Appendix B:

Existing CLV Worksheets

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: MD 650 at Adelphi

Conditions: Existing

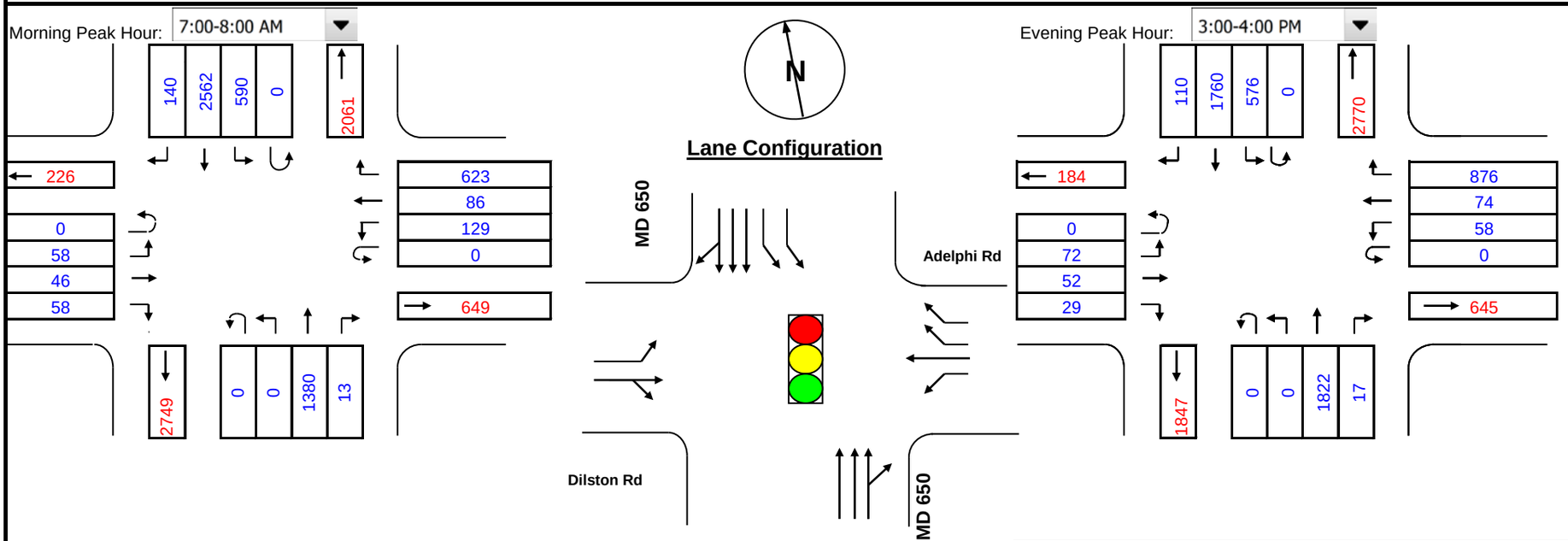
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:00-8:00 AM

Evening Peak Hour: 3:00-4:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☑ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1393	0.37	515	354	869	
	SB	2702	0.37	1000	0	1000	*
	EB	104	1.00	104	129	233	*
	WB	269	0.53	143	58	201	

Remarks:

* Critical volume Total **1233**

Level of service (V/C) **0.77** **C**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	1839	0.37	680	346	1026	*
	SB	1870	0.37	692	0	692	
	EB	81	1.00	81	58	139	
	WB	530	0.53	281	72	353	*

Remarks:

* Critical volume Total **1379**

Level of service (V/C) **0.86** **D**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: MD 650 at Oakview

Conditions: Existing

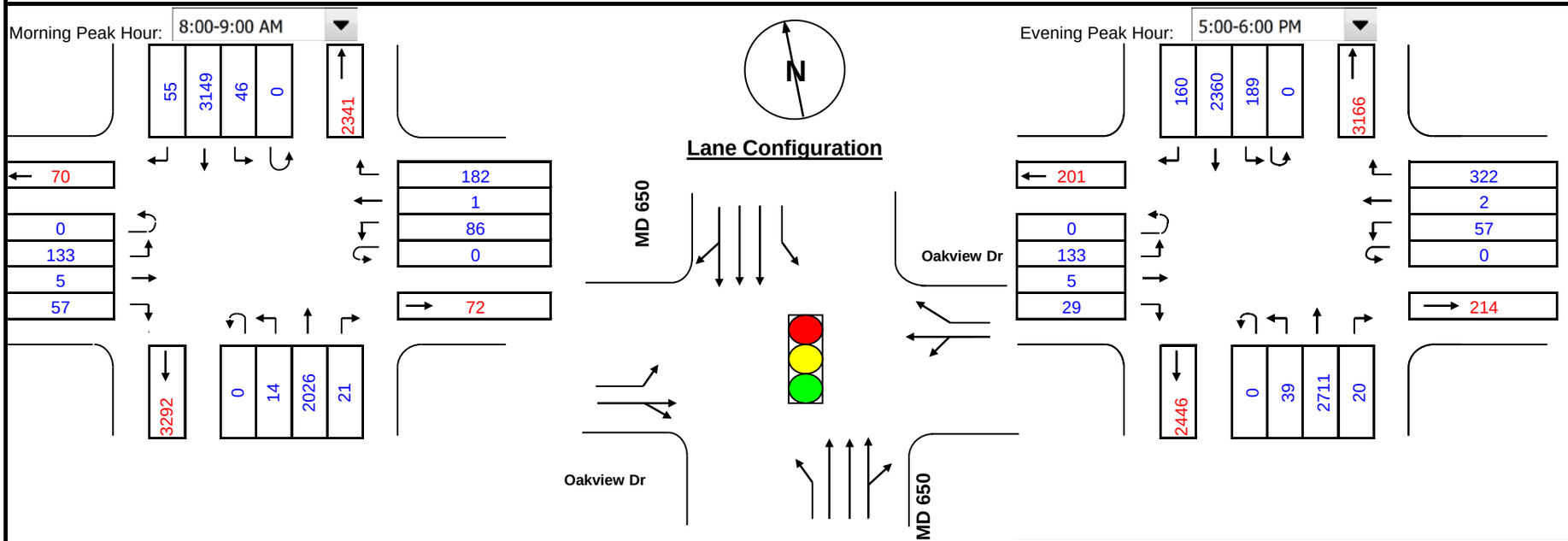
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☑ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	2047	0.37	757	46	803	
	SB	3204	0.37	1185	14	1199	*
	EB	62	1.00	62	86	148	
	WB	136	1.00	136	133	269	*

Remarks:

* Critical volume Total **1468**

Level of service (V/C) **0.92** **E**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	2731	0.37	1010	189	1199	*
	SB	2520	0.37	932	39	971	
	EB	34	1.00	34	57	91	
	WB	133	1.00	133	133	266	*

Remarks:

* Critical volume Total **1465**

Level of service (V/C) **0.92** **E**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

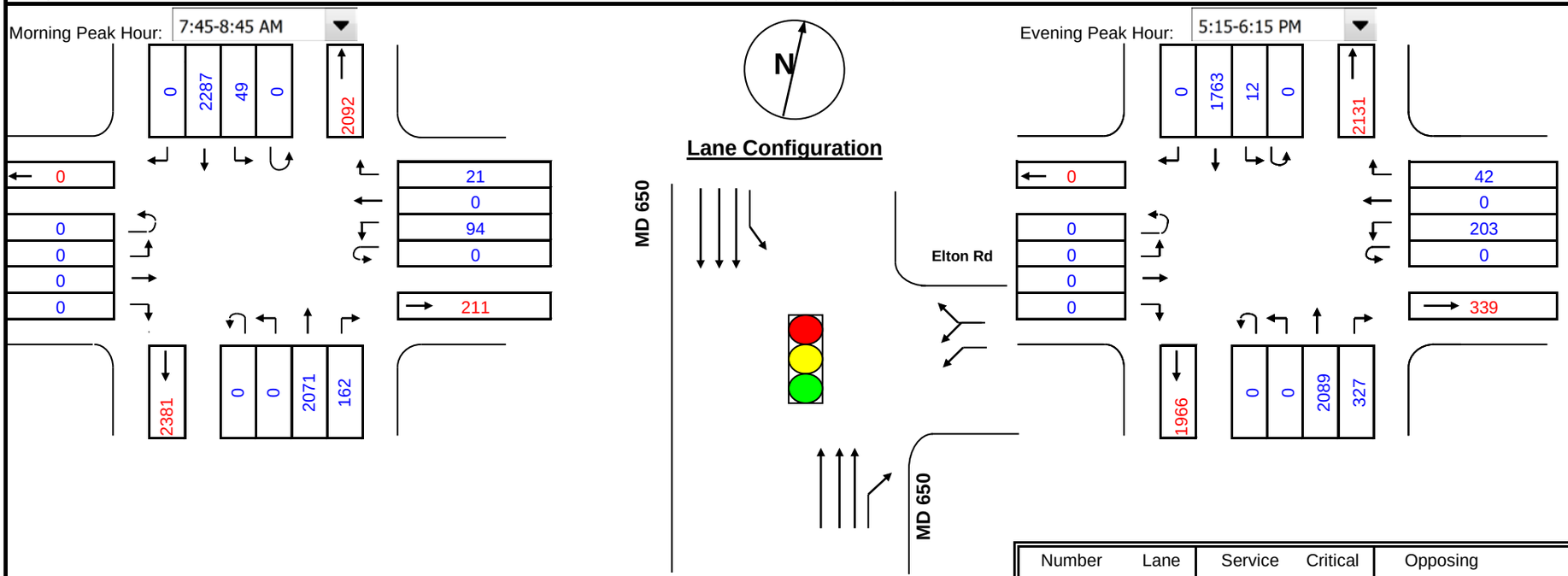
Count Date: 1/13/2015 Location: MD 650 at Elton and 495 Ramps

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:45-8:45 AM

Evening Peak Hour: 5:15-6:15 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap: [✓] Northbound [ ] Southbound [ ] Eastbound [ ] Westbound

Split Phasing: ( ) East/West ( ) North/South (•) None

Inx. Control: (•) Signal ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	2071	0.37	766	49	815	
	SB	2287	0.37	846	0	846	*
	EB	0	0.00	0	0	0	
	WB	115	0.60	69	0	69	*

Remarks:

* Critical volume Total **915**

Level of service (V/C) **0.57** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	2089	0.37	773	12	785	*
	SB	1763	0.37	652	0	652	
	EB	0	0.00	0	0	0	
	WB	245	0.60	147	0	147	*

Remarks:

* Critical volume Total **932**

Level of service (V/C) **0.58** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: MD 650 (New Hampshire Ave) at Powder Mill Rd

Conditions: Existing

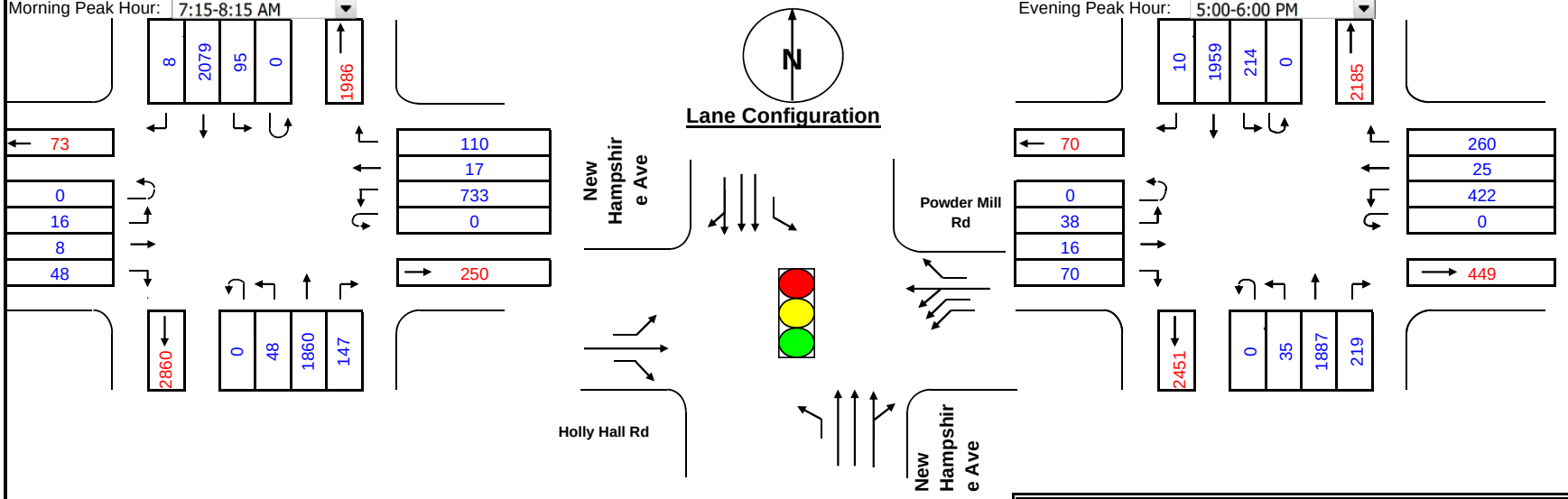
Design Year:

Computed by: RS

Date 5/25/2016

Morning Peak Hour: 7:15-8:15 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	1.00	A	<= 1000	<= 199	1.1
2	0.53	B	<= 1150	<= 599	2.0
3	0.37	C	<= 1300	<= 799	3.0
4	0.30	D	<= 1450	<= 999	4.0
5	0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	0.60	F	> 1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☑ Westbound

Split Phasing: ◉ East/West ○ North/South ○ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*	Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	2007	0.37	743	95	838	*		NB	2106	0.37	779	214	993	*
	SB	2087	0.37	772	48	820			SB	1969	0.37	729	35	764	
	EB	48	1.00	48		48	*		EB	70	1.00	70		70	*
	WB	750	0.37	278		278	*		WB	447	0.37	165		165	*
Remarks:			* Critical volume		Total	1163		Remarks:			* Critical volume		Total	1229	
					Level of service (V/C)	0.73	C						Level of service (V/C)	0.77	C

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

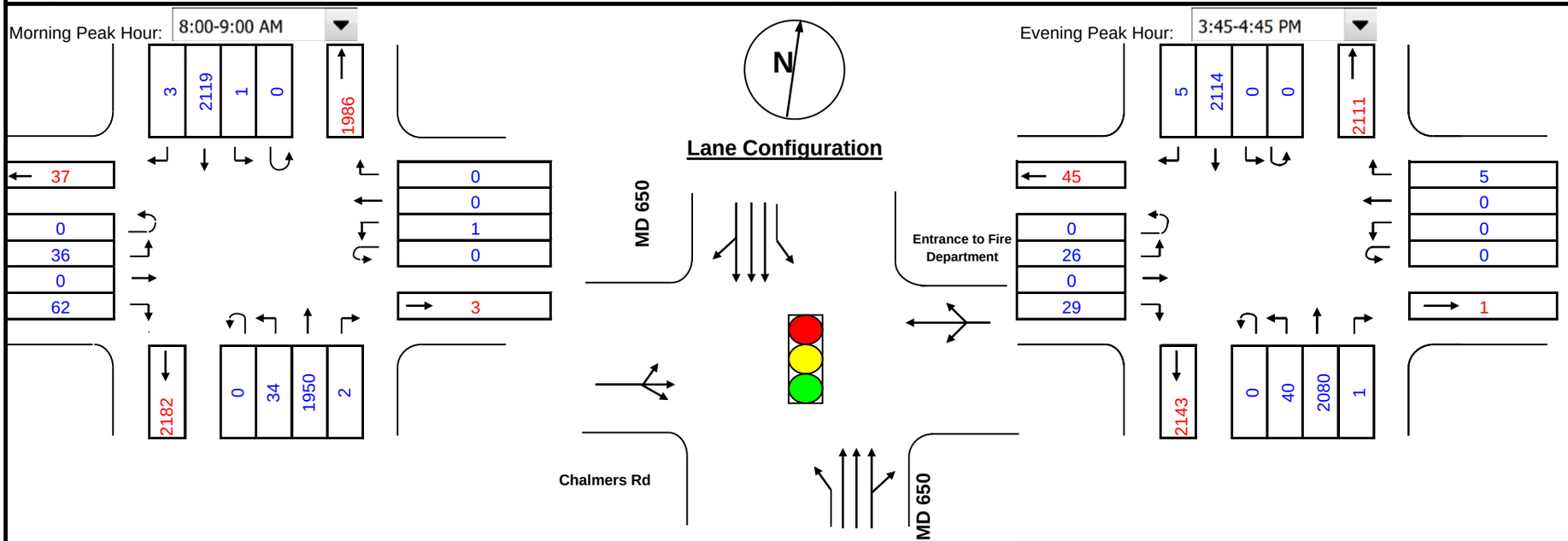
Count Date: 1/29/2015 Location: MD 650 at Chalmers Rd

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 3:45-4:45 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1952	0.37	722	1	723	
	SB	2122	0.37	785	34	819	*
	EB	102	1.00	102	1	103	*
	WB	1	1.00	1	36	37	

Remarks:

* Critical volume Total **922**

Level of service (V/C) **0.58** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	2081	0.37	770	0	770	
	SB	2119	0.37	784	40	824	*
	EB	58	1.00	58	0	58	*
	WB	5	1.00	5	26	31	

Remarks:

* Critical volume Total **882**

Level of service (V/C) **0.55** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: New Hampshire Ave at Mahan/Schindler

Conditions: Existing

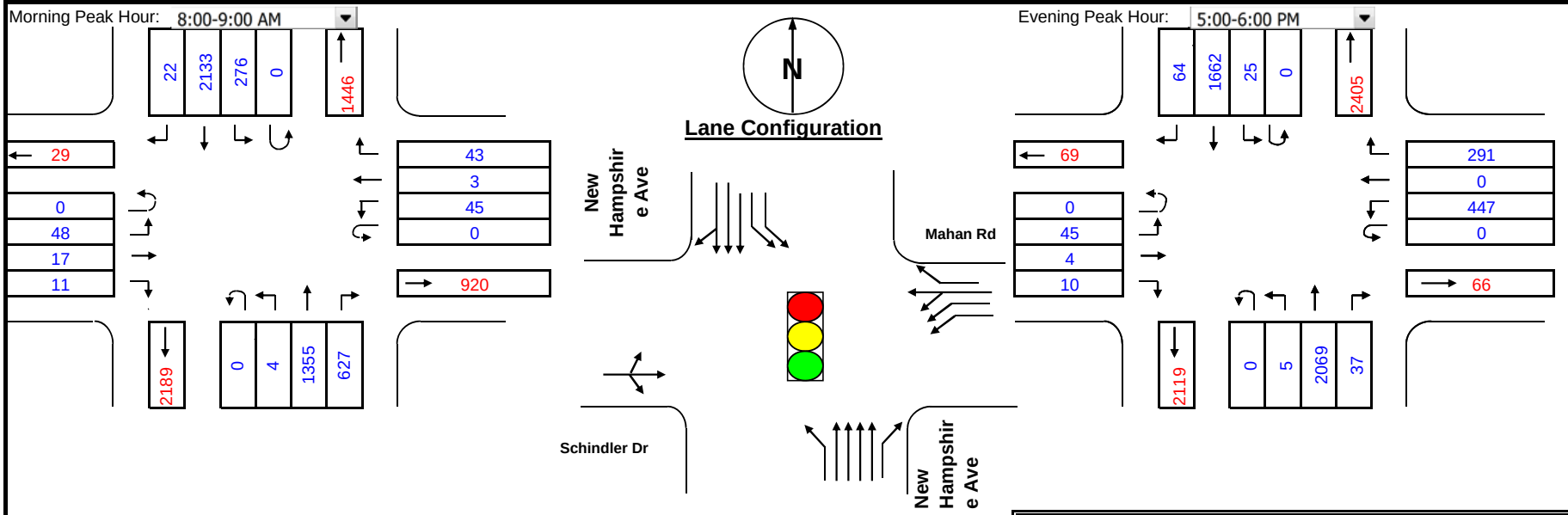
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	1.00	A	<= 1000	<= 199	1.1
2	0.53	B	<= 1150	<= 599	2.0
3	0.37	C	<= 1300	<= 799	3.0
4	0.30	D	<= 1450	<= 999	4.0
5	0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	0.60	F	> 1600		

Phasing

RTOR/Overlap: [✓] Northbound [ ] Southbound [ ] Eastbound [✓] Westbound

Split Phasing: (•) East/West ( ) North/South (•) None

Inx. Control: (•) Signal ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*	Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	1355	0.30	407	166	572			NB	2069	0.30	621	15	636	
	SB	2155	0.37	797	4	801	*		SB	1726	0.37	639	5	644	*
	EB	76	1.00	76		76	*		EB	59	1.00	59		59	*
	WB	48	0.37	18		18	*		WB	276	1.00	276		276	*
Remarks:			* Critical volume		Total	895		Remarks:			* Critical volume		Total	979	
					Level of service (V/C)	0.56	A						Level of service (V/C)	0.61	A

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: MD 650 at Michaelson and Northwest

Conditions: Existing

Design Year:

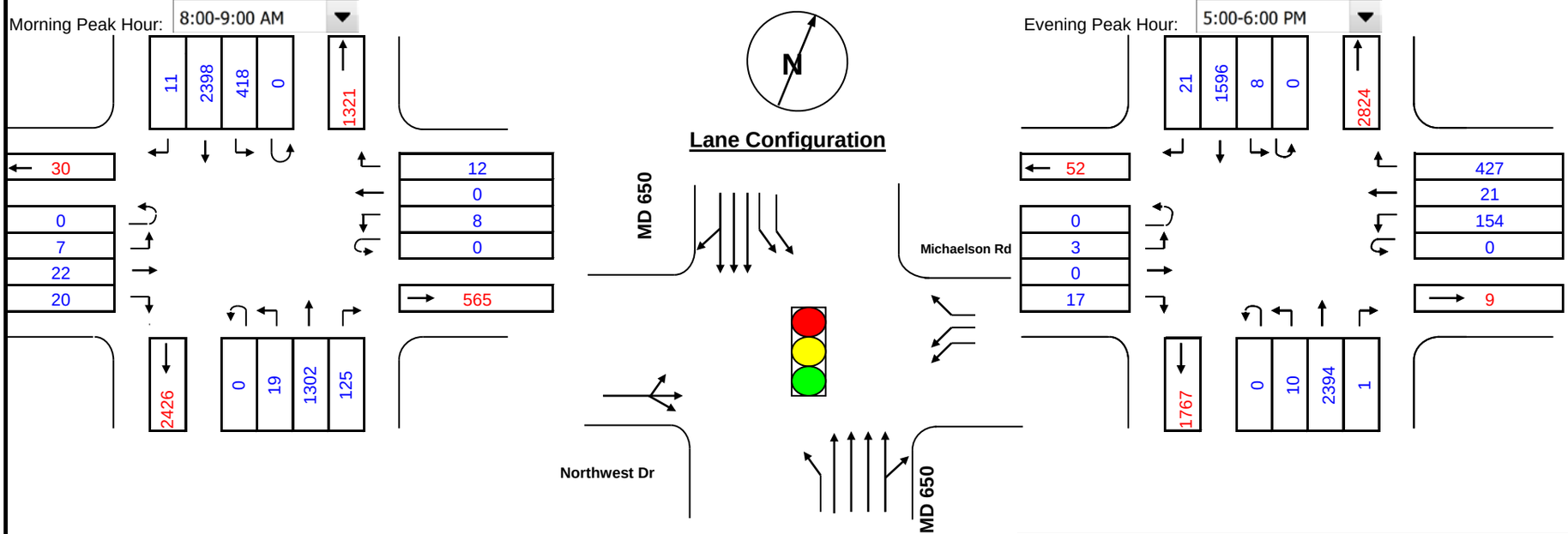
Computed by:

Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 5:00-6:00 PM

Lane Configuration



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1427	0.30	428	251	679	
	SB	2409	0.37	891	19	910	*
	EB	50	1.00	50	5	55	*
	WB	12	1.00	12	7	19	

Remarks:

* Critical volume Total **965**

Level of service (V/C) **0.60** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	2395	0.30	719	5	723	*
	SB	1617	0.37	598	10	608	
	EB	23	1.00	23	92	115	
	WB	448	1.00	448	3	451	*

Remarks:

* Critical volume Total **1174**

Level of service (V/C) **0.73** **C**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: MD 650 (New Hampshire Ave) at Lockwood Dr

Conditions: Existing

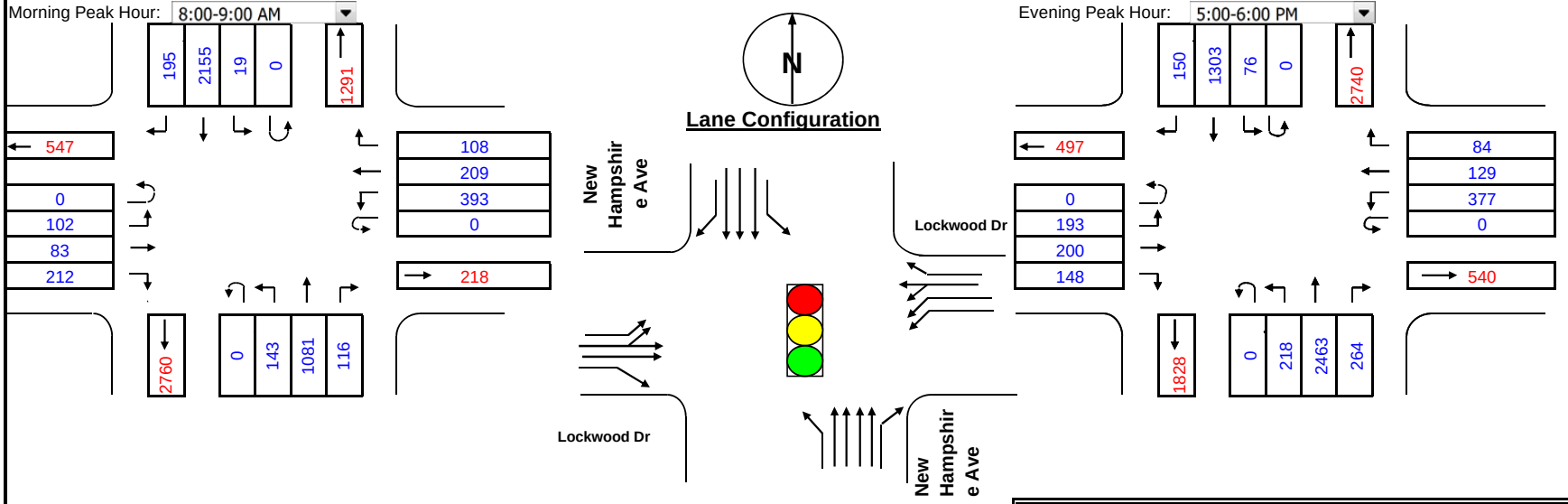
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	1.00	A	<= 1000	<= 199	1.1
2	0.53	B	<= 1150	<= 599	2.0
3	0.37	C	<= 1300	<= 799	3.0
4	0.30	D	<= 1450	<= 999	4.0
5	0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	0.60	F	> 1600		

Phasing

RTOR/Overlap: ☑ Northbound ☑ Southbound ☑ Eastbound ☑ Westbound

Split Phasing: ◉ East/West ○ North/South ○ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*	Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	1081	0.30	324	19	343			NB	2463	0.30	739	76	815	*
	SB	2155	0.37	797	143	940	*		SB	1303	0.37	482	218	700	
	EB	69	1.00	69		69	*		EB	393	0.37	145		145	*
	WB	602	0.37	223		223	*		WB	506	0.37	187		187	*
Remarks:			* Critical volume		Total	1232		Remarks:			* Critical volume		Total	1148	
					Level of service (V/C)	0.77	C						Level of service (V/C)	0.72	B

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: Lockwood Dr at White Oak Shopping Ctr

Conditions: Existing

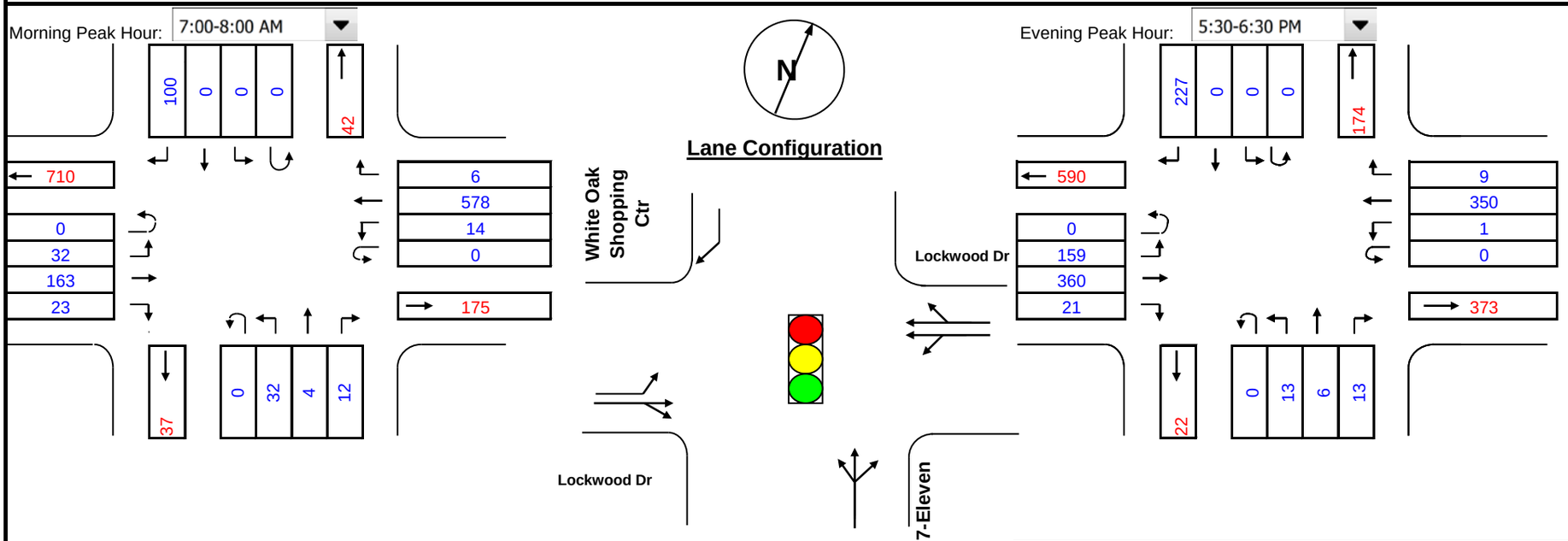
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:00-8:00 AM

Evening Peak Hour: 5:30-6:30 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☑ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	51	1.00	51	0	51	
	SB	68	1.00	68	32	100	*
	EB	186	1.00	186	14	200	
	WB	598	0.53	317	32	349	*

Remarks:

* Critical volume Total **449**

Level of service (V/C) **0.28** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	45	1.00	45	0	45	
	SB	68	1.00	68	13	81	*
	EBT	381	1.00	381	1	382	*
	WB	360	0.53	191	159	350	

Remarks:

* Critical volume Total **463**

Level of service (V/C) **0.29** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: MD 650/ US 29 SB Ramps

Conditions: Existing

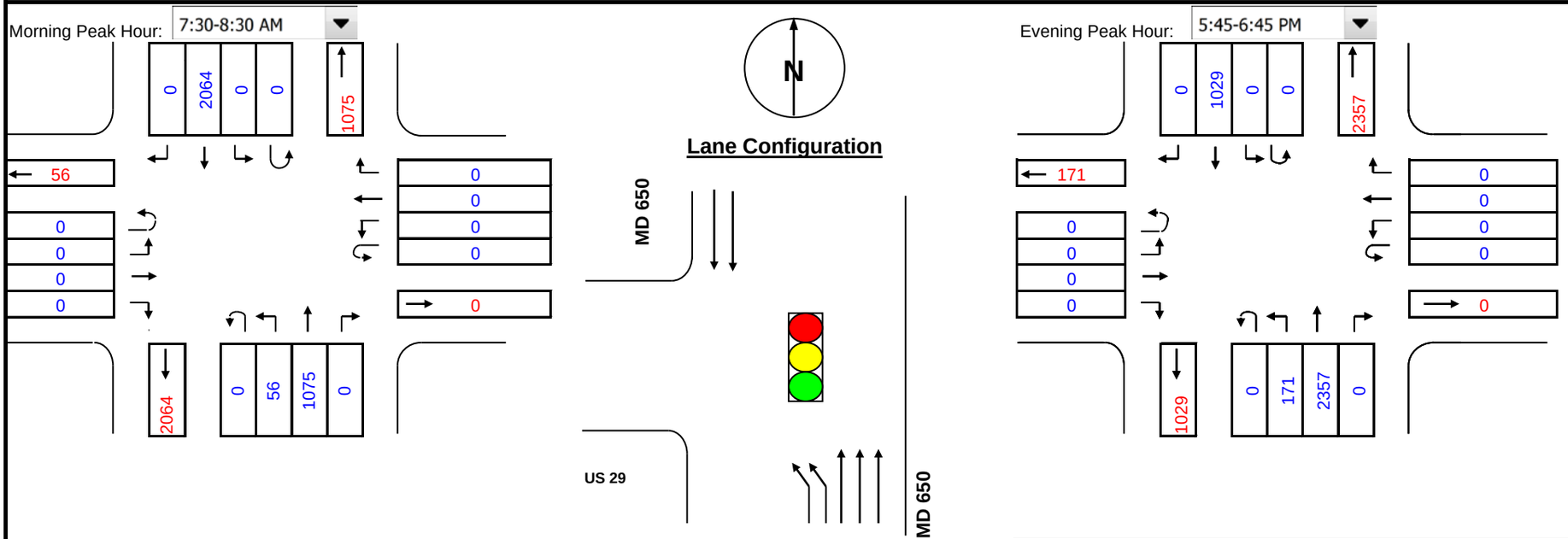
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:30-8:30 AM

Evening Peak Hour: 5:45-6:45 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1075	0.37	398	0	398	
	SB	2064	0.53	1094	34	1128	*
	EB	0	0.00	0	0	0	
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **1128**

Level of service (V/C) **0.70** **B**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	2357	0.37	872	0	872	*
	SB	1029	0.53	545	103	648	
	EB	0	0.00	0	0	0	
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **872**

Level of service (V/C) **0.55** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

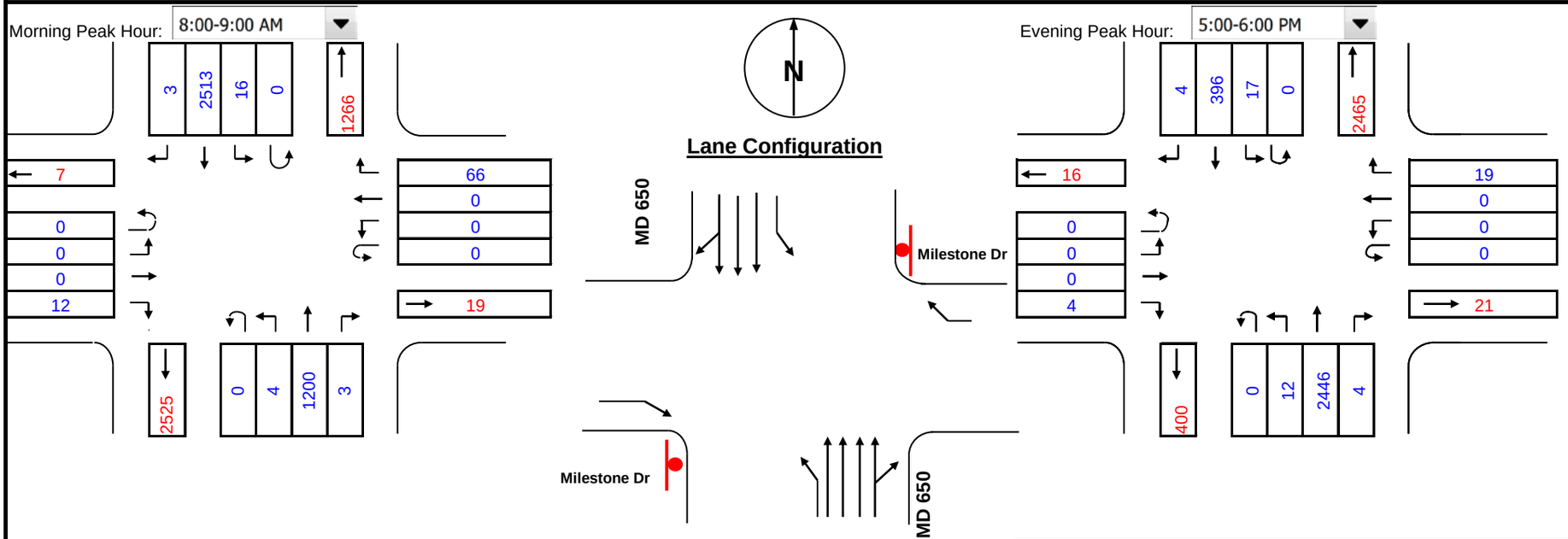
Count Date: 6/11/2014 Location: MD 650 at Milestone

Conditions: Existing

Design Year: Computed by: Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☑ Eastbound ☑ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ○ Signal ◉ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1203	0.30	361	16	377	
	SB	2516	0.37	931	4	935	*
	EB	8	1.00	8	0	8	
	WB	50	1.00	50	0	50	*

Remarks:

* Critical volume Total **985**

Level of service (V/C) **0.62** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	2450	0.30	735	17	752	*
	SB	400	0.37	148	12	160	
	EB	0	1.00	0	0	0	
	WB	2	1.00	2	0	2	*

Remarks:

* Critical volume Total **754**

Level of service (V/C) **0.47** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

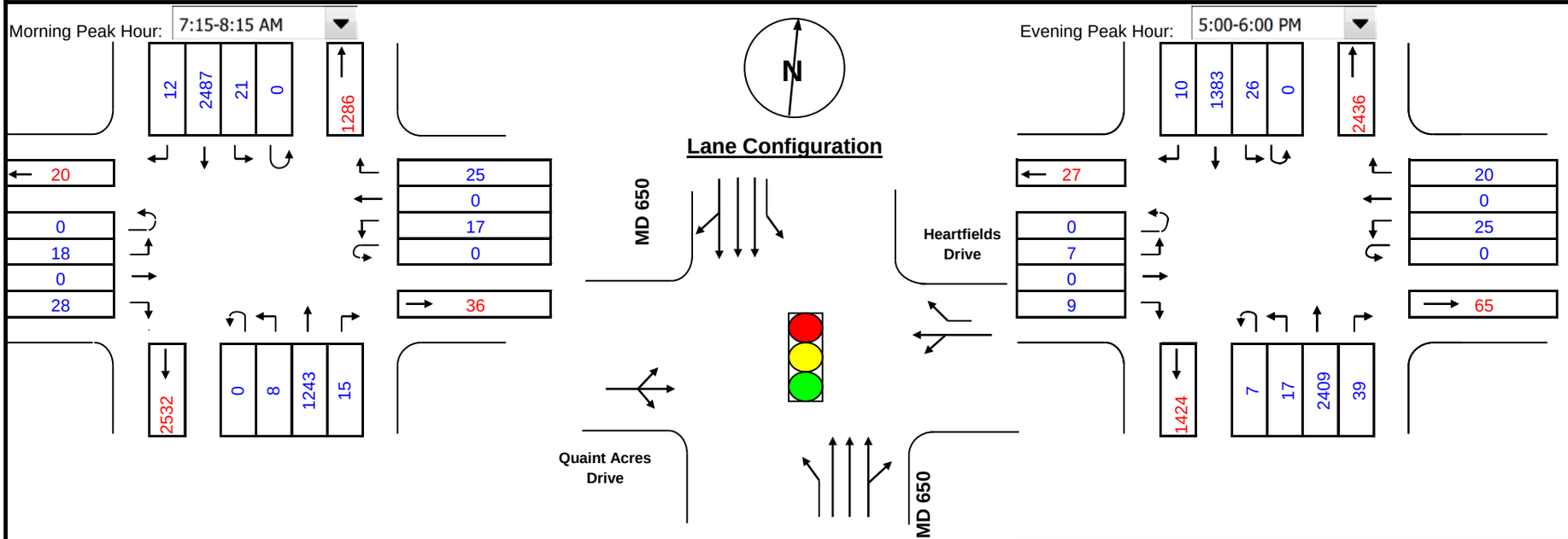
Count Date: 5/8/2014 Location: MD 650 at Quaint Acres and Heartfields

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:15-8:15 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- [ ] Northbound
- [ ] Southbound
- [ ] Eastbound
- [x] Westbound

Split Phasing
- ( ) East/West
- ( ) North/South
- (•) None

Inx. Control
- (•) Signal
- ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1258	0.37	465	21	486	
	SB	2499	0.37	925	8	933	*
	EB	48	1.00	48	17	65	*
	WB	19	1.00	19	18	37	

Remarks:

* Critical volume Total **997**

Level of service (V/C) **0.62** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	2448	0.37	906	26	932	*
	SB	1393	0.37	515	17	532	
	EB	17	1.00	17	25	42	*
	WB	28	1.00	28	7	35	

Remarks:

* Critical volume Total **973**

Level of service (V/C) **0.61** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

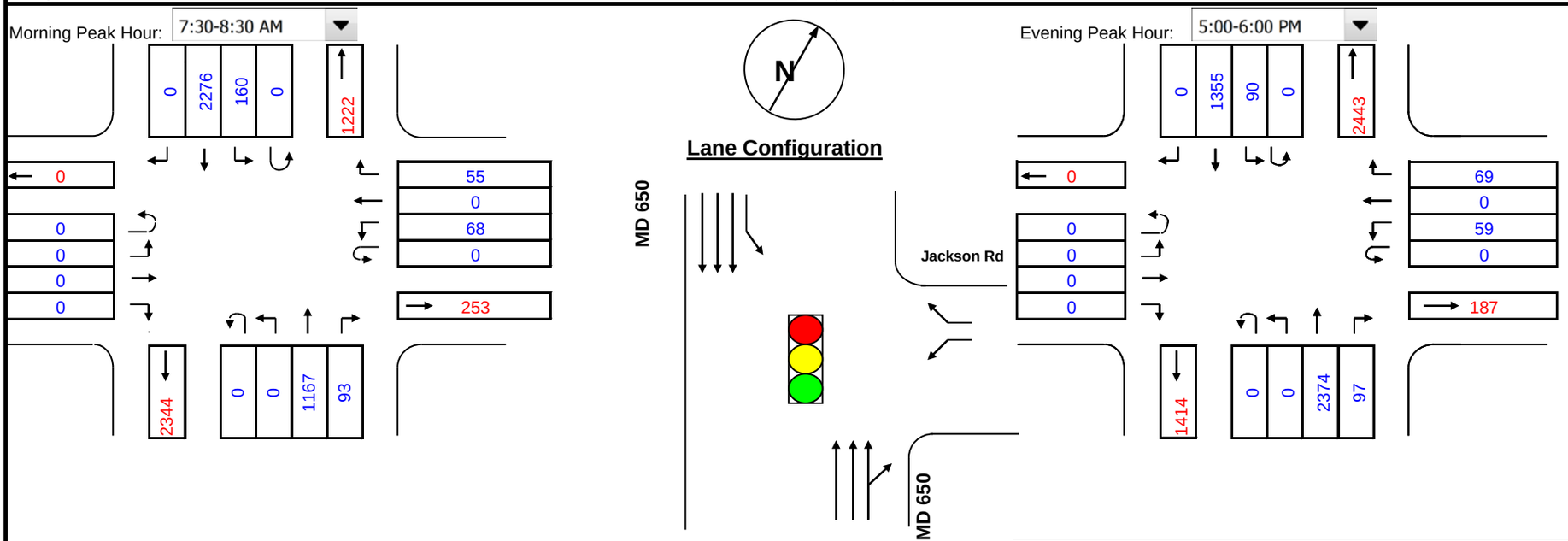
Count Date: 5/19/2015 Location: MD 650 at Jackson

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:30-8:30 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☑ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1260	0.37	466	160	626	
	SB	2276	0.37	842	0	842	*
	EB	0	0.00	0	0	0	
	WB	68	1.00	68	0	68	*

Remarks:

* Critical volume Total **910**

Level of service (V/C) **0.57** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	2471	0.37	914	90	1004	*
	SB	1355	0.37	501	0	501	
	EB	0	0.00	0	0	0	
	WB	59	1.00	59	0	59	*

Remarks:

* Critical volume Total **1063**

Level of service (V/C) **0.66** **B**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: US 29 at MD 193 EBL

Conditions: Existing

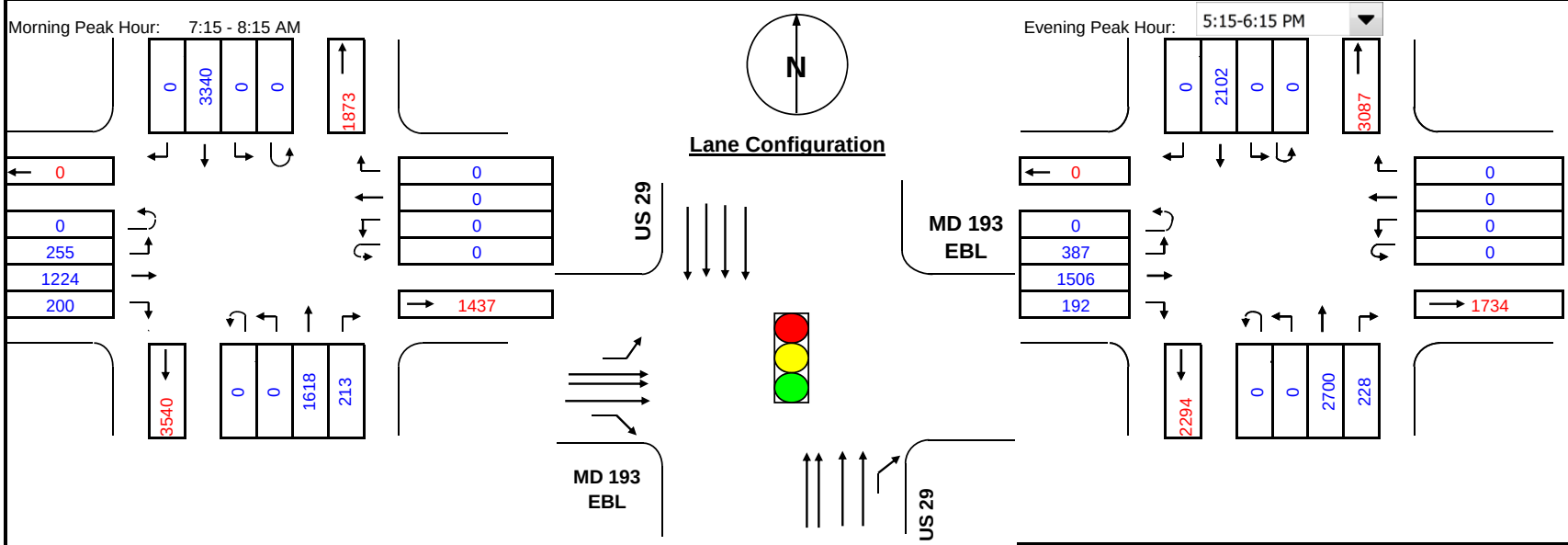
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:15 - 8:15 AM

Evening Peak Hour: 5:15-6:15 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
Dbl-Lt	= 0.60	E	<= 1600	> 1000	5.0
		F	> 1600		

Phasing

RTOR/Overlap: [x] Northbound [ ] Southbound [x] Eastbound [ ] Westbound

Split Phasing: ( ) East/West ( ) North/South (•) None

Inx. Control: (•) Signal ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*	Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	1618	0.30	485	0	485			NB	2700	0.30	810	0	810	*
	SB	3340	0.30	1002	0	1002	*		SB	2102	0.30	631	0	631	
	EB	1224	0.37	453	0	453	*		EB	1506	0.37	557	0	557	*
	WB	0	0.00	0	255	255			WB	0	0.00	0	387	387	
Remarks:			* Critical volume		Total	1455		Remarks:			* Critical volume		Total	1367	
					Level of service (V/C)	0.91	E						Level of service (V/C)	0.85	D

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: US 29 at MD 193 WBL

Conditions: Existing

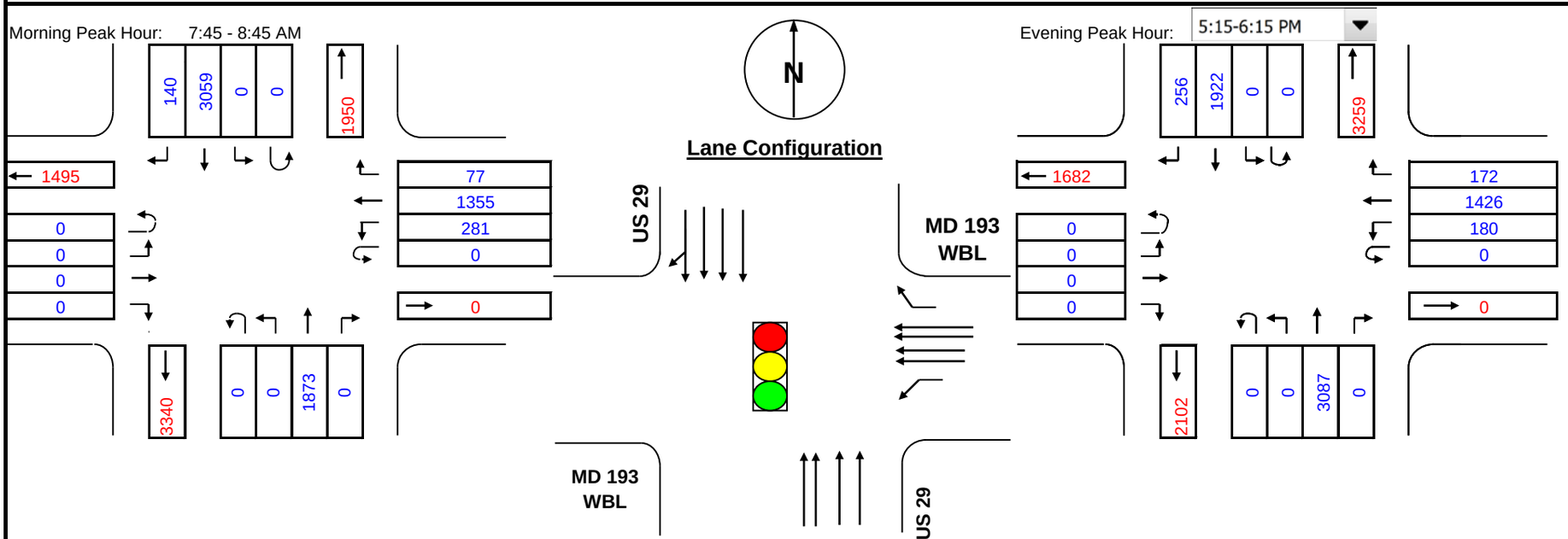
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:45 - 8:45 AM

Evening Peak Hour: 5:15-6:15 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
Dbl-Lt	= 0.60	E	<= 1600	> 1000	5.0
		F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☑ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1873	0.30	562	0	562	
	SB	3199	0.30	960	0	960	*
	EB	0	0.30	0	281	281	
	WB	1355	0.30	407	0	407	*

Remarks:

* Critical volume Total **1366**

Level of service (V/C) **0.85** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3087	0.30	926	0	926	*
	SB	2178	0.30	653	0	653	
	EB	0	0.30	0	180	180	
	WB	1426	0.30	428	0	428	*

Remarks:

* Critical volume Total **1354**

Level of service (V/C) **0.85** **D**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

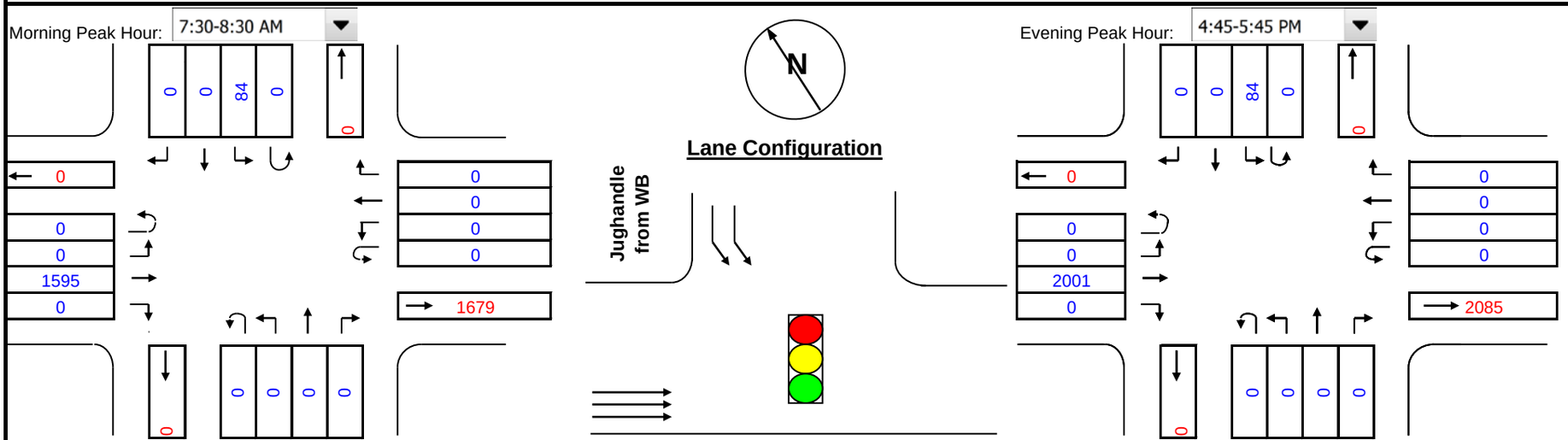
Count Date: 5/19/2015 Location: MD 193 EB at Jughandle from WB

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:30-8:30 AM

Evening Peak Hour: 4:45-5:45 PM



MD 193

Phasing

→	↘		

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	0	0.00	0	0	0	
	SB	84	0.60	50	0	50	*
	EB	1595	0.37	590	0	590	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **641**

Level of service (V/C) **0.40** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	0	0.00	0	0	0	
	SB	84	0.60	50	0	50	*
	EB	2001	0.37	740	0	740	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **791**

Level of service (V/C) **0.49** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: MD 193 WB at Jughandle from EB

Conditions: Existing

Design Year:

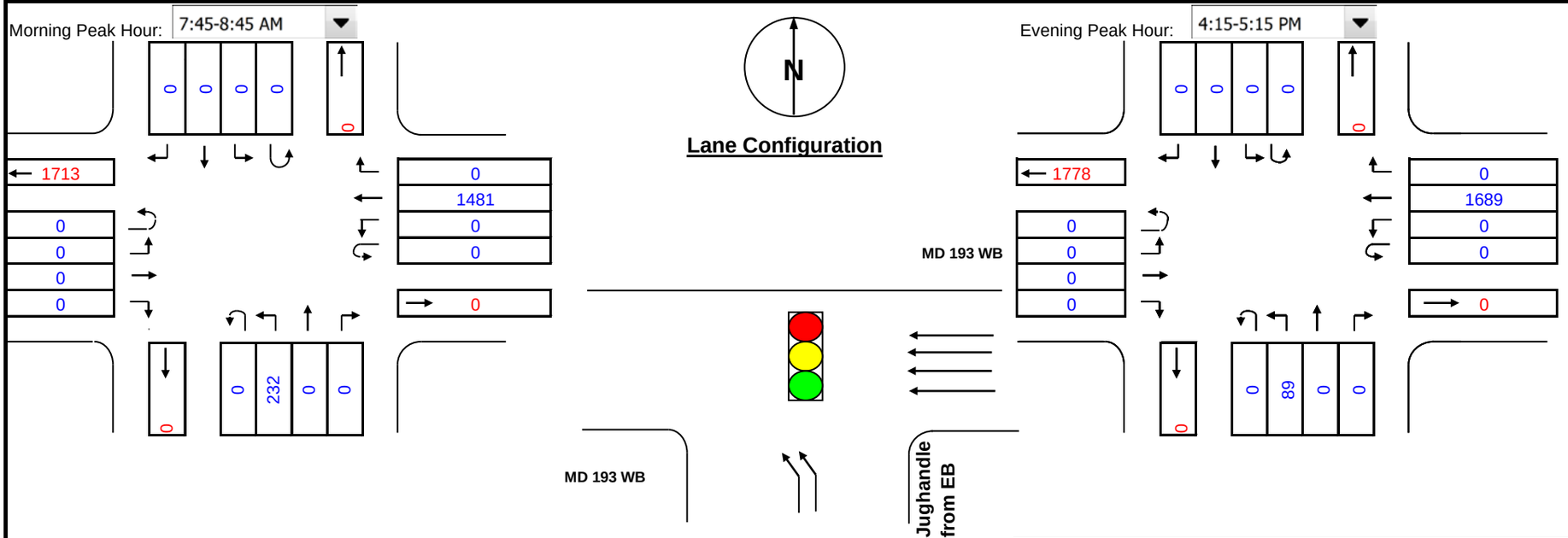
Computed by:

Date 5/25/2016

Morning Peak Hour: 7:45-8:45 AM

Evening Peak Hour: 4:15-5:15 PM

Lane Configuration



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	232	0.60	139	0	139	*
	SB	0	0.00	0	0	0	
	EB	0	0.00	0	0	0	
	WB	1481	0.30	444	0	444	*

Remarks:

* Critical volume Total **584**

Level of service (V/C) **0.36** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	89	0.60	53	0	53	*
	SB	0	0.00	0	0	0	
	EB	0	0.00	0	0	0	
	WB	1689	0.30	507	0	507	*

Remarks:

* Critical volume Total **560**

Level of service (V/C) **0.35** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

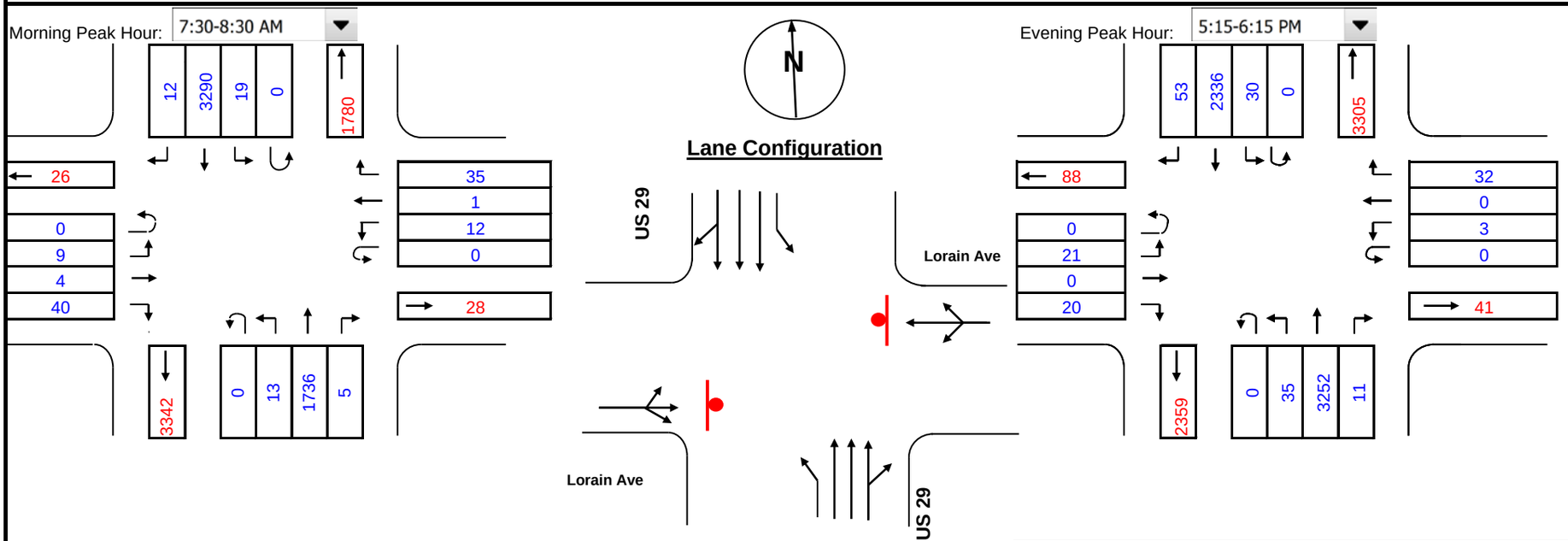
Count Date: 5/28/2015 Location: US 29 at Lorain Ave

Conditions: Existing

Design Year: Computed by: NB Date 5/25/2016

Morning Peak Hour: 7:30-8:30 AM

Evening Peak Hour: 5:15-6:15 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.55	B <=	1150	<= 599	2.0
3 =	0.40	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ○ Signal
- ◉ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1741	0.37	644	19	663	
	SB	3302	0.37	1222	13	1235	*
	EB	54	1.00	54	12	66	*
	WB	49	1.00	49	9	58	

Remarks:

* Critical volume Total **1301**

Level of service (V/C) **0.81** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3263	0.37	1207	30	1237	*
	SB	2389	0.37	884	35	919	
	EB	43	1.00	43	3	46	
	WB	35	1.00	35	21	56	*

Remarks:

* Critical volume Total **1294**

Level of service (V/C) **0.81** **C**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

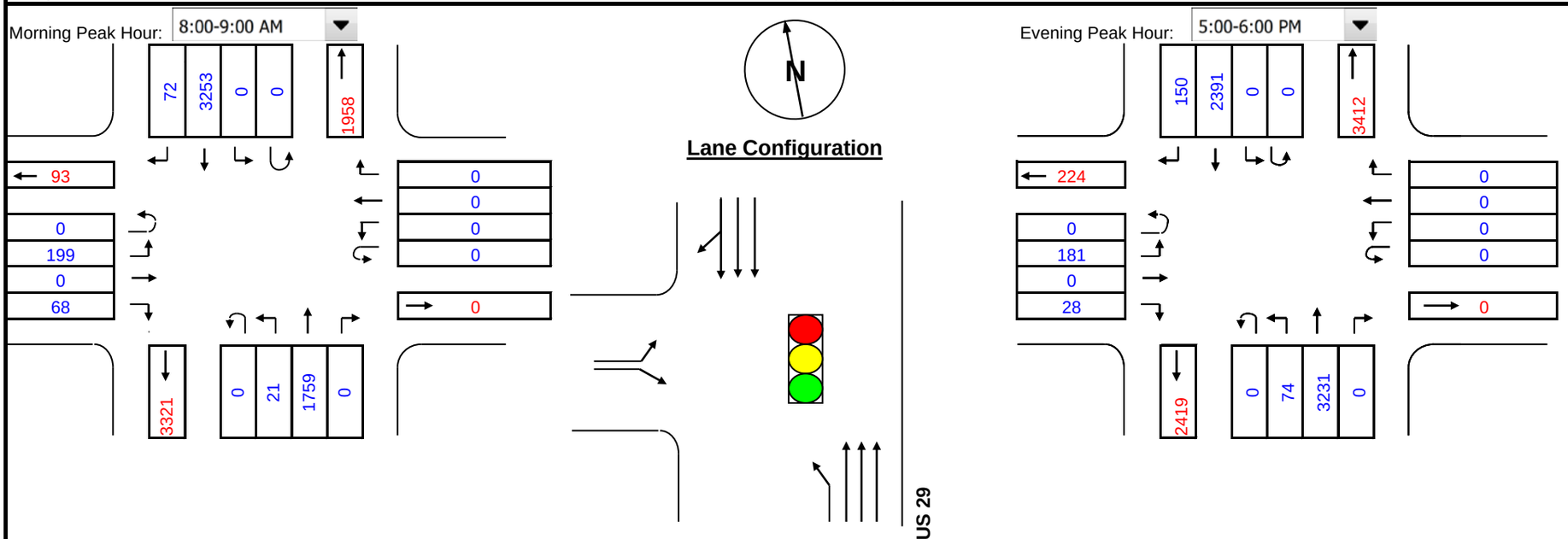
Count Date: 6/24/2014 Location: US 29 at Southwood and Eastwood

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☑ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1759	0.37	651	0	651	
	SB	3325	0.37	1230	21	1251	*
	EB	199	1.00	199	0	199	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **1450**

Level of service (V/C) **0.91** **E**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3231	0.37	1195	0	1195	*
	SB	2541	0.37	940	74	1014	
	EB	181	1.00	181	0	181	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **1376**

Level of service (V/C) **0.86** **D**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

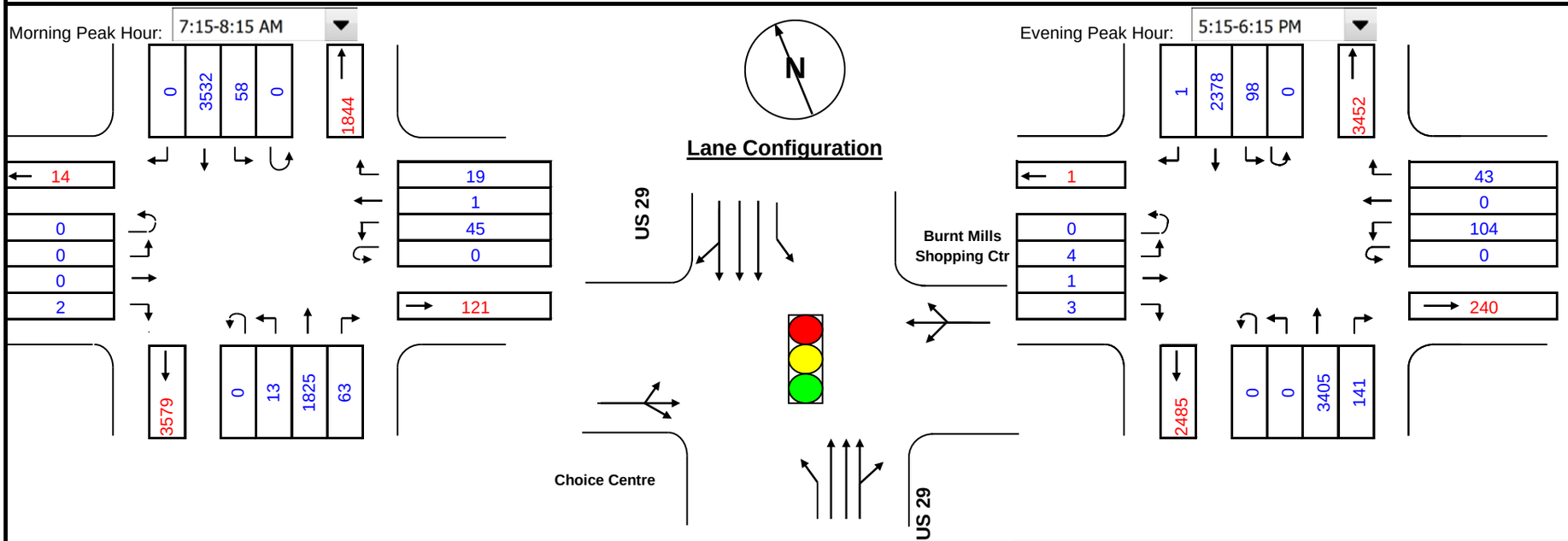
Count Date: 9/16/2014 Location: US 29 at Burnt Mills Shopping Ctr

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:15-8:15 AM

Evening Peak Hour: 5:15-6:15 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1888	0.37	699	58	757	
	SB	3532	0.37	1307	13	1320	*
	EB	2	1.00	2	45	47	
	WB	70	1.00	70	0	70	*

Remarks:

* Critical volume Total **1389**

Level of service (V/C) **0.87** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3546	0.37	1312	98	1410	*
	SB	2379	0.37	880	0	880	
	EB	8	1.00	8	104	112	
	WB	157	1.00	157	4	161	*

Remarks:

* Critical volume Total **1571**

Level of service (V/C) **0.98** **E**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

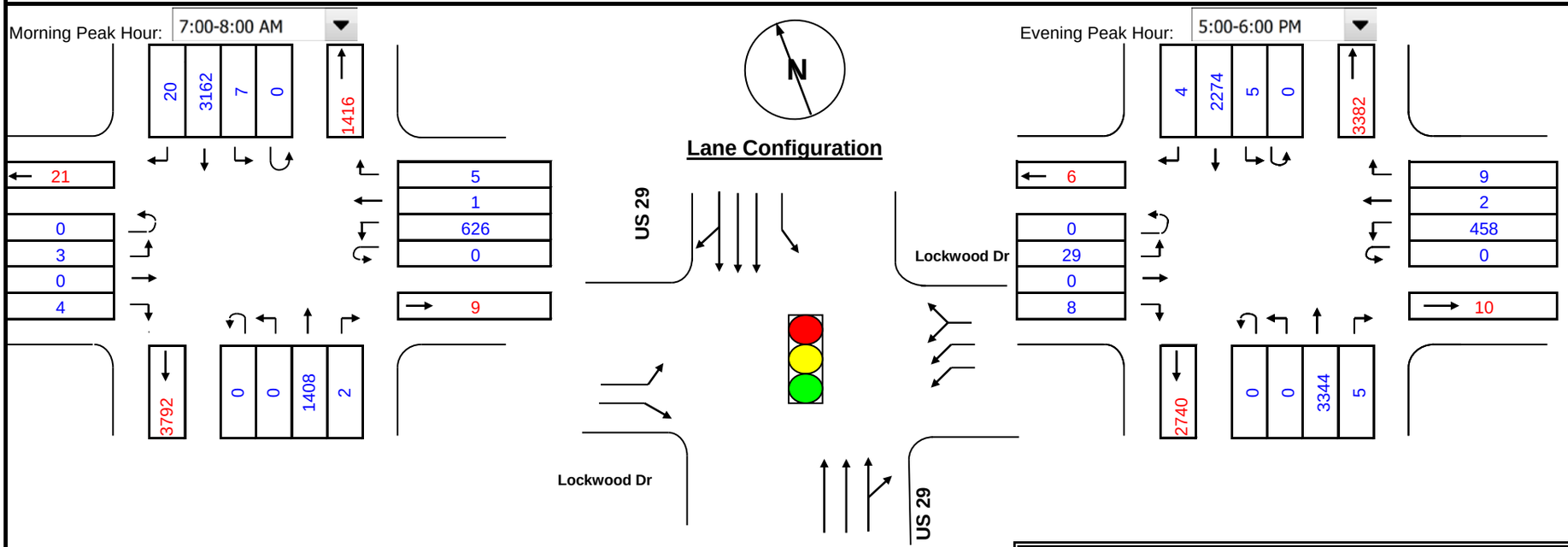
Count Date: 9/16/2014 Location: US 29 at Lockwood

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:00-8:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- [ ] Northbound
- [ ] Southbound
- [x] Eastbound
- [ ] Westbound

Split Phasing
- ( ) East/West
- ( ) North/South
- (•) None

Inx. Control
- (•) Signal
- ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1410	0.37	522	7	529	
	SB	3182	0.37	1177	0	1177	*
	EB	4	1.00	4	0	4	
	WB	632	0.37	234	3	237	*

Remarks:

* Critical volume Total **1414**

Level of service (V/C) **0.88** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3349	0.37	1239	5	1244	*
	SB	2278	0.37	843	0	843	
	EB	8	1.00	8	0	8	
	WB	469	0.37	174	29	203	*

Remarks:

* Critical volume Total **1447**

Level of service (V/C) **0.90** **D**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: US 29 at Burnt Mills

Conditions: Existing

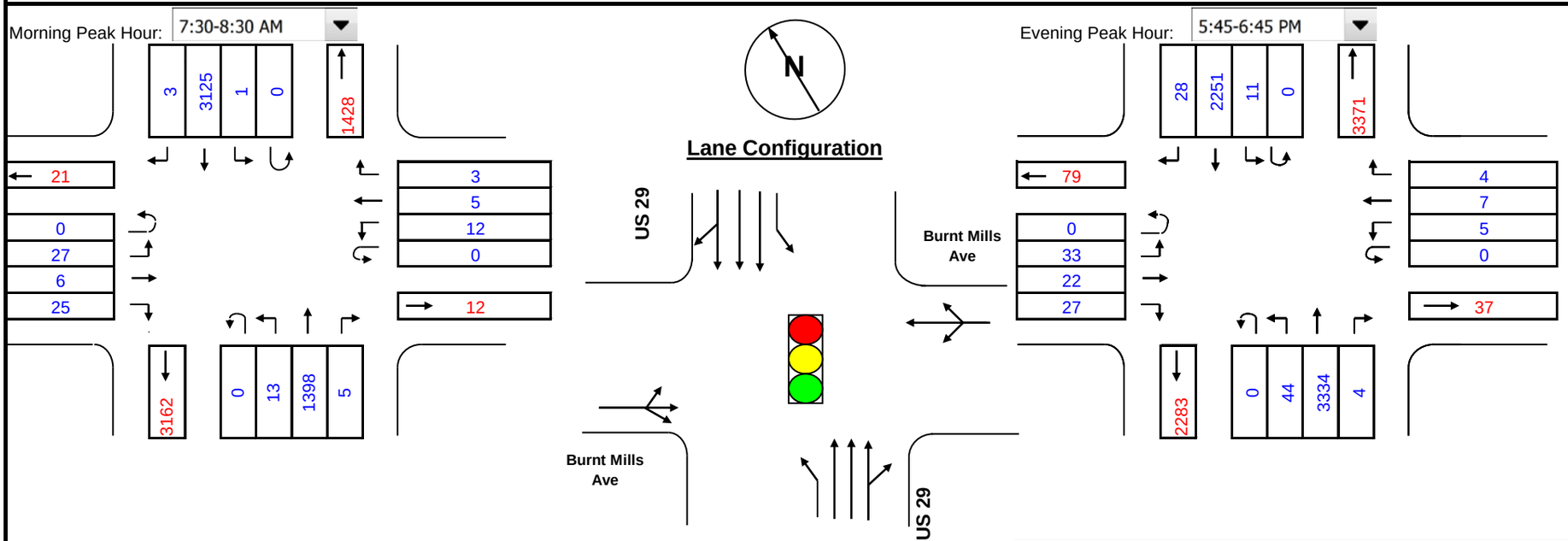
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:30-8:30 AM

Evening Peak Hour: 5:45-6:45 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
Dbl-Lt	= 0.60	E	<= 1600	> 1000	5.0
		F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1403	0.37	519	1	520	
	SB	3128	0.37	1157	13	1170	*
	EB	61	1.00	61	12	73	*
	WB	21	1.00	21	27	48	

Remarks:

* Critical volume Total **1243**

Level of service (V/C) **0.78** **C**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3338	0.37	1235	11	1246	*
	SB	2279	0.37	843	44	887	
	EB	85	1.00	85	5	90	*
	WB	17	1.00	17	33	50	

Remarks:

* Critical volume Total **1336**

Level of service (V/C) **0.84** **D**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

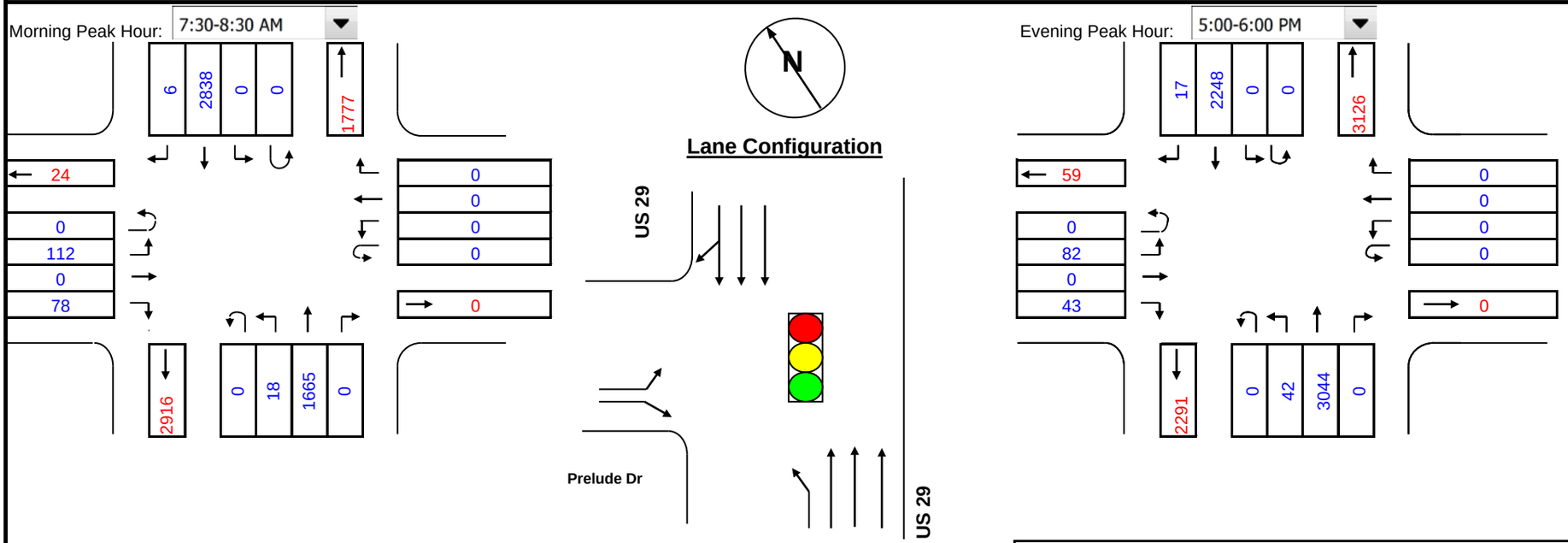
Count Date: 5/20/2015 Location: US 29 at Prelude

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:30-8:30 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☑ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1665	0.37	616	0	616	
	SB	2844	0.37	1052	18	1070	*
	EB	112	1.00	112	0	112	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **1182**

Level of service (V/C) **0.74** **C**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3044	0.37	1126	0	1126	*
	SB	2265	0.37	838	42	880	
	EB	82	1.00	82	0	82	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **1208**

Level of service (V/C) **0.76** **C**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

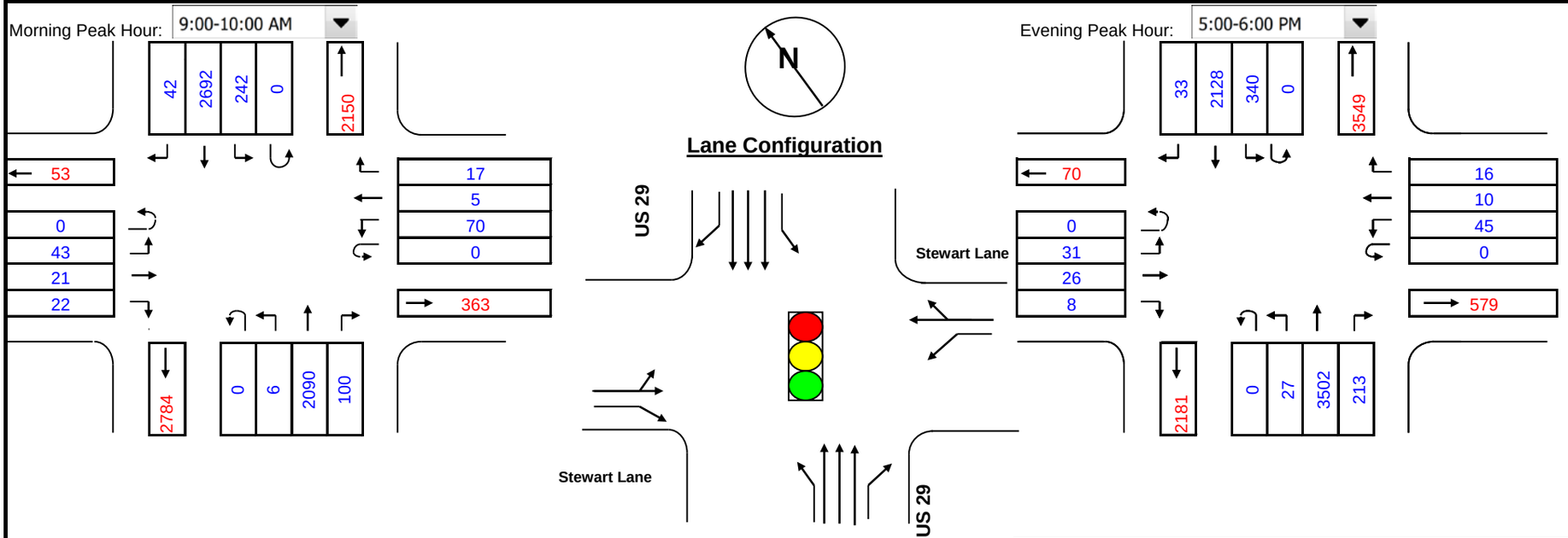
Count Date: 7/8/2014 Location: US 29 and Stewart Lane

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 9:00-10:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☑ Southbound
- ☑ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	2090	0.37	773	242	1015	*
	SB	2692	0.37	996	6	1002	
	EB	68	1.00	68	70	138	*
	WB	22	1.00	22	43	65	

Remarks:

* Critical volume Total **1154**

Level of service (V/C) **0.72** **C**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3502	0.37	1296	340	1636	*
	SB	2128	0.37	787	27	814	
	EB	60	1.00	60	45	105	*
	WB	26	1.00	26	31	57	

Remarks:

* Critical volume Total **1741**

Level of service (V/C) **1.09** **F**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

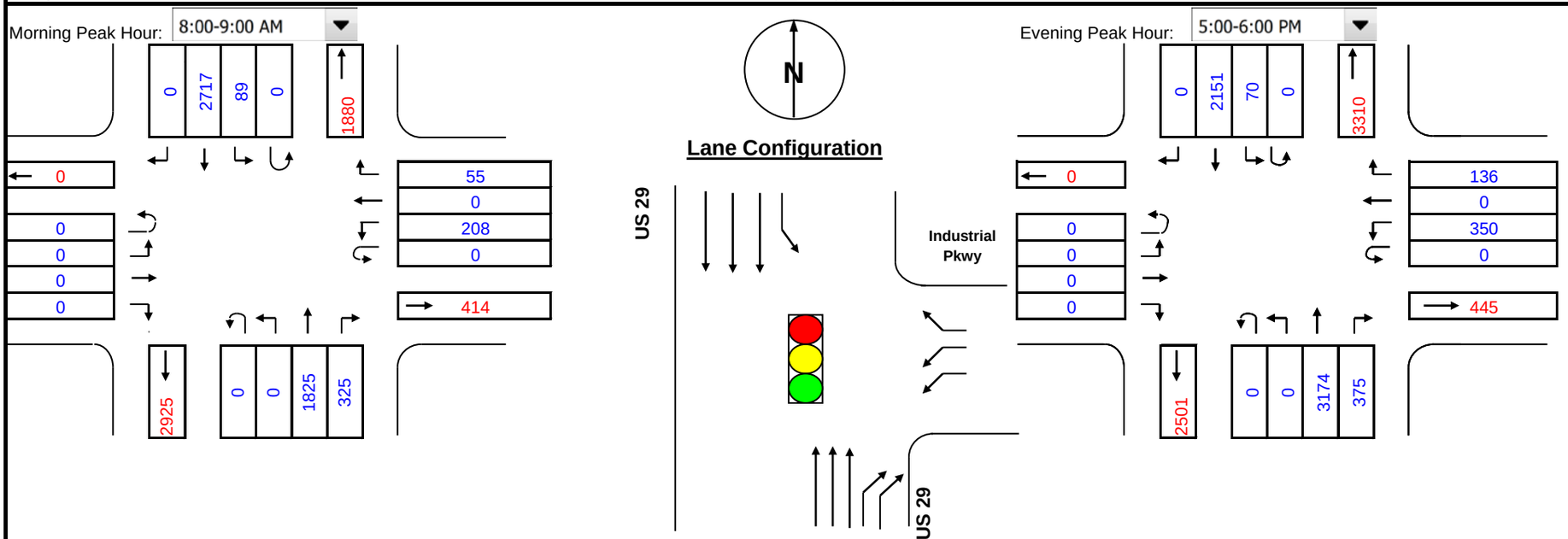
Count Date: 6/27/2012 Location: US 29 at Industrial Road

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- [x] Northbound
- [ ] Southbound
- [ ] Eastbound
- [x] Westbound

Split Phasing
- ( ) East/West
- ( ) North/South
- (•) None

Inx. Control
- (•) Signal
- ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1825	0.37	675	89	764	
	SB	2717	0.37	1005	0	1005	*
	EB	0	0.00	0	0	0	
	WB	208	0.60	125	0	125	*

Remarks:

* Critical volume Total **1130**

Level of service (V/C) **0.71** **B**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3174	0.37	1174	70	1244	*
	SB	2151	0.37	796	0	796	
	EB	0	0.00	0	0	0	
	WB	350	0.60	210	0	210	*

Remarks:

* Critical volume Total **1454**

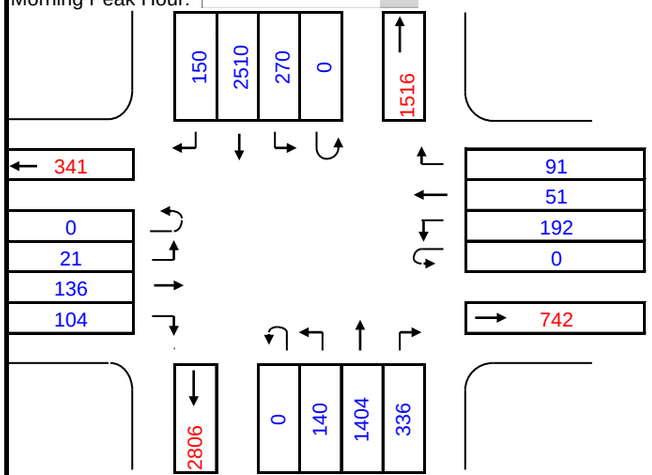
Level of service (V/C) **0.91** **E**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

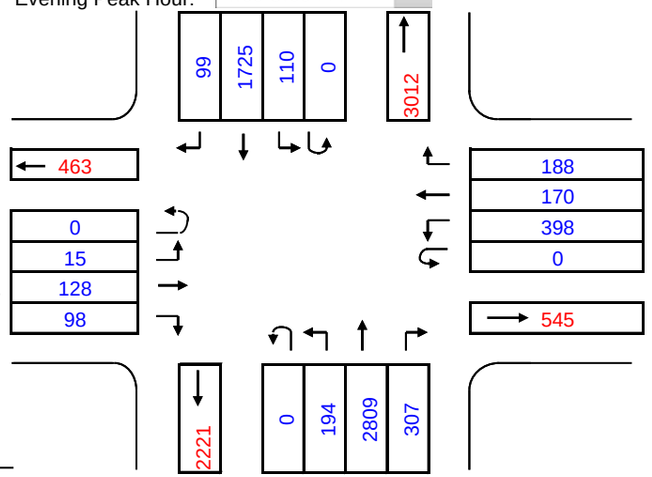
Prepared by: **Sabra, Wang & Associates, Inc.**

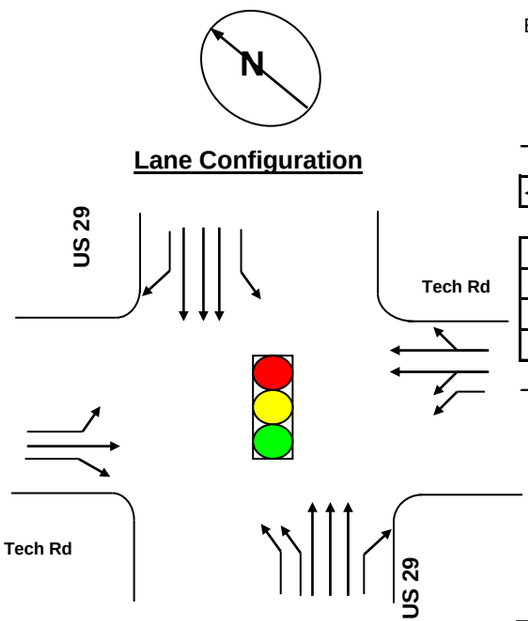
Count Date: 5/6/2014 Location: US 29 at Tech Road
Conditions: Existing
Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM



Evening Peak Hour: 4:00-5:00 PM





Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- [x] Northbound
- [x] Southbound
- [x] Eastbound
- [ ] Westbound

Split Phasing
- (•) East/West
- ( ) North/South
- ( ) None

Inx. Control
- (•) Signal
- ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1404	0.37	519	270	789	
	SB	2510	0.37	929	84	1013	*
	EB	136	1.00	136	0	136	*
	WB	334	0.37	124	0	124	*
Remarks:		* Critical volume			Total	1272	
					Level of service (V/C)	0.80	C

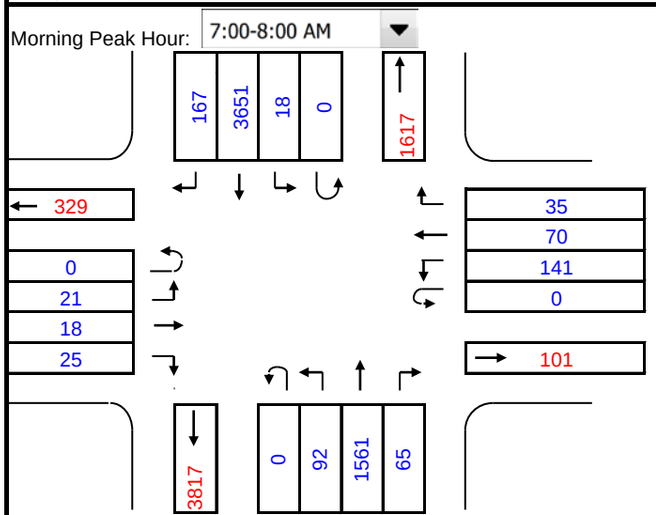
Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	2809	0.37	1039	110	1149	*
	SB	1725	0.37	638	116	755	
	EB	128	1.00	128	0	128	*
	WB	756	0.37	280	0	280	*
Remarks:		* Critical volume			Total	1557	
					Level of service (V/C)	0.97	E

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

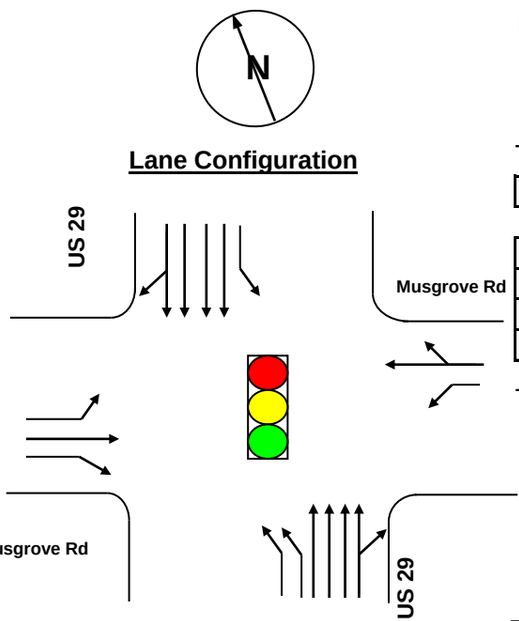
Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date: 12/11/2013 Location: US 29 at Musgrove
Conditions: Existing
Design Year: Computed by: RS Date 5/25/2016

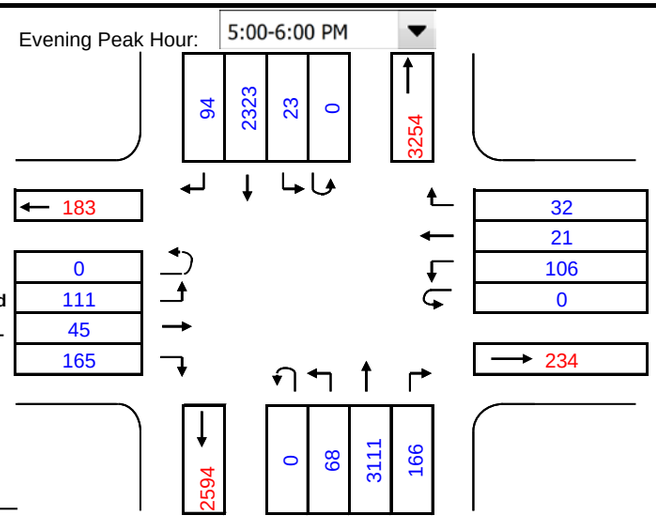
Morning Peak Hour: 7:00-8:00 AM



Lane Configuration



Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☑ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1626	0.30	488	18	506	
	SB	3818	0.30	1145	55	1201	*
	EB	18	1.00	18	141	159	*
	WB	105	1.00	105	21	126	

Remarks:

* Critical volume Total **1360**
Level of service (V/C) **0.85** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3277	0.30	983	23	1006	*
	SB	2417	0.30	725	41	766	
	EB	124	1.00	124	106	230	*
	WB	53	1.00	53	111	164	

Remarks:

* Critical volume Total **1236**
Level of service (V/C) **0.77** **C**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

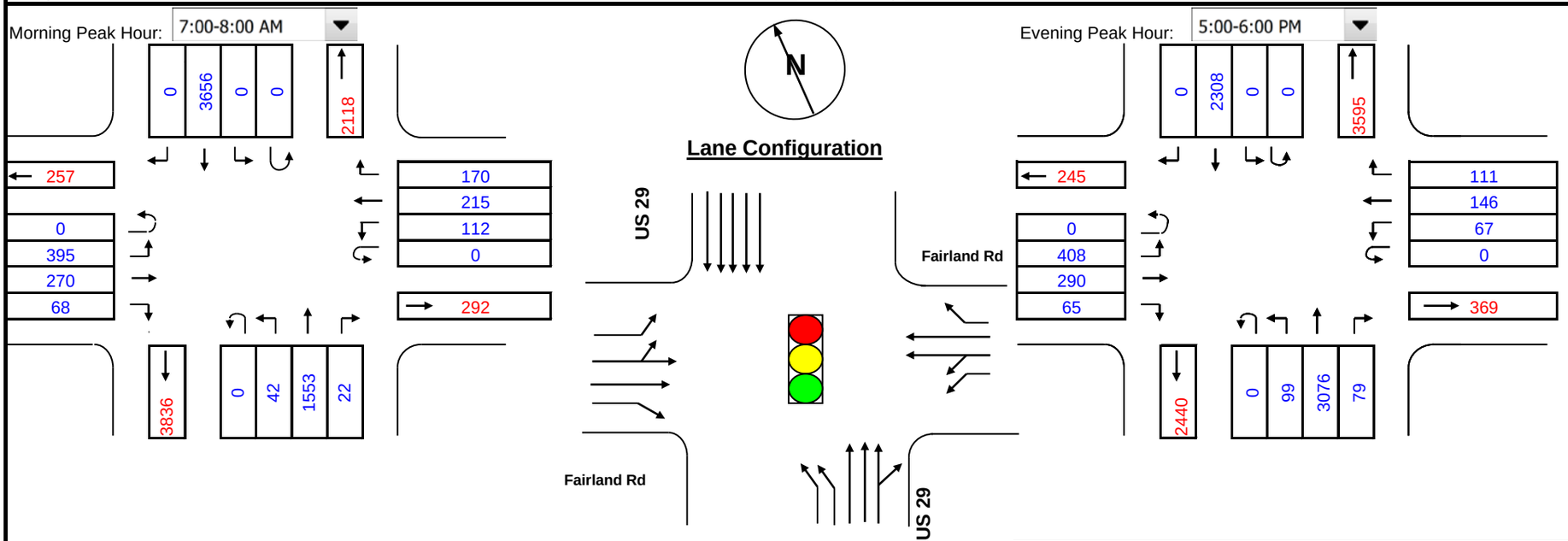
Count Date: 9/18/2014 Location: US 29 at Fairland

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:00-8:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☑ Eastbound
- ☑ Westbound

Split Phasing
- ◉ East/West
- ○ North/South
- ○ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1575	0.37	583	0	583	
	SB	3656	0.25	914	25	939	*
	EB	665	0.37	246	0	246	*
	WB	170	1.00	170	0	170	*

Remarks:

* Critical volume Total **1355**

Level of service (V/C) **0.85** **D**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	3155	0.37	1167	0	1167	*
	SB	2308	0.25	577	59	636	
	EB	698	0.37	258	0	258	*
	WB	111	1.00	111	0	111	*

Remarks:

* Critical volume Total **1537**

Level of service (V/C) **0.96** **E**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: Old Columbia Pike at Fairland Rd

Conditions: Existing

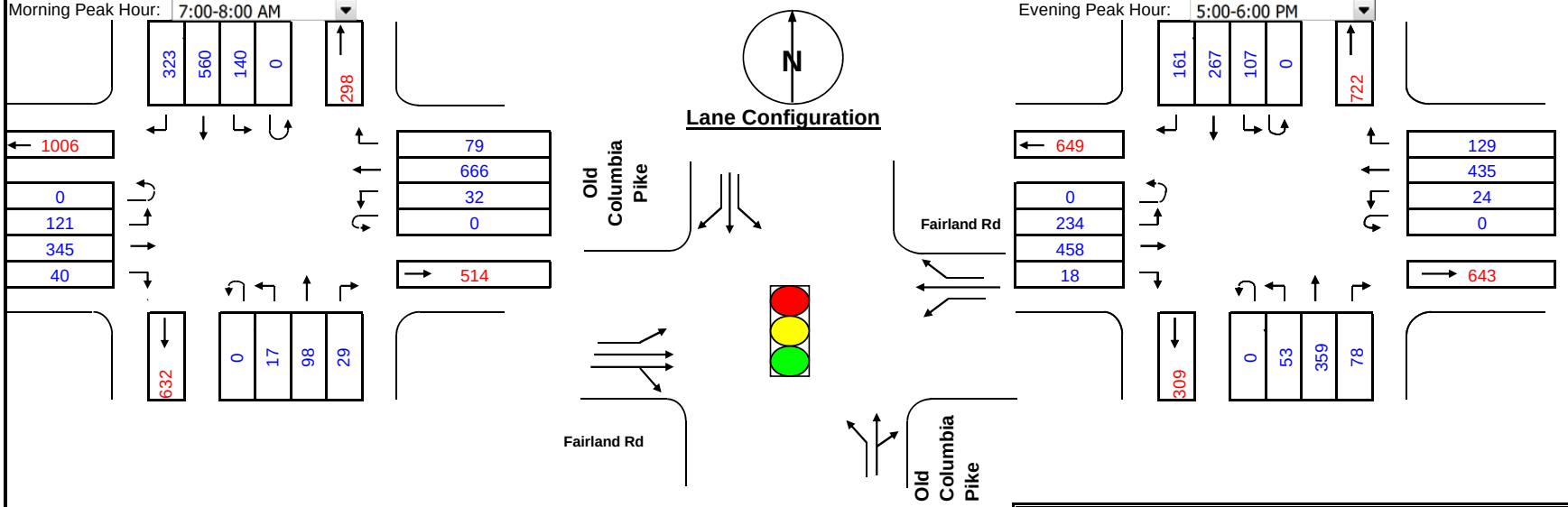
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:00-8:00 AM

Evening Peak Hour: 5:00-6:00 PM



Phasing

RTOR/Overlap
- ☐ Northbound
- ☑ Southbound
- ☐ Eastbound
- ☑ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*	Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	127	1.00	127	140	267			NB	437	1.00	437	107	544	*
	SB	560	1.00	560	17	577	*		SB	267	1.00	267	53	320	
	EB	385	0.53	204	32	236			EB	476	0.53	252	24	276	
	WB	666	1.00	666	121	787	*		WB	435	1.00	435	234	669	*
Remarks:			* Critical volume		Total	1364		Remarks:			* Critical volume		Total	1213	
					Level of service (V/C)	0.85	D						Level of service (V/C)	0.76	C

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

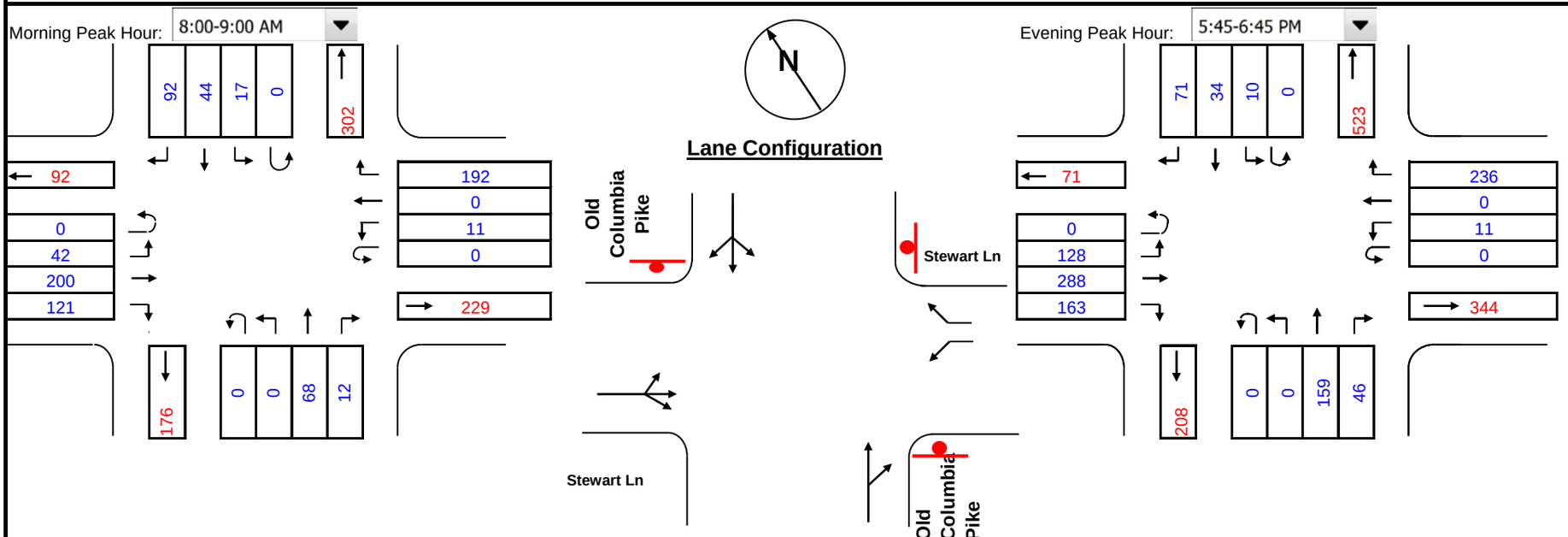
Count Date: 5/14/2015 Location: Old Columbia Pike at Stewart Ln

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 5:45-6:45 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☑ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ○ Signal
- ◉ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	80	1.00	80	17	97	
	SB	155	1.00	155	0	155	*
	EB	363	1.00	363	0	363	*
	WB	175	1.00	175	42	217	

Remarks:

* Critical volume Total **518**

Level of service (V/C) **0.32** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	205	1.00	205	10	215	*
	SB	125	1.00	125	0	125	
	EB	579	1.00	579	0	579	*
	WB	226	1.00	226	128	354	

Remarks:

* Critical volume Total **794**

Level of service (V/C) **0.50** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

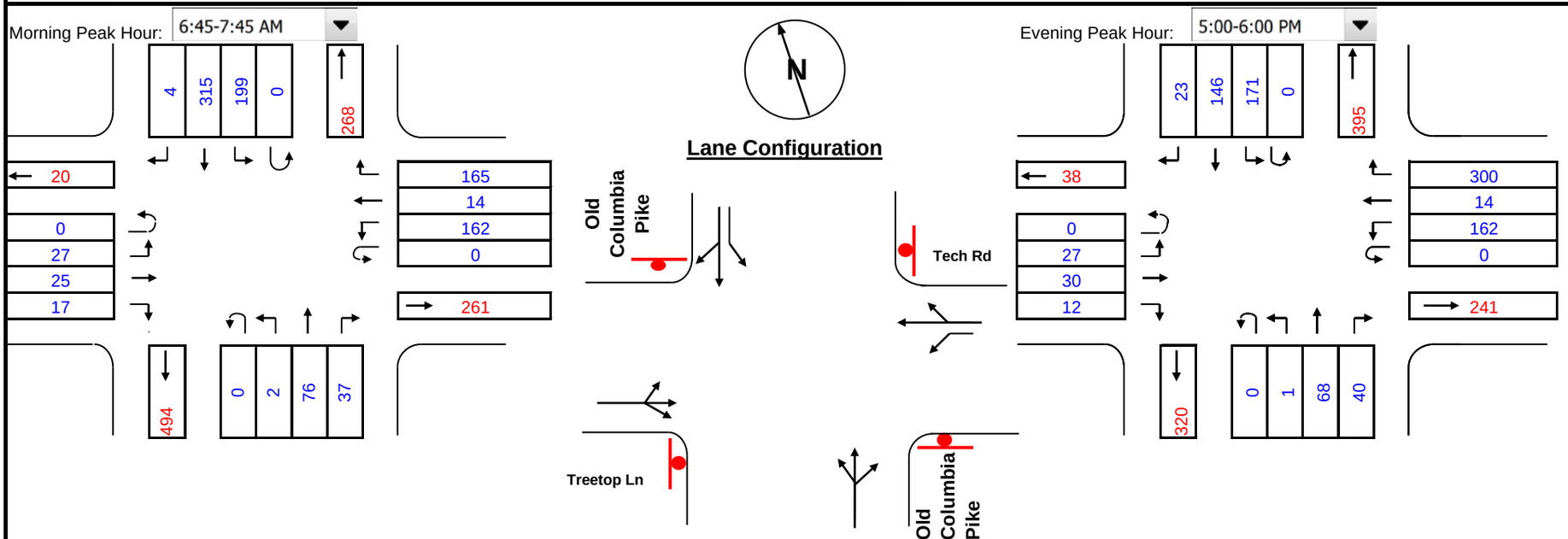
Count Date: 5/14/2015 Location: Old Columbia Pike at Tech Rd

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 6:45-7:45 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: [x] Northbound [x] Southbound [x] Eastbound [x] Westbound

Split Phasing: ( ) East/West ( ) North/South (•) None

Inx. Control: ( ) Signal (•) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	115	1.00	115	199	314	
	SB	319	1.00	319	1	320	*
	EB	69	1.00	69	162	231	*
	WB	179	1.00	179	27	206	

Remarks:

* Critical volume Total **551**

Level of service (V/C) **0.34** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	109	1.00	109	171	280	*
	SB	169	1.00	169	1	170	
	EB	69	1.00	69	162	231	
	WB	314	1.00	314	27	341	*

Remarks:

* Critical volume Total **621**

Level of service (V/C) **0.39** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

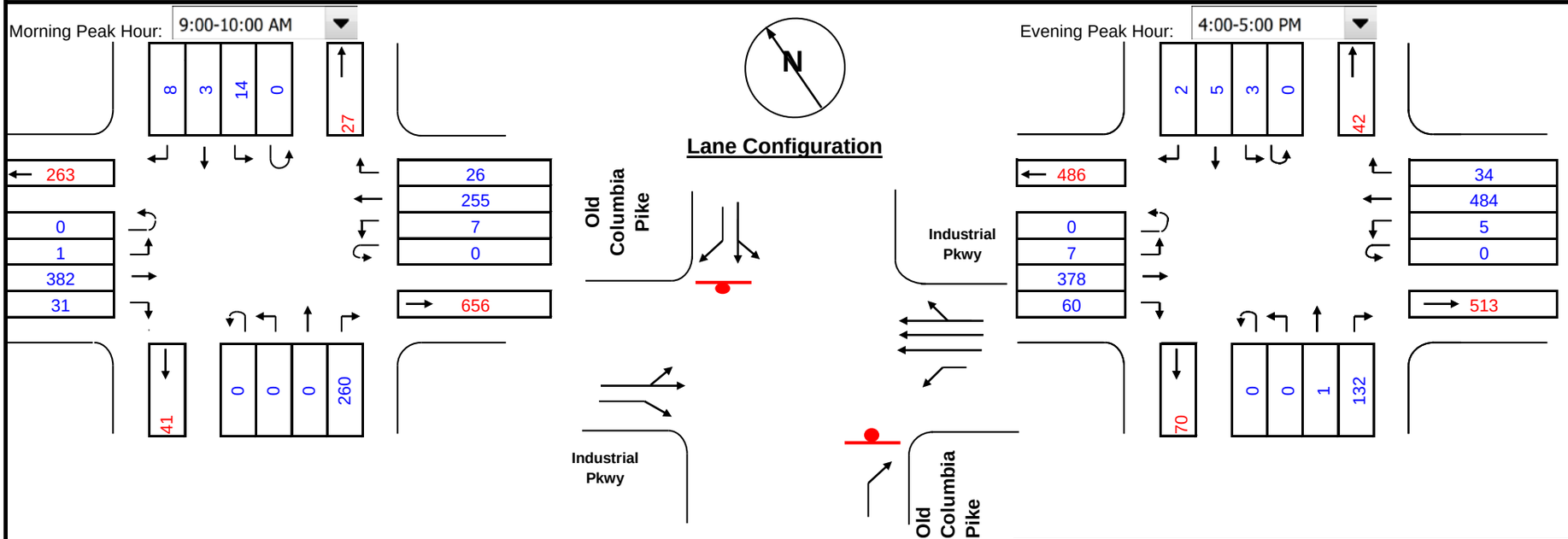
Count Date: 5/12/2015 Location: Old Columbia Pike at Industrial

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 9:00-10:00 AM

Evening Peak Hour: 4:00-5:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- [x] Northbound
- [x] Southbound
- [x] Eastbound
- [ ] Westbound

Split Phasing
- ( ) East/West
- ( ) North/South
- (•) None

Inx. Control
- ( ) Signal
- (•) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	253	1.00	253	14	267	*
	SB	31	1.00	31	0	31	
	EB	384	1.00	384	7	391	*
	WB	281	0.37	104	1	105	

Remarks:

* Critical volume Total **658**

Level of service (V/C) **0.41** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	128	1.00	128	3	131	*
	SB	8	1.00	8	0	8	
	EB	392	1.00	392	5	397	*
	WB	518	0.37	192	7	199	

Remarks:

* Critical volume Total **528**

Level of service (V/C) **0.33** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: Old Columbia Pike at Randolph

Conditions: Existing

Design Year:

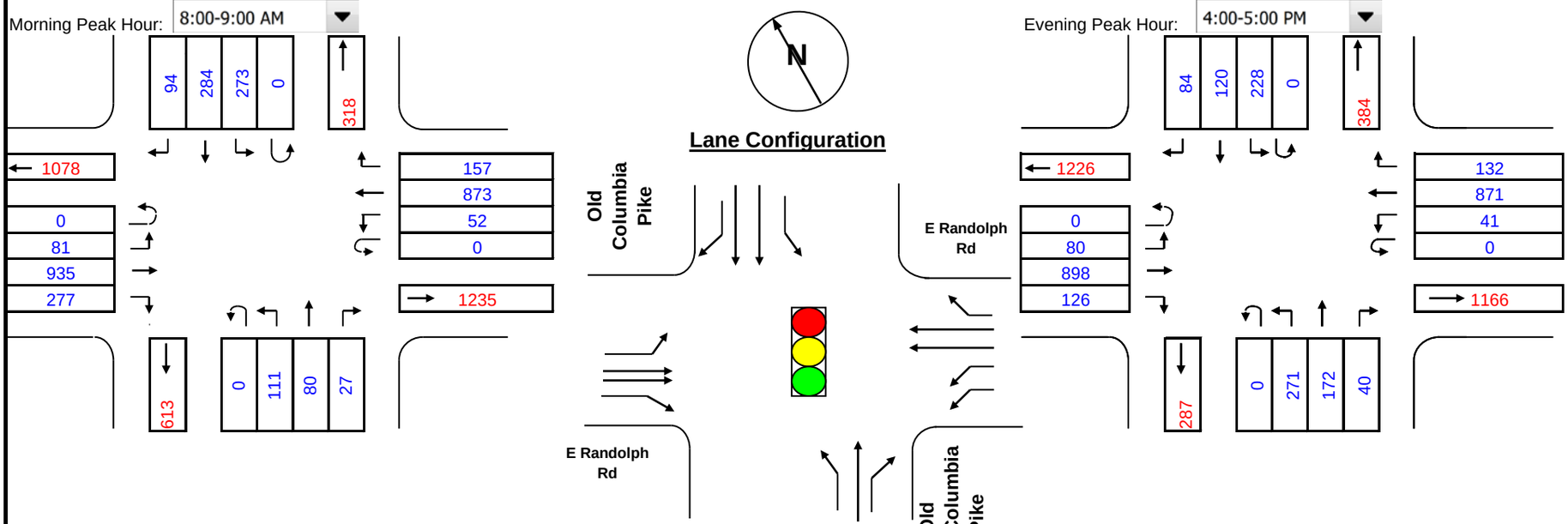
Computed by: RS

Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

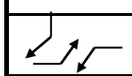
Evening Peak Hour: 4:00-5:00 PM

Lane Configuration



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing



RTOR/Overlap
- [x] Northbound
- [x] Southbound
- [x] Eastbound
- [x] Westbound

Split Phasing
- ( ) East/West
- ( ) North/South
- (•) None

Inx. Control
- (•) Signal
- ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	80	1.00	80	273	353	*
	SB	284	0.53	151	111	262	
	EB	935	0.53	496	31	527	
	WB	873	0.53	463	81	544	*

Remarks:

* Critical volume Total **897**

Level of service (V/C) **0.56** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	172	1.00	172	228	400	*
	SB	120	0.53	64	271	335	
	EB	898	0.53	476	25	501	
	WB	871	0.53	462	80	542	*

Remarks:

* Critical volume Total **942**

Level of service (V/C) **0.59** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date: 5/19/2015 Location: Randolph at Serpentine

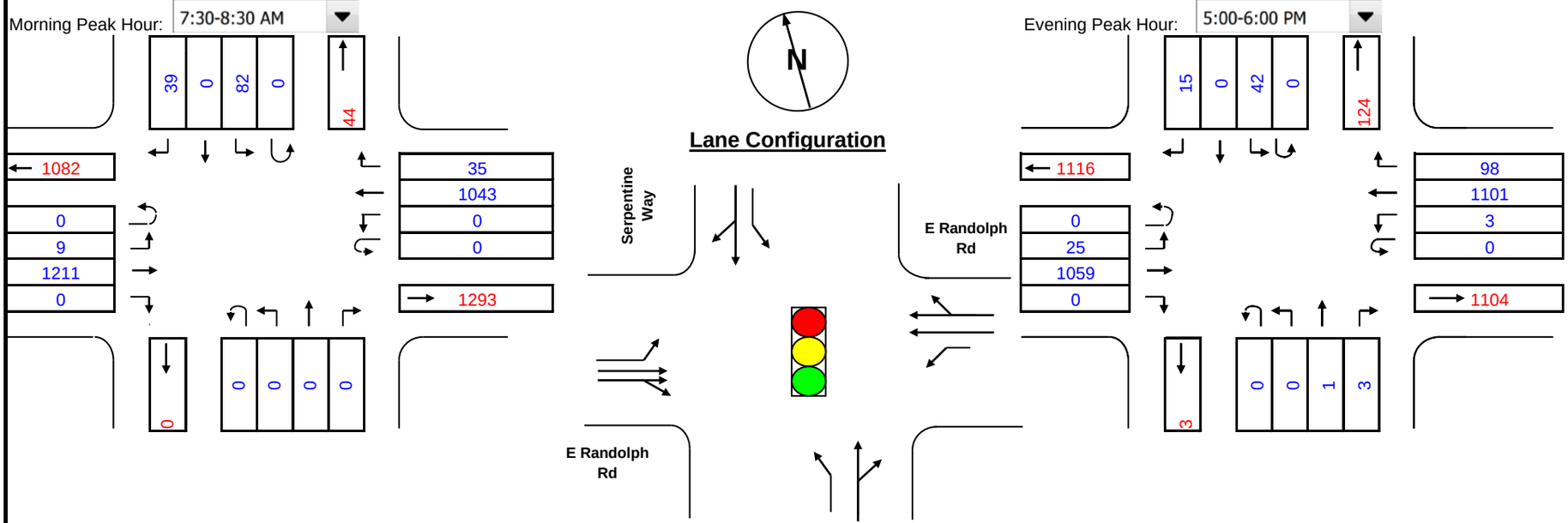
Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:30-8:30 AM

Evening Peak Hour: 5:00-6:00 PM

Lane Configuration



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	0	1.00	0	82	82	*
	SB	39	1.00	39	0	39	
	EB	1211	0.53	642	0	642	*
	WB	1078	0.53	571	9	580	

Remarks:

* Critical volume Total **724**

Level of service (V/C) **0.45** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	4	1.00	4	42	46	*
	SB	15	1.00	15	0	15	
	EB	1059	0.53	561	3	564	
	WB	1199	0.53	635	25	660	*

Remarks:

* Critical volume Total **706**

Level of service (V/C) **0.44** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: Cherry Hill at Prosperity

Conditions: Existing

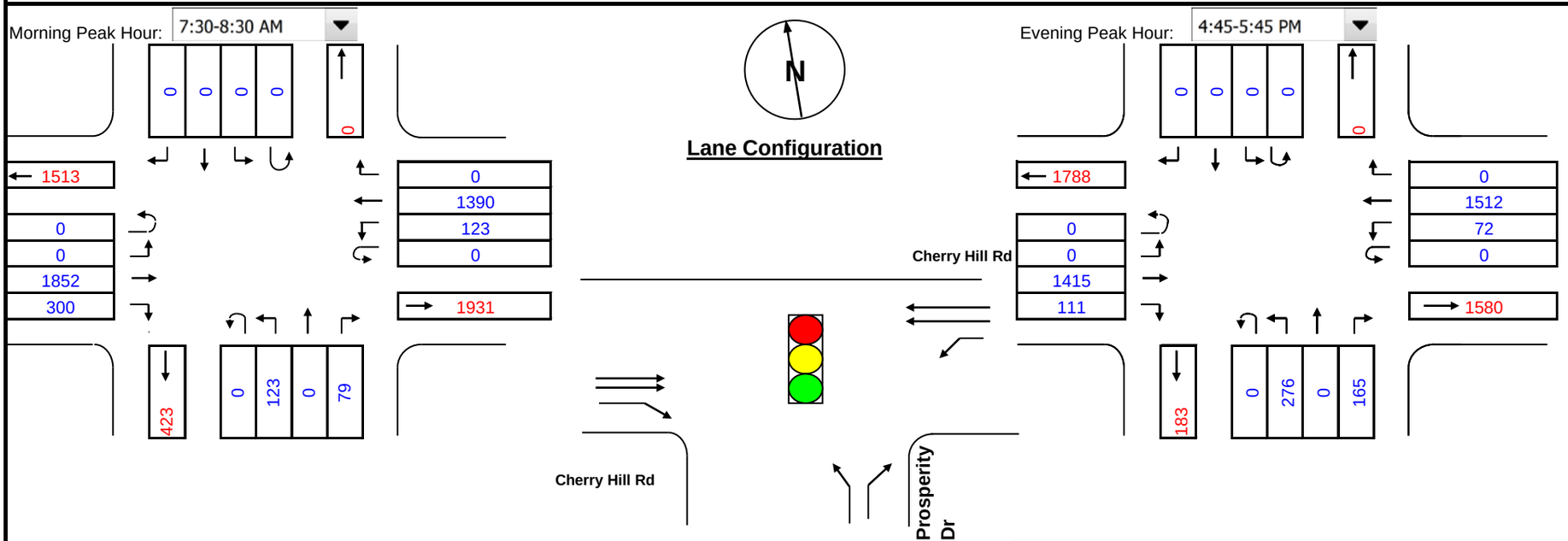
Design Year:

Computed by: RS

Date 5/25/2016

Morning Peak Hour: 7:30-8:30 AM

Evening Peak Hour: 4:45-5:45 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap: [✓] Northbound [ ] Southbound [✓] Eastbound [ ] Westbound

Split Phasing: ( ) East/West ( ) North/South (•) None

Inx. Control: (•) Signal ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	123	1.00	123	0	123	*
	SB	0	0.00	0	0	0	
	EB	1852	0.53	982	123	1105	*
	WB	1390	0.53	737	0	737	

Remarks:

* Critical volume Total **1228**

Level of service (V/C) **0.77** **C**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	276	1.00	276	0	276	*
	SB	0	0.00	0	0	0	
	EB	1415	0.53	750	72	822	*
	WB	1512	0.53	801	0	801	

Remarks:

* Critical volume Total **1098**

Level of service (V/C) **0.69** **B**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: Cherry Hill Rd at Broadbirch/Calverton

Conditions: Existing

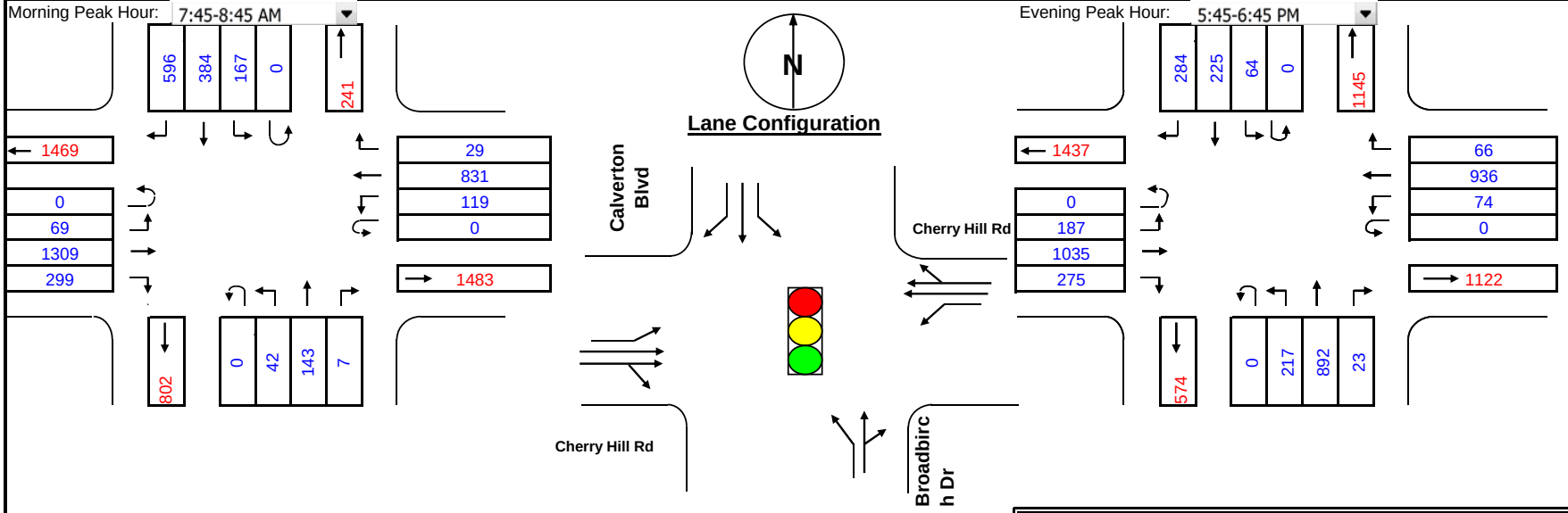
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:45-8:45 AM

Evening Peak Hour: 5:45-6:45 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: ☐ Northbound ☑ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*	Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	150	1.00	150	167	317			NB	915	1.00	915	64	979	*
	SB	384	1.00	384	42	426	*		SB	225	1.00	225	217	442	
	EB	1608	0.53	852	119	971	*		EB	1310	0.53	694	74	768	*
	WB	860	0.53	456	69	525			WB	1002	0.53	531	187	718	
Remarks:			* Critical volume		Total	1397		Remarks:			* Critical volume		Total	1747	
					Level of service (V/C)	0.87	D						Level of service (V/C)	1.09	F

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: Cherry Hill at Plum Orchard

Conditions: Existing

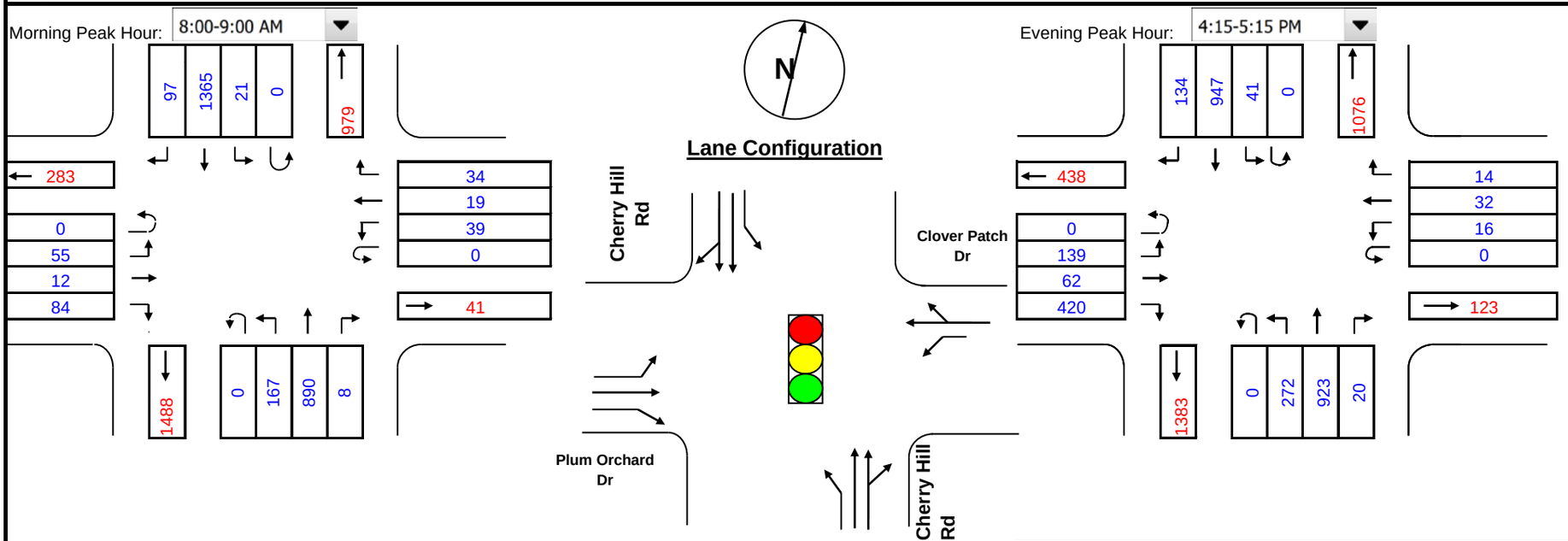
Design Year:

Computed by: RS

Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 4:15-5:15 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☑ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	898	0.53	476	21	497	
	SB	1462	0.53	775	167	942	*
	EB	12	1.00	12	39	51	
	WB	53	1.00	53	55	108	*

Remarks:

* Critical volume Total **1050**

Level of service (V/C) **0.66** **B**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	943	0.53	500	41	541	
	SB	1081	0.53	573	272	845	*
	EB	148	1.00	148	16	164	
	WB	46	1.00	46	139	185	*

Remarks:

* Critical volume Total **1030**

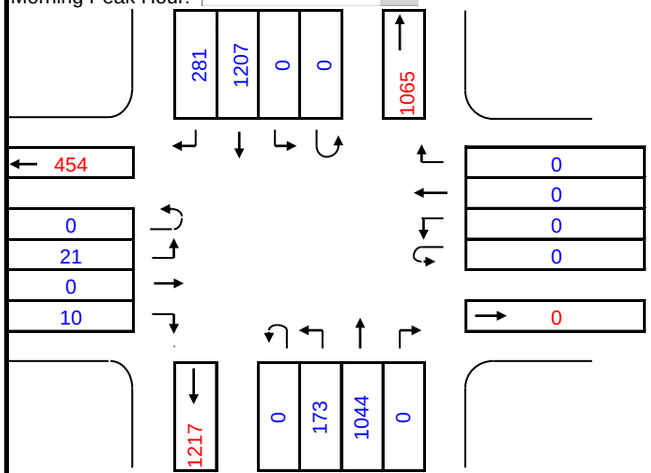
Level of service (V/C) **0.64** **B**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

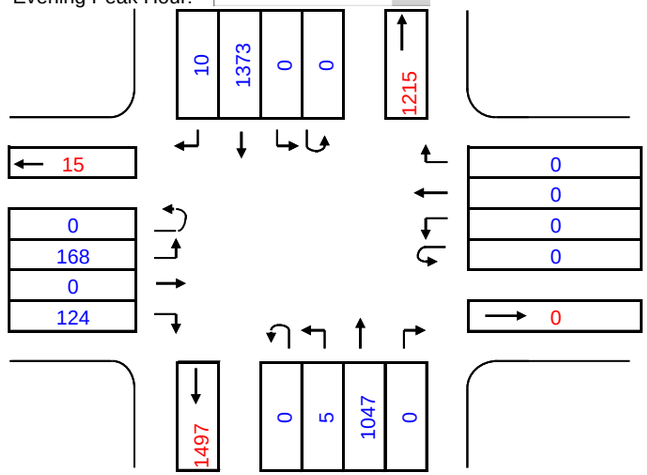
Prepared by: **Sabra, Wang & Associates, Inc.**

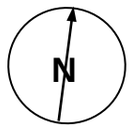
Count Date: 5/20/2015 Location: Cherry Hill at FDA Blvd
Conditions: Existing
Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:00-8:00 AM

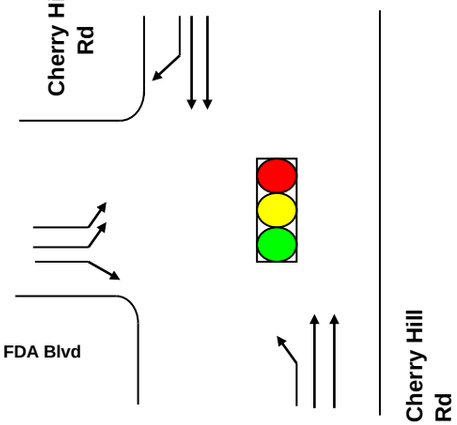


Evening Peak Hour: 4:45-5:45 PM





Lane Configuration



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☑ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ◉ Signal
- ○ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	1044	0.53	553	0	553	
	SB	1207	0.53	640	173	813	*
	EB	21	0.60	13	0	13	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **825**
Level of service (V/C) **0.52** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	1047	0.53	555	0	555	
	SB	1373	0.53	728	5	733	*
	EB	119	1.00	119	0	119	*
	WB	0	0.00	0	0	0	

Remarks:

* Critical volume Total **852**
Level of service (V/C) **0.53** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

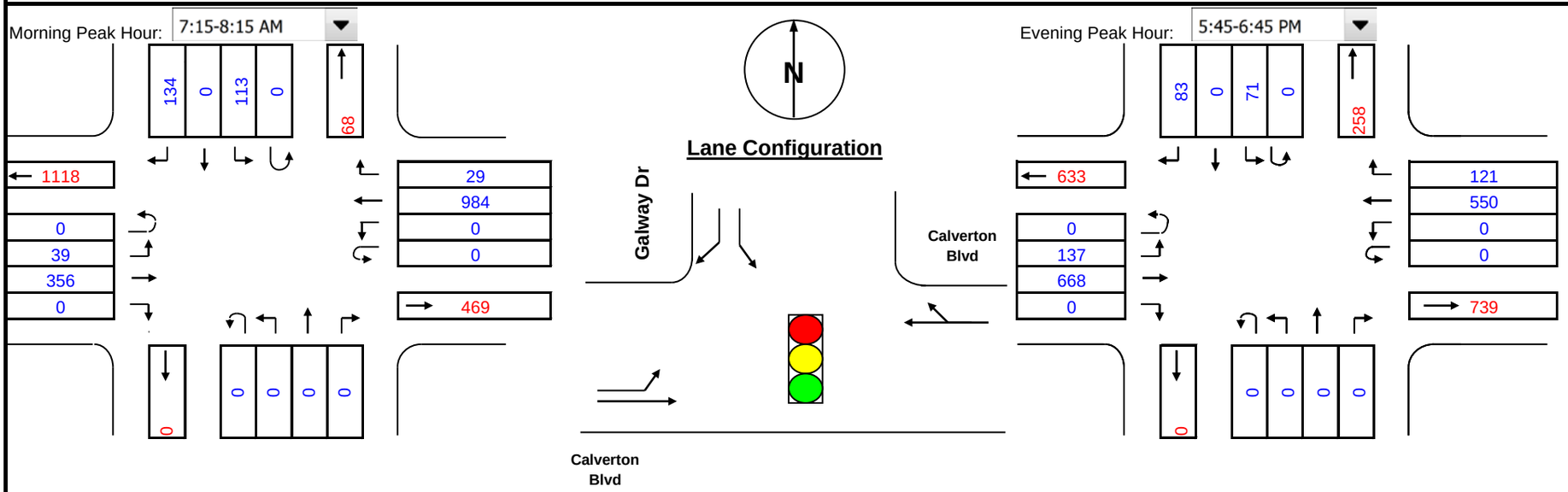
Count Date: 5/28/2015 Location: Calverton Blvd at Galway Dr

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 7:15-8:15 AM

Evening Peak Hour: 5:45-6:45 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- [ ] Northbound
- [x] Southbound
- [ ] Eastbound
- [ ] Westbound

Split Phasing
- ( ) East/West
- ( ) North/South
- (•) None

Inx. Control
- (•) Signal
- ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	0	0.00	0	0	0	
	SB	113	1.00	113	0	113	*
	EB	356	1.00	356	0	356	
	WB	1013	1.00	1013	39	1052	*

Remarks:

* Critical volume Total **1165**

Level of service (V/C) **0.73** **C**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	0	0.00	0	0	0	
	SB	71	1.00	71	0	71	*
	EB	668	1.00	668	0	668	
	WB	671	1.00	671	137	808	*

Remarks:

* Critical volume Total **879**

Level of service (V/C) **0.55** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

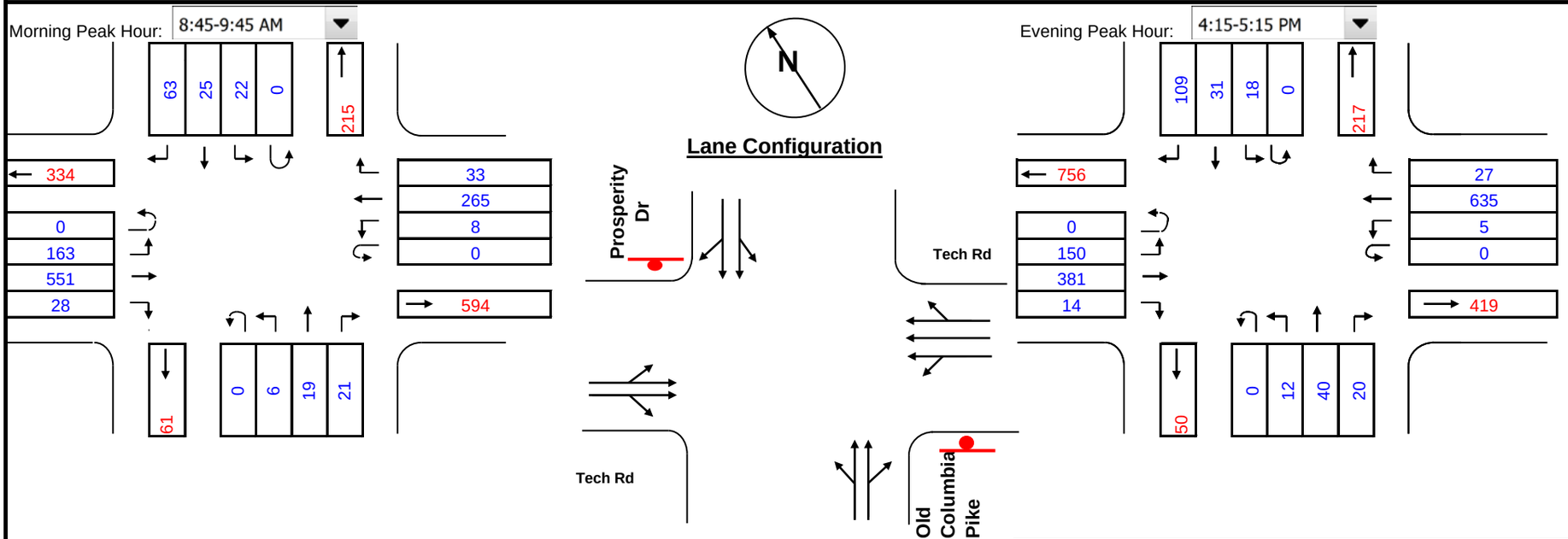
Count Date: 5/14/2015 Location: Tech Road at Prosperity

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 8:45-9:45 AM

Evening Peak Hour: 4:15-5:15 PM



Prosperity Dr

RTOR/Overlap: ☐ Northbound ☐ Southbound ☐ Eastbound ☐ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ○ Signal ◉ Stop

Phasing

Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	47	0.53	25	22	47	
	SB	112	0.53	59	6	65	*
	EB	905	0.53	480	8	488	*
	WB	322	0.37	119	163	282	

Remarks:

* Critical volume Total **553**

Level of service (V/C) **0.35** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	73	0.53	39	18	57	
	SB	160	0.53	85	12	97	*
	EB	845	0.53	448	5	453	*
	WB	672	0.37	249	150	399	

Remarks:

* Critical volume Total **550**

Level of service (V/C) **0.34** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

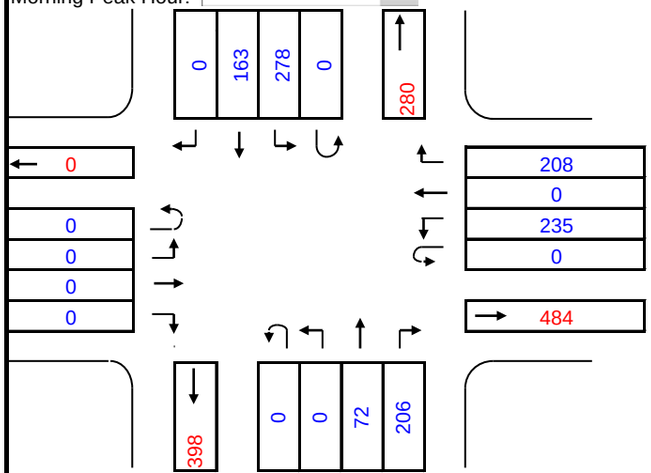
Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date: 5/14/2015 Location: Tech Road at Broadbirch

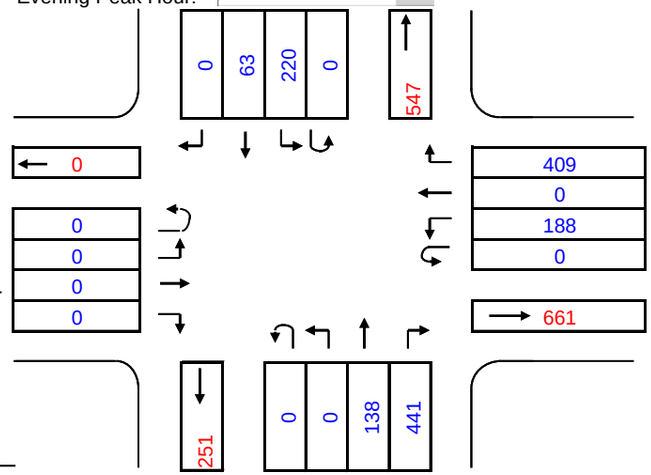
Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

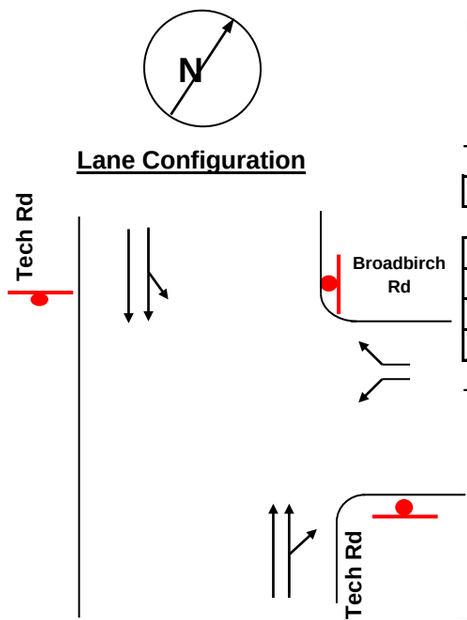
Morning Peak Hour: 8:30-9:30AM



Evening Peak Hour: 4:15-5:15 PM



Lane Configuration



Phasing			

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☑ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ○ Signal
- ◉ Stop

Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	278	0.53	147	278	425	*
	SB	469	0.53	248	0	248	
	EB	0	0.00	0	0	0	
	WB	235	1.00	235	0	235	*

Remarks:

* Critical volume Total **660**

Level of service (V/C) **0.41** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	579	0.53	307	220	527	*
	SB	305	0.53	162	0	162	
	EB	0	0.00	0	0	0	
	WB	189	1.00	189	0	189	*

Remarks:

* Critical volume Total **716**

Level of service (V/C) **0.45** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

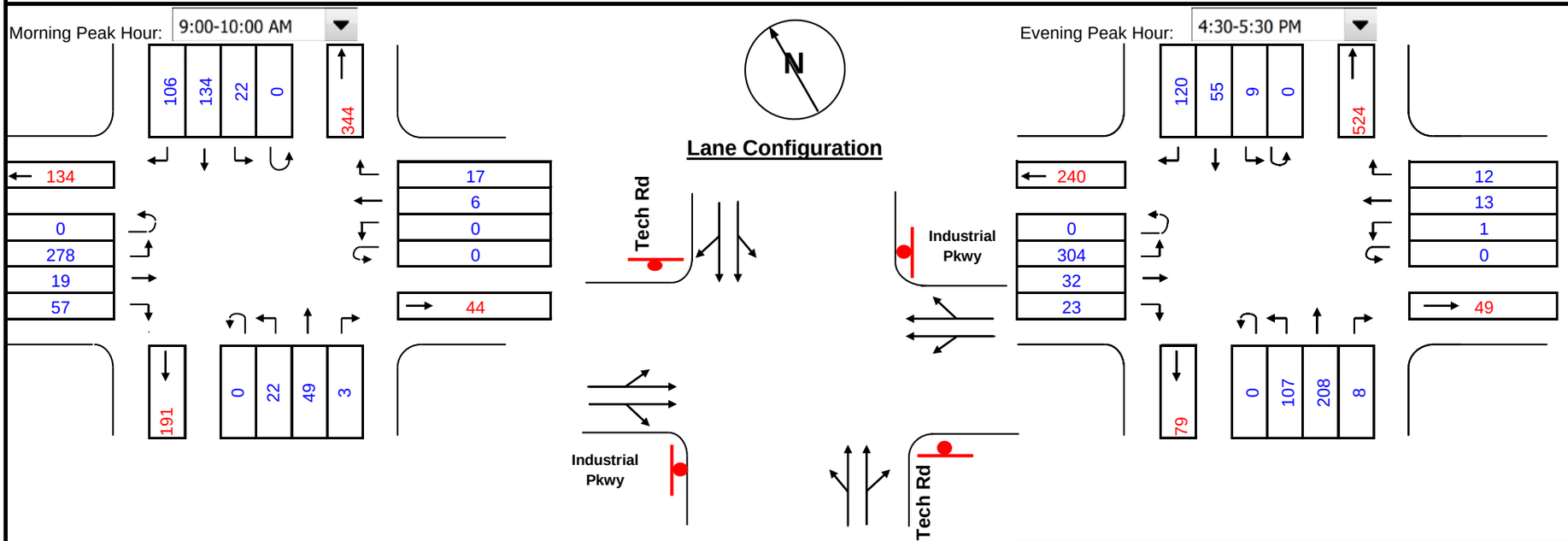
Count Date: 5/14/2015 Location: Tech Road at Industrial Pkwy

Conditions: Existing

Design Year: Computed by: RS Date 5/25/2016

Morning Peak Hour: 9:00-10:00 AM

Evening Peak Hour: 4:30-5:30 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1 =	1.00	A <=	1000	<= 199	1.1
2 =	0.53	B <=	1150	<= 599	2.0
3 =	0.37	C <=	1300	<= 799	3.0
4 =	0.30	D <=	1450	<= 999	4.0
5 =	0.25	E <=	1600	> 1000	5.0
Dbl-Lt =	0.60	F >	1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ○ Signal
- ◉ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	96	0.53	51	22	73	
	SB	264	0.53	140	22	162	*
	EB	382	0.53	202	0	202	
	WB	23	0.53	12	278	290	*

Remarks:

* Critical volume Total **452**

Level of service (V/C) **0.28** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	334	0.53	177	9	186	
	SB	193	0.53	102	107	209	*
	EB	389	0.53	206	1	207	
	WB	26	0.53	14	304	318	*

Remarks:

* Critical volume Total **527**

Level of service (V/C) **0.33** **A**

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: MD 212 (Powder Mill Rd) at Riggs Rd

Conditions: Existing

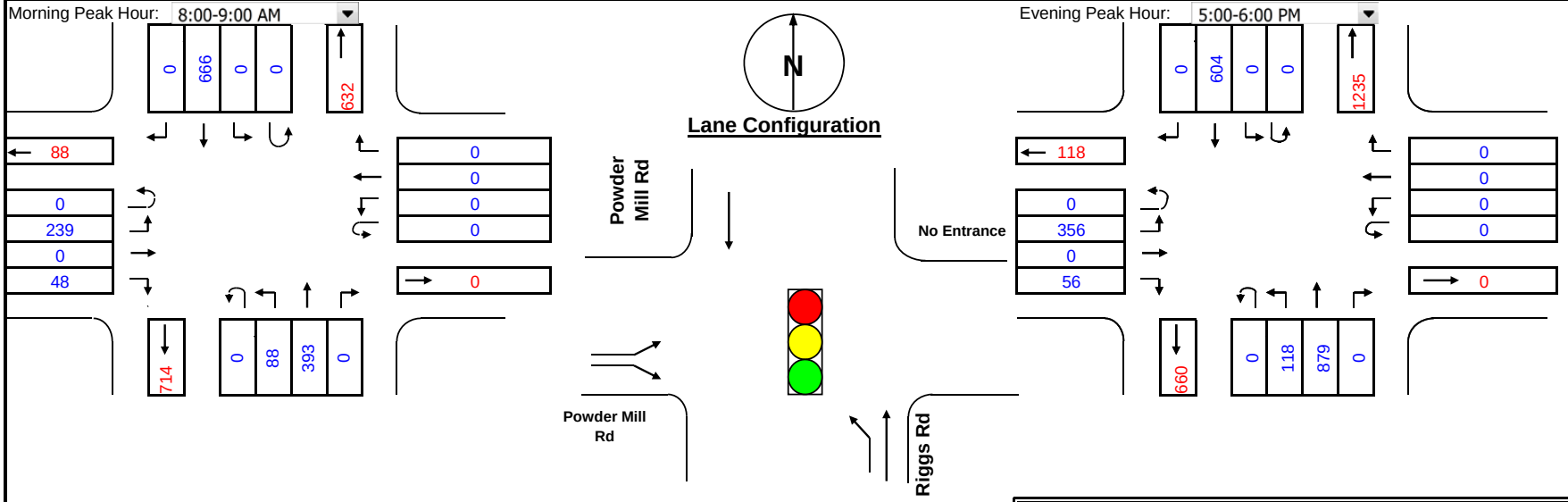
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 8:00-9:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap: [ ] Northbound [ ] Southbound [x] Eastbound [ ] Westbound

Split Phasing: ( ) East/West ( ) North/South (•) None

Inx. Control: (•) Signal ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*	Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	393	1.00	393	0	393			NB	879	1.00	879	0	879	*
	SB	666	1.00	666	88	754	*		SB	604	1.00	604	118	722	
	EB	239	1.00	239	0	239	*		EB	356	1.00	356	0	356	*
	WB	0	0.00	0	0	0			WB	0	0.00	0	0	0	
Remarks:			* Critical volume		Total	993		Remarks:			* Critical volume		Total	1235	
					Level of service (V/C)	0.62	A						Level of service (V/C)	0.77	C

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: MD 212 (Powder Mill Rd) at Cherry Hill Rd

Conditions: Existing

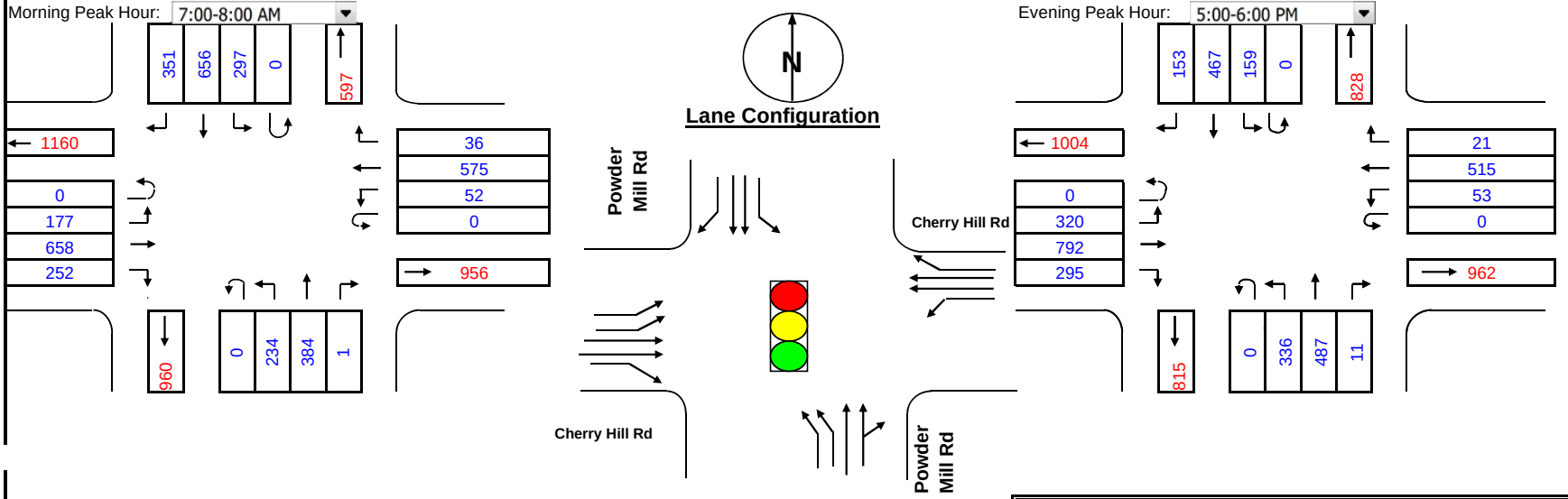
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:00-8:00 AM

Evening Peak Hour: 5:00-6:00 PM



Phasing

RTOR/Overlap: ☐ Northbound ☑ Southbound ☑ Eastbound ☑ Westbound

Split Phasing: ○ East/West ○ North/South ◉ None

Inx. Control: ◉ Signal ○ Stop

Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*	Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	385	0.53	204	297	501	*		NB	498	0.53	264	159	423	
	SB	656	0.53	348	140	488			SB	467	0.53	248	202	449	*
	EB	658	0.53	349	52	401			EB	792	0.53	420	53	473	*
	WB	575	0.53	305	106	411	*		WB	515	0.53	273	192	465	
Remarks:			* Critical volume		Total	912		Remarks:			* Critical volume		Total	922	
					Level of service (V/C)	0.57	A						Level of service (V/C)	0.58	A

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

Count Date:

Location: Powder Mill Rd at Beltsville Rd

Conditions: Existing

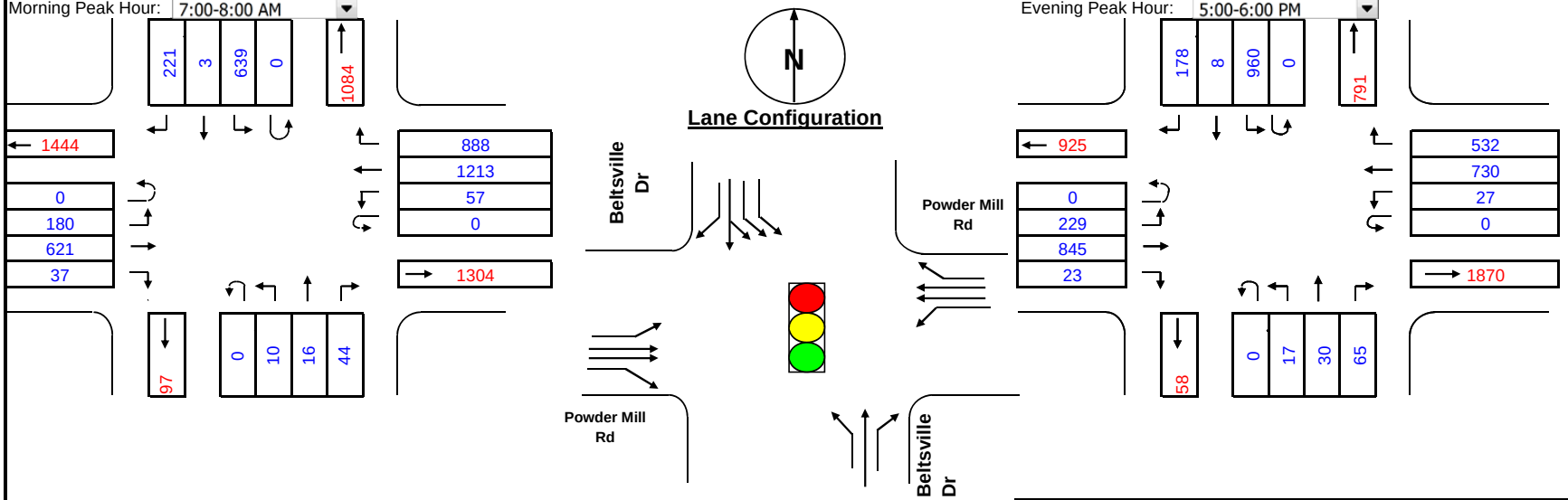
Design Year:

Computed by:

Date 5/25/2016

Morning Peak Hour: 7:00-8:00 AM

Evening Peak Hour: 5:00-6:00 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- [x] Northbound
- [x] Southbound
- [x] Eastbound
- [x] Westbound

Split Phasing
- ( ) East/West
- (•) North/South
- ( ) None

Inx. Control
- (•) Signal
- ( ) Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*	Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	16	1.00	16	0	16	*		NB	38	1.00	38	0	38	*
	SB	642	0.37	238	0	238	*		SB	968	0.37	358	0	358	*
	EB	621	0.53	329	57	386			EB	845	0.53	448	27	475	
	WB	1213	0.53	643	180	823	*		WB	730	0.53	387	229	616	*
Remarks:			* Critical volume		Total	1076		Remarks:			* Critical volume		Total	1012	
					Level of service (V/C)	0.67	B						Level of service (V/C)	0.63	B

Montgomery County Department of Transportation
Turning Movement Summary and Level of Service

Prepared by: **Sabra, Wang & Associates, Inc.**

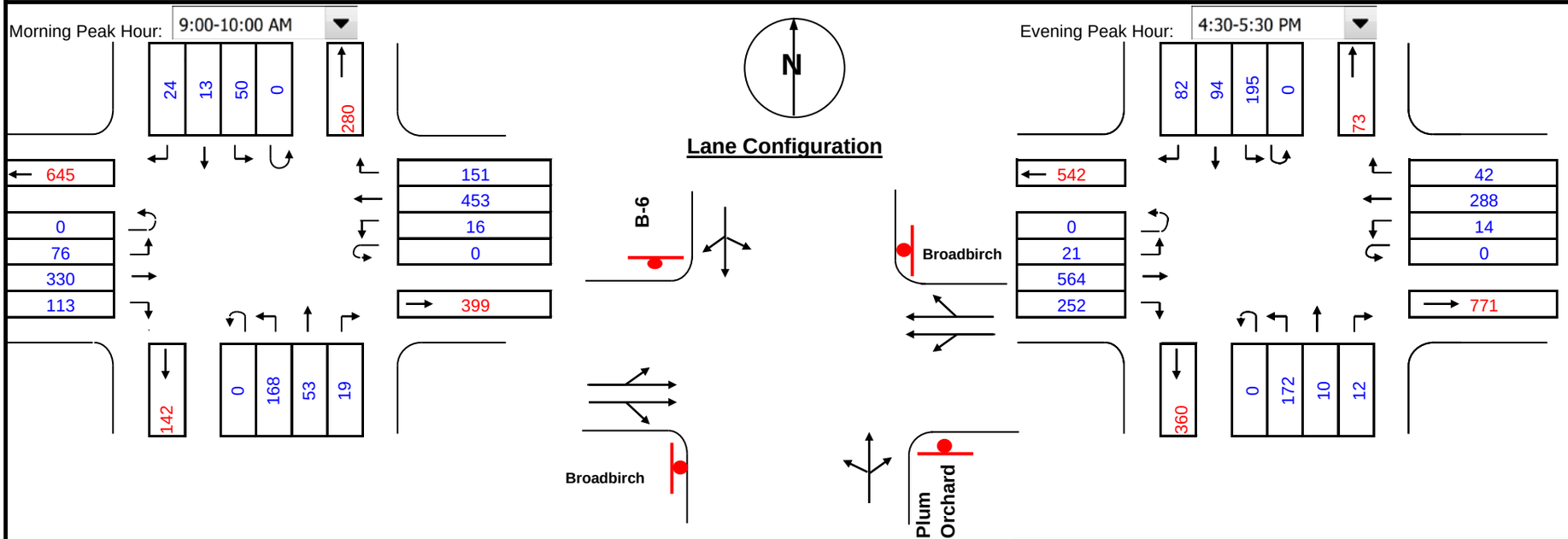
Count Date: 5/14/2015 Location: Plum Orchard at Broadbirch

Conditions: Existing

Design Year: Computed by: JC Date 5/25/2016

Morning Peak Hour: 9:00-10:00 AM

Evening Peak Hour: 4:30-5:30 PM



Number of Lanes	Lane Use Factor	Service Level	Critical Lane Vol	Opposing Volume (VPH)	PCE
1	= 1.00	A	<= 1000	<= 199	1.1
2	= 0.53	B	<= 1150	<= 599	2.0
3	= 0.37	C	<= 1300	<= 799	3.0
4	= 0.30	D	<= 1450	<= 999	4.0
5	= 0.25	E	<= 1600	> 1000	5.0
Dbl-Lt	= 0.60	F	> 1600		

Phasing

RTOR/Overlap
- ☐ Northbound
- ☐ Southbound
- ☐ Eastbound
- ☐ Westbound

Split Phasing
- ○ East/West
- ○ North/South
- ◉ None

Inx. Control
- ○ Signal
- ◉ Stop

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. volume	*
	NB	257	1.00	257	50	307	*
	SB	92	1.00	92	168	260	
	EB	595	0.53	315	16	331	
	WB	636	0.53	337	76	413	*

Remarks:

* Critical volume Total **720**

Level of service (V/C) **0.45** **A**

Phase	Movement	Volume 1	Lane Use Factor - 2	Lane volume 1 X 2	Opposing Movement	Critical ln. Volume	*
	NB	211	1.00	211	195	406	
	SB	391	1.00	391	172	563	*
	EB	858	0.53	455	14	469	*
	WB	386	0.53	205	21	226	

Remarks:

* Critical volume Total **1031**

Level of service (V/C) **0.64** **B**