-545	15	10	24	15	13	6	58	76	217
05-06	17	8	26	14	11	8	53	73	210
515-615	29	7	30	19	15	8	44	53	205
530-630	37	8	34	20	18	6	49	48	220
545-645	36	8	37	22	19	6	56	51	237
06-07	38	7	35	20	24	4	58	55	241
PEAK HOUR 415-515	18	11	35	17	17	5	74	86	263

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Fenton St
and: Thayer Ave
Counted by: PWC

Location: Montgomery Co
Date: 4/16/09
Weather: Clear
Entered by: CFC

Day: Thursday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Fenton St				TRAFFIC FROM SOUTH on: Fenton St				TRAFFIC FROM WEST on: Thayer Ave				TRAFFIC FROM EAST on: Thayer Ave				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	4	42	3	49	6	39	1	46	3	5	1	9	1	6	3	10	114
45-00	1	60	0	61	5	39	0	44	5	3	0	8	1	7	2	10	123
07:00-15	2	35	1	38	6	34	1	43	1	1	0	2	0	5	3	8	91
15-30	3	82	2	87	5	49	0	54	4	1	1	6	1	9	7	17	164
30-45	1	91	1	93	7	56	1	64	1	4	2	7	2	4	1	7	171
45-00	9	114	0	123	10	79	2	91	10	5	2	17	2	10	4	16	247
08:00-15	6	124	4	134	17	70	2	89	2	7	0	9	4	10	11	25	257
15-30	7	116	4	127	9	86	4	99	5	3	2	10	4	17	5	26	262
30-45	5	130	2	137	19	78	0	97	9	9	4	22	4	16	3	23	279
45-00	5	105	2	112	12	88	5	105	3	7	4	14	5	14	5	24	255
09:00-15	6	133	4	143	7	104	2	113	4	10	14	28	1	15	7	23	307
15-30	6	108	8	122	12	137	4	153	8	8	17	33	3	8	5	16	324
AM 3 HOUR TOTALS	55	1140	31	1226	117	859	22	998	55	63	47	165	28	121	56	205	2594
1 HOUR TOTALS																	
630-730	10	219	6	235	24	161	2	187	13	10	2	25	3	27	15	45	492
645-745	7	268	4	279	25	178	2	205	11	9	3	23	4	25	13	42	549
07-08	15	322	4	341	30	218	4	252	16	11	5	32	5	28	15	48	673
715-815	19	411	7	437	39	254	5	298	17	17	5	39	9	33	23	65	839
730-830	23	445	9	477	43	291	9	343	18	19	6	43	12	41	21	74	937
745-845	27	484	10	521	55	313	8	376	26	24	8	58	14	53	23	90	1045
08-09	23	475	12	510	57	322	11	390	19	26	10	55	17	57	24	98	1053
815-915	23	484	12	519	47	356	11	414	21	29	24	74	14	62	20	96	1103
830-930	22	476	16	514	50	407	11	468	24	34	39	97	13	53	20	86	1165
PEAK HOUR 830-930	22	476	16	514	50	407	11	468	24	34	39	97	13	53	20	86	1165
PM																	
04:00-15	13	89	2	114	15	115	6	136	7	11	9	27	3	6	3	12	289
15-30	12	99	8	119	10	124	8	142	9	16	10	37	2	7	2	11	309
30-45	9	123	9	141	9	141	4	154	19	21	14	54	2	8	4	14	363
45-00	9	128	5	142	19	136	7	162	14	15	8	37	2	7	3	12	353
05:00-15	7	143	7	157	15	137	6	158	13	16	9	38	4	4	1	9	362
15-30	4	96	12	112	10	136	12	158	8	33	21	62	5	9	3	17	349
30-45	15	115	4	134	20	160	1	181	15	18	17	50	1	12	4	17	382
45-00	6	115	7	128	8	142	5	155	8	23	14	45	1	3	3	7	335
06:00-15	13	84	7	104	17	135	8	160	14	17	15	46	1	5	5	11	321
15-30	10	85	8	103	18	128	5	151	14	16	21	51	4	6	1	11	316
30-45	10	86	5	101	16	128	5	149	14	16	15	45	2	5	2	9	304
45-00	7	84	7	98	11	122	4	137	9	15	9	33	1	4	1	6	274
PM 3 HOUR TOTALS	115	1257	81	1453	168	1604	71	1843	144	219	162	525	28	76	32	136	3957
1 HOUR TOTALS																	
04-05	43	449	24	516	53	516	25	594	49	65	41	155	9	28	12	49	1314
415-515	37	493	29	559	53	538	25	616	55	70	41	166	10	26	10	46	1387
430-530	29	490	33	552	53	550	29	632	54	85	52	191	13	28	11	52	1427
445-545	35	482	28	545	64	569	26	659	50	82	55	187	12	32	11	55	1446
05-06	32	469	30	531	53	575	24	652	44	90	61	195	11	28	11	50	1428
515-615	38	410	30	478	55	573	26	654	45	91	67	203	8	29	15	52	1387
530-630	44	399	26	469	63	565	19	647	51	74	67	192	7	26	13	46	1354
545-645	39	370	27	436	59	533	23	615	50	72	65	187	8	19	11	38	1276
06-07	40	339	27	406	62	513	22	597	51	64	60	175	8	20	9	37	1215
PEAK HOUR 445-545	35	482	28	545	64	569	26	659	50	82	55	187	12	32	11	55	1446

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Fenton St
and: Thayer Ave
Counted by: PWC

Location: Montgomery Co
Date: 4/16/09 Day: Thursday
Weather: Clear
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	0	5	1	1	0	0	1	2	10
45-00	0	8	2	0	1	0	2	1	14
07:00-15	0	5	0	0	0	1	0	4	10
15-30	1	7	0	1	0	2	1	6	18
30-45	0	10	0	1	0	1	0	3	15
45-00	6	13	5	3	0	2	2	5	36
08:00-15	1	5	1	4	1	2	2	6	22
15-30	1	10	1	2	0	0	1	1	16
30-45	2	18	5	1	0	0	1	6	33
45-00	1	14	8	6	0	0	4	5	38
09:00-15	4	7	5	1	0	0	2	3	22
15-30	0	5	4	0	0	0	2	3	14
AM									
3 HOUR									
TOTALS	16	107	32	20	2	8	18	45	248
1 HOUR									
TOTALS									
630-730	1	25	3	2	1	3	4	13	52
645-745	1	30	2	2	1	4	3	14	57
07-08	7	35	5	5	0	6	3	18	79
715-815	8	35	6	9	1	7	5	20	91
730-830	8	38	7	10	1	5	5	15	89
745-845	10	46	12	10	1	4	6	18	107
08-09	5	47	15	13	1	2	8	18	109
815-915	8	49	19	10	0	0	8	15	109
830-930	7	44	22	8	0	0	9	17	107
PEAK HOUR									
08-09	5	47	15	13	1	2	8	18	109
PM									
04:00-15	4	5	10	4	5	5	7	10	50
15-30	9	1	14	8	8	6	5	9	62
30-45	5	6	9	3	1	0	2	7	33
45-00	2	1	7	3	3	9	5	14	44
05:00-15	5	0	6	5	0	6	15	8	45
15-30	9	5	10	3	4	1	3	14	49
30-45	4	2	7	4	6	2	8	11	44
45-00	1	1	6	5	3	2	2	6	26
06:00-15	12	7	11	8	2	2	8	3	53
15-30	9	5	4	10	5	2	6	13	54
30-45	4	2	6	5	3	2	6	6	34
45-00	2	1	4	5	2	1	2	3	20
PM									
3 HOUR									
TOTALS	66	36	94	63	42	40	69	104	514
1 HOUR									
TOTALS									
04-05	20	13	40	18	17	22	19	40	189
415-515	21	8	36	19	12	23	27	38	184
430-530	21	12	32	14	8	16	25	43	171
445-545	20	8	30	15	13	18	31	47	182
05-06	19	8	29	17	13	11	28	39	164
515-615	26	15	34	20	15	7	21	34	172
530-630	26	15	28	27	16	8	24	33	177
545-645	26	15	27	28	13	8	22	28	167
06-07	27	15	25	28	12	7	22	25	161
PEAK HOUR									
04-05	20	13	40	18	17	22	19	40	189

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Fenton St
and: Silver Spring Ave
Counted by: LK

Location: Montgomery Co
Date: 4/16/09
Weather: Clear
Entered by: CFC

Day: Thursday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Fenton St				TRAFFIC FROM SOUTH on: Fenton St				TRAFFIC FROM WEST on: Silver Spring Ave				TRAFFIC FROM EAST on: Silver Spring Ave				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	1	45	0	46	3	45	1	49	1	2	1	4	0	2	0	2	101
45-00	2	60	2	64	7	44	1	52	5	1	0	6	0	3	2	5	127
07:00-15	2	59	1	62	4	51	4	59	5	1	0	6	1	5	1	7	134
15-30	6	92	0	98	4	59	1	64	2	2	2	6	2	11	2	15	183
30-45	3	127	0	130	4	67	2	73	9	5	2	16	3	10	1	14	233
45-00	5	136	1	142	14	79	2	95	11	2	5	18	2	7	1	10	265
08:00-15	7	126	1	134	15	88	2	105	9	7	9	25	3	7	4	14	278
15-30	9	108	2	119	10	113	3	126	10	4	8	22	4	12	4	20	287
30-45	7	107	0	114	8	102	5	115	15	2	1	18	2	6	2	10	257
45-00	11	104	4	119	13	101	2	116	9	9	5	23	5	8	7	20	278
09:00-15	2	123	4	129	7	96	9	112	9	9	4	22	4	12	5	21	284
15-30	9	119	3	131	7	116	5	130	5	4	1	10	0	7	10	17	288
AM 3 HOUR TOTALS	64	1206	18	1288	96	963	37	1096	90	48	38	176	26	90	39	155	2715
1 HOUR TOTALS																	
630-730	11	256	3	270	18	199	7	224	13	6	3	22	3	21	5	29	545
645-745	13	338	3	354	19	221	8	248	21	9	4	34	6	29	6	41	677
07-08	16	414	2	432	26	256	9	291	27	10	9	46	8	33	5	46	815
715-815	21	481	2	504	37	293	7	337	31	16	18	65	10	35	8	53	959
730-830	24	497	4	525	43	347	9	399	39	18	24	81	12	36	10	58	1063
745-845	28	477	4	509	47	382	12	441	45	15	23	83	11	32	11	54	1087
08-09	34	445	7	486	46	404	12	462	43	22	23	88	14	33	17	64	1100
815-915	29	442	10	481	38	412	19	469	43	24	18	85	15	38	18	71	1106
830-930	29	453	11	493	35	417	21	473	38	24	11	73	11	33	24	68	1107
PEAK HOUR 830-930	29	453	11	493	35	417	21	473	38	24	11	73	11	33	24	68	1107
PM																	
04:00-15	4	98	2	104	16	94	12	122	20	12	16	48	1	8	1	10	284
15-30	6	102	3	111	8	98	10	116	17	22	18	57	4	2	4	10	294
30-45	5	146	6	157	7	140	10	157	13	23	30	66	1	4	3	8	388
45-00	10	120	1	131	18	130	14	162	9	17	21	47	1	7	1	9	349
05:00-15	5	114	4	123	8	90	9	107	10	25	33	68	2	2	1	5	303
15-30	5	106	5	116	14	114	10	138	13	27	31	71	2	3	4	9	334
30-45	7	102	1	110	5	122	7	134	9	18	32	59	3	2	2	7	310
45-00	3	126	8	137	15	130	13	158	10	24	33	67	1	3	4	8	370
06:00-15	9	114	4	127	6	113	14	132	12	16	23	51	1	4	2	7	317
15-30	3	118	3	124	9	133	10	152	13	23	28	64	2	5	2	9	349
30-45	5	101	5	111	5	116	11	132	16	7	18	41	1	4	3	8	292
45-00	9	114	3	126	7	140	4	151	11	10	12	33	4	1	7	12	322
PM 3 HOUR TOTALS	71	1361	45	1477	117	1420	124	1661	153	224	295	672	23	45	34	102	3912
1 HOUR TOTALS																	
04-05	25	466	12	503	49	462	46	557	59	74	85	218	7	21	9	37	1315
415-515	26	482	14	522	41	458	43	542	49	87	102	238	6	15	9	32	1334
430-530	25	486	16	527	47	474	43	564	45	92	115	252	6	16	9	31	1374
445-545	27	442	11	480	45	456	40	541	41	87	117	245	8	14	8	30	1296
05-06	20	448	18	486	42	456	39	537	42	94	129	265	8	10	11	29	1317
515-615	24	448	18	490	39	479	44	562	44	85	119	248	7	12	12	31	1331
530-630	22	460	16	498	34	498	44	576	44	81	116	241	7	14	10	31	1346
545-645	20	459	20	499	34	492	48	574	51	70	102	223	5	16	11	32	1328
06-07	26	447	15	488	26	502	39	567	52	56	81	189	8	14	14	36	1280
PEAK HOUR 430-530	25	486	16	527	47	474	43	564	45	92	115	252	6	16	9	31	1374

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Fenton St
and: Silver Spring Ave
Counted by: LK

Location: Montgomery Co
Date: 4/16/09 Day: Thursday
Weather: Clear
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	0	1	2	1	0	1	0	0	5
45-00	1	0	3	2	0	1	1	0	8
07:00-15	0	1	4	2	0	0	2	1	10
15-30	0	5	6	1	0	3	3	1	19
30-45	2	1	5	3	1	0	2	2	18
45-00	0	3	5	4	1	4	2	3	22
08:00-15	1	3	3	5	2	1	3	2	20
15-30	2	4	2	3	1	2	1	2	17
30-45	0	7	6	5	1	1	4	3	27
45-00	2	5	4	2	1	3	3	1	21
09:00-15	5	3	3	2	0	1	3	2	19
15-30	3	5	1	1	0	1	4	3	18
AM 3 HOUR TOTALS	16	38	44	31	7	18	28	20	202
1 HOUR TOTALS									
630-730	1	7	15	6	0	5	6	2	42
645-745	3	7	18	8	1	4	8	4	53
07-08	2	10	20	10	2	7	9	7	67
715-815	3	12	19	13	4	8	10	8	77
730-830	5	11	15	15	5	7	8	9	75
745-845	3	17	16	17	5	8	10	10	86
08-09	6	19	15	15	5	7	11	8	85
815-915	9	19	15	12	3	7	11	8	84
830-930	10	20	14	10	2	6	14	9	85
PEAK HOUR 745-845	3	17	16	17	5	8	10	10	86
PM									
04:00-15	5	12	12	2	4	2	2	3	42
15-30	6	10	2	6	6	4	4	5	43
30-45	4	6	2	1	10	5	6	2	38
45-00	10	6	3	4	13	4	2	4	46
05:00-15	6	4	2	1	8	9	1	2	33
15-30	8	4	3	1	9	4	1	1	31
30-45	4	2	5	3	10	6	1	4	35
45-00	6	4	2	1	4	4	1	1	25
06:00-15	6	3	0	2	3	5	3	3	25
15-30	8	6	3	2	3	5	3	1	31
30-45	6	4	1	0	2	2	4	1	20
45-00	5	3	2	1	2	3	2	0	18
PM 3 HOUR TOTALS	76	66	37	24	74	53	30	27	387
1 HOUR TOTALS									
04-05	25	36	19	13	33	15	14	14	169
415-515	26	28	9	12	37	22	13	13	160
430-530	28	22	10	7	40	22	10	9	148
445-545	28	16	13	9	40	23	5	11	145
05-06	26	14	12	6	31	23	4	8	124
515-615	26	13	10	7	26	19	6	9	116
530-630	26	15	10	8	20	20	8	9	116
545-645	28	17	6	5	12	16	11	6	101
06-07	25	16	6	5	10	15	12	5	94
PEAK HOUR 04-05	25	36	19	13	33	15	14	14	169

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Ellsworth Dr
and: Spring St / Cedar St
Counted by: RW

Location: Montgomery Co
Date: 4/22/09
Weather: Rain
Entered by: CFC

Day: Wednesday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Ellsworth Dr				TRAFFIC FROM SOUTH on: Ellsworth Dr				TRAFFIC FROM WEST on: Spring St				TRAFFIC FROM EAST on: Cedar St				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	0	1	1	2	2	0	1	3	9	24	0	33	0	11	0	11	49
45-00	1	3	2	6	3	0	2	5	9	12	1	22	1	21	0	22	55
07:00-15	0	0	2	2	2	0	1	3	7	25	0	32	1	23	1	25	62
15-30	0	0	1	1	0	0	2	2	9	24	1	34	2	28	1	31	68
30-45	0	0	2	2	3	0	0	3	9	31	1	41	6	40	1	47	93
45-00	0	3	5	8	7	0	5	12	13	37	1	51	6	42	1	49	120
08:00-15	2	1	4	7	6	0	2	8	13	47	2	62	7	57	3	67	144
15-30	1	8	5	14	4	4	3	11	22	45	1	68	8	57	1	66	159
30-45	0	7	4	11	5	2	2	9	16	36	1	53	7	47	2	56	129
45-00	3	4	2	9	1	0	10	11	21	41	1	63	4	55	1	60	143
09:00-15	0	6	6	12	4	1	3	8	17	50	1	68	11	66	1	78	166
15-30	0	7	11	18	2	0	3	5	21	54	2	77	9	56	0	65	165
AM 3 HOUR TOTALS	7	40	45	92	39	7	34	80	166	426	12	604	62	503	12	577	1353
1 HOUR TOTALS																	
630-730	1	4	6	11	7	0	6	13	34	85	2	121	4	83	2	89	234
645-745	1	3	7	11	8	0	5	13	34	92	3	129	10	112	3	125	278
07-08	0	3	10	13	12	0	8	20	38	117	3	158	15	133	4	152	343
715-815	2	4	12	18	16	0	9	25	44	139	5	188	21	167	6	194	425
730-830	3	12	16	31	20	4	10	34	57	160	5	222	27	196	6	229	516
745-845	3	19	18	40	22	6	12	40	64	165	5	234	28	203	7	238	552
08-09	6	20	15	41	16	6	17	39	72	169	5	246	26	216	7	249	575
815-915	4	25	17	46	14	7	18	39	76	172	4	252	30	225	5	260	597
830-930	3	24	23	50	12	3	18	33	75	181	5	261	31	224	4	259	603
PEAK HOUR 830-930	3	24	23	50	12	3	18	33	75	181	5	261	31	224	4	259	603
PM																	
04:00-15	2	3	9	14	27	3	7	37	13	53	7	73	5	58	9	72	196
15-30	0	6	6	12	24	0	20	44	11	56	3	70	3	64	1	68	194
30-45	0	4	6	10	27	1	10	38	13	56	3	72	7	49	6	62	182
45-00	1	6	4	11	29	0	9	38	12	71	3	86	5	74	2	81	216
05:00-15	2	5	12	19	35	3	19	57	10	62	6	78	6	64	3	73	227
15-30	1	3	6	10	35	0	16	51	17	63	6	86	8	81	3	92	239
30-45	1	5	8	14	43	1	18	62	19	72	1	92	9	90	3	102	270
45-00	1	7	4	12	50	5	13	68	19	60	5	84	15	84	4	103	267
06:00-15	2	4	9	15	38	2	16	56	22	60	6	88	12	76	4	92	251
15-30	0	9	11	20	41	0	14	55	28	58	7	93	8	70	2	80	248
30-45	0	8	9	17	29	3	20	52	43	53	2	98	6	60	4	70	237
45-00	0	2	5	7	18	4	22	44	46	68	2	116	12	68	4	84	251
PM 3 HOUR TOTALS	10	62	89	161	396	22	184	602	253	732	51	1036	96	838	45	979	2778
1 HOUR TOTALS																	
04-05	3	19	25	47	107	4	46	157	49	236	16	301	20	245	18	283	788
415-515	3	21	28	52	115	4	58	177	46	245	15	306	21	251	12	284	819
430-530	4	18	28	50	126	4	54	184	52	252	18	322	26	268	14	308	864
445-545	5	19	30	54	142	4	62	208	58	268	16	342	28	309	11	348	952
05-06	5	20	30	55	163	9	66	238	65	257	18	340	38	319	13	370	1003
515-615	5	19	27	51	166	8	63	237	77	255	18	350	44	331	14	389	1027
530-630	4	25	32	61	172	8	61	241	88	250	19	357	44	320	13	377	1036
545-645	3	28	33	64	158	10	63	231	112	231	20	363	41	290	14	345	1003
06-07	2	23	34	59	126	9	72	207	139	239	17	395	38	274	14	326	987
PEAK HOUR 530-630	4	25	32	61	172	8	61	241	88	250	19	357	44	320	13	377	1036

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Ellsworth Dr
and: Spring St / Cedar St
Counted by: RW

Location: Montgomery Co
Date: 4/22/09 Day: Wednesday
Weather: Rain
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	1	0	0	1	0	0	2	2	6
45-00	1	0	2	2	1	1	1	1	9
07:00-15	0	2	1	5	0	2	3	9	22
15-30	1	2	0	2	1	1	2	7	16
30-45	2	0	1	1	1	0	5	4	14
45-00	0	0	1	4	3	2	2	7	19
08:00-15	1	2	1	2	1	1	1	5	14
15-30	0	1	0	2	0	0	5	8	16
30-45	2	0	0	6	0	2	6	10	26
45-00	0	3	0	5	0	2	2	4	16
09:00-15	0	0	2	1	2	0	1	3	9
15-30	1	0	0	2	0	1	2	4	10
AM 3 HOUR TOTALS	9	10	8	33	9	12	32	64	177
1 HOUR TOTALS									
630-730	3	4	3	10	2	4	8	19	53
645-745	4	4	4	10	3	4	11	21	61
07-08	3	4	3	12	5	5	12	27	71
715-815	4	4	3	9	6	4	10	23	63
730-830	3	3	3	9	5	3	13	24	63
745-845	3	3	2	14	4	5	14	30	75
08-09	3	6	1	15	1	5	14	27	72
815-915	2	4	2	14	2	4	14	25	67
830-930	3	3	2	14	2	5	11	21	61
PEAK HOUR 745-845	3	3	2	14	4	5	14	30	75
PM									
04:00-15	0	1	6	4	0	0	1	1	13
15-30	1	0	1	3	0	2	4	4	15
30-45	2	3	3	3	3	2	2	9	27
45-00	0	1	3	1	2	0	3	3	13
05:00-15	2	3	5	2	3	1	3	2	21
15-30	0	0	7	4	0	3	5	4	23
30-45	0	3	13	2	0	2	12	7	39
45-00	1	2	4	8	1	0	9	13	38
06:00-15	0	0	9	3	2	2	3	5	24
15-30	2	3	12	8	0	3	10	13	49
30-45	3	1	5	5	6	0	3	5	28
45-00	4	4	13	6	0	2	4	3	36
PM 3 HOUR TOTALS	15	21	81	47	17	17	59	69	326
1 HOUR TOTALS									
04-05	3	5	13	11	5	4	10	17	68
415-515	5	7	12	9	8	5	12	18	76
430-530	4	7	18	10	8	6	13	18	84
445-545	2	7	28	9	5	6	23	16	96
05-06	3	8	29	16	4	6	29	26	121
515-615	1	5	33	17	3	7	29	29	124
530-630	3	8	38	19	3	7	34	38	150
545-645	6	6	30	22	9	5	25	36	139
06-07	9	8	39	20	8	7	20	26	137
PEAK HOUR 530-630	3	8	38	19	3	7	34	38	150

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Dale Dr
and: Wayne Ave
Counted by: JA & EZ

Location: Montgomery Co
Date: 4/23/09
Weather: Clear
Entered by: CFC

Day: Thursday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Dale Dr				TRAFFIC FROM SOUTH on: Dale Dr				TRAFFIC FROM WEST on: Wayne Ave				TRAFFIC FROM EAST on: Wayne Ave				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	11	18	2	31	4	31	3	38	0	8	4	12	5	74	21	100	181
45-00	12	29	8	49	5	22	6	33	2	13	2	17	6	107	32	145	244
07:00-15	19	25	17	61	5	38	5	48	1	25	2	28	8	104	22	134	271
15-30	22	64	12	98	7	61	4	72	0	26	8	34	16	152	35	203	407
30-45	21	86	21	128	4	50	6	60	6	26	1	33	17	183	38	238	459
45-00	24	68	8	100	7	59	6	72	3	32	5	40	10	212	39	261	473
08:00-15	42	62	8	112	10	40	5	55	2	41	10	53	13	229	29	271	491
15-30	18	52	14	84	8	44	6	58	10	39	5	54	7	204	23	234	430
30-45	31	57	18	106	6	42	7	55	2	52	6	60	10	204	35	249	470
45-00	30	47	7	84	8	42	6	56	4	40	14	58	10	212	24	246	444
09:00-15	30	46	17	93	18	57	16	91	5	45	6	56	11	147	40	198	438
15-30	20	60	4	84	7	36	4	47	5	42	10	57	13	128	17	158	346
AM 3 HOUR TOTALS	280	614	136	1030	89	522	74	685	40	389	73	502	126	1956	355	2437	4654
1 HOUR TOTALS																	
630-730	64	136	39	239	21	152	18	191	3	72	16	91	35	437	110	582	1103
645-745	74	204	58	336	21	171	21	213	9	90	13	112	47	546	127	720	1381
07-08	86	243	58	387	23	208	21	252	10	109	16	135	51	651	134	836	1610
715-815	109	280	49	438	28	210	21	259	11	125	24	160	56	776	141	973	1830
730-830	105	268	51	424	29	193	23	245	21	138	21	180	47	828	129	1004	1853
745-845	115	239	48	402	31	185	24	240	17	164	26	207	40	849	126	1015	1864
08-09	121	218	47	386	32	168	24	224	18	172	35	225	40	849	111	1000	1835
815-915	109	202	56	367	40	185	35	260	21	176	31	228	38	767	122	927	1782
830-930	111	210	46	367	39	177	33	249	16	179	36	231	44	691	116	851	1698
PEAK HOUR 745-845	115	239	48	402	31	185	24	240	17	164	26	207	40	849	126	1015	1864
PM																	
04:00-15	19	36	12	67	4	45	13	62	9	127	29	165	7	104	21	132	426
15-30	22	39	24	85	4	50	16	70	8	123	36	167	4	134	14	152	474
30-45	26	34	10	70	6	56	12	74	11	139	38	188	4	126	15	145	477
45-00	18	30	16	64	9	52	13	74	12	169	40	221	10	147	18	175	534
05:00-15	18	26	25	69	8	47	14	69	7	147	43	197	8	138	21	167	502
15-30	22	53	17	92	5	63	20	88	14	161	57	232	14	137	17	168	580
30-45	27	46	33	106	7	60	18	85	16	166	52	234	16	148	17	181	606
45-00	33	58	32	123	8	51	18	77	18	184	65	267	18	155	16	189	656
06:00-15	16	45	32	95	9	56	24	89	10	177	50	237	12	162	13	187	608
15-30	16	54	26	96	9	58	20	87	16	179	48	245	12	126	9	147	575
30-45	14	21	18	53	6	54	22	82	10	78	27	115	15	128	17	160	410
45-00	15	28	10	53	4	53	14	71	7	106	38	151	16	132	7	155	430
PM 3 HOUR TOTALS	248	470	255	973	79	645	204	928	140	1756	523	2419	136	1637	185	1958	6278
1 HOUR TOTALS																	
04-05	85	139	62	286	23	203	54	280	40	558	143	741	25	511	68	604	1911
415-515	84	129	75	288	27	205	55	287	38	578	157	773	26	545	68	639	1987
430-530	84	143	68	295	28	218	59	305	44	616	178	838	36	548	71	655	2093
445-545	85	155	91	331	29	222	65	316	49	643	192	884	48	570	73	691	2222
05-06	100	183	107	390	28	221	70	319	55	658	217	930	56	578	71	705	2344
515-615	100	202	114	416	29	230	80	339	58	688	224	970	60	602	63	725	2450
530-630	94	203	123	420	33	225	80	338	62	706	215	983	58	591	55	704	2445
545-645	81	178	108	367	32	219	84	335	56	618	190	864	57	571	55	683	2249
06-07	63	148	86	297	28	221	80	329	45	540	163	748	55	548	46	649	2023
PEAK HOUR 515-615	100	202	114	416	29	230	80	339	58	688	224	970	60	602	63	725	2450

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Dale Dr
and: Wayne Ave
Counted by: JA & EZ

Location: Montgomery Co
Date: 4/23/09 Day: Thursday
Weather: Clear
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	0	0	1	0	1	0	5	2	9
45-00	1	0	7	0	2	0	0	0	10
07:00-15	0	0	3	1	0	0	0	0	4
15-30	0	0	7	0	8	0	2	1	18
30-45	0	2	14	1	19	2	4	1	43
45-00	0	0	9	0	9	0	2	1	21
08:00-15	0	0	4	3	2	0	0	0	9
15-30	0	0	2	1	0	0	0	0	3
30-45	0	0	1	0	0	0	0	0	1
45-00	0	0	8	0	6	2	5	0	21
09:00-15	6	3	34	3	13	3	9	4	75
15-30	0	0	2	10	1	1	0	2	16
AM 3 HOUR TOTALS	7	5	92	19	61	8	27	11	230
1 HOUR TOTALS									
630-730	1	0	18	1	11	0	7	3	41
645-745	1	2	31	2	29	2	6	2	75
07-08	0	2	33	2	36	2	8	3	86
715-815	0	2	34	4	38	2	8	3	91
730-830	0	2	29	5	30	2	6	2	76
745-845	0	0	16	4	11	0	2	1	34
08-09	0	0	15	4	8	2	5	0	34
815-915	6	3	45	4	19	5	14	4	100
830-930	6	3	45	13	20	6	14	6	113
PEAK HOUR 830-930	6	3	45	13	20	6	14	6	113
PM									
04:00-15	0	8	3	5	3	3	0	6	28
15-30	4	8	0	12	2	9	1	8	44
30-45	1	14	3	6	1	0	0	5	30
45-00	2	5	1	4	2	1	1	5	21
05:00-15	0	8	3	2	6	2	2	5	28
15-30	5	6	4	4	2	1	0	4	26
30-45	1	1	0	0	7	1	0	0	10
45-00	2	3	0	1	3	0	1	2	12
06:00-15	2	2	1	0	5	0	0	2	12
15-30	4	2	2	5	8	0	0	0	21
30-45	3	6	2	0	10	1	2	4	28
45-00	4	3	4	1	6	2	0	0	20
PM 3 HOUR TOTALS	28	66	23	40	55	20	7	41	280
1 HOUR TOTALS									
04-05	7	35	7	27	8	13	2	24	123
415-515	7	35	7	24	11	12	4	23	123
430-530	8	33	11	16	11	4	3	19	105
445-545	8	20	8	10	17	5	3	14	85
05-06	8	18	7	7	18	4	3	11	76
515-615	10	12	5	5	17	2	1	8	60
530-630	9	8	3	6	23	1	1	4	55
545-645	11	13	5	6	26	1	3	8	73
06-07	13	13	9	6	29	3	2	6	81
PEAK HOUR 04-05	7	35	7	27	8	13	2	24	123

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Fenton St
and: Wayne Ave
Counted by: RW & EZ

Location: Montgomery Co
Date: 4/18/09
Weather: Clear
Entered by: CFC

Day: Thursday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Fenton St				TRAFFIC FROM SOUTH on: Fenton St				TRAFFIC FROM WEST on: Wayne Ave				TRAFFIC FROM EAST on: Wayne Ave				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	12	26	1	39	5	23	8	36	4	8	2	14	18	60	2	78	167
45-00	6	27	2	35	18	35	8	59	7	13	2	22	25	83	1	109	225
07:00-15	7	36	7	50	10	42	5	57	4	16	5	25	31	74	7	112	244
15-30	13	52	4	69	9	33	4	46	8	14	6	26	38	109	4	151	292
30-45	16	52	5	73	9	57	9	75	4	33	4	41	55	116	2	173	362
45-00	13	66	1	79	21	45	11	77	11	31	4	46	59	163	7	229	431
08:00-15	15	64	8	87	20	68	11	99	10	14	6	30	59	141	6	206	422
15-30	19	60	6	85	21	61	23	105	12	28	5	45	78	162	7	247	482
30-45	17	52	6	75	25	61	11	97	9	33	7	49	60	148	3	211	432
45-00	18	57	5	80	20	63	18	101	7	41	3	51	63	151	8	222	454
09:00-15	29	78	7	114	25	86	25	136	18	33	10	61	68	152	10	230	541
15-30	20	58	2	80	35	98	38	171	9	30	6	45	59	136	6	201	497
AM 3 HOUR TOTALS	184	628	54	866	216	672	171	1059	101	294	60	455	611	1495	63	2169	4549
1 HOUR TOTALS																	
630-730	38	141	14	193	40	133	25	198	21	51	15	87	110	326	14	450	928
645-745	42	167	18	227	44	167	26	237	21	76	17	114	149	382	14	545	1123
07-08	48	206	17	271	49	177	29	255	25	94	19	138	163	462	20	665	1329
715-815	56	234	18	308	59	203	35	297	31	92	20	143	211	529	19	759	1507
730-830	62	242	20	324	71	231	54	356	37	106	19	162	251	582	22	855	1697
745-845	63	242	21	326	87	235	56	378	42	106	22	170	256	614	23	893	1767
08-09	69	233	25	327	86	253	63	402	38	116	21	175	260	602	24	886	1790
815-915	83	247	24	354	91	271	77	439	46	135	25	206	269	613	28	910	1909
830-930	84	245	20	349	105	308	92	505	43	137	26	206	250	587	27	864	1924
PEAK HOUR 830-930	84	245	20	349	105	308	92	505	43	137	26	206	250	587	27	864	1924
PM																	
04:00-15	16	71	21	108	11	79	63	153	19	84	18	121	60	78	13	151	533
15-30	20	73	18	111	5	54	50	109	26	91	23	140	68	88	15	171	531
30-45	17	69	13	99	6	61	57	124	26	88	19	133	56	86	21	163	519
45-00	17	78	17	112	6	56	48	110	31	115	16	162	59	87	18	164	548
05:00-15	18	73	14	105	7	76	66	149	32	108	20	160	62	77	15	154	568
15-30	16	67	8	91	6	64	53	123	36	132	20	188	69	113	27	209	611
30-45	26	61	9	96	15	76	74	165	22	102	18	142	65	80	16	161	566
45-00	28	71	14	113	12	72	40	124	26	131	17	174	70	98	30	198	609
06:00-15	26	74	8	108	12	96	67	177	21	129	25	175	75	78	30	183	643
15-30	29	49	16	94	8	84	55	147	22	130	21	173	68	99	25	192	606
30-45	24	65	17	106	8	85	65	158	16	142	21	179	54	87	20	161	604
45-00	23	65	13	101	8	82	56	146	20	94	26	140	59	91	27	177	564
PM 3 HOUR TOTALS	262	816	168	1246	104	887	694	1685	297	1346	244	1887	765	1062	257	2084	6902
1 HOUR TOTALS																	
04-05	70	291	69	430	28	250	218	496	102	378	76	556	243	339	67	649	2131
415-515	72	293	62	427	24	247	221	492	115	402	78	595	245	338	69	652	2166
430-530	68	287	52	407	25	257	224	506	125	443	75	643	246	363	81	690	2246
445-545	79	279	48	406	34	272	241	547	121	457	74	652	255	357	76	688	2293
05-06	90	272	45	407	40	288	233	561	116	473	75	664	266	368	88	722	2354
515-615	98	273	39	410	45	310	234	589	105	494	80	679	279	369	103	751	2429
530-630	111	255	47	413	47	330	236	613	91	492	81	664	278	355	101	734	2424
545-645	107	259	55	421	40	339	227	606	85	532	84	701	267	362	105	734	2462
06-07	102	253	54	409	36	349	243	628	79	495	93	667	256	355	102	713	2417
PEAK HOUR 545-645	107	259	55	421	40	339	227	606	85	532	84	701	267	362	105	734	2462

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Fenton St
and: Wayne Ave
Counted by: RW & EZ

Location: Montgomery Co
Date: 4/16/09 Day: Thursday
Weather: Clear
Entered By: CPC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	0	1	1	0	0	3	0	1	6
45-00	4	6	2	0	0	9	3	2	26
07:00-15	3	5	4	3	2	15	1	2	35
15-30	2	4	3	4	1	8	3	0	25
30-45	2	8	5	3	2	11	5	8	44
45-00	3	9	8	3	1	6	1	3	36
08:00-15	9	6	6	8	2	5	4	1	41
15-30	6	4	2	6	0	11	2	4	35
30-45	8	7	0	0	0	6	1	6	28
45-00	5	12	5	6	1	6	1	8	44
09:00-15	7	13	1	4	0	15	3	2	45
15-30	6	12	5	1	1	10	1	8	44
AM 3 HOUR TOTALS	55	87	42	38	10	107	25	45	409
1 HOUR TOTALS									
630-730	9	16	10	7	3	35	7	5	92
645-745	11	23	14	10	5	43	12	12	130
07-08	10	26	20	13	6	42	10	13	140
715-815	16	27	22	18	6	32	13	12	146
730-830	20	27	21	20	5	35	12	16	156
745-845	26	26	16	17	3	30	8	14	140
08-09	28	29	13	20	3	28	8	19	148
815-915	26	36	8	16	1	38	7	20	152
830-930	26	44	11	11	2	37	6	24	161
PEAK HOUR 830-930	26	44	11	11	2	37	6	24	161
PM									
04:00-15	17	9	6	6	7	3	4	16	72
15-30	7	8	6	11	3	5	8	20	68
30-45	10	16	9	5	2	3	6	18	69
45-00	11	6	12	2	3	5	10	10	59
05:00-15	22	16	8	17	3	2	11	20	99
15-30	10	15	7	5	2	10	12	22	83
30-45	14	9	6	9	7	14	1	30	90
45-00	16	15	14	5	3	7	7	19	86
06:00-15	21	22	14	5	6	7	16	23	116
15-30	13	15	16	15	2	3	10	25	99
30-45	16	14	17	16	6	9	14	21	113
45-00	14	12	10	11	10	6	14	8	85
PM 3 HOUR TOTALS	171	157	127	107	54	74	115	234	1039
1 HOUR TOTALS									
04-05	45	39	35	24	15	16	28	66	268
415-515	50	46	35	35	11	15	35	68	295
430-530	53	53	36	29	10	20	39	70	310
445-545	57	46	33	33	15	31	34	82	331
05-06	62	55	35	36	15	33	31	91	358
515-615	61	61	41	24	18	38	38	94	375
530-630	64	61	50	34	18	31	36	97	391
545-645	66	66	61	41	17	26	49	88	414
06-07	64	63	57	47	24	25	56	77	413
PEAK HOUR 545-645	66	66	61	41	17	26	49	88	414

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Cedar St
and: Wayne Ave
Counted by: BM & EZ

Location: Montgomery Co
Date: 5/27/09
Weather: Rain
Entered by: CFC

Day: Wednesday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Cedar St				TRAFFIC FROM SOUTH on: Cedar St				TRAFFIC FROM WEST on: Wayne Ave				TRAFFIC FROM EAST on: Wayne Ave				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	10	0	3	13	1	3	1	5	0	6	1	7	0	65	6	71	96
45-00	10	0	6	16	3	6	1	10	0	13	0	13	0	92	9	101	140
07:00-15	5	0	7	12	4	11	1	16	0	19	0	19	0	103	20	123	170
15-30	9	0	7	16	2	8	2	12	0	36	6	42	0	136	15	151	221
30-45	28	0	8	36	2	8	2	12	0	38	6	44	0	171	13	184	276
45-00	29	0	17	46	1	16	8	25	0	34	8	42	0	189	31	220	333
08:00-15	34	0	18	52	7	16	4	27	0	46	6	52	0	212	38	250	381
15-30	35	0	13	48	5	14	9	28	0	53	9	62	0	229	33	262	400
30-45	25	0	19	44	1	11	5	17	0	44	7	51	0	192	34	226	338
45-00	24	0	14	38	4	12	3	19	0	40	6	46	0	219	48	267	370
09:00-15	36	0	16	52	4	20	3	27	0	38	9	47	0	173	39	212	338
15-30	43	0	20	63	3	13	7	23	0	33	3	36	0	204	24	228	350
AM 3 HOUR TOTALS	288	0	148	436	37	138	46	221	0	400	61	461	0	1985	310	2295	3413
1 HOUR TOTALS																	
630-730	34	0	23	57	10	28	5	43	0	74	7	81	0	396	50	446	627
645-745	52	0	28	80	11	33	6	50	0	106	12	118	0	502	57	559	807
07-08	71	0	39	110	9	43	13	65	0	127	20	147	0	599	79	678	1000
715-815	100	0	50	150	12	48	16	76	0	154	26	180	0	708	97	805	1211
730-830	126	0	56	182	15	54	23	92	0	171	29	200	0	801	115	916	1390
745-845	123	0	67	190	14	57	26	97	0	177	30	207	0	822	136	958	1452
08-09	118	0	64	182	17	53	21	91	0	183	28	211	0	852	153	1005	1489
815-915	120	0	62	182	14	57	20	91	0	175	31	206	0	813	154	967	1446
830-930	128	0	69	197	12	56	18	86	0	155	25	180	0	788	145	933	1396
PEAK HOUR 08-09	118	0	64	182	17	53	21	91	0	183	28	211	0	852	153	1005	1489
PM																	
04:00-15	31	0	46	77	1	14	14	29	0	100	20	120	0	77	22	99	325
15-30	38	0	53	91	2	7	20	29	0	108	19	127	0	70	17	87	334
30-45	27	0	43	70	2	22	28	52	0	131	22	153	0	50	10	60	335
45-00	43	0	58	101	2	22	23	47	0	164	26	190	0	95	24	119	457
05:00-15	37	0	65	102	7	23	26	56	0	134	25	159	0	95	25	120	437
15-30	64	0	64	128	3	16	23	42	0	157	23	180	0	73	31	104	454
30-45	42	0	58	100	5	18	33	56	0	161	26	187	0	97	26	123	466
45-00	26	0	43	69	2	29	33	64	0	157	13	170	0	135	24	159	462
06:00-15	47	0	42	89	3	25	37	65	0	164	30	194	0	100	31	131	479
15-30	48	0	60	108	4	35	42	81	0	171	22	193	0	95	29	124	506
30-45	40	0	82	122	3	19	24	46	0	132	26	158	0	113	16	129	455
45-00	57	0	44	101	6	21	29	56	0	128	28	156	0	107	22	129	442
PM 3 HOUR TOTALS	500	0	658	1158	40	251	332	623	0	1707	280	1987	0	1107	277	1384	5152
1 HOUR TOTALS																	
04-05	139	0	200	339	7	65	85	157	0	503	87	590	0	292	73	365	1451
415-515	145	0	219	364	13	74	97	184	0	537	92	629	0	310	76	386	1563
430-530	171	0	230	401	14	83	100	197	0	586	96	682	0	313	90	403	1683
445-545	186	0	245	431	17	79	105	201	0	616	100	716	0	360	106	466	1814
05-06	169	0	230	399	17	86	115	218	0	609	87	696	0	400	106	506	1819
515-615	179	0	207	386	13	88	126	227	0	639	92	731	0	405	112	517	1861
530-630	163	0	203	366	14	107	145	266	0	653	91	744	0	427	110	537	1913
545-645	161	0	227	388	12	108	136	256	0	624	91	715	0	443	100	543	1902
06-07	192	0	228	420	16	100	132	248	0	595	106	701	0	415	98	513	1882
PEAK HOUR 530-630	163	0	203	366	14	107	145	266	0	653	91	744	0	427	110	537	1913

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Cedar St
and: Wayne Ave
Counted by: BM & EZ

Location: Montgomery Co
Date: 5/27/09 Day: Wednesday
Weather: Rain
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
AM									
06:30-45	1	2	1	0	1	2	1	1	9
45-00	0	3	1	0	0	2	2	0	8
07:00-15	0	4	1	0	0	0	2	0	7
15-30	1	3	0	0	0	0	1	1	6
30-45	1	2	1	0	0	1	0	2	7
45-00	0	4	1	1	0	3	1	0	10
08:00-15	0	5	0	2	0	4	0	0	11
15-30	0	1	1	0	0	2	0	1	5
30-45	2	2	0	1	1	0	0	0	6
45-00	0	2	0	2	0	2	0	0	6
09:00-15	2	13	0	0	0	1	2	2	20
15-30	0	4	1	0	0	0	1	0	6
AM 3 HOUR TOTALS	7	45	7	6	2	17	10	7	101
1 HOUR TOTALS									
630-730	2	12	3	0	1	4	6	2	30
645-745	2	12	3	0	0	3	5	3	28
07-08	2	13	3	1	0	4	4	3	30
715-815	2	14	2	3	0	8	2	3	34
730-830	1	12	3	3	0	10	1	3	33
745-845	2	12	2	4	1	9	1	1	32
08-09	2	10	1	5	1	8	0	1	28
815-915	4	18	1	3	1	5	2	3	37
830-930	4	21	1	3	1	3	3	2	38
PEAK HOUR 830-930	4	21	1	3	1	3	3	2	38
PM									
04:00-15	2	2	1	3	0	0	0	3	11
15-30	3	2	0	1	0	0	0	1	7
30-45	6	3	0	0	0	0	0	1	10
45-00	4	1	0	0	2	0	3	2	12
05:00-15	4	0	2	3	3	0	5	2	19
15-30	3	2	1	1	1	0	1	1	10
30-45	0	6	0	0	1	0	0	1	8
45-00	6	1	0	0	0	0	3	1	11
06:00-15	4	2	1	1	0	0	2	1	11
15-30	8	5	0	1	0	0	1	2	17
30-45	10	5	1	4	0	1	0	1	22
45-00	5	9	0	3	0	0	6	2	25
PM 3 HOUR TOTALS	55	38	6	17	7	1	21	18	163
1 HOUR TOTALS									
04-05	15	8	1	4	2	0	3	7	40
415-515	17	6	2	4	5	0	8	6	48
430-530	17	6	3	4	6	0	9	6	51
445-545	11	9	3	4	7	0	9	6	49
05-06	13	9	3	4	5	0	9	5	48
515-615	13	11	2	2	2	0	6	4	40
530-630	18	14	1	2	1	0	6	5	47
545-645	28	13	2	6	0	1	6	5	61
06-07	27	21	2	9	0	1	9	6	75
PEAK HOUR 06-07	27	21	2	9	0	1	9	6	75

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Colesville Rd
and: Spring St
Counted by: PWC & LK

Location: Montgomery Co
Date: 4/23/09
Weather: Clear
Entered by: CFC

Day: Thursday

STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Colesville Rd				TRAFFIC FROM SOUTH on: Colesville Rd				TRAFFIC FROM WEST on: Spring St				TRAFFIC FROM EAST on: Spring St				TOTAL N + S - E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:30-45	79	435	22	536	1	95	4	100	0	10	21	31	6	23	4	33	700
45-00	82	470	15	567	10	91	7	108	2	13	17	32	4	20	3	27	734
07:00-15	87	502	22	611	0	94	9	103	5	10	28	43	5	16	12	35	792
15-30	84	552	33	669	0	150	7	157	9	16	25	50	8	26	11	45	921
30-45	97	589	27	713	0	133	12	145	11	21	24	56	11	22	10	43	957
45-00	103	545	49	697	0	120	6	126	9	28	26	63	3	20	11	34	920
08:00-15	117	534	58	709	1	158	15	174	10	27	45	82	15	55	19	89	1054
15-30	114	504	50	668	0	150	6	156	12	24	42	78	12	28	16	56	958
30-45	100	530	47	677	1	141	12	154	15	31	35	81	14	45	13	72	984
45-00	156	471	50	677	2	125	19	146	12	27	38	77	15	38	22	75	975
09:00-15	113	527	64	704	2	132	14	148	10	45	39	94	10	47	16	73	1019
15-30	93	451	42	586	1	128	12	141	9	43	24	76	12	39	14	65	868
AM 3 HOUR TOTALS	1225	6110	479	7814	18	1517	123	1658	104	295	364	763	115	381	151	647	10882
1 HOUR TOTALS																	
630-730	332	1959	92	2383	11	430	27	468	16	49	91	156	23	87	30	140	3147
645-745	350	2113	97	2560	10	468	35	513	27	60	94	181	28	86	36	150	3404
07-08	371	2188	131	2690	0	497	34	531	34	75	103	212	27	86	44	157	3590
715-815	401	2220	167	2788	1	561	40	602	39	92	120	251	37	123	51	211	3852
730-830	431	2172	184	2787	1	561	39	601	42	100	137	279	41	125	56	222	3889
745-845	434	2113	204	2751	2	569	39	610	46	110	148	304	44	148	59	251	3916
08-09	487	2039	205	2731	4	574	52	630	49	109	160	318	56	166	70	292	3971
815-915	483	2032	211	2726	5	548	51	604	49	127	154	330	51	158	67	276	3936
830-930	462	1979	203	2644	6	526	57	589	46	146	136	328	51	169	65	285	3846
PEAK HOUR 08-09	487	2039	205	2731	4	574	52	630	49	109	160	318	56	166	70	292	3971
PM																	
04:00-15	27	145	20	192	0	342	19	361	10	50	175	235	5	28	55	88	876
15-30	27	175	23	225	0	459	9	468	7	41	145	193	11	33	91	135	1021
30-45	29	184	21	234	0	518	12	530	10	60	180	250	3	28	60	91	1105
45-00	39	209	17	265	0	500	15	515	4	39	146	189	12	54	83	149	1118
05:00-15	38	183	22	243	0	457	11	468	8	57	228	293	20	24	75	119	1123
15-30	35	179	24	238	1	384	6	391	11	52	172	235	10	47	57	114	978
30-45	40	173	19	232	0	423	6	429	5	56	198	259	12	45	75	132	1052
45-00	34	181	17	232	0	395	16	411	7	62	177	246	12	57	80	159	1048
06:00-15	28	175	13	216	1	442	11	454	6	70	168	244	6	44	64	114	1028
15-30	31	236	21	288	0	415	15	430	8	50	165	223	10	40	70	120	1061
30-45	27	190	21	238	0	402	12	414	10	52	136	198	8	38	61	107	957
45-00	42	193	22	257	0	393	7	400	5	45	94	144	5	41	58	104	905
PM 3 HOUR TOTALS	397	2223	240	2860	2	5130	139	5271	91	634	1984	2709	114	479	839	1432	12272
1 HOUR TOTALS																	
04-05	122	713	81	916	0	1819	55	1874	31	190	646	867	31	143	289	463	4120
415-515	133	751	83	967	0	1934	47	1981	29	197	699	925	46	139	309	494	4367
430-530	141	755	84	980	1	1859	44	1904	33	208	726	967	45	153	275	473	4324
445-545	152	744	82	978	1	1764	38	1803	28	204	744	976	54	170	290	514	4271
05-06	147	716	82	945	1	1659	39	1699	31	227	775	1033	54	173	297	524	4201
515-615	137	708	73	918	2	1644	39	1685	29	240	715	984	40	193	286	519	4106
530-630	133	765	70	968	1	1675	48	1724	26	238	708	972	40	186	299	525	4189
545-645	120	782	72	974	1	1654	54	1709	31	234	646	911	36	179	285	500	4094
06-07	128	794	77	999	1	1652	45	1698	29	217	563	809	29	163	253	445	3951
PEAK HOUR 415-515	133	751	83	967	0	1934	47	1981	29	197	699	925	46	139	309	494	4367

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PEDESTRIAN COUNT - SUMMARY

Intersection of:	Colesville Rd	Location:	Montgomery Co		
and:	Spring St	Date:	4/23/09	Day:	Thursday
Counted by:	PWC & LK	Weather:	Clear		
		Entered By:	CFC		

	NORTH LEG		EAST LEG		SOUTH LEG		WEST LEG		
TIME	EB	WB	NB	SB	EB	WB	NB	SB	TOTAL
AM									
06:30-45	0	0	0	1	0	1	0	0	2
45-00	0	1	1	0	0	1	1	3	7
07:00-15	0	0	0	7	7	2	3	5	24
15-30	0	0	2	5	10	7	2	3	29
30-45	0	1	1	4	4	0	1	11	22
45-00	1	0	0	1	5	3	3	4	17
08:00-15	0	0	0	16	1	4	0	4	25
15-30	1	0	3	12	11	3	1	5	36
30-45	1	0	1	8	9	3	2	5	29
45-00	0	0	3	9	11	1	4	16	44
09:00-15	0	0	1	6	4	4	1	4	20
15-30	0	0	2	6	1	2	1	4	16
AM									
3 HOUR									
TOTALS	3	2	14	75	63	31	19	64	271
1 HOUR									
TOTALS									
630-730	0	1	3	13	17	11	6	11	62
645-745	0	2	4	16	21	10	7	22	82
07-08	1	1	3	17	26	12	9	23	92
715-815	1	1	3	26	20	14	6	22	93
730-830	2	1	4	33	21	10	5	24	100
745-845	3	0	4	37	26	13	6	18	107
08-09	2	0	7	45	32	11	7	30	134
815-915	2	0	8	35	35	11	8	30	129
830-930	1	0	7	29	25	10	8	29	109
PEAK HOUR									
08-09	2	0	7	45	32	11	7	30	134
PM									
04:00-15	0	0	6	6	0	9	6	3	30
15-30	1	0	7	6	5	3	4	6	32
30-45	0	0	6	4	10	19	2	3	44
45-00	0	0	8	2	3	7	5	2	27
05:00-15	0	0	2	5	2	11	1	2	23
15-30	0	0	20	7	2	3	6	3	41
30-45	0	2	12	10	3	8	7	4	46
45-00	1	1	17	4	12	16	8	3	62
06:00-15	1	0	9	4	1	8	17	3	43
15-30	0	0	8	6	5	10	13	4	46
30-45	2	0	10	4	5	8	6	7	42
45-00	0	0	6	2	3	8	18	9	46
PM									
3 HOUR									
TOTALS	5	3	111	60	51	110	93	49	482
1 HOUR									
TOTALS									
04-05	1	0	27	18	18	38	17	14	133
415-515	1	0	23	17	20	40	12	13	126
430-530	0	0	36	18	17	40	14	10	135
445-545	0	2	42	24	10	29	19	11	137
05-06	1	3	51	26	19	38	22	12	172
515-615	2	3	58	25	18	35	38	13	192
530-630	2	3	46	24	21	42	45	14	197
545-645	4	1	44	18	23	42	44	17	193
06-07	3	0	33	16	14	34	54	23	177
PEAK HOUR									
530-630	2	3	46	24	21	42	45	14	197

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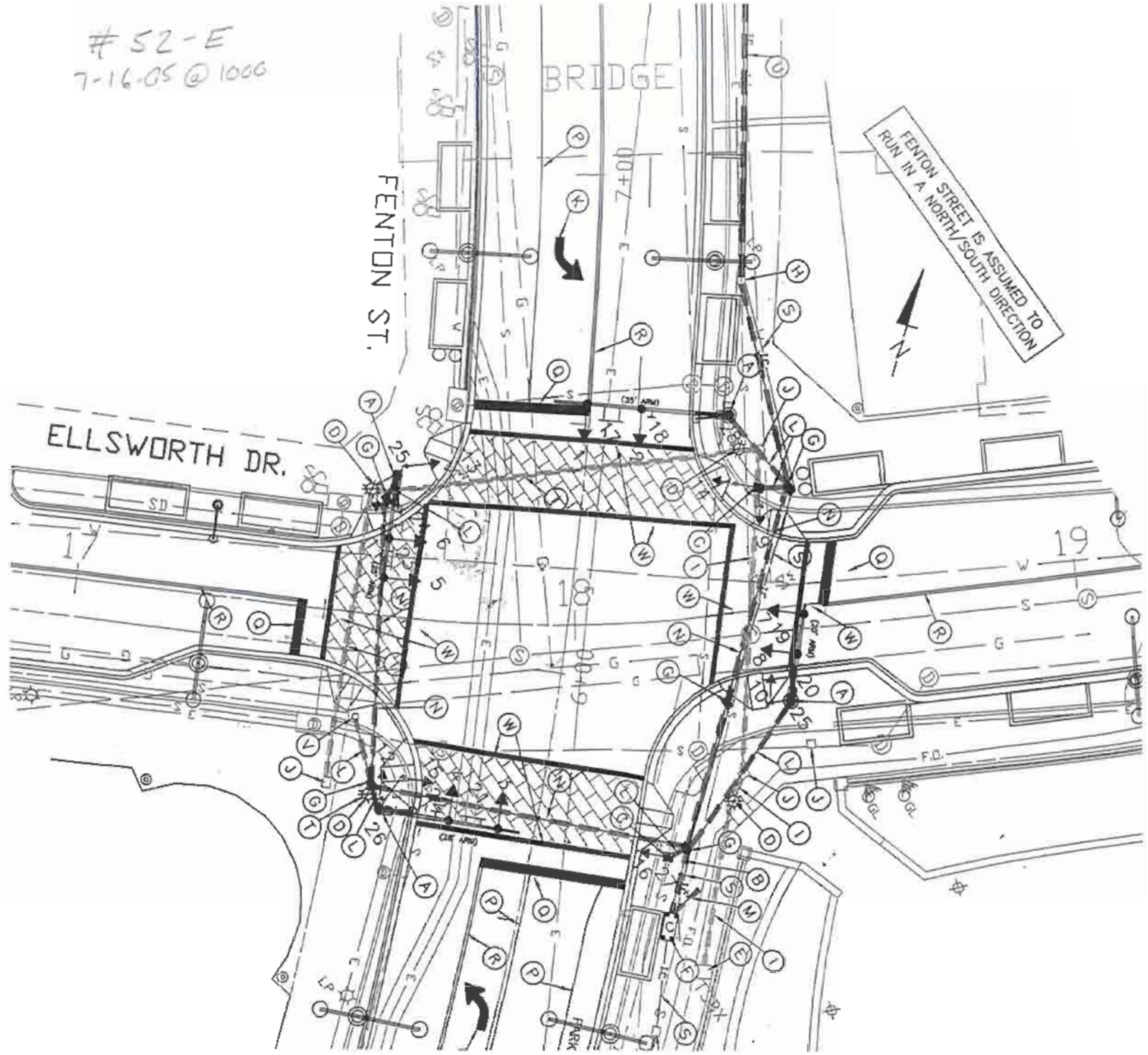
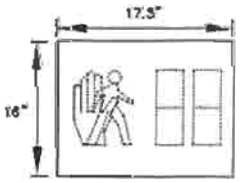
#52-E
7-16-05 @ 1000



PROPOSED SIGNALS

12"
R
Y
G
1,2,3,4,
5,6,7,8



9,10,11,12
13,14,15,16

PROPOSED SIGNS

17
Ellsworth Dr <900

19
Fenton St <8500

21
Ellsworth Dr 900>

23
Fenton St 8500>

18,20,22,24
NO TURN ON RED
R10-11A
24"X30"

25,26,27,28

R10-3e
(9"x12")

FENTON STREET RUNS IN A NORTH–SOUTH DIRECTION

SEQUENCE OF OPERATION SHEET

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

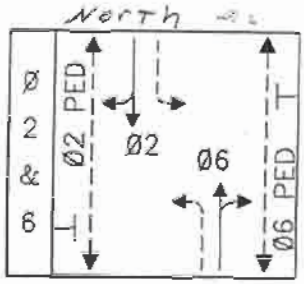
NO. 52-E

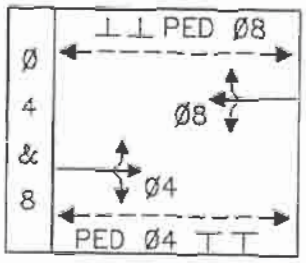
INTERSECTION: FENTON STREET AND ELLSWORTH DRIVE

	SIGNAL HEAD INDICATIONS	
SIGNAL NO.	1-8	P9-16
TOTAL:	8	8
LEGEND OPTICALLY LIMITED R RED Y YELLOW G GREEN ← ARROW F FLASHING	R Y G 12"	17.5" 16"

SIGNAL NO.	SEQUENCE OF OPERATION INTERVAL 1	2	3	4	5	6	7	8	9	FLASH
1	G	G	Y	R	R	R	R	R	R	Y
2	G	G	Y	R	R	R	R	R	R	Y
3	G	G	Y	R	R	R	R	R	R	Y
4	G	G	Y	R	R	R	R	R	R	Y
5	R	R	R	R	G	G	G	Y	R	R
6	R	R	R	R	G	G	G	Y	R	R
7	R	R	R	R	G	G	G	Y	R	R
8	R	R	R	R	G	G	G	Y	R	R
9	W	DWF	DW	DW	DW	DW	DW	DW	DW	—
10	W	DWF	DW	DW	DW	DW	DW	DW	DW	—
11	W	DWF	DW	DW	DW	DW	DW	DW	DW	—
12	W	DWF	DW	DW	DW	DW	DW	DW	DW	—
13	DW	DW	DW	DW	W	DWF	DW	DW	DW	—
14	DW	DW	DW	DW	W	DWF	DW	DW	DW	—
15	DW	DW	DW	DW	W	DWF	DW	DW	DW	—
16	DW	DW	DW	DW	W	DWF	DW	DW	DW	—
PHASE	Ø2 + 6			ALL RED	Ø4 + 8				ALL RED	

PHASING





SUBMITTED: CR 5-27-05 CHECKED: _____ APPROVED: B Gonzales 6/8/05
IN SERVICE BY: KL/WD DATE: 7/16/05 TIME: 1000

NOTE: Ø6 PED NOT ACTIVATED UNTIL 8/23/05 BY TG.
8/6/2005 LED Retrofit for Signal 1-8
APS (Audible ped signals) Installed (2/28/2006)

SEQUENCE OF OPERATION SHEET

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

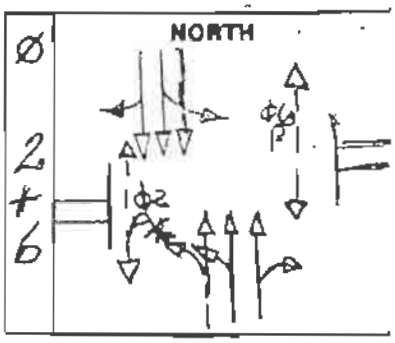
NO. 304B

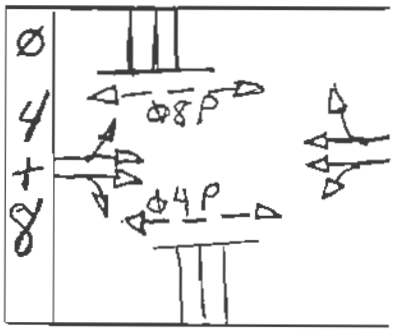
INTERSECTION: Colesville Rd (US 29) - Fenton St.

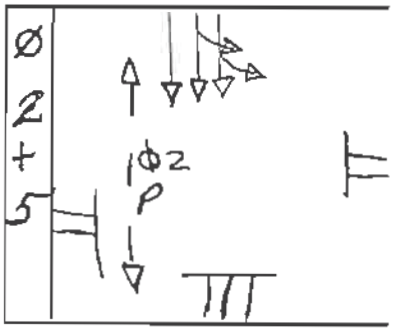
	SIGNAL HEAD INDICATIONS					
SIGNAL NO.	2-8		1			P9-16
TOTAL:	7		1			8
LEGEND (O OPTICALLY LIMITED; R - RED; Y - YELLOW; G - GREEN; ← ARROW; F - FLASHING)	R Y G	R Y G G	R ← Y Y ← G G	R Y G		9" or 12"
	12"	12"	12"	8"		

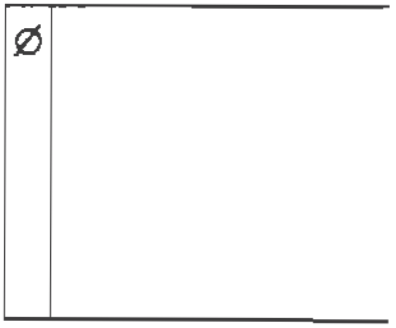
SIGNAL NO.	SEQUENCE OF OPERATION — INTERVAL 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	FLASH
1	G	G	Y	R	R	R	R	R	~~G~~	~~G~~	G						Y
2	G	G	Y	R	R	R	R	R	G	G	G						Y
3	G	G	Y	R	R	R	R	R	R	R	R						Y
4	G	G	Y	R	R	R	R	R	R	R	R						Y
5	R	R	R	R	~~G~~	G	Y	R	R	R	R						R
6	R	R	R	R	~~G~~	G	Y	R	R	R	R						R
7	R	R	R	R	G	G	Y	R	R	R	R						R
8	R	R	R	R	G	G	Y	R	R	R	R						R
9	W	W/F	DW	DW	DW	DW	DW	DW	DW	DW	DW						—
10	W	W/F	DW	DW	DW	DW	DW	DW	DW	DW	DW						—
11	W	W/F	DW	DW	DW	DW	DW	DW	W	W	W						—
12	W	W/F	DW	DW	DW	DW	DW	DW	W	W	W						—
13	DW	DW	DW	DW	W	DW/F	DW	DW	DW	DW	DW						—
14	DW	DW	DW	DW	W	DW/F	DW	DW	DW	DW	DW						—
15	DW	DW	DW	DW	W	DW/F	DW	DW	DW	DW	DW						—
16	DW	DW	DW	DW	W	DW/F	DW	DW	DW	DW	DW						—
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
PHASE	2+6			ALL RED	4+8			ALL RED	2+5		ALL RED						FL

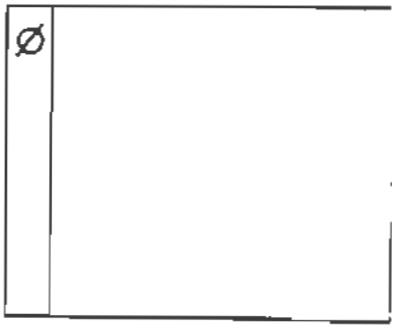
PHASING











NOTES:

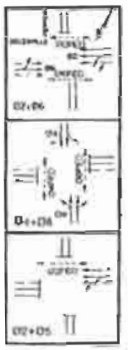
* NLT 4PM-7PM - M-F (NB Colesville Rd.)

Reversible Lane Control on Colesville Rd

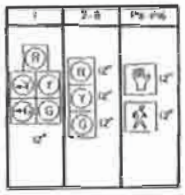
SUBMITTED: LRS 11/14/97 CHECKED: _____ APPROVED: _____

IN SERVICE BY: K. DATE: 2/28/02 TIME: 12:00

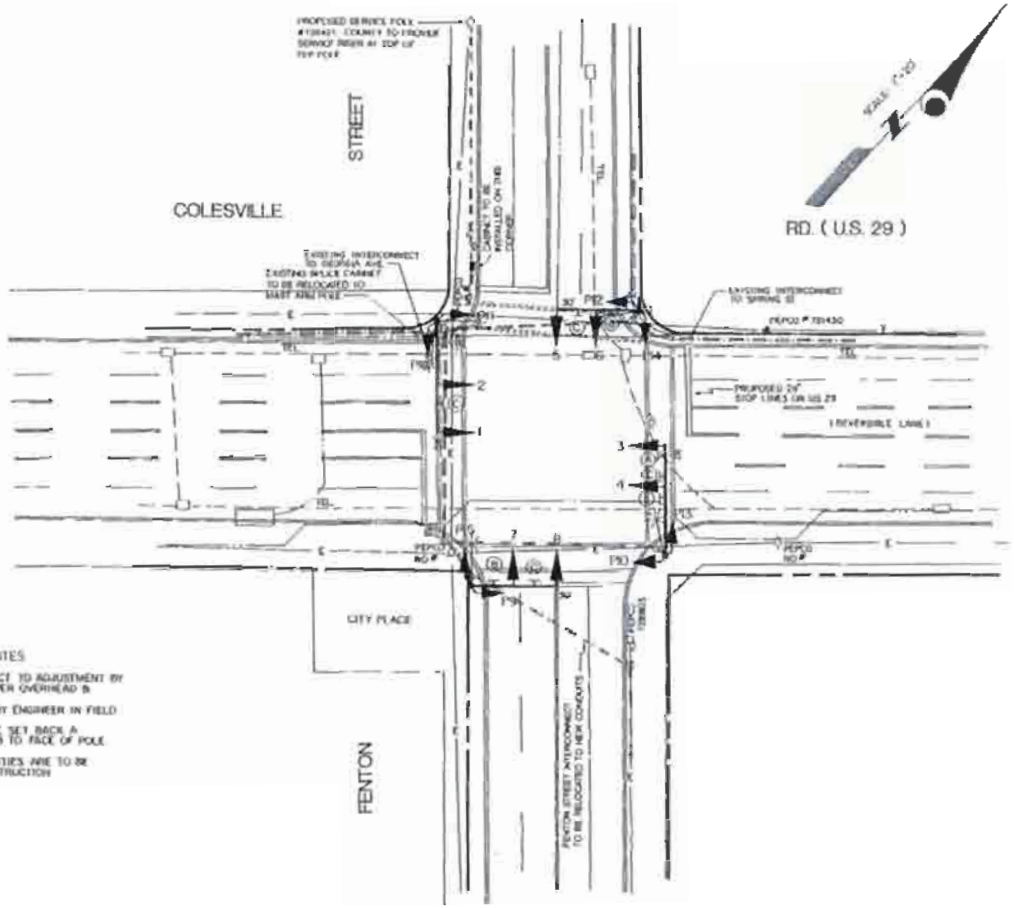
PHASING



SIGNAL HEAD INDICATIONS



SIGNING SCHEDULE



GENERAL NOTES

1. SIGNAL POLE LOCATIONS ARE SUBJECT TO ADJUSTMENT BY ENGINEER IN FIELD TO OBTAIN PROPER OVERHEAD & UNDERGROUND CLEARANCES.
2. SIGNAL HEADS SHALL BE ALIGNED BY ENGINEER IN FIELD TO OBTAIN PROPER SPACINGS.
3. MAST ARM SIGNAL POLES SHALL BE SET BACK A MINIMUM OF 6' FROM FACE OF CURB TO FACE OF POLE (PER F.H.W.A. REQUIREMENTS).
4. REPRESENTATIVES OF AFFECTED UTILITIES ARE TO BE CONTACTED PRIOR TO ACTUAL CONSTRUCTION.
5. DECORATIVE BRONZE HARDWARE.

LEGEND

NO.	DESCRIPTION	BY	APPD	DATE

DESIGNED BY LMG — DATE
DRAWN BY TEL — DATE 5/13/91
CHECKED BY DCM — DATE 4/24/91
DRAWING NO. E-91-010

RECOMMENDED BY: CHIEF, TRAFFIC ENGINEERING SECTION
REVIEWED BY: ADMINISTRATOR, DIVISION OF TRAFFIC ENGINEERING
APPROVED BY: CHIEF, DIVISION OF TRAFFIC ENGINEERING

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

SIGNAL MODIFICATION
COLESVILLE RD. (U.S. 29) - FENTON ST.

15000920 73

SEQUENCE OF OPERATION SHEET

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

NO. 311 B

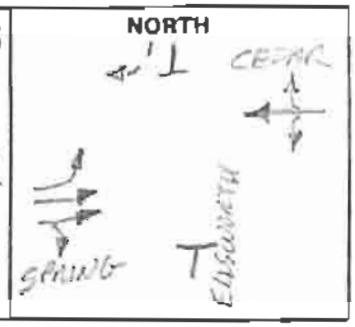
INTERSECTION: CEDAR ST - ELLSWORTH DR - SPRING ST

	SIGNAL HEAD INDICATIONS					
SIGNAL NO.				1-10		
TOTAL:				10		
LEGEND OPTICALLY LIMITED R - RED Y - YELLOW G - GREEN ARROW F - FLASHING	R Y G 12"	R Y G G 12"	R Y Y G G 12"	R Y G 8"		9" or 12"

SIGNAL NO.	SEQUENCE OF OPERATION INTERVAL 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	FLASH
1	G	Y	R	R	R	R											Y
2	G	Y	R	R	R	R											Y
3	G	Y	R	R	R	R											Y
4	G	Y	R	R	R	R											Y
5	G	Y	R	R	R	R											Y
6	G	Y	R	R	R	R											Y
7	R	R	R	G	Y	R											Y
8	R	R	R	G	Y	R											Y
9	R	R	R	G	Y	R											R
10	R	R	R	G	Y	R											R
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
PHASE	2			4													

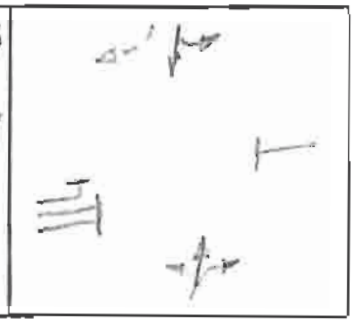
PHASING

Ø — NORTH



Ø 2

Ø 4



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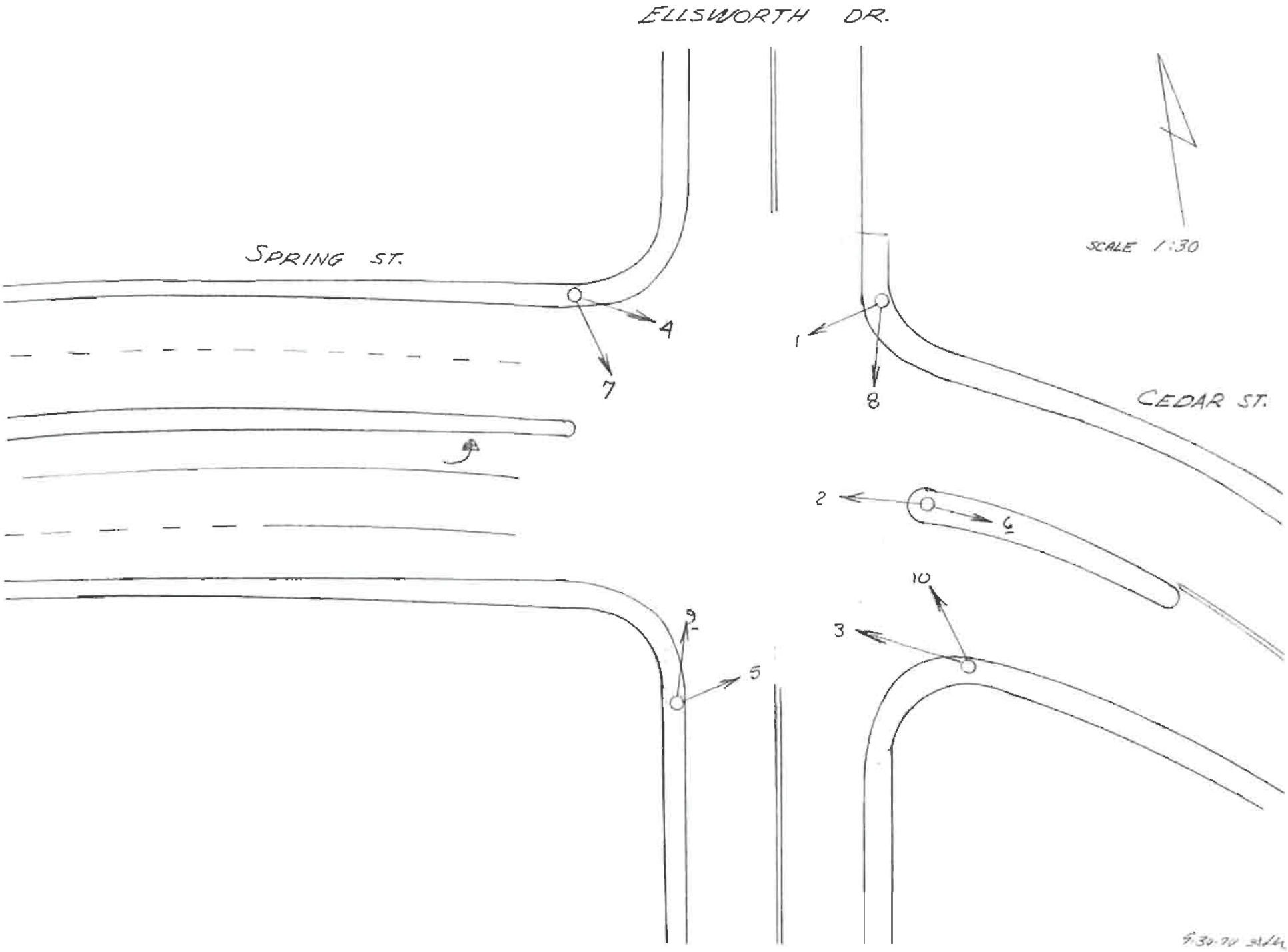
NOTES: Audible ped signal installed

SUBMITTED: GSD 7/1/89 CHECKED: APPROVED:
IN SERVICE BY: GW DATE: 7/27/89 TIME: 12:00


ELLSWORTH DR.
SPRING ST.
CEDAR ST.
SCALE 1:30
1
2
3
4
5
6
7
8
9
10
9-30-70 sd/h

AYNE AVE
JNS IN AN
AST-WEST
IRECTION

SEQUENCE OF OPERATION SHEET

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

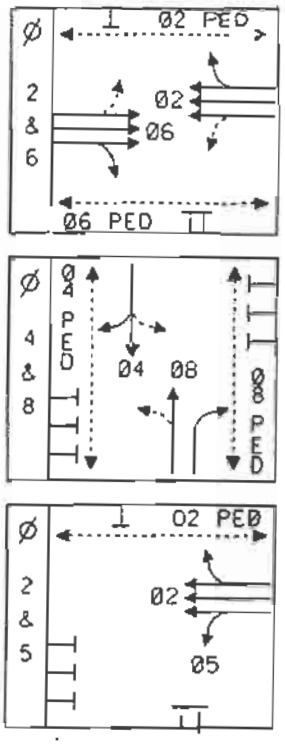
NO. 800 A

INTERSECTION: WAYNE AVE AND DIXON AVE

	SIGNAL HEAD INDICATIONS			
SIGNAL NO.	1,2,4-8	3, 3A		9-16
TOTAL:	7	2		8
LEGEND OPTICALLY LIMITED R RED Y YELLOW G GREEN ◄ ARROW F FLASHING	R Y G 12"	R ◄Y- Y ◄G- G 12"	R Y G ◄G- 12"	9 9"or12" X

PHASING

NORTH

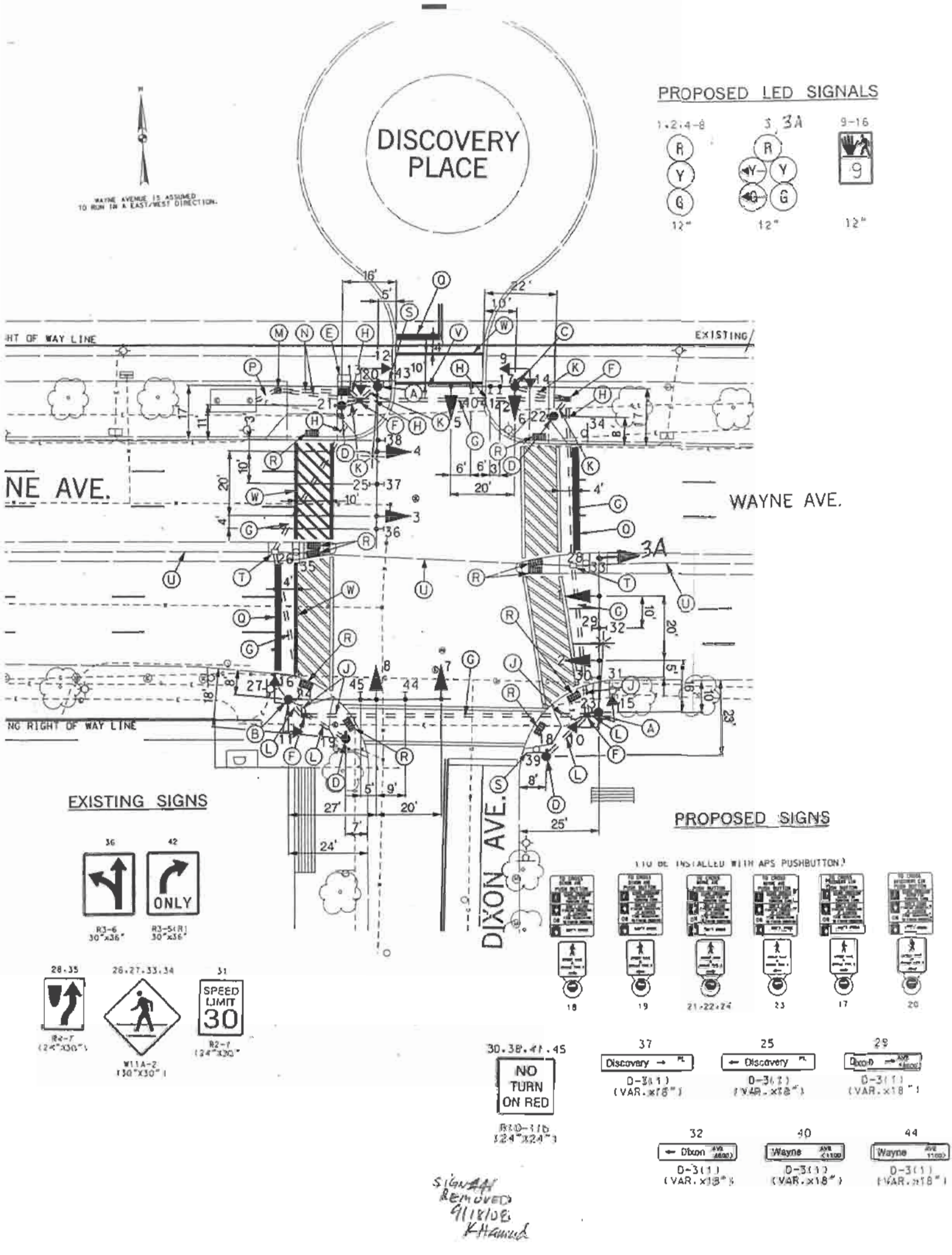


SIGNAL NO.	SEQUENCE OF OPERATION INTERVAL 1	2	3	4	5	6	7	8	9	10	11	12	FLASH
1	G	G	Y	R	R	R	R	R	R	R	R	R	FL/Y
2	G	G	Y	R	R	R	R	R	R	R	R	R	FL/Y
3 3A	G	G	Y	R	R	R	R	R	R	◄G-/G	◄Y-/G	G	FL/Y
4	G	G	Y	R	R	R	R	R	R	G	G	G	FL/Y
5	R	R	R	R	G	G	G	Y	R	R	R	R	FL/R
6	R	R	R	R	G	G	G	Y	R	R	R	R	FL/R
7	R	R	R	R	G	G	G	Y	R	R	R	R	FL/R
8	R	R	R	R	G	G	G	Y	R	R	R	R	FL/R
9	WK	FL/DW	DW	DW	DW	DW	DW	DW	DW	WK	WK	WK	DARK
10	WK	FL/DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
11	WK	FL/DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
12	WK	FL/DW	DW	DW	DW	DW	DW	DW	DW	WK	WK	WK	DARK
13	DW	DW	DW	DW	WK	FL/DW	DW	DW	DW	DW	DW	DW	DARK
14	DW	DW	DW	DW	WK	FL/DW	DW	DW	DW	DW	DW	DW	DARK
15	DW	DW	DW	DW	WK	FL/DW	DW	DW	DW	DW	DW	DW	DARK
16	DW	DW	DW	DW	WK	FL/DW	DW	DW	DW	DW	DW	DW	DARK
PHASE	2 & 6			ALL RED	4 & 8				ALL RED	2 + 5			

NOTES: APS PUSH BUTTONS

SUBMITTED: CR 5/9/07 CHECKED: Kamal Hamad APPROVED: Kamal Hamad 5-9-07

IN SERVICE BY: CR/RM DATE: 1-4-08 TIME: 1110



SIGNAL REMOVED 9/18/08 K Hamud

SEQUENCE OF OPERATION SHEET

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

NO. 318C

INTERSECTION: GEORGIA AVE (US 29) - SILVER SPRING AVENUE

SIGNAL HEAD INDICATIONS

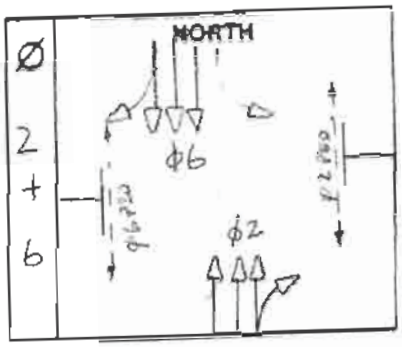
SIGNAL NO.	1-10					11-16
TOTAL:	10					6
LEGEND (O OPTICALLY LIMITED; R - RED; Y - YELLOW; G - GREEN; ← ARROW; F - FLASHING)	R Y G	R Y Y G G	R Y Y G G	R Y G	R Y Y G G	9" or 12"
	12"	12"	12"		12" 8"	

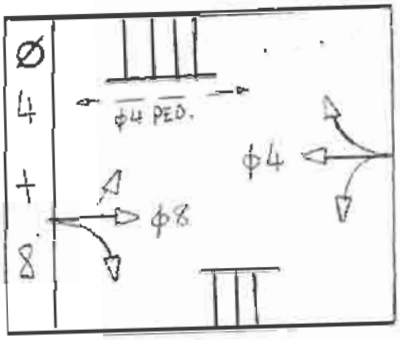
SEQUENCE OF OPERATION

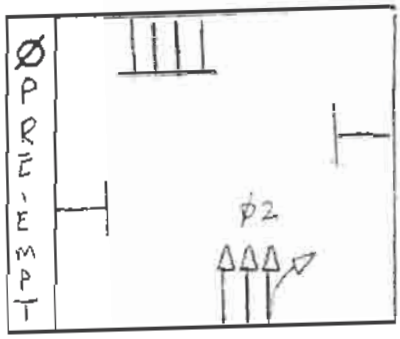
SIGNAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	FLASH
1	G	G	Y	R	R	R	R	R	R								Y
2	G	G	Y	R	R	R	R	R	R								Y
3	G	G	Y	R	R	R	R	R	R								Y
4	G	G	Y	R	R	R	R	R	R								Y
5	G	G	Y	R	R	R	R	R	R								Y
6	G	G	Y	R	R	R	R	R	R								R
7	R	R	R	R	G	G	G	Y	R								R
8	R	R	R	R	G	G	G	Y	R								R
9	R	R	R	R	G	G	G	Y	R								R
10	R	R	R	R	G	G	G	Y	R								R
11	W	FDW	DW	DW	DW	DW	DW	DW	DW								
12	W	FDW	DW	DW	DW	DW	DW	DW	DW								
13	W	FDW	DW	DW	DW	DW	DW	DW	DW								
14	W	FDW	DW	DW	DW	DW	DW	DW	DW								
15	DW	DW	DW	DW	W	FDW	DW	DW	DW								
16	DW	DW	DW	DW	W	FDW	DW	DW	DW								
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
PHASE	2+6			ALL RED		4+8			ALL RED								

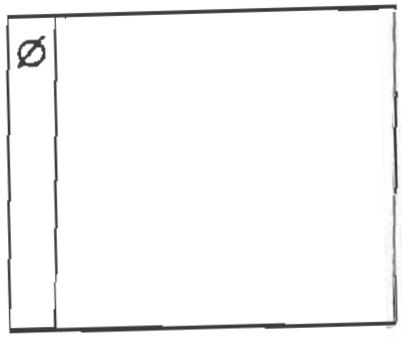
NOTES:

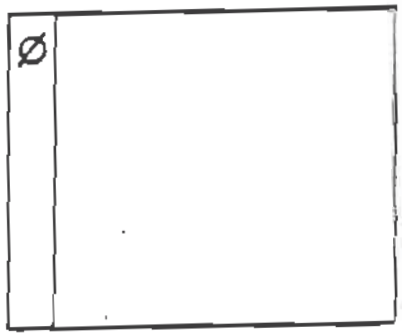
PHASING











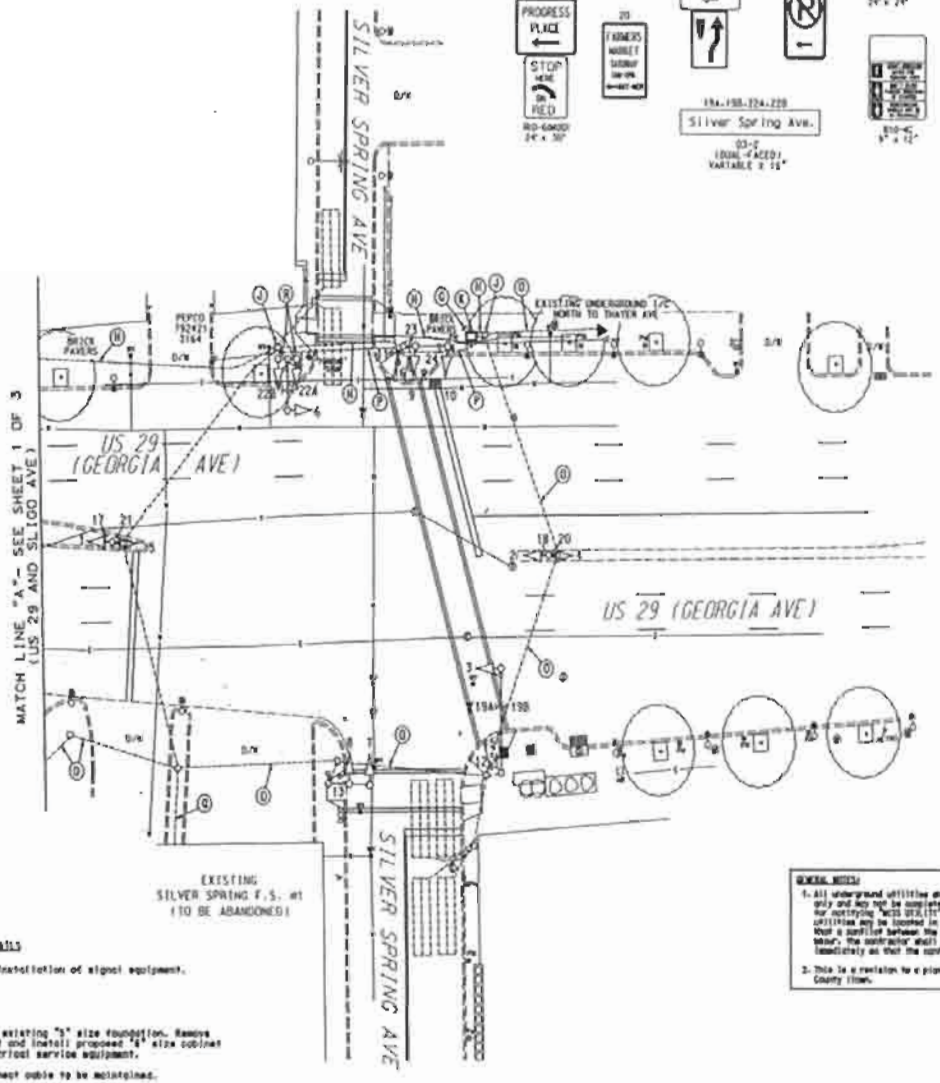
SUBMITTED: R. Gonzer CHECKED: K Hamud 3/4/06 APPROVED: K Hamud 3/4/06
IN SERVICE BY: R/Nelson/Carl DATE: June 5, 2006 TIME: 12:30 PM

US 29 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

EXISTING SIGNS

EXISTING SIGNALS

PHASING



CONSTRUCTION DETAILS

A. Remove sidewalk and replace after the installation of signal equipment.

B. Use existing conduit.

J. Use existing handhole.

E. Install new "G" size foundation around existing "S" size foundation. Remove existing electrical service and cabinet and install proposed "G" size cabinet onto foundation. Replace existing electrical service equipment.

D. Existing conduit with 12-pair interconnect cable to be maintained.

F. Existing underground electrical service.

G. Disconnect existing cables coming from firehouse.

H. Remove existing pole mounted traffic signal heads.

GENERAL NOTES:

1. All underground utilities shown on these plans are schematic only and may not be complete. The contractor shall be responsible for notifying "MISS UTILITY" prior to construction so that all utilities may be located in the field. If the contractor perceives that a conflict between the utilities and the traffic signal will occur, the contractor shall notify the project engineer immediately so that the conflict may be resolved.

2. This is a revision to a plan originally drawn on Montgomery County Mylar.

SEMANTIC LEGEND

PROPOSED
EXISTING

LEGEND OF UNDERGROUND AND OVERHEAD UTILITIES

WIRING CIRCUIT
ELECTRIC
TELEPHONE
GAS
WATER
SEWER
CABLE TV

STREET TRAFFIC STUDIES LTD

REVISIONS | APPROVALS

ORIGINATION FILE

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

US 29 (GEORGIA AVE) AND SILVER SPRING AVE

DRAWN BY: T.E.S.	F.A.P. NO.	TS NO.	SHEET NO.
CHECKED BY: J.C.R.	S.H.A. NO.	6	2 OF 3
SCALE: 1" = 20'	COUNTY: MONTGOMERY	T.I.M.S. NO.	
DATE: 11-83	LOC NO.: 5300(300-18)		

318 C

SEQUENCE OF OPERATION SHEET

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

NO. 315-E

INTERSECTION: Georgia Ave. (US 29) & Wayne Ave.

SIGNAL HEAD INDICATIONS

SIGNAL NO.	1,2,5,7	3,4,6,8,9,12,14	10,11,13,14			16-23
TOTAL:	4	7	4			8
	←R ←Y ←G (12")	R Y G (12")	R ←Y Y ←G G (12")	R Y G G	R Y Y G G (12" 8")	16" PEDESTRIAN COUNTDOWN SIGNAL HEAD "LED" TYPE; APS PUSH BUTTONS

LEGEND
- ▢ OPTICALLY LIMITED
- R - RED
- Y - YELLOW
- G - GREEN
- ← ARROW
- F - FLASHING

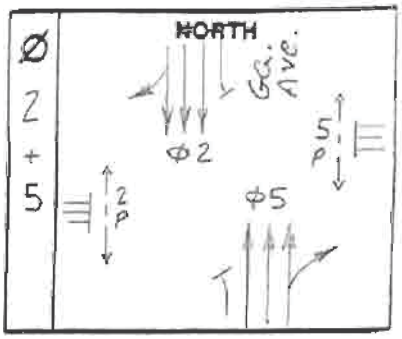
SEQUENCE OF OPERATION

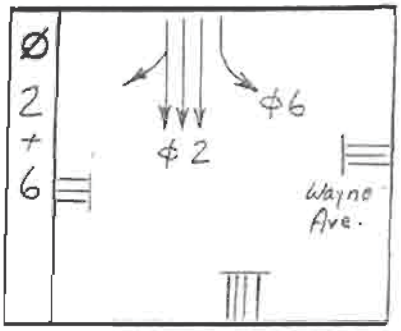
SIGNAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	FLASH
1	←G	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R
2	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R
3	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	Y
4	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	Y
5	←R	←R	←R	←R	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R
6	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	Y
7	←R	←R	←R	←R	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R
8	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	Y
9	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	Y
10	R	R	R	R	R	R	R	←GR	←YR	R	R	R	R	←GG	←YG	G	R
11	R	R	R	R	R	R	R	←GR	←YR	R	R	R	R	←GG	←YG	G	R
12	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	R
13	R	R	R	R	R	R	R	←GR	←YR	R	←GG	←YG	G	R	R	R	R
14	R	R	R	R	R	R	R	←GR	←YR	R	←GG	←YG	G	R	R	R	R
15	R	R	R	R	R	R	R	R	R	R	G	G	G	R	R	R	R
16	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	—
17	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	—
18	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	—
19	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	—
20	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	W	W	DW	DW	DW	—
21	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	W	W	—
22	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	W	W	—
23	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	W	W	DW	DW	DW	—
24																	
PHASE	2+5		ALL RED	2+6		ALL RED	3+7		ALL RED	3+8		ALL RED	4+7			ALL RED	F

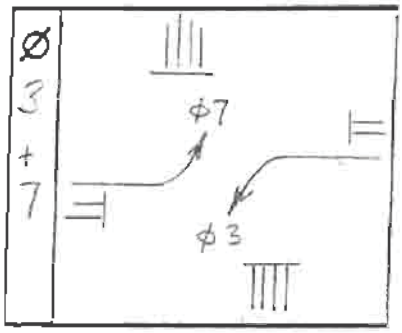
INTERVAL

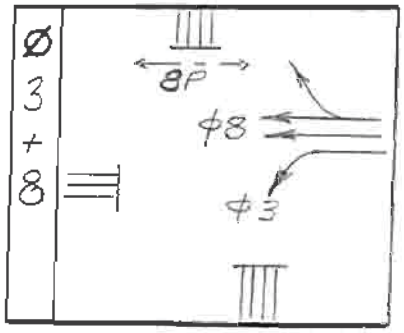
NOTES: * CDF APS activated 8-14-07 1550

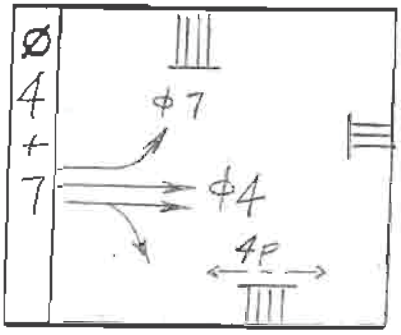
PHASING











SUBMITTED: CR 6-18-07 CHECKED: K Hamad 6-18-07 APPROVED: K Hamad 6-18-07

IN SERVICE BY: 787 DATE: 8/24/2007 TIME: 1503

SEQUENCE OF OPERATION SHEET

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

NO. 315-E

INTERSECTION: Georgia Ave. (US 29) & Wayne Ave.

SIGNAL HEAD INDICATIONS

SIGNAL NO.	SEE	SHEET	#1			
TOTAL:						
LEGEND (O OPTICALLY LIMITED; R - RED; Y YELLOW; G - GREEN; ← ARROW; F - FLASHING)	R Y G 12"	R Y G G 12"	R Y Y G G 12"	R Y G 8"		9" or 12"

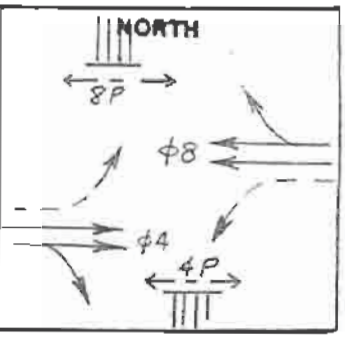
SEQUENCE OF OPERATION

SIGNAL NO.	17	18	19	20	21	22	23	24	FLASH
1	←R	←R	←R	←R	←R	←G	←Y	←R	
2	←R	←R	←R	←R	←R	←G	←Y	←R	
3	R	R	R	R	R	G	G	G	
4	R	R	R	R	R	G	G	G	
5	←R	←R	←R	←R	←R	←R	←R	←R	
6	R	R	R	R	R	R	R	R	
7	←R	←R	←R	←R	←R	←R	←R	←R	
8	R	R	R	R	R	R	R	R	
9	R	R	R	R	R	R	R	R	
10	G	G	G	Y	R	R	R	R	
11	G	G	G	Y	R	R	R	R	
12	G	G	G	Y	R	R	R	R	
13	G	G	G	Y	R	R	R	R	
14	G	G	G	Y	R	R	R	R	
15	G	G	G	Y	R	R	R	R	
16	DW	DW	DW	DW	DW	DW	DW	DW	
17	DW	DW	DW	DW	DW	W	W	W	
18	DW	DW	DW	DW	DW	W	W	W	
19	DW	DW	DW	DW	DW	DW	DW	DW	
20	W	DWF	DW	DW	DW	DW	DW	DW	
21	W	DWF	DW	DW	DW	DW	DW	DW	
22	W	DWF	DW	DW	DW	DW	DW	DW	
23	W	DWF	DW	DW	DW	DW	DW	DW	
24									
PHASE	4+8				ALL RED	1+5		ALL RED	

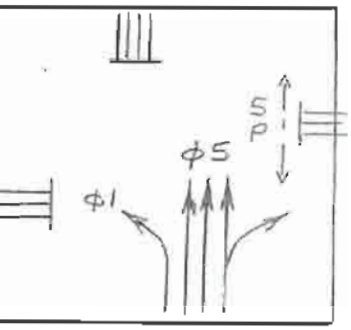
NOTES:

PHASING

Ø 4 + 8



Ø 1 + 5



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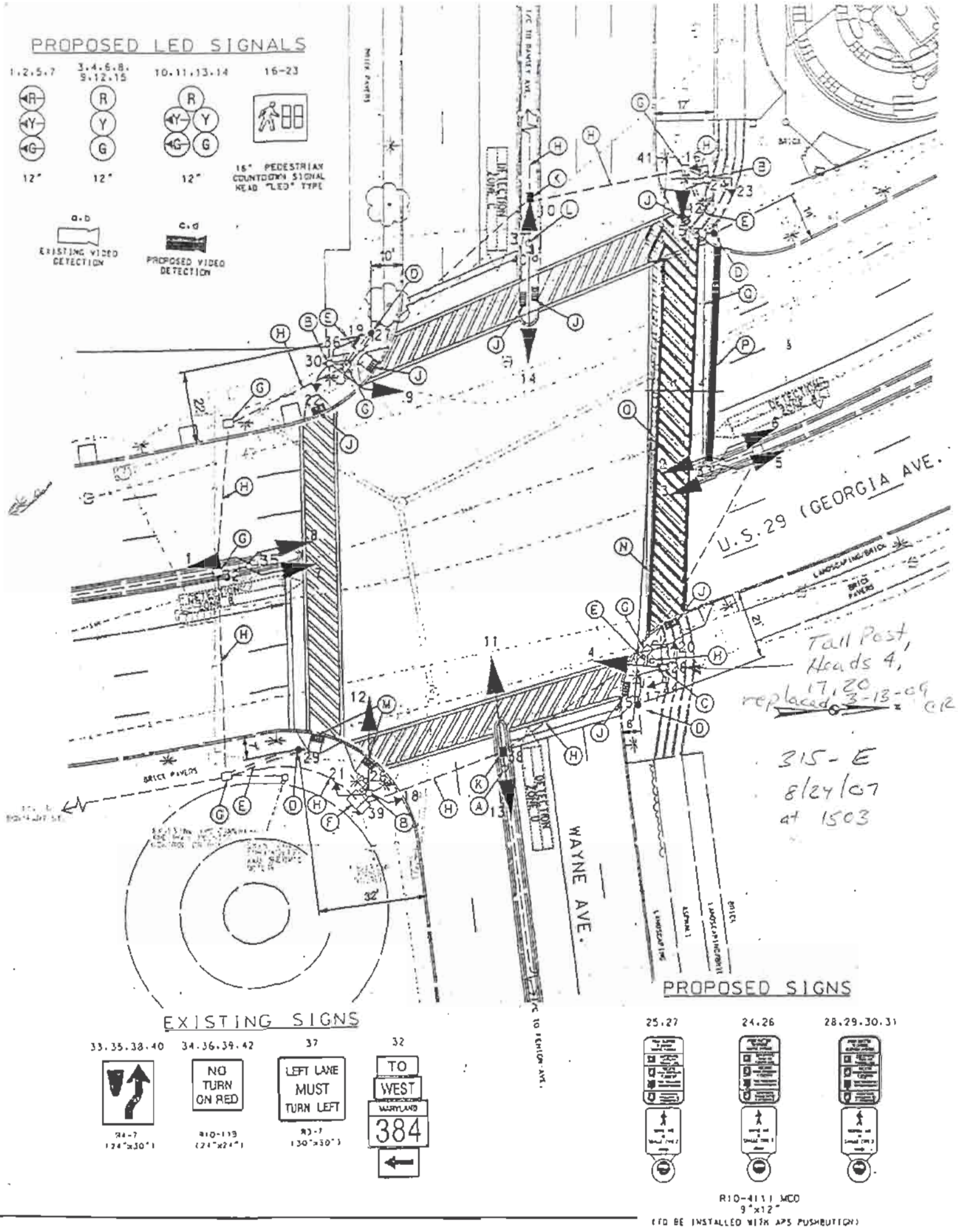
SUBMITTED: _____ CHECKED: _____ APPROVED: _____

IN SERVICE BY: DATE: TIME:


PROPOSED LED SIGNALS
1,2,5,7
3,4,6,8,9,12,15
10,11,13,14
16-23
12"
12"
12"
16" PEDESTRIAN COUNTDOWN SIGNAL HEAD "LED" TYPE
EXISTING VIDEO DETECTION
PROPOSED VIDEO DETECTION
U.S. 29 (GEORGIA AVE.
WAYNE AVE.
BRICK PAVERS
Tall Post, Heads 4, 17, 20 replaced 3-13-09 CR
315-E
8/24/07
at 1503
EXISTING SIGNS
33,35,38,40
34,36,39,42
37
32
NO TURN ON RED
LEFT LANE MUST TURN LEFT
TO
WEST
MARYLAND
384
PROPOSED SIGNS
25,27
24,26
28,29,30,31
R10-4111 MCO
9"x12"
(TO BE INSTALLED WITH APS PUSHBUTTON)

INTERSECTION: Georgia Av (MD.97) - Thayer Av.

NO. D# 317

SIGNAL NO.	2-6	1					P7-P10
TOTAL	5	1					
LENS LEGEND: OPTICALLY LIMITED	R	R					* DONT WALK
R - RED	Y	Y					
Y - YELLOW	G	G					WALK
G - GREEN		←Y/G					
← ARROW							
W - WALK							* SYMBOL
DW - DON'T WALK							
12 - 12" LENS							
F - FLASHING	12	12					12

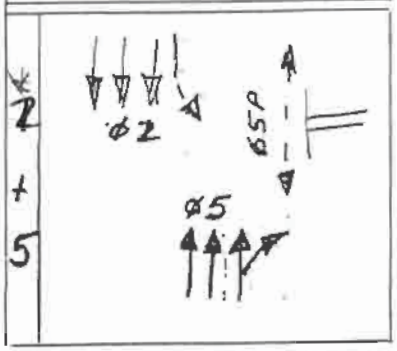
SEQUENCE OF OPERATION

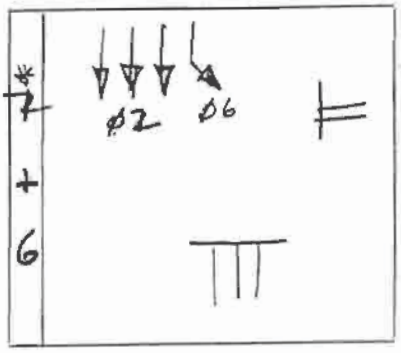
SIGNAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	FLASH
1	G	G	G	G	G	G~~G~~	~~Y~~Y	R	R	R	R	R	R				Y
2	G	G	G	G	G	G	Y	R	R	R	R	R	R				Y
3	G	G	G	Y	R	R	R	R	R	R	R	R	R				Y
4	G	G	G	Y	R	R	R	R	R	R	R	R	R				Y
5	R	R	R	R	R	R	R	R	G	G	G	Y	R				R
6	R	R	R	R	R	R	R	R	G	G	G	Y	R				R
7	DW	DW	DW	DW	DW	DW	DW	DW	W	DWF	DW	DW	DW				–
8	DW	DW	DW	DW	DW	DW	DW	DW	W	DWF	DW	DW	DW				–
9	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				–
10	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				–
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
PHASE	*2+5				ALL RED	2+6		ALL RED	4				ALL RED				

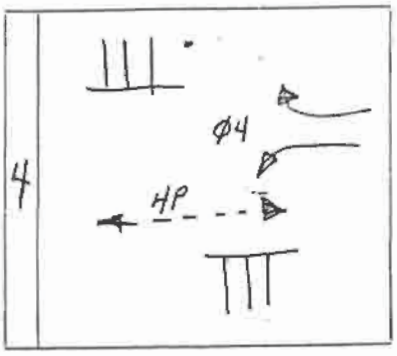
NOTES:

* chg 8/27/95 CAB Rpl For Knock Down.

PHASING



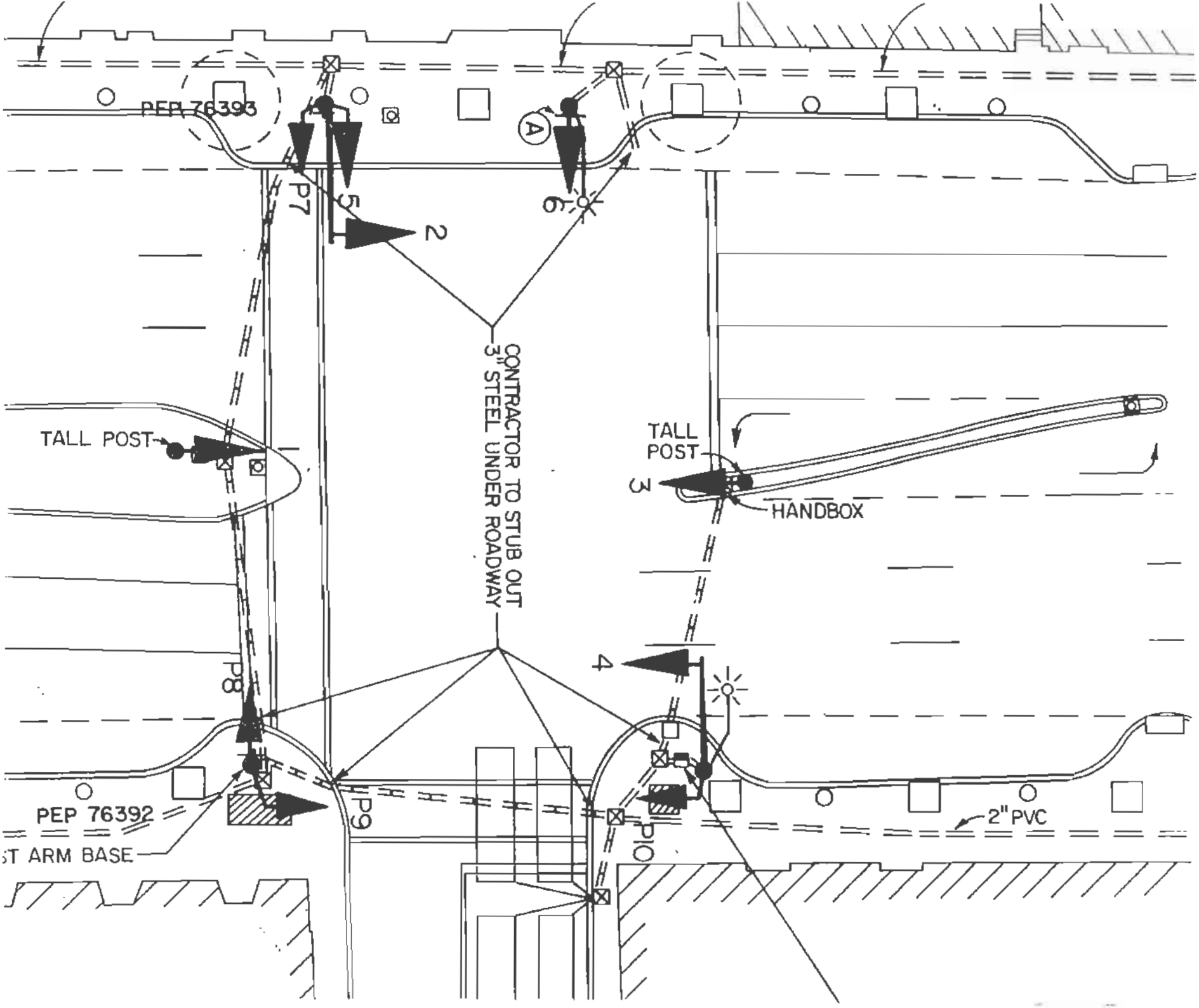




SEQUENCE OF OPERATION SHEET
TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MD.

SUBMITTED: BC 2-10-86
CHECKED: GSD 2-10-86
APPROVED: JWS 2/10/86

IN SERVICE BY: GW
DATE: 3/28/86 TIME 0700


PEP 76393
A
P7
5
2
6
CONTRACTOR TO STUB OUT
3" STEEL UNDER ROADWAY
TALL POST
1
TALL
POST
3
HANDBOX
P8
4
PEP 76392
ST ARM BASE
P9
P10
2" PVC

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

NO. 55C

TERSECTION: BONIFANT ST. - FENTON ST.

SIGNAL HEAD INDICATIONS

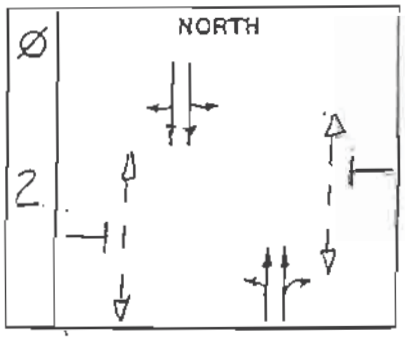
SIGNAL NO.	1-8					9-16
TOTAL:	8					8
	R Y G 12"	R Y G G 12"	R Y Y G G 12"	R Y G 8"		9" or 12"

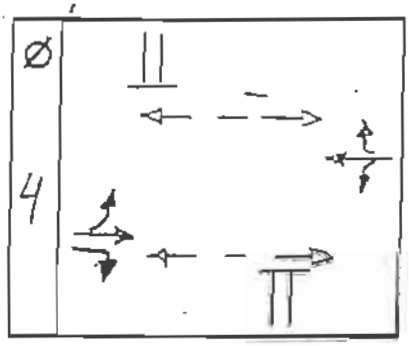
LEGEND
- OPTICALLY LIMITED
- R - RED
- Y - YELLOW
- G - GREEN
- ← ARROW
- F - FLASHING

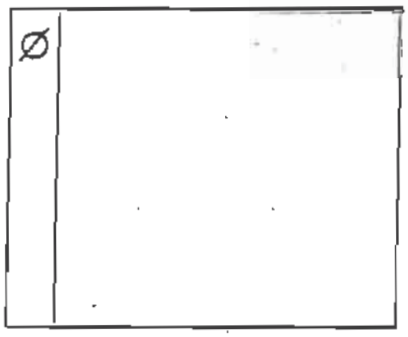
SEQUENCE OF OPERATION

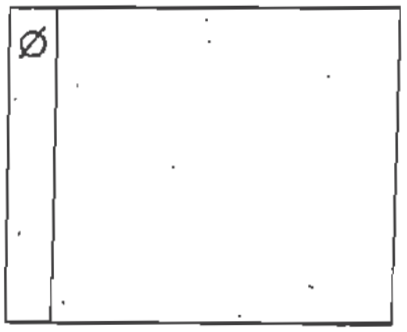
SIGNAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	FLASH
1	G	G	G	Y	R	R	R	R	R	R							Y
2	G	G	G	Y	R	R	R	R	R	R							Y
3	G	G	G	Y	R	R	R	R	R	R							Y
4	G	G	G	Y	R	R	R	R	R	R							Y
5	R	R	R	R	R	G	G	G	Y	R							R
6	R	R	R	R	R	G	G	G	Y	R							R
7	R	R	R	R	R	G	G	G	Y	R							R
8	R	R	R	R	R	G	G	G	Y	R							R
9	W	DW/F	DW	DW	DW	DW	DW	DW	DW	DW							—
10	W	DW/F	DW	DW	DW	DW	DW	DW	DW	DW							—
11	W	DW/F	DW	DW	DW	DW	DW	DW	DW	DW							—
12	W	DW/F	DW	DW	DW	DW	DW	DW	DW	DW							—
13	DW	DW	DW	DW	DW	W	DW/F	DW	DW	DW							—
14	DW	DW	DW	DW	DW	W	DW/F	DW	DW	DW							—
15	DW	DW	DW	DW	DW	W	DW/F	DW	DW	DW							—
16	DW	DW	DW	DW	DW	W	DW/F	DW	DW	DW							—
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
PHASE	Ø 2			ALL RED		Ø 4			ALL RED								

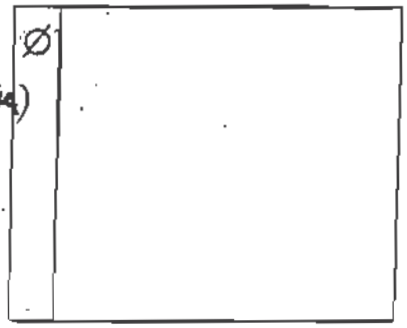
PHASING











NOTES: SIGNAL HEADS REVISED AS PER FIELD CONDITION 9/2005 (JH)

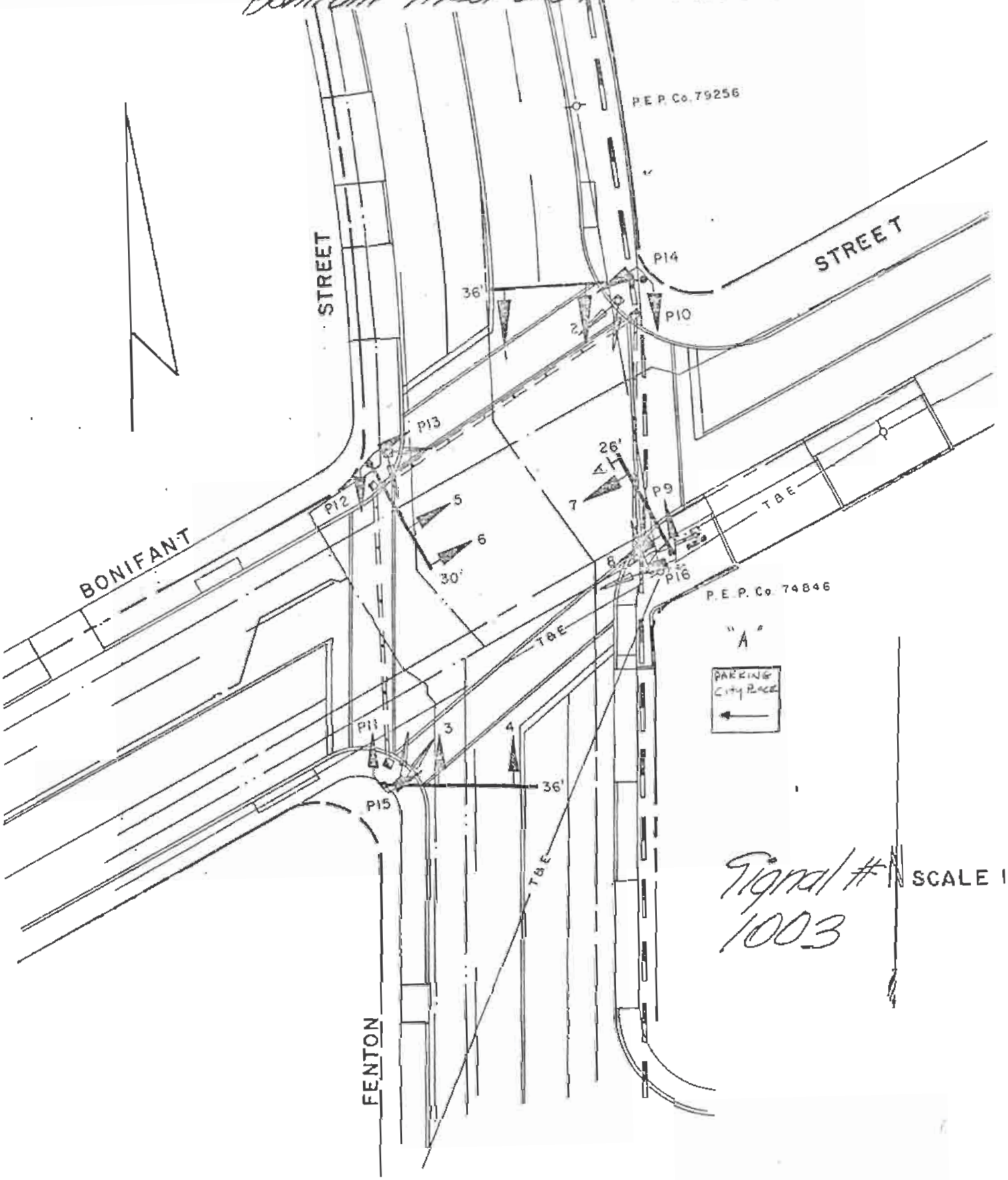
9/16/05 RETROFIT SIGNAL HEADS 1-8 RED + GRN INCANDESCENT W/ LEDS

SUBMITTED: GSD 7/11/89 CHECKED: APPROVED:

IN SERVICE BY: CR DATE: 7/20/89 TIME: 11:30

Signal Head Layout

Bonifant Street and Fenton Street



REV. RC 4/17/92

GEORGIA AVENUE RUNS IN A NORTH–SOUTH DIRECTION

SEQUENCE OF OPERATION SHEET

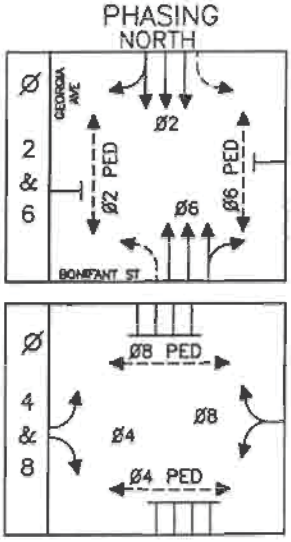
TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

NO. 316–F*
SHT. 1 OF 1

INTERSECTION: US 29 (GEORIGA AVENUE) AND BONIFANT ST.

	SIGNAL HEAD INDICATIONS					
SIGNAL NO.	1–9					10–17
TOTAL:	9					8
LEGEND OPTICALLY LIMITED R RED Y YELLOW G GREEN ARROW F FLASHING	R Y G 12"					12" 16" APS PB's

PHASING



SIGNAL NO.	SEQUENCE OF OPERATION INTERVAL 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	FLASH
1	G	G	G	Y	R	R	R	R	R	R									Y
2	G	G	G	Y	R	R	R	R	R	R									Y
3	G	G	G	Y	R	R	R	R	R	R									Y
4	G	G	G	Y	R	R	R	R	R	R									Y
5	R	R	R	R	R	G	G	G	Y	R									R
6	R	R	R	R	R	G	G	G	Y	R									R
7	R	R	R	R	R	G	G	G	Y	R									R
8	R	R	R	R	R	G	G	G	Y	R									R
9	R	R	R	R	R	G	G	G	Y	R									R
10	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW									DARK
11	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW									DARK
12	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW									DARK
13	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW									DARK
14	DW	DW	DW	DW	DW	W	W	FDW	DW	DW									DARK
15	DW	DW	DW	DW	DW	W	W	FDW	DW	DW									DARK
16	DW	DW	DW	DW	DW	W	W	FDW	DW	DW									DARK
17	DW	DW	DW	DW	DW	W	W	FDW	DW	DW									DARK
18																			
19																			
20																			
PHASE	2 & 6				ALL RED	4 & 8				ALL RED									

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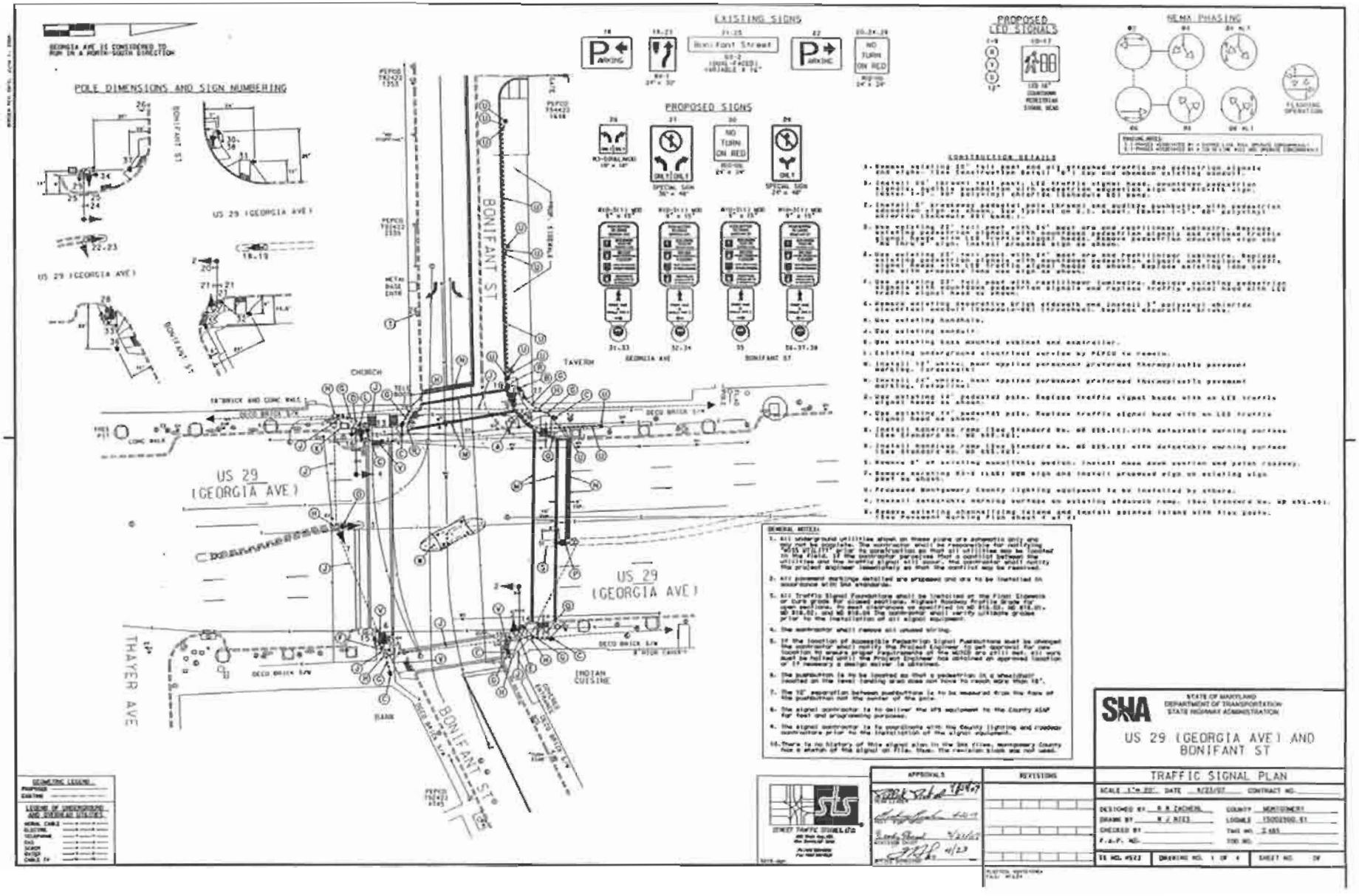
NOTES: * F = GEOMETRIC CHANGES AND CPD ONLY.
APS PB's, LED Heads activate 4/9/08 at 1221
RM/CR

SUBMITTED: MCG 6/12/07 CHECKED: KHamud 6/12/07 APPROVED: KHamud 6/12/07
IN SERVICE BY: 787,784 DATE: 6/18/07 TIME: 12:10

316-F

LED Heads } 4/9/08 RM/CR
APS PB's }

Geometric changes & CDP

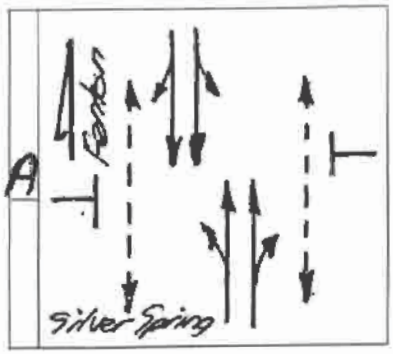


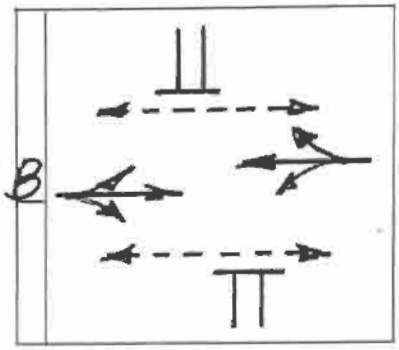
INTERSECTION: Fenton Street - Silver Spring Avenue

NO. 1028 - B

SIGNAL HEAD INDICATIONS							
SIGNAL NO.	1-8						9-16
TOTAL	8						8
LENS LEGEND:	R						DW
R - RED	Y						W
Y - YELLOW	G						9
G - GREEN							
← - ARROW							
W - WALK							
DW - DON'T WALK							
12 - 12" LENS							

PHASING





SEQUENCE OF OPERATION

SIGNAL NO.	INTERVAL 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	G	G	Y	R	R	R										Y
2	G	G	Y	R	R	R										Y
3	G	G	Y	R	R	R										Y
4	G	G	Y	R	R	R										Y
5	R	R	R	G	G	Y										R
6	R	R	R	G	G	Y										R
7	R	R	R	G	G	Y										R
8	R	R	R	G	G	Y										R
9	WF	DWF	DWF	DW	DW	DW										-
10	WF	DWF	DWF	DW	DW	DW										-
11	WF	DWF	DWF	DW	DW	DW										-
12	WF	DWF	DWF	DW	DW	DW										-
13	DW	DW	DW	WF	DWF	DWF										-
14	DW	DW	DW	WF	DWF	DWF										-
15	DW	DW	DW	WF	DWF	DWF										-
16	DW	DW	DW	WF	DWF	DWF										-

FROM PHASE	A	A	B	B	Ped
TO PHASE		B		A	

REMARKS:

8/12/05 Retrofit signal heads 1-8 red + green w/ LEDS

SEQUENCE OF OPERATION SHEET
SECTION OF TRAFFIC OPERATIONS
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MD.

SUBMITTED: RC

APPROVED: R Brauer 11/4/77

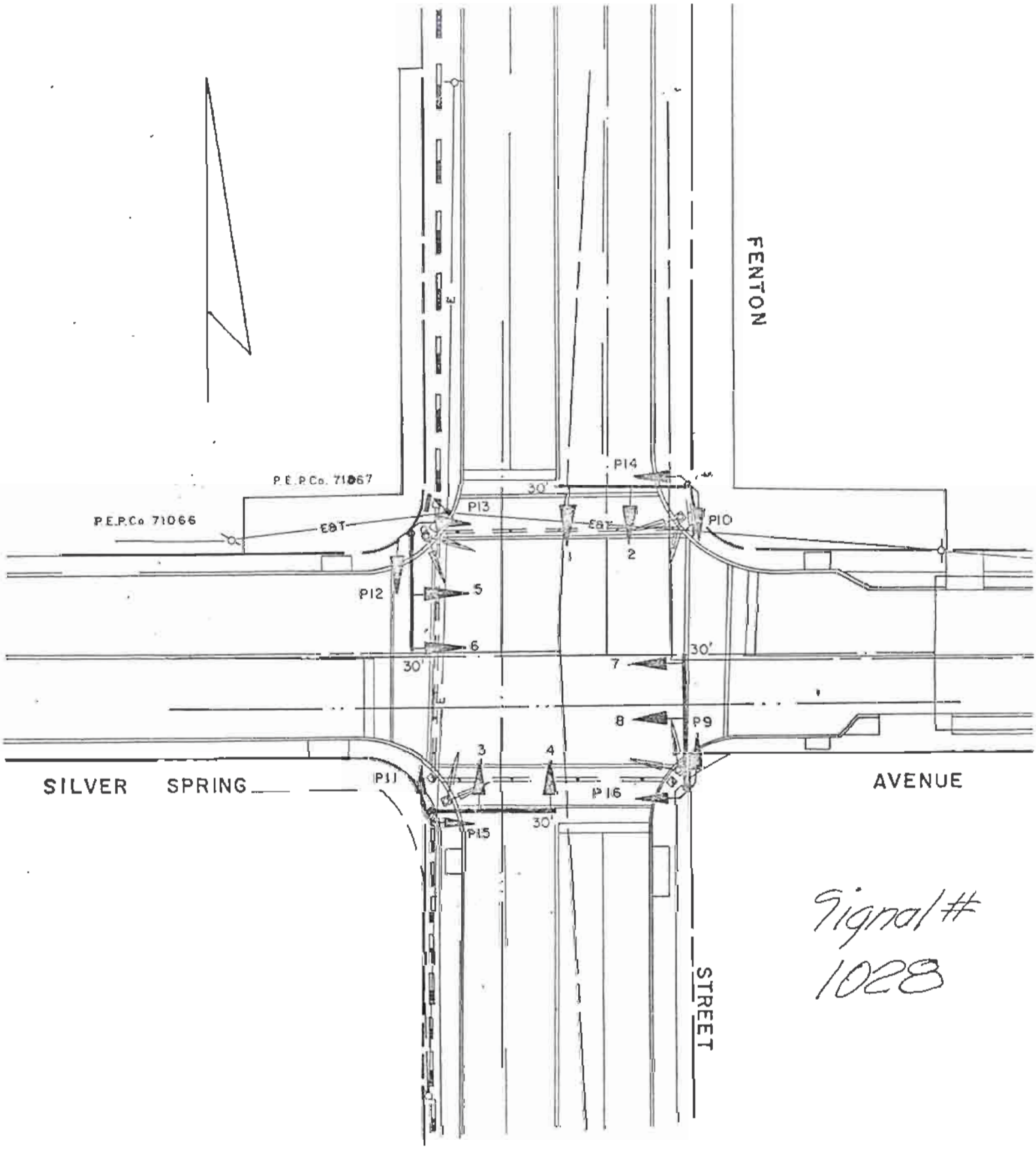
IN SERVICE: NE & SL

DATE: 7/13/78 TIME: 9:30A

S-O 7-68 ROTE

Signal Head Layout

Fenton Street and Silver Spring Avenue



Signal #
1028

SEQUENCE OF OPERATION SHEET

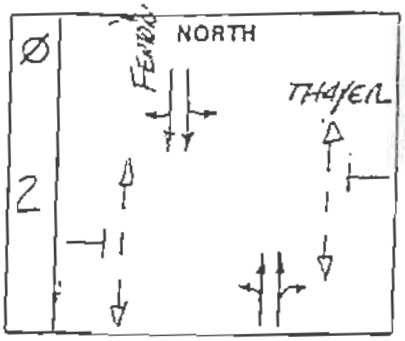
TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

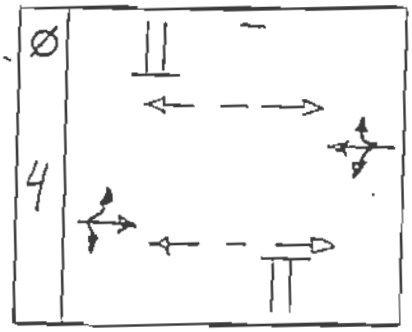
NO. 56 C

INTERSECTION: FENTON ST. - THAYER AVE.

	SIGNAL HEAD INDICATIONS					
SIGNAL NO.	1-8					9-16
TOTAL:	8					8
LEGEND OPTICALLY LIMITED R - RED Y - YELLOW G - GREEN ARROW F - FLASHING	R Y G 12"	R Y G G 12"	R Y Y G G 12"	R Y G 8"		9" or 12"

PHASING





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SIGNAL NO.	SEQUENCE OF OPERATION INTERVAL 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	FLASH
1	G	G	G	Y	R	R	R	R	R	R							Y
2	G	G	G	Y	R	R	R	R	R	R							Y
3	G	G	G	Y	R	R	R	R	R	R							Y
4	G	G	G	Y	R	R	R	R	R	R							Y
5	R	R	R	R	R	G	G	G	Y	R							R
6	R	R	R	R	R	G	G	G	Y	R							R
7	R	R	R	R	R	G	G	G	Y	R							R
8	R	R	R	R	R	G	G	G	Y	R							R
9	W	DW/F	DW	DW	DW	DW	DW	DW	DW	DW							—
10	W	DW/F	DW	DW	DW	DW	DW	DW	DW	DW							—
11	W	DW/F	DW	DW	DW	DW	DW	DW	DW	DW							—
12	W	DW/F	DW	DW	DW	DW	DW	DW	DW	DW							—
13	DW	DW	DW	DW	DW	W	DW/F	DW	DW	DW							—
14	DW	DW	DW	DW	DW	W	DW/F	DW	DW	DW							—
15	DW	DW	DW	DW	DW	W	DW/F	DW	DW	DW							—
16	DW	DW	DW	DW	DW	W	DW/F	DW	DW	DW							—
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
PHASE	Ø 2			FLASHED			Ø 4			FLASHED							

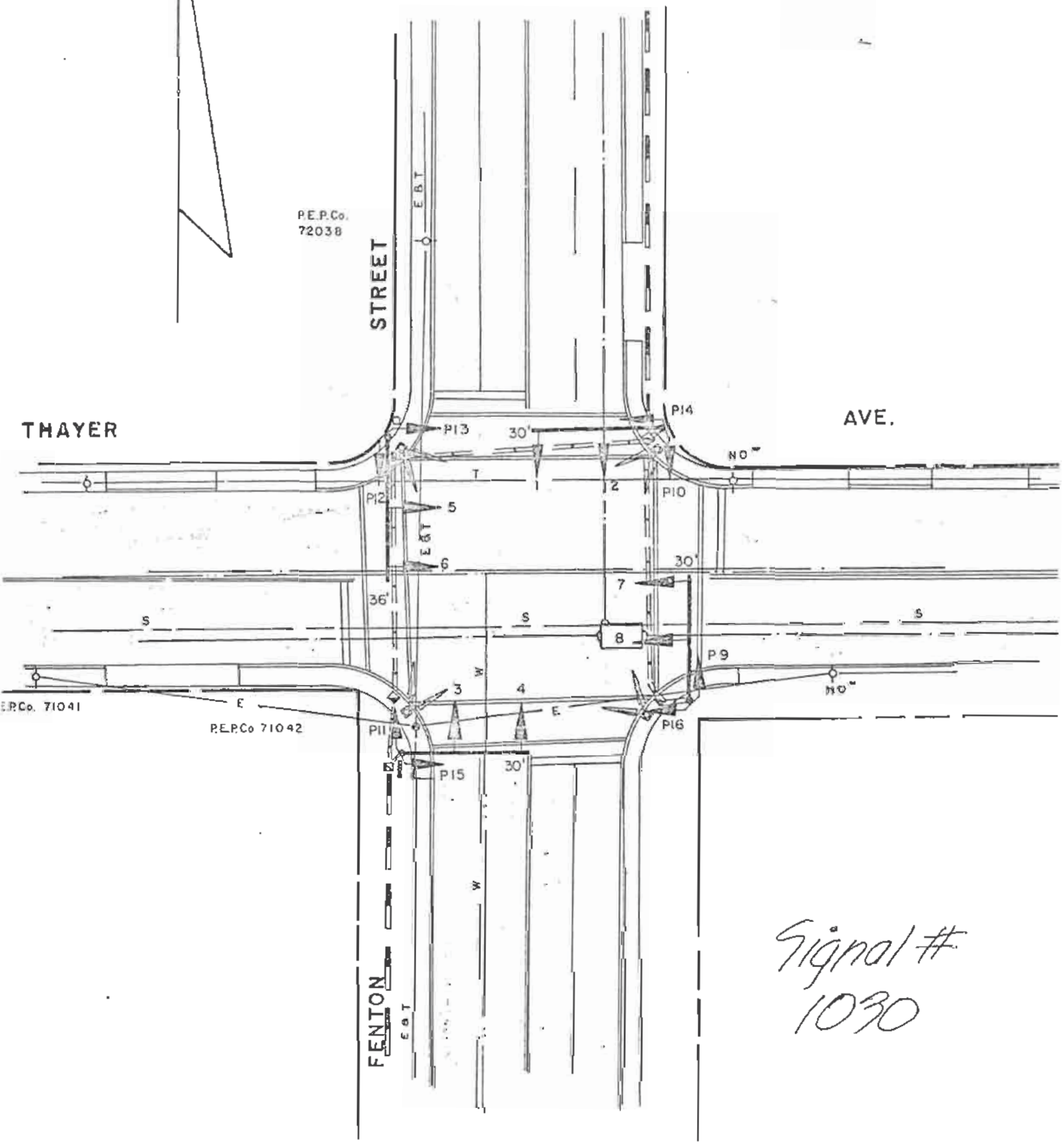
NOTES: SIGNAL HEADS REVISED AS PER FIELD CONDITION 9/2005 JK

8/10/05 retrofit signal heads 1-8
w/Red + green LEDS

SUBMITTED: LSD 7/1/89 CHECKED: APPROVED:
IN SERVICE BY: CR DATE: 7/28/87 TIME: 13:00

Signal Head Layout

Fenton Street and Thayer Avenue



Signal #
1030

FENTON STREET RUNS IN A NORTH-SOUTH DIRECTION

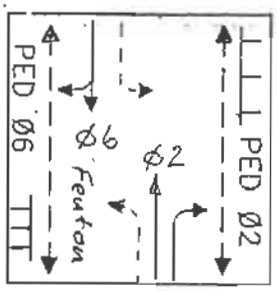
SEQUENCE OF OPERATION SHEET
TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

INTERSECTION: FENTON STREET AND WAYNE AVENUE. NO. 54-E #

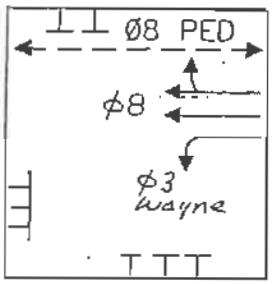
SIGNAL NO.	SIGNAL HEAD INDICATIONS 1-9,12	10,11	P13-20
TOTAL:	10	2	8
LEGEND OPTICALLY LIMITED R RED Y YELLOW G GREEN ← ARROW F FLASHING	R Y G 12"	R ←Y Y ←G G 12"	9"or 12" X Count down Peds INSTALLED ON 10/15/02 + Audible Peds

PHASING DIAGRAM

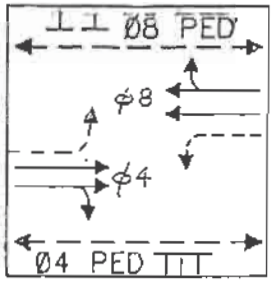
2+6



3+8



4+8



SIGNAL NO.	SEQUENCE OF OPERATION INTERVAL 1	2	3	4	5	6	7	8	9	10	11	12	FLASH
1	G	G	Y	R	R	R	R	R	R	R	R	R	Y
2	G	G	Y	R	R	R	R	R	R	R	R	R	Y
3	G	G	Y	R	R	R	R	R	R	R	R	R	Y
4	G	G	Y	R	R	R	R	R	R	R	R	R	Y
5	G	G	Y	R	R	R	R	R	R	R	R	R	Y
6	G	G	Y	R	R	R	R	R	R	R	R	R	Y
7	R	R	R	R	R	R	R	G	G	G	Y	R	R
8	R	R	R	R	R	R	R	G	G	G	Y	R	R
9	R	R	R	R	R	R	R	G	G	G	Y	R	R
10	R	R	R	R	~~G~~ G	~~Y~~ G	G	G	G	G	Y	R	R
11	R	R	R	R	~~G~~ G	~~Y~~ G	G	G	G	G	Y	R	R
12	R	R	R	R	G	G	G	G	G	G	Y	R	R
13	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	
14	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	
15	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	
16	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	
17	DW	DW	DW	DW	W	W	W	W	DWF	DW	DW	DW	
18	DW	DW	DW	DW	DW	DW	DW	W	DWF	DW	DW	DW	
19	DW	DW	DW	DW	DW	DW	DW	W	DWF	DW	DW	DW	
20	DW	DW	DW	DW	W	W	W	W	DWF	DW	DW	DW	
PHASE	Ø2 + 6			ALL RED	Ø3 + 8		ALL RED	Ø4 + 8				ALL RED	

9/19/2005 LED Retrofit for signal 1-12 R+G BALLS Plus R+G Arrows

E# for new Lane Use after restriping. As per photo on 4-12-03 CR

No Φing Changes.

SUBMITTED: C. Romaine 4/7/00 CHECKED: _____ APPROVED: B. Gonzales 4.10.00

IN SERVICE BY: JS DATE: 8-3-00 TIME: 1300

PROPOSED SIGNS

22,24,26,29

R10-11A
24"x30"

27

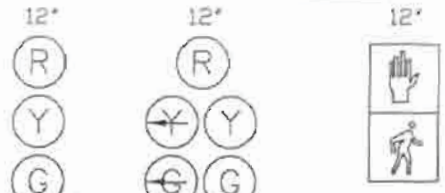
R10-12
24" x 30"

30

R3-5R
30"x36"

PROPOSED SIGNALS

12" 12" 12"



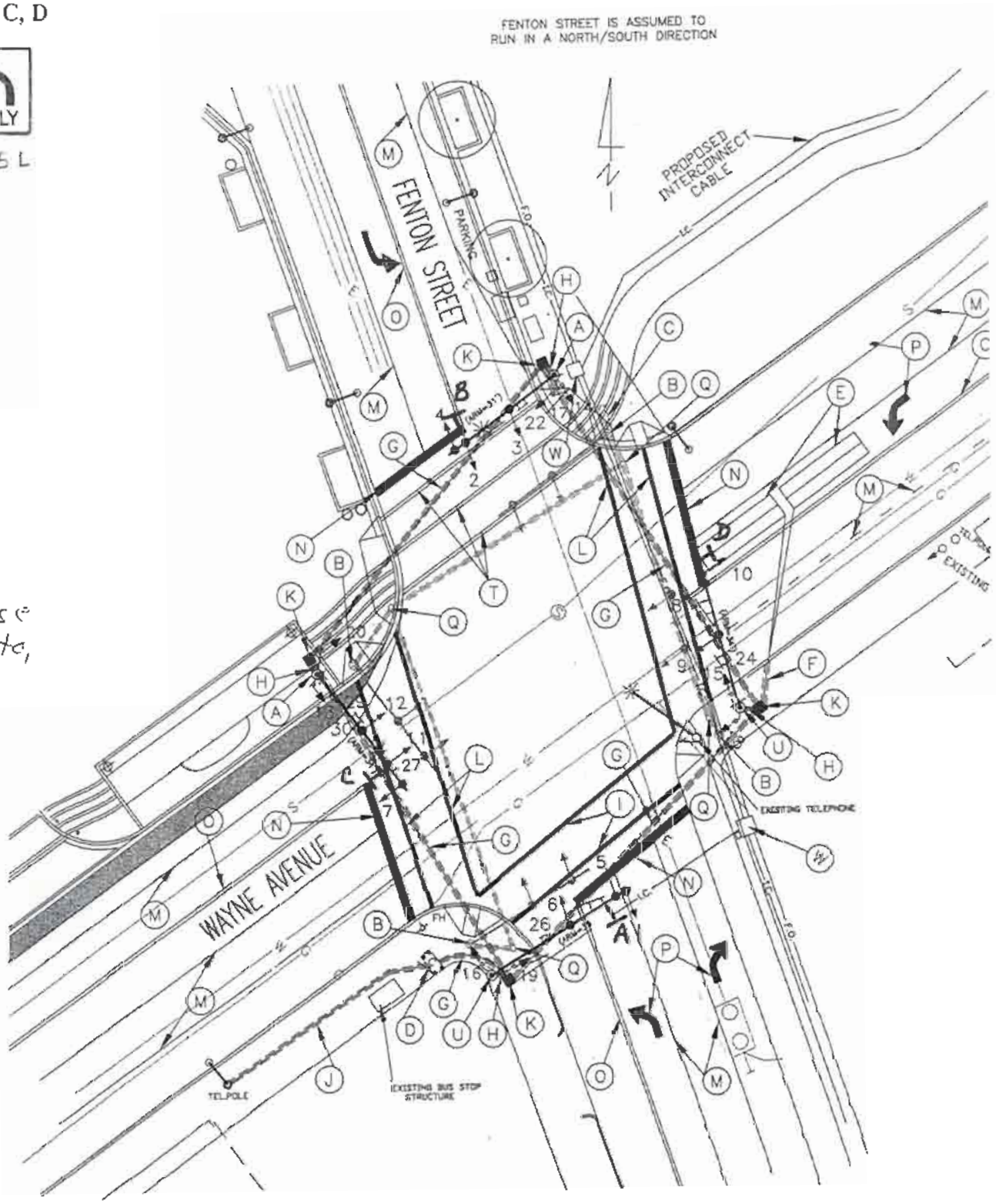
1,2,3,4,5, 6,7,8,9,12 — 10,11 — 13,14,15,16 17,18,19,20

ALL SIGNALS SHALL BE EQUIPPED WITH BACKPLATES.
ALL SIGNALS LENSES SHALL BE 12" GLASS.

A, B, C, D

R3-5L

54-E *
New Lane Use
As per photo,
4/12/03 CR



SEQUENCE OF OPERATION SHEET

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

NO. 308 C-3

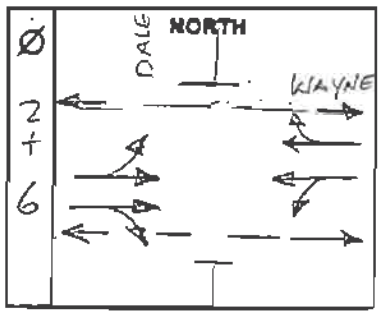
INTERSECTION: DALE DRIVE (MD 391) & WAYNE AVE.

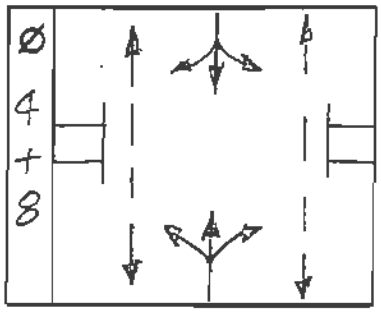
SIGNAL HEAD INDICATIONS						
SIGNAL NO.	1-8					9-16
TOTAL:	8					8
LEGEND OPTICALLY LIMITED R - RED Y - YELLOW G - GREEN ARROW F - FLASHING	R Y G 12"	R Y G G 12"	R Y Y G G 12"	R Y G 8"		9" or 12"

SEQUENCE OF OPERATION

SIGNAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	FLASH
1	G	G	Y	R	R	R	R	R									Y
2	G	G	Y	R	R	R	R	R									Y
3	G	G	Y	R	R	R	R	R									Y
4	G	G	Y	R	R	R	R	R									Y
5	R	R	R	R	G	G	Y	R									R
6	R	R	R	R	G	G	Y	R									R
7	R	R	R	R	G	G	Y	R									R
8	R	R	R	R	G	G	Y	R									R
P 9	DW	DW	DW	DW	W	FDW	DW	DW									—
P 10	DW	DW	DW	DW	W	FDW	DW	DW									—
P 11	DW	DW	DW	DW	W	FDW	DW	DW									—
P 12	DW	DW	DW	DW	W	FDW	DW	DW									—
P 13	W	FDW	DW	DW	DW	DW	DW	DW									—
P 14	W	FDW	DW	DW	DW	DW	DW	DW									—
P 15	W	FDW	DW	DW	DW	DW	DW	DW									—
P 16	W	FDW	DW	DW	DW	DW	DW	DW									—
17																	—
18																	
19																	
20																	
21																	
22																	
23																	
24																	
PHASE	2+6			ALL RED	4+8			ALL RED									F

PHASING





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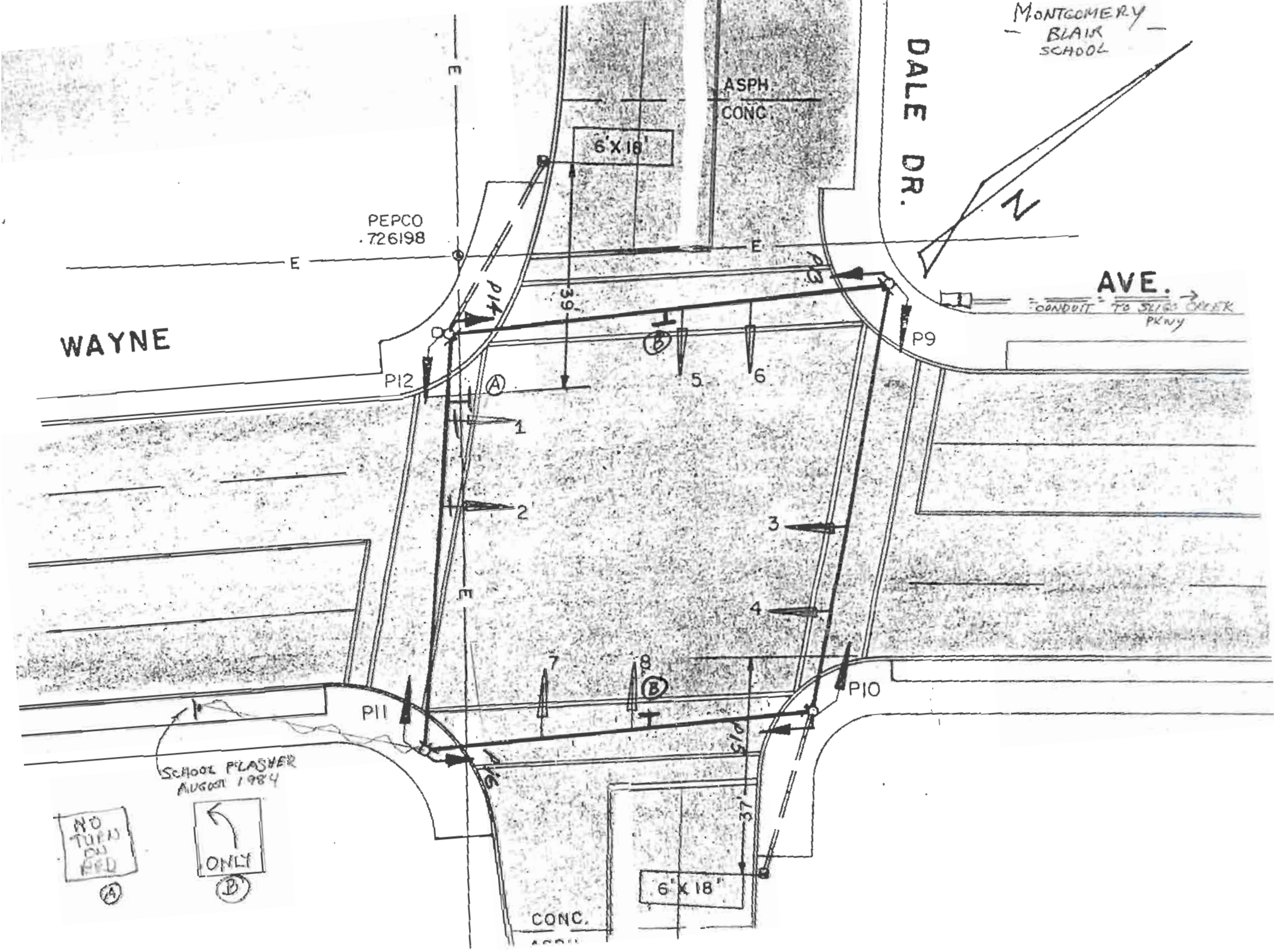
NOTES:

REV C-3 CHANGE TO LED
9/20/2006 Replaced Ped heads 9-16 w/
Countdown Ped heads

SUBMITTED: KHamud 10/18/05 CHECKED: 10/18/05 APPROVED:
IN SERVICE BY: PP DATE: 10/20/05 TIME: 1500


MONTGOMERY BLAIR SCHOOL
DALE DR.
N
ASPH.
CONC.
6'X18'
PEPCO
.726198
E
WAYNE
AVE.
CONDUIT TO SLIGO CREEK PKWY
P9
P10
P11
P12
P13
P14
P15
P16
36'
37'
1
2
3
4
5
6
7
8
A
B
SCHOOL FLASHER
AUGUST 1984
NO TURN ON RED
A
ONLY
B
6'X18'
CONC.

SEQUENCE OF OPERATION SHEET

TRAFFIC OPERATIONS SECTION
DIVISION OF TRAFFIC ENGINEERING
MONTGOMERY COUNTY, MARYLAND

NO. 314-D

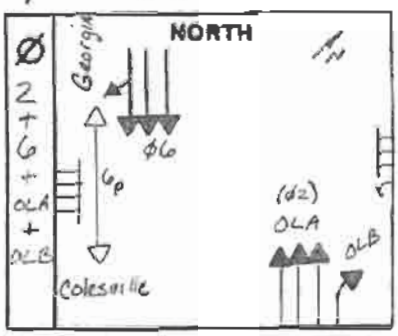
INTERSECTION: Colesville RD. (MD. 384/US 29) - Georgia Ave (MD. 97)

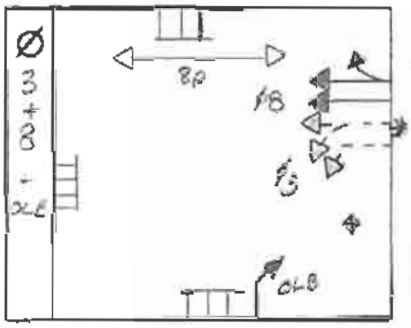
SIGNAL HEAD INDICATIONS

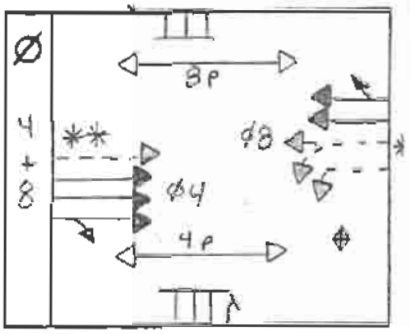
SIGNAL NO.	1,2,4,5,7,9,11,12		10,11	3,6		P13-20
TOTAL:	8		2	2		8
	12"	12"	12"	12"		9" or 12"

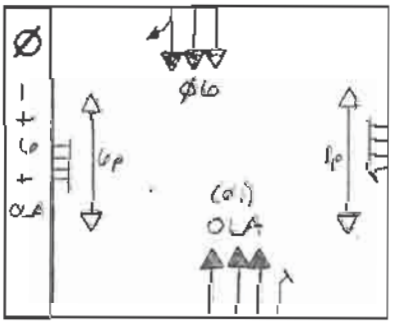
LEGEND
- OPTICALLY LIMITED
- R - RED
- Y - YELLOW
- G - GREEN
- ← ARROW
- F - FLASHING

PHASING









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SEQUENCE OF OPERATION

SIGNAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	FLASH
1	G	G	Y	R	R	R	R	R	R	R	R	R	G	G	G		R
2	G	G	Y	R	R	R	R	R	R	R	R	R	G	G	G		R
3	G←	G←	G←	G←	G←	Y←	R←	R←	R←	R←	R←	R←	R←	R←	R←		R←
4	G	G	Y	R	R	R	R	R	R	R	R	R	G	G	G		R
5	G	G	Y	R	R	R	R	R	R	R	R	R	G	G	G		R
6	G←	G←	G←	G←	G←	Y←	R←	R←	R←	R←	R←	R←	R←	R←	R←		R←
7	R	R	R	R	R	R	R	G	G	G	Y	R	R	R	R		R
8	R	R	R	R	R	R	R	G	G	G	Y	R	R	R	R		R
9	R	R	R	R	R	R	R	G	G	G	Y	R	R	R	R		R
10	R	R	R	R	ø8 G	ø8 G	G	G	G	G	Y	R	R	R	R		R
11	R	R	R	R	ø8 G	ø8 G	G	G	G	G	Y	R	R	R	R		R
12	R	R	R	R	G	G	G	G	G	G	Y	R	R	R	R		R
13	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	DWF	DW		—
14	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	W	W		—
15	W	DWF	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	W	W		—
16	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	DWF	DW		—
17	DW	DW	DW	DW	W	W	W	W	DWF	DW	DW	DW	DW	DW	DW		—
18	DW	DW	DW	DW	W	W	W	W	DWF	DW	DW	DW	DW	DW	DW		—
19	DW	DW	DW	DW	DW	DW	DW	W	DWF	DW	DW	DW	DW	DW	DW		—
20	DW	DW	DW	DW	DW	DW	DW	W	DWF	DW	DW	DW	DW	DW	DW		—
21																	
22																	
23																	
24																	
PHASE	Ø2+6+OLA			All RED	Ø3+Ø8 OLA+OLB		All RED	Ø4+8				All RED	Ø1+Ø6+OLA			All RED	

NOTES:
- OLA = Ø1+Ø2 / OLB = Ø2+Ø3.
- ◆ E/B JUST EAST OF INT. merges 2 lanes Am Rush M-F.
- Ø2 IS A Dummy phase Timed w/ Ø6.
- Ø1 is For Peds P13+16 N/B Georgia Ave.
- COMES OUT OF FLASH IN Ø2+Ø6+OLA+OLB GRN.
- * Am + Avg. w/B Colesville 3 Thru + 1 LT. / E/B 3 THRU M-F + SAT. Sun. PM w/B Colesville 2 Thru + 1 LT / E/B 4 THRU. M-F.
- ** Pm only E/B 4TH left THRU open. Closed ALL OTHER TIMES.
- Reversible Lanes on Colesville (See Reviewed for 3 Thru).

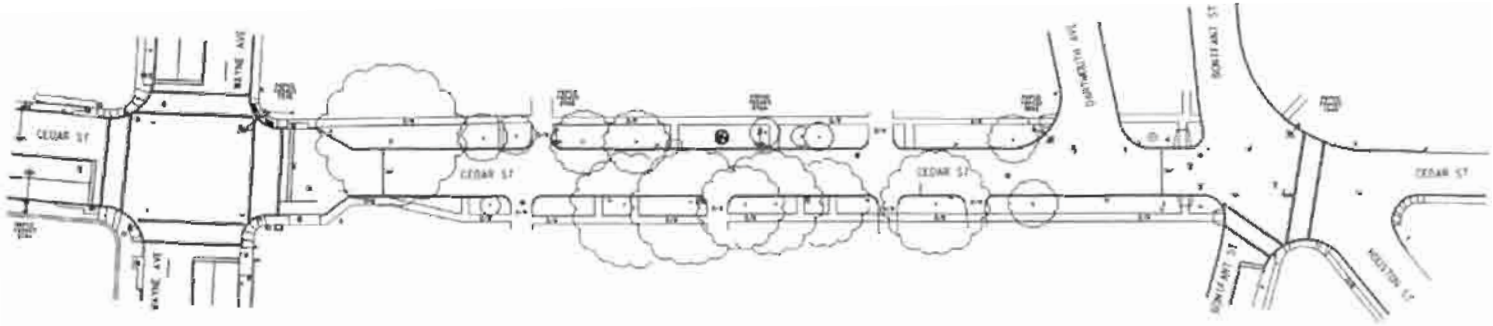
COUNTDOWN PED SIGNALS INSTALLED ON 10/15/02.

AUDIBLE PEDS INSTALLED

SUBMITTED: EJW/JR 2/10/93 CHECKED: BC 3/26/93 APPROVED: BCM 3/7/93

IN SERVICE BY: EJW/JR DATE: 3/1/93 TIME: 0030 AM

SHEET NO.
___OF___



PRELIMINARY PLAN

NO.	REVISION	BY	APP'D	DATE

DESIGNED BY: R R ZACHER | DATE
DRAWN BY: R J MOES | DATE
CHECKED BY: | DATE
DRAWING NO.:

APPROVED BY:
CHIEF, TRAFFIC ENGINEERING AND OPERATIONS SECTION

DEPT. OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF OPERATIONS
MONTGOMERY COUNTY, MARYLAND

CEDAR STREET

SCALE: 1"= 20'

APPENDIX C

CAPACITY WORKSHEETS - EXISTING CONDITIONS

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)                |<-  Name of N-S Approa
 Subdivision Case:             |  R   Right     Thru      Left           |    Georgia Ave
Silver Spring Library          |  ^      48     1241         4  =VPH     |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0        3         0 =#Lanes   |     Use "N","Y":
Existing                       |  Of LY |            |          | CLV(N):  | P  eak Hour Period:
Date:                Count     |  for r <-           V        ->     478  |    AM
_____ __________ ________ __|  RTOR                                  3 |___ _________ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]              /\    From EAST (Westbounc
        VPH          #Lanes          CLV   (N-S)=     478             ||          #Lanes   VPH
  Left        4          0 --^  SI B  CLV   (E-W)=     759             NB  ^--        0      45
  Thru      479          3 -->  || | —      _______ _______                <--        3    1296
  Right      37          0 --v  V /  SU    M CLV=    1238  ok              v--        1     567
R       CLV(W)=        759       3            LOS=   C        | EB==> =>    1  CLV(E)=      500
_____ __________ ________ __     C   LV(S):   (ok-under 1,525)             __ _________ _______
Name of E-W Approach         h |       334        <-        ^    ->         ||f  free flow Rt->Vol=0
Colesville Rd                  |                    |        |        |     ||f  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       0        3        1     | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=         0      891      234     | L  efts use Thru Lane
Date:        07-May   May-09   |                Left     Thru    Right   R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)                  |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler
 Created on:          9/14/87  |  Lane Utilization Factors:                |     LOS:     CLV>#
 Updated 6/22/92               |  A pproach h Turning Movement             |  _________  _______
                               |  Nc .Lanes    Left      Thru      Rght    |       A          0
                               |     1 Lane    1.00      1.00      1.00    |       A/B      977
If any questions:              |     2 Lanes   0.53      0.53      0.53    |       B       1022
 Call Ed Axler                 |     3 Lanes   0.37      0.37      0.37    |       B/C     1127
 at 1-301-495-4525             |     4 Lanes   0.29      0.29      0.29    |       C       1172
 8787 Georgia Ave              |     5 Lanes   0.25      0.25      0.25    |       C/D     1277
 Silver Spring, MD 20910-3760                                             |       D       1322
_____ __________ ________ __  _  _______ _______ _______ ________ --   --|       D/E     1427
\p      {Calc}{Calc}              v-Setup String vary w/printer            |       E       1472
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet        t E/F       1577
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!          |       F       1622
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:             |  R   Right     Thru      Left     |    Georgia Ave
Silver Spring Library          |  ^      46      891         1  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0        3         0 #Lanes |    Use "N","Y":          n
Existing                       |  Ol LY  |          |          |:LV(N):  | P  eak Hour Period:
Date:                Count     |  fo r <-          V        ->    347  |    PM
_____ __________ ________ __|  RTOR                              3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     464         ||        #Lanes   VPH   R
  Left        3          0 --^  SI B  CLV   (E-W)=     645         NE ^--        0      50  Right
 Thru      1281          4 -->  ||  |  —    _______ _______            <--        3     423  Thru
 Right       64          0 --v  V /  SU    M CLV=    1109  ok         v--        0     254  Left
R        CLV(W)=       645       3            LOS=   B        | EB== =>   1  CLV(E)=       272
_____ __________ ________ __    C   LV(S):   (ok-under 1,525)          ___ _________ _______ _______
Name of E-W Approach         h |      464        <-        ^    ->      }If  free flow Rt->Vol=0
Colesville Rd                  |                   |        |        |    ||If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=        0        3        1  | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=          0     1251      546  | L  efts use Thru Lane
Date:        07-May   May-09   |                Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                        Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement         |  ----------- -------- --------
                               |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                               |     1 Lane    1.00      1.00    1.00  |      A/B       977    1023
If any questions:              |     2 Lanes   0.53      0.53    0.53  |       B      1022    1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37  |      B/C      1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29  |       C      1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25  |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                          |       D      1322    1428
_____ __________ ________ --  -  _______ _______ _______ _____ -  -|      D/E      1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer            |       E      1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!         |       F      1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)              |<-  Name of N-S Approa
 Subdivision Case:            |  R   Right     Thru      Left          |    Colesville Rd
Silver Spring Library         |  ^     214     1951       107  =VPH    |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        4         0 =#Lanes  |     Use "N","Y":
Existing                      |  Of LY |          |          | CLV(N):  | P  eak Hour Period:
Date:                Count    |  for r <-          V        ->    670  |    AM
_____ ___________ ________ __| RTOR                              3 |___ _________ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ     From EAST (Westbounc
        VPH        #Lanes            CLV   (N-S)=     670          ||          #Lanes   VPH
  Left        3         0 –^  SI B  CLV   (E-W)=     157          NB  ^–          0      59
 Thru        47         2 –>  || | —     _______ _______               <–          2     142
 Right       53         0 –v  V /  SU    M CLV=     827  ok            v–          0      89
R       CLV(W)=       144     3            LOS=  A        | EB==> =>    1  CLV(E)=       157
_____ ___________ ________ __  C   LV(S):   (ok-under 1,525)            __ _________ _______
Name of E-W Approach        h |      430       <-        ^    ->        |If  free flow Rt->Vol=0
Fenton St                     |                  |        |        |    |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0        2        0    | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        11      522       76    | L  efts use Thru Lane
Date:        14-May   May-09  |               Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)                 |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler
 Created on:          9/14/87  |  Lane Utilization Factors:              |     LOS:     CLV>#
 Updated 6/22/92               |  A pproach h Turning Movement           |  _________  _______
                               |  Nc .Lanes    Left      Thru     Rght   |      A          0
                               |     1 Lane    1.00      1.00     1.00   |      A/B      977
If any questions:              |     2 Lanes   0.53      0.53     0.53   |      B       1022
 Call Ed Axler                 |     3 Lanes   0.37      0.37     0.37   |      B/C     1127
 at 1-301-495-4525             |     4 Lanes   0.29      0.29     0.29   |      C       1172
 8787 Georgia Ave              |     5 Lanes   0.25      0.25     0.25   |      C/D     1277
 Silver Spring, MD 20910-3760                                            |      D       1322
_____ ___________ ________ __  _  _______ _______ _______ _______ --  --|      D/E     1427
\p     {Calc}{Calc}            v-Setup String vary w/printer             |      E       1472
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet      t E/F      1577
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!         |      F       1622
_____ ___________ ________ ___ __ _______ _______ _______ _______ ,-  —  -Rights-   -RTOR-
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:             |  R   Right     Thru      Left      |    Colesville Rd
Silver Spring Library         |  ^       56      612        79  =VPH |<-  If Split Phase:N-S!!
Traffic Condition:            |  R        0        2         0 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY |            |         |:LV(N):  | P  eak Hour Period:
Date:                Count    |  for r <-          V        ->   410  |    PM
_____ ___________ ________ __| RTOR                              3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     611          ||        #Lanes   VPH   R
  Left        16          0 –^  SI B  CLV   (E-W)=     283          NE ^–        0      66  Right
  Thru        85          2 –>  || |  ---   --------  -------          <--        2     124  Thru
  Right       58          0 –v  V /   SU    M CLV=     894  ok        v--        0     199  Left
R        CLV(W)=        283       3            LOS=  A        | EB== =>   1  CLV(E)=      222
_____ ___________ ________ __      C   LV(S):   (ok-under 1,525)      ___ _________ _______ _______
Name of E-W Approach          h |       611       <-        ^    ->      |If  free flow Rt->Vol=0
Fenton St                     |                    |        |        |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0        4        0   | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        14     1679      141   | L  efts use Thru Lane
Date:        14-May   May-09  |                Left     Thru    Right  R |MUST hit CALC-F9 >IBM
By:                           |  From SOUTH (Northbound)               |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                          Pg=2
Created on:          9/14/87  |  Lane Utilization Factors:             |     LOS:     CLV>#  <CLV
Updated 6/22/92               |  A pproach h Turning Movement          |  _________ _______ _______
                              |  Nc .Lanes    Left      Thru    Rght   |       A          0     978
                              |     1 Lane    1.00      1.00    1.00   |      A/B       977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53   |       B      1022    1128
Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37   |      B/C      1127    1173
at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29   |       C      1172    1278
8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25   |      C/D      1277    1323
Silver Spring, MD 20910-3760                                            |       D      1322    1428
_____ ___________ ________ __ _ _______ _______ _______ _______ _ _|      D/E      1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer             |       E      1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!      |       F      1622    9999
------- ___________ ________ __ _ _______ _______ _______ _____ ,- __  -Rights-    -RTOR-  -%RTOR
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Ellsworth Dr
Silver Spring Library         |  ^        3       24        23  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R        0        1         0 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY  |          |          |:LV(N):  | P  eak Hour Period:
Date:                Count    |  foi r <-          V        ->     62  |    AM
_____ _________ _________ __| RTOR                              3 |___ _________ _________ _________
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=      62          ||        #Lanes   VPH    R
  Left        5          1  --^  SI B  CLV   (E-W)=     167          NE ^--        0       4  Right
  Thru      181          2  -->  || | ---   ---------- ----------          <--        2     224  Thru
 Right       75          0  --v  V /  SU    M CLV=     229  ok          v--        0      31  Left
R       CLV(W)=        167       3            LOS=  A        | EB== =>   1  CLV(E)=       142
_____ _________ _________ __     C   LV(S):   (ok-under 1,525)          ___ _________ _________ _________
Name of E-W Approach         h |        40       <-        ^    ->       |If  free flow Rt->Vol=0
Spring St                      |                   |        |        |   |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=      0        2        0   | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=       12        3       18   | L  efts use Thru Lane
Date:        06-May   May-09   |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement         |  ------------- ------- -------
                               |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                               |     1 Lane    1.00      1.00    1.00  |       A/B      977    1023
If any questions:              |     2 Lanes   0.53      0.53    0.53  |       B       1022    1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37  |       B/C     1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29  |       C       1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25  |       C/D     1277    1323
 Silver Spring, MD 20910-3760                                          |       D       1322    1428
-------- ---------- --------- --- -- -------- -------- -------- ------- -- --|       D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer            |       E       1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F         1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!         |       F       1622    9999
-------- ---------- --------- --- -- -------- -------- -------- ------- ,- ---  -Rights-  -RTOR-  -%RTOR
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:             |  R   Right    Thru     Left        |    Ellsworth Dr
Silver Spring Library         |  ^       4       25       32 =VPH   |<-  If Split Phase:N-S!!
Traffic Condition:            |  R       0        1        0 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-         V        ->  233  |    PM
_____ ___________ ________ __| RTOR                            3 |__ _____ _____ _____ _____
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=     233          ||        #Lanes   VPH   R
  Left       19        1  --^  SI B CLV  (E-W)=     223          NE ^--       0      13  Right
 Thru       250        2  -->  || | ---  ---------- ----------      <--      2     320  Thru
 Right       88        0  --v  V /  SU   M CLV=     456  ok         v--      0      44  Left
R       CLV(W)=      223        3          LOS=  A        | EB== =>  1  CLV(E)=      219
_____ ___________ ________ __   C  LV(S):  (ok-under 1,525)          __ _____ _____ _____
Name of E-W Approach        h |     160      <-        ^    ->       |If  free flow Rt->Vol=0
Spring St                     |                |        |       |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=     0        2       0   | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=     172        8      61   | L  efts use Thru Lane
Date:        06-May   May-09  |              Left     Thru   Right  R |MUST hit CALC-F9 >IBM
By:                           |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                    Pg=2
Created on:          9/14/87  |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
Updated 6/22/92               |  A pproach h Turning Movement       |  ---------- -------- --------
                              |  Nc .Lanes   Left     Thru   Rght   |     A          0     978
                              |    1 Lane    1.00     1.00   1.00   |     A/B      977    1023
If any questions:             |    2 Lanes   0.53     0.53   0.53   |     B       1022    1128
Call Ed Axler                 |    3 Lanes   0.37     0.37   0.37   |     B/C     1127    1173
at 1-301-495-4525             |    4 Lanes   0.29     0.29   0.29   |     C       1172    1278
8787 Georgia Ave              |    5 Lanes   0.25     0.25   0.25   |     C/D     1277    1323
Silver Spring, MD 20910-3760                                        |     D       1322    1428
-------- ---------------- ----------- --- -- ---------- ---------- ---------- -------- -- --|     D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer         |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet    t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}   now!      |     F       1622    9999
-------- ---------------- ----------- --- -- ---------- ---------- ---------- -------- ,- ---  -Rights-   -RTOR-  -%RTOR
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Ellsworth Dr
Silver Spring Library         |  ^       6       15        49  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        2         0 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY  |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  foi r <-          V        ->     40 |    AM
____ __________ ________ __| RTOR                              3 |___ ________ _____ _____
From WEST (Eastbound)          2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes            CLV   (N-S)=      61          ||        #Lanes   VPH   R
  Left        16        0  --^  SI B  CLV   (E-W)=     405          NE ^--       0      33  Right
 Thru        309        1  -->  || |  ---   ---------- ----------          <--       1     334  Thru
 Right        24        0  --v  V /  SU    M CLV=     466  ok          v--       0      22  Left
R        CLV(W)=      371        3            LOS=  A        | EB== =>  1  CLV(E)=      405
____ __________ ________ __     C   LV(S):   (ok-under 1,525)          __ ________ _____ _____
Name of E-W Approach        h |        61       <-        ^    ->      |If  free flow Rt->Vol=0
Fenton St                     |                   |         |         |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      0         1         0 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        3         3         6 | L  efts use Thru Lane
Date:        06-May   May-09  |              Left      Thru     Right  R |MUST hit CALC-F9 >tBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  ------------- --------- ---------
                              |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                              |     1 Lane    1.00      1.00    1.00  |       A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |       B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37  |       B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29  |       C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25  |       C/D     1277    1323
 Silver Spring, MD 20910-3760                                         |       D       1322    1428
-------- ---------------- ------------ --- -- ---------- ---------- ---------- -------- -- --|       D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer                 |       E       1472    1578
        /ppos{esc}\027\038\107\048\083~                  <-as HP ThinkJet      t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit}    nowl          |       F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:              |  R   Right     Thru      Left     |    Ellsworth Dr
Silver Spring Library          |  ^      40       26        82 =VPH |<-  If Split Phase:N-S!!
Traffic Condition:             |  R       0        2         0 #Lanes |    Use "N","Y":          n
Existing                       |  OF LY |          |         |:LV(N): | P  eak Hour Period:
Date:                Count     |  for r <-         V        ->    94 |    PM
_____ _________ _______ __|  RTOR                                3 |___ _______ ______ ______
From WEST (Eastbound)          2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes            CLV   (N-S)=     140          ||        #Lanes   VPH   R
  Left       51        0  --^  SI B  CLV   (E-W)=     561          NE ^--       0     119  Right
  Thru      317        1  -->  || | ---    ---------- ----------        <--       1     370  Thru
  Right      49        0  --v  V /  SU    M CLV=     701  ok         v--       0      21  Left
R       CLV(W)=      438        3            LOS=  A        | EB== =>  1  CLV(E)=      561
_____ _________ _______ __    C   LV(S):   (ok-under 1,525)          __ _______ ______ ______
Name of E-W Approach         h |      140      <-        ^    ->      |If  free flow Rt->Vol=0
Fenton St                      |                 |         |         |      |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=      0         1         0 | R  ights use Thru Lane
Use "N","Y":           n       |     VPH=       16        25        17 | L  efts use Thru Lane
Date:        06-May   May-09   |              Left      Thru     Right  R |MUST hit CALC-F9 >IBM
By:                            |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                          Pg=2
Created on:          9/14/87   |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
Updated 6/22/92                |  A pproach h Turning Movement         |  ------------- ---------- ---------
                               |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                               |     1 Lane    1.00      1.00    1.00  |       A/B      977    1023
If any questions:              |     2 Lanes   0.53      0.53    0.53  |       B       1022    1128
Call Ed Axler                  |     3 Lanes   0.37      0.37    0.37  |       B/C     1127    1173
at 1-301-495-4525              |     4 Lanes   0.29      0.29    0.29  |       C       1172    1278
8787 Georgia Ave               |     5 Lanes   0.25      0.25    0.25  |       C/D     1277    1323
Silver Spring, MD 20910-3760                                           |       D       1322    1428
-------- --------------- ------------ --- -- ---------- ---------- ---------- -------- -- --|       D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer                |       E       1472    1578
        /ppos{esc}\027\038\107\048\083~                  <-as HP ThinkJet      t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit}    now!          |       F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |   ~~Ellsworth Dr~~  Fenton St
Silver Spring Library         |  ^      84      245        20  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         1 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:                Count    |  foi r <-         V        ->   434 |    AM
_____ __________ ________ __| RTOR                            3 |__ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     434         ||        #Lanes   VPH   R
  Left       26          1  --^  SI B  CLV   (E-W)=     613         NE ^--       1      27  Right
  Thru      137          2  -->  || | ---   ---------- ----------        <--      1     587  Thru
  Right      43          0  --v  V /  SU    M CLV=    1047  ok         v--      1     250  Left
R       CLV(W)=        345       3            LOS=  B        | EB== =>   1  CLV(E)=      613
_____ __________ ________ __     C   LV(S):   (ok-under 1,525)          __ _________ _______ _______
Name of E-W Approach        h |       308       <-        ^    ->       |If  free flow Rt->Vol=0
Wayne Ave                     |                  |        |        |    |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1        1    | R  ights use Thru Lane
Use "N","Y":           n      |     VPH=       105      308       92    | L  efts use Thru Lane
Date:        06-May   May-09   |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)               |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:             |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement         |  ------------- ------- -------
                              |  Nc .Lanes    Left      Thru    Rght   |       A          0     978
                              |     1 Lane    1.00      1.00    1.00   |      A/B       977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53   |       B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37   |      B/C      1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29   |       C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25   |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                          |       D      1322    1428
-------- ---------- ---------- --- -- --------- --------- --------- -------- -- --|     D/E      1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer            |       E      1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!       |       F      1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Fenton St
Silver Spring Library         |  ^     107      259        55  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         1 #Lanes |    Use "N","Y":          n
Existing                      |  OI LY |          |          |:LV(N): | P  eak Hour Period:
Date:                Count    |  foi r <-          V        ->   406 |    PM
_____ _________ _______ __|  RTOR                              3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH        #Lanes            CLV   (N-S)=     406         ||        #Lanes   VPH   R
  Left        84        1  --^  SI B  CLV   (E-W)=     577         NE ^--       1     105  Right
  Thru       532        2  -->  || |  ---   ----------  ----------          <--       1     362  Thru
  Right       85        0  --v  V /   SU    M CLV=     983  ok          v--       1     250  Left
R        CLV(W)=      577        3            LOS=   A/B      | EB== =>  1  CLV(E)=      446
_____ _________ _______ __      C   LV(S):   (ok-under 1,525)          __ _______ _____ _______
Name of E-W Approach        h |      339       <-        ^    ->        |If  free flow Rt->Vol=0
Wayne Ave                     |                  |        |        |    |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1        1   | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        40      339      227   | L  efts use Thru Lane
Date:        06-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |     LOS:     CLV>#   <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  ------------- --------- ---------
                              |  Nc .Lanes    Left     Thru    Rght   |       A          0      978
                              |     1 Lane    1.00     1.00    1.00   |       A/B      977     1023
If any questions:             |     2 Lanes   0.53     0.53    0.53   |       B       1022     1128
 Call Ed Axler                |     3 Lanes   0.37     0.37    0.37   |       B/C     1127     1173
 at 1-301-495-4525            |     4 Lanes   0.29     0.29    0.29   |       C       1172     1278
 8787 Georgia Ave             |     5 Lanes   0.25     0.25    0.25   |       C/D     1277     1323
 Silver Spring, MD 20910-3760                                         |       D       1322     1428
-------- --------------- ------------ --- -- --------- --------- --------- -------- -- --|       D/E     1427     1473
\p      {Calc}{Calc}              v-Setup String vary w/printer                      |       E       1472     1578
        /ppos{esc}\027\038\107\048\083~                    <-as HP ThinkJet          t E/F      1577     1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit}    now!                |       F       1622     9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:              |  R   Right     Thru      Left     |    Ellsworth Dr  Fenton St
Silver Spring Library          |  ^      23      499        21  =VPH |<-  If Split Phase:N-S!!
Traffic Condition:             |  R       0        1         1 #Lanes |    Use "N","Y":          n
Existing                       |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count       |  for r <-         V        ->   540 |    AM
_____ _____________ _________ __| RTOR                          3 |__ _____________ _________ _______
From WEST (Eastbound)            2  <=[WB receiving lanes]        ^   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     540          |        #Lanes   VPH   R
  Left       10          0  --^  SI B  CLV   (E-W)=      35        NE ^--      0       3  Right
  Thru        9          1  -->  || | ---   ----------  ----------      <--      1      13  Thru
 Right        8          0  --v  V /  SU    M CLV=     575  ok        v--      0       8  Left
R       CLV(W)=          35       3            LOS=  A        | EB== =>  1  CLV(E)=        34
_____ _____________ _________ __  C   LV(S):   (ok-under 1,525)  __ _____________ _________ _______
Name of E-W Approach          h |      509       <-        ^    ->    |If  free flow Rt->Vol=0
Bonifant St                     |                  |         |        |    |If  # lanes=0, then:
If Split Phase:E-W!!            |  #  Lanes=       1         1        0  | R  ights use Thru Lane
Use "N","Y":           n        |     VPH=        18       487        1  | L  efts use Thru Lane
Date:        06-May    May-09   |              Left      Thru    Right  R |MUST hit CALC-F9 >IBM
By:                             |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                          Pg=2
Created on:          9/14/87    |  Lane Utilization Factors:            |    LOS:     CLV>#  <CLV
Updated 6/22/92                 |  A pproach h Turning Movement         |  ------------- ---------- ---------
                                |  Nc .Lanes    Left      Thru    Rght   |      A          0      978
                                |     1 Lane    1.00      1.00    1.00   |      A/B      977     1023
If any questions:               |     2 Lanes   0.53      0.53    0.53   |      B       1022     1128
Call Ed Axler                   |     3 Lanes   0.37      0.37    0.37   |      B/C     1127     1173
at 1-301-495-4525               |     4 Lanes   0.29      0.29    0.29   |      C       1172     1278
8787 Georgia Ave                |     5 Lanes   0.25      0.25    0.25   |      C/D     1277     1323
Silver Spring, MD 20910-3760                                             |      D       1322     1428
--------- ---------------- ------------ --- -- ---------- ---------- --------- -- --|      D/E     1427     1473
\p      {Calc}{Calc}              v-Setup String vary w/printer          |      E       1472     1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet    t E/F      1577     1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!        |      F       1622     9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:              |  R   Right     Thru      Left     |    Fenton St
Silver Spring Library          |  ^      15      537        28  =VPH |<-  If Split Phase:N-S!!
Traffic Condition:             |  R       0        1         1 #Lanes |    Use "N","Y":          n
Existing                       |  Of LY  ]         |         |:LV(N): | P  eak Hour Period:
Date:              Count       |  for r <-         V       ->   586 |    PM
_____ _____________ _________ __| RTOR                          3 |__ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          ^  From EAST (Westbound)
        VPH          #Lanes        CLV  (N-S)=     651            ||        #Lanes   VPH   R
  Left        45          0  --^  SI B  CLV  (E-W)=     160        NE ^--       0      23  Right
 Thru         66          1  -->  || |  ---   ----------  ----------      <--       1      19  Thru
 Right        37          0  --v  V /  SU   M CLV=     811  ok        v--       0      12  Left
R        CLV(W)=        160        3          LOS=  A        | EB== =>  1  CLV(E)=      99
_____ _____________ _________ __   C  LV(S):   (ok-under 1,525)  __ _________ _______ _______
Name of E-W Approach         h |      651       <-        ^    ->     |If  free flow Rt->Vol=0
Bonifant St                    |                  |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       1        1        0 | R  ights use Thru Lane
Use "N","Y":           n       |     VPH=        34      569       54 | L  efts use Thru Lane
Date:        06-May    May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
By:                            |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                          Pg=2
Created on:          9/14/87   |  Lane Utilization Factors:           |     LOS:     CLV>#  <CLV
Updated 6/22/92                |  A pproach h Turning Movement        |  -------------- ---------- ----------
                               |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                               |     1 Lane    1.00      1.00    1.00  |       A/B      977    1023
If any questions:              |     2 Lanes   0.53      0.53    0.53  |       B       1022    1128
Call Ed Axler                  |     3 Lanes   0.37      0.37    0.37  |       B/C     1127    1173
at 1-301-495-4525              |     4 Lanes   0.29      0.29    0.29  |       C       1172    1278
8787 Georgia Ave               |     5 Lanes   0.25      0.25    0.25  |       C/D     1277    1323
Silver Spring, MD 20910-3760                                           |       D       1322    1428
--------- ---------------- ------------ ---  --  ---------- ---------- ---------- --------- --  --|       D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer        |       E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit)    now!     |       F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Fenton St
Silver Spring Library         |  ^      22      476        16  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         1 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-         V        ->    548 |    AM
_____ __________ _________ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     548          ||        #Lanes   VPH   R
  Left        39         0  --^  SI B  CLV   (E-W)=     125          NE ^--       0      20  Right
 Thru         34         1  -->  || | ---   ----------  ----------      <--       1      53  Thru
 Right        24         0  --v  V /  SU    M CLV=     673  ok         v--       0      13  Left
R        CLV(W)=       110        3            LOS=  A        | EB== =>   1  CLV(E)=      125
_____ __________ _________ __     C   LV(S):   (ok-under 1,525)        ___ _________ _______ _______
Name of E-W Approach          h |      434       <-        ^    ->      |If  free flow Rt->Vol=0
Thayer Ave                      |                  |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!            |  #  Lanes=       1        1        0 | R  ights use Thru Lane
Use "N","Y":          n         |     VPH=        50      407       11 | L  efts use Thru Lane
Date:        06-May   May-09    |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                            |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl Intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87   |  Lane Utilization Factors:          |     LOS:     CLV>#  <CLV
 Updated 6/22/92                |  A pproach h Turning Movement       |  -------------  ---------  ---------
                                |  Nc .Lanes    Left      Thru    Rght  |       A          0      978
                                |     1 Lane    1.00      1.00    1.00 |      A/B       977     1023
If any questions:               |     2 Lanes   0.53      0.53    0.53 |       B      1022     1128
 Call Ed Axler                  |     3 Lanes   0.37      0.37    0.37 |      B/C      1127     1173
 at 1-301-495-4525              |     4 Lanes   0.29      0.29    0.29 |       C      1172     1278
 8787 Georgia Ave               |     5 Lanes   0.25      0.25    0.25 |      C/D      1277     1323
 Silver Spring, MD 20910-3760                                          |       D      1322     1428
-------- ---------------- ----------- --- -- ---------- ---------- ---------- -------- -- --|      D/E      1427     1473
\p      {Calc}{Calc}              v-Setup String vary w/printer                            |       E      1472     1578
        /ppos{esc}\027\038\107\048\083~                  <-as HP ThinkJet                    t E/F      1577     1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit}    now!                        |       F      1622     9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:             |  R   Right     Thru      Left      |    Fenton St
Silver Spring Library         |  ^      35      482        28  =VPH |<-  If Split Phase:N-S!!
Traffic Condition:            |  R       0        1         1 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-         V        ->   581  |    PM
_____ _________ _________ __| RTOR                              3 |__ _______ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes          CLV   (N-S)=      623          ||        #Lanes   VPH   R
  Left       55        0  --^   SI B  CLV   (E-W)=      199         NE ^--       0      11  Right
  Thru       82        1  -->   || |  ---   ----------  ----------            <--       1      32  Thru
  Right      50        0  --v   V /   SU    M CLV=      822  ok          v--       0      12  Left
R       CLV(W)=      199          3            LOS=  A        | EB== =>  1  CLV(E)=      110
_____ _________ _________ __      C   LV(S):   (ok-under 1,525)          __ _______ _______ _______
Name of E-W Approach          h |      623        <-        ^    ->      |If  free flow Rt->Vol=0
Thayer Ave                    |                   |         |        |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=        1         1        0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=         64       569       26  | L  efts use Thru Lane
Date:        06-May   May-09  |                Left      Thru    Right  R |MUST hit CALC-F9 >IBM
By:                           |  From SOUTH (Northbound)                  |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                          Pg=2
Created on:          9/14/87  |  Lane Utilization Factors:                |    LOS:     CLV>#  <CLV
Updated 6/22/92               |  A pproach h Turning Movement             |  ------------ -------- --------
                              |  Nc .Lanes     Left      Thru     Rght    |      A          0     978
                              |     1 Lane     1.00      1.00     1.00    |      A/B      977    1023
If any questions:             |     2 Lanes    0.53      0.53     0.53    |      B       1022    1128
Call Ed Axler                 |     3 Lanes    0.37      0.37     0.37    |      B/C     1127    1173
at 1-301-495-4525             |     4 Lanes    0.29      0.29     0.29    |      C       1172    1278
8787 Georgia Ave              |     5 Lanes    0.25      0.25     0.25    |      C/D     1277    1323
Silver Spring, MD 20910-3760                                              |      D       1322    1428
-------- ---------------- ------------ --- -- ---------- ---------- ---------- -------- -- --|      D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer           |      E       1472    1578
        /ppos{esc}\027\038\107\048\083~                  <-as HP ThinkJet     t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit}    now!        |      F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Fenton St
Silver Spring Library         |  ^      29      453        11  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         1 #Lanes |    Use "N","Y":          n
Existing                      |  Ol LY  |          |          |:LV(N): | P  eak Hour Period:
Date:                Count    |  for r <-          V        ->   517 |    AM
_____ __________ ________ __| RTOR                              3 |__ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes            CLV   (N-S)=      517          ||        #Lanes   VPH   R
  Left        11        0  --^  SI B  CLV   (E-W)=       84          NE ^--       0      24  Right
  Thru        24        1  -->  || |  ---   ----------  ----------          <--       1      33  Thru
 Right        38        0  --v  V /  SU    M CLV=      601  ok          v--       0      11  Left
R        CLV(W)=        84       3            LOS=  A        | EB== =>   1  CLV(E)=        79
_____ __________ ________ __     C   LV(S):   (ok-under 1,525)          __ _______ _______ _______
Name of E-W Approach         h |      449       <-        ^    ->       |If  free flow Rt->Vol=0
Silver Spring Ave             |                  |        |        |    |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1        0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        35      417       21  | L  efts use Thru Lane
Date:       06-May   May-09   |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach  h Turning Movement        |  ---------- -------- --------
                              |  Nc .Lanes    Left      Thru    Rght  |     A          0     978
                              |     1 Lane    1.00      1.00    1.00  |     A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |     B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37  |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29  |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                         |     D       1322    1428
--------- ---------------- ---------- --- -- ---------- ---------- --------- -------- -- --|     D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer                            |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~                  <-as HP ThinkJet                   t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit}    now!                       |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Fenton St
Silver Spring Library         |  ^      25      486        16  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         1 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:                Count    |  fo: r <-         V        ->   558 |    PM
____ _________ _______ __|  RTOR                                3 |__ _________ _____ _____
From WEST (Eastbound)         2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes            CLV   (N-S)=     558         ||        #Lanes   VPH   R
  Left      115        0  --^  S| B  CLV   (E-W)=     258         NE ^--       0       9  Right
 Thru        92        1  -->  || |  ---   ----------  ----------      <--      1      16  Thru
 Right       45        0  --v  V /   SU    M CLV=     816  ok        v--      0       6  Left
R       CLV(W)=      258        3            LOS=  A        | EB== =>  1  CLV(E)=      146
____ _________ _______ __       C   LV(S):   (ok-under 1,525)        __ _________ _____ _____
Name of E-W Approach        h |      533       <-        ^    ->      |If  free flow Rt->Vol=0
Silver Spring Ave             |                  |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1        0 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        47      474       43 | L  efts use Thru Lane
Date:        06-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  ------------ -------- --------
                              |  Nc .Lanes    Left      Thru    Rght  |      A          0     978
                              |     1 Lane    1.00      1.00    1.00 |      A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53 |      B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37 |      B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29 |      C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25 |      C/D     1277    1323
 Silver Spring, MD 20910-3760                                        |      D       1322    1428
-------- ---------------- ------------ --- -- ---------- ---------- ---------- -------- -- --|      D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer                 |      E       1472    1578
        /ppos{esc}\027\038\107\048\083~                  <-as HP ThinkJet      t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit}    now!          |      F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Dixon Ave
Silver Spring Library         |  ^      13        3         3  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         0 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:                Count    |  for r <-         V        ->    40 |    AM
_____ _____ _____ __| RTOR                                     3 |__ _____ _____ _____
From WEST (Eastbound)         2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes          CLV   (N-S)=      55          ||        #Lanes   VPH   R
  Left        4         0  --^  SI B  CLV   (E-W)=     285         NE ^--      0      18  Right
  Thru      147         3  -->  || | ---  ---------- ----------          <--     3     578  Thru
 Right       30         0  --v  V /  SU    M CLV=     340  ok         v--     0     164  Left
R       CLV(W)=       231        3            LOS=  A        | EB== =>  1  CLV(E)=      285
_____ _____ _____ __             C   LV(S):   (ok-under 1,525)          __ _____ _____ _____
Name of E-W Approach        h |        55       <-        ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                     |                  |         |        |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1         1        0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        21         0       52  | L  efts use Thru Lane
Date:       06-May   May-09   |                Left      Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)                |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  ----------- ------- -------
                              |  Nc .Lanes    Left      Thru    Rght   |     A          0     978
                              |     1 Lane    1.00      1.00    1.00   |     A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53   |     B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37   |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29   |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25   |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                          |     D       1322    1428
-------- ---------- ---------- --- -- -------- -------- -------- ------- -- --|     D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer            |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!         |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Dixon Ave
Silver Spring Library         |  ^       3       3       11  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        0 #Lanes |    Use "N","Y":          n
Existing                      |  OI LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  foi r <-        V       ->     66 |    PM
_____ _________ _________ __| RTOR                            3 |__ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH          #Lanes          CLV  (N-S)=     188          ||        #Lanes   VPH   R
  Left        5          0  --^  SI B  CLV  (E-W)=     201          NE ^--       0     8  Right
  Thru      389          3  -->  || | ---  ---------- ----------        <--      3   360  Thru
  Right      24          0  --v  V /  SU   M CLV=     389  ok         v--       0    46  Left
R       CLV(W)=        201        3          LOS=  A        | EB== =>  1  CLV(E)=      158
_____ _________ _________ __      C  LV(S):   (ok-under 1,525)        __ _______ _____ _______
Name of E-W Approach          h |     188       <-        ^    ->     |If  free flow Rt->Vol=0
Wayne Ave                       |                  |        |        |     |If  # lanes=0, then:
If Split Phase:E-W!!            |  #  Lanes=       1        1        0 | R  ights use Thru Lane
Use "N","Y":          n         |     VPH=        49        0      177 | L  efts use Thru Lane
Date:        06-May    May-09   |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                            |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87   |  Lane Utilization Factors:          |    LOS:     CLV>#  <CLV
 Updated 6/22/92                |  A pproach h Turning Movement       |  ------------- ---------- ----------
                                |  Nc .Lanes    Left      Thru    Rght  |     A          0     978
                                |     1 Lane    1.00      1.00    1.00 |     A/B      977    1023
If any questions:               |     2 Lanes   0.53      0.53    0.53 |     B       1022    1128
 Call Ed Axler                  |     3 Lanes   0.37      0.37    0.37 |     B/C     1127    1173
 at 1-301-495-4525              |     4 Lanes   0.29      0.29    0.29 |     C       1172    1278
 8787 Georgia Ave               |     5 Lanes   0.25      0.25    0.25 |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                          |     D       1322    1428
-------- --------------- ---------- --- -- ---------- ---------- ---------- -------- -- --|     D/E     1427    1473
\p      {Calc}{Calc}            v-Setup String vary w/printer          |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet  t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit)    now!     |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:             |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^     192    1528       86  =VPH  |<-  If Split Phase:N-S!!
Traffic Condition:            |  R       0       3        1 #Lanes |    Use "N","Y":          n
Existing                      |  OnLY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  fo r <-         V       ->   705 |    AM
_____ _________ ________ __|  RTOR                            3 |__ _________ _____ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes          CLV   (N-S)=     705          ||        #Lanes   VPH   R
  Left       46        1  --^  SlB CLV   (E-W)=     296          NE ^--       0      70  Right
  Thru      112        2  -->  || | ---  ---------- ----------        <--     2     401  Thru
  Right      83        0  --v  V /  SU   M CLV=    1002  ok         v--     1     193  Left
R      CLV(W)=      296         3          LOS=  A/B      | EB== =>  1  CLV(E)=      296
_____ _________ ________ __    C  LV(S):  (ok-under 1,525)          __ _________ _____ _______
Name of E-W Approach        h |     469      <-       ^    ->       |If  free flow Rt->Vol=0
Wayne Ave                     |                |        |      |    |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=     1        3      0    | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=      69      994     41    | L  efts use Thru Lane
Date:        06-May   May-09  |              Left    Thru   Right  R |MUST hit CALC-F9 >IBM
By:                           |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                    Pg=2
Created on:          9/14/87  |  Lane Utilization Factors:          |    LOS:     CLV>#  <CLV
Updated 6/22/92               |  A pproach h Turning Movement       |  ------------- --------- ---------
                              |  Nc .Lanes    Left     Thru   Rght  |     A           0     978
                              |    1 Lane     1.00     1.00   1.00  |     A/B       977    1023
If any questions:             |    2 Lanes    0.53     0.53   0.53  |     B        1022    1128
Call Ed Axler                 |    3 Lanes    0.37     0.37   0.37  |     B/C      1127    1173
at 1-301-495-4525             |    4 Lanes    0.29     0.29   0.29  |     C        1172    1278
8787 Georgia Ave              |    5 Lanes    0.25     0.25   0.25  |     C/D      1277    1323
Silver Spring, MD 20910-3760                                        |     D        1322    1428
-------- ---------------- ---------- --- -- ---------- ---------- ---------- -------- -- --|     D/E      1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer         |     E        1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet  I E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!  |     F        1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^      85     982      142  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |     Use "N","Y":          n
Existing                      |  Of LY |          |          |CLV(N):| P  eak Hour Period:
Date:              Count      |  foi r <-          V       ->   452 |    PM
_____ _________ _________ __| RTOR                            3 |__ _____ _____ _____
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH        #Lanes            CLV   (N-S)=     673          ||        #Lanes   VPH   R
  Left      130        1  --^  SI B  CLV   (E-W)=     375          NE ^--       0     153  Right
 Thru       382        2  -->  || | ---   ---------- ----------          <--      2     256  Thru
 Right       96        0  --v  V /  SU    M CLV=    1048  ok          v--      1     122  Left
R       CLV(W)=      375        3            LOS=  B        | EB== =>  1  CLV(E)=      347
_____ _________ _____ __  C   LV(S):   (ok-under 1,525)  __ _____ _____ _____
Name of E-W Approach        h |      673      <-       ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                     |                 |       |       |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      1       3       0   | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       57    1278     156  | L  efts use Thru Lane
Date:        06-May   May-09  |              Left    Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ------------- ---------- ---------
                              |  Nc .Lanes    Left     Thru   Rght  |     A          0     978
                              |    1 Lane     1.00     1.00   1.00  |     A/B      977    1023
If any questions:             |    2 Lanes    0.53     0.53   0.53  |     B       1022    1128
 Call Ed Axler                |    3 Lanes    0.37     0.37   0.37  |     B/C     1127    1173
 at 1-301-495-4525            |    4 Lanes    0.29     0.29   0.29  |     C       1172    1278
 8787 Georgia Ave             |    5 Lanes    0.25     0.25   0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                       |     D       1322    1428
-------- ---------------- ---------- --- -- --------- --------- --------- -------- -- --|     D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer     |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet   t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!   |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          ) |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:             |  R   Right     Thru      Left     |    Georgia Ave
Silver Spring Library          |  ^     135     1667        22  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0        3         1 #Lanes |    Use "N","Y":          n
Existing                       |  Of LY |            |          |:LV(N): | P  eak Hour Period:
Date:                Count     |  for r <-          V        ->   706 |    AM
_____ _________ _______ __|  RTOR                              3 |__ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes            CLV  (N-S)=     706          ||        #Lanes   VPH   R
  Left        41        1  --^  SI B  CLV  (E-W)=      95          NE ^--      0      36  Right
 Thru          0        0  -->  || |  ---  ---------- ----------          <--     1       0  Thru
 Right        19        1  --v  V /  SU   M CLV=     801  ok          v--      0      18  Left
R        CLV(W)=       18        3          LOS=  A        | EB== =>  1  CLV(E)=       95
_____ _________ _______ __       C   LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach         h |      424      <-        ^    ->      ||f  free flow Rt->Vol=0
Bonifant St                    |                |         |         |  ||f  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=      1         3         0  | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=       39      1076        10  | L  efts use Thru Lane
Date:        06-May   May-09   |              Left      Thru     Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:          |     LOS:     CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement       |  -------------- ---------- ----------
                               |  Nc .Lanes    Left      Thru    Rght  |       A          0      978
                               |     1 Lane    1.00      1.00    1.00  |      A/B       977     1023
If any questions:              |     2 Lanes   0.53      0.53    0.53  |       B      1022     1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37  |      B/C      1127     1173
 at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29  |       C      1172     1278
 8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25  |      C/D      1277     1323
 Silver Spring, MD 20910-3760                                          |       D      1322     1428
--------- ---------------- ------------ --- -- ---------- ---------- ---------- --------- -- --|      D/E      1427     1473
\p      {Calc}{Calc}            v-Setup String vary w/printer          |       E      1472     1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577     1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!      |       F      1622     9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:             |  R   Right     Thru      Left      |    Georgia Ave
Silver Spring Library         |  ^      64     1062        34 =VPH |<-  If Split Phase:N-S!!
Traffic Condition:            |  R       0        3         1 #Lanes |    Use "N","Y":          n
Existing                      |  OI LY |          |          |:LV(N): | P  eak Hour Period:
Date:              Count      |  foi r <-         V        ->   419 |    PM
_____ _____________ _________ __| RTOR                          3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH          #Lanes          CLV  (N-S)=     578          ||        #Lanes   VPH   R
  Left       78          1  --^  SI B  CLV  (E-W)=     106          NE ^--       0      15  Right
  Thru        0          0  -->  || | ---  ---------- ----------          <--      1       0  Thru
  Right      88          1  --v  V /  SU   M CLV=     684  ok          v--      0      13  Left
R       CLV(W)=         13        3          LOS=  A        | EB== =>  1  CLV(E)=      106
_____ _____________ _________ __  C  LV(S):   (ok-under 1,525)  ___ _________ _______ _______
Name of E-W Approach          h |       578       <-        ^    ->     |If  free flow Rt->Vol=0
Bonifant St                     |                  |         |         |  |If  # lanes=0, then:
If Split Phase:E-W!!            |  #  Lanes=       1         3         0 | R  ights use Thru Lane
Use "N","Y":          n         |     VPH=         2      1404        65 | L  efts use Thru Lane
Date:        06-May   May-09    |              Left      Thru     Right  R |MUST hit CALC-F9 >IBM
By:                             |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                          Pg=2
Created on:          9/14/87    |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
Updated 6/22/92                 |  A pproach h Turning Movement         | ------------- ------- -------
                                |  Nc .Lanes    Left      Thru    Rght  |      A          0     978
                                |     1 Lane    1.00      1.00    1.00  |      A/B      977    1023
If any questions:               |     2 Lanes   0.53      0.53    0.53  |      B       1022    1128
Call Ed Axler                   |     3 Lanes   0.37      0.37    0.37  |      B/C     1127    1173
at 1-301-495-4525               |     4 Lanes   0.29      0.29    0.29  |      C       1172    1278
8787 Georgia Ave                |     5 Lanes   0.25      0.25    0.25  |      C/D     1277    1323
Silver Spring, MD 20910-3760                                            |      D       1322    1428
-------- ---------------- ------------ --- -- ---------- ---------- --------- -- --|      D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer         |      E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!       |      F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Georgia Ave
Silver Spring Library         |  ^       0     1678        26  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        3         1 #Lanes |    Use "N","Y":          n
Existing                      |  OI LY  |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  foi r <-          V        ->   621 |    AM
_____ __________ ________ __| RTOR                              3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes          CLV   (N-S)=     621          ||        #Lanes   VPH   R
  Left        0         0 --^  SI B  CLV   (E-W)=     113          NE ^--       0      79  Right
 Thru         0         0 -->  || | ---   ---------- ----------          <--      1       0  Thru
 Right        0         0 --v  V /  SU    M CLV=     734  ok          v--      0      34  Left
R        CLV(W)=       34       3            LOS=  A        | EB== =>  1  CLV(E)=      113
_____ __________ ________ __    C   LV(S):   (ok-under 1,525)          ___ _________ _______ _______
Name of E-W Approach        h |      422       <-        ^    ->       |If  free flow Rt->Vol=0
Thayer Ave                    |                  |        |        |   |If  # lanes=0. then:
If Split Phase:E-W!!          |  #  Lanes=     0        3        0   | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       0     1045       24   | L  efts use Thru Lane
Date:        06-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  -------------- ---------- ---------
                              |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                              |    1 Lane     1.00      1.00    1.00  |      A/B       977    1023
If any questions:             |    2 Lanes    0.53      0.53    0.53  |       B      1022    1128
 Call Ed Axler                |    3 Lanes    0.37      0.37    0.37  |      B/C      1127    1173
 at 1-301-495-4525            |    4 Lanes    0.29      0.29    0.29  |       C      1172    1278
 8787 Georgia Ave             |    5 Lanes    0.25      0.25    0.25  |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                         |       D      1322    1428
-------- ---------------- ---------- --- -- ---------- ---------- ---------- -------- -- --|      D/E      1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer                            |       E      1472    1578
        /ppos{esc}\027\038\107\048\083~                  <-as HP ThinkJet                   t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit)    now!                       |       F      1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Georgia Ave
Silver Spring Library         |  ^       0     1074        84  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        3         1 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY  |          |          |:LV(N):| P  eak Hour Period:
Date:                Count    |  for r <-          V        ->   397 |    PM
_____ _________ _______ __|  RTOR                                3 |__ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]            /\  From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     628          ||        #Lanes   VPH   R
  Left        0          0  --^  S B  CLV   (E-W)=     109          NE ^--       0      69  Right
  Thru        0          0  -->  || | ---   ---------- ----------          <--      1       0  Thru
  Right       0          0  --v  V /  SU    M CLV=     737  ok          v--      0      40  Left
R        CLV(W)=        40       3            LOS=  A        | EB== =>  1  CLV(E)=      109
_____ _________ _______ __  C   LV(S):   (ok-under 1,525)          __ _______ _______ _______
Name of E-W Approach        h |      628       <-        ^    ->      |If  free flow Rt->Vol=0
Thayer Ave                    |                  |         |      |    |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0         3      0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=         0      1394     76  | L  efts use Thru Lane
Date:        06-May   May-09  |              Left      Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ------------- -------- --------
                              |  Nc .Lanes    Left      Thru    Rght |       A          0     978
                              |     1 Lane    1.00      1.00    1.00 |      A/B       977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53 |       B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37 |      B/C      1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29 |       C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25 |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                        |       D      1322    1428
-------- ---------------- ------------ --- -- ---------- ---------- ---------- -------- -- --|      D/E      1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer                 |       E      1472    1578
        /ppos{esc}\027\038\107\048\083~                  <-as HP ThinkJet        t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit}    now!            |       F      1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Georgia Ave
Silver Spring Library         |  ^       13     1550        40  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R        0        3         1 #Lanes |    Use "N","Y":          n
Existing                      |  OI LY  |            |         |:LV(N):| P  eak Hour Period:
Date:                Count    |  for r <-          V        ->   588 |    AM
_____ _____________ _________ __| RTOR                          3 |___ _____________ _________ _________
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\  From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=      588        ||        #Lanes   VPH   R
  Left        10         0  --^  SI B  CLV   (E-W)=       99        NE ^--       0      45  Right
  Thru         4         1  -->  || |  ---   ----------  ----------      <--       1      15  Thru
  Right        7         0  --v  V /   SU    M CLV=      687  ok       v--       0      29  Left
R        CLV(W)=        50        3            LOS=  A        | EB== =>  1  CLV(E)=        99
_____ _____________ _________ __  C   LV(S):   (ok-under 1,525)  ___ _____________ _________ _________
Name of E-W Approach        h |        360       <-        ^    ->      |If  free flow Rt->Vol=0
Silver Spring Ave             |                   |         |        |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=        0         3        0 | R  ights use Thru Lane
Use "N","Y":            n     |     VPH=         10       847        9 | L  efts use Thru Lane
Date:        06-May   May-09  |                Left      Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  -------------  -------  -------
                              |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                              |     1 Lane    1.00      1.00    1.00  |      A/B       977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |       B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37  |      B/C      1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29  |       C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25  |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                         |       D      1322    1428
-------- ---------------- ------------ --- -- ---------- ---------- ---------- -------- -- --|      D/E      1427    1473
\p       {Calc}{Calc}                v-Setup String vary w/printer   |       E      1472    1578
         /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet   t E/F      1577    1623
         bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    nowl    |       F      1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Georgia Ave
Silver Spring Library         |  ^      10     1002        73  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        3         1 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-         V        ->   386 |    PM
_____ __________ _________ __| RTOR                            3 |__ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          /\  From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     627          ||        #Lanes   VPH   R
  Left       25          0  --^  SI B  CLV   (E-W)=     170          NE ^--       0     94  Right
  Thru       27          1  -->  || | ---   ----------- -----------      <--      1     16  Thru
  Right      11          0  --v  V /  SU    M CLV=     797  ok         v--      0     35  Left
R       CLV(W)=         98        3            LOS=  A        | EB== =>  1  CLV(E)=      170
_____ __________ _________ __     C   LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach          h |      627        <-        ^    ->     |If  free flow Rt->Vol=0
Silver Spring Ave             |                     |        |       |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      0        3       0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       12     1369     115  | L  efts use Thru Lane
Date:        06-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  -------------- ---------- ---------
                              |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                              |     1 Lane    1.00      1.00    1.00  |      A/B       977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |       B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37  |      B/C      1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29  |       C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25  |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                         |       D      1322    1428
--------- ---------------- ------------ --- -- ---------- ---------- ---------- -------- -- --|     D/E      1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer       |       E      1472    1578
        /ppos{esc}\027\038\107\048\083~                  <-as HP ThinkJet     t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit}   now!   |       F      1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:             |  R   Right     Thru      Left     |    Dale Dr
Silver Spring Library          |  ^     115      239        48  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0        1         0 #Lanes |    Use "N","Y":          n
Existing                       |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:                Count     |  foi r <-          V        ->   433 |    AM
_____ _________ _______ __|  RTOR                              3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH        #Lanes            CLV  (N-S)=     433          ||        #Lanes   VPH   R
  Left       26        0  --^  SI B  CLV  (E-W)=     564          NE ^--       0     126  Right
 Thru       164        2  -->  || |  ---  ---------- ----------          <--      2     849  Thru
 Right       17        0  --v  V /  SU   M CLV=     997  ok          v--      0      40  Left
R        CLV(W)=      150        3          LOS=  A/B      | EB== =>  1  CLV(E)=      564
_____ _________ _______ __        C   LV(S):   (ok-under 1,525)
Name of E-W Approach         h |      288      <-        ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                      |                |         |     |     |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=     0         1     0     | R  ights use Thru Lane
Use "N","Y":           n       |     VPH=      31       185    24     | L  efts use Thru Lane
Date:        06-May   May-09   |              Left     Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:           |    LOS:    CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement        |  ---------- ------- -------
                               |  Nc .Lanes    Left     Thru   Rght   |     A          0     978
                               |     1 Lane    1.00     1.00   1.00   |    A/B       977    1023
If any questions:              |     2 Lanes   0.53     0.53   0.53   |     B       1022    1128
 Call Ed Axler                 |     3 Lanes   0.37     0.37   0.37   |    B/C      1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29     0.29   0.29   |     C       1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25     0.25   0.25   |    C/D      1277    1323
 Silver Spring, MD 20910-3760                                          |     D       1322    1428
-------- ---------------- ------------ --- -- ---------- ---------- --------- -- --|    D/E      1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer                   |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~                  <-as HP ThinkJet          t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit}    now!              |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Dale Dr
Silver Spring Library         |  ^     100      202       114  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         0 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-         V        ->   445 |    PM
_____ __________ _________ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     453         ||        #Lanes   VPH   R
  Left      224          0  --^  SI B CLV   (E-W)=     608         NE ^--       0      63  Right
 Thru       688          2  -->  || | ---  ---------- ----------      <--      2     602  Thru
 Right       58          0  --v  V /  SU    M CLV=    1061  ok       v--      0      60  Left
R       CLV(W)=        574       3            LOS=  B        | EB== =>  1  CLV(E)=      608
_____ __________ _________ __    C   LV(S):   (ok-under 1,525)        ___ _________ _______ _______
Name of E-W Approach        h |      453        <-        ^    ->     |If  free flow Rt->Vol=0
Wayne Ave                     |                   |        |       |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      0        1       0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       29      230      80  | L  efts use Thru Lane
Date:        06-May   May-09  |              Left     Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach  h Turning Movement      |  ------------- ------- -------
                              |  Nc .Lanes    Left      Thru   Rght  |      A          0     978
                              |     1 Lane    1.00      1.00   1.00 |      A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53   0.53 |      B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37   0.37 |      B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29   0.29 |      C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25   0.25 |      C/D     1277    1323
 Silver Spring, MD 20910-3760                                       |      D       1322    1428
-------- ---------------- ------------ --- -- ---------- ---------- ---------- -------- -- --|      D/E     1427    1473
\p       {Calc}{Calc}              v-Setup String vary w/printer                            |      E       1472    1578
         /ppos{esc}\027\038\107\048\083~                  <-as HP ThinkJet                   t E/F       1577    1623
         bra1.a1~bca1.a20~qrb2.n20~agq{Quit}              uit}    now!                       |      F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)              |<-  Name of N-S Approa
 Subdivision Case:            |  R   Right    Thru     Left            |    Colesville Rd
Silver Spring Library         |  ^     487    2039      205  =VPH      |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       4        0 =#Lanes    |     Use "N","Y":
Existing                      |  Of LY |          |        | CLV(N):   | P  eak Hour Period:
Date:                Count    |  for r <-         V       ->     796   |    AM
_____ ___________ ________ __| RTOR                              3 |___ _________ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]            /\    From EAST (Westbounc
        VPH         #Lanes          CLV   (N-S)=     796            ||          #Lanes   VPH
  Left      160          2 --^  SI B  CLV   (E-W)=     276            NB  ^--        1      70
 Thru       109          1 -->  || | —     _______ _______                <--        2     166
 Right       49          0 --v  V /  SU    M CLV=    1072  ok             v--        0      56
R       CLV(W)=        158      3            LOS=   B        | EB==> =>    1  CLV(E)=      118
_____ ___________ ________ __    C   LV(S):   (ok-under 1,525)            ___ _________ _______
Name of E-W Approach         h |       539       <-        ^    ->        |If  free flow Rt->Vol=0
Spring St                      |                  |        |        |     |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       0        2        0    | R  ights use Thru Lane
Use "N","Y":          Y        |     VPH=         4      574       52    | L  efts use Thru Lane
Date:        10-Jul    Jul-09  |               Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)               |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler
 Created on:          9/14/87  |  Lane Utilization Factors:              |     LOS:     CLV>#
 Updated 6/22/92               |  A pproach  h Turning Movement          |  _______   _______
                               |  Nc .Lanes    Left      Thru     Rght   |      A          0
                               |     1 Lane    1.00      1.00     1.00   |      A/B      977
If any questions:              |     2 Lanes   0.53      0.53     0.53   |      B       1022
 Call Ed Axler                 |     3 Lanes   0.37      0.37     0.37   |      B/C     1127
 at 1-301-495-4525             |     4 Lanes   0.29      0.29     0.29   |      C       1172
 8787 Georgia Ave              |     5 Lanes   0.25      0.25     0.25   |      C/D     1277
 Silver Spring, MD 20910-3760                                            |      D       1322
_____ ___________ ________ --  -- _______ _______ _______ _______ -   -|      D/E     1427
\p     {Calc}{Calc}            v-Setup String vary w/printer             |      E       1472
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet      t E/F      1577
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!        |      F       1622
_____ ___________ ________ --  - _______ _______ _______ _______ ,-  --  -Rights-    -RTOR-
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Colesville Rd
Silver Spring Library         |  ^     133      751        83  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        2         0 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY |          |          |:LV(N): | P  eak Hour Period:
Date:              Count      |  foi r <-         V        ->   513 |    PM
_____ ___________ _________ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)            2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     657          ||        #Lanes   VPH   R
  Left      699          0  –^  SI B  CLV   (E-W)=     568          NE ^–        1     309  Right
 Thru       197          3  –>  || | —     _______ _______             <–        2     139  Thru
 Right       29          0  –v  V /  SU    M CLV=    1226  ok          v–        0      46  Left
R       CLV(W)=        342       3            LOS=  C        | EB== =>   1  CLV(E)=      226
____ ___________ _________ __    C   LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach          h |      657       <-        ^    ->      |If  free flow Rt->Vol=0
Spring St                       |                  |        |        |   |If  # lanes=0, then:
If Split Phase:E-W!!            |  #  Lanes=       0        4        0 | R  ights use Thru Lane
Use "N","Y":          y         |     VPH=         0     1934       47 | L  efts use Thru Lane
Date:        10-Jul     Jul-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                            |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87   |  Lane Utilization Factors:           |     LOS:     CLV>#  <CLV
 Updated 6/22/92                |  A pproach h Turning Movement        |  _________ --------- ------
                                |  Nc .Lanes    Left      Thru    Rght   |       A          0     978
                                |     1 Lane    1.00      1.00    1.00   |       A/B      977    1023
If any questions:               |     2 Lanes   0.53      0.53    0.53   |       B       1022    1128
 Call Ed Axler                  |     3 Lanes   0.37      0.37    0.37   |       B/C     1127    1173
 at 1-301-495-4525              |     4 Lanes   0.29      0.29    0.29   |       C       1172    1278
 8787 Georgia Ave               |     5 Lanes   0.25      0.25    0.25   |       C/D     1277    1323
 Silver Spring, MD 20910-3760                                           |       D       1322    1428
____ ___________ _________ __ -- _____ _____ _____ -------- -- –|       D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer          |       E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!         |       F       1622    9999
____ ___________ _________ __ - _____ _____ _____ _____ ,- —  -Rights-    -RTOR-  -%RTOR
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Cedar St
Silver Spring Library         |  ^     118                  64  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       1        0         1 #Lanes |    Use "N","Y":          n
Existing                      |  Ol LY  |          |         |:LV(N):  | P  eak Hour Period:
Date:                Count    |  for r <-          V        ->   107  |    AM
_____ __________ _________ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     107        ||        #Lanes   VPH   R
  Left        28          0 -^  Sl B CLV   (E-W)=     561        NE ^-        0     153  Right
 Thru        183          2 -->  || | ---   _______ _______          <--       2     852  Thru
 Right                    0 -v  V /  SU    M CLV=     668  ok       v--       0          Left
R        CLV(W)=       112       3            LOS=  A        | EB== =>  1  CLV(E)=      561
_____ __________ _________ __   C   LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach         h |        70       <-        ^    ->     ||f  free flow Rt->Vol=0
Wayne Ave                     |                   |         |         |     ||f  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0         1         1  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        17        53        21  | L  efts use Thru Lane
Date:        10-Jul    Jul-09 |                Left     Thru     Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)                  |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                        Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:              |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement          |  _________ _______ _______
                              |  Nc .Lanes    Left      Thru     Rght   |       A          0     978
                              |     1 Lane    1.00      1.00     1.00   |      A/B       977    1023
If any questions:             |     2 Lanes   0.53      0.53     0.53   |       B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37     0.37   |      B/C      1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29     0.29   |       C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25     0.25   |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                           |       D      1322    1428
_____ __________ _________ __ _ _______ _______ _______ _____ _ _|      D/E      1427    1473
\p     {Calc}{Calc}            v-Setup String vary w/printer            |       E      1472    1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!        |       F      1622    9999
_____ __________ _________ __ -- --------- _______ _______ _____ ,- ---  -Rights-   -RTOR-  -%RTOR
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Cedar St
Silver Spring Library         |  ^     163                 203  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       1        0         1 #Lanes |    Use "N","Y":          n
Existing                      |  Of LY  |          |          |:LV(N):  | P  eak Hour Period:
Date:                Count    |  for r <-          V        ->    14  |    PM
_____ __________ ________ __| RTOR                              3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     145        ||        #Lanes   VPH   R
  Left        91          0 -^  SI B CLV   (E-W)=     394        NE ^-        0     110  Right
  Thru       653          2 ->  || | ---   _______ _______          <-        2     427  Thru
  Right                   0 -v  V /  SU    M CLV=     539  ok      v-        0          Left
R        CLV(W)=      394       3            LOS=  A        | EB== =>  1  CLV(E)=      376
_____ __________ ________ __    C   LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach        h |      145       <-        ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                     |                  |         |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0         1        1 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        14       107      145 | L  efts use Thru Lane
Date:        10-Jul   Jul-09  |              Left      Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ----------- --------- ------
                              |  Nc .Lanes    Left       Thru    Rght |      A          0     978
                              |     1 Lane    1.00       1.00    1.00 |      A/B      977    1023
If any questions:             |     2 Lanes   0.53       0.53    0.53 |      B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37       0.37    0.37 |      B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29       0.29    0.29 |      C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25       0.25    0.25 |      C/D     1277    1323
 Silver Spring, MD 20910-3760                                         |      D       1322    1428
_____ __________ ________ __ _ _____ _____ _______ _____ _ _|      D/E     1427    1473
\p     {Calc}{Calc}                v-Setup String vary w/printer      |      E       1472    1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!      |      F       1622    9999
```

APPENDIX D

TRIP ASSIGNMENT SHEETS

MONTGOMERY COUNTY MARYLAND
montgomerycountymd.gov
Department of Transportation

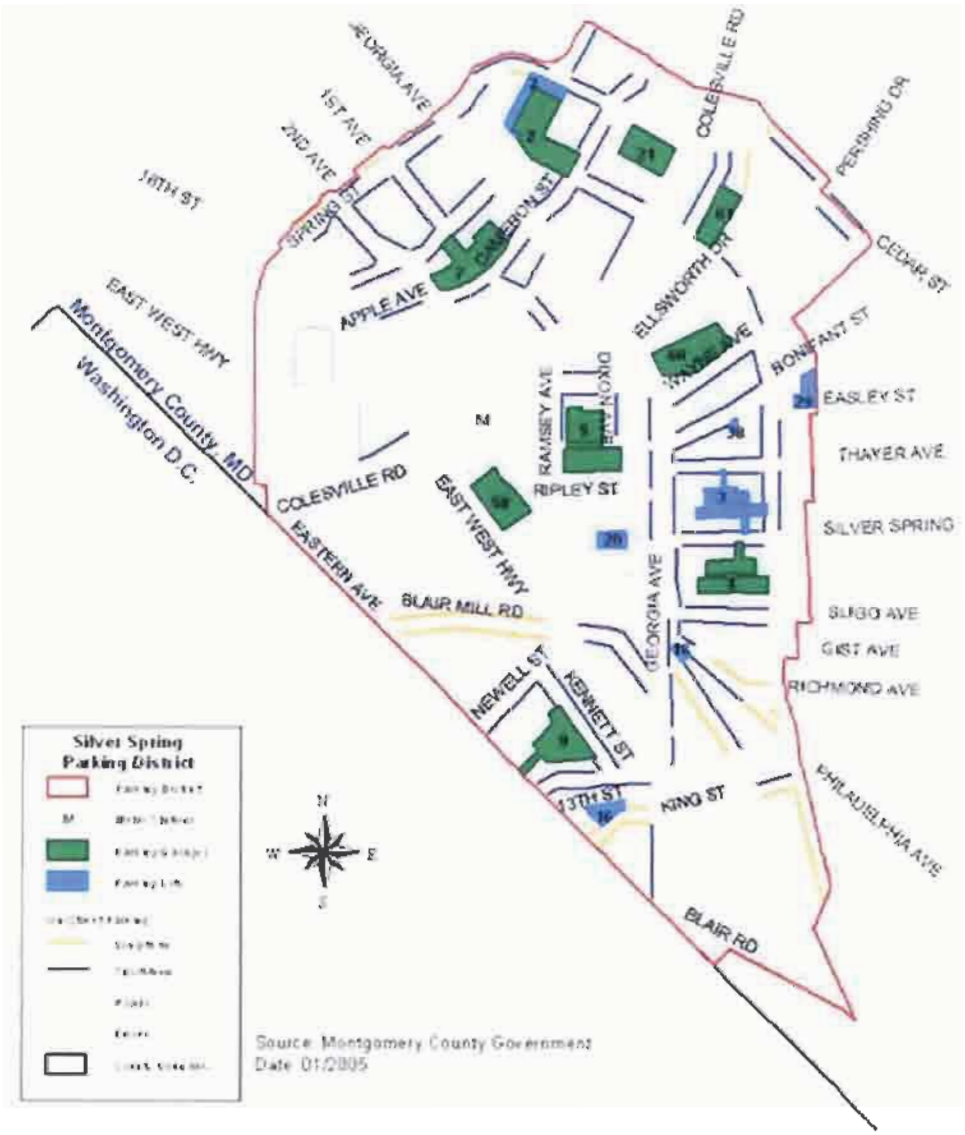
Parking

Home | News | Questions | Parking Facilities | Maps | Meters & Rates | Permits >>
Department home

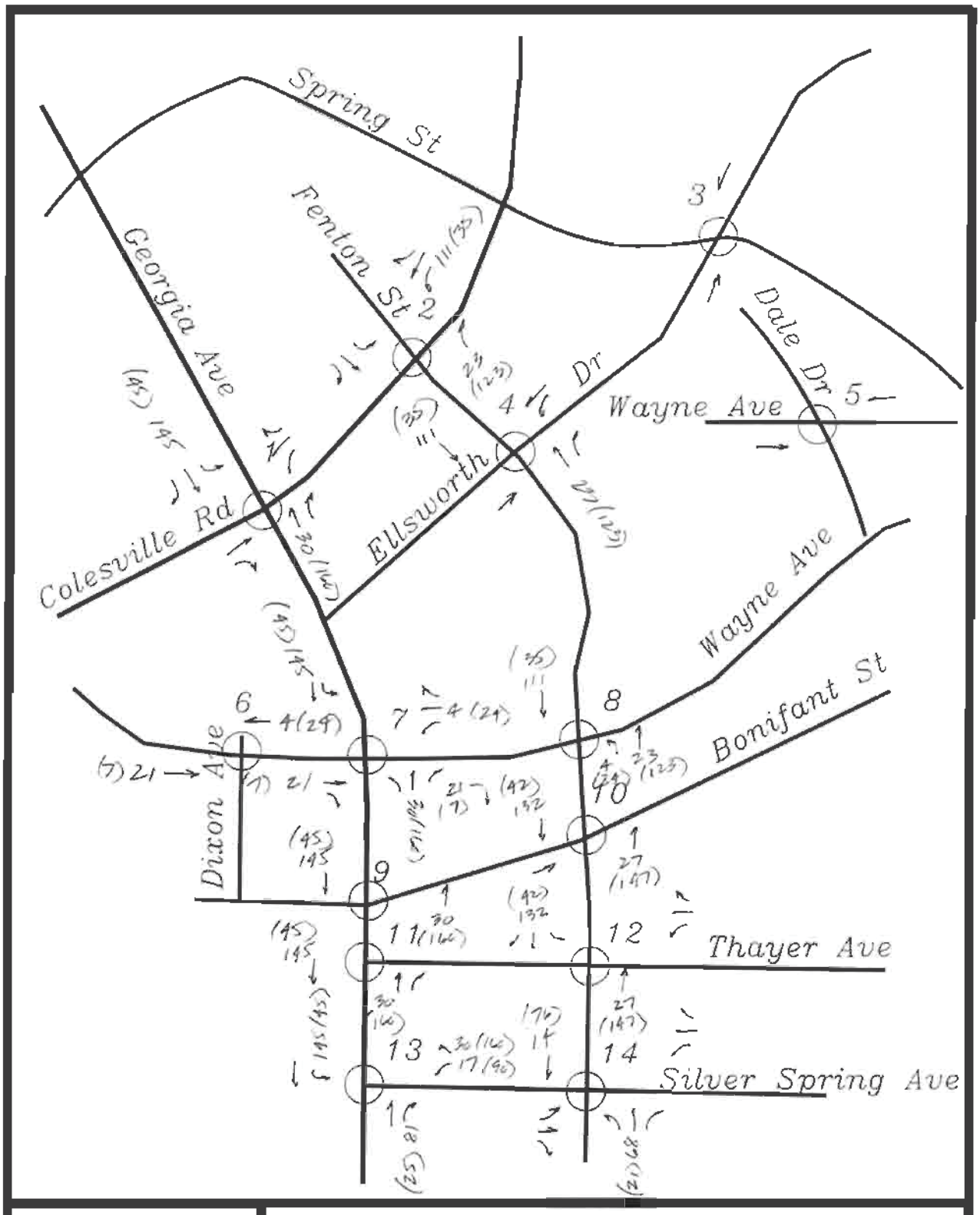
Silver Spring Public Parking Map

Back

Silver Spring Parking District Map



Back



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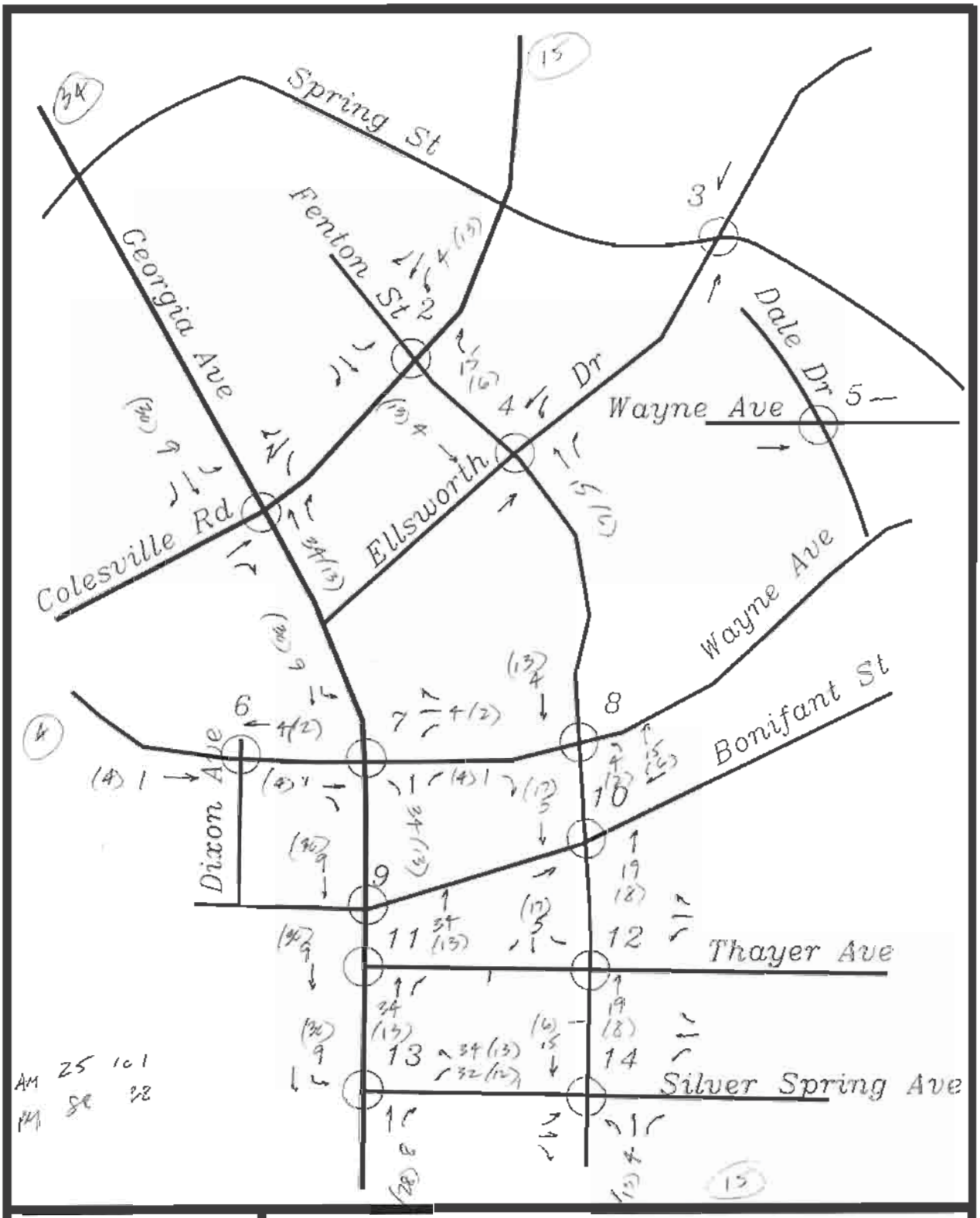
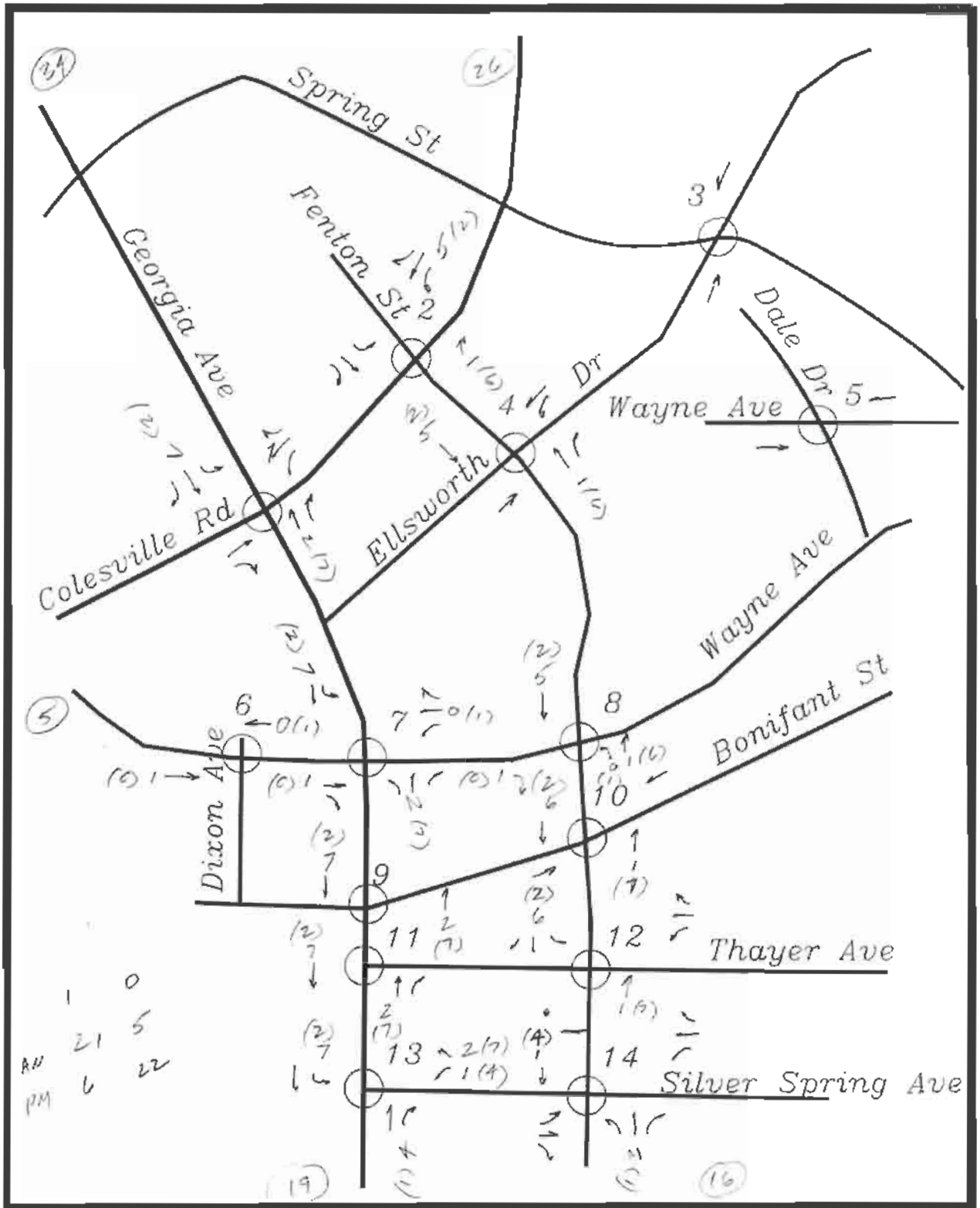
Studio Plaza
Commercial



STREET TRAFFIC STUDIES, LTD.

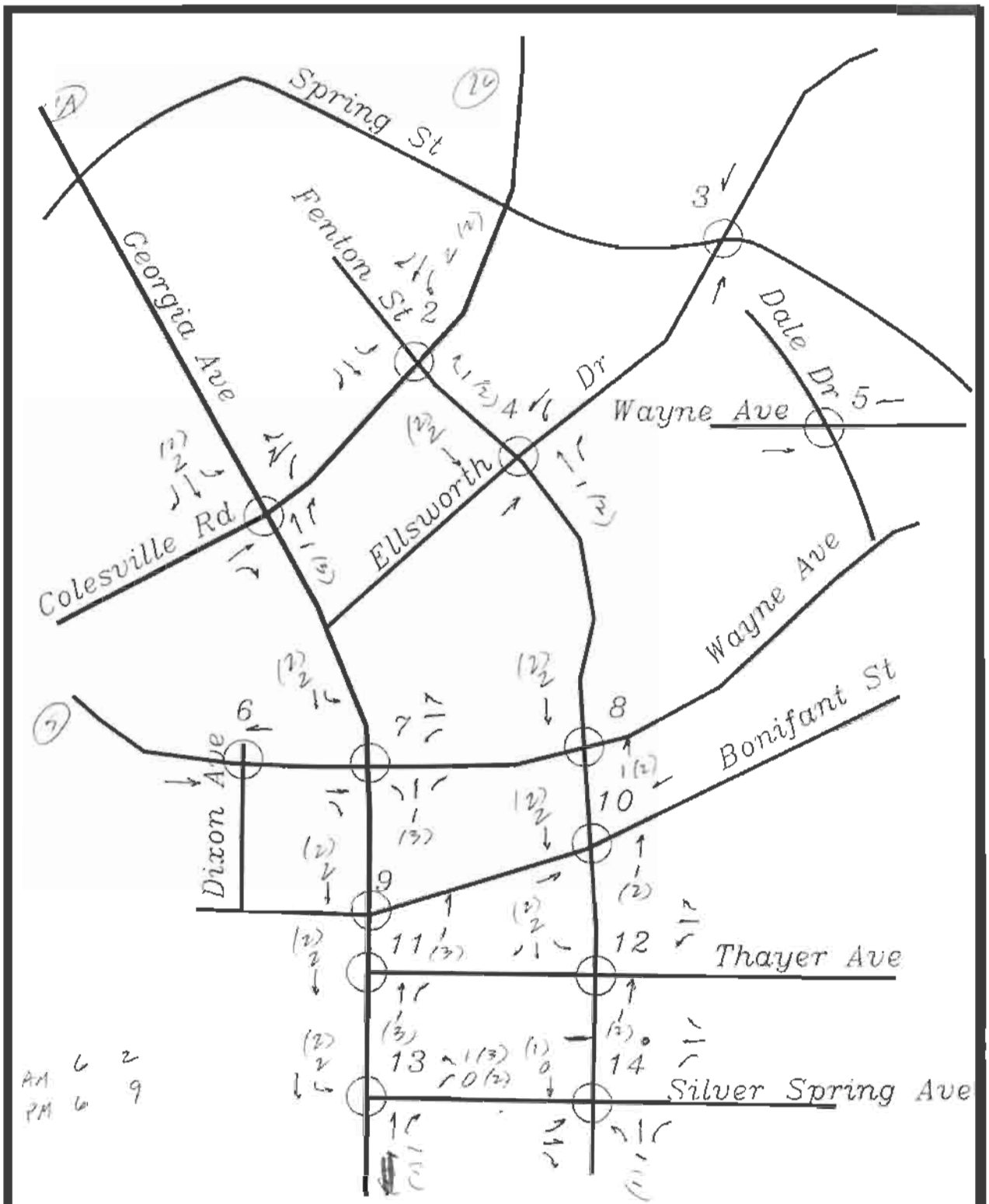
Studio Plaza

Residential



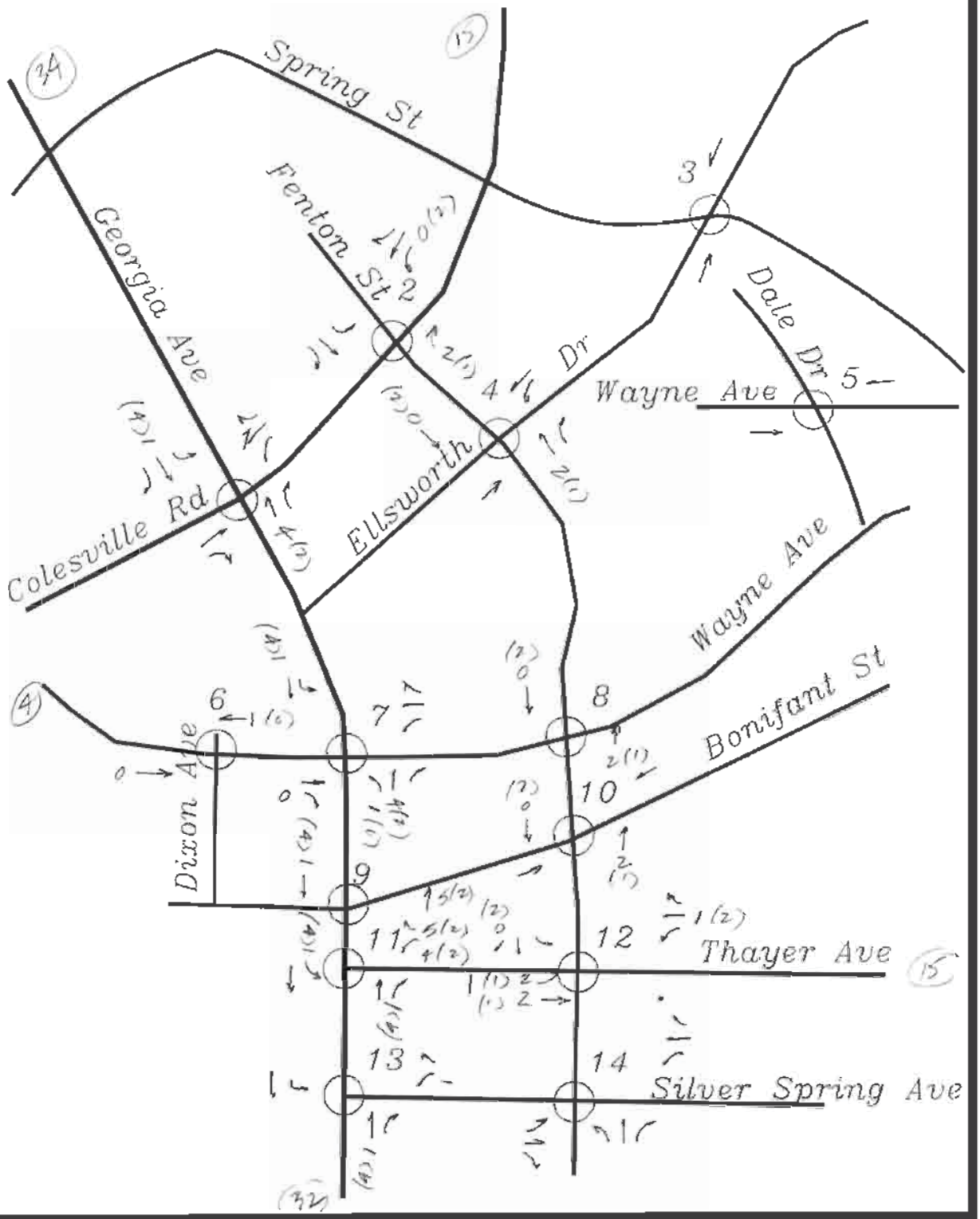
STREET TRAFFIC STUDIES, LTD.

Easley
Cromwell



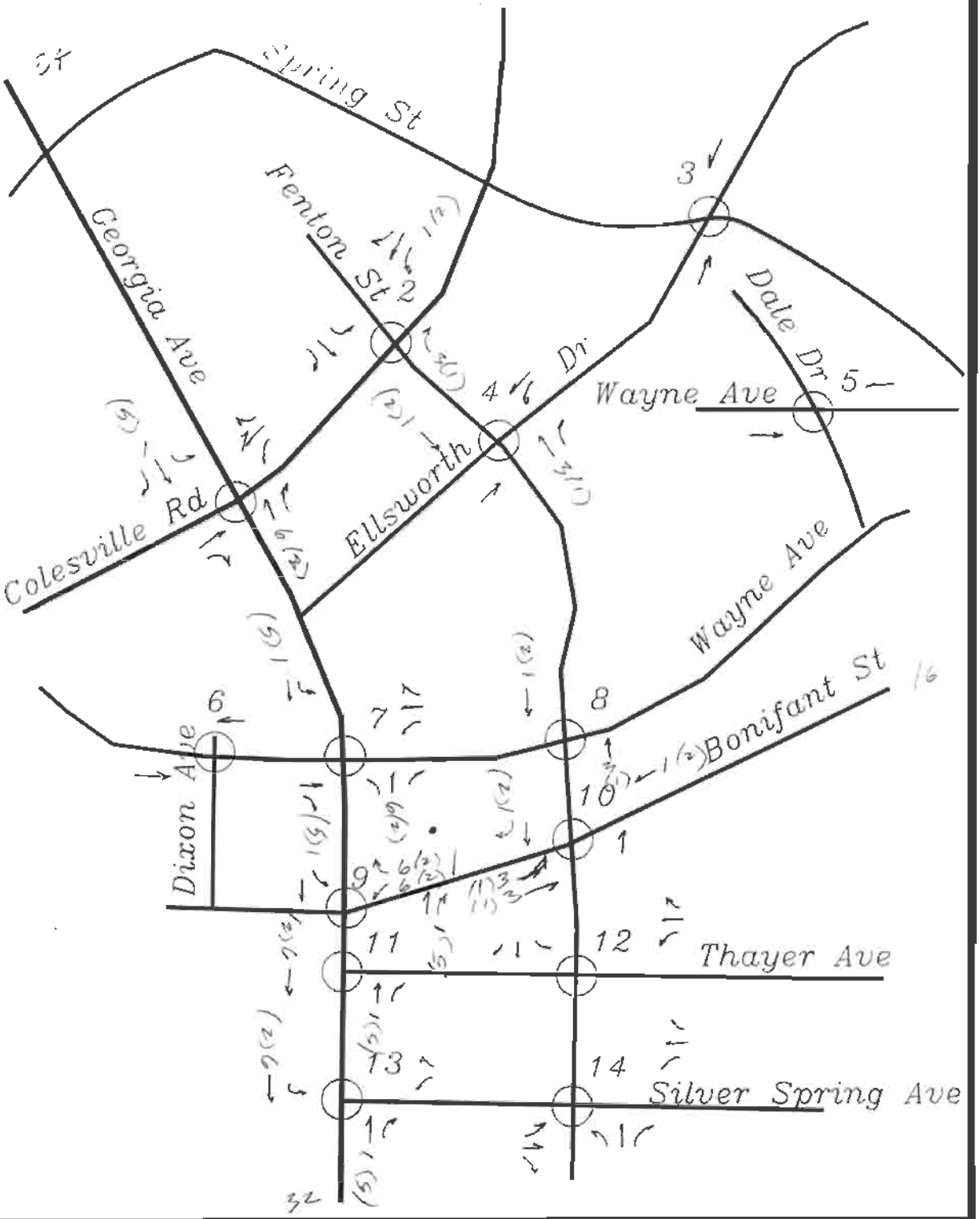
STREET TRAFFIC STUDIES, LTD.

8227 Fenton St



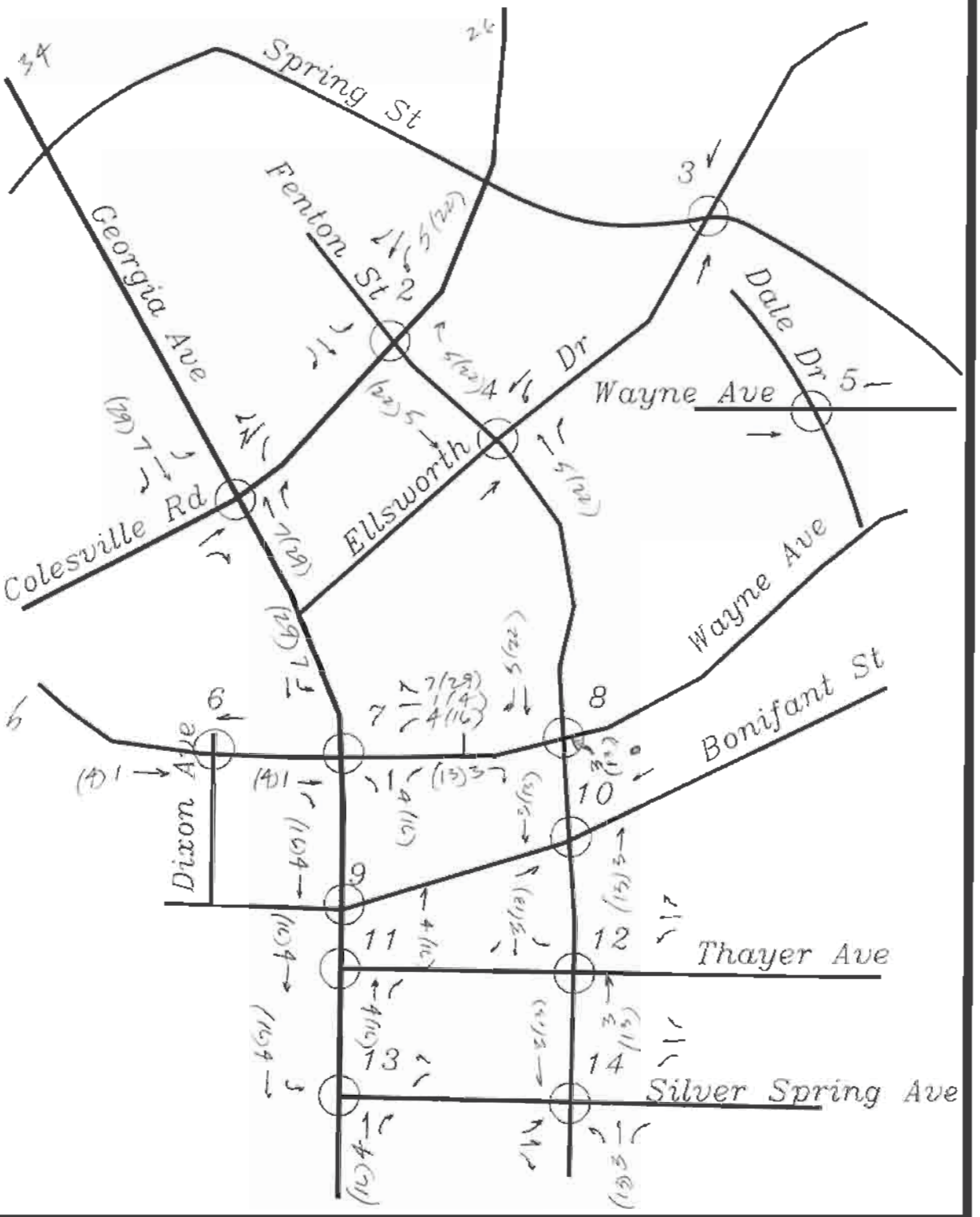
STREET TRAFFIC STUDIES, LTD.

814 Thayer



STREET TRAFFIC STUDIES, LTD.

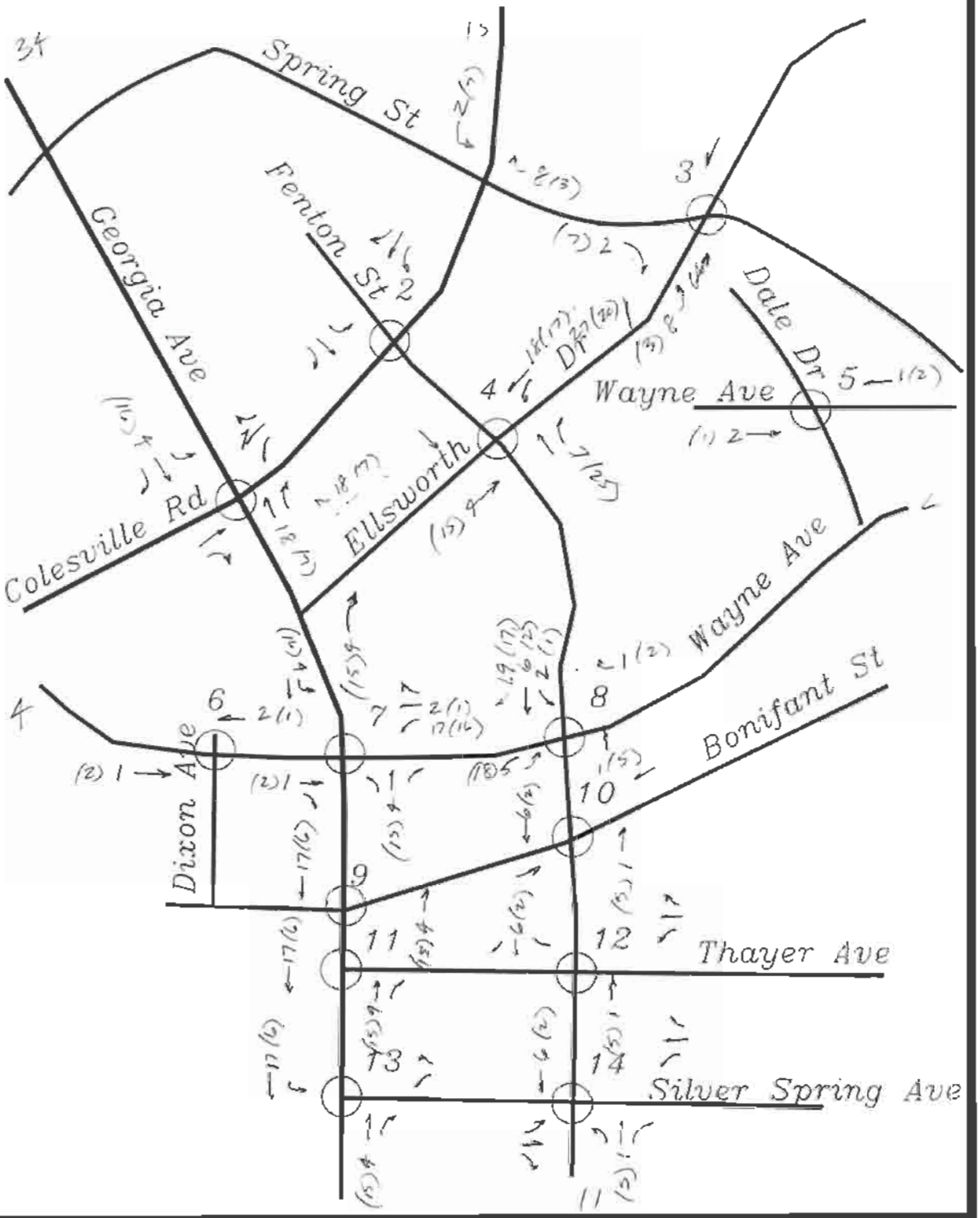
Bonifant Plaza



STREET TRAFFIC STUDIES, LTD.

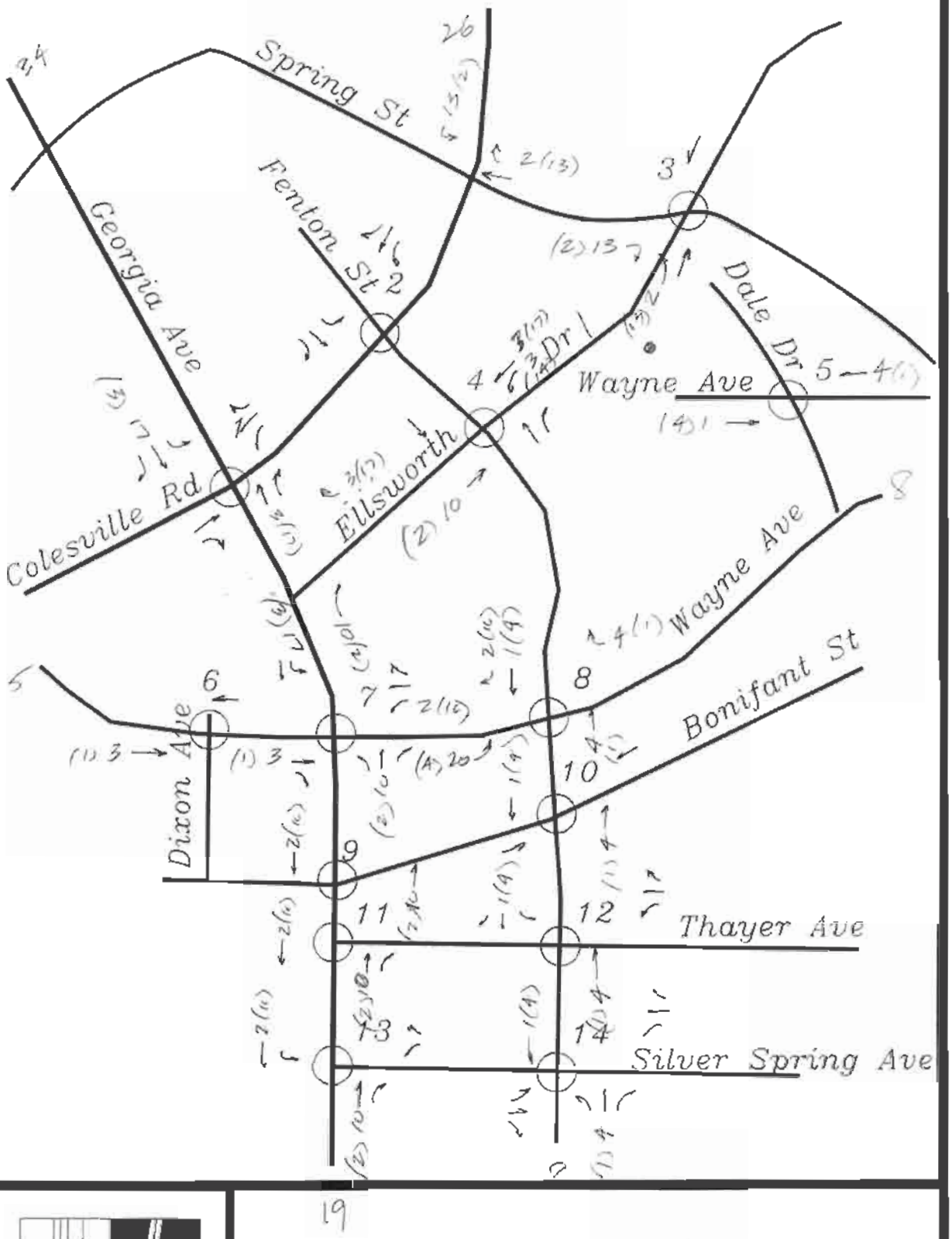
19 16

8415 Fenton



STREET TRAFFIC STUDIES, LTD.

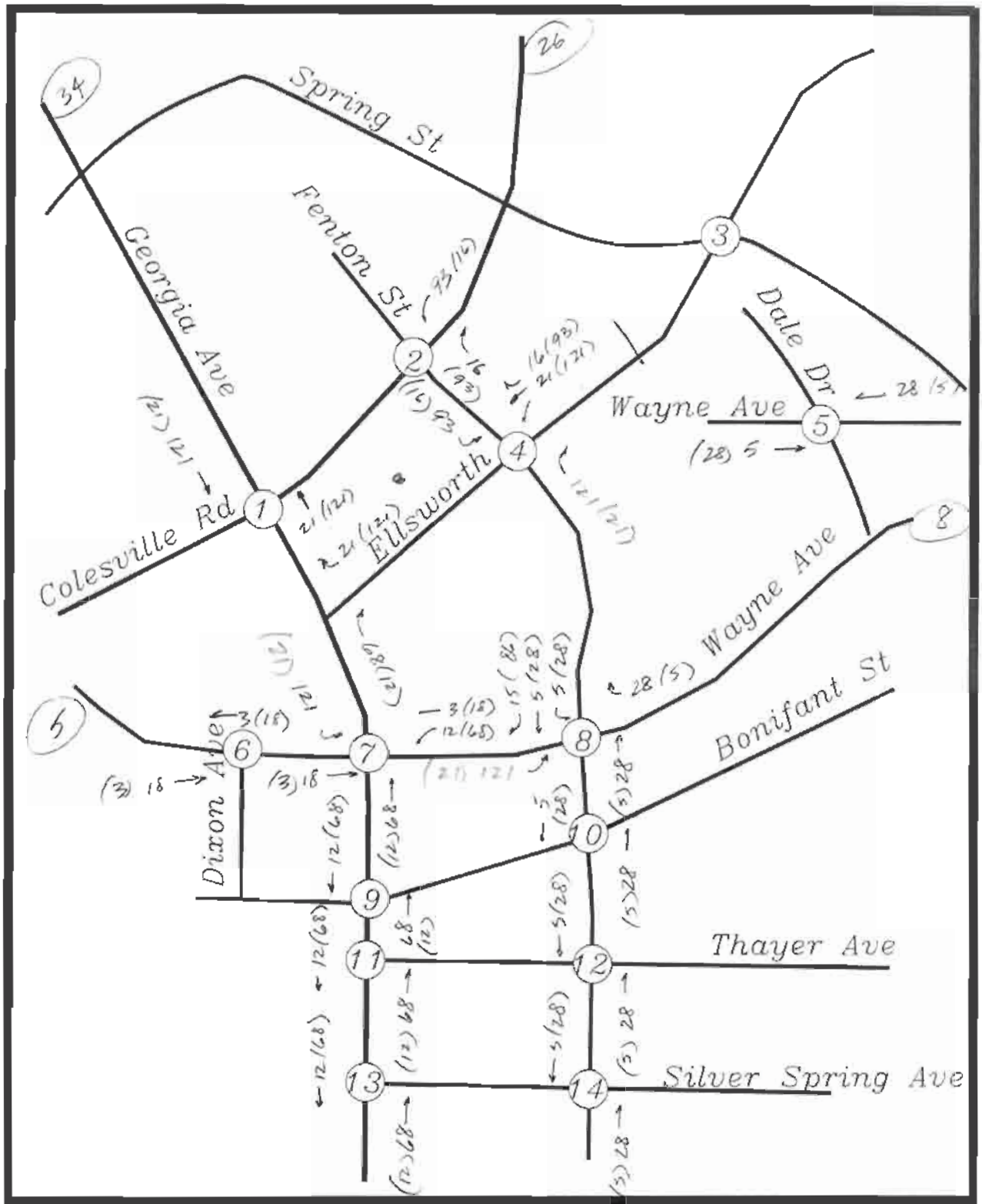
Veteran's Place
Residential



STREET TRAFFIC STUDIES, LTD.

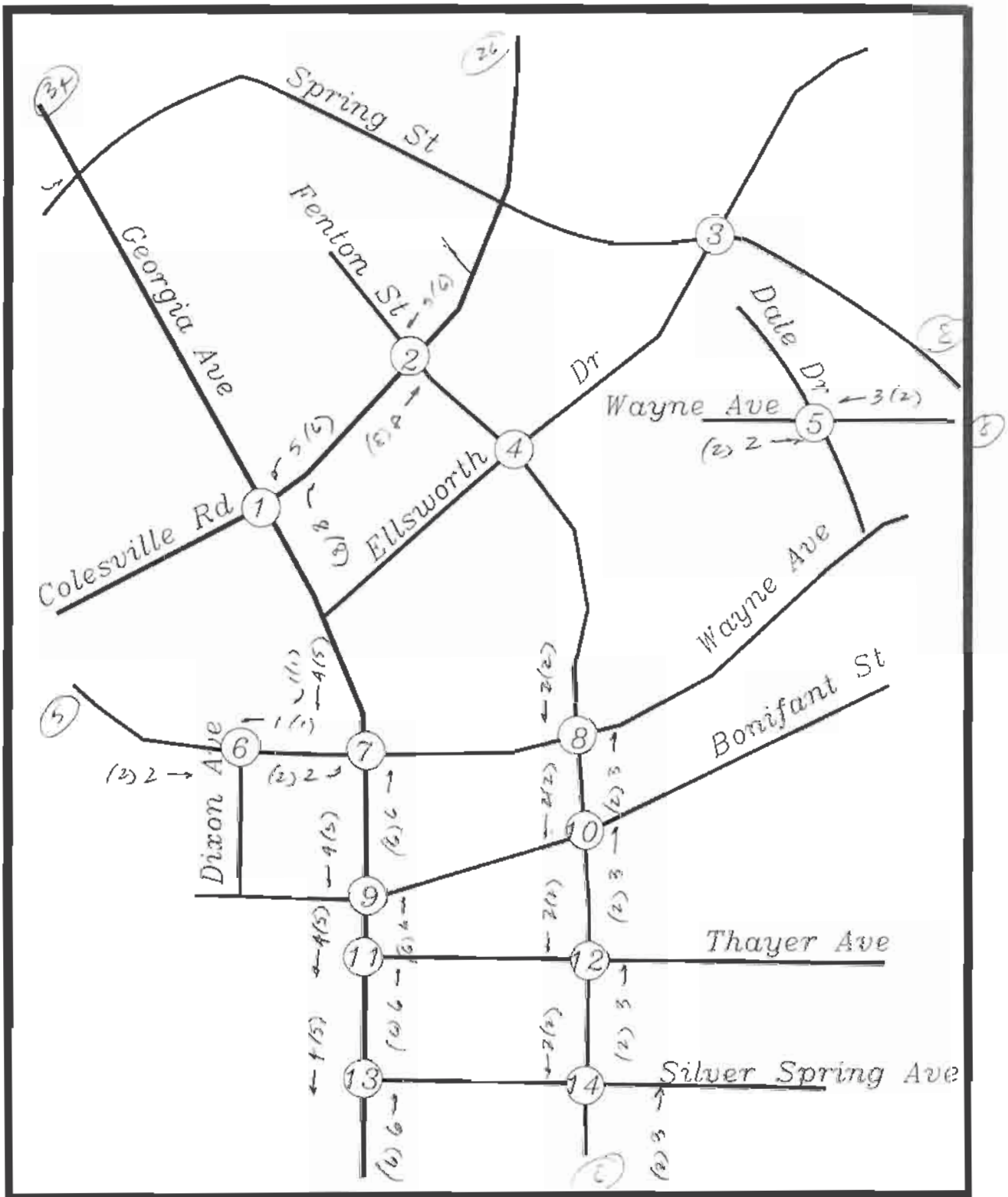
Veteran's Plaza

Commercial



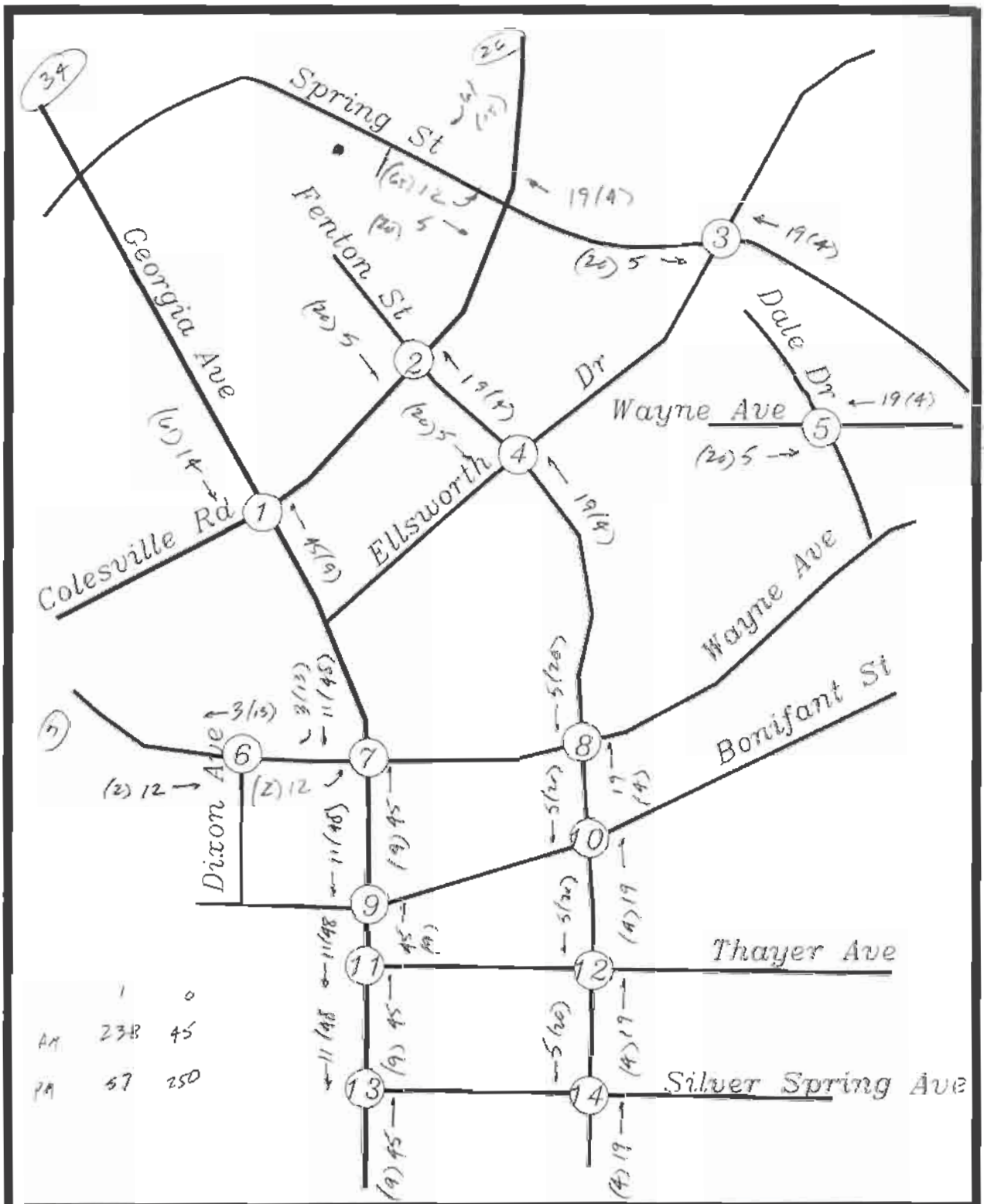
STREET TRAFFIC STUDIES, LTD.

City Place



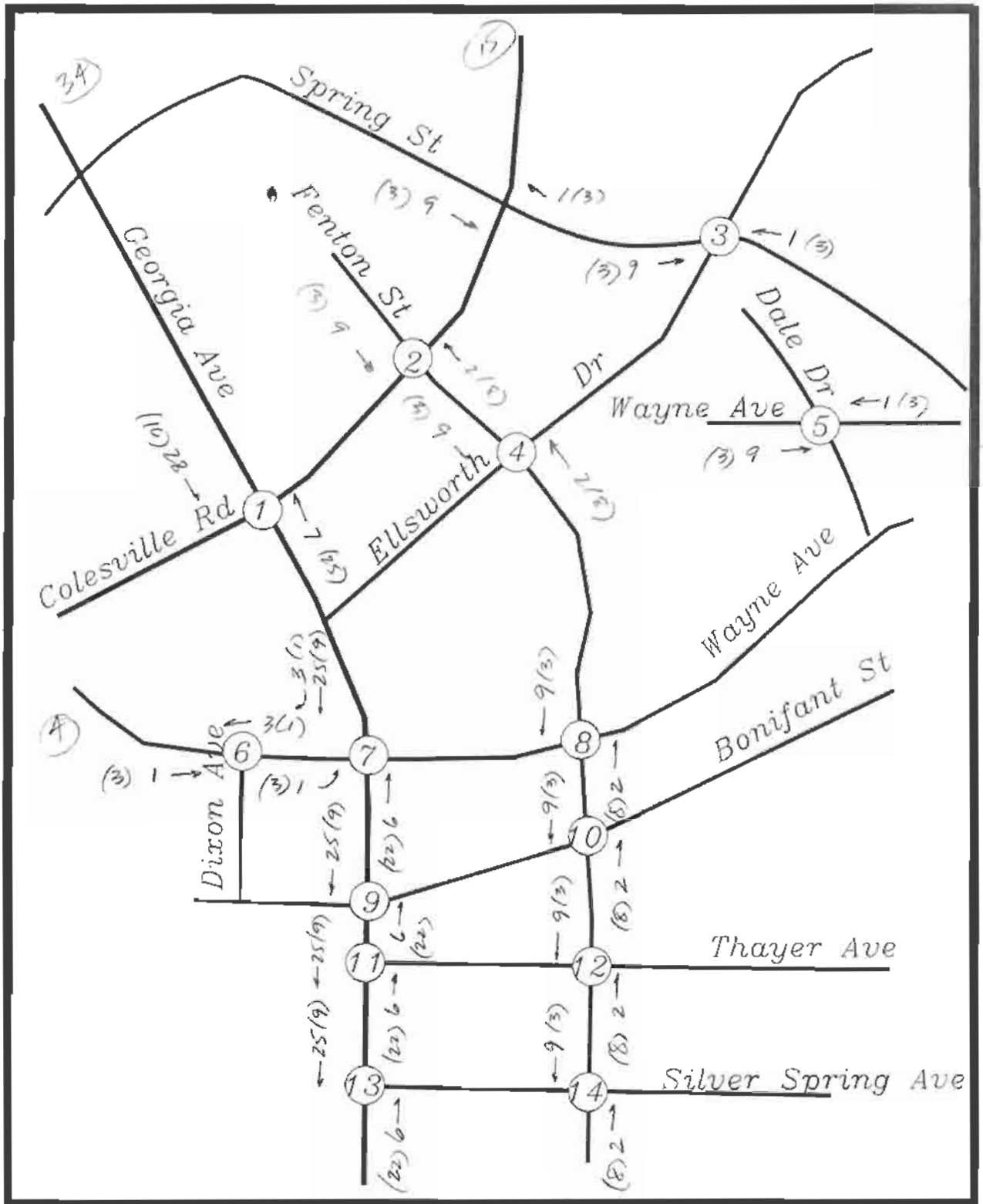
STREET TRAFFIC STUDIES, LTD.

Homewood Suites



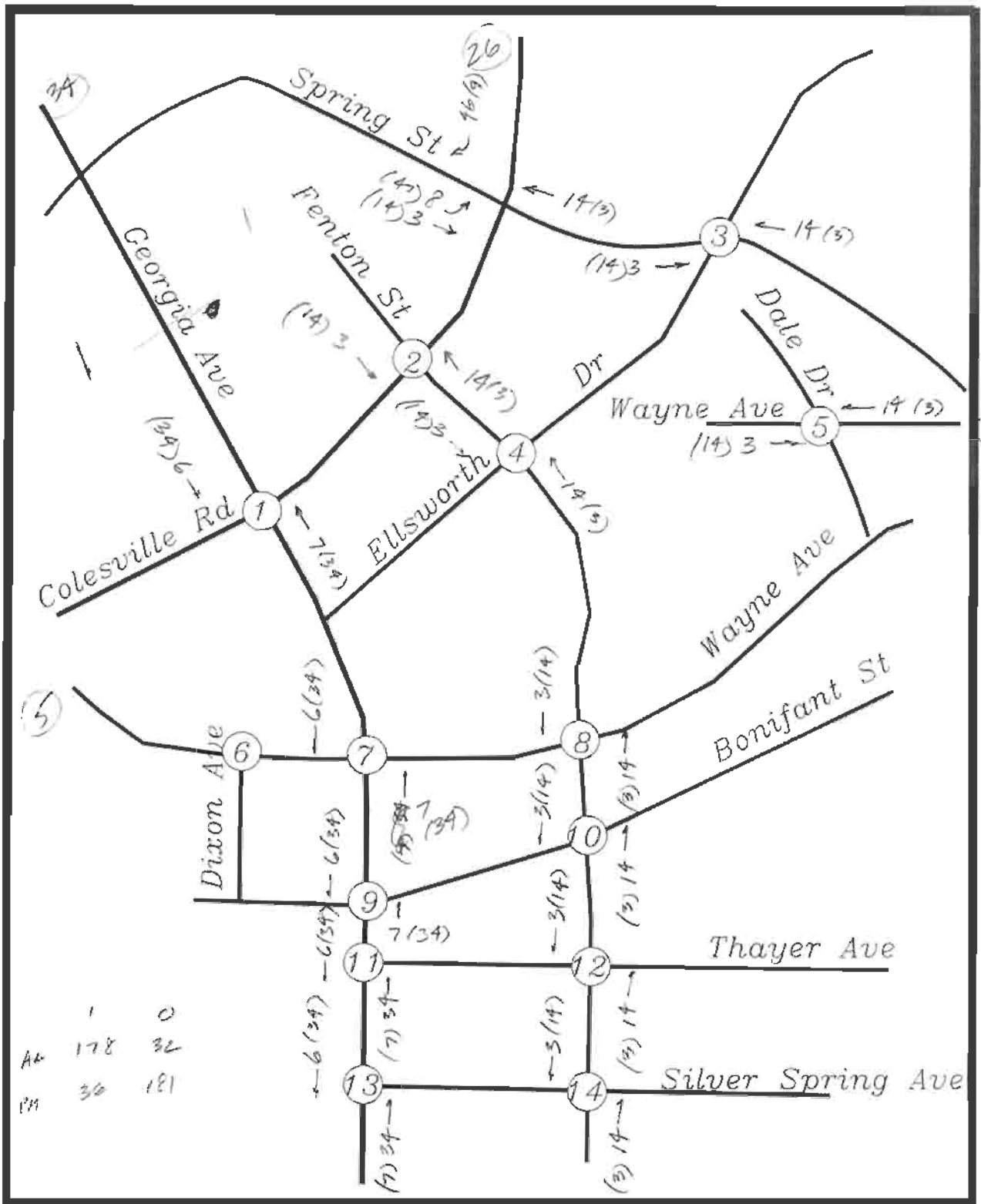
STREET TRAFFIC STUDIES, LTD.

United Technologies



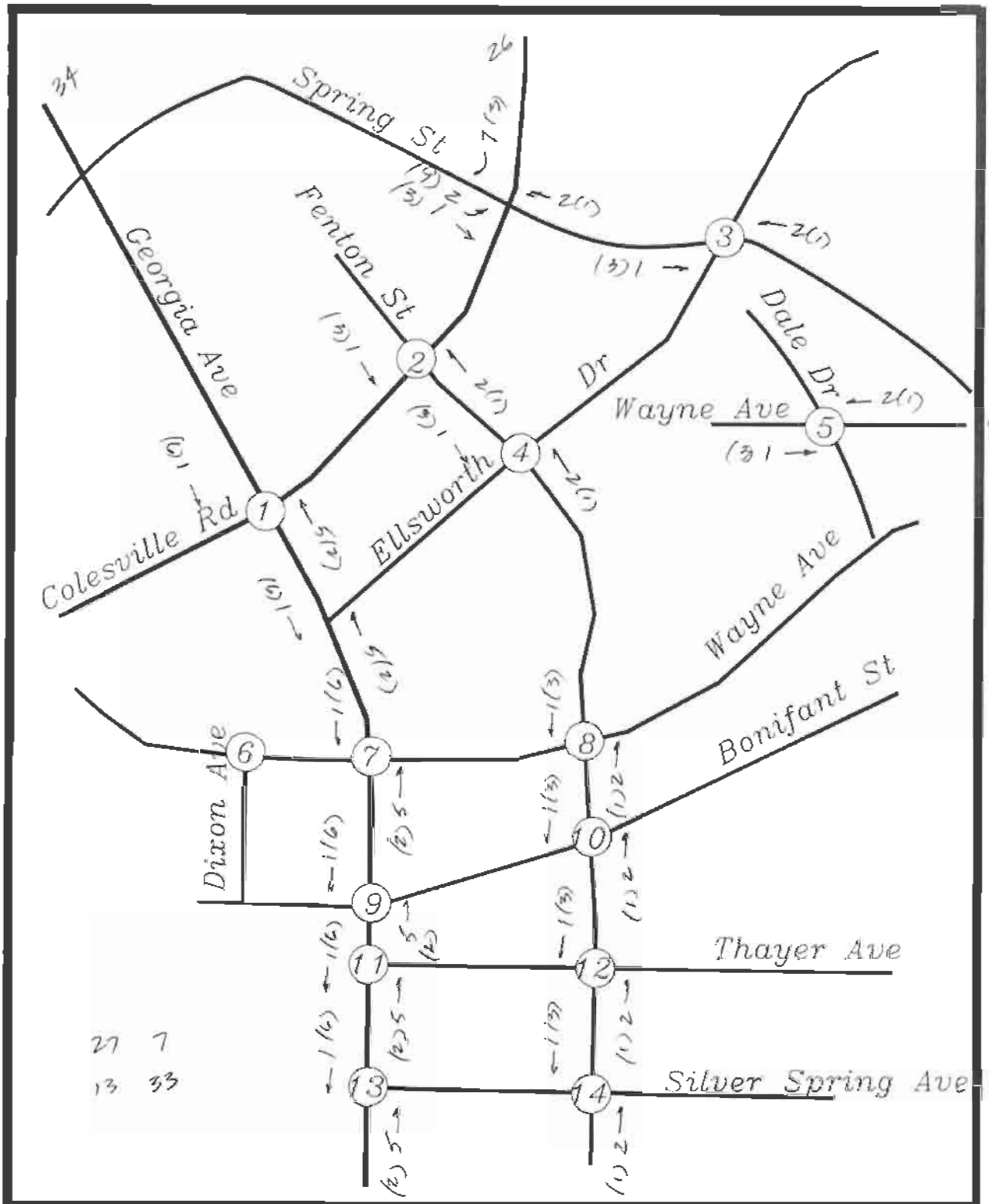
STREET TRAFFIC STUDIES, LTD.

Cameron House
Residential



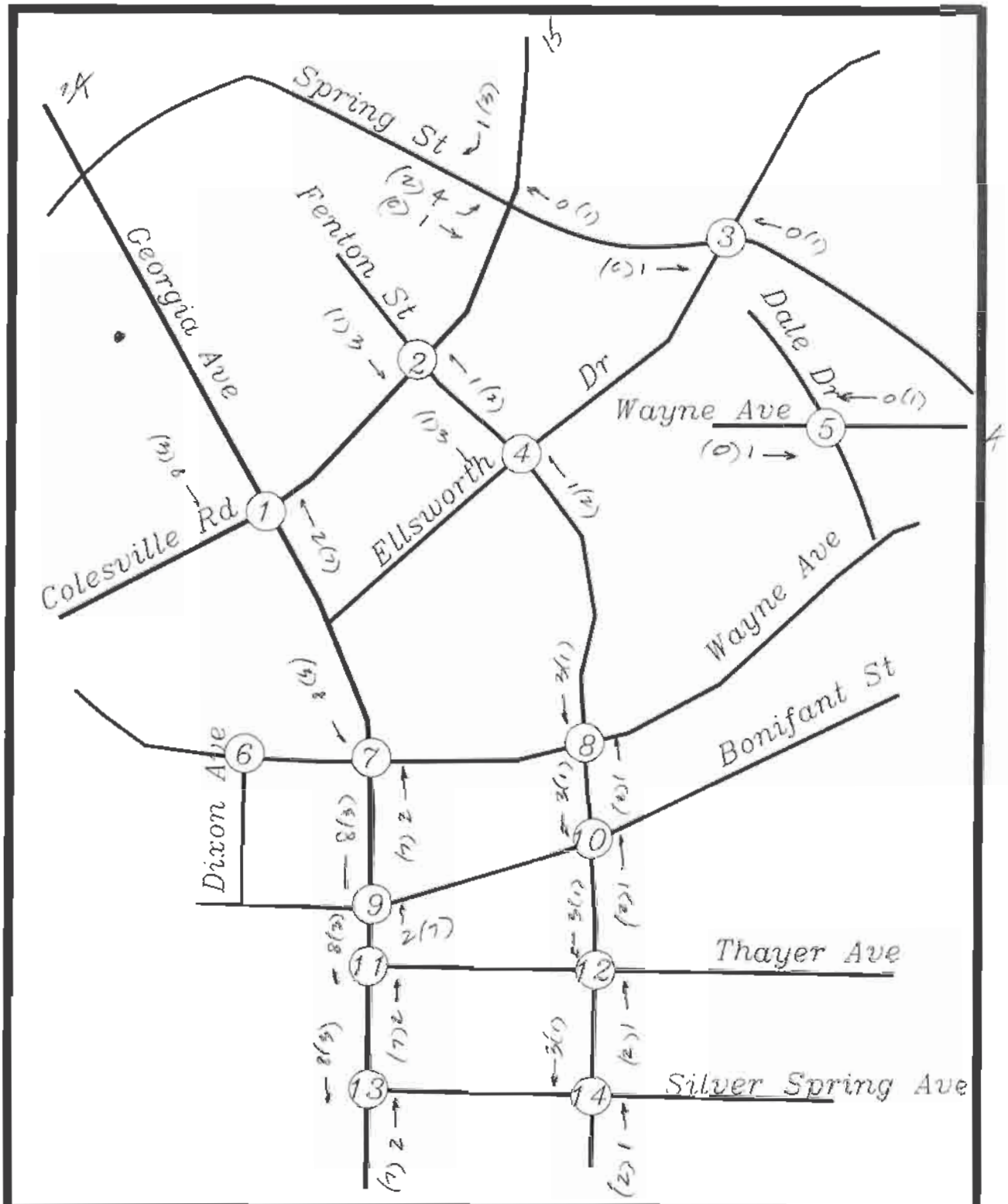
STREET TRAFFIC STUDIES, LTD.

(19 (8 8711 Ga Ave



STREET TRAFFIC STUDIES, LTD.

8700 Ga Ave
Com.



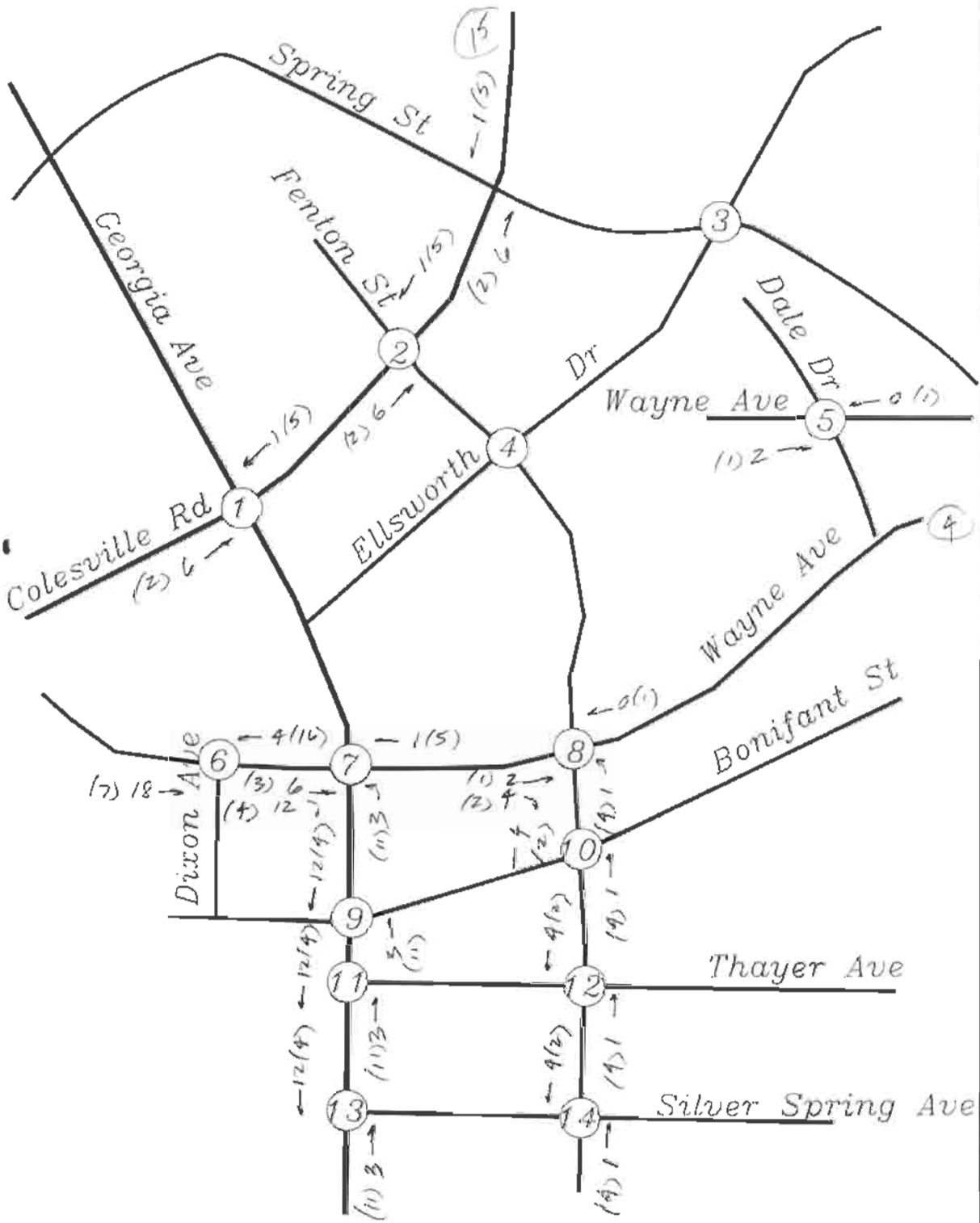
STREET TRAFFIC STUDIES, LTD.

32

11

8700 Ga Ave

Residential

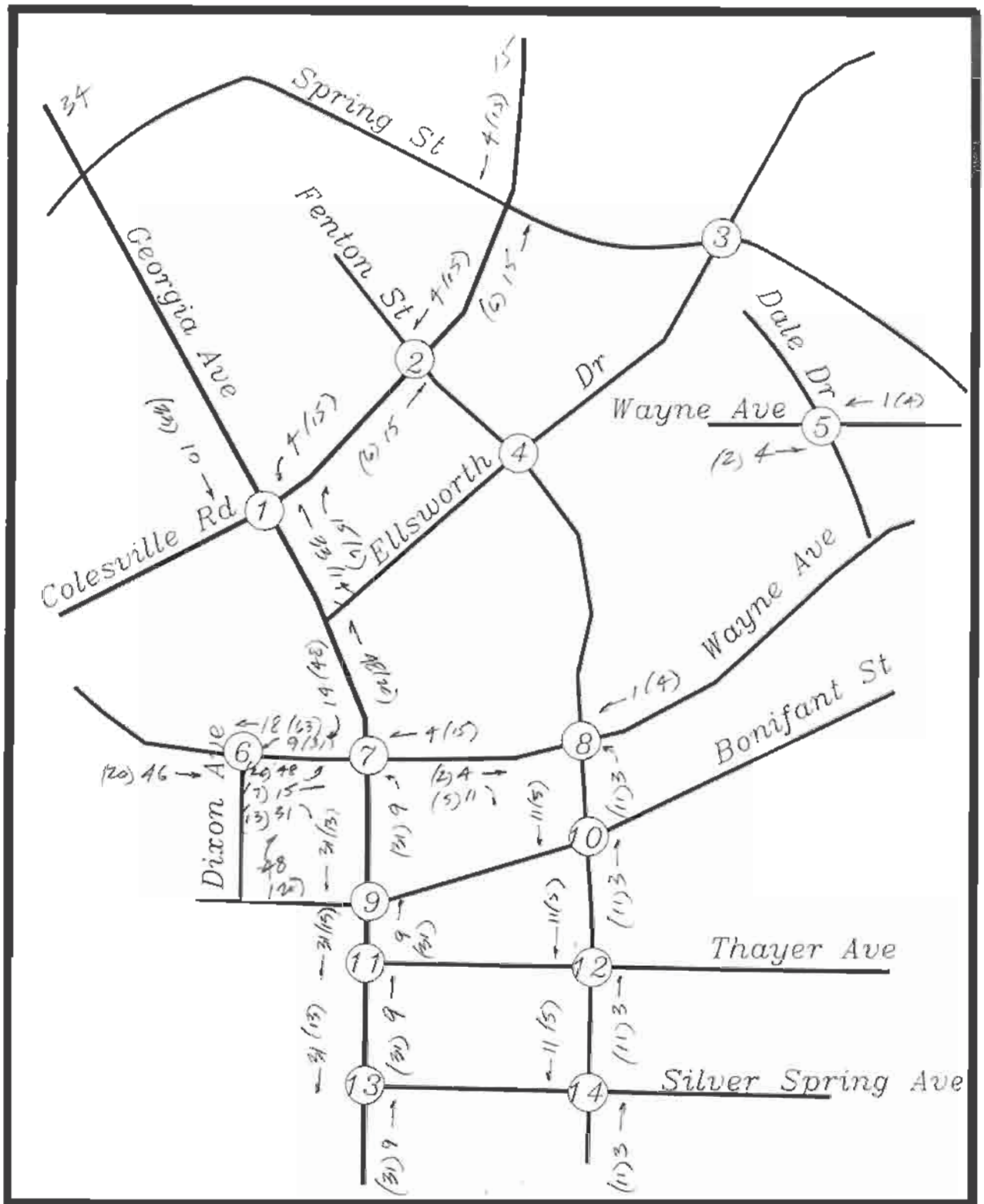


STREET TRAFFIC STUDIES, LTD.

32

11

Portico



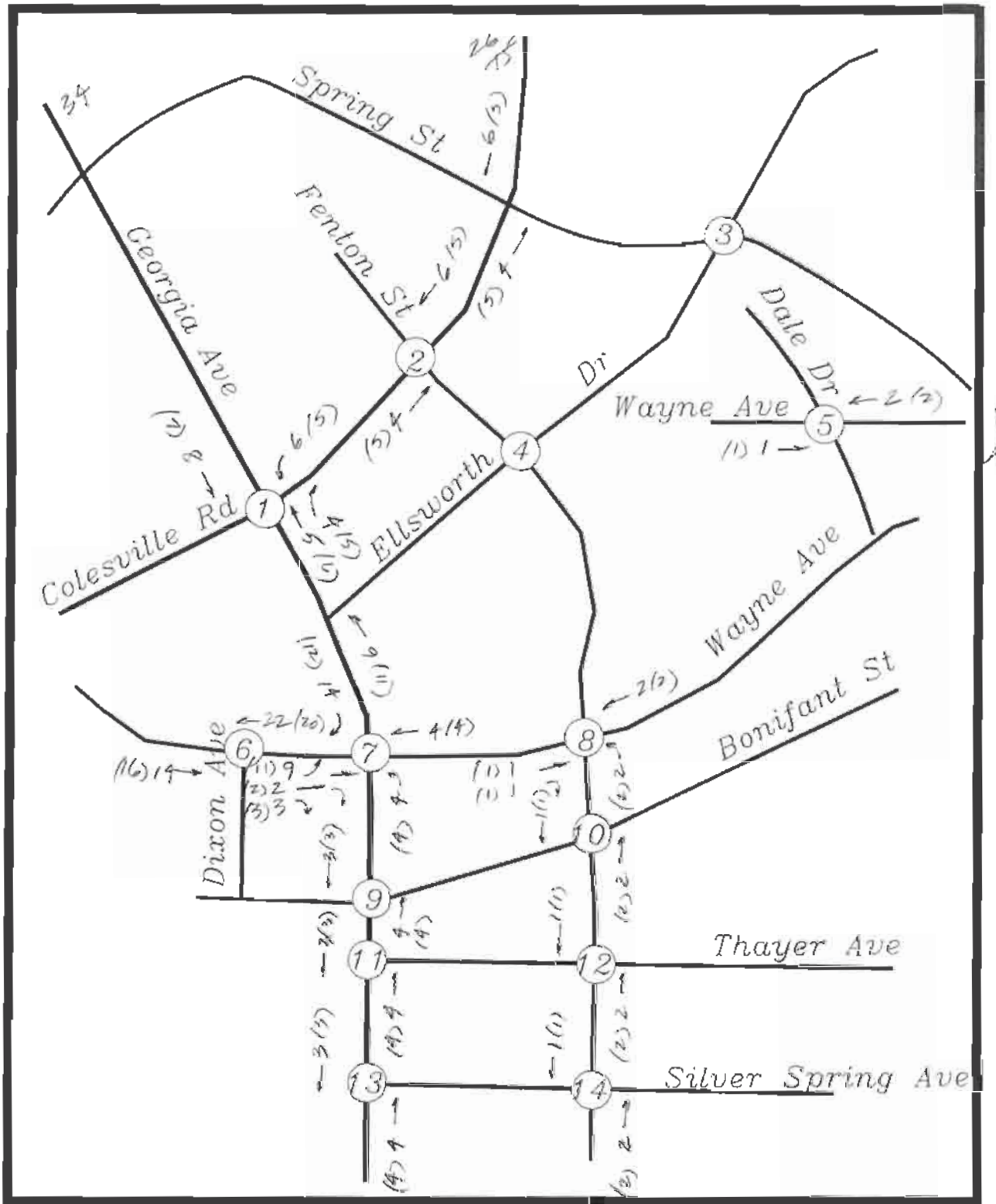
STREET TRAFFIC STUDIES, LTD.

32

11

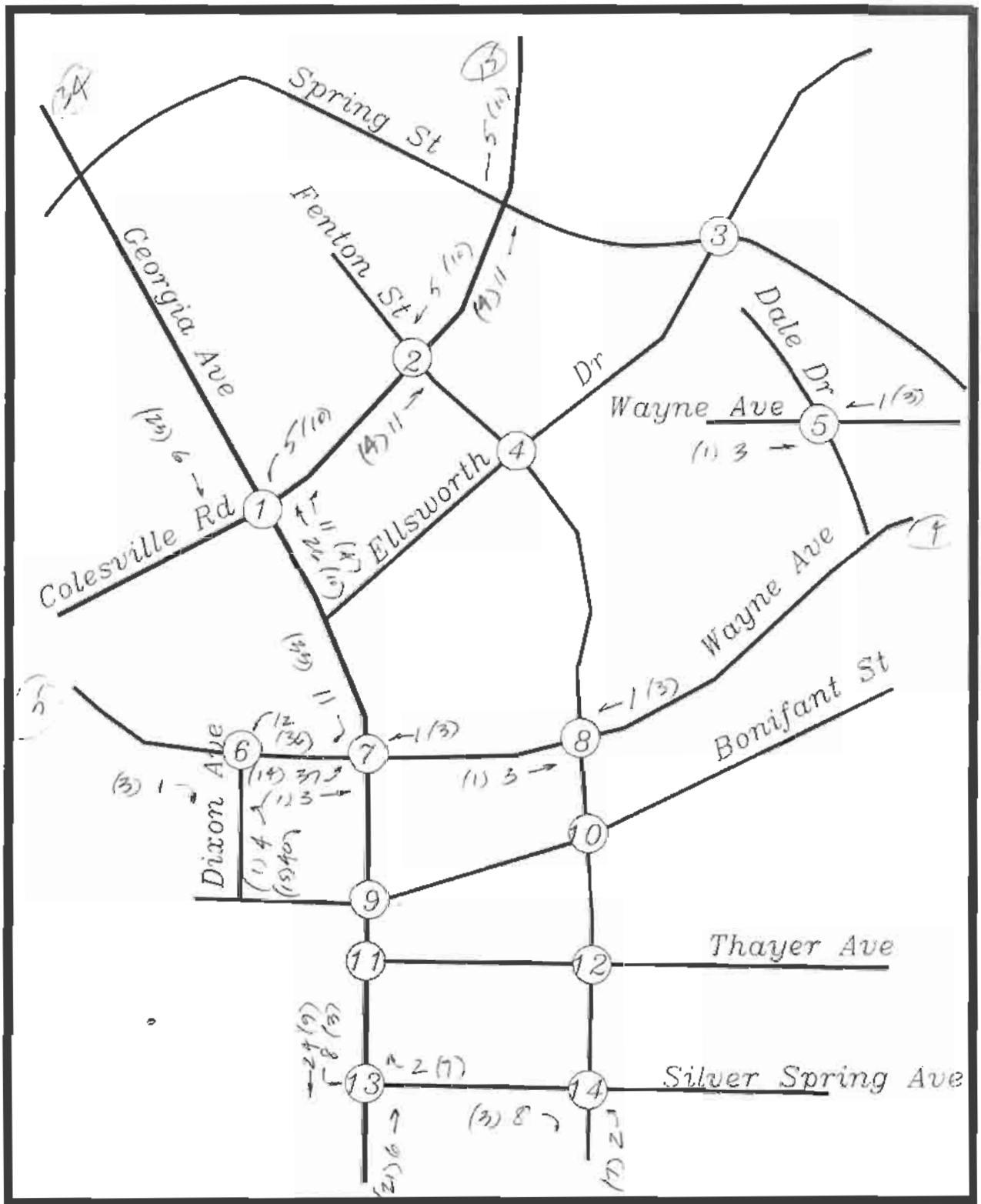
Sashanes
Transit Ctr
Residential

4



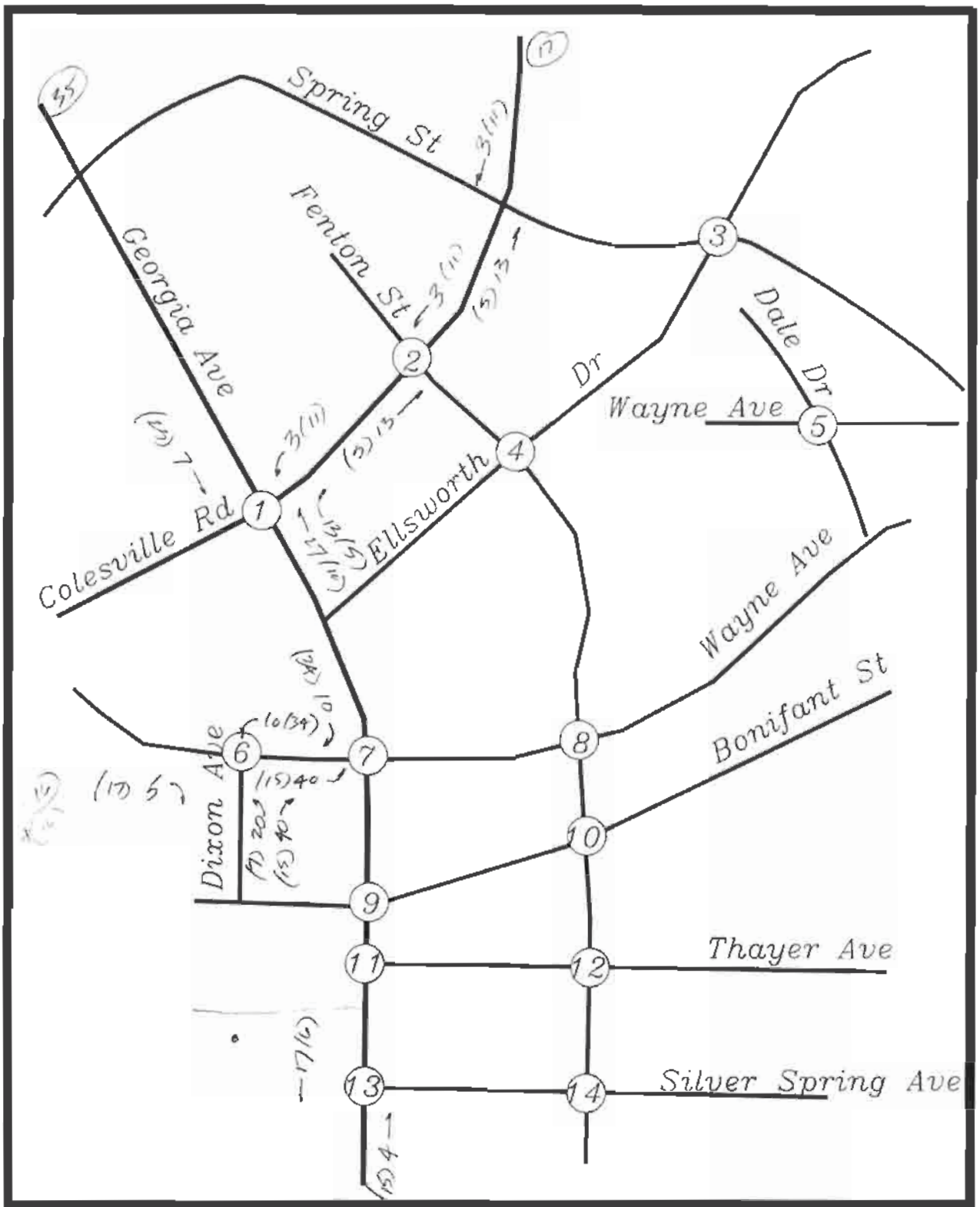
STREET TRAFFIC STUDIES, LTD.

Sarbanes
Transit Ctr
Hotel



STREET TRAFFIC STUDIES, LTD.

32 (11) Ripley N



STREET TRAFFIC STUDIES, LTD.

Ripley S

APPENDIX E

CAPACITY WORKSHEETS - BACKGROUND CONDITIONS

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)                 |<-  Name of N-S Approa
 Subdivision Case:            |  R   Right     Thru      Left             |    Georgia Ave
Silver Spring Library         |  ^      48     1643         4  =VPH       |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        3         0 =#Lanes     |    Use "N","Y":
Background                    |  Ol LY |          |         | CLV(N):     | P  eak Hour Period:
Date:              Count      |  foi r <-         V        ->     627     |    AM
_____ ___________ _________ __| RTOR                                  3 |__ _________ ______
From WEST (Eastbound)            2  <=[WB receiving lanes]            /\    From EAST (Westbounc
        VPH          #Lanes          CLV   (N-S)=     627             ||          #Lanes   VPH
  Left        4          0 --^  Si B  CLV   (E-W)=     785            NB  ^--        0      45
 Thru       485          3 -->  || | —      ------- -------                <--        3    1297
 Right       37          0 --v  V /  SU    M CLV=    1412  ok              v--        1     590
R       CLV(W)=        785       3            LOS=  D        | EB==> =>     1  CLV(E)=      501
_____ ___________ _________ __   C   LV(S):   (ok-under 1,525)              __ _________ ______
Name of E-W Approach          h |      438        <-        ^    ->         |If  free flow Rt->Vol=0
Colesville Rd                   |                  |        |        |      |If  # lanes=0, then:
If Split Phase:E-W!!            |  #  Lanes=       0        3        1      | R  ights use Thru Lane
Use "N","Y":          n         |     VPH=         0     1174      285     | L  efts use Thru Lane
Date.        04-Jun    Jun-09   |               Left     Thru    Right   R  |MUST hit CALC-F9 >IBM
 By:                            |  From SOUTH (Northbound)                  |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler
 Created on:          9/14/87  |  Lane Utilization Factors:                |    LOS:     CLV>#
 Updated 6/22/92               |  A pproach h Turning Movement             |  _________ ______
                               |  Nc .Lanes    Left      Thru      Rght    |     A          0
                               |     1 Lane    1.00      1.00      1.00    |     A/B      977
If any questions:              |     2 Lanes   0.53      0.53      0.53    |     B       1022
 Call Ed Axler                 |     3 Lanes   0.37      0.37      0.37    |     B/C     1127
 at 1-301-495-4525             |     4 Lanes   0.29      0.29      0.29    |     C       1172
 8787 Georgia Ave              |     5 Lanes   0.25      0.25      0 25    |     C/D     1277
 Silver Spring, MD 20910-3760                                              |     D       1322
_____ ___________ _____ __ _ _____ _____ _____ _____ _ _|     D/E     1427
\p      {Calc}{Calc}          v-Setup String vary w/printer               |     E       1472
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet        t E/F     1577
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!            |     F       1622
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Georgia Ave
Silver Spring Library         |  ^      46     1248         1  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        3         0 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-         V        ->   479 |    PM
_____ _________ _________ __| RTOR                              3 |__ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH          #Lanes        CLV  (N-S)=     631          ||       #Lanes   VPH   R
  Left        3          0 --^  S| B  CLV  (E-W)=     692          NE ^--      0     50  Right
  Thru     1282          4 -->  || | —     ———— ———                  <--     3    428  Thru
 Right       64          0 --v  V /  SU   M CLV=    1324  ok          v--     0    301  Left
R        CLV(W)=        692       3          LOS=   D        | EB== =>  1  CLV(E)=     291
_____ _________ _________ __     C   LV(S):   (ok-under 1,525)        __ _________ _______ _____
Name of E-W Approach          h |      631        <-        ^    ->     |If  free flow Rt->Vol=0
Colesville Rd                   |                  |        |        |   |If  # lanes=0, then:
If Split Phase:E-W!!            |  #  Lanes=       0        3        1  | R  ights use Thru Lane
Use "N","Y":          n         |     VPH=         0     1704      574  | L  efts use Thru Lane
Date:        04-Jun    Jun-09   |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                            |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:            |    LOS:     CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement         |
                               |  Nc .Lanes    Left      Thru     Rght  |    A          0     978
                               |     1 Lane    1.00      1.00     1.00  |    A/B      977    1023
If any questions:              |     2 Lanes   0.53      0.53     0.53  |    B       1022    1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37     0.37  |    B/C     1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29      0.29     0.29  |    C       1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25      0.25     0.25  |    C/D     1277    1323
 Silver Spring, MD 20910-3760                                           |    D       1322    1428
____ _________ _________ __ _ _____ _____ _____ _____ _ --|    D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer             |    E       1472    1578
        /ppos{esc}\027\038\107\048\083~          <-as HP ThinkJet        t E/F      1577    1623
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)                |<-  Name of N-S Approa
 Subdivision Case:             |  R   Right     Thru      Left           |    Colesville Rd
Silver Spring Library          |  ^     214     1975       328  =VPH     |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0        4         0 =#Lanes   |     Use "N","Y":
Background                     |  Of LY |          |         | CLV(N):   | P  eak Hour Period:
Date:                Count     |  for r <-         V        ->     741   |    AM
_____ _________ _______ __|  RTOR                                  3 |___ _________ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]              /\   From EAST (Westbounc
        VPH        #Lanes            CLV   (N-S)=     741              ||        #Lanes   VPH
  Left       53         0 --^  SI B  CLV   (E-W)=     262              NB ^--        0     155
  Thru       68         2 -->  || | --    _______ _______                <--        2     180
  Right       3         0 --v  V /  SU    M CLV=    1003  ok              v--        0      59
R       CLV(W)=       125       3            LOS=   A/B      | EB==> =>    1  CLV(E)=       262
_____ _________ _______ __      C   LV(S):   (ok-under 1,525)            __ _________ _______
Name of E-W Approach         h |      681       <-        ^    ->         ||f  free flow Rt->Vol=0
Fenton St                      |                  |        |        |     ||f  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       0        2        0   | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=        11      579       76   | L  efts use Thru Lane
Date:        04-Jun    Jun-09  |               Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)               |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler
 Created on:          9/14/87  |  Lane Utilization Factors:              |     LOS:     CLV>#
 Updated 6/22/92               |  A pproach  h Turning Movement          |  _________ _______
                               |  Nc .Lanes    Left      Thru     Rght   |      A          0
                               |    1 Lane     1.00      1.00     1.00   |      A/B      977
If any questions:              |    2 Lanes    0.53      0.53     0.53   |      B       1022
 Call Ed Axler                 |    3 Lanes    0.37      0.37     0.37   |      B/C     1127
 at 1-301-495-4525             |    4 Lanes    0.29      0.29     0.29   |      C       1172
 8787 Georgia Ave              |    5 Lanes    0.25      0.25     0.25   |      C/D     1277
 Silver Spring, MD 20910-3760                                            |      D       1322
_____ _________ _____ __ _ _____ _____ _____ _____ _ _ --|      D/E     1427
\p      {Calc}{Calc}          v-Setup String vary w/printer             |      E       1472
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!        |      F       1622
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Colesville Rd
Silver Spring Library         |  ^      56      659       173  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        2         0 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-         V        ->   485 |    PM
_____ __________ _________ __| RTOR                            3 |__ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=     714          ||        #Lanes   VPH   R
  Left       58         0 –^  SI B CLV  (E-W)=     408          NE ^–        0     453 Right
  Thru      126         2 –>  || | —    ———— ————                <–        2     142 Thru
  Right      16         0 –v  V /  SU   M CLV=    1122  ok        v–        0      66 Left
R       CLV(W)=       172      3          LOS=  B        | EB== =>  1  CLV(E)=      408
_____ __________ _________ __  C  LV(S):   (ok-under 1,525)      __ _________ _______ _______
Name of E-W Approach        h |      714      <-        ^    ->     |If  free flow Rt->Vol=0
Fenton St                     |                  |        |      |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=     0        4      0   | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=      14     1709    141   | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |              Left     Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  _________ _______ _______
                              |  Nc .Lanes   Left      Thru    Rght |     A          0     978
                              |     1 Lane   1.00      1.00    1.00 |     A/B      977    1023
If any questions:             |     2 Lanes  0.53      0.53    0.53 |     B       1022    1128
 Call Ed Axler                |     3 Lanes  0.37      0.37    0.37 |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes  0.29      0.29    0.29 |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes  0.25      0.25    0.25 |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                       |     D       1322    1428
_____ __________ _________ __ _ _____ _____ _____ _____ __ __|     D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer          |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet    t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}   now!        |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Ellsworth Dr
Silver Spring Library         |  ^       3       24        23  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         0 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |          | :LV(N):  | P  eak Hour Period:
Date:                Count    |  for r <-         V        ->    72  |    AM
_____ _________ _________ __| RTOR                              3 |__ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=      72          ||        #Lanes   VPH   R
  Left        5          1  --^  S B  CLV   (E-W)=     177          NE ^--       0       4  Right
  Thru      200          2  -->  || | --   -------  -------          <--       2     260  Thru
 Right       75          0  --v  V /  SU   M CLV=     249  ok        v--       0      31  Left
R        CLV(W)=        177       3          LOS=  A        | EB== =>   1  CLV(E)=      161
_____ _________ _________ __       C   LV(S):   (ok-under 1,525)      __ _________ _______ _______
Name of E-W Approach          h |        46       <-        ^    ->    |If  free flow Rt->Vol=0
Spring St                     |                    |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=        0        2        0 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=         22        3       18 | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |                Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  _________ _______ _______
                              |  Nc .Lanes    Left      Thru     Rght |     A          0      978
                              |     1 Lane    1.00      1.00     1.00 |     A/B      977     1023
If any questions:             |     2 Lanes   0.53      0.53     0.53 |     B       1022     1128
 Call Ed Axler                |     3 Lanes   0.37      0.37     0.37 |     B/C     1127     1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29     0.29 |     C       1172     1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25     0.25 |     C/D     1277     1323
 Silver Spring, MD 20910-3760                                         |     D       1322     1428
_____ _________ _____ __ __ _____ _____ _____ _____ _ _|     D/E     1427     1473
\p      {Calc}{Calc}          v-Setup String vary w/printer           |     E       1472     1578
        /ppos{esc}\027\038\107\048\083~          <-as HP ThinkJet      t E/F     1577     1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}      uit}    now!          |     F       1622     9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:              |  R   Right    Thru     Left       |    Ellsworth Dr
Silver Spring Library          |  ^       4      25       32 =VPH   |<-  If Split Phase:N-S!!
Traffic Condition:             |  R       0       1        0 #Lanes |    Use "N","Y":          n
Background                     |  Ol LY |        |        |:LV(N):  | P  eak Hour Period:
Date:              Count       |  foi r <-        V       ->  249  |    PM
_____ __________ ________ __|  RTOR                          3 |__ _________ ______ ______
From WEST (Eastbound)          2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=    249          ||        #Lanes   VPH   R
  Left       19        1 -^  Si B  CLV  (E-W)=    244          NE ^-        0      13  Right
  Thru      290        2 ->  || | —    ------- -------             <-        2     332  Thru
  Right      88        0 -v  V /  SU   M CLV=     493  ok          v-        0      44  Left
R       CLV(W)=      244       3          LOS=  A        | EB== =>  1  CLV(E)=      225
_____ __________ ________ __  C   LV(S):   (ok-under 1,525)        __ _________ ______ ______
Name of E-W Approach         h |      168      <-       ^    ->     |If  free flow Rt->Vol=0
Spring St                      |                 |       |    |     |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=      0       2    0     | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=      188       8   61     | L  efts use Thru Lane
Date:        04-Jun   Jun-09   |            Left    Thru  Right  R |MUST hit CALC-F9 >IBM
By:                            |  From SOUTH (Northbound)           |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                    Pg=2
Created on:          9/14/87   |  Lane Utilization Factors:         |    LOS:    CLV>#  <CLV
Updated 6/22/92                |  A pproach h Turning Movement      |  -------- ------- -------
                               |  Nc .Lanes   Left     Thru   Rght  |     A        0     978
                               |    1 Lane   1.00     1.00   1.00   |    A/B     977    1023
If any questions:              |    2 Lanes  0.53     0.53   0.53   |     B     1022    1128
Call Ed Axler                  |    3 Lanes  0.37     0.37   0.37   |    B/C    1127    1173
at 1-301-495-4525              |    4 Lanes  0.29     0.29   0.29   |     C     1172    1278
8787 Georgia Ave               |    5 Lanes  0.25     0.25   0.25   |    C/D    1277    1323
Silver Spring, MD 20910-3760                                        |     D     1322    1428
____ __________ ________ __ _ _ _____ _____ _____ _____ _ _|    D/E    1427    1473
\p     {Calc}{Calc}            v-Setup String vary w/printer        |     E     1472    1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet    t E/F    1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!     |     F     1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:             |  R   Right    Thru     Left        |    Ellsworth Dr
Silver Spring Library         |  ^      22      57       79 =VPH   |<-  If Split Phase:N-S!!
Traffic Condition:            |  R       0       2        0 #Lanes  |     Use "N","Y":          n
Background                    |  Of LY |        |        |:LV(N):   | P  eak Hour Period:
Date:              Count      |  for r <-       V       ->    87   |    AM
_____ __________ _________ __| RTOR                          3 |__ _________ ______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=     95             ||       #Lanes   VPH   R
  Left      109        0 –^  S| B  CLV  (E-W)=    714             NE ^–       0     161  Right
  Thru      458        1 –>  || |  —    ———— ————                  <–       1     422  Thru
  Right      24        0 –v  V /  SU   M CLV=    809  ok           v–       0      22  Left
R       CLV(W)=      613        3          LOS=  A        | EB== =>  1  CLV(E)=      714
____ __________ _________ __  C  LV(S):   (ok-under 1,525)        __ _________ ______ _______
Name of E-W Approach        h |      95      <-       ^    ->      |If  free flow Rt->Vol=0
Fenton St                     |                |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=     0        1        0 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       3        7        6 | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |            Left     Thru    Right  R |MUST hit CALC-F9 >IBM
By:                           |  From SOUTH (Northbound)           |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                      Pg=2
Created on:          9/14/87  |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
Updated 6/22/92               |  A pproach h Turning Movement       |  ———————— ———————— ————————
                              |  Nc .Lanes    Left      Thru    Rght |      A        0     978
                              |     1 Lane    1.00      1.00    1.00 |      A/B    977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53 |      B     1022    1128
Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37 |      B/C   1127    1173
at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29 |      C     1172    1278
8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25 |      C/D   1277    1323
Silver Spring, MD 20910-3760                                         |      D     1322    1428
_____ __________ _____ __ _ _____ _____ _____ _____ _ _|      D/E   1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer          |      E     1472    1578
        /ppos{esc}\027\038\107\048\083~          <-as HP ThinkJet     t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}      uit}    now!         |      F     1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:              |  R   Right    Thru     Left       |    Ellsworth Dr
Silver Spring Library          |  ^     133     181      149  =VPH |<-  If Split Phase:N-S!!
Traffic Condition:             |  R       0       2        0 #Lanes |    Use "N","Y":          n
Background                     |  Of LY |        |        |:LV(N):  | P  eak Hour Period:
Date:              Count       |  for r <-        V       ->   261 |    PM
_____ _________ _______ __|  RTOR                              3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH          #Lanes          CLV  (N-S)=     261          ||        #Lanes   VPH   R
  Left       67          0  –^   S|B  CLV  (E-W)=     802          NE ^–        0     165  Right
  Thru      436          1  –>   || | —    ———— ———                <–        1     549  Thru
  Right      49          0  –v   V /  SU   M CLV=    1063  ok       v–        0      21  Left
R      CLV(W)=        573          3          LOS=  B        | EB== =>  1  CLV(E)=      802
_____ _________ _______ __         C   LV(S):   (ok-under 1,525)        __ _________ _____ _____
Name of E-W Approach           h |      222       <-       ^    ->      ||f  free flow Rt->Vol=0
Fenton St                      |                  |        |    |      ||f  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       0        1    0      | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=        16       40   17      | L  efts use Thru Lane
Date:        04-Jun   Jun-09    |              Left     Thru  Right  R |MUST hit CALC-F9 >IBM
By:                            |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                          Pg=2
Created on:          9/14/87   |  Lane Utilization Factors:                |    LOS:    CLV>#  <CLV
Updated 6/22/92                |  A pproach h Turning Movement             |  ———————— ———— ————
                               |  Nc .Lanes    Left     Thru   Rght        |      A        0    978
                               |    1 Lane     1.00     1.00   1.00        |      A/B    977   1023
If any questions:              |    2 Lanes    0.53     0.53   0.53        |      B     1022   1128
Call Ed Axler                  |    3 Lanes    0.37     0.37   0.37        |      B/C   1127   1173
at 1-301-495-4525              |    4 Lanes    0.29     0.29   0.29        |      C     1172   1278
8787 Georgia Ave               |    5 Lanes    0.25     0.25   0.25        |      C/D   1277   1323
Silver Spring, MD 20910-3760                                               |      D     1322   1428
_____ _____ _____ __ _ _____ _____ _____ _____ _ _|      D/E   1427   1473
\p     {Calc}{Calc}            v-Setup String vary w/printer              |      E     1472   1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet      t E/F      1577   1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!          |      F     1622   9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Dale Dr
Silver Spring Library         |  ^     115     239       48  =VPH   |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        0 #Lanes  |     Use "N","Y":          n
Background                    |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-          V       ->   433  |    AM
_____ _________ _________ __| RTOR                            3 |__ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\  From EAST (Westbound)
        VPH        #Lanes            CLV   (N-S)=     433         ||        #Lanes   VPH   R
  Left       26         0 —^  SI B CLV   (E-W)=     603         NE ^—        0     126 Right
 Thru       200         2 -->  || | —    ———————  ———————          <--        2     922 Thru
 Right       17         0 —v  V /  SU    M CLV=    1036  ok        v--        0      40 Left
R       CLV(W)=       169     3            LOS=   B        | EB== =>   1  CLV(E)=     603
_____ _________ _________ __  C   LV(S):   (ok-under 1,525)          __ _______ _______ _______
Name of E-W Approach        h |      288       <-        ^    ->      ||If  free flow Rt->Vol=0
Wayne Ave                     |                  |        |        |  ||If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0        1        0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        31      185       24  | L  efts use Thru Lane
Date:        09-Jul    Jul-09 |                Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ———————  ———————  ————————
                              |  Nc .Lanes    Left     Thru    Rght  |      A          0     978
                              |     1 Lane    1.00     1.00    1.00  |     A/B       977    1023
If any questions:             |     2 Lanes   0.53     0.53    0.53  |      B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37     0.37    0.37  |     B/C      1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29     0.29    0.29  |      C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25     0.25    0.25  |     C/D      1277    1323
 Silver Spring, MD 20910-3760                                        |      D      1322    1428
------ ---------- -------- --  -  ------- ------- ------- -------- -  -|     D/E      1427    1473
\p     {Calc}{Calc}          v-Setup String vary w/printer           |      E      1472    1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!     |      F      1622    9999
_____ ---------- -------- --- -- ------- ------- -------- ------ .- —  -Rights-   -RTOR-  -%RTOR
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```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Dale Dr
Silver Spring Library         |  ^     100     202      114  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        0 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |        |        |;LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-        V       ->   445  |    PM
_____ __________ ________ __| RTOR                          3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH          #Lanes          CLV  (N-S)=     453          ||        #Lanes   VPH   R
  Left      224          0  –^  SI B  CLV  (E-W)=     625          NE ^–        0      63  Right
  Thru      762          2  –>  || | ---  ------- -------             <–        2     634  Thru
  Right      58          0  –v  V /  SU   M CLV=    1078  ok         v–        0      60  Left
R       CLV(W)=        613       3          LOS=  B        | EB== =>  1  CLV(E)=      625
_____ __________ ________ __    C  LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach          h |      453      <-       ^    ->     ||f  free flow Rt->Vol=0
Wayne Ave                     |                 |        |        |  ||f  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      0        1        0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       29      230       80  | L  efts use Thru Lane
Date:        09-Jul    Jul-09 |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  _________ _______ _______
                              |  Nc .Lanes    Left     Thru    Rght  |      A          0     978
                              |     1 Lane    1.00     1.00    1.00  |     A/B       977    1023
If any questions:             |     2 Lanes   0.53     0.53    0.53  |      B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37     0.37    0.37  |     B/C      1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29     0.29    0.29  |      C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25     0.25    0.25  |     C/D      1277    1323
 Silver Spring, MD 20910-3760                                        |      D      1322    1428
------ ---------- -------- --  -  ------ ------ ------- ------ -- –|     D/E      1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer          |      E      1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet    t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!     |      F      1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Dixon Ave
Silver Spring Library         |  ^      13        3         3 =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         0 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  foi r <-          V       ->    64  |    AM
_____ _________ _________ __| RTOR                              3 |__ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH          #Lanes          CLV  (N-S)=      183         ||        #Lanes   VPH   R
  Left        4          0 —^  SI B CLV  (E-W)=      321         NE ^—        0      18  Right
  Thru      286          3 —>  || | —    ———— ————                <—        3     643  Thru
  Right      36          0 —v  V /  SU   M CLV=      504  ok       v—        0     195  Left
R       CLV(W)=        316       3          LOS=  A        | EB== =>   1  CLV(E)=      321
_____ _________ _________ __    C   LV(S):   (ok-under 1,525)        ___ _________ _______ _______
Name of E-W Approach        h |      183       <-        ^    ->     ||f  free flow Rt->Vol=0
Wayne Ave                     |                  |        |        |  ||f  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1        0  : R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        45        0      180  | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:        9/14/87   |  Lane Utilization Factors:            |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement         |  _______ _______ _______
                              |  Nc .Lanes    Left      Thru     Rght |     A          0     978
                              |    1 Lane     1.00      1.00     1.00 |     A/B      977    1023
If any questions:             |    2 Lanes    0.53      0.53     0.53 |     B       1022    1128
 Call Ed Axler                |    3 Lanes    0.37      0.37     0.37 |     B/C     1127    1173
 at 1-301-495-4525            |    4 Lanes    0.29      0.29     0.29 |     C       1172    1278
 8787 Georgia Ave             |    5 Lanes    0.25      0.25     0.25 |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                         |     D       1322    1428
_____ _________ _____ __ _ _____ _____ _____ _____ _ _|     D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer           |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}   now!         |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Dixon Ave
Silver Spring Library         |  ^       3       3       11  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        0 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |        |        |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-        V       ->   74   |    PM
_____ __________ ________ __| RTOR                          3 |___ ________ ______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH          #Lanes          CLV  (N-S)=     238          ||        #Lanes   VPH   R
  Left        5          0 --^  S B CLV  (E-W)=     335          NE ^--        0       8 Right
  Thru      460          3 -->  || | —   ———————  ———————          <--        3     520 Thru
  Right      44          0 --v  V /  SU  M CLV=     573  ok        v--        0     147 Left
R        CLV(W)=        335        3          LOS=  A        | EB== =>  1  CLV(E)=     255
_____ __________ ________ __      C  LV(S):   (ok-under 1,525)      ___ ________ ______ _______
Name of E-W Approach          h |      238       <-       ^    ->    |If  free flow Rt->Vol=0
Wayne Ave                     |                   |       |       |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1       1       0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        57       0     227  | L  efts use Thru Lane
Date:        04-Jun    Jun-09  |              Left    Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement       |  ———————  ———————  ———————
                               |  Nc .Lanes    Left     Thru    Rght  |      A         0     978
                               |     1 Lane    1.00     1.00    1.00  |      A/B     977    1023
If any questions:              |     2 Lanes   0.53     0.53    0.53  |      B      1022    1128
 Call Ed Axler                 |     3 Lanes   0.37     0.37    0.37  |      B/C    1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29     0.29    0.29  |      C      1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25     0.25    0.25  |      C/D    1277    1323
 Silver Spring, MD 20910-3760                                         |      D      1322    1428
_____ __________ ________ __  _  _____ _____ _____ _____ _  _|      D/E    1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer           |      E      1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!    |      F      1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^     248    1748      235  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |        |        |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-        V       ->  825  |    AM
_____ _________ _______ __|  RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=     825          ||        #Lanes   VPH   R
  Left      195        1 --^  S B CLV  (E-W)=     461          NE ^--       0      77  Right
  Thru      184        2 -->  || | ---  _______ _______          <--       2     425  Thru
  Right     129        0 --v  V /  SU   M CLV=    1286  ok       v--       1     228  Left
R      CLV(W)=       394       3            LOS=  C/D     | EB== =>  1  CLV(E)=     461
_____ _________ _______ __    C  LV(S):   (ok-under 1,525)          ___ _______ _____ _______
Name of E-W Approach        h |      705      <-       ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                     |                 |       |       |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      1       3       0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       86    1224      45  | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |              Left    Thru   Right  R |MUST hit CALC-F9 >IBM
 By.                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement      |  _______ _____  _____
                              |  Nc .Lanes   Left     Thru    Rght |     A        0     978
                              |    1 Lane    1.00     1.00    1.00 |     A/B    977    1023
If any questions:             |    2 Lanes   0.53     0.53    0.53 |     B     1022    1128
 Call Ed Axler                |    3 Lanes   0.37     0.37    0.37 |     B/C   1127    1173
 at 1-301-495-4525            |    4 Lanes   0.29     0.29    0.29 |     C     1172    1278
 8787 Georgia Ave             |    5 Lanes   0.25     0.25    0.25 |     C/D   1277    1323
 Silver Spring, MD 20910-3760                                      |     D     1322    1428
____ _________ _____ __ - _____ _____ _____ ____ - --|     D/E   1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer         |     E     1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet   t E/F   1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!    |     F     1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^     227    1175      211  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |        |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-         V      ->  631  |    PM
____ __________ ________ __| RTOR                          3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=     857          ||        #Lanes   VPH   R
  Left      197        1  --^  S B  CLV  (E-W)=     514          NE ^--       0     182  Right
  Thru      416        2  -->  || | --   ------- -------            <--      2     333  Thru
 Right      116        0  --v  V /  SU   M CLV=    1371  ok         v--      1     232  Left
R      CLV(W)=      514         3          LOS=  D        | EB== =>  1  CLV(E)=      470
____ __________ ________ __    C   LV(S):   (ok-under 1,525)        __ _________ _______ _____
Name of E-W Approach        h |     857      <-       ^    ->       |If  free flow Rt->Vol=0
Wayne Ave                     |                |        |      |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=     1        3      0   | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=     112     1574    172   | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |              Left    Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                   Pg=2
 Created on:        9/14/87   |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ________ _______ _______
                              |  Nc .Lanes   Left     Thru    Rght  |     A          0     978
                              |    1 Lane    1.00     1.00    1.00  |    A/B       977    1023
If any questions:             |    2 Lanes   0.53     0.53    0.53  |     B       1022    1128
 Call Ed Axler                |    3 Lanes   0.37     0.37    0.37  |    B/C      1127    1173
 at 1-301-495-4525            |    4 Lanes   0.29     0.29    0.29  |     C       1172    1278
 8787 Georgia Ave             |    5 Lanes   0.25     0 25    0.25  |    C/D      1277    1323
 Silver Spring, MD 20910-3760                                       |     D       1322    1428
____ __________ ________ __ -- _____ _____ _____ _____ _ --|    D/E      1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer         |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet    t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}   now!      |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Fenton St
Silver Spring Library         |  ^     125     403       27  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        1 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |        |        |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-        V      ->   650  |    AM
_____ _________ _______ __|  RTOR                          3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]        Λ   From EAST (Westbound)
        VPH          #Lanes        CLV  (N-S)=     650        ||        #Lanes   VPH   R
  Left      172          1 –^  S B CLV  (E-W)=     763        NE ^–        1      60  Right
  Thru      147          2 –>  || | —    ———— ————              <–        1     591  Thru
  Right      85          0 –v  V / SU   M CLV=    1413  ok       v–        1     250  Left
R       CLV(W)=        373      3          LOS=  D        | EB== =>  1  CLV(E)=     763
_____ _________ _______ __     C  LV(S):   (ok-under 1,525)        ___ _________ _______ _______
Name of E-W Approach        h |      427      <-       ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                     |                 |       |       |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      1       1       1  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=      122     427      92  | L  efts use Thru Lane
Date:        04-Jun    Jun-09 |              Left    Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                   Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ———————  ———————  ———————
                              |  Nc .Lanes    Left     Thru   Rght  |      A         0     978
                              |    1 Lane     1.00     1.00   1.00  |     A/B      977    1023
If any questions:             |    2 Lanes    0.53     0.53   0.53  |      B     1022    1128
 Call Ed Axler                |    3 Lanes    0.37     0.37   0.37  |     B/C     1127    1173
 at 1-301-495-4525            |    4 Lanes    0.29     0.29   0.29  |      C     1172    1278
 8787 Georgia Ave             |    5 Lanes    0.25     0.25   0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                       |      D     1322    1428
_____ _________ _____ __ _ _____ _____ _____ _____ _ _|     D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer         |      E     1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet    t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!    |      F     1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Fenton St
Silver Spring Library         |  ^     242     392       84  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        1 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-         V       ->   731 |    PM
_____ __________ _______ __| RTOR                          3 |___ _________ ______ ______
From WEST (Eastbound)         2  <=[WB receiving lanes]        Λ   From EAST (Westbound)
        VPH          #Lanes          CLV  (N-S)=     731        ||        #Lanes   VPH   R
  Left      127          1 —^  S| B  CLV  (E-W)=     614        NE ^—        1     113  Right
  Thru      537          2 —>  || | —     ———— ————              <—        1     372  Thru
 Right      117          0 —v  V /  SU   M CLV=    1345  ok       v—        1     267  Left
R       CLV(W)=        614      3          LOS=  D        | EB== =>   1  CLV(E)=      499
_____ __________ _______ __     C   LV(S):   (ok-under 1,525)      __ _________ ______ ______
Name of E-W Approach        h |      509       <-        ^    ->     |If  free flow Rt->Vol=0
Wayne Ave                     |                  |        |        |  |if  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1        1 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        97      509      227 | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement      |  ———— ——— ———
                              |  Nc .Lanes    Left     Thru    Rght |    A          0     978
                              |     1 Lane    1.00     1.00    1.00 |    A/B      977    1023
If any questions:             |     2 Lanes   0.53     0.53    0.53 |    B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37     0.37    0.37 |    B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29     0.29    0.29 |    C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25     0.25    0.25 |    C/D     1277    1323
 Silver Spring, MD 20910-3760                                       |    D       1322    1428
____ __________ _____ _ _ _____ _____ _____ _____ _ _|    D/E     1427    1473
\p     {Calc}{Calc}          v-Setup String vary w/printer          |    E       1472    1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet    t E/F     1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!   |    F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^     135    1967       22  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |    Use "N","Y":          n
Background                    |  Or LY |          |        |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-          V      ->  817 |    AM
____ _________ _______ __|  RTOR                              3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=     817          ||        #Lanes   VPH   R
  Left       41         1 —^  S B  CLV  (E-W)=     107          NE ^—        0      42  Right
  Thru        0         0 —>  || | —    ———— ———                  <—        1       0  Thru
  Right      19         1 —v  V /  SU   M CLV=     924  ok        v—        0      24  Left
R       CLV(W)=        24       3          LOS=  A        | EB== =>  1  CLV(E)=      107
____ _________ _______ __       C   LV(S):   (ok-under 1,525)      __ _________ _______ _______
Name of E-W Approach        h |      516       <-       ^    ->     |If  free flow Rt->Vol=0
Bonifant St                   |                  |       |       |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1       3       0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        39    1323      11  | L  efts use Thru Lane
Date:        04-Jun    Jun-09 |                Left    Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ———— ———— ————
                              |  Nc .Lanes    Left    Thru   Rght   |     A         0    978
                              |    1 Lane     1.00    1.00   1.00   |    A/B      977   1023
If any questions:             |    2 Lanes    0.53    0.53   0.53   |     B      1022   1128
 Call Ed Axler                |    3 Lanes    0.37    0.37   0.37   |    B/C     1127   1173
 at 1-301-495-4525            |    4 Lanes    0.29    0.29   0.29   |     C      1172   1278
 8787 Georgia Ave             |    5 Lanes    0.25    0.25   0.25   |    C/D     1277   1323
 Silver Spring, MD 20910-3760                                       |     D      1322   1428
____ _________ _____ __ _ _____ _____ _____ ____ . . . —|    D/E     1427   1473
\p      {Calc}{Calc}          v-Setup String vary w/printer         |     E      1472   1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet  t E/F    1577   1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!   |     F      1622   9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Georgia Ave
Silver Spring Library         |  ^      64     1370        34  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        3         1 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for <-          V        ->   533  |    PM
_____ __________ ________ __| RTOR                          3 |__ _________ ______ ______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     721         ||        #Lanes   VPH   R
  Left       78          1 –^  S B CLV   (E-W)=     110         NE ^–        0      17  Right
  Thru        0          0 –>  || | —     ———— ———                <–        1       0  Thru
  Right      88          1 –v  V / SU    M CLV=     831  ok       v–        0      15  Left
R       CLV(W)=         15       3            LOS=  A        | EB== =>   1  CLV(E)=      110
_____ __________ ________ __    C  LV(S):   (ok-under 1,525)        __ _________ ______ ______
Name of E-W Approach         h |      721        <-        ^    ->     |If  free flow Rt->Vol=0
Bonifant St                   |                    |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        3        0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=         2     1767       90  | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |    LOS·    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  _________ ______ ______
                              |  Nc .Lanes    Left      Thru    Rght   |     A          0    978
                              |     1 Lane    1.00      1.00    1.00   |     A/B      977   1023
If any questions:             |     2 Lanes   0.53      0.53    0.53   |     B       1022   1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37   |     B/C     1127   1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29   |     C       1172   1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25   |     C/D     1277   1323
 Silver Spring, MD 20910-3760                                          |     D       1322   1428
_____ __________ ________ __ -- _____ _____ _____ ____ -- –|     D/E     1427   1473
\p      {Calc}{Calc}          v-Setup String vary w/printer            |     E       1472   1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F     1577   1623
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:             |  R   Right    Thru     Left        |    Fenton St
Silver Spring Library         |  ^      22     675       16 =VPH    |<-  If Split Phase:N-S!!
Traffic Condition:            |  R       0       1        1 #Lanes  |     Use "N","Y":          n
Background                    |  Of LY |        |        |:LV(N):   | P  eak Hour Period:
Date:              Count      |  for r <-        V       ->   747   |    AM
_____ __________ ________ __| RTOR                          3 |___ ________ ______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\  From EAST (Westbound)
        VPH          #Lanes          CLV  (N-S)=     747          ||        #Lanes   VPH   R
  Left       41          0 --^  S B CLV  (E-W)=     128          NE ^--        0      20  Right
  Thru       36          1 -->  || | —    ———— ———                <--        1      54  Thru
  Right      24          0 --v  V / SU   M CLV=     875  ok        v--        0      13  Left
R       CLV(W)=        114       3          LOS=  A        | EB== =>  1  CLV(E)=       128
_____ __________ ________ __    C  LV(S):   (ok-under 1,525)        __ ________ ______ _______
Name of E-W Approach        h |      565      <-        ^    ->     |If  free flow Rt->Vol=0
Thayer Ave                    |                |        |       |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      1        1       0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       50      538      11  | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |              Left    Thru   Right  R |MUST hit CALC-F9 >IBM
By:                           |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                   Pg=2
Created on:          9/14/87  |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
Updated 6/22/92               |  A pproach h Turning Movement       |  ———— ———— ———
                              |  Nc .Lanes   Left     Thru    Rght  |     A         0    978
                              |     1 Lane   1.00     1.00    1.00  |    A/B      977   1023
If any questions:             |     2 Lanes  0.53     0.53    0.53  |     B      1022   1128
Call Ed Axler                 |     3 Lanes  0.37     0.37    0.37  |    B/C     1127   1173
at 1-301-495-4525             |     4 Lanes  0.29     0.29    0.29  |     C      1172   1278
8787 Georgia Ave              |     5 Lanes  0.25     0.25    0.25  |    C/D     1277   1323
Silver Spring, MD 20910-3760                                        |     D      1322   1428
_____ __________ ________ __ _ ______ ______ ______ ____ -- -|    D/E     1427   1473
\p      {Calc}{Calc}          v-Setup String vary w/printer         |     E      1472   1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet   t E/F     1577   1623
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:              |  R   Right    Thru     Left       |    Fenton St
Silver Spring Library          |  ^      37     653       28 =VPH   |<-  If Split Phase:N-S!!
Traffic Condition:             |  R       0       1        1 #Lanes |    Use "N","Y":          n
Background                     |  Ol LY |        |        |:LV(N):  | P  eak Hour Period:
Date:              Count       |  for r <-        V       ->  754  |    PM
_____ __________ ________ __|  RTOR                          3 |__ ________ ______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]        Λ   From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=    848          ||        #Lanes   VPH   R
  Left       56        0 --^  SI B CLV  (E-W)=    201          NE ^--       0      11  Right
  Thru       83        1 -->  || | —    ———— ————               <--       1      34  Thru
  Right      50        0 --v  V /  SU   M CLV=   1049  ok        v--       0      12  Left
R      CLV(W)=      201        3          LOS=  B        | EB== =>  1  CLV(E)=      113
_____ __________ ________ __  C  LV(S):   (ok-under 1,525)        __ ________ ______ _____
Name of E-W Approach         h |     848      <-       ^    ->     |If  free flow Rt->Vol=0
Thayer Ave                     |                |        |     |   |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=     1        1     0   | R  ights use Thru Lane
Use "N","Y":           n       |     VPH=      64      794    26   | L  efts use Thru Lane
Date:        04-Jun    Jun-09  |              Left    Thru   Right  R |MUST hit CALC-F9 >IBM
By:                            |  From SOUTH (Northbound)           |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                    Pg=2
Created on:          9/14/87   |  Lane Utilization Factors:         |    LOS:    CLV>#  <CLV
Updated 6/22/92                |  A pproach h Turning Movement      |  ________ ________ ______
                               |  Nc .Lanes   Left     Thru   Rght  |     A          0     978
                               |    1 Lane    1.00     1.00   1.00  |     A/B      977    1023
If any questions:              |    2 Lanes   0.53     0.53   0.53  |     B       1022    1128
Call Ed Axler                  |    3 Lanes   0.37     0.37   0.37  |     B/C     1127    1173
at 1-301-495-4525              |    4 Lanes   0.29     0.29   0.29  |     C       1172    1278
8787 Georgia Ave               |    5 Lanes   0.25     0.25   0.25  |     C/D     1277    1323
Silver Spring, MD 20910-3760                                        |     D       1322    1428
_____ __________ ________ __ _ _____ ______ ______ _____ _ _|     D/E     1427    1473
\p     {Calc}{Calc}            v-Setup String vary w/printer        |     E       1472    1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet   t E/F     1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!    |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Fenton St
Silver Spring Library         |  ^      24     698       21  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        1 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |         |        |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-        V       ->   740  |    AM
_____ __________ _______ __|  RTOR                            3 |___ _________ ______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     740         ||        #Lanes   VPH   R
  Left       13          0 –^  S B  CLV   (E-W)=      41         NE ^–        0       3  Right
  Thru       12          1 –>  || |  —    ———— ————                <–        1      14  Thru
 Right        8          0 –v  V /  SU    M CLV=     781  ok       v–        0       8  Left
R        CLV(W)=        41       3            LOS=  A        | EB== =>   1  CLV(E)=      38
_____ __________ _______ __      C   LV(S):   (ok-under 1,525)      __ _________ ______ _______
Name of E-W Approach        h |      642       <-        ^    ->      |If  free flow Rt->Vol=0
Bonifant St                   |                  |        |       |    |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1       0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        18      620       1  | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |                Left     Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |     LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ———————  ———————  ———————
                              |  Nc .Lanes    Left      Thru    Rght  |       A         0     978
                              |     1 Lane    1.00      1.00    1.00  |      A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |       B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37  |      B/C      1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29  |       C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25  |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                         |       D      1322    1428
_____ __________ _____ __ _ _____ _____ _____ _____ _ –|      D/E      1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer           |       E      1472    1578
        /ppos{esc}\027\038\107\048\083~          <-as HP ThinkJet      t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}      uit}   now!            |       F      1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:             |  R   Right    Thru     Left       |    Fenton St
Silver Spring Library          |  ^      17     700       28  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0       1        1 #Lanes |    Use "N","Y":          n
Background                     |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count       |  for r <-         V       ->   751 |    PM
_____ __________ _________ __| RTOR                          3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     877         ||        #Lanes   VPH   R
  Left       46          0 –^  SI B CLV   (E-W)=     162         NE ^–        0      23  Right
  Thru       67          1 –>  || | —     ———————  ———————          <–        1      21  Thru
  Right      37          0 –v  V /  SU    M CLV=    1039  ok        v–        0      12  Left
R        CLV(W)=        162      3            LOS=  B        | EB== =>  1  CLV(E)=      102
_____ __________ _________ __   C   LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach         h |      877       <-        ^    ->     |If  free flow Rt->Vol=0
Bonifant St                    |                  |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       1        1        0 | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=        34      795       54 | L  efts use Thru Lane
Date:        04-Jun    Jun-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:           |    LOS:     CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement        |  _________ _______ _______
                               |  Nc .Lanes    Left      Thru    Rght  |     A          0     978
                               |     1 Lane    1.00      1.00    1.00  |     A/B      977    1023
If any questions:              |     2 Lanes   0.53      0.53    0.53  |     B       1022    1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37  |     B/C     1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29  |     C       1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                          |     D       1322    1428
_____ __________ _________ __ _ _ _____ _____ _____ _____ _ _|     D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer        |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!  |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          }|  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left     |    Georgia Ave
Silver Spring Library         |  ^      13     1733       211  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        3         1 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-         V        ->   656  |    AM
_____ __________ ________ __| RTOR                          3 |___ _________ ______ ______
From WEST (Eastbound)          2  <=[WB receiving lanes]          /\  From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     656          ||        #Lanes   VPH   R
  Left       10          0 --^  S B CLV   (E-W)=     218          NE ^--        0     114  Right
  Thru        4          1 -->  || | —    ———— ————                <--        1      15  Thru
  Right       7          0 --v  V / SU    M CLV=     874  ok       v--        0      79  Left
R        CLV(W)=       100       3            LOS=  A        | EB== =>   1  CLV(E)=      218
_____ __________ ________ __     C   LV(S):   (ok-under 1,525)        ___ _________ ______ ______
Name of E-W Approach         h |      645       <-        ^    ->      |If  free flow Rt->Vol=0
Silver Spring Ave             |                  |        |        |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=     0        3        0   | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=      10     1059      103   | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:        9/14/87   |  Lane Utilization Factors.           |    LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  ———— ——— ———
                              |  Nc .Lanes   Left     Thru    Rght   |    A          0    978
                              |    1 Lane    1.00     1.00    1.00   |    A/B      977   1023
if any questions:             |    2 Lanes   0.53     0.53    0.53   |    B       1022   1128
 Call Ed Axler                |    3 Lanes   0.37     0.37    0.37   |    B/C     1127   1173
 at 1-301-495-4525            |    4 Lanes   0.29     0.29    0.29   |    C       1172   1278
 8787 Georgia Ave             |    5 Lanes   0.25     0.25    0.25   |    C/D     1277   1323
 Silver Spring, MD 20910-3760                                        |    D       1322   1428
____ ___________ _____ __ _ _____ _____ _____ _____ _ --|    D/E     1427   1473
\p     {Calc}{Calc}          v-Setup String vary w/printer           |    E       1472   1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet    t E/F      1577   1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!      |    F       1622   9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^      10    1244      155  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |    Use "N","Y":          n
Background                    |  Ot LY |        |        |:LV(N):  | P  eak Hour Period:
Date:              Count      |  foi r <-        V       ->   476 |    PM
_____ __________ _______ __| RTOR                              3 |__ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\  From EAST (Westbound)
        VPH          #Lanes          CLV  (N-S)=     799          ||        #Lanes   VPH   R
  Left       25          0 --^  SI B CLV  (E-W)=     468          NE ^--       0     284  Right
  Thru       27          1 -->  || | ---  -------  -------          <--       1      16  Thru
 Right       11          0 --v  V /  SU   M CLV=    1267  ok        v--       0     143  Left
R       CLV(W)=        206       3          LOS=  C        | EB== =>  1  CLV(E)=      468
_____ __________ _______ __      C  LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach        h |      799      <-       ^    ->      |If  free flow Rt->Vol=0
Silver Spring Ave             |                 |       |    |      |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      0       3    0      | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       12    1558  170      | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |              Left    Thru  Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  _________ _______ _______
                              |  Nc .Lanes    Left     Thru   Rght  |     A          0     978
                              |     1 Lane    1.00     1.00   1.00  |     A/B      977    1023
If any questions:             |     2 Lanes   0.53     0.53   0.53  |     B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37     0.37   0.37  |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29     0.29   0.29  |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25     0.25   0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                       |     D       1322    1428
_____ __________ _______ __ _ _ _____ _____ _____ _____ _ _|     D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer         |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet    t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}   now!      |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library        |  ^       0    1983       27  =VPH   |<-  If Split Phase:N-S!!
Traffic Condition:           |  R       0       3        1 #Lanes  |    Use "N","Y":          n
Background                   |  Of LY |        |        |:LV(N):   | P  eak Hour Period:
Date:              Count     |  fo r <-        V       ->    734  |    AM
_____ _________ _________ __| RTOR                            3 |__ _________ _______ _______
From WEST (Eastbound)        2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH        #Lanes          CLV   (N-S)=     734          ||        #Lanes   VPH   R
  Left        0         0 –^  SI B  CLV   (E-W)=     122          NE ^–        0      84  Right
  Thru        0         0 –>  || | —     -------- --------            <–        1       0  Thru
 Right        0         0 –v  V /  SU    M CLV=     856  ok          v–        0      38  Left
R       CLV(W)=        38      3            LOS=  A        | EB== =>   1  CLV(E)=      122
_____ _________ _________ __   C   LV(S):   (ok-under 1,525)          __ _________ _______ _______
Name of E-W Approach         h |      518       <-       ^    ->      ||If  free flow Rt->Vol=0
Thayer Ave                   |                  |        |    |      ||If  # lanes=0, then:
If Split Phase:E-W!!         |  #  Lanes=     0        3    0      | R  ights use Thru Lane
Use "N","Y":          n      |     VPH=       0     1303   25      | L  efts use Thru Lane
Date:        04-Jun   Jun-09 |              Left    Thru   Right  R |MUST hit CALC-F9 >IBM
By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                      Pg=2
Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:     CLV>#  <CLV
Updated 6/22/92              |  A pproach  h Turning Movement      |  ---------- ------ ------
                             |  Nc .Lanes   Left      Thru   Rght  |     A          0    978
                             |    1 Lane    1.00      1.00   1.00  |     A/B      977   1023
If any questions:            |    2 Lanes   0.53      0.53   0.53  |     B       1022   1128
Call Ed Axler                |    3 Lanes   0.37      0.37   0.37  |     B/C     1127   1173
at 1-301-495-4525            |    4 Lanes   0.29      0.29   0.29  |     C       1172   1278
8787 Georgia Ave             |    5 Lanes   0.25      0.25   0.25  |     C/D     1277   1323
Silver Spring, MD 20910-3760                                       |     D       1322   1428
_____ _________ _____ __ _ _____ _____ _____ _____ _ __|     D/E     1427   1473
\p      {Calc}{Calc}          v-Setup String vary w/printer        |     E       1472   1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet    t E/F     1577   1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}   now!     |     F       1622   9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:             |  R   Right     Thru      Left      |    Georgia Ave
Silver Spring Library         |  ^       0     1380        88  =VPH |<-  If Split Phase:N-S!!
Traffic Condition:            |  R       0        3         1 #Lanes |    Use "N","Y":          n
Background                    |  Of LY  |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-          V       ->   511  |    PM
_____ __________ ________ __| RTOR                              3 |__ __________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH          #Lanes        CLV   (N-S)=     756          ||        #Lanes   VPH   R
  Left        0          0  –^  S B  CLV   (E-W)=     113          NE ^–        0      71  Right
  Thru        0          0  –>  || |  —    ———————  ———————          <–        1       0  Thru
  Right       0          0  –v  V /  SU    M CLV=     869  ok        v–        0      42  Left
R       CLV(W)=         42        3            LOS=  A        | EB== =>   1  CLV(E)=      113
_____ __________ ________ __  C   LV(S):   (ok-under 1,525)          __ ________ _______ _______
Name of E-W Approach        h |      756        <-        ^    ->      ||f  free flow Rt->Vol=0
Thayer Ave                    |                  |        |        |   ||f  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0        3        0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=         0     1726       80  | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
By:                           |  From SOUTH (Northbound)              |To Pnnt Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                          Pg=2
Created on:          9/14/87  |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
Updated 6/22/92               |  A pproach h Turning Movement         |  ————————— ———————— ———————
                              |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                              |     1 Lane    1.00      1.00    1.00  |       A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |       B       1022    1128
Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37  |       B/C     1127    1173
at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29  |       C       1172    1278
8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25  |       C/D     1277    1323
Silver Spring, MD 20910-3760                                          |       D       1322    1428
_____ __________ ________ __ _ _____ _____ _____ _____ _ –|       D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer           |       E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!    |       F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Fenton St
Silver Spring Library         |  ^      29     537       11  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        1 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-         V       ->   603 |    AM
____ _________ _______ __|  RTOR                              3 |__ _________ ______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH        #Lanes          CLV   (N-S)=     608          ||        #Lanes   VPH   R
  Left       11        0 –^  SI B CLV   (E-W)=      92          NE ^–        0      24  Right
  Thru       24        1 –>  || | —     ———— ————                <–        1      33  Thru
  Right      46        0 –v  V /  SU    M CLV=     700  ok       v–        0      11  Left
R       CLV(W)=       92       3            LOS=  A        | EB== =>   1  CLV(E)=      79
____ _________ _______ __     C   LV(S):   (ok-under 1,525)        __ _________ ______ _______
Name of E-W Approach        h |      608       <-        ^    ->     |If  free flow Rt->Vol=0
Silver Spring Ave             |                  |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1        0 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        37      576       21 | L  efts use Thru Lane
Date:        04-Jun   Jun-09  |                Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |    LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ———— ——— ———
                              |  Nc .Lanes    Left      Thru    Rght  |     A        0    978
                              |     1 Lane    1.00      1.00    1.00  |    A/B     977   1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |     B     1022   1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37  |    B/C    1127   1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29  |     C     1172   1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25  |    C/D    1277   1323
 Silver Spring, MD 20910-3760                                         |     D     1322   1428
____ _________ _____ __ _ _____ _____ _____ ____ _ –|    D/E    1427   1473
\p     {Calc}{Calc}          v-Setup String vary w/printer            |     E     1472   1578
       /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F     1577   1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}   now!         |     F     1622   9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:             |  R   Right    Thru     Left       |    Fenton St
Silver Spring Library          |  ^      25     671       16  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0       1        1 #Lanes |    Use "N","Y":          n
Background                     |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count       |  for r <-         V       ->   750  |    PM
_____ __________ ________ __|  RTOR                            3 |___ _____ _____ _____
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     750          ||        #Lanes   VPH   R
  Left      115          0 –^  S B CLV   (E-W)=     261          NE ^–        0       9  Right
  Thru       92          1 –>  || | —     _____ _____              <–        1      16  Thru
  Right      48          0 –v  V /  SU   M CLV=    1011  ok         v–        0       6  Left
R        CLV(W)=       261      3            LOS=   A/B      | EB== =>   1  CLV(E)=       146
_____ __________ ________ __    C   LV(S):   (ok-under 1,525)          __ _____ _____ _____
Name of E-W Approach         h |       630       <-        ^    ->      ||f  free flow Rt->Vol=0
Silver Spring Ave              |                  |        |        |   ||f  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       1        1        0   | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=        54      571       43   | L  efts use Thru Lane
Date:        04-Jun    Jun-09  |                Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:            |    LOS:    CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement         |  _____ _______ _______
                               |  Nc .Lanes    Left     Thru    Rght   |    A          0    978
                               |    1 Lane     1.00     1.00    1.00   |    A/B      977   1023
If any questions:              |    2 Lanes    0.53     0.53    0.53   |    B       1022   1128
 Call Ed Axler                 |    3 Lanes    0.37     0.37    0.37   |    B/C     1127   1173
 at 1-301-495-4525             |    4 Lanes    0.29     0.29    0.29   |    C       1172   1278
 8787 Georgia Ave              |    5 Lanes    0.25     0.25    0.25   |    C/D     1277   1323
 Silver Spring, MD 20910-3760                                          |    D       1322   1428
_____ __________ ________ __ _ _____ _____ _____ _____ _ _|    D/E     1427   1473
\p      {Calc}{Calc}              v-Setup String vary w/printer        |    E       1472   1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F     1577   1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!      |    F       1622   9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approa
 Subdivision Case:            |  R   Right     Thru      Left      |    Colesville Rd
Silver Spring Library         |  ^     602     2279       220  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        4         0 =#Lanes |    Use "N","Y":
Background                    |  Of LY |          |          | CLV(N):  | P  eak Hour Period:
Date:                Count    |  for r <-          V        ->    903  |    AM
_____ __________ ________ __| RTOR                              3 |___ _________ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\    From EAST (Westbounc
        VPH        #Lanes          CLV   (N-S)=     903          ||          #Lanes   VPH
  Left      186         2  –^  SI B CLV   (E-W)=     314          NB  ^--        1      80
 Thru       128         1  –>  || | —     ———————  ———————              <–        2     202
 Right       49         0  –v  V /  SU    M CLV=    1217  ok            v–        0      56
R       CLV(W)=       177       3            LOS=  C        | EB==> =>    1  CLV(E)=     137
_____ __________ ________ __    C   LV(S):   (ok-under 1,525)            __ _________ _______
Name of E-W Approach         h |      615        <-        ^    ->        |If  free flow Rt->Vol=0
Spring St                     |                   |         |         |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=        0         2         0  | R  ights use Thru Lane
Use "N","Y":          Y       |     VPH=          4       689        52  | L  efts use Thru Lane
Date:        10-Jul    Jul-09 |                 Left      Thru     Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)                   |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler
 Created on:          9/14/87 |  Lane Utilization Factors:                 |     LOS:     CLV>#
 Updated 6/22/92               |  A pproach h Turning Movement              |  ________  _______
                               |  Nc .Lanes    Left      Thru      Rght     |     A          0
                               |     1 Lane    1.00      1.00      1.00     |     A/B      977
If any questions:              |     2 Lanes   0.53      0.53      0.53     |     B       1022
 Call Ed Axler                 |     3 Lanes   0.37      0.37      0.37     |     B/C     1127
 at 1-301-495-4525             |     4 Lanes   0.29      0.29      0.29     |     C       1172
 8787 Georgia Ave              |     5 Lanes   0.25      0.25      0.25     |     C/D     1277
 Silver Spring, MD 20910-3760                                              |     D       1322
——— ———————— ———————— —— —— ———————— ——————— ——————— ——————— — —|     D/E     1427
\p      {Calc}{Calc}          v-Setup String vary w/printer                |     E       1472
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet      t E/F       1577
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!          |     F       1622
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
Subdivision Case:             |  R   Right    Thru     Left        |    Colesville Rd
Silver Spring Library         |  ^     163     891      102  =VPH  |<-  If Split Phase:N-S!!
Traffic Condition:            |  R       0       2        0 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-          V       ->   613 |    PM
_____ _________ ________ __|  RTOR                              3 |__ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH        #Lanes            CLV   (N-S)=     757         ||        #Lanes   VPH   R
  Left      822        0  -^  SI B  CLV   (E-W)=     626         NE ^--        1     325  Right
 Thru       237        3  -> || | —     _______ _______            <--        2     151  Thru
 Right       29        0  -v  V /  SU    M CLV=    1382  ok        v--        0      46  Left
R       CLV(W)=      403       3            LOS=   D        | EB== =>   1  CLV(E)=     223
_____ _________ ________ __   C   LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach        h |      757       <-        ^    ->     ||f  free flow Rt->Vol=0
Spring St                     |                  |        |        |     ||f  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=     0        4        0  | R  ights use Thru Lane
Use "N","Y":          y       |     VPH=       0     2210       47  | L  efts use Thru Lane
Date:        10-Jul    Jul-09 |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
By:                           |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
Created by Ed Axler                                                                      Pg=2
Created on:          9/14/87  |  Lane Utilization Factors:           |    LOS:     CLV>#  <CLV
Updated 6/22/92               |  A pproach h Turning Movement        |  _________ _______ _______
                              |  Nc .Lanes    Left      Thru    Rght  |      A          0     978
                              |     1 Lane    1.00      1.00    1.00  |      A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |      B       1022    1128
Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37  |      B/C     1127    1173
at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29  |      C       1172    1278
8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25  |      C/D     1277    1323
Silver Spring, MD 20910-3760                                          |      D       1322    1428
_____ _________ ________ __  _  _______ _______ _______ _____ -- -|      D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer           |      E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet    t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            ult}    now!    |      F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Cedar St
Silver Spring Library         |  ^     118                  83  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       1        0         1 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |         |;LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-          V        ->   107 |    AM
_____ __________ _________ __| RTOR                              3 |__ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV  (N-S)=     107          ||        #Lanes   VPH   R
  Left       28          0 —^  SI B  CLV  (E-W)=     599          NE ^—        0     189  Right
  Thru      190          2 —>  || | —    ———————  ———————            <—        2     889  Thru
  Right                  0 —v  V /  SU   M CLV=     706  ok         v—        0          Left
R       CLV(W)=        116      3          LOS=  A        | EB== =>  1  CLV(E)=      599
_____ __________ _________ __  C   LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach         h |        70      <-        ^    ->    |If  free flow Rt->Vol=0
Wayne Ave                     |                  |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0        1        1 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        17       53       21 | L  efts use Thru Lane
Date:        10-Jul    Jul-09 |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  _________ _______ _______
                              |  Nc .Lanes    Left      Thru    Rght |     A          0     978
                              |     1 Lane    1.00      1.00    1.00 |     A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53 |     B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37 |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29 |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25 |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                        |     D       1322    1428
_____ __________ _________ __ _ _____ _______ _______ _____ -- --|     D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer          |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet   t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!   |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Cedar St
Silver Spring Library         |  ^     163                 243  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       1        0         1 #Lanes |    Use "N","Y":          n
Background                    |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:                Count    |  for r <-          V        ->    14  |    PM
_____ ___________ _________ __| RTOR                            3 |___ _________ _____ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     145         ||        #Lanes   VPH   R
  Left        91          0 --^  SI B CLV   (E-W)=     412         NE ^--        0     122 Right
  Thru       687          2 -->  || | ---   _______ _______          <--        2     445 Thru
  Right                   0 --v  V /  SU    M CLV=     557  ok      v--        0         Left
R        CLV(W)=      412        3            LOS=  A        | EB== =>  1  CLV(E)=      392
_____ ___________ _________ __   C   LV(S):   (ok-under 1,525)      ___ _________ _____ _______
Name of E-W Approach        h |       145       <-        ^    ->     |If  free flow Rt->Vol=0
Wayne Ave                     |                  |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0        1        1 | R  ights use Thru Lane
Use "N","Y":         n        |     VPH=        14      107      145 | L  efts use Thru Lane
Date:        10-Jul    Jul-09 |               Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:         9/14/87  |  Lane Utilization Factors:           |    LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  _________ _______ _____
                              |  Nc .Lanes    Left      Thru    Rght  |     A          0     978
                              |     1 Lane    1.00      1.00    1.00  |     A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |     B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37  |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29  |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                         |     D       1322    1428
_____ ___________ _________ __ _ _______ _______ _______ _____ _ _|     D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer       |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet    t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!    |     F       1622    9999
```

APPENDIX F

REFERENCE DATA FOR SITE TRIP GENERATION

Carl Starkey

From: Carl Starkey [Cstarkey@streettrafficstudies.com]
Sent: Thursday, April 30, 2009 10:20 AM
To: 'Eapen, Cherian'
Subject: RE: Silver Spring Library

Cherian,

I researched several studies of libraries around the country. Of these, a study of the Merrimack Public Library in Merrimack, New Hampshire indicated that the ITE data produced unrealistic results. It based trips on the staff's assessment that book circulation would increase 30 – 50% with an expansion of space. We believe this is the correct means of determining the future increase in trips. Therefore, we counted the existing Library on Wednesday, April 22, 2009. Based on the data, we will project the future traffic as a 50% increase in trips. It is our opinion that a larger space will not directly/proportionally result in a similar increase in trips as with other uses, e.g., office.

I will perform a similar search for an art center. However, I do not have a handle on the trips rate for that use.

Please let me know if you (and others at MNCPPC) agree with this approach.

Carl F. Starkey, P.E.
Street Traffic Studies, Ltd.
400 Crain Highway, NW
Glen Burnie, MD 21061
410-590-5500 v
410-590-6637 f
410-591-2160 c

From: Eapen, Cherian [mallto:Cherian.Eapen@mncppc-mc.org]
Sent: Tuesday, April 28, 2009 11:46 AM
To: Carl Starkey
Subject: RE: Silver Spring Library

Hi Carl:

I suggest you use the following:

Civic Center: Assume ITE LUC 730 Government Office or SS CBD rates for Office (pending + future)
Lab: Assume this to be part of the office; combine with the office – I think that will how UT will use this space
814 Thayer: Assume residential HR rate for SS CBD

I am curious how you will be estimating site trips. ITE Library trip gen you have for the site are unrealistic for SS. Are you planning to count the existing library? What are you going to do with the arts center?

Cherian Eapen, PTP
Planner/Coordinator
Move | Transportation Planning Division
Maryland-National Capital Park and Planning Commission
8787 Georgia Avenue | Silver Spring | MD 20910
301-495-4539 : Phone | Fax : 301-495-1302

cherian.eapen@mncppc-mc.org
www.mc-mncppc.org | www.montgomeryplanning.org

From: Carl Starkey [mailto:Cstarkey@streettrafficstudies.com]
Sent: Tuesday, April 21, 2009 9:53 AM
To: Eapen, Cherian
Subject: Silver Spring Library

Cherian,

STS LTD recently received a NTP for the library TIS. In reviewing the background sites, I am not sure what to use to generate trips for the civic center or lab. I reviewed ITE Land Use Code 495, Recreational Community Center for the civic center, however, I am at a loss with respect to the lab use.

Also, 814 Thayer Avenue is listed as multi-family, do I use the standard County rate?

Carl F. Starkey, P.E.
Street Traffic Studies, Ltd.
400 Crain Highway, NW
Glen Burnie, MD 21061
410-590-5500 v
410-590-6637 f
410-591-2160 c

Street Traffic Studies, Ltd.

400 N. Crain Highway
Glen Burnie, Maryland 21061
(410) 590-5500 FAX (410) 590-6637

JOB Silver Spring Library
SHEET NO. OF 5748
CALCULATED BY DATE
CHECKED BY DATE
SCALE

Vehicle Trips

3:30 - 4:30

34	23	0	35	35	0

Totals
69 in
58 out
127

5:30 - 6:30

Ellsworth N		Ellsworth S		Colesville Rd	
In	Out	In	Out	In	Out
34	32	2	47	49	0

Totals
85 in
79 out
164

#5746 - Silver Spring Library

Silver Spring Library Enter/Exit Survey
8901 Colesville Road
(Doors and parking lot are in rear of Library off Ellsworth Drive)

NOTE - Library hours today are 1pm-9pm

	NORTH DOOR (MAIN ENTRANCE)		SOUTH DOOR			
TIME	# OF PEOPLE IN	# OF PEOPLE OUT	# OF PEOPLE IN	# OF PEOPLE OUT	TOTAL # OF PEOPLE IN	TOTAL # OF PEOPLE OUT
3:00PM	6	9	3	1	9	10
3:15PM	10	11	2	1	12	12
3:30PM	17	12	2	2	19	14
3:45PM	19	6	5	4	24	10
4:00PM	13	23	1	1	14	24
4:15PM	9	9	2	3	11	12
4:30PM	7	4	0	4	7	8
4:45PM	5	10	1	1	6	11
5:00PM	5	12	2	3	7	15
5:15PM	11	11	2	1	13	12
5:30PM	4	18	0	1	4	19
5:45PM	12	8	1	2	13	10
6:00PM	12	3	0	2	12	5
6:15PM	9	2	3	3	12	5
6:30PM	7	4	2	2	9	6
6:45PM	5	3	1	0	6	3
TOTAL	151	145	27	31	178	176

Street Traffic Studies, Ltd.

400 N. Crain Highway
Glen Burnie, Maryland 21061
(410) 590-5500 FAX (410) 590-6637

JOB Silver Spring Library
SHEET NO. OF
CALCULATED BY DATE 5746
CHECKED BY DATE
SCALE

Pedestrian Trips

	In	Out	
3-4	64	46	110
3:15-4:15	69	60	129
3:30-4:30	68	60	128 ✓
3:45-4:45	56	54	110
4-5	40	55	95
4:15-5:15	31	46	77
4:30-5:30	33	46	79
4:45-5:45	30	57	87
5-6	37	56	93
5:15-6:15	42	46	88
5:30-6:30	41	39	80
5:45-6:45	46	26	72
6-7	39	19	58

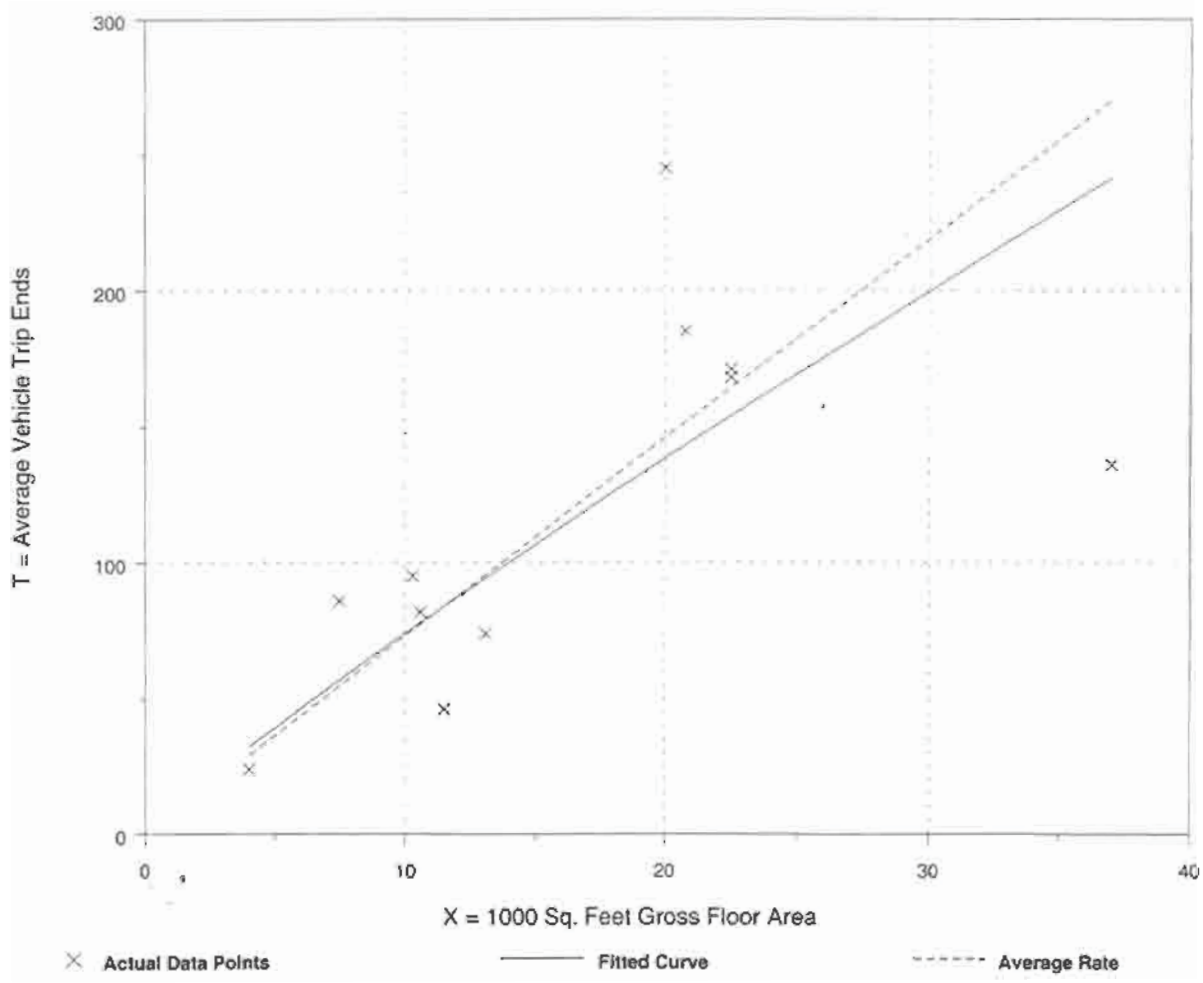
Library
(590)

Average Vehicle Trip Ends vs:	**1000 Sq. Feet Gross Floor Area**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Number of Studies:	11
Average 1000 Sq. Feet GFA:	16
Directional Distribution:	48% entering, 52% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
7.30	3.68 - 12.25	3.81

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.91 Ln(X) + 2.22 $R^2 = 0.68$

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD

VEHICLE TURNING MOVEMENT COUNT - SUMMARY

STREET TRAFFIC STUDIES LTD

Intersection of: Ellsworth Dr
and: Silver Spring Library SOUTH Drwy
Counted by: PWC

Location: Montgomery Co
Date: 4/22/09
Weather: Rain
Entered by: CFC

Day: Wednesday

TIME	TRAFFIC FROM NORTH on: Ellsworth Dr				TRAFFIC FROM SOUTH on: Ellsworth Dr				TRAFFIC FROM WEST on: Library SOUTH Drwy				TRAFFIC FROM EAST on:				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
PM																	
03:00-15	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	8
15-30	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	9
30-45	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	7
45-00	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	6
04:00-15	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	11
15-30	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	11
30-45	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0	10
45-00	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0	10
05:00-15	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0	10
15-30	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	6
30-45	1	0	0	1	1	0	0	1	17	0	0	17	0	0	0	0	19
45-00	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	9
06:00-15	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0	10
15-30	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	11
30-45	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	6
45-00	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	4
PM 4 HOUR TOTALS	1	0	0	1	1	0	0	1	145	0	0	145	0	0	0	0	147
1 HOUR TOTALS																	
03-04	0	0	0	0	0	0	0	0	30	0	0	30	0	0	0	0	30
315-415	0	0	0	0	0	0	0	0	33	0	0	33	0	0	0	0	33
330-430	0	0	0	0	0	0	0	0	35	0	0	35	0	0	0	0	35
345-445	0	0	0	0	0	0	0	0	38	0	0	38	0	0	0	0	38
04-05	0	0	0	0	0	0	0	0	42	0	0	42	0	0	0	0	42
415-515	0	0	0	0	0	0	0	0	41	0	0	41	0	0	0	0	41
430-530	0	0	0	0	0	0	0	0	36	0	0	36	0	0	0	0	36
445-545	1	0	0	1	1	0	0	1	43	0	0	43	0	0	0	0	45
05-06	1	0	0	1	1	0	0	1	42	0	0	42	0	0	0	0	44
515-615	1	0	0	1	1	0	0	1	42	0	0	42	0	0	0	0	44
530-630	1	0	0	1	1	0	0	1	47	0	0	47	0	0	0	0	49
545-645	0	0	0	0	0	0	0	0	36	0	0	36	0	0	0	0	36
06-07	0	0	0	0	0	0	0	0	31	0	0	31	0	0	0	0	31
PEAK HOUR 530-630	1	0	0	1	1	0	0	1	47	0	0	47	0	0	0	0	49

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PEDESTRIAN COUNT - SUMMARY

Intersection of: Ellsworth Dr
and: Silver Spring Library SOUTH Drwy
Counted by: PWC

Location: Montgomery Co
Date: 4/22/09 Day: Wednesday
Weather: Rain
Entered By: CFC

TIME	NORTH LEG EB	NORTH LEG WB	EAST LEG NB	EAST LEG SB	SOUTH LEG EB	SOUTH LEG WB	WEST LEG NB	WEST LEG SB	TOTAL
PM									
03:00-15	0	0	0	0	0	0	1	0	1
15-30	0	0	0	0	0	0	2	1	3
30-45	0	0	0	0	0	0	0	3	3
45-00	0	0	0	0	0	0	1	2	3
04:00-15	0	0	0	0	0	0	3	0	3
15-30	0	0	0	0	0	0	1	3	4
30-45	0	0	0	0	0	0	1	3	4
45-00	0	0	0	0	0	0	6	1	7
05:00-15	0	0	0	0	0	0	1	0	1
15-30	0	0	0	0	0	0	6	1	7
30-45	0	0	0	0	0	0	4	2	6
45-00	0	0	0	0	0	0	1	0	1
06:00-15	0	0	0	0	0	0	3	1	4
15-30	0	0	0	0	0	0	1	0	1
30-45	0	0	0	0	0	0	5	1	6
45-00	0	0	0	0	0	0	3	2	5
PM 4 HOUR TOTALS	0	0	0	0	0	0	39	20	59
1 HOUR TOTALS									
03-04	0	0	0	0	0	0	4	6	10
315-415	0	0	0	0	0	0	6	6	12
330-430	0	0	0	0	0	0	5	8	13
345-445	0	0	0	0	0	0	6	8	14
04-05	0	0	0	0	0	0	11	7	18
415-515	0	0	0	0	0	0	9	7	16
430-530	0	0	0	0	0	0	14	5	19
445-545	0	0	0	0	0	0	17	4	21
05-06	0	0	0	0	0	0	12	3	15
515-615	0	0	0	0	0	0	14	4	18
530-630	0	0	0	0	0	0	9	3	12
545-645	0	0	0	0	0	0	10	2	12
06-07	0	0	0	0	0	0	12	4	16
PEAK HOUR 445-545	0	0	0	0	0	0	17	4	21

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

STREET TRAFFIC STUDIES LTD

Intersection of: Ellsworth Dr
and: Silver Spring Library NORTH Drwy
Counted by: PWC

Location: Montgomery Co
Date: 4/22/09
Weather: Rain
Entered by: CFC

Day: Wednesday

TIME	TRAFFIC FROM NORTH on: Ellsworth Dr				TRAFFIC FROM SOUTH on: Ellsworth Dr				TRAFFIC FROM WEST on: Library NORTH Drwy				TRAFFIC FROM EAST on:				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
PM																	
03:00-15	2	0	0	2	6	0	0	6	5	0	0	5	0	0	0	0	13
15-30	3	0	0	3	10	0	0	10	8	0	0	8	0	0	0	0	21
30-45	4	0	0	4	8	0	0	8	5	0	0	5	0	0	0	0	17
45-00	2	0	0	2	7	0	0	7	2	0	1	3	0	0	0	0	12
04:00-15	0	0	0	0	7	0	0	7	7	0	0	7	0	0	0	0	14
15-30	1	0	0	1	5	0	0	5	7	0	1	8	0	0	0	0	14
30-45	0	0	0	0	1	0	0	1	1	0	0	1	0	0	0	0	2
45-00	0	0	0	0	7	0	0	7	8	0	1	9	0	0	0	0	16
05:00-15	0	0	0	0	11	0	0	11	11	0	1	12	0	0	0	0	23
15-30	1	0	0	1	4	0	0	4	2	0	0	2	0	0	0	0	7
30-45	0	0	0	0	8	0	0	8	10	0	0	10	0	0	0	0	18
45-00	1	0	0	1	5	0	0	5	4	0	1	5	0	0	0	0	11
06:00-15	1	0	0	1	8	0	0	8	10	0	0	10	0	0	0	0	19
15-30	1	0	0	1	10	0	0	10	7	0	0	7	0	0	0	0	18
30-45	0	0	0	0	7	0	0	7	7	0	1	8	0	0	0	0	15
45-00	0	0	0	0	5	0	0	5	5	0	0	5	0	0	0	0	10
PM 4 HOUR TOTALS	16	0	0	16	109	0	0	109	99	0	6	105	0	0	0	0	230
1 HOUR TOTALS																	
03-04	11	0	0	11	31	0	0	31	20	0	1	21	0	0	0	0	63
315-415	9	0	0	9	32	0	0	32	22	0	1	23	0	0	0	0	64
330-430	7	0	0	7	27	0	0	27	21	0	2	23	0	0	0	0	57
345-445	3	0	0	3	20	0	0	20	17	0	2	19	0	0	0	0	42
04-05	1	0	0	1	20	0	0	20	23	0	2	25	0	0	0	0	46
415-515	1	0	0	1	24	0	0	24	27	0	3	30	0	0	0	0	55
430-530	1	0	0	1	23	0	0	23	22	0	2	24	0	0	0	0	48
445-545	1	0	0	1	30	0	0	30	31	0	2	33	0	0	0	0	64
05-06	2	0	0	2	28	0	0	28	27	0	2	29	0	0	0	0	59
515-615	3	0	0	3	25	0	0	25	26	0	1	27	0	0	0	0	55
530-630	3	0	0	3	31	0	0	31	31	0	1	32	0	0	0	0	66
545-645	3	0	0	3	30	0	0	30	28	0	2	30	0	0	0	0	63
06-07	2	0	0	2	30	0	0	30	29	0	1	30	0	0	0	0	62
PEAK HOUR 530-630	3	0	0	3	31	0	0	31	31	0	1	32	0	0	0	0	66

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PEDESTRIAN COUNT - SUMMARY

Intersection of:	Ellsworth Dr	Location:	Montgomery Co
and:	Silver Spring Library NORTH Drwy	Date:	4/22/09 Day: Wednesday
Counted by:	PWC	Weather:	Rain
		Entered By:	CFC

	NORTH LEG		EAST LEG		SOUTH LEG		WEST LEG		
TIME	EB	WB	NB	SB	EB	WB	NB	SB	TOTAL
PM									
03:00-15	0	0	0	0	0	0	1	0	1
15-30	0	0	0	0	0	0	3	2	5
30-45	0	0	0	0	0	0	0	2	2
45-00	0	0	0	0	0	0	1	2	3
04:00-15	0	0	0	0	0	0	3	0	3
15-30	0	0	0	0	0	0	2	3	5
30-45	0	0	0	0	0	0	1	3	4
45-00	0	0	0	0	0	0	5	1	6
05.00-15	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	6	1	7
30-45	0	0	0	0	0	0	4	1	5
45-00	0	0	0	0	0	0	1	2	3
06:00-15	0	0	0	0	0	0	3	1	4
15-30	0	0	0	0	0	0	1	0	1
30-45	0	0	0	0	0	0	3	1	4
45-00	0	0	0	0	0	0	2	2	4
PM 4 HOUR TOTALS	0	0	0	0	0	0	36	21	57
1 HOUR TOTALS									
03-04	0	0	0	0	0	0	5	6	11
315-415	0	0	0	0	0	0	7	6	13
330-430	0	0	0	0	0	0	6	7	13
345-445	0	0	0	0	0	0	7	8	15
04-05	0	0	0	0	0	0	11	7	18
415-515	0	0	0	0	0	0	8	7	15
430-530	0	0	0	0	0	0	12	5	17
445-545	0	0	0	0	0	0	15	3	18
05-06	0	0	0	0	0	0	11	4	15
515-615	0	0	0	0	0	0	14	5	19
530-630	0	0	0	0	0	0	9	4	13
545-645	0	0	0	0	0	0	8	4	12
06-07	0	0	0	0	0	0	9	4	13
PEAK HOUR 515-615	0	0	0	0	0	0	14	5	19

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VEHICLE TURNING MOVEMENT COUNT - SUMMARY

STREET TRAFFIC STUDIES LTD

Intersection of: Colesville Rd
and: Silver Spring Library IN Only Drwy
Counted by: EZ

Location: Montgomery Co
Date: 4/23/09
Weather: Rain
Entered by: CFC

Day: Wednesday

TIME	TRAFFIC FROM NORTH on: Colesville Rd				TRAFFIC FROM SOUTH on: Colesville Rd				TRAFFIC FROM WEST on:				TRAFFIC FROM EAST on: Library IN Only Drwy				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
PM																	
03:00-15	0	0	5	5	0	0	5	5	0	0	0	0	0	0	0	0	10
15-30	0	0	7	7	0	0	3	3	0	0	0	0	0	0	0	0	10
30-45	0	0	2	2	0	0	3	3	0	0	0	0	0	0	0	0	5
45-00	0	0	6	6	0	0	5	5	0	0	0	0	0	0	0	0	11
04:00-15	0	0	6	6	0	0	3	3	0	0	0	0	0	0	0	0	9
15-30	0	0	3	3	0	0	7	7	0	0	0	0	0	0	0	0	10
30-45	0	0	6	6	0	0	7	7	0	0	0	0	0	0	0	0	13
45-00	0	0	3	3	0	0	6	6	0	0	0	0	0	0	0	0	9
05:00-15	0	0	4	4	0	0	1	1	0	0	0	0	0	0	0	0	5
15-30	0	0	2	2	0	0	4	4	0	0	0	0	0	0	0	0	6
30-45	0	0	10	10	0	0	4	4	0	0	0	0	0	0	0	0	14
45-00	0	0	3	3	0	0	5	5	0	0	0	0	0	0	0	0	8
06:00-15	0	0	6	6	0	0	5	5	0	0	0	0	0	0	0	0	11
15-30	0	0	6	6	0	0	10	10	0	0	0	0	0	0	0	0	16
30-45	0	0	3	3	0	0	7	7	0	0	0	0	0	0	0	0	10
45-00	0	0	1	1	0	0	5	5	0	0	0	0	0	0	0	0	6
PM 4 HOUR TOTALS	0	0	73	73	0	0	80	80	0	0	0	0	0	0	0	0	153
1 HOUR TOTALS																	
03-04	0	0	20	20	0	0	16	16	0	0	0	0	0	0	0	0	36
315-415	0	0	21	21	0	0	14	14	0	0	0	0	0	0	0	0	35
330-430	0	0	17	17	0	0	18	18	0	0	0	0	0	0	0	0	35
345-445	0	0	21	21	0	0	22	22	0	0	0	0	0	0	0	0	43
04-05	0	0	18	18	0	0	23	23	0	0	0	0	0	0	0	0	41
415-515	0	0	16	16	0	0	21	21	0	0	0	0	0	0	0	0	37
430-530	0	0	15	15	0	0	18	18	0	0	0	0	0	0	0	0	33
445-545	0	0	19	19	0	0	15	15	0	0	0	0	0	0	0	0	34
05-06	0	0	19	19	0	0	14	14	0	0	0	0	0	0	0	0	33
515-615	0	0	21	21	0	0	18	18	0	0	0	0	0	0	0	0	39
530-630	0	0	25	25	0	0	24	24	0	0	0	0	0	0	0	0	49
545-645	0	0	18	18	0	0	27	27	0	0	0	0	0	0	0	0	45
06-07	0	0	16	16	0	0	27	27	0	0	0	0	0	0	0	0	43
PEAK HOUR 530-630	0	0	25	25	0	0	24	24	0	0	0	0	0	0	0	0	49

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PEDESTRIAN COUNT - SUMMARY

Intersection of:	Colesville Rd	Location:	Montgomery Co		
and:	Silver Spring Library IN Only Drwy	Date:	4/22/09	Day:	Wednesday
Counted by:	EZ	Weather:	Rain		
		Entered By:	CFC		

NOTE - 76 of the 82 NB peds went into the library. They had to cross the driveway to enter the library.
The SB peds do not cross the library driveway to enter the library.

	NORTH LEG		EAST LEG		SOUTH LEG		WEST LEG		
TIME	EB	WB	NB	SB	EB	WB	NB	SB	TOTAL
PM									
03:00-15	0	0	3	4	0	0	0	0	7
15-30	0	0	8	5	0	0	0	0	13
30-45	0	0	5	9	0	0	0	0	14
45-00	0	0	3	7	0	0	0	0	10
04:00-15	0	0	4	13	0	0	0	0	17
15-30	0	0	2	9	0	0	0	0	11
30-45	0	0	9	11	0	0	0	0	20
45-00	0	0	3	7	0	0	0	0	10
05:00-15	0	0	5	12	0	0	0	0	17
15-30	0	0	9	5	0	0	0	0	14
30-45	0	0	5	7	0	0	0	0	12
45-00	0	0	1	4	0	0	0	0	5
06:00-15	0	0	8	3	0	0	0	0	11
15-30	0	0	4	6	0	0	0	0	10
30-45	0	0	8	6	0	0	0	0	14
45-00	0	0	5	5	0	0	0	0	10
PM 4 HOUR TOTALS	0	0	82	113	0	0	0	0	195
1 HOUR TOTALS									
03-04	0	0	19	25	0	0	0	0	44
315-415	0	0	20	34	0	0	0	0	54
330-430	0	0	14	38	0	0	0	0	52
345-445	0	0	18	40	0	0	0	0	58
04-05	0	0	18	40	0	0	0	0	58
415-515	0	0	19	39	0	0	0	0	58
430-530	0	0	26	35	0	0	0	0	61
445-545	0	0	22	31	0	0	0	0	53
05-06	0	0	20	28	0	0	0	0	48
515-615	0	0	23	19	0	0	0	0	42
530-630	0	0	18	20	0	0	0	0	38
545-645	0	0	21	19	0	0	0	0	40
06-07	0	0	25	20	0	0	0	0	45
PEAK HOUR 430-530	0	0	26	35	0	0	0	0	61

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MEMORANDUM

Ref: 71801

To: Janet Angus, Director
Merrimack Public Library

From: Stephen G. Pernaw, P.E., PTOE

Subject: Traffic Investigation – New Library Facility

Date: January 13, 2003

INTRODUCTION

The Merrimack Public Library is currently located on US Route 3 (US3) in Merrimack, New Hampshire, on the northwest quadrant of the US3/Baboosic Lake Road intersection. The library is planning to relocate and construct a new library facility on the west side of US3 on a vacant site that abuts the south side of the U.S. Post Office. The purpose of this memorandum is to provide the Planning Board and Staff with the information requested pertaining to trip generation, impacts at the proposed driveway location on US3, and the appropriate lane configuration for this intersection.

PROPOSAL

The proposed library facility will contain a gross floor area of approximately 34,000 square feet (sf), which is considerably larger than the 12,644 sf found at the existing facility. Total employment is planned to increase from 31 (10 full-time, 21 part-time) to 34 (13 full-time, 21 part-time) persons. Vehicular access to the proposed library is proposed via a single two-way commercial driveway that intersects the west side of US3. The proposed library will operate from 9:00 AM to 9:00 PM on weekdays, from 9:00 AM to 5:00 PM on Saturdays, and from 1:00 to 5:00 PM on Sundays.

TRAFFIC GENERATION

Since the proposed project constitutes the relocation of an existing facility, driveway volumes were monitored at the existing library throughout a typical weekday. According to library officials, Tuesday is the busiest weekday. Therefore, Pernaw & Company conducted traffic counts on Tuesday, December 17, 2002. These count data are summarized on Figure 1, and are shown graphically as an attachment. From these data, three peak periods were identified:

Pernaw & Company

Trip Generation Summary - Existing Site

	BABOOSIC LAKE ROAD DRIVEWAY				CHURCH STREET DRIVEWAY			COMBINED DRIVEWAY		
	LIN	RIN	ROUT	LOUT	IN	OUT	TOTAL	IN	OUT	TOTAL
845 - 900	2	2	0	0	0	1	1	4	1	5
900 - 915	1	5	0	0	0	4	4	6	4	10
915 - 930	2	2	0	0	0	0	0	4	0	4
930 - 945	2	7	0	0	0	4	4	9	4	13
945 - 1000	5	5	0	0	0	8	8	10	8	18
1000 - 1015	0	4	0	1	1	3	4	5	4	9
1015 - 1030	3	6	0	0	1	11	12	10	11	21
1030 - 1045	1	6	0	0	0	8	8	7	8	15
1045 - 1100	1	5	0	0	0	6	6	6	6	12
1100 - 1115	3	7	0	0	0	10	10	10	10	20
1115 - 1130	1	2	0	0	0	2	2	3	2	5
1130 - 1145	1	5	0	0	1	7	8	7	7	14
1145 - 1200	3	5	0	0	0	3	3	8	3	11
1200 - 1215	4	7	0	0	0	13	13	11	13	24
1215 - 1230	2	8	0	0	0	5	5	6	5	13
1230 - 1245	1	3	0	0	0	9	9	4	9	13
1245 - 100	1	6	0	0	0	3	3	7	3	10
100 - 115	3	6	0	0	0	9	9	9	9	18
115 - 130	3	3	0	0	0	8	8	6	8	14
130 - 145	4	8	0	0	0	11	11	12	11	23
145 - 200	4	7	0	0	0	14	14	11	14	25
200 - 215	1	5	0	0	0	8	8	6	8	14
215 - 230	1	6	0	0	0	6	6	7	6	13
230 - 245	5	9	0	0	0	8	8	14	8	22
245 - 300	2	6	0	0	0	12	12	8	12	20
300 - 315	4	7	0	0	0	16	16	11	16	27
315 - 330	1	8	0	0	0	8	8	9	8	17
330 - 345	4	12	0	0	0	12	12	16	12	28
345 - 400	2	10	0	0	0	12	12	12	12	24
400 - 415	2	8	0	0	0	12	12	10	12	22
415 - 430	5	6	1	0	0	11	11	11	12	23
430 - 445	8	13	0	0	1	16	17	22	16	38
445 - 500	2	6	0	0	0	8	8	8	8	16
500 - 515	6	6	0	0	0	11	11	12	11	23
515 - 530	3	4	0	0	0	10	10	7	10	17
530 - 545	2	6	0	0	0	10	10	8	10	18
545 - 600	4	7	0	0	0	8	8	11	8	19
600 - 615	2	7	0	0	0	10	10	9	10	19
615 - 630	8	9	0	0	1	12	13	16	12	28
630 - 645	6	12	0	0	0	11	11	18	11	29
645 - 700	2	6	0	0	0	8	8	8	8	16
700 - 715	4	1	0	0	0	5	5	5	5	10
715 - 730	4	2	0	0	0	6	6	6	6	12
730 - 745	0	4	0	0	0	8	8	4	8	12
745 - 800	2	1	0	0	0	13	13	3	13	16
800 - 815	2	4	0	0	0	8	8	6	8	14
815 - 830	1	5	0	0	0	3	3	6	3	9
830 - 845	1	1	0	0	0	10	10	2	10	12
845 - 900	0	2	0	0	0	4	4	2	4	6
900 - 915	0	1	0	0	0	6	6	1	6	7
DAILY TOTALS	129	281	1	1	5	411	416	415	413	828
PEAK HOUR (3:45 - 4:45)	17	37	1	0	1	51	52	55	52	107

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Figure 1

Traffic Generation - Existing Library Facility

Traffic Study - Wilmington Town and Public Library, Wilmington, New Hampshire

• Mid-Morning Peak Hour	10:15-11:15 AM	68 Trips	(33 in, 35 out)
• Early Afternoon Peak Hour	3:45 - 4:45 PM	107 Trips	(55 in, 52 out)
• Evening Peak Hour	5:45 - 6:45 PM	95 Trips	(54 in, 41 out)

On a daily basis, the existing library generated 828 vehicle-trips, with 415 arrivals and 413 departures observed.

To estimate the trip generation characteristics of the proposed library, both Institute of Transportation Engineers (ITE)[1] methodology and the local experience from the staff of the Merrimack Public Library were considered. The ITE procedure relates trips to independent variables such as gross floor area and employees, and was found to produce unrealistic results. Library officials, on the other hand, expect book circulation to increase by 30 to 50 percent eventually. Accordingly, for analysis purposes, Pernaw & Company increased existing site traffic by 50 percent to reflect post-development conditions at the new facility. The following table summarizes the trip generation characteristics of the Merrimack Public Library.

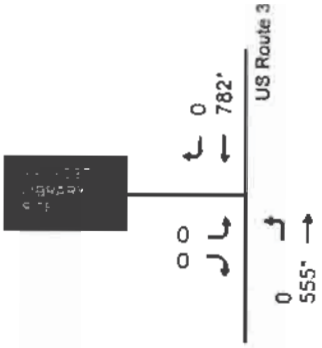
Table 1	Trip Generation Summary		
	Library Peak Hour (3:45 - 4:45 PM)		
	In	Out	Total
Existing Site	55 veh	52 veh	107 trips
Future Site	83 veh	78 veh	161 trips
Net Change	+28 veh	+26 veh	+54 trips

FUTURE TRAFFIC PROJECTIONS

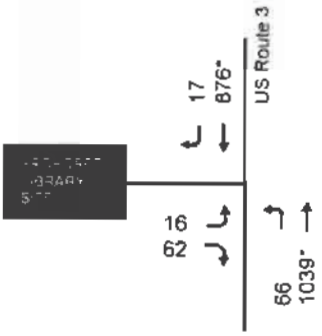
The Design Hour Volumes (DHV) for the US3/Proposed Library Driveway are summarized in Figure 2. The projections for 2010 were derived from two previously prepared traffic reports, and are predicated upon the worst-case assumption that the peak hour of the generator (library) coincides with the peak hour of the adjacent street system. These traffic volumes form the basis for assessing the access requirements for the subject site.

[1] Institute of Transportation Engineers, *Trip Generation*, sixth edition (Washington, D.C., 1997).

Pernaw & Company



AM PEAK HOUR
7:15 - 8:15 AM
Site Gen = 0 Trips**



PM PEAK HOUR
4:30 - 5:30 PM
Site Gen = 161 Trips***

*Extrapolated from "Daniel Webster Highway Corridor Study", Louis Berger & Associates, August 2000 and "Traffic Impact Report - Proposed Shopping Center", Rizzo Associates, November 19, 2001

**Proposed library closed during AM peak hour

***Based on 50 percent increase in existing library trips, and an 80 percent (S)/20 percent (N) trip distribution

NORTH

71801

Figure 2

2010 Build Traffic Volumes

Traffic Impact Assessment - Proposed Public Library - Pelham, New Hampshire

FINDINGS

Access design considerations are shown on Figure 3. This figure shows how the ideal lane configuration changes depending on the distribution of the peak hour design hour volumes.

Based on the anticipated driveway volumes for the US3/Proposed Library Driveway intersection and a worst-case distribution, Pernaw & Company finds that the following lane configuration is ideal:

- NB Approach — Exclusive Left-Turn Lane, Exclusive Through Lane
- SB Approach — Shared Through-Right Lane (with taper)
- EB Approach — Exclusive Left-Turn Lane, Exclusive Right-Turn Lane

The use of a driveway median island to separate ingress and egress vehicles is considered desirable, but optional. If provided, then "KEEP RIGHT" (MUTCD[2] R4-7) signs should be installed at both ends of the island.

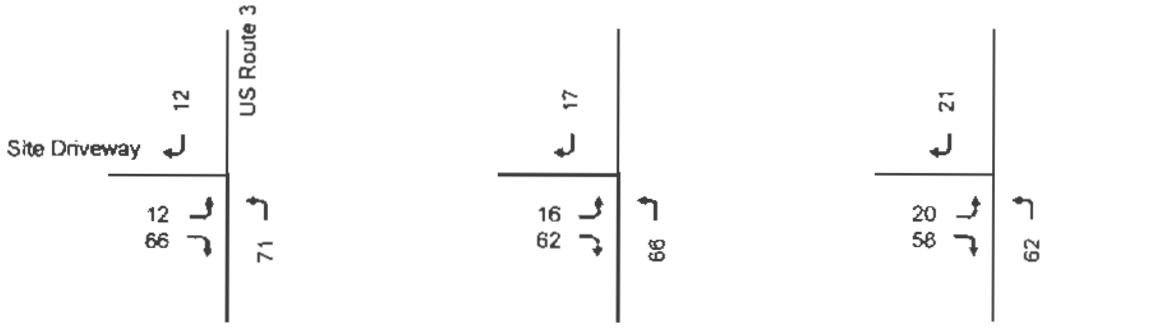
The location of the proposed driveway should be coordinated with existing and proposed driveways along the east side of the highway.

Attachments

[2] American Traffic Safety Services Association (ATSSA), Institute of Transportation Engineers (ITE) & American Association of State Highway and Transportation Officials (AASHTO), *Manual on Uniform Traffic Control Devices*, (Washington, D.C., 2001).

Pernaw & Company

I. PM Peak Hour Design Hour Volumes

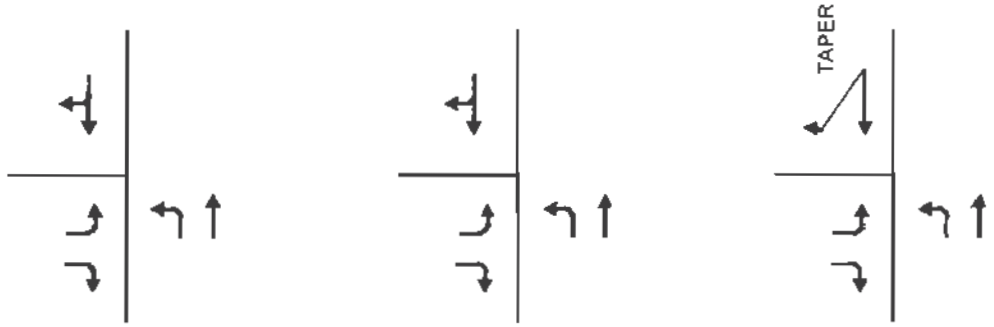


15% to/from north / 85% to/from south Distribution

20% to/from north / 80% to/from south Distribution

25% to/from north / 75% to/from south Distribution

II. Ideal Lane Configuration



III. Storage Requirements (NB Left-Turn Lane)

75' Minimum
100' Recommended

75' Minimum
100' Recommended

75' Minimum
100' Recommended

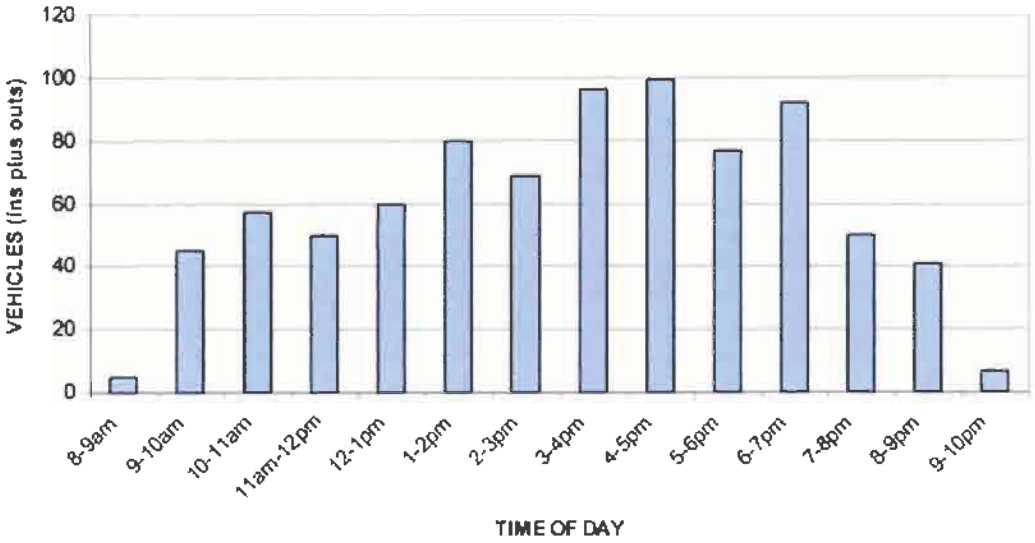
NORTH

71801

Figure 3

Access Design Considerations

LIBRARY TRAFFIC GENERATION - EXISTING SITE
TOTAL HOURLY TRAFFIC



71801

Attachment

Existing Site Traffic

MCDOWELL MOUNTAIN RANCH AQUATIC CENTER
TRAFFIC IMPACT ANALYSIS SUMMARY

Prepared by: Phil Kercher, Traffic Engineering
Date: July 26, 2002

EXISTING CONDITIONS

The subject site is located on the southeast corner of Thompson Peak Parkway and McDowell Mountain Ranch Road (MMR Road). Thompson Peak Parkway is designated as a major arterial, which typically consists of three lanes in each direction. Currently the street has two lanes in each direction with an extra wide median to accommodate possible future expansion to three lanes in each direction if warranted by future traffic volumes. MMR Road is designated as minor arterial adjacent to the site. It also has two lanes in each direction with a raised median. Both of these roads have a design capacity of 35,000 vehicles per day.

Facilities: The site is currently occupied by Desert Canyon Middle and Elementary Schools and the City of Scottsdale's Arabian Library. There are three soccer and two baseball fields south of the middle school. The subject area west of these facilities along Thompson Peak Parkway is undeveloped.

Site Access: Site access is provided by Thompson Peak Parkway and MMR Road. Primary access to the site is currently provided from MMR Road via 102nd Street. Secondary access is also provided from MMR Road using 104th Street south to the school loop road, which connects 104th Street to 102nd Street around the school campus. Both of these intersections are currently unsignalized.

Traffic: Currently on Thompson Peak Parkway there are approximately 24,000 vehicles per day, and on MMR Road there are approximately 15,000 vehicles per day.

Level of Service: Level of service (abbreviated LOS) is a measure of how congested an intersection or section of roadway is under specific traffic conditions. The intersection of MMR Road and Thompson Peak Parkway experiences relatively low overall delay with the existing traffic volumes; however, for short periods of time certain traffic movements experience some significant delay. These movements are the westbound left-turn and the northbound right-turn at this intersection. This condition exists due to heavy volumes that are associated with the residential and school traffic that utilizes Thompson Park Parkway south of MMR Road to enter and leave the McDowell Mountain Ranch area.

The two unsignalized intersections of 102nd Street and 104th Street on MRR Road experience poor levels of service for the left-turn movements during the peak hours when school is in session due to the combination of high left-turn volumes exiting the site and through traffic on MMR Road.

PROPOSED DEVELOPMENT – OPTION A

The proposed development under Option A consists of an expansion of the existing Arabian library and a minor expansion of the existing park facilities that would include a small open recreation area and a playground area.

Facilites: The existing 8,400 square foot library would be expanded to an ultimate area of 25,000 square feet. The park improvements would consist of approximately two acres of improved area with grass areas for passive recreation, picnic tables, and some playground equipment.

Site Access: Access to the site would still be limited to the two intersections on MMR Road. The City of Scottsdale is planning to signalize the intersection of 102nd Street and

MMR Road to provide improved access for the school traffic. The school driveway would be widened with the construction of the signal to provide an exclusive left-turn lane. Other traffic mitigation proposed would include modifications to the intersection of MMR Road and Thompson Peak Parkway. This would consist of adding a second northbound right-turn bay and extending the westbound dual left-turn bay.

Traffic: The estimated trip generation for the proposed development under Option A is shown in the table below. This library trip generation is based on data collected at the Mustang Library. The trip generation also utilized information contained in the Institute of Transportation Engineer's *Trip Generation*, which provides trip generation estimates based on studies of similar land uses from around the United States.

Trip Generation –Option A 1.56 3.37

Land Use	Daily Total	AM Peak Hour			Pre-Peak			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Arabian Library Expansion	648	18	8	26	33	37	70	25	31	56
MMR Park Expansion	3	1	0	1	0	1	1	0	1	1
Total	651	19	8	27	33	38	71	25	32	57

The a.m. peak hour represents the highest hourly volume expected during the 7 a.m. to 9 a.m. normal rush hour period. The p.m. peak hour is the highest hourly volume expected during the 4 p.m. to 6 p.m. normal rush hour period. The pre-peak hour is the expected traffic volume during the afternoon period that coincides with the adjacent schools dismissal times.

Level of Service: These street improvements associated with the development of Option A would not only prevent the project from increasing delay, but would improve conditions over what they are today. The two critical movements at the intersection of MMR Road and Thompson Peak Parkway, the northbound right-turn movement and the westbound left-turn movement, would be improved. Access at the intersection of MMR Road and 102nd Street would be significantly improved by allowing the northbound left-turns to be made from a separate turn lane with signal control.

PROPOSED DEVELOPMENT – OPTION B

The proposed development under Option B consists of the library expansion and the development of a community park with proposed amenities such as an aquatic center, a fitness center, a skate park, playground, and open recreation areas.

Facilites: The existing 8,400 square foot library would be expanded to an ultimate area of 25,000 square feet. The aquatic center would contain a 25-yard competitive area with a leisure pool component. The fitness center would be ancillary to the pool facility. The skate park, playground, and open recreation areas would be similar to those found in other public parks within the city.

Site Access: Additional access would be provided with the development of Option B. A right-in, right-out driveway would be constructed on MMR Road between Thompson Peak Parkway and 102nd Street. Also, an additional driveway would be constructed on Thompson Peak Parkway south of MMR Road that allows the right-in, right-out, and left-in turning movements. Southbound access onto Thompson Peak Parkway would be provided by either a median opening or by constructing a loop drive under the existing bridge. Deceleration lanes would be constructed at both of these new driveways. The other mitigation measures outlined under Option A would also be constructed.

Traffic: The estimated trip generation for the proposed development under Option B is shown in the table below. This trip generation is also based on data collected at the Mustang Library and Cactus Park and contained in *Trip Generation*.

Trip Generation –Option B

Land Use	Daily Total	AM Peak Hour			Pre-Peak			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Arabian Library Expansion	648	18	8	26	33	37	70	25	31	56
MMR Park & Aquatic Ctr.	2,740	45	32	77	182	155	333	287	245	532
Total	3,388	63	40	103	215	192	403	312	276	588

Level of Service: The additional site access combined with the mitigation measures would improve conditions over what they are today. The two critical movements at the intersection of MMR Road and Thompson Peak Parkway, the northbound right-turn movement and the westbound left-turn movement, would again be improved. Access at the intersection of MMR Road and 102nd Street would be significantly improved by allowing the northbound left-turns to be made from a separate turn lane with signal control. The traffic that would be generated by the Aquatic Center would have direct access to Thompson Peak Parkway via the new site driveway. The Park traffic could be separated from the adjacent school traffic by use of a vehicular gate.

COMPARATIVE LEVELS OF SERVICE

Level of Service/Average Control Delay (in seconds)
Main Intersections

	Existing Conditions		Option A		Option B	
A.M. Peak Hour	LOS	Delay	LOS	Delay	LOS	Delay
MMR & TPP	C	21.9	C	21.2	C	21.3
MMR & 102nd	F	315.9	B	16.1	B	16.2
Pre-Peak Hour	LOS	Delay	LOS	Delay	LOS	Delay
MMR & TPP	C	26.2	C	20.3	C	20.6
MRR & 102nd	F	120.0	B	15.5	B	16.0
P.M. Peak Hour	LOS	Delay	LOS	Delay	LOS	Delay
MMR & TPP	C	32.3	C	21.9	C	22.1
MRR & 102nd	F	283.0	B	15.6	B	16.5

Level of Service/Average Control Delay (in seconds)
Critical Movements

	Existing Conditions		Option A		Option B	
A.M. Peak Hour	LOS	Delay	LOS	Delay	LOS	Delay
WB Lefts at TPP & MMR	B	17.5	B	17.4	B	17.5
NB Rights at TPP & MMR	A	8.2	A	6.0	A	5.8
NB Lefts at 102nd & MMR	F	448	C	24.3	C	24.6
Pre-Peak Hour	LOS	Delay	LOS	Delay	LOS	Delay
WB Lefts at TPP & MMR	D	37.3	B	14.8	B	15.1
NB Rights at TPP & MMR	A	9.9	A	6.2	A	6.1
NB Lefts at 102nd & MMR	F	150.9	C	24.6	C	25.9
P.M. Peak Hour	LOS	Delay	LOS	Delay	LOS	Delay
WB Lefts at TPP & MMR	E	58.3	B	14.3	B	14.8
NB Rights at TPP & MMR	B	19.9	A	7.1	A	7.0
NB Lefts at 102nd & MMR	F	342.7	C	29.7	C	26.0

Summary:
The roadway system in this area with the mitigation that is proposed will be able to handle the traffic generated by the project under either Option A or Option B with less delay than is experienced today, especially at the locations of highest congestion.

Land Use: 879
Arts and Crafts Store

Description

Arts and crafts stores are free-standing facilities that sell art, framing, wall décor and seasonal merchandise. These stores may provide in-store arts and crafts classes. Arts and crafts stores are sometimes found as separate parcels within a retail complex, with or without their own dedicated off-street parking.

Additional Data

The sites were surveyed in the 2000s in Pennsylvania.

Source Number

571

Land Use: 879
Arts and Crafts Store
Independent Variables with One Observation

The following trip generation data are for independent variables with only one observation. This information is shown in this table only; there are no related plots for these data.

Users are cautioned to use data with care because of the small sample size.

Independent Variable	Trip Generation Rate	Size of Independent Variable	Number of Studies	Directional Distribution
1,000 Square Feet Gross Floor Area				
Weekday	56.55	20	1	50% entering, 50% exiting
Weekday a.m. Peak Hour of Generator	4.65	20	1	49% entering, 51% exiting
Weekday p.m. Peak Hour of Generator	6.85	20	1	51% entering, 49% exiting

DAVID WILSON HOMES

PROPOSED MIXED USE REDEVELOPMENT of the FORMER ST IVEL SITE, WOOTTON BASSETT, WILTSHIRE

TRAFFIC COMPARISON REPORT

July 2007

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DOCUMENT CONTROL SHEET

Client:	David Wilson Homes
Project Title:	Proposed Mixed Use Redevelopment of the Former St Ivel Site, Wootton Bassett, Wiltshire
Project:	Traffic Comparison Report
Date:	July 2007

STATUS	REVISION	DATE	AUTHOR	CHECKED	APPROVED
Draft	A	Jun 2007	M.Fuller	M.Fuller	J.Arney
Issue	1	July 2007	M.Fuller	M.Fuller	J.Arney

CONTENTS PAGE NUMBER

1	INTRODUCTION	1
2	TRIP GENERATION	2
3	TRAFFIC COMPARISON SUMMARY	7

1 INTRODUCTION

1.1 This Traffic Comparison Note has been prepared by Pinnacle Transportation Limited, on behalf of David Wilson Homes for the mixed-use redevelopment of the former St Ivel site. This will comprise 366 dwellings which will contain a mix of 60 one bedroom apartments, 93 two bedroom apartments, and 213 two, three, four and five bedroom houses and also 4,824 square metres of light industrial or office uses. Station House will be retained for office and community use and the listed Brewery Buildings will be retained and refurbished as an arts centre.

1.2 The S106 legal agreement associated with the outline planning consent *(306 dwellings which contain a mix of 93 two bedroom apartments, 213 two, three, four and five bedroom houses and also 6,840 square metres of light industrial or office uses. Station House will be retained for office and community use and the listed Brewery Buildings will be retained and refurbished as an arts centre)* required David Wilson Homes to apply for outline planning permission for residential land uses on 0.4 hectares of the employment land. In other words, 2,016 square metres of the employment land will be lost and replaced with 60 one bedroom apartments.

1.3 This traffic comparison assessment has been completed, which calculates the traffic attracted to the proposed redevelopment compared to:

(i) the reoccupation of the site under the terms of the extant planning consent (see Pinnacle Report 0411-04/TN01A, August 2005 for further details);
(ii) the occupation of the site based on the consented scheme (TN01A); and
(iii) the redevelopment proposal.

1.4 In summary, the redevelopment proposal would be associated with less peak hour and daily vehicular trips than associated with the occupation of the site based on the consented scheme. There are therefore no valid highways or transportation reasons why this revised schedule of land uses should not be granted planning permission.

2 TRIP GENERATION

2.1 The agreed trip rates from Pinnacle report TN01A have been used for the purposes of this assessment. This is considered robust as these rates were used for the extant use and consented uses for the site.

The Redevelopment Proposal

Residential Trip Generation

2.2 Traffic would be generated by the residential redevelopment of the site for 366 dwellings including a mix of one and two bedroom apartments and two, three, four and five bedroom houses. It is proposed that 153 apartments and 213 houses will be introduced at the site.

Residential Apartment Trip Generation

2.3 The agreed trip rates for the proposed apartments were derived from an inspection of the TRICS 2005(b) database for privately owned apartment sites. The database was interrogated for sites within the whole of England excluding London.

2.4 Summarised average trip rates obtained from the TRICS database for the trip generation peak periods for the privately owned apartments are illustrated below on **Table 2.1**.

Table 2.1 – Forecast Residential Apartments Trip Generation

LAND USE	DEVELOPABLE AREA	FORECAST TRIP GENERATION					
Privately owned Houses	Number of Dwellings	Trip Rate (per dwelling)			Total Trips		
		Arr	Dep	Total	Arr	Dep	Total
AM Peak 0800 – 0900	153	0.06	0.18	0.24	9	28	37
PM Peak 1700 – 1800	153	0.18	0.10	0.28	28	15	43
Daily Total 0000 – 2400	153	1.34	1.37	2.71	205	209	415

2.5 The forecast total daily trip rate of 2.71 per dwelling for the residential development of 153 apartments at this location would provide a total of around 415 vehicle movements per day.

Residential Houses Trip Generation

2.6 The agreed trip rates for the proposed houses were derived from an inspection of the TRICS 2005(b) database for privately owned houses of up to 600 dwellings. The database was interrogated for sites within the whole of England excluding London.

2.7 Summarised average trip rates obtained from the TRICS database for the trip generation peak periods for the privately owned houses are illustrated below on **Table 2.2**.

Table 2.2 – Forecast Residential Houses Trip Generation

LAND USE	DEVELOPABLE AREA	FORECAST TRIP GENERATION					
Privately owned Houses	Number of Dwellings	Trip Rate (per dwelling)			Total Trips		
		Arr	Dep	Total	Arr	Dep	Total
AM Peak 0800 – 0900	213	0.14	0.50	0.64	30	107	137
PM Peak 1700 – 1800	213	0.41	0.22	0.63	87	47	134
Daily Total 0000 – 2400	213	3.88	3.84	7.72	827	818	1,644

2.8 The forecast total daily trip rate of 7.72 per dwelling for the residential development of 213 houses at this location would provide a total of around 1,644 vehicle movements per day.

Re-use of Existing Buildings

2.9 Some existing buildings will be retained and refurbished. This includes the refurbishment of the Brewery Buildings and the retention of Station House. This has not changed between the consented scheme and the mix of uses assumed within this report.

Brewery Buildings

2.10 The Brewery Buildings are listed and were considered for uses such as an arts centre, retail space, employment space, leisure and educational space.

2.11 The exact future use of the buildings is not known other than they will be made available for community use. The assessment undertaken assumes the total gross floor area of around 1,100 square metres would attract traffic as a development for community use. TRICS does not contain any data under a community use, it was therefore assumed that an art gallery type use would attract a similar level of traffic as the proposal for an arts centre.

2.12 The traffic that could be generated by the re-use of the existing buildings was calculated based on the total floor space of around 1,100 square metres. Summarised average agreed trip rates obtained from the TRICS database for the trip generation peak periods are illustrated below on **Table 2.3** for art galleries.

Table 2.3 – Trip Generation – Re-use of Existing Buildings

LAND USE	DEVELOPMENT AREA	TRIP GENERATION					
Art Centre	GFA (sqm)	Trip Rate (per 100 sqm)			Total Trips		
		Arr	Dep	Total	Arr	Dep	Total
AM Peak 0800 – 0900	1,100	0.08	0.00	0.08	1	0	1
PM Peak 1700 – 1800	1,100	0.00	0.23	0.23	0	3	3
Daily Total 0000 – 2400	1,100	5.46	4.79	10.24	60	53	113

1 sqm ≡ 1.196 sf

1 sf = 0.0929 sqm

2.13 The forecast total daily trip rate of 10.24 per 100 square metres for a re-use of the listed buildings which total around 1,100 square metres at this location would provide a total of around 113 vehicle movements per day.

Station House

2.14 It was assumed that Station House will be refurbished for both office use and community use (548 square metres of office space and 548 square metres of community space).

2.15 The traffic that could be generated by the re-use of the existing building was calculated based upon the two land uses described above. Summarised average agreed trip rates obtained from the TRICS database for the trip generation peak periods are illustrated below on **Table 2.4** for office use and on **Table 2.5** for community use.

Table 2.4 – Trip Generation – Re-use of Station House, Offices

LAND USE	DEVELOPMENT AREA	TRIP GENERATION					
Office	GFA (sqm)	Trip Rate (per 100 sqm)			Total Trips		
		Arr	Dep	Total	Arr	Dep	Total
AM Peak 0800 – 0900	548	1.82	0.21	2.03	10	1	11
PM Peak 1700 – 1800	548	0.25	1.32	1.57	1	7	8
Daily Total 0000 – 2400	548	7.18	7.65	14.77	39	42	81

2.16 The forecast total daily trip rate of 14.77 per 100 square metres for a re-use of part of Station House which totals around 548 square metres would provide a total of around 81 vehicle movements per day.

Table 2.5 – Trip Generation – Re-use of Station House, Community Use

LAND USE	DEVELOPMENT AREA	TRIP GENERATION					
Community	GFA (sqm)	Trip Rate (per 100 sqm)			Total Trips		
		Arr	Dep	Total	Arr	Dep	Total
AM Peak 0800 – 0900	548	0.08	0.00	0.08	0	0	0
PM Peak 1700 – 1800	548	0.00	0.23	0.23	0	1	1
Daily Total 0000 – 2400	548	5.46	4.79	10.24	30	26	56

2.17 The forecast total daily trip rate of 10.24 per 100 square metres for a re-use of part of Station House which totals around 548 square metres would provide a total of around 56 vehicle movements per day.

Employment Trip Generation

2.18 The traffic that could be generated by the proposed site use has been calculated based on the total floor space of around 4,824 square metres. Although the space could be used for light industrial or office use under a B1 planning consent, a worst case scenario for offices has been used for traffic generation purposes as this use will generate the most traffic. Agreed trip rates for office land use were derived from an inspection of the TRICS 2005(b) database for offices of up to 17,500 square metres within the whole of England excluding London.

2.19 Summarised average trip rates obtained from the TRICS database for the trip generation peak periods are illustrated on **Table 2.6** for offices.

Table 2.6 – Trip Generation – Offices

LAND USE	DEVELOPMENT AREA	TRIP GENERATION					
Office	GFA (sqm)	Trip Rate (per 100 sqm)			Total Trips		
		Arr	Dep	Total	Arr	Dep	Total
AM Peak 0800 – 0900	4,824	1.82	0.21	2.03	88	10	98
PM Peak 1700 – 1800	4,824	0.25	1.32	1.57	12	64	76
Daily Total 0000 – 2400	4,824	7.18	7.65	14.77	346	369	713

2.20 The forecast total daily trip rate of 14.77 per 100 square metres for an employment development of around 4,824 square metres at this location would provide a total of around 713 vehicle movements per day.

2.21 It is likely that the number of trips attracted to the proposed office development will be significantly less than estimated for the purposes of this report due to the proximity of sustainable transport facilities. It is also likely that future employees could also be residents of the site or live locally within Wootton Bassett.

3 TRAFFIC COMPARISON SUMMARY

3.1 An assessment has been completed, which compares the differences in traffic associated with the alternative scenarios for redevelopment. This is summarised at **Table 3.1** below.

Table 3.1 – Comparison of Trips for Alternative Land Uses

REDEVELOPMENT SCENARIO	AM PEAK			PM PEAK			DAILY
	Trips			Trips			Trips
	Arr.	Dep.	Total	Arr.	Dep.	Total	
Estimate of possible use of the site under existing planning permission (reuse of site)	221	63	284	59	203	262	2,475
Consented Scheme	171	139	310	122	157	279	3,155
Revised Schedule	138	146	284	128	137	265	3,022

3.2 The revised schedule is associated with approximately 26 less trips in the AM peak hours and approximately 20 less trips in the PM peak hour and around 133 less daily trips, compared to the consented scheme.

3.3 It is therefore concluded that the approved physical mitigation measures proposed as part of the consented scheme are appropriate as the redevelopment proposal is associated with less traffic.

3.4 The approved Framework Travel Plan proposed as part of the consented scheme will be revised to take account of the fact that the redevelopment proposal will be associated with less trips.

$$\frac{0.08 \text{ trips}}{100 \text{ sqm}} \times \frac{1 \text{ sqm}}{1.196 \text{ sf}} = \frac{0.08}{100 \times 1.196} = \frac{0.08}{119.6} =$$

$$0.0006688 \times 1000 = 0.6688 \text{ trips}/1000 \text{ sf}$$

AM $T = 0.67$ trips/1000 sf

PM

$$T = \frac{0.23}{119.6} \times 1000 = 1.92 \text{ trips}/1000 \text{ sf}$$

APPENDIX G

CAPACITY WORKSHEETS - TOTAL CONDITIONS

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)                |<-  Name of N-S Approa
 Subdivision Case:            |  R   Right     Thru      Left           |    Colesville Rd
Silver Spring Library         |  ^     214     1975       356  =VPH     |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        4         0 =#Lanes   |     Use "N","Y":
Total                         |  Of LY |            |          | CLV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-          V        ->     749  |    AM
_____ __________ ________ __| RTOR                                  3 |___ _________ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]              /\    From EAST (Westbounc
        VPH          #Lanes          CLV   (N-S)=     749             ||          #Lanes   VPH
  Left       53          0 –^  S| B  CLV   (E-W)=     270             NB ^–          0     170
  Thru       68          2 –>  || | —     ------- -------                <–          2     180
 Right        3          0 –v  V /  SU    M CLV=    1019  ok             v–          0      59
R       CLV(W)=        125      3            LOS=   A/B      | EB==> =>    1  CLV(E)=       270
_____ __________ ________ __    C   LV(S):   (ok-under 1,525)             ___ _________ _______
Name of E-W Approach         h |      709        <-        ^    ->        |If  free flow Rt->Vol=0
Fenton St                      |                   |        |        |    |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       0        2        0    | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=        11      579       76    | L  efts use Thru Lane
Date:        29-May   May-09   |                Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)                 |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler
 Created on:          9/14/87  |  Lane Utilization Factors:               |     LOS:     CLV>#
 Updated 6/22/92               |  A pproach h Turning Movement            |  ----------- -------
                               |  Nc .Lanes    Left      Thru      Rght   |      A          0
                               |     1 Lane    1.00      1.00      1.00   |      A/B      977
If any questions:              |     2 Lanes   0.53      0.53      0.53   |      B       1022
 Call Ed Axler                 |     3 Lanes   0.37      0.37      0.37   |      B/C     1127
 at 1-301-495-4525             |     4 Lanes   0.29      0.29      0.29   |      C       1172
 8787 Georgia Ave              |     5 Lanes   0.25      0.25      0.25   |      C/D     1277
 Silver Spring, MD 20910-3760                                             |      D       1322
_____ ___________ ____ __  __ _____ _____ _____ _____ _  _|      D/E     1427
\p      {Calc}{Calc}          v-Setup String vary w/printer               |      E       1472
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet        t E/F       1577
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!           |      F       1622
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:             |  R   Right    Thru     Left       |    Colesville Rd
Silver Spring Library          |  ^      56     659      218 =VPH   |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0       2        0 #Lanes |    Use "N","Y":          n
Total                          |  Of LY |          |        |:LV(N):  | P  eak Hour Period:
Date:                Count     |  for r <-         V       ->  508  |    PM
_____ __________ ________ __|  RTOR                            3 |__ ________ ______ ______
From WEST (Eastbound)          2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV  (N-S)=     759          ||        #Lanes   VPH   R
  Left       58          0 —^  SI B CLV  (E-W)=     436          NE ^—        0     506 Right
  Thru      126          2 -->  || | —    ______ ______             <--        2     142 Thru
 Right       16          0 —v  V /  SU   M CLV=    1195  ok        v--        0      66 Left
R        CLV(W)=       172      3          LOS=  C        | EB== =>  1  CLV(E)=      436
_____ __________ ________ __   C  LV(S):   (ok-under 1,525)          __ ________ ______ ______
Name of E-W Approach         h |      759      <-      ^    ->       |If  free flow Rt->Vol=0
Fenton St                      |                  |      |      |    |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=      0      4      0    | R  ights use Thru Lane
Use "N","Y":           n       |     VPH=       14   1709    141   | L  efts use Thru Lane
Date:        29-May    May-09  |              Left   Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)           |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement       |  _______ ------- -------
                               |  Nc .Lanes   Left    Thru   Rght    |    A          0     978
                               |     1 Lane   1.00    1.00   1.00    |    A/B      977    1023
If any questions:              |     2 Lanes  0.53    0.53   0.53    |    B       1022    1128
 Call Ed Axler                 |     3 Lanes  0.37    0.37   0.37    |    B/C     1127    1173
 at 1-301-495-4525             |     4 Lanes  0.29    0.29   0.29    |    C       1172    1278
 8787 Georgia Ave              |     5 Lanes  0.25    0.25   0.25    |    C/D     1277    1323
 Silver Spring, MD 20910-3760                                         |    D       1322    1428
------ ---------- -------- -- - ------ ------ ------ ------ -- -|    D/E     1427    1473
\p     {Calc}{Calc}          v-Setup String vary w/printer            |    E       1472    1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F     1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!       |    F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)                |<-  Name of N-S Approa
 Subdivision Case:             |  R   Right     Thru      Left           |    Georgia Ave
Silver Spring Library          |  ^      48     1682         4  =VPH     |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0        3         0 =#Lanes   |     Use "N","Y":
Total                          |  Of LY |          |         | CLV(N):   | P  eak Hour Period:
Date:                Count     |  for r <-         V        ->     642   |    AM
_____ ___________ ________ __| RTOR                                  3 |___ _________ _______
From WEST (Eastbound)            2  <=[WB receiving lanes]            Λ    From EAST (Westbounc
        VPH          #Lanes            CLV  (N-S)=     642            ||          #Lanes   VPH
  Left        4          0 –^  Si B  CLV  (E-W)=     785            NB ^--        0      45
  Thru      485          3 -->  || | —    _______ _______                <--       3    1297
 Right       37          0 –v  V /  SU   M CLV=    1426  ok             v–        1     590
R       CLV(W)=        785      3          LOS=  D        | EB==> =>    1  CLV(E)=      501
_____ ___________ ________ __    C  LV(S):   (ok-under 1,525)            ___ _________ _______
Name of E-W Approach         h |      448       <-        ^   ->         |If  free flow Rt->Vol=0
Colesville Rd                  |                  |        |       |     |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=     0        3       1      | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=       0     1199     285      | L  efts use Thru Lane
Date:        29-May   May-09   |              Left    Thru   Right   R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)               |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler
 Created on:          9/14/87  |  Lane Utilization Factors:                |     LOS:     CLV>#
 Updated 6/22/92               |  A pproach h Turning Movement             |  _________  _______
                               |  Nc .Lanes    Left      Thru      Rght    |     A          0
                               |    1 Lane     1.00      1.00      1.00    |     A/B      977
If any questions:              |    2 Lanes    0.53      0.53      0.53    |     B       1022
 Call Ed Axler                 |    3 Lanes    0.37      0.37      0.37    |     B/C     1127
 at 1-301-495-4525             |    4 Lanes    0.29      0.29      0.29    |     C       1172
 8787 Georgia Ave              |    5 Lanes    0.25      0.25      0.25    |     C/D     1277
 Silver Spring, MD 20910-3760                                             |     D       1322
_____ ___________ ________ __ -- _______ _______ _______ _______ –   –|     D/E     1427
\p     {Calc}{Calc}            v-Setup String vary w/printer              |     E       1472
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet        t E/F     1577
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!          |     F       1622
_____ ___________ ________ __ - _______ _______ --------- --------- ,-  --- -Rights-   -RTOR-
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^      46    1311        1  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        0 #Lanes |    Use "N","Y":          n
Total                         |  Ot LY  |            |          |:LV(N):  | P  eak Hour Period:
Date:                Count    |  fot r <-          V        ->   502  |    PM
_____ ___________ ________ __| RTOR                            3 |___ _________ ______ ______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     658        ||        #Lanes   VPH   R
  Left        3         0 --^  S| B  CLV   (E-W)=     692        NE ^--        0      50  Right
 Thru      1282         4 -->  || | --    _______ _______           <--        3     428  Thru
 Right       64         0 --v  V /  SU    M CLV=    1350  ok        v--        0     301  Left
R        CLV(W)=       692      3            LOS=   D        | EB== =>   1  CLV(E)=      291
_____ ___________ ________ __   C   LV(S):   (ok-under 1,525)        __ _________ ______ ______
Name of E-W Approach        h |      658        <-        ^    ->      |If  free flow Rt->Vol=0
Colesville Rd                 |                   |        |        |   ||If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      0        3        1   | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        0     1776      574   | L  efts use Thru Lane
Date:        29-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  _________ _______ ______
                              |  Nc .Lanes   Left      Thru    Rght  |       A          0     978
                              |     1 Lane   1.00      1.00    1.00  |       A/B      977    1023
If any questions:             |     2 Lanes  0.53      0.53    0.53  |       B       1022    1128
 Call Ed Axler                |     3 Lanes  0.37      0.37    0.37  |       B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes  0.29      0.29    0.29  |       C       1172    1278
 8787 Georgia Ave             |     5 Lanes  0.25      0.25    0.25  |       C/D     1277    1323
 Silver Spring, MD 20910-3760                                        |       D       1322    1428
_____ ___________ ________ __ _ _______ _______ _______ _____ _ _|       D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer           |       E       1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!    |       F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Ellsworth Dr
Silver Spring Library         |  ^       3       24        23  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         0 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          | :LV(N):  | P  eak Hour Period:
Date:                Count    |  fo r <-          V        ->     72  |    AM
_____ __________ ________ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes          CLV   (N-S)=      72          ||        #Lanes   VPH   R
  Left        5         1 –^  S| B  CLV   (E-W)=     177          NE ^–        0       4  Right
  Thru      200         2 –>  || | —     _______ _______            <–        2     260  Thru
 Right       75         0 –v  V /  SU    M CLV=     249  ok         v–        0      31  Left
R        CLV(W)=       177     3            LOS=  A        | EB== =>   1  CLV(E)=      161
_____ __________ ________ __   C   LV(S):   (ok-under 1,525)          ___ _________ _______ _______
Name of E-W Approach        h |        46       <-        ^    ->      ||f  free flow Rt->Vol=0
Spring St                     |                  |        |        |   ||f  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0        2        0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        22        3       18  | L  efts use Thru Lane
Date:        29-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach  h Turning Movement        |  ________ _______ _______
                              |  Nc .Lanes    Left      Thru    Rght  |       A        0      978
                              |     1 Lane    1.00      1.00    1.00  |      A/B     977     1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |       B     1022     1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37  |      B/C     1127     1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29  |       C     1172     1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25  |      C/D     1277     1323
 Silver Spring, MD 20910-3760                                         |       D     1322     1428
_____ __________ ________ __  _  _______ _______ _______ _____ _  _|      D/E     1427     1473
\p      {Calc}{Calc}            v-Setup String vary w/printer         |       E     1472     1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F     1577     1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!   |       F     1622     9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:             |  R   Right     Thru      Left     |    Ellsworth Dr
Silver Spring Library          |  ^       4       25        32  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0        1         0 #Lanes |    Use "N","Y":          n
Total                          |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:                Count     |  foi r <-         V        ->   249  |    PM
_____ __________ _________ __| RTOR                            3 |__ _________ ______ _____
From WEST (Eastbound)          2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     249          ||        #Lanes   VPH   R
  Left       19          1 –^  Si B  CLV   (E-W)=     244          NE ^–        0      13  Right
  Thru      290          2 –>  || | ---    ------  ------             <–        2     332  Thru
 Right       88          0 –v  V /  SU    M CLV=     493  ok         v–        0      44  Left
R        CLV(W)=       244      3            LOS=  A        | EB== =>   1  CLV(E)=      225
_____ __________ _______ __     C   LV(S):   (ok-under 1,525)          __ _________ ______ ______
Name of E-W Approach         h |      168       <-        ^    ->      |If  free flow Rt->Vol=0
Spring St                      |                  |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       0        2        0 | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=       188        8       61 | L  efts use Thru Lane
Date:        29-May   May-09   |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:           |    LOS:     CLV>#  <CLV
 Updated 6/22/92               |  A pproach  h Turning Movement       |  ---------- ------ ------
                               |  Nc .Lanes    Left      Thru    Rght  |     A          0     978
                               |     1 Lane    1.00      1.00    1.00  |     A/B      977    1023
If any questions:              |     2 Lanes   0.53      0.53    0.53  |     B       1022    1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37  |     B/C     1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29  |     C       1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                          |     D       1322    1428
_____ __________ _____ --- -- _____ _____ _____ _____ -- --|     D/E     1427    1473
\p     {Calc}{Calc}          v-Setup String vary w/printer             |     E       1472    1578
       /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F       1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!         |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Ellsworth Dr
Silver Spring Library         |  ^      22      57       79 =VPH   |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       2        0 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |        |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-         V       ->   87  |    AM
_____ __________ ________ __| RTOR                            3 |__ __________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=      95            ||        #Lanes   VPH   R
  Left      109        0 –^  SI B CLV  (E-W)=     729            NE ^–        0     161  Right
  Thru      486        1 –>  || | —    _______ _______              <–        1     437  Thru
 Right       24        0 –v  V /  SU   M CLV=     824  ok          v–        0      22  Left
R       CLV(W)=      641      3          LOS=  A        | EB== =>   1  CLV(E)=      729
_____ __________ ________ __  C  LV(S):   (ok-under 1,525)        __ __________ _______ _______
Name of E-W Approach        h |      95      <-       ^    ->      |If  free flow Rt->Vol=0
Fenton St                     |                |       |       |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=     0       1       0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       3       7       6  | L  efts use Thru Lane
Date:        29-May   May-09  |              Left    Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  _________ _______ _______
                              |  Nc .Lanes   Left     Thru    Rght  |     A          0     978
                              |     1 Lane   1.00     1.00    1.00  |     A/B      977    1023
If any questions:             |     2 Lanes  0.53     0.53    0.53  |     B       1022    1128
 Call Ed Axler                |     3 Lanes  0.37     0.37    0.37  |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes  0.29     0.29    0.29  |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes  0.25     0.25    0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                       |     D       1322    1428
_____ __________ ________ __  _  _ _______ _______ _______ _____ _ –|     D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer         |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet    t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!   |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Ellsworth Dr
Silver Spring Library         |  ^     133      181       149  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        2         0 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:                Count    |  for r <-          V        ->   261 |    PM
_____ ___________ ________ __| RTOR                            3 |___ ________ ______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     261          ||        #Lanes   VPH   R
  Left       67          0 --^  SI B  CLV   (E-W)=     855          NE ^--        0     165  Right
  Thru      481          1 -->  || | —     ------- -------            <--        1     602  Thru
 Right       49          0 --v  V /  SU    M CLV=    1116  ok         v--        0      21  Left
R        CLV(W)=       618       3            LOS=  B        | EB== =>   1  CLV(E)=      855
_____ ___________ ________ __    C   LV(S):   (ok-under 1,525)          __ ________ ______ _______
Name of E-W Approach         h |       222        <-        ^    ->     |If  free flow Rt->Vol=0
Fenton St                      |                   |        |       |    |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=        0        1       0  | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=         16       40      17  | L  efts use Thru Lane
Date:        29-May   May-09   |                Left     Thru   Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement       |  -------- ------- ------
                               |  Nc .Lanes    Left      Thru    Rght  |    A          0    978
                               |     1 Lane    1.00      1.00    1.00  |    A/B      977   1023
If any questions:              |     2 Lanes   0.53      0.53    0.53  |    B       1022   1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37  |    B/C     1127   1173
 at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29  |    C       1172   1278
 8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25  |    C/D     1277   1323
 Silver Spring, MD 20910-3760                                          |    D       1322   1428
------- ___________ ________ __ _ ------- ------- ------- ----- _ -|    D/E     1427   1473
\p      {Calc}{Calc}            v-Setup String vary w/printer          |    E       1472   1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F     1577   1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!      |    F       1622   9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:             |  R   Right     Thru      Left      |    Dale Dr
Silver Spring Library          |  ^     115      239        48  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0        1         0 #Lanes |    Use "N","Y":          n
Total                          |  Of LY |          |          |CLV(N): | P  eak Hour Period:
Date:                Count     |  foi r <-          V        ->  433 |    AM
_____ __________ _________ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     433          ||        #Lanes   VPH   R
  Left        26          0 –^  SI B CLV   (E-W)=     607          NE ^–        0     126  Right
 Thru        204          2 –>  || | —     _______ _______          <–        2     930  Thru
 Right        17          0 –v  V /  SU    M CLV=    1040  ok       v–        0      40  Left
R        CLV(W)=        171      3            LOS=   B        | EB== =>   1  CLV(E)=      607
_____ __________ _________ __   C   LV(S):   (ok-under 1,525)        ___ _________ _______ _______
Name of E-W Approach         h |       288        <-        ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                      |                    |         |        |  |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       0         1        0  | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=        31       185       24  | L  efts use Thru Lane
Date:        09-Jul    Jul-09  |                Left      Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)               |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                        Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:                |     LOS:     CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement             |  _________ _______ _______
                               |  Nc .Lanes    Left      Thru     Rght     |       A          0     978
                               |     1 Lane    1.00      1.00     1.00     |      A/B       977    1023
If any questions:              |     2 Lanes   0.53      0.53     0.53     |       B      1022    1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37     0.37     |      B/C      1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29      0.29     0.29     |       C      1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25      0.25     0.25     |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                              |       D      1322    1428
_____ __________ _________ __ -- _______ _______ _______ _____ – –}         |      D/E      1427    1473
\p     {Calc}{Calc}            v-Setup String vary w/printer               |       E      1472    1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet      t E/F      1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!          |       F      1622    9999
_____ __________ _________ __ -- _______ _______ _____ _____ ,- ---        -Rights-   -RTOR-  -%RTOR
```

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{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Dale Dr
Silver Spring Library         |  ^     100      202       114  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         0 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:                Count    |  for r <-          V        ->   445  |    PM
_____ __________ ________ __| RTOR                            3 |__ _________ ______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     453        ||        #Lanes   VPH   R
  Left       224          0 –^  S B CLV   (E-W)=     632        NE ^–        0      63  Right
  Thru       779          2 -->  || | —    _______  _______          <–        2     647  Thru
 Right        58          0 –v  V /  SU   M CLV=    1085  ok        v–        0      60  Left
R        CLV(W)=        622      3            LOS=   B       | EB== =>   1  CLV(E)=      632
_____ __________ ________ __    C   LV(S):   (ok-under 1,525)        __ _________ ______ _______
Name of E-W Approach         h |       453       <-        ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                     |                    |        |       |    |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0        1       0    | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        29      230      80    | L  efts use Thru Lane
Date:        09-Jul    Jul-09 |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  ----------  -------  -------
                              |  Nc .Lanes    Left      Thru    Rght   |       A          0     978
                              |     1 Lane    1.00      1.00    1.00   |      A/B       977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53   |       B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37   |      B/C      1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29   |       C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25   |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                          |       D      1322    1428
_____ __________ ________ __ _ _______ _______ _______ ______ _ _|      D/E      1427    1473
\p     {Calc}{Calc}            v-Setup String vary w/printer            |       E      1472    1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!        |       F      1622    9999
------ __________ ________ __ _ _______ _______ _______ ______ ,- __  -Rights-    -RTOR-  -%RTOR
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Dixon Ave
Silver Spring Library         |  ^      13        3         3 =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         0 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for <-          V        ->     64  |    AM
_____ __________ _________ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     183          ||        #Lanes   VPH   R
  Left        4          0 –^  SI B CLV   (E-W)=     322          NE ^–        0      18  Right
  Thru      287          3 –>  || | —     ———————  ———————            <–        3     646  Thru
 Right       36          0 –v  V / SU    M CLV=     505  ok          v–        0     195  Left
R        CLV(W)=        316      3            LOS=  A        | EB== =>   1  CLV(E)=      322
_____ __________ _________ __   C  LV(S):   (ok-under 1,525)          __ _________ _______ _______
Name of E-W Approach         h |      183        <-        ^    ->      ||f  free flow Rt->Vol=0
Wayne Ave                      |                   |        |        |   |f  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=      1        1        0   | R  ıghts use Thru Lane
Use "N","Y":          n        |     VPH=       45        0      180   | L  efts use Thru Lane
Date:        29-May   May-09   |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:            |    LOS:     CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement         |  _________ _______ _______
                               |  Nc .Lanes    Left      Thru    Rght  |     A          0     978
                               |     1 Lane    1.00      1.00    1.00  |     A/B      977    1023
If any questions:              |     2 Lanes   0.53      0.53    0.53  |     B       1022    1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37  |     B/C     1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29  |     C       1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                          |     D       1322    1428
------ __________ _________ __ _ ———— ———— ———— ———— _ –|     D/E     1427    1473
\p     {Calc}{Calc}            v-Setup String vary w/printer           |     E       1472    1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F       1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!        |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:             |  R   Right     Thru      Left     |    Dixon Ave
Silver Spring Library          |  ^       3        3        11  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:            |  R       0        1         0 #Lanes |    Use "N","Y":          n
Total                          |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:                Count     |  for r <-         V        ->     74  |    PM
_____ __________ ________ __|  RTOR                              3 |__ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     238          ||        #Lanes   VPH   R
  Left        5          0 –^  S! B  CLV   (E-W)=     339          NE ^–        0       8  Right
  Thru      469          3 –>  || | —     ________ ________          <–        3     531  Thru
  Right      44          0 –v  V /  SU    M CLV=     577  ok        v–        0     147  Left
R        CLV(W)=       339      3            LOS=  A        | EB== =>   1  CLV(E)=       259
_____ __________ ________ __   C   LV(S):   (ok-under 1,525)          ___ _________ _______ _______
Name of E-W Approach        h |      238        <-        ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                      |                  |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       1        1        0  | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=        57        0      227  | L  efts use Thru Lane
Date:        29-May   May-09   |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:           |    LOS:     CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement        |  _________ ________ _______
                               |  Nc .Lanes    Left      Thru    Rght  |     A          0     978
                               |     1 Lane    1.00      1.00    1.00  |     A/B      977    1023
If any questions:              |     2 Lanes   0.53      0.53    0.53  |     B       1022    1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37  |     B/C     1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29  |     C       1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                          |     D       1322    1428
_____ __________ ________ __  _  _ _______ ________ _______ _____ _  –|     D/E     1427    1473
\p     {Calc}{Calc}            v-Setup String vary w/printer           |     E       1472    1578
       /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F       1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!        |     F       1622    9999
_____ __________ ________ __  _  _ _______ _______ _______ _____ ,-  ---  -Rights-   -RTOR-  -%RTOR
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^     248    1748      274  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-         V       ->   825  |    AM
_____ __________ _________ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     825          ||        #Lanes   VPH   R
  Left      195          1 –^  SI B  CLV   (E-W)=     476          NE ^–        0     102  Right
  Thru      189          2 –>  || | —     _______ _______             <–        2     428  Thru
 Right      129          0 –v  V /  SU    M CLV=    1300  ok         v–        1     246  Left
R       CLV(W)=        415      3            LOS=   C/D      | EB== =>   1  CLV(E)=       476
_____ __________ _________ __   C   LV(S):   (ok-under 1,525)          ___ _________ _______ _______
Name of E-W Approach        h |       752        <-        ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                     |                   |        |        |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        3        0   | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        86     1224       68   | L  efts use Thru Lane
Date:        29-May   May-09  |                Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)               |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:             |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement         |  _________ _______ _______
                              |  Nc .Lanes    Left      Thru    Rght   |     A          0     978
                              |     1 Lane    1.00      1.00    1.00   |     A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53   |     B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37   |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29   |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25   |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                          |     D       1322    1428
_____ __________ _________ __ _ _______ _______ _______ _______ __ _|     D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer         |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!      |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Georgia Ave
Silver Spring Library         |  ^     227     1175       274  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        3         1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |            |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-          V        ->   631  |    PM
_____ ___________ _________ __| RTOR                            3 |___ _________ ______ ____
From WEST (Eastbound)            2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     934          ||        #Lanes   VPH   R
  Left      197          1  --^  SI B CLV   (E-W)=     560          NE ^--       0     254  Right
  Thru      425          2  -->  || | ---   _______ _______            <--       2     344  Thru
 Right      116          0  --v  V /  SU    M CLV=    1494  ok         v--       1     273  Left
R       CLV(W)=        560       3            LOS=   E        | EB== =>   1  CLV(E)=       514
_____ ___________ _________ __   C   LV(S):   (ok-under 1,525)          ___ _________ ______ _____
Name of E-W Approach          h |      934        <-        ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                       |                    |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!            |  #  Lanes=       1        3        0  | R  ights use Thru Lane
Use "N","Y":          n         |     VPH=       112     1574      211  | L  efts use Thru Lane
Date:        29-May   May-09    |                Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                            |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87   |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92                |  A pproach h Turning Movement         |  _________ _______ _______
                                |  Nc .Lanes    Left      Thru    Rght   |       A          0     978
                                |     1 Lane    1.00      1.00    1.00   |       A/B      977    1023
If any questions:               |     2 Lanes   0.53      0.53    0.53   |       B       1022    1128
 Call Ed Axler                  |     3 Lanes   0.37      0.37    0.37   |       B/C     1127    1173
 at 1-301-495-4525              |     4 Lanes   0.29      0.29    0.29   |       C       1172    1278
 8787 Georgia Ave               |     5 Lanes   0.25      0.25    0.25   |       C/D     1277    1323
 Silver Spring, MD 20910-3760                                            |       D       1322    1428
_____ ____________ __________ ___ __ _______ _______ _______ _____ __ __|       D/E     1427    1473
\p      {Calc}{Calc}            v-Setup String vary w/printer            |       E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F         1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!        |       F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Fenton St
Silver Spring Library         |  ^     153      403        27  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-         V        ->   687  |    AM
_____ __________ _________ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     687          ||        #Lanes   VPH   R
  Left      187          1  –^  SI B  CLV   (E-W)=     786          NE ^–        1      60  Right
  Thru      151          2  –>  || | —     _______  _______            <–        1     599  Thru
 Right       92          0  –v  V /  SU    M CLV=    1473  ok         v–        1     250  Left
R       CLV(W)=        379      3            LOS=  E        | EB== =>  1  CLV(E)=       786
_____ __________ _________ __   C   LV(S):   (ok-under 1,525)          ___ _________ _______ _______
Name of E-W Approach        h |      427        <-        ^    ->      |If  free flow Rt->Vol=0
Wayne Ave                     |                  |         |         |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1         1         1 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       131       427        92 | L  efts use Thru Lane
Date:        29-May   May-09  |              Left      Thru     Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)               |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:              |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement          |  ________ ________ _______
                              |  Nc .Lanes    Left      Thru     Rght   |       A         0     978
                              |     1 Lane    1.00      1.00     1.00   |      A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53     0.53   |       B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37     0.37   |      B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29     0.29   |       C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25     0.25   |      C/D     1277    1323
 Silver Spring, MD 20910-3760                                           |       D      1322    1428
_____ __________ _________ __ _ _____ _____ _____ _____ -- –|      D/E     1427    1473
\p      {Calc}{Calc}            v-Setup String vary w/printer           |       E      1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!     |       F      1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Fenton St
Silver Spring Library         |  ^     287     392       84  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |         |        |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-        V       ->   791  |    PM
_____ __________ ________ __| RTOR                          3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH        #Lanes            CLV   (N-S)=     791          ||        #Lanes   VPH   R
  Left      180        1  --^  Si B  CLV   (E-W)=     632          NE ^--       1     113  Right
  Thru      554        2  -->  || | --    _______ _______             <--       1     385  Thru
 Right      134        0  --v  V /  SU    M CLV=    1423  ok         v--       1     267  Left
R       CLV(W)=      632       3            LOS=  D        | EB== =>   1  CLV(E)=       565
_____ __________ ________ __   C   LV(S):   (ok-under 1,525)          __ _________ _______ _______
Name of E-W Approach        h |      509       <-       ^    ->       ||If  free flow Rt->Vol=0
Wayne Ave                     |                  |        |        |  ||If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1        1 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       112      509      227 | L  efts use Thru Lane
Date:        29-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |     LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  _________ _______ _______
                              |  Nc .Lanes    Left     Thru    Rght  |     A          0     978
                              |     1 Lane    1.00     1.00    1.00  |     A/B      977    1023
If any questions:             |     2 Lanes   0.53     0.53    0.53  |     B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37     0.37    0.37  |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29     0.29    0.29  |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25     0.25    0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                        |     D       1322    1428
____ __________ ________ __  _  _______ _______ _______ _____ _  _|     D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer          |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!   |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^     135    1985       22  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |        |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-        V       ->   823  |    AM
_____ __________ _________ __| RTOR                          3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]        ^   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     823        ||        #Lanes   VPH   R
  Left       41          1 --^  SI B  CLV   (E-W)=     107        NE ^--       0      42  Right
  Thru        0          0 -->  || |  ---   _______ _______          <--       1       0  Thru
 Right       19          1 --v  V /   SU    M CLV=     930  ok      v--       0      24  Left
R        CLV(W)=         24      3            LOS=   A        | EB== =>   1  CLV(E)=      107
_____ __________ _______ __      C   LV(S):   (ok-under 1,525)      __ _________ _______ _______
Name of E-W Approach         h |      524       <-        ^    ->      |If  free flow Rt->Vol=0
Bonifant St                    |                  |        |        |   |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       1        3        0  | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=        39     1346       11  | L  efts use Thru Lane
Date:        29-May   May-09   |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:          |    LOS:     CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement       |  _________ _______ _______
                               |  Nc .Lanes    Left      Thru    Rght |     A          0     978
                               |     1 Lane    1.00      1.00    1.00 |     A/B      977    1023
If any questions:              |     2 Lanes   0.53      0.53    0.53 |     B       1022    1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37 |     B/C     1127    1173
at 1-301-495-4525              |     4 Lanes   0.29      0.29    0.29 |     C       1172    1278
8787 Georgia Ave               |     5 Lanes   0.25      0.25    0.25 |     C/D     1277    1323
Silver Spring, MD 20910-3760                                          |     D       1322    1428
_____ __________ _____ --- -- _____ _____ _____ -_____ - --|     D/E     1427    1473
\p     {Calc}{Calc}          v-Setup String vary w/printer            |     E       1472    1578
       /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F       1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!      |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^      64    1411       34  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |        |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-        V       ->   548  |    PM
_____ __________ ________ __| RTOR                          3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=     728          ||        #Lanes   VPH   R
  Left       78        1 –^  S: B CLV  (E-W)=     110          NE ^–        0      17  Right
 Thru         0        0 –>  || | —    _______ _______             <--       1       0  Thru
 Right       88        1 –v  V / SU   M CLV=     838  ok          v–        0      15  Left
R       CLV(W)=       15      3          LOS=  A        | EB== =>   1  CLV(E)=      110
_____ __________ ________ __  C  LV(S):   (ok-under 1,525)          ___ _________ _______ _______
Name of E-W Approach        h |      728       <-        ^    ->     |If  free flow Rt->Vol=0
Bonifant St                   |                  |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        3        0 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=         2     1806       70 | L  efts use Thru Lane
Date:        29-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  _________ _______ _______
                              |  Nc .Lanes    Left     Thru    Rght  |       A          0     978
                              |     1 Lane    1.00     1.00    1.00  |      A/B       977    1023
If any questions:             |     2 Lanes   0.53     0.53    0.53  |       B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37     0.37    0.37  |      B/C      1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29     0.29    0.29  |       C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25     0.25    0.25  |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                        |       D      1322    1428
_____ __________ ________ __  _  _______ _______ _______ _____ --  --| D/E      1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer       |       E      1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!    |       F      1622    9999
```

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{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Fenton St
Silver Spring Library         |  ^      22      682        16  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-         V        ->    754  |    AM
_____ __________ _________ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     754         ||        #Lanes   VPH   R
  Left       41          0 --^  Si B CLV   (E-W)=     128         NE ^--        0      20  Right
  Thru       36          1 -->  || | —     _______ _______            <--       1      54  Thru
 Right       24          0 --v  V / SU    M CLV=     882  ok        v--       0      13  Left
R       CLV(W)=        114      3            LOS=  A        | EB== =>  1  CLV(E)=       128
_____ __________ _______ __     C  LV(S):   (ok-under 1,525)        ___ _________ _______ _______
Name of E-W Approach        h |      574       <-        ^    ->      ||f  free flow Rt->Vol=0
Thayer Ave                    |                  |        |        |  ||f  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1        0 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        50      547       11 | L  efts use Thru Lane
Date:        29-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  _________ _______ _______
                              |  Nc .Lanes    Left      Thru    Rght |     A          0     978
                              |     1 Lane    1.00      1.00    1.00 |     A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53 |     B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37 |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29 |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25 |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                        |     D       1322    1428
_____ __________ _________ __ __ _______ _______ _______ _____ _ _ _|     D/E     1427    1473
\p     {Calc}{Calc}          v-Setup String vary w/printer           |     E       1472    1578
       /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F       1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!        |     F       1622    9999
_____ __________ _________ __ _ _______ _______ _______ _____ ,- __  -Rights-    -RTOR-  -%RTOR
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{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Fenton St
Silver Spring Library         |  ^      37      670        28  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        1         1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-         V        ->    771 |    PM
_____ __________ _______ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH        #Lanes          CLV   (N-S)=     863          ||        #Lanes   VPH   R
  Left       56         0 --^  SI B CLV   (E-W)=     201          NE ^--        0      11  Right
  Thru       83         1 -->  || | —    ———————  ———————            <--        1      34  Thru
 Right       50         0 --v  V /  SU   M CLV=    1064  ok          v--        0      12  Left
R       CLV(W)=       201       3          LOS=   B        | EB== =>   1  CLV(E)=       113
_____ __________ _______ __     C   LV(S):   (ok-under 1,525)          ___ _________ _______ _______
Name of E-W Approach        h |      863       <-        ^    ->       |If  free flow Rt->Vol=0
Thayer Ave                    |                  |        |        |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1        0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        64      809       26  | L  efts use Thru Lane
Date:        29-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |
                              |  Nc .Lanes    Left      Thru    Rght  |    A          0     978
                              |     1 Lane    1.00      1.00    1.00  |    A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |    B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37  |    B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29  |    C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25  |    C/D     1277    1323
 Silver Spring, MD 20910-3760                                         |    D       1322    1428
_____ __________ _____ __ _ _____ _____ _____ _____ _ __|    D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer           |    E       1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!        |    F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Fenton St
Silver Spring Library         |  ^      23     705       21  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-         V       ->   746 |    AM
_____ __________ _________ __| RTOR                          3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     746         ||        #Lanes   VPH   R
  Left       13          0 —^  S B  CLV   (E-W)=      41         NE ^—        0       3  Right
  Thru       12          1 -->  || | —    _______ _______          <—        1      14  Thru
 Right        8          0 —v  V /  SU    M CLV=     787  ok      v—        0       8  Left
R        CLV(W)=        41      3            LOS=  A        | EB== =>   1  CLV(E)=       38
_____ __________ _________ __  C   LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach        h |      651       <-        ^    ->      |If  free flow Rt->Vol=0
Bonifant St                   |                  |        |       |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1       0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        18      629       1  | L  efts use Thru Lane
Date:        29-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use. Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  _________ _______ _______
                              |  Nc .Lanes    Left      Thru    Rght |       A          0     978
                              |     1 Lane    1.00      1.00    1.00 |       A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53 |       B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37 |       B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29 |       C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25 |       C/D     1277    1323
 Silver Spring, MD 20910-3760                                        |       D       1322    1428
_____ __________ _________ --- - _____ _____ _____ _____ - -|       D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer          |       E       1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!   |       F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Fenton St
Silver Spring Library         |  ^      17     717       28  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-         V       ->   768 |    PM
_____ __________ _______ __|  RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     892         ||        #Lanes   VPH   R
  Left       46          0 --^  Si B  CLV   (E-W)=     162         NE ^--       0      23  Right
  Thru       67          1 -->  || | ---   _______ _______            <--       1      21  Thru
 Right       37          0 --v  V /  SU    M CLV=    1054  ok        v--       0      12  Left
R       CLV(W)=        162      3            LOS=   B        | EB== =>   1  CLV(E)=      102
_____ __________ _______ __     C   LV(S):   (ok-under 1,525)          __ _________ _______ _______
Name of E-W Approach         h |      892        <-        ^    ->      |If  free flow Rt->Vol=0
Bonifant St                    |                   |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=        1        1        0 | R  ights use Thru Lane
Use "N","Y":          n        |     VPH=         34      810       54 | L  efts use Thru Lane
Date:        29-May   May-09   |                Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:            |    LOS:    CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement         |  _______ _______ _______
                               |  Nc .Lanes    Left     Thru    Rght   |     A        0     978
                               |     1 Lane    1.00     1.00    1.00   |    A/B     977    1023
If any questions:              |     2 Lanes   0.53     0.53    0.53   |     B     1022    1128
 Call Ed Axler                 |     3 Lanes   0.37     0.37    0.37   |    B/C    1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29     0.29    0.29   |     C     1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25     0.25    0.25   |    C/D    1277    1323
 Silver Spring, MD 20910-3760                                          |     D     1322    1428
_____ __________ _______ __  --  _______ _______ _______ ___ --  --|    D/E    1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer        |     E     1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}   now!       |     F     1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^      13    1751      211  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-        V        ->   663  |    AM
____ __________ ________ __|  RTOR                            3 |___ ________ ______ ______
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ  From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=     663          ||        #Lanes   VPH   R
  Left       10        0 –^  S| B  CLV  (E-W)=     218          NE ^–        0     114  Right
  Thru        4        1 –>  || | —    ———— ————                  <–        1      15  Thru
 Right        7        0 –v  V /  SU   M CLV=     881  ok          v–        0      79  Left
R       CLV(W)=      100      3          LOS=  A        | EB== =>   1  CLV(E)=      218
____ __________ ________ __   C   LV(S):   (ok-under 1,525)          __ ________ ______ ______
Name of E-W Approach        h |      653       <-        ^    ->     |If  free flow Rt->Vol=0
Silver Spring Ave             |                  |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=     0        3        0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=      10     1082      103  | L  efts use Thru Lane
Date:        29-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ________ _______ ______
                              |  Nc .Lanes   Left      Thru    Rght |     A          0     978
                              |     1 Lane   1.00      1.00    1.00 |     A/B      977    1023
If any questions:             |     2 Lanes  0.53      0.53    0.53 |     B       1022    1128
 Call Ed Axler                |     3 Lanes  0.37      0.37    0.37 |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes  0.29      0.29    0.29 |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes  0.25      0.25    0.25 |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                       |     D       1322    1428
____ __________ ________ __ _ _____ ______ ______ _____ _ _|     D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer          |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~          <-as HP ThinkJet     t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}      uit}   now!          |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^      10    1285      155  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |        |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-        V       ->   491 |    PM
_____ _________ _________ __| RTOR                          3 |__ _________ _____ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]        /\   From EAST (Westbound)
        VPH        #Lanes          CLV  (N-S)=     813          ||        #Lanes   VPH   R
  Left       25        0 –^  Si B CLV  (E-W)=     468          NE ^–        0     284  Right
 Thru        27        1 –>  || | —    _______ _______             <–        1      16  Thru
 Right       11        0 –v  V / SU    M CLV=    1281  ok         v–        0     143  Left
R       CLV(W)=      206      3          LOS=  C/D      | EB== =>   1  CLV(E)=      468
_____ _________ _________ __  C  LV(S):   (ok-under 1,525)          __ _________ _____ _______
Name of E-W Approach        h |      813      <-       ^    ->      ||f  free flow Rt->Vol=0
Silver Spring Ave             |                 |       |    |      ||f  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      0       3    0      | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=       12    1597  170      | L  efts use Thru Lane
Date:        29-May   May-09  |              Left    Thru  Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)            |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                   Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  _________ _____  _____
                              |  Nc .Lanes   Left     Thru   Rght   |     A          0    978
                              |     1 Lane   1.00     1.00   1.00   |     A/B      977   1023
If any questions:             |     2 Lanes  0.53     0.53   0.53   |     B       1022   1128
 Call Ed Axler                |     3 Lanes  0.37     0.37   0.37   |     B/C     1127   1173
 at 1-301-495-4525            |     4 Lanes  0.29     0.29   0.29   |     C       1172   1278
 8787 Georgia Ave             |     5 Lanes  0.25     0.25   0.25   |     C/D     1277   1323
 Silver Spring, MD 20910-3760                                        |     D       1322   1428
_____ _________ _____ __ _ _____ _____ _____ _____ _ _|     D/E     1427   1473
\p      {Calc}{Calc}          v-Setup String vary w/printer         |     E       1472   1578
        /ppos{esc}\027\038\107\048\083~          <-as HP ThinkJet      t E/F       1577   1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}      uit}   now!          |     F       1622   9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^       0    2001       27  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-        V        ->   740 |    AM
_____ _________ ________ __|  RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     740         ||        #Lanes   VPH   R
  Left        0          0 --^  SI B  CLV   (E-W)=     122         NE ^--       0      84  Right
  Thru        0          0 -->  || | --    _______ _______            <--       1       0  Thru
  Right       0          0 --v  V /  SU    M CLV=     862  ok        v--       0      38  Left
R        CLV(W)=        38      3            LOS=  A        | EB== =>  1  CLV(E)=      122
_____ _________ ________ __      C   LV(S):   (ok-under 1,525)        __ _________ _______ _______
Name of E-W Approach        h |      527        <-        ^    ->     |If  free flow Rt->Vol=0
Thayer Ave                    |                    |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0        3        0 | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=         0     1326       25 | L  efts use Thru Lane
Date:        29-May   May-09  |                Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                        Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  _________ _______ _______
                              |  Nc .Lanes    Left      Thru    Rght |     A          0     978
                              |     1 Lane    1.00      1.00    1.00 |     A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53 |     B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37 |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29 |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25 |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                        |     D       1322    1428
_____ _________ ________ __ -- _______ _______ _______ _____ - -|     D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer          |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!   |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Georgia Ave
Silver Spring Library         |  ^       0    1421       88  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       3        1 #Lanes |    Use "N","Y":          n
Total                         |  Ol LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-        V        ->   526  |    PM
_____ __________ _______ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          Λ   From EAST (Westbound)
        VPH        #Lanes          CLV   (N-S)=     771          ||        #Lanes   VPH   R
  Left        0         0 --^  S B CLV   (E-W)=     113          NE ^--        0      71  Right
  Thru        0         0 -->  || | —    ———— —————               <--        1       0  Thru
 Right        0         0 --v  V /  SU   M CLV=     884  ok        v--        0      42  Left
R       CLV(W)=        42      3            LOS=  A        | EB== =>  1  CLV(E)=      113
_____ __________ _______ __    C   LV(S):   (ok-under 1,525)          ___ _________ _______ _______
Name of E-W Approach        h |      771        <-        ^    ->     |If  free flow Rt->Vol=0
Thayer Ave                    |                   |        |        |  |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=      0        3        0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        0     1765       80  | L  efts use Thru Lane
Date:        29-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ________ _______ _______
                              |  Nc .Lanes    Left     Thru    Rght  |       A         0     978
                              |     1 Lane    1.00     1.00    1.00  |      A/B      977    1023
If any questions:             |     2 Lanes   0.53     0.53    0.53  |       B     1022    1128
 Call Ed Axler                |     3 Lanes   0.37     0.37    0.37  |      B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29     0.29    0.29  |       C     1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25     0.25    0.25  |      C/D     1277    1323
 Silver Spring, MD 20910-3760                                        |       D     1322    1428
_____ __________ _______ --  -- _____ _____ _____ _____ -  --}       |      D/E     1427    1473
\p      {Calc}{Calc}          v-Setup String vary w/printer          |       E     1472    1578
        /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F     1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!     |       F     1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Fenton St
Silver Spring Library         |  ^      29     544       11  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):| P  eak Hour Period:
Date:              Count      |  for r <-         V       ->   610 |    AM
_____ __________ ________ __| RTOR                            3 |__ _________ _______ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]          /\  From EAST (Westbound)
        VPH        #Lanes          CLV   (N-S)=     617          ||        #Lanes   VPH   R
  Left       11        0 -^  Sl B  CLV   (E-W)=      92          NE ^--       0      24  Right
  Thru       24        1 -->  || | ---   -------  -------            <--       1      33  Thru
 Right       46        0 -v  V /  SU    M CLV=     709  ok          v--       0      11  Left
R       CLV(W)=       92      3            LOS=  A        | EB== =>  1  CLV(E)=        79
_____ __________ ________ __  C   LV(S):   (ok-under 1,525)          __ _________ _______ _______
Name of E-W Approach        h |      617       <-        ^    ->      |If  free flow Rt->Vol=0
Silver Spring Ave             |                  |        |       |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1       0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        37      585      21  | L  efts use Thru Lane
Date:        29-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:          |    LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement       |  ---------- -------- -------
                              |  Nc .Lanes    Left     Thru    Rght  |     A          0     978
                              |     1 Lane    1.00     1.00    1.00  |     A/B      977    1023
If any questions:             |     2 Lanes   0.53     0.53    0.53  |     B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37     0.37    0.37  |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29     0.29    0.29  |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25     0.25    0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                        |     D       1322    1428
_____ __________ ________ __ -- _____ _____ _____ _____ -- --|     D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer       |     E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet    t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!  |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right    Thru     Left        |    Fenton St
Silver Spring Library         |  ^      25     688       16  =VPH  |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       1        1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |        |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-         V       ->   767 |    PM
_____ _________ _______ __|  RTOR                              3 |__ _________ ______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          ^   From EAST (Westbound)
        VPH        #Lanes          CLV   (N-S)=     767          ||        #Lanes   VPH   R
  Left      115         0 —^  S| B  CLV   (E-W)=     261          NE ^—        0     9  Right
  Thru       92         1 —>  || | —     _______ _______             <—        1    16  Thru
 Right       48         0 —v  V /  SU    M CLV=    1028  ok         v—        0     6  Left
R        CLV(W)=       261     3            LOS=   B        | EB== =>   1  CLV(E)=      146
_____ _________ _______ __     C   LV(S):   (ok-under 1,525)          __ _________ ______ _______
Name of E-W Approach        h |      645       <-        ^    ->      ||f  free flow Rt->Vol=0
Silver Spring Ave             |                  |        |       |   ||f  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       1        1       0  | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        54      586      43  | L  efts use Thru Lane
Date:        29-May   May-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)             |To Print Use. Alt "P"
C:/U/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                    Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:           |    LOS:    CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  _________ ________ _________
                              |  Nc .Lanes    Left      Thru    Rght  |     A          0     978
                              |     1 Lane    1.00      1.00    1.00  |     A/B      977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |     B       1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37  |     B/C     1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29  |     C       1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25  |     C/D     1277    1323
 Silver Spring, MD 20910-3760                                         |     D       1322    1428
_____ _________ _____ __ _ _____ _____ _____ _____ _ _|     D/E     1427    1473
\p     {Calc}{Calc}          v-Setup String vary w/printer            |     E       1472    1578
       /ppos{esc}\027\038\107\048\083~              <-as HP ThinkJet     t E/F       1577    1623
       bra1.a1~bca1.a20~qrb2.n20~agq{Quit}          uit}    now!         |     F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)              |<-  Name of N-S Approa
 Subdivision Case:            |  R   Right    Thru     Left            |    Colesville Rd
Silver Spring Library         |  ^     602    2307      220  =VPH      |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0       4        0 =#Lanes    |     Use "N","Y":
Total                         |  Of LY |          |        | CLV(N):   | P  eak Hour Period:
Date:              Count      |  for r <-         V       ->     911   |    AM
_____ __________ _________ __| RTOR                              3 |___ _________ _______
From WEST (Eastbound)          2  <=[WB receiving lanes]            /\   From EAST (Westbounc
        VPH        #Lanes            CLV   (N-S)=     911            ||        #Lanes   VPH
  Left      186         2  -^  SI B  CLV   (E-W)=     314            NB ^-        1      80
  Thru      128         1  -->  || | --   -------- --------              <-        2     202
  Right      49         0  -v  V /  SU    M CLV=    1225  ok            v-        0      56
R       CLV(W)=       177       3            LOS=  C        | EB==> =>    1  CLV(E)=      137
_____ __________ _________ __   C   LV(S):   (ok-under 1,525)            __ _________ _______
Name of E-W Approach         h |      623       <-       ^    ->         }|f  free flow Rt->Vol=0
Spring St                      |                  |       |       |      }|f  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       0       2       0    | R  ights use Thru Lane
Use "N","Y":          Y        |     VPH=         4     704      52    | L  efts use Thru Lane
Date:        10-Jul    Jul-09  |              Left    Thru   Right  R  |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)               |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler
 Created on:          9/14/87  |  Lane Utilization Factors:             |     LOS:     CLV>#
 Updated 6/22/92               |  A pproach h Turning Movement          |  ---------- --------
                               |  Nc .Lanes   Left      Thru    Rght    |      A          0
                               |     1 Lane   1.00      1.00    1.00    |      A/B      977
If any questions:              |     2 Lanes  0.53      0.53    0.53    |      B       1022
 Call Ed Axler                 |     3 Lanes  0.37      0.37    0.37    |      B/C     1127
 at 1-301-495-4525             |     4 Lanes  0.29      0.29    0.29    |      C       1172
 8787 Georgia Ave              |     5 Lanes  0.25      0.25    0.25    |      C/D     1277
 Silver Spring, MD 20910-3760                                           |      D       1322
------- --------------- ------- __  _  ------- ------- ------- ------- _  --|      D/E     1427
\p      {Calc}{Calc}            v-Setup String vary w/printer            |      E       1472
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!        |      F       1622
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Colesville Rd
Silver Spring Library         |  ^     163      936       102  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       0        2         0 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:              Count      |  for r <-          V        ->   637  |    PM
_____ ___________ _________ __| RTOR                            3 |___ _________ _______ _______
From WEST (Eastbound)            2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     772          ||        #Lanes   VPH   R
  Left      822          0 -^   SI B CLV   (E-W)=     626          NE ^-        1     325  Right
  Thru      237          3 ->   || | —     _______ _______             <-        2     151  Thru
 Right       29          0 -v   V /  SU    M CLV=    1397  ok         v-        0      46  Left
R       CLV(W)=        403       3            LOS=   D        | EB== =>   1  CLV(E)=     223
_____ ___________ _________ __   C   LV(S):   (ok-under 1,525)          ___ _________ _______ _______
Name of E-W Approach         h |       772        <-        ^    ->      ||If  free flow Rt->Vol=0
Spring St                      |                   |        |        |   ||If  # lanes=0, then:
If Split Phase:E-W!!           |  #  Lanes=       0        4        0   | R  ights use Thru Lane
Use "N","Y":          Y        |     VPH=         0     2263       47   | L  efts use Thru Lane
Date:        10-Jul    Jul-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                           |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87  |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92               |  A pproach h Turning Movement         |  _________ _______ _______
                               |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                               |     1 Lane    1.00      1.00    1.00  |       A/B      977    1023
If any questions:              |     2 Lanes   0.53      0.53    0.53  |       B       1022    1128
 Call Ed Axler                 |     3 Lanes   0.37      0.37    0.37  |       B/C     1127    1173
 at 1-301-495-4525             |     4 Lanes   0.29      0.29    0.29  |       C       1172    1278
 8787 Georgia Ave              |     5 Lanes   0.25      0.25    0.25  |       C/D     1277    1323
 Silver Spring, MD 20910-3760                                          |       D       1322    1428
------- --------------- ---------- __ _ _______ _______ _______ _____ _ _|       D/E     1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer         |       E       1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F       1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!        |       F       1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Cedar St
Silver Spring Library         |  ^     118                  83  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       1        0         1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY |          |          |:LV(N):  | P  eak Hour Period:
Date:                Count    |  for r <-          V        ->   107  |    AM
_____ __________ ________ __| RTOR                            3 |__ ________ ______ _______
From WEST (Eastbound)         2  <=[WB receiving lanes]          /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=     107          ||        #Lanes   VPH   R
  Left        28          0 –^  SI B CLV   (E-W)=     604          NE ^–        0     189  Right
  Thru       194          2 –>  || | —     ———————  ———————            <–        2     897  Thru
 Right                     0 –v  V /  SU    M CLV=     711  ok         v–        0          Left
R        CLV(W)=       118       3            LOS=  A        | EB== =>   1  CLV(E)=     604
_____ __________ ________ __     C   LV(S):   (ok-under 1,525)        __ ________ ______ _______
Name of E-W Approach         h |        70        <-        ^    ->     |If  free flow Rt->Vol=0
Wayne Ave                     |                    |        |        |   |If  # lanes=0, then:
If Split Phase:E-W!!          |  #  Lanes=       0        1        1   | R  ights use Thru Lane
Use "N","Y":          n       |     VPH=        17       53       21   | L  efts use Thru Lane
Date:        10-Jul    Jul-09 |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                          |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                      Pg=2
 Created on:          9/14/87 |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92              |  A pproach h Turning Movement        |  ————————— ———————  ———————
                              |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                              |     1 Lane    1.00      1.00    1.00  |      A/B       977    1023
If any questions:             |     2 Lanes   0.53      0.53    0.53  |       B      1022    1128
 Call Ed Axler                |     3 Lanes   0.37      0.37    0.37  |      B/C      1127    1173
 at 1-301-495-4525            |     4 Lanes   0.29      0.29    0.29  |       C      1172    1278
 8787 Georgia Ave             |     5 Lanes   0.25      0.25    0.25  |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                         |       D      1322    1428
_____ __________ ________ __  _  _ _____ _____ _____ _____ _  _|      D/E      1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer        |       E      1472    1578
        /ppos{esc}\027\038\107\048\083~                <-as HP ThinkJet     t E/F      1577    1623
        bra1.a1~bca1.a20~qrb2.n20~agq{Quit}            uit}    now!  |       F      1622    9999
```

```
{file=CLVFL13g.WK1}          } |  From NORTH (Southbound)          |<-  Name of N-S Approach
 Subdivision Case:            |  R   Right     Thru      Left      |    Cedar St
Silver Spring Library         |  ^     163                 243  =VPH |<-  If Split Phase:N-S!!
 Traffic Condition:           |  R       1        0         1 #Lanes |    Use "N","Y":          n
Total                         |  Of LY  |            |          |:LV(N):  | P  eak Hour Period:
Date:                Count    |  fou r <-            V        ->     14  |    PM
_____ __________ ________ __| RTOR                                  3 |___ _________ _______ _______
From WEST (Eastbound)            2  <=[WB receiving lanes]            /\   From EAST (Westbound)
        VPH          #Lanes          CLV   (N-S)=      145          ||        #Lanes   VPH   R
  Left        97          0  --^  SI B  CLV   (E-W)=      425          NE ^--        0     122  Right
  Thru       704          2  -->  || | —     _______ _______              <--        2     457  Thru
  Right                   0  --v  V /  SU    M CLV=      570  ok         v--        0          Left
R        CLV(W)=       425        3            LOS=  A          | EB== =>   1  CLV(E)=      404
_____ __________ ________ __      C   LV(S):   (ok-under 1,525)          __ _________ _______ _______
Name of E-W Approach          h |       145        <-        ^    ->      ||f  free flow Rt->Vol=0
Wayne Ave                        |                   |         |       |   ||f  # lanes=0, then:
If Split Phase:E-W!!             |  #  Lanes=      0         1       1   | R  ights use Thru Lane
Use "N","Y":             n       |     VPH=       14       107     145   | L  efts use Thru Lane
Date:          10-Jul     Jul-09  |              Left     Thru    Right  R |MUST hit CALC-F9 >IBM
 By:                             |  From SOUTH (Northbound)              |To Print Use: Alt "P"
C:/L/CLVFL13g.WK1 =Critical Lane Volume-FuLl intersection, version #13g
 Created by Ed Axler                                                                          Pg=2
 Created on:          9/14/87    |  Lane Utilization Factors:            |     LOS:     CLV>#  <CLV
 Updated 6/22/92                 |  A pproach h Turning Movement         |  _________ _______ ________
                                 |  Nc .Lanes    Left      Thru    Rght  |       A          0     978
                                 |     1 Lane    1.00      1.00    1.00  |      A/B       977    1023
If any questions:                |     2 Lanes   0.53      0.53    0.53  |       B      1022    1128
 Call Ed Axler                   |     3 Lanes   0.37      0.37    0.37  |      B/C      1127    1173
 at 1-301-495-4525               |     4 Lanes   0.29      0.29    0.29  |       C      1172    1278
 8787 Georgia Ave                |     5 Lanes   0.25      0.25    0.25  |      C/D      1277    1323
 Silver Spring, MD 20910-3760                                            |       D      1322    1428
_____ __________ ________ ___ __ _________ _______ _______ _____ _ _|      D/E      1427    1473
\p      {Calc}{Calc}              v-Setup String vary w/printer           |       E      1472    1578
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APPENDIX H

SOURCE DATA FOR PURPLE LINE

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Traffic Alert: Major Delays For Chain Bridge Project

Md. Road Projects Lose Out To Purple Line as Costs Rise

By Katherine Shaver
Washington Post Staff Writer
Wednesday, May 20, 2009

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Maryland transportation officials plan to build a Purple Line using money now envisioned for two major road projects in Montgomery and Prince George's counties, and the proposed rail line's estimated construction costs have climbed to $1.68 billion -- a $330 million increase from the most recently publicized projections.

THIS STORY
Md. Road Projects Lose Out To Purple Line as Costs Rise
Full Coverage: Purple Line

One of the road projects would have widened 10 miles of Routes 28 and 198 between Georgia Avenue and Interstate 95 through northern Silver Spring and Burtonsville. The other would have widened about three miles of Robert Crain Highway (Route 3) between U.S. 50 and the Anne Arundel County line, according to state documents submitted to the region's Transportation Planning Board. Both projects were years away from construction.

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Maryland officials laid out their Purple Line plans -- particularly how they intend to pay for the line -- as part of the pitch they will make before the regional planning board today requesting that the project be included in its 20-year funding plan. Such a step is required for any project that relies on federal money. Maryland Gov. Martin O'Malley (D) is expected to begin seeking federal construction money for a Purple Line this summer or fall.

State documents submitted to the Transportation Planning Board, which is an arm of the Metropolitan Washington Council of Governments, refer to a Purple Line solely as a light-rail line, signaling that the state is no longer considering a bus rapid-transit option. A 16-mile light-rail line, which is akin to a trolley line, would run mostly aboveground inside the Capital Beltway, between Bethesda and New Carrollton. It would have 21 stations and handle an estimated 62,600 trips daily by 2030, state officials have said.

Cutting these two road projects from the region's transportation plan would free up $536 million for a Purple Line, state officials said. Although the state has money to continue planning, the road projects could not be built unless they were reinserted into the regional plan. Both were scheduled to be built by 2020 but probably would have been pushed back because they were low on their counties' priority lists, officials said.

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"It shows the higher priority of the Purple Line, but these projects were not likely to be built for a number of years anyway," said David Buck, a spokesman for the Maryland State Highway Administration.

The higher price tag resulted from federal rules that require cost estimates in regional plans to account for inflation by reflecting the years in which the money would be spent, state officials said. The previously publicized cost estimate of $1.35 billion was in 2007 dollars. The $1.68 billion estimate is based on construction starting in 2014 and the line opening in 2017.

Dollar figures included in the Washington region's 20-year transportation plan, which is known as the Constrained Long Range Plan, are based on what states "reasonably expect to have available" for certain projects over the next two decades, said Donald A. Halligan, director of planning and capital programming for the Maryland Department of Transportation.

In addition to the $536 million freed up from the two road projects, $500 million for the Purple Line would come from the state's transportation trust fund, Halligan said. The regional plan already includes another $480 million in state and federal money for a transit link between Bethesda and Silver Spring, which has been incorporated into the Purple Line.

Montgomery officials said the need to widen Routes 28 and 198 became less critical after the state began building the six-lane Intercounty Connector, which will carry east-west traffic in the same area.

"The bottom line is this is all an extremely academic process because there's no money for anything," said Montgomery council member Nancy Floreen (D-At Large), who chairs the council's transportation committee.

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Purple Line Master Plan

The Purple Line, a proposed 16-mile light rail or bus rapid transit line, will run from Bethesda to New Carrollton and provide direct connections to Metrorail, local and inter-city bus, the MARC train and Amtrak. An east-west route connector for Montgomery and Prince George's counties, the Purple Line has been under study since 1992. The Maryland Transit Administration (MTA) heads the Purple Line project.

On January 15, the Planning Board voted for the public transportation project to take the form of light rail rather than bus rapid transit, the biggest consideration of a host of recommendations. Read the press release.

In December, planners issued their initial recommendations, including that the Purple Line run on light rail rather than bus rapid transit. Light rail can better handle the expected ridership, forecast to reach 2,000 passengers during the busiest weekday hour in the year 2030, planners say.

The Board will send its input to the County Council, which will take up the transit project in late January. The Council will then forward its recommendation on the Montgomery County section of the Purple Line to the Maryland Transit Administration (MTA), which is in charge of the project.

Montgomery Planning Board's Role

The Board will weigh the planners' recommendations then send its input to the County Council and to the Maryland Transit Administration (MTA). Its decision concerns only the Montgomery County section of the Purple Line.

The Planning Board will provide recommendations to the Montgomery County Council on the Purple Line's alignment, mode (light rail or rapid bus), and an adjacent hiker/biker trail after the MTA completes its draft environmental impact report. The Planning Board also will recommend a master plan to the Council that considers the best route for the line from Bethesda to the Prince George's County line.

Working closely with Takoma Park and Prince George's County officials as well as an advisory committee consisting of representatives from civic groups, businesses, residents, environmental organizations, property owners and the general public, Montgomery Planning Department staff will gather community input on issues expected to be examined as part of the MTA's environmental impact report. Staff will draft a functional master plan and present it to the Board in 2009.

Learn the basics [pdf] about the project from the planners' perspective.

Project Schedule

Draft Schedule [pdf]

NOTE: All Master Plan Advisory Committee meetings will be held at 7 p.m. in the auditorium of Park and Planning, at 8787 Georgia Ave. Silver Spring, MD 20910.

- June 2009: Locally Preferred Alternative is chosen

2008

- December 2008: 90-day review complete
- December 9: Master Plan Advisory Committee meeting
- December 8 : Planning Board Work Session
  Staff memo [pdf]| Presentation [pdf]
- November 2008: Public hearings

Meeting Summaries (Nov. 15, 18, 19, 22)

- October 28 : Master Plan Advisory Committee meeting

  Meeting summary | Staff presentation [pdf]

- October 17, 2008: MTA released draft environmental impact statement; 90-day review period began

- October 14 : Master Plan Advisory Committee meeting
  Meeting summary [pdf]

- October 1 : Master Plan Advisory Committee meeting
  Meeting summary [pdf]

- September 16: Master Plan Advisory Committee meeting
  Meeting summary [pdf] | Staff presentation [pdf]

- September 2 : Master Plan Advisory Committee meeting
  Meeting summary [pdf] | Staff presentation [pdf]

- August 5: Master Plan Advisory Committee meeting
  Meeting summary | Staff presentation [pdf]| MTA presentation [pdf]

- July 22: Master Plan Advisory Committee meeting
  Meeting summary [pdf] | Staff presentation [pdf]

- June 17: Master Plan Advisory Committee meeting
  Staff presentation [pdf] | Meeting handouts [pdf]

- May 20: Master Plan Advisory Committee meeting
  Meeting summary [pdf] | Staff presentation [pdf]

- April 15 : Master Plan Advisory Committee meeting
  MTA transit briefing [pdf] to Planning Board
  Meeting summary [pdf] | Staff presentation [pdf]

- March 18 : Master Plan Advisory Committee meeting
  Meeting summary [pdf] | Staff presentation [pdf] | BRAC travel assumptions [pdf]

- February 19: Master Plan Advisory Committee meeting
  Meeting summary [pdf] | Staff presentation [pdf] | Meeting handouts [pdf] | MTA presentation [pdf] | Capital Crescent Trail questions [pdf]

- January 22: Master Plan Advisory Committee meeting
  Meeting summary [pdf] | MTA presentation [pdf] | Meeting handouts [pdf]

- January 17: Planning Board meeting
  Staff presentation [pdf]

2007

- December 18: Purple Line Advisory Committee meeting
  Meeting summary [pdf]

- December 4: Master Plan Advisory Committee meeting
  Meeting summary [pdf]

- November 15: Purple Line Advisory Committee meeting
  Staff presentation [pdf] | Meeting summary [pdf]

- October 15: Public orientation session
  Staff summary, The Basics of the Purple Line: Questions & Answers [pdf]

- October 27: Public orientation session
  Staff presentation [pdf], including sample photos and the estimated schedule
- October 30: Master Plan Advisory Committee meeting
  Staff presentation [pdf] | MTA presentation [pdf] | Meeting summary [pdf]
- September 2007: Planning Board approves master plan advisory committee [pdf]
- May 2007: Planning Board approves draft Purpose and Outreach Strategy Report [pdf], beginning Purple Line functional master plan process

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2. PREFERRED PURPLE LINE MODE

This section of the staff memo reviews the issues related to the preferred mode of the Purple Line raised by MPAG members, in testimony at the MTA hearings, by other interested citizens and stakeholders, elected officials and staff. The staff's analysis is supplemented by other technical sources and input from the MTA Project Team, MPAG members, or other interested parties.

The staff recommends light rail as the preferred mode for the Purple Line.

Vehicle Capacity

In late October, staff asked the MTA to provide estimates for the peak directional line load (ridership) and the assumptions regarding mode capacities used in the AA/DEIS.

The table below presents this information:

TABLE 7 – Peak Load Point, Ridership, and Capacity

Alternative	Location	Direction	Peak Hour Directional Line Load	Peak Hour Capacity[13]
Low Investment BRT	Rt. 1/UM East to College Park Metro	Eastbound - PM	1,087	2,100
Med Investment BRT	SSTC[14] to 16th Street	Eastbound - PM	1,652	2,100
High Investment BRT	SSTC to 16th Street	Eastbound - PM	1,858	2,100
Low Investment LRT	SSTC to 16th Street	Eastbound - PM	2,147	2,800
Medium Investment LRT	SSTC to 16th Street	Eastbound - PM	2,239	2,800
High Investment LRT	SSTC to 16th Street	Eastbound - PM	2,533	2,800

The AA/DEIS notes that the "TSM and BRT vehicle fleets could be a combination of articulated or standard buses."[15]

Directional line capacity is dependent on the service frequency and the bus or train's capacity, among other things. The peak hour capacity of 2,100 shown in Table 7 for the BRT alternatives assumes that additional BRT vehicles are used during the busiest hour in the afternoon to accommodate the demand. It also assumes that each BRT vehicle can accommodate 140 passengers.

[13] The MTA assumptions for Peak Hour Capacity include the following: For BRT – 10 vehicles per hour times 140 people per vehicle plus 5 trippers per hour times 140 people per vehicle. "Trippers" are extra buses placed in operation for only the period of time needed to accommodate the demand – in this case it is theoretically the busiest consecutive 15 minutes during the peak period. For LRT – the assumption is 10 trains per hour with each train consisting of 2 cars, each car carrying 140 people.
[14] SSTC is the Silver Spring Transit Center
[15] See Subsection 2.6.5, page 2-31.

There are numerous articles and professional references on transit capacity. The Transportation Research Board's *Transit Capacity and Quality of Service Manual* (2nd Edition) suggests a good range for BRT vehicle capacity is 100 to120 for a high floor vehicle.[16]

Another good reference for comparing LRT and BRT is a presentation by Jay Evans Consulting in 2005 at the Institute of Transportation Engineers annual meeting.[17] The presentation includes an objective look at the issues of capacity and costs. BRT vehicle capacity is estimated to range from 110 to 120, including more than one-third as standees. Mr. Evans concludes the presentation by noting:

"No rapid transit mode is singly superior in all contexts. Consideration of 'right sizing' should be paramount in decision making."

Fifteen BRT vehicles an hour would accommodate 1,800 passengers if you assume 120 passengers per BRT vehicle (lower than the MTA estimate presented in the above table). Ten LRT trains an hour would accommodate 2,700 passengers an hour (per the MTA estimate) if you assume two cars per train and each car accommodating 135 passengers.[18] Under those assumptions, the BRT vehicles would accommodate the estimated peak hour directional line load on two of the three alternatives.

The staff is concerned that BRT may not provide enough capacity to serve expected demand, especially given the Purple Line's connections with the Metrorail system, the forecasted peak hour passenger demand, and the fact that the forecasting model does not capture other external factors such as the risk that fuel costs rise faster than inflation.

If capacity were to be a problem, the introduction of additional BRT vehicles to accommodate directional line loads above 2,000 could be expected to adversely impact signal priority and pedestrian crossing phases —a key consideration at a number of locations along the alignment.[19] There are three primary reasons for this concern, as discussed with MTA staff at the December 8 Planning Board worksession (and exemplified by the query "why do buses come in threes?"):

- any BRT option must operate in mixed traffic for several blocks to execute the "turnaround" required at the Bethesda terminus, so the ability to maintain schedules on very short headways is unrealistic.
- Individual station boarding and alighting demands become more unpredictable as headways are reduced, so that buses will not serve equal demands.
- The typical traffic signal cycle length (generally up to 150 seconds in peak periods) means that should signal priority treatments fail, an individual BRT vehicle could fall one "headway" behind schedule.

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[16] See Transit Capacity and Quality of Service Manual – 2nd Edition (Exhibit 4-17)

[17] See the following link for the slide show: http://www.ite.org/meetcon/2005AM/Evans_Tues.pdf

[18] A 90 foot light rail vehicle is estimated to have a capacity equivalent to 1.5 passengers per foot length of the car, or 135 passengers (Source: Transit Capacity and Quality of Service Manual – 2nd Edition – page 5-29).

[19] See Transportation Research Record: Journal of the Transportation Research Board, No. 1927, 2006, pages 11-21

Staff finds that the capacity advantage of LRT is one deciding factor in developing a recommendation for a preferred mode.

Vehicle Emissions and Greenhouse Gas Impacts

The AA/DEIS finds that the difference in emission levels among the various alternatives is insignificant.[20]This finding is consistent with other technical comparisons of BRT and LRT emissions. Transportation Research Record 1927 provides a summary comparison of the variety of BRT and LRT technologies and concludes that LRT is superior to BRT in that LRT produces lower regional or urban emissions levels.[21] However, the combined consideration of energy sources and greenhouse gas emissions has generated substantial discussion that requires further review, particularly in the selection of appropriate LRT vehicle technology. Additional analysis of the alternative LRT vehicle energy and emissions characteristics should be included in the FEIS. Therefore, at the moment, **staff finds that vehicle emission and greenhouse gas levels should not be a deciding factor in developing a recommendation for a preferred mode.**

Vehicle Noise and Vibration

Potential noise and vibration impacts were assessed using criteria established by the Federal Transit Administration (FTA). The assumption was that BRT service would be operated using 60-foot articulated buses and the LRT trains would consist of trains with two 90-foot articulated cars.

In general, there is moderate noise impact associated with the BRT alternatives at the following locations in the County:

- Leonard Drive
- 16th Street – Between East West Highway and Spring Street
- Wayne Avenue – Between Cedar Street and Cloverleaf Road
- Wayne Avenue – Between Dartmouth Avenue and Dale Drive
- Wayne Avenue – Between Mansfield Road and Sligo Creek Parkway
- Arliss Street – Between Flower Avenue and Walden Road
- Residences Near Lyttonsville Operations and Maintenance Facility

The impacts from the BRT alternatives are expected to average one to three dBA above the FTA impact limits. Noise mitigation for the BRT line operations is anticipated to be four-foot wall type barriers.

Noise mitigation for LRT line operations will take the form of vehicle skirts on all light rail vehicles and right-of-way walls on either side of the transitway within the entire length of the

[20] See page 4-48 of the AA/DEIS.

[21] See Transportation Research Record: Journal of the Transportation Research Board , No. 1927, 2006, pages 31-37, for a relatively recent article comparing the emission levels of BRT and LRT vehicles for CO, NOx, and VOC: http://www.actfortransit.org/docs/2008JulLRTvsBRTemmissions.pdf

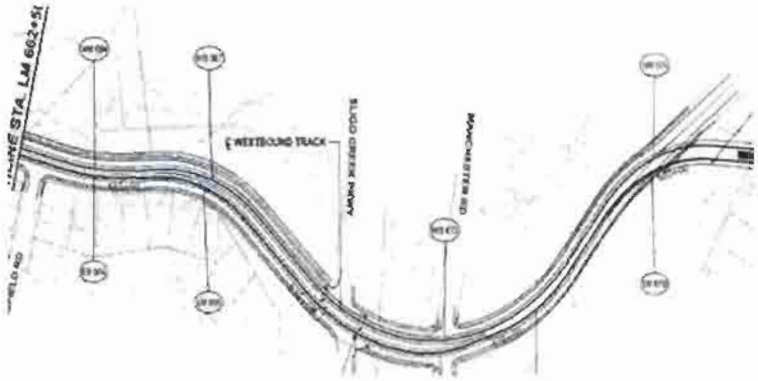
Georgetown Branch right-of-way. No noise impacts are anticipated from LRT line operations as a result of these mitigation measures.

The potential for wheel squeal noise associated with the LRT operations exists at between five to eight locations in the County, depending on the alternative. The locations are primarily within 300 feet of Wayne Avenue.[22]

The specific segments susceptible to wheel squeal are shown below.

Wayne Avenue and Fenton Street

Wayne Avenue – From Mansfield Road East to Tunnel



Arliss Street – From the Tunnel Through the Turn onto Piney Branch Road

Turning from Piney Branch onto University Boulevard

[22] See pages 4-54, 4-55 and 4-56 of the AA/DEIS – along with Figure 4.8-1.

Mitigation options for wheel squeal noise include[23]:

- Using water to lubricate wheels and/or rails
- Optimizing track and wheel profiles to minimize flanging and riding on restraining rail
- Installing resilient or damped wheels.

Vibration impacts for the BRT alternatives would occur at the edge of Columbia Country Club under the Medium and High Investment Alternatives.

The LRT alternatives are expected to produce vibration impacts along the Georgetown Branch right-of-way at three locations:

- East-West Highway
- Edgevale Court
- Boundary of Columbia Country Club

Also, for all three alternatives, within the Georgetown Branch right-of-way, structures located within 40 feet of the proposed LRT centerline are expected to experience vibration levels at or above the FTA impact threshold for Category 2 land uses.[24]

The AA/DEIS indicates the preferred mitigation for ground borne vibration is the proper maintenance of wheels and rails and that with maintenance, the impacts would cease.[25]

The staff finds the noise and vibration analysis in the AA/DEIS is consistent with established FTA procedures and criteria. The proposed and potential mitigation techniques for line operations are reasonable for the noise elements that have been investigated. Site-specific mitigation techniques, however, have not yet been identified.

Staff finds that noise impacts should be a consideration in developing a recommendation for a preferred mode, and that the site-specific locations where wheel squeal has been identified for LRT is a lower overall impact than the noise levels associated with BRT. Mitigation of wheel squeal should be included in the FEIS.

Master Plan Conformance and Urban Design

Adopted Plans that include the Purple Line in some form include:

Georgetown Branch Master Plan Amendment, January 1990

This Plan designates the Georgetown Branch right-of-way as suitable for use as the Silver Spring and Bethesda Trolley and the Capital Crescent Trail between Silver Spring and Bethesda. The

[23] See presentation by David A. Towers P.E. at the following link: https://www.commentmgr.com/projects/swne/docs/RailTransitNoiseVibration.pdf

[24] A category 2 land use includes residences and buildings where people normally sleep.
[25] See page 4-56 and 4-57 of the AA/DEIS.

plan includes a single track (as opposed to a double track) over certain segments of the alignment.[26]

Bethesda - Chevy Chase Master Plan, April 1990

This Plan reconfirms a light rail and trail combination on the Georgetown Branch alignment between the Silver Spring and Bethesda CBDs as described in the *Georgetown Branch Master Plan Amendment*.

Bethesda Central Business District Sector Plan, July 1994

This Plan reconfirms the connection of light rail service to the Silver Spring CBD using the Georgetown Branch right-of-way, with a terminal located near the Metrorail south entrance in the Bethesda CBD.

Silver Spring Central Business District Sector Plan, March 2000

This Plan reconfirms the Georgetown Branch Transitway as part of the design for the new SSTC. The Plan doesn't preclude consideration of a Purple Line north or east of the SSTC but does call for the Sector Plan to be revisited for any changes to right-of-way or easement acquisition, land use, design, and zoning recommendations, if they would have regional benefits.[27] This is important with respect to the Functional Master Plan since one of its purposes is to provide specific policy guidance on a Purple Line alignment east of the SSTC. This policy guidance is expected to be adopted in concurrence with the State and federal decision-making schedule and will therefore be in place to guide land use planning efforts and transportation decisions during implementation.

East Silver Spring Master Plan, December 2000 and *Takoma Park Master Plan*, December 2000

Both of these plans include recommendations to provide rail transit stops along University Boulevard, New Hampshire Avenue, and Piney Branch Road if a rail transit system is approved along University Boulevard. Maps in both plans depict an alternative rail alignment connecting the SSTC with a Takoma/Langley Transit Center.[28]

Staff finds that master plan conformance should be a consideration when considering the preferred mode for the Purple Line. The existing applicable plans recommend light rail.

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[26] Additional detail on the extent of the single track configuration is presented later in this staff memo – in the section on the consideration of issues related to the alignment of the Purple Line.
[27] See *Silver Spring CBD Sector Plan*, February 2000, page 100, for full discussion.
[28] See *East Silver Spring Master Plan*, December 2000, page 83, and *Takoma Park Master Plan*, December 2000, page 103.

Urban Design and Economic Development

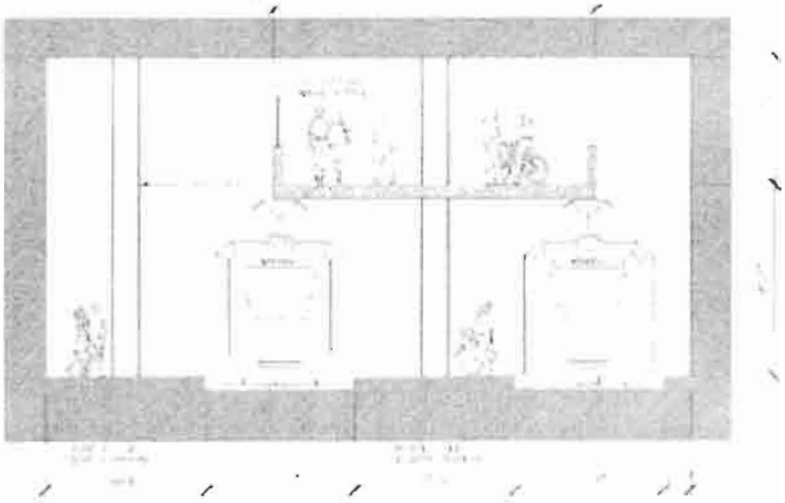
The staff finds there are three locations along the alignment where urban design considerations in the context of the selection of a preferred mode need to be examined.

Woodmont East

The Georgetown Branch Master Plan Amendment – January 1990 identifies a trolley with a station in Bethesda that connects to the southern end of the Metrorail platform and the street above via high capacity elevators. All of the LRT alternatives in the AA/DEIS include a similar arrangement (see diagram to right).[29] Two of the three BRT alternatives in the AA/DEIS also feature the connection to the southern end of the Bethesda Metrorail platform. The Low Investment BRT alternative is the only BRT alternative that would not have a station at this location. The connection to the Bethesda Metrorail station for the Low Investment BRT alternative is where the existing bus bays are located.

The staff finds there are three primary design considerations to take into account with respect to the Woodmont East area and the mode of the Purple Line:

First, the High Investment LRT alternative is the only LRT alternative that provides for the continuation of the trail through the tunnel under Wisconsin Avenue. The cost for this elevated section of the trail is not specified in the AA/DEIS.[30] Westbound trail users would return to the

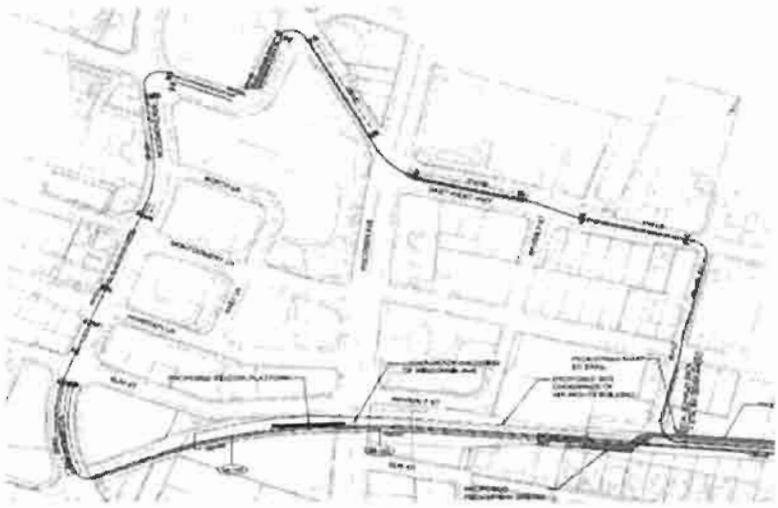


[29] The County has programmed funds for the design of a new southern entrance to the Bethesda Metrorail station. See the following link for additional information:
http://www.montgomerycountymd.gov/content/omb/MasterPDF/07-12/500722.pdf

[30] None of the costs of the trail are separated from the overall capital costs of any of the alternatives.

surface via a switchback ramp located just west of the tunnel.

Second, all of the Medium and High BRT alternatives provide for an at-grade trail within the tunnel and therefore there is no ramp as noted above under the High Investment LRT Alternative. The BRT vehicles in the Medium Investment and High Investment Alternatives enter the plaza area from Woodmont Avenue and continue eastbound through the plaza area to the station platform located in the tunnel (see drawing below). The BRT vehicle travel pattern at this location is one way (eastbound) only. The vehicles would move through the area every six minutes during weekday peak periods and every ten minutes mid-day.



Finally, all of the LRT alternatives include "tail-tracks" that would extend west from the tunnel area into the plaza area for an undetermined distance. The image below is provided by the MTA. Some stakeholders have suggested that the tail tracks are an area where light maintenance activities could be carried out. Tail tracks would be used periodically to store a train before it was returned to Lyttonsville or placed into service at the beginning of peak period service.

Woodmont East is located in the northeast quadrant of Woodmont Avenue and Bethesda Avenue and is the western terminus of the Purple Line. Other aspects of Woodmont East of note include the following:

- It is where the Interim Capital Crescent Georgetown Branch Trail meets the completed Capital Crescent trail that continues south to Georgetown.
- It is across from an approved planned mixed use joint development project on the existing County Parking Lot 31 site.
- With the completion of the Bethesda Row mixed use project, it has for many become a significant activity center that is active both day and night.

Consideration of a preferred mode for the Purple Line in the context of urban design and Woodmont East should take into account the following[31]:

- The Low BRT Alternative along Jones Bridge Road does not extend south to Woodmont East and is therefore the only option that avoids Woodmont East and the impact of having the transitway in the plaza and tunnel.
- The Low BRT Alternative along Jones Bridge Road is the only option where the trail is not completed between Jones Mill Road and Woodmont East.
- The Low BRT Alternative along Jones Bridge Road is the only option that would not provide for direct pedestrian connection to Woodmont East.
- The Medium and High BRT Alternatives are the only alternatives on the Georgetown Branch right-of-way that feature both the transitway and trail to continue through the tunnel at grade.
- The Medium and High BRT Alternatives are the only alternatives that involve Purple Line vehicles moving through the plaza area from one end to the other.
- The LRT Alternatives are the only alternatives where Purple Line vehicles could be parked in the plaza area – even if infrequently and for very short periods of time.
- The Low and Medium LRT Alternatives do not provide for a trail through the tunnel.
- The High LRT alternative includes a trail that continues through the tunnel above the trail in a confined space.

A summary of the considerations related to urban design, Woodmont East, and the mode of the Purple Line is presented below:

[31] There is admittedly some overlap between mode and alignment when discussing Woodmont East (and other areas or issues as well). We have chosen to include the discussion at this point in the report because the different alignments at this end of the Purple Line are largely based on the mode under consideration. That is not the case for most other areas (not all) along the alignment.

TABLE 8 – Summary of Woodmont East Urban Design Issues

Alternative	Maintains Status Quo At Woodmont East and Avoids Impacts To Trail	Improves Trail Connectivity To/From Woodmont East and Points East and South	Accommodates Improved Trail In Tunnel Without Grade Changes[32]	Avoids Transit Vehicle In Plaza On Regular Basis	Reinforces Street Activation In Area
Low BRT	Yes	No	No	Yes	No
Medium BRT	No	Yes	Yes	No	Yes
High BRT	No	Yes	Yes	No	Yes
Low LRT	No	Yes	No	Yes	Yes
Medium LRT	No	Yes	No	Yes	Yes
High LRT	No	Yes	No	Yes	Yes

After reviewing the issues in the context of mode, the staff finds there are advantages and disadvantages with either mode (and the associated alignments as well). Any conclusion as to the "best" mode would depend on the weight given the considerations we have focused on or other factors not considered. **Staff finds that the urban design considerations do not establish a basis for favoring either LRT or BRT at the Woodmont East plaza site.**[33]

Proposed Library Site In Silver Spring

Both the Low and Medium Investment BRT and LRT alternatives include a stop at the proposed library site in Silver Spring on the southwest quadrant of the intersection of Wayne Avenue and Fenton Street.

A rendering of how the Purple Line and the library might appear is depicted to the right. The plan calls for the transitway to bisect the corner of the site. One example of a similar treatment exists today on the campus of Portland State University where the Portland Streetcar alignment runs between academic buildings as shown in the adjacent photo.[34] **Staff finds that urban design considerations do not establish a basis for favoring either LRT or BRT at the Silver Spring library site.**[35]

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[32] The trail connection through the tunnel is not depicted in Concept Plan drawings BM-05 and BH-05 for the Medium and High BRT alternatives.. The staff has confirmed with the MTA project team that this connection is included in these alternatives.

[33] It should be noted that the Vision Division staff does not support BRT operating through the plaza.

[34] While similar in concept, there are differences as well. The Portland vehicle is a streetcar and is smaller than the Purple Line vehicles. Also, there is a single track in the photo and the Purple Line would have a double track or two-way transitway.

[35] The library site is a key consideration when considering alignment, however and that discussion is presented later in the staff memo.

University Boulevard and Takoma/Langley Transit Center

There are different concepts for how the Purple Line would operate along University Boulevard and connect with the Takoma/Langley Transit Center. The differences are important because the area (like Woodmont East and the proposed location of the Silver Spring Library) are in areas with high volumes of pedestrian activity.

The BRT Alternatives have the transitway in either shared (Low Investment) or dedicated (Medium and High Investment) curb or outside lanes along University Boulevard. The LRT Alternatives envision the alignment in the median of University Boulevard – at grade in the case of the Low and Medium Investment Alternatives and elevated in the case of the High Investment Alternative. The drawings below depict the different approaches.

Low & Medium Investment BRT Alternatives

Low & Medium Investment LRT Alternative

High Investment LRT Alternative[36]

The most important urban design considerations in this area are as follows.

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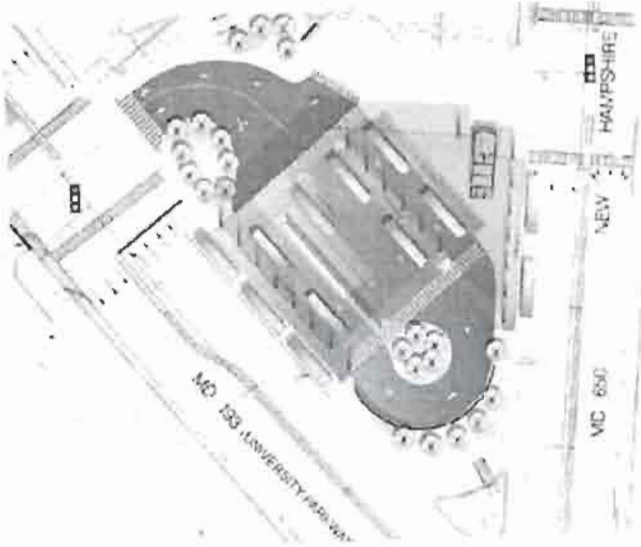
[36] High Investment BRT is described in one place in the narrative of the AA/DEIS as being in the median of University Avenue (see page 3-12) and in another (page 2-16 and 2-20) as being in dedicated (outside) lanes (as shown on page 2-14 but in the shared configuration as part of the Low Investment BRT Alternative). The plan drawings (drawing number BH-19 in the Conceptual Plans Technical Report) indicate the station platforms would be on the outside lanes and on an aerial structure over University Boulevard. As of this writing, the staff finds the plan drawings are the accurate representation of the concept plan for the High Investment BRT at this location.

- pedestrian connectivity
- pedestrian safety
- impacts on street activity along University Boulevard and New Hampshire Avenue
- access to the Purple Line and the proposed new Transit Center .

Recent improvements to this intersection include the installation of a fence in the median of both University Boulevard and New Hampshire Avenue to channel pedestrian flow toward crosswalks as well as improved sidewalk connectivity. Overall design of future improvements should continue to place an emphasis on reinforcing and controlling pedestrian flow across both state highways, to and from the Purple Line platform, and to and from the Transit Center.



Note in the drawings above for the surface alignments that the location of the crosswalk conflicts with the station platform for the LRT alternatives. A concept plan (without the Purple Line) of the Transit Center is shown on the right depicting crosswalks at the entrance to the Transit Center. The MTA Project Team has noted that the plan drawings (LL-19 and LM19) for the LRT surface alternatives also depict a conflict with eastbound buses on University Boulevard that would be turning into the Transit Center. This issue is being examined and it is possible the platform in the median will be shifted slightly toward the intersection with New Hampshire Avenue. Shifting the platform toward New Hampshire Avenue and eliminating the conflict with the crosswalk are examples of the type of modifications that acknowledge the need to give priority to pedestrian flow and safety in this area.

The AA/DEIS plan drawings for this area indicate where sidewalks are to be relocated as a result of the construction of the Purple Line. A comparison of the plans suggests that some sidewalk connectivity may be lost under the light rail alternatives. An example of this can be seen when examining the area on University Boulevard between Gilbert Street and Merrimac Drive. Segments that do not appear to have sidewalks include an area on the south side of University Boulevard immediately west of Carroll Avenue and the north side of University Boulevard west (and east) of Merrimac Drive.[37] The staff has reviewed this issue with the MTA project team and they have indicated that there will be no net loss of sidewalk segments along University Boulevard resulting from the construction of the Purple Line. We will continue to review this with the overall objective of insuring that the plans reflect no loss of connectivity and a sidewalk width of at least eight feet – consistent with the County standard and Master Plan

[37] See drawings BM-18 and LM-18 of the plan drawings in the Conceptual Plans Technical Report for comparison.

recommendations for shared use paths on both sides of University Boulevard that also include a (minimum) five foot planted buffer be located between the roadway and the sidewalk.[38]

Pedestrian access and mobility was also recently examined by a study funded under the COG's Transportation/Land Use Connections Program. This study recommended that light rail be designated as the preferred mode of the Purple Line noting the following:

"It is preferable that the Purple Line be light rail rather than Bus Rapid Transit. Light rail is more predictable for pedestrians seeking to cross the travel way and creates less noise and pollution which is especially important for those on foot. If the Purple Line is Bus Rapid Transit, special effort will be needed to ensure pedestrian access, mobility and comfort, given the vital link between pedestrians and transit. The Sector Plan process will look into this in working with MTA to develop recommendations for the Purple Line."[39]

The AA/DEIS does not indicate any material difference between the modes with respect to noise in this area nor any material difference with respect to pollution overall. As noted above, the plan drawings in the AA/DEIS seem to indicate that sidewalk connectivity may be more of an issue with the median alignment of Light Rail than the BRT alignment that operates in the outside lane.[40] We do know from the sections posted on the project web site that the median alignment requires on average an additional ten feet of right-of-way in this area.

Finally, there is the issue of the mode and the potential for economic revitalization. Mayor Bruce Williams of the City of Takoma Park has forwarded a letter to Chairman Hanson expressing the City's support for light rail and noting that light rail is:

"critical to joint economic revitalization efforts in the Takoma/Langley commercial district BRT would not give the strong economic shot in the arm" ...

In addition to the City of Takoma Park, Prince George's County Council Chairman Samuel H. Dean also submitted testimony at a recent MTA Purple Line public hearing in favor of light rail. Mr. Dean's testimony included the following comments about Langley Park:

"..This priority development and redevelopment area of the County offers some of the most valuable TOD opportunities once it is confirmed that the Purple Line will be built. And will be built as light rail, which provides the demonstrable public sector commitment that the development community often looks for before investing in first tier suburban communities such as ours."

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[38] The state standard width for a sidewalk in this area is five feet.

[39] See item number 8, pages 16 and 17, Takoma/Langley Crossroads Pedestrian Access and Mobility Study, July 2007, COG.

[40] It should be noted that the Study was completed over a year in advance of the release of the AA/DEIS and therefore the report authors did not have access to the AA/DEIS findings related to noise, pollution, or potential issues related to sidewalk connectivity.

There are a number of studies that have examined the impact transit has on property values including a 2007 study conducted by the University of Waterloo.[41] The study included a literature review that compared past analysis of the impact of both BRT and LRT systems. The results are summarized in the accompanying charts. As noted in the charts, there is no discernable difference between the two modes.

TABLE 9 – Representative BRT Benefits

BRT System	Land Development Benefits
Adelaide Guided Busway	Tea Tree Gully area is becoming urban village.
Bogotá TransMilenio	For every 5 minutes of additional walking time to a BRT station, the rental price of a property decreases between 6.8% and 9.3% after controlling for structural characteristics and neighborhood attributes
Boston Silver Line (rebuilt Washington Street)	$700+ million in new investment within two to three blocks of BRT line
Brisbane South East Busway	Up to 20% gain in property values near busway. Property values in areas within 6 miles of station grew two to three times faster than those at greater distances. Higher increase in median home values around busway than other suburban areas.
Ottawa Transitway System	$1 billion (Canadian) in new construction at Transitway Stations
Pittsburgh East Busway	59 new developments within 1,500 feet of stations. $302 million in land development benefits of which $275 million was new construction. 80% clustered at stations.
Pittsburgh West Busway	Land development focused on six park-and-ride lots.

SOURCE: The Value of Accessibility to Bogotá's Bus Rapid Transit System (4) and *TCRP Report 90* (5)

TABLE 10 – Representative LRT Benefits

Light Rail Transit/Trolley Service

Dueker and Bianco, 1999	Population Census' median house value in Portland between 1980 and 1990	Premium of $2,300 for properties within 0.06 km of a MAX station
Lewis-Workman and Brod, 1997	Cadastral information for nearly all properties (4,170) within 1.6 km of three MAX stations in Portland	Premium of $75 per 0.03 km closer to the station
Forrest et al., 1995	795 house sales in Manchester (UK) during 1990	Premium ranging from 2.1% to 8.1% depending on distance to station
Cervero and Duncan, 2002c	1,495 sales of properties in mult-family housing in San Diego in 2000	Premium for multi-family units ranging from 2% to 6%
Lands et al., 1995	134 single-family sales in San Diego during 1990	Premium of $272 for every 0.1 km closer to station
Dabinett, 1998	Sheffeld (UK) Supertram	No evidence of appreciable effects
Al-Mosaind et al., 1993	235 single-family home sales in Portland during 1988	Premium of $663 per 0.03 km closer to staton

NOTE: Results apply to area and properties studied only. Refer to each source study for details.

SOURCE: The Value of Accessibility to Bogotá's Bus Rapid Transit System (4)

A similar research effort, *Measuring the Value Proposition for Transit Investment in the Washington Metropolitan Area*, was presented to the Transportation Planning Board this spring.[42] This report's primary focus is an examination of the shortcomings of reliance upon the FTA's cost per rider index as a means of selecting projects (or alternatives) for funding. The report includes a qualitative assessment of some of the area's planned projects and for the Purple Line specifically notes with respect to economic development that:

"(the) alignment through major centers could be expected to diminish the risk of East-West sprawl and create economic value and financing potential" and *"high trip generation community along this East-West alignment could generate substantial improvements in general mobility and low income mobility."*

[41] Presentation entitled " Land Use Impacts of New Bus and Subway Services", August 2007 TRB Conference, Jeffery Casello and Clarence Woudsma, University of Waterloo

[42] For complete working paper see the following link: http://www.mwcog.org/uploads/committee-documents/bF5fVl1Z20080425144722.pdf. The report was prepared by HDR/HLB Decision Economics.

With respect to comparing bus and rail the report notes:

"Bus investments can outperform rail alternatives in terms of absolute rate of return, but rail investment can generate significantly greater absolute levels of economic benefit and net benefit."

Finally, the Takoma/Langley Sector Plan joint planning process now underway with Prince George's County and the City of Takoma Park has included an examination of whether LRT or BRT is the preferred mode for the Purple Line. While not a final decision, there is consensus among the staff (and some public officials as noted above) that LRT would better serve the vision of a more compact, pedestrian friendly Crossroads area.

A summary of the comparison of BRT and LRT in the context of urban design (including the potential for economic development) would therefore include the following:

- LRT relative to BRT could make sidewalk connectivity more of a challenge in the Takoma / Langley area based on the extra space required for the median location for LRT compared to the curb lane design treatment for BRT considered in the AA/DEIS.
- A recent and fairly broad based literature survey comparing the impact of BRT and LRT on property values does not seem to suggest one mode is inherently better.
- Based upon one recent analysis of a region-wide improvements in the Cincinnati area, BRT may offer a greater return per dollar invested but LRT's total and net benefit far exceed that of BRT.
- Takoma Park and Prince George's County have formally endorsed light rail – both citing economic development as a reason. The on-going Sector Planning effort will likely reach a similar conclusion.

Staff finds that the urban design and economic development considerations we have examined for the Takoma/Langley area favor LRT but that it should not be a deciding factor for the entire alignment.[43]

Cost, Cost Effectiveness, and Ridership

Cost, cost effectiveness, and ridership estimates in the AA/DEIS were developed by the MTA using methodology that is both specified and reviewed by the FTA.

Estimated capital costs vary significantly by mode as noted in the graph below:

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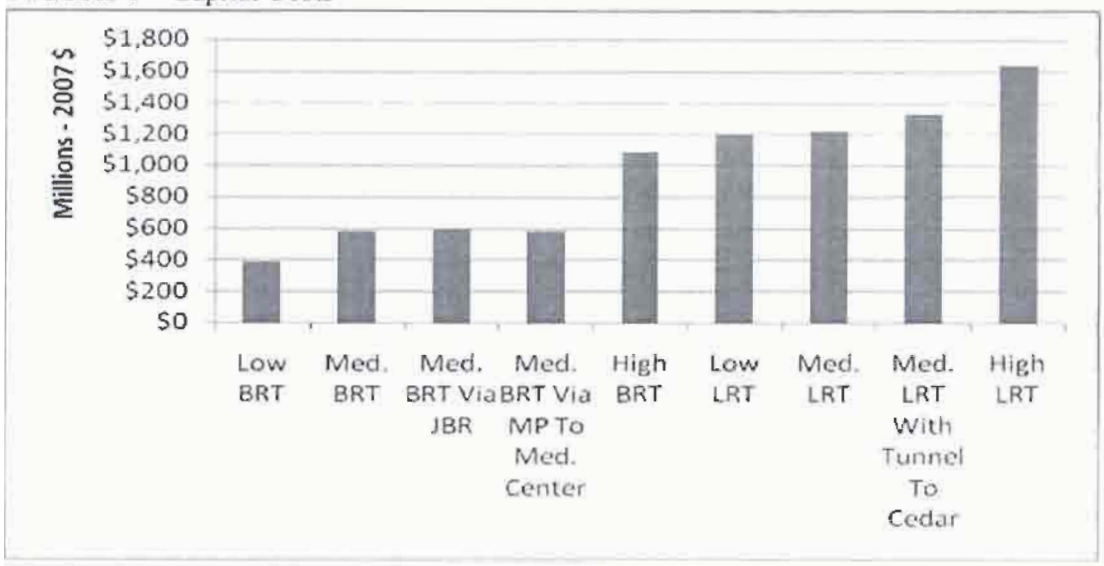
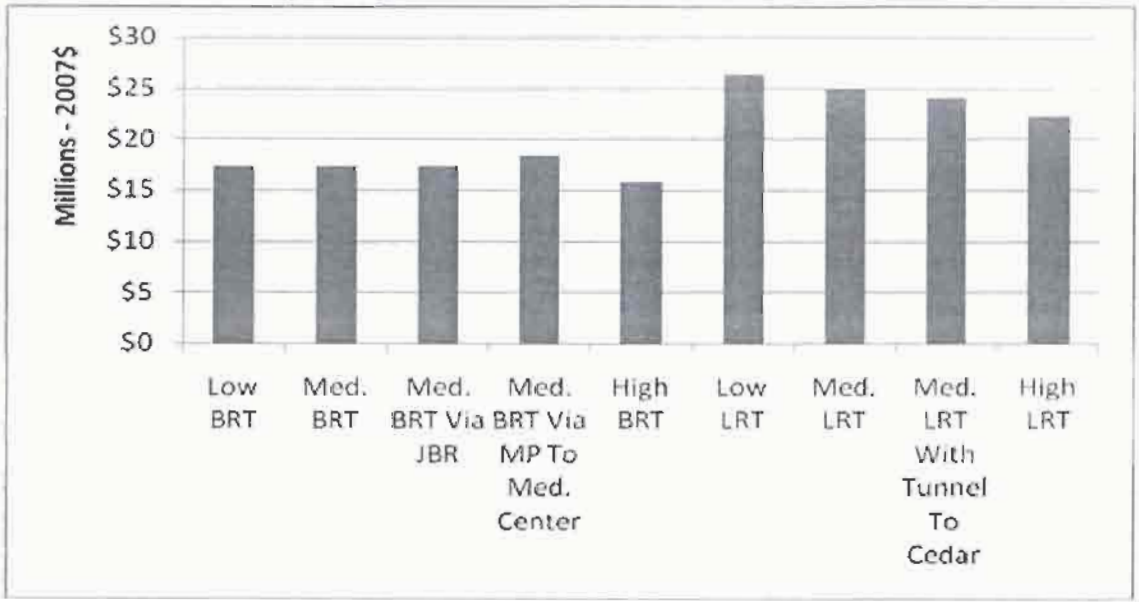
[43] It is important to note when considering the relative advantages and disadvantages of BRT and LRT in the context of economic development in particular, our assumption is that the BRT level and quality of service is the same as for the LRT system. Once that assumption is acknowledged, available objective studies we were able to locate do not lead the staff to conclude that one mode is preferable to another. It is the level and quality of transit service, the commitment to pedestrian access and safety reflected in the design of the surrounding public realm near the station areas, and the extent the transit service offers the potential user a real alternative to trips by auto that help create a place and set the stage for economic development and revitalization.

FIGURE 7 – Capital Costs



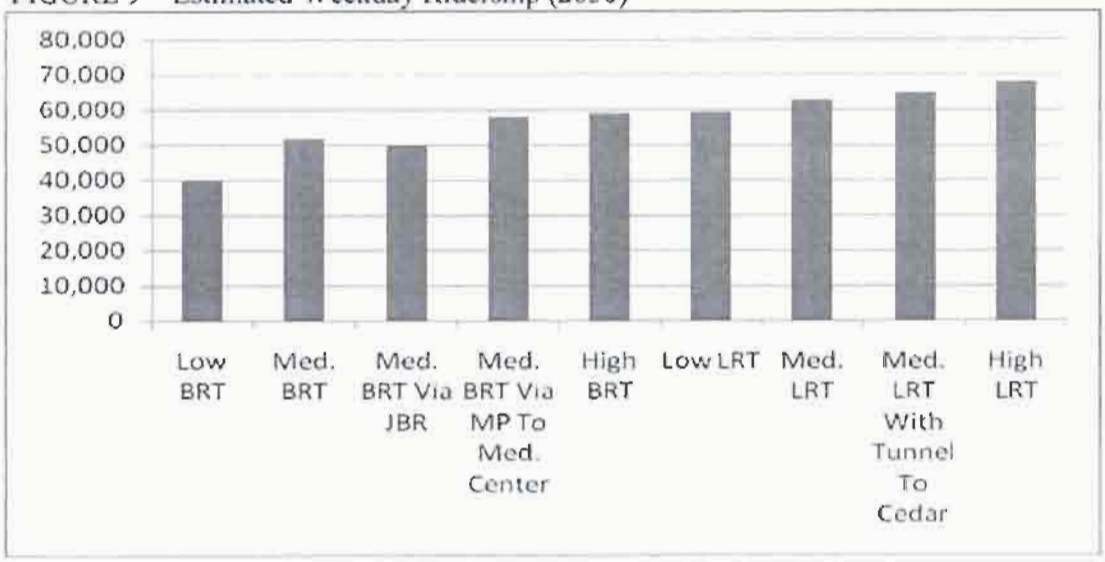
Estimated annual operating costs also vary by mode but the variance is not quite as large as the capital costs:

FIGURE 8 – Annual Operating Costs



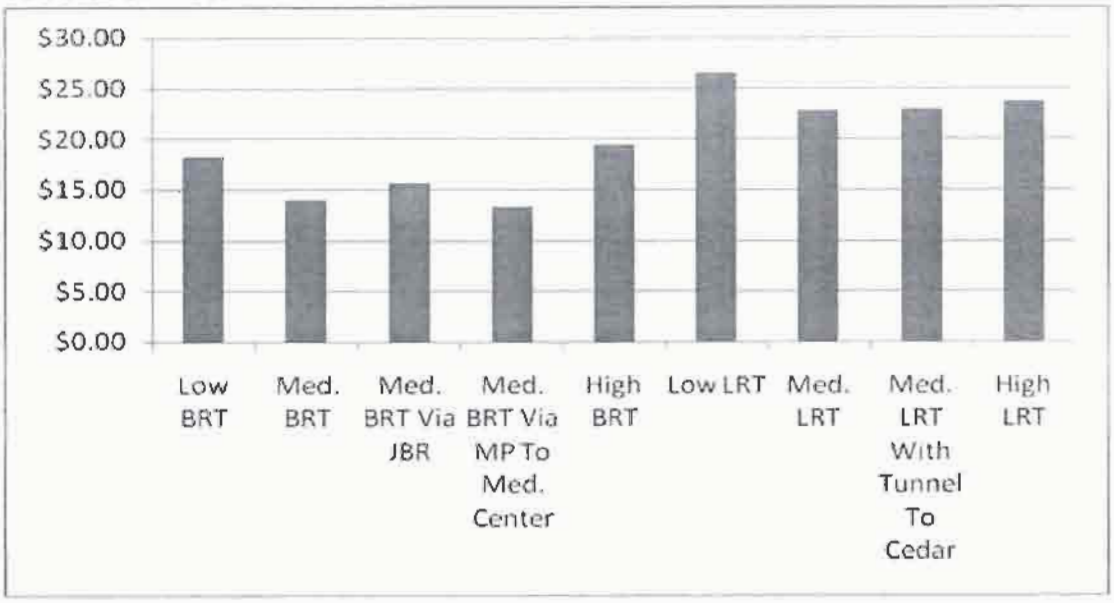
Estimated average weekday ridership in 2030 does not vary as much by mode:

FIGURE 9 – Estimated Weekday Ridership (2030)



Finally, the FTA measure of cost effectiveness, the "annualized cost per hour of user benefit", varies (one mode relative to the other) in a range somewhat similar to that of the annual operating costs[44]:

FIGURE 10 – Cost Effectiveness



[44] The cost effectiveness rating for the Low LRT alternative exceeds the FTA threshold and therefore would not attain a rating sufficient to secure funding under the FTA's New Start funding program.

As noted in the graphs, LRT alternatives cost more and generate more riders, although not in proportion to the difference in the estimated capital and operating costs. Proponents of BRT often cite this relationship as a reason to select BRT over LRT. LRT proponents often counter with the argument that the future (beyond 2030) cost per passenger will favor LRT for the Purple Line because the additional passengers can be accommodated without adding more buses.

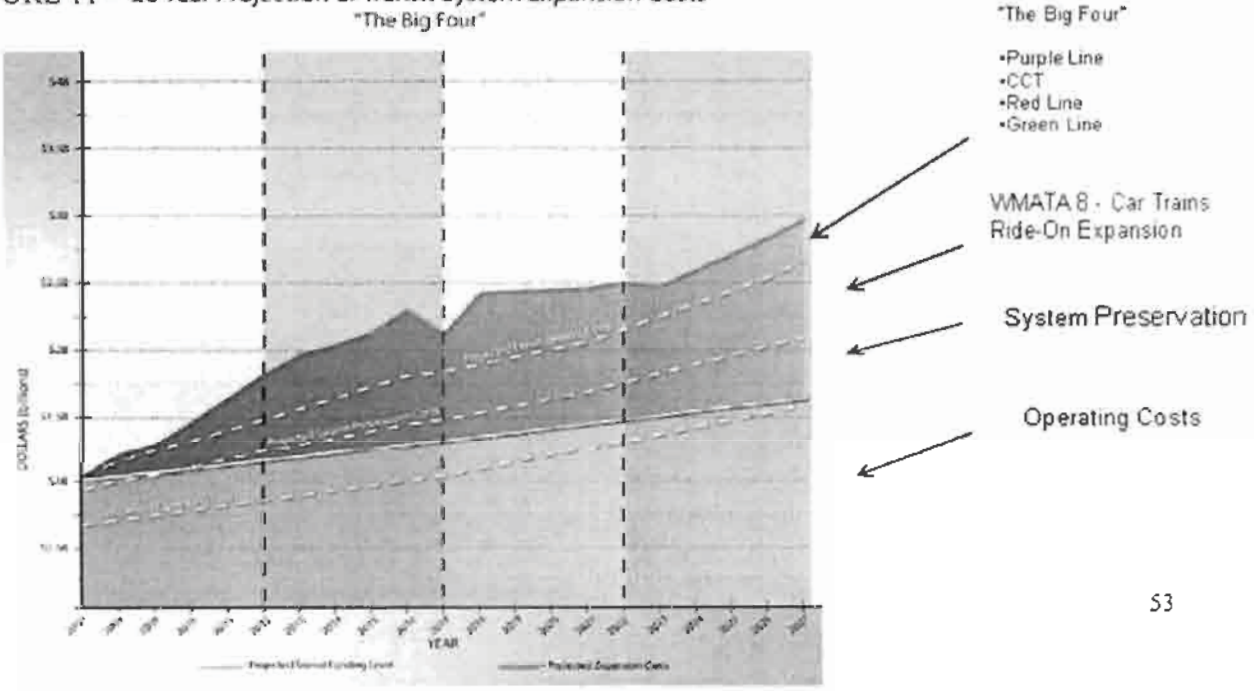
As previously noted, there is considerable discussion on how, and to what extent, the cost profile required under the FTA New Starts program should be used to select the mode. One reason is that the secondary economic benefits attributable to either mode are simply not captured in the current process for evaluating projects. Complicating the issue in Maryland is the fact that the MTA currently has three active planning projects underway (the Purple Line in Montgomery and Prince George's County, the Corridor Cities Transitway in Montgomery County, and the Red Line in Baltimore). Some advocate selecting BRT for the Purple Line because doing otherwise could potentially jeopardize funding for the Corridor Cities Transitway.

The staff recognizes that serious consideration needs to be given to the cost implications of any recommendation on the selection of the mode for the Purple Line. The overriding fact that we think needs to be considered at this point, however, is that a decision should first be based upon the following goals:

- what is best for the community
- what mode best meets the goals of the County within costs that are reasonably thought to be potentially available.

There are many issues related to infrastructure funding at the local, state, and federal level. Some of the issues are as fundamental as to whether the current funding programs at the federal and state level need to be completely restructured to better insure long term funding for transit. A 2007 Study commissioned by the Maryland General Assembly provided some insight to the size of the challenge as depicted in the chart below:

FIGURE 11 – 20 Year Projection of Transit System Expansion Costs



As shown in the chart, the projected funding level under the current program structure will cover only the operating costs of the state's transit systems. Critical other needs such as purchasing replacement buses and train cars (system preservation) and system expansion are not expected to be covered by the projected transit funding level after about 2012.[45]

The chart also depicts the proportion of the state funds that the New Starts projects comprise. In the overall program – both in the near term and later – the three New Starts projects represent around 25% of the total during the years that they would require the highest level of funding relative to the other program activities (operating costs, system preservation, and expansion).

Staff finds that cost –and cost effectiveness ratings favor BRT but should not be a deciding factor in determining whether the Purple Line should be BRT or LRT.

Public Testimony

Staff characterizes the public testimony as generally more favorable to LRT as compared to BRT for those citizens speaking in favor of a public transitway. This is a trend notable in many study corridors where the two modes are presented as alternatives; light rail is generally perceived as being more comfortable and providing a more permanent investment in a community. In the Purple Line corridor, staff notes that many of the stakeholders testifying in favor of BRT over LRT cite the preservation of the Capital Crescent Trail among the reasons. Staff suggests that while concerns regarding impacts to the Capital Crescent Trail are valid, they are related to the choice of alignment, not mode.

Representatives of the Prince George's County Executive Branch and County Council have already expressed a preference for LRT in testimony to MTA. Both counties will need to concur on the Purple Line mode to present a convincing case to state and federal officials that the project should move forward.

Staff finds that the public and elected official testimony that generally favors LRT over BRT should be considered, but not be the deciding factor in determining the Purple Line mode.

Summary of Analysis of the Preferred Mode For The Purple Line

Our examination of what we find to be the key issues related to the selection of the mode for the Purple Line leads us to conclude that the preferred mode should be light rail.

There are three primary reasons for our recommendation:

- The first is that the ridership estimates indicate that the peak hour directional line load in the design year (2030) could approach 2,000 passengers per hour. A BRT system could

[45] The chart does not reflect recent announcements by the state related to anticipated reductions in the level of funds available in the Transportation Trust Fund resulting from the current economic environment. In addition, the chart list one New Starts project (the "Green Line" in Baltimore) that has effectively been placed "on hold" by the state with respect to the funding of planning, engineering, or construction activity.

have difficulty accommodating that ridership without resorting to more frequent service that could introduce operational instability.

- There are uncertainties in any forecast. LRT provides a margin for error if the forecast for 2030 is conservative and additional capacity to accommodate the incremental ridership growth beyond 2030.
- LRT is consistent with our adopted Master Plans, and generally supported by current public testimony.