

APPENDIX A

Advisory Task Force

Study Participants

1. Jeff Nutting Town Manager
2. Bryan Taberner Director of Planning and Development
3. Beth Wierling Town Planner
4. Robert Cantoreggi Director Department of Public Works
5. Michael Maglio Town Engineer
6. Jay Mello Assistant Town Engineer
7. Stephan Semerjian Chief of Police
8. Gary Premo Franklin Police
9. Joseph Frawley Traffic Operations Engineer, MassDOT District 3
10. Sarah Bradbury MassDOT District 3

Review Comments

Seth Asante

From: Frawley, Joseph (DOT)
Sent: Friday, July 25, 2014 5:40 PM
To: Seth Asante (sasante@ctps.org)
Cc: Sullivan, Ann (DOT)
Subject: Franklin - CTPS Route 140 Arterial Study - Concept Comments

Seth,

I reviewed the concepts we discussed with the staff from the Town of Franklin a couple of weeks ago and have the following comments:

Concepts 1 – 3 (General Comments)

- I suggest analyzing these concepts with a single through lane on Route 140 southbound at Beaver Street. Depending on the analysis results, the existing through-right lane could be changed to a right-turn lane or eliminated (and thus providing 5' shoulders through the Beaver Street intersection).
- Evaluate if there is a need to eliminate some of the existing raised median west of the Dunkin Donuts driveway to provide adequate storage length for the proposed left-turn lane into Dunkin Donuts on Route 140 southbound.
- As we discussed with the Town staff, these concepts should propose to reconfigure the residential driveway just west of Dunkin Donuts to connect with Old West Central Street, rather than Route 140.
- Based on the review of the crash reports and collision diagrams, are there recommendations to improve safety at the Route 140 / Franklin Village Drive / Old West Central Street intersection? As part of the capacity analysis, please see if queuing in the existing Route 140 left-turn lanes (both northbound and especially southbound) is problematic, and if lengthening the turn lane storage would be beneficial.

Concept 1 (TWLTL – 3-Lane Road Diet)

- Given the driveway spacing, I think this concept should have a continuous two-way left-turn lane from the Dunkin Donuts / Burger King driveways east to the left-turn lane for Panther Way.

Concept 2 (Flush Median Configuration w/ Left-Turn Lanes – 3-Lane Road Diet)

- I have several concerns with this concept for the section of Route 140 between Dunkin Donuts and Panther Way:
 - o To accommodate many of the business driveways on the corridor, the proposed left-turn lanes end up being quite short.
 - o Some businesses on the corridor will not have left-turn lanes for their customers (for example, Sherwin Williams).
 - o This concept seems to rely strongly on creating shared driveways at 3 Restaurant / Anne's Country Market and Franklin Square Plaza. This could make implementation of this concept more difficult, particularly if the property owners are not amenable to making the change.
- I suggest that this concept be modified to keep the left-turn lanes, but eliminate the flush median. Concerns with the flush median include:
 - o Police may ticket drivers who turn left across the flush median, which may make selling the concept to the business owners more difficult.
 - o The flush median creates a "negative" offset, which tends to create sight distance issues for left-turning vehicles.

Concept 3 (Raised Median – 2-Lane Road Diet)

- The proposed short sections of raised medians with left-turn lanes for many of the businesses are not desirable for the following reasons:
 - o The raised median creates a “negative” offset, which tends to create sight distance issues for left-turning vehicles.
 - o This concept provides access for many businesses, but restricts access for some. This may make selling the concept to the business owners more difficult.
 - o Snow and ice operations (plowing) are more difficult with short sections of raised median.
- If a raised median concept is retained, the concept should be modified to show a continuous median, with provisions for U-turns at the intersections of Franklin Village Drive / Old West Central Street and Beaver Street (and ideally at Panther Way if it could be accommodated).

During our meeting you mentioned that there were limited funds for analysis. If you find that the 3-lane cross section (1 left-turn lane and 1 through-right lane in each direction on Route 140) does not function well at the Panther Way intersection, please let me know. There may be 4-lane cross sections (2-lanes (1-through, 1 through-right) in one direction, 1 through-right in the other direction, plus a left-turn lane in each direction on Route 140) that might yield better operations, and could be tested in a preliminary way by analyzing only the Panther Way intersection.

Thanks for providing us the opportunity to comment, and feel free to call or email if you have any questions.

Joe

Joseph R. Frawley, P.E.

District 3 Traffic Engineer

Massachusetts Department of Transportation, Highway Division

P: (508) 929-3916

F: (508) 799-9763

Joseph.frawley@state.ma.us

CTPS Franklin - Route 140 Study
MassDOT Highway Division District 3 Comments - 1/7/2015

1) We want to ensure that the presentation of the cross-section alternatives accurately state the benefits and disadvantages, without swaying readers too strongly against what may become a preferred alternative. Specifically, we feel that the disadvantages of the two-way left-turn lane (TWLTL) are overstated in the draft report. We recommend the following: (1) remove the graphic that shows a head-on collision in the TWLTL, (2) remove the statement on page 17 that Alt 1 "creates an overlap left turns...", all of the alternatives retain the existing conflict created by having closely offset driveways unless access modifications are included, (3) remove the statements that Alts 2 or 3 can reduce overlap left turn safety problems (we don't feel this issue is addressed), and (4) reword the statement on page 18 from "a major advantage of Alternative 2 is the elimination of head-on crashes that occur in TWLTL to state something like "Alternative 2 eliminates the potential for a head-on conflict, however with the left turn lanes, some driveways will not benefit from having a place to pull out of traffic while waiting for a gap and the left turn out of the driveways is not improved as much as it could be with the TWLTL."

2) We suggest presenting Alternative 3 as the 4-Lane Cross Section with the option of either left-turn lanes or a TWLTL. The analysis results would be similar and the impact on driveway access pros and cons between the left-turn lanes and TWLTL would be as presented in Alts 1 and 2.

3) For Alternative 3, please note that the reduced travel speed would likely occur on Route 140 southbound only. Also, note that the queuing on Route 140 southbound (the EB approach) would be similar to that seen in Alts 1 and 2. In addition, please state that Alternative 3 is not compliant with MassDOT's Healthy Transportation Policy.

4) For the Cross Section alternatives we suggest that the report mention that additional traffic simulation would be beneficial to better understand the duration and impacts associated with the queuing. As an example of something we would want to investigate further, in the 3 lane Synchro analysis, the WB approach has a 50th percentile queue of only 239 feet, but a 95th percentile queue of 1,045 feet.

5) At the beginning of the discussion of the West Central Street improvements, we suggest more clearly stating that for the purposes of this study potential alternatives that would widen the roadway between Dunkin Donuts and Beaver Street were not evaluated.

6) The West Central Street / Old West Central Street / Franklin Village Drive intersection is now a HSIP crash cluster. We suggest that one of the recommendations in the study be to conduct a road safety audit to discuss additional safety countermeasures for that location. In addition, the recommendation to increase the all-red clearance time should be more generally stated as adjusting the clearance intervals to be consistent with MassDOT's standard for determining clearance intervals.

7) At the locations where back plates are recommended, please add a note that a structural review will be required. At some locations (if the equipment is older) the existing mast arms or span wire may not be able to accommodate the additional wind load.

8) Please explain the benefit to traffic operations and/or safety with the recommended left turn lane on Beaver Street northbound. Also, note that this may impact the abutting properties.

9) The recommendation to coordinate the signals on East Central Street should mention that there is a cost to MassDOT and the Town to provide the equipment needed to keep the signal controllers in sync. Also, it may be necessary to replace one or more signal controllers if any cannot accommodate the suggested four time-of-day plans or cannot work with the other controllers.

10) On page 22, there is a sentence that states "MassDOT is responsible for implementing the short and long-term improvements." Improvements at the East Central Street / King Street / Chestnut Street intersection are the responsibility of the Town. Because of the mixed jurisdiction of the signals on East Central Street, we have shared responsibility for implementing and operating a coordinated signal system.



Route 140 Arterial Segments Study in Franklin Summary of District 3 Comments and CTPS Responses

Comment 1: We want to ensure that the presentation of the cross-section alternatives accurately state the benefits and disadvantages, without swaying readers too strongly against what may become a preferred alternative. Specifically, we feel that the disadvantages of the two-way left-turn lane (TWLTL) are overstated in the draft report. We recommend the following: (1) remove the graphic that shows a head-on collision in the TWLTL, (2) remove the statement on page 17 that Alt 1 "creates an overlap left turns...", all of the alternatives retain the existing conflict created by having closely offset driveways unless access modifications are included, (3) remove the statements that Alts 2 or 3 can reduce overlap left turn safety problems (we don't feel this issue is addressed), and (4) reword the statement on page 18 from "a major advantage of Alternative 2 is the elimination of head-on crashes that occur in TWLTL to state something like "Alternative 2 eliminates the potential for a head-on conflict, however with the left turn lanes, some driveways will not benefit from having a place to pull out of traffic while waiting for a gap and the left turn out of the driveways is not improved as much as it could be with the TWLTL."

Response: Pages 16 to 19—We have removed the graphic that shows head-on collision. In addition, we have removed the statements that Alternatives 2 or 3 can reduce overlap left turn safety problems. In addition we have added the statements that "Alternative 2 reduces the potential for a head-on conflict, however with the left turn lanes, some driveways will not benefit from having a place to pull out of traffic while waiting for a gap and the left turn out of the driveways is not improved as much as it could be with the TWLTL."

Comment 2: We suggest presenting Alternative 3 as the 4-Lane Cross Section with the option of either left-turn lanes or a TWLTL. The analysis results would be similar and the impact on driveway access pros and cons between the left-turn lanes and TWLTL would be as presented in Alts 1 and 2.

Response: Page 19—We have modified the Alternative 3 to include the option of a TWLTL.

Comment 3: For Alternative 3, please note that the reduced travel speed would likely occur on Route 140 southbound only. Also, note that the queuing on Route 140 southbound (the EB approach) would be similar to that seen in Alts 1 and 2. In addition, please state that Alternative 3 is not compliant with MassDOT's Healthy Transportation Policy.

Response: Page 20—We have indicated that Alternative 3 is not compliant with MassDOT Healthy Transportation Policy. Also, we have noted that the queuing on Route 140 EB approach would be similar to that seen in Alternatives 1 and 2.

Comment 4: For the Cross Section alternatives we suggest that the report mention that additional traffic simulation would be beneficial to better understand the duration and impacts associated with the queuing. As an example of something we would want to investigate further, in the 3 lane Synchro analysis, the WB approach has a 50th percentile queue of only 239 feet, but a 95th percentile queue of 1,045 feet.

Response: Pages 17 and 22—We have added text to explain that additional traffic simulation would be needed to better understand the duration and impacts associated with queuing for the alternatives.

Comment 5: At the beginning of the discussion of the West Central Street improvements, we suggest more clearly stating that for the purposes of this study, potential alternatives that would widen the roadway between Dunkin Donuts and Beaver Street were not evaluated.

Response: Page 15—We have added text at the beginning of subsection 6.1—West Central Street Improvements—that potential alternatives that would widen the roadway between Dunkin Donuts and Beaver Street were not evaluated in this study.

Comment 6: The West Central Street / Old West Central Street / Franklin Village Drive intersection is now a HSIP crash cluster. We suggest that one of the recommendations in the study be to conduct a road safety audit to discuss additional safety countermeasures for that location. In addition, the recommendation to increase the all-red clearance time should be more generally stated as adjusting the clearance intervals to be consistent with MassDOT's standard for determining clearance intervals.

Response: Page 16—We have added a recommendation to conduct a road safety audit for the intersection of West Central Street and Franklin Village Drive to discuss additional safety countermeasures for this intersection because it is an HSIP crash cluster. In addition, we have modified the recommendation to adjust clearance intervals to be consistent with MassDOT's standard.

Comment 7: At the locations where back plates are recommended, please add a note that a structural review will be required. At some locations (if the equipment is older) the existing mast arms or span wire may not be able to accommodate the additional wind load.

Response: Pages 16 and 21—At locations where signal backplates are recommended, we have noted that structural review of signal equipment be conducted to ensure that the

existing mast arms or span wires would be able to accommodate the additional wind loads.

Comment 8: Please explain the benefit to traffic operations and/or safety with the recommended left turn lane on Beaver Street northbound. Also, note that this may impact the abutting properties.

Response: Page 16—We have added text to explain the benefits of adding a left-turn lane to Beaver Street northbound—reducing delay at the approach and overall intersection delay. In addition, we have indicated that the improvement would impact on the abutting properties

Comment 9: The recommendation to coordinate the signals on East Central Street should mention that there is a cost to MassDOT and the Town to provide the equipment needed to keep the signal controllers in sync. Also, it may be necessary to replace one or more signal controllers if any cannot accommodate the suggested four time-of-day plans or cannot work with the other controllers.

Response: Page 23--We have added text to address these comments.

Comment 10: On page 22, there is a sentence that states "MassDOT is responsible for implementing the short and long-term improvements." Improvements at the East Central Street/King Street / Chestnut Street intersection are the responsibility of the Town. Because of the mixed jurisdiction of the signals on East Central Street, we have shared responsibility for implementing and operating a coordinated signal system.

Response: Page 23--We have added text to address these comments.



TOWN OF FRANKLIN

DEPARTMENT OF PUBLIC WORKS

Franklin Municipal Building
257 Fisher Street
Franklin, MA 02038-3026

March 6, 2015

To: Seth A. Asante, Chief Transportation Planner - **Via Email**
Central Transportation Planning Staff, Boston MPO

Re: Route 140 Arterial Segments Study in Franklin

Seth,

We've reviewed the draft study and have the following comments:

- Under the Existing Conditions Section:
 - West Central Street at Panther Way is equipped with emergency pre-emption for the Panther Way approach only (Police Station is located on Panther Way).
 - West Central Street at Beaver Street does not have emergency pre-emption.
 - East Central at Horace Mann Plaza does not have emergency pre-emption.
- We note that there is currently a private commercial development project undergoing the MEPA review process for the property at 300-340 East Central Street with a proposed traffic signal located at the intersection of Glen Meadow Rd which would have a significant impact to this section of East Central Street.
- You mentioned that MassDOT has requested some further analysis at the Panther Way intersection. We would be interested in seeing the results of that additional analysis.

Thank you for the opportunity to review the draft report.

Sincerely,

Michael Maglio, P.E.
Town Engineer



March 06, 2015

Mr. Michael Maglio
Town Engineer, Town of Franklin
Department of Public Works
257 Fisher Street
Franklin, Massachusetts 02038

Dear Mr. Maglio:

Re: Route 140 Arterial Segments Study in Franklin

Thank you for reviewing the draft study. MPO staff have reviewed comments from the Town of Franklin and communicated with MassDOT Highway Division District 3. The following are MPO staff response to the comments.

Comment 1:

Under the Existing Conditions Section:

- West Central Street at Panther Way is equipped with emergency preemption for the Panther Way approach only (Police Station is located on Panther Way).
- West Central Street at Beaver Street does not have emergency preemption.
- East Central Street at Horace Mann Plaza does not have emergency preemption.

Response to Comment 1:

We have addressed the comments and incorporated them in the study memorandum

Comment 2:

We note that there is currently a private commercial development project undergoing the MEPA review process for the property at 300-340 East Central Street with a proposed traffic signal located at the intersection of Glen Meadow Road which would have a significant impact to this section of East Central Street.

Response to Comment 2:

We agree that adding another traffic signal on East Central Street would have significant impact to delays and queuing on the corridor. These impacts cannot be evaluated as part of this study. We expect MassDOT to meet with the Town of Franklin and Project Developer to review and discuss in more detail prior to the Environmental Impact Report (EIR) phase.

Comment 3:

You mentioned that MassDOT has requested some further analysis at the Panther Way intersection. We would be interested in seeing the results of that additional analysis.

Response to Comment 3

We expect MassDOT Highway Division District 3, more likely in the next few years, to advance the design of the West Central Street corridor. During the study/design phase, they would include micro-simulation to examine the duration and the impact of queuing at the Panther Way intersection to enable selection of a preferred alternative. The additional analyses would be conducted by a consultant as part of a study/design effort, and the Town would have the opportunity to review the results.

Again, thank you for your participation in this study. I would send you the final study report when it is ready. Please feel free to call me or email if you have any question.

Yours truly,



Seth Asante,
Chief Transportation Planner

SAA/saa

cc: Mr. Bryan Taberner, Director of Planning and
Community Development, Franklin

APPENDIX B

Traffic Count Data

Turning Movement Counts

Massachusetts Department of Transportation

Highway Division

Franklin
Rt 140 (W Central)& Franklin Village Dr
Counted by Miovision
S14-010 TMC # 1

File Name : S14-010 Franklin 1
Site Code : 156486
Start Date : 4/15/2014
Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Old West Central St From North				Route 140 From East					Franklin Village Dr From South					Route 140 From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
07:00 AM	81	5	48	134	31	154	10	0	195	8	13	14	0	35	28	153	56	0	237	601
07:15 AM	129	12	52	193	67	182	14	0	263	5	42	23	0	70	71	151	61	5	288	814
07:30 AM	135	8	44	187	91	204	15	0	310	12	73	16	0	101	93	136	61	1	291	889
07:45 AM	118	13	48	179	34	150	15	0	199	11	18	19	0	48	52	182	57	6	297	723
Total	463	38	192	693	223	690	54	0	967	36	146	72	0	254	244	622	235	12	1113	3027
08:00 AM	90	6	28	124	40	195	16	1	252	17	14	14	0	45	61	151	46	5	263	684
08:15 AM	83	16	41	140	42	159	14	0	215	15	6	14	0	35	48	140	47	3	238	628
08:30 AM	69	12	30	111	24	154	28	0	206	17	5	25	0	47	54	115	44	2	215	579
08:45 AM	70	13	37	120	26	158	26	0	210	24	6	19	0	49	46	140	54	4	244	623
Total	312	47	136	495	132	666	84	1	883	73	31	72	0	176	209	546	191	14	960	2514
09:00 AM	60	20	35	115	34	152	27	0	213	17	6	17	0	40	47	109	43	8	207	575
09:15 AM	58	9	27	94	17	119	28	0	164	17	10	20	0	47	45	100	29	7	181	486
09:30 AM	49	15	28	92	21	128	26	0	175	28	8	26	0	62	34	114	27	4	179	508
09:45 AM	47	13	12	72	29	105	22	0	156	30	11	20	0	61	53	128	43	1	225	514
Total	214	57	102	373	101	504	103	0	708	92	35	83	0	210	179	451	142	20	792	2083
10:00 AM	39	16	25	80	25	102	33	0	160	25	6	35	1	67	45	104	28	3	180	487
10:15 AM	33	12	12	57	20	124	38	0	182	29	14	28	0	71	42	90	41	4	177	487
10:30 AM	27	21	23	71	25	124	28	0	177	35	10	49	0	94	62	97	29	1	189	531
10:45 AM	45	13	43	101	28	123	42	0	193	49	11	48	0	108	60	110	45	2	217	619
Total	144	62	103	309	98	473	141	0	712	138	41	160	1	340	209	401	143	10	763	2124
11:00 AM	38	18	23	79	31	121	45	0	197	37	14	50	1	102	62	98	43	3	206	584
11:15 AM	49	12	22	83	17	136	44	0	197	46	16	52	0	114	65	112	48	2	227	621
11:30 AM	56	15	17	88	19	136	43	0	198	43	17	54	1	115	85	144	38	3	270	671
11:45 AM	35	23	24	82	29	103	41	1	174	56	25	62	0	143	98	123	37	2	260	659
Total	178	68	86	332	96	496	173	1	766	182	72	218	2	474	310	477	166	10	963	2535
12:00 PM	39	24	36	99	22	138	39	0	199	63	20	48	0	131	91	157	43	3	294	723
12:15 PM	47	23	24	94	26	161	48	1	236	56	15	75	0	146	100	154	36	4	294	770
12:30 PM	46	9	18	73	28	154	45	1	228	64	20	59	0	143	90	143	33	7	273	717
12:45 PM	48	16	22	86	26	159	41	0	226	57	22	80	0	159	101	113	34	4	252	723
Total	180	72	100	352	102	612	173	2	889	240	77	262	0	579	382	567	146	18	1113	2933
01:00 PM	40	17	32	89	27	131	37	0	195	63	30	71	0	164	78	133	39	3	253	701
01:15 PM	36	17	22	75	31	146	52	1	230	60	29	62	0	151	92	113	37	2	244	700
01:30 PM	39	14	20	73	28	127	33	0	188	51	17	55	0	123	65	129	48	4	246	630
01:45 PM	43	19	26	88	32	127	51	0	210	56	24	66	0	146	76	110	53	5	244	688
Total	158	67	100	325	118	531	173	1	823	230	100	254	0	584	311	485	177	14	987	2719
02:00 PM	63	10	35	108	49	134	37	0	220	70	27	56	0	153	42	104	59	0	205	686
02:15 PM	113	29	86	228	64	137	30	0	231	45	20	47	0	112	40	153	47	7	247	818

Massachusetts Department of Transportation

Highway Division

File Name : S14-010 Franklin 1
 Site Code : 156486
 Start Date : 4/15/2014
 Page No : 2

Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Old West Central St From North				Route 140 From East					Franklin Village Dr From South					Route 140 From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
02:30 PM	60	17	48	125	33	185	45	1	264	51	17	59	0	127	49	124	60	3	236	752
02:45 PM	60	33	34	127	43	140	34	0	217	40	32	46	0	118	55	115	57	4	231	693
Total	296	89	203	588	189	596	146	1	932	206	96	208	0	510	186	496	223	14	919	2949
03:00 PM	80	14	30	124	34	185	37	1	257	23	22	70	0	115	55	132	57	1	245	741
03:15 PM	79	14	39	132	32	153	29	1	215	33	22	39	0	94	68	149	74	0	291	732
03:30 PM	53	14	26	93	36	148	27	0	211	38	21	53	1	113	83	166	72	4	325	742
03:45 PM	54	23	38	115	41	154	36	0	231	42	26	63	0	131	61	153	61	5	280	757
Total	266	65	133	464	143	640	129	2	914	136	91	225	1	453	267	600	264	10	1141	2972
04:00 PM	69	15	32	116	46	188	50	0	284	47	31	54	0	132	66	124	77	1	268	800
04:15 PM	79	28	39	146	34	139	53	0	226	70	28	62	0	160	79	174	71	4	328	860
04:30 PM	54	23	21	98	48	174	41	0	263	60	16	49	0	125	77	152	84	4	317	803
04:45 PM	78	26	42	146	36	146	32	1	215	65	33	64	0	162	68	160	83	3	314	837
Total	280	92	134	506	164	647	176	1	988	242	108	229	0	579	290	610	315	12	1227	3300
05:00 PM	79	21	22	122	26	146	48	0	220	63	35	51	0	149	95	147	90	5	337	828
05:15 PM	70	29	35	134	38	139	45	0	222	64	37	58	0	159	102	205	91	7	405	920
05:30 PM	80	28	40	148	38	181	53	0	272	77	39	78	1	195	73	149	91	3	316	931
05:45 PM	64	20	21	105	36	133	49	0	218	58	29	51	0	138	111	174	108	6	399	860
Total	293	98	118	509	138	599	195	0	932	262	140	238	1	641	381	675	380	21	1457	3539
Grand Total	2784	755	1407	4946	1504	6454	1547	9	9514	1837	937	2021	5	4800	2968	5930	2382	155	11435	30695
Apprch %	56.3	15.3	28.4		15.8	67.8	16.3	0.1		38.3	19.5	42.1	0.1		26	51.9	20.8	1.4		
Total %	9.1	2.5	4.6	16.1	4.9	21	5	0	31	6	3.1	6.6	0	15.6	9.7	19.3	7.8	0.5	37.3	
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars	2609	708	1237	4554	1309	5502	1449	9	8269	1758	859	1809	4	4430	2627	4991	2185	134	9937	27190
% Cars	93.7	93.8	87.9	92.1	87	85.2	93.7	100	86.9	95.7	91.7	89.5	80	92.3	88.5	84.2	91.7	86.5	86.9	88.6
Light Goods Vehicles																				
% Light Goods Vehicles	3.2	3.6	9.5	5.1	10	10.9	4.8	0	9.8	2.1	5.8	7.1	20	4.9	8.5	11.5	5.5	11	9.5	8.1
Buses	32	10	20	62	23	13	8	0	44	9	16	1	0	26	7	22	26	0	55	187
% Buses	1.1	1.3	1.4	1.3	1.5	0.2	0.5	0	0.5	0.5	1.7	0	0	0.5	0.2	0.4	1.1	0	0.5	0.6
Single-Unit Trucks	51	10	17	78	21	184	14	0	219	29	7	56	0	92	67	175	38	4	284	673
% Single-Unit Trucks	1.8	1.3	1.2	1.6	1.4	2.9	0.9	0	2.3	1.6	0.7	2.8	0	1.9	2.3	3	1.6	2.6	2.5	2.2
Articulated Trucks	2	0	0	2	0	50	2	0	52	3	1	11	0	15	15	59	1	0	75	144
% Articulated Trucks	0.1	0	0	0	0	0.8	0.1	0	0.5	0.2	0.1	0.5	0	0.3	0.5	1	0	0	0.7	0.5

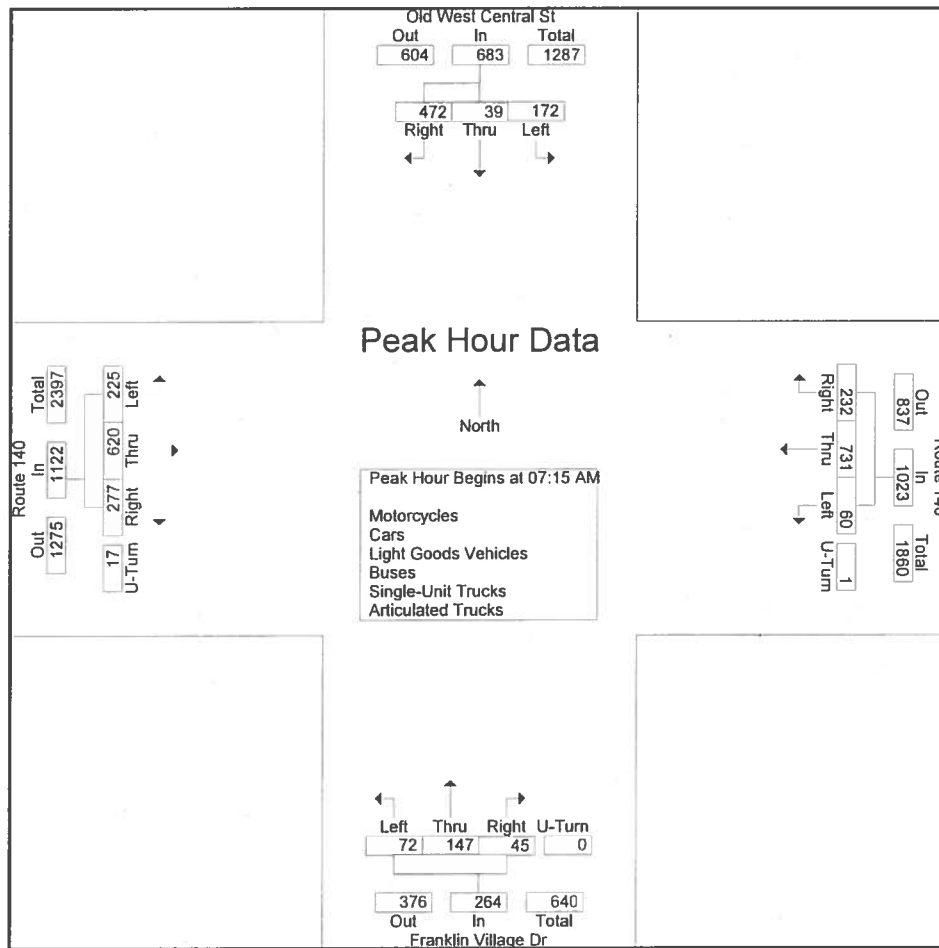
*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 1
Site Code : 156486
Start Date : 4/15/2014
Page No : 3

Start Time	Old West Central St From North				Route 140 From East					Franklin Village Dr From South					Route 140 From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 07:15 AM																				
07:15 AM	129	12	52	193	67	182	14	0	263	5	42	23	0	70	71	151	61	5	288	814
07:30 AM	135	8	44	187	91	204	15	0	310	12	73	16	0	101	93	136	61	1	291	889
07:45 AM	118	13	48	179	34	150	15	0	199	11	18	19	0	48	52	182	57	6	297	
08:00 AM	90	6	28	124	40	195	16	1	252	17	14	14	0	45	61	151	46	5	263	684
Total Volume	472	39	172	683	232	731	60	1	1024	45	147	72	0	264	277	620	225	17	1139	3110
% App. Total	69.1	5.7	25.2		22.7	71.4	5.9	0.1		17	55.7	27.3	0		24.3	54.4	19.8	1.5		
PHF	.874	.750	.827	.885	.637	.896	.938	.250	.826	.662	.503	.783	.000	.653	.745	.852	.922	.708	.959	.875

*Massachusetts Department of Transportation
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File Name : S14-010 Franklin 1
 Site Code : 156486
 Start Date : 4/15/2014
 Page No : 4



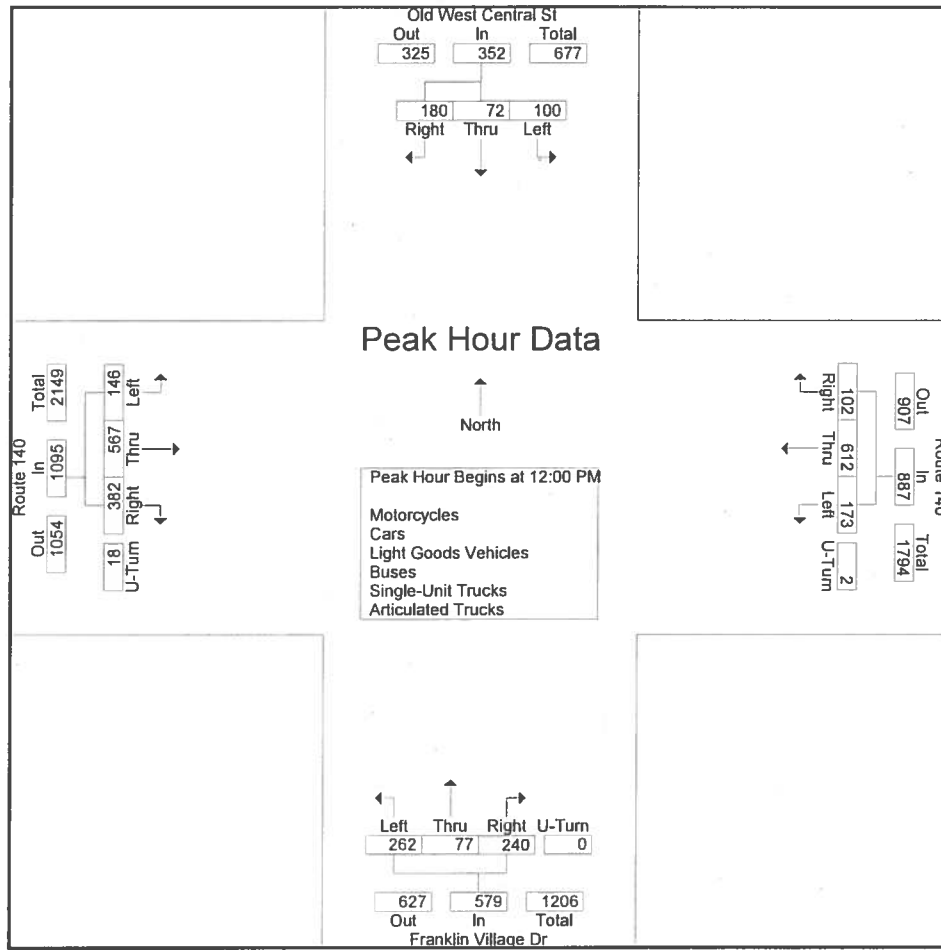
*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 1
 Site Code : 156486
 Start Date : 4/15/2014
 Page No : 5

Start Time	Old West Central St From North				Route 140 From East					Franklin Village Dr From South					Route 140 From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 12:00 PM																				
12:00 PM	39	24	24	87	22	128	48	9	199	56	15	75	0	146	100	157	43	3	294	723
12:15 PM	47	23	24	94	26	161	48	1	236	64					101	113	34	4	294	770
12:30 PM	46	9	18	73	28	154	45	1	228	64					101	113	34	4	273	717
12:45 PM	48	16	22	86	26	159	41	0	226	57	22	80		159	101	113	34	4	252	723
Total Volume	180	72	100	352	102	612	173	2	889	240	77	262	0	579	382	567	146	18	1113	2933
% App. Total	51.1	20.5	28.4		11.5	68.8	19.5	0.2		41.5	13.3	45.3	0		34.3	50.9	13.1	1.6		
PHF	.938	.750	.694	.889	.911	.950	.901	.500	.942	.938	.875	.819	.000	.910	.946	.903	.849	.643	.946	.952

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 1
 Site Code : 156486
 Start Date : 4/15/2014
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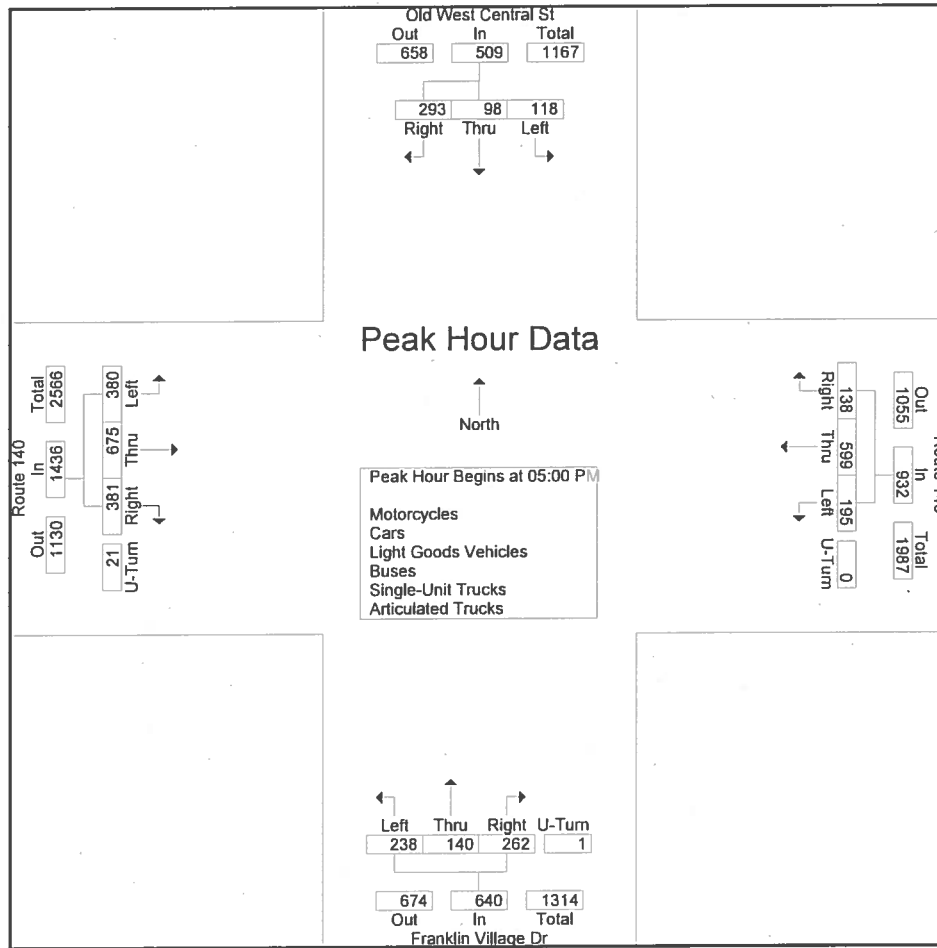
*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 1
 Site Code : 156486
 Start Date : 4/15/2014
 Page No : 7

Start Time	Old West Central St From North				Route 140 From East					Franklin Village Dr From South					Route 140 From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 05:00 PM																				
05:00 PM	79	21	22	122	26	146	48	0	220	63	35	51	0	149	95	147	90	5	337	828
05:15 PM	70	28	35	134	26	139	45	0	222	64	37	58	0	159	102	149	91	7	405	920
05:30 PM	80	28	40	148	36	181	53	0	272	77	39	78	1	195	73	149	91	3	316	931
05:45 PM	64	20	21	105	36	133	49	0	218	58	29	51	0	138	111	174	108	6	399	860
Total Volume	293	98	118	509	138	599	195	0	932	262	140	238	1	641	381	675	380	21	1457	3539
% App. Total	57.6	19.3	23.2		14.8	64.3	20.9	0		40.9	21.8	37.1	0.2		26.1	46.3	26.1	1.4		
PHF	.916	.845	.738	.860	.908	.827	.920	.000	.857	.851	.897	.763	.250	.822	.858	.823	.880	.750	.899	.950

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 1
 Site Code : 156486
 Start Date : 4/15/2014
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Massachusetts Department of Transportation

Highway Division

Franklin
 Rt 140 (W Central)& Franklin Village Dr
 Counted by Miovision
 S14-010 TMC # 1

File Name : S14-010 Franklin 1
 Site Code : 156486
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Old West Central St From North				Route 140 From East					Franklin Village Dr From South					Route 140 From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
07:00 AM	81	5	48	134	31	150	10	0	191	8	12	12	0	32	27	145	53	0	225	582
07:15 AM	126	11	51	188	64	177	13	0	254	4	40	20	0	64	65	148	52	5	270	776
07:30 AM	130	7	43	180	85	195	15	0	295	12	72	13	0	97	87	129	57	1	274	846
07:45 AM	114	11	47	172	34	144	14	0	192	11	16	16	0	43	50	164	55	5	274	681
Total	451	34	189	674	214	666	52	0	932	35	140	61	0	236	229	586	217	11	1043	2885
08:00 AM	86	6	28	120	39	181	15	1	236	16	14	12	0	42	59	144	45	5	253	651
08:15 AM	81	16	41	138	42	152	14	0	208	14	5	12	0	31	43	127	45	3	218	595
08:30 AM	69	12	30	111	24	144	27	0	195	17	5	23	0	45	50	112	42	2	206	557
08:45 AM	69	12	35	116	24	155	26	0	205	22	5	16	0	43	44	125	54	4	227	591
Total	305	46	134	485	129	632	82	1	844	69	29	63	0	161	196	508	186	14	904	2394
09:00 AM	60	20	31	111	31	142	24	0	197	12	6	15	0	33	41	100	42	8	191	532
09:15 AM	57	9	27	93	17	114	28	0	159	15	9	18	0	42	43	91	29	7	170	464
09:30 AM	48	14	27	89	18	122	26	0	166	28	8	24	0	60	31	109	26	4	170	485
09:45 AM	46	12	12	70	28	96	21	0	145	25	11	19	0	55	49	122	42	1	214	484
Total	211	55	97	363	94	474	99	0	667	80	34	76	0	190	164	422	139	20	745	1965
10:00 AM	38	16	24	78	25	92	32	0	149	25	4	32	1	62	43	100	26	2	171	460
10:15 AM	33	12	12	57	19	118	37	0	174	27	14	27	0	68	41	83	40	4	168	467
10:30 AM	27	21	22	70	24	118	27	0	169	34	10	49	0	93	62	93	28	1	184	516
10:45 AM	43	13	40	96	27	117	41	0	185	48	11	44	0	103	57	105	43	2	207	591
Total	141	62	98	301	95	445	137	0	677	134	39	152	1	326	203	381	137	9	730	2034
11:00 AM	37	17	23	77	31	115	45	0	191	37	13	49	1	100	62	91	43	3	199	567
11:15 AM	46	12	22	80	15	129	44	0	188	45	16	52	0	113	63	107	48	2	220	601
11:30 AM	56	14	17	87	19	123	42	0	184	42	17	51	1	111	81	133	38	3	255	637
11:45 AM	34	23	23	80	28	98	40	1	167	55	25	62	0	142	94	119	37	2	252	641
Total	173	66	85	324	93	465	171	1	730	179	71	214	2	466	300	450	166	10	926	2446
12:00 PM	37	24	35	96	22	131	37	0	190	62	17	47	0	126	91	151	43	3	288	700
12:15 PM	45	22	24	91	24	155	48	1	228	55	15	72	0	142	96	147	36	4	283	744
12:30 PM	46	9	18	73	28	148	45	1	222	64	20	57	0	141	90	136	31	7	264	700
12:45 PM	48	14	21	83	24	155	41	0	220	57	20	79	0	156	99	106	33	4	242	701
Total	176	69	98	343	98	589	171	2	860	238	72	255	0	565	376	540	143	18	1077	2845
01:00 PM	38	17	30	85	25	127	37	0	189	62	30	70	0	162	78	128	38	3	247	683
01:15 PM	36	16	21	73	28	137	51	1	217	59	27	60	0	146	89	109	35	2	235	671
01:30 PM	37	13	20	70	28	120	33	0	181	49	16	54	0	119	65	120	45	4	234	604
01:45 PM	40	19	25	84	30	124	50	0	204	56	24	64	0	144	72	106	49	5	232	664
Total	151	65	96	312	111	508	171	1	791	226	97	248	0	571	304	463	167	14	948	2622
02:00 PM	61	9	35	105	47	129	37	0	213	68	26	56	0	150	39	99	56	0	194	662
02:15 PM	101	29	82	212	63	131	28	0	222	45	19	46	0	110	38	148	47	7	240	784

Massachusetts Department of Transportation

Highway Division

File Name : S14-010 Franklin 1
 Site Code : 156486
 Start Date : 4/15/2014
 Page No : 2

Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Old West Central St From North				Route 140 From East					Franklin Village Dr From South					Route 140 From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
02:30 PM	57	17	48	122	33	180	45	1	259	50	17	56	0	123	47	120	60	3	230	734
02:45 PM	58	32	34	124	41	137	34	0	212	39	32	45	0	116	54	110	56	4	224	676
Total	277	87	199	563	184	577	144	1	906	202	94	203	0	499	178	477	219	14	888	2856
03:00 PM	77	14	29	120	34	183	36	1	254	21	22	70	0	113	55	129	57	1	242	729
03:15 PM	73	13	37	123	30	147	29	1	207	32	22	38	0	92	64	144	69	0	277	699
03:30 PM	51	14	25	90	36	144	26	0	206	37	21	51	1	110	81	161	69	4	315	721
03:45 PM	52	23	35	110	41	152	36	0	229	42	26	60	0	128	61	149	59	5	274	741
Total	253	64	126	443	141	626	127	2	896	132	91	219	1	443	261	583	254	10	1108	2890
04:00 PM	68	14	32	114	46	183	50	0	279	46	30	51	0	127	65	121	77	1	264	784
04:15 PM	77	28	37	142	34	137	52	0	223	69	28	60	0	157	79	171	71	4	325	847
04:30 PM	50	23	21	94	48	170	41	0	259	60	16	49	0	125	77	149	82	4	312	790
04:45 PM	75	25	42	142	36	144	32	1	213	65	33	64	0	162	68	156	82	3	309	826
Total	270	90	132	492	164	634	175	1	974	240	107	224	0	571	289	597	312	12	1210	3247
05:00 PM	79	21	22	122	25	145	47	0	217	63	35	51	0	149	95	144	88	4	331	819
05:15 PM	69	28	35	132	38	138	45	0	221	64	36	58	0	158	102	205	91	7	405	916
05:30 PM	79	28	39	146	38	179	53	0	270	77	39	78	1	195	73	147	90	3	313	924
05:45 PM	64	20	20	104	36	129	49	0	214	57	29	51	0	137	109	171	108	5	393	848
Total	291	97	116	504	137	591	194	0	922	261	139	238	1	639	379	667	377	19	1442	3507
Grand Total	2699	735	1370	4804	1460	6207	1523	9	9199	1796	913	1953	5	4667	2879	5674	2317	151	11021	29691
Apprch %	56.2	15.3	28.5		15.9	67.5	16.6	0.1		38.5	19.6	41.8	0.1		26.1	51.5	21	1.4		
Total %	9.1	2.5	4.6	16.2	4.9	20.9	5.1	0	31	6	3.1	6.6	0	15.7	9.7	19.1	7.8	0.5	37.1	
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars	2609	708	1237	4554	1309	5502	1449	9	8269	1758	859	1809	4	4430	2627	4991	2185	134	9937	27190
% Cars	96.7	96.3	90.3	94.8	89.7	88.6	95.1	100	89.9	97.9	94.1	92.6	80	94.9	91.2	88	94.3	88.7	90.2	91.6
Light Goods Vehicles																				
% Light Goods Vehicles	3.3	3.7	9.7	5.2	10.3	11.4	4.9	0	10.1	2.1	5.9	7.4	20	5.1	8.8	12	5.7	11.3	9.8	8.4

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140 (W Central)& Franklin Village Dr
Counted by Miovision
S14-010 TMC # 1

File Name : S14-010 Franklin 1
Site Code : 156486
Start Date : 4/15/2014
Page No : 1

Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Old West Central St From North				Route 140 From East					Franklin Village Dr From South					Route 140 From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
07:00 AM	0	0	0	0	0	4	0	0	4	0	1	2	0	3	1	8	3	0	12	19
07:15 AM	3	1	1	5	3	5	1	0	9	1	2	3	0	6	6	3	9	0	18	38
07:30 AM	5	1	1	7	6	9	0	0	15	0	1	3	0	4	6	7	4	0	17	43
07:45 AM	4	2	1	7	0	6	1	0	7	0	2	3	0	5	2	18	2	1	23	42
Total	12	4	3	19	9	24	2	0	35	1	6	11	0	18	15	36	18	1	70	142
08:00 AM	4	0	0	4	1	14	1	0	16	1	0	2	0	3	2	7	1	0	10	33
08:15 AM	2	0	0	2	0	7	0	0	7	1	1	2	0	4	5	13	2	0	20	33
08:30 AM	0	0	0	0	0	10	1	0	11	0	0	2	0	2	4	3	2	0	9	22
08:45 AM	1	1	2	4	2	3	0	0	5	2	1	3	0	6	2	15	0	0	17	32
Total	7	1	2	10	3	34	2	0	39	4	2	9	0	15	13	38	5	0	56	120
09:00 AM	0	0	4	4	3	10	3	0	16	5	0	2	0	7	6	9	1	0	16	43
09:15 AM	1	0	0	1	0	5	0	0	5	2	1	2	0	5	2	9	0	0	11	22
09:30 AM	1	1	1	3	3	6	0	0	9	0	0	2	0	2	3	5	1	0	9	23
09:45 AM	1	1	0	2	1	9	1	0	11	5	0	1	0	6	4	6	1	0	11	30
Total	3	2	5	10	7	30	4	0	41	12	1	7	0	20	15	29	3	0	47	118
10:00 AM	1	0	1	2	0	10	1	0	11	0	2	3	0	5	2	4	2	1	9	27
10:15 AM	0	0	0	0	1	6	1	0	8	2	0	1	0	3	1	7	1	0	9	20
10:30 AM	0	0	1	1	1	6	1	0	8	1	0	0	0	1	0	4	1	0	5	15
10:45 AM	2	0	3	5	1	6	1	0	8	1	0	4	0	5	3	5	2	0	10	28
Total	3	0	5	8	3	28	4	0	35	4	2	8	0	14	6	20	6	1	33	90
11:00 AM	1	1	0	2	0	6	0	0	6	0	1	1	0	2	0	7	0	0	7	17
11:15 AM	3	0	0	3	2	7	0	0	9	1	0	0	0	1	2	5	0	0	7	20
11:30 AM	0	1	0	1	0	13	1	0	14	1	0	3	0	4	4	11	0	0	15	34
11:45 AM	1	0	1	2	1	5	1	0	7	1	0	0	0	1	4	4	0	0	8	18
Total	5	2	1	8	3	31	2	0	36	3	1	4	0	8	10	27	0	0	37	89
12:00 PM	2	0	1	3	0	7	2	0	9	1	3	1	0	5	0	6	0	0	6	23
12:15 PM	2	1	0	3	2	6	0	0	8	1	0	3	0	4	4	7	0	0	11	26
12:30 PM	0	0	0	0	0	6	0	0	6	0	0	2	0	2	0	7	2	0	9	17
12:45 PM	0	2	1	3	2	4	0	0	6	0	2	1	0	3	2	7	1	0	10	22
Total	4	3	2	9	4	23	2	0	29	2	5	7	0	14	6	27	3	0	36	88
01:00 PM	2	0	2	4	2	4	0	0	6	1	0	1	0	2	0	5	1	0	6	18
01:15 PM	0	1	1	2	3	9	1	0	13	1	2	2	0	5	3	4	2	0	9	29
01:30 PM	2	1	0	3	0	7	0	0	7	2	1	1	0	4	0	9	3	0	12	26
01:45 PM	3	0	1	4	2	3	1	0	6	0	0	2	0	2	4	4	4	0	12	24
Total	7	2	4	13	7	23	2	0	32	4	3	6	0	13	7	22	10	0	39	97
02:00 PM	2	1	0	3	2	5	0	0	7	2	1	0	0	3	3	5	3	0	11	24
02:15 PM	12	0	4	16	1	6	2	0	9	0	1	1	0	2	2	5	0	0	7	34

Massachusetts Department of Transportation

Highway Division

File Name : S14-010 Franklin 1
 Site Code : 156486
 Start Date : 4/15/2014
 Page No : 2

Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Old West Central St From North				Route 140 From East					Franklin Village Dr From South					Route 140 From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
02:30 PM	3	0	0	3	0	5	0	0	5	1	0	3	0	4	2	4	0	0	6	18
02:45 PM	2	1	0	3	2	3	0	0	5	1	0	1	0	2	1	5	1	0	7	17
Total	19	2	4	25	5	19	2	0	26	4	2	5	0	11	8	19	4	0	31	93
03:00 PM	3	0	1	4	0	2	1	0	3	2	0	0	0	2	0	3	0	0	3	12
03:15 PM	6	1	2	9	2	6	0	0	8	1	0	1	0	2	4	5	5	0	14	33
03:30 PM	2	0	1	3	0	4	1	0	5	1	0	2	0	3	2	5	3	0	10	21
03:45 PM	2	0	3	5	0	2	0	0	2	0	0	3	0	3	0	4	2	0	6	16
Total	13	1	7	21	2	14	2	0	18	4	0	6	0	10	6	17	10	0	33	82
04:00 PM	1	1	0	2	0	5	0	0	5	1	1	3	0	5	1	3	0	0	4	16
04:15 PM	2	0	2	4	0	2	1	0	3	1	0	2	0	3	0	3	0	0	3	13
04:30 PM	4	0	0	4	0	4	0	0	4	0	0	0	0	0	0	3	2	0	5	13
04:45 PM	3	1	0	4	0	2	0	0	2	0	0	0	0	0	0	4	1	0	5	11
Total	10	2	2	14	0	13	1	0	14	2	1	5	0	8	1	13	3	0	17	53
05:00 PM	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	3	2	1	6	9
05:15 PM	1	1	0	2	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	4
05:30 PM	1	0	1	2	0	2	0	0	2	0	0	0	0	0	0	2	1	0	3	7
05:45 PM	0	0	1	1	0	4	0	0	4	1	0	0	0	1	2	3	0	1	6	12
Total	2	1	2	5	1	8	1	0	10	1	1	0	0	2	2	8	3	2	15	32
Grand Total	85	20	37	142	44	247	24	0	315	41	24	68	0	133	89	256	65	4	414	1004
Apprch %	59.9	14.1	26.1		14	78.4	7.6	0		30.8	18	51.1	0		21.5	61.8	15.7	1		
Total %	8.5	2	3.7	14.1	4.4	24.6	2.4	0	31.4	4.1	2.4	6.8	0	13.2	8.9	25.5	6.5	0.4	41.2	
Buses	32	10	20	62	23	13	8	0	44	9	16	1	0	26	7	22	26	0	55	187
% Buses	37.6	50	54.1	43.7	52.3	5.3	33.3	0	14	22	66.7	1.5	0	19.5	7.9	8.6	40	0	13.3	18.6
<small>Trucks</small>																				
% Single-Unit Trucks	60	50	45.9	54.9	47.7	74.5	58.3	0	69.5	70.7	29.2	82.4	0	69.2	75.3	68.4	58.5	100	68.6	67
Articulated Trucks	2	0	0	2	0	50	2	0	52	3	1	11	0	15	15	59	1	0	75	144
% Articulated Trucks	2.4	0	0	1.4	0	20.2	8.3	0	16.5	7.3	4.2	16.2	0	11.3	16.9	23	1.5	0	18.1	14.3

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140 (W Central)& Franklin Village Dr
Counted by Miovision
S14-010 TMC # 1

File Name : S14-010 Franklin 1
Site Code : 156486
Start Date : 4/15/2014
Page No : 1

Groups Printed- Bicycles on Road

Start Time	Old West Central St From North				Route 140 From East					Franklin Village Dr From South					Route 140 From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2
Apprch %	0	0	0		0	0	0	0		0	0	100	0		100	0	0	0		
Total %	0	0	0		0	0	0	0		0	0	50	0		50	0	0	0		50

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140 (W Central)& Franklin Village Dr
Counted by Miovision
S14-010 TMC # 1

File Name : S14-010 Franklin 1
Site Code : 156486
Start Date : 4/15/2014
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Start Time	Groups Printed- Pedestrians				Int. Total				
	Old West Central St From North Peds	App. Total	Route 140 From East Peds	App. Total		Franklin Village Dr From South Peds	App. Total	Route 140 From West Peds	App. Total
Grand Total	0	0	0	0	0	0	0	0	0
Approch % Total %	0		0		0		0		0

Massachusetts Department of Transportation Highway Division

Franklin
Rt 140 (W Central) & Franklin Village Dr
Counted by Miovision
S14-010 TMC # 1 Sat

File Name : S14-010 Franklin 1 Sat
Site Code : 159362
Start Date : 4/12/2014
Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Old West Central St From North				Route 140 From East					Northbound St. From South					Franklin Village Dr From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
11:00 AM	63	21	38	122	47	190	58	1	296	56	32	61	0	149	83	136	61	3	283	850
11:15 AM	63	24	55	142	36	182	47	1	266	67	23	75	0	165	86	142	49	2	279	852
11:30 AM	53	36	33	122	33	180	55	0	268	56	27	65	1	149	86	162	63	4	315	854
11:45 AM	76	33	48	157	53	190	67	0	310	69	37	65	0	171	100	145	68	4	317	955
Total	255	114	174	543	169	742	227	2	1140	248	119	266	1	634	355	585	241	13	1194	3511
12:00 PM	75	35	44	154	37	130	71	3	241	66	26	78	0	170	92	190	52	5	339	904
12:15 PM	73	36	30	139	65	143	71	0	279	79	38	68	0	185	119	148	53	0	320	923
12:30 PM	62	25	39	126	47	165	74	1	287	63	36	85	0	184	99	143	40	0	282	879
12:45 PM	70	28	49	147	34	122	64	0	220	60	32	84	0	176	91	154	46	3	294	837
Total	280	124	162	566	183	560	280	4	1027	268	132	315	0	715	401	635	191	8	1235	3543
01:00 PM	55	24	37	116	42	164	62	0	268	76	39	79	0	194	102	170	75	0	347	925
01:15 PM	56	30	30	116	34	157	73	0	264	92	31	87	0	210	104	142	58	0	304	894
01:30 PM	69	32	27	128	34	172	58	0	264	73	39	88	0	200	90	137	64	2	293	885
01:45 PM	81	29	29	139	40	134	59	0	233	72	33	82	0	187	100	121	61	5	287	846
Total	261	115	123	499	150	627	252	0	1029	313	142	336	0	791	396	570	258	7	1231	3550
Grand Total	796	353	459	1608	502	1929	759	6	3196	829	393	917	1	2140	1152	1790	690	28	3660	10604
Apprch %	49.5	22	28.5		15.7	60.4	23.7	0.2		38.7	18.4	42.9	0		31.5	48.9	18.9	0.8		
Total %	7.5	3.3	4.3	15.2	4.7	18.2	7.2	0.1	30.1	7.8	3.7	8.6	0	20.2	10.9	16.9	6.5	0.3	34.5	
Motorcycles	6	0	6	12	3	17	1	0	21	3	0	3	0	6	6	21	4	1	32	71
% Motorcycles	0.8	0	1.3	0.7	0.6	0.9	0.1	0	0.7	0.4	0	0.3	0	0.3	0.5	1.2	0.6	3.6	0.9	0.7
Cars	759	338	401	1498	434	1720	729	6	2889	803	385	868	1	2057	1074	1601	642	25	3342	9786
% Cars	95.4	95.8	87.4	93.2	86.5	89.2	96	100	90.4	96.9	98	94.7	100	96.1	93.2	89.4	93	89.3	91.3	92.3
Light Goods Vehicles																				
% Light Goods Vehicles	3	4	10	5.2	12	8.8	3.3	0	7.9	2.5	1.8	3.9	0	3	5.5	7.9	5.2	3.6	6.6	6.1
Buses	1	0	2	3	1	2	2	0	5	1	1	2	0	4	2	1	0	0	3	15
% Buses	0.1	0	0.4	0.2	0.2	0.1	0.3	0	0.2	0.1	0.3	0.2	0	0.2	0.2	0.1	0	0	0.1	0.1
Single-Unit Trucks	6	1	4	11	4	17	2	0	23	0	0	7	0	7	5	20	8	1	34	75
% Single-Unit Trucks	0.8	0.3	0.9	0.7	0.8	0.9	0.3	0	0.7	0	0	0.8	0	0.3	0.4	1.1	1.2	3.6	0.9	0.7
Articulated Trucks	0	0	0	0	0	4	0	0	4	1	0	1	0	2	2	6	0	0	8	14
% Articulated Trucks	0	0	0	0	0	0.2	0	0	0.1	0.1	0	0.1	0	0.1	0.2	0.3	0	0	0.2	0.1

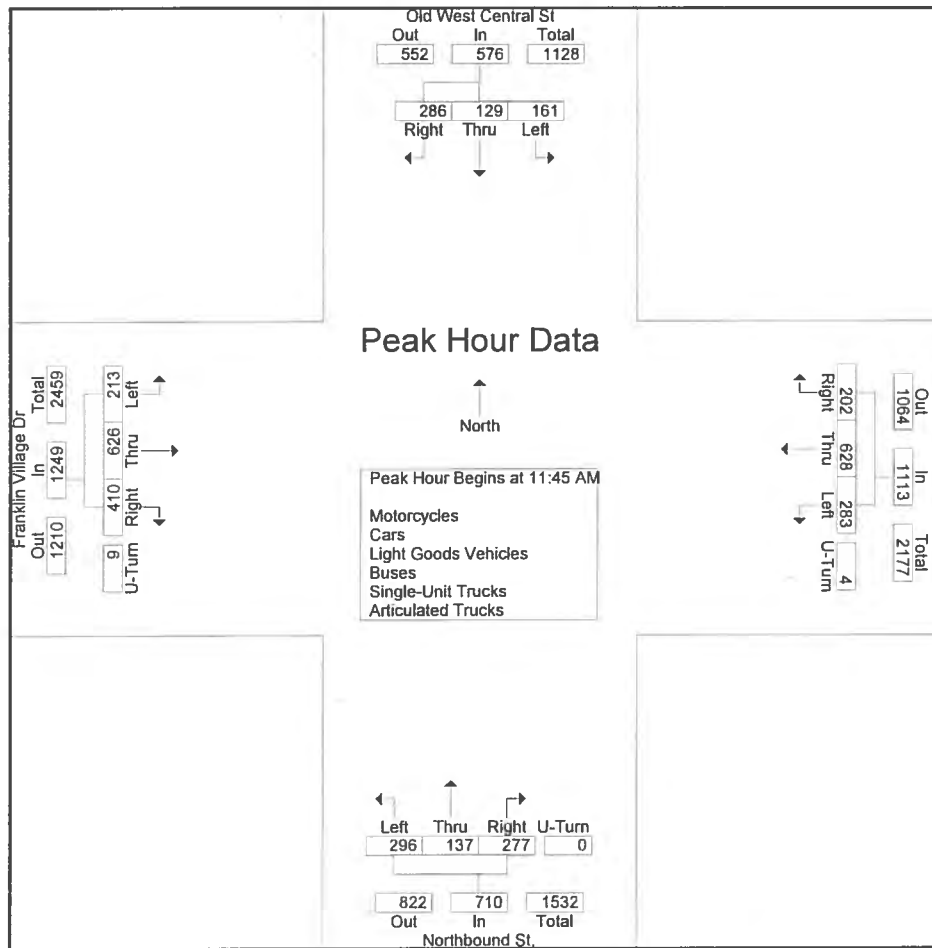
*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 1 Sat
Site Code : 159362
Start Date : 4/12/2014
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Start Time	Old West Central St From North				Route 140 From East					Northbound St. From South					Franklin Village Dr From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 11:45 AM																				
11:45 AM		33	48	157	53	180	67	0	310	69	37	65	0	171	100	145	68	4	317	955
12:00 PM	75	35	44	154	37	130	71	3	241	66	26	78	0	170	92	190	52	5	339	
12:15 PM	73	36	30	139	65	143	71	0	279	79	38	68	0	185	119	148	53	0	320	923
12:30 PM	62	25	39	126	47	165	74	1	287	63	36	85								
Total Volume	286	129	161	576	202	628	283	4	1117	277	137	296	0	710	410	626	213	9	1258	3661
% App. Total	49.7	22.4	28		18.1	56.2	25.3	0.4		39	19.3	41.7	0		32.6	49.8	16.9	0.7		
PHF	.941	.896	.839	.917	.777	.826	.956	.333	.901	.877	.901	.871	.000	.959	.861	.824	.783	.450	.928	.958

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 1 Sat
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Massachusetts Department of Transportation Highway Division

Franklin
Rt 140 (W Central) & Franklin Village Dr
Counted by Miovision
S14-010 TMC # 1 Sat

File Name : S14-010 Franklin 1 Sat
Site Code : 159362
Start Date : 4/12/2014
Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Old West Central St From North				Route 140 From East					Northbound St. From South					Franklin Village Dr From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
11:00 AM	62	21	38	121	47	186	58	1	292	56	32	60	0	148	82	132	59	3	276	837
11:15 AM	62	24	52	138	36	179	46	1	262	67	23	74	0	164	84	140	49	2	275	839
11:30 AM	53	36	33	122	33	176	55	0	264	56	27	64	1	148	86	160	63	4	313	847
11:45 AM	76	33	48	157	51	189	67	0	307	69	36	65	0	170	98	144	68	4	314	948
Total	253	114	171	538	167	730	226	2	1125	248	118	263	1	630	350	576	239	13	1178	3471
12:00 PM	75	35	44	154	37	128	71	3	239	66	26	77	0	169	92	188	51	5	336	898
12:15 PM	72	35	30	137	65	142	71	0	278	79	38	67	0	184	119	143	53	0	315	914
12:30 PM	62	25	39	126	47	163	74	1	285	63	36	84	0	183	99	142	40	0	281	875
12:45 PM	69	28	48	145	34	121	64	0	219	60	32	82	0	174	90	154	44	2	290	828
Total	278	123	161	562	183	554	280	4	1021	268	132	310	0	710	400	627	188	7	1222	3515
01:00 PM	53	24	37	114	42	163	61	0	266	76	39	78	0	193	102	168	74	0	344	917
01:15 PM	55	30	28	113	34	157	71	0	262	92	31	86	0	209	102	140	57	0	299	883
01:30 PM	69	32	27	128	32	169	58	0	259	72	39	88	0	199	90	131	64	2	287	873
01:45 PM	81	29	29	139	39	133	59	0	231	71	33	82	0	186	99	121	60	5	285	841
Total	258	115	121	494	147	622	249	0	1018	311	142	334	0	787	393	560	255	7	1215	3514
Grand Total	789	352	453	1594	497	1906	755	6	3164	827	392	907	1	2127	1143	1763	682	27	3615	10500
Apprch %	49.5	22.1	28.4		15.7	60.2	23.9	0.2		38.9	18.4	42.6	0		31.6	48.8	18.9	0.7		
Total %	7.5	3.4	4.3	15.2	4.7	18.2	7.2	0.1	30.1	7.9	3.7	8.6	0	20.3	10.9	16.8	6.5	0.3	34.4	
Motorcycles	6	0	6	12	3	17	1	0	21	3	0	3	0	6	6	21	4	1	32	71
% Motorcycles	0.8	0	1.3	0.8	0.6	0.9	0.1	0	0.7	0.4	0	0.3	0	0.3	0.5	1.2	0.6	3.7	0.9	0.7
Cars	759	338	401	1498	434	1720	729	6	2889	803	385	868	1	2057	1074	1601	642	25	3342	9786
% Cars	96.2	96	88.5	94	87.3	90.2	96.6	100	91.3	97.1	98.2	95.7	100	96.7	94	90.8	94.1	92.6	92.4	93.2
<small>Light Goods Vehicles</small>																				
% Light Goods Vehicles	3	4	10.2	5.3	12.1	8.9	3.3	0	8	2.5	1.8	4	0	3	5.5	8	5.3	3.7	6.7	6.1

Massachusetts Department of Transportation Highway Division

Franklin
Rt 140 (W Central) & Franklin Village Dr
Counted by Miovision
S14-010 TMC # 1 Sat

File Name : S14-010 Franklin 1 Sat
Site Code : 159362
Start Date : 4/12/2014
Page No : 1

Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Old West Central St From North				Route 140 From East					Northbound St. From South					Franklin Village Dr From West					Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
11:00 AM	1	0	0	1	0	4	0	0	4	0	0	1	0	1	1	4	2	0	7	13
11:15 AM	1	0	3	4	0	3	1	0	4	0	0	1	0	1	2	2	0	0	4	13
11:30 AM	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	2	0	0	2	7
11:45 AM	0	0	0	0	2	1	0	0	3	0	1	0	0	1	2	1	0	0	3	7
Total	2	0	3	5	2	12	1	0	15	0	1	3	0	4	5	9	2	0	16	40
12:00 PM	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	2	1	0	3	6
12:15 PM	1	1	0	2	0	1	0	0	1	0	0	1	0	1	0	5	0	0	5	9
12:30 PM	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	1	0	0	1	4
12:45 PM	1	0	1	2	0	1	0	0	1	0	0	2	0	2	1	0	2	1	4	9
Total	2	1	1	4	0	6	0	0	6	0	0	5	0	5	1	8	3	1	13	28
01:00 PM	2	0	0	2	0	1	1	0	2	0	0	1	0	1	0	2	1	0	3	8
01:15 PM	1	0	2	3	0	0	2	0	2	0	0	1	0	1	2	2	1	0	5	11
01:30 PM	0	0	0	0	2	3	0	0	5	1	0	0	0	1	0	6	0	0	6	12
01:45 PM	0	0	0	0	1	1	0	0	2	1	0	0	0	1	1	0	1	0	2	5
Total	3	0	2	5	3	5	3	0	11	2	0	2	0	4	3	10	3	0	16	36
Grand Total	7	1	6	14	5	23	4	0	32	2	1	10	0	13	9	27	8	1	45	104
Apprch %	50	7.1	42.9		15.6	71.9	12.5	0		15.4	7.7	76.9	0		20	60	17.8	2.2		
Total %	6.7	1	5.8	13.5	4.8	22.1	3.8	0	30.8	1.9	1	9.6	0	12.5	8.7	26	7.7	1	43.3	
% Buses	1	0	2	3	1	2	2	0	5	1	1	2	0	4	2	1	0	0	3	15
% Buses	14.3	0	33.3	21.4	20	8.7	50	0	15.6	50	100	20	0	30.8	22.2	3.7	0	0	6.7	14.4
<small>Single-Unit Trucks</small>																				
% Single-Unit Trucks	85.7	100	66.7	78.6	80	73.9	50	0	71.9	0	0	70	0	53.8	55.6	74.1	100	100	75.6	72.1
Articulated Trucks	0	0	0	0	0	4	0	0	4	1	0	1	0	2	2	6	0	0	8	14
% Articulated Trucks	0	0	0	0	0	17.4	0	0	12.5	50	0	10	0	15.4	22.2	22.2	0	0	17.8	13.5

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140 (W Central) & Franklin Village Dr
Counted by Miovision
S14-010 TMC # 1 Sat

File Name : S14-010 Franklin 1 Sat
Site Code : 159362
Start Date : 4/12/2014
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Groups Printed- Pedestrians

Start Time	Old West Central St From North		Route 140 From East		Northbound St. From South		Franklin Village Dr From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
11:00 AM	1	1	2	2	0	0	0	0	3
Total	1	1	2	2	0	0	0	0	3
Grand Total	1	1	2	2	0	0	0	0	3
Apprch %	100		100		0		0		
Total %	33.3	33.3	66.7	66.7	0	0	0	0	

Massachusetts Department of Transportation

Highway Division

Franklin
 Rt 140 (West Central St) & Panther Way
 Counted by Miovision
 S14-010 TMC # 2

File Name : S14-010 Franklin 2
 Site Code : 156485
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	35	0	27	62	77	155	1	233	0	1	1	2	1	108	85	194	491
07:15 AM	55	0	60	115	103	177	1	281	2	1	1	4	1	110	83	194	594
07:30 AM	35	0	27	62	16	243	0	259	1	0	2	3	2	139	19	160	484
07:45 AM	14	0	15	29	7	178	1	186	1	0	1	2	5	184	23	212	429
Total	139	0	129	268	203	753	3	959	4	2	5	11	9	541	210	760	1998
08:00 AM	22	0	19	41	10	188	3	201	3	0	3	6	2	150	15	167	415
08:15 AM	19	0	15	34	22	178	1	201	1	1	2	4	2	140	18	160	399
08:30 AM	7	0	11	18	9	188	3	200	0	1	2	3	0	148	9	157	378
08:45 AM	15	0	13	28	12	165	1	178	1	0	1	2	1	178	14	193	401
Total	63	0	58	121	53	719	8	780	5	2	8	15	5	616	56	677	1593
09:00 AM	12	0	11	23	14	187	6	207	2	0	2	4	2	140	9	151	385
09:15 AM	6	0	9	15	8	136	2	146	3	1	2	6	2	118	11	131	298
09:30 AM	14	0	9	23	7	158	0	165	2	0	2	4	1	142	10	153	345
09:45 AM	8	0	7	15	13	131	1	145	0	0	0	0	0	145	13	158	318
Total	40	0	36	76	42	612	9	663	7	1	6	14	5	545	43	593	1346
10:00 AM	14	0	9	23	7	141	1	149	1	0	1	2	1	124	17	142	316
10:15 AM	10	0	9	19	16	146	1	163	2	0	2	4	3	108	9	120	306
10:30 AM	6	0	11	17	11	145	1	157	1	0	2	3	5	132	12	149	326
10:45 AM	16	0	11	27	10	155	1	166	2	0	2	4	3	145	25	173	370
Total	46	0	40	86	44	587	4	635	6	0	7	13	12	509	63	584	1318
11:00 AM	8	0	16	24	12	169	2	183	3	0	2	5	2	135	15	152	364
11:15 AM	10	0	10	20	13	168	3	184	3	0	1	4	5	138	11	154	362
11:30 AM	8	0	15	23	12	158	3	173	3	0	4	7	4	158	13	175	378
11:45 AM	4	0	12	16	12	157	4	173	5	0	1	6	5	173	16	194	389
Total	30	0	53	83	49	652	12	713	14	0	8	22	16	604	55	675	1493
12:00 PM	10	0	8	18	9	177	3	189	4	0	4	8	4	194	9	207	422
12:15 PM	7	0	8	15	19	166	6	191	8	1	10	19	12	185	21	218	443
12:30 PM	16	1	14	31	12	175	3	190	8	0	3	11	9	181	11	201	433
12:45 PM	14	0	10	24	14	175	5	194	4	0	9	13	6	174	16	196	427
Total	47	1	40	88	54	693	17	764	24	1	26	51	31	734	57	822	1725
01:00 PM	8	1	11	20	10	165	5	180	3	1	6	10	10	172	20	202	412
01:15 PM	12	0	10	22	11	171	4	186	3	0	9	12	5	167	15	187	407
01:30 PM	6	0	9	15	15	145	3	163	2	0	6	8	6	153	25	184	370
01:45 PM	9	0	16	25	35	181	0	216	3	0	4	7	4	149	24	177	425
Total	35	1	46	82	71	662	12	745	11	1	25	37	25	641	84	750	1614
02:00 PM	31	0	39	70	24	149	2	175	6	0	5	11	5	159	24	188	444
02:15 PM	53	4	51	108	17	146	1	164	3	2	5	10	6	232	21	259	541
02:30 PM	35	1	19	55	19	188	1	208	1	1	1	3	5	199	19	223	489
02:45 PM	38	0	25	63	14	174	1	189	3	0	3	6	6	159	17	182	440
Total	157	5	134	296	74	657	5	736	13	3	14	30	22	749	81	852	1914
03:00 PM	30	1	29	60	21	193	1	215	4	1	6	11	8	163	21	192	478
03:15 PM	23	0	33	56	23	158	6	187	3	0	4	7	4	165	27	196	446
03:30 PM	14	1	20	35	17	171	5	193	5	1	3	9	4	192	26	222	459
03:45 PM	18	0	18	36	23	195	2	220	3	1	1	5	2	170	28	200	461
Total	85	2	100	187	84	717	14	815	15	3	14	32	18	690	102	810	1844
04:00 PM	29	0	22	51	13	243	2	258	1	0	4	5	5	183	28	216	530
04:15 PM	19	0	16	35	21	168	2	191	4	0	5	9	6	210	35	251	486
04:30 PM	20	0	22	42	32	188	4	224	2	0	7	9	7	204	23	234	509
04:45 PM	20	1	19	40	18	189	1	208	0	0	4	4	4	220	30	254	506
Total	88	1	79	168	84	788	9	881	7	0	20	27	22	817	116	955	2031

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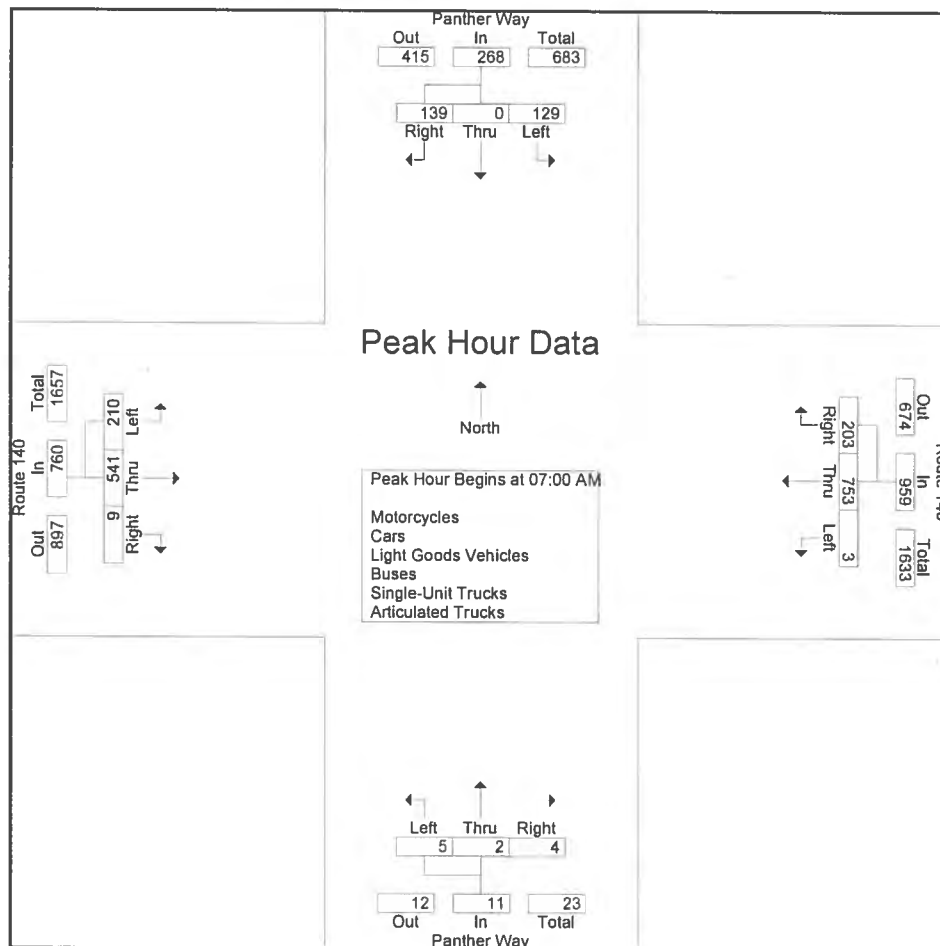
Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	10	0	18	28	21	188	2	211	7	1	2	10	2	188	28	218	467
05:15 PM	25	1	5	31	14	195	4	213	3	0	5	8	9	247	19	275	527
05:30 PM	19	1	20	40	20	229	1	250	3	0	9	12	2	211	29	242	544
05:45 PM	14	0	23	37	19	176	1	196	3	0	1	4	4	234	23	261	498
Total	68	2	66	136	74	788	8	870	16	1	17	34	17	880	99	996	2036
Grand Total	798	12	781	1591	832	7628	101	8561	122	14	150	286	182	7326	966	8474	18912
Apprch %	50.2	0.8	49.1		9.7	89.1	1.2		42.7	4.9	52.4		2.1	86.5	11.4		
Total %	4.2	0.1	4.1	8.4	4.4	40.3	0.5	45.3	0.6	0.1	0.8	1.5	1	38.7	5.1	44.8	
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars	699	12	684	1395	717	6748	78	7543	101	14	120	235	153	6149	862	7164	16337
% Cars	87.6	100	87.6	87.7	86.2	88.5	77.2	88.1	82.8	100	80	82.2	84.1	83.9	89.2	84.5	86.4
Light Goods Vehicles	75	0	78	153	81	620	19	720	15	0	24	39	21	883	75	979	1891
% Light Goods Vehicles	9.4	0	10	9.6	9.7	8.1	18.8	8.4	12.3	0	16	13.6	11.5	12.1	7.8	11.6	10
Buses	13	0	15	28	26	31	0	57	0	0	0	0	0	32	18	50	135
% Buses	1.6	0	1.9	1.8	3.1	0.4	0	0.7	0	0	0	0	0	0.4	1.9	0.6	0.7
Single-Unit Trucks	9	0	4	13	8	181	4	193	6	0	6	12	8	210	9	227	445
% Single-Unit Trucks	1.1	0	0.5	0.8	1	2.4	4	2.3	4.9	0	4	4.2	4.4	2.9	0.9	2.7	2.4
Articulated Trucks	2	0	0	2	0	48	0	48	0	0	0	0	0	52	2	54	104
% Articulated Trucks	0.3	0	0	0.1	0	0.6	0	0.6	0	0	0	0	0	0.7	0.2	0.6	0.5

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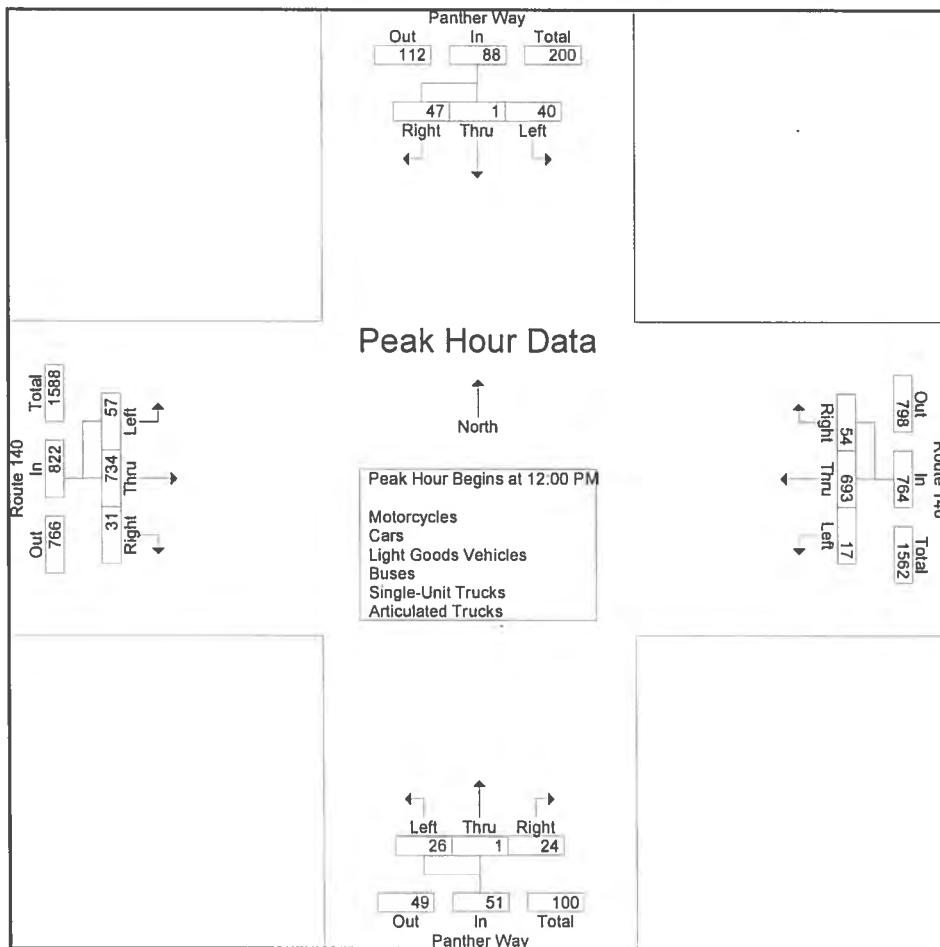
Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	35	0	27	62	77	155	1	233	0	1	1	2	1	108	85	194	491
07:15 AM	55	0	60	115	103	177	1	281	2	1	1	4	1	110	83	194	594
07:30 AM	35	0	27	62	16	243	0	259	1	0	2	3	2	139	19	160	484
07:45 AM	14	0	15	29	7	178	1	186	1	0	1	2	5	184	23	212	429
Total Volume	139	0	129	268	203	753	3	959	4	2	5	11	9	541	210	760	1998
% App. Total	51.9	0	48.1		21.2	78.5	0.3		36.4	18.2	45.5		1.2	71.2	27.6		
PHF	.632	.000	.538	.583	.493	.775	.750	.853	.500	.500	.625	.688	.450	.735	.618	.896	.841



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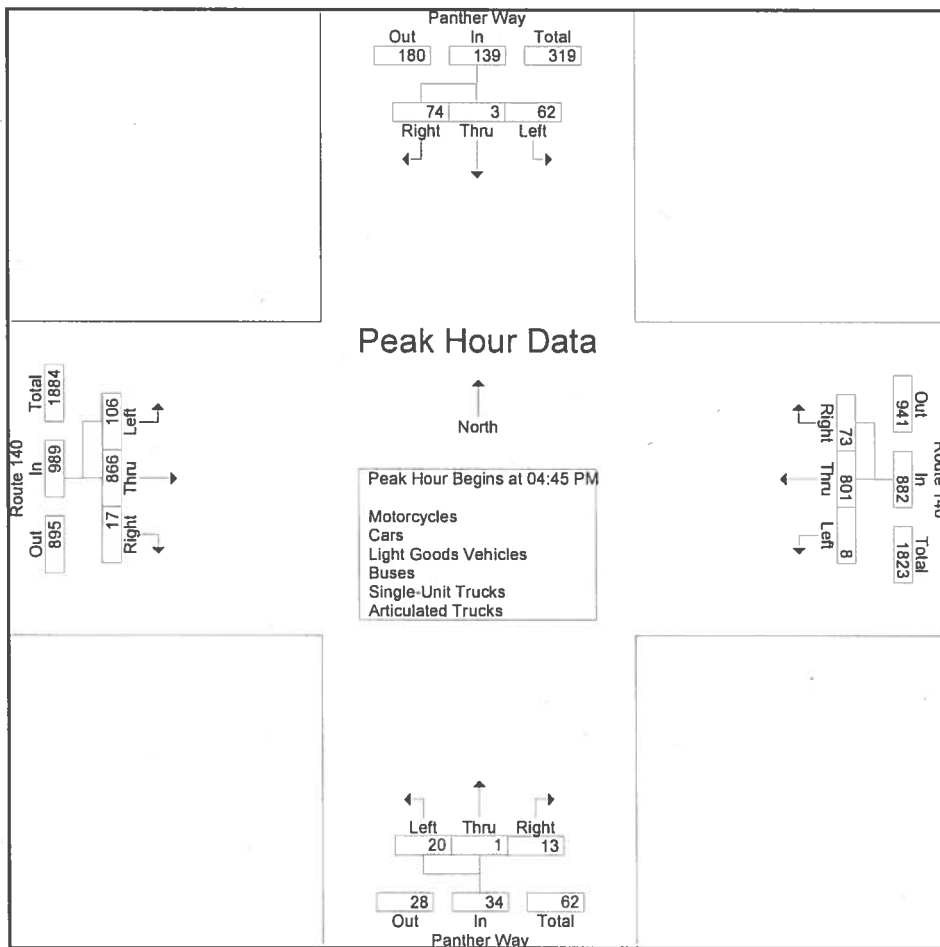
Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	10	0	8	18	9	177	3	189	4	0	4	8	4	194	9	207	422
12:15 PM	7	0	8	15	19	166	6	191	8	1	10	19	12	185	21	218	443
12:30 PM	16	1	14	31	12	175	3	190	8	0	3	11	9	181	11	201	433
12:45 PM	14	0	10	24	14	175	5	194	4	0	9	13	6	174	16	196	427
Total Volume	47	1	40	88	54	693	17	764	24	1	26	51	31	734	57	822	1725
% App. Total	53.4	1.1	45.5		7.1	90.7	2.2		47.1	2	51		3.8	89.3	6.9		
PHF	.734	.250	.714	.710	.711	.979	.708	.985	.750	.250	.650	.671	.646	.946	.679	.943	.973



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Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	20	1	19	40	18	189	1	208	0	0	4	4	4	220	30	254	506
05:00 PM	10	0	18	28	21	188	2	211	7	1	2	10	2	188	28	218	467
05:15 PM	25	1	5	31	14	195	4	213	3	0	5	8	9	247	19	275	527
05:30 PM	19	1	20	40	20	229	1	250	3	0	9	12	2	211	29	242	544
Total Volume	74	3	62	139	73	801	8	882	13	1	20	34	17	866	106	989	2044
% App. Total	53.2	2.2	44.6		8.3	90.8	0.9		38.2	2.9	58.8		1.7	87.6	10.7		
PHF	.740	.750	.775	.869	.869	.874	.500	.882	.464	.250	.556	.708	.472	.877	.883	.899	.939



Massachusetts Department of Transportation

Highway Division

Franklin
 Rt 140 (West Central St) & Panther Way
 Counted by Miovision
 S14-010 TMC # 2

File Name : S14-010 Franklin 2
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	35	0	27	62	77	150	1	228	0	1	1	2	1	102	84	187	479
07:15 AM	55	0	58	113	100	171	1	272	2	1	1	4	1	103	83	187	576
07:30 AM	32	0	24	56	15	233	0	248	1	0	2	3	2	130	19	151	458
07:45 AM	14	0	11	25	7	170	1	178	1	0	1	2	5	167	21	193	398
Total	136	0	120	256	199	724	3	926	4	2	5	11	9	502	207	718	1911
08:00 AM	21	0	19	40	9	178	2	189	3	0	2	5	2	139	15	156	390
08:15 AM	19	0	15	34	17	171	1	189	1	1	2	4	2	125	18	145	372
08:30 AM	7	0	11	18	6	177	3	186	0	1	2	3	0	145	9	154	361
08:45 AM	13	0	12	25	8	160	0	168	0	0	0	0	0	161	13	174	367
Total	60	0	57	117	40	686	6	732	4	2	6	12	4	570	55	629	1490
09:00 AM	11	0	11	22	13	172	6	191	2	0	2	4	2	124	6	132	349
09:15 AM	5	0	8	13	8	133	2	143	3	1	2	6	1	108	11	120	282
09:30 AM	14	0	9	23	7	148	0	155	1	0	2	3	1	135	10	146	327
09:45 AM	8	0	7	15	13	120	1	134	0	0	0	0	0	135	13	148	297
Total	38	0	35	73	41	573	9	623	6	1	6	13	4	502	40	546	1255
10:00 AM	12	0	9	21	7	133	1	141	1	0	1	2	1	122	16	139	303
10:15 AM	10	0	9	19	16	141	1	158	2	0	2	4	2	101	9	112	293
10:30 AM	6	0	11	17	11	138	1	150	1	0	1	2	5	123	11	139	308
10:45 AM	14	0	11	25	10	149	1	160	2	0	2	4	3	138	24	165	354
Total	42	0	40	82	44	561	4	609	6	0	6	12	11	484	60	555	1258
11:00 AM	8	0	16	24	12	168	2	182	3	0	2	5	2	129	15	146	357
11:15 AM	10	0	9	19	13	160	2	175	3	0	0	3	5	133	11	149	346
11:30 AM	8	0	15	23	12	145	3	160	3	0	4	7	4	150	13	167	357
11:45 AM	3	0	12	15	12	150	4	166	4	0	1	5	4	169	15	188	374
Total	29	0	52	81	49	623	11	683	13	0	7	20	15	581	54	650	1434
12:00 PM	10	0	8	18	8	170	2	180	4	0	4	8	4	186	9	199	405
12:15 PM	4	0	8	12	18	160	6	184	8	1	9	18	12	179	19	210	424
12:30 PM	16	1	14	31	12	171	3	186	8	0	3	11	9	175	11	195	423
12:45 PM	14	0	10	24	13	167	5	185	4	0	9	13	6	166	16	188	410
Total	44	1	40	85	51	668	16	735	24	1	25	50	31	706	55	792	1662
01:00 PM	7	1	11	19	10	163	5	178	3	1	6	10	9	167	18	194	401
01:15 PM	10	0	10	20	11	161	4	176	2	0	9	11	5	162	15	182	389
01:30 PM	6	0	6	12	14	140	3	157	2	0	6	8	6	147	23	176	353
01:45 PM	9	0	16	25	35	176	0	211	3	0	4	7	4	145	23	172	415
Total	32	1	43	76	70	640	12	722	10	1	25	36	24	621	79	724	1558
02:00 PM	31	0	38	69	23	142	2	167	6	0	5	11	5	152	24	181	428
02:15 PM	52	4	50	106	17	138	1	156	3	2	5	10	6	223	20	249	521
02:30 PM	35	1	19	55	19	184	1	204	1	1	0	2	4	194	19	217	478
02:45 PM	37	0	25	62	14	169	1	184	3	0	3	6	6	154	16	176	428
Total	155	5	132	292	73	633	5	711	13	3	13	29	21	723	79	823	1855
03:00 PM	30	1	28	59	21	190	1	212	4	1	6	11	8	159	20	187	469
03:15 PM	21	0	32	53	20	151	6	177	3	0	4	7	4	156	27	187	424
03:30 PM	14	1	20	35	17	166	5	188	5	1	3	9	4	186	25	215	447
03:45 PM	18	0	18	36	19	191	2	212	3	1	1	5	2	164	28	194	447
Total	83	2	98	183	77	698	14	789	15	3	14	32	18	665	100	783	1787
04:00 PM	29	0	22	51	12	242	2	256	1	0	4	5	4	179	27	210	522
04:15 PM	19	0	16	35	21	166	2	189	3	0	5	8	6	208	32	246	478
04:30 PM	19	0	22	41	32	186	4	222	2	0	7	9	7	203	22	232	504
04:45 PM	20	1	19	40	18	188	1	207	0	0	4	4	3	217	30	250	501
Total	87	1	79	167	83	782	9	874	6	0	20	26	20	807	111	938	2005

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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	10	0	18	28	21	186	2	209	6	1	2	9	2	186	28	216	462
05:15 PM	25	1	5	31	14	195	4	213	3	0	5	8	9	246	19	274	526
05:30 PM	19	1	20	40	20	226	1	247	3	0	9	12	2	210	28	240	539
05:45 PM	14	0	23	37	16	173	1	190	3	0	1	4	4	229	22	255	486
Total	68	2	66	136	71	780	8	859	15	1	17	33	17	871	97	985	2013
Grand Total	774	12	762	1548	798	7368	97	8263	116	14	144	274	174	7032	937	8143	18228
Apprch %	50	0.8	49.2		9.7	89.2	1.2		42.3	5.1	52.6		2.1	86.4	11.5		
Total %	4.2	0.1	4.2	8.5	4.4	40.4	0.5	45.3	0.6	0.1	0.8	1.5	1	38.6	5.1	44.7	
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars	699	12	684	1395	717	6748	78	7543	101	14	120	235	153	6149	862	7164	16337
% Cars	90.3	100	89.8	90.1	89.8	91.6	80.4	91.3	87.1	100	83.3	85.8	87.9	87.4	92	88	89.6
Light Goods Vehicles	75	0	78	153	81	620	19	720	15	0	24	39	21	883	75	979	1891
% Light Goods Vehicles	9.7	0	10.2	9.9	10.2	8.4	19.6	8.7	12.9	0	16.7	14.2	12.1	12.6	8	12	10.4

Massachusetts Department of Transportation

Highway Division

Franklin
 Rt 140 (West Central St) & Panther Way
 Counted by Miovision
 S14-010 TMC # 2

File Name : S14-010 Franklin 2
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 Start Date : 4/15/2014
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Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	0	0	0	0	5	0	5	0	0	0	0	0	6	1	7	12
07:15 AM	0	0	2	2	3	6	0	9	0	0	0	0	0	7	0	7	18
07:30 AM	3	0	3	6	1	10	0	11	0	0	0	0	0	9	0	9	26
07:45 AM	0	0	4	4	0	8	0	8	0	0	0	0	0	17	2	19	31
Total	3	0	9	12	4	29	0	33	0	0	0	0	0	39	3	42	87
08:00 AM	1	0	0	1	1	10	1	12	0	0	1	1	0	11	0	11	25
08:15 AM	0	0	0	0	5	7	0	12	0	0	0	0	0	15	0	15	27
08:30 AM	0	0	0	0	3	11	0	14	0	0	0	0	0	3	0	3	17
08:45 AM	2	0	1	3	4	5	1	10	1	0	1	2	1	17	1	19	34
Total	3	0	1	4	13	33	2	48	1	0	2	3	1	46	1	48	103
09:00 AM	1	0	0	1	1	15	0	16	0	0	0	0	0	16	3	19	36
09:15 AM	1	0	1	2	0	3	0	3	0	0	0	0	1	10	0	11	16
09:30 AM	0	0	0	0	0	10	0	10	1	0	0	1	0	7	0	7	18
09:45 AM	0	0	0	0	0	11	0	11	0	0	0	0	0	10	0	10	21
Total	2	0	1	3	1	39	0	40	1	0	0	1	1	43	3	47	91
10:00 AM	2	0	0	2	0	8	0	8	0	0	0	0	0	2	1	3	13
10:15 AM	0	0	0	0	0	5	0	5	0	0	0	0	1	7	0	8	13
10:30 AM	0	0	0	0	0	7	0	7	0	0	1	1	0	9	1	10	18
10:45 AM	2	0	0	2	0	6	0	6	0	0	0	0	0	7	1	8	16
Total	4	0	0	4	0	26	0	26	0	0	1	1	1	25	3	29	60
11:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	6	0	6	7
11:15 AM	0	0	1	1	0	8	1	9	0	0	1	1	0	5	0	5	16
11:30 AM	0	0	0	0	0	13	0	13	0	0	0	0	0	8	0	8	21
11:45 AM	1	0	0	1	0	7	0	7	1	0	0	1	1	4	1	6	15
Total	1	0	1	2	0	29	1	30	1	0	1	2	1	23	1	25	59
12:00 PM	0	0	0	0	1	7	1	9	0	0	0	0	0	8	0	8	17
12:15 PM	3	0	0	3	1	6	0	7	0	0	1	1	0	6	2	8	19
12:30 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	6	0	6	10
12:45 PM	0	0	0	0	1	8	0	9	0	0	0	0	0	8	0	8	17
Total	3	0	0	3	3	25	1	29	0	0	1	1	0	28	2	30	63
01:00 PM	1	0	0	1	0	2	0	2	0	0	0	0	1	5	2	8	11
01:15 PM	2	0	0	2	0	10	0	10	1	0	0	1	0	5	0	5	18
01:30 PM	0	0	3	3	1	5	0	6	0	0	0	0	0	6	2	8	17
01:45 PM	0	0	0	0	0	5	0	5	0	0	0	0	0	4	1	5	10
Total	3	0	3	6	1	22	0	23	1	0	0	1	1	20	5	26	56
02:00 PM	0	0	1	1	1	7	0	8	0	0	0	0	0	7	0	7	16
02:15 PM	1	0	1	2	0	8	0	8	0	0	0	0	0	9	1	10	20
02:30 PM	0	0	0	0	0	4	0	4	0	0	1	1	1	5	0	6	11
02:45 PM	1	0	0	1	0	5	0	5	0	0	0	0	0	5	1	6	12
Total	2	0	2	4	1	24	0	25	0	0	1	1	1	26	2	29	59
03:00 PM	0	0	1	1	0	3	0	3	0	0	0	0	0	4	1	5	9
03:15 PM	2	0	1	3	3	7	0	10	0	0	0	0	0	9	0	9	22
03:30 PM	0	0	0	0	0	5	0	5	0	0	0	0	0	6	1	7	12
03:45 PM	0	0	0	0	4	4	0	8	0	0	0	0	0	6	0	6	14
Total	2	0	2	4	7	19	0	26	0	0	0	0	0	25	2	27	57
04:00 PM	0	0	0	0	1	1	0	2	0	0	0	0	1	4	1	6	8
04:15 PM	0	0	0	0	0	2	0	2	1	0	0	1	0	2	3	5	8
04:30 PM	1	0	0	1	0	2	0	2	0	0	0	0	0	1	1	2	5
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	3	0	4	5
Total	1	0	0	1	1	6	0	7	1	0	0	1	2	10	5	17	26

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 2
Site Code : 156485
Start Date : 4/15/2014
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Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	0	0	0	0	0	2	0	2	1	0	0	1	0	2	0	2	5
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	1	2	5
05:45 PM	0	0	0	0	3	3	0	6	0	0	0	0	0	5	1	6	12
Total	0	0	0	0	3	8	0	11	1	0	0	1	0	9	2	11	23
Grand Total	24	0	19	43	34	260	4	298	6	0	6	12	8	294	29	331	684
Apprch %	55.8	0	44.2		11.4	87.2	1.3		50	0	50		2.4	88.8	8.8		
Total %	3.5	0	2.8	6.3	5	38	0.6	43.6	0.9	0	0.9	1.8	1.2	43	4.2	48.4	
Buses	13	0	15	28	26	31	0	57	0	0	0	0	0	32	18	50	135
% Buses	54.2	0	78.9	65.1	76.5	11.9	0	19.1	0	0	0	0	0	10.9	62.1	15.1	19.7
Single-Unit Trucks	9	0	4	13	8	181	4	193	6	0	6	12	8	210	9	227	445
% Single-Unit Trucks	37.5	0	21.1	30.2	23.5	69.6	100	64.8	100	0	100	100	100	71.4	31	68.6	65.1
Articulated Trucks	2	0	0	2	0	48	0	48	0	0	0	0	0	52	2	54	104
% Articulated Trucks	8.3	0	0	4.7	0	18.5	0	16.1	0	0	0	0	0	17.7	6.9	16.3	15.2

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140 (West Central St) & Panther Way
Counted by Miovision
S14-010 TMC # 2

File Name : S14-010 Franklin 2
Site Code : 156485
Start Date : 4/15/2014
Page No : 1

Groups Printed- Pedestrians

Start Time	Panther Way From North		Route 140 From East		Panther Way From South		Route 140 From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
07:00 AM	0	0	1	1	0	0	0	0	1
Total	0	0	1	1	0	0	0	0	1
08:45 AM	0	0	0	0	1	1	0	0	1
Total	0	0	0	0	1	1	0	0	1
09:00 AM	1	1	0	0	0	0	1	1	2
09:15 AM	1	1	0	0	1	1	0	0	2
Total	2	2	0	0	1	1	1	1	4
10:15 AM	0	0	0	0	0	0	1	1	1
Total	0	0	0	0	0	0	1	1	1
12:30 PM	1	1	2	2	1	1	0	0	4
Total	1	1	2	2	1	1	0	0	4
01:00 PM	1	1	0	0	0	0	0	0	1
01:15 PM	1	1	0	0	0	0	0	0	1
Total	2	2	0	0	0	0	0	0	2
04:30 PM	0	0	0	0	2	2	0	0	2
04:45 PM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	2	2	0	0	3
05:15 PM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	1
Grand Total	7	7	3	3	5	5	2	2	17
Apprch %	100		100		100		100		
Total %	41.2	41.2	17.6	17.6	29.4	29.4	11.8	11.8	

Massachusetts Department of Transportation

Highway Division

Franklin
 Rte 140 (West Central St) & Panther Way
 Counted by Miovision
 S14-010 TMC # 2 Sat

File Name : S14-010 Franklin 2 Sat
 Site Code : 159361
 Start Date : 4/12/2014
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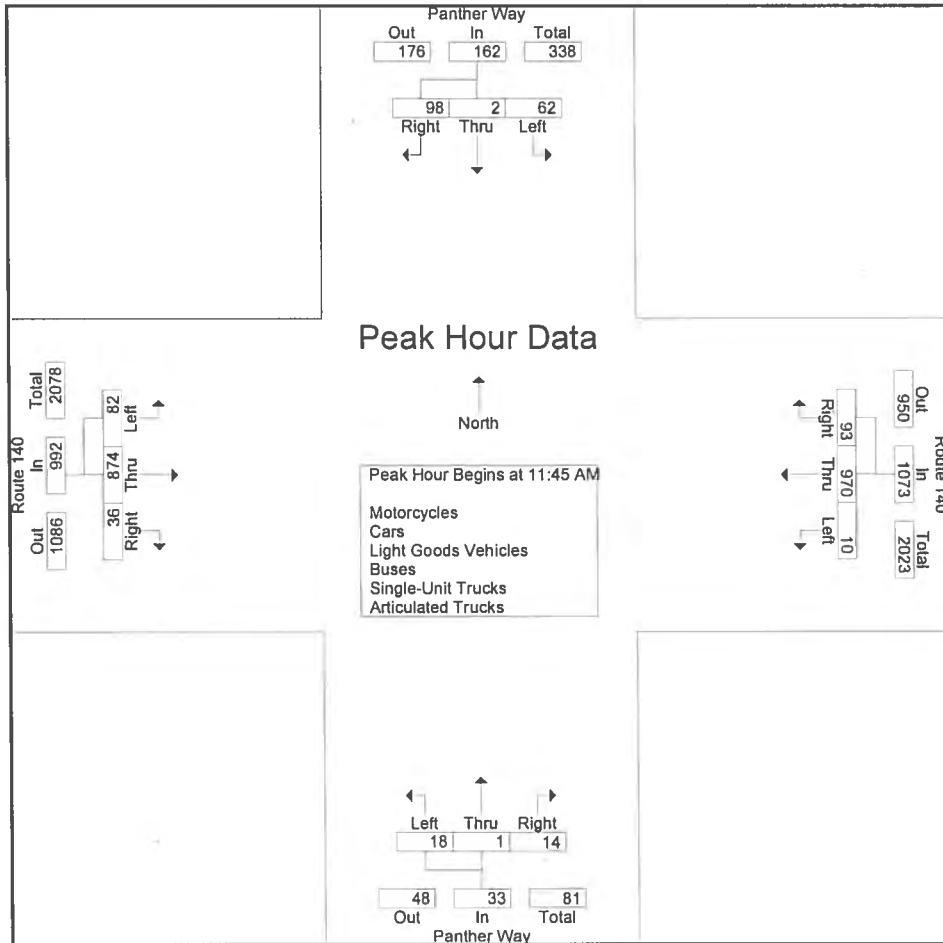
Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	18	0	18	36	17	240	4	261	3	0	4	7	3	206	20	229	533
11:15 AM	28	0	17	45	26	226	2	254	1	0	2	3	1	231	25	257	559
11:30 AM	25	1	24	50	19	209	5	233	1	0	2	3	1	206	20	227	513
11:45 AM	22	1	11	34	18	243	2	263	1	1	4	6	10	206	20	236	539
Total	93	2	70	165	80	918	13	1011	6	1	12	19	15	849	85	949	2144
12:00 PM	13	0	13	26	33	237	3	273	3	0	6	9	4	244	21	269	577
12:15 PM	23	0	16	39	20	246	2	268	7	0	4	11	12	223	24	259	577
12:30 PM	40	1	22	63	22	244	3	269	3	0	4	7	10	201	17	228	567
12:45 PM	13	0	16	29	20	209	3	232	6	1	8	15	9	210	22	241	517
Total	89	1	67	157	95	936	11	1042	19	1	22	42	35	878	84	997	2238
01:00 PM	15	0	19	34	14	219	4	237	3	1	9	13	6	223	31	260	544
01:15 PM	18	2	32	52	13	199	2	214	6	0	5	11	7	228	22	257	534
01:30 PM	17	1	9	27	12	239	8	259	5	0	5	10	2	218	12	232	528
01:45 PM	14	0	18	32	8	185	1	194	3	1	5	9	7	190	12	209	444
Total	64	3	78	145	47	842	15	904	17	2	24	43	22	859	77	958	2050
Grand Total	246	6	215	467	222	2696	39	2957	42	4	58	104	72	2586	246	2904	6432
Apprch %	52.7	1.3	46		7.5	91.2	1.3		40.4	3.8	55.8		2.5	89	8.5		
Total %	3.8	0.1	3.3	7.3	3.5	41.9	0.6	46	0.7	0.1	0.9	1.6	1.1	40.2	3.8	45.1	
Motorcycles	2	0	0	2	1	20	0	21	0	0	0	0	1	27	1	29	52
% Motorcycles	0.8	0	0	0.4	0.5	0.7	0	0.7	0	0	0	0	1.4	1	0.4	1	0.8
Cars	213	5	188	406	200	2480	31	2711	35	4	53	92	68	2307	223	2598	5807
% Cars	86.6	83.3	87.4	86.9	90.1	92	79.5	91.7	83.3	100	91.4	88.5	94.4	89.2	90.7	89.5	90.3
Light Goods Vehicles	25	1	26	52	21	174	8	203	7	0	5	12	3	222	17	242	509
% Light Goods Vehicles	10.2	16.7	12.1	11.1	9.5	6.5	20.5	6.9	16.7	0	8.6	11.5	4.2	8.6	6.9	8.3	7.9
Buses	4	0	0	4	0	1	0	1	0	0	0	0	0	0	3	3	8
% Buses	1.6	0	0	0.9	0	0	0	0	0	0	0	0	0	0	1.2	0.1	0.1
Single-Unit Trucks	1	0	1	2	0	18	0	18	0	0	0	0	0	21	1	22	42
% Single-Unit Trucks	0.4	0	0.5	0.4	0	0.7	0	0.6	0	0	0	0	0	0.8	0.4	0.8	0.7
Articulated Trucks	1	0	0	1	0	3	0	3	0	0	0	0	0	9	1	10	14
% Articulated Trucks	0.4	0	0	0.2	0	0.1	0	0.1	0	0	0	0	0	0.3	0.4	0.3	0.2

Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 2 Sat
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Start Time	Panther Way From North				Route 140 From East			Panther Way From South				Route 140 From West				Int. Total	
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left		App. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	22	1	11	34	18	243	2	263	1	1	4	6	10	206	20	236	539
12:00 PM	13	0	13	26	33	237	3	273	3	0	6	9	4	244	21	269	577
12:15 PM	23	0	16	39	20	246	2	268	7	0	4	11	12	223	24	259	577
12:30 PM	40	1	22	63	22	244	3	269	3	0	4	7	10	201	17	228	567
Total Volume	98	2	62	162	93	970	10	1073	14	1	18	33	36	874	82	992	2260
% App. Total	60.5	1.2	38.3		8.7	90.4	0.9		42.4	3	54.5		3.6	88.1	8.3		
PHF	.613	.500	.705	.643	.705	.986	.833	.983	.500	.250	.750	.750	.750	.895	.854	.922	.979



*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (West Central St) & Panther Way
Counted by Miovision
S14-010 TMC # 2 Sat

File Name : S14-010 Franklin 2 Sat
Site Code : 159361
Start Date : 4/12/2014
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	17	0	18	35	17	240	4	261	3	0	4	7	3	204	20	227	530
11:15 AM	27	0	17	44	26	221	2	249	1	0	2	3	1	225	23	249	545
11:30 AM	23	1	24	48	19	207	5	231	1	0	2	3	1	206	20	227	509
11:45 AM	22	1	10	33	18	242	2	262	1	1	4	6	10	205	20	235	536
Total	89	2	69	160	80	910	13	1003	6	1	12	19	15	840	83	938	2120
12:00 PM	13	0	13	26	33	236	3	272	3	0	6	9	4	241	21	266	573
12:15 PM	23	0	16	39	20	244	2	266	7	0	4	11	12	219	24	255	571
12:30 PM	40	1	22	63	22	242	3	267	3	0	4	7	10	200	17	227	564
12:45 PM	12	0	16	28	20	208	3	231	6	1	8	15	9	210	21	240	514
Total	88	1	67	156	95	930	11	1036	19	1	22	42	35	870	83	988	2222
01:00 PM	15	0	19	34	14	218	4	236	3	1	9	13	6	222	31	259	542
01:15 PM	18	2	32	52	13	197	2	212	6	0	5	11	7	225	22	254	529
01:30 PM	16	1	9	26	12	236	8	256	5	0	5	10	2	211	11	224	516
01:45 PM	14	0	18	32	8	183	1	192	3	1	5	9	7	188	11	206	439
Total	63	3	78	144	47	834	15	896	17	2	24	43	22	846	75	943	2026
Grand Total	240	6	214	460	222	2674	39	2935	42	4	58	104	72	2556	241	2869	6368
Apprch %	52.2	1.3	46.5		7.6	91.1	1.3		40.4	3.8	55.8		2.5	89.1	8.4		
Total %	3.8	0.1	3.4	7.2	3.5	42	0.6	46.1	0.7	0.1	0.9	1.6	1.1	40.1	3.8	45.1	
Motorcycles	2	0	0	2	1	20	0	21	0	0	0	0	1	27	1	29	52
% Motorcycles	0.8	0	0	0.4	0.5	0.7	0	0.7	0	0	0	0	1.4	1.1	0.4	1	0.8
Cars	213	5	188	406	200	2480	31	2711	35	4	53	92	68	2307	223	2598	5807
% Cars	88.8	83.3	87.9	88.3	90.1	92.7	79.5	92.4	83.3	100	91.4	88.5	94.4	90.3	92.5	90.6	91.2
Light Goods Vehicles	25	1	26	52	21	174	8	203	7	0	5	12	3	222	17	242	509
% Light Goods Vehicles	10.4	16.7	12.1	11.3	9.5	6.5	20.5	6.9	16.7	0	8.6	11.5	4.2	8.7	7.1	8.4	8

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (West Central St) & Panther Way
Counted by Miovision
S14-010 TMC # 2 Sat

File Name : S14-010 Franklin 2 Sat
Site Code : 159361
Start Date : 4/12/2014
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Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0	2	3
11:15 AM	1	0	0	1	0	5	0	5	0	0	0	0	0	6	2	8	14
11:30 AM	2	0	0	2	0	2	0	2	0	0	0	0	0	0	0	0	4
11:45 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	3
Total	4	0	1	5	0	8	0	8	0	0	0	0	0	9	2	11	24
12:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
12:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4	6
12:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
12:45 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	0	1	1	3
Total	1	0	0	1	0	6	0	6	0	0	0	0	0	8	1	9	16
01:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
01:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
01:30 PM	1	0	0	1	0	3	0	3	0	0	0	0	0	7	1	8	12
01:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	1	3	5
Total	1	0	0	1	0	8	0	8	0	0	0	0	0	13	2	15	24
Grand Total	6	0	1	7	0	22	0	22	0	0	0	0	0	30	5	35	64
Apprch %	85.7	0	14.3		0	100	0		0	0	0		0	85.7	14.3		
Total %	9.4	0	1.6	10.9	0	34.4	0	34.4	0	0	0	0	0	46.9	7.8	54.7	
Buses	4	0	0	4	0	1	0	1	0	0	0	0	0	0	3	3	8
% Buses	66.7	0	0	57.1	0	4.5	0	4.5	0	0	0	0	0	0	60	8.6	12.5
Single-Unit Trucks	1	0	1	2	0	18	0	18	0	0	0	0	0	21	1	22	42
% Single-Unit Trucks	16.7	0	100	28.6	0	81.8	0	81.8	0	0	0	0	0	70	20	62.9	65.6
Articulated Trucks	1	0	0	1	0	3	0	3	0	0	0	0	0	9	1	10	14
% Articulated Trucks	16.7	0	0	14.3	0	13.6	0	13.6	0	0	0	0	0	30	20	28.6	21.9

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (West Central St) & Panther Way
Counted by Miovision
S14-010 TMC # 2 Sat

File Name : S14-010 Franklin 2 Sat
Site Code : 159361
Start Date : 4/12/2014
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Groups Printed- Bicycles on Road

Start Time	Panther Way From North				Route 140 From East				Panther Way From South				Route 140 From West				Int. Total	
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total		
11:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	1	2
01:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
01:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	2
Grand Total	0	1	0	1	0	3	0	3	0	0	0	0	0	1	0	1	1	5
Apprch %	0	100	0		0	100	0		0	0	0		0	100	0			
Total %	0	20	0	20	0	60	0	60	0	0	0	0	0	20	0	20		

*Massachusetts Department of Transportation
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Franklin
Rte 140 (West Central St) & Panther Way
Counted by Miovision
S14-010 TMC # 2 Sat

File Name : S14-010 Franklin 2 Sat
Site Code : 159361
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Groups Printed- Pedestrians

Start Time	Panther Way From North		Route 140 From East		Panther Way From South		Route 140 From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
11:00 AM	2	2	0	0	2	2	2	2	6
11:15 AM	0	0	0	0	1	1	3	3	4
11:30 AM	2	2	0	0	0	0	1	1	3
11:45 AM	0	0	0	0	4	4	1	1	5
Total	4	4	0	0	7	7	7	7	18
12:00 PM	0	0	0	0	2	2	0	0	2
12:30 PM	0	0	0	0	9	9	0	0	9
12:45 PM	0	0	0	0	7	7	0	0	7
Total	0	0	0	0	18	18	0	0	18
01:00 PM	0	0	0	0	1	1	1	1	2
01:15 PM	3	3	0	0	0	0	2	2	5
01:45 PM	1	1	2	2	6	6	0	0	9
Total	4	4	2	2	7	7	3	3	16
Grand Total	8	8	2	2	32	32	10	10	52
Apprch %	100		100		100		100		
Total %	15.4	15.4	3.8	3.8	61.5	61.5	19.2	19.2	

Massachusetts Department of Transportation

Highway Division

Franklin
 Rte 140 (West Central St)& Beaver Street
 Counted by Miovision
 S14-010 TMC # 3

File Name : S14-010 Franklin 3
 Site Code : 156484
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Beaver Street From North				Route 140 From East				Beaver Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	96	10	0	106	0	106	10	116	4	14	46	64	14	61	50	125	411
07:15 AM	141	17	2	160	1	119	5	125	3	11	45	59	15	96	60	171	515
07:30 AM	130	14	0	144	1	105	11	117	10	10	17	37	13	96	54	163	461
07:45 AM	93	16	1	110	1	70	9	80	5	13	18	36	13	116	71	200	426
Total	460	57	3	520	3	400	35	438	22	48	126	196	55	369	235	659	1813
08:00 AM	110	21	3	134	0	74	13	87	13	14	16	43	14	85	59	158	422
08:15 AM	114	27	1	142	2	100	12	114	12	13	14	39	17	92	58	167	462
08:30 AM	107	19	1	127	0	91	8	99	11	18	10	39	17	93	50	160	425
08:45 AM	104	10	0	114	1	71	6	78	10	16	12	38	11	111	64	186	416
Total	435	77	5	517	3	336	39	378	46	61	52	159	59	381	231	671	1725
09:00 AM	89	17	5	111	2	106	4	112	11	11	15	37	8	93	46	147	407
09:15 AM	56	8	1	65	2	89	14	105	11	6	5	22	6	94	41	141	333
09:30 AM	68	14	2	84	0	85	5	90	7	11	11	29	9	106	39	154	357
09:45 AM	63	6	3	72	2	66	4	72	9	3	9	21	7	100	41	148	313
Total	276	45	11	332	6	346	27	379	38	31	40	109	30	393	167	590	1410
10:00 AM	60	8	2	70	0	90	3	93	13	8	9	30	11	86	35	132	325
10:15 AM	78	11	3	92	3	76	6	85	9	10	6	25	11	74	38	123	325
10:30 AM	58	10	5	73	1	97	5	103	7	8	10	25	6	96	34	136	337
10:45 AM	72	7	0	79	2	98	11	111	6	6	6	18	9	111	38	158	366
Total	268	36	10	314	6	361	25	392	35	32	31	98	37	367	145	549	1353
11:00 AM	58	6	2	66	2	113	6	121	10	2	6	18	15	109	42	166	371
11:15 AM	75	8	1	84	0	107	7	114	5	7	9	21	14	91	44	149	368
11:30 AM	62	6	0	68	1	102	2	105	4	14	13	31	7	115	57	179	383
11:45 AM	69	8	2	79	2	92	7	101	10	9	19	38	12	117	60	189	407
Total	264	28	5	297	5	414	22	441	29	32	47	108	48	432	203	683	1529
12:00 PM	62	10	1	73	0	114	13	127	14	12	17	43	20	123	57	200	443
12:15 PM	64	7	1	72	2	113	6	121	7	8	14	29	25	112	62	199	421
12:30 PM	66	12	1	79	1	119	7	127	15	11	17	43	17	139	57	213	462
12:45 PM	69	8	3	80	3	112	11	126	12	8	6	26	23	117	60	200	432
Total	261	37	6	304	6	458	37	501	48	39	54	141	85	491	236	812	1758
01:00 PM	62	11	1	74	0	109	16	125	11	7	7	25	18	96	49	163	387
01:15 PM	51	7	2	60	1	114	12	127	12	8	17	37	16	104	50	170	394
01:30 PM	58	8	3	69	1	99	10	110	8	5	10	23	18	99	53	170	372
01:45 PM	69	5	0	74	2	115	7	124	10	5	16	31	12	97	55	164	393
Total	240	31	6	277	4	437	45	486	41	25	50	116	64	396	207	667	1546
02:00 PM	76	8	2	86	1	95	5	101	12	8	12	32	20	133	55	208	427
02:15 PM	60	8	3	71	0	95	13	108	15	9	12	36	34	155	83	272	487
02:30 PM	83	4	1	88	1	113	3	117	12	15	18	45	24	129	68	221	471
02:45 PM	82	11	1	94	4	102	7	113	11	11	7	29	20	108	62	190	426
Total	301	31	7	339	6	405	28	439	50	43	49	142	98	525	268	891	1811
03:00 PM	83	10	3	96	0	113	7	120	11	12	15	38	22	98	68	188	442
03:15 PM	83	20	1	104	0	95	8	103	3	10	11	24	27	129	60	216	447
03:30 PM	85	8	1	94	6	87	9	102	15	7	14	36	12	127	59	198	430
03:45 PM	94	17	4	115	1	116	8	125	19	9	13	41	9	114	65	188	469
Total	345	55	9	409	7	411	32	450	48	38	53	139	70	468	252	790	1788
04:00 PM	107	17	1	125	3	143	12	158	14	11	13	38	16	147	70	233	554
04:15 PM	75	15	0	90	0	108	10	118	10	12	9	31	12	134	69	215	454
04:30 PM	89	17	2	108	0	123	11	134	12	10	17	39	15	132	86	233	514
04:45 PM	73	11	1	85	1	110	9	120	11	10	7	28	18	138	84	240	473
Total	344	60	4	408	4	484	42	530	47	43	46	136	61	551	309	921	1995

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 3

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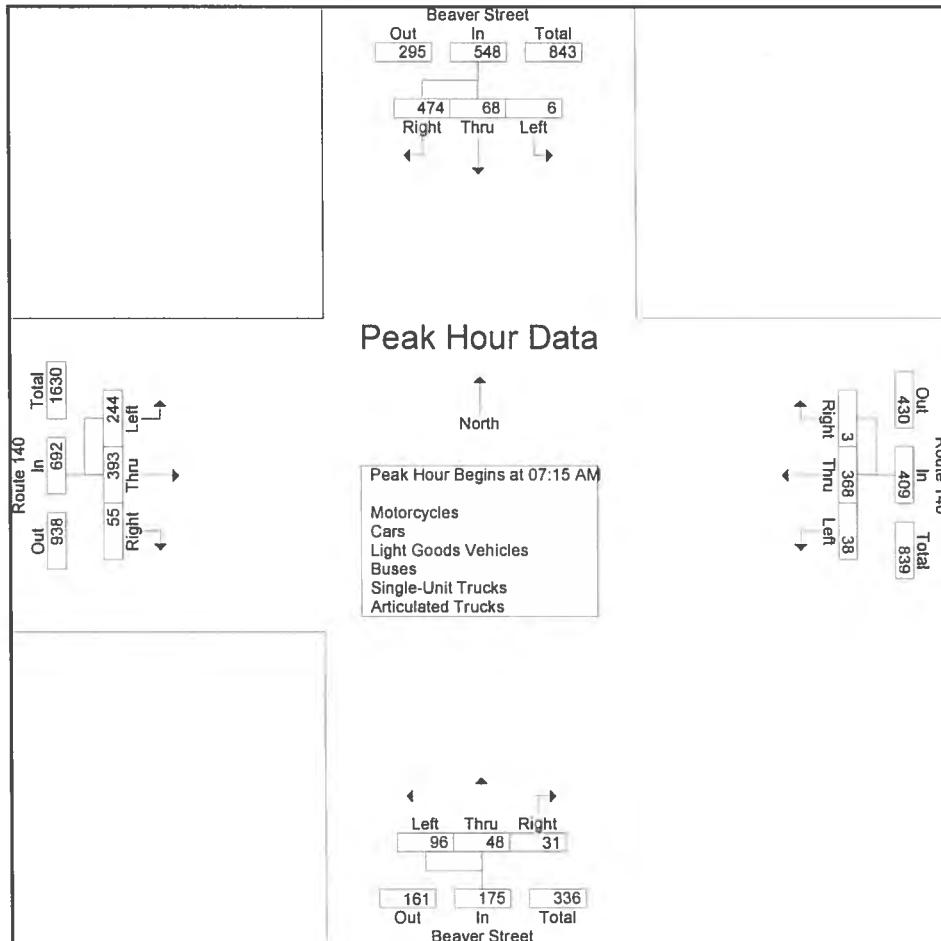
Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Beaver Street From North				Route 140 From East				Beaver Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	88	15	0	103	1	126	13	140	16	20	8	44	13	130	79	222	509
05:15 PM	83	26	2	111	0	108	13	121	21	15	17	53	15	134	79	228	513
05:30 PM	93	17	4	114	4	138	9	151	13	17	6	36	18	136	83	237	538
05:45 PM	74	14	1	89	0	106	3	109	16	17	17	50	14	158	84	256	504
Total	338	72	7	417	5	478	38	521	66	69	48	183	60	558	325	943	2064
Grand Total	3532	529	73	4134	55	4530	370	4955	470	461	596	1527	667	4931	2578	8176	18792
Apprch %	85.4	12.8	1.8		1.1	91.4	7.5		30.8	30.2	39		8.2	60.3	31.5		
Total %	18.8	2.8	0.4	22	0.3	24.1	2	26.4	2.5	2.5	3.2	8.1	3.5	26.2	13.7	43.5	
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars	3152	451	67	3670	47	3847	296	4190	395	394	522	1311	545	4199	2247	6991	16162
% Cars	89.2	85.3	91.8	88.8	85.5	84.9	80	84.6	84	85.5	87.6	85.9	81.7	85.2	87.2	85.5	86
Light Goods Vehicles	271	61	3	335	5	534	57	596	57	50	41	148	81	573	226	880	1959
% Light Goods Vehicles	7.7	11.5	4.1	8.1	9.1	11.8	15.4	12	12.1	10.8	6.9	9.7	12.1	11.6	8.8	10.8	10.4
Buses	31	3	2	36	0	19	1	20	1	6	3	10	5	23	21	49	115
% Buses	0.9	0.6	2.7	0.9	0	0.4	0.3	0.4	0.2	1.3	0.5	0.7	0.7	0.5	0.8	0.6	0.6
Single-Unit Trucks	62	13	1	76	2	115	16	133	15	11	19	45	19	121	66	206	460
% Single-Unit Trucks	1.8	2.5	1.4	1.8	3.6	2.5	4.3	2.7	3.2	2.4	3.2	2.9	2.8	2.5	2.6	2.5	2.4
Articulated Trucks	16	1	0	17	1	15	0	16	2	0	11	13	17	15	18	50	96
% Articulated Trucks	0.5	0.2	0	0.4	1.8	0.3	0	0.3	0.4	0	1.8	0.9	2.5	0.3	0.7	0.6	0.5

Massachusetts Department of Transportation Highway Division

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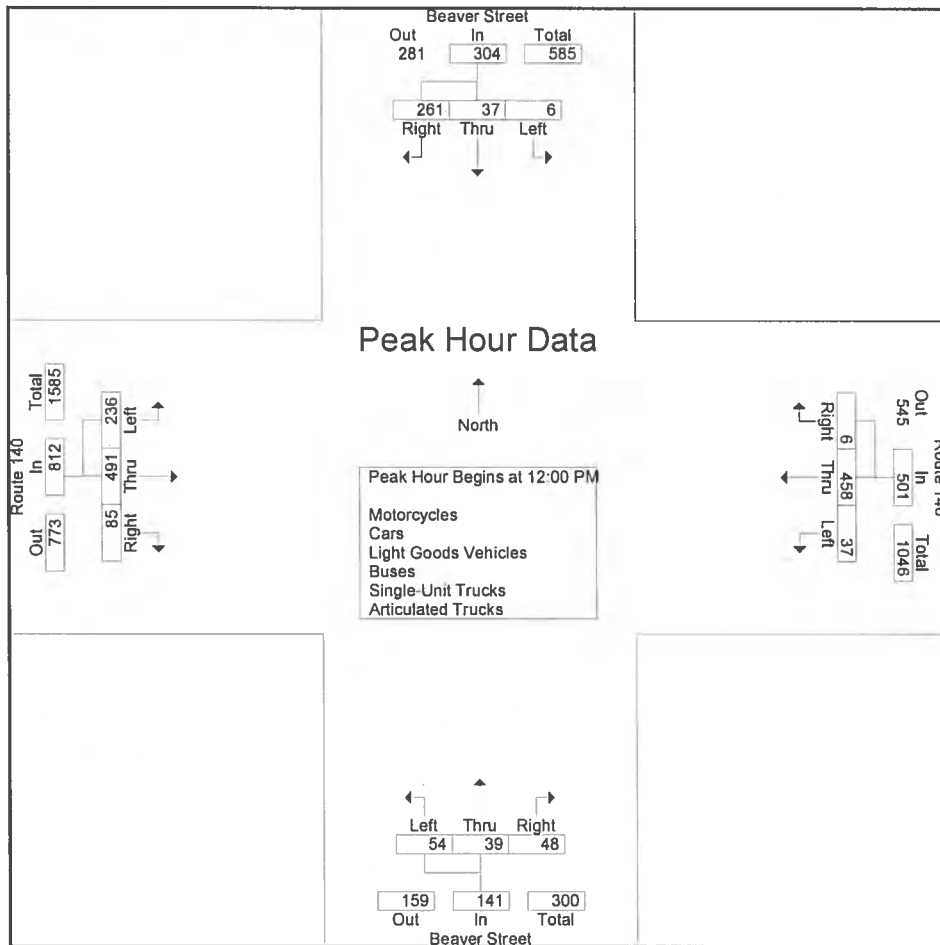
Start Time	Beaver Street From North				Route 140 From East				Beaver Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	141	17	2	160	1	119	5	125	3	11	45	59	15	96	60	171	515
07:30 AM	130	14	0	144	1	105	11	117	10	10	17	37	13	96	54	163	461
07:45 AM	93	16	1	110	1	70	9	80	5	13	18	36	13	116	71	200	426
08:00 AM	110	21	3	134	0	74	13	87	13	14	16	43	14	85	59	158	422
Total Volume	474	68	6	548	3	368	38	409	31	48	96	175	55	393	244	692	1824
% App. Total	86.5	12.4	1.1		0.7	90	9.3		17.7	27.4	54.9		7.9	56.8	35.3		
PHF	.840	.810	.500	.856	.750	.773	.731	.818	.596	.857	.533	.742	.917	.847	.859	.865	.885



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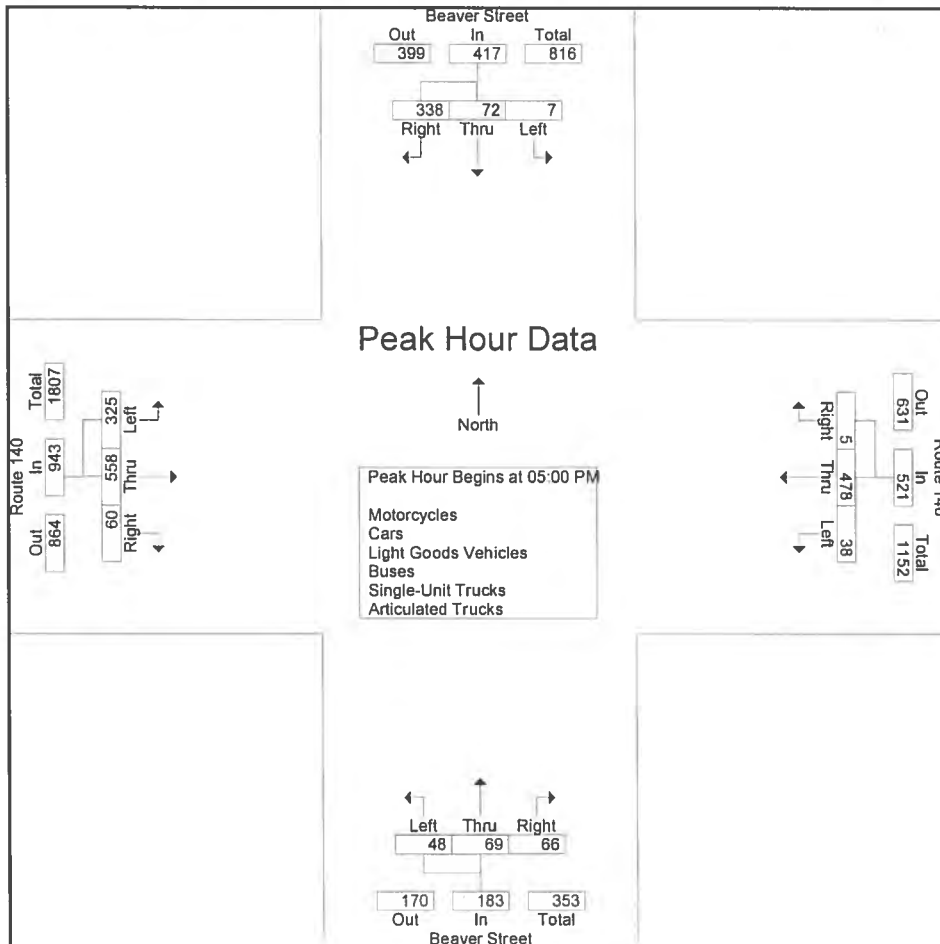
Start Time	Beaver Street From North				Route 140 From East				Beaver Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	62	10	1	73	0	114	13	127	14	12	17	43	20	123	57	200	443
12:15 PM	64	7	1	72	2	113	6	121	7	8	14	29	25	112	62	199	421
12:30 PM	66	12	1	79	1	119	7	127	15	11	17	43	17	139	57	213	462
12:45 PM	69	8	3	80	3	112	11	126	12	8	6	26	23	117	60	200	432
Total Volume	261	37	6	304	6	458	37	501	48	39	54	141	85	491	236	812	1758
% App. Total	85.9	12.2	2		1.2	91.4	7.4		34	27.7	38.3		10.5	60.5	29.1		
PHF	.946	.771	.500	.950	.500	.962	.712	.986	.800	.813	.794	.820	.850	.883	.952	.953	.951



Massachusetts Department of Transportation Highway Division

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Start Time	Beaver Street From North				Route 140 From East				Beaver Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	88	15	0	103	1	126	13	140	16	20	8	44	13	130	79	222	509
05:15 PM	83	26	2	111	0	108	13	121	21	15	17	53	15	134	79	228	513
05:30 PM	93	17	4	114	4	138	9	151	13	17	6	36	18	136	83	237	538
05:45 PM	74	14	1	89	0	106	3	109	16	17	17	50	14	158	84	256	504
Total Volume	338	72	7	417	5	478	38	521	66	69	48	183	60	558	325	943	2064
% App. Total	81.1	17.3	1.7		1	91.7	7.3		36.1	37.7	26.2		6.4	59.2	34.5		
PHF	.909	.692	.438	.914	.313	.866	.731	.863	.786	.863	.706	.863	.833	.883	.967	.921	.959



Massachusetts Department of Transportation
Highway Division

Franklin
Rte 140 (West Central St)& Beaver Street
Counted by Miovision
S14-010 TMC # 3

File Name : S14-010 Franklin 3
Site Code : 156484
Start Date : 4/15/2014
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Beaver Street From North				Route 140 From East				Beaver Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	96	10	0	106	0	105	10	115	3	14	43	60	13	61	45	119	400
07:15 AM	134	17	2	153	1	116	4	121	3	10	44	57	15	93	56	164	495
07:30 AM	124	14	0	138	0	103	11	114	9	9	15	33	12	88	52	152	437
07:45 AM	90	15	1	106	1	67	9	77	5	13	17	35	12	107	64	183	401
Total	444	56	3	503	2	391	34	427	20	46	119	185	52	349	217	618	1733
08:00 AM	109	20	2	131	0	67	11	78	11	14	15	40	14	79	55	148	397
08:15 AM	112	27	1	140	2	92	11	105	11	13	14	38	16	81	55	152	435
08:30 AM	102	19	1	122	0	83	7	90	11	18	8	37	17	91	49	157	406
08:45 AM	100	10	0	110	1	67	5	73	9	15	12	36	9	104	56	169	388
Total	423	76	4	503	3	309	34	346	42	60	49	151	56	355	215	626	1626
09:00 AM	82	17	5	104	2	97	4	103	10	11	14	35	7	82	43	132	374
09:15 AM	55	8	1	64	2	88	14	104	11	5	3	19	4	91	35	130	317
09:30 AM	64	13	2	79	0	81	3	84	7	10	8	25	8	100	37	145	333
09:45 AM	59	6	3	68	2	63	4	69	8	3	8	19	7	95	37	139	295
Total	260	44	11	315	6	329	25	360	36	29	33	98	26	368	152	546	1319
10:00 AM	56	8	2	66	0	84	3	87	12	8	9	29	9	85	35	129	311
10:15 AM	77	10	3	90	3	73	6	82	9	10	6	25	11	70	35	116	313
10:30 AM	56	10	4	70	1	90	5	96	6	8	10	24	5	90	32	127	317
10:45 AM	71	7	0	78	2	94	10	106	6	6	6	18	8	108	38	154	356
Total	260	35	9	304	6	341	24	371	33	32	31	96	33	353	140	526	1297
11:00 AM	56	5	2	63	2	111	6	119	10	1	5	16	14	108	37	159	357
11:15 AM	72	6	1	79	0	101	7	108	5	7	8	20	13	88	43	144	351
11:30 AM	58	6	0	64	1	95	2	98	4	14	11	29	6	112	53	171	362
11:45 AM	64	8	2	74	2	87	7	96	9	8	19	36	12	114	58	184	390
Total	250	25	5	280	5	394	22	421	28	30	43	101	45	422	191	658	1460
12:00 PM	60	10	1	71	0	110	13	123	13	12	16	41	20	118	56	194	429
12:15 PM	61	7	1	69	2	110	6	118	7	8	14	29	25	108	59	192	408
12:30 PM	65	11	1	77	1	118	7	126	15	11	16	42	16	137	54	207	452
12:45 PM	66	8	3	77	2	107	11	120	11	7	5	23	22	113	57	192	412
Total	252	36	6	294	5	445	37	487	46	38	51	135	83	476	226	785	1701
01:00 PM	62	11	1	74	0	107	16	123	11	6	7	24	16	94	47	157	378
01:15 PM	44	6	2	52	1	110	11	122	12	8	16	36	14	102	48	164	374
01:30 PM	56	7	3	66	1	98	8	107	8	5	10	23	14	96	51	161	357
01:45 PM	67	5	0	72	2	112	7	121	10	5	16	31	11	96	55	162	386
Total	229	29	6	264	4	427	42	473	41	24	49	114	55	388	201	644	1495
02:00 PM	70	7	1	78	1	91	5	97	11	8	12	31	16	130	53	199	405
02:15 PM	58	8	3	69	0	92	12	104	14	9	9	32	32	150	79	261	466
02:30 PM	82	4	1	87	1	111	3	115	12	15	18	45	23	128	65	216	463
02:45 PM	79	8	1	88	4	101	6	111	11	11	6	28	19	104	62	185	412
Total	289	27	6	322	6	395	26	427	48	43	45	136	90	512	259	861	1746
03:00 PM	81	9	3	93	0	111	7	118	10	10	15	35	21	97	68	186	432
03:15 PM	78	19	1	98	0	91	8	99	3	9	10	22	24	123	57	204	423
03:30 PM	84	8	1	93	5	85	8	98	13	5	13	31	12	124	57	193	415
03:45 PM	93	17	4	114	1	111	8	120	19	9	12	40	9	111	63	183	457
Total	336	53	9	398	6	398	31	435	45	33	50	128	66	455	245	766	1727
04:00 PM	106	16	1	123	3	141	12	156	14	10	13	37	16	142	67	225	541
04:15 PM	74	15	0	89	0	107	10	117	10	12	8	30	12	131	69	212	448
04:30 PM	89	17	2	108	0	121	11	132	12	10	17	39	15	132	84	231	510
04:45 PM	73	11	1	85	1	109	9	119	11	10	7	28	18	136	83	237	469
Total	342	59	4	405	4	478	42	524	47	42	45	134	61	541	303	905	1968

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 3
Site Code : 156484
Start Date : 4/15/2014
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Beaver Street From North				Route 140 From East				Beaver Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	88	15	0	103	1	125	13	139	16	20	8	44	13	129	78	220	506
05:15 PM	83	26	2	111	0	108	12	120	21	13	17	51	15	134	79	228	510
05:30 PM	93	17	4	114	4	137	8	149	13	17	6	36	18	136	83	237	536
05:45 PM	74	14	1	89	0	104	3	107	16	17	17	50	13	154	84	251	497
Total	338	72	7	417	5	474	36	515	66	67	48	181	59	553	324	936	2049
Grand Total	3423	512	70	4005	52	4381	353	4786	452	444	563	1459	626	4772	2473	7871	18121
Apprch %	85.5	12.8	1.7		1.1	91.5	7.4		31	30.4	38.6		8	60.6	31.4		
Total %	18.9	2.8	0.4	22.1	0.3	24.2	1.9	26.4	2.5	2.5	3.1	8.1	3.5	26.3	13.6	43.4	
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars	3152	451	67	3670	47	3847	296	4190	395	394	522	1311	545	4199	2247	6991	16162
% Cars	92.1	88.1	95.7	91.6	90.4	87.8	83.9	87.5	87.4	88.7	92.7	89.9	87.1	88	90.9	88.8	89.2
Light Goods Vehicles	271	61	3	335	5	534	57	596	57	50	41	148	81	573	226	880	1959
% Light Goods Vehicles	7.9	11.9	4.3	8.4	9.6	12.2	16.1	12.5	12.6	11.3	7.3	10.1	12.9	12	9.1	11.2	10.8

Massachusetts Department of Transportation

Highway Division

Franklin
 Rte 140 (West Central St)& Beaver Street
 Counted by Miovision
 S14-010 TMC # 3

File Name : S14-010 Franklin 3
 Site Code : 156484
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Beaver Street From North				Route 140 From East				Beaver Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	0	0	0	0	1	0	1	1	0	3	4	1	0	5	6	11
07:15 AM	7	0	0	7	0	3	1	4	0	1	1	2	0	3	4	7	20
07:30 AM	6	0	0	6	1	2	0	3	1	1	2	4	1	8	2	11	24
07:45 AM	3	1	0	4	0	3	0	3	0	0	1	1	1	9	7	17	25
Total	16	1	0	17	1	9	1	11	2	2	7	11	3	20	18	41	80
08:00 AM	1	1	1	3	0	7	2	9	2	0	1	3	0	6	4	10	25
08:15 AM	2	0	0	2	0	8	1	9	1	0	0	1	1	11	3	15	27
08:30 AM	5	0	0	5	0	8	1	9	0	0	2	2	0	2	1	3	19
08:45 AM	4	0	0	4	0	4	1	5	1	1	0	2	2	7	8	17	28
Total	12	1	1	14	0	27	5	32	4	1	3	8	3	26	16	45	99
09:00 AM	7	0	0	7	0	9	0	9	1	0	1	2	1	11	3	15	33
09:15 AM	1	0	0	1	0	1	0	1	0	1	2	3	2	3	6	11	16
09:30 AM	4	1	0	5	0	4	2	6	0	1	3	4	1	6	2	9	24
09:45 AM	4	0	0	4	0	3	0	3	1	0	1	2	0	5	4	9	18
Total	16	1	0	17	0	17	2	19	2	2	7	11	4	25	15	44	91
10:00 AM	4	0	0	4	0	6	0	6	1	0	0	1	2	1	0	3	14
10:15 AM	1	1	0	2	0	3	0	3	0	0	0	0	0	4	3	7	12
10:30 AM	2	0	1	3	0	7	0	7	1	0	0	1	1	6	2	9	20
10:45 AM	1	0	0	1	0	4	1	5	0	0	0	0	1	3	0	4	10
Total	8	1	1	10	0	20	1	21	2	0	0	2	4	14	5	23	56
11:00 AM	2	1	0	3	0	2	0	2	0	1	1	2	1	1	5	7	14
11:15 AM	3	2	0	5	0	6	0	6	0	0	1	1	1	3	1	5	17
11:30 AM	4	0	0	4	0	7	0	7	0	0	2	2	1	3	4	8	21
11:45 AM	5	0	0	5	0	5	0	5	1	1	0	2	0	3	2	5	17
Total	14	3	0	17	0	20	0	20	1	2	4	7	3	10	12	25	69
12:00 PM	2	0	0	2	0	4	0	4	1	0	1	2	0	5	1	6	14
12:15 PM	3	0	0	3	0	3	0	3	0	0	0	0	0	4	3	7	13
12:30 PM	1	1	0	2	0	1	0	1	0	0	1	1	1	2	3	6	10
12:45 PM	3	0	0	3	1	5	0	6	1	1	1	3	1	4	3	8	20
Total	9	1	0	10	1	13	0	14	2	1	3	6	2	15	10	27	57
01:00 PM	0	0	0	0	0	2	0	2	0	1	0	1	2	2	2	6	9
01:15 PM	7	1	0	8	0	4	1	5	0	0	1	1	2	2	2	6	20
01:30 PM	2	1	0	3	0	1	2	3	0	0	0	0	4	3	2	9	15
01:45 PM	2	0	0	2	0	3	0	3	0	0	0	0	1	1	0	2	7
Total	11	2	0	13	0	10	3	13	0	1	1	2	9	8	6	23	51
02:00 PM	6	1	1	8	0	4	0	4	1	0	0	1	4	3	2	9	22
02:15 PM	2	0	0	2	0	3	1	4	1	0	3	4	2	5	4	11	21
02:30 PM	1	0	0	1	0	2	0	2	0	0	0	0	1	1	3	5	8
02:45 PM	3	3	0	6	0	1	1	2	0	0	1	1	1	4	0	5	14
Total	12	4	1	17	0	10	2	12	2	0	4	6	8	13	9	30	65
03:00 PM	2	1	0	3	0	2	0	2	1	2	0	3	1	1	0	2	10
03:15 PM	5	1	0	6	0	4	0	4	0	1	1	2	3	6	3	12	24
03:30 PM	1	0	0	1	1	2	1	4	2	2	1	5	0	3	2	5	15
03:45 PM	1	0	0	1	0	5	0	5	0	0	1	1	0	3	2	5	12
Total	9	2	0	11	1	13	1	15	3	5	3	11	4	13	7	24	61
04:00 PM	1	1	0	2	0	2	0	2	0	1	0	1	0	5	3	8	13
04:15 PM	1	0	0	1	0	1	0	1	0	0	1	1	0	3	0	3	6
04:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	2	4
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1	3	4
Total	2	1	0	3	0	6	0	6	0	1	1	2	0	10	6	16	27

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 3
Site Code : 156484
Start Date : 4/15/2014
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Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Beaver Street From North				Route 140 From East				Beaver Street From South				Route 140 From West				Int. Total	
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total		
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	2	3
05:15 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	1	4	0	5	7	
Total	0	0	0	0	0	4	2	6	0	2	0	2	1	5	1	7	15	
Grand Total	109	17	3	129	3	149	17	169	18	17	33	68	41	159	105	305	671	
Apprch %	84.5	13.2	2.3		1.8	88.2	10.1		26.5	25	48.5		13.4	52.1	34.4			
Total %	16.2	2.5	0.4	19.2	0.4	22.2	2.5	25.2	2.7	2.5	4.9	10.1	6.1	23.7	15.6	45.5		
Buses	31	3	2	36	0	19	1	20	1	6	3	10	5	23	21	49	115	
% Buses	28.4	17.6	66.7	27.9	0	12.8	5.9	11.8	5.6	35.3	9.1	14.7	12.2	14.5	20	16.1	17.1	
Single-Unit Trucks	62	13	1	76	2	115	16	133	15	11	19	45	19	121	66	206	460	
% Single-Unit Trucks	56.9	76.5	33.3	58.9	66.7	77.2	94.1	78.7	83.3	64.7	57.6	66.2	46.3	76.1	62.9	67.5	68.6	
Articulated Trucks	16	1	0	17	1	15	0	16	2	0	11	13	17	15	18	50	96	
% Articulated Trucks	14.7	5.9	0	13.2	33.3	10.1	0	9.5	11.1	0	33.3	19.1	41.5	9.4	17.1	16.4	14.3	

*Massachusetts Department of Transportation
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Franklin
Rte 140 (West Central St)& Beaver Street
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Groups Printed- Bicycles on Road

Start Time	Beaver Street From North				Route 140 From East				Beaver Street From South				Route 140 From West				Int. Total	
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total		
12:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	0	100	0		0	0	0		0	0	0		0	0	0			
Total %	0	100	0	100	0	0	0		0	0	0		0	0	0			

*Massachusetts Department of Transportation
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Franklin
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Groups Printed- Pedestrians

Start Time	Beaver Street From North		Route 140 From East		Beaver Street From South		Route 140 From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
07:00 AM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	1
08:00 AM	0	0	1	1	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	2	2	2
Total	0	0	1	1	0	0	2	2	3
09:15 AM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	1
11:30 AM	1	1	0	0	0	0	1	1	2
11:45 AM	3	3	0	0	0	0	0	0	3
Total	4	4	0	0	0	0	1	1	5
12:30 PM	1	1	0	0	1	1	0	0	2
Total	1	1	0	0	1	1	0	0	2
01:15 PM	1	1	0	0	0	0	0	0	1
01:30 PM	1	1	0	0	0	0	0	0	1
Total	2	2	0	0	0	0	0	0	2
02:30 PM	2	2	0	0	0	0	0	0	2
Total	2	2	0	0	0	0	0	0	2
04:30 PM	0	0	0	0	2	2	0	0	2
04:45 PM	0	0	0	0	1	1	0	0	1
Total	0	0	0	0	3	3	0	0	3
Grand Total	11	11	1	1	4	4	3	3	19
Apprch %	100		100		100		100		
Total %	57.9	57.9	5.3	5.3	21.1	21.1	15.8	15.8	

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (West Central St)& Beaver Street
Counted by Miovision
S14-010 TMC # 3 Sat

File Name : S14-010 Franklin 3 Sat
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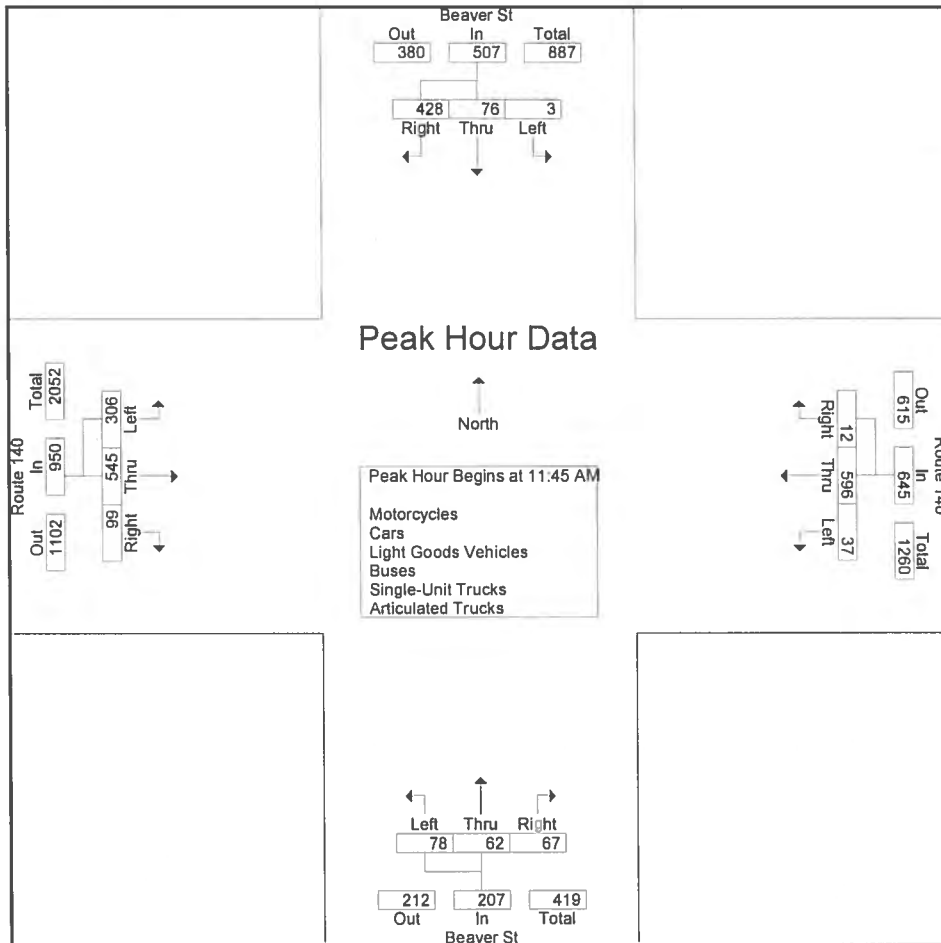
Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Beaver St From North				Route 140 From East				Beaver St From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	123	21	0	144	1	120	13	134	8	16	18	42	16	145	64	225	545
11:15 AM	100	12	3	115	1	149	15	165	19	13	15	47	25	146	74	245	572
11:30 AM	79	16	1	96	5	138	11	154	12	8	12	32	23	149	79	251	533
11:45 AM	105	20	2	127	3	147	12	162	25	17	16	58	17	119	75	211	558
Total	407	69	6	482	10	554	51	615	64	54	61	179	81	559	292	932	2208
12:00 PM	111	17	0	128	4	151	7	162	21	17	21	59	21	148	65	234	583
12:15 PM	97	15	0	112	2	157	10	169	9	16	23	48	36	141	85	262	591
12:30 PM	115	24	1	140	3	141	8	152	12	12	18	42	25	137	81	243	577
12:45 PM	97	15	3	115	0	113	11	124	7	16	14	37	23	133	75	231	507
Total	420	71	4	495	9	562	36	607	49	61	76	186	105	559	306	970	2258
01:00 PM	90	19	0	109	0	123	10	133	14	19	21	54	23	155	78	256	552
01:15 PM	82	19	0	101	1	119	13	133	25	20	17	62	22	149	72	243	539
01:30 PM	93	17	2	112	1	134	8	143	19	7	14	40	21	140	82	243	538
01:45 PM	86	23	1	110	0	107	11	118	13	15	12	40	21	128	62	211	479
Total	351	78	3	432	2	483	42	527	71	61	64	196	87	572	294	953	2108
Grand Total	1178	218	13	1409	21	1599	129	1749	184	176	201	561	273	1690	892	2855	6574
Apprch %	83.6	15.5	0.9		1.2	91.4	7.4		32.8	31.4	35.8		9.6	59.2	31.2		
Total %	17.9	3.3	0.2	21.4	0.3	24.3	2	26.6	2.8	2.7	3.1	8.5	4.2	25.7	13.6	43.4	
Motorcycles	4	0	0	4	0	17	0	17	0	1	0	1	2	20	5	27	49
% Motorcycles	0.3	0	0	0.3	0	1.1	0	1	0	0.6	0	0.2	0.7	1.2	0.6	0.9	0.7
Cars	1072	179	13	1264	19	1436	117	1572	160	136	195	491	222	1531	818	2571	5898
% Cars	91	82.1	100	89.7	90.5	89.8	90.7	89.9	87	77.3	97	87.5	81.3	90.6	91.7	90.1	89.7
Light Goods Vehicles	95	36	0	131	2	137	10	149	21	38	5	64	39	125	66	230	574
% Light Goods Vehicles	8.1	16.5	0	9.3	9.5	8.6	7.8	8.5	11.4	21.6	2.5	11.4	14.3	7.4	7.4	8.1	8.7
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	7	3	0	10	0	7	2	9	3	1	0	4	3	14	3	20	43
% Single-Unit Trucks	0.6	1.4	0	0.7	0	0.4	1.6	0.5	1.6	0.6	0	0.7	1.1	0.8	0.3	0.7	0.7
Articulated Trucks	0	0	0	0	0	2	0	2	0	0	1	1	7	0	0	7	10
% Articulated Trucks	0	0	0	0	0	0.1	0	0.1	0	0	0.5	0.2	2.6	0	0	0.2	0.2

Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 3 Sat
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Start Time	Beaver St From North				Route 140 From East				Beaver St From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	105	20	2	127	3	147	12	162	25	17	16	58	17	119	75	211	558
12:00 PM	111	17	0	128	4	151	7	162	21	17	21	59	21	148	65	234	583
12:15 PM	97	15	0	112	2	157	10	169	9	16	23	48	36	141	85	262	591
12:30 PM	115	24	1	140	3	141	8	152	12	12	18	42	25	137	81	243	577
Total Volume	428	76	3	507	12	596	37	645	67	62	78	207	99	545	306	950	2309
% App. Total	84.4	15	0.6		1.9	92.4	5.7		32.4	30	37.7		10.4	57.4	32.2		
PHF	.930	.792	.375	.905	.750	.949	.771	.954	.670	.912	.848	.877	.688	.921	.900	.906	.977



Massachusetts Department of Transportation

Highway Division

Franklin
 Rte 140 (West Central St)& Beaver Street
 Counted by Miovision
 S14-010 TMC # 3 Sat

File Name : S14-010 Franklin 3 Sat
 Site Code : 159360
 Start Date : 4/12/2014
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Beaver St From North				Route 140 From East				Beaver St From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	123	21	0	144	1	120	13	134	8	16	18	42	14	145	64	223	543
11:15 AM	99	12	3	114	1	148	15	164	19	13	15	47	24	142	74	240	565
11:30 AM	79	16	1	96	5	137	11	153	12	7	12	31	23	149	79	251	531
11:45 AM	105	20	2	127	3	145	12	160	24	17	16	57	17	119	75	211	555
Total	406	69	6	481	10	550	51	611	63	53	61	177	78	555	292	925	2194
12:00 PM	111	16	0	127	4	151	6	161	21	17	21	59	19	147	65	231	578
12:15 PM	97	15	0	112	2	156	10	168	8	16	22	46	35	138	84	257	583
12:30 PM	114	24	1	139	3	140	7	150	12	12	18	42	25	137	81	243	574
12:45 PM	95	15	3	113	0	113	11	124	7	16	14	37	23	133	75	231	505
Total	417	70	4	491	9	560	34	603	48	61	75	184	102	555	305	962	2240
01:00 PM	90	19	0	109	0	122	10	132	14	19	21	54	22	154	78	254	549
01:15 PM	82	18	0	100	1	119	13	133	24	20	17	61	22	148	72	242	536
01:30 PM	92	17	2	111	1	133	8	142	19	7	14	40	20	137	81	238	531
01:45 PM	84	22	1	107	0	106	11	117	13	15	12	40	19	127	61	207	471
Total	348	76	3	427	2	480	42	524	70	61	64	195	83	566	292	941	2087
Grand Total	1171	215	13	1399	21	1590	127	1738	181	175	200	556	263	1676	889	2828	6521
Apprch %	83.7	15.4	0.9		1.2	91.5	7.3		32.6	31.5	36		9.3	59.3	31.4		
Total %	18	3.3	0.2	21.5	0.3	24.4	1.9	26.7	2.8	2.7	3.1	8.5	4	25.7	13.6	43.4	
Motorcycles	4	0	0	4	0	17	0	17	0	1	0	1	2	20	5	27	49
% Motorcycles	0.3	0	0	0.3	0	1.1	0	1	0	0.6	0	0.2	0.8	1.2	0.6	1	0.8
Cars	1072	179	13	1264	19	1436	117	1572	160	136	195	491	222	1531	818	2571	5898
% Cars	91.5	83.3	100	90.4	90.5	90.3	92.1	90.4	88.4	77.7	97.5	88.3	84.4	91.3	92	90.9	90.4
Light Goods Vehicles	95	36	0	131	2	137	10	149	21	38	5	64	39	125	66	230	574
% Light Goods Vehicles	8.1	16.7	0	9.4	9.5	8.6	7.9	8.6	11.6	21.7	2.5	11.5	14.8	7.5	7.4	8.1	8.8

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (West Central St)& Beaver Street
Counted by Miovision
S14-010 TMC # 3 Sat

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Start Date : 4/12/2014
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Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Beaver St From North				Route 140 From East				Beaver St From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
11:15 AM	1	0	0	1	0	1	0	1	0	0	0	0	1	4	0	5	7
11:30 AM	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	2
11:45 AM	0	0	0	0	0	2	0	2	1	0	0	1	0	0	0	0	3
Total	1	0	0	1	0	4	0	4	1	1	0	2	3	4	0	7	14
12:00 PM	0	1	0	1	0	0	1	1	0	0	0	0	2	1	0	3	5
12:15 PM	0	0	0	0	0	1	0	1	1	0	1	2	1	3	1	5	8
12:30 PM	1	0	0	1	0	1	1	2	0	0	0	0	0	0	0	0	3
12:45 PM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	3	1	0	4	0	2	2	4	1	0	1	2	3	4	1	8	18
01:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	2	3
01:15 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	1	0	1	3
01:30 PM	1	0	0	1	0	1	0	1	0	0	0	0	1	3	1	5	7
01:45 PM	2	1	0	3	0	1	0	1	0	0	0	0	2	1	1	4	8
Total	3	2	0	5	0	3	0	3	1	0	0	1	4	6	2	12	21
Grand Total	7	3	0	10	0	9	2	11	3	1	1	5	10	14	3	27	53
Apprch %	70	30	0		0	81.8	18.2		60	20	20		37	51.9	11.1		
Total %	13.2	5.7	0	18.9	0	17	3.8	20.8	5.7	1.9	1.9	9.4	18.9	26.4	5.7	50.9	
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	7	3	0	10	0	7	2	9	3	1	0	4	3	14	3	20	43
% Single-Unit Trucks	100	100	0	100	0	77.8	100	81.8	100	100	0	80	30	100	100	74.1	81.1
Articulated Trucks	0	0	0	0	0	2	0	2	0	0	1	1	7	0	0	7	10
% Articulated Trucks	0	0	0	0	0	22.2	0	18.2	0	0	100	20	70	0	0	25.9	18.9

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (West Central St)& Beaver Street
Counted by Miovision
S14-010 TMC # 3 Sat

File Name : S14-010 Franklin 3 Sat
Site Code : 159360
Start Date : 4/12/2014
Page No : 1

Groups Printed- Pedestrians

Start Time	Beaver St From North		Route 140 From East		Beaver St From South		Route 140 From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
11:00 AM	0	0	1	1	2	2	2	2	5
11:15 AM	2	2	0	0	1	1	1	1	4
11:30 AM	2	2	0	0	0	0	0	0	2
11:45 AM	0	0	0	0	4	4	1	1	5
Total	4	4	1	1	7	7	4	4	16
12:00 PM	0	0	0	0	2	2	4	4	6
12:45 PM	0	0	0	0	8	8	0	0	8
Total	0	0	0	0	10	10	4	4	14
01:00 PM	0	0	0	0	1	1	0	0	1
01:15 PM	1	1	0	0	0	0	0	0	1
01:30 PM	0	0	0	0	5	5	0	0	5
01:45 PM	0	0	0	0	1	1	0	0	1
Total	1	1	0	0	7	7	0	0	8
Grand Total	5	5	1	1	24	24	8	8	38
Apprch %	100		100		100		100		
Total %	13.2	13.2	2.6	2.6	63.2	63.2	21.1	21.1	

Massachusetts Department of Transportation

Highway Division

Franklin
 Rte 140 (West Central St) & Union Street
 Counted by Miovision
 S14-010 TMC # 4

File Name : S14-010 Franklin 4
 Site Code : 156483
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Union Street From North				Route 140 From East				Union Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	3	45	24	72	2	71	3	76	5	60	46	111	10	43	2	55	314
07:15 AM	3	53	17	73	1	59	3	63	4	58	47	109	26	71	1	98	343
07:30 AM	4	58	21	83	1	63	7	71	11	43	27	81	17	73	3	93	328
07:45 AM	3	47	18	68	3	47	4	54	14	43	20	77	16	85	1	102	301
Total	13	203	80	296	7	240	17	264	34	204	140	378	69	272	7	348	1286
08:00 AM	6	60	12	78	6	56	3	65	13	42	19	74	21	69	5	95	312
08:15 AM	1	52	20	73	16	84	14	114	5	49	29	83	10	67	7	84	354
08:30 AM	3	34	21	58	6	57	7	70	12	38	24	74	11	69	1	81	283
08:45 AM	8	33	24	65	3	53	5	61	9	37	22	68	15	84	1	100	294
Total	18	179	77	274	31	250	29	310	39	166	94	299	57	289	14	360	1243
09:00 AM	8	30	12	50	4	73	9	86	6	23	24	53	16	81	1	98	287
09:15 AM	2	31	15	48	0	66	13	79	12	28	21	61	22	71	4	97	285
09:30 AM	9	30	26	65	5	61	3	69	6	30	11	47	12	77	6	95	276
09:45 AM	3	21	14	38	4	54	4	62	6	15	18	39	9	84	5	98	237
Total	22	112	67	201	13	254	29	296	30	96	74	200	59	313	16	388	1085
10:00 AM	6	30	15	51	3	66	3	72	7	21	12	40	19	64	4	87	250
10:15 AM	1	15	16	32	5	71	11	87	4	27	15	46	20	68	1	89	254
10:30 AM	5	26	20	51	2	73	10	85	9	22	14	45	22	78	4	104	285
10:45 AM	1	17	20	38	9	80	6	95	5	24	25	54	12	85	2	99	286
Total	13	88	71	172	19	290	30	339	25	94	66	185	73	295	11	379	1075
11:00 AM	8	27	12	47	8	82	8	98	10	20	17	47	16	97	3	116	308
11:15 AM	4	24	17	45	7	82	8	97	14	13	21	48	11	79	4	94	284
11:30 AM	3	23	17	43	8	86	5	99	5	20	14	39	23	89	5	117	298
11:45 AM	6	24	13	43	4	78	2	84	5	24	20	49	17	91	1	109	285
Total	21	98	59	178	27	328	23	378	34	77	72	183	67	356	13	436	1175
12:00 PM	4	21	23	48	6	61	11	78	5	27	19	51	24	106	3	133	310
12:15 PM	1	18	15	34	4	90	7	101	10	28	25	63	16	86	4	106	304
12:30 PM	0	29	19	48	7	92	4	103	8	23	26	57	22	95	1	118	326
12:45 PM	2	21	19	42	7	96	13	116	8	21	21	50	28	103	6	137	345
Total	7	89	76	172	24	339	35	398	31	99	91	221	90	390	14	494	1285
01:00 PM	2	33	20	55	4	85	7	96	4	20	19	43	11	99	3	113	307
01:15 PM	6	29	15	50	3	91	11	105	3	25	25	53	19	82	2	103	311
01:30 PM	6	26	20	52	9	76	15	100	5	22	21	48	18	62	3	83	283
01:45 PM	3	23	14	40	3	77	8	88	3	34	22	59	18	79	2	99	286
Total	17	111	69	197	19	329	41	389	15	101	87	203	66	322	10	398	1187
02:00 PM	6	37	28	71	5	69	5	79	9	38	23	70	24	91	3	118	338
02:15 PM	5	64	35	104	6	62	7	75	8	26	25	59	26	89	10	125	363
02:30 PM	8	52	26	86	8	75	10	93	8	44	22	74	17	114	6	137	390
02:45 PM	4	37	30	71	23	89	16	128	10	67	28	105	18	98	4	120	424
Total	23	190	119	332	42	295	38	375	35	175	98	308	85	392	23	500	1515
03:00 PM	5	68	25	98	4	70	8	82	8	50	22	80	19	83	4	106	366
03:15 PM	6	64	28	98	4	82	11	97	4	55	20	79	28	92	6	126	400
03:30 PM	1	53	41	95	4	66	11	81	1	42	19	62	16	90	7	113	351
03:45 PM	6	40	20	66	11	97	8	116	3	60	26	89	25	101	7	133	404
Total	18	225	114	357	23	315	38	376	16	207	87	310	88	366	24	478	1521
04:00 PM	5	48	28	81	5	97	9	111	11	52	11	74	32	93	7	132	398
04:15 PM	2	68	24	94	2	69	8	79	6	42	21	69	28	103	5	136	378
04:30 PM	3	48	24	75	9	83	11	103	9	33	28	70	29	78	5	112	360
04:45 PM	6	39	30	75	8	87	8	103	8	57	17	82	20	104	5	129	389
Total	16	203	106	325	24	336	36	396	34	184	77	295	109	378	22	509	1525

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 4
Site Code : 156483
Start Date : 4/15/2014
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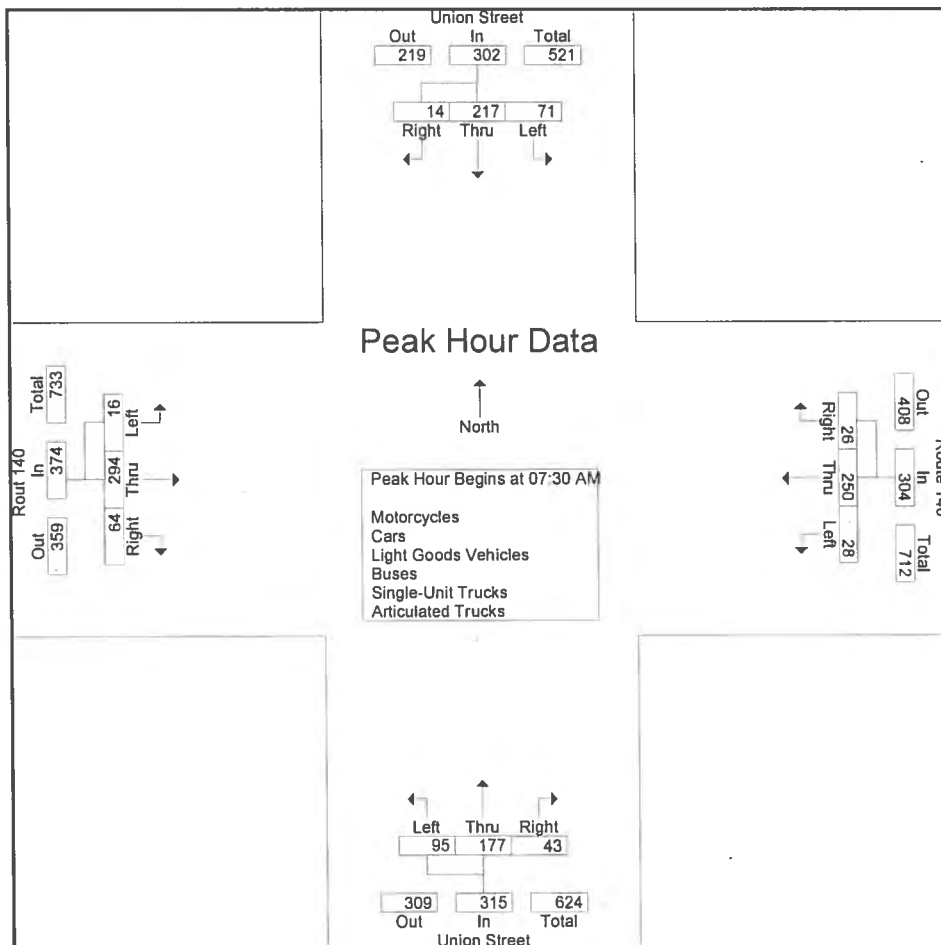
Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Union Street From North				Route 140 From East				Union Street From South				Rout 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	6	62	20	88	6	108	17	131	7	57	20	84	26	98	4	128	431
05:15 PM	4	62	27	93	4	93	8	105	10	48	18	76	20	100	8	128	402
05:30 PM	5	37	14	56	7	97	13	117	7	51	27	85	26	95	7	128	386
05:45 PM	4	38	33	75	4	78	5	87	6	43	16	65	31	104	1	136	363
Total	19	199	94	312	21	376	43	440	30	199	81	310	103	397	20	520	1582
Grand Total	187	1697	932	2816	250	3352	359	3961	323	1602	967	2892	866	3770	174	4810	14479
Apprch %	6.6	60.3	33.1		6.3	84.6	9.1		11.2	55.4	33.4		18	78.4	3.6		
Total %	1.3	11.7	6.4	19.4	1.7	23.2	2.5	27.4	2.2	11.1	6.7	20	6	26	1.2	33.2	
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars	148	1446	828	2422	228	2909	308	3445	273	1353	775	2401	696	3177	155	4028	12296
% Cars	79.1	85.2	88.8	86	91.2	86.8	85.8	87	84.5	84.5	80.1	83	80.4	84.3	89.1	83.7	84.9
Light Goods Vehicles	28	205	82	315	18	337	33	388	29	191	149	369	140	469	18	627	1699
% Light Goods Vehicles	15	12.1	8.8	11.2	7.2	10.1	9.2	9.8	9	11.9	15.4	12.8	16.2	12.4	10.3	13	11.7
Buses	2	11	9	22	2	9	11	22	11	11	9	31	5	19	0	24	99
% Buses	1.1	0.6	1	0.8	0.8	0.3	3.1	0.6	3.4	0.7	0.9	1.1	0.6	0.5	0	0.5	0.7
Single-Unit Trucks	6	26	10	42	2	90	6	98	9	39	26	74	21	97	1	119	333
% Single-Unit Trucks	3.2	1.5	1.1	1.5	0.8	2.7	1.7	2.5	2.8	2.4	2.7	2.6	2.4	2.6	0.6	2.5	2.3
Articulated Trucks	3	9	3	15	0	7	1	8	1	8	8	17	4	8	0	12	52
% Articulated Trucks	1.6	0.5	0.3	0.5	0	0.2	0.3	0.2	0.3	0.5	0.8	0.6	0.5	0.2	0	0.2	0.4

Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 4
Site Code : 156483
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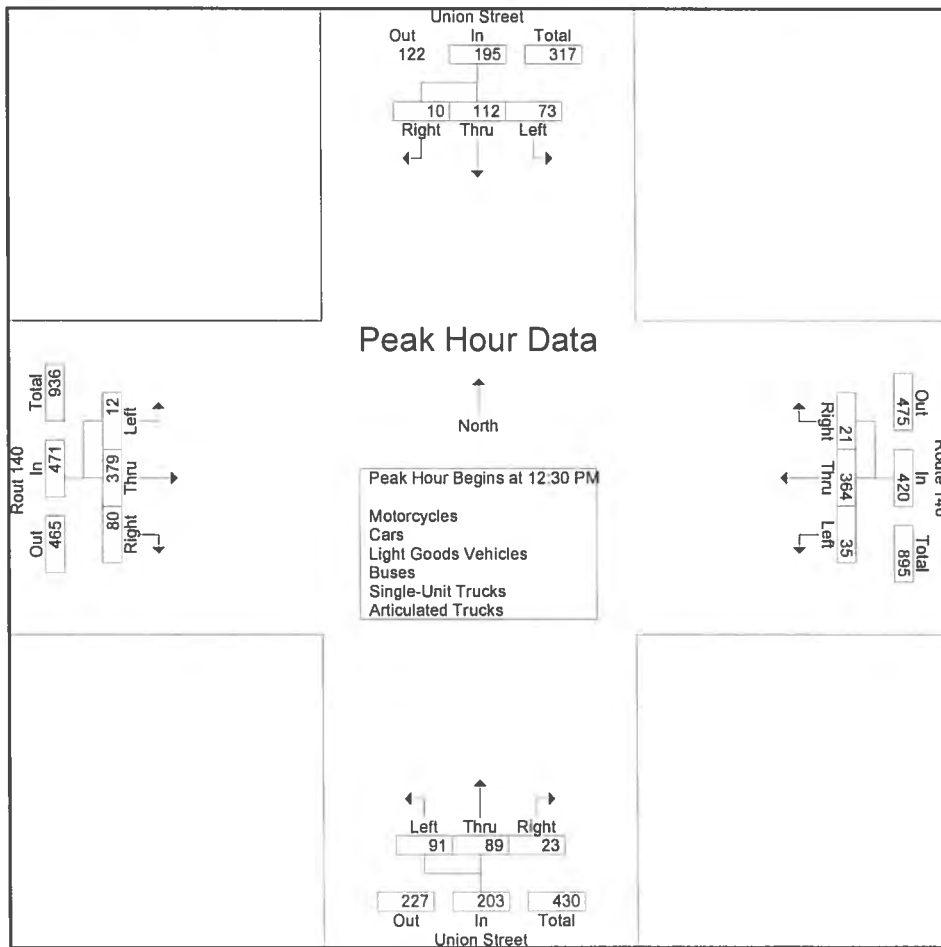
Start Time	Union Street From North				Route 140 From East				Union Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	4	58	21	83	1	63	7	71	11	43	27	81	17	73	3	93	328
07:45 AM	3	47	18	68	3	47	4	54	14	43	20	77	16	85	1	102	301
08:00 AM	6	60	12	78	6	56	3	65	13	42	19	74	21	69	5	95	312
08:15 AM	1	52	20	73	16	84	14	114	5	49	29	83	10	67	7	84	354
Total Volume	14	217	71	302	26	250	28	304	43	177	95	315	64	294	16	374	1295
% App. Total	4.6	71.9	23.5		8.6	82.2	9.2		13.7	56.2	30.2		17.1	78.6	4.3		
PHF	.583	.904	.845	.910	.406	.744	.500	.667	.768	.903	.819	.949	.762	.865	.571	.917	.915



Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 4
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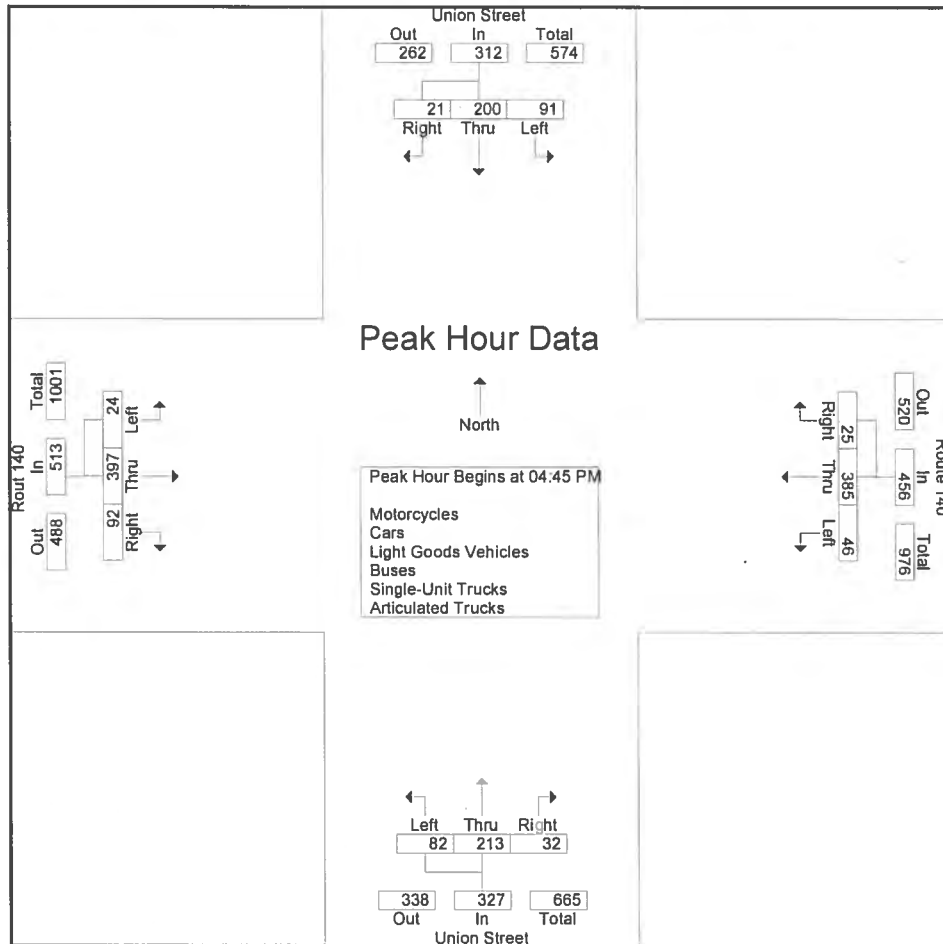
Start Time	Union Street From North				Route 140 From East				Union Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	0	29	19	48	7	92	4	103	8	23	26	57	22	95	1	118	326
12:45 PM	2	21	19	42	7	96	13	116	8	21	21	50	28	103	6	137	345
01:00 PM	2	33	20	55	4	85	7	96	4	20	19	43	11	99	3	113	307
01:15 PM	6	29	15	50	3	91	11	105	3	25	25	53	19	82	2	103	311
Total Volume	10	112	73	195	21	364	35	420	23	89	91	203	80	379	12	471	1289
% App. Total	5.1	57.4	37.4		5	86.7	8.3		11.3	43.8	44.8		17	80.5	2.5		
PHF	.417	.848	.913	.886	.750	.948	.673	.905	.719	.890	.875	.890	.714	.920	.500	.859	.934



Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 4
Site Code : 156483
Start Date : 4/15/2014
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Start Time	Union Street From North				Route 140 From East				Union Street From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	6	39	30	75	8	87	8	103	8	57	17	82	20	104	5	129	389
05:00 PM	6	62	20	88	6	108	17	131	7	57	20	84	26	98	4	128	431
05:15 PM	4	62	27	93	4	93	8	105	10	48	18	76	20	100	8	128	402
05:30 PM	5	37	14	56	7	97	13	117	7	51	27	85	26	95	7	128	386
Total Volume	21	200	91	312	25	385	46	456	32	213	82	327	92	397	24	513	1608
% App. Total	6.7	64.1	29.2		5.5	84.4	10.1		9.8	65.1	25.1		17.9	77.4	4.7		
PHF	.875	.806	.758	.839	.781	.891	.676	.870	.800	.934	.759	.962	.885	.954	.750	.994	.933



Massachusetts Department of Transportation

Highway Division

Franklin
 Rte 140 (West Central St) & Union Street
 Counted by Miovision
 S14-010 TMC # 4

File Name : S14-010 Franklin 4
 Site Code : 156483
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Union Street From North				Route 140 From East				Union Street From South				Rout 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	3	44	23	70	2	71	3	76	5	58	45	108	10	42	2	54	308
07:15 AM	3	51	17	71	1	57	2	60	4	57	46	107	26	67	1	94	332
07:30 AM	4	55	21	80	1	63	7	71	9	41	25	75	15	69	3	87	313
07:45 AM	3	46	16	65	3	44	4	51	14	40	19	73	15	76	1	92	281
Total	13	196	77	286	7	235	16	258	32	196	135	363	66	254	7	327	1234
08:00 AM	3	56	12	71	6	52	3	61	13	40	17	70	18	63	5	86	288
08:15 AM	1	52	20	73	15	77	13	105	5	48	27	80	10	56	7	73	331
08:30 AM	3	32	20	55	6	52	7	65	10	36	19	65	10	69	1	80	265
08:45 AM	8	32	24	64	3	49	4	56	8	33	21	62	12	81	1	94	276
Total	15	172	76	263	30	230	27	287	36	157	84	277	50	269	14	333	1160
09:00 AM	8	27	12	47	4	70	8	82	6	22	22	50	14	69	1	84	263
09:15 AM	2	30	15	47	0	65	11	76	11	27	20	58	22	68	4	94	275
09:30 AM	9	29	26	64	5	58	3	66	6	30	10	46	10	75	6	91	267
09:45 AM	3	21	14	38	4	52	4	60	5	15	16	36	9	77	5	91	225
Total	22	107	67	196	13	245	26	284	28	94	68	190	55	289	16	360	1030
10:00 AM	5	29	14	48	3	59	3	65	6	18	11	35	18	64	4	86	234
10:15 AM	1	15	16	32	5	67	9	81	3	26	15	44	19	64	1	84	241
10:30 AM	3	25	19	47	2	69	10	81	7	20	14	41	21	75	4	100	269
10:45 AM	1	14	20	35	9	78	5	92	5	21	23	49	12	78	2	92	268
Total	10	83	69	162	19	273	27	319	21	85	63	169	70	281	11	362	1012
11:00 AM	8	22	11	41	8	78	8	94	10	19	17	46	16	96	3	115	296
11:15 AM	4	23	16	43	6	77	7	90	13	12	21	46	11	75	4	90	269
11:30 AM	3	21	17	41	8	82	5	95	4	19	13	36	22	86	5	113	285
11:45 AM	6	22	13	41	4	73	1	78	5	24	18	47	16	91	1	108	274
Total	21	88	57	166	26	310	21	357	32	74	69	175	65	348	13	426	1124
12:00 PM	4	20	23	47	6	59	11	76	5	25	19	49	22	103	3	128	300
12:15 PM	1	17	14	32	4	88	6	98	10	27	24	61	16	83	4	103	294
12:30 PM	0	28	16	44	7	91	4	102	7	23	26	56	22	94	1	117	319
12:45 PM	1	21	18	40	7	93	12	112	8	18	20	46	28	99	6	133	331
Total	6	86	71	163	24	331	33	388	30	93	89	212	88	379	14	481	1244
01:00 PM	2	33	20	55	4	83	7	94	4	19	19	42	11	97	3	111	302
01:15 PM	6	28	15	49	3	88	10	101	3	23	23	49	19	80	2	101	300
01:30 PM	6	26	20	52	9	74	15	98	5	19	19	43	18	62	3	83	276
01:45 PM	3	23	14	40	3	74	8	85	2	32	22	56	18	77	2	97	278
Total	17	110	69	196	19	319	40	378	14	93	83	190	66	316	10	392	1156
02:00 PM	3	37	28	68	5	65	5	75	9	37	22	68	23	90	3	116	327
02:15 PM	5	64	34	103	6	62	6	74	7	24	25	56	23	86	9	118	351
02:30 PM	8	52	25	85	8	74	9	91	8	43	22	73	17	112	6	135	384
02:45 PM	4	36	30	70	23	89	16	128	9	63	26	98	18	96	4	118	414
Total	20	189	117	326	42	290	36	368	33	167	95	295	81	384	22	487	1476
03:00 PM	5	66	25	96	4	70	8	82	8	45	20	73	18	82	4	104	355
03:15 PM	6	62	27	95	4	79	10	93	4	55	18	77	27	88	6	121	386
03:30 PM	0	53	39	92	4	65	11	80	1	42	19	62	15	89	7	111	345
03:45 PM	6	40	20	66	10	95	8	113	2	60	25	87	24	100	7	131	397
Total	17	221	111	349	22	309	37	368	15	202	82	299	84	359	24	467	1483
04:00 PM	5	46	27	78	5	97	9	111	11	52	10	73	32	90	7	129	391
04:15 PM	2	67	22	91	2	69	7	78	5	42	21	68	28	101	5	134	371
04:30 PM	3	48	24	75	8	81	11	100	8	33	28	69	29	78	5	112	356
04:45 PM	6	39	30	75	8	86	8	102	8	57	17	82	20	103	5	128	387
Total	16	200	103	319	23	333	35	391	32	184	76	292	109	372	22	503	1505

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 4
Site Code : 156483
Start Date : 4/15/2014
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Union Street From North				Route 140 From East				Union Street From South				Rout 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	6	62	19	87	6	106	17	129	7	57	20	84	25	97	4	126	426
05:15 PM	4	62	27	93	4	93	8	105	10	48	18	76	20	100	8	128	402
05:30 PM	5	37	14	56	7	96	13	116	7	51	26	84	26	95	7	128	384
05:45 PM	4	38	33	75	4	76	5	85	5	43	16	64	31	103	1	135	359
Total	19	199	93	311	21	371	43	435	29	199	80	308	102	395	20	517	1571
Grand Total	176	1651	910	2737	246	3246	341	3833	302	1544	924	2770	836	3646	173	4655	13995
Apprch %	6.4	60.3	33.2		6.4	84.7	8.9		10.9	55.7	33.4		18	78.3	3.7		
Total %	1.3	11.8	6.5	19.6	1.8	23.2	2.4	27.4	2.2	11	6.6	19.8	6	26.1	1.2	33.3	
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars	148	1446	828	2422	228	2909	308	3445	273	1353	775	2401	696	3177	155	4028	12296
% Cars	84.1	87.6	91	88.5	92.7	89.6	90.3	89.9	90.4	87.6	83.9	86.7	83.3	87.1	89.6	86.5	87.9
Light Goods Vehicles	28	205	82	315	18	337	33	388	29	191	149	369	140	469	18	627	1699
% Light Goods Vehicles	15.9	12.4	9	11.5	7.3	10.4	9.7	10.1	9.6	12.4	16.1	13.3	16.7	12.9	10.4	13.5	12.1

Massachusetts Department of Transportation

Highway Division

Franklin
 Rte 140 (West Central St) & Union Street
 Counted by Miovision
 S14-010 TMC # 4

File Name : S14-010 Franklin 4
 Site Code : 156483
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Union Street From North				Route 140 From East				Union Street From South				Rout 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	1	1	2	0	0	0	0	0	2	1	3	0	1	0	1	6
07:15 AM	0	2	0	2	0	2	1	3	0	1	1	2	0	4	0	4	11
07:30 AM	0	3	0	3	0	0	0	0	2	2	2	6	2	4	0	6	15
07:45 AM	0	1	2	3	0	3	0	3	0	3	1	4	1	9	0	10	20
Total	0	7	3	10	0	5	1	6	2	8	5	15	3	18	0	21	52
08:00 AM	3	4	0	7	0	4	0	4	0	2	2	4	3	6	0	9	24
08:15 AM	0	0	0	0	1	7	1	9	0	1	2	3	0	11	0	11	23
08:30 AM	0	2	1	3	0	5	0	5	2	2	5	9	1	0	0	1	18
08:45 AM	0	1	0	1	0	4	1	5	1	4	1	6	3	3	0	6	18
Total	3	7	1	11	1	20	2	23	3	9	10	22	7	20	0	27	83
09:00 AM	0	3	0	3	0	3	1	4	0	1	2	3	2	12	0	14	24
09:15 AM	0	1	0	1	0	1	2	3	1	1	1	3	0	3	0	3	10
09:30 AM	0	1	0	1	0	3	0	3	0	0	1	1	2	2	0	4	9
09:45 AM	0	0	0	0	0	2	0	2	1	0	2	3	0	7	0	7	12
Total	0	5	0	5	0	9	3	12	2	2	6	10	4	24	0	28	55
10:00 AM	1	1	1	3	0	7	0	7	1	3	1	5	1	0	0	1	16
10:15 AM	0	0	0	0	0	4	2	6	1	1	0	2	1	4	0	5	13
10:30 AM	2	1	1	4	0	4	0	4	2	2	0	4	1	3	0	4	16
10:45 AM	0	3	0	3	0	2	1	3	0	3	2	5	0	7	0	7	18
Total	3	5	2	10	0	17	3	20	4	9	3	16	3	14	0	17	63
11:00 AM	0	5	1	6	0	4	0	4	0	1	0	1	0	1	0	1	12
11:15 AM	0	1	1	2	1	5	1	7	1	1	0	2	0	4	0	4	15
11:30 AM	0	2	0	2	0	4	0	4	1	1	1	3	1	3	0	4	13
11:45 AM	0	2	0	2	0	5	1	6	0	0	2	2	1	0	0	1	11
Total	0	10	2	12	1	18	2	21	2	3	3	8	2	8	0	10	51
12:00 PM	0	1	0	1	0	2	0	2	0	2	0	2	2	3	0	5	10
12:15 PM	0	1	1	2	0	2	1	3	0	1	1	2	0	3	0	3	10
12:30 PM	0	1	3	4	0	1	0	1	1	0	0	1	0	1	0	1	7
12:45 PM	1	0	1	2	0	3	1	4	0	3	1	4	0	4	0	4	14
Total	1	3	5	9	0	8	2	10	1	6	2	9	2	11	0	13	41
01:00 PM	0	0	0	0	0	2	0	2	0	1	0	1	0	2	0	2	5
01:15 PM	0	1	0	1	0	3	1	4	0	2	2	4	0	2	0	2	11
01:30 PM	0	0	0	0	0	2	0	2	0	3	2	5	0	0	0	0	7
01:45 PM	0	0	0	0	0	3	0	3	1	2	0	3	0	2	0	2	8
Total	0	1	0	1	0	10	1	11	1	8	4	13	0	6	0	6	31
02:00 PM	3	0	0	3	0	4	0	4	0	1	1	2	1	1	0	2	11
02:15 PM	0	0	1	1	0	0	1	1	1	2	0	3	3	3	1	7	12
02:30 PM	0	0	1	1	0	1	1	2	0	1	0	1	0	2	0	2	6
02:45 PM	0	1	0	1	0	0	0	0	1	4	2	7	0	2	0	2	10
Total	3	1	2	6	0	5	2	7	2	8	3	13	4	8	1	13	39
03:00 PM	0	2	0	2	0	0	0	0	0	5	2	7	1	1	0	2	11
03:15 PM	0	2	1	3	0	3	1	4	0	0	2	2	1	4	0	5	14
03:30 PM	1	0	2	3	0	1	0	1	0	0	0	0	1	1	0	2	6
03:45 PM	0	0	0	0	1	2	0	3	1	0	1	2	1	1	0	2	7
Total	1	4	3	8	1	6	1	8	1	5	5	11	4	7	0	11	38
04:00 PM	0	2	1	3	0	0	0	0	0	0	1	1	0	3	0	3	7
04:15 PM	0	1	2	3	0	0	1	1	1	0	0	1	0	2	0	2	7
04:30 PM	0	0	0	0	1	2	0	3	1	0	0	1	0	0	0	0	4
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	3	3	6	1	3	1	5	2	0	1	3	0	6	0	6	20

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 4
Site Code : 156483
Start Date : 4/15/2014
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Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Union Street From North				Route 140 From East				Union Street From South				Rout 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	0	0	1	1	0	2	0	2	0	0	0	0	1	1	0	2	5
05:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
05:45 PM	0	0	0	0	0	2	0	2	1	0	0	1	0	1	0	1	4
Total	0	0	1	1	0	5	0	5	1	0	1	2	1	2	0	3	11
Grand Total	11	46	22	79	4	106	18	128	21	58	43	122	30	124	1	155	484
Apprch %	13.9	58.2	27.8		3.1	82.8	14.1		17.2	47.5	35.2		19.4	80	0.6		
Total %	2.3	9.5	4.5	16.3	0.8	21.9	3.7	26.4	4.3	12	8.9	25.2	6.2	25.6	0.2	32	
Buses	2	11	9	22	2	9	11	22	11	11	9	31	5	19	0	24	99
% Buses	18.2	23.9	40.9	27.8	50	8.5	61.1	17.2	52.4	19	20.9	25.4	16.7	15.3	0	15.5	20.5
Single-Unit Trucks	6	26	10	42	2	90	6	98	9	39	26	74	21	97	1	119	333
% Single-Unit Trucks	54.5	56.5	45.5	53.2	50	84.9	33.3	76.6	42.9	67.2	60.5	60.7	70	78.2	100	76.8	68.8
Articulated Trucks	3	9	3	15	0	7	1	8	1	8	8	17	4	8	0	12	52
% Articulated Trucks	27.3	19.6	13.6	19	0	6.6	5.6	6.2	4.8	13.8	18.6	13.9	13.3	6.5	0	7.7	10.7

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (West Central St) & Union Street
Counted by Miovision
S14-010 TMC # 4

File Name : S14-010 Franklin 4
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Groups Printed- Pedestrians

Start Time	Union Street From North		Route 140 From East		Union Street From South		Rout 140 From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
07:00 AM	0	0	2	2	3	3	1	1	6
07:15 AM	0	0	1	1	0	0	0	0	1
07:30 AM	1	1	0	0	0	0	1	1	2
07:45 AM	1	1	1	1	0	0	0	0	2
Total	2	2	4	4	3	3	2	2	11
08:00 AM	1	1	0	0	0	0	1	1	2
08:15 AM	2	2	0	0	0	0	3	3	5
08:30 AM	0	0	0	0	0	0	1	1	1
08:45 AM	0	0	1	1	0	0	0	0	1
Total	3	3	1	1	0	0	5	5	9
09:00 AM	0	0	0	0	1	1	0	0	1
09:15 AM	0	0	0	0	1	1	1	1	2
Total	0	0	0	0	2	2	1	1	3
10:00 AM	0	0	0	0	1	1	0	0	1
Total	0	0	0	0	1	1	0	0	1
11:00 AM	0	0	1	1	0	0	0	0	1
11:15 AM	1	1	0	0	0	0	0	0	1
11:30 AM	1	1	0	0	1	1	0	0	2
11:45 AM	1	1	0	0	0	0	1	1	2
Total	3	3	1	1	1	1	1	1	6
12:45 PM	0	0	0	0	0	0	1	1	1
Total	0	0	0	0	0	0	1	1	1
01:00 PM	0	0	0	0	0	0	1	1	1
Total	0	0	0	0	0	0	1	1	1
02:00 PM	0	0	1	1	0	0	0	0	1
02:15 PM	0	0	4	4	3	3	0	0	7
02:30 PM	1	1	6	6	0	0	0	0	7
02:45 PM	1	1	0	0	0	0	0	0	1
Total	2	2	11	11	3	3	0	0	16
03:30 PM	0	0	2	2	0	0	0	0	2
03:45 PM	0	0	0	0	2	2	0	0	2
Total	0	0	2	2	2	2	0	0	4
04:15 PM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	1
Grand Total	11	11	19	19	12	12	11	11	53
Approch %	100		100		100		100		
Total %	20.8	20.8	35.8	35.8	22.6	22.6	20.8	20.8	

Massachusetts Department of Transportation

Highway Division

Franklin
 Rte 140 (West Central St) & Union Street
 Counted by Miovision
 S14-010 TMC # 4 Sat

File Name : S14-010 Franklin 4 Sat
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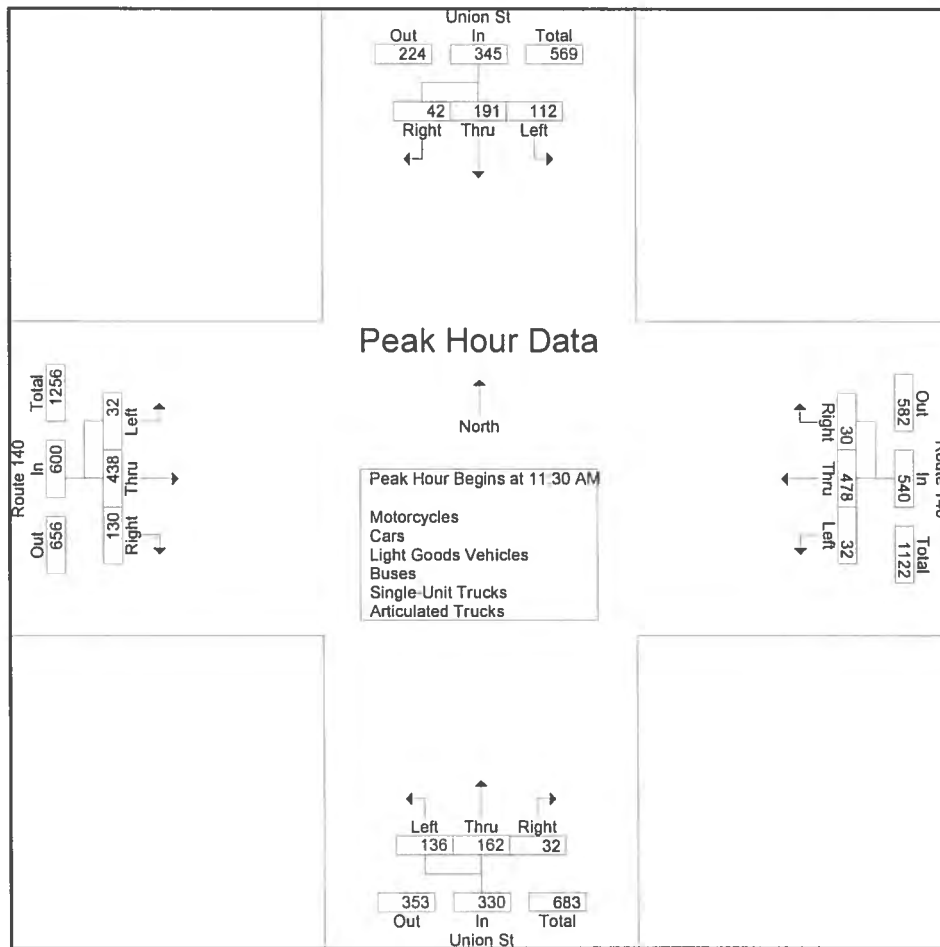
Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Union St From North				Route 140 From East				Union St From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	4	40	36	80	5	102	6	113	12	43	28	83	24	119	1	144	420
11:15 AM	4	35	22	61	7	116	5	128	12	35	23	70	24	118	4	146	405
11:30 AM	6	53	33	92	10	105	5	120	8	33	27	68	31	111	3	145	425
11:45 AM	26	54	29	109	6	124	10	140	9	49	34	92	19	96	2	117	458
Total	40	182	120	342	28	447	26	501	41	160	112	313	98	444	10	552	1708
12:00 PM	5	47	29	81	10	138	7	155	8	33	32	73	39	131	6	176	485
12:15 PM	5	37	21	63	4	111	10	125	7	47	43	97	41	100	21	162	447
12:30 PM	3	38	23	64	3	84	11	98	5	31	23	59	26	101	8	135	356
12:45 PM	5	38	33	76	3	96	10	109	8	42	33	83	33	87	4	124	392
Total	18	160	106	284	20	429	38	487	28	153	131	312	139	419	39	597	1680
01:00 PM	10	44	25	79	5	90	8	103	6	51	26	83	24	120	5	149	414
01:15 PM	6	34	18	58	6	74	3	83	5	26	24	55	31	121	5	157	353
01:30 PM	4	52	15	71	6	103	5	114	3	45	37	85	34	108	11	153	423
01:45 PM	6	41	23	70	3	75	6	84	7	43	32	82	31	101	4	136	372
Total	26	171	81	278	20	342	22	384	21	165	119	305	120	450	25	595	1562
Grand Total	84	513	307	904	68	1218	86	1372	90	478	362	930	357	1313	74	1744	4950
Apprch %	9.3	56.7	34		5	88.8	6.3		9.7	51.4	38.9		20.5	75.3	4.2		
Total %	1.7	10.4	6.2	18.3	1.4	24.6	1.7	27.7	1.8	9.7	7.3	18.8	7.2	26.5	1.5	35.2	
Motorcycles	1	3	1	5	2	15	2	19	1	0	1	2	0	18	1	19	45
% Motorcycles	1.2	0.6	0.3	0.6	2.9	1.2	2.3	1.4	1.1	0	0.3	0.2	0	1.4	1.4	1.1	0.9
Cars	80	459	277	816	59	1097	78	1234	77	417	317	811	323	1166	70	1559	4420
% Cars	95.2	89.5	90.2	90.3	86.8	90.1	90.7	89.9	85.6	87.2	87.6	87.2	90.5	88.8	94.6	89.4	89.3
Light Goods Vehicles	3	50	25	78	7	97	4	108	10	60	41	111	33	121	2	156	453
% Light Goods Vehicles	3.6	9.7	8.1	8.6	10.3	8	4.7	7.9	11.1	12.6	11.3	11.9	9.2	9.2	2.7	8.9	9.2
Buses	0	0	0	0	0	1	2	3	2	0	0	2	0	0	0	0	5
% Buses	0	0	0	0	0	0.1	2.3	0.2	2.2	0	0	0.2	0	0	0	0	0.1
Single-Unit Trucks	0	1	4	5	0	8	0	8	0	1	2	3	1	8	1	10	26
% Single-Unit Trucks	0	0.2	1.3	0.6	0	0.7	0	0.6	0	0.2	0.6	0.3	0.3	0.6	1.4	0.6	0.5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0.3	0.1	0	0	0	0	0

Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 4 Sat
Site Code : 159359
Start Date : 4/12/2014
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Start Time	Union St From North				Route 140 From East				Union St From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	6	53	33	92	10	105	5	120	8	33	27	68	31	111	3	145	425
11:45 AM	26	54	29	109	6	124	10	140	9	49	34	92	19	96	2	117	458
12:00 PM	5	47	29	81	10	138	7	155	8	33	32	73	39	131	6	176	485
12:15 PM	5	37	21	63	4	111	10	125	7	47	43	97	41	100	21	162	447
Total Volume	42	191	112	345	30	478	32	540	32	162	136	330	130	438	32	600	1815
% App. Total	12.2	55.4	32.5		5.6	88.5	5.9		9.7	49.1	41.2		21.7	73	5.3		
PHF	.404	.884	.848	.791	.750	.866	.800	.871	.889	.827	.791	.851	.793	.836	.381	.852	.936



*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (West Central St) & Union Street
Counted by Miovision
S14-010 TMC # 4 Sat

File Name : S14-010 Franklin 4 Sat
Site Code : 159359
Start Date : 4/12/2014
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Union St From North				Route 140 From East				Union St From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	4	40	36	80	5	100	6	111	11	43	28	82	24	118	1	143	416
11:15 AM	4	35	22	61	7	116	5	128	12	35	23	70	24	116	4	144	403
11:30 AM	6	53	33	92	10	104	5	119	8	33	27	68	31	111	3	145	424
11:45 AM	26	54	28	108	6	123	10	139	9	49	34	92	19	96	2	117	456
Total	40	182	119	341	28	443	26	497	40	160	112	312	98	441	10	549	1699
12:00 PM	5	47	29	81	10	138	6	154	8	33	32	73	38	131	6	175	483
12:15 PM	5	37	21	63	4	110	10	124	7	47	42	96	41	99	20	160	443
12:30 PM	3	38	22	63	3	83	11	97	4	31	23	58	26	101	8	135	353
12:45 PM	5	38	33	76	3	96	10	109	8	42	32	82	33	87	4	124	391
Total	18	160	105	283	20	427	37	484	27	153	129	309	138	418	38	594	1670
01:00 PM	10	44	25	79	5	89	8	102	6	51	26	83	24	120	5	149	413
01:15 PM	6	33	17	56	6	74	3	83	5	26	24	55	31	119	5	155	349
01:30 PM	4	52	15	71	6	102	5	113	3	45	36	84	34	106	11	151	419
01:45 PM	6	41	22	69	3	74	5	82	7	42	32	81	31	101	4	136	368
Total	26	170	79	275	20	339	21	380	21	164	118	303	120	446	25	591	1549
Grand Total	84	512	303	899	68	1209	84	1361	88	477	359	924	356	1305	73	1734	4918
Apprch %	9.3	57	33.7		5	88.8	6.2		9.5	51.6	38.9		20.5	75.3	4.2		
Total %	1.7	10.4	6.2	18.3	1.4	24.6	1.7	27.7	1.8	9.7	7.3	18.8	7.2	26.5	1.5	35.3	
Motorcycles	1	3	1	5	2	15	2	19	1	0	1	2	0	18	1	19	45
% Motorcycles	1.2	0.6	0.3	0.6	2.9	1.2	2.4	1.4	1.1	0	0.3	0.2	0	1.4	1.4	1.1	0.9
Cars	80	459	277	816	59	1097	78	1234	77	417	317	811	323	1166	70	1559	4420
% Cars	95.2	89.6	91.4	90.8	86.8	90.7	92.9	90.7	87.5	87.4	88.3	87.8	90.7	89.3	95.9	89.9	89.9
Light Goods Vehicles	3	50	25	78	7	97	4	108	10	60	41	111	33	121	2	156	453
% Light Goods Vehicles	3.6	9.8	8.3	8.7	10.3	8	4.8	7.9	11.4	12.6	11.4	12	9.3	9.3	2.7	9	9.2

Massachusetts Department of Transportation Highway Division

Franklin
Rte 140 (West Central St) & Union Street
Counted by Miovision
S14-010 TMC # 4 Sat

File Name : S14-010 Franklin 4 Sat
Site Code : 159359
Start Date : 4/12/2014
Page No : 1

Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Union St From North				Route 140 From East				Union St From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	0	0	0	0	0	2	0	2	1	0	0	1	0	1	0	1	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
11:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
Total	0	0	1	1	0	4	0	4	1	0	0	1	0	3	0	3	9
12:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
12:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	1	1	2	4
12:30 PM	0	0	1	1	0	1	0	1	1	0	0	1	0	0	0	0	3
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Total	0	0	1	1	0	2	1	3	1	0	2	3	1	1	1	3	10
01:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
01:15 PM	0	1	1	2	0	0	0	0	0	0	0	0	0	2	0	2	4
01:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	2	0	2	4
01:45 PM	0	0	1	1	0	1	1	2	0	1	0	1	0	0	0	0	4
Total	0	1	2	3	0	3	1	4	0	1	1	2	0	4	0	4	13
Grand Total	0	1	4	5	0	9	2	11	2	1	3	6	1	8	1	10	32
Apprch %	0	20	80		0	81.8	18.2		33.3	16.7	50		10	80	10		
Total %	0	3.1	12.5	15.6	0	28.1	6.2	34.4	6.2	3.1	9.4	18.8	3.1	25	3.1	31.2	
Buses	0	0	0	0	0	1	2	3	2	0	0	2	0	0	0	0	5
% Buses	0	0	0	0	0	11.1	100	27.3	100	0	0	33.3	0	0	0	0	15.6
Single-Unit Trucks	0	1	4	5	0	8	0	8	0	1	2	3	1	8	1	10	26
% Single-Unit Trucks	0	100	100	100	0	88.9	0	72.7	0	100	66.7	50	100	100	100	100	81.2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% Articulated Trucks	0	0	0	0	0	0	0	0	0	0	33.3	16.7	0	0	0	0	3.1

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (West Central St) & Union Street
Counted by Miovision
S14-010 TMC # 4 Sat

File Name : S14-010 Franklin 4 Sat
Site Code : 159359
Start Date : 4/12/2014
Page No : 1

Groups Printed- Bicycles on Road

Start Time	Union St From North				Route 140 From East				Union St From South				Route 140 From West				Int. Total	
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total		
11:15 AM	0	1	0	1	1	1	0	2	0	0	0	0	0	0	0	0	0	3
11:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	2	0	2	0	0	0	0	0	6	0	6	0	0	0	0	0	8
Total	0	4	0	4	1	1	0	2	0	6	0	6	0	0	0	0	0	12
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2
01:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	2
01:15 PM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	0	3
01:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
Total	0	2	0	2	0	0	0	0	0	5	0	5	0	0	0	0	0	7
Grand Total	0	6	0	6	1	1	0	2	0	12	0	12	1	0	0	0	1	21
Apprch %	0	100	0		50	50	0		0	100	0		100	0	0	0		
Total %	0	28.6	0	28.6	4.8	4.8	0	9.5	0	57.1	0	57.1	4.8	0	0	4.8		

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (West Central St) & Union Street
Counted by Miovision
S14-010 TMC # 4 Sat

File Name : S14-010 Franklin 4 Sat
Site Code : 159359
Start Date : 4/12/2014
Page No : 1

Groups Printed- Pedestrians

Start Time	Union St From North		Route 140 From East		Union St From South		Route 140 From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
11:00 AM	2	2	0	0	0	0	2	2	4
11:15 AM	1	1	0	0	0	0	1	1	2
11:30 AM	1	1	0	0	0	0	1	1	2
11:45 AM	2	2	2	2	0	0	1	1	5
Total	6	6	2	2	0	0	5	5	13
12:00 PM	0	0	3	3	5	5	0	0	8
12:15 PM	0	0	0	0	1	1	3	3	4
12:30 PM	2	2	1	1	0	0	0	0	3
12:45 PM	2	2	1	1	1	1	2	2	6
Total	4	4	5	5	7	7	5	5	21
01:00 PM	3	3	2	2	3	3	2	2	10
01:15 PM	1	1	1	1	1	1	1	1	4
01:30 PM	1	1	3	3	0	0	1	1	5
01:45 PM	0	0	2	2	1	1	2	2	5
Total	5	5	8	8	5	5	6	6	24
Grand Total	15	15	15	15	12	12	16	16	58
Apprch %	100		100		100		100		
Total %	25.9	25.9	25.9	25.9	20.7	20.7	27.6	27.6	

Massachusetts Department of Transportation

Highway Division

Franklin
 Rte 140(East Central St)& King/Chestnut
 Counted by Miovision
 S14-010 TMC # 5

File Name : S14-010 Franklin 5
 Site Code : 156482
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Chestnut St. From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	24	47	2	73	4	77	56	137	55	45	1	101	4	68	25	97	408
07:15 AM	22	48	8	78	12	66	52	130	56	61	2	119	2	58	24	84	411
07:30 AM	21	55	6	82	15	77	52	144	61	70	3	134	4	102	15	121	481
07:45 AM	16	64	6	86	7	76	59	142	67	57	9	133	9	82	11	102	463
Total	83	214	22	319	38	296	219	553	239	233	15	487	19	310	75	404	1763
08:00 AM	19	57	1	77	7	66	45	118	47	53	4	104	8	90	19	117	416
08:15 AM	28	60	7	95	12	64	72	148	73	53	6	132	4	77	24	105	480
08:30 AM	23	42	4	69	5	71	47	123	68	44	9	121	6	85	16	107	420
08:45 AM	24	41	6	71	9	72	38	119	63	40	7	110	5	98	12	115	415
Total	94	200	18	312	33	273	202	508	251	190	26	467	23	350	71	444	1731
09:00 AM	16	31	6	53	13	74	37	124	59	46	3	108	8	75	23	106	391
09:15 AM	25	40	8	73	12	66	42	120	58	46	4	108	6	71	17	94	395
09:30 AM	16	35	3	54	10	67	49	126	42	27	4	73	6	82	22	110	363
09:45 AM	20	34	4	58	9	72	59	140	39	31	4	74	6	74	18	98	370
Total	77	140	21	238	44	279	187	510	198	150	15	363	26	302	80	408	1519
10:00 AM	15	24	9	48	13	70	46	129	44	21	4	69	3	86	17	106	352
10:15 AM	23	34	8	65	13	79	56	148	51	25	4	80	4	92	20	116	409
10:30 AM	22	25	6	53	7	85	52	144	58	26	6	90	13	88	21	122	409
10:45 AM	20	35	7	62	12	89	47	148	44	24	7	75	5	79	19	103	388
Total	80	118	30	228	45	323	201	569	197	96	21	314	25	345	77	447	1558
11:00 AM	13	32	6	51	7	104	44	155	56	14	8	78	9	97	20	126	410
11:15 AM	14	30	4	48	6	99	51	156	47	35	6	88	12	77	25	114	406
11:30 AM	21	28	5	54	3	96	50	149	57	25	8	90	8	95	17	120	413
11:45 AM	20	27	3	50	7	96	58	161	44	34	9	87	6	77	18	101	399
Total	68	117	18	203	23	395	203	621	204	108	31	343	35	346	80	461	1628
12:00 PM	18	28	8	54	5	81	60	146	68	32	9	109	4	99	29	132	441
12:15 PM	24	27	19	70	12	103	61	176	56	28	7	91	5	83	21	109	446
12:30 PM	28	20	9	57	7	102	70	179	61	29	5	95	9	94	17	120	451
12:45 PM	23	27	8	58	14	94	59	167	58	32	13	103	12	83	25	120	448
Total	93	102	44	239	38	380	250	668	243	121	34	398	30	359	92	481	1786
01:00 PM	16	40	6	62	9	73	64	146	55	27	9	91	9	101	26	136	435
01:15 PM	24	34	11	69	13	105	73	191	47	32	6	85	3	84	31	118	463
01:30 PM	18	31	7	56	6	104	60	170	61	34	8	103	4	90	16	110	439
01:45 PM	22	22	6	50	4	99	47	150	46	34	7	87	10	82	19	111	398
Total	80	127	30	237	32	381	244	657	209	127	30	366	26	357	92	475	1735
02:00 PM	24	30	10	64	9	86	48	143	54	40	5	99	6	85	20	111	417
02:15 PM	23	37	4	64	5	81	72	158	49	29	5	83	4	105	32	141	446
02:30 PM	21	35	7	63	7	94	65	166	50	35	11	96	4	101	34	139	464
02:45 PM	30	31	7	68	12	92	76	180	74	46	10	130	7	112	29	148	526
Total	98	133	28	259	33	353	261	647	227	150	31	408	21	403	115	539	1853
03:00 PM	29	43	5	77	11	94	67	172	53	35	5	93	3	95	28	126	468
03:15 PM	29	48	6	83	10	118	58	186	70	50	6	126	13	87	25	125	520
03:30 PM	26	48	6	80	9	99	64	172	60	39	8	107	2	107	42	151	510
03:45 PM	27	50	5	82	4	115	73	192	54	41	10	105	9	79	27	115	494
Total	111	189	22	322	34	426	262	722	237	165	29	431	27	368	122	517	1992
04:00 PM	26	54	5	85	11	103	85	199	48	36	6	90	7	88	26	121	495
04:15 PM	32	45	8	85	5	118	78	201	58	53	6	117	9	84	29	122	525
04:30 PM	34	50	2	86	6	89	77	172	61	57	8	126	12	95	33	140	524
04:45 PM	28	77	8	113	9	113	65	187	56	46	8	110	5	90	29	124	534
Total	120	226	23	369	31	423	305	759	223	192	28	443	33	357	117	507	2078

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 5
Site Code : 156482
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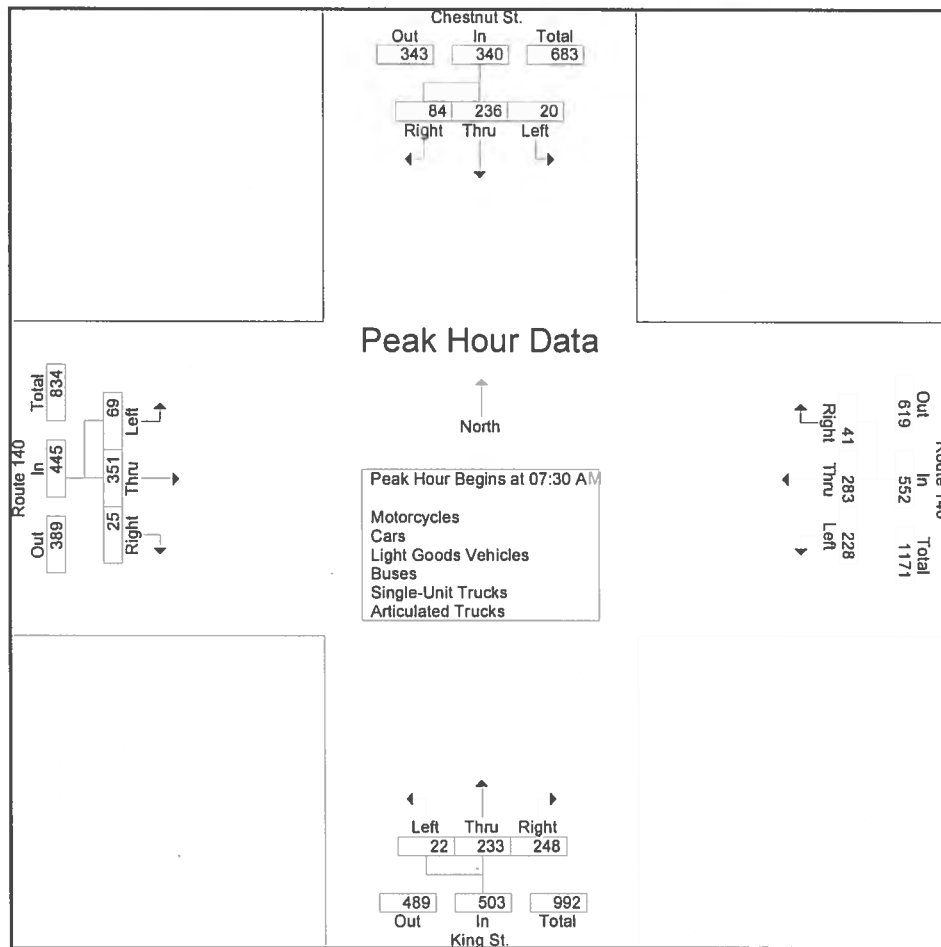
Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Chestnut St. From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	24	61	8	93	12	131	85	228	45	48	14	107	8	105	32	145	573
05:15 PM	27	56	7	90	14	108	60	182	77	65	7	149	9	98	38	145	566
05:30 PM	30	61	4	95	11	101	62	174	80	65	13	158	6	101	24	131	558
05:45 PM	37	55	4	96	10	114	60	184	64	53	10	127	5	91	32	128	535
Total	118	233	23	374	47	454	267	768	266	231	44	541	28	395	126	549	2232
Grand Total	1022	1799	279	3100	398	3983	2601	6982	2494	1763	304	4561	293	3892	1047	5232	19875
Apprch %	33	58	9		5.7	57	37.3		54.7	38.7	6.7		5.6	74.4	20		
Total %	5.1	9.1	1.4	15.6	2	20	13.1	35.1	12.5	8.9	1.5	22.9	1.5	19.6	5.3	26.3	
Motorcycles	0	0	0	0	0	0	2	2	1	0	0	1	0	2	0	2	5
% Motorcycles	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0
Cars	922	1552	244	2718	363	3562	2288	6213	2128	1520	260	3908	242	3403	904	4549	17388
% Cars	90.2	86.3	87.5	87.7	91.2	89.4	88	89	85.3	86.2	85.5	85.7	82.6	87.4	86.3	86.9	87.5
Light Goods Vehicles	65	165	23	253	25	309	223	557	281	158	35	474	38	377	105	520	1804
% Light Goods Vehicles	6.4	9.2	8.2	8.2	6.3	7.8	8.6	8	11.3	9	11.5	10.4	13	9.7	10	9.9	9.1
Buses	13	11	1	25	0	15	14	29	12	19	0	31	0	19	8	27	112
% Buses	1.3	0.6	0.4	0.8	0	0.4	0.5	0.4	0.5	1.1	0	0.7	0	0.5	0.8	0.5	0.6
Single-Unit Trucks	18	59	8	85	7	91	56	154	57	48	8	113	11	84	29	124	476
% Single-Unit Trucks	1.8	3.3	2.9	2.7	1.8	2.3	2.2	2.2	2.3	2.7	2.6	2.5	3.8	2.2	2.8	2.4	2.4
Articulated Trucks	4	12	3	19	3	6	18	27	15	18	1	34	2	7	1	10	90
% Articulated Trucks	0.4	0.7	1.1	0.6	0.8	0.2	0.7	0.4	0.6	1	0.3	0.7	0.7	0.2	0.1	0.2	0.5

Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 5
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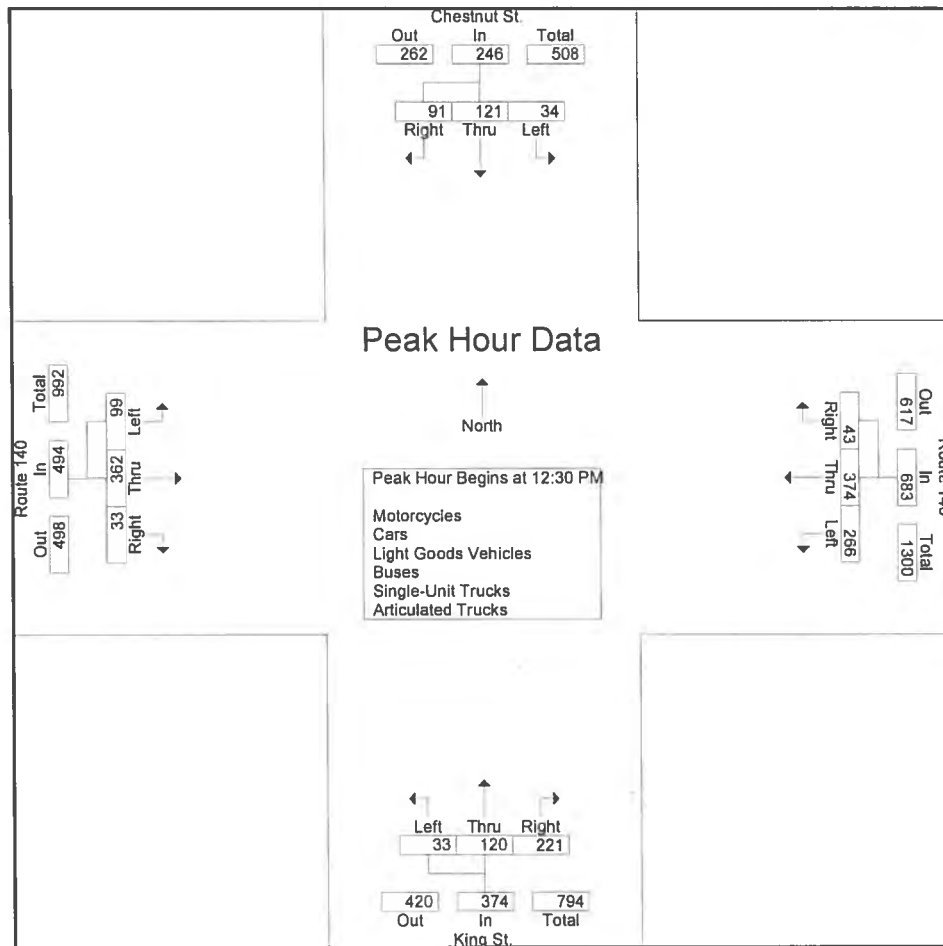
Start Time	Chestnut St. From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	21	55	6	82	15	77	52	144	61	70	3	134	4	102	15	121	481
07:45 AM	16	64	6	86	7	76	59	142	67	57	9	133	9	82	11	102	463
08:00 AM	19	57	1	77	7	66	45	118	47	53	4	104	8	90	19	117	416
08:15 AM	28	60	7	95	12	64	72	148	73	53	6	132	4	77	24	105	480
Total Volume	84	236	20	340	41	283	228	552	248	233	22	503	25	351	69	445	1840
% App. Total	24.7	69.4	5.9		7.4	51.3	41.3		49.3	46.3	4.4		5.6	78.9	15.5		
PHF	.750	.922	.714	.895	.683	.919	.792	.932	.849	.832	.611	.938	.694	.860	.719	.919	.956



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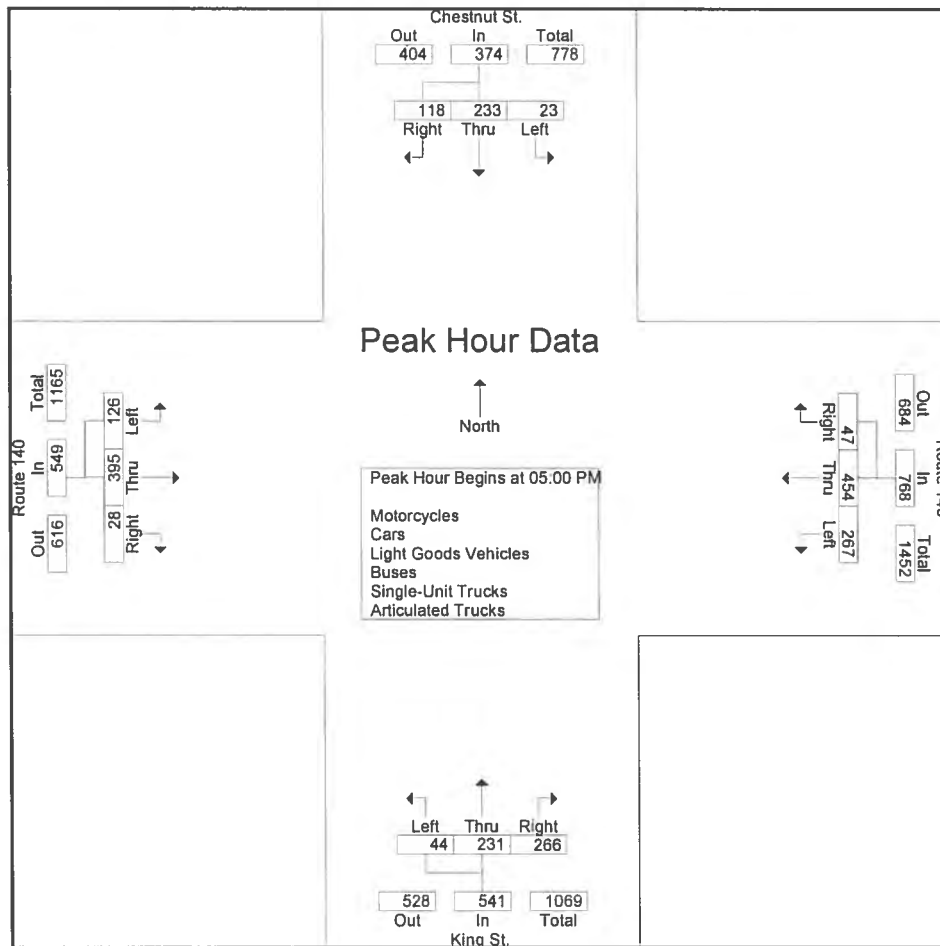
Start Time	Chestnut St. From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	28	20	9	57	7	102	70	179	61	29	5	95	9	94	17	120	451
12:45 PM	23	27	8	58	14	94	59	167	58	32	13	103	12	83	25	120	448
01:00 PM	16	40	6	62	9	73	64	146	55	27	9	91	9	101	26	136	435
01:15 PM	24	34	11	69	13	105	73	191	47	32	6	85	3	84	31	118	463
Total Volume	91	121	34	246	43	374	266	683	221	120	33	374	33	362	99	494	1797
% App. Total	37	49.2	13.8		6.3	54.8	38.9		59.1	32.1	8.8		6.7	73.3	20		
PHF	.813	.756	.773	.891	.768	.890	.911	.894	.906	.938	.635	.908	.688	.896	.798	.908	.970



Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 5
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Start Time	Chestnut St. From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	24	61	8	93	12	131	85	228	45	48	14	107	8	105	32	145	573
05:15 PM	27	56	7	90	14	108	60	182	77	65	7	149	9	98	38	145	566
05:30 PM	30	61	4	95	11	101	62	174	80	65	13	158	6	101	24	131	558
05:45 PM	37	55	4	96	10	114	60	184	64	53	10	127	5	91	32	128	535
Total Volume	118	233	23	374	47	454	267	768	266	231	44	541	28	395	126	549	2232
% App. Total	31.6	62.3	6.1		6.1	59.1	34.8		49.2	42.7	8.1		5.1	71.9	23		
PHF	.797	.955	.719	.974	.839	.866	.785	.842	.831	.888	.786	.856	.778	.940	.829	.947	.974



Massachusetts Department of Transportation

Highway Division

Franklin
 Rte 140(East Central St)& King/Chestnut
 Counted by Miovision
 S14-010 TMC # 5

File Name : S14-010 Franklin 5
 Site Code : 156482
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Chestnut St. From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	23	45	2	70	4	75	54	133	55	45	1	101	3	65	24	92	396
07:15 AM	22	47	8	77	11	63	51	125	50	55	1	106	2	56	24	82	390
07:30 AM	21	53	6	80	14	76	48	138	60	68	3	131	4	97	14	115	464
07:45 AM	15	59	5	79	6	72	57	135	64	56	8	128	9	77	10	96	438
Total	81	204	21	306	35	286	210	531	229	224	13	466	18	295	72	385	1688
08:00 AM	16	52	1	69	7	62	43	112	44	50	4	98	8	86	18	112	391
08:15 AM	27	59	6	92	12	59	71	142	70	49	6	125	3	71	22	96	455
08:30 AM	21	41	3	65	5	67	44	116	66	42	9	117	5	81	16	102	400
08:45 AM	23	40	6	69	9	70	34	113	61	35	7	103	4	94	12	110	395
Total	87	192	16	295	33	258	192	483	241	176	26	443	20	332	68	420	1641
09:00 AM	15	29	6	50	13	74	33	120	56	43	2	101	7	72	22	101	372
09:15 AM	23	35	8	66	12	64	41	117	55	42	4	101	5	67	15	87	371
09:30 AM	16	33	3	52	9	66	44	119	38	24	3	65	6	78	21	105	341
09:45 AM	19	32	3	54	9	69	55	133	37	29	4	70	6	71	18	95	352
Total	73	129	20	222	43	273	173	489	186	138	13	337	24	288	76	388	1436
10:00 AM	14	23	9	46	13	65	42	120	40	20	4	64	2	81	16	99	329
10:15 AM	22	32	8	62	12	75	54	141	47	21	4	72	4	87	20	111	386
10:30 AM	22	22	5	49	7	78	47	132	56	24	6	86	13	88	18	119	386
10:45 AM	20	26	6	52	11	86	43	140	43	24	6	73	5	75	19	99	364
Total	78	103	28	209	43	304	186	533	186	89	20	295	24	331	73	428	1465
11:00 AM	13	30	5	48	7	99	41	147	52	11	8	71	8	96	17	121	387
11:15 AM	12	29	4	45	5	95	48	148	44	34	6	84	11	75	25	111	388
11:30 AM	21	25	5	51	3	90	45	138	56	24	8	88	8	90	16	114	391
11:45 AM	19	26	3	48	6	89	58	153	42	32	8	82	6	77	18	101	384
Total	65	110	17	192	21	373	192	586	194	101	30	325	33	338	76	447	1550
12:00 PM	18	24	8	50	5	79	60	144	67	32	9	108	4	99	29	132	434
12:15 PM	23	27	19	69	12	101	58	171	55	26	7	88	4	77	20	101	429
12:30 PM	28	17	9	54	7	99	68	174	59	24	5	88	9	91	17	117	433
12:45 PM	21	26	8	55	14	91	59	164	58	28	12	98	12	81	23	116	433
Total	90	94	44	228	38	370	245	653	239	110	33	382	29	348	89	466	1729
01:00 PM	16	36	6	58	9	71	60	140	53	27	9	89	8	98	23	129	416
01:15 PM	23	33	11	67	12	103	72	187	46	29	6	81	3	84	30	117	452
01:30 PM	18	30	6	54	6	104	60	170	59	32	7	98	4	90	16	110	432
01:45 PM	21	22	6	49	4	95	43	142	43	31	7	81	10	80	18	108	380
Total	78	121	29	228	31	373	235	639	201	119	29	349	25	352	87	464	1680
02:00 PM	24	26	10	60	8	84	47	139	52	36	5	93	6	84	19	109	401
02:15 PM	21	34	3	58	5	79	71	155	47	29	5	81	4	102	32	138	432
02:30 PM	19	34	7	60	7	93	63	163	49	33	10	92	4	101	32	137	452
02:45 PM	30	29	6	65	12	91	76	179	73	44	10	127	6	110	27	143	514
Total	94	123	26	243	32	347	257	636	221	142	30	393	20	397	110	527	1799
03:00 PM	27	42	5	74	11	93	67	171	52	35	5	92	3	93	28	124	461
03:15 PM	29	48	6	83	10	112	56	178	69	48	6	123	13	86	24	123	507
03:30 PM	26	45	6	77	9	99	64	172	59	38	8	105	2	104	40	146	500
03:45 PM	24	50	5	79	4	115	73	192	53	41	10	104	9	79	27	115	490
Total	106	185	22	313	34	419	260	713	233	162	29	424	27	362	119	508	1958
04:00 PM	26	54	4	84	11	103	83	197	47	36	6	89	6	86	24	116	486
04:15 PM	31	45	8	84	5	117	77	199	55	49	6	110	9	82	28	119	512
04:30 PM	33	50	2	85	6	89	75	170	60	57	8	125	12	94	32	138	518
04:45 PM	28	76	8	112	9	110	64	183	54	46	8	108	5	86	29	120	523
Total	118	225	22	365	31	419	299	749	216	188	28	432	32	348	113	493	2039

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 5
Site Code : 156482
Start Date : 4/15/2014
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Chestnut St. From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	23	61	8	92	12	128	83	223	43	47	14	104	8	102	32	142	561
05:15 PM	27	56	7	90	14	108	60	182	77	65	7	149	9	98	38	145	566
05:30 PM	30	59	4	93	11	100	62	173	80	65	13	158	6	100	24	130	554
05:45 PM	37	55	3	95	10	113	59	182	64	52	10	126	5	91	32	128	531
Total	117	231	22	370	47	449	264	760	264	229	44	537	28	391	126	545	2212
Grand Total	987	1717	267	2971	388	3871	2513	6772	2410	1678	295	4383	280	3782	1009	5071	19197
Apprch %	33.2	57.8	9		5.7	57.2	37.1		55	38.3	6.7		5.5	74.6	19.9		
Total %	5.1	8.9	1.4	15.5	2	20.2	13.1	35.3	12.6	8.7	1.5	22.8	1.5	19.7	5.3	26.4	
Motorcycles	0	0	0	0	0	0	2	2	1	0	0	1	0	2	0	2	5
% Motorcycles	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0
Cars	922	1552	244	2718	363	3562	2288	6213	2128	1520	260	3908	242	3403	904	4549	17388
% Cars	93.4	90.4	91.4	91.5	93.6	92	91	91.7	88.3	90.6	88.1	89.2	86.4	90	89.6	89.7	90.6
Light Goods Vehicles	65	165	23	253	25	309	223	557	281	158	35	474	38	377	105	520	1804
% Light Goods Vehicles	6.6	9.6	8.6	8.5	6.4	8	8.9	8.2	11.7	9.4	11.9	10.8	13.6	10	10.4	10.3	9.4

Massachusetts Department of Transportation

Highway Division

Franklin
 Rte 140(East Central St)& King/Chestnut
 Counted by Miovision
 S14-010 TMC # 5

File Name : S14-010 Franklin 5
 Site Code : 156482
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Chestnut St. From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	1	2	0	3	0	2	2	4	0	0	0	0	1	3	1	5	12
07:15 AM	0	1	0	1	1	3	1	5	6	6	1	13	0	2	0	2	21
07:30 AM	0	2	0	2	1	1	4	6	1	2	0	3	0	5	1	6	17
07:45 AM	1	5	1	7	1	4	2	7	3	1	1	5	0	5	1	6	25
Total	2	10	1	13	3	10	9	22	10	9	2	21	1	15	3	19	75
08:00 AM	3	5	0	8	0	4	2	6	3	3	0	6	0	4	1	5	25
08:15 AM	1	1	1	3	0	5	1	6	3	4	0	7	1	6	2	9	25
08:30 AM	2	1	1	4	0	4	3	7	2	2	0	4	1	4	0	5	20
08:45 AM	1	1	0	2	0	2	4	6	2	5	0	7	1	4	0	5	20
Total	7	8	2	17	0	15	10	25	10	14	0	24	3	18	3	24	90
09:00 AM	1	2	0	3	0	0	4	4	3	3	1	7	1	3	1	5	19
09:15 AM	2	5	0	7	0	2	1	3	3	4	0	7	1	4	2	7	24
09:30 AM	0	2	0	2	1	1	5	7	4	3	1	8	0	4	1	5	22
09:45 AM	1	2	1	4	0	3	4	7	2	2	0	4	0	3	0	3	18
Total	4	11	1	16	1	6	14	21	12	12	2	26	2	14	4	20	83
10:00 AM	1	1	0	2	0	5	4	9	4	1	0	5	1	5	1	7	23
10:15 AM	1	2	0	3	1	4	2	7	4	4	0	8	0	5	0	5	23
10:30 AM	0	3	1	4	0	7	5	12	2	2	0	4	0	0	3	3	23
10:45 AM	0	9	1	10	1	3	4	8	1	0	1	2	0	4	0	4	24
Total	2	15	2	19	2	19	15	36	11	7	1	19	1	14	4	19	93
11:00 AM	0	2	1	3	0	5	3	8	4	3	0	7	1	1	3	5	23
11:15 AM	2	1	0	3	1	4	3	8	3	1	0	4	1	2	0	3	18
11:30 AM	0	3	0	3	0	6	5	11	1	1	0	2	0	5	1	6	22
11:45 AM	1	1	0	2	1	7	0	8	2	2	1	5	0	0	0	0	15
Total	3	7	1	11	2	22	11	35	10	7	1	18	2	8	4	14	78
12:00 PM	0	4	0	4	0	2	0	2	1	0	0	1	0	0	0	0	7
12:15 PM	1	0	0	1	0	2	3	5	1	2	0	3	1	6	1	8	17
12:30 PM	0	3	0	3	0	3	2	5	2	5	0	7	0	3	0	3	18
12:45 PM	2	1	0	3	0	3	0	3	0	4	1	5	0	2	2	4	15
Total	3	8	0	11	0	10	5	15	4	11	1	16	1	11	3	15	57
01:00 PM	0	4	0	4	0	2	4	6	2	0	0	2	1	3	3	7	19
01:15 PM	1	1	0	2	1	2	1	4	1	3	0	4	0	0	1	1	11
01:30 PM	0	1	1	2	0	0	0	0	2	2	1	5	0	0	0	0	7
01:45 PM	1	0	0	1	0	4	4	8	3	3	0	6	0	2	1	3	18
Total	2	6	1	9	1	8	9	18	8	8	1	17	1	5	5	11	55
02:00 PM	0	4	0	4	1	2	1	4	2	4	0	6	0	1	1	2	16
02:15 PM	2	3	1	6	0	2	1	3	2	0	0	2	0	3	0	3	14
02:30 PM	2	1	0	3	0	1	2	3	1	2	1	4	0	0	2	2	12
02:45 PM	0	2	1	3	0	1	0	1	1	2	0	3	1	2	2	5	12
Total	4	10	2	16	1	6	4	11	6	8	1	15	1	6	5	12	54
03:00 PM	2	1	0	3	0	1	0	1	1	0	0	1	0	2	0	2	7
03:15 PM	0	0	0	0	0	6	2	8	1	2	0	3	0	1	1	2	13
03:30 PM	0	3	0	3	0	0	0	0	1	1	0	2	0	3	2	5	10
03:45 PM	3	0	0	3	0	0	0	0	1	0	0	1	0	0	0	0	4
Total	5	4	0	9	0	7	2	9	4	3	0	7	0	6	3	9	34
04:00 PM	0	0	1	1	0	0	2	2	1	0	0	1	1	2	2	5	9
04:15 PM	1	0	0	1	0	1	1	2	3	4	0	7	0	2	1	3	13
04:30 PM	1	0	0	1	0	0	2	2	1	0	0	1	0	1	1	2	6
04:45 PM	0	1	0	1	0	3	1	4	2	0	0	2	0	4	0	4	11
Total	2	1	1	4	0	4	6	10	7	4	0	11	1	9	4	14	39

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 5
Site Code : 156482
Start Date : 4/15/2014
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Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Chestnut St. From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	1	0	0	1	0	3	2	5	2	1	0	3	0	3	0	3	12
05:30 PM	0	2	0	2	0	1	0	1	0	0	0	0	0	1	0	1	4
05:45 PM	0	0	1	1	0	1	1	2	0	1	0	1	0	0	0	0	4
Total	1	2	1	4	0	5	3	8	2	2	0	4	0	4	0	4	20
Grand Total	35	82	12	129	10	112	88	210	84	85	9	178	13	110	38	161	678
Apprch %	27.1	63.6	9.3		4.8	53.3	41.9		47.2	47.8	5.1		8.1	68.3	23.6		
Total %	5.2	12.1	1.8	19	1.5	16.5	13	31	12.4	12.5	1.3	26.3	1.9	16.2	5.6	23.7	
Buses	13	11	1	25	0	15	14	29	12	19	0	31	0	19	8	27	112
% Buses	37.1	13.4	8.3	19.4	0	13.4	15.9	13.8	14.3	22.4	0	17.4	0	17.3	21.1	16.8	16.5
Single-Unit Trucks	18	59	8	85	7	91	56	154	57	48	8	113	11	84	29	124	476
% Single-Unit Trucks	51.4	72	66.7	65.9	70	81.2	63.6	73.3	67.9	56.5	88.9	63.5	84.6	76.4	76.3	77	70.2
Articulated Trucks	4	12	3	19	3	6	18	27	15	18	1	34	2	7	1	10	90
% Articulated Trucks	11.4	14.6	25	14.7	30	5.4	20.5	12.9	17.9	21.2	11.1	19.1	15.4	6.4	2.6	6.2	13.3

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140(East Central St)& King/Chestnut
Counted by Miovision
S14-010 TMC # 5

File Name : S14-010 Franklin 5
Site Code : 156482
Start Date : 4/15/2014
Page No : 1

Groups Printed- Bicycles on Road

Start Time	Chestnut St. From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100	

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140(East Central St)& King/Chestnut
Counted by Miovision
S14-010 TMC # 5

File Name : S14-010 Franklin 5
Site Code : 156482
Start Date : 4/15/2014
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Groups Printed- Pedestrians

Start Time	Chestnut St. From North		Route 140 From East		King St. From South		Route 140 From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
07:15 AM	2	2	0	0	0	0	0	0	2
07:45 AM	2	2	0	0	0	0	0	0	2
Total	4	4	0	0	0	0	0	0	4
08:45 AM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	1
09:00 AM	3	3	0	0	0	0	0	0	3
09:15 AM	1	1	0	0	0	0	0	0	1
Total	4	4	0	0	0	0	0	0	4
10:00 AM	2	2	0	0	0	0	0	0	2
10:15 AM	2	2	0	0	0	0	0	0	2
10:30 AM	1	1	0	0	0	0	0	0	1
10:45 AM	1	1	0	0	1	1	0	0	2
Total	6	6	0	0	1	1	0	0	7
11:00 AM	1	1	1	1	0	0	0	0	2
11:15 AM	1	1	0	0	0	0	0	0	1
11:30 AM	1	1	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	1	1	0	0	1
Total	3	3	1	1	1	1	0	0	5
12:00 PM	0	0	0	0	1	1	0	0	1
Total	0	0	0	0	1	1	0	0	1
01:15 PM	0	0	0	0	1	1	0	0	1
01:30 PM	0	0	0	0	1	1	0	0	1
Total	0	0	0	0	2	2	0	0	2
02:45 PM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	1
03:15 PM	0	0	0	0	1	1	0	0	1
Total	0	0	0	0	1	1	0	0	1
04:15 PM	0	0	0	0	1	1	0	0	1
04:30 PM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	1	1	0	0	2
Grand Total	20	20	1	1	7	7	0	0	28
Apprch %	100		100		100		0		
Total %	71.4	71.4	3.6	3.6	25	25	0	0	

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (East Central ST)& King/Chestnut
Counted by Miovision
S14-010 TMC # 5 Sat

File Name : S14-010 Franklin 5.Sat
Site Code : 159358
Start Date : 4/12/2014
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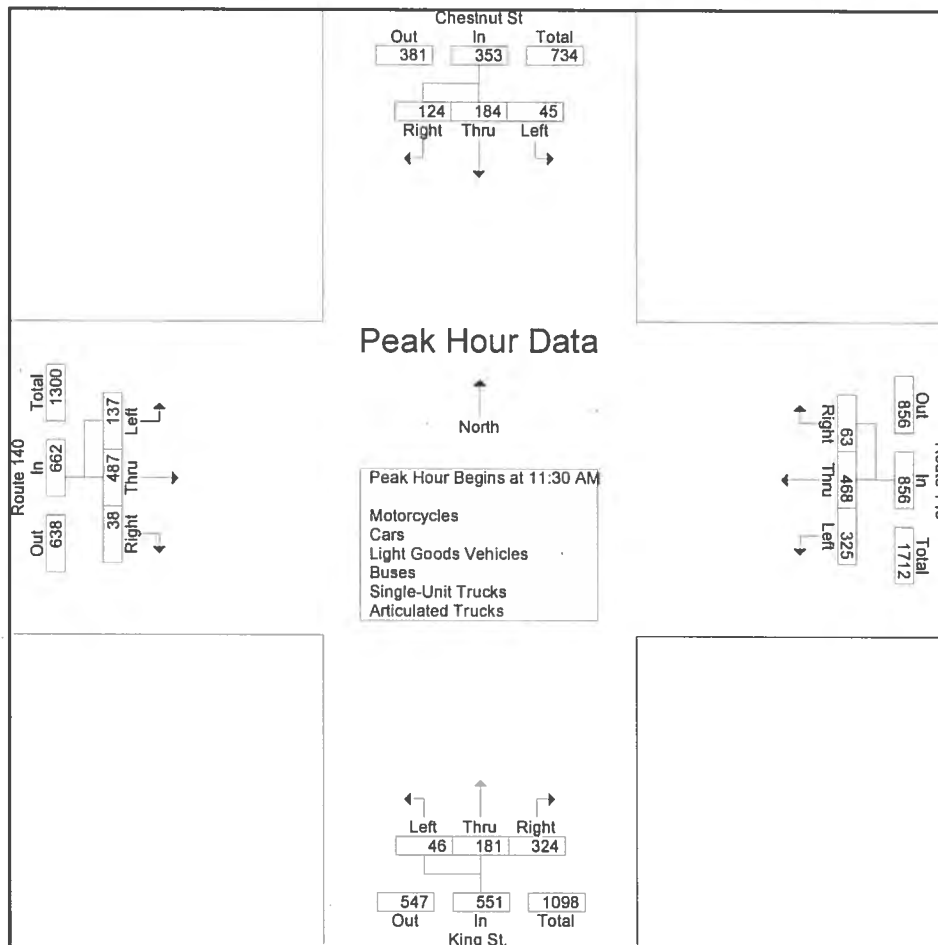
Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Chestnut St From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	26	45	5	76	9	107	78	194	69	35	7	111	14	122	28	164	545
11:15 AM	29	54	9	92	9	137	83	229	83	40	11	134	9	129	20	158	613
11:30 AM	27	38	7	72	18	106	82	206	86	43	14	143	8	129	33	170	591
11:45 AM	38	44	14	96	15	144	84	243	87	55	12	154	9	123	28	160	653
Total	120	181	35	336	51	494	327	872	325	173	44	542	40	503	109	652	2402
12:00 PM	24	44	10	78	17	117	78	212	75	30	7	112	10	114	32	156	558
12:15 PM	35	58	14	107	13	101	81	195	76	53	13	142	11	121	44	176	620
12:30 PM	25	45	7	77	11	123	84	218	68	32	10	110	9	106	30	145	550
12:45 PM	34	38	7	79	10	111	75	196	66	30	7	103	13	126	25	164	542
Total	118	185	38	341	51	452	318	821	285	145	37	467	43	467	131	641	2270
01:00 PM	27	43	9	79	11	99	64	174	57	47	11	115	10	124	30	164	532
01:15 PM	28	52	10	90	16	105	75	196	63	42	10	115	9	147	40	196	597
01:30 PM	22	30	10	62	12	131	72	215	57	38	10	105	12	114	29	155	537
01:45 PM	26	59	13	98	14	119	63	196	79	51	7	137	10	105	25	140	571
Total	103	184	42	329	53	454	274	781	256	178	38	472	41	490	124	655	2237
Grand Total	341	550	115	1006	155	1400	919	2474	866	496	119	1481	124	1460	364	1948	6909
Apprch %	33.9	54.7	11.4		6.3	56.6	37.1		58.5	33.5	8		6.4	74.9	18.7		
Total %	4.9	8	1.7	14.6	2.2	20.3	13.3	35.8	12.5	7.2	1.7	21.4	1.8	21.1	5.3	28.2	
Motorcycles	4	6	3	13	2	16	9	27	10	3	1	14	0	10	3	13	67
% Motorcycles	1.2	1.1	2.6	1.3	1.3	1.1	1	1.1	1.2	0.6	0.8	0.9	0	0.7	0.8	0.7	1
Cars	291	467	103	861	143	1234	797	2174	770	422	97	1289	104	1284	321	1709	6033
% Cars	85.3	84.9	89.6	85.6	92.3	88.1	86.7	87.9	88.9	85.1	81.5	87	83.9	87.9	88.2	87.7	87.3
Light Goods Vehicles	43	70	8	121	10	141	100	251	77	63	21	161	19	153	35	207	740
% Light Goods Vehicles	12.6	12.7	7	12	6.5	10.1	10.9	10.1	8.9	12.7	17.6	10.9	15.3	10.5	9.6	10.6	10.7
Buses	0	0	0	0	0	1	2	3	0	2	0	2	0	0	0	0	5
% Buses	0	0	0	0	0	0.1	0.2	0.1	0	0.4	0	0.1	0	0	0	0	0.1
Single-Unit Trucks	3	7	1	11	0	8	10	18	9	5	0	14	1	13	5	19	62
% Single-Unit Trucks	0.9	1.3	0.9	1.1	0	0.6	1.1	0.7	1	1	0	0.9	0.8	0.9	1.4	1	0.9
Articulated Trucks	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
% Articulated Trucks	0	0	0	0	0	0	0.1	0	0	0.2	0	0.1	0	0	0	0	0

Massachusetts Department of Transportation Highway Division

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Start Time	Chestnut St From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
11:30 AM	27	38	7	72	18	106	82	206	86	43	14	143	8	129	33	170	591
11:45 AM	38	44	14	96	15	144	84	243	87	55	12	154	9	123	28	160	653
12:00 PM	24	44	10	78	17	117	78	212	75	30	7	112	10	114	32	156	558
12:15 PM	35	58	14	107	13	101	81	195	76	53	13	142	11	121	44	176	620
Total Volume	124	184	45	353	63	468	325	856	324	181	46	551	38	487	137	662	2422
% App. Total	35.1	52.1	12.7		7.4	54.7	38		58.8	32.8	8.3		5.7	73.6	20.7		
PHF	.816	.793	.804	.825	.875	.813	.967	.881	.931	.823	.821	.894	.864	.944	.778	.940	.927



Massachusetts Department of Transportation
Highway Division

Franklin
Rte 140 (East Central ST)& King/Chestnut
Counted by Miovision
S14-010 TMC # 5 Sat

File Name : S14-010 Franklin 5 Sat
Site Code : 159358
Start Date : 4/12/2014
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Chestnut St From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	26	45	5	76	9	106	75	190	65	34	7	106	14	122	28	164	536
11:15 AM	29	54	9	92	9	137	81	227	82	40	11	133	9	129	19	157	609
11:30 AM	26	38	7	71	18	104	81	203	85	42	14	141	8	129	33	170	585
11:45 AM	38	43	14	95	15	144	83	242	87	55	12	154	9	123	27	159	650
Total	119	180	35	334	51	491	320	862	319	171	44	534	40	503	107	650	2380
12:00 PM	24	43	10	77	17	117	78	212	75	30	7	112	10	114	30	154	555
12:15 PM	34	58	14	106	13	100	81	194	75	51	13	139	11	119	44	174	613
12:30 PM	24	45	6	75	11	122	82	215	68	32	10	110	8	103	30	141	541
12:45 PM	34	37	7	78	10	111	72	193	66	30	7	103	13	124	25	162	536
Total	116	183	37	336	51	450	313	814	284	143	37	464	42	460	129	631	2245
01:00 PM	27	43	9	79	11	97	64	172	57	45	11	113	10	124	30	164	528
01:15 PM	28	52	10	90	16	105	75	196	62	42	10	114	9	144	40	193	593
01:30 PM	22	29	10	61	12	130	71	213	57	37	10	104	12	111	28	151	529
01:45 PM	26	56	13	95	14	118	63	195	78	50	7	135	10	105	25	140	565
Total	103	180	42	325	53	450	273	776	254	174	38	466	41	484	123	648	2215
Grand Total	338	543	114	995	155	1391	906	2452	857	488	119	1464	123	1447	359	1929	6840
Apprch %	34	54.6	11.5		6.3	56.7	36.9		58.5	33.3	8.1		6.4	75	18.6		
Total %	4.9	7.9	1.7	14.5	2.3	20.3	13.2	35.8	12.5	7.1	1.7	21.4	1.8	21.2	5.2	28.2	
Motorcycles	4	6	3	13	2	16	9	27	10	3	1	14	0	10	3	13	67
% Motorcycles	1.2	1.1	2.6	1.3	1.3	1.2	1	1.1	1.2	0.6	0.8	1	0	0.7	0.8	0.7	1
Cars	291	467	103	861	143	1234	797	2174	770	422	97	1289	104	1284	321	1709	6033
% Cars	86.1	86	90.4	86.5	92.3	88.7	88	88.7	89.8	86.5	81.5	88	84.6	88.7	89.4	88.6	88.2
Light Goods Vehicles	43	70	8	121	10	141	100	251	77	63	21	161	19	153	35	207	740
% Light Goods Vehicles	12.7	12.9	7	12.2	6.5	10.1	11	10.2	9	12.9	17.6	11	15.4	10.6	9.7	10.7	10.8

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (East Central ST)& King/Chestnut
Counted by Miovision
S14-010 TMC # 5 Sat

File Name : S14-010 Franklin 5 Sat
Site Code : 159358
Start Date : 4/12/2014
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Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Chestnut St From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	0	0	0	0	0	1	3	4	4	1	0	5	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	2	2	1	0	0	1	0	0	1	1	4
11:30 AM	1	0	0	1	0	2	1	3	1	1	0	2	0	0	0	0	6
11:45 AM	0	1	0	1	0	0	1	1	0	0	0	0	0	0	1	1	3
Total	1	1	0	2	0	3	7	10	6	2	0	8	0	0	2	2	22
12:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	2	3
12:15 PM	1	0	0	1	0	1	0	1	1	2	0	3	0	2	0	2	7
12:30 PM	1	0	1	2	0	1	2	3	0	0	0	0	1	3	0	4	9
12:45 PM	0	1	0	1	0	0	3	3	0	0	0	0	0	2	0	2	6
Total	2	2	1	5	0	2	5	7	1	2	0	3	1	7	2	10	25
01:00 PM	0	0	0	0	0	2	0	2	0	2	0	2	0	0	0	0	4
01:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	3	4
01:30 PM	0	1	0	1	0	1	1	2	0	1	0	1	0	3	1	4	8
01:45 PM	0	3	0	3	0	1	0	1	1	1	0	2	0	0	0	0	6
Total	0	4	0	4	0	4	1	5	2	4	0	6	0	6	1	7	22
Grand Total	3	7	1	11	0	9	13	22	9	8	0	17	1	13	5	19	69
Apprch %	27.3	63.6	9.1		0	40.9	59.1		52.9	47.1	0		5.3	68.4	26.3		
Total %	4.3	10.1	1.4	15.9	0	13	18.8	31.9	13	11.6	0	24.6	1.4	18.8	7.2	27.5	
Buses	0	0	0	0	0	1	2	3	0	2	0	2	0	0	0	0	5
% Buses	0	0	0	0	0	11.1	15.4	13.6	0	25	0	11.8	0	0	0	0	7.2
Single-Unit Trucks	3	7	1	11	0	8	10	18	9	5	0	14	1	13	5	19	62
% Single-Unit Trucks	100	100	100	100	0	88.9	76.9	81.8	100	62.5	0	82.4	100	100	100	100	89.9
Articulated Trucks	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
% Articulated Trucks	0	0	0	0	0	0	7.7	4.5	0	12.5	0	5.9	0	0	0	0	2.9

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rte 140 (East Central ST)& King/Chestnut
Counted by Miovision
S14-010 TMC # 5 Sat

File Name : S14-010 Franklin 5 Sat
Site Code : 159358
Start Date : 4/12/2014
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Groups Printed- Bicycles on Road

Start Time	Chestnut St From North				Route 140 From East				King St. From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	2
12:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	1	0	0	0	0	0	0	1	1	1	0	0	1	3
Apprch %	0	100	0		0	0	0		0	0	100		100	0	0		
Total %	0	33.3	0	33.3	0	0	0	0	0	0	33.3	33.3	33.3	0	0	33.3	

*Massachusetts Department of Transportation
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Franklin
Rte 140 (East Central ST)& King/Chestnut
Counted by Miovision
S14-010 TMC # 5 Sat

File Name : S14-010 Franklin 5 Sat
Site Code : 159358
Start Date : 4/12/2014
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Groups Printed- Pedestrians

Start Time	Chestnut St From North		Route 140 From East		King St. From South		Route 140 From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
11:00 AM	1	1	0	0	2	2	0	0	3
11:15 AM	1	1	0	0	1	1	0	0	2
11:30 AM	4	4	0	0	0	0	2	2	6
11:45 AM	1	1	0	0	0	0	0	0	1
Total	7	7	0	0	3	3	2	2	12
12:00 PM	4	4	0	0	2	2	1	1	7
12:15 PM	1	1	0	0	5	5	0	0	6
12:30 PM	1	1	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	1	1	1
Total	6	6	0	0	7	7	2	2	15
01:00 PM	0	0	0	0	3	3	0	0	3
01:30 PM	3	3	0	0	1	1	0	0	4
01:45 PM	0	0	0	0	2	2	0	0	2
Total	3	3	0	0	6	6	0	0	9
Grand Total	16	16	0	0	16	16	4	4	36
Apprch %	100		0		100		100		
Total %	44.4	44.4	0	0	44.4	44.4	11.1	11.1	

Massachusetts Department of Transportation

Highway Division

Franklin
 Rt 140(E Central)& Horace Mann Plaza/CVS
 Counted by Miovision
 S14-010 TMC # 6

File Name : S14-010 Franklin 6
 Site Code : 156481
 Start Date : 4/15/2014
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	2	1	11	14	3	117	4	124	1	1	3	5	3	100	6	109	252
07:15 AM	10	0	7	17	6	111	5	122	1	0	6	7	4	101	8	113	259
07:30 AM	15	2	7	24	9	114	4	127	4	0	3	7	8	146	7	161	319
07:45 AM	7	0	19	26	9	129	5	143	3	0	6	9	3	134	10	147	325
Total	34	3	44	81	27	471	18	516	9	1	18	28	18	481	31	530	1155
08:00 AM	8	0	15	23	6	82	2	90	2	0	2	4	5	117	7	129	246
08:15 AM	14	2	13	29	11	127	3	141	2	1	4	7	3	138	16	157	334
08:30 AM	13	3	11	27	17	103	6	126	5	2	6	13	5	136	13	154	320
08:45 AM	10	2	14	26	18	101	2	121	1	0	7	8	2	144	23	169	324
Total	45	7	53	105	52	413	13	478	10	3	19	32	15	535	59	609	1224
09:00 AM	19	1	12	32	16	99	4	119	3	1	5	9	4	123	23	150	310
09:15 AM	20	1	13	34	17	95	3	115	4	1	6	11	4	100	34	138	298
09:30 AM	24	2	13	39	16	101	5	122	6	0	1	7	11	87	32	130	298
09:45 AM	29	2	12	43	26	86	5	117	4	3	9	16	8	90	18	116	292
Total	92	6	50	148	75	381	17	473	17	5	21	43	27	400	107	534	1198
10:00 AM	38	0	17	55	11	96	7	114	7	1	6	14	4	103	27	134	317
10:15 AM	40	6	24	70	23	106	7	136	4	4	8	16	9	111	21	141	363
10:30 AM	32	3	18	53	23	102	4	129	11	2	4	17	10	106	32	148	347
10:45 AM	32	3	21	56	27	103	5	135	7	1	5	13	6	95	27	128	332
Total	142	12	80	234	84	407	23	514	29	8	23	60	29	415	107	551	1359
11:00 AM	37	0	21	58	24	109	5	138	4	1	10	15	11	101	33	145	356
11:15 AM	42	2	20	64	24	102	7	133	5	3	5	13	5	88	28	121	331
11:30 AM	40	4	19	63	42	106	9	157	11	3	7	21	10	108	29	147	388
11:45 AM	36	0	25	61	35	100	7	142	5	3	12	20	9	97	22	128	351
Total	155	6	85	246	125	417	28	570	25	10	34	69	35	394	112	541	1426
12:00 PM	32	4	16	52	25	120	7	152	4	5	8	17	13	110	29	152	373
12:15 PM	54	3	28	85	43	118	9	170	5	4	8	17	9	107	39	155	427
12:30 PM	55	1	26	82	35	112	6	153	15	5	10	30	9	118	33	160	425
12:45 PM	25	4	25	54	20	120	5	145	3	4	5	12	11	115	31	157	368
Total	166	12	95	273	123	470	27	620	27	18	31	76	42	450	132	624	1593
01:00 PM	42	5	26	73	30	102	5	137	8	3	11	22	12	121	29	162	394
01:15 PM	51	2	23	76	32	132	6	170	10	4	8	22	11	107	31	149	417
01:30 PM	39	1	23	63	15	118	1	134	3	4	10	17	10	98	31	139	353
01:45 PM	41	2	17	60	26	102	12	140	6	3	10	19	8	113	16	137	356
Total	173	10	89	272	103	454	24	581	27	14	39	80	41	439	107	587	1520
02:00 PM	28	3	21	52	19	109	11	139	7	2	9	18	12	90	36	138	347
02:15 PM	35	1	20	56	25	118	7	150	7	5	10	22	7	119	31	157	385
02:30 PM	26	3	17	46	30	119	7	156	8	1	10	19	7	119	29	155	376
02:45 PM	35	3	22	60	27	122	5	154	5	2	12	19	17	141	30	188	421
Total	124	10	80	214	101	468	30	599	27	10	41	78	43	469	126	638	1529
03:00 PM	46	0	23	69	29	122	7	158	8	3	7	18	10	111	25	146	391
03:15 PM	41	1	14	56	19	136	7	162	8	3	8	19	14	109	45	168	405
03:30 PM	43	4	28	75	27	126	10	163	6	5	12	23	11	121	29	161	422
03:45 PM	37	4	27	68	24	144	6	174	14	2	12	28	13	79	39	131	401
Total	167	9	92	268	99	528	30	657	36	13	39	88	48	420	138	606	1619
04:00 PM	35	0	23	58	35	146	10	191	8	4	10	22	13	93	35	141	412
04:15 PM	51	2	23	76	28	147	10	185	10	3	15	28	15	107	29	151	440
04:30 PM	46	4	25	75	34	118	5	157	12	7	13	32	9	123	26	158	422
04:45 PM	32	5	32	69	36	142	8	186	6	7	9	22	11	105	35	151	428
Total	164	11	103	278	133	553	33	719	36	21	47	104	48	428	125	601	1702

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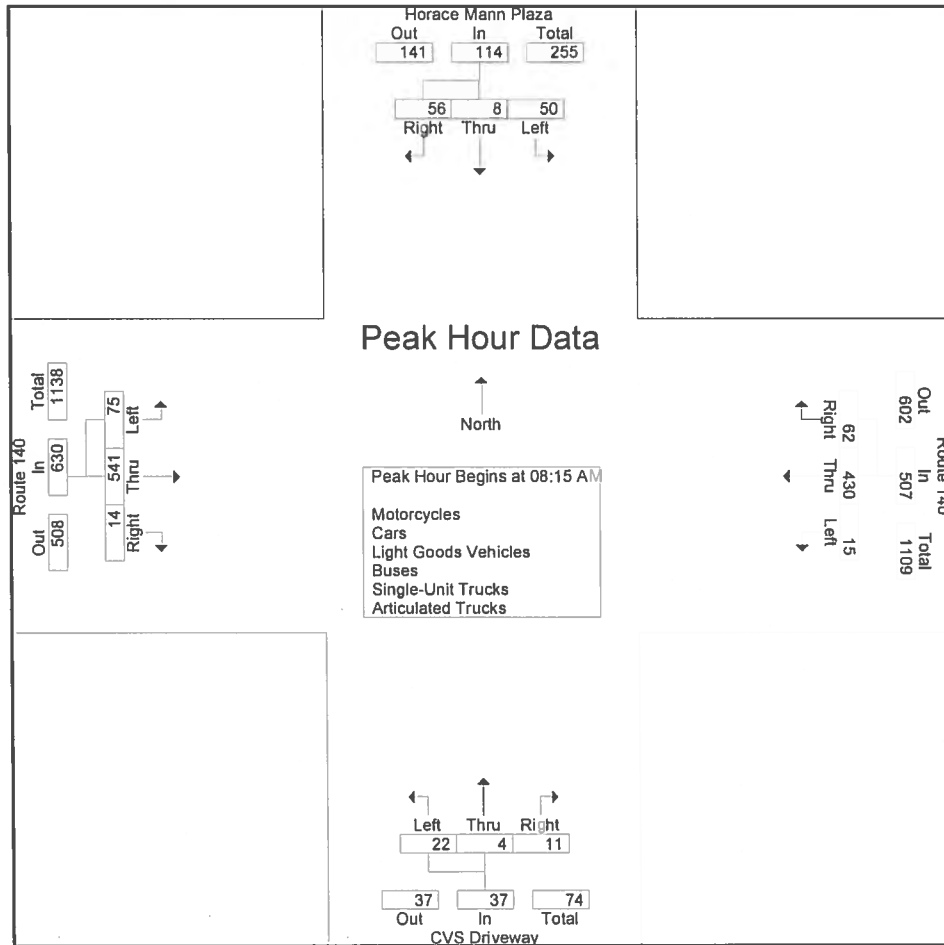
Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	59	5	23	87	35	159	6	200	7	5	12	24	8	103	41	152	463
05:15 PM	50	3	27	80	33	119	6	158	9	3	10	22	20	113	42	175	435
05:30 PM	46	3	16	65	40	116	3	159	7	9	9	25	14	116	51	181	430
05:45 PM	61	2	19	82	36	114	3	153	6	4	9	19	11	100	56	167	421
Total	216	13	85	314	144	508	18	670	29	21	40	90	53	432	190	675	1749
Grand Total	1478	99	856	2433	1066	5070	261	6397	272	124	352	748	399	4863	1234	6496	16074
Apprch %	60.7	4.1	35.2		16.7	79.3	4.1		36.4	16.6	47.1		6.1	74.9	19		
Total %	9.2	0.6	5.3	15.1	6.6	31.5	1.6	39.8	1.7	0.8	2.2	4.7	2.5	30.3	7.7	40.4	
Motorcycles	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
% Motorcycles	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Cars	1356	98	737	2191	937	4267	245	5449	261	116	329	706	374	4002	1104	5480	13826
% Cars	91.7	99	86.1	90.1	87.9	84.2	93.9	85.2	96	93.5	93.5	94.4	93.7	82.3	89.5	84.4	86
Light Goods Vehicles	101	0	100	201	107	618	15	740	10	8	19	37	22	665	123	810	1788
% Light Goods Vehicles	6.8	0	11.7	8.3	10	12.2	5.7	11.6	3.7	6.5	5.4	4.9	5.5	13.7	10	12.5	11.1
Buses	11	0	1	12	11	21	1	33	0	0	0	0	0	34	3	37	82
% Buses	0.7	0	0.1	0.5	1	0.4	0.4	0.5	0	0	0	0	0	0.7	0.2	0.6	0.5
Single-Unit Trucks	9	1	18	28	10	138	0	148	1	0	3	4	2	137	3	142	322
% Single-Unit Trucks	0.6	1	2.1	1.2	0.9	2.7	0	2.3	0.4	0	0.9	0.5	0.5	2.8	0.2	2.2	2
Articulated Trucks	1	0	0	1	0	25	0	25	0	0	1	1	1	24	1	26	53
% Articulated Trucks	0.1	0	0	0	0	0.5	0	0.4	0	0	0.3	0.1	0.3	0.5	0.1	0.4	0.3

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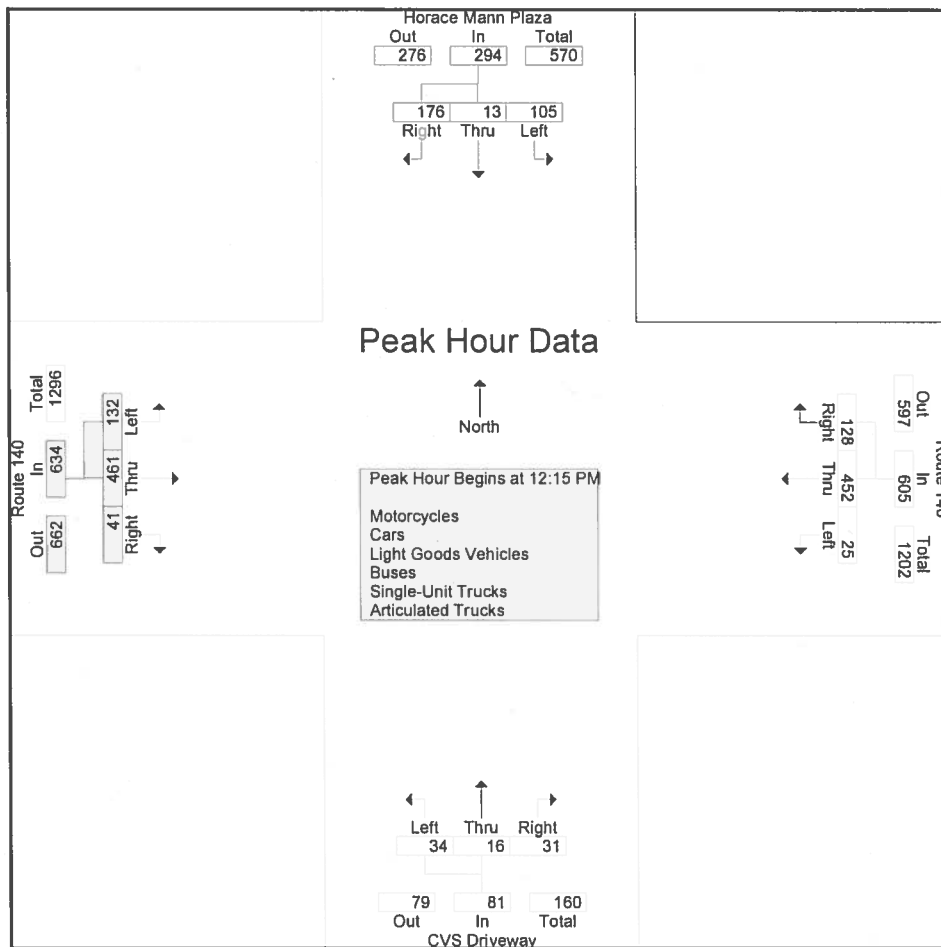
Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:15 AM																	
08:15 AM	14	2	13	29	11	127	3	141	2	1	4	7	3	138	16	157	334
08:30 AM	13	3	11	27	17	103	6	126	5	2	6	13	5	136	13	154	320
08:45 AM	10	2	14	26	18	101	2	121	1	0	7	8	2	144	23	169	324
09:00 AM	19	1	12	32	16	99	4	119	3	1	5	9	4	123	23	150	310
Total Volume	56	8	50	114	62	430	15	507	11	4	22	37	14	541	75	630	1288
% App. Total	49.1	7	43.9		12.2	84.8	3		29.7	10.8	59.5		2.2	85.9	11.9		
PHF	.737	.667	.893	.891	.861	.846	.625	.899	.550	.500	.786	.712	.700	.939	.815	.932	.964



Massachusetts Department of Transportation Highway Division

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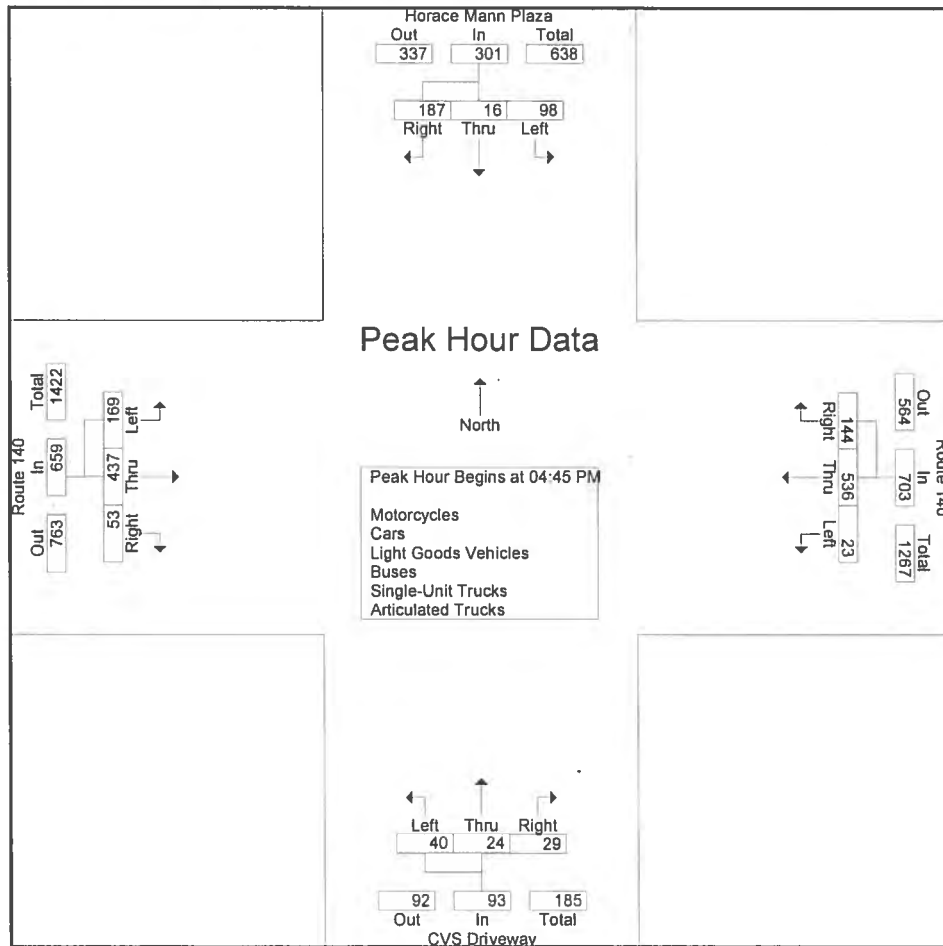
Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	54	3	28	85	43	118	9	170	5	4	8	17	9	107	39	155	427
12:30 PM	55	1	26	82	35	112	6	153	15	5	10	30	9	118	33	160	425
12:45 PM	25	4	25	54	20	120	5	145	3	4	5	12	11	115	31	157	368
01:00 PM	42	5	26	73	30	102	5	137	8	3	11	22	12	121	29	162	394
Total Volume	176	13	105	294	128	452	25	605	31	16	34	81	41	461	132	634	1614
% App. Total	59.9	4.4	35.7		21.2	74.7	4.1		38.3	19.8	42		6.5	72.7	20.8		
PHF	.800	.650	.938	.865	.744	.942	.694	.890	.517	.800	.773	.675	.854	.952	.846	.978	.945



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Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	32	5	32	69	36	142	8	186	6	7	9	22	11	105	35	151	428
05:00 PM	59	5	23	87	35	159	6	200	7	5	12	24	8	103	41	152	463
05:15 PM	50	3	27	80	33	119	6	158	9	3	10	22	20	113	42	175	435
05:30 PM	46	3	16	65	40	116	3	159	7	9	9	25	14	116	51	181	430
Total Volume	187	16	98	301	144	536	23	703	29	24	40	93	53	437	169	659	1756
% App. Total	62.1	5.3	32.6		20.5	76.2	3.3		31.2	25.8	4.3		8	66.3	25.6		
PHF	.792	.800	.766	.865	.900	.843	.719	.879	.806	.667	.833	.930	.663	.942	.828	.910	.948



Massachusetts Department of Transportation

Highway Division

Franklin
 Rt 140(E Central)& Horace Mann Plaza/CVS
 Counted by Miovision
 S14-010 TMC # 6

File Name : S14-010 Franklin 6
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 Start Date : 4/15/2014
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	2	1	11	14	3	115	4	122	1	1	3	5	3	97	6	106	247
07:15 AM	10	0	6	16	4	106	5	115	1	0	6	7	4	95	8	107	245
07:30 AM	14	2	7	23	8	110	4	122	4	0	3	7	8	139	6	153	305
07:45 AM	7	0	19	26	9	119	5	133	3	0	6	9	3	125	10	138	306
Total	33	3	43	79	24	450	18	492	9	1	18	28	18	456	30	504	1103
08:00 AM	8	0	13	21	6	78	2	86	2	0	2	4	5	108	6	119	230
08:15 AM	14	2	13	29	10	122	3	135	2	1	4	7	3	128	15	146	317
08:30 AM	11	3	10	24	16	96	6	118	5	2	5	12	5	131	13	149	303
08:45 AM	10	2	13	25	18	95	2	115	1	0	7	8	2	138	23	163	311
Total	43	7	49	99	50	391	13	454	10	3	18	31	15	505	57	577	1161
09:00 AM	19	1	12	32	16	93	3	112	3	1	5	9	4	112	23	139	292
09:15 AM	20	1	13	34	17	91	3	111	4	1	6	11	4	93	34	131	287
09:30 AM	23	2	12	37	15	93	5	113	6	0	1	7	11	81	32	124	281
09:45 AM	28	2	11	41	25	80	5	110	4	3	9	16	8	81	18	107	274
Total	90	6	48	144	73	357	16	446	17	5	21	43	27	367	107	501	1134
10:00 AM	38	0	17	55	11	88	7	106	7	1	6	14	4	94	27	125	300
10:15 AM	40	6	24	70	23	98	7	128	4	4	8	16	9	103	21	133	347
10:30 AM	30	3	18	51	22	92	4	118	10	2	4	16	9	103	32	144	329
10:45 AM	31	3	21	55	27	96	5	128	7	1	5	13	5	88	27	120	316
Total	139	12	80	231	83	374	23	480	28	8	23	59	27	388	107	522	1292
11:00 AM	37	0	21	58	24	103	5	132	4	1	9	14	11	97	32	140	344
11:15 AM	42	2	19	63	24	99	7	130	5	3	5	13	5	84	28	117	323
11:30 AM	39	4	18	61	40	98	9	147	11	3	7	21	10	104	29	143	372
11:45 AM	36	0	24	60	33	94	7	134	5	3	12	20	9	93	22	124	338
Total	154	6	82	242	121	394	28	543	25	10	33	68	35	378	111	524	1377
12:00 PM	32	4	15	51	24	115	7	146	4	5	8	17	13	110	29	152	366
12:15 PM	53	2	27	82	43	114	9	166	5	4	8	17	9	103	39	151	416
12:30 PM	54	1	26	81	34	110	6	150	15	5	9	29	9	113	33	155	415
12:45 PM	25	4	25	54	20	117	5	142	3	4	5	12	11	112	31	154	362
Total	164	11	93	268	121	456	27	604	27	18	30	75	42	438	132	612	1559
01:00 PM	39	5	26	70	30	98	5	133	8	3	11	22	12	119	28	159	384
01:15 PM	50	2	23	75	32	129	6	167	10	4	8	22	11	106	30	147	411
01:30 PM	39	1	22	62	14	117	1	132	3	4	10	17	10	96	31	137	348
01:45 PM	40	2	17	59	26	95	12	133	6	3	10	19	8	109	16	133	344
Total	168	10	88	266	102	439	24	565	27	14	39	80	41	430	105	576	1487
02:00 PM	27	3	21	51	18	107	11	136	7	2	9	18	12	87	36	135	340
02:15 PM	35	1	20	56	25	114	7	146	7	5	10	22	7	112	31	150	374
02:30 PM	25	3	17	45	28	118	7	153	8	1	10	19	7	118	29	154	371
02:45 PM	35	3	22	60	27	120	5	152	5	2	12	19	16	139	30	185	416
Total	122	10	80	212	98	459	30	587	27	10	41	78	42	456	126	624	1501
03:00 PM	46	0	22	68	29	120	7	156	8	3	7	18	10	108	25	143	385
03:15 PM	41	1	14	56	19	130	7	156	8	3	7	18	14	109	44	167	397
03:30 PM	43	4	26	73	26	126	10	162	6	5	12	23	11	117	29	157	415
03:45 PM	36	4	27	67	24	144	6	174	14	2	12	28	13	78	39	130	399
Total	166	9	89	264	98	520	30	648	36	13	38	87	48	412	137	597	1596
04:00 PM	35	0	22	57	35	144	10	189	8	4	10	22	13	91	35	139	407
04:15 PM	51	2	23	76	28	146	10	184	10	3	15	28	15	102	29	146	434
04:30 PM	45	4	23	72	33	117	5	155	12	7	13	32	9	120	26	155	414
04:45 PM	32	5	32	69	36	138	8	182	6	7	9	22	11	101	35	147	420
Total	163	11	100	274	132	545	33	710	36	21	47	104	48	414	125	587	1675

*Massachusetts Department of Transportation
Highway Division*

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 Site Code : 156481
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Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	59	5	23	87	35	155	6	196	7	5	12	24	8	97	41	146	453
05:15 PM	49	3	27	79	32	118	6	156	9	3	10	22	20	113	42	175	432
05:30 PM	46	3	16	65	40	116	3	159	7	9	9	25	14	115	51	180	429
05:45 PM	61	2	19	82	36	112	3	151	6	4	9	19	11	99	56	166	418
Total	215	13	85	313	143	501	18	662	29	21	40	90	53	424	190	667	1732
Grand Total	1457	98	837	2392	1045	4886	260	6191	271	124	348	743	396	4668	1227	6291	15617
Apprch %	60.9	4.1	35		16.9	78.9	4.2		36.5	16.7	46.8		6.3	74.2	19.5		
Total %	9.3	0.6	5.4	15.3	6.7	31.3	1.7	39.6	1.7	0.8	2.2	4.8	2.5	29.9	7.9	40.3	
Motorcycles	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
% Motorcycles	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Cars	1356	98	737	2191	937	4267	245	5449	261	116	329	706	374	4002	1104	5480	13826
% Cars	93.1	100	88.1	91.6	89.7	87.3	94.2	88	96.3	93.5	94.5	95	94.4	85.7	90	87.1	88.5
Light Goods Vehicles	101	0	100	201	107	618	15	740	10	8	19	37	22	665	123	810	1788
% Light Goods Vehicles	6.9	0	11.9	8.4	10.2	12.6	5.8	12	3.7	6.5	5.5	5	5.6	14.2	10	12.9	11.4

Massachusetts Department of Transportation

Highway Division

Franklin
 Rt 140(E Central)& Horace Mann Plaza/CVS
 Counted by Miovision
 S14-010 TMC # 6

File Name : S14-010 Franklin 6
 Site Code : 156481
 Start Date : 4/15/2014
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Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
07:15 AM	0	0	1	1	2	5	0	7	0	0	0	0	0	6	0	6	14
07:30 AM	1	0	0	1	1	4	0	5	0	0	0	0	0	7	1	8	14
07:45 AM	0	0	0	0	0	10	0	10	0	0	0	0	0	9	0	9	19
Total	1	0	1	2	3	21	0	24	0	0	0	0	0	25	1	26	52
08:00 AM	0	0	2	2	0	4	0	4	0	0	0	0	0	9	1	10	16
08:15 AM	0	0	0	0	1	5	0	6	0	0	0	0	0	10	1	11	17
08:30 AM	2	0	1	3	1	7	0	8	0	0	1	1	0	5	0	5	17
08:45 AM	0	0	1	1	0	6	0	6	0	0	0	0	0	6	0	6	13
Total	2	0	4	6	2	22	0	24	0	0	1	1	0	30	2	32	63
09:00 AM	0	0	0	0	0	6	1	7	0	0	0	0	0	11	0	11	18
09:15 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	7	0	7	11
09:30 AM	1	0	1	2	1	8	0	9	0	0	0	0	0	6	0	6	17
09:45 AM	1	0	1	2	1	6	0	7	0	0	0	0	0	9	0	9	18
Total	2	0	2	4	2	24	1	27	0	0	0	0	0	33	0	33	64
10:00 AM	0	0	0	0	0	8	0	8	0	0	0	0	0	9	0	9	17
10:15 AM	0	0	0	0	0	8	0	8	0	0	0	0	0	8	0	8	16
10:30 AM	2	0	0	2	1	10	0	11	1	0	0	1	1	3	0	4	18
10:45 AM	1	0	0	1	0	7	0	7	0	0	0	0	1	7	0	8	16
Total	3	0	0	3	1	33	0	34	1	0	0	1	2	27	0	29	67
11:00 AM	0	0	0	0	0	6	0	6	0	0	1	1	0	4	1	5	12
11:15 AM	0	0	1	1	0	3	0	3	0	0	0	0	0	4	0	4	8
11:30 AM	1	0	1	2	2	8	0	10	0	0	0	0	0	4	0	4	16
11:45 AM	0	0	1	1	2	6	0	8	0	0	0	0	0	4	0	4	13
Total	1	0	3	4	4	23	0	27	0	0	1	1	0	16	1	17	49
12:00 PM	0	0	1	1	1	5	0	6	0	0	0	0	0	0	0	0	7
12:15 PM	1	1	1	3	0	4	0	4	0	0	0	0	0	4	0	4	11
12:30 PM	1	0	0	1	1	2	0	3	0	0	1	1	0	5	0	5	10
12:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Total	2	1	2	5	2	14	0	16	0	0	1	1	0	12	0	12	34
01:00 PM	3	0	0	3	0	4	0	4	0	0	0	0	0	2	1	3	10
01:15 PM	1	0	0	1	0	3	0	3	0	0	0	0	0	1	1	2	6
01:30 PM	0	0	1	1	1	1	0	2	0	0	0	0	0	2	0	2	5
01:45 PM	1	0	0	1	0	7	0	7	0	0	0	0	0	4	0	4	12
Total	5	0	1	6	1	15	0	16	0	0	0	0	0	9	2	11	33
02:00 PM	1	0	0	1	1	2	0	3	0	0	0	0	0	3	0	3	7
02:15 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	7	0	7	11
02:30 PM	1	0	0	1	2	1	0	3	0	0	0	0	0	1	0	1	5
02:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	1	2	0	3	5
Total	2	0	0	2	3	9	0	12	0	0	0	0	1	13	0	14	28
03:00 PM	0	0	1	1	0	2	0	2	0	0	0	0	0	3	0	3	6
03:15 PM	0	0	0	0	0	6	0	6	0	0	1	1	0	0	1	1	8
03:30 PM	0	0	2	2	1	0	0	1	0	0	0	0	0	4	0	4	7
03:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total	1	0	3	4	1	8	0	9	0	0	1	1	0	8	1	9	23
04:00 PM	0	0	1	1	0	2	0	2	0	0	0	0	0	2	0	2	5
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	5	0	5	6
04:30 PM	1	0	2	3	1	1	0	2	0	0	0	0	0	3	0	3	8
04:45 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	8
Total	1	0	3	4	1	8	0	9	0	0	0	0	0	14	0	14	27

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 6
Site Code : 156481
Start Date : 4/15/2014
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Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	6	0	6	10
05:15 PM	1	0	0	1	1	1	0	2	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total	1	0	0	1	1	7	0	8	0	0	0	0	0	8	0	8	17
Grand Total	21	1	19	41	21	184	1	206	1	0	4	5	3	195	7	205	457
Apprch %	51.2	2.4	46.3		10.2	89.3	0.5		20	0	80		1.5	95.1	3.4		
Total %	4.6	0.2	4.2	9	4.6	40.3	0.2	45.1	0.2	0	0.9	1.1	0.7	42.7	1.5	44.9	
Buses	11	0	1	12	11	21	1	33	0	0	0	0	0	34	3	37	82
% Buses	52.4	0	5.3	29.3	52.4	11.4	100	16	0	0	0	0	0	17.4	42.9	18	17.9
Single-Unit Trucks	9	1	18	28	10	138	0	148	1	0	3	4	2	137	3	142	322
% Single-Unit Trucks	42.9	100	94.7	68.3	47.6	75	0	71.8	100	0	75	80	66.7	70.3	42.9	69.3	70.5
Articulated Trucks	1	0	0	1	0	25	0	25	0	0	1	1	1	24	1	26	53
% Articulated Trucks	4.8	0	0	2.4	0	13.6	0	12.1	0	0	25	20	33.3	12.3	14.3	12.7	11.6

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140(E Central)& Horace Mann Plaza/CVS
Counted by Miovision
S14-010 TMC # 6

File Name : S14-010 Franklin 6
Site Code : 156481
Start Date : 4/15/2014
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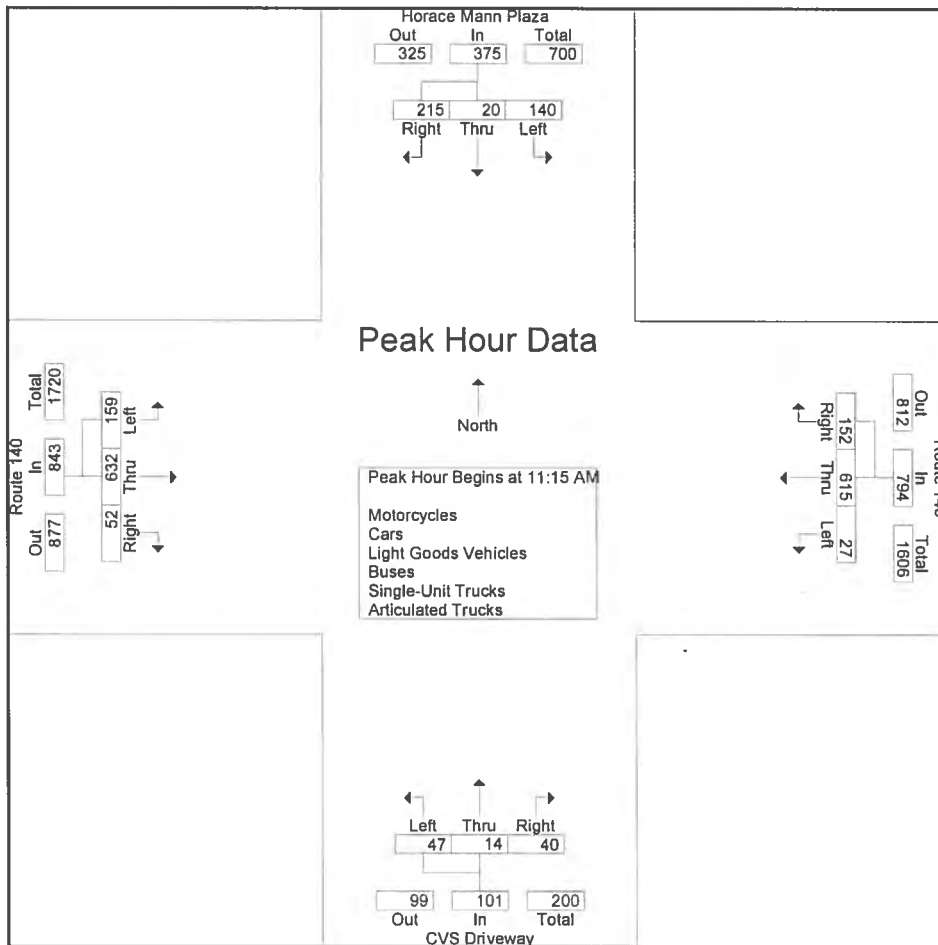
Groups Printed- Pedestrians

Start Time	Horace Mann Plaza From North		Route 140 From East		CVS Driveway From South		Route 140 From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
07:30 AM	1	1	0	0	0	0	0	0	1
07:45 AM	1	1	0	0	0	0	0	0	1
Total	2	2	0	0	0	0	0	0	2
08:00 AM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	1
09:00 AM	5	5	0	0	0	0	0	0	5
09:45 AM	1	1	0	0	0	0	0	0	1
Total	6	6	0	0	0	0	0	0	6
10:45 AM	0	0	0	0	1	1	0	0	1
Total	0	0	0	0	1	1	0	0	1
11:15 AM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	1
12:00 PM	0	0	1	1	2	2	0	0	3
Total	0	0	1	1	2	2	0	0	3
04:00 PM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	1
05:00 PM	1	1	0	0	0	0	0	0	1
05:45 PM	1	1	0	0	0	0	0	0	1
Total	2	2	0	0	0	0	0	0	2
Grand Total	13	13	1	1	3	3	0	0	17
Apprch %	100		100		100		0		
Total %	76.5	76.5	5.9	5.9	17.6	17.6	0	0	

Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 6 Sat
Site Code : 159357
Start Date : 4/12/2014
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Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:15 AM																	
11:15 AM	56	9	33	98	36	165	3	204	10	4	11	25	9	155	43	207	534
11:30 AM	57	3	33	93	45	119	6	170	8	1	10	19	15	157	36	208	490
11:45 AM	49	4	36	89	38	177	15	230	14	7	10	31	17	163	39	219	569
12:00 PM	53	4	38	95	33	154	3	190	8	2	16	26	11	157	41	209	520
Total Volume	215	20	140	375	152	615	27	794	40	14	47	101	52	632	159	843	2113
% App. Total	57.3	5.3	37.3		19.1	77.5	3.4		39.6	13.9	46.5		6.2	75	18.9		
PHF	.943	.556	.921	.957	.844	.869	.450	.863	.714	.500	.734	.815	.765	.969	.924	.962	.928



*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140(E Central)& Horace Mann Plaza/CVS
Counted by Miovision
S14-010 TMC # 6 Sat

File Name : S14-010 Franklin 6 Sat
Site Code : 159357
Start Date : 4/12/2014
Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	46	7	32	85	25	137	3	165	10	3	10	23	16	141	42	199	472
11:15 AM	56	9	33	98	36	164	3	203	10	4	11	25	9	154	43	206	532
11:30 AM	57	3	33	93	44	117	6	167	8	1	10	19	15	157	36	208	487
11:45 AM	49	4	36	89	38	177	15	230	14	7	10	31	17	162	39	218	568
Total	208	23	134	365	143	595	27	765	42	15	41	98	57	614	160	831	2059
12:00 PM	53	4	38	95	33	153	3	189	8	2	16	26	11	155	41	207	517
12:15 PM	46	2	37	85	39	142	9	190	11	5	11	27	23	138	54	215	517
12:30 PM	51	1	30	82	38	131	4	173	9	8	10	27	14	127	36	177	459
12:45 PM	46	1	25	72	30	139	6	175	4	5	12	21	10	151	36	197	465
Total	196	8	130	334	140	565	22	727	32	20	49	101	58	571	167	796	1958
01:00 PM	45	0	30	75	54	125	4	183	6	3	5	14	12	127	40	179	451
01:15 PM	40	5	33	78	34	139	7	180	9	5	15	29	14	136	57	207	494
01:30 PM	52	1	36	89	46	152	8	206	6	3	11	20	10	127	49	186	501
01:45 PM	59	3	26	88	34	129	0	163	9	1	9	19	19	114	45	178	448
Total	196	9	125	330	168	545	19	732	30	12	40	82	55	504	191	750	1894
Grand Total	600	40	389	1029	451	1705	68	2224	104	47	130	281	170	1689	518	2377	5911
Apprch %	58.3	3.9	37.8		20.3	76.7	3.1		37	16.7	46.3		7.2	71.1	21.8		
Total %	10.2	0.7	6.6	17.4	7.6	28.8	1.2	37.6	1.8	0.8	2.2	4.8	2.9	28.6	8.8	40.2	
Motorcycles	3	1	1	5	3	24	0	27	0	0	1	1	0	21	2	23	56
% Motorcycles	0.5	2.5	0.3	0.5	0.7	1.4	0	1.2	0	0	0.8	0.4	0	1.2	0.4	1	0.9
Cars	557	37	360	954	410	1523	66	1999	95	45	124	264	157	1500	473	2130	5347
% Cars	92.8	92.5	92.5	92.7	90.9	89.3	97.1	89.9	91.3	95.7	95.4	94	92.4	88.8	91.3	89.6	90.5
Light Goods Vehicles	40	2	28	70	38	158	2	198	9	2	5	16	13	168	43	224	508
% Light Goods Vehicles	6.7	5	7.2	6.8	8.4	9.3	2.9	8.9	8.7	4.3	3.8	5.7	7.6	9.9	8.3	9.4	8.6

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140(E Central)& Horace Mann Plaza/CVS
Counted by Miovision
S14-010 TMC # 6 Sat

File Name : S14-010 Franklin 6 Sat
Site Code : 159357
Start Date : 4/12/2014
Page No : 1

Groups Printed- Bicycles on Road

Start Time	Horace Mann Plaza From North				Route 140 From East				CVS Driveway From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0		0	0	0		0	0	0		0	100	0	100	

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140(E Central)& Horace Mann Plaza/CVS
Counted by Miovision
S14-010 TMC # 6 Sat

File Name : S14-010 Franklin 6 Sat
Site Code : 159357
Start Date : 4/12/2014
Page No : 1

Groups Printed- Pedestrians

Start Time	Horace Mann Plaza From North		Route 140 From East		CVS Driveway From South		Route 140 From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
11:00 AM	5	5	1	1	0	0	0	0	6
11:15 AM	1	1	0	0	1	1	0	0	2
11:30 AM	3	3	0	0	0	0	0	0	3
Total	9	9	1	1	1	1	0	0	11
12:00 PM	1	1	1	1	2	2	0	0	4
12:15 PM	2	2	2	2	2	2	0	0	6
12:30 PM	3	3	1	1	0	0	1	1	5
12:45 PM	0	0	4	4	1	1	0	0	5
Total	6	6	8	8	5	5	1	1	20
01:45 PM	0	0	0	0	2	2	0	0	2
Total	0	0	0	0	2	2	0	0	2
Grand Total	15	15	9	9	8	8	1	1	33
Apprch %	100		100		100		100		
Total %	45.5	45.5	27.3	27.3	24.2	24.2	3	3	

Massachusetts Department of Transportation

Highway Division

Franklin
 Rt 140(E Central)&Big Y/Town Hall drives
 Counted by Miovision
 S14-010 TMC # 7

File Name : S14-010 Franklin 7
 Site Code : 156480
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	0	0	0	0	114	2	116	2	0	2	4	0	104	1	105	225
07:15 AM	2	0	0	2	5	101	1	107	3	0	6	9	0	87	8	95	213
07:30 AM	4	0	0	4	1	114	1	116	3	0	2	5	0	130	10	140	265
07:45 AM	3	0	1	4	4	119	1	124	2	0	6	8	0	109	25	134	270
Total	9	0	1	10	10	448	5	463	10	0	16	26	0	430	44	474	973
08:00 AM	2	0	1	3	4	80	2	86	0	0	1	1	0	108	11	119	209
08:15 AM	4	0	1	5	5	113	4	122	1	0	3	4	1	124	8	133	264
08:30 AM	7	0	1	8	3	97	4	104	1	0	6	7	1	120	7	128	247
08:45 AM	4	0	5	9	1	99	4	104	5	0	6	11	1	108	14	123	247
Total	17	0	8	25	13	389	14	416	7	0	16	23	3	460	40	503	967
09:00 AM	6	0	3	9	1	89	4	94	6	0	7	13	0	120	10	130	246
09:15 AM	7	0	2	9	3	84	3	90	5	0	10	15	0	88	13	101	215
09:30 AM	16	1	5	22	4	92	2	98	4	1	7	12	1	86	7	94	226
09:45 AM	7	0	2	9	4	97	1	102	0	0	7	7	0	71	14	85	203
Total	36	1	12	49	12	362	10	384	15	1	31	47	1	365	44	410	890
10:00 AM	8	0	3	11	4	89	3	96	3	0	7	10	0	101	10	111	228
10:15 AM	14	1	0	15	3	105	4	112	4	0	6	10	1	105	9	115	252
10:30 AM	9	0	2	11	7	97	1	105	5	0	12	17	0	98	16	114	247
10:45 AM	13	1	2	16	2	112	7	121	4	0	11	15	0	88	18	106	258
Total	44	2	7	53	16	403	15	434	16	0	36	52	1	392	53	446	985
11:00 AM	8	2	2	12	5	103	5	113	9	1	8	18	2	84	8	94	237
11:15 AM	7	1	3	11	1	103	8	112	7	0	11	18	0	89	7	96	237
11:30 AM	15	1	1	17	5	110	4	119	6	0	16	22	0	98	12	110	268
11:45 AM	9	0	2	11	3	106	10	119	10	0	16	26	3	90	6	99	255
Total	39	4	8	51	14	422	27	463	32	1	51	84	5	361	33	399	997
12:00 PM	11	1	0	12	6	119	6	131	8	0	20	28	0	73	11	84	255
12:15 PM	11	0	3	14	11	120	7	138	11	0	17	28	0	111	5	116	296
12:30 PM	11	1	5	17	5	108	5	118	6	0	12	18	2	113	12	127	280
12:45 PM	9	0	1	10	4	102	7	113	15	2	9	26	2	111	9	122	271
Total	42	2	9	53	26	449	25	500	40	2	58	100	4	408	37	449	1102
01:00 PM	29	0	4	33	6	110	7	123	11	0	10	21	2	101	17	120	297
01:15 PM	16	0	5	21	6	112	6	124	4	0	13	17	0	104	14	118	280
01:30 PM	16	1	1	18	2	99	5	106	7	0	13	20	0	85	17	102	246
01:45 PM	12	1	6	19	4	91	10	105	9	0	16	25	2	110	21	133	282
Total	73	2	16	91	18	412	28	458	31	0	52	83	4	400	69	473	1105
02:00 PM	10	1	5	16	5	107	6	118	5	1	12	18	1	83	12	96	248
02:15 PM	10	2	1	13	3	127	6	136	7	1	10	18	2	108	13	123	290
02:30 PM	6	1	5	12	4	120	6	130	8	1	20	29	1	116	11	128	299
02:45 PM	16	1	5	22	3	111	8	122	6	0	15	21	2	122	11	135	300
Total	42	5	16	63	15	465	26	506	26	3	57	86	6	429	47	482	1137
03:00 PM	11	0	5	16	2	109	12	123	8	1	12	21	3	105	10	118	278
03:15 PM	7	0	1	8	4	125	7	136	8	0	21	29	1	101	8	110	283
03:30 PM	11	0	1	12	2	139	10	151	8	0	14	22	0	126	6	132	317
03:45 PM	12	0	3	15	2	143	5	150	5	0	14	19	2	86	13	101	285
Total	41	0	10	51	10	516	34	560	29	1	61	91	6	418	37	461	1163
04:00 PM	33	0	11	44	1	134	6	141	12	0	9	21	4	86	6	96	302
04:15 PM	7	1	1	9	7	144	7	158	11	0	17	28	0	93	8	101	296
04:30 PM	12	0	6	18	0	130	7	137	9	0	12	21	0	121	6	127	303
04:45 PM	7	0	1	8	0	147	4	151	15	0	19	34	1	111	10	122	315
Total	59	1	19	79	8	555	24	587	47	0	57	104	5	411	30	446	1216

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 7

Site Code : 156480

Start Date : 4/15/2014

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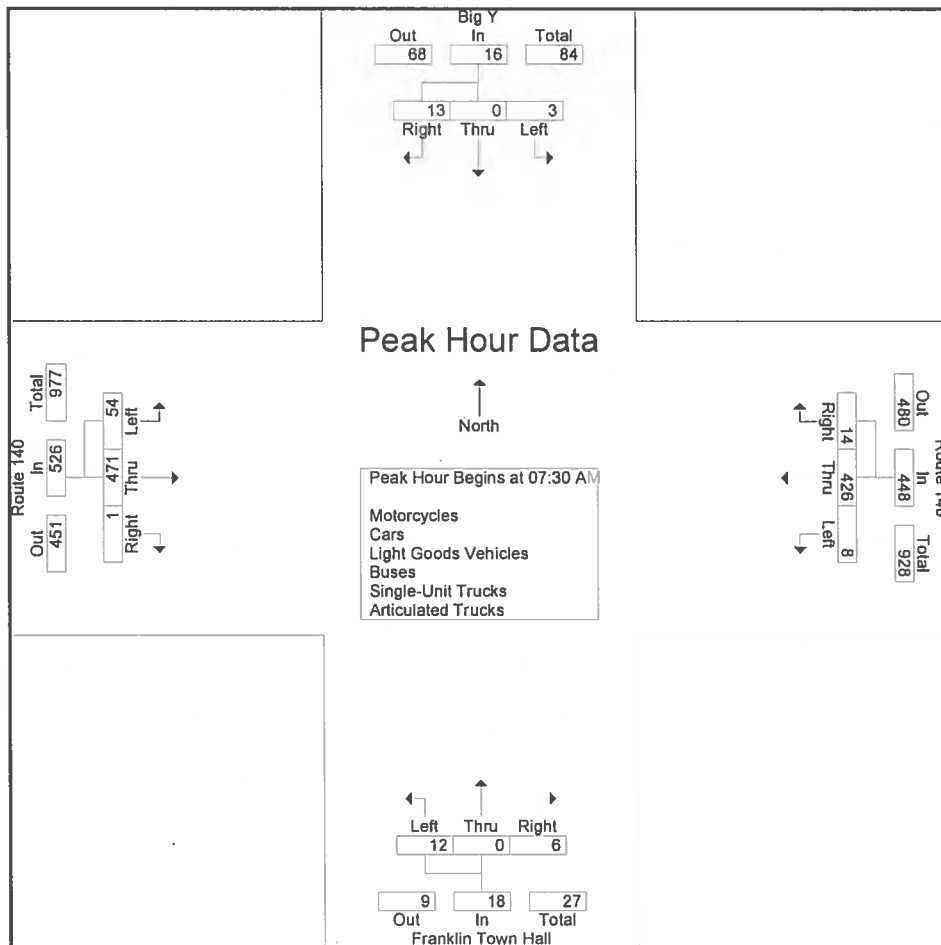
Groups Printed- Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks

Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	10	0	3	13	1	160	12	173	6	0	16	22	2	96	3	101	309
05:15 PM	4	1	2	7	4	115	6	125	6	0	17	23	2	108	8	118	273
05:30 PM	10	0	0	10	1	121	8	130	9	0	19	28	1	104	6	111	279
05:45 PM	7	0	3	10	1	120	7	128	10	1	15	26	0	98	6	104	268
Total	31	1	8	40	7	516	33	556	31	1	67	99	5	406	23	434	1129
Grand Total	433	18	114	565	149	4937	241	5327	284	9	502	795	40	4480	457	4977	11664
Apprch %	76.6	3.2	20.2		2.8	92.7	4.5		35.7	1.1	63.1		0.8	90	9.2		
Total %	3.7	0.2	1	4.8	1.3	42.3	2.1	45.7	2.4	0.1	4.3	6.8	0.3	38.4	3.9	42.7	
Motorcycles	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars	369	15	102	486	128	4199	221	4548	262	9	431	702	37	3691	392	4120	9856
% Cars	85.2	83.3	89.5	86	85.9	85.1	91.7	85.4	92.3	100	85.9	88.3	92.5	82.4	85.8	82.8	84.5
Light Goods Vehicles	56	3	9	68	19	562	18	599	21	0	40	61	3	607	57	667	1395
% Light Goods Vehicles	12.9	16.7	7.9	12	12.8	11.4	7.5	11.2	7.4	0	8	7.7	7.5	13.5	12.5	13.4	12
Buses	0	0	0	0	0	22	1	23	0	0	9	9	0	34	0	34	66
% Buses	0	0	0	0	0	0.4	0.4	0.4	0	0	1.8	1.1	0	0.8	0	0.7	0.6
Single-Unit Trucks	8	0	3	11	2	131	1	134	1	0	17	18	0	126	8	134	297
% Single-Unit Trucks	1.8	0	2.6	1.9	1.3	2.7	0.4	2.5	0.4	0	3.4	2.3	0	2.8	1.8	2.7	2.5
Articulated Trucks	0	0	0	0	0	21	0	21	0	0	5	5	0	21	0	21	47
% Articulated Trucks	0	0	0	0	0	0.4	0	0.4	0	0	1	0.6	0	0.5	0	0.4	0.4

Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 7
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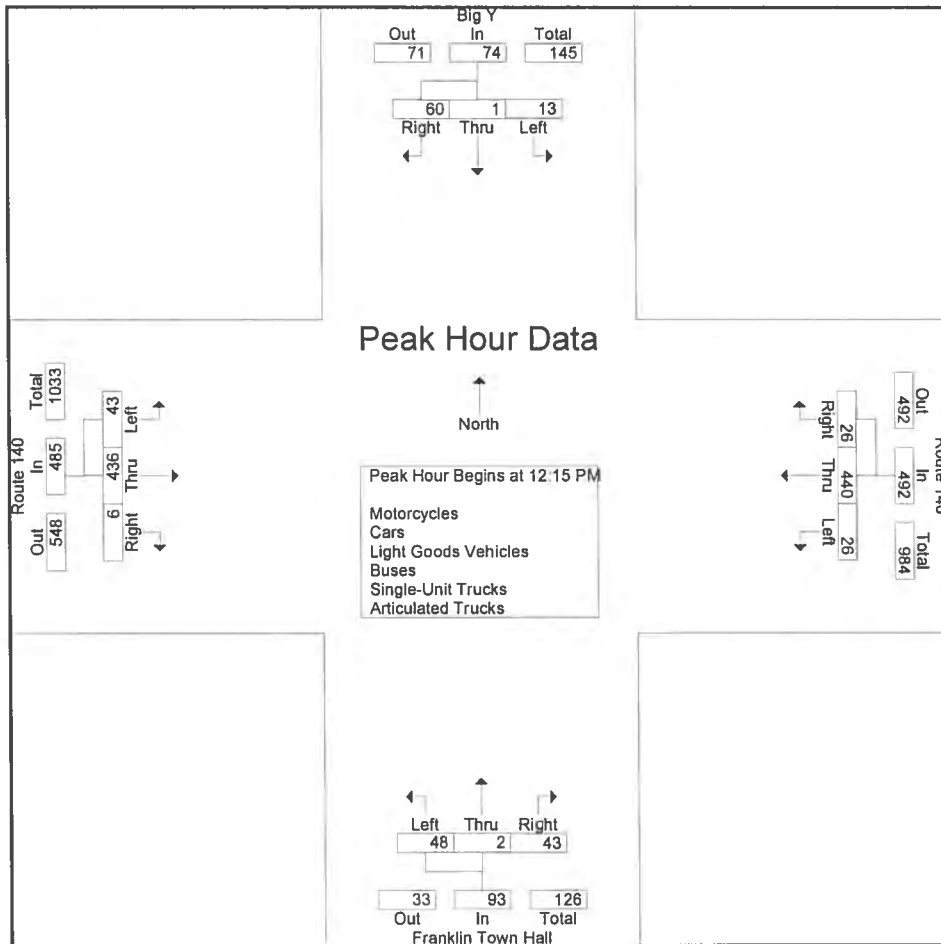
Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	4	0	0	4	1	114	1	116	3	0	2	5	0	130	10	140	265
07:45 AM	3	0	1	4	4	119	1	124	2	0	6	8	0	109	25	134	270
08:00 AM	2	0	1	3	4	80	2	86	0	0	1	1	0	108	11	119	209
08:15 AM	4	0	1	5	5	113	4	122	1	0	3	4	1	124	8	133	264
Total Volume	13	0	3	16	14	426	8	448	6	0	12	18	1	471	54	526	1008
% App. Total	81.2	0	18.8		3.1	95.1	1.8		33.3	0	66.7		0.2	89.5	10.3		
PHF	.813	.000	.750	.800	.700	.895	.500	.903	.500	.000	.500	.563	.250	.906	.540	.939	.933



Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 7
Site Code : 156480
Start Date : 4/15/2014
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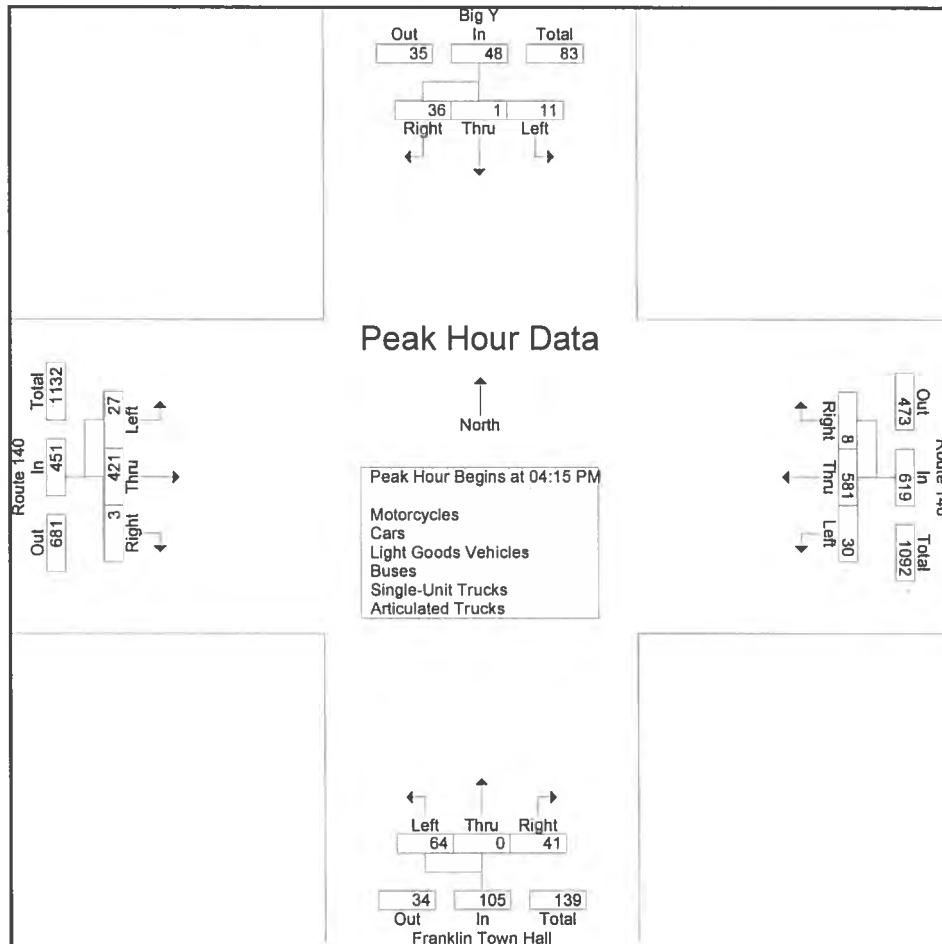
Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	11	0	3	14	11	120	7	138	11	0	17	28	0	111	5	116	296
12:30 PM	11	1	5	17	5	108	5	118	6	0	12	18	2	113	12	127	280
12:45 PM	9	0	1	10	4	102	7	113	15	2	9	26	2	111	9	122	271
01:00 PM	29	0	4	33	6	110	7	123	11	0	10	21	2	101	17	120	297
Total Volume	60	1	13	74	26	440	26	492	43	2	48	93	6	436	43	485	1144
% App. Total	81.1	1.4	17.6		5.3	89.4	5.3		46.2	2.2	51.6		1.2	89.9	8.9		
PHF	.517	.250	.650	.561	.591	.917	.929	.891	.717	.250	.706	.830	.750	.965	.632	.955	.963



Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 7
Site Code : 156480
Start Date : 4/15/2014
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Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	7	1	1	9	7	144	7	158	11	0	17	28	0	93	8	101	296
04:30 PM	12	0	6	18	0	130	7	137	9	0	12	21	0	121	6	127	303
04:45 PM	7	0	1	8	0	147	4	151	15	0	19	34	1	111	10	122	315
05:00 PM	10	0	3	13	1	160	12	173	6	0	16	22	2	96	3	101	309
Total Volume	36	1	11	48	8	581	30	619	41	0	64	105	3	421	27	451	1223
% App. Total	75	2.1	22.9		1.3	93.9	4.8		39	0	61		0.7	93.3	6		
PHF	.750	.250	.458	.667	.286	.908	.625	.895	.683	.000	.842	.772	.375	.870	.675	.888	.971



Massachusetts Department of Transportation

Highway Division

Franklin
 Rt 140(E Central)&Big Y/Town Hall drives
 Counted by Miovision
 S14-010 TMC # 7

File Name : S14-010 Franklin 7
 Site Code : 156480
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	0	0	0	0	112	2	114	2	0	2	4	0	103	1	104	222
07:15 AM	2	0	0	2	5	97	1	103	2	0	3	5	0	80	8	88	198
07:30 AM	4	0	0	4	1	109	1	111	3	0	2	5	0	125	10	135	255
07:45 AM	3	0	1	4	4	111	1	116	2	0	5	7	0	101	25	126	253
Total	9	0	1	10	10	429	5	444	9	0	12	21	0	409	44	453	928
08:00 AM	2	0	1	3	4	76	2	82	0	0	1	1	0	102	11	113	199
08:15 AM	4	0	1	5	5	108	4	117	1	0	3	4	1	116	8	125	251
08:30 AM	7	0	1	8	3	93	4	100	1	0	5	6	1	117	6	124	238
08:45 AM	4	0	3	7	1	93	4	98	5	0	4	9	1	104	14	119	233
Total	17	0	6	23	13	370	14	397	7	0	13	20	3	439	39	481	921
09:00 AM	6	0	3	9	1	85	3	89	6	0	6	12	0	110	10	120	230
09:15 AM	6	0	2	8	3	81	3	87	5	0	8	13	0	81	12	93	201
09:30 AM	16	1	5	22	4	85	2	91	4	1	6	11	1	83	7	91	215
09:45 AM	7	0	2	9	4	89	1	94	0	0	5	5	0	63	13	76	184
Total	35	1	12	48	12	340	9	361	15	1	25	41	1	337	42	380	830
10:00 AM	7	0	3	10	4	84	3	91	3	0	6	9	0	91	10	101	211
10:15 AM	13	1	0	14	3	99	4	106	4	0	5	9	1	100	7	108	237
10:30 AM	8	0	2	10	7	89	1	97	5	0	9	14	0	94	16	110	231
10:45 AM	13	1	2	16	2	102	7	111	4	0	11	15	0	82	18	100	242
Total	41	2	7	50	16	374	15	405	16	0	31	47	1	367	51	419	921
11:00 AM	8	2	2	12	5	96	5	106	9	1	8	18	2	80	8	90	226
11:15 AM	7	1	3	11	0	98	8	106	7	0	11	18	0	84	7	91	226
11:30 AM	14	1	1	16	5	101	4	110	6	0	14	20	0	94	12	106	252
11:45 AM	9	0	2	11	3	99	10	112	10	0	15	25	3	88	6	97	245
Total	38	4	8	50	13	394	27	434	32	1	48	81	5	346	33	384	949
12:00 PM	11	1	0	12	6	117	6	129	8	0	18	26	0	72	11	83	250
12:15 PM	11	0	3	14	11	115	7	133	11	0	17	28	0	105	5	110	285
12:30 PM	10	1	5	16	5	106	5	116	6	0	11	17	2	107	12	121	270
12:45 PM	9	0	1	10	4	98	7	109	15	2	9	26	2	109	9	120	265
Total	41	2	9	52	26	436	25	487	40	2	55	97	4	393	37	434	1070
01:00 PM	29	0	4	33	6	107	7	120	11	0	10	21	2	99	17	118	292
01:15 PM	16	0	5	21	6	109	6	121	4	0	13	17	0	102	14	116	275
01:30 PM	16	1	1	18	2	98	5	105	7	0	12	19	0	83	17	100	242
01:45 PM	12	1	6	19	4	85	9	98	9	0	15	24	2	105	21	128	269
Total	73	2	16	91	18	399	27	444	31	0	50	81	4	389	69	462	1078
02:00 PM	10	1	5	16	4	105	6	115	5	1	12	18	1	80	12	93	242
02:15 PM	10	2	1	13	3	123	6	132	7	1	10	18	2	102	13	117	280
02:30 PM	6	1	5	12	4	119	6	129	8	1	19	28	1	114	11	126	295
02:45 PM	16	1	5	22	3	109	8	120	6	0	15	21	2	120	11	133	296
Total	42	5	16	63	14	456	26	496	26	3	56	85	6	416	47	469	1113
03:00 PM	10	0	5	15	2	108	12	122	8	1	12	21	3	101	9	113	271
03:15 PM	7	0	1	8	4	117	7	128	8	0	20	28	1	100	8	109	273
03:30 PM	11	0	0	11	2	139	10	151	8	0	13	21	0	121	5	126	309
03:45 PM	12	0	3	15	2	143	5	150	5	0	14	19	2	85	13	100	284
Total	40	0	9	49	10	507	34	551	29	1	59	89	6	407	35	448	1137
04:00 PM	33	0	11	44	1	132	6	139	12	0	9	21	4	83	6	93	297
04:15 PM	7	1	1	9	7	143	7	157	11	0	17	28	0	89	8	97	291
04:30 PM	12	0	6	18	0	129	7	136	9	0	11	20	0	117	6	123	297
04:45 PM	7	0	1	8	0	145	4	149	15	0	18	33	1	106	9	116	306
Total	59	1	19	79	8	549	24	581	47	0	55	102	5	395	29	429	1191

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 7
Site Code : 156480
Start Date : 4/15/2014
Page No : 2

Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	9	0	3	12	1	155	12	168	6	0	16	22	2	94	3	99	301
05:15 PM	4	1	2	7	4	115	6	125	6	0	17	23	2	107	8	117	272
05:30 PM	10	0	0	10	1	121	8	130	9	0	19	28	1	103	6	110	278
05:45 PM	7	0	3	10	1	118	7	126	10	1	15	26	0	97	6	103	265
Total	30	1	8	39	7	509	33	549	31	1	67	99	5	401	23	429	1116
Grand Total	425	18	111	554	147	4763	239	5149	283	9	471	763	40	4299	449	4788	11254
Apprch %	76.7	3.2	20		2.9	92.5	4.6		37.1	1.2	61.7		0.8	89.8	9.4		
Total %	3.8	0.2	1	4.9	1.3	42.3	2.1	45.8	2.5	0.1	4.2	6.8	0.4	38.2	4	42.5	
Motorcycles	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars	369	15	102	486	128	4199	221	4548	262	9	431	702	37	3691	392	4120	9856
% Cars	86.8	83.3	91.9	87.7	87.1	88.2	92.5	88.3	92.6	100	91.5	92	92.5	85.9	87.3	86	87.6
Light Goods Vehicles	56	3	9	68	19	562	18	599	21	0	40	61	3	607	57	667	1395
% Light Goods Vehicles	13.2	16.7	8.1	12.3	12.9	11.8	7.5	11.6	7.4	0	8.5	8	7.5	14.1	12.7	13.9	12.4

Massachusetts Department of Transportation

Highway Division

Franklin
 Rt 140(E Central)&Big Y/Town Hall drives
 Counted by Miovision
 S14-010 TMC # 7

File Name : S14-010 Franklin 7
 Site Code : 156480
 Start Date : 4/15/2014
 Page No : 1

Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
07:15 AM	0	0	0	0	0	4	0	4	1	0	3	4	0	7	0	7	15
07:30 AM	0	0	0	0	0	5	0	5	0	0	0	0	0	5	0	5	10
07:45 AM	0	0	0	0	0	8	0	8	0	0	1	1	0	8	0	8	17
Total	0	0	0	0	0	19	0	19	1	0	4	5	0	21	0	21	45
08:00 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	6	0	6	10
08:15 AM	0	0	0	0	0	5	0	5	0	0	0	0	0	8	0	8	13
08:30 AM	0	0	0	0	0	4	0	4	0	0	1	1	0	3	1	4	9
08:45 AM	0	0	2	2	0	6	0	6	0	0	2	2	0	4	0	4	14
Total	0	0	2	2	0	19	0	19	0	0	3	3	0	21	1	22	46
09:00 AM	0	0	0	0	0	4	1	5	0	0	1	1	0	10	0	10	16
09:15 AM	1	0	0	1	0	3	0	3	0	0	2	2	0	7	1	8	14
09:30 AM	0	0	0	0	0	7	0	7	0	0	1	1	0	3	0	3	11
09:45 AM	0	0	0	0	0	8	0	8	0	0	2	2	0	8	1	9	19
Total	1	0	0	1	0	22	1	23	0	0	6	6	0	28	2	30	60
10:00 AM	1	0	0	1	0	5	0	5	0	0	1	1	0	10	0	10	17
10:15 AM	1	0	0	1	0	6	0	6	0	0	1	1	0	5	2	7	15
10:30 AM	1	0	0	1	0	8	0	8	0	0	3	3	0	4	0	4	16
10:45 AM	0	0	0	0	0	10	0	10	0	0	0	0	0	6	0	6	16
Total	3	0	0	3	0	29	0	29	0	0	5	5	0	25	2	27	64
11:00 AM	0	0	0	0	0	7	0	7	0	0	0	0	0	4	0	4	11
11:15 AM	0	0	0	0	1	5	0	6	0	0	0	0	0	5	0	5	11
11:30 AM	1	0	0	1	0	9	0	9	0	0	2	2	0	4	0	4	16
11:45 AM	0	0	0	0	0	7	0	7	0	0	1	1	0	2	0	2	10
Total	1	0	0	1	1	28	0	29	0	0	3	3	0	15	0	15	48
12:00 PM	0	0	0	0	0	2	0	2	0	0	2	2	0	1	0	1	5
12:15 PM	0	0	0	0	0	5	0	5	0	0	0	0	0	6	0	6	11
12:30 PM	1	0	0	1	0	2	0	2	0	0	1	1	0	6	0	6	10
12:45 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	2	0	2	6
Total	1	0	0	1	0	13	0	13	0	0	3	3	0	15	0	15	32
01:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
01:15 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
01:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	2	0	2	4
01:45 PM	0	0	0	0	0	6	1	7	0	0	1	1	0	5	0	5	13
Total	0	0	0	0	0	13	1	14	0	0	2	2	0	11	0	11	27
02:00 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	3	0	3	6
02:15 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	6	0	6	10
02:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	2	0	2	4
02:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
Total	0	0	0	0	1	9	0	10	0	0	1	1	0	13	0	13	24
03:00 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	4	1	5	7
03:15 PM	0	0	0	0	0	8	0	8	0	0	1	1	0	1	0	1	10
03:30 PM	0	0	1	1	0	0	0	0	0	0	1	1	0	5	1	6	8
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	0	1	2	0	9	0	9	0	0	2	2	0	11	2	13	26
04:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
04:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	4	0	4	6
04:45 PM	0	0	0	0	0	2	0	2	0	0	1	1	0	5	1	6	9
Total	0	0	0	0	0	6	0	6	0	0	2	2	0	16	1	17	25

*Massachusetts Department of Transportation
Highway Division*

File Name : S14-010 Franklin 7
Site Code : 156480
Start Date : 4/15/2014
Page No : 2

Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
05:00 PM	1	0	0	1	0	5	0	5	0	0	0	0	0	2	0	2	8
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total	1	0	0	1	0	7	0	7	0	0	0	0	0	5	0	5	13
Grand Total	8	0	3	11	2	174	2	178	1	0	31	32	0	181	8	189	410
Apprch %	72.7	0	27.3		1.1	97.8	1.1		3.1	0	96.9		0	95.8	4.2		
Total %	2	0	0.7	2.7	0.5	42.4	0.5	43.4	0.2	0	7.6	7.8	0	44.1	2	46.1	
Buses	0	0	0	0	0	22	1	23	0	0	9	9	0	34	0	34	66
% Buses	0	0	0	0	0	12.6	50	12.9	0	0	29	28.1	0	18.8	0	18	16.1
Single-Unit Trucks	8	0	3	11	2	131	1	134	1	0	17	18	0	126	8	134	297
% Single-Unit Trucks	100	0	100	100	100	75.3	50	75.3	100	0	54.8	56.2	0	69.6	100	70.9	72.4
Articulated Trucks	0	0	0	0	0	21	0	21	0	0	5	5	0	21	0	21	47
% Articulated Trucks	0	0	0	0	0	12.1	0	11.8	0	0	16.1	15.6	0	11.6	0	11.1	11.5

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140(E Central)&Big Y/Town Hall drives
Counted by Miovision
S14-010 TMC # 7

File Name : S14-010 Franklin 7
Site Code : 156480
Start Date : 4/15/2014
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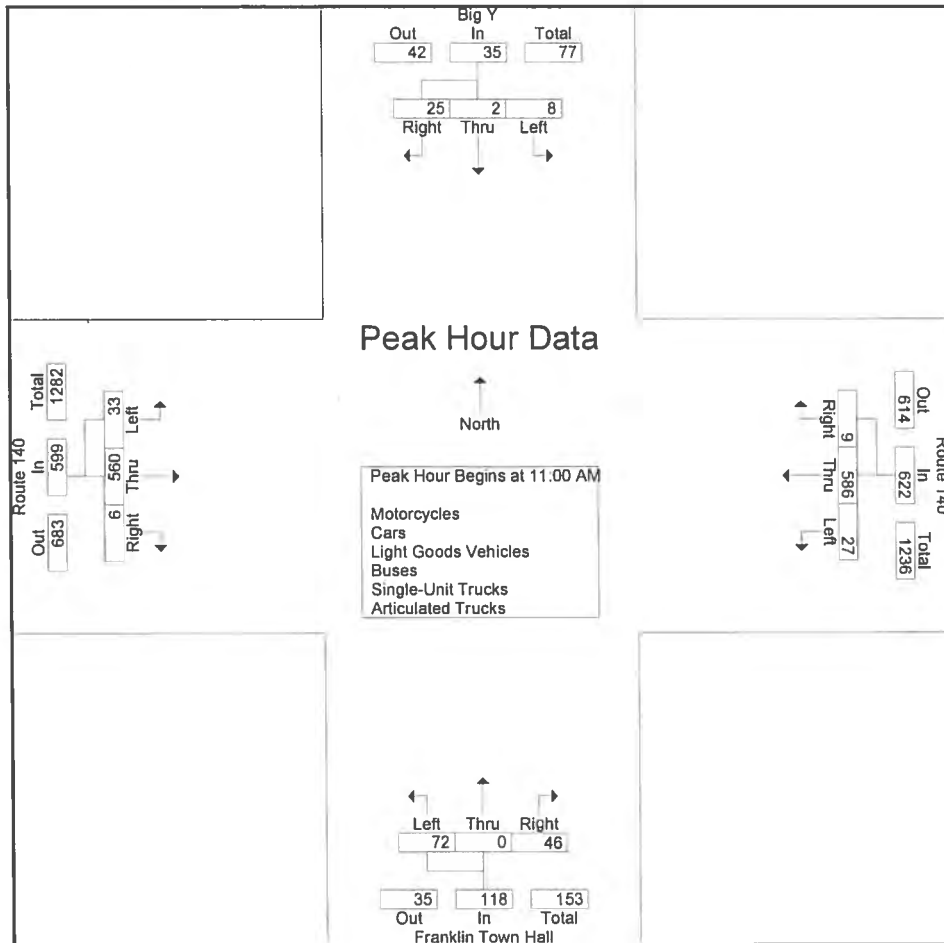
Groups Printed- Pedestrians

Start Time	Big Y From North		Route 140 From East		Franklin Town Hall From South		Route 140 From West		Int. Total
	Peds	App. Total	Peds	App. Total	Peds	App. Total	Peds	App. Total	
07:45 AM	1	1	0	0	1	1	1	1	3
Total	1	1	0	0	1	1	1	1	3
08:00 AM	1	1	0	0	0	0	0	0	1
08:30 AM	1	1	0	0	0	0	0	0	1
Total	2	2	0	0	0	0	0	0	2
09:00 AM	3	3	0	0	0	0	0	0	3
09:15 AM	1	1	0	0	0	0	0	0	1
Total	4	4	0	0	0	0	0	0	4
10:00 AM	1	1	0	0	0	0	0	0	1
10:45 AM	2	2	0	0	0	0	1	1	3
Total	3	3	0	0	0	0	1	1	4
11:00 AM	1	1	0	0	0	0	0	0	1
11:15 AM	1	1	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	4	4	0	0	4
Total	2	2	0	0	4	4	0	0	6
01:45 PM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	1
02:00 PM	2	2	0	0	0	0	0	0	2
Total	2	2	0	0	0	0	0	0	2
03:00 PM	0	0	2	2	2	2	0	0	4
Total	0	0	2	2	2	2	0	0	4
04:00 PM	2	2	0	0	0	0	0	0	2
04:45 PM	1	1	0	0	0	0	0	0	1
Total	3	3	0	0	0	0	0	0	3
05:00 PM	1	1	0	0	0	0	0	0	1
Total	1	1	0	0	0	0	0	0	1
Grand Total	19	19	2	2	7	7	2	2	30
Apprch %	100		100		100		100		
Total %	63.3	63.3	6.7	6.7	23.3	23.3	6.7	6.7	

Massachusetts Department of Transportation Highway Division

File Name : S14-010 Franklin 7 Sat
Site Code : 159356
Start Date : 4/12/2014
Page No : 2

Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	5	0	1	6	3	134	7	144	11	0	19	30	2	148	8	158	338
11:15 AM	5	1	4	10	1	151	6	158	21	0	18	39	2	133	10	145	352
11:30 AM	7	0	1	8	2	132	6	140	8	0	14	22	1	140	6	147	317
11:45 AM	8	1	2	11	3	169	8	180	6	0	21	27	1	139	9	149	367
Total Volume	25	2	8	35	9	586	27	622	46	0	72	118	6	560	33	599	1374
% App. Total	71.4	5.7	22.9		1.4	94.2	4.3		39	0	61		1	93.5	5.5		
PHF	.781	.500	.500	.795	.750	.867	.844	.864	.548	.000	.857	.756	.750	.946	.825	.948	.936



*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140(E Central)&Big Y/Town Hall drives
Counted by Miovision
S14-010 TMC # 7 Sat

File Name : S14-010 Franklin 7 Sat
Site Code : 159356
Start Date : 4/12/2014
Page No : 1

Groups Printed- Motorcycles - Cars - Light Goods Vehicles

Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	5	0	1	6	3	132	7	142	11	0	18	29	2	144	8	154	331
11:15 AM	5	1	4	10	1	150	6	157	21	0	18	39	2	132	10	144	350
11:30 AM	7	0	1	8	2	129	6	137	8	0	14	22	1	140	6	147	314
11:45 AM	8	1	2	11	3	168	8	179	6	0	21	27	1	138	9	148	365
Total	25	2	8	35	9	579	27	615	46	0	71	117	6	554	33	593	1360
12:00 PM	5	1	0	6	2	129	10	141	14	1	13	28	3	137	11	151	326
12:15 PM	12	2	4	18	3	130	9	142	12	0	16	28	1	135	13	149	337
12:30 PM	6	0	3	9	3	130	8	141	10	0	22	32	2	115	10	127	309
12:45 PM	3	0	4	7	6	121	10	137	10	0	18	28	0	111	16	127	299
Total	26	3	11	40	14	510	37	561	46	1	69	116	6	498	50	554	1271
01:00 PM	8	0	4	12	4	125	6	135	13	0	17	30	0	107	14	121	298
01:15 PM	6	1	2	9	8	136	4	148	8	1	10	19	2	128	8	138	314
01:30 PM	13	1	3	17	1	117	6	124	5	1	19	25	4	116	17	137	303
01:45 PM	12	1	6	19	2	116	6	124	8	0	22	30	2	110	6	118	291
Total	39	3	15	57	15	494	22	531	34	2	68	104	8	461	45	514	1206
Grand Total	90	8	34	132	38	1583	86	1707	126	3	208	337	20	1513	128	1661	3837
Apprch %	68.2	6.1	25.8		2.2	92.7	5		37.4	0.9	61.7		1.2	91.1	7.7		
Total %	2.3	0.2	0.9	3.4	1	41.3	2.2	44.5	3.3	0.1	5.4	8.8	0.5	39.4	3.3	43.3	
Motorcycles	2	0	1	3	1	21	0	22	0	0	1	1	0	20	2	22	48
% Motorcycles	2.2	0	2.9	2.3	2.6	1.3	0	1.3	0	0	0.5	0.3	0	1.3	1.6	1.3	1.3
Cars	79	7	29	115	32	1401	76	1509	123	3	193	319	20	1343	115	1478	3421
% Cars	87.8	87.5	85.3	87.1	84.2	88.5	88.4	88.4	97.6	100	92.8	94.7	100	88.8	89.8	89	89.2
Light Goods Vehicles	9	1	4	14	5	161	10	176	3	0	14	17	0	150	11	161	368
% Light Goods Vehicles	10	12.5	11.8	10.6	13.2	10.2	11.6	10.3	2.4	0	6.7	5	0	9.9	8.6	9.7	9.6

Massachusetts Department of Transportation

Highway Division

Franklin
 Rt 140(E Central)&Big Y/Town Hall drives
 Counted by Miovision
 S14-010 TMC # 7 Sat

File Name : S14-010 Franklin 7 Sat
 Site Code : 159356
 Start Date : 4/12/2014
 Page No : 1

Groups Printed- Buses - Unit Trucks - Articulated Trucks

Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
11:00 AM	0	0	0	0	0	2	0	2	0	0	1	1	0	4	0	4	7
11:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
11:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
11:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	0	0	0	7	0	7	0	0	1	1	0	6	0	6	14
12:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2	3
12:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	1	4	5
12:30 PM	2	0	0	2	0	1	0	1	0	0	0	0	0	4	0	4	7
12:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	2	0	0	2	0	4	0	4	0	0	0	0	0	9	2	11	17
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	5
01:30 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
01:45 PM	0	0	0	0	0	1	0	1	0	1	0	1	0	2	0	2	4
Total	0	0	0	0	0	4	0	4	0	1	0	1	0	10	0	10	15
Grand Total	2	0	0	2	0	15	0	15	0	1	1	2	0	25	2	27	46
Apprch %	100	0	0		0	100	0		0	50	50		0	92.6	7.4		
Total %	4.3	0	0	4.3	0	32.6	0	32.6	0	2.2	2.2	4.3	0	54.3	4.3	58.7	
Buses	2	0	0	2	0	2	0	2	0	1	1	2	0	2	2	4	10
% Buses	100	0	0	100	0	13.3	0	13.3	0	100	100	100	0	8	100	14.8	21.7
Single-Unit Trucks	0	0	0	0	0	13	0	13	0	0	0	0	0	23	0	23	36
% Single-Unit Trucks	0	0	0	0	0	86.7	0	86.7	0	0	0	0	0	92	0	85.2	78.3
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*Massachusetts Department of Transportation
Highway Division*

Franklin
Rt 140(E Central)&Big Y/Town Hall drives
Counted by Miovision
S14-010 TMC # 7 Sat

File Name : S14-010 Franklin 7 Sat
Site Code : 159356
Start Date : 4/12/2014
Page No : 1

Groups Printed- Bicycles on Road

Start Time	Big Y From North				Route 140 From East				Franklin Town Hall From South				Route 140 From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
01:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
01:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
Grand Total	0	0	0	0	1	1	0	2	0	0	0	0	0	3	0	3	5
Apprch %	0	0	0		50	50	0		0	0	0		0	100	0		
Total %	0	0	0		20	20	0	40	0	0	0		0	60	0	60	

Automatic Traffic Recorder Counts

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE
 Starting: 4/7/2014

STA. 1
 TOTAL

Site Reference: 140100000611
 Site ID: 000000000101
 Location: RTE. 140, EAST OF RTE. I-495
 Direction: ROAD TOTAL

File: 10102.prn
 City: FRANKLIN
 County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	86	108	105	121		105			105	420
02:00	47	57	61	54		54			54	219
03:00	41	39	59	54		48			48	193
04:00	69	58	59	83		67			67	269
05:00	142	150	162	160		153			153	614
06:00	438	419	417	452		431			431	1726
07:00	1199	1228	1243	1250		1230			1230	4920
08:00	2308	2309	2374	2409		2350			2350	9400
09:00	1911	1970	2036	2007		1981			1981	7924
10:00	1587	1611	1600	1688		1621			1621	6486
11:00	1692	1513	1590	1479		1568			1568	6274
12:00	1865	1731	1800			1798			1798	5396
13:00	2140	2035	2211			2128			2128	6386
14:00	1892	1932	1966			1930			1930	5790
15:00	1862	2088	2077			2009			2009	6027
16:00	2221	2263	2223			2235			2235	6707
17:00	2341	2498	2553			2464			2464	7392
18:00	2662	2821	2870			2784			2784	8353
19:00	2101	2245	2311			2219			2219	6657
20:00	1492	1581	1645			1572			1572	4718
21:00	1021	1376	1288			1228			1228	3685
22:00	591	721	776			696			696	2088
23:00	313	360	454			375			375	1127
24:00	189	208	225			207			207	622
TOTALS	30210	31321	32105	9757	0	31253	0	0	31253	103393
% AVG WKDY	96.6	100.2	102.7	31.2						
% AVG WEEK	96.6	100.2	102.7	31.2						
AM Times	08:00	08:00	08:00	08:00		08:00			08:00	
AM Peaks	2308	2309	2374	2409		2350			2350	
PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	2662	2821	2870			2784			2784	
D%	55	60	55	55						
K%	9	9	9	25						

U3

COMB AWD 31253
 FAL .92 (.98)
 COMB ADT 28,200

Massachusetts Highway Department
WEEKLY SUMMARY FOR LANE 1
Starting: 4/7/2014

Page: 4

STA. 1NB

Site Reference: 140100000611
Site ID: 000000000101
Location: RTE. 140, EAST OF RTE. I-495
Direction: NORTH

File: 10102.prn
City: FRANKLIN
County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	47	53	48	68		54			54	216
02:00	24	31	31	23		27			27	109
03:00	26	22	36	33		29			29	117
04:00	36	28	33	44		35			35	141
05:00	93	91	90	85		89			89	359
06:00	250	242	237	275		251			251	1004
07:00	669	671	668	674		670			670	2682
08:00	1231	1252	1277	1289		1262			1262	5049
09:00	1031	1063	1091	1055		1060			1060	4240
10:00	835	805	826	871		834			834	3337
11:00	895	782	808	771		814			814	3256
12:00	883	838	852			857			857	2573
13:00	1096	991	1095			1060			1060	3182
14:00	969	989	984			980			980	2942
15:00	941	1096	1099			1045			1045	3136
16:00	1126	1139	1131			1132			1132	3396
17:00	1081	1186	1292			1186			1186	3559
18:00	1185	1187	1299			1223			1223	3671
19:00	912	996	1044			984			984	2952
20:00	720	793	768			760			760	2281
21:00	477	717	634			609			609	1828
22:00	284	333	376			331			331	993
23:00	144	177	221			180			180	542
24:00	95	104	106			101			101	305
TOTALS	15050	15586	16046	5188	0	15573	0	0	15573	51870
% AVG WKDY	96.6	100	103	33.3						
% AVG WEEK	96.6	100	103	33.3						
AM Times	08:00	08:00	08:00	08:00		08:00			08:00	
AM Peaks	1231	1252	1277	1289		1262			1262	
PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	1185	1187	1299			1223			1223	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 2
 Starting: 4/7/2014

STA. 15B

Site Reference: 140100000611
 Site ID: 000000000101
 Location: RTE. 140, EAST OF RTE. I-495
 Direction: SOUTH

File: 10102.prn
 City: FRANKLIN
 County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	39	55	57	53		51			51	204
02:00	23	26	30	31		27			27	110
03:00	15	17	23	21		19			19	76
04:00	33	30	26	39		32			32	128
05:00	49	59	72	75		63			63	255
06:00	188	177	180	177		180			180	722
07:00	530	557	575	576		559			559	2238
08:00	1077	1057	1097	1120		1087			1087	4351
09:00	880	907	945	952		921			921	3684
10:00	752	806	774	817		787			787	3149
11:00	797	731	782	708		754			754	3018
12:00	982	893	948			941			941	2823
13:00	1044	1044	1116			1068			1068	3204
14:00	923	943	982			949			949	2848
15:00	921	992	978			963			963	2891
16:00	1095	1124	1092			1103			1103	3311
17:00	1260	1312	1261			1277			1277	3833
18:00	1477	1634	1571			1560			1560	4682
19:00	1189	1249	1267			1235			1235	3705
20:00	772	788	877			812			812	2437
21:00	544	659	654			619			619	1857
22:00	307	388	400			365			365	1095
23:00	169	183	233			195			195	585
24:00	94	104	119			105			105	317
TOTALS	15160	15735	16059	4569	0	15672	0	0	15672	51523
% AVG WKDY	96.7	100.4	102.4	29.1						
% AVG WEEK	96.7	100.4	102.4	29.1						
AM Times	08:00	08:00	08:00	08:00		08:00			08:00	
AM Peaks	1077	1057	1097	1120		1087			1087	
PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	1477	1634	1571			1560			1560	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE
 Starting: 4/7/2014

Site Reference: 140100000573
 Site ID: 000000000201
 Location: RTE. 140, EAST OF PANTHER WAY
 Direction: ROAD TOTAL

STA. 2
 TOTAL

File: 20102.prn
 City: FRANKLIN
 County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		55	51	73		59			59	179
02:00		29	34	30		31			31	93
03:00		27	33	31		30			30	91
04:00		62	77	82		73			73	221
05:00		186	192	190		189			189	568
06:00		586	609	632		609			609	1827
07:00		1179	1169	1220		1189			1189	3568
08:00		1551	1581	1574		1568			1568	4706
09:00		1389	1363	1434		1395			1395	4186
10:00		1253	1277	1307		1279			1279	3837
11:00	1358	1316	1390	1318		1345			1345	5382
12:00	1584	1483	1520			1529			1529	4587
13:00	1593	1522	1615			1576			1576	4730
14:00	1562	1599	1657			1606			1606	4818
15:00	1734	1753	1820			1769			1769	5307
16:00	1830	1912	1885			1875			1875	5627
17:00	1816	1973	2054			1947			1947	5843
18:00	1711	1796	1873			1793			1793	5380
19:00	1387	1389	1531			1435			1435	4307
20:00	995	1103	1215			1104			1104	3313
21:00	564	730	760			684			684	2054
22:00	316	394	448			386			386	1158
23:00	176	194	206			192			192	576
24:00	91	121	130			114			114	342
TOTALS	16717	23602	24490	7891	0	23777	0	0	23777	72700
% AVG WKDY	70.3	99.2	102.9	33.1						
% AVG WEEK	70.3	99.2	102.9	33.1						
AM Times	12:00	08:00	08:00	08:00		08:00			08:00	
AM Peaks	1584	1551	1581	1574		1568			1568	
PM Times	16:00	17:00	17:00			17:00			17:00	
PM Peaks	1830	1973	2054			1947			1947	
D%	50	55	50	60						
K%	11	8	8	20						

u3

COMB AWD 23777
 FAC .92(.98)
 COMB ADT 21,400

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 1
 Starting: 4/7/2014

Page: 1

STA 2 NB

Site Reference: 140100000573
 Site ID: 000000000201
 Location: RTE. 140, EAST OF PANTHER WAY
 Direction: NORTH

File: 20102.prn
 City: FRANKLIN
 County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		39	33	50		40			40	122
02:00		21	22	17		20			20	60
03:00		11	20	17		16			16	48
04:00		17	18	23		19			19	58
05:00		46	54	45		48			48	145
06:00		149	145	180		158			158	474
07:00		417	450	437		434			434	1304
08:00		906	927	930		921			921	2763
09:00		792	804	823		806			806	2419
10:00		672	648	703		674			674	2023
11:00	666	646	655	658		656			656	2625
12:00	754	719	720			731			731	2193
13:00	838	770	832			813			813	2440
14:00	758	750	780			762			762	2288
15:00	865	908	946			906			906	2719
16:00	909	910	957			925			925	2776
17:00	890	931	1016			945			945	2837
18:00	869	917	998			928			928	2784
19:00	778	770	821			789			789	2369
20:00	546	548	651			581			581	1745
21:00	296	442	449			395			395	1187
22:00	184	238	266			229			229	688
23:00	106	117	120			114			114	343
24:00	55	78	81			71			71	214
TOTALS	8514	11814	12413	3883	0	11981	0	0	11981	36624
% AVG WKDY	71	98.6	103.6	32.4						
% AVG WEEK	71	98.6	103.6	32.4						
AM Times	12:00	08:00	08:00	08:00		08:00			08:00	
AM Peaks	754	906	927	930		921			921	
PM Times	16:00	17:00	17:00			17:00			17:00	
PM Peaks	909	931	1016			945			945	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 2
 Starting: 4/7/2014

STA-2 S13

Site Reference: 140100000573
 Site ID: 000000000201
 Location: RTE. 140, EAST OF PANTHER WAY
 Direction:

File: 20102.prn
 City: FRANKLIN
 County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		16	18	23		19			19	57
02:00		8	12	13		11			11	33
03:00		16	13	14		14			14	43
04:00		45	59	59		54			54	163
05:00		140	138	145		141			141	423
06:00		437	464	452		451			451	1353
07:00		762	719	783		754			754	2264
08:00		645	654	644		647			647	1943
09:00		597	559	611		589			589	1767
10:00		581	629	604		604			604	1814
11:00	692	670	735	660		689			689	2757
12:00	830	764	800			798			798	2394
13:00	755	752	783			763			763	2290
14:00	804	849	877			843			843	2530
15:00	869	845	874			862			862	2588
16:00	921	1002	928			950			950	2851
17:00	926	1042	1038			1002			1002	3006
18:00	842	879	875			865			865	2596
19:00	609	619	710			646			646	1938
20:00	449	555	564			522			522	1568
21:00	268	288	311			289			289	867
22:00	132	156	182			156			156	470
23:00	70	77	86			77			77	233
24:00	36	43	49			42			42	128
TOTALS	8203	11788	12077	4008	0	11788	0	0	11788	36076
% AVG WKDY	69.5	100	102.4	34						
% AVG WEEK	69.5	100	102.4	34						
AM Times	12:00	12:00	12:00	07:00		12:00			12:00	
AM Peaks	830	764	800	783		798			798	
PM Times	17:00	17:00	17:00			17:00			17:00	
PM Peaks	926	1042	1038			1002			1002	

Massachusetts Highway Department
WEEKLY SUMMARY FOR LANE
Starting: 4/7/2014

STA. 3
TOTAL

Site Reference: 140100000740
Site ID: 000000000301
Location: RTE. 140, WEST OF PANTHER WAY.
Direction: ROAD TOTAL

File: 30102.prn
City: FRANKLIN
County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	76	69	76	87		77			77	308
02:00	33	35	36	37		35			35	141
03:00	25	19	30	27		25			25	101
04:00	37	30	33	38		34			34	138
05:00	80	89	105	96		92			92	370
06:00	283	263	265	304		278			278	1115
07:00	829	814	842	834		829			829	3319
08:00	1633	1657	1616	1675		1645			1645	6581
09:00	1388	1406	1490	1449		1433			1433	5733
10:00	1228	1292	1194	1299		1253			1253	5013
11:00	1287	1203	1262	1254		1251			1251	5006
12:00	1409	1337	1399			1381			1381	4145
13:00	1588	1495	1614			1565			1565	4697
14:00	1463	1425	1516			1468			1468	4404
15:00	1635	1730	1792			1719			1719	5157
16:00	1713	1683	1739			1711			1711	5135
17:00	1717	1798	1844			1786			1786	5359
18:00	1717	1953	1969			1879			1879	5639
19:00	1547	1671	1674			1630			1630	4892
20:00	1105	1192	1409			1235			1235	3706
21:00	744	956	981			893			893	2681
22:00	439	491	559			496			496	1489
23:00	226	271	296			264			264	793
24:00	139	171	156			155			155	466

TOTALS 22341 23050 23897 7100 0 23134 0 0 23134 76388

% AVG WKDY 96.5 99.6 103.2 30.6
% AVG WEEK 96.5 99.6 103.2 30.6

AM Times 08:00 08:00 08:00 08:00 08:00 08:00
AM Peaks 1633 1657 1616 1675 1645 1645

PM Times 17:00 18:00 18:00 18:00 18:00 18:00
PM Peaks 1717 1953 1969 1879 1879 1879

D% 50 55 50 55
K% 8 8 8 24

u5

COMB AWD 23134

FAC .92(.98)

COMB ADT 20,900

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 1
 Starting: 4/7/2014

STA. 3 NB

Site Reference: 140100000740
 Site ID: 000000000301
 Location: RTE. 140, WEST OF PANTHER WAY.
 Direction: NORTH

File: 30102.prn
 City: FRANKLIN
 County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	38	27	29	39		33			33	133
02:00	17	18	20	11		16			16	66
03:00	17	10	18	15		15			15	60
04:00	23	14	17	23		19			19	77
05:00	36	43	49	32		40			40	160
06:00	134	126	126	161		136			136	547
07:00	415	406	429	423		418			418	1673
08:00	914	920	920	926		920			920	3680
09:00	747	738	785	763		758			758	3033
10:00	635	661	614	660		642			642	2570
11:00	638	622	628	622		627			627	2510
12:00	713	675	690			692			692	2078
13:00	756	721	778			751			751	2255
14:00	729	722	755			735			735	2206
15:00	750	781	847			792			792	2378
16:00	839	863	855			852			852	2557
17:00	838	869	929			878			878	2636
18:00	828	880	949			885			885	2657
19:00	728	747	804			759			759	2279
20:00	478	539	646			554			554	1663
21:00	274	408	418			366			366	1100
22:00	173	221	251			215			215	645
23:00	94	105	106			101			101	305
24:00	57	71	66			64			64	194
TOTALS	10871	11187	11729	3675	0	11268	0	0	11268	37462
% AVG WKDY	96.4	99.2	104	32.6						
% AVG WEEK	96.4	99.2	104	32.6						
AM Times	08:00	08:00	08:00	08:00		08:00			08:00	
AM Peaks	914	920	920	926		920			920	
PM Times	16:00	18:00	18:00			18:00			18:00	
PM Peaks	839	880	949			885			885	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE
 Starting: 4/7/2014

STA. 6
 TOTAL

Site Reference: 140100000610
 Site ID: 000000060102
 Location: BEAVER ST., E. OF RUGGLES ST.
 Direction: ROAD TOTAL

File: 60102.prn
 City: FRANKLIN
 County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	35	39	42	70		46			46	186
02:00	18	21	10	29		19			19	78
03:00	5	6	12	11		8			8	34
04:00	14	16	19	13		15			15	62
05:00	38	42	39	45		41			41	164
06:00	105	138	113	146		125			125	502
07:00	411	404	445	416		419			419	1676
08:00	760	785	777	810		783			783	3132
09:00	766	795	869	826		814			814	3256
10:00	775	781	783	770		777			777	3109
11:00	852	770	854	816		823			823	3292
12:00	930	909	968			935			935	2807
13:00	1018	940	1025			994			994	2983
14:00	883	965	995			947			947	2843
15:00	1009	984	1017			1003			1003	3010
16:00	1015	1065	1118			1066			1066	3198
17:00	1039	1082	1095			1072			1072	3216
18:00	1031	1078	1164			1091			1091	3273
19:00	903	952	978			944			944	2833
20:00	684	735	792			737			737	2211
21:00	483	590	607			560			560	1680
22:00	284	328	374			328			328	986
23:00	140	171	174			161			161	485
24:00	85	83	109			92			92	277

TOTALS 13283 13679 14379 3952 0 13800 0 0 13800 45293

% AVG WKDY 96.2 99.1 104.1 28.6
 % AVG WEEK 96.2 99.1 104.1 28.6

AM Times 12:00 12:00 12:00 09:00 12:00 12:00
 AM Peaks 930 909 968 826 935 935

PM Times 17:00 17:00 18:00 18:00 18:00 18:00
 PM Peaks 1039 1082 1164 1091 1091

D% 50 50 50 50
 K% 8 8 8 21

u3

Comb AWD 13800
 FAC .92(.98)
 Comb ADT 12,400

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 1
 Starting: 4/7/2014

Page: 4

STA. 6 NB

Site Reference: 140100000610
 Site ID: 000000060102
 Location: BEAVER ST., E. OF RUGGLES ST.
 Direction: NORTH

File: 60102.prn
 City: FRANKLIN
 County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	15	16	15	36		20			20	82
02:00	12	12	4	10		9			9	38
03:00	2	1	5	5		3			3	13
04:00	4	9	8	6		6			6	27
05:00	14	17	14	14		14			14	59
06:00	35	56	42	62		48			48	195
07:00	202	202	224	204		208			208	832
08:00	387	392	377	403		389			389	1559
09:00	375	359	427	405		391			391	1566
10:00	377	394	385	368		381			381	1524
11:00	398	389	436	405		407			407	1628
12:00	456	478	449			461			461	1383
13:00	515	469	509			497			497	1493
14:00	453	468	508			476			476	1429
15:00	511	478	505			498			498	1494
16:00	481	528	550			519			519	1559
17:00	535	560	570			555			555	1665
18:00	517	533	610			553			553	1660
19:00	456	450	494			466			466	1400
20:00	329	380	372			360			360	1081
21:00	232	276	284			264			264	792
22:00	124	155	171			150			150	450
23:00	63	80	66			69			69	209
24:00	44	42	45			43			43	131
TOTALS	6537	6744	7070	1918	0	6787	0	0	6787	22269
% AVG WKDY	96.3	99.3	104.1	28.2						
% AVG WEEK	96.3	99.3	104.1	28.2						
AM Times	12:00	12:00	12:00	09:00		12:00			12:00	
AM Peaks	456	478	449	405		461			461	
PM Times	17:00	17:00	18:00			17:00			17:00	
PM Peaks	535	560	610			555			555	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 2
 Starting: 4/7/2014

STA. 65B

Site Reference: 140100000610
 Site ID: 000000060102
 Location: BEAVER ST., E. OF RUGGLES ST.
 Direction: SOUTH

File: 60102.prn
 City: FRANKLIN
 County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	20	23	27	34		26			26	104
02:00	6	9	6	19		10			10	40
03:00	3	5	7	6		5			5	21
04:00	10	7	11	7		8			8	35
05:00	24	25	25	31		26			26	105
06:00	70	82	71	84		76			76	307
07:00	209	202	221	212		211			211	844
08:00	373	393	400	407		393			393	1573
09:00	391	436	442	421		422			422	1690
10:00	398	387	398	402		396			396	1585
11:00	454	381	418	411		416			416	1664
12:00	474	431	519			474			474	1424
13:00	503	471	516			496			496	1490
14:00	430	497	487			471			471	1414
15:00	498	506	512			505			505	1516
16:00	534	537	568			546			546	1639
17:00	504	522	525			517			517	1551
18:00	514	545	554			537			537	1613
19:00	447	502	484			477			477	1433
20:00	355	355	420			376			376	1130
21:00	251	314	323			296			296	888
22:00	160	173	203			178			178	536
23:00	77	91	108			92			92	276
24:00	41	41	64			48			48	146
TOTALS	6746	6935	7309	2034	0	7002	0	0	7002	23024
% AVG WKDY	96.3	99	104.3	29						
% AVG WEEK	96.3	99	104.3	29						
AM Times	12:00	09:00	12:00	09:00		12:00			12:00	
AM Peaks	474	436	519	421		474			474	
PM Times	16:00	18:00	16:00			16:00			16:00	
PM Peaks	534	545	568			546			546	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 2
 Starting: 4/7/2014

STA. 3 SB

Site Reference: 140100000740
 Site ID: 000000000301
 Location: RTE. 140, WEST OF PANTHER WAY.
 Direction:

File: 30102.prn
 City: FRANKLIN
 County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	38	42	47	48		43			43	175
02:00	16	17	16	26		18			18	75
03:00	8	9	12	12		10			10	41
04:00	14	16	16	15		15			15	61
05:00	44	46	56	64		52			52	210
06:00	149	137	139	143		142			142	568
07:00	414	408	413	411		411			411	1646
08:00	719	737	696	749		725			725	2901
09:00	641	668	705	686		675			675	2700
10:00	593	631	580	639		610			610	2443
11:00	649	581	634	632		624			624	2496
12:00	696	662	709			689			689	2067
13:00	832	774	836			814			814	2442
14:00	734	703	761			732			732	2198
15:00	885	949	945			926			926	2779
16:00	874	820	884			859			859	2578
17:00	879	929	915			907			907	2723
18:00	889	1073	1020			994			994	2982
19:00	819	924	870			871			871	2613
20:00	627	653	763			681			681	2043
21:00	470	548	563			527			527	1581
22:00	266	270	308			281			281	844
23:00	132	166	190			162			162	488
24:00	82	100	90			90			90	272

TOTALS	11470	11863	12168	3425	0	11858	0	0	11858	38926
% AVG WKDY	96.7	100	102.6	28.8						
% AVG WEEK	96.7	100	102.6	28.8						
AM Times	08:00	08:00	12:00	08:00		08:00			08:00	
AM Peaks	719	737	709	749		725			725	
PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	889	1073	1020			994			994	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE
 Starting: 4/7/2014

STA. 4
 TOTAL

Site Reference: 140100000884
 Site ID: 000000000401
 Location: RTE. 140, EAST OF HAYWARD ST.
 Direction: ROAD TOTAL

File: 40102.prn
 City: FRANKLIN
 County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	42	38	51	58		47			47	189
02:00	22	18	14	26		20			20	80
03:00	4	14	22	16		14			14	56
04:00	24	22	26	25		24			24	97
05:00	44	45	54	50		48			48	193
06:00	141	152	129	153		143			143	575
07:00	402	384	409	404		399			399	1599
08:00	795	849	807	835		821			821	3286
09:00	748	772	828	777		781			781	3125
10:00	795	805	765	797		790			790	3162
11:00	837	790	808	794		807			807	3229
12:00	977	875	907	251		752			752	3010
13:00	981	899	997			959			959	2877
14:00	919	891	1004			938			938	2814
15:00	936	1014	1014			988			988	2964
16:00	1006	1024	1077			1035			1035	3107
17:00	988	1104	1127			1073			1073	3219
18:00	991	1124	1219			1111			1111	3334
19:00	883	1033	944			953			953	2860
20:00	643	717	819			726			726	2179
21:00	453	634	601			562			562	1688
22:00	271	296	385			317			317	952
23:00	134	170	165			156			156	469
24:00	74	94	94			87			87	262
TOTALS	13110	13764	14266	4186	0	13551	0	0	13551	45326
% AVG WKDY	96.7	101.5	105.2	30.8						
% AVG WEEK	96.7	101.5	105.2	30.8						
AM Times	12:00	12:00	12:00	08:00		08:00			08:00	
AM Peaks	977	875	907	835		821			821	
PM Times	16:00	18:00	18:00			18:00			18:00	
PM Peaks	1006	1124	1219			1111			1111	
D%	55	55	55	55						
K%	8	8	9	20						

u3

COMB AWD 13551
 FAC .92(.98)
 COMB ADT 12,200

Massachusetts Highway Department
WEEKLY SUMMARY FOR LANE 1
Starting: 4/7/2014

STA - 4 NB

Site Reference: 140100000884
Site ID: 000000000401
Location: RTE. 140, EAST OF HAYWARD ST.
Direction: NORTH

File: 40102.prn
City: FRANKLIN
County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	23	17	23	24		21			21	87
02:00	9	9	5	6		7			7	29
03:00	3	4	9	7		5			5	23
04:00	10	9	12	10		10			10	41
05:00	17	23	26	18		21			21	84
06:00	72	75	63	79		72			72	289
07:00	229	214	223	226		223			223	892
08:00	436	456	432	453		444			444	1777
09:00	378	399	431	411		404			404	1619
10:00	393	397	372	382		386			386	1544
11:00	411	390	389	368		389			389	1558
12:00	462	432	437	251		395			395	1582
13:00	473	442	483			466			466	1398
14:00	473	415	480			456			456	1368
15:00	432	443	479			451			451	1354
16:00	472	499	497			489			489	1468
17:00	459	475	565			499			499	1499
18:00	453	481	535			489			489	1469
19:00	386	427	432			415			415	1245
20:00	274	324	344			314			314	942
21:00	176	288	249			237			237	713
22:00	102	136	177			138			138	415
23:00	54	67	60			60			60	181
24:00	27	37	32			32			32	96
TOTALS	6224	6459	6755	2235	0	6423	0	0	6423	21673
% AVG WKDY	96.9	100.5	105.1	34.7						
% AVG WEEK	96.9	100.5	105.1	34.7						
AM Times	12:00	08:00	12:00	08:00		08:00			08:00	
AM Peaks	462	456	437	453		444			444	
PM Times	13:00	16:00	17:00			17:00			17:00	
PM Peaks	473	499	565			499			499	

Massachusetts Highway Department
WEEKLY SUMMARY FOR LANE 2
Starting: 4/7/2014

Page: 5

STA. 4SB

Site Reference: 140100000884
Site ID: 000000000401
Location: RTE. 140, EAST OF HAYWARD ST.
Direction: SOUTH

File: 40102.prn
City: FRANKLIN
County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	19	21	28	34		25			25	102
02:00	13	9	9	20		12			12	51
03:00	1	10	13	9		8			8	33
04:00	14	13	14	15		14			14	56
05:00	27	22	28	32		27			27	109
06:00	69	77	66	74		71			71	286
07:00	173	170	186	178		176			176	707
08:00	359	393	375	382		377			377	1509
09:00	370	373	397	366		376			376	1506
10:00	402	408	393	415		404			404	1618
11:00	426	400	419	426		417			417	1671
12:00	515	443	470	0		357			357	1428
13:00	508	457	514			493			493	1479
14:00	446	476	524			482			482	1446
15:00	504	571	535			536			536	1610
16:00	534	525	580			546			546	1639
17:00	529	629	562			573			573	1720
18:00	538	643	684			621			621	1865
19:00	497	606	512			538			538	1615
20:00	369	393	475			412			412	1237
21:00	277	346	352			325			325	975
22:00	169	160	208			179			179	537
23:00	80	103	105			96			96	288
24:00	47	57	62			55			55	166
<hr/>										
TOTALS	6886	7305	7511	1951	0	7120	0	0	7120	23653
<hr/>										
% AVG WKDY	96.7	102.5	105.4	27.4						
% AVG WEEK	96.7	102.5	105.4	27.4						
<hr/>										
AM Times	12:00	12:00	12:00	11:00		11:00			11:00	
AM Peaks	515	443	470	426		417			417	
<hr/>										
PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	538	643	684			621			621	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE
 Starting: 4/7/2014

STA. 5
 TOTAL

Site Reference: 140100000503
 Site ID: 000000000748
 Location: BEAVER ST., E. OF BUENA VISTA DRIVE
 Direction: ROAD TOTAL

File: 50304.prn
 City: FRANKLIN
 County: VOL E&W

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	27	20	20	29		24			24	96
02:00	6	9	9	9		8			8	33
03:00	8	6	14	7		8			8	35
04:00	7	4	6	2		4			4	19
05:00	30	29	28	26		28			28	113
06:00	138	126	149	160		143			143	573
07:00	482	459	499	527		491			491	1967
08:00	828	839	831	894		848			848	3392
09:00	779	767	768	766		770			770	3080
10:00	588	571	549	578		571			571	2286
11:00	498	470	512	503		495			495	1983
12:00	551	530	548			543			543	1629
13:00	589	563	569			573			573	1721
14:00	558	527	564			549			549	1649
15:00	693	726	741			720			720	2160
16:00	805	795	768			789			789	2368
17:00	813	799	810			807			807	2422
18:00	900	903	884			895			895	2687
19:00	793	782	840			805			805	2415
20:00	594	577	691			620			620	1862
21:00	376	408	452			412			412	1236
22:00	188	239	249			225			225	676
23:00	83	97	132			104			104	312
24:00	52	68	53			57			57	173

TOTALS	10386	10314	10686	3501	0	10489	0	0	10489	34887

% AVG WKDY	99	98.3	101.8	33.3						
% AVG WEEK	99	98.3	101.8	33.3						

AM Times	08:00	08:00	08:00	08:00		08:00			08:00	
AM Peaks	828	839	831	894		848			848	

PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	900	903	884			895			895	

D%	50	50	55	60						
K%	9	9	8	26						

u5

COMB AWD 10489
 FAC .92(.98)
 COMB ADT 9,500

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 1
 Starting: 4/7/2014

STA. 5 EB

Site Reference: 140100000503
 Site ID: 000000000748
 Location: BEAVER ST., E. OF BUENA VISTA DRIVE
 Direction: EAST

File: 50304.prn
 City: FRANKLIN
 County: VOL E&W

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	12	14	16	16		14			14	58
02:00	3	4	7	6		5			5	20
03:00	2	4	6	4		4			4	16
04:00	1	3	4	0		2			2	8
05:00	5	7	9	5		6			6	26
06:00	47	46	53	50		49			49	196
07:00	215	196	219	244		218			218	874
08:00	283	297	285	341		301			301	1206
09:00	287	279	288	287		285			285	1141
10:00	236	224	209	221		222			222	890
11:00	212	179	220	213		206			206	824
12:00	224	255	242			240			240	721
13:00	268	260	271			266			266	799
14:00	262	224	262			249			249	748
15:00	338	351	336			341			341	1025
16:00	325	315	325			321			321	965
17:00	385	368	359			370			370	1112
18:00	455	438	404			432			432	1297
19:00	375	403	400			392			392	1178
20:00	362	326	369			352			352	1057
21:00	250	256	262			256			256	768
22:00	118	144	159			140			140	421
23:00	50	64	85			66			66	199
24:00	29	36	24			29			29	89
TOTALS	4744	4693	4814	1387	0	4766	0	0	4766	15638
% AVG WKDY	99.5	98.4	101	29.1						
% AVG WEEK	99.5	98.4	101	29.1						
AM Times	09:00	08:00	09:00	08:00		08:00			08:00	
AM Peaks	287	297	288	341		301			301	
PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	455	438	404			432			432	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 2
 Starting: 4/7/2014

STA: 5 WB

Site Reference: 140100000503
 Site ID: 000000000748
 Location: BEAVER ST., E. OF BUENA VISTA DRIVE
 Direction: WEST

File: 50304.prn
 City: FRANKLIN
 County: VOL E&W

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	15	6	4	13		9			9	38
02:00	3	5	2	3		3			3	13
03:00	6	2	8	3		4			4	19
04:00	6	1	2	2		2			2	11
05:00	25	22	19	21		21			21	87
06:00	91	80	96	110		94			94	377
07:00	267	263	280	283		273			273	1093
08:00	545	542	546	553		546			546	2186
09:00	492	488	480	479		484			484	1939
10:00	352	347	340	357		349			349	1396
11:00	286	291	292	290		289			289	1159
12:00	327	275	306			302			302	908
13:00	321	303	298			307			307	922
14:00	296	303	302			300			300	901
15:00	355	375	405			378			378	1135
16:00	480	480	443			467			467	1403
17:00	428	431	451			436			436	1310
18:00	445	465	480			463			463	1390
19:00	418	379	440			412			412	1237
20:00	232	251	322			268			268	805
21:00	126	152	190			156			156	468
22:00	70	95	90			85			85	255
23:00	33	33	47			37			37	113
24:00	23	32	29			28			28	84
TOTALS	5642	5621	5872	2114	0	5713	0	0	5713	19249
% AVG WKDY	98.7	98.3	102.7	37						
% AVG WEEK	98.7	98.3	102.7	37						
AM Times	08:00	08:00	08:00	08:00		08:00			08:00	
AM Peaks	545	542	546	553		546			546	
PM Times	16:00	16:00	18:00			16:00			16:00	
PM Peaks	480	480	480			467			467	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE
 Starting: 4/7/2014

STA. 7
 TOTAL

Site Reference: 140100000462
 Site ID: 000000000702
 Location: RTE. 140, EAST OF LEWIS ST.
 Direction: ROAD TOTAL

File: 70102.prn
 City: FRANKLIN
 County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	32	52	52	76		53			53	212
02:00	20	33	20	34		26			26	107
03:00	10	12	24	10		14			14	56
04:00	13	19	13	20		16			16	65
05:00	56	63	53	57		57			57	229
06:00	178	197	190	200		191			191	765
07:00	592	571	605	568		584			584	2336
08:00	1089	1085	1049	1141		1091			1091	4364
09:00	1136	1098	1236	1137		1151			1151	4607
10:00	1102	1041	1083	1065		1072			1072	4291
11:00	1148	1121	1152	1095		1129			1129	4516
12:00	1263	1242	1314			1273			1273	3819
13:00	1489	1375	1443			1435			1435	4307
14:00	1268	1362	1352			1327			1327	3982
15:00	1396	1346	1388			1376			1376	4130
16:00	1444	1498	1501			1481			1481	4443
17:00	1540	1537	1550			1542			1542	4627
18:00	1510	1519	1656			1561			1561	4685
19:00	1225	1282	1305			1270			1270	3812
20:00	889	935	1053			959			959	2877
21:00	606	712	748			688			688	2066
22:00	341	388	474			401			401	1203
23:00	174	204	221			199			199	599
24:00	97	91	120			102			102	308

TOTALS	18618	18783	19602	5403	0	18998	0	0	18998	62406

% AVG WKDY	97.9	98.8	103.1	28.4						
% AVG WEEK	97.9	98.8	103.1	28.4						

AM Times	12:00	12:00	12:00	08:00		12:00			12:00	
AM Peaks	1263	1242	1314	1141		1273			1273	

PM Times	17:00	17:00	18:00			18:00			18:00	
PM Peaks	1540	1537	1656			1561			1561	

D%	55	55	55	50						
K%	8	8	8	21						

U3

COMB AWD 18998
 FAC .92(.98)
 COMB ADT 17,100

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 1
 Starting: 4/7/2014

STA. 7 NB

Site Reference: 140100000462
 Site ID: 000000000702
 Location: RTE. 140, EAST OF LEWIS ST.
 Direction: NORTH

File: 70102.prn
 City: FRANKLIN
 County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	18	26	25	47		29			29	116
02:00	11	17	6	18		13			13	52
03:00	3	6	14	5		7			7	28
04:00	6	8	5	8		6			6	27
05:00	30	27	29	25		27			27	111
06:00	71	90	81	90		83			83	332
07:00	288	276	296	263		280			280	1123
08:00	528	525	496	576		531			531	2125
09:00	538	499	580	533		537			537	2150
10:00	568	514	530	509		530			530	2121
11:00	572	607	604	550		583			583	2333
12:00	646	673	643			654			654	1962
13:00	780	698	749			742			742	2227
14:00	678	723	741			714			714	2142
15:00	731	712	747			730			730	2190
16:00	779	810	799			796			796	2388
17:00	864	875	861			866			866	2600
18:00	852	823	909			861			861	2584
19:00	634	647	713			664			664	1994
20:00	491	549	555			531			531	1595
21:00	352	404	413			389			389	1169
22:00	187	207	260			218			218	654
23:00	92	106	107			101			101	305
24:00	59	56	65			60			60	180
TOTALS	9778	9878	10228	2624	0	9952	0	0	9952	32508
% AVG WKDY	98.2	99.2	102.7	26.3						
% AVG WEEK	98.2	99.2	102.7	26.3						
AM Times	12:00	12:00	12:00	08:00		12:00			12:00	
AM Peaks	646	673	643	576		654			654	
PM Times	17:00	17:00	18:00			17:00			17:00	
PM Peaks	864	875	909			866			866	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 2
 Starting: 4/7/2014

STA. 7 SB

Site Reference: 140100000462
 Site ID: 000000000702
 Location: RTE. 140, EAST OF LEWIS ST.
 Direction: SOUTH

File: 70102.prn
 City: FRANKLIN
 County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	14	26	27	29		24			24	96
02:00	9	16	14	16		13			13	55
03:00	7	6	10	5		7			7	28
04:00	7	11	8	12		9			9	38
05:00	26	36	24	32		29			29	118
06:00	107	107	109	110		108			108	433
07:00	304	295	309	305		303			303	1213
08:00	561	560	553	565		559			559	2239
09:00	598	599	656	604		614			614	2457
10:00	534	527	553	556		542			542	2170
11:00	576	514	548	545		545			545	2183
12:00	617	569	671			619			619	1857
13:00	709	677	694			693			693	2080
14:00	590	639	611			613			613	1840
15:00	665	634	641			646			646	1940
16:00	665	688	702			685			685	2055
17:00	676	662	689			675			675	2027
18:00	658	696	747			700			700	2101
19:00	591	635	592			606			606	1818
20:00	398	386	498			427			427	1282
21:00	254	308	335			299			299	897
22:00	154	181	214			183			183	549
23:00	82	98	114			98			98	294
24:00	38	35	55			42			42	128
TOTALS	8840	8905	9374	2779	0	9039	0	0	9039	29898
% AVG WKDY	97.7	98.5	103.7	30.7						
% AVG WEEK	97.7	98.5	103.7	30.7						
AM Times	12:00	09:00	12:00	09:00		12:00			12:00	
AM Peaks	617	599	671	604		619			619	
PM Times	13:00	18:00	18:00			18:00			18:00	
PM Peaks	709	696	747			700			700	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE
 Starting: 4/7/2014

Page: 6

STA. 8
 TOTAL

Site Reference: 140100000747
 Site ID: 000000000801
 Location: RTE. 140, EAST OF ASPEN WAY
 Direction: ROAD TOTAL

File: 80102.prn
 City: FRANKLIN
 County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	23	36	43	58		40			40	160
02:00	15	21	12	23		17			17	71
03:00	7	8	18	8		10			10	41
04:00	12	10	11	10		10			10	43
05:00	33	36	39	33		35			35	141
06:00	143	139	156	157		148			148	595
07:00	477	464	481	453		468			468	1875
08:00	811	782	801	867		815			815	3261
09:00	778	776	838	783		793			793	3175
10:00	695	667	691	769		705			705	2822
11:00	728	686	715	756		721			721	2885
12:00	733	808	895	821		814			814	3257
13:00	874	803	894			857			857	2571
14:00	848	740	838			808			808	2426
15:00	876	866	948			896			896	2690
16:00	949	968	1078			998			998	2995
17:00	998	991	1049			1012			1012	3038
18:00	1013	996	1132			1047			1047	3141
19:00	751	802	837			796			796	2390
20:00	500	591	615			568			568	1706
21:00	353	452	451			418			418	1256
22:00	220	236	265			240			240	721
23:00	109	130	144			127			127	383
24:00	58	67	96			73			73	221
TOTALS	12004	12075	13047	4738	0	12416	0	0	12416	41864
% AVG WKDY	96.6	97.2	105	38.1						
% AVG WEEK	96.6	97.2	105	38.1						
AM Times	08:00	12:00	12:00	08:00		08:00			08:00	
AM Peaks	811	808	895	867		815			815	
PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	1013	996	1132			1047			1047	
D%	50	50	55	55						
K%	8	8	9	18						

u3

COMB AWD 12416
 FRC .92 (.98)
 COMB ADT 11,200

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 1
 Starting: 4/7/2014

STA. 8 NB

Site Reference: 140100000747
 Site ID: 000000000801
 Location: RTE. 140, EAST OF ASPEN WAY
 Direction: NORTH

File: 80102.prn
 City: FRANKLIN
 County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	12	14	16	25		16			16	67
02:00	7	10	5	12		8			8	34
03:00	1	3	9	2		3			3	15
04:00	6	5	4	3		4			4	18
05:00	18	13	20	16		16			16	67
06:00	63	65	62	74		66			66	264
07:00	217	211	232	202		215			215	862
08:00	445	414	407	473		434			434	1739
09:00	391	385	419	380		393			393	1575
10:00	349	349	345	372		353			353	1415
11:00	366	360	379	406		377			377	1511
12:00	376	429	431	450		421			421	1686
13:00	460	406	473			446			446	1339
14:00	447	368	455			423			423	1270
15:00	447	442	476			455			455	1365
16:00	513	554	584			550			550	1651
17:00	525	544	584			551			551	1653
18:00	521	492	598			537			537	1611
19:00	375	377	439			397			397	1191
20:00	225	287	308			273			273	820
21:00	157	207	193			185			185	557
22:00	97	110	121			109			109	328
23:00	53	55	56			54			54	164
24:00	38	37	49			41			41	124
TOTALS	6109	6137	6665	2415	0	6327	0	0	6327	21326
% AVG WKDY	96.5	96.9	105.3	38.1						
% AVG WEEK	96.5	96.9	105.3	38.1						
AM Times	08:00	12:00	12:00	08:00		08:00			08:00	
AM Peaks	445	429	431	473		434			434	
PM Times	17:00	16:00	18:00			17:00			17:00	
PM Peaks	525	554	598			551			551	

Massachusetts Highway Department
WEEKLY SUMMARY FOR LANE 2
Starting: 4/7/2014

Page: 5

STA 8SB

Site Reference: 140100000747
Site ID: 000000000801
Location: RTE. 140, EAST OF ASPEN WAY
Direction: SOUTH

File: 80102.prn
City: FRANKLIN
County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	11	22	27	33		23			23	93
02:00	8	11	7	11		9			9	37
03:00	6	5	9	6		6			6	26
04:00	6	5	7	7		6			6	25
05:00	15	23	19	17		18			18	74
06:00	80	74	94	83		82			82	331
07:00	260	253	249	251		253			253	1013
08:00	366	368	394	394		380			380	1522
09:00	387	391	419	403		400			400	1600
10:00	346	318	346	397		351			351	1407
11:00	362	326	336	350		343			343	1374
12:00	357	379	464	371		392			392	1571
13:00	414	397	421			410			410	1232
14:00	401	372	383			385			385	1156
15:00	429	424	472			441			441	1325
16:00	436	414	494			448			448	1344
17:00	473	447	465			461			461	1385
18:00	492	504	534			510			510	1530
19:00	376	425	398			399			399	1199
20:00	275	304	307			295			295	886
21:00	196	245	258			233			233	699
22:00	123	126	144			131			131	393
23:00	56	75	88			73			73	219
24:00	20	30	47			32			32	97
TOTALS	5895	5938	6382	2323	0	6081	0	0	6081	20538
% AVG WKDY	96.9	97.6	104.9	38.2						
% AVG WEEK	96.9	97.6	104.9	38.2						
AM Times	09:00	09:00	12:00	09:00		09:00			09:00	
AM Peaks	387	391	464	403		400			400	
PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	492	504	534			510			510	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE
 Starting: 4/7/2014

Site Reference: 140100000635
 Site ID: 000000000901
 Location: KING ST., SOUTH OF RTE. 140
 Direction: ROAD TOTAL

STA. 9
 TOTAL

File: 90102.prn
 City: FRANKLIN
 County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	38	56	60	67		55			55	221
02:00	17	29	25	35		26			26	106
03:00	11	17	22	10		15			15	60
04:00	17	19	18	21		18			18	75
05:00	52	44	57	55		52			52	208
06:00	173	165	178	203		179			179	719
07:00	613	578	570	564		581			581	2325
08:00	950	938	994	988		967			967	3870
09:00	895	896	984	921		924			924	3696
10:00	666	649	660	676		662			662	2651
11:00	707	638	668	639		663			663	2652
12:00	698	670	727			698			698	2095
13:00	875	822	868			855			855	2565
14:00	786	769	817			790			790	2372
15:00	835	765	911			837			837	2511
16:00	968	1039	944			983			983	2951
17:00	1043	1099	1048			1063			1063	3190
18:00	1200	1213	1233			1215			1215	3646
19:00	881	895	921			899			899	2697
20:00	573	650	646			623			623	1869
21:00	396	449	476			440			440	1321
22:00	237	237	327			267			267	801
23:00	126	154	178			152			152	458
24:00	98	99	104			100			100	301
TOTALS	12855	12890	13436	4179	0	13064	0	0	13064	43360
% AVG WKDY	98.4	98.6	102.8	31.9						
% AVG WEEK	98.4	98.6	102.8	31.9						
AM Times	08:00	08:00	08:00	08:00		08:00			08:00	
AM Peaks	950	938	994	988		967			967	
PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	1200	1213	1233			1215			1215	
D%	50	50	50	50						
K%	9	9	9	24						

u5

COMB AWD 13064
 FAC .92(.98)
 COMB ADT 11,800

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE 1
 Starting: 4/7/2014

STA. 9 NB

Site Reference: 140100000635
 Site ID: 000000000901
 Location: KING ST., SOUTH OF RTE. 140
 Direction: NORTH

File: 90102.prn
 City: FRANKLIN
 County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	17	30	35	31		28			28	113
02:00	9	14	19	16		14			14	58
03:00	9	9	8	4		7			7	30
04:00	6	9	12	15		10			10	42
05:00	16	21	18	22		19			19	77
06:00	98	90	96	117		100			100	401
07:00	361	322	343	331		339			339	1357
08:00	499	489	517	494		499			499	1999
09:00	480	478	538	494		497			497	1990
10:00	327	352	339	353		342			342	1371
11:00	376	308	332	319		333			333	1335
12:00	366	326	361			351			351	1053
13:00	423	402	431			418			418	1256
14:00	389	369	390			382			382	1148
15:00	426	373	437			412			412	1236
16:00	449	517	445			470			470	1411
17:00	475	484	495			484			484	1454
18:00	583	613	614			603			603	1810
19:00	470	459	444			457			457	1373
20:00	271	301	316			296			296	888
21:00	176	209	228			204			204	613
22:00	116	113	153			127			127	382
23:00	68	77	97			80			80	242
24:00	34	45	48			42			42	127
TOTALS	6444	6410	6716	2196	0	6514	0	0	6514	21766
% AVG WKDY	98.9	98.4	103.1	33.7						
% AVG WEEK	98.9	98.4	103.1	33.7						
AM Times	08:00	08:00	09:00	08:00		08:00			08:00	
AM Peaks	499	489	538	494		499			499	
PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	583	613	614			603			603	

Massachusetts Highway Department
WEEKLY SUMMARY FOR LANE 2
Starting: 4/7/2014

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STA. 9 SB

Site Reference: 140100000635
Site ID: 000000000901
Location: KING ST., SOUTH OF RTE. 140
Direction:

File: 90102.prn
City: FRANKLIN
County: VOL N&S

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00	21	26	25	36		27			27	108
02:00	8	15	6	19		12			12	48
03:00	2	8	14	6		7			7	30
04:00	11	10	6	6		8			8	33
05:00	36	23	39	33		32			32	131
06:00	75	75	82	86		79			79	318
07:00	252	256	227	233		242			242	968
08:00	451	449	477	494		467			467	1871
09:00	415	418	446	427		426			426	1706
10:00	339	297	321	323		320			320	1280
11:00	331	330	336	320		329			329	1317
12:00	332	344	366			347			347	1042
13:00	452	420	437			436			436	1309
14:00	397	400	427			408			408	1224
15:00	409	392	474			425			425	1275
16:00	519	522	499			513			513	1540
17:00	568	615	553			578			578	1736
18:00	617	600	619			612			612	1836
19:00	411	436	477			441			441	1324
20:00	302	349	330			327			327	981
21:00	220	240	248			236			236	708
22:00	121	124	174			139			139	419
23:00	58	77	81			72			72	216
24:00	64	54	56			58			58	174
TOTALS	6411	6480	6720	1983	0	6541	0	0	6541	21594
% AVG WKDY	98	99	102.7	30.3						
% AVG WEEK	98	99	102.7	30.3						
AM Times	08:00	08:00	08:00	08:00		08:00			08:00	
AM Peaks	451	449	477	494		467			467	
PM Times	18:00	17:00	18:00			18:00			18:00	
PM Peaks	617	615	619			612			612	

Massachusetts Highway Department
 WEEKLY SUMMARY FOR LANE
 Starting: 4/7/2014

STA. 10
 TOTAL

Site Reference: 140100000706
 Site ID: 000000100102
 Location: CHESTUNT BTWN RTE. 140&SHAWS ENTRANCE
 Direction: ROAD TOTAL

File: 100102.prn
 City: FRANKLIN
 County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		40	44	62		48			48	146
02:00		17	13	25		18			18	55
03:00		13	14	14		13			13	41
04:00		19	16	10		15			15	45
05:00		35	45	57		45			45	137
06:00		138	157	159		151			151	454
07:00		496	550	533		526			526	1579
08:00		805	837	868		836			836	2510
09:00		760	775	752		762			762	2287
10:00		565	479	510		518			518	1554
11:00		465	456	434		451			451	1355
12:00		447	453			450			450	900
13:00		482	505			493			493	987
14:00	536	509	545			530			530	1590
15:00	597	516	597			570			570	1710
16:00	809	788	715			770			770	2312
17:00	820	857	801			826			826	2478
18:00	963	942	930			945			945	2835
19:00	703	803	777			761			761	2283
20:00	477	571	521			523			523	1569
21:00	328	385	394			369			369	1107
22:00	219	231	250			233			233	700
23:00	113	114	148			125			125	375
24:00	77	78	85			80			80	240

TOTALS	5642	10076	10107	3424	0	10058	0	0	10058	29249

% AVG WKDY	56	100.1	100.4	34						
% AVG WEEK	56	100.1	100.4	34						

AM Times		08:00	08:00	08:00		08:00			08:00	
AM Peaks		805	837	868		836			836	

PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	963	942	930			945			945	

D%	50	50	50	55						
K%	17	9	9	25						

u5

COMB AWD 10058
 FAC 192(.98)
 COMB ADT 9,100

Massachusetts Highway Department
WEEKLY SUMMARY FOR LANE 1
Starting: 4/7/2014

Page: 1

STA.10 NB

Site Reference: 140100000706

Site ID: 000000100102

Location: CHESTUNT BTWN RTE. 140&SHAW'S ENTRANCE

Direction: NORTH

File: 100102.prn

City: FRANKLIN

County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		19	15	34		22			22	68
02:00		8	4	8		6			6	20
03:00		4	6	7		5			5	17
04:00		13	8	3		8			8	24
05:00		18	26	37		27			27	81
06:00		66	78	75		73			73	219
07:00		220	241	239		233			233	700
08:00		422	465	482		456			456	1369
09:00		393	416	406		405			405	1215
10:00		288	248	265		267			267	801
11:00		248	236	225		236			236	709
12:00		232	233			232			232	465
13:00		270	254			262			262	524
14:00	286	256	276			272			272	818
15:00	306	259	282			282			282	847
16:00	455	425	381			420			420	1261
17:00	444	474	434			450			450	1352
18:00	503	452	474			476			476	1429
19:00	351	409	416			392			392	1176
20:00	244	278	260			260			260	782
21:00	172	175	184			177			177	531
22:00	94	121	122			112			112	337
23:00	51	49	62			54			54	162
24:00	51	40	41			44			44	132
TOTALS	2957	5139	5162	1781	0	5171	0	0	5171	15039
% AVG WKDY	57.1	99.3	99.8	34.4						
% AVG WEEK	57.1	99.3	99.8	34.4						
AM Times		08:00	08:00	08:00		08:00			08:00	
AM Peaks		422	465	482		456			456	
PM Times	18:00	17:00	18:00			18:00			18:00	
PM Peaks	503	474	474			476			476	

Massachusetts Highway Department
WEEKLY SUMMARY FOR LANE 2
Starting: 4/7/2014

Page: 2

STA. 10 SB

Site Reference: 140100000706
Site ID: 000000100102
Location: CHESTUNT BTWN RTE. 140&SHAWS ENTRANCE
Direction: SOUTH

File: 100102.prn
City: FRANKLIN
County: VOL

TIME	MON 7	TUE 8	WED 9	THU 10	FRI	WKDAY AVG	SAT	SUN	WEEK AVG	TOTAL
01:00		21	29	28		26			26	78
02:00		9	9	17		11			11	35
03:00		9	8	7		8			8	24
04:00		6	8	7		7			7	21
05:00		17	19	20		18			18	56
06:00		72	79	84		78			78	235
07:00		276	309	294		293			293	879
08:00		383	372	386		380			380	1141
09:00		367	359	346		357			357	1072
10:00		277	231	245		251			251	753
11:00		217	220	209		215			215	646
12:00		215	220			217			217	435
13:00		212	251			231			231	463
14:00	250	253	269			257			257	772
15:00	291	257	315			287			287	863
16:00	354	363	334			350			350	1051
17:00	376	383	367			375			375	1126
18:00	460	490	456			468			468	1406
19:00	352	394	361			369			369	1107
20:00	233	293	261			262			262	787
21:00	156	210	210			192			192	576
22:00	125	110	128			121			121	363
23:00	62	65	86			71			71	213
24:00	26	38	44			36			36	108

TOTALS	2685	4937	4945	1643	0	4880	0	0	4880	14210

% AVG WKDY	55	101.1	101.3	33.6						
% AVG WEEK	55	101.1	101.3	33.6						

AM Times		08:00	08:00	08:00		08:00			08:00	
AM Peaks		383	372	386		380			380	

PM Times	18:00	18:00	18:00			18:00			18:00	
PM Peaks	460	490	456			468			468	

APPENDIX C

Crash Data

**West Central Street
Crash Data**

**2009 to 2013 Crash Data
West Central Street**

Crash Number	Crash Time	Crash Date 1	Streets Intersection	Crash Severity	Manner of Collision	Vehicle Traveled Direction	Road Surface		Non Motorized			Vehicle Action
							Condition	Ambient Light	Weather Condition	Crash	Bike/Ped	
2427650	1:52 PM	17-Jan-2009	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound / V3:	Sand, mud, dirt, c	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing
2446778	10:16 AM	31-Jan-2009	WEST CENTRAL STREET	Non-fatal injury	Angle	V1:Westbound / V2:Not reported	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Entering traffic lane
2528298	10:17 PM	12-Sep-2009	PANTHER WAY/WEST CENTRAL STREET	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Wet	Daylight	Rain/Rain			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
2560304	10:43 AM	05-Dec-2009		Non-fatal injury	Rear-end	V1:Northbound / V2:Northbound	Wet	Daylight	Rain			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2453560	11:01 AM	08-Apr-2009	BEAVER STREET/WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2559797	11:08 AM	19-Nov-2009	WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2464247	11:30 PM	17-Apr-2009	BEAVER STREET/WEST CENTRAL STREET	Non-fatal injury	Single vehicle crash	V1:Westbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead
2514891	11:40 AM	29-Aug-2009		Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Wet	Daylight	Rain/Cloudy			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2496064	11:44 AM	11-Jun-2009	WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2429657	11:47 AM	21-Jan-2009	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Entering traffic lane
2514839	11:57 AM	30-Aug-2009		Property damage only (nor	Single vehicle crash	V1:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead
2444939	12:14 PM	06-Feb-2009		Property damage only (nor	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Entering traffic lane
2496190	12:39 PM	19-Jun-2009		Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Wet	Daylight	Rain/Cloudy			V1: Travelling straight ahead / V2:Travelling straight ahead
2552995	12:41 PM	31-Dec-2009		Property damage only (nor	Angle	V1:Westbound / V2:Northbound	Snow	Daylight	Snow			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2515005	2:14 PM	15-Aug-2009	BEAVER STREET/WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2429722	2:31 PM	23-Jan-2009		Non-fatal injury	Single vehicle crash	V1:Southbound	Dry	Daylight	Clear			V1: Travelling straight ahead
2528269	2:33 PM	16-Aug-2009	WEST CENTRAL STREET	Property damage only (nor	Angle	V1:Southbound / V2:Northbound	Dry	Daylight	Clear/Clear			V1: Travelling straight ahead / V2:Changing lanes
2453379	3:20 PM	13-Mar-2009	PANTHER WAY/WEST CENTRAL STREET	Property damage only (nor	Angle	V1:Southbound / V2:Northbound	Dry	Daylight	Clear			V1: Turning left / V2:Travelling straight ahead
2498215	4:01 PM	16-Jul-2009		Property damage only (nor	Angle	V1:Southbound / V2:Eastbound	Dry	Daylight	Clear/Clear			V1: Travelling straight ahead / V2:Entering traffic lane
2556250	4:23 PM	07-Dec-2009		Non-fatal injury	Rear-end	V1:Southbound / V2:Southbound	Dry	Dusk	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2506540	5:02 PM	14-Aug-2009	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
2529414	5:05 PM	16-Sep-2009	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Turning left / V2:Turning left
2498321	5:09 PM	28-Jul-2009	OLD WEST CENTRAL STREET ACCESS ROAD/W	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound / V3:East	Dry	Daylight	Clear/Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Slowing
2453371	5:10 PM	17-Mar-2009		Property damage only (nor	Angle	V1:Westbound / V2:Westbound	Dry	Daylight	Clear/Clear			V1: Turning right / V2:Travelling straight ahead
2506531	5:20 PM	31-Jul-2009		Property damage only (nor	Angle	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Entering traffic lane
2478444	5:57 PM	21-May-2009	PANTHER WAY/WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2528318	6:38 PM	09-Oct-2009	BEAVER STREET/WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Wet	Dark - lighted roadway	Rain/Rain			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2517914	6:39 PM	18-Aug-2009	BEAVER STREET/WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead
2556867	6:50 AM	05-Feb-2009	BEAVER STREET/WEST CENTRAL STREET	Property damage only (nor	Not reported	V1:Not reported / V2:Not reported	Wet	Daylight	Clear			V1: Backing / V2:Slowing or stopped in traffic
2492436	9:00 PM	30-Jun-2009	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Dark - lighted roadway	Cloudy			V1: Entering traffic lane / V2:Entering traffic lane
2666817	1:08 PM	19-Nov-2010	WEST CENTRAL STREET	Property damage only (nor	Angle	V1:Northbound	Not reported	Daylight	Clear		cyc	V1: Travelling straight ahead
2564442	1:20 PM	15-Jan-2010	OLD WEST CENTRAL STREET ACCESS ROAD/W	Not Reported	Angle	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear			V1: Parked / V2:Turning right
2601383	1:23 PM	04-May-2010		Property damage only (nor	Single vehicle crash	V1:Southbound	Dry	Daylight	Clear			V1: Turning left
2655197	1:37 PM	30-Aug-2010	BEAVER STREET/WEST CENTRAL STREET	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
2619249	11:33 PM	12-Jun-2010	WEST CENTRAL STREET	Non-fatal injury	Rear-to-rear	V1:Eastbound / V2:Eastbound / V3:East	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling
2615893	12:07 PM	01-Jul-2010	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Northbound / V2:Southbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
2616719	12:13 PM	18-Jun-2010		Property damage only (nor	Angle	V1:Eastbound / V2:Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning right
2654535	12:32 PM	07-Oct-2010		Property damage only (nor	Angle	V1:Westbound / V2:Westbound	Dry	Daylight	Cloudy			V1: Travelling straight ahead / V2:Turning right
2670437	2:15 PM	20-Dec-2010		Property damage only (nor	Single vehicle crash	V1:Eastbound	Not reported	Daylight	Clear			V1: Turning right
2602263	2:20 PM	29-Apr-2010	PANTHER WAY/WEST CENTRAL STREET	Property damage only (nor	Angle	V1:Southbound / V2:Westbound	Dry	Daylight	Not Reported			V1: Entering traffic lane / V2:Travelling straight ahead
2670438	2:52 PM	08-Dec-2010		Property damage only (nor	Angle	V1:Eastbound / V2:Westbound	Not reported	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
2618868	3:06 PM	18-May-2010		Property damage only (nor	Angle	V1:Eastbound / V2:Northbound	Dry	Daylight	Cloudy/Cloudy			V1: Travelling straight ahead / V2:Turning left
2602266	3:31 PM	26-Mar-2010	BEAVER STREET/WEST CENTRAL STREET	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2584937	3:38 PM	23-Mar-2010	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound	Wet	Daylight	Rain/Cloudy			V1: Turning right / V2:Turning right
2634832	4:00 PM	23-Aug-2010	PANTHER WAY/WEST CENTRAL STREET	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Wet	Daylight	Cloudy/Rain			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2618718	4:01 PM	02-Jun-2010	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound / V3:	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead / V3:Travelling s
2564890	4:11 PM	14-Jan-2010	OLD WEST CENTRAL STREET ACCESS ROAD/W	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2674587	4:18 PM	16-Dec-2010		Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Not reported	Dusk	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2589201	4:25 PM	05-Apr-2010	WEST CENTRAL STREET	Non-fatal injury	Angle	V1:Eastbound / V2:Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
2583820	4:56 PM	07-Feb-2010	PANTHER WAY/WEST CENTRAL STREET	Unknown	Sideswipe, same directi	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear			V1: Changing lanes / V2:Travelling straight ahead
2655150	5:22 PM	18-Oct-2010		Property damage only (nor	Angle	V1:Eastbound / V2:Northbound	Dry	Daylight	Cloudy			V1: Travelling straight ahead / V2:Entering traffic lane
2754370	5:30 PM	12-May-2010	WEST CENTRAL STREET	Not Reported	Angle	V1:Eastbound / V2:Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
2564458	5:46 PM	29-Jan-2010	WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound / V3:East	Dry	Dark - lighted roadway	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Slowing
2582699	7:21 PM	03-Mar-2010		Non-fatal injury	Angle	V1:Westbound / V2:Southbound	Wet	Daylight	Snow			V1: Travelling straight ahead / V2:Entering traffic lane
2602220	7:38 PM	21-May-2010	BEAVER STREET/WEST CENTRAL STREET	Property damage only (nor	Not reported	V1:Eastbound / V2:Eastbound	Not reported	Not reported	Not Reported			V1: Travelling straight ahead / V2:Travelling straight ahead
2748030	7:45 AM	02-Jun-2010	BEAVER STREET/WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Not reported / V2:Not reported	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2618778	8:01 PM	05-Jun-2010	OLD WEST CENTRAL STREET ACCESS ROAD/W	Non-fatal injury	Angle	V1:Westbound / V2:Southbound	Wet	Daylight	Rain			V1: Travelling straight ahead / V2:Entering traffic lane
2589430	8:14 AM	01-Apr-2010	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Westbound / V2:Southbound	Wet	Daylight	Cloudy			V1: Travelling straight ahead / V2:Entering traffic lane
2759908	8:41 PM	15-Oct-2010	PANTHER WAY/WEST CENTRAL STREET	Unknown	Angle	V1:Northbound / V2:Southbound	Wet	Dark - lighted roadway	Rain			V1: Slowing or stopped in traffic / V2:Turning left
2634824	8:56 PM	14-Jun-2010	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Westbound / V2:Eastbound	Wet	Dark - lighted roadway	Rain			V1: Travelling straight ahead / V2:Turning left
2589200	8:57 PM	05-Apr-2010		Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear/Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2634834	8:58 AM	23-Aug-2010	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Southbound / V2:Westbound	Wet	Daylight	Rain			V1: Turning left / V2:Travelling straight ahead
2564902	9:28 PM	14-Jan-2010	WEST CENTRAL STREET	Property damage only (nor	Sideswipe, same directi	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
2602219	9:46 PM	13-May-2010	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Not Reported			V1: Turning right / V2:Turning right
2815433	1:08 PM	29-Nov-2011	WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound / V3:East	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling
2733562	10:59 AM	02-Jun-2011		Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound / V3:West	Not reported	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling

2009 to 2013 Crash Data
West Central Street

Crash Number	Crash Time	Crash Date 1	Streets Intersection	Crash Severity	Manner of Collision	Vehicle Traveled Direction	Road Surface Condition	Ambient Light	Weather Condition	Crash	Bike/Ped	Vehicle Action
2687372	11:23 AM	01-Feb-2011	BEAVER STREET/WEST CENTRAL STREET	Property damage only (nor	Sideswipe, same directio	V1:Southbound / V2:Southbound	Not reported	Daylight	Snow			V1: Travelling straight ahead / V2:Travelling straight ahead
2711201	11:35 AM	25-Mar-2011		Non-fatal injury	Single vehicle crash	V1:Westbound	Not reported	Daylight	Clear			V1: Travelling straight ahead
2699878	11:38 AM	01-Mar-2011	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound	Not reported	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2716807	12:54 PM	17-Apr-2011	WEST CENTRAL STREET	Non-fatal injury	Angle	V1:Eastbound / V2:Northbound	Not reported	Daylight	Clear			V1: Travelling straight ahead / V2:Entering traffic lane
2829429	2:29 PM	28-Nov-2011		Property damage only (nor	Angle	V1:Southbound / V2:Southbound	Dry	Daylight	Cloudy			V1: Travelling straight ahead / V2:Entering traffic lane
2829730	2:29 PM	01-Dec-2011	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2713620	3:20 PM	05-Apr-2011	BEAVER STREET/WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Not reported	Daylight	Rain/Cloudy			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2737929	3:56 PM	01-Jul-2011		Property damage only (nor	Rear-end	V1:Westbound / V2:Not reported	Not reported	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
2853246	4:02 PM	23-Dec-2011		Non-fatal injury	Not reported	V1:Westbound / V2:Westbound	Not reported	Not reported	Not Reported			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2744512	4:35 PM	24-Jul-2011	PANTHER WAY/WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2724732	4:54 PM	19-May-2011		Property damage only (nor	Sideswipe, same directio	V1:Not reported / V2:Not reported	Not reported	Daylight	Cloudy/Rain			V1: Backing / V2:Parked
2832203	6:12 PM	15-Dec-2011		Property damage only (nor	Sideswipe, same directio	V1:Eastbound / V2:Eastbound	Wet	Dark - lighted roadway	Rain			V1: Changing lanes / V2:Travelling straight ahead
2753452	6:29 PM	11-Aug-2011	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Eastbound / V2:Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead
2794132	6:42 AM	16-Sep-2011	PANTHER WAY/WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
2792801	6:54 PM	20-Oct-2011	OLD WEST CENTRAL STREET ACCESS ROAD/W	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Entering traffic lane / V2:Entering traffic lane
2808698	7:22 AM	26-Sep-2011	WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2690967	7:34 AM	09-Feb-2011	PANTHER WAY/WEST CENTRAL STREET	Property damage only (nor	Angle	V1:Southbound / V2:Westbound	Not reported	Daylight	Clear			V1: Turning left / V2:Travelling straight ahead
2685840	7:39 AM	31-Jan-2011		Property damage only (nor	Rear-end	V1:Southbound / V2:Southbound	Not reported	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2792604	7:50 AM	20-Oct-2011	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Westbound / V2:Eastbound	Wet	Daylight	Rain			V1: Travelling straight ahead / V2:Entering traffic lane
2761333	8:31 PM	24-Aug-2011	PANTHER WAY/WEST CENTRAL STREET	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
2782504	8:52 PM	01-Sep-2011	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Eastbound / V2:Eastbound	Dry	Other	Cloudy			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
2681363	8:57 AM	17-Jan-2011		Property damage only (nor	Rear-end	V1:Southbound / V2:Southbound	Not reported	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
2681350	9:17 AM	06-Jan-2011		Property damage only (nor	Sideswipe, same directio	V1:Northbound / V2:Northbound	Not reported	Daylight	Clear			V1: Parked / V2:Turning left
2792805	9:20 PM	01-Nov-2011	BEAVER STREET/WEST CENTRAL STREET	Non-fatal injury	Single vehicle crash	V1:Eastbound	Dry	Dark - roadway not lighted	Clear			V1: Travelling straight ahead
3060423	1:21 PM	01-May-2012		Non-fatal injury	Angle	V1:Northbound / V2:Northbound	Wet	Daylight	Cloudy/Rain			V1: Travelling straight ahead / V2:Changing lanes
3287997	1:22 PM	04-Nov-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Southbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
3271173	1:38 PM	24-Aug-2012	WEST CENTRAL STREET	Non-fatal injury	Single vehicle crash	V1:Northbound	Dry	Daylight	Clear		ped	V1: Backing
3323763	1:39 PM	20-Dec-2012		Property damage only (nor	Angle	V1:Southbound / V2:Westbound	Dry	Daylight	Clear			V1: Entering traffic lane / V2:Overtaking/passing
3278791	1:52 PM	21-Aug-2012	PANTHER WAY/WEST CENTRAL STREET	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound / V3:East	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Trav
3067840	1:56 PM	27-Apr-2012		Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound / V3:East	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Trav
3288871	10:17 AM	07-Nov-2012		Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
3027356	10:58 AM	12-Apr-2012	BEAVER STREET/WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Other
3282370	11:12 AM	20-Oct-2012	PANTHER WAY/WEST CENTRAL STREET	Property damage only (nor	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Entering traffic lane
3323761	11:13 PM	15-Dec-2012		Non-fatal injury	Head-on	V1:Eastbound / V2:Westbound	Dry	Dark - lighted roadway	Clear			V1: Turning left / V2:Travelling straight ahead
2954265	11:25 AM	25-Feb-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Backing
2915064	11:34 AM	11-Feb-2012		Property damage only (nor	Angle	V1:Eastbound / V2:Eastbound	Wet	Daylight	Rain/Snow			V1: Travelling straight ahead / V2:Changing lanes
3294077	12:58 PM	25-Nov-2012		Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
2879667	2:18 PM	12-Jan-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Single vehicle crash	V1:Eastbound	Wet	Daylight	Rain/Cloudy			V1: Turning right
3133863	2:30 PM	06-Jun-2012	WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound / V3:V	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Slow
2915577	2:58 PM	17-Feb-2012		Non-fatal injury	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
3018191	3:07 PM	03-Apr-2012	PANTHER WAY/WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound / V3:V	Dry	Daylight	Clear/Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Trav
3133797	3:08 PM	06-Jun-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Unknown	Rear-end	V1:Eastbound / V2:Eastbound / V3:East	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead / V3:Travelling s
3018188	3:10 PM	29-Mar-2012		Property damage only (nor	Angle	V1:Northbound / V2:Not reported	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Entering traffic lane
3288870	3:32 PM	05-Nov-2012	WEST CENTRAL STREET	Property damage only (nor	Sideswipe, same directio	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear/Clear			V1: Changing lanes / V2:Travelling straight ahead
3118115	3:40 PM	29-May-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Non-fatal injury	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
3278796	4:00 PM	14-Sep-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Rear-end	V1:Not reported / V2:Not reported / V	Dry	Daylight	Clear/Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing
3033145	4:34 PM	17-Apr-2012		Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear/Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
3104984	4:49 PM	19-May-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear			V1: Turning left / V2:Travelling straight ahead
2915058	5:15 PM	05-Feb-2012	PANTHER WAY/WEST CENTRAL STREET	Property damage only (nor	Sideswipe, same directio	V1:Westbound / V2:Eastbound	Dry	Daylight	Clear/Clear			V1: Travelling straight ahead / V2:Turning right
3098130	5:30 PM	15-May-2012		Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Wet	Daylight	Cloudy/Rain			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
3219322	5:45 PM	23-Jul-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Rear-end	V1:Southbound / V2:Northbound	Dry	Daylight	Clear/Clear			V1: Parked / V2:Backing
3282371	6:13 PM	23-Oct-2012		Property damage only (nor	Sideswipe, same directio	V1:Eastbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2915070	7:12 PM	13-Feb-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Northbound / V2:Westbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead
2940397	7:23 AM	29-Feb-2012	WEST CENTRAL STREET	Property damage only (nor	Angle	V1:Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead
3283875	7:27 AM	26-Oct-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Angle	V1:Southbound / V2:Westbound	Dry	Daylight	Clear			V1: Entering traffic lane / V2:Travelling straight ahead
2980167	7:30 AM	23-Mar-2012		Property damage only (nor	Angle	V1:Northbound / V2:Southbound	Dry	Daylight	Cloudy			V1: Travelling straight ahead / V2:Entering traffic lane
3248661	7:39 AM	29-Aug-2012	WEST CENTRAL STREET	Property damage only (nor	Angle	V1:Westbound / V2:Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
2891197	7:43 PM	30-Jan-2012		Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
3095356	7:51 AM	16-May-2012	WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound	Wet	Daylight	Rain			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
3017806	7:57 PM	30-Mar-2012		Property damage only (nor	Single vehicle crash	V1:Westbound / V2:Westbound	Dry	Dark - lighted roadway	Clear/Clear			V1: Travelling straight ahead / V2:Travelling straight ahead
3323767	8:00 PM	21-Dec-2012	WEST CENTRAL STREET	Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Wet	Dark - lighted roadway	Rain			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
2915578	8:00 PM	18-Feb-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Rear-end	V1:Southbound / V2:Southbound	Dry	Dark - lighted roadway	Clear			V1: Turning left / V2:Turning left
3241509	8:41 PM	26-Jul-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Sideswipe, same directio	V1:Not reported / V2:Northbound	Dry	Dark - lighted roadway	Cloudy			V1: Changing lanes / V2:Entering traffic lane
3295990	9:30 PM	26-Nov-2012	WEST CENTRAL STREET	Property damage only (nor	Angle	V1:Southbound / V2:Southbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead / V2:Turning left
3133866	9:52 AM	08-Jun-2012	OLD WEST CENTRAL STREET ACCESS ROAD/W	Property damage only (nor	Sideswipe, same directio	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Entering traffic lane
	7:15 AM	7-Feb-2013		Property damage only (nor	Angle	V1:Northbound / V2:Southbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead

2009 to 2013 Crash Data
West Central Street

Crash Number	Crash Time	Crash Date	Streets Intersection	Crash Severity	Manner of Collision	Vehicle Traveled Direction	Road Surface		Non Motorized			Vehicle Action
							Condition	Ambient Light	Weather Condition	Crash	Bike/Ped	
	7:33 AM	30-May-2013		Non-fatal injury	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead
	7:39 AM	23-Oct-2013		Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound / V3:V	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic2
	9:14 AM	25-Aug-2013		Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2: Travelling straight ahead
	11:00 AM	23-Jan-2013		Property damage only (nor	Angle	V1:Southbound / V2:Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead
	11:00 AM	12-Jan-2013		Property damage only (nor	Rear to Rear	V1:Westbound / V2:Eastbound	Dry	Daylight	Clear			V1: Backing / V2: Backing
	11:05 AM	18-May-2013		Property damage only (nor	Angle	V1:Eastbound / V2:Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
	12:13 PM	16-Apr-2013		Property damage only (nor	Angle	V1:Southbound / V2:Southbound	Dry	Daylight	Clear			V1: Entering traffic lane / V2:Travelling straight ahead
	12:35 PM	26-Jul-2013		Property damage only (nor	Sideswipe, same directio	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear			V1: Turning right / V2: Travelling straight ahead
	1:41 PM	23-Dec-2013		Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound / V3:V	Unknown	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic2
	2:07 PM	10-May-2013		Property damage only (nor	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
	2:15 PM	17-Apr-2013		Property damage only (nor	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead
	2:30 PM	26-Aug-2013		Property damage only (nor	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear			V1: Turning right / V2: Turning right
	2:47 PM	19-Aug-2013		Property damage only (nor	Angle	V1:Southbound / V2:Northbound	Dry	Daylight	Clear			V1:Turning left / V2: Travelling straight ahead
	3:10 PM	25-Jan-2013		Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2: Travelling straight ahead
	3:36 PM	12-Jan-2013		Property damage only (nor	Rear-end	V1:Westbound / V2:Westbound	Wet	Daylight	Rain			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
	5:10 PM	31-Jan-2013		Non-fatal injury	Rear-end	V1:Southbound / V2:Southbound	Dry	Dark - lighted roadway	Cloudy			V1: Turning right / V2: Turning right
	5:46 PM	9-May-2013		Property damage only (nor	Sideswipe, same directio	V1:Eastbound / V2:Eastbound	Wet	Daylight	Cloudy			V1:Travelling straight ahead / V2: Changing Lanes
	5:49 PM	9-Aug-2013		Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Wet	Daylight	Rain			V1: Travelling straight ahead / V2:Travelling straight ahead
	5:51 PM	13-Dec-2013		Property damage only (nor	Sideswipe, same directio	V1:Westbound / V2:Westbound	Dry	Dark - lighted roadway	Clear			V1: Turning right / V2: Turning left
	6:12 PM	10-Jun-2013		Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Wet	Daylight	Rain			V1: Slowing or stopped in traffic / V2: Travelling straight ahead
	6:20 PM	17-Oct-2013		Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound / V3:	Dry	Dark - lighted roadway	Clear			1V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
	6:25 PM	20-Feb-2013		Property damage only (nor	Angle	V1:Westbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear			V1:Turning left / V2: Travelling straight ahead
	6:45 PM	23-Sep-2013		Property damage only (nor	Rear-end	V1:Northbound / V2:Northbound	Dry	Dusk	Clear			V1: Entering traffic lane / V2:Entering traffic lane
	6:56 PM	3-May-2013		Property damage only (nor	Angle	V1:Eastbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
	7:29 PM	5-Dec-2013		Non-fatal injury	Rear-end	V1:Southbound / V2:Southbound	Wet	Dark - lighted roadway	Rain			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
	8:09 PM	11-Feb-2013		Non-fatal injury	Angle	V1:Westbound / V2:Southbound	Wet	Dark - lighted roadway	Clear			V1: Travelling straight ahead / V2:Turning left
	8:33 PM	17-Jan-2013		Non-fatal injury	Head on	V1:Westbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead
	10:09 PM	6-Jan-2013		Property damage only (nor	Angle	V1:Southbound / V2:Southbound	Dry	Dark - lighted roadway	Clear			V1:Travelling straight ahead / V2: Changing Lanes
	7:02 AM	4-Jan-2013		Property damage only (nor	Angle	V1: Westbound / V2: Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
	7:13 AM	25-Jan-2013		Property damage only (nor	Angle	V1: Westbound / V2: Southbound	Dry	Daylight	Cloudy			V1: Travelling straight ahead / V2: Entering traffic lane
	10:16 AM	27-Nov-2013		Property damage only (nor	Angle	V1: Eastbound / V2: Eastbound	Wet	Daylight	Rain			V1: Travelling straight ahead / V2:Turning left
	11:16 AM	11-Oct-2013		Property damage only (nor	Rear-end	V1: Northbound / V2: Northbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2: Travelling straight ahead
	12:21 PM	18-Jan-2013		Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
	12:35 PM	8-Nov-2013		Property damage only (nor	Rear-end	V1: Eastbound / V2: Eastbound / V3: E	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
	3:23 PM	24-Sep-2013		Property damage only (nor	Angle	V1: Southbound / V2: Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
	4:41 PM	17-Nov-2013		Property damage only (nor	Rear-end	V1: Eastbound / V2: Eastbound	Wet	Dark - lighted roadway	Rain			V1: Turning left / V2:Travelling straight ahead
	5:41 PM	22-Aug-2013		Non-fatal injury	Rear-end	V1: Eastbound / V2: Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
	5:46 PM	9-Oct-2013		Property damage only (nor	Angle	V1:Southbound / V2:Westbound / V3:	Dry	Daylight	Clear			V1: Making U-turn / V2: Travelling straight ahead
	5:23 PM	22-Sep-2013		Non-fatal injury	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Clear			V1: Entering traffic lane/ V2: Overtaking/Passing
	6:44 PM	22-Oct-2013		Non-fatal injury	Single vehicle crash	V1:Northbound / V2:Northbound	Dry	Dark - lighted roadway	Clear			V1: Entering traffic lane / V2: Travelling straight ahead
	8:35 AM	13-Feb-2012		Property damage only (nor	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2: Travelling straight ahead

**East Central Street
Crash Data**

**2009 to 2012 Crash Data
East Central Street**

Crash Number	Crash Time	Crash Date2	Street Intersection	Crash Severity	Manner of Collision	Vehicle Traveled Direction	Road Surface	Ambient Light	Weather Condition	Non Motorized Crash	Bike/Ped	Vehicle_Ac
2429650	9:03 AM	20-Jan-2009	CHESTNUT STREET/EAST CENTRAL STREET	Non-fatal injury	Angle	V1:Eastbound / V2:Southbound	Dry	Daylight	Cloudy			V1: Turning left / V2:Travelling straight ahead
2427668	3:49 PM	22-Jan-2009		Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound / V3:Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic
2445088	3:08 PM	22-Feb-2009	EAST CENTRAL STREET/KING STREET	Property damage only (non-fatal)	Angle	V1:Northbound / V2:Eastbound	Wet	Daylight	Rain			V1: Turning right / V2:Travelling straight ahead
2453580	5:18 PM	2-Apr-2009		Non-fatal injury	Angle	V1:Southbound / V2:Northbound	Wet	Daylight	Rain/Cloudy			V1: Travelling straight ahead / V2:Travelling straight ahead
2464562	2:55 PM	14-Apr-2009		Property damage only (non-fatal)	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear/Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2485134	10:11 PM	25-Apr-2009	CHESTNUT STREET/EAST CENTRAL STREET	Fatal injury	Angle	V1:Westbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead / V2:Turning left
2478460	4:50 PM	11-May-2009	EAST CENTRAL STREET/MILLIKEN AVENUE	Property damage only (non-fatal)	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2478707	7:40 AM	9-Jun-2009	CHESTNUT STREET/EAST CENTRAL STREET	Property damage only (non-fatal)	Angle	V1:Southbound / V2:Westbound	Dry	Daylight	Cloudy			V1: Travelling straight ahead / V2:Travelling straight ahead
2496182	10:44 AM	13-Jun-2009	EAST CENTRAL STREET/HILL AVENUE	Property damage only (non-fatal)	Angle	V1:Southbound / V2:Eastbound	Dry	Daylight	Clear			V1: Overtaking/passing / V2:Entering traffic lane
2631238	9:45 PM	24-Jul-2009	CHESTNUT STREET/EAST CENTRAL STREET	Property damage only (non-fatal)	Not reported	V1:Westbound / V2:Not reported	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead / V2:Entering traffic lane
2506290	5:24 PM	31-Jul-2009	CHESTNUT STREET/EAST CENTRAL STREET	Property damage only (non-fatal)	Rear-end	V1:Eastbound / V2:Eastbound / V3:Eastbound	Wet	Daylight	Rain/Cloudy			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead
2517916	11:09 PM	31-Aug-2009	EAST CENTRAL STREET/LEWIS STREET	Not Reported	Angle	V1:Eastbound / V2:Not reported	Dry	Dark - roadway not lighted	Clear			V1: Travelling straight ahead / V2:Entering traffic lane
2528307	4:23 PM	3-Sep-2009	EAST CENTRAL STREET/HILL AVENUE	Property damage only (non-fatal)	Angle	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2514881	12:48 PM	8-Sep-2009		Property damage only (non-fatal)	Rear-end	V1:Not reported / V2:Westbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2528163	8:31 PM	16-Oct-2009	EAST CENTRAL STREET/KING STREET	Property damage only (non-fatal)	Angle	V1:Westbound / V2:Southbound	Wet	Daylight	Snow			V1: Turning left / V2:Travelling straight ahead
2560324	2:03 PM	5-Dec-2009	EAST CENTRAL STREET/HILL AVENUE	Non-fatal injury	Angle	V1:Westbound / V2:Eastbound / V3:Eastbound	Wet	Daylight	Rain			V1: Slowing or stopped in traffic / V2:Turning left / V3:Overtaking/passing
2560289	4:19 PM	8-Dec-2009		Property damage only (non-fatal)	Rear-end	V1:Westbound / V2:Westbound / V3:Eastbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead
2564791	6:34 PM	15-Dec-2009	EAST CENTRAL STREET/KING STREET	Property damage only (non-fatal)	Angle	V1:Eastbound / V2:Northbound	Dry	Dark - lighted roadway	Cloudy			V1: Travelling straight ahead / V2:Travelling straight ahead
2563153	3:49 PM	28-Dec-2009	CHESTNUT STREET	Property damage only (non-fatal)	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2564762	11:20 AM	29-Dec-2009	EAST CENTRAL STREET/KING STREET	Non-fatal injury	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2564495	1:41 PM	21-Jan-2010	EAST CENTRAL STREET/LEWIS STREET	Property damage only (non-fatal)	Rear-end	V1:Southbound / V2:Southbound	Wet	Daylight	Clear			V1: Travelling straight ahead / V2:Parked
2564483	6:14 PM	27-Jan-2010	EAST CENTRAL STREET/KING STREET	Unknown	Rear-end	V1:Eastbound / V2:Eastbound / V3:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic
2589198	2:45 PM	18-Mar-2010	EAST CENTRAL STREET/KING STREET	Property damage only (non-fatal)	Angle	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning right
2582682	8:51 PM	19-Mar-2010	EAST CENTRAL STREET/KING STREET	Property damage only (non-fatal)	Rear-end	V1:Southbound	Not reported	Daylight	Clear			V1: Travelling straight ahead
2589196	3:35 PM	29-Mar-2010	EAST CENTRAL STREET/GLEN MEADOW ROAD	Non-fatal injury	Angle	V1:Westbound / V2:Southbound	Wet	Daylight	Rain/Cloudy			V1: Travelling straight ahead / V2:Turning left
2756706	2:45 PM	7-May-2010	CHESTNUT STREET/EAST CENTRAL STREET	Non-fatal injury	Rear-end	V1:Not reported / V2:Not reported	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Not reported
2634826	5:59 PM	8-Jul-2010		Property damage only (non-fatal)	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear/Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2634817	8:31 PM	2-Aug-2010	EAST CENTRAL STREET/KING STREET	Property damage only (non-fatal)	Angle	V1:Westbound / V2:Northbound	Dry	Dark - lighted roadway	Clear/Clear			V1: Travelling straight ahead / V2:Travelling straight ahead
2634840	6:06 PM	15-Aug-2010	CHESTNUT STREET/EAST CENTRAL STREET	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2674583	7:47 AM	12-Dec-2010	KING STREET	Property damage only (non-fatal)	Single vehicle crash	V1:Northbound	Not reported	Daylight	Sleet, hail (freezing rain or drizzle)			V1: Travelling straight ahead
2678749	4:25 PM	23-Dec-2010	EAST CENTRAL STREET/GLEN MEADOW ROAD	Property damage only (non-fatal)	Sideswipe, same direction	V1:Westbound / V2:Westbound	Not reported	Dusk	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead
2681349	7:59 PM	1-Jan-2011	EAST CENTRAL STREET	Non-fatal injury	Angle	V1:Northbound / V2:Westbound	Not reported	Dark - lighted roadway	Cloudy			V1: Turning left / V2:Travelling straight ahead
2698745	1:11 PM	22-Feb-2011	EAST CENTRAL STREET/HILL AVENUE	Property damage only (non-fatal)	Angle	V1:Northbound / V2:Eastbound	Not reported	Daylight	Not Reported			V1: Parked / V2:Travelling straight ahead
2697542	2:57 PM	27-Feb-2011	EAST CENTRAL STREET/HILL AVENUE	Non-fatal injury	Single vehicle crash	V1:Southbound	Not reported	Daylight	Clear		ped	V1: Turning left
2699335	7:03 AM	1-Mar-2011		Non-fatal injury	Single vehicle crash	V1:Eastbound	Not reported	Daylight	Clear			V1: Travelling straight ahead
2705075	11:27 AM	12-Mar-2011	CHESTNUT STREET	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound / V3:Eastbound	Not reported	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead
2708279	4:13 PM	22-Mar-2011	CHESTNUT STREET/EAST CENTRAL STREET	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Not reported	Daylight	Cloudy			V1: Travelling straight ahead / V2:Turning left
2716803	5:28 PM	7-Apr-2011		Non-fatal injury	Rear-end	V1:Northbound / V2:Northbound / V3:Eastbound	Not reported	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic
2718663	2:45 PM	21-Apr-2011	CHESTNUT STREET/EAST CENTRAL STREET	Property damage only (non-fatal)	Angle	V1:Eastbound / V2:Eastbound	Not reported	Daylight	Clear/Severe crosswinds			V1: Turning right / V2:Turning left
2733564	4:52 PM	8-Jun-2011		Property damage only (non-fatal)	Rear-end	V1:Westbound / V2:Westbound	Not reported	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
2750117	4:06 PM	4-Aug-2011		Property damage only (non-fatal)	Rear-end	V1:Westbound / V2:Westbound / V3:Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic
2753454	2:32 PM	14-Aug-2011	CHESTNUT STREET/EAST CENTRAL STREET	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound / V3:Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead / V3:Travelling straight ahead
2762691	6:57 PM	14-Sep-2011	CHESTNUT STREET/EAST CENTRAL STREET	Non-fatal injury	Not reported	V1:Northbound / V2:Northbound	Not reported	Not reported	Not Reported			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2792603	5:22 PM	6-Oct-2011	EAST CENTRAL STREET/LEWIS STREET	Property damage only (non-fatal)	Rear-end	V1:Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead
2796164	7:39 PM	19-Oct-2011	EAST CENTRAL STREET/HILL AVENUE	Non-fatal injury	Unknown	V1:Southbound	Wet	Dark - lighted roadway	Rain/Cloudy	P2:Pedestrian	ped	V1: Travelling straight ahead
2792804	5:25 PM	30-Oct-2011	CHESTNUT STREET/EAST CENTRAL STREET	Non-fatal injury	Not reported	V1:Westbound / V2:Westbound / V3:Eastbound	Wet	Dusk	Clear/Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic
2808701	8:08 AM	15-Nov-2011	CROSS STREET/EAST CENTRAL STREET	Non-fatal injury	Angle	V1:Westbound / V2:Eastbound	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
2812382	5:36 PM	25-Nov-2011	CROSS STREET/EAST CENTRAL STREET	Non-fatal injury	Sideswipe, same direction	V1:Westbound	Dry	Dark - lighted roadway	Clear/Other	P3:Pedalcyclist	cyc	V1: Travelling straight ahead
2856488	1:32 PM	2-Jan-2012		Property damage only (non-fatal)	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Travelling straight ahead
2856489	10:55 AM	6-Jan-2012	EAST CENTRAL STREET	Property damage only (non-fatal)	Single vehicle crash	V1:Southbound	Dry	Daylight	Clear			V1: Turning left
2882492	8:16 AM	20-Jan-2012		Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound / V3:Eastbound	Ice	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic
2915055	2:42 PM	31-Jan-2012	EAST CENTRAL STREET/HILL AVENUE	Property damage only (non-fatal)	Angle	V1:Southbound / V2:Southbound / V3:Eastbound	Dry	Daylight	Clear			V1: Parked / V2:Backing / V3:Parked
2915069	1:25 PM	13-Feb-2012		Property damage only (non-fatal)	Single vehicle crash	V1:Northbound	Dry	Daylight	Clear			V1: Backing
2915073	11:07 AM	16-Feb-2012		Property damage only (non-fatal)	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Cloudy			V1: Travelling straight ahead / V2:Turning right
2932820	1:42 PM	25-Feb-2012		Property damage only (non-fatal)	Rear-end	V1:Southbound / V2:Not reported	Dry	Daylight	Clear			V1: Turning right / V2:Travelling straight ahead
2932821	00:00 AM	26-Feb-2012	CHESTNUT STREET/EAST CENTRAL STREET	Property damage only (non-fatal)	Single vehicle crash	V1:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead
2954266	2:41 PM	27-Feb-2012	CHESTNUT STREET/EAST CENTRAL STREET	Property damage only (non-fatal)	Angle	V1:Northbound / V2:Southbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
3017804	11:52 AM	26-Mar-2012	EAST CENTRAL STREET/HILL AVENUE	Property damage only (non-fatal)	Angle	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Turning right / V2:Parked
3027440	8:40 PM	10-Apr-2012	EAST CENTRAL STREET/HILL AVENUE	Property damage only (non-fatal)	Sideswipe, same direction	V1:Southbound / V2:Southbound	Dry	Dark - lighted roadway	Clear			V1: Turning right / V2:Turning right
3118114	3:26 PM	28-May-2012	EAST CENTRAL STREET/GLEN MEADOW ROAD	Property damage only (non-fatal)	Sideswipe, same direction	V1:Eastbound / V2:Not reported	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Not reported
3133865	9:12 PM	7-Jun-2012		Property damage only (non-fatal)	Angle	V1:Southbound / V2:Northbound	Wet	Dark - lighted roadway	Rain			V1: Travelling straight ahead / V2:Turning right
3133867	12:46 PM	12-Jun-2012		Property damage only (non-fatal)	Rear-end	V1:Westbound / V2:Westbound / V3:Eastbound	Dry	Daylight	Clear/Cloudy			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic
3164588	7:52 AM	18-Jun-2012	EAST CENTRAL STREET/MILLIKEN AVENUE	Property damage only (non-fatal)	Angle	V1:Southbound / V2:Southbound	Dry	Daylight	Clear			V1: Turning right / V2:Travelling straight ahead
3154638	12:29 PM	21-Jun-2012	EAST CENTRAL STREET/KING STREET	Non-fatal injury	Angle	V1:Eastbound / V2:Eastbound / V3:Eastbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead
3154639	10:13 AM	23-Jun-2012	CHESTNUT STREET/EAST CENTRAL STREET	Property damage only (non-fatal)	Rear-end	V1:Westbound / V2:Westbound / V3:Eastbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead
3155244	2:33 PM	25-Jun-2012	EAST CENTRAL STREET	Non-fatal injury	Angle	V1:Westbound / V2:Westbound / V3:Eastbound	Dry	Daylight	Cloudy			V1: Parked / V2:Parked / V3:Travelling straight ahead

**2009 to 2012 Crash Data
East Central Street**

Crash										Weather	Non Motorized		Vehicle_Ac
Number	Crash Time	Crash Date2	Street Intersection	Crash Severity	Manner of Collision	Vehicle Traveled Direction	Road Surface	Ambient Light	Condition	Crash	Bike/Ped	Vehicle_Ac	
3164634	4:56 PM	3-Jul-2012	EAST CENTRAL STREET/LEWIS STREET	Property damage only (no	Angle	V1:Eastbound / V2:Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left	
3219323	10:35 AM	25-Jul-2012	EAST CENTRAL STREET/HILL AVENUE	Property damage only (no	Sideswipe, same direction	V1:Southbound / V2:Southbound	Dry	Daylight	Clear			V1: Parked / V2:Travelling straight ahead	
3245439	9:15 AM	15-Aug-2012	CHESTNUT STREET/EAST CENTRAL STREET	Property damage only (no	Angle	V1:Eastbound / V2:Eastbound / V3:Eastbound	Wet	Daylight	Rain			V1: Slowing or stopped in traffic / V2:Changing lanes / V3:Travelling straight ahead	
3278792	2:03 PM	5-Sep-2012	EAST CENTRAL STREET/HILL AVENUE	Property damage only (no	Angle	V1:Southbound / V2:Eastbound	Dry	Daylight	Clear			V1: Turning left / V2:Turning left	
3278724	2:30 PM	12-Sep-2012	EAST CENTRAL STREET/MILLIKEN AVENUE	Property damage only (no	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Not Reported			V1: Slowing or stopped in traffic / V2:Travelling straight ahead	
3271179	4:02 PM	21-Sep-2012		Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound / V3:Westbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic	
3271186	9:01 PM	2-Oct-2012	EAST CENTRAL STREET/HILL AVENUE	Property damage only (no	Rear-to-rear	V1:Not reported / V2:Not reported	Unknown	Dark - lighted roadway	Unknown/Unknown			V1: Backing / V2:Parked	
3271189	8:45 AM	6-Oct-2012		Property damage only (no	Single vehicle crash	V1:Eastbound	Dry	Daylight	Clear			V1: Turning left	
3286760	2:36 PM	23-Oct-2012		Property damage only (no	Rear-end	V1:Southbound / V2:Not reported	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead	
3283876	12:46 PM	28-Oct-2012	EAST CENTRAL STREET/MILLIKEN AVENUE	Property damage only (no	Sideswipe, same direction	V1:Eastbound / V2:Eastbound	Wet	Daylight	Rain			V1: Travelling straight ahead / V2:Entering traffic lane	
3286764	12:03 PM	31-Oct-2012		Property damage only (no	Sideswipe, opposite direction	V1:Southbound / V2:Northbound	Dry	Daylight	Cloudy			V1: Travelling straight ahead / V2:Travelling straight ahead	
3288873	4:57 PM	7-Nov-2012		Property damage only (no	Rear-end	V1:Westbound / V2:Westbound	Snow	Dark - lighted roadway	Snow			V1: Travelling straight ahead / V2:Slowing or stopped in traffic	
3294135	11:51 AM	10-Nov-2012	EAST CENTRAL STREET/HILL AVENUE	Property damage only (no	Angle	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Backing / V2:Travelling straight ahead	
3294075	1:00 PM	21-Nov-2012		Property damage only (no	Head-on	V1:Southbound / V2:Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Parked	
3296053	12:36 PM	26-Nov-2012	CHESTNUT STREET/EAST CENTRAL STREET	Property damage only (no	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead	
3321927	5:37 AM	5-Dec-2012		Property damage only (no	Single vehicle crash	V1:Northbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead	
3321928	5:01 PM	6-Dec-2012	CHESTNUT STREET/EAST CENTRAL STREET	Property damage only (no	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead	
3321930	5:15 PM	19-Dec-2012		Non-fatal injury	Single vehicle crash	V1:Westbound	Dry	Dark - roadway not lighted	Clear/Clear	P2:Pedestrian	ped	V1: Slowing or stopped in traffic	
3416664	10:20 PM	20-Dec-2012	CHESTNUT STREET/EAST CENTRAL STREET	Property damage only (no	Sideswipe, opposite direction	V1:Southbound	Dry	Dark - unknown roadway lighting	Clear			V1: Slowing or stopped in traffic	
3336977	1:00 PM	21-Dec-2012		Property damage only (no	Angle	V1:Eastbound / V2:Eastbound / V3:Northbound	Wet	Daylight	Rain			V1: Travelling straight ahead / V2:Travelling straight ahead / V3:Entering traffic lane	

Crash Rate Worksheets

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Franklin COUNT DATE : 4/15/2014

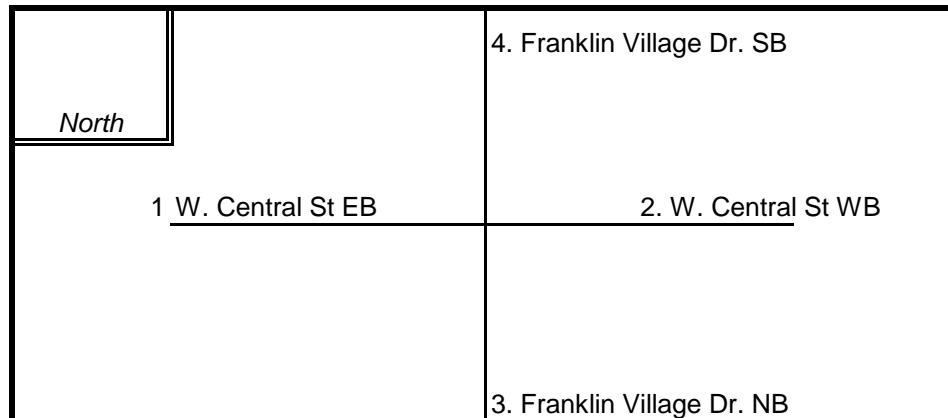
DISTRICT : 3 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : West Central Street

MINOR STREET(S) : Franklin Village Drive/Old West Central Street

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	1,436	932	640	508		3,516

" K " FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION :

1.03

RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : _____

Project Title & Date: Route 140 Arterial Segment Study

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Franklin COUNT DATE : 4/15/2014

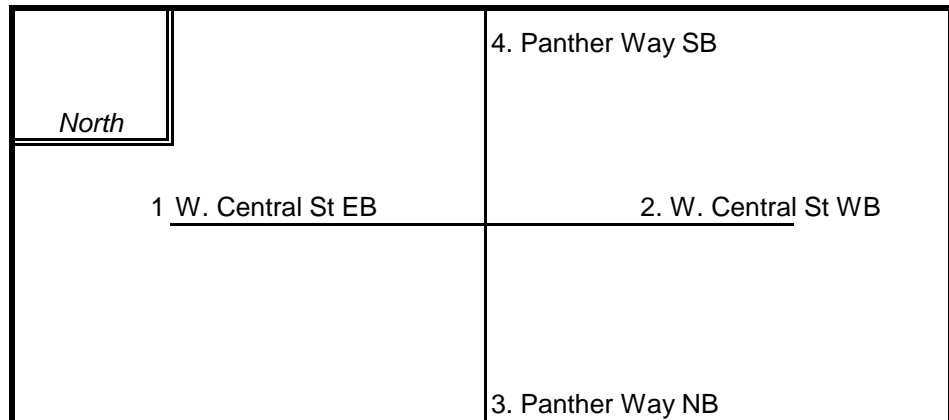
DISTRICT : 3 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : West Central Street

MINOR STREET(S) : Panther Way

**INTERSECTION
 DIAGRAM
 (Label Approaches)**



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	989	882	34	139		2,044

" K " FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION :

0.45

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : _____

Project Title & Date: Route 140 Arterial Segment Study



INTERSECTION CRASH RATE WORKSHEET

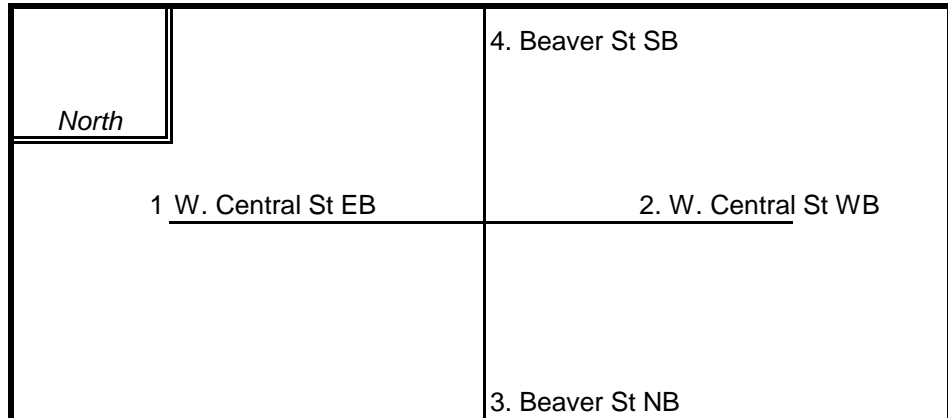
CITY/TOWN : Franklin COUNT DATE : 4/15/2014
 DISTRICT : 3 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : West Central Street

MINOR STREET(S) : Beaver St

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	943	521	183	417		2,064

" K " FACTOR : **0.090** INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME : **22,933**

TOTAL # OF CRASHES : **21** # OF YEARS : **4** AVERAGE # OF CRASHES PER YEAR (A) : **5.25**

CRASH RATE CALCULATION :

0.63

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : _____

Project Title & Date: Route 140 Arterial Segment Study

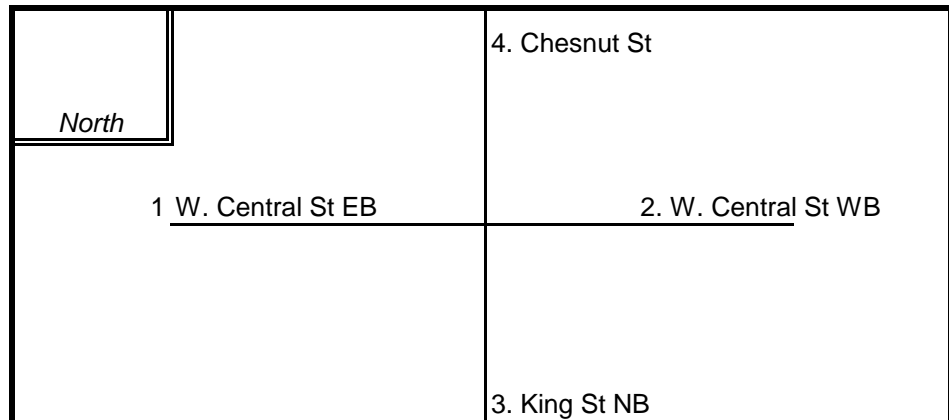
INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Franklin COUNTY DATE : 4/15/2014
 DISTRICT : 3 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : West Central Street
 MINOR STREET(S) : King St and Chestnut St

**INTERSECTION
 DIAGRAM
 (Label Approaches)**



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	551	768	541	374		2,234

" K " FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION :

0.91

RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : _____

Project Title & Date: Route 140 Arterial Segment Study

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Franklin COUNT DATE : 4/15/2014

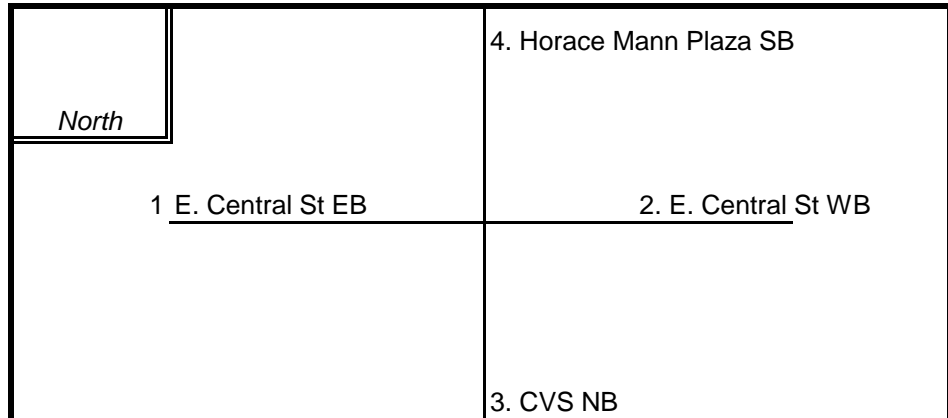
DISTRICT : 3 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : West Central Street

MINOR STREET(S) : Horace Mann Plaza Dr/CVS Dr

**INTERSECTION
DIAGRAM
(Label Approaches)**



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	659	703	301	93		1,756

" K " FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION : RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : _____

Project Title & Date: Route 140 Arterial Segment Study

SEGMENT CRASH RATE WORKSHEET

CITY/TOWN : Franklin COUNT DATE : Apr-14

DISTRICT : 3

~ SEGMENT DATA ~

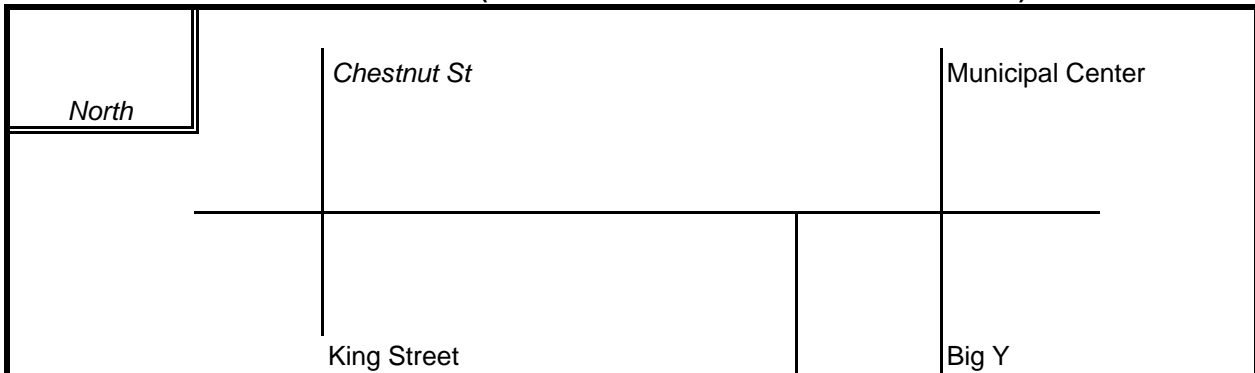
ROADWAY NAME: East Central Street

START POINT: King Street/Chestnut Street

END POINT: Big Y store

FUNCTIONAL CLASSIFICATION OF ROADWAY: Principal Arterial (other)

ROADWAY DIAGRAM (LABEL ROADWAY AND CROSS STREETS)



AVERAGE DAILY TRAFFIC

SEGMENT LENGTH IN MILES (L): **0.6**

AVERAGE DAILY TRAFFIC VOLUME (V): 17,100

TOTAL # OF CRASHES:

86

OF YEARS :

4

AVERAGE # OF CRASHES PER YEAR (A) :

21.50

CRASH RATE CALCULATION :

5.74

RATE =

$$\frac{(A * 1,000,000)}{(L * V * 365)}$$

Comments : _____

Project Title & Date: _____

SEGMENT CRASH RATE WORKSHEET

CITY/TOWN : Franklin COUNT DATE : Apr-14

DISTRICT : 3

~ SEGMENT DATA ~

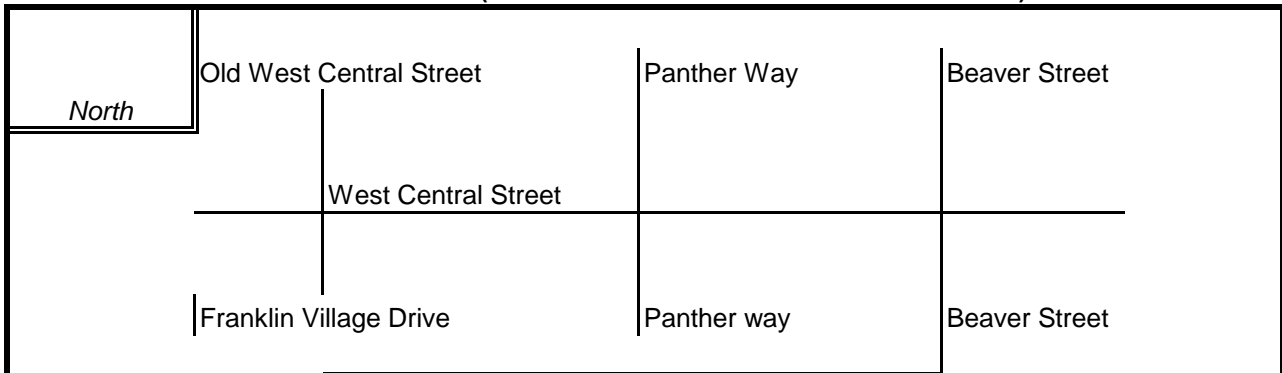
ROADWAY NAME: West Central Street

START POINT: Franklin Village Drive

END POINT: Beaver Street

FUNCTIONAL CLASSIFICATION OF ROADWAY: Principal Arterial (Other)

ROADWAY DIAGRAM (LABEL ROADWAY AND CROSS STREETS)



AVERAGE DAILY TRAFFIC

SEGMENT LENGTH IN MILES (L): 0.7

AVERAGE DAILY TRAFFIC VOLUME (V): 21,400

TOTAL # OF CRASHES: 132 # OF YEARS: 4 AVERAGE # OF CRASHES PER YEAR (A): 33.00

CRASH RATE CALCULATION :

6.04

$$\text{RATE} = \frac{(A * 1,000,000)}{L * V * 365}$$

Comments : _____

Project Title & Date: _____

Collision Diagrams Crash Data

West Central Street and Franklin Village Drive Intersection
Crash Data for Collision Diagram

Crash ID	Crash Number	Crash Time	Crash Date1	Crash Severity	Manner of Collision	Vehicle Traveled Direction	Road Surface		Weather		Vehicle Action
							Condition	Ambient Light Condition	Condition	Vehicle Action	
1	2699878	11:38 AM	01-Mar-2011	Property damage only (no	Rear-end	V1:Westbound / V2:Westbound	Not reported	Daylight	Clear	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	
2	2753452	6:29 PM	11-Aug-2011	Property damage only (no	Angle	V1:Eastbound / V2:Northbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Travelling straight ahead	
3	2782504	8:52 PM	01-Sep-2011	Property damage only (no	Angle	V1:Eastbound / V2:Eastbound	Dry	Other	Cloudy	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	
4	2792801	6:54 PM	20-Oct-2011	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear	V1: Entering traffic lane / V2:Entering traffic lane	
5	2829730	2:29 PM	01-Dec-2011	Property damage only (no	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	
6		8:35 AM	13-Feb-2012	Property damage only (no	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	
7	2915070	7:12 PM	13-Feb-2012	Property damage only (no	Angle	V1:Northbound / V2:Westbound	Dry	Dark - lighted roadway	Clear	V1: Travelling straight ahead / V2:Travelling straight ahead	
8	3282371	6:13 PM	23-Oct-2012	Property damage only (no	Sideswipe, same direction	V1:Eastbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	
9		11:00 AM	23-Jan-2013	Property damage only (no	Angle	V1:Southbound / V2:Eastbound	Dry	Daylight	Clear		
10		5:10 PM	31-Jan-2013	Non-fatal injury	Rear-end	V1:Southbound / V2:Southbound	Dry	Dark - lighted roadway	Cloudy		
11		5:46 PM	9-May-2013	Property damage only (no	Sideswipe, same direction	V1:Eastbound / V2:Eastbound	Wet	Daylight	Cloudy		
12		6:20 PM	17-Oct-2013	Property damage only (no	Rear-end	V1:Northbound / V2:Northbound / V3:North	Dry	Dark - lighted roadway	Clear		
13		1:22 PM	4-Nov-2012	Property damage only (no	Angle	V1:Southbound / V2:Westbound	Dry	Daylight	Clear		
14		7:29 PM	5-Dec-2013	Non-fatal injury	Rear-end	V1:Southbound / V2:Southbound	Wet	Dark - lighted roadway	Rain		
15		5:51 PM	13-Dec-2013	Property damage only (no	Sideswipe, same direction	V1:Westbound / V2:Westbound	Dry	Dark - lighted roadway	Clear		
16	2634824	8:56 PM	14-Jun-2010	Property damage only (no	Angle	V1:Westbound / V2:Eastbound	Wet	Dark - lighted roadway	Rain	V1: Travelling straight ahead / V2:Turning left	
17	2618718	4:01 PM	02-Jun-2010	Property damage only (no	Rear-end	V1:Northbound / V2:Northbound / V3:North	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Travelling straight ahead / V3:Tr	
18	2602219	9:46 PM	13-May-2010	Property damage only (no	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Not Reported	V1: Turning right / V2:Turning right	
19	2584937	3:38 PM	23-Mar-2010	Property damage only (no	Rear-end	V1:Northbound / V2:Northbound	Wet	Daylight	Rain/Cloudy	V1: Turning right / V2:Turning right	
20	2564890	4:11 PM	14-Jan-2010	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	
21	2529414	5:05 PM	16-Sep-2009	Property damage only (no	Angle	V1:Westbound / V2:Westbound	Dry	Daylight	Clear	V1: Turning left / V2:Turning left	
22	2427650	1:52 PM	17-Jan-2009	Property damage only (no	Rear-end	V1:Northbound / V2:Northbound / V3:North	Sand, mud, dirt, oi	Daylight	Clear	V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Tr	
23	2498321	5:09 PM	28-Jul-2009	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound / V3:Eastbound	Dry	Daylight	Clear/Clear	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	
24	2492436	9:00 PM	30-Jun-2009	Property damage only (no	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Dark - lighted roadway	Cloudy	V1: Entering traffic lane / V2:Entering traffic lane	

**West Central Street Segment
From Panther Way Intersection to Honey Dew Driveway**

Crash ID	Crash Number	Crash Time	Crash Date 1	Crash Severity	Manner of Collision	Vehicle Traveled Direction	Road Surface			Non-Motorized	Bike/ Pedestrian	Vehicle Action
							Condition	Ambient Light Condition	Weather Condition			
1	2940397	7:23 AM	29-Feb-2012	Property damage only (nc)	Angle	V1:Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead
2	2744512	4:35 PM	24-Jul-2011	Property damage only (nc)	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
3	2761333	8:31 PM	24-Aug-2011	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
4	2794132	6:42 AM	16-Sep-2011	Property damage only (nc)	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
5		7:43 PM	30-Jan-2012	Property damage only (nc)	Rear-end	V1: Eastbound / V2: Eastbound	Dry	Dark - lighted roadway	Clear			V1: Slowing or stopped in traffic / V2: Travelling straight ahead
6	2915058	5:15 PM	05-Feb-2012	Property damage only (nc)	Sideswipe, same direction	V1:Westbound / V2:Eastbound	Dry	Daylight	Clear/Clear			V1: Travelling straight ahead / V2:Turning right
7		7:57 PM	30-Mar-2012	Non-fatal injury	Single vehicle crash	V1:Westbound / V2:Westbound	Dry	Daylight	Clear	Other	Animal	V1: Travelling straight ahead / V2: Travelling straight ahead
8	3133863	2:30 PM	06-Jun-2012	Property damage only (nc)	Rear-end	V1:Westbound / V2:Westbound / V3:Eastbound	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
9	3278791	1:52 PM	21-Aug-2012	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound / V3:Eastbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
10	3248661	7:39 AM	29-Aug-2012	Property damage only (nc)	Angle	V1:Westbound / V2:Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
11	3282370	11:12 AM	20-Oct-2012	Property damage only (nc)	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Entering traffic lane
12	3288870	3:32 PM	05-Nov-2012	Property damage only (nc)	Sideswipe, same direction	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear/Clear			V1: Changing lanes / V2:Travelling straight ahead
13		9:30 PM	26-Nov-2012	Property damage only (nc)	Angle	V1: Southbound / V2: Southbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead / V2:Turning left
14		7:02 AM	4-Jan-2013	Property damage only (nc)	Angle	V1: Westbound / V2: Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
15		7:13 AM	25-Jan-2013	Property damage only (nc)	Angle	V1: Westbound / V2: Southbound	Dry	Daylight	Cloudy			V1: Travelling straight ahead / V2: Entering traffic lane
16		12:21 PM	18-Jan-2013	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
17		5:41 PM	22-Aug-2013	Non-fatal injury	Rear-end	V1: Eastbound / V2: Eastbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
18		3:23 PM	24-Sep-2013	Property damage only (nc)	Angle	V1: Southbound / V2: Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning left
19		11:16 AM	11-Oct-2013	Property damage only (nc)	Rear-end	V1: Northbound / V2: Northbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2: Travelling straight ahead
20		10:16 AM	27-Nov-2013	Property damage only (nc)	Angle	V1: Eastbound / V2: Eastbound	Wet	Daylight	Rain			V1: Travelling straight ahead / V2:Turning left
21		12:35 PM	8-Nov-2013	Property damage only (nc)	Rear-end	V1: Eastbound / V2: Eastbound / V3: Eastbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
22		4:41 PM	17-Nov-2013	Property damage only (nc)	Rear-end	V1: Eastbound / V2: Eastbound	Wet	Dark - lighted roadway	Rain			V1: Turning left / V2:Travelling straight ahead
23	2453379	3:20 PM	13-Mar-2009	Property damage only (nc)	Angle	V1:Southbound / V2:Northbound	Dry	Daylight	Clear			V1: Turning left / V2:Travelling straight ahead
24	2478444	5:57 PM	21-May-2009	Property damage only (nc)	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
25	2528298	10:17 PM	12-Sep-2009	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Wet	Daylight	Rain/Rain			V1: Travelling straight ahead / V2:Slowing or stopped in traffic
26		5:46 PM	29-Jan-2010	Property damage only (nc)	Rear-end	V1:Eastbound/V2:Eastbound/V3:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Slow or stopped / V2:Slow or stopped / V3:Slow or stopped
27	2583820	4:56 PM	07-Feb-2010	Unknown	Sideswipe, same direction	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear			V1: Changing lanes / V2:Travelling straight ahead
28	2602263	2:20 PM	29-Apr-2010	Property damage only (nc)	Angle	V1:Southbound / V2:Westbound	Dry	Daylight	Not Reported			V1: Entering traffic lane / V2:Travelling straight ahead
29	2634832	4:00 PM	23-Aug-2010	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Wet	Daylight	Cloudy/Rain			V1: Slowing or stopped in traffic / V2:Travelling straight ahead
30	2759908	8:41 PM	15-Oct-2010	Unknown	Angle	V1:Northbound / V2:Southbound	Wet	Dark - lighted roadway	Rain			V1: Slowing or stopped in traffic / V2:Turning left

West Central Street Segement
From Burger King Driveway to Wendy's Driveway

Crash ID	Crash Number	Crash Time	Crash Date1	Crash Severity	Manner of Collision	Vehicle Traveled Direction	Road Surface Condition	Ambient Light Condition	Weather Condition	Vehicle Action
1	2792604	7:50 AM	20-Oct-2011	Property damage only (non	Angle	V1:Westbound / V2:Eastbound	Wet	Daylight	Rain	V1: Travelling straight ahead / V2:Entering
2	2915064	11:34 AM	11-Feb-2012	Property damage only (non	Angle	V1:Eastbound / V2:Eastbound	Wet	Daylight	Rain/Snow	V1: Travelling straight ahead / V2:Changing
3	2915577	2:58 PM	17-Feb-2012	Non-fatal injury	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2:Trave
4	3288871	10:17 AM	07-Nov-2012	Property damage only (non	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Cloudy	V1: Slowing or stopped in traffic / V2:Trave
5	2980167	7:30 AM	23-Mar-2012	Property damage only (non	Angle	V1:Northbound / V2:Southbound	Dry	Daylight	Cloudy	V1: Travelling straight ahead / V2:Entering
6	3098130	5:30 PM	15-May-2012	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Wet	Daylight	Cloudy/Rain	V1: Travelling straight ahead / V2:Slowing c
7		4:49 PM	19-May-2012	Property damage only (non	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear	V1:Turning left / V2: Travelling straight ahe
8		9:52 AM	8-Jun-2012	Property damage only (non	Sideswipe, same dir	V1:Westbound / V2:Westbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Travelling
9		7:27 AM	26-Oct-2012	Property damage only (non	Angle	V1:Southbound / V2:Westbound	Dry	Daylight	Clear	V1: Entering traffic lane / V2:Travelling stra
10	3323767	8:00 PM	21-Dec-2012	Property damage only (non	Rear-end	V1:Eastbound / V2:Eastbound	Wet	Dark - lighted roadway	Rain	V1: Travelling straight ahead / V2:Slowing c
11	3323761	11:13 PM	15-Dec-2012	Non-fatal injury	Head-on	V1:Eastbound / V2:Westbound	Dry	Dark - lighted roadway	Clear	V1: Turning left / V2:Travelling straight ahe
12		10:09 PM	6-Jan-2013	Property damage only (non	Angle	V1:Southbound / V2:Southbound	Dry	Dark - lighted roadway	Clear	V1:Travelling straight ahead / V2: Changing
13		3:10 PM	25-Jan-2013	Property damage only (non	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2: Trave
14		8:33 PM	17-Jan-2013	Non-fatal injury	Head on	V1:Westbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear	V1: Travelling straight ahead / V2:Travelling
15		7:15 AM	7-Feb-2013	Property damage only (non	Angle	V1:Northbound / V2:Southbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Travelling
16		6:25 PM	20-Feb-2013	Property damage only (non	Angle	V1:Westbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear	V1:Turning left / V2: Travelling straight ahe
17		8:09 PM	11-Feb-2013	Non-fatal injury	Angle	V1:Westbound / V2:Southbound	Wet	Dark - lighted roadway	Clear	V1: Travelling straight ahead / V2:Turning l
18		2:15 PM	17-Apr-2013	Property damage only (non	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Travelling
19		2:07 PM	10-May-2013	Property damage only (non	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Slowing c
20		6:56 PM	3-May-2013	Property damage only (non	Angle	V1:Eastbound / V2:Westbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Turning l
21		7:33 AM	30-May-2013	Non-fatal injury	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Travelling
22		11:05 AM	18-May-2013	Property damage only (non	Angle	V1:Eastbound / V2:Northbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Turning l
23		6:12 PM	10-Jun-2013	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Wet	Daylight	Rain	V1: Slowing or stopped in traffic / V2: Trave
24		12:35 PM	26-Jul-2013	Property damage only (non	Sideswipe, same dir	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear	V1: Turning right / V2: Travelling straight al
25		5:49 PM	9-Aug-2013	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Wet	Daylight	Rain	V1: Travelling straight ahead / V2:Travelling
26		9:14 AM	25-Aug-2013	Property damage only (non	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2: Trave
27		7:39 AM	23-Oct-2013	Property damage only (non	Rear-end	V1:Westbound / V2:Westbound / V3:Westbo	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2:Slowi
28	3294077	12:58 PM	25-Nov-2012	Property damage only (non	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Slowing c
29		1:41 PM	23-Dec-2013	Property damage only (non	Rear-end	V1:Westbound / V2:Westbound / V3:Westbo	Unknown	Daylight	Cloudy	V1: Slowing or stopped in traffic / V2:Slowi
30	2634834	8:58 AM	23-Aug-2010	Property damage only (non	Angle	V1:Southbound / V2:Westbound	Wet	Daylight	Rain	V1: Turning left / V2:Travelling straight ahe
31	2615893	12:07 PM	01-Jul-2010	Property damage only (non	Angle	V1:Northbound / V2:Southbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Turning l
32	2618778	8:01 PM	05-Jun-2010	Non-fatal injury	Angle	V1:Westbound / V2:Southbound	Wet	Daylight	Rain	V1: Travelling straight ahead / V2:Entering
33	2589430	8:14 AM	01-Apr-2010	Property damage only (non	Angle	V1:Westbound / V2:Southbound	Wet	Daylight	Cloudy	V1: Travelling straight ahead / V2:Entering
34	2564442	1:20 PM	15-Jan-2010	Not Reported	Angle	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear	V1: Parked / V2:Turning right
35	2429657	11:47 AM	21-Jan-2009	Property damage only (non	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Entering
36	2506540	5:02 PM	14-Aug-2009	Property damage only (non	Angle	V1:Westbound / V2:Westbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Turning l

West Central Street and Beaver Street Intersection
Crash Data for Collision Diagram

Crash ID	Crash Number	Crash Time	Crash Date1	Crash Time2	Crash Severity	Manner of Collision	Vehicles Travel Directions	Road Surface Condition	Ambient Light	Weather Condition	Vehicle Action Before Crash
1	2556867	6:50 AM	05-Feb-2009	6:50 AM	Property damage only (n	Not reported	V1:Not reported / V2:Not reported	Wet	Daylight	Clear	V1: Backing / V2:Slowing or stopped in traffic
2	2464247	11:30 PM	17-Apr-2009	11:30 PM	Non-fatal injury	Single vehicle crash	V1:Westbound	Dry	Dark - lighted roadway	Clear	V1: Travelling straight ahead
3	2517914	6:39 PM	18-Aug-2009	6:39 PM	Property damage only (n	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Travelling straight ahead
4	2515005	2:14 PM	15-Aug-2009	2:14 PM	Property damage only (n	Rear-end	V1:Northbound / V2:Northbound	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2:Travelling straight ahead
5	2564902	9:28 PM	14-Jan-2010	9:28 PM	Property damage only (n	Sideswipe, same di	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Slowing or stopped in traffic
6	2602266	3:31 PM	26-Mar-2010	3:31 PM	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2:Travelling straight ahead
7	2602220	7:38 PM	21-May-2010	7:38 PM	Property damage only (n	Not reported	V1:Eastbound / V2:Eastbound	Not reported	Not reported	Not Reported	V1: Travelling straight ahead / V2:Travelling straight ahead
8	2619249	11:33 PM	12-Jun-2010	11:33 PM	Non-fatal injury	Rear-to-rear	V1:Eastbound / V2:Eastbound / V3:E	Dry	Daylight	Cloudy	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
9	2748030	7:45 AM	02-Jun-2010	7:45 AM	Property damage only (n	Rear-end	V1:Not reported / V2:Not reported	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2:Travelling straight ahead
10	2655197	1:37 PM	30-Aug-2010	1:37 PM	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Slowing or stopped in traffic
11	2687372	11:23 AM	01-Feb-2011	11:23 AM	Property damage only (n	Sideswipe, same di	V1:Southbound / V2:Southbound	Not reported	Daylight	Snow	V1: Travelling straight ahead / V2:Travelling straight ahead
12	2792805	9:20 PM	01-Nov-2011	9:20 PM	Non-fatal injury	Single vehicle crash	V1:Eastbound	Dry	Dark - roadway not lighte	Clear	V1: Travelling straight ahead
13	2815433	1:08 PM	29-Nov-2011	1:08 PM	Property damage only (n	Rear-end	V1:Eastbound / V2:Eastbound / V3:E	Dry	Daylight	Cloudy	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
14		3:10 PM	29-Mar-2012	3:10 PM	Property damage only (n	Angle	V1:Northbound / V2:Not reported	Dry	Daylight	Clear	V1: Travelling straight ahead / V2: Entering traffic lane
15		1:56 PM	27-Apr-2012	1:56 PM	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
16		1:39 PM	20-Dec-2012	1:39 PM	Property damage only (n	Angle	V1:Southbound / V2:Westbound / V	Dry	Daylight	Clear	V1: Travelling straight ahead / V2:Turning left
17		10:58 AM	12-Apr-2012	10:58 AM	Property damage only (n	Rear-end	V1:Eastbound / V2:Eastbound	Dry	Daylight	Clear	V1: Slowing or stopped in traffic / V2:Travelling straight ahead
18		5:46 PM	9-Oct-2013	5:46 PM	Property damage only (n	Angle	V1:Southbound / V2:Westbound / V	Dry	Daylight	Clear	V1: Making U-turn / V2: Travelling straight ahead
19		5:23 PM	22-Sep-2013	5:23 PM	Non-fatal injury	Angle	V1:Westbound / V2:Southbound	Dry	Daylight	Clear	V1: Entering traffic lane/ V2: Overtaking/Passing
20		6:44 PM	22-Oct-2013	6:44 PM	Non-fatal injury	Single vehicle crash	V1:Northbound / V2:Northbound	Dry	Dark - lighted roadway	Clear	V1: Entering traffic lane / V2: Travelling straight ahead
21	2713620	3:20 PM	05-Apr-2011	3:20 PM	Property damage only (n	Rear-end	V1:Eastbound / V2:Eastbound	Not reported	Daylight	Rain/Cloudy	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
	2453560	11:01 AM	08-Apr-2009	11:01 AM	Property damage only (n	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Cloudy	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
	2528318	6:38 PM	09-Oct-2009	6:38 PM	Property damage only (n	Rear-end	V1:Eastbound / V2:Eastbound	Wet	Dark - lighted roadway	Rain/Rain	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic
	2564458	5:46 PM	29-Jan-2010	5:46 PM	Property damage only (n	Rear-end	V1:Eastbound / V2:Eastbound / V3:E	Dry	Dark - lighted roadway	Clear	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic

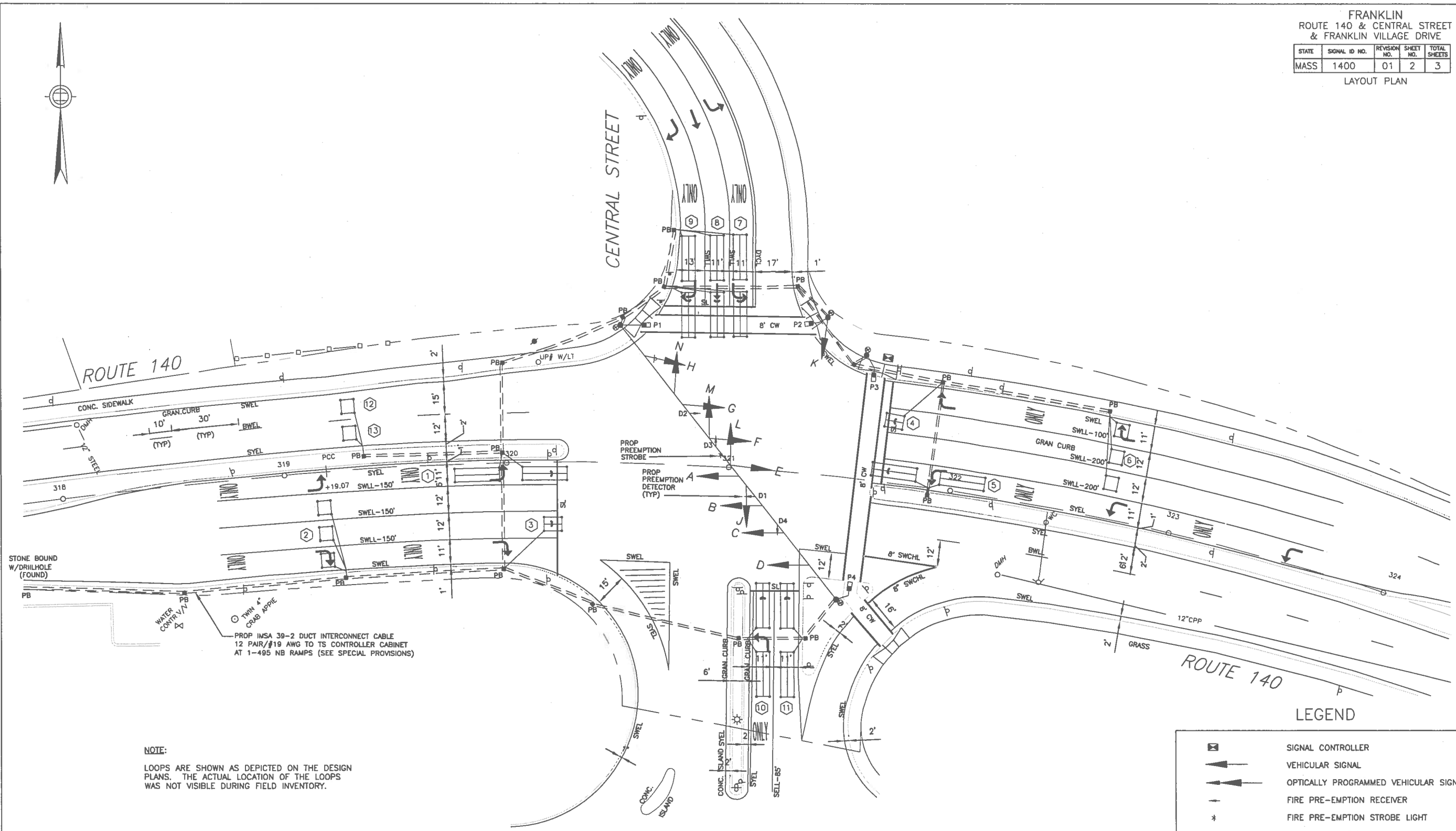
East Central Street and King Street/Chestnut Street Intersection
Crash Data for Collision Diagram

Crash ID	Crash		Crash Number1	Crash Date1	Crash Severity	Manner of Collision	Vehicle Travel Direction	Road Surface	Ambient Light	Non Motorized			Vehicle Action
	Number	Crash Time							Conditions	Weather Conditions	Type	Bike Ped	
1	2429650	9:03 AM	2429650	20-Jan-2009	Non-fatal injury	Angle	V1:Eastbound / V2:Southbound	Dry	Daylight	Cloudy			V1: Turning left / V2:Travelling straight al
2	2445088	3:08 PM	2445088	22-Feb-2009	Property damage only (n	Angle	V1:Northbound / V2:Eastbound	Wet	Daylight	Rain			V1: Turning right / V2:Travelling straight ;
3	2485134	10:11 PM	2485134	25-Apr-2009	Fatal injury	Angle	V1:Westbound / V2:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead / V2:Turning
4	2478707	7:40 AM	2478707	09-Jun-2009	Property damage only (n	Angle	V1:Southbound / V2:Westbound	Dry	Daylight	Cloudy			V1: Travelling straight ahead / V2:Travelli
5	2631238	9:45 PM	2631238	24-Jul-2009	Property damage only (n	Not reported	V1:Westbound / V2:Not reported	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead / V2:Enterin
6	2506290	5:24 PM	2506290	31-Jul-2009	Property damage only (n	Rear-end	V1:Eastbound / V2:Eastbound / V3: Ea	Wet	Daylight	Rain/Cloudy			V1: Slowing or stopped in traffic / V2:Slow
7	2528163	8:31 PM	2528163	16-Oct-2009	Property damage only (n	Angle	V1:Westbound / V2:Southbound	Wet	Daylight	Snow			V1: Turning left / V2:Travelling straight al
8	2564762	11:20 AM	2564762	29-Dec-2009	Non-fatal injury	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slow
9	2564791	6:34 PM	2564791	15-Dec-2009	Property damage only (n	Angle	V1:Eastbound / V2:Northbound	Dry	Dark - lighted roadway	Cloudy			V1: Travelling straight ahead / V2:Travelli
10	2563153	3:49 PM	2563153	28-Dec-2009	Property damage only (n	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Tra
11	2564483	6:14 PM	2564483	27-Jan-2010	Unknown	Rear-end	V1:Eastbound / V2:Eastbound / V3: Ea	Dry	Dark - lighted roadway	Clear			V1: Slowing or stopped in traffic / V2:Slow
12	2582682	8:51 PM	2582682	19-Mar-2010	Property damage only (n	Rear-end	V1:Southbound	Not reported	Daylight	Clear			V1: Travelling straight ahead
13	2589198	2:45 PM	2589198	18-Mar-2010	Property damage only (n	Angle	V1:Westbound / V2:Westbound	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Turning
14	2756706	2:45 PM	2756706	07-May-2010	Non-fatal injury	Rear-end	V1:Not reported / V2:Not reported	Dry	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Not
15	2634817	8:31 PM	2634817	02-Aug-2010	Property damage only (n	Angle	V1:Westbound / V2:Northbound	Dry	Dark - lighted roadway	Clear/Clear			V1: Travelling straight ahead / V2:Travelli
16	2634840	6:06 PM	2634840	15-Aug-2010	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Tra
17	2674583	7:47 AM	2674583	12-Dec-2010	Property damage only (n	Single vehicle crash	V1:Northbound	Not reported	Daylight	Sleet, hail (freezing rain or drizzle)			V1: Travelling straight ahead
18	2705075	11:27 AM	2705075	12-Mar-2011	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound / V3:	Not reported	Daylight	Clear			V1: Slowing or stopped in traffic / V2:Slow
19	2708279	4:13 PM	2708279	22-Mar-2011	Non-fatal injury	Rear-end	V1:Eastbound / V2:Eastbound	Not reported	Daylight	Cloudy			V1: Travelling straight ahead / V2:Turning
20	2718663	2:45 PM	2718663	21-Apr-2011	Property damage only (n	Angle	V1:Eastbound / V2:Eastbound	Not reported	Daylight	Clear/Severe crosswinds			V1: Turning right / V2:Turning left
21	2753454	2:32 PM	2753454	14-Aug-2011	Non-fatal injury	Rear-end	V1:Westbound / V2:Westbound / V3:	Dry	Daylight	Clear			V1: Travelling straight ahead / V2:Travelli
22	2762691	6:57 PM	2762691	14-Sep-2011	Non-fatal injury	Not reported	V1:Northbound / V2:Northbound	Not reported	Not reported	Not Reported			V1: Slowing or stopped in traffic / V2:Tra
23	2792804	5:25 PM	2792804	30-Oct-2011	Non-fatal injury	Not reported	V1:Westbound / V2:Westbound / V3:	Wet	Dusk	Clear/Clear			V1: Slowing or stopped in traffic / V2:Slow
24	2808701	8:08 AM	2808701	15-Nov-2011	Non-fatal injury	Angle	V1:Westbound / V2:Eastbound	Dry	Daylight	Cloudy			V1: Slowing or stopped in traffic / V2:Tra
25	2812382	5:36 PM	2812382	25-Nov-2011	Non-fatal injury	Sideswipe, same direction	V1:Westbound	Dry	Dark - lighted roadway	Clear/Other	P3:Pedalcyclist (t	cyc	V1: Travelling straight ahead
26		12:11 AM		26-Feb-2012	Property damage only (n	Single vehicle crash	V1:Eastbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead
27		5:15 PM		19-Dec-2012	Non-fatal injury	Single vehicle crash	V1:Westbound	Dry	Dark - roadway not lighte	Clear		ped	V1: Slowing or stopped
28		5:37 AM		5-Dec-2012	Property damage only (n	Single vehicle crash	V1:Northbound	Dry	Dark - lighted roadway	Clear			V1: Travelling straight ahead
29		10:20 PM		20-Dec-2012	Property damage only (n	Sideswipe, opposite direction	V1:Southbound	Dry	Dark - unknown roadway	Clear			V1: Slowing or stopped
30		4:05 PM		18-May-2013	Non-fatal injury	Sideswipe, same direction	V1:Northbound / V2:Northbound	Dry	Daylight	Clear			V1: Travelling straight ahead/ V2:Enterin
31		5:53 PM		3-Jun-2013	Property damage only (n	Rear-end	V1:Southbound / V2:Southbound	Dry	Daylight	Clear			V1: Slowing or stopped/ V2:Traveling str

APPENDIX D

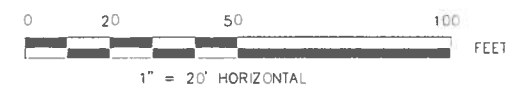
Signal Information and Intersection LOS Analysis

Signal Information



NOTE:
 LOOPS ARE SHOWN AS DEPICTED ON THE DESIGN PLANS. THE ACTUAL LOCATION OF THE LOOPS WAS NOT VISIBLE DURING FIELD INVENTORY.

PROP IMSA 39-2 DUCT INTERCONNECT CABLE
 12 PAIR / #19 AWG TO TS CONTROLLER CABINET
 AT 1-495 NB RAMPS (SEE SPECIAL PROVISIONS)



LEGEND

	SIGNAL CONTROLLER
	VEHICULAR SIGNAL
	OPTICALLY PROGRAMMED VEHICULAR SIGNAL
	FIRE PRE-EMPTION RECEIVER
	FIRE PRE-EMPTION STROBE LIGHT
	PEDESTRIAN SIGNAL
	PEDESTRIAN PUSH BUTTON
	PULL BOX

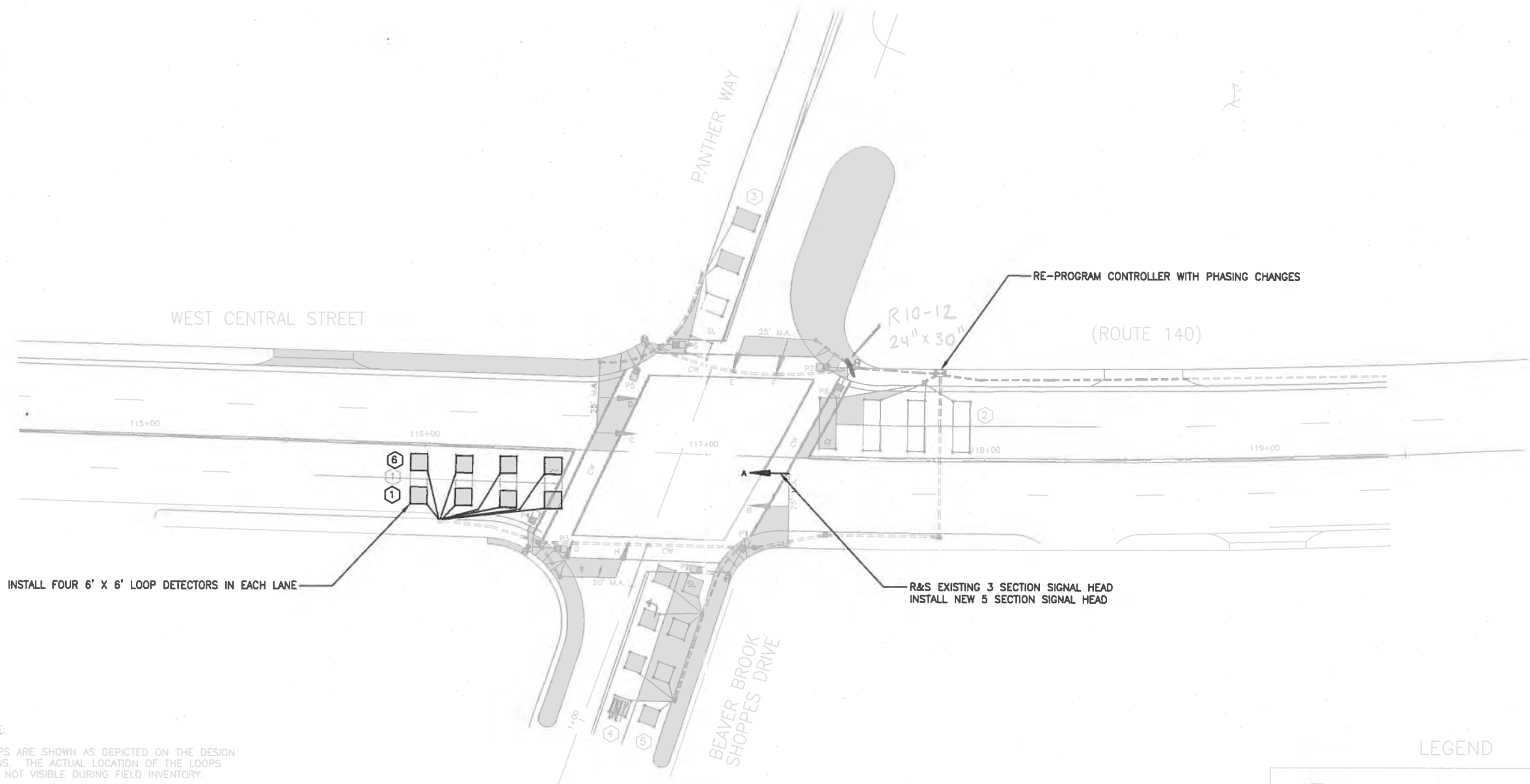
APPROVED BY: _____
 STATE TRAFFIC ENGINEER Date

1400P0101.DWG

FRANKLIN
WEST CENTRAL STREET (ROUTE 140)
& PANTHER WAY

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1401	01	2	3

LAYOUT PLAN



NOTE:
LOOPS ARE SHOWN AS DEPICTED ON THE DESIGN PLANS. THE ACTUAL LOCATION OF THE LOOPS WAS NOT VISIBLE DURING FIELD INVENTORY.



LEGEND

	SIGNAL CONTROLLER
	VEHICULAR SIGNAL
	OPTICALLY PROGRAMMED VEHICULAR SIGNAL
	FIRE PRE-EMPTION RECEIVER
	FIRE PRE-EMPTION STROBE LIGHT
	PEDESTRIAN SIGNAL
	PEDESTRIAN PUSH BUTTON
	PULL BOX

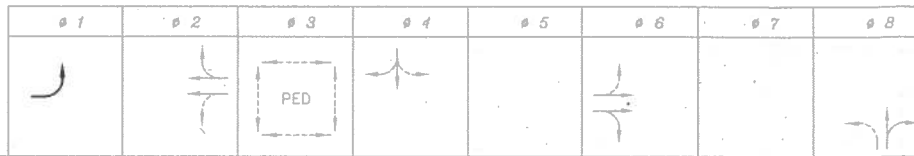
APPROVED BY: _____
STATE TRAFFIC ENGINEER Date

1401P0101.DWG

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1401	01	3	3

TRAFFIC SIGNAL DATA

APPROX. NORTH



SEQUENCE AND TIMING FOR FULLY-ACTUATED CONTROL (ISOLATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	PHASE
W. CENTRAL ST (ROUTE 140)	EB	A	R/GL	R/L	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
W. CENTRAL ST (ROUTE 140)	EB	B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
W. CENTRAL ST (ROUTE 140)	WB	C,D	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
DRIVEWAY	NB	E,F	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	FR
PANTHER WAY	SB	G,H	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	FR
PEDESTRIAN		ALL	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF

TIMING IN SECONDS

MINIMUM GREEN (INITIAL)	6		12																								
PASSAGE TIME (VEHICLE)	2		3																								
MAXIMUM 1	12		45																								
MAXIMUM 2																											
YELLOW CLEARANCE		3		3									3													3	
RED CLEARANCE			2		2									2													2
WALK (W)								7																			
PEDESTRIAN CLEARANCE										14	0																
RECALL																											
MEMORY																											

QUANTITY	ITEM
1	CONTROLLER TYPE 8DW, CAB. & FDN.
1	SERVICE CONNECTION
	SPANWIRE ASSEMBLY BASE & FDN.
4	8" SIGNAL POLE, BASE, & FDN.
	10' SIGNAL POLE, BASE, & FDN.
4	MAST ARM ASSEMBLY, BASE, & FDN.
7	1 WAY, 3 SECTION, SIGNAL HOUSING (12" LENS)
	1 WAY, 4 SECTION SIGNAL HOUSING (12" LENS)
	2 WAY, 3 SECTION SIGNAL HOUSING (12" LENS)
8	PEDESTRIAN HOUSING
4	PEDESTRIAN PUSH BUTTON, SIGN, & SADDLES
5	LOOP DETECTOR AMPLIFIER
20	ROADWAY LOOP DETECTOR
9	12" x 12" PULL BOX
	MAGNETIC DETECTOR
	MAGNETOMETER
	MAGNETIC AMPLIFIER
1	OPTICOM RECEIVERS
1	OPTICOM DUAL CHANNEL PHASE SELECTOR
1	OPTICOM STROBE LIGHT
1	1 WAY, 5 SECTION, SIGNAL HOUSING (12" LENS)
	Necessary duct, cable, labor, miscellaneous material and equipment to complete the installation.

NOTES:

SEQUENCE AND TIMING NOTES:

1. TIMING SHALL BE VARIABLE AND BASED ON DURATION OF FLASHING OPTICAL SIGNAL FROM APPROACHING EMERGENCY VEHICLE EMITTER.

2. #5, AND #7 NOT USED.

NEMA DUAL RING PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.

2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.

3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.

4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

LOOP DETECTOR NOTES:

1. SEE LOOP DETECTOR DETAIL SHEET FROM DESIGN DOCUMENT FOR SPLICE PATTERN AND OTHER INFORMATION.

2. DELAY AND EXTENSION TIMES ARE IN SECONDS.

3. DELAY TIME SHALL BE EFFECTIVE ONLY DURING THE RED PORTION OF THE PHASE THAT IS CALLED BY THE DETECTOR.

SIGNAL IDENTIFICATION NOTES:

1. ALL SIGNAL HEADS DO NOT HAVE 5" LOUVERED BACKPLATES.

2. ALL SIGNAL LENSES ARE 12" DIA.

3. ALL SIGNAL HEADS ARE FIXED-MOUNTED.

EMERGENCY PRE-EMPTION DATA NOTES:

1. ACTIVATION OF FIRE PRE-EMPTION RESULTS IN IMMEDIATE CLEARANCE OF ANY CONFLICTING MOVEMENTS IN PROGRESS, FOLLOWED BY FIRE PRE-EMPTION PHASE, FOLLOWED BY RETURN TO THE BEGINNING OF THE CYCLE.

MAJOR ITEMS NOTES:

1. MAST ARM SHAFT LENGTH ACCOMMODATES 16"-0" MINIMUM TO 19"-0" MAXIMUM CLEARANCE BETWEEN THE BOTTOM OF THE SIGNAL HEAD HOUSINGS AND THE PROPOSED ROADWAY SURFACE.

FIELD NOTE:

P3 DW SIGNAL INDICATION IS BROKEN, AND PUSH BUTTON IS NOT OPERATING.

COORDINATION DATA
(ALL ENTRIES IN SECONDS)

CYCLE	TIME PERIOD	OFFSET	CYCLE LENGTH
CYCLE 1	MONDAY - FRIDAY 0600-1000	85	100
CYCLE 2	MONDAY - FRIDAY 1500-1900	80	100
CYCLE 3	MONDAY - FRIDAY 1000-1500	75	90
CYCLE 4			

SPLIT	#1	#2	#3	#4	#5	#6	#7	#8
SPLIT 1	17	31	22	30		48		30
SPLIT 2	13	35	22	30		48		30
SPLIT 3	13	29	25	33		42		33
SPLIT 4								

NOTE: THE COORDINATION SHALL BE TURNED OFF

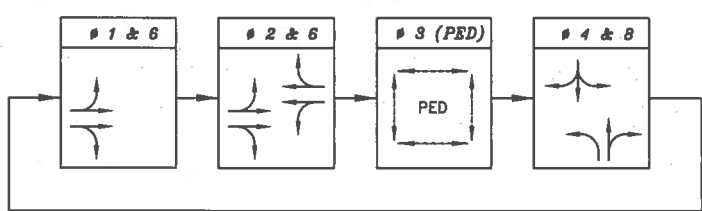
EMERGENCY PRE-EMPTION DATA

APPROACH	PHASE	TIME (SEC)
PANTHER WAY SB	#4	10

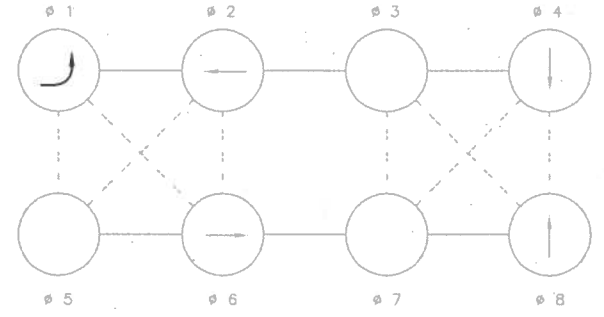
LOOP DETECTOR DATA

DETECTOR NUMBER	NUMBER OF SEGMENTS	LOOP SIZE	NUM. OF TURNS	# CALLED	# EXT.	MODE PULSE PRESENCE	DELAY TIME	EXT. TIME
1	4	6'x6'	3	#6	#6	PRESENCE	0	0
2	4	6'x18'	2	#2	#2	PRESENCE	0	0
3	4	6'x8'	3	#4	#4	PRESENCE	0	0
4	4	6'x6'	3	#8	#8	PRESENCE	0	0
5	4	6'x6'	3	#8	#8	PRESENCE	0	0
6	4	6'x6'	3	#1	#1,#6	PRESENCE	0	0

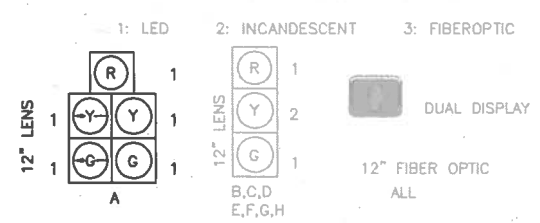
PREFERENTIAL PHASING SEQUENCE



NEMA DUAL RING PHASING NOTES:



SIGNAL IDENTIFICATION



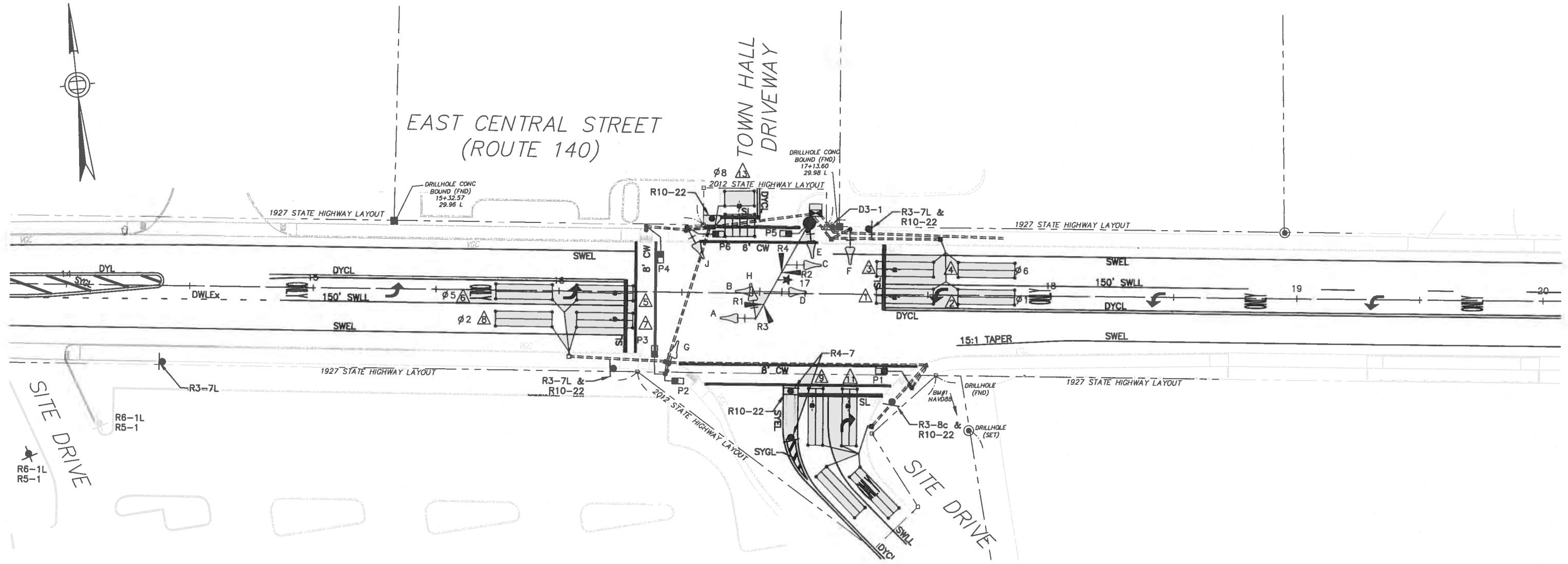
CONTROLLER MAKE & MODEL: LMD 8000
UTILITY POLE No. MECO 50
METER No. 11 453 378
EMERGENCY PRE-EMPTION (TYPE): OPTICOM

APPROVED BY:

STATE TRAFFIC ENGINEER Date

STATE	SIGNAL ID NO.	REVISION NO.	SHEET NO.	TOTAL SHEETS
MASS	1821		2	3

TRAFFIC SIGNAL PLAN



LEGEND

	SIGNAL CONTROLLER
	VEHICULAR SIGNAL
	VIDEO DETECTION CAMERA
	FIRE PRE-EMPTION RECEIVER
	FIRE PRE-EMPTION STROBE LIGHT
	PEDESTRIAN SIGNAL
	PEDESTRIAN PUSH BUTTON
	PULL BOX

APPROVED BY:



Intersection LOS Analysis

TABLE D-1
West Central Street Segment: Existing Conditions
Peak-Hour Level of Service, Delay, and Queue

Intersection/ Approach	Approach/ Movement	AM LOS	AM Delay^a	AM Queue^b	Midday LOS	Midday Delay	Midday Queue	PM LOS	PM Delay	PM Queue	Saturday LOS	Saturday Delay	Saturday Queue
West Central Street at Franklin Village Drive:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	D	42.9	#430	E	57.2	179	F	>180	#646	E	65.3	#298
West Central Street	EB – Through	B	19.2	321	C	24.8	#326	C	26.8	#365	D	35.6	323
West Central Street	EB – Right	B	17.7	61	C	23.3	90	C	24	85	C	31.6	86
West Central Street	WB – Left	E	58.7	93	E	57.6	204	E	64.8	#275	D	51.6	#438
West Central Street	WB – Through	D	37.7	365	C	23.9	#333	C	26.2	319	C	28.2	325
West Central Street	WB – Right	C	29.3	61	B	19.7	46	C	21.9	53	C	23.9	62
Franklin Village Drive	NB – Left	D	39.8	95	F	87.1	#338	E	77.8	#341	F	130.6	#458
Franklin Village Drive	NB – Through	D	41.2	172	D	38.7	97	D	41.5	162	D	39.4	154
Franklin Village Drive	NB – Right	D	37.2	0	D	38.4	68	D	39.5	70	D	38	71
Old West Central Street	SB – Left	E	78.8	#264	D	40.8	125	D	44.6	152	D	46.4	198
Old West Central Street	SB – Through	D	37.9	58	D	38.6	92	D	40.2	119	D	39.2	146
Old West Central Street	SB – Right	D	40.5	84	D	38	60	C	23.4	53	D	38	72
Intersection Total	All	D	35.1	--	D	36.6	--	E	62.5	--	D	45	--
West Central Street at Panther Way:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – All	B	12.7	#425	A	4.9	236	A	8	395	A	6.7	331
West Central Street	WB – All	A	9.7	339	A	4.9	204	A	6.7	272	A	7.3	352
Panther Way	NB – Left	C	34.8	13	D	44.3	42	D	41.4	34	D	44.9	33
Panther Way	NB – Through/right	C	34.6	12	D	42.7	25	D	40.3	19	D	43.7	19
Panther Way	SB – All	E	55.2	187	D	45.1	73	D	47	117	D	53.3	136
Intersection Total	All	B	17.4	--	A	8.1	--	B	10.6	--	B	10.9	--
West Central Street at Beaver Street:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	D	40.4	281	E	57.2	#443	D	48.3	#477	D	44.9	362
West Central Street	EB – Through/right	B	12.7	127	B	16.3	255	C	20.9	288	B	13.6	187
West Central Street	WB – Left	E	61	72	E	70	76	E	58.1	67	E	69.8	75
West Central Street	WB – Through/right	D	36.4	372	D	37.5	540	F	83.5	#757	E	63.5	#807
Beaver Street	NB – All	F	100.5	#300	F	86.9	#233	E	63	209	F	159	#381
Beaver Street	SB – Right	E	67.8	#130	E	66.3	82	E	57.5	116	E	67	129
Beaver Street	SB – Through/left	C	31.8	72	D	39.9	53	C	28.8	45	C	28.5	92
Intersection Total	All	D	37.9	--	D	38.8	--	D	47	--	D	49.9	--

^a Delay in seconds per vehicle. ^b 95th percentile queue length in feet. # = The 95th percentile volume exceeds capacity. m = Volume for 95th percentile queue is metered by upstream signal.
Source: Central Transportation Planning Staff.

TABLE D-2
East Central Street Segment: Existing Conditions
Peak-Hour Level of Service, Delay, and Queue

Intersection/ Approach	Approach/ Movement	AM LOS	AM Delay^a	AM Queue^b	Midday LOS	Midday Delay	Midday Queue	PM LOS	PM Delay	PM Queue	Saturday LOS	Saturday Delay	Saturday Queue
East Central Street at King/Chestnut Street													
	--	--	--	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	B	13.1	54	B	12.3	73	B	18.5	89	C	25.5	#122
East Central Street	EB – Through/right	C	34.9	#392	C	31.3	#412	D	37.1	#446	D	38.6	#563
East Central Street	WB – Left	B	19.1	#166	B	18.2	#211	C	27	#257	F	138.1	#397
East Central Street	WB – Through/right	C	21.1	232	C	22.3	#396	C	33.1	#513	C	32.2	#544
King Street NB	NB – Through/left	C	28.8	236	C	28.5	144	C	30.8	#278	C	31.8	#244
King Street NB	NB – Right	A	2.3	26	A	2.5	25	A	2.2	26	A	2.8	30
King Street SB	SB – All	D	35.7	#367	D	35.1	228	D	35.2	#406	D	43.8	#408
Overall	All	C	24.7	-	C	23	-	C	28.7	-	D	45.1	-
East Central Street at Horace Mann Plaza													
	--	--	--	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	A	6.8	43	A	9	74	A	9.8	94	B	12	89
East Central Street	EB – Through	B	13.5	406	B	16.2	343	B	14.5	326	B	19.2	#602
East Central Street	EB – Right	A	7.9	13	A	6.5	23	A	5.5	26	A	7.6	32
East Central Street	WB – Left	A	7.2	14	A	8.2	20	A	8	19	A	8.3	22
East Central Street	WB – Through	B	16.7	318	C	25.6	360	C	27.5	#486	C	27.1	#620
East Central Street	WB – Right	A	4.9	25	A	4.6	37	A	5	44	A	5.8	56
CVS Driveway	NB – Through/left	C	27.2	39	C	27.3	64	C	30.4	77	C	32.8	78
CVS Driveway	NB – Right	A	7.9	9	A	5.8	15	A	6.3	14	A	5.6	16
Horace Mann Plaza	SB – Through/left	C	28.1	71	C	34.1	#141	D	37.5	128	D	46.2	#219
Horace Mann Plaza	SB – Right	A	4.6	18	A	3.1	30	A	3.3	30	A	3.4	33
Overall	All	B	14.1	-	B	17	-	B	17.6	-	C	20.2	-
East Central Street at Big Y /Municipal Center													
	--	--	--	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	C	22.7	64	C	29.1	56	C	30.6	40	C	32.4	47
East Central Street	EB – Through/right	A	8	346	B	16.8	336	B	16.5	320	B	19.5	#562
East Central Street	WB – Left	C	26.5	19	C	30.4	39	C	30.6	43	C	32.6	42
East Central Street	WB – Through/right	B	11.5	#420	B	18.3	#405	B	18.1	#598	B	18.3	#611
Big Y Driveway	NB – Through/left	C	25.8	23	C	29.6	62	C	30.8	64	C	32.6	82
Big Driveway	NB – Right	B	10.5	6	A	5	15	A	5.1	14	A	4.9	15
Municipal Center	SB – Through/left	B	17.2	21	B	13.6	47	B	15.3	38	B	16.7	33
Overall	All	B	10.8	-	B	18.1	-	B	18.1	-	B	19.7	-

^a Delay in seconds per vehicle. ^b 95th percentile queue length in feet. # = The 95th percentile volume exceeds capacity. m = Volume for 95th percentile queue is metered by upstream signal.
Source: Central Transportation Planning Staff.

TABLE D-3
West Central Street: Improvement Alternatives
AM Peak-Hour Level of Service, Delay, and Queue

Intersection/ Approach	Approach/ Movement	LOS No Build	LOS Alt. 1	LOS Alt. 2	LOS Alt. 3	Delay No Build	Delay Alt. 1	Delay Alt. 2	Delay Alt. 3	Queue No Build	Queue Alt. 1	Delay Alt. 2	Delay Alt. 3
West Central Street at Franklin Village Drive:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	D	D	D	E	52.9	53.8	53.8	53.8	#350	#341	#341	#329
West Central Street	EB – Through	B	B	B	B	17.9	17.4	17.4	17.4	295.0	278	278	278
West Central Street	EB – Right	A	A	A	A	3.6	3.6	3.6	3.6	58.0	62	62	62
West Central Street	WB – Left	E	E	E	D	66.2	59.9	58.2	66.7	m90	m63	m63	m78
West Central Street	WB – Through	C	C	C	C	32.1	22.8	21.6	25.7	m#438	m#358	m#358	#402
West Central Street	WB – Right	A	A	A	A	6.9	3.5	2.5	4.6	m101	m53	m53	12
Franklin Village Drive	NB – Left	D	D	D	D	42.5	42.2	42.2	42.2	97.0	94	94	96
Franklin Village Drive	NB – Through	D	D	D	D	45.0	44.5	44.5	44.5	174	166	166	171
Franklin Village Drive	NB – Right	A	A	A	A	0.0	0.0	0.0	0.0	0	0	0	0
Old West Central Street	SB – Left	F	F	F	F	120.6	95.0	95.0	95.0	#291	#267	#267	#284
Old West Central Street	SB – Through	D	D	D	D	38.1	38.0	38.0	38.0	59	56	56	58
Old West Central Street	SB – Right	A	A	A	A	3.4	3.4	3.4	3.4	30	33	33	34
Intersection Total	All	C	C	C	C	28.0	23.9	23.5	24.8	--	--	--	--
West Central Street at Panther Way:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	--	D	D	B	--	44.9	41.6	16.6	--	#275	m#254	m#119
West Central Street	EB – Through/right	B	A	A	B	16.0	9.1	11.5	11.6	m391	m525	m532	m481
West Central Street	WB – Left	--	A	A	A	--	5.7	7.3	7.3	--	m2	m1	m1
West Central Street	WB – Through	A	D	D	B	8.3	49.1	49.0	16.8	m303	m#1220	m#1255	m458
Panther Way	NB – Left	D	D	D	D	42.8	43.0	43.0	42.6	16	14	14	14
Panther Way	NB – Through/right	C	C	C	C	28.2	29.7	29.7	29.5	14	14	13	13
Panther Way	SB – All	E	D	D	D	72.1	51.8	49.0	48.4	#308	#233	#212	180
Intersection Total	All	C	D	D	B	20.4	37.9	37.7	19.7	--	--	--	--
West Central Street at Beaver Street:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	C	D	D	D	30.7	31.1	31.1	31.1	m#348	#334	#334	#334
West Central Street	EB – Through/right	B	C	C	C	15.3	20.5	21.0	21.0	m164	m449	m449	m449
West Central Street	WB – Left	E	E	E	F	66.1	64.3	64.3	64.3	68	65	65	65
West Central Street	WB – Through/right	E	E	E	D	64.4	57.1	57.1	57.1	#469	#435	#435	#435
Beaver Street	NB – All	F	F	F	D	161.6	138.0	138.0	138.0	#309	#294	#294	#294
Beaver Street	SB – Right	E	E	E	D	72.4	68.9	68.9	68.9	#128	#120	#120	#120
Beaver Street	SB – Through/left	D	D	D	C	39.6	34.1	34.5	34.5	#630	#586	#586	#586
Intersection Total	All	D	D	D	D	51.1	47.3	47.3	47.3	--	--	--	--

^a Delay in seconds per vehicle. ^b 95th percentile queue length in feet. # = The 95th percentile volume exceeds capacity. m = Volume for 95th percentile queue is metered by upstream signal.
Source: Central Transportation Planning Staff.

**TABLE D-4
West Central Street: Improvement Alternatives
Midday Peak-Hour Level of Service, Delay, Queue**

Intersection/ Approach	Approach/ Movement	LOS No Build	LOS Alt. 1	LOS Alt. 2	LOS Alt. 3	Delay No Build	Delay Alt. 1	Delay Alt. 2	Delay Alt. 3	Queue No Build	Queue Alt. 1	Delay Alt. 2	Delay Alt. 3
West Central Street at Franklin Village Drive:													
	--		--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	E	E	E	E	60.9	60.9	60.9	60.9	#235	#235	#235	#223
West Central Street	EB – Through	C	C	C	C	27.9	26.3	26.3	27.9	#329	#329	#329	#342
West Central Street	EB – Right	A	A	A	A	5.3	5.1	5.1	5.3	89	89	89	90
West Central Street	WB – Left	E	E	E	E	78.4	70.0	71.3	62.1	#260	#253	#258	#240
West Central Street	WB – Through	C	C	C	C	29.5	20.9	21.9	27.0	#337	#327	#334	#340
West Central Street	WB – Right	A	A	A	A	4.4	2.5	2.7	3.6	47	m28	m28	28
Franklin Village Drive	NB – Left	F	F	F	F	81.1	81.1	81.1	81.1	#359	#359	#359	#332
Franklin Village Drive	NB – Through	D	D	D	D	35.2	35.2	35.2	35.2	90	90	90	86
Franklin Village Drive	NB – Right	A	A	A	A	0.2	0.2	0.2	0.2	0	0	0	62
Old West Central Street	SB – Left	D	D	D	D	39.2	39.2	39.2	39.2	117	117	117	112
Old West Central Street	SB – Through	C	C	C	C	35.0	35.0	35.0	35.0	85	85	85	82
Old West Central Street	SB – Right	A	A	A	A	2.9	2.9	2.9	2.9	23	23	23	22
Intersection Total	All	C	D	D	C	28.1	28.1	28.4	29.3	--	--	--	--
West Central Street at Panther Way:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	--	A	A	A	--	4.5	4.8	5.7		21	22	37
West Central Street	EB – Through/right	A	B	B	B	4.5	12.7	13.0	12.9	328	#790	#801	#789
West Central Street	WB – Left	--	A	A	A	--	3.0	3.3	6.1		m3	m3	15
West Central Street	WB – Through	A	A	A	A	9.7	8.9	9.3	8.5	312	#764	#764	246
Panther Way	NB – Left	D	D	D	E	53.0	54.7	54.7	55.4	47	47	47	47
Panther Way	NB – Through/right	B	B	B	B	19.4	19.7	19.7	19.9	27	27	27	27
Panther Way	SB – All	D	D	D	D	42.0	44.2	44.2	44.7	86	86	86	87
Intersection Total	All	A	B	B	B	9.7	13.0	13.3	13.1	--	--	--	--
West Central Street at Beaver Street:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	D	E	E	E	49.3	55.3	55.6	58.3	#328	#347	#347	#338
West Central Street	EB – Through/right	B	C	C	C	12.7	27.8	28.1	23.1	192	#703	#703	#683
West Central Street	WB – Left	E	E	E	E	63.9	63.7	63.7	63.7	65	65	65	65
West Central Street	WB – Through/right	D	D	D	D	38.5	37.8	37.8	37.8	#629	#629	#629	#629
Beaver Street	NB – All	E	E	E	E	74.4	74.4	74.4	74.4	#205	#205	#205	#205
Beaver Street	SB – Right	E	E	E	E	55.1	56.2	56.2	56.2	71	71	71	71
Beaver Street	SB – Through/left	D	C	C	C	35.6	33.3	33.3	33.3	#213	#219	#219	#219
Intersection Total	All	C	D	D	D	34.9	40.1	40.3	39.0	--	--	--	--

^a Delay in seconds per vehicle. ^b 95th percentile queue length in feet. # = The 95th percentile volume exceeds capacity. m = Volume for 95th percentile queue is metered by upstream signal.
Source: Central Transportation Planning Staff.

**TABLE D-5
West Central Street: PM Peak-Hour Level of Service**

Intersection/ Approach	Approach/ Movement	LOS No Build	LOS Alt. 1	LOS Alt. 2	LOS Alt. 3	Delay No Build	Delay Alt. 1	Delay Alt. 2	Delay Alt. 3	Queue No Build	Queue Alt. 1	Delay Alt. 2	Delay Alt. 3
West Central Street at Franklin Village Drive:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	D	D	D	D	50.3	50.3	50.3	50.3	#555	#555	#555	#555
West Central Street	EB – Through	C	C	C	C	26.5	25.9	25.9	25.9	358	358	358	358
West Central Street	EB – Right	A	A	A	A	4.6	4.6	4.6	4.6	83	83	83	83
West Central Street	WB – Left	E	E	E	E	68.2	61.6	61.6	70.5	m#284	m#237	m#244	#290
West Central Street	WB – Through	D	D	D	D	39.3	32.0	31.7	39.2	m#403	m#390	#400	#404
West Central Street	WB – Right	A	A	A	B	8.3	6.5	6.5	10.1	81	m29	m29	101
Franklin Village Drive	NB – Left	F	F	F	F	120.4	120.4	120.4	120.4	#388	#388	#388	#388
Franklin Village Drive	NB – Through	D	D	D	D	47.0	47.0	47.0	47.0	172	172	172	172
Franklin Village Drive	NB – Right	A	A	A	A	0.2	0.2	0.2	0.2	0	0	0	0
Old West Central Street	SB – Left	E	E	E	E	59.3	59.3	59.3	59.3	#163	#163	#163	#163
Old West Central Street	SB – Through	D	D	D	D	44.2	44.2	44.2	44.2	125	125	125	125
Old West Central Street	SB – Right	A	A	A	A	2.2	2.2	2.2	2.2	26	26	26	26
Intersection Total	All	D	C	C	D	35.3	33.5	33.3	40.7	--	--	--	--
West Central Street at Panther Way:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	--	B	B	A	--	14.7	11.9	6.1	--	m102	m54	m44
West Central Street	EB – Through/right	A	C	B	B	6.0	20.5	19.4	16.7	466	#1139	#1130	#1063
West Central Street	WB – Left	--	A	A	A	--	5.3	3.3	7.2	--	m3	m2	m5
West Central Street	WB – Through/right	A	B	B	B	2.7	17.3	15.1	11.9	m111	m#1067	m#1049	m433
Panther Way	NB – Left	D	D	D	D	50.9	49.5	49.5	51.6	40	39	39	41
Panther Way	NB – Through/right	C	C	C	C	21.2	20.6	20.6	21.5	21	20	20	21
Panther Way	SB – All	E	E	E	E	57.1	59.8	59.8	63.8	146	146	146	152
Intersection Total	All	A	C	B	B	8.6	21.7	19.7	17.6	--	--	--	--
West Central Street at Beaver Street:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	E	D	D	D	56.3	46.9	52.6	43.8	#522	#505	#505	#488
West Central Street	EB – Through/right	C	C	C	C	24.9	30.9	32.9	27.8	348	#826	#826	#827
West Central Street	WB – Left	E	E	E	E	67.1	67.1	67.1	67.1	70	70	70	70
West Central Street	WB – Through/right	E	E	E	E	77.1	72.8	70.1	70.1	#720	#732	#732	#732
Beaver Street	NB – All	F	E	E	F	86.7	94.2	86.7	86.7	#284	#271	#271	#284
Beaver Street	SB – Right	E	E	E	E	67.4	67.4	67.4	67.4	121	121	121	121
Beaver Street	SB – Through/left	C	C	C	C	28.1	28.8	28.9	28.9	#326	#316	#316	#316
Intersection Total	All	D	E	E	D	50.5	50.6	50.8	47.9	--	--	--	--

^a Delay in seconds per vehicle. ^b 95th percentile queue length in feet. # = The 95th percentile volume exceeds capacity. m = Volume for 95th percentile queue is metered by upstream signal.
Source: Central Transportation Planning Staff.

**TABLE D-6
West Central Street: Saturday Midday Peak-Hour Level of Service**

Intersection/ Approach	Approach/ Movement	LOS No Build	LOS Alt. 1	LOS Alt. 2	LOS Alt. 3	Delay No Build	Delay Alt. 1	Delay Alt. 2	Delay Alt. 3	Queue No Build	Queue Alt. 1	Delay Alt. 2	Delay Alt. 3
West Central Street at Franklin Village Drive:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	E	E	E	E	61.8	61.8	61.8	59.6	#343	#343	#343	#308
West Central Street	EB – Through	D	D	D	D	38.6	38.6	38.6	38.6	#410	#410	#410	#410
West Central Street	EB – Right	A	A	A	A	6.5	6.5	6.5	6.5	97	97	97	97
West Central Street	WB – Left	D	D	D	D	52.7	52.1	51.2	48.1	#448	m#370	m#370	#405
West Central Street	WB – Through	C	C	C	C	30.7	26.2	25.5	28.4	#377	m#354	m#320	#369
West Central Street	WB – Right	A	A	A	A	8.1	4.4	3.2	5.6	103	m60	m44	85
Franklin Village Drive	NB – Left	F	F	F	F	136.6	136.6	136.6	136.6	#471	#471	#471	#471
Franklin Village Drive	NB – Through	D	D	D	D	40.0	40.0	40.0	40.0	157	157	157	157
Franklin Village Drive	NB – Right	A	A	A	A	0.3	0.3	0.3	0.3	0	0	0	0
Old West Central Street	SB – Left	D	D	D	D	52.7	52.7	52.7	52.7	204	204	204	204
Old West Central Street	SB – Through	D	D	D	D	39.6	39.6	39.6	39.6	149	149	149	149
Old West Central Street	SB – Right	A	A	A	A	2.6	2.6	2.6	2.5	27	27	27	27
Intersection Total	All	D	D	D	D	37.3	36.1	36.0	36.2	--	--	--	--
West Central Street at Panther Way:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	--	C	C	A	--	20.9	20.6	4.8	--	m27	m27	m12
West Central Street	EB – Through/right	A	B	B	B	3.4	15.0	15.1	15.2	116	#1243	#1242	#1240
West Central Street	WB – Left	--	A	A	B	--	10.8	10.8	10.2	--	m6	m6	m5
West Central Street	WB – Through/right	A	B	B	B	7.1	23.7	24.6	12.0	502	m#1123	m#1057	m238
Panther Way	NB – Left	D	D	D	D	50.4	51.8	46.3	46.3	38	38	36	36
Panther Way	NB – Through/right	C	C	C	C	20.9	21.1	20.8	20.8	21	21	21	21
Panther Way	SB – All	E	D	E	E	58.5	54.5	57.7	57.7	164	161	163	163
Intersection Total	All	A	C	C	B	9.6	22.3	23.0	16.9	--	--	--	--
West Central Street at Beaver Street:													
	--	--	--	--	--	--	--	--	--	--	--	--	--
West Central Street	EB – Left	D	D	D	D	54.4	53.4	52.9	53.4	#569	m#560	m#547	m#547
West Central Street	EB – Through/right	B	C	C	C	15.2	30.6	29.9	30.5	175	#749	#736	#737
West Central Street	WB – Left	E	E	E	E	72.1	72.1	72.1	72.1	69	69	69	69
West Central Street	WB – Through/right	F	F	F	F	150.7	150.7	150.7	150.7	#861	#861	#861	#861
Beaver Street	NB – All	F	F	F	F	91.1	91.1	91.1	91.1	#323	#323	#323	#323
Beaver Street	SB – Right	F	F	F	F	81.2	82.8	82.8	81.2	#144	#144	#144	#144
Beaver Street	SB – Through/left	D	D	D	D	41.3	43.3	42.9	41.1	#710	#607	#597	#699
Intersection Total	All	E	E	F	E	71.7	76.1	75.8	75.6	--	--	--	--

^a Delay in seconds per vehicle. ^b 95th percentile queue length in feet. # = The 95th percentile volume exceeds capacity. m = Volume for 95th percentile queue is metered by upstream signal.
Source: Central Transportation Planning Staff.

**TABLE D-7
West Central Street
Arterial Performance Measures**

Intersection/ Approach	AM Total Delay (hours)	Midday Total Delay (hours)	PM Total Delay (hours)	Saturday Total Delay (hours)	AM Number of Stops	Midday Number of Stops	PM Number of Stops	Saturday Number of Stops	AM Average Speed (mph)	Midday Average Speed (mph)	PM Average Speed (mph)	Saturday Average Speed (mph)
2024 No Build Condition	35	32	47	61	4,184	3,798	4,167	4,240	20	21	19	17
2024 Alternative 1: Three-Lane Cross-Section with Two-Way Left-Turn Lanes	43	34	51	70	4,018	3,354	4,251	4,654	16	17	16	14
2024 Alternative 2: Three-Lane Cross-Section with Left-Turn Lanes	43	35	51	70	4,039	3,408	4,310	4,629	16	17	16	14
2024 Alternative 3: Four-Lane Cross-Section with Left-Turn Lanes	35	35	50	67	3,668	3,278	4,429	4,468	17	17	16	14

Source: Central Transportation Planning Staff

**TABLE D-8
East Central Street: AM Peak-Hour Level of Service**

Intersection/ Approach	Approach/ Movement	Existing LOS	Existing Delay ^a	Existing Queue ^b	Existing Retimed LOS	Existing Retimed Delay	Existing Retimed Queue	Future Retimed LOS	Future Retimed Queue	Future Retimed Queue
East Central Street at King/Chestnut Street										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	B	13.1	54	B	13.6	58	B	13.2	58
East Central Street	EB – Through/right	C	34.9	#392	C	29	#430	C	28.7	#429
East Central Street	WB – Left	B	19.1	#166	B	14.5	#184	B	13.5	#174
East Central Street	WB – Through/right	C	21.1	232	B	15.4	#261	B	14.3	255
King Street NB	NB – Through/left	C	28.8	236	D	36.8	207	D	40.2	230
King Street NB	NB – Right	A	2.3	26	A	2.5	21	A	2.6	24
King Street SB	SB – All	D	35.7	#367	D	48.9	#287	D	54.7	#345
Overall	All	C	24.7	--	C	25.7	--	C	26.9	--
East Central Street at Horace Mann Plaza										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	A	6.8	43	A	3.6	m33	A	4.3	m43
East Central Street	EB – Through	B	13.5	406	B	11.8	#455	B	12.7	m476
East Central Street	EB – Right	A	7.9	13	A	5	m9	A	5.9	m10
East Central Street	WB – Left	A	7.2	14	A	1.8	m2	A	3.2	m4
East Central Street	WB – Through	B	16.7	318	A	4.3	144	A	4.4	63
East Central Street	WB – Right	A	4.9	25	A	0.5	0	A	0.4	1
CVS Driveway	NB – Through/left	C	27.2	39	D	40.7	39	D	42.7	40
CVS Driveway	NB – Right	A	7.9	9	B	10.3	8	B	11.1	9
Horace Mann Plaza	SB – Through/left	C	28.1	71	D	50.5	70	D	53.8	75
Horace Mann Plaza	SB – Right	A	4.6	18	A	6.4	17	A	7.1	20
Overall	All	B	14.1	--	B	10.2	--	B	10.8	--
East Central Street at Big Y and Municipal Center										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	C	22.7	64	D	37.8	74	D	42.8	76
East Central Street	EB – Through/right	A	8	346	B	13.3	411	B	11	362
East Central Street	WB – Left	C	26.5	19	D	40.9	20	D	43.5	21
East Central Street	WB – Through/right	B	11.5	#420	B	10.4	332	B	10.5	356
Big Y Driveway	NB – Through/left	C	25.8	23	D	41.1	25	D	43.8	26
Big Driveway	NB – Right	B	10.5	6	B	13.3	7	B	14.5	8
Municipal Center	SB – Through/left	B	17.2	21	C	24.5	22	C	25.8	23
Overall	All	B	10.8	--	B	14	--	B	13.3	--

^a Delay in seconds per vehicle. ^b 95th percentile queue length in feet. # = The 95th percentile volume exceeds capacity. m = Volume for 95th percentile queue is metered by upstream signal.
Source: Central Transportation Planning Staff.

TABLE D-9
East Central Street: Midday Peak-Hour Level of Service

Intersection/ Approach	Approach/ Movement	Existing LOS	Existing Delay ^a	Existing Queue ^b	Existing Retimed LOS	Existing Retimed Delay	Existing Retimed Queue	Future Retimed LOS	Future Retimed Queue	Future Retimed Queue
East Central Street at King/Chestnut Street										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	B	12.3	73	B	12.3	72	B	12.9	81
East Central Street	EB – Through/right	C	31.3	#412	C	26	#436	C	25.9	#510
East Central Street	WB – Left	B	18.2	#211	B	12.1	#178	B	18.2	281
East Central Street	WB – Through/right	C	22.3	#396	B	17.5	#424	C	24.2	432
King Street NB	NB – Through/left	C	28.5	144	D	37	133	D	44.7	158
King Street NB	NB – Right	A	2.5	25	A	2.7	21	A	2.8	23
King Street SB	SB – All	D	35.1	228	D	48.3	209	E	56.3	247
Overall	All	C	23	--	C	22.3	--	C	26.6	--
East Central Street at Horace Mann Plaza										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	A	9	74	A	7	m88	A	3.7	35
East Central Street	EB – Through	B	16.2	343	B	15	#410	A	8.5	418
East Central Street	EB – Right	A	6.5	23	A	5.7	m24	A	0.7	m2
East Central Street	WB – Left	A	8.2	20	A	5.2	m10	A	6.3	16
East Central Street	WB – Through	C	25.6	360	B	11.1	#378	B	11	211
East Central Street	WB – Right	A	4.6	37	A	1.4	5	A	1.7	13
CVS Driveway	NB – Through/left	C	27.3	64	D	36.2	58	D	45.4	69
CVS Driveway	NB – Right	A	5.8	15	A	6.2	12	A	7.7	16
Horace Mann Plaza	SB – Through/left	C	34.1	#141	D	53.5	119	E	65.5	143
Horace Mann Plaza	SB – Right	A	3.1	30	A	4.4	27	A	4.8	31
Overall	All	B	17	--	B	13.9	--	B	12.9	--
East Central Street at Big Y and Municipal Center										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	C	29.1	56	D	38.7	m61	E	58.6	73
East Central Street	EB – Through/right	B	16.8	336	B	14.1	378	B	10.7	265
East Central Street	WB – Left	C	30.4	39	D	43.6	41	E	55.5	50
East Central Street	WB – Through/right	B	18.3	#405	B	11.6	314	B	12.6	366
Big Y Driveway	NB – Through/left	C	29.6	62	D	49.6	65	E	60.7	75
Big Driveway	NB – Right	A	5	15	A	7.4	19	A	8.5	22
Municipal Center	SB – Through/left	B	13.6	47	C	21.1	50	C	21.4	55
Overall	All	B	18.1	--	B	16.4	--	B	17.1	--

^a Delay in seconds per vehicle. ^b 95th percentile queue length in feet. # = The 95th percentile volume exceeds capacity. m = Volume for 95th percentile queue is metered by upstream signal.
Source: Central Transportation Planning Staff.

TABLE D-10
East Central Street: PM Peak-Hour Level of Service

Intersection/ Approach	Approach/ Movement	Existing LOS	Existing Delay^a	Existing Queue^b	Existing Retimed LOS	Existing Retimed Delay	Existing Retimed Queue	Future Retimed LOS	Future Retimed Queue	Future Retimed Queue
East Central Street at King/Chestnut Street										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	B	18.5	89	B	17	94	B	18.6	#103
East Central Street	EB – Through/right	D	37.1	#446	C	32.4	#495	C	34.3	#538
East Central Street	WB – Left	C	27	#257	B	18.1	#256	B	19.5	#279
East Central Street	WB – Through/right	C	33.1	#513	C	25.4	#573	C	26.8	#610
King Street NB	NB – Through/left	C	30.8	#278	D	43.1	232	D	43.9	245
King Street NB	NB – Right	A	2.2	26	A	2.3	21	A	2.2	21
King Street SB	SB – All	D	35.2	#406	D	50.1	#334	D	51.7	#351
Overall	All	C	28.7	--	C	28.9	--	C	30.2	--
East Central Street at Horace Mann Plaza										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	A	9.8	94	A	6	m80	A	6.9	m121
East Central Street	EB – Through	B	14.5	326	B	11.4	m367	B	12.4	400
East Central Street	EB – Right	A	5.5	26	A	3.5	m25	A	4.3	m29
East Central Street	WB – Left	A	8	19	A	3.9	m5	A	4	m5
East Central Street	WB – Through	C	27.5	#486	B	12.4	#470	B	12.2	#535
East Central Street	WB – Right	A	5	44	A	1.5	9	A	1.2	7
CVS Driveway	NB – Through/left	C	30.4	77	D	41.1	73	D	41.2	75
CVS Driveway	NB – Right	A	6.3	14	A	6.6	13	A	6.5	13
Horace Mann Plaza	SB – Through/left	D	37.5	128	E	57	120	E	55.7	122
Horace Mann Plaza	SB – Right	A	3.3	30	A	4.3	28	A	4.1	28
Overall	All	B	17.6	--	B	13.2	--	B	13.4	--
East Central Street at Big Y and Municipal Center										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	C	30.6	40	D	36.5	m41	D	39.6	m45
East Central Street	EB – Through/right	B	16.5	320	B	13.2	358	B	14.5	386
East Central Street	WB – Left	C	30.6	43	D	44	45	D	47.2	48
East Central Street	WB – Through/right	B	18.1	#598	B	11	441	B	14.7	#564
Big Y Driveway	NB – Through/left	C	30.8	64	D	53.7	#69	D	45.6	69
Big Driveway	NB – Right	A	5.1	14	A	8.2	18	A	7.2	18
Municipal Center	SB – Through/left	B	15.3	38	C	24.8	42	C	20.2	41
Overall	All	B	18.1	--	B	15.4	--	B	17.3	--

^a Delay in seconds per vehicle. ^b 95th percentile queue length in feet. # = The 95th percentile volume exceeds capacity. m = Volume for 95th percentile queue is metered by upstream signal.
Source: Central Transportation Planning Staff.

TABLE D-11
East Central Street: Saturday Peak-Hour Level of Service

Intersection/ Approach	Approach/ Movement	Existing LOS	Existing Delay ^a	Existing Queue ^b	Existing Retimed LOS	Existing Retimed Delay	Existing Retimed Queue	Future Retimed LOS	Future Retimed Queue	Future Retimed Queue
East Central Street at King/Chestnut Street										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	C	25.5	#122	B	18.5	114	C	21.5	123
East Central Street	EB – Through/right	D	38.6	#563	D	50.4	#758	E	62	#826
East Central Street	WB – Left	F	138.1	#397	C	34.7	#457	C	32.5	#482
East Central Street	WB – Through/right	C	32.2	#544	D	36	#681	D	36.9	#735
King Street NB	NB – Through/left	C	31.8	#244	D	47.6	254	D	46.4	253
King Street NB	NB – Right	A	2.8	30	A	2.2	30	A	2	27
King Street SB	SB – All	D	43.8	#408	E	77.8	#457	E	76.3	#449
Overall	All	D	45.1	--	D	40.6	--	D	42.8	--
East Central Street at Horace Mann Plaza										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	B	12	89	A	5.6	m59	A	6.9	m86
East Central Street	EB – Through	B	19.2	#602	B	14	m646	B	15.9	m#683
East Central Street	EB – Right	A	7.6	32	A	2.7	m21	A	4	m31
East Central Street	WB – Left	A	8.3	22	A	6.7	m16	A	7	m14
East Central Street	WB – Through	C	27.1	#620	B	13.9	#426	B	18.2	#758
East Central Street	WB – Right	A	5.8	56	A	2.9	23	A	3	18
CVS Driveway	NB – Through/left	C	32.8	78	D	52.5	90	D	48.3	85
CVS Driveway	NB – Right	A	5.6	16	A	7.5	20	A	6.7	18
Horace Mann Plaza	SB – Through/left	D	46.2	#219	E	76.7	205	E	69.3	197
Horace Mann Plaza	SB – Right	A	3.4	33	A	4.9	40	A	4.1	35
Overall	All	C	20.2	--	B	17	--	B	18.2	--
East Central Street at Big Y and Municipal Center										
	--	--	--	--	--	--	--	--	--	--
East Central Street	EB – Left	C	32.4	47	E	61.4	m50	E	57.9	m51
East Central Street	EB – Through/right	B	19.5	#562	A	10	325	B	13.1	450
East Central Street	WB – Left	C	32.6	42	E	61.7	55	E	61	55
East Central Street	WB – Through/right	B	18.3	#611	B	12	475	B	13.3	535
Big Y Driveway	NB – Through/left	C	32.6	82	E	69.2	108	E	65.8	107
Big Driveway	NB – Right	A	4.9	15	A	9.1	25	A	8.5	24
Municipal Center	SB – Through/left	B	16.7	33	C	26.2	42	C	24.8	40
Overall	All	B	19.7	--	B	16.6	--	B	18.1	--

^a Delay in seconds per vehicle. ^b 95th percentile queue length in feet. # = The 95th percentile volume exceeds capacity. m = Volume for 95th percentile queue is metered by upstream signal.
Source: Central Transportation Planning Staff.

**TABLE D-12
East Central Street
Arterial Level of Service**

Scenario	Total Signal Delay (seconds)	Change in Signal Delay (%)	Total Travel Time (seconds)	Change in Travel Time (%)	Arterial Speed (mph)	Change in Arterial Speed (%)	Arterial LOS
AM Eastbound	-	-	-	-	-	-	-
2014 Existing	56.4	-	137.8	-	19.1	-	D
2014 Existing (retimed)	54.1	4	135.5	2	19.4	-2	D
2024 Future (retimed)	52.4	10	133.8	4	19.6	-4	D
AM Westbound	-	-	-	-	-	-	-
2014 Existing	49.3	-	125.6	-	19.3	-	D
2014 Existing (retimed)	30.1	39	106.4	15	22.8	-18	C
2024 Future (retimed)	29.2	41	105.5	16	23	-20	C
Midday Eastbound	-	-	-	-	-	-	-
2014 Existing	64.3	-	142.9	-	18.5	-	D
2014 Existing (retimed)	55.1	14	133.7	6	19.8	-7	D
2024 Future (retimed)	45.1	31	123.7	14	21.4	-16	D
Midday Westbound	-	-	-	-	-	-	-
2014 Existing	66.2	-	141.7	-	17.2	-	D
2014 Existing (retimed)	40.2	39	115.7	18	21	-22	D
2024 Future (retimed)	47.8	29	123.3	14	19.7	-16	D
PM Eastbound	-	-	-	-	-	-	-
2014 Existing	68.1	-	149.5	-	17.6	-	D
2014 Existing (retimed)	57.0	16	138.4	7	19	-8	D
2024 Future (retimed)	61.2	12	142.6	5	18.4	-6	D
PM Westbound	-	-	-	-	-	-	-
2014 Existing	78.7	-	155	-	15.6	-	E
2014 Existing (retimed)	48.8	38	125.1	19	19.4	-24	D
2024 Future (retimed)	53.7	33	130	17	18.7	-21	D
Saturday Eastbound	-	-	-	-	-	-	-
2014 Existing	77.3	-	158.7	-	16.6	-	E
2014 Existing (retimed)	74.4	4	155.8	2	16.9	-2	E
2024 Future (retimed)	91.0	-12	172.4	-6	15.2	6	E
Saturday Westbound:	-	-	-	-	-	-	-
2014 Existing	77.6	-	153.9	-	15.8	-	E
2014 Existing (retimed)	61.9	20	138.2	10	17.5	-11	D
2024 Future (retimed)	68.4	14	144.7	7	16.8	-8	E

Source: Central Transportation Planning Staff.

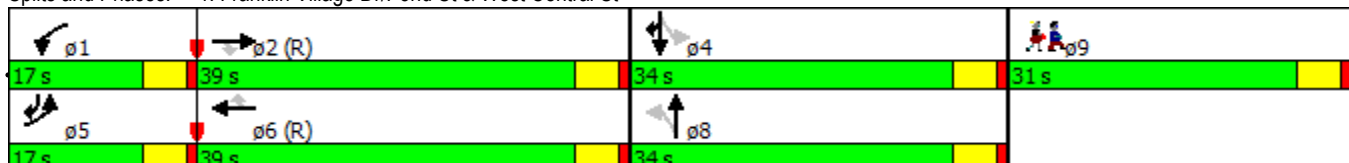
Existing Conditions Analysis

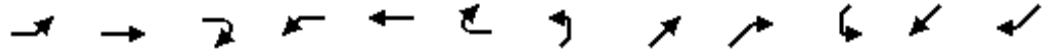
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	620	277	60	731	232	72	147	45	172	39	472
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.728			0.537		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1356	1863	1583	1000	1863	1583
Satd. Flow (RTOR)			315			244			153			488
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	256	705	315	63	769	244	82	167	51	195	44	536
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	17.0	39.0	39.0	17.0	39.0	39.0	34.0	34.0		34.0	34.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	29.7	66.1	66.1	9.4	43.6	43.6	26.5	26.5	121.0	26.5	26.5	60.2
Actuated g/C Ratio	0.25	0.55	0.55	0.08	0.36	0.36	0.22	0.22	1.00	0.22	0.22	0.50
v/c Ratio	0.59	0.36	0.31	0.46	0.60	0.34	0.28	0.41	0.03	0.89	0.11	0.52
Control Delay	49.1	20.4	4.0	63.6	34.7	5.1	40.9	43.1	0.0	84.2	37.0	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	20.4	4.0	63.6	34.7	5.1	40.9	43.1	0.0	84.2	37.0	4.1
LOS	D	C	A	E	C	A	D	D	A	F	D	A
Approach Delay		22.1			29.7			35.2				26.1
Approach LOS		C			C			D				C
Queue Length 50th (ft)	176	153	0	48	244	0	52	110	0	145	27	18
Queue Length 95th (ft)	#430	321	61	93	365	61	95	172	0	#264	58	49
Internal Link Dist (ft)		869			284			360			529	
Turn Bay Length (ft)	250		250	250		250	250		100	250		250
Base Capacity (vph)	434	1933	1008	175	1275	726	324	446	1583	239	446	1028
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.36	0.31	0.36	0.60	0.34	0.25	0.37	0.03	0.82	0.10	0.52

Intersection Summary

Cycle Length: 121
 Actuated Cycle Length: 121
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 26.5
 Intersection Capacity Utilization 66.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



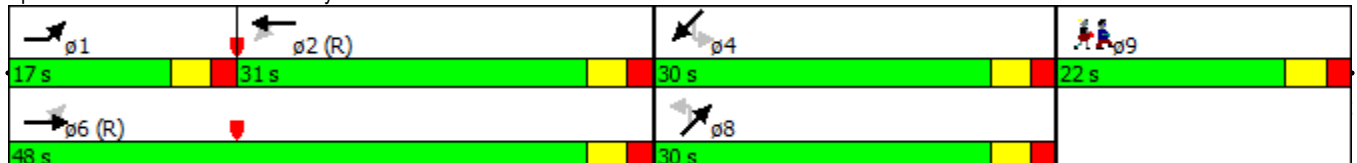


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕↕			↕↕		↖	↗			↕↕	
Volume (vph)	210	541	9	3	753	203	5	2	4	129	0	139
Satd. Flow (prot)	0	3483	0	0	3426	0	1770	1663	0	0	1691	0
Flt Permitted		0.544			0.953		0.491				0.843	
Satd. Flow (perm)	0	1921	0	0	3265	0	915	1663	0	0	1460	0
Satd. Flow (RTOR)		1			33			5			131	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	864	0	0	1010	0	6	7	0	0	305	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	17.0	48.0		31.0	31.0		30.0	30.0		30.0	30.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Act Effct Green (s)		68.7			68.7		13.5	13.5			16.9	
Actuated g/C Ratio		0.69			0.69		0.14	0.14			0.17	
v/c Ratio		0.66			0.45		0.05	0.03			0.86	
Control Delay		16.4			10.5		32.4	21.2			44.4	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		16.4			10.5		32.4	21.2			44.4	
LOS		B			B		C	C			D	
Approach Delay		16.4			10.5			26.4			44.4	
Approach LOS		B			B			C			D	
Queue Length 50th (ft)		123			110		4	1			110	
Queue Length 95th (ft)		#425			339		13	12			187	
Internal Link Dist (ft)		116			502			66			548	
Turn Bay Length (ft)												
Base Capacity (vph)		1319			2251		228	419			463	
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.66			0.45		0.03	0.02			0.66	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 85 (85%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 17.6
 Intersection Capacity Utilization 83.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service E
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Panther Way & West Central St

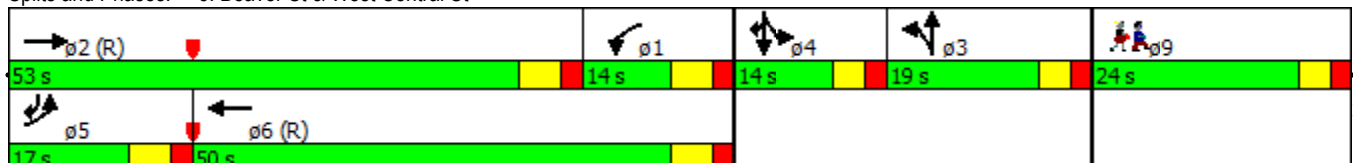


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	244	393	55	38	368	3	96	48	31	6	68	474
Satd. Flow (prot)	1770	3476	0	1770	1861	0	0	1769	0	0	1855	1583
Flt Permitted	0.950			0.950				0.973			0.996	
Satd. Flow (perm)	1770	3476	0	1770	1861	0	0	1769	0	0	1855	1583
Satd. Flow (RTOR)		14										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	274	504	0	43	416	0	0	199	0	0	84	539
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	17.0	53.0		14.0	50.0		19.0	19.0		14.0	14.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	35.0	73.8		7.6	44.0			14.0			9.0	45.0
Actuated g/C Ratio	0.28	0.60		0.06	0.35			0.11			0.07	0.36
v/c Ratio	0.55	0.24		0.40	0.63			1.00			0.63	0.94
Control Delay	42.7	12.4		66.8	38.4			118.9			76.6	58.9
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	42.7	12.4		66.8	38.4			118.9			76.6	58.9
LOS	D	B		E	D			F			E	E
Approach Delay		23.1			41.1			118.9			61.3	
Approach LOS		C			D			F			E	
Queue Length 50th (ft)	187	97		34	275			162			67	278
Queue Length 95th (ft)	274	127		72	382			#309			#130	#501
Internal Link Dist (ft)		238			374			1053			479	
Turn Bay Length (ft)	250			250								250
Base Capacity (vph)	499	2074		114	660			199			134	574
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.55	0.24		0.38	0.63			1.00			0.63	0.94

Intersection Summary

Cycle Length: 124
 Actuated Cycle Length: 124
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 47.9
 Intersection Capacity Utilization 72.0%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	146	567	382	173	612	102	262	77	240	100	72	180
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.708			0.704		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1319	1863	1583	1311	1863	1583
Satd. Flow (RTOR)			402			108				253		189
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	154	597	402	182	644	107	276	81	253	105	76	189
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	29.0	29.0	29.0	29.0	29.0	29.0	32.0	32.0		32.0	32.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	15.8	55.5	55.5	17.7	57.4	57.4	26.6	26.6	121.0	26.6	26.6	46.4
Actuated g/C Ratio	0.13	0.46	0.46	0.15	0.47	0.47	0.22	0.22	1.00	0.22	0.22	0.38
v/c Ratio	0.67	0.37	0.43	0.71	0.38	0.13	0.96	0.20	0.16	0.37	0.19	0.26
Control Delay	63.7	25.9	5.0	63.5	24.8	6.3	89.4	39.8	0.2	44.2	39.6	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.7	25.9	5.0	63.5	24.8	6.3	89.4	39.8	0.2	44.2	39.6	2.9
LOS	E	C	A	E	C	A	F	D	A	D	D	A
Approach Delay		23.6			30.3			45.8			22.2	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	116	141	0	137	148	0	213	52	0	70	48	0
Queue Length 95th (ft)	179	#326	90	204	#333	46	#383	97	0	125	92	21
Internal Link Dist (ft)		869			284			360			529	
Turn Bay Length (ft)	250		250	250		250	250		100	250		250
Base Capacity (vph)	351	1624	944	351	1680	808	294	415	1583	292	415	811
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.37	0.43	0.52	0.38	0.13	0.94	0.20	0.16	0.36	0.18	0.23

Intersection Summary

Cycle Length: 121

Actuated Cycle Length: 121

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 29.9

Intersection LOS: C

Intersection Capacity Utilization 58.9%

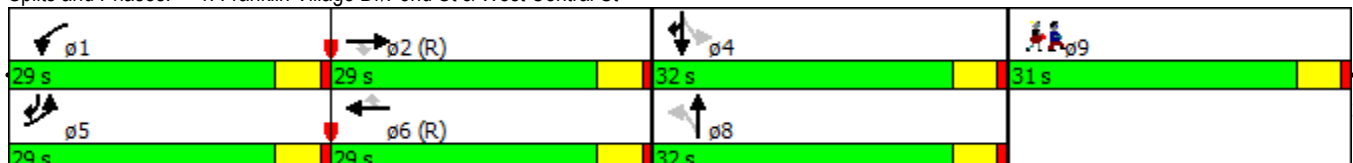
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



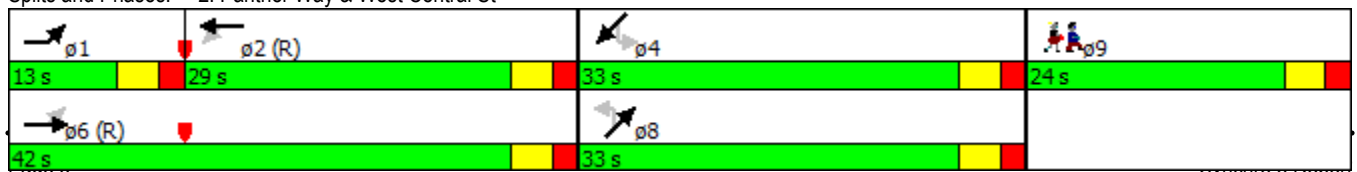


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕↕			↕↕		↗	↖			↕↕	
Volume (vph)	57	734	31	17	693	54	26	1	24	40	1	47
Satd. Flow (prot)	0	3507	0	0	3497	0	1770	1595	0	0	1691	0
Flt Permitted		0.833			0.927		0.656				0.841	
Satd. Flow (perm)	0	2930	0	0	3245	0	1222	1595	0	0	1454	0
Satd. Flow (RTOR)		5			7			25			49	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	866	0	0	804	0	27	26	0	0	92	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	13.0	42.0		29.0	29.0		33.0	33.0		33.0	33.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Act Effct Green (s)		79.0			79.0		8.6	8.6			8.6	
Actuated g/C Ratio		0.80			0.80		0.09	0.09			0.09	
v/c Ratio		0.37			0.31		0.26	0.16			0.54	
Control Delay		6.2			5.6		47.3	18.2			34.4	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		6.2			5.6		47.3	18.2			34.4	
LOS		A			A		D	B			C	
Approach Delay		6.2			5.6			33.0			34.4	
Approach LOS		A			A			C			C	
Queue Length 50th (ft)		50			43		16	1			26	
Queue Length 95th (ft)		236			204		42	25			73	
Internal Link Dist (ft)		116			502			66			560	
Turn Bay Length (ft)												
Base Capacity (vph)		2339			2591		345	469			446	
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.37			0.31		0.08	0.06			0.21	

Intersection Summary

Cycle Length: 99
 Actuated Cycle Length: 99
 Offset: 75 (76%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.54
 Intersection Signal Delay: 8.1
 Intersection Capacity Utilization 68.6%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 2: Panther Way & West Central St

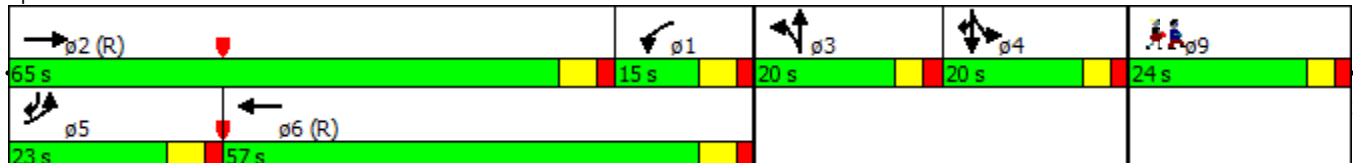


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	236	491	85	37	458	6	54	39	48	6	37	261
Satd. Flow (prot)	1770	3461	0	1770	1859	0	0	1743	0	0	1850	1583
Flt Permitted	0.950			0.950				0.981			0.993	
Satd. Flow (perm)	1770	3461	0	1770	1859	0	0	1743	0	0	1850	1583
Satd. Flow (RTOR)		16										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	248	606	0	39	488	0	0	149	0	0	45	275
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	23.0	65.0		15.0	57.0		20.0	20.0		20.0	20.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	29.8	81.5		8.4	57.7			14.5			15.2	50.0
Actuated g/C Ratio	0.21	0.57		0.06	0.40			0.10			0.11	0.35
v/c Ratio	0.68	0.31		0.38	0.66			0.85			0.23	0.50
Control Delay	63.1	18.5		75.8	40.6			101.0			62.6	39.9
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	63.1	18.5		75.8	40.6			101.0			62.6	39.9
LOS	E	B		E	D			F			E	D
Approach Delay		31.5			43.2			101.0			43.1	
Approach LOS		C			D			F			D	
Queue Length 50th (ft)	215	143		36	353			139			39	199
Queue Length 95th (ft)	#458	259		76	540			#259			81	#264
Internal Link Dist (ft)		238			374			1053			479	
Turn Bay Length (ft)	250			250								250
Base Capacity (vph)	366	1966		110	745			181			194	549
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.68	0.31		0.35	0.66			0.82			0.23	0.50

Intersection Summary

Cycle Length: 144
 Actuated Cycle Length: 144
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 42.4
 Intersection Capacity Utilization 66.3%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St

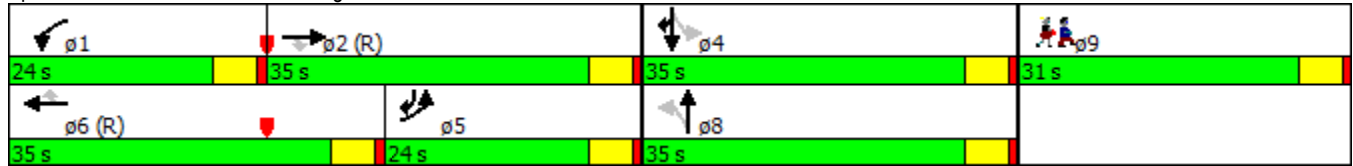


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	380	675	381	195	599	138	238	140	262	118	98	293
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.668			0.576		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1244	1863	1583	1073	1863	1583
Satd. Flow (RTOR)			401			145			270			308
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	400	711	401	205	631	145	251	147	276	124	103	308
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	24.0	35.0	35.0	24.0	35.0	35.0	35.0	35.0		35.0	35.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	19.0	57.4	57.4	18.6	57.0	57.0	27.8	27.8	125.0	27.8	27.8	51.8
Actuated g/C Ratio	0.15	0.46	0.46	0.15	0.46	0.46	0.22	0.22	1.00	0.22	0.22	0.41
v/c Ratio	1.49	0.44	0.42	0.78	0.39	0.18	0.91	0.36	0.17	0.52	0.25	0.37
Control Delay	275.1	27.3	4.8	71.2	26.4	5.7	82.8	43.0	0.2	50.7	40.9	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	275.1	27.3	4.8	71.2	26.4	5.7	82.8	43.0	0.2	50.7	40.9	3.7
LOS	F	C	A	E	C	A	F	D	A	D	D	A
Approach Delay		86.9			32.7			40.3				21.7
Approach LOS		F			C			D				C
Queue Length 50th (ft)	~446	192	0	159	162	0	195	99	0	87	67	0
Queue Length 95th (ft)	#646	#365	85	#275	319	53	#341	162	0	152	119	53
Internal Link Dist (ft)		869			284			360			529	
Turn Bay Length (ft)	250		250	250		250	250		100	250		250
Base Capacity (vph)	269	1626	944	283	1615	801	298	447	1583	257	447	858
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.49	0.44	0.42	0.72	0.39	0.18	0.84	0.33	0.17	0.48	0.23	0.36

Intersection Summary

Cycle Length: 125
 Actuated Cycle Length: 125
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.49
 Intersection Signal Delay: 54.6
 Intersection Capacity Utilization 72.6%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

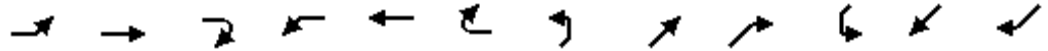
Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group φ9

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	31.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

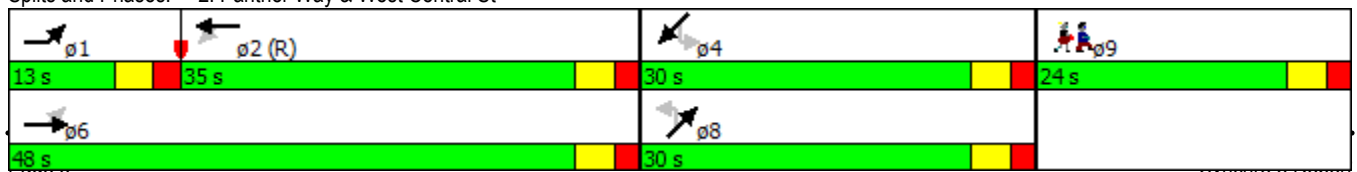


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕↕			↕↕		↗	↖			↕↕	
Volume (vph)	106	866	17	8	801	73	20	1	13	62	3	74
Satd. Flow (prot)	0	3511	0	0	3497	0	1770	1602	0	0	1691	0
Flt Permitted		0.709			0.946		0.547				0.850	
Satd. Flow (perm)	0	2502	0	0	3308	0	1019	1602	0	0	1469	0
Satd. Flow (RTOR)		2			9			14			54	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1042	0	0	928	0	21	15	0	0	146	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	13.0	48.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Act Effct Green (s)		75.8			75.8		11.2	11.2			11.4	
Actuated g/C Ratio		0.74			0.74		0.11	0.11			0.11	
v/c Ratio		0.56			0.38		0.19	0.08			0.69	
Control Delay		10.5			7.5		42.9	19.0			43.2	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		10.5			7.5		42.9	19.0			43.2	
LOS		B			A		D	B			D	
Approach Delay		10.5			7.5			32.9			43.2	
Approach LOS		B			A			C			D	
Queue Length 50th (ft)		97			69		13	1			58	
Queue Length 95th (ft)		395			272		34	19			117	
Internal Link Dist (ft)		116			502			66			560	
Turn Bay Length (ft)												
Base Capacity (vph)		1859			2460		249	403			400	
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.56			0.38		0.08	0.04			0.36	

Intersection Summary

Cycle Length: 102
 Actuated Cycle Length: 102
 Offset: 0 (0%), Referenced to phase 2:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 11.8
 Intersection Capacity Utilization 79.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 2: Panther Way & West Central St

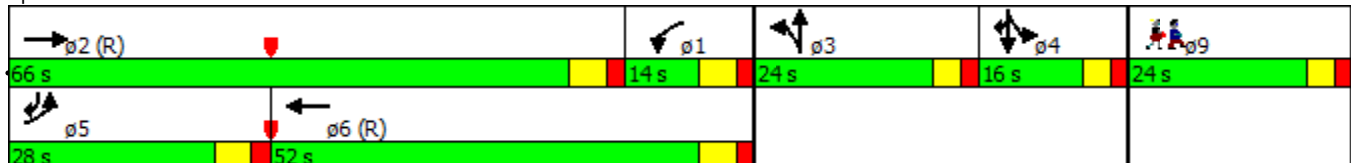


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	558	60	38	478	5	48	69	66	7	72	338
Satd. Flow (prot)	1770	3486	0	1770	1861	0	0	1750	0	0	1855	1583
Flt Permitted	0.950			0.950				0.987			0.996	
Satd. Flow (perm)	1770	3486	0	1770	1861	0	0	1750	0	0	1855	1583
Satd. Flow (RTOR)		10										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	342	650	0	40	508	0	0	193	0	0	83	356
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	28.0	66.0		14.0	52.0		24.0	24.0		16.0	16.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	38.4	82.0		7.6	48.8			18.2			11.8	55.2
Actuated g/C Ratio	0.27	0.57		0.05	0.34			0.13			0.08	0.38
v/c Ratio	0.72	0.33		0.43	0.81			0.87			0.55	0.59
Control Delay	58.1	18.6		80.3	54.3			96.4			78.5	40.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	58.1	18.6		80.3	54.3			96.4			78.5	40.3
LOS	E	B		F	D			F			E	D
Approach Delay		32.2			56.2			96.4			47.5	
Approach LOS		C			E			F			D	
Queue Length 50th (ft)	288	154		37	418			179			77	258
Queue Length 95th (ft)	#603	279		79	#636			#312			#136	#451
Internal Link Dist (ft)		238			374			1053			479	
Turn Bay Length (ft)	250			250								250
Base Capacity (vph)	472	1989		98	630			230			151	606
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.72	0.33		0.41	0.81			0.84			0.55	0.59

Intersection Summary

Cycle Length: 144
 Actuated Cycle Length: 144
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 47.1
 Intersection Capacity Utilization 74.6%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	213	626	410	283	628	202	296	137	277	161	129	286
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.616			0.601		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1147	1863	1583	1120	1863	1583
Satd. Flow (RTOR)			418			206				283		292
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	217	639	418	289	641	206	302	140	283	164	132	292
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		8	4		
Total Split (s)	24.0	35.0	35.0	24.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Act Effct Green (s)	19.4	45.8	45.8	28.0	54.4	54.4	30.0	30.0	30.0	30.0	30.0	53.4
Actuated g/C Ratio	0.16	0.37	0.37	0.22	0.44	0.44	0.24	0.24	0.24	0.24	0.24	0.43
v/c Ratio	0.79	0.49	0.50	0.73	0.42	0.26	1.10	0.31	0.48	0.61	0.30	0.35
Control Delay	71.2	33.6	5.5	57.4	28.1	5.3	127.5	41.4	7.2	53.4	41.0	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.2	33.6	5.5	57.4	28.1	5.3	127.5	41.4	7.2	53.4	41.0	2.8
LOS	E	C	A	E	C	A	F	D	A	D	D	A
Approach Delay		30.8			31.4			63.9				25.5
Approach LOS		C			C			E				C
Queue Length 50th (ft)	168	196	0	214	172	0	~276	94	0	119	88	0
Queue Length 95th (ft)	#298	323	86	#438	325	62	#458	154	71	198	146	27
Internal Link Dist (ft)		869			284			337			529	
Turn Bay Length (ft)	250		250	250		250	250		100	250		250
Base Capacity (vph)	289	1296	844	396	1539	804	275	447	595	268	447	854
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.49	0.50	0.73	0.42	0.26	1.10	0.31	0.48	0.61	0.30	0.34

Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay: 36.6

Intersection LOS: D

Intersection Capacity Utilization 72.8%

ICU Level of Service C

Analysis Period (min) 15

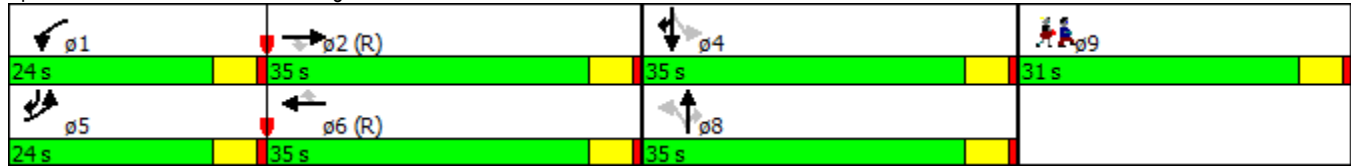
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group $\phi 9$

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	31.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

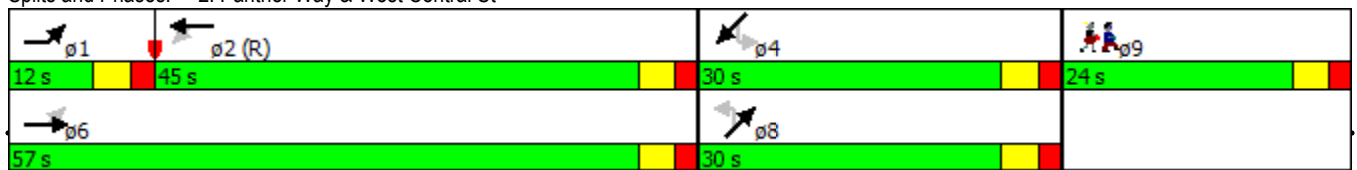


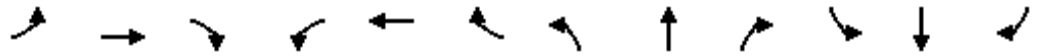
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕↕			↕↕		↖	↗			↕↕	
Volume (vph)	36	874	82	10	970	93	18	1	14	62	2	98
Satd. Flow (prot)	0	3490	0	0	3493	0	1770	1602	0	0	1678	0
Flt Permitted		0.866			0.944		0.467				0.868	
Satd. Flow (perm)	0	3028	0	0	3298	0	870	1602	0	0	1484	0
Satd. Flow (RTOR)		11			10			14			64	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1013	0	0	1095	0	18	15	0	0	165	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	12.0	57.0		45.0	45.0		30.0	30.0		30.0	30.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Act Effct Green (s)		83.6			83.6		12.6	12.6			12.6	
Actuated g/C Ratio		0.75			0.75		0.11	0.11			0.11	
v/c Ratio		0.44			0.44		0.18	0.08			0.73	
Control Delay		8.2			8.1		46.1	20.1			47.1	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		8.2			8.1		46.1	20.1			47.1	
LOS		A			A		D	C			D	
Approach Delay		8.2			8.1			34.3			47.1	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)		88			96		12	1			70	
Queue Length 95th (ft)		331			352		33	19			136	
Internal Link Dist (ft)		116			502			66			560	
Turn Bay Length (ft)												
Base Capacity (vph)		2283			2486		195	371			383	
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.44			0.44		0.09	0.04			0.43	

Intersection Summary

Cycle Length: 111
 Actuated Cycle Length: 111
 Offset: 0 (0%), Referenced to phase 2:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 11.3
 Intersection Capacity Utilization 77.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 2: Panther Way & West Central St



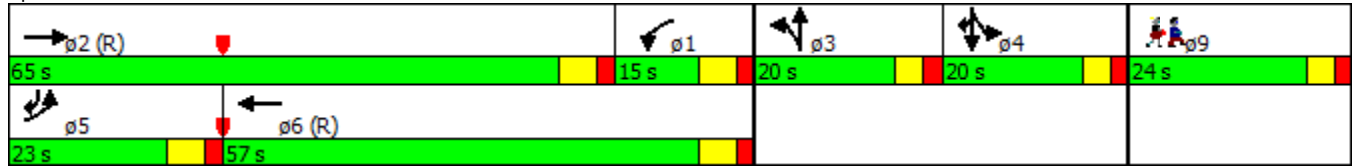


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	306	545	66	37	596	12	78	62	67	3	76	428
Satd. Flow (prot)	1770	3483	0	1770	1857	0	0	1747	0	0	1859	1583
Flt Permitted	0.950			0.950				0.981			0.998	
Satd. Flow (perm)	1770	3483	0	1770	1857	0	0	1747	0	0	1859	1583
Satd. Flow (RTOR)		11			1							
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	312	623	0	38	620	0	0	211	0	0	81	437
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	23.0	65.0		15.0	57.0		20.0	20.0		20.0	20.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	35.8	81.2		8.4	51.4			15.0			15.0	55.8
Actuated g/C Ratio	0.25	0.56		0.06	0.36			0.10			0.10	0.39
v/c Ratio	0.71	0.32		0.37	0.94			1.17			0.42	0.71
Control Delay	58.7	18.9		75.4	67.1			172.8			67.7	43.4
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	58.7	18.9		75.4	67.1			172.8			67.7	43.4
LOS	E	B		E	E			F			E	D
Approach Delay		32.2			67.6			172.8			47.2	
Approach LOS		C			E			F			D	
Queue Length 50th (ft)	255	149		35	562			-233			72	319
Queue Length 95th (ft)	#596	269		75	#807			#401			129	#713
Internal Link Dist (ft)		238			374			1053			479	
Turn Bay Length (ft)	250			250								250
Base Capacity (vph)	440	1968		110	663			181			193	613
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.71	0.32		0.35	0.94			1.17			0.42	0.71

Intersection Summary

Cycle Length: 144
 Actuated Cycle Length: 144
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.17
 Intersection Signal Delay: 58.4
 Intersection Capacity Utilization 83.6%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St



Lane Group ø9

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	24.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

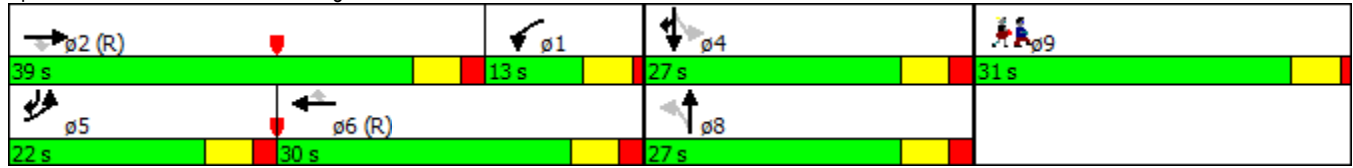
No-Build Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	620	277	60	731	232	72	147	45	172	39	472
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.727			0.543		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1354	1863	1583	1011	1863	1583
Satd. Flow (RTOR)			324			252			258			552
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	263	726	324	65	793	252	84	172	53	201	46	552
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	22.0	39.0	39.0	13.0	30.0	30.0	27.0	27.0		27.0	27.0	
Total Lost Time (s)	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	23.0	60.4	60.4	7.6	41.8	41.8	21.0	21.0	110.0	21.0	21.0	48.8
Actuated g/C Ratio	0.21	0.55	0.55	0.07	0.38	0.38	0.19	0.19	1.00	0.19	0.19	0.44
v/c Ratio	0.71	0.37	0.32	0.53	0.59	0.33	0.33	0.48	0.03	1.04	0.13	0.55
Control Delay	52.9	17.9	3.6	66.2	32.1	6.9	42.5	45.0	0.0	120.6	38.1	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.9	17.9	3.6	66.2	32.1	6.9	42.5	45.0	0.0	120.6	38.1	3.4
LOS	D	B	A	E	C	A	D	D	A	F	D	A
Approach Delay		21.4			28.4			36.6				34.9
Approach LOS		C			C			D				C
Queue Length 50th (ft)	168	133	0	47	242	25	52	109	0	~154	27	0
Queue Length 95th (ft)	#350	295	58	m90	m#438	m101	97	174	0	#291	59	30
Internal Link Dist (ft)		853			246			360			529	
Turn Bay Length (ft)	250		250	250		250	250		100	250		250
Base Capacity (vph)	370	1943	1015	128	1343	757	258	355	1583	193	355	1009
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.37	0.32	0.51	0.59	0.33	0.33	0.48	0.03	1.04	0.13	0.55

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 28.0
 Intersection Capacity Utilization 71.4%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

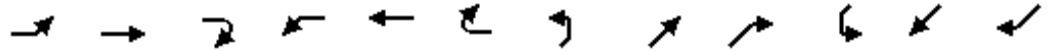
Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group ϕ9

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	31.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



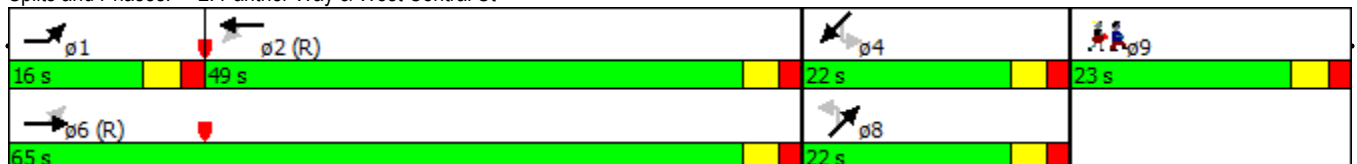
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕↕			↕↕		↖	↗			↕↕	
Volume (vph)	210	541	9	3	753	203	5	2	4	129	0	139
Satd. Flow (prot)	0	3483	0	0	3426	0	1770	1663	0	0	1693	0
Flt Permitted		0.541			0.953		0.483				0.844	
Satd. Flow (perm)	0	1911	0	0	3265	0	900	1663	0	0	1462	0
Satd. Flow (RTOR)		2			37			5			119	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	890	0	0	1039	0	6	7	0	0	314	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	16.0	65.0		49.0	49.0		22.0	22.0		22.0	22.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Act Effct Green (s)		78.7			78.7		11.0	11.0			16.9	
Actuated g/C Ratio		0.72			0.72		0.10	0.10			0.15	
v/c Ratio		0.65			0.44		0.07	0.04			0.97	
Control Delay		16.0			8.3		42.8	28.2			72.1	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		16.0			8.3		42.8	28.2			72.1	
LOS		B			A		D	C			E	
Approach Delay		16.0			8.3			34.9			72.1	
Approach LOS		B			A			C			E	
Queue Length 50th (ft)		242			138		4	1			144	
Queue Length 95th (ft)		m391			m309		16	14			#308	
Internal Link Dist (ft)		113			486			66			560	
Turn Bay Length (ft)												
Base Capacity (vph)		1368			2347		139	261			326	
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.65			0.44		0.04	0.03			0.96	

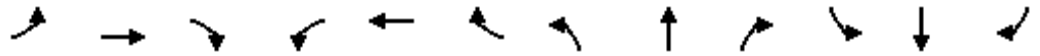
Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 37 (34%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 20.4
 Intersection Capacity Utilization 85.5%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service E

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



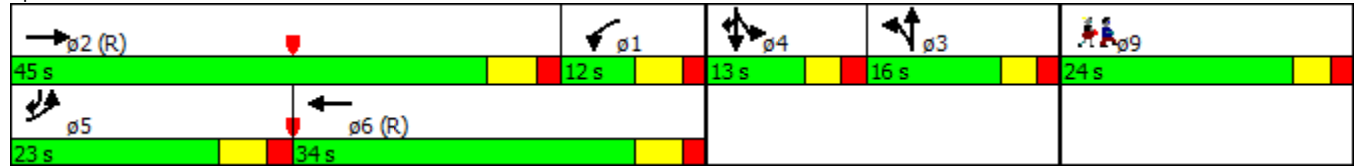


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	244	393	55	38	368	3	96	48	31	6	68	474
Satd. Flow (prot)	1770	3476	0	1770	1861	0	0	1769	0	0	1855	1583
Flt Permitted	0.950			0.950				0.973			0.996	
Satd. Flow (perm)	1770	3476	0	1770	1861	0	0	1769	0	0	1855	1583
Satd. Flow (RTOR)		16										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	282	519	0	44	429	0	0	204	0	0	87	555
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	23.0	45.0		12.0	34.0		16.0	16.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	36.2	60.6		6.0	28.0			11.0			8.0	45.2
Actuated g/C Ratio	0.33	0.55		0.05	0.25			0.10			0.07	0.41
v/c Ratio	0.48	0.27		0.46	0.91			1.16			0.65	0.85
Control Delay	30.7	15.3		66.1	64.4			161.6			72.4	39.6
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	30.7	15.3		66.1	64.4			161.6			72.4	39.6
LOS	C	B		E	E			F			E	D
Approach Delay		20.7			64.5			161.6			44.1	
Approach LOS		C			E			F			D	
Queue Length 50th (ft)	172	133		31	294			~170			61	196
Queue Length 95th (ft)	m#348	m164		68	#469			#307			#128	#630
Internal Link Dist (ft)		172			372			1053			462	
Turn Bay Length (ft)	250			250								250
Base Capacity (vph)	582	1922		96	473			176			134	650
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.48	0.27		0.46	0.91			1.16			0.65	0.85

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 101 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.16
 Intersection Signal Delay: 51.1
 Intersection Capacity Utilization 73.7%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beaver St & West Central St



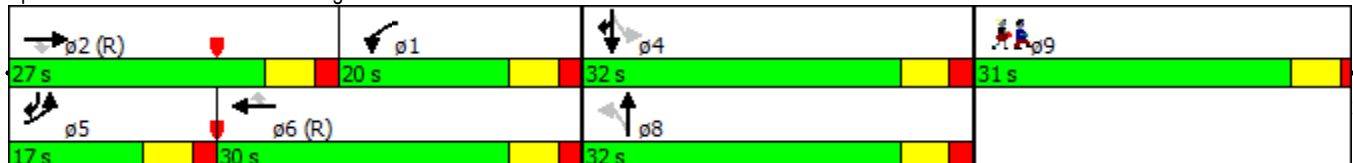
Lane Group ø9	
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	24.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	146	567	382	173	612	102	262	77	240	100	72	180
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.706			0.703		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1315	1863	1583	1310	1863	1583
Satd. Flow (RTOR)			414			139			260			195
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	615	414	188	664	111	284	83	260	108	78	195
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	17.0	27.0	27.0	20.0	30.0	30.0	32.0	32.0		32.0	32.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	14.6	46.5	46.5	14.0	45.9	45.9	25.3	25.3	110.0	25.3	25.3	44.7
Actuated g/C Ratio	0.13	0.42	0.42	0.13	0.42	0.42	0.23	0.23	1.00	0.23	0.23	0.41
v/c Ratio	0.68	0.41	0.46	0.84	0.45	0.15	0.94	0.19	0.16	0.36	0.18	0.26
Control Delay	60.9	26.3	5.1	79.9	29.5	7.4	81.1	35.2	0.2	39.2	35.0	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	26.3	5.1	79.9	29.5	7.4	81.1	35.2	0.2	39.2	35.0	2.9
LOS	E	C	A	E	C	A	F	D	A	D	C	A
Approach Delay		23.5			36.8			41.5				19.8
Approach LOS		C			D			D				B
Queue Length 50th (ft)	105	141	0	136	181	5	196	47	0	64	44	0
Queue Length 95th (ft)	#235	#329	89	#260	#337	47	#359	90	0	117	85	23
Internal Link Dist (ft)		869			284			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	234	1495	907	225	1476	741	310	440	1583	309	440	752
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.41	0.46	0.84	0.45	0.15	0.92	0.19	0.16	0.35	0.18	0.26

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 30.7
 Intersection Capacity Utilization 62.6%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕↕			↕↕		↕	↕			↕↕	
Volume (vph)	57	734	31	17	693	54	26	1	24	40	1	47
Satd. Flow (prot)	0	3507	0	0	3497	0	1770	1595	0	0	1691	0
Flt Permitted		0.821			0.926		0.630				0.842	
Satd. Flow (perm)	0	2888	0	0	3241	0	1174	1595	0	0	1456	0
Satd. Flow (RTOR)		6			10			26			43	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	892	0	0	828	0	28	27	0	0	95	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	11.0	68.0		57.0	57.0		19.0	19.0		19.0	19.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Act Effct Green (s)		86.0			86.0		9.4	9.4			9.4	
Actuated g/C Ratio		0.78			0.78		0.09	0.09			0.09	
v/c Ratio		0.39			0.33		0.28	0.17			0.58	
Control Delay		4.5			9.7		53.0	19.4			42.0	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		4.5			9.7		53.0	19.4			42.0	
LOS		A			A		D	B			D	
Approach Delay		4.5			9.7			36.5			42.0	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)		24			106		19	1			36	
Queue Length 95th (ft)		328			312		47	27			86	
Internal Link Dist (ft)		116			502			66			560	
Turn Bay Length (ft)												
Base Capacity (vph)		2259			2535		149	225			222	
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.39			0.33		0.19	0.12			0.43	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 29 (26%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 9.7
 Intersection Capacity Utilization 70.1%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 2: Panther Way & West Central St

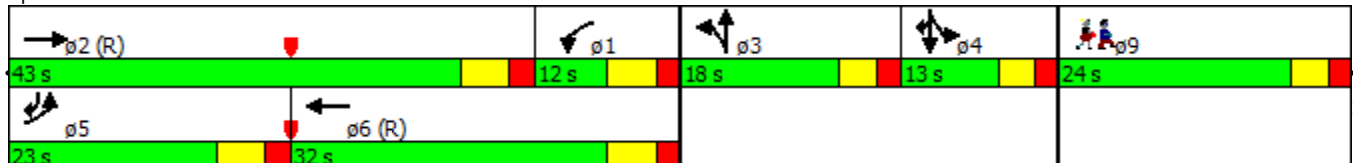


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	236	491	85	37	458	6	54	39	48	6	37	261
Satd. Flow (prot)	1770	3461	0	1770	1859	0	0	1743	0	0	1850	1583
Flt Permitted	0.950			0.950				0.981			0.993	
Satd. Flow (perm)	1770	3461	0	1770	1859	0	0	1743	0	0	1850	1583
Satd. Flow (RTOR)		19			1							
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	256	624	0	40	504	0	0	153	0	0	47	283
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	23.0	43.0		12.0	32.0		18.0	18.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	20.9	61.0		6.0	41.3			12.4			8.6	34.5
Actuated g/C Ratio	0.19	0.55		0.05	0.38			0.11			0.08	0.31
v/c Ratio	0.76	0.32		0.42	0.72			0.78			0.33	0.57
Control Delay	49.3	12.7		63.7	38.5			74.4			55.1	35.6
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	49.3	12.7		63.7	38.5			74.4			55.1	35.6
LOS	D	B		E	D			E			E	D
Approach Delay		23.4			40.3			74.4			38.3	
Approach LOS		C			D			E			D	
Queue Length 50th (ft)	170	156		28	290			106			32	159
Queue Length 95th (ft)	#328	192		65	#629			#205			71	#213
Internal Link Dist (ft)		238			374			1053			479	
Turn Bay Length (ft)	250			250								250
Base Capacity (vph)	335	1927		96	698			205			144	496
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.76	0.32		0.42	0.72			0.75			0.33	0.57

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 70 (64%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 34.9
 Intersection Capacity Utilization 67.7%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St

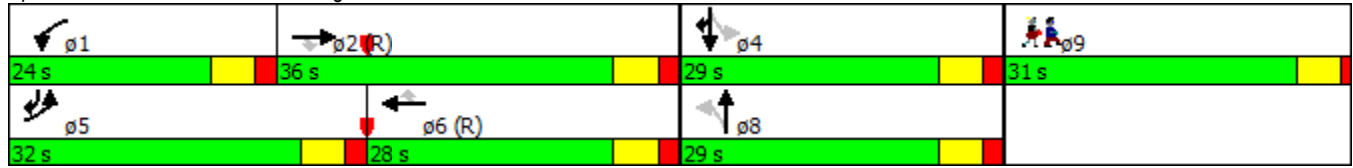


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	380	675	381	195	599	138	238	140	262	118	98	293
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.686			0.576		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1278	1863	1583	1073	1863	1583
Satd. Flow (RTOR)			413			182			280			318
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	412	732	413	211	649	150	258	152	284	128	106	318
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	32.0	36.0	36.0	24.0	28.0	28.0	29.0	29.0		29.0	29.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	36.1	54.4	54.4	18.4	36.7	36.7	23.0	23.0	120.0	23.0	23.0	63.9
Actuated g/C Ratio	0.30	0.45	0.45	0.15	0.31	0.31	0.19	0.19	1.00	0.19	0.19	0.53
v/c Ratio	0.77	0.46	0.44	0.78	0.60	0.25	1.06	0.43	0.18	0.62	0.30	0.32
Control Delay	50.3	26.5	4.6	68.2	39.3	8.3	120.4	47.0	0.2	59.3	44.2	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	26.5	4.6	68.2	39.3	8.3	120.4	47.0	0.2	59.3	44.2	2.2
LOS	D	C	A	E	D	A	F	D	A	E	D	A
Approach Delay		27.0			40.7			55.1				23.5
Approach LOS		C			D			E				C
Queue Length 50th (ft)	283	186	0	152	226	9	~218	105	0	92	71	0
Queue Length 95th (ft)	#555	358	83	#284	#403	81	#388	172	0	#163	125	26
Internal Link Dist (ft)		869			284			360			529	
Turn Bay Length (ft)	250		250	250		250	250		100	250		250
Base Capacity (vph)	532	1604	943	286	1082	610	244	357	1583	205	357	991
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.46	0.44	0.74	0.60	0.25	1.06	0.43	0.18	0.62	0.30	0.32

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 35.3
 Intersection Capacity Utilization 77.6%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group ø9

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	31.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

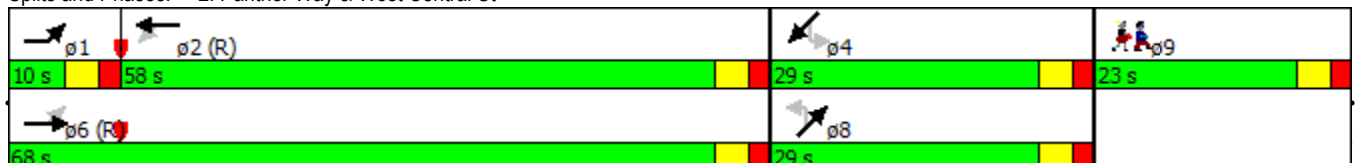


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕↕			↕↕		↖	↗			↕↕	
Volume (vph)	106	866	17	8	801	73	20	1	13	62	3	74
Satd. Flow (prot)	0	3511	0	0	3497	0	1770	1602	0	0	1691	0
Flt Permitted		0.686			0.943		0.524				0.849	
Satd. Flow (perm)	0	2421	0	0	3297	0	976	1602	0	0	1468	0
Satd. Flow (RTOR)		2			10			14			43	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1072	0	0	956	0	22	15	0	0	150	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	10.0	68.0		58.0	58.0		29.0	29.0		29.0	29.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Act Effct Green (s)		91.9			91.9		12.8	12.8			13.5	
Actuated g/C Ratio		0.77			0.77		0.11	0.11			0.11	
v/c Ratio		0.58			0.38		0.21	0.08			0.74	
Control Delay		6.0			2.7		50.9	21.2			57.1	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		6.0			2.7		50.9	21.2			57.1	
LOS		A			A		D	C			E	
Approach Delay		6.0			2.7			38.8			57.1	
Approach LOS		A			A			D			E	
Queue Length 50th (ft)		43			30		16	1			81	
Queue Length 95th (ft)		466			m111		40	21			146	
Internal Link Dist (ft)		116			502			66			560	
Turn Bay Length (ft)												
Base Capacity (vph)		1855			2528		195	331			328	
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.58			0.38		0.11	0.05			0.46	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 37 (31%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 8.6
 Intersection Capacity Utilization 81.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service D
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St

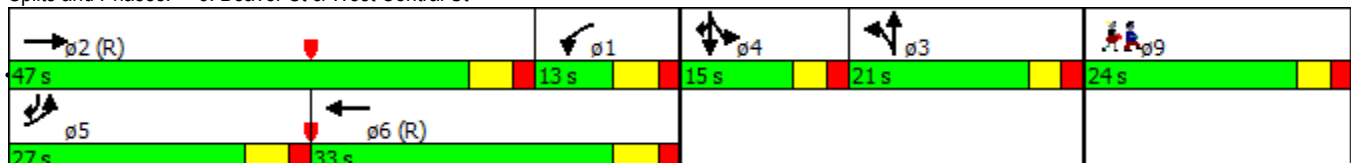


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	558	60	38	478	5	48	69	66	7	72	338
Satd. Flow (prot)	1770	3486	0	1770	1861	0	0	1748	0	0	1853	1583
Flt Permitted	0.950			0.950				0.987			0.995	
Satd. Flow (perm)	1770	3486	0	1770	1861	0	0	1748	0	0	1853	1583
Satd. Flow (RTOR)		10										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	352	670	0	41	523	0	0	199	0	0	86	366
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	27.0	47.0		13.0	33.0		21.0	21.0		15.0	15.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	33.2	63.2		6.8	34.5			15.6			10.0	44.2
Actuated g/C Ratio	0.28	0.53		0.06	0.29			0.13			0.08	0.37
v/c Ratio	0.72	0.36		0.41	0.98			0.88			0.56	0.63
Control Delay	56.3	24.9		67.1	77.1			86.7			67.4	28.1
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	56.3	24.9		67.1	77.1			86.7			67.4	28.1
LOS	E	C		E	E			F			E	C
Approach Delay		35.7			76.4			86.7			35.6	
Approach LOS		D			E			F			D	
Queue Length 50th (ft)	274	155		31	388			153			65	140
Queue Length 95th (ft)	#522	348		70	#720			#284			121	#326
Internal Link Dist (ft)		238			374			1053			479	
Turn Bay Length (ft)	250			250								250
Base Capacity (vph)	489	1841		103	534			233			154	582
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.72	0.36		0.40	0.98			0.85			0.56	0.63

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 21 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 50.5
 Intersection Capacity Utilization 76.2%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St

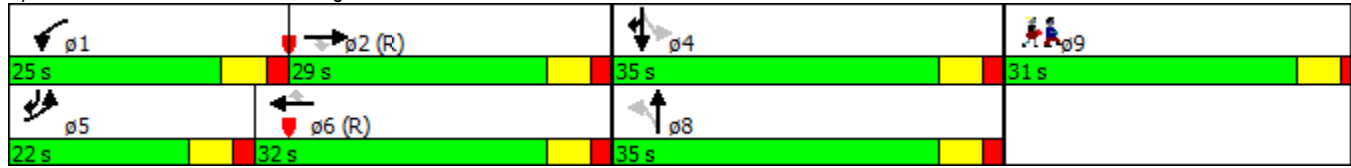


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	213	626	410	283	628	202	296	137	277	161	129	286
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.629			0.612		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1172	1863	1583	1140	1863	1583
Satd. Flow (RTOR)			445			219			300			310
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	231	679	445	307	681	219	321	149	300	175	140	310
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	22.0	29.0	29.0	25.0	32.0	32.0	35.0	35.0		35.0	35.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	21.3	38.0	38.0	28.8	45.5	45.5	29.0	29.0	120.0	29.0	29.0	55.1
Actuated g/C Ratio	0.18	0.32	0.32	0.24	0.38	0.38	0.24	0.24	1.00	0.24	0.24	0.46
v/c Ratio	0.74	0.61	0.55	0.72	0.51	0.30	1.13	0.33	0.19	0.64	0.31	0.35
Control Delay	61.8	38.6	6.5	52.7	30.7	8.1	136.6	40.0	0.3	52.7	39.6	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	38.6	6.5	52.7	30.7	8.1	136.6	40.0	0.3	52.7	39.6	2.6
LOS	E	D	A	D	C	A	F	D	A	D	D	A
Approach Delay		32.0			32.2			64.8				24.9
Approach LOS		C			C			E				C
Queue Length 50th (ft)	167	219	0	231	188	19	~289	96	0	122	89	0
Queue Length 95th (ft)	#343	#410	97	#448	#377	103	#471	157	0	204	149	27
Internal Link Dist (ft)		869			284			337			529	
Turn Bay Length (ft)	250		250	250		250	250		100	250		250
Base Capacity (vph)	314	1120	805	424	1341	736	283	450	1583	275	450	894
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.61	0.55	0.72	0.51	0.30	1.13	0.33	0.19	0.64	0.31	0.35

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.13
 Intersection Signal Delay: 37.3
 Intersection Capacity Utilization 77.9%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

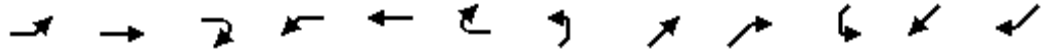
Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group ø9

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	31.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

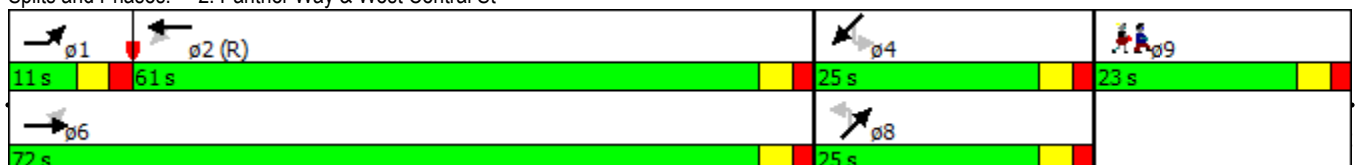


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕↕			↕↕		↗	↖			↕↕	
Volume (vph)	36	874	82	10	970	93	18	1	14	62	2	98
Satd. Flow (prot)	0	3490	0	0	3493	0	1770	1600	0	0	1678	0
Flt Permitted		0.853			0.941		0.448				0.868	
Satd. Flow (perm)	0	2983	0	0	3287	0	835	1600	0	0	1484	0
Satd. Flow (RTOR)		13			11			15			55	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1076	0	0	1164	0	20	16	0	0	175	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	11.0	72.0		61.0	61.0		25.0	25.0		25.0	25.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0			5.0	
Act Effct Green (s)		91.4			91.4		14.0	14.0			14.0	
Actuated g/C Ratio		0.76			0.76		0.12	0.12			0.12	
v/c Ratio		0.47			0.46		0.21	0.08			0.79	
Control Delay		3.4			7.1		50.4	20.9			58.5	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		3.4			7.1		50.4	20.9			58.5	
LOS		A			A		D	C			E	
Approach Delay		3.4			7.1			37.3			58.5	
Approach LOS		A			A			D			E	
Queue Length 50th (ft)		28			116		14	1			91	
Queue Length 95th (ft)		86			m200		38	21			164	
Internal Link Dist (ft)		116			502			66			560	
Turn Bay Length (ft)												
Base Capacity (vph)		2274			2505		139	279			293	
Starvation Cap Reductn		0			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.47			0.46		0.14	0.06			0.60	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 39 (33%), Referenced to phase 2:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 9.6
 Intersection Capacity Utilization 79.8%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service D
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



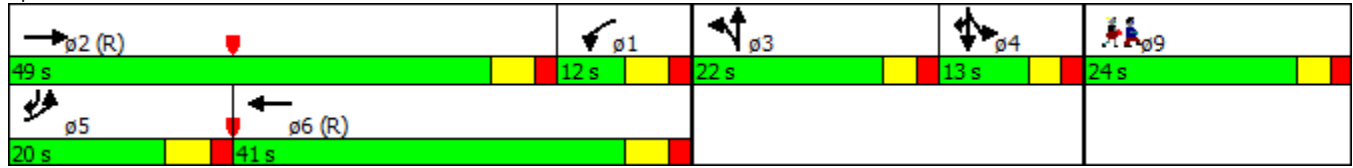


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	306	545	66	37	596	12	78	62	67	3	76	428
Satd. Flow (prot)	1770	3483	0	1770	1857	0	0	1747	0	0	1859	1583
Flt Permitted	0.950			0.950				0.981			0.998	
Satd. Flow (perm)	1770	3483	0	1770	1857	0	0	1747	0	0	1859	1583
Satd. Flow (RTOR)		12			1							
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	332	663	0	40	659	0	0	225	0	0	85	464
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	20.0	49.0		12.0	41.0		22.0	22.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	33.2	64.6		6.0	35.0			16.9			8.1	46.3
Actuated g/C Ratio	0.28	0.54		0.05	0.29			0.14			0.07	0.39
v/c Ratio	0.68	0.35		0.45	1.22			0.92			0.68	0.76
Control Delay	54.4	15.2		72.1	150.7			91.1			81.2	41.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	54.4	15.2		72.1	150.7			91.1			81.2	41.3
LOS	D	B		E	F			F			F	D
Approach Delay		28.3			146.2			91.1			47.5	
Approach LOS		C			F			F			D	
Queue Length 50th (ft)	185	88		31	~628			174			66	282
Queue Length 95th (ft)	#569	175		69	#861			#323			#144	#710
Internal Link Dist (ft)		238			374			1053			479	
Turn Bay Length (ft)	250			250								250
Base Capacity (vph)	489	1880		88	542			247			125	611
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.68	0.35		0.45	1.22			0.91			0.68	0.76

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 53 (44%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.22
 Intersection Signal Delay: 71.7
 Intersection Capacity Utilization 85.7%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St



Lane Group ø9

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	24.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

**Alternative 1 - Three-Lane Cross-Section
with Two-Way Left-Turn Lanes**

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	620	277	60	731	232	72	147	45	172	39	472
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.730			0.571		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1360	1863	1583	1064	1863	1583
Satd. Flow (RTOR)			300			252			258			512
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	244	672	300	65	793	252	78	159	49	186	42	512
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	21.0	39.0	39.0	13.0	31.0	31.0	27.0	27.0		27.0	27.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	21.7	60.9	60.9	6.8	43.6	43.6	20.5	20.5	110.0	20.5	20.5	47.0
Actuated g/C Ratio	0.20	0.55	0.55	0.06	0.40	0.40	0.19	0.19	1.00	0.19	0.19	0.43
v/c Ratio	0.70	0.34	0.30	0.60	0.57	0.32	0.31	0.46	0.03	0.94	0.12	0.53
Control Delay	53.8	17.4	3.6	59.9	22.8	3.5	42.2	44.5	0.0	95.0	38.0	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	17.4	3.6	59.9	22.8	3.5	42.2	44.5	0.0	95.0	38.0	3.4
LOS	D	B	A	E	C	A	D	D	A	F	D	A
Approach Delay		21.3			20.6			36.2			28.4	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	157	121	0	47	187	14	48	100	0	130	25	0
Queue Length 95th (ft)	#341	278	62	m63	m#358	m53	94	166	0	#267	56	33
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	348	1958	1010	112	1403	779	259	355	1583	203	355	962
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.34	0.30	0.58	0.57	0.32	0.30	0.45	0.03	0.92	0.12	0.53

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 23.9

Intersection LOS: C

Intersection Capacity Utilization 71.4%

ICU Level of Service C

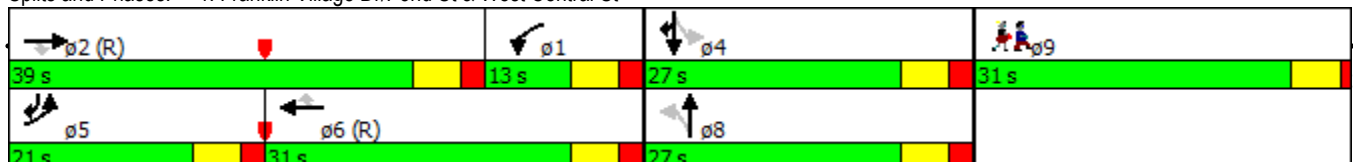
Analysis Period (min) 15

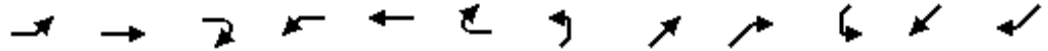
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	210	541	9	3	753	203	5	2	4	129	0	139
Satd. Flow (prot)	1770	1857	0	1770	1803	0	1770	1676	0	0	1693	0
Flt Permitted	0.062			0.436			0.486				0.844	
Satd. Flow (perm)	115	1857	0	812	1803	0	905	1676	0	0	1462	0
Satd. Flow (RTOR)		1			15			4				159
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	228	597	0	3	1036	0	5	6	0	0	291	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	16.0	56.0		9.0	49.0		22.0	22.0		22.0	22.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	81.6	79.8		67.8	62.5		9.8	9.8			13.8	
Actuated g/C Ratio	0.74	0.73		0.62	0.57		0.09	0.09			0.13	
v/c Ratio	0.77	0.44		0.01	1.00		0.06	0.04			0.90	
Control Delay	44.9	9.1		5.7	49.1		43.0	29.7			51.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	44.9	9.1		5.7	49.1		43.0	29.7			51.8	
LOS	D	A		A	D		D	C			D	
Approach Delay		19.0			49.0			35.7			51.8	
Approach LOS		B			D			D			D	
Queue Length 50th (ft)	65	105		1	~778		4	1			92	
Queue Length 95th (ft)	m#275	m525		m1	m#1220		14	14			#233	
Internal Link Dist (ft)		387			578			66			170	
Turn Bay Length (ft)	200			100								
Base Capacity (vph)	298	1346		545	1031		139	262			360	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.77	0.44		0.01	1.00		0.04	0.02			0.81	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 31 (28%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 37.9

Intersection LOS: D

Intersection Capacity Utilization 100.8%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

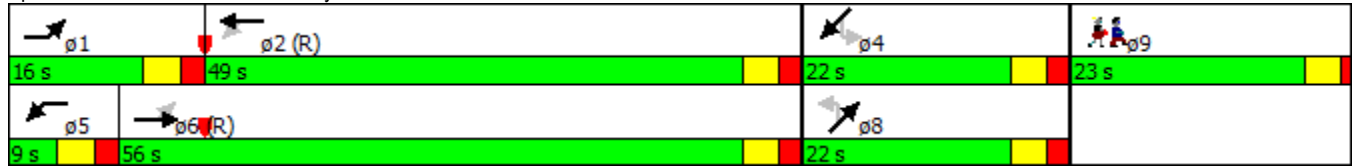
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



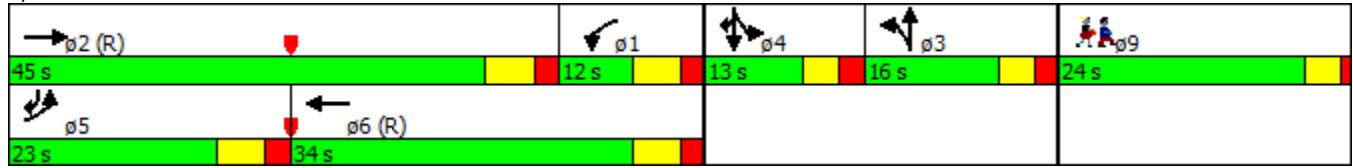
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	23.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	244	393	55	38	368	3	96	48	31	6	68	474
Satd. Flow (prot)	1770	1827	0	1770	1861	0	0	1769	0	0	1855	1583
Flt Permitted	0.950			0.950				0.973			0.996	
Satd. Flow (perm)	1770	1827	0	1770	1861	0	0	1769	0	0	1855	1583
Satd. Flow (RTOR)		7										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	265	486	0	41	402	0	0	190	0	0	81	514
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	23.0	45.0		12.0	34.0		16.0	16.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	36.4	63.2		6.0	28.0			11.0			8.0	45.4
Actuated g/C Ratio	0.33	0.57		0.05	0.25			0.10			0.07	0.41
v/c Ratio	0.45	0.46		0.43	0.85			1.08			0.60	0.79
Control Delay	31.2	20.5		64.3	57.1			138.0			68.9	34.1
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	31.2	20.5		64.3	57.1			138.0			68.9	34.1
LOS	C	C		E	E			F			E	C
Approach Delay		24.3			57.7			138.0			38.9	
Approach LOS		C			E			F			D	
Queue Length 50th (ft)	158	263		29	271			~150			56	175
Queue Length 95th (ft)	m#323	m429		65	#435			#294			#120	#576
Internal Link Dist (ft)		355			403			287			729	
Turn Bay Length (ft)				250								125
Base Capacity (vph)	585	1052		96	473			176			134	653
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.45	0.46		0.43	0.85			1.08			0.60	0.79

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 101 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay: 47.1
 Intersection Capacity Utilization 73.7%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beaver St & West Central St



Lane Group	ø9
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	24.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗	↘	↘	↗	↘	↘	↗	↘
Volume (vph)	146	567	382	173	612	102	262	77	240	100	72	180
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.706			0.703		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1315	1863	1583	1310	1863	1583
Satd. Flow (RTOR)			414			139			260			195
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	615	414	188	664	111	284	83	260	108	78	195
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	17.0	27.0	27.0	20.0	30.0	30.0	32.0	32.0		32.0	32.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	14.6	46.5	46.5	14.0	45.9	45.9	25.3	25.3	110.0	25.3	25.3	44.7
Actuated g/C Ratio	0.13	0.42	0.42	0.13	0.42	0.42	0.23	0.23	1.00	0.23	0.23	0.41
v/c Ratio	0.68	0.41	0.46	0.84	0.45	0.15	0.94	0.19	0.16	0.36	0.18	0.26
Control Delay	60.9	26.3	5.1	70.0	20.9	2.5	81.1	35.2	0.2	39.2	35.0	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	26.3	5.1	70.0	20.9	2.5	81.1	35.2	0.2	39.2	35.0	2.9
LOS	E	C	A	E	C	A	F	D	A	D	C	A
Approach Delay		23.5			28.4			41.5				19.8
Approach LOS		C			C			D				B
Queue Length 50th (ft)	105	141	0	131	162	3	196	47	0	64	44	0
Queue Length 95th (ft)	#235	#329	89	#253	#327	m28	#359	90	0	117	85	23
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	234	1495	907	225	1476	741	310	440	1583	309	440	752
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.41	0.46	0.84	0.45	0.15	0.92	0.19	0.16	0.35	0.18	0.26

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 28.1

Intersection LOS: C

Intersection Capacity Utilization 62.6%

ICU Level of Service B

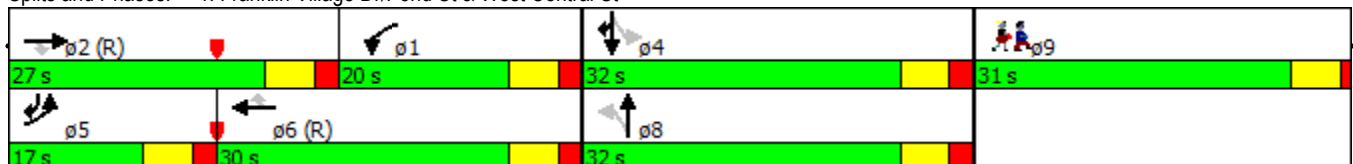
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	57	734	31	17	693	54	26	1	24	40	1	47
Satd. Flow (prot)	1770	1852	0	1770	1842	0	1770	1595	0	0	1691	0
Flt Permitted	0.236			0.250			0.623				0.842	
Satd. Flow (perm)	440	1852	0	466	1842	0	1160	1595	0	0	1456	0
Satd. Flow (RTOR)		3			5			26			43	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	830	0	18	810	0	28	27	0	0	95	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	10.0	59.0		9.0	58.0		19.0	19.0		19.0	19.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	84.7	82.6		82.6	78.4		8.7	8.7			8.8	
Actuated g/C Ratio	0.77	0.75		0.75	0.71		0.08	0.08			0.08	
v/c Ratio	0.15	0.60		0.04	0.62		0.31	0.18			0.61	
Control Delay	4.5	12.7		3.0	8.9		54.7	19.7			44.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	4.5	12.7		3.0	8.9		54.7	19.7			44.2	
LOS	A	B		A	A		D	B			D	
Approach Delay		12.1			8.7			37.6			44.2	
Approach LOS		B			A			D			D	
Queue Length 50th (ft)	4	72		1	165		19	1			36	
Queue Length 95th (ft)	21	#790		m3	#764		47	27			86	
Internal Link Dist (ft)		387			580			66			150	
Turn Bay Length (ft)	200			100								
Base Capacity (vph)	401	1390		412	1314		147	225			222	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.15	0.60		0.04	0.62		0.19	0.12			0.43	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 31 (28%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 13.0

Intersection LOS: B

Intersection Capacity Utilization 69.1%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



West Central Street
3: Beaver St & West Central St

Alternative 1 Midday 3-Lane X-Section with TWLTL
11/24/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	236	491	85	37	458	6	54	39	48	6	37	261
Satd. Flow (prot)	1770	1822	0	1770	1859	0	0	1743	0	0	1850	1583
Flt Permitted	0.950			0.950				0.981			0.993	
Satd. Flow (perm)	1770	1822	0	1770	1859	0	0	1743	0	0	1850	1583
Satd. Flow (RTOR)		9			1							
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	256	624	0	40	504	0	0	153	0	0	47	283
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	23.0	43.0		12.0	32.0		18.0	18.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	20.9	61.6		6.0	41.9			12.4			8.0	29.9
Actuated g/C Ratio	0.19	0.56		0.05	0.38			0.11			0.07	0.27
v/c Ratio	0.76	0.61		0.42	0.71			0.78			0.35	0.66
Control Delay	55.3	27.8		63.7	37.8			74.4			56.2	33.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	55.3	27.8		63.7	37.8			74.4			56.2	33.3
LOS	E	C		E	D			E			E	C
Approach Delay		35.8			39.7			74.4			36.6	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	178	279		28	290			106			32	116
Queue Length 95th (ft)	#347	#703		65	#629			#205			71	#219
Internal Link Dist (ft)		361			404			287			737	
Turn Bay Length (ft)				250								125
Base Capacity (vph)	335	1024		96	709			205			134	429
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.76	0.61		0.42	0.71			0.75			0.35	0.66

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 21 (19%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 40.1

Intersection LOS: D

Intersection Capacity Utilization 67.7%

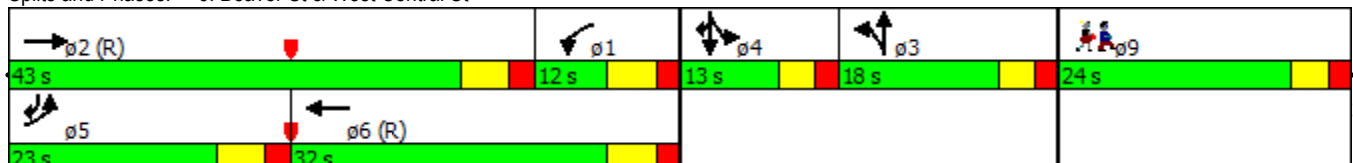
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St

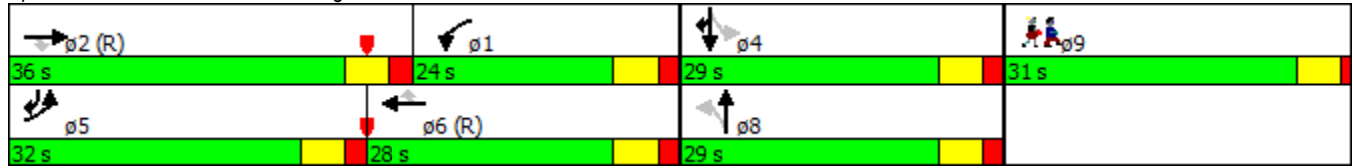


	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	380	675	381	195	599	138	238	140	262	118	98	293
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.686			0.576		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1278	1863	1583	1073	1863	1583
Satd. Flow (RTOR)			413			150			280			318
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	412	732	413	211	649	150	258	152	284	128	106	318
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	32.0	36.0	36.0	24.0	28.0	28.0	29.0	29.0		29.0	29.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	36.1	54.8	54.8	18.0	36.7	36.7	23.0	23.0	120.0	23.0	23.0	63.9
Actuated g/C Ratio	0.30	0.46	0.46	0.15	0.31	0.31	0.19	0.19	1.00	0.19	0.19	0.53
v/c Ratio	0.77	0.45	0.44	0.80	0.60	0.26	1.06	0.43	0.18	0.62	0.30	0.32
Control Delay	50.3	25.9	4.6	63.5	33.7	6.6	120.4	47.0	0.2	59.3	44.2	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	25.9	4.6	63.5	33.7	6.6	120.4	47.0	0.2	59.3	44.2	2.2
LOS	D	C	A	E	C	A	F	D	A	E	D	A
Approach Delay		26.7			35.9			55.1				23.5
Approach LOS		C			D			E				C
Queue Length 50th (ft)	283	178	0	157	177	6	~218	105	0	92	71	0
Queue Length 95th (ft)	#555	358	83	m#238	#390	m29	#388	172	0	#163	125	26
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	532	1615	947	265	1082	588	244	357	1583	205	357	991
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.45	0.44	0.80	0.60	0.26	1.06	0.43	0.18	0.62	0.30	0.32

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 33.8
 Intersection Capacity Utilization 77.6%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

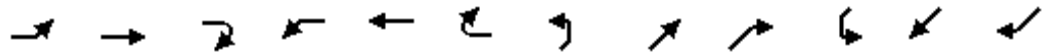
Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group	ø9
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	31.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

West Central Street
2: Panther Way & West Central St

Alternative 1: PM 3-Lane X-Section with TWLTL
12/4/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	106	866	17	8	801	73	20	1	13	62	3	74
Satd. Flow (prot)	1770	1857	0	1770	1839	0	1770	1602	0	0	1536	0
Flt Permitted	0.117			0.181			0.533				0.849	
Satd. Flow (perm)	218	1857	0	337	1839	0	993	1602	0	0	1329	0
Satd. Flow (RTOR)		1			5			14			43	
Confl. Peds. (#/hr)										3		62
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	957	0	9	947	0	22	15	0	0	150	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	10.0	59.0		9.0	58.0		29.0	29.0		29.0	29.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	90.3	88.9		83.6	77.9		12.9	12.9			14.3	
Actuated g/C Ratio	0.75	0.74		0.70	0.65		0.11	0.11			0.12	
v/c Ratio	0.43	0.70		0.03	0.79		0.21	0.08			0.77	
Control Delay	14.7	20.5		3.7	16.7		49.5	20.6			59.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	14.7	20.5		3.7	16.7		49.5	20.6			59.8	
LOS	B	C		A	B		D	C			E	
Approach Delay		19.8			16.6			37.8			59.8	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	25	374		1	239		16	1			82	
Queue Length 95th (ft)	m102	#1139		m2	m#1045		39	20			146	
Internal Link Dist (ft)		387			578			66			170	
Turn Bay Length (ft)	100			100								
Base Capacity (vph)	270	1376		302	1196		198	331			300	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.43	0.70		0.03	0.79		0.11	0.05			0.50	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 63 (53%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 21.4

Intersection LOS: C

Intersection Capacity Utilization 84.0%

ICU Level of Service E

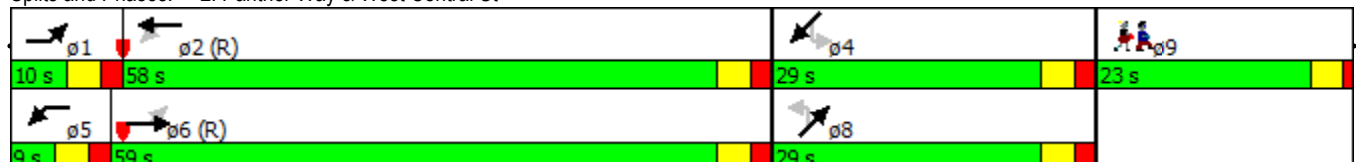
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



West Central Street
3: Beaver St & West Central St

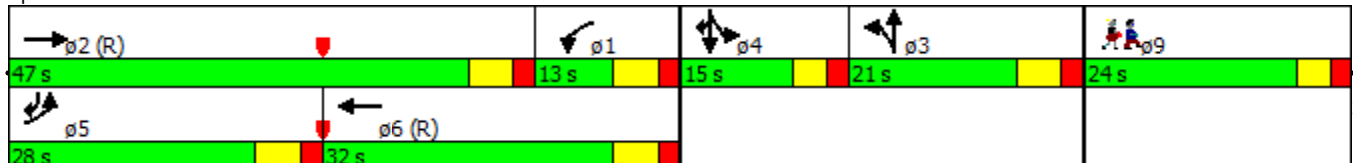
Alternative 1: PM 3-Lane X-Section with TWLTL
12/4/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	558	60	38	478	5	48	69	66	7	72	338
Satd. Flow (prot)	1770	1835	0	1770	1861	0	0	1748	0	0	1853	1583
Flt Permitted	0.950			0.950				0.987			0.995	
Satd. Flow (perm)	1770	1835	0	1770	1861	0	0	1748	0	0	1853	1583
Satd. Flow (RTOR)		5										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	352	670	0	41	523	0	0	199	0	0	86	366
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	28.0	47.0		13.0	32.0		21.0	21.0		15.0	15.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			6.0			5.0	
Act Effct Green (s)	32.2	62.8		6.8	35.0			15.0			10.0	43.2
Actuated g/C Ratio	0.27	0.52		0.06	0.29			0.12			0.08	0.36
v/c Ratio	0.74	0.70		0.41	0.96			0.91			0.56	0.64
Control Delay	46.9	30.9		67.1	72.8			94.2			67.4	28.8
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	46.9	30.9		67.1	72.8			94.2			67.4	28.8
LOS	D	C		E	E			F			E	C
Approach Delay		36.5			72.4			94.2			36.1	
Approach LOS		D			E			F			D	
Queue Length 50th (ft)	241	389		31	385			154			65	142
Queue Length 95th (ft)	#505	#826		70	#732			#296			121	#316
Internal Link Dist (ft)		355			406			287			717	
Turn Bay Length (ft)				250								125
Base Capacity (vph)	474	962		103	543			218			154	569
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.74	0.70		0.40	0.96			0.91			0.56	0.64

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 42 (35%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 50.6
 Intersection Capacity Utilization 77.1%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	213	626	410	283	628	202	296	137	277	161	129	286
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.629			0.612		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1172	1863	1583	1140	1863	1583
Satd. Flow (RTOR)			445			219			300			310
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	231	679	445	307	681	219	321	149	300	175	140	310
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4
Permitted Phases			2			6	8		Free	4		
Total Split (s)	22.0	29.0	29.0	25.0	32.0	32.0	35.0	35.0		35.0	35.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	21.3	38.0	38.0	28.8	45.5	45.5	29.0	29.0	120.0	29.0	29.0	55.1
Actuated g/C Ratio	0.18	0.32	0.32	0.24	0.38	0.38	0.24	0.24	1.00	0.24	0.24	0.46
v/c Ratio	0.74	0.61	0.55	0.72	0.51	0.30	1.13	0.33	0.19	0.64	0.31	0.35
Control Delay	61.8	38.6	6.5	51.4	25.8	3.3	136.6	40.0	0.3	52.7	39.6	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	38.6	6.5	51.4	25.8	3.3	136.6	40.0	0.3	52.7	39.6	2.6
LOS	E	D	A	D	C	A	F	D	A	D	D	A
Approach Delay		32.0			28.2			64.8			24.9	
Approach LOS		C			C			E			C	
Queue Length 50th (ft)	167	219	0	199	195	16	~289	96	0	122	89	0
Queue Length 95th (ft)	#343	#410	97	m#370	m#340	m44	#471	157	0	204	149	27
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	314	1120	805	424	1341	736	283	450	1583	275	450	894
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.61	0.55	0.72	0.51	0.30	1.13	0.33	0.19	0.64	0.31	0.35

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 36.1

Intersection LOS: D

Intersection Capacity Utilization 77.9%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

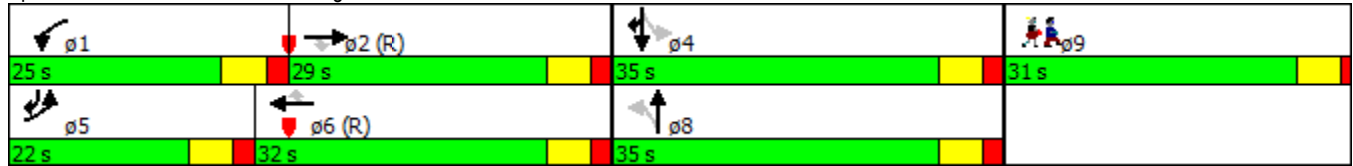
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

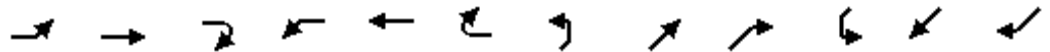
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group		φ9
Lane Configurations		
Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Growth Factor		
Heavy Vehicles (%)		
Bus Blockages (#/hr)		
Parking (#/hr)		
Mid-Block Traffic (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases		9
Permitted Phases		
Total Split (s)		31.0
Total Lost Time (s)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	36	874	82	10	970	93	18	1	14	62	3	98
Satd. Flow (prot)	1770	1839	0	1770	1839	0	1770	1600	0	0	1679	0
Flt Permitted	0.049			0.127			0.434				*0.968	
Satd. Flow (perm)	91	1839	0	237	1839	0	808	1600	0	0	1657	0
Satd. Flow (RTOR)		5			5			15			55	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	1037	0	11	1153	0	20	16	0	0	176	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	10.0	61.0		10.0	61.0		26.0	26.0		26.0	26.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	91.0	89.9		89.2	85.8		13.4	13.4			13.4	
Actuated g/C Ratio	0.76	0.75		0.74	0.72		0.11	0.11			0.11	
v/c Ratio	0.27	0.75		0.04	0.88		0.22	0.08			0.76	
Control Delay	20.9	15.0		10.8	23.7		51.8	21.1			54.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	20.9	15.0		10.8	23.7		51.8	21.1			54.5	
LOS	C	B		B	C		D	C			D	
Approach Delay		15.2			23.6			38.2			54.5	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	2	207		2	631		14	1			92	
Queue Length 95th (ft)	m27	#1243		m6	m#1123		38	21			161	
Internal Link Dist (ft)		387			578			66			170	
Turn Bay Length (ft)	200			100								
Base Capacity (vph)	142	1378		248	1316		141	292			335	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.27	0.75		0.04	0.88		0.14	0.05			0.53	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 39 (33%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 22.3

Intersection LOS: C

Intersection Capacity Utilization 83.3%

ICU Level of Service E

Analysis Period (min) 15

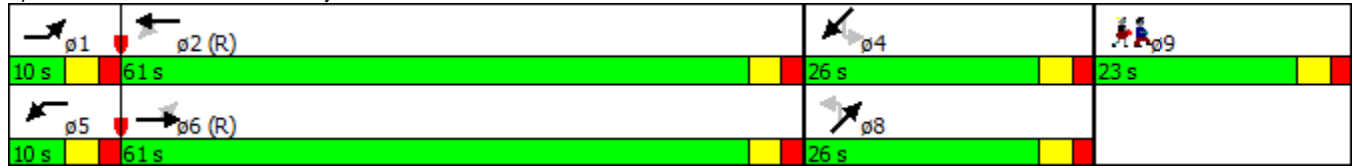
* User Entered Value

95th percentile volume exceeds capacity, queue may be longer.

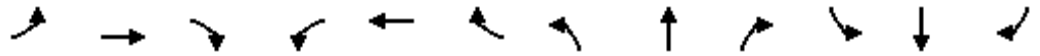
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



Lane Group	ø9
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	23.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

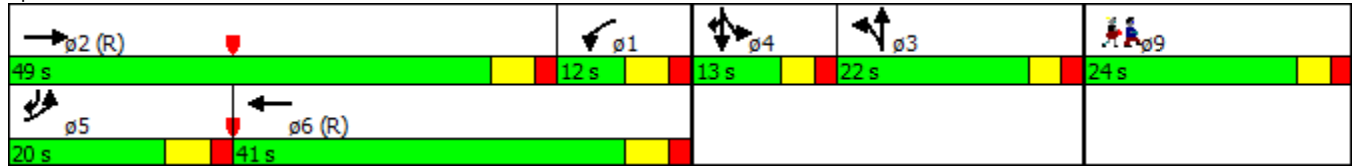


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	306	545	66	37	596	12	78	62	67	3	76	428
Satd. Flow (prot)	1770	1833	0	1770	1857	0	0	1747	0	0	1859	1583
Flt Permitted	0.950			0.950				0.981			0.998	
Satd. Flow (perm)	1770	1833	0	1770	1857	0	0	1747	0	0	1859	1583
Satd. Flow (RTOR)		6			1							
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	332	663	0	40	659	0	0	225	0	0	85	464
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	20.0	49.0		12.0	41.0		22.0	22.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	33.3	64.7		6.0	35.0			16.9			8.0	42.3
Actuated g/C Ratio	0.28	0.54		0.05	0.29			0.14			0.07	0.35
v/c Ratio	0.68	0.67		0.45	1.22			0.92			0.69	0.83
Control Delay	53.4	30.6		72.1	150.7			91.1			82.8	43.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	53.4	30.6		72.1	150.7			91.1			82.8	43.3
LOS	D	C		E	F			F			F	D
Approach Delay		38.2			146.2			91.1			49.4	
Approach LOS		D			F			F			D	
Queue Length 50th (ft)	229	320		31	~628			174			66	191
Queue Length 95th (ft)	m#564	#749		69	#861			#323			#144	#607
Internal Link Dist (ft)		355			406			287			733	
Turn Bay Length (ft)				250								125
Base Capacity (vph)	491	991		88	542			247			123	558
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.68	0.67		0.45	1.22			0.91			0.69	0.83

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 53 (44%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.22
 Intersection Signal Delay: 76.1
 Intersection Capacity Utilization 85.7%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beaver St & West Central St



Lane Group ø9

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	24.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

**Alternative 2 - Three-Lane Cross-Section
with Left-Turn Lanes**

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	620	277	60	731	232	72	147	45	172	39	472
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.730			0.571		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1360	1863	1583	1064	1863	1583
Satd. Flow (RTOR)			300			252			258			512
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	244	672	300	65	793	252	78	159	49	186	42	512
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	21.0	39.0	39.0	13.0	31.0	31.0	27.0	27.0		27.0	27.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	21.7	60.9	60.9	6.8	43.6	43.6	20.5	20.5	110.0	20.5	20.5	47.0
Actuated g/C Ratio	0.20	0.55	0.55	0.06	0.40	0.40	0.19	0.19	1.00	0.19	0.19	0.43
v/c Ratio	0.70	0.34	0.30	0.60	0.57	0.32	0.31	0.46	0.03	0.94	0.12	0.53
Control Delay	53.8	17.4	3.6	58.2	21.6	2.5	42.2	44.5	0.0	95.0	38.0	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	17.4	3.6	58.2	21.6	2.5	42.2	44.5	0.0	95.0	38.0	3.4
LOS	D	B	A	E	C	A	D	D	A	F	D	A
Approach Delay		21.3			19.4			36.2			28.4	
Approach LOS		C			B			D			C	
Queue Length 50th (ft)	157	121	0	45	172	10	48	100	0	130	25	0
Queue Length 95th (ft)	#341	278	62	m61	m#364	m39	94	166	0	#267	56	33
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	348	1958	1010	112	1403	779	259	355	1583	203	355	962
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.34	0.30	0.58	0.57	0.32	0.30	0.45	0.03	0.92	0.12	0.53

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 23.5

Intersection LOS: C

Intersection Capacity Utilization 71.4%

ICU Level of Service C

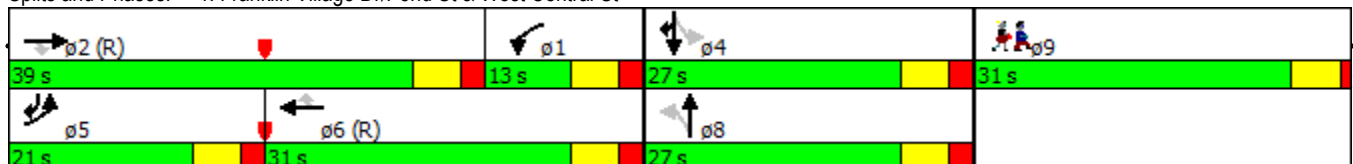
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	210	541	9	3	753	203	5	2	4	129	0	139
Satd. Flow (prot)	1770	1857	0	1770	1803	0	1770	1676	0	0	1693	0
Flt Permitted	0.062			0.435			0.487				0.844	
Satd. Flow (perm)	115	1857	0	810	1803	0	907	1676	0	0	1462	0
Satd. Flow (RTOR)		1			15			4				169
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	228	597	0	3	1036	0	5	6	0	0	291	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	16.0	56.0		9.0	49.0		22.0	22.0		22.0	22.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	82.1	80.3		68.3	63.1		9.8	9.8			13.3	
Actuated g/C Ratio	0.75	0.73		0.62	0.57		0.09	0.09			0.12	
v/c Ratio	0.77	0.44		0.01	1.00		0.06	0.04			0.90	
Control Delay	41.6	11.5		7.3	49.0		43.0	29.7			49.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	41.6	11.5		7.3	49.0		43.0	29.7			49.0	
LOS	D	B		A	D		D	C			D	
Approach Delay		19.9			48.8			35.7			49.0	
Approach LOS		B			D			D			D	
Queue Length 50th (ft)	58	252		1	~750		4	1			85	
Queue Length 95th (ft)	m#259	m535		m1	m#1241		14	14			#220	
Internal Link Dist (ft)		369			559			54			145	
Turn Bay Length (ft)	200			250								
Base Capacity (vph)	298	1355		548	1039		140	262			368	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.77	0.44		0.01	1.00		0.04	0.02			0.79	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 37 (34%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 37.7

Intersection LOS: D

Intersection Capacity Utilization 100.8%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

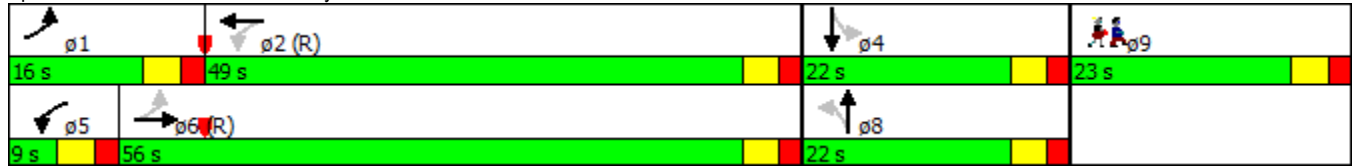
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



Lane Group	ø9
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	23.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

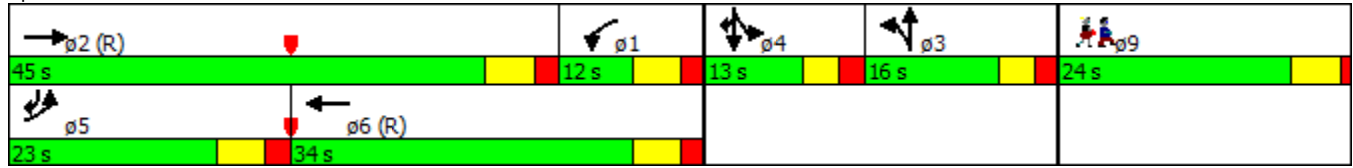


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	244	393	55	38	368	3	96	48	31	6	68	474
Satd. Flow (prot)	1770	1827	0	1770	1861	0	0	1769	0	0	1855	1583
Flt Permitted	0.950			0.950				0.973			0.996	
Satd. Flow (perm)	1770	1827	0	1770	1861	0	0	1769	0	0	1855	1583
Satd. Flow (RTOR)		7										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	265	486	0	41	402	0	0	190	0	0	81	514
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	23.0	45.0		12.0	34.0		16.0	16.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	36.2	63.0		6.0	28.0			11.0			8.0	45.2
Actuated g/C Ratio	0.33	0.57		0.05	0.25			0.10			0.07	0.41
v/c Ratio	0.46	0.46		0.43	0.85			1.08			0.60	0.79
Control Delay	31.1	21.0		64.3	57.1			138.0			68.9	34.5
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	31.1	21.0		64.3	57.1			138.0			68.9	34.5
LOS	C	C		E	E			F			E	C
Approach Delay		24.6			57.7			138.0			39.2	
Approach LOS		C			E			F			D	
Queue Length 50th (ft)	157	270		29	271			~150			56	175
Queue Length 95th (ft)	m#334	m449		65	#435			#294			#120	#586
Internal Link Dist (ft)		381			388			318			495	
Turn Bay Length (ft)	250			250								175
Base Capacity (vph)	582	1049		96	473			176			134	650
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.46	0.46		0.43	0.85			1.08			0.60	0.79

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 101 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay: 47.3
 Intersection Capacity Utilization 73.7%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beaver St & West Central St



Lane Group	ø9
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	24.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	146	567	382	173	612	102	262	77	240	100	72	180
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.706			0.703		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1315	1863	1583	1310	1863	1583
Satd. Flow (RTOR)			414			139			260			195
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	615	414	188	664	111	284	83	260	108	78	195
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	17.0	27.0	27.0	20.0	30.0	30.0	32.0	32.0		32.0	32.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	14.6	46.5	46.5	14.0	45.9	45.9	25.3	25.3	110.0	25.3	25.3	44.7
Actuated g/C Ratio	0.13	0.42	0.42	0.13	0.42	0.42	0.23	0.23	1.00	0.23	0.23	0.41
v/c Ratio	0.68	0.41	0.46	0.84	0.45	0.15	0.94	0.19	0.16	0.36	0.18	0.26
Control Delay	60.9	26.3	5.1	71.3	21.9	2.7	81.1	35.2	0.2	39.2	35.0	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	26.3	5.1	71.3	21.9	2.7	81.1	35.2	0.2	39.2	35.0	2.9
LOS	E	C	A	E	C	A	F	D	A	D	C	A
Approach Delay		23.5			29.3			41.5			19.8	
Approach LOS		C			C			D			B	
Queue Length 50th (ft)	105	141	0	132	168	4	196	47	0	64	44	0
Queue Length 95th (ft)	#235	#329	89	#258	#334	m30	#359	90	0	117	85	23
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	234	1495	907	225	1476	741	310	440	1583	309	440	752
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.41	0.46	0.84	0.45	0.15	0.92	0.19	0.16	0.35	0.18	0.26

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 28.4

Intersection LOS: C

Intersection Capacity Utilization 62.6%

ICU Level of Service B

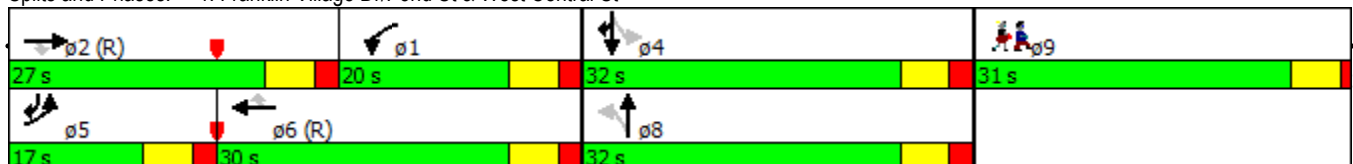
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	734	31	17	693	54	26	1	24	40	1	47
Satd. Flow (prot)	1770	1852	0	1770	1842	0	1770	1595	0	0	1691	0
Flt Permitted	0.232			0.246			0.623				0.842	
Satd. Flow (perm)	432	1852	0	458	1842	0	1160	1595	0	0	1456	0
Satd. Flow (RTOR)		3			5			26			43	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	830	0	18	810	0	28	27	0	0	95	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	10.0	59.0		9.0	58.0		19.0	19.0		19.0	19.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	84.7	82.6		82.6	78.4		8.7	8.7			8.8	
Actuated g/C Ratio	0.77	0.75		0.75	0.71		0.08	0.08			0.08	
v/c Ratio	0.16	0.60		0.04	0.62		0.31	0.18			0.61	
Control Delay	4.8	13.0		3.3	9.3		54.7	19.7			44.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	4.8	13.0		3.3	9.3		54.7	19.7			44.2	
LOS	A	B		A	A		D	B			D	
Approach Delay		12.4			9.1			37.6			44.2	
Approach LOS		B			A			D			D	
Queue Length 50th (ft)	5	87		1	174		19	1			36	
Queue Length 95th (ft)	22	#801		m3	#764		47	27			86	
Internal Link Dist (ft)		369			559			54			145	
Turn Bay Length (ft)	200			250								
Base Capacity (vph)	395	1390		407	1314		147	225			222	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.16	0.60		0.04	0.62		0.19	0.12			0.43	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 29 (26%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 13.3

Intersection LOS: B

Intersection Capacity Utilization 69.1%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



West Central Street
3: Beaver St & West Central St

Alternative 2: Midday 3-Lane X-Section with Left Turn Lanes
11/24/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	236	491	85	37	458	6	54	39	48	6	37	261
Satd. Flow (prot)	1770	1822	0	1770	1859	0	0	1743	0	0	1850	1583
Flt Permitted	0.950			0.950				0.981			0.993	
Satd. Flow (perm)	1770	1822	0	1770	1859	0	0	1743	0	0	1850	1583
Satd. Flow (RTOR)		9			1							
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	256	624	0	40	504	0	0	153	0	0	47	283
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	23.0	43.0		12.0	32.0		18.0	18.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	20.9	61.6		6.0	41.9			12.4			8.0	29.9
Actuated g/C Ratio	0.19	0.56		0.05	0.38			0.11			0.07	0.27
v/c Ratio	0.76	0.61		0.42	0.71			0.78			0.35	0.66
Control Delay	55.6	28.1		63.7	37.8			74.4			56.2	33.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	55.6	28.1		63.7	37.8			74.4			56.2	33.3
LOS	E	C		E	D			E			E	C
Approach Delay		36.1			39.7			74.4			36.6	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	181	289		28	290			106			32	116
Queue Length 95th (ft)	#348	#703		65	#629			#205			71	#219
Internal Link Dist (ft)		381			388			318			495	
Turn Bay Length (ft)	250			250								175
Base Capacity (vph)	335	1024		96	709			205			134	429
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.76	0.61		0.42	0.71			0.75			0.35	0.66

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 20 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 40.3

Intersection LOS: D

Intersection Capacity Utilization 67.7%

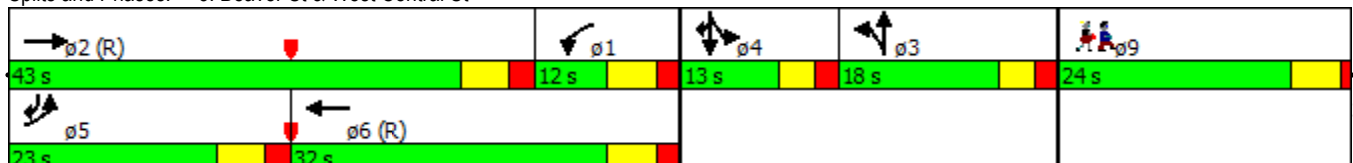
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St

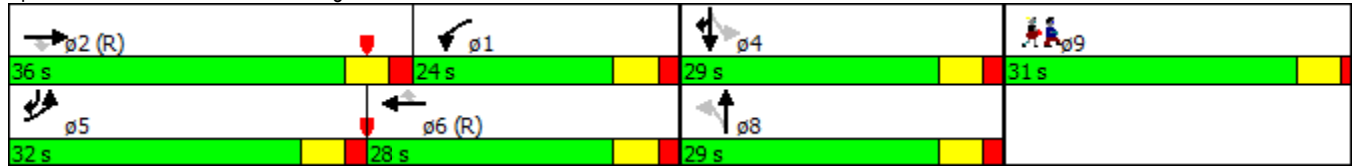


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	380	675	381	195	599	138	238	140	262	118	98	293
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.686			0.576		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1278	1863	1583	1073	1863	1583
Satd. Flow (RTOR)			413			150			280			318
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	412	732	413	211	649	150	258	152	284	128	106	318
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	32.0	36.0	36.0	24.0	28.0	28.0	29.0	29.0		29.0	29.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	36.1	54.8	54.8	18.0	36.7	36.7	23.0	23.0	120.0	23.0	23.0	63.9
Actuated g/C Ratio	0.30	0.46	0.46	0.15	0.31	0.31	0.19	0.19	1.00	0.19	0.19	0.53
v/c Ratio	0.77	0.45	0.44	0.80	0.60	0.26	1.06	0.43	0.18	0.62	0.30	0.32
Control Delay	50.3	25.9	4.6	60.5	31.4	4.8	120.4	47.0	0.2	59.3	44.2	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	25.9	4.6	60.5	31.4	4.8	120.4	47.0	0.2	59.3	44.2	2.2
LOS	D	C	A	E	C	A	F	D	A	E	D	A
Approach Delay		26.7			33.5			55.1				23.5
Approach LOS		C			C			E				C
Queue Length 50th (ft)	283	178	0	161	221	12	~218	105	0	92	71	0
Queue Length 95th (ft)	#555	358	83	m#239	#399	m45	#388	172	0	#163	125	26
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	532	1615	947	265	1082	588	244	357	1583	205	357	991
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.45	0.44	0.80	0.60	0.26	1.06	0.43	0.18	0.62	0.30	0.32

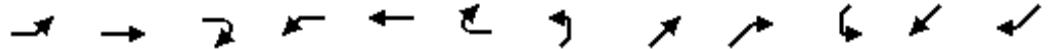
Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 33.2
 Intersection Capacity Utilization 77.6%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group ø9	
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	31.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	106	866	17	8	801	73	20	1	13	62	3	74
Satd. Flow (prot)	1770	1857	0	1770	1839	0	1770	1602	0	0	1536	0
Flt Permitted	0.111			0.176			0.533				0.849	
Satd. Flow (perm)	207	1857	0	328	1839	0	993	1602	0	0	1329	0
Satd. Flow (RTOR)		1			5			14			43	
Confl. Peds. (#/hr)										3		62
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	957	0	9	947	0	22	15	0	0	150	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	10.0	59.0		9.0	58.0		29.0	29.0		29.0	29.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	90.3	88.9		83.6	77.9		12.9	12.9			14.3	
Actuated g/C Ratio	0.75	0.74		0.70	0.65		0.11	0.11			0.12	
v/c Ratio	0.44	0.70		0.03	0.79		0.21	0.08			0.77	
Control Delay	11.9	19.4		3.3	15.1		49.5	20.6			59.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	11.9	19.4		3.3	15.1		49.5	20.6			59.8	
LOS	B	B		A	B		D	C			E	
Approach Delay		18.6			15.0			37.8			59.8	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	12	508		1	232		16	1			82	
Queue Length 95th (ft)	m54	#1130		m2	m#1048		39	20			146	
Internal Link Dist (ft)		387			578			74			170	
Turn Bay Length (ft)	250			250								
Base Capacity (vph)	262	1376		296	1196		198	331			300	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.44	0.70		0.03	0.79		0.11	0.05			0.50	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 37 (31%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 20.1

Intersection LOS: C

Intersection Capacity Utilization 84.0%

ICU Level of Service E

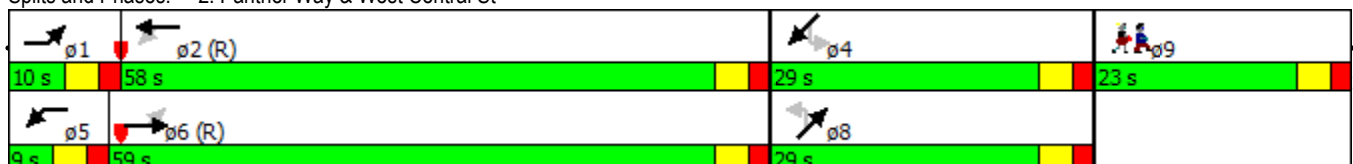
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



West Central Street
3: Beaver St & West Central St

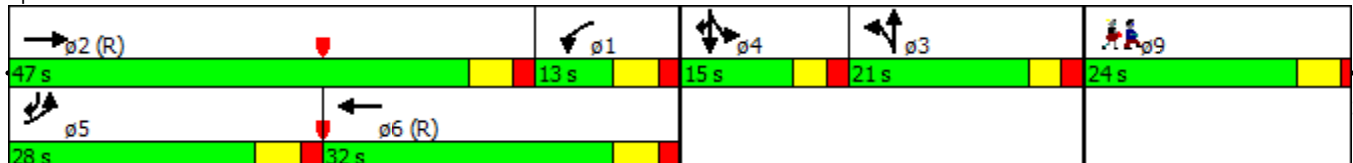
Alternative 2 PM 3-Lane X-Section with Left Turn Lanes
12/4/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	558	60	38	478	5	48	69	66	7	72	338
Satd. Flow (prot)	1770	1835	0	1770	1861	0	0	1748	0	0	1853	1583
Flt Permitted	0.950			0.950				0.987			0.995	
Satd. Flow (perm)	1770	1835	0	1770	1861	0	0	1748	0	0	1853	1583
Satd. Flow (RTOR)		5										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	352	670	0	41	523	0	0	199	0	0	86	366
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	28.0	47.0		13.0	32.0		21.0	21.0		15.0	15.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	32.2	63.2		6.8	35.5			15.6			10.0	43.2
Actuated g/C Ratio	0.27	0.53		0.06	0.30			0.13			0.08	0.36
v/c Ratio	0.74	0.69		0.41	0.95			0.88			0.56	0.64
Control Delay	52.6	32.9		67.1	70.1			86.7			67.4	28.9
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	52.6	32.9		67.1	70.1			86.7			67.4	28.9
LOS	D	C		E	E			F			E	C
Approach Delay		39.7			69.9			86.7			36.2	
Approach LOS		D			E			F			D	
Queue Length 50th (ft)	258	396		31	385			153			65	142
Queue Length 95th (ft)	#505	#827		70	#732			#284			121	#316
Internal Link Dist (ft)		355			406			287			717	
Turn Bay Length (ft)				250								125
Base Capacity (vph)	474	969		103	550			233			154	569
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.74	0.69		0.40	0.95			0.85			0.56	0.64

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 21 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 50.8
 Intersection Capacity Utilization 76.2%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	213	626	410	283	628	202	296	137	277	161	129	286
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.629			0.612		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1172	1863	1583	1140	1863	1583
Satd. Flow (RTOR)			445			219			300			310
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	231	679	445	307	681	219	321	149	300	175	140	310
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	22.0	29.0	29.0	25.0	32.0	32.0	35.0	35.0		35.0	35.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	21.3	38.0	38.0	28.8	45.5	45.5	29.0	29.0	120.0	29.0	29.0	55.1
Actuated g/C Ratio	0.18	0.32	0.32	0.24	0.38	0.38	0.24	0.24	1.00	0.24	0.24	0.46
v/c Ratio	0.74	0.61	0.55	0.72	0.51	0.30	1.13	0.33	0.19	0.64	0.31	0.35
Control Delay	61.8	38.6	6.5	51.6	25.4	3.2	136.6	40.0	0.3	52.7	39.6	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	38.6	6.5	51.6	25.4	3.2	136.6	40.0	0.3	52.7	39.6	2.6
LOS	E	D	A	D	C	A	F	D	A	D	D	A
Approach Delay		32.0			28.1			64.8			24.9	
Approach LOS		C			C			E			C	
Queue Length 50th (ft)	167	219	0	198	191	16	~289	96	0	122	89	0
Queue Length 95th (ft)	#343	#410	97	m#366	m#320	m44	#471	157	0	204	149	27
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	314	1120	805	424	1341	736	283	450	1583	275	450	894
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.61	0.55	0.72	0.51	0.30	1.13	0.33	0.19	0.64	0.31	0.35

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 36.1

Intersection LOS: D

Intersection Capacity Utilization 77.9%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

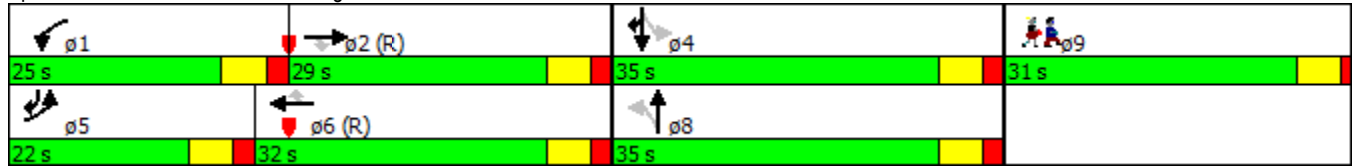
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

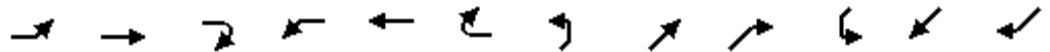
Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group ø9

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	31.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	36	874	82	10	970	93	18	1	14	62	3	98
Satd. Flow (prot)	1770	1839	0	1770	1839	0	1770	1600	0	0	1679	0
Flt Permitted	0.049			0.123			*0.800				0.868	
Satd. Flow (perm)	91	1839	0	229	1839	0	1490	1600	0	0	1486	0
Satd. Flow (RTOR)		5			5			15			55	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	1037	0	11	1153	0	20	16	0	0	176	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	10.0	61.0		10.0	61.0		26.0	26.0		26.0	26.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	90.2	89.2		88.4	85.1		12.6	12.6			14.2	
Actuated g/C Ratio	0.75	0.74		0.74	0.71		0.10	0.10			0.12	
v/c Ratio	0.28	0.76		0.05	0.88		0.13	0.09			0.79	
Control Delay	20.6	15.1		11.1	24.4		46.3	20.8			57.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	20.6	15.1		11.1	24.4		46.3	20.8			57.7	
LOS	C	B		B	C		D	C			E	
Approach Delay		15.3			24.3			35.0			57.7	
Approach LOS		B			C			C			E	
Queue Length 50th (ft)	3	183		2	676		14	1			92	
Queue Length 95th (ft)	m27	#1242		m6	m#1123		36	21			163	
Internal Link Dist (ft)		387			580			66			170	
Turn Bay Length (ft)	200			250								
Base Capacity (vph)	139	1367		238	1305		260	292			305	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.28	0.76		0.05	0.88		0.08	0.05			0.58	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 39 (33%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 22.9

Intersection LOS: C

Intersection Capacity Utilization 83.3%

ICU Level of Service E

Analysis Period (min) 15

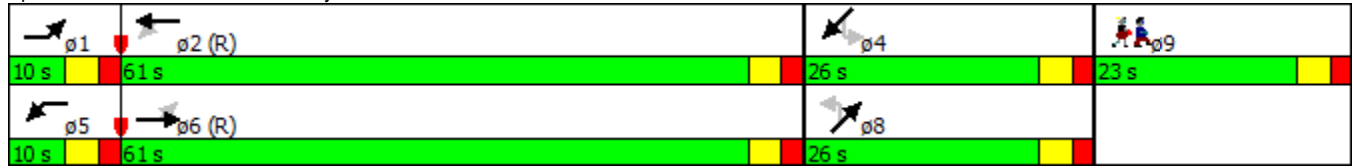
* User Entered Value

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



Lane Group	ø9
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	23.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

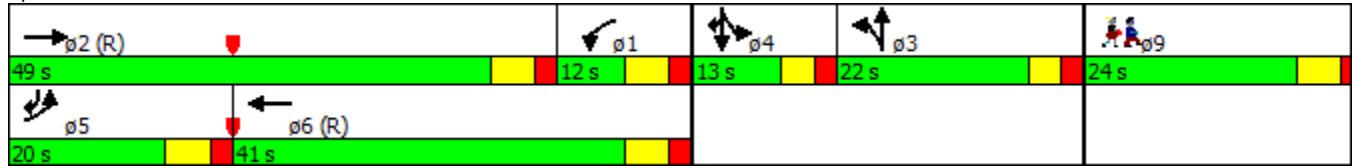


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	306	545	66	37	596	12	78	62	67	3	76	428
Satd. Flow (prot)	1770	1833	0	1770	1857	0	0	1747	0	0	1859	1583
Flt Permitted	0.950			0.950				0.981			0.998	
Satd. Flow (perm)	1770	1833	0	1770	1857	0	0	1747	0	0	1859	1583
Satd. Flow (RTOR)		6			1							
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	332	663	0	40	659	0	0	225	0	0	85	464
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	20.0	49.0		12.0	41.0		22.0	22.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	33.5	64.9		6.0	35.0			16.9			8.0	42.5
Actuated g/C Ratio	0.28	0.54		0.05	0.29			0.14			0.07	0.35
v/c Ratio	0.67	0.67		0.45	1.22			0.92			0.69	0.83
Control Delay	52.9	29.9		72.1	150.7			91.1			82.8	42.9
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	52.9	29.9		72.1	150.7			91.1			82.8	42.9
LOS	D	C		E	F			F			F	D
Approach Delay		37.6			146.2			91.1			49.1	
Approach LOS		D			F			F			D	
Queue Length 50th (ft)	226	287		31	~628			174			66	191
Queue Length 95th (ft)	m#547	#736		69	#861			#323			#144	#597
Internal Link Dist (ft)		355			406			287			732	
Turn Bay Length (ft)				250								125
Base Capacity (vph)	494	994		88	542			247			123	561
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.67	0.67		0.45	1.22			0.91			0.69	0.83

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 53 (44%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.22
 Intersection Signal Delay: 75.8
 Intersection Capacity Utilization 85.7%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beaver St & West Central St



Lane Group ø9

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	24.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

**Alternative 3 - Four-Lane Cross-Section with
the Option of Either Left-Turn Lanes or TWLTL**

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	620	277	60	731	232	72	147	45	172	39	472
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.730			0.571		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1360	1863	1583	1064	1863	1583
Satd. Flow (RTOR)			300			252			258			512
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	244	672	300	65	793	252	78	159	49	186	42	512
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	21.0	39.0	39.0	13.0	31.0	31.0	27.0	27.0		27.0	27.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	21.7	60.9	60.9	6.8	43.6	43.6	20.5	20.5	110.0	20.5	20.5	47.0
Actuated g/C Ratio	0.20	0.55	0.55	0.06	0.40	0.40	0.19	0.19	1.00	0.19	0.19	0.43
v/c Ratio	0.70	0.34	0.30	0.60	0.57	0.32	0.31	0.46	0.03	0.94	0.12	0.53
Control Delay	53.8	17.4	3.6	66.7	25.7	4.6	42.2	44.5	0.0	95.0	38.0	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	17.4	3.6	66.7	25.7	4.6	42.2	44.5	0.0	95.0	38.0	3.4
LOS	D	B	A	E	C	A	D	D	A	F	D	A
Approach Delay		21.3			23.3			36.2			28.4	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	157	121	0	47	236	48	48	100	0	130	25	0
Queue Length 95th (ft)	#341	278	62	m#99	#436	m71	94	166	0	#267	56	33
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	348	1958	1010	112	1403	779	259	355	1583	203	355	962
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.34	0.30	0.58	0.57	0.32	0.30	0.45	0.03	0.92	0.12	0.53

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 24.8

Intersection LOS: C

Intersection Capacity Utilization 71.4%

ICU Level of Service C

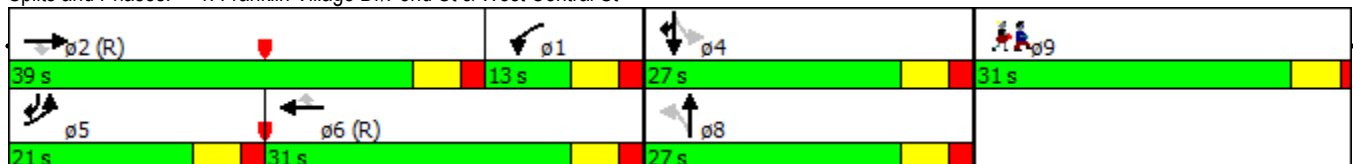
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	210	541	9	3	753	203	5	2	4	129	0	139
Satd. Flow (prot)	1770	1857	0	1770	3426	0	1770	1676	0	0	1693	0
Flt Permitted	0.188			0.419			0.487				0.844	
Satd. Flow (perm)	350	1857	0	780	3426	0	907	1676	0	0	1462	0
Satd. Flow (RTOR)		1			37			4			169	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	228	597	0	3	1036	0	5	6	0	0	291	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8				4
Permitted Phases	6			2			8			4		
Total Split (s)	16.0	56.0		9.0	49.0		22.0	22.0		22.0	22.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	82.0	80.2		70.5	65.3		10.4	10.4			13.4	
Actuated g/C Ratio	0.75	0.73		0.64	0.59		0.09	0.09			0.12	
v/c Ratio	0.55	0.44		0.01	0.51		0.06	0.04			0.89	
Control Delay	16.6	11.6		7.3	16.8		42.6	29.5			48.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	16.6	11.6		7.3	16.8		42.6	29.5			48.4	
LOS	B	B		A	B		D	C			D	
Approach Delay		13.0			16.8			35.5			48.4	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	37	252		1	220		3	1			85	
Queue Length 95th (ft)	m105	m535		m1	m424		14	14			#220	
Internal Link Dist (ft)		369			559			54			145	
Turn Bay Length (ft)	200			250								
Base Capacity (vph)	421	1353		547	2048		140	262			368	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.54	0.44		0.01	0.51		0.04	0.02			0.79	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 37 (34%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 19.7

Intersection LOS: B

Intersection Capacity Utilization 75.4%

ICU Level of Service D

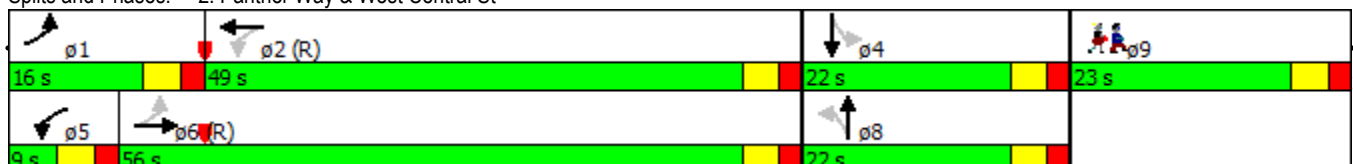
Analysis Period (min) 15

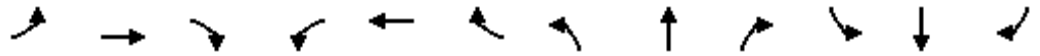
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



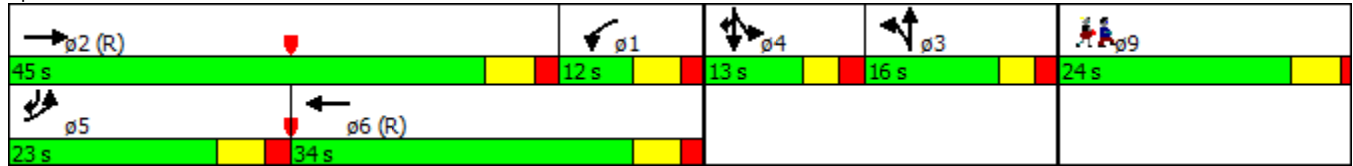


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	244	393	55	38	368	3	96	48	31	6	68	474
Satd. Flow (prot)	1770	1827	0	1770	1861	0	0	1769	0	0	1855	1583
Flt Permitted	0.950			0.950				0.973			0.996	
Satd. Flow (perm)	1770	1827	0	1770	1861	0	0	1769	0	0	1855	1583
Satd. Flow (RTOR)		7										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	265	486	0	41	402	0	0	190	0	0	81	514
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	23.0	45.0		12.0	34.0		16.0	16.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	36.2	63.0		6.0	28.0			11.0			8.0	45.2
Actuated g/C Ratio	0.33	0.57		0.05	0.25			0.10			0.07	0.41
v/c Ratio	0.46	0.46		0.43	0.85			1.08			0.60	0.79
Control Delay	31.1	21.0		64.3	57.1			138.0			68.9	34.5
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	31.1	21.0		64.3	57.1			138.0			68.9	34.5
LOS	C	C		E	E			F			E	C
Approach Delay		24.5			57.7			138.0			39.2	
Approach LOS		C			E			F			D	
Queue Length 50th (ft)	157	270		29	271			~150			56	175
Queue Length 95th (ft)	m#334	m449		65	#435			#294			#120	#586
Internal Link Dist (ft)		381			388			318			495	
Turn Bay Length (ft)	250			250								175
Base Capacity (vph)	582	1049		96	473			176			134	650
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.46	0.46		0.43	0.85			1.08			0.60	0.79

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 101 (92%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay: 47.3
 Intersection Capacity Utilization 73.7%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beaver St & West Central St



Lane Group	ø9
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	24.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

West Central Street
1: Franklin Village Dr/Pond St & West Central St

Alternative 3 Midday 4-Lane X-Section with Left Turn Lanes
12/3/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	146	567	382	173	612	102	262	77	240	100	72	180
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.706			0.703		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1315	1863	1583	1310	1863	1583
Satd. Flow (RTOR)			414			139			260			195
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	615	414	188	664	111	284	83	260	108	78	195
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	17.0	27.0	27.0	20.0	30.0	30.0	32.0	32.0		32.0	32.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	14.6	44.4	44.4	16.0	45.9	45.9	25.3	25.3	110.0	25.3	25.3	44.7
Actuated g/C Ratio	0.13	0.40	0.40	0.15	0.42	0.42	0.23	0.23	1.00	0.23	0.23	0.41
v/c Ratio	0.68	0.43	0.47	0.73	0.45	0.15	0.94	0.19	0.16	0.36	0.18	0.26
Control Delay	60.9	27.9	5.3	62.1	27.0	3.6	81.1	35.2	0.2	39.2	35.0	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	27.9	5.3	62.1	27.0	3.6	81.1	35.2	0.2	39.2	35.0	2.9
LOS	E	C	A	E	C	A	F	D	A	D	C	A
Approach Delay		24.4			31.1			41.5				19.8
Approach LOS		C			C			D				B
Queue Length 50th (ft)	105	153	0	125	163	0	196	47	0	64	44	0
Queue Length 95th (ft)	#235	#329	89	#254	#332	29	#359	90	0	117	85	23
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	234	1429	886	264	1476	741	310	440	1583	309	440	752
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.43	0.47	0.71	0.45	0.15	0.92	0.19	0.16	0.35	0.18	0.26

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 29.3

Intersection LOS: C

Intersection Capacity Utilization 62.6%

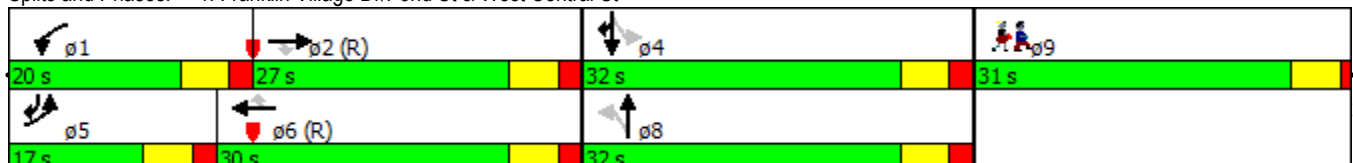
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



West Central Street
2: Panther Way & West Central St

Alternative 3 Midday 4-Lane X-Section with Left Turn Lanes
12/3/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	734	31	17	693	54	26	1	24	40	1	47
Satd. Flow (prot)	1770	1852	0	1770	3500	0	1770	1595	0	0	1691	0
Flt Permitted	0.308			0.247			0.621				0.842	
Satd. Flow (perm)	574	1852	0	460	3500	0	1157	1595	0	0	1456	0
Satd. Flow (RTOR)		3			10			26			43	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	830	0	18	810	0	28	27	0	0	95	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	10.0	60.0		9.0	59.0		19.0	19.0		19.0	19.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	85.7	83.6		83.6	79.4		8.7	8.7			8.9	
Actuated g/C Ratio	0.77	0.75		0.75	0.72		0.08	0.08			0.08	
v/c Ratio	0.12	0.59		0.04	0.32		0.31	0.18			0.61	
Control Delay	5.7	12.9		6.1	8.5		55.4	19.9			44.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	5.7	12.9		6.1	8.5		55.4	19.9			44.7	
LOS	A	B		A	A		E	B			D	
Approach Delay		12.4			8.5			38.0			44.7	
Approach LOS		B			A			D			D	
Queue Length 50th (ft)	6	130		2	85		19	1			36	
Queue Length 95th (ft)	37	#789		15	246		47	27			87	
Internal Link Dist (ft)		369			559			54			145	
Turn Bay Length (ft)	200			250								
Base Capacity (vph)	498	1395		409	2506		145	223			221	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.12	0.59		0.04	0.32		0.19	0.12			0.43	

Intersection Summary

Cycle Length: 111

Actuated Cycle Length: 111

Offset: 42 (38%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 13.1

Intersection LOS: B

Intersection Capacity Utilization 69.1%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Panther Way & West Central St



West Central Street
3: Beaver St & West Central St

Alternative 3 Midday 4-Lane X-Section with Left Turn Lanes
12/3/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	236	491	85	37	458	6	54	39	48	6	37	261
Satd. Flow (prot)	1770	1822	0	1770	1859	0	0	1743	0	0	1850	1583
Flt Permitted	0.950			0.950				0.981			0.993	
Satd. Flow (perm)	1770	1822	0	1770	1859	0	0	1743	0	0	1850	1583
Satd. Flow (RTOR)		9			1							
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	256	624	0	40	504	0	0	153	0	0	47	283
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	23.0	43.0		12.0	32.0		18.0	18.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	20.9	61.6		6.0	41.9			12.4			8.0	29.9
Actuated g/C Ratio	0.19	0.56		0.05	0.38			0.11			0.07	0.27
v/c Ratio	0.76	0.61		0.42	0.71			0.78			0.35	0.66
Control Delay	58.3	23.1		63.7	37.8			74.4			56.2	33.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	58.3	23.1		63.7	37.8			74.4			56.2	33.3
LOS	E	C		E	D			E			E	C
Approach Delay		33.3			39.7			74.4			36.6	
Approach LOS		C			D			E			D	
Queue Length 50th (ft)	167	279		28	290			106			32	116
Queue Length 95th (ft)	#338	#683		65	#629			#205			71	#219
Internal Link Dist (ft)		381			388			318			495	
Turn Bay Length (ft)	250			250								175
Base Capacity (vph)	335	1024		96	709			205			134	429
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.76	0.61		0.42	0.71			0.75			0.35	0.66

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 30 (27%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 39.0

Intersection LOS: D

Intersection Capacity Utilization 67.7%

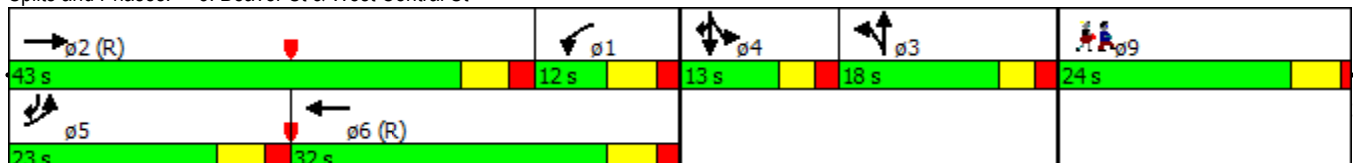
ICU Level of Service C

























Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St

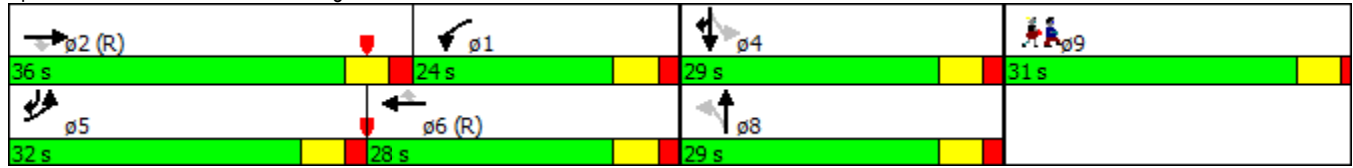


												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	380	675	381	195	599	138	238	140	262	118	98	293
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.686			0.576		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1278	1863	1583	1073	1863	1583
Satd. Flow (RTOR)			413			150			280			318
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	412	732	413	211	649	150	258	152	284	128	106	318
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	32.0	36.0	36.0	24.0	28.0	28.0	29.0	29.0		29.0	29.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	36.1	54.8	54.8	18.0	36.7	36.7	23.0	23.0	120.0	23.0	23.0	63.9
Actuated g/C Ratio	0.30	0.46	0.46	0.15	0.31	0.31	0.19	0.19	1.00	0.19	0.19	0.53
v/c Ratio	0.77	0.45	0.44	0.80	0.60	0.26	1.06	0.43	0.18	0.62	0.30	0.32
Control Delay	50.3	25.9	4.6	70.5	39.2	10.1	120.4	47.0	0.2	59.3	44.2	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	25.9	4.6	70.5	39.2	10.1	120.4	47.0	0.2	59.3	44.2	2.2
LOS	D	C	A	E	D	B	F	D	A	E	D	A
Approach Delay		26.7			41.4			55.1				23.5
Approach LOS		C			D			E				C
Queue Length 50th (ft)	283	178	0	161	229	27	~218	105	0	92	71	0
Queue Length 95th (ft)	#555	358	83	#290	#404	101	#388	172	0	#163	125	26
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	532	1615	947	265	1082	588	244	357	1583	205	357	991
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.45	0.44	0.80	0.60	0.26	1.06	0.43	0.18	0.62	0.30	0.32

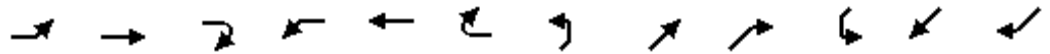
Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 35.3
 Intersection Capacity Utilization 77.6%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group	ø9
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	31.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	106	866	17	8	801	73	20	1	13	62	3	74
Satd. Flow (prot)	1770	1857	0	1770	3493	0	1770	1602	0	0	1576	0
Flt Permitted	0.239			0.181			0.525				0.849	
Satd. Flow (perm)	445	1857	0	337	3493	0	978	1602	0	0	1362	0
Satd. Flow (RTOR)		1			10			14			41	
Confl. Peds. (#/hr)										3		62
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	957	0	9	947	0	22	15	0	0	150	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	15.0	64.0		9.0	58.0		24.0	24.0		24.0	24.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	91.8	90.0		84.5	80.1		12.2	12.2			13.6	
Actuated g/C Ratio	0.76	0.75		0.70	0.67		0.10	0.10			0.11	
v/c Ratio	0.28	0.69		0.03	0.41		0.22	0.09			0.79	
Control Delay	6.1	16.7		7.2	11.9		51.6	21.5			63.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	6.1	16.7		7.2	11.9		51.6	21.5			63.8	
LOS	A	B		A	B		D	C			E	
Approach Delay		15.5			11.8			39.4			63.8	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	11	440		1	91		16	1			83	
Queue Length 95th (ft)	m44	#1063		m5	m433		41	21			152	
Internal Link Dist (ft)		387			578			74			170	
Turn Bay Length (ft)	250			250								
Base Capacity (vph)	450	1392		290	2334		154	265			250	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.26	0.69		0.03	0.41		0.14	0.06			0.60	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 33 (28%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 17.6

Intersection LOS: B

Intersection Capacity Utilization 81.3%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



West Central Street
3: Beaver St & West Central St

Alternative 3 UT 4-Lane X-Section with Left Turn Lanes
11/24/2014

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	558	60	38	478	5	48	69	66	7	72	338
Satd. Flow (prot)	1770	1835	0	1770	1861	0	0	1748	0	0	1853	1583
Flt Permitted	0.950			0.950				0.987			0.995	
Satd. Flow (perm)	1770	1835	0	1770	1861	0	0	1748	0	0	1853	1583
Satd. Flow (RTOR)		5										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	352	670	0	41	523	0	0	199	0	0	86	366
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	28.0	47.0		13.0	32.0		21.0	21.0		15.0	15.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	32.2	63.2		6.8	35.5			15.6			10.0	43.2
Actuated g/C Ratio	0.27	0.53		0.06	0.30			0.13			0.08	0.36
v/c Ratio	0.74	0.69		0.41	0.95			0.88			0.56	0.64
Control Delay	43.8	27.8		67.1	70.1			86.7			67.4	28.9
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	43.8	27.8		67.1	70.1			86.7			67.4	28.9
LOS	D	C		E	E			F			E	C
Approach Delay		33.3			69.9			86.7			36.2	
Approach LOS		C			E			F			D	
Queue Length 50th (ft)	262	455		31	385			153			65	142
Queue Length 95th (ft)	#488	#827		70	#732			#284			121	#316
Internal Link Dist (ft)		355			406			287			717	
Turn Bay Length (ft)				250								125
Base Capacity (vph)	474	969		103	550			233			154	569
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.74	0.69		0.40	0.95			0.85			0.56	0.64

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 103 (86%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 47.9

Intersection LOS: D

Intersection Capacity Utilization 76.2%

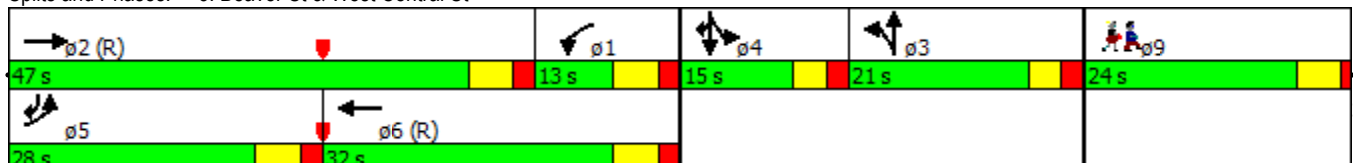
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Beaver St & West Central St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	213	626	410	283	628	202	296	137	277	161	129	286
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.629			0.612		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1172	1863	1583	1140	1863	1583
Satd. Flow (RTOR)			445			219			300			310
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	231	679	445	307	681	219	321	149	300	175	140	310
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Free	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases			2			6	8		Free	4		
Total Split (s)	22.0	29.0	29.0	25.0	32.0	32.0	35.0	35.0		35.0	35.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	21.9	38.0	38.0	29.4	45.5	45.5	29.0	29.0	120.0	29.0	29.0	55.7
Actuated g/C Ratio	0.18	0.32	0.32	0.24	0.38	0.38	0.24	0.24	1.00	0.24	0.24	0.46
v/c Ratio	0.72	0.61	0.55	0.71	0.51	0.30	1.13	0.33	0.19	0.64	0.31	0.34
Control Delay	59.6	38.6	6.5	46.9	28.4	5.6	136.6	40.0	0.3	52.7	39.6	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.6	38.6	6.5	46.9	28.4	5.6	136.6	40.0	0.3	52.7	39.6	2.5
LOS	E	D	A	D	C	A	F	D	A	D	D	A
Approach Delay		31.6			29.0			64.8			24.9	
Approach LOS		C			C			E			C	
Queue Length 50th (ft)	167	219	0	209	212	34	~289	96	0	122	89	0
Queue Length 95th (ft)	#308	#410	97	#405	#369	85	#471	157	0	204	149	27
Internal Link Dist (ft)		869			470			360			529	
Turn Bay Length (ft)	250		250	200		250	250		100	250		250
Base Capacity (vph)	322	1120	805	433	1341	736	283	450	1583	275	450	900
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.61	0.55	0.71	0.51	0.30	1.13	0.33	0.19	0.64	0.31	0.34

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 36.2

Intersection LOS: D

Intersection Capacity Utilization 77.9%

ICU Level of Service D

Analysis Period (min) 15

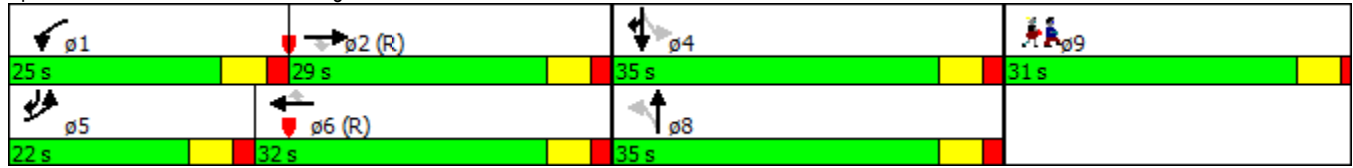
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

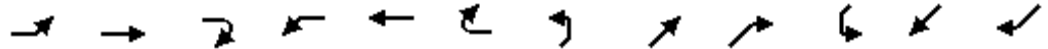
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Franklin Village Dr/Pond St & West Central St



Lane Group		φ9
Lane Configurations		
Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Growth Factor		
Heavy Vehicles (%)		
Bus Blockages (#/hr)		
Parking (#/hr)		
Mid-Block Traffic (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases		9
Permitted Phases		
Total Split (s)		31.0
Total Lost Time (s)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	36	874	82	10	970	93	18	1	14	62	3	98
Satd. Flow (prot)	1770	1839	0	1770	3493	0	1770	1600	0	0	1679	0
Flt Permitted	0.192			0.123			*0.800				0.868	
Satd. Flow (perm)	358	1839	0	229	3493	0	1490	1600	0	0	1486	0
Satd. Flow (RTOR)		5			11			15			55	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	1037	0	11	1153	0	20	16	0	0	176	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Total Split (s)	10.0	61.0		10.0	61.0		26.0	26.0		26.0	26.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Act Effct Green (s)	90.2	89.2		88.4	85.1		12.6	12.6			14.2	
Actuated g/C Ratio	0.75	0.74		0.74	0.71		0.10	0.10			0.12	
v/c Ratio	0.12	0.76		0.05	0.47		0.13	0.09			0.79	
Control Delay	4.8	15.2		10.2	12.0		46.3	20.8			57.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	4.8	15.2		10.2	12.0		46.3	20.8			57.7	
LOS	A	B		B	B		D	C			E	
Approach Delay		14.9			12.0			35.0			57.7	
Approach LOS		B			B			C			E	
Queue Length 50th (ft)	3	213		2	174		14	1			92	
Queue Length 95th (ft)	m13	#1240		m5	m245		36	21			163	
Internal Link Dist (ft)		387			578			66			170	
Turn Bay Length (ft)	200			250								
Base Capacity (vph)	328	1367		238	2479		260	292			305	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.12	0.76		0.05	0.47		0.08	0.05			0.58	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 39 (33%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 16.9

Intersection LOS: B

Intersection Capacity Utilization 77.4%

ICU Level of Service D

Analysis Period (min) 15

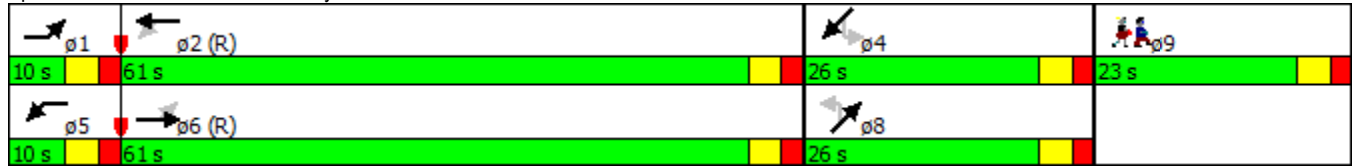
* User Entered Value

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Panther Way & West Central St



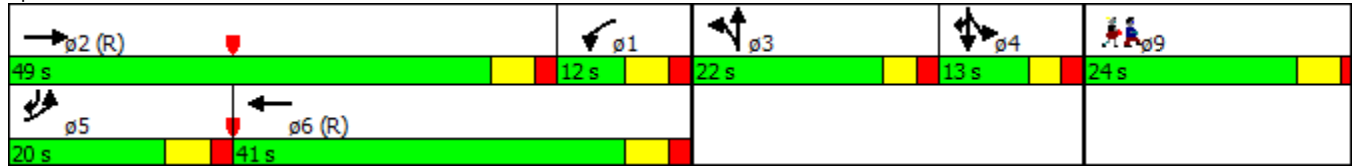
Lane Group	ø9
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	23.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	306	545	66	37	596	12	78	62	67	3	76	428
Satd. Flow (prot)	1770	1833	0	1770	1857	0	0	1747	0	0	1859	1583
Flt Permitted	0.950			0.950				0.981			0.998	
Satd. Flow (perm)	1770	1833	0	1770	1857	0	0	1747	0	0	1859	1583
Satd. Flow (RTOR)		6			1							
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%	103%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	332	663	0	40	659	0	0	225	0	0	85	464
Turn Type	Prot	NA		Prot	NA		Split	NA		Split	NA	pt+ov
Protected Phases	5	2		1	6		3	3		4	4	4 5
Permitted Phases												
Total Split (s)	20.0	49.0		12.0	41.0		22.0	22.0		13.0	13.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.0			5.0	
Act Effct Green (s)	33.4	64.8		6.0	35.0			16.9			8.1	46.5
Actuated g/C Ratio	0.28	0.54		0.05	0.29			0.14			0.07	0.39
v/c Ratio	0.67	0.67		0.45	1.22			0.92			0.68	0.76
Control Delay	53.4	30.5		72.1	150.7			91.1			81.2	41.1
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	53.4	30.5		72.1	150.7			91.1			81.2	41.1
LOS	D	C		E	F			F			F	D
Approach Delay		38.1			146.2			91.1			47.3	
Approach LOS		D			F			F			D	
Queue Length 50th (ft)	229	305		31	~628			174			66	282
Queue Length 95th (ft)	m#547	#737		69	#861			#323			#144	#699
Internal Link Dist (ft)		355			406			287			732	
Turn Bay Length (ft)				250								125
Base Capacity (vph)	492	992		88	542			247			125	613
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.67	0.67		0.45	1.22			0.91			0.68	0.76

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 53 (44%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.22
 Intersection Signal Delay: 75.6
 Intersection Capacity Utilization 85.7%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beaver St & West Central St



Lane Group ø9

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	24.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

**East Central Street
Signal Coordination Analyses**

Existing Conditions

East Central Street Corridor
1: King St/Chestnut St & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	351	25	228	238	41	22	233	248	20	236	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.978				0.850		0.967	
Flt Protected	0.950			0.950				0.996			0.997	
Satd. Flow (prot)	1719	1791	0	1719	1770	0	0	1802	1538	0	1745	0
Flt Permitted	0.582			0.237				0.943			0.970	
Satd. Flow (perm)	1053	1791	0	429	1770	0	0	1706	1538	0	1697	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		4			9				258			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		410			781			825			745	
Travel Time (s)		7.0			13.3			18.8			16.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	72	366	26	238	248	43	23	243	258	21	246	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	392	0	238	291	0	0	266	258	0	355	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5		8	
Permitted Phases	6			2			4			8		
Minimum Initial (s)	6.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	11.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	12.0	30.0		16.0	34.0		29.0	29.0		29.0	29.0	
Total Split (%)	12.2%	30.6%		16.3%	34.7%		29.6%	29.6%		29.6%	29.6%	
Maximum Green (s)	7.0	25.0		11.0	29.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	27.5	21.0		37.0	28.6		20.5	36.1		20.5		
Actuated g/C Ratio	0.38	0.29		0.52	0.40		0.29	0.50		0.29		
v/c Ratio	0.15	0.74		0.57	0.41		0.54	0.29		0.73		
Control Delay	13.1	34.9		19.1	21.1		28.8	2.3		35.7		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		
Total Delay	13.1	34.9		19.1	21.1		28.8	2.3		35.7		
LOS	B	C		B	C		C	A		D		
Approach Delay		31.5			20.2		15.8			35.7		
Approach LOS		C			C		B			D		

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/14/2014

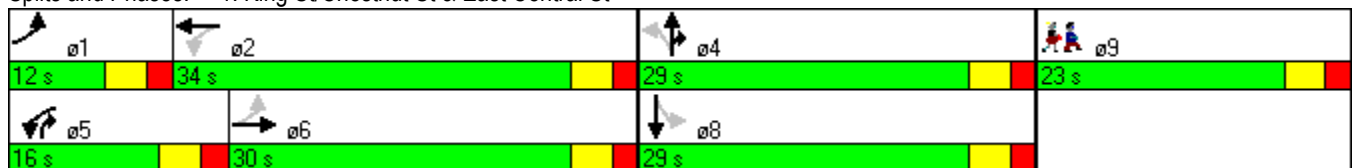


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	13	144		49	86			92	0		131	
Queue Length 95th (ft)	54	#392		#166	232			236	26		#367	
Internal Link Dist (ft)		330			701			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	484	655		429	754			597	901		594	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.15	0.60		0.55	0.39			0.45	0.29		0.60	

Intersection Summary

Area Type: Other
 Cycle Length: 98
 Actuated Cycle Length: 71.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 24.7
 Intersection LOS: C
 Intersection Capacity Utilization 79.6%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	541	14	15	430	62	22	4	11	50	8	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950				0.959			0.958	
Satd. Flow (prot)	1719	1810	1538	1719	1810	1538	0	1735	1538	0	1734	1538
Flt Permitted	0.341			0.375				0.716			0.735	
Satd. Flow (perm)	617	1810	1538	679	1810	1538	0	1296	1538	0	1330	1538
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11			65			11			58
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	78	564	15	16	448	65	23	4	11	52	8	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	78	564	15	16	448	65	0	27	11	0	60	58
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8	1		4
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	15.0	40.0	40.0	15.0	40.0	40.0	19.0	19.0		19.0	19.0	
Total Split (%)	15.5%	41.2%	41.2%	15.5%	41.2%	41.2%	19.6%	19.6%		19.6%	19.6%	
Maximum Green (s)	10.0	35.0	35.0	10.0	35.0	35.0	15.0	15.0		15.0	15.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	28.5	29.6	29.6	24.5	23.7	23.7		8.9	16.9		8.9	17.9
Actuated g/C Ratio	0.60	0.62	0.62	0.52	0.50	0.50		0.19	0.36		0.19	0.38
v/c Ratio	0.14	0.50	0.02	0.03	0.50	0.08		0.11	0.02		0.24	0.09
Control Delay	6.8	13.5	7.9	7.2	16.7	4.9		27.2	7.9		28.1	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	6.8	13.5	7.9	7.2	16.7	4.9		27.2	7.9		28.1	4.6
LOS	A	B	A	A	B	A		C	A		C	A
Approach Delay		12.6			15.0			21.6			16.5	
Approach LOS		B			B			C			B	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	6	55	0	1	87	0		6	0		13	0
Queue Length 95th (ft)	43	406	13	14	318	25		39	9		71	18
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	821	1403	1195	826	1391	1197		575	869		590	889
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.10	0.40	0.01	0.02	0.32	0.05		0.05	0.01		0.10	0.07

Intersection Summary

Area Type:	Other
Cycle Length:	97
Actuated Cycle Length:	47.5
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	14.1
Intersection LOS:	B
Intersection Capacity Utilization	54.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St

ø1 15 s	ø2 40 s	ø4 19 s	ø9 23 s
ø5 15 s	ø6 40 s	ø8 19 s	

East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	471	1	8	459	14	12	0	6	3	0	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.996				0.850			0.889
Fl _t Protected	0.950			0.950				0.950				0.991
Satd. Flow (prot)	1719	1810	0	1719	1802	0	0	1719	1538	0	1594	0
Fl _t Permitted	0.950			0.950								
Satd. Flow (perm)	1719	1810	0	1719	1802	0	0	1810	1538	0	1609	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2				6			14
Link Speed (mph)		40			40			30				30
Link Distance (ft)		331			1151			412				336
Travel Time (s)		5.6			19.6			9.4				7.6
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	58	506	1	9	494	15	13	0	6	3	0	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	507	0	9	509	0	0	13	6	0	17	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	20.0	35.0		20.0	35.0		25.0	25.0		25.0	25.0	
Total Split (%)	20.0%	35.0%		20.0%	35.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	14.0	29.0		14.0	29.0		19.5	19.5		19.5	19.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	9.1	36.1		7.9	32.2		8.0	9.3			8.0	
Actuated g/C Ratio	0.22	0.88		0.19	0.78		0.19	0.23			0.19	
v/c Ratio	0.15	0.32		0.03	0.36		0.04	0.02			0.05	
Control Delay	22.7	8.0		26.5	11.5		25.8	10.5			17.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	22.7	8.0		26.5	11.5		25.8	10.5			17.2	
LOS	C	A		C	B		C	B			B	
Approach Delay		9.5			11.7			20.9			17.2	
Approach LOS		A			B			C			B	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	5	0		1	0			1	0		0	
Queue Length 95th (ft)	64	346		19	#420			23	6		21	
Internal Link Dist (ft)		251			1071			332			256	
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	755	1588		755	1424			1107	995		989	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.08	0.32		0.01	0.36			0.01	0.01		0.02	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 41.2
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.36
 Intersection Signal Delay: 10.8
 Intersection LOS: B
 Intersection Capacity Utilization 49.6%
 ICU Level of Service A
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St

ø1 20 s	ø2 35 s	ø4 25 s	ø9 20 s
ø5 20 s	ø6 35 s	ø8 25 s	

East Central Street Corridor
1: King St/Chestnut St & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	362	33	266	374	43	33	120	221	34	121	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.985				0.850			0.950
Flt Protected	0.950			0.950				0.989				0.993
Satd. Flow (prot)	1736	1803	0	1736	1800	0	0	1807	1553	0	1723	0
Flt Permitted	0.465			0.246				0.856				0.935
Satd. Flow (perm)	850	1803	0	449	1800	0	0	1564	1553	0	1623	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		4			6				228			
Link Speed (mph)		40			40			30				30
Link Distance (ft)		417			776			825				745
Travel Time (s)		7.1			13.2			18.8				16.9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	102	373	34	274	386	44	34	124	228	35	125	94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	407	0	274	430	0	0	158	228	0	254	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5			8
Permitted Phases	6			2			4			8		
Minimum Initial (s)	6.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	11.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	12.0	30.0		16.0	34.0		29.0	29.0		29.0	29.0	
Total Split (%)	12.2%	30.6%		16.3%	34.7%		29.6%	29.6%		29.6%	29.6%	
Maximum Green (s)	7.0	25.0		11.0	29.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0				5.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	27.9	21.1		37.6	29.0			15.7	31.9			15.7
Actuated g/C Ratio	0.41	0.31		0.56	0.43			0.23	0.47			0.23
v/c Ratio	0.23	0.72		0.58	0.55			0.43	0.27			0.67
Control Delay	12.3	31.3		18.2	22.3			28.5	2.5			35.1
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0			0.0
Total Delay	12.3	31.3		18.2	22.3			28.5	2.5			35.1
LOS	B	C		B	C			C	A			D
Approach Delay		27.5			20.7			13.1				35.1
Approach LOS		C			C			B				D

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/14/2014

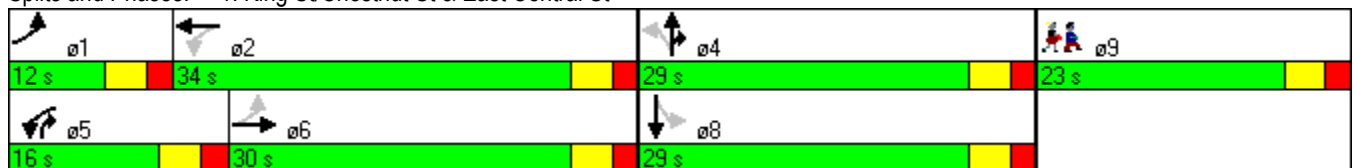


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	15	128		44	118			51	0		88	
Queue Length 95th (ft)	73	#412		#211	#396			144	25		228	
Internal Link Dist (ft)		337			696			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	456	706		472	827			586	855		608	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.22	0.58		0.58	0.52			0.27	0.27		0.42	

Intersection Summary

Area Type: Other
 Cycle Length: 98
 Actuated Cycle Length: 67.4
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 23.0 Intersection LOS: C
 Intersection Capacity Utilization 68.8% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	132	461	41	25	452	128	34	16	31	105	13	176
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850			0.850			0.850			0.850
Fl _t Protected	0.950			0.950				0.967			0.957	
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1801	1583	0	1783	1583
Fl _t Permitted	0.241			0.446				0.762			0.712	
Satd. Flow (perm)	449	1863	1583	831	1863	1583	0	1419	1583	0	1326	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			36			135			33			185
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	139	485	43	26	476	135	36	17	33	111	14	185
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	485	43	26	476	135	0	53	33	0	125	185
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8	1		4
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	15.0	40.0	40.0	15.0	40.0	40.0	19.0	19.0		19.0	19.0	
Total Split (%)	15.5%	41.2%	41.2%	15.5%	41.2%	41.2%	19.6%	19.6%		19.6%	19.6%	
Maximum Green (s)	10.0	35.0	35.0	10.0	35.0	35.0	15.0	15.0		15.0	15.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	32.3	27.7	27.7	25.2	19.4	19.4		10.4	21.3		10.4	23.7
Actuated g/C Ratio	0.57	0.49	0.49	0.45	0.34	0.34		0.18	0.38		0.18	0.42
v/c Ratio	0.31	0.53	0.05	0.06	0.74	0.21		0.20	0.05		0.51	0.24
Control Delay	9.0	16.2	6.5	8.2	25.6	4.6		27.3	5.8		34.1	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	9.0	16.2	6.5	8.2	25.6	4.6		27.3	5.8		34.1	3.1
LOS	A	B	A	A	C	A		C	A		C	A
Approach Delay		14.1			20.5			19.1			15.6	
Approach LOS		B			C			B			B	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	14	105	1	2	114	0		13	0		32	0
Queue Length 95th (ft)	74	343	23	20	360	37		64	15		#141	30
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	527	1312	1126	639	1297	1144		424	760		396	841
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.26	0.37	0.04	0.04	0.37	0.12		0.13	0.04		0.32	0.22

Intersection Summary

Area Type: Other
 Cycle Length: 97
 Actuated Cycle Length: 56.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 17.0 Intersection LOS: B
 Intersection Capacity Utilization 55.9% ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St

ø1 15 s	ø2 40 s	ø4 19 s	ø9 23 s
ø5 15 s	ø6 40 s	ø8 19 s	

East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	436	6	26	440	26	48	2	43	13	1	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.992				0.850		0.891	
Flt Protected	0.950			0.950				0.954			0.991	
Satd. Flow (prot)	1752	1841	0	1752	1830	0	0	1760	1568	0	1629	0
Flt Permitted	0.950			0.950				0.678			0.924	
Satd. Flow (perm)	1752	1841	0	1752	1830	0	0	1251	1568	0	1519	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			3				45			62
Link Speed (mph)		40			40			30				30
Link Distance (ft)		350			1151			412				336
Travel Time (s)		6.0			19.6			9.4				7.6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	45	454	6	27	458	27	50	2	45	14	1	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	460	0	27	485	0	0	52	45	0	77	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	20.0	35.0		20.0	35.0		25.0	25.0		25.0	25.0	
Total Split (%)	20.0%	35.0%		20.0%	35.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	14.0	29.0		14.0	29.0		19.5	19.5		19.5	19.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	9.3	27.2		8.8	26.7			9.9	19.3		9.9	
Actuated g/C Ratio	0.18	0.54		0.17	0.53			0.20	0.38		0.20	
v/c Ratio	0.14	0.47		0.09	0.50			0.21	0.07		0.22	
Control Delay	29.1	16.8		30.4	18.3			29.6	5.0		13.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	29.1	16.8		30.4	18.3			29.6	5.0		13.6	
LOS	C	B		C	B			C	A		B	
Approach Delay		17.9			19.0			18.2			13.6	
Approach LOS		B			B			B			B	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	13	108		8	119			15	0		4	
Queue Length 95th (ft)	56	336		39	#405			62	15		47	
Internal Link Dist (ft)		270			1071			332			256	
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	668	1182		668	1169			619	1004		783	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.07	0.39		0.04	0.41			0.08	0.04		0.10	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 50.7
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.50
 Intersection Signal Delay: 18.1
 Intersection LOS: B
 Intersection Capacity Utilization 55.5%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St

ø1 20 s	ø2 35 s	ø4 25 s	ø9 20 s
ø5 20 s	ø6 35 s	ø8 25 s	

East Central Street Corridor
1: King St/Chestnut St & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	395	28	267	454	47	44	231	266	23	233	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.986				0.850		0.957	
Flt Protected	0.950			0.950				0.992			0.997	
Satd. Flow (prot)	1787	1862	0	1787	1855	0	0	1866	1599	0	1795	0
Flt Permitted	0.226			0.178				0.839			0.967	
Satd. Flow (perm)	425	1862	0	335	1855	0	0	1578	1599	0	1741	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		4			5				274			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		410			781			825			745	
Travel Time (s)		7.0			13.3			18.8			16.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	130	407	29	275	468	48	45	238	274	24	240	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	436	0	275	516	0	0	283	274	0	386	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5		8	
Permitted Phases	6			2			4			8		
Minimum Initial (s)	6.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	11.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	12.0	30.0		16.0	34.0		29.0	29.0		29.0	29.0	
Total Split (%)	12.2%	30.6%		16.3%	34.7%		29.6%	29.6%		29.6%	29.6%	
Maximum Green (s)	7.0	25.0		11.0	29.0		24.0	24.0		24.0	24.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	29.8	22.9		38.6	27.4		23.5	39.1		23.5		
Actuated g/C Ratio	0.39	0.30		0.50	0.36		0.31	0.51		0.31		
v/c Ratio	0.45	0.78		0.72	0.77		0.58	0.29		0.72		
Control Delay	18.5	37.1		27.0	33.1		30.8	2.2		35.3		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		
Total Delay	18.5	37.1		27.0	33.1		30.8	2.2		35.3		
LOS	B	D		C	C		C	A		D		
Approach Delay		32.9			31.0			16.7			35.3	
Approach LOS		C			C			B			D	

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/14/2014

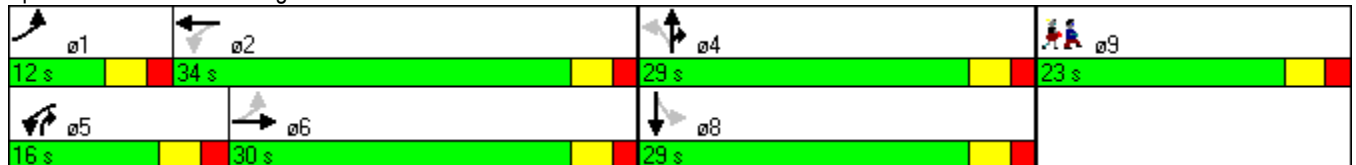


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	27	172		63	196			107	0		154	
Queue Length 95th (ft)	89	#446		#257	#513			#278	26		#406	
Internal Link Dist (ft)		330			701			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	294	623		382	720			505	946		557	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.44	0.70		0.72	0.72			0.56	0.29		0.69	

Intersection Summary

Area Type: Other
 Cycle Length: 98
 Actuated Cycle Length: 76.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 28.7
 Intersection LOS: C
 Intersection Capacity Utilization 89.0%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	444	53	23	536	144	40	24	29	98	16	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850			0.850			0.850			0.850
Fl _t Protected	0.950			0.950				0.970			0.959	
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	0	1825	1599	0	1804	1599
Fl _t Permitted	0.189			0.491				0.764			0.709	
Satd. Flow (perm)	356	1881	1599	924	1881	1599	0	1437	1599	0	1334	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			49			141			31			197
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	181	467	56	24	564	152	42	25	31	103	17	197
Shared Lane Traffic (%)												
Lane Group Flow (vph)	181	467	56	24	564	152	0	67	31	0	120	197
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8	1		4
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	15.0	40.0	40.0	15.0	40.0	40.0	19.0	19.0		19.0	19.0	
Total Split (%)	15.5%	41.2%	41.2%	15.5%	41.2%	41.2%	19.6%	19.6%		19.6%	19.6%	
Maximum Green (s)	10.0	35.0	35.0	10.0	35.0	35.0	15.0	15.0		15.0	15.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	37.9	32.7	32.7	29.0	23.4	23.4		10.3	20.8		10.3	24.6
Actuated g/C Ratio	0.62	0.54	0.54	0.47	0.38	0.38		0.17	0.34		0.17	0.40
v/c Ratio	0.41	0.46	0.06	0.05	0.78	0.22		0.28	0.05		0.54	0.26
Control Delay	9.8	14.5	5.5	8.0	27.5	5.0		30.4	6.3		37.5	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	9.8	14.5	5.5	8.0	27.5	5.0		30.4	6.3		37.5	3.3
LOS	A	B	A	A	C	A		C	A		D	A
Approach Delay		12.6			22.2			22.8			16.2	
Approach LOS		B			C			C			B	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	19	101	1	2	157	2		20	0		38	0
Queue Length 95th (ft)	94	326	26	19	#486	44		77	14		128	30
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	478	1194	1033	674	1179	1055		386	695		358	791
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.38	0.39	0.05	0.04	0.48	0.14		0.17	0.04		0.34	0.25

Intersection Summary

Area Type: Other
 Cycle Length: 97
 Actuated Cycle Length: 61.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 17.6
 Intersection LOS: B
 Intersection Capacity Utilization 62.3%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St

ø1 15 s	ø2 40 s	ø4 19 s	ø9 23 s
ø5 15 s	ø6 40 s	ø8 19 s	

East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	421	3	30	613	8	51	2	41	11	1	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.998				0.850		0.897	
Flt Protected	0.950			0.950				0.954			0.989	
Satd. Flow (prot)	1770	1861	0	1770	1859	0	0	1777	1583	0	1653	0
Flt Permitted	0.950			0.950				0.696			0.910	
Satd. Flow (perm)	1770	1861	0	1770	1859	0	0	1296	1583	0	1521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1				42			39
Link Speed (mph)		40			40			30				30
Link Distance (ft)		331			1151			412				336
Travel Time (s)		5.6			19.6			9.4				7.6
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	28	434	3	31	632	8	53	2	42	11	1	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	437	0	31	640	0	0	55	42	0	51	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	20.0	35.0		20.0	35.0		25.0	25.0		25.0	25.0	
Total Split (%)	20.0%	35.0%		20.0%	35.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	14.0	29.0		14.0	29.0		19.5	19.5		19.5	19.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	7.2	31.2		7.3	34.1			8.6	18.1		8.6	
Actuated g/C Ratio	0.13	0.55		0.13	0.60			0.15	0.32		0.15	
v/c Ratio	0.12	0.43		0.14	0.57			0.28	0.08		0.19	
Control Delay	30.6	16.5		30.6	18.1			30.8	5.1		15.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	30.6	16.5		30.6	18.1			30.8	5.1		15.3	
LOS	C	B		C	B			C	A		B	
Approach Delay		17.4			18.7			19.7			15.3	
Approach LOS		B			B			B			B	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	7	103		8	91			14	0		3	
Queue Length 95th (ft)	40	320		43	#598			64	14		38	
Internal Link Dist (ft)		251			1071			332			256	
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	482	1114		482	1122			492	824		602	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.06	0.39		0.06	0.57			0.11	0.05		0.08	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 56.5
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 18.1
 Intersection LOS: B
 Intersection Capacity Utilization 52.0%
 ICU Level of Service A
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St

ø1 20 s	ø2 35 s	ø4 25 s	ø9 20 s
ø5 20 s	ø6 35 s	ø8 25 s	

East Central Street Corridor
1: King St/Chestnut St & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	487	38	325	468	63	46	181	324	45	184	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.982				0.850		0.953	
Flt Protected	0.950			0.950				0.990			0.994	
Satd. Flow (prot)	1787	1860	0	1787	1847	0	0	1862	1599	0	1782	0
Flt Permitted	0.175			0.152				0.779			0.913	
Satd. Flow (perm)	329	1860	0	286	1847	0	0	1465	1599	0	1637	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		4			8				348			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		410			781			825			745	
Travel Time (s)		7.0			13.3			18.8			16.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	147	524	41	349	503	68	49	195	348	48	198	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	147	565	0	349	571	0	0	244	348	0	379	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5		8	
Permitted Phases	6			2			4			8		
Minimum Initial (s)	5.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	10.0	29.0		12.0	31.0		24.0	24.0		24.0	24.0	
Total Split (%)	11.4%	33.0%		13.6%	35.2%		27.3%	27.3%		27.3%	27.3%	
Maximum Green (s)	5.0	24.0		7.0	26.0		19.0	19.0		19.0	19.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	29.4	24.4		33.5	26.4		19.3	30.7		19.3		
Actuated g/C Ratio	0.42	0.35		0.48	0.38		0.28	0.44		0.28		
v/c Ratio	0.60	0.87		1.20	0.81		0.60	0.39		0.83		
Control Delay	25.5	38.6		138.1	32.2		31.8	2.8		43.8		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		
Total Delay	25.5	38.6		138.1	32.2		31.8	2.8		43.8		
LOS	C	D		F	C		C	A		D		
Approach Delay		35.9			72.4			14.7			43.8	
Approach LOS		D			E			B			D	

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/14/2014

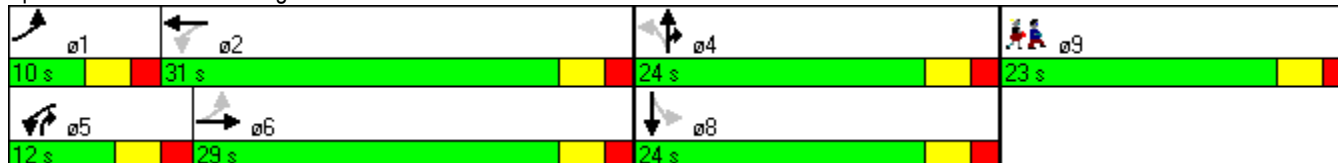


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	26	196		~115	186			81	0		137	
Queue Length 95th (ft)	#122	#563		#397	#544			#244	30		#408	
Internal Link Dist (ft)		330			701			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	245	653		291	705			406	900		454	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.60	0.87		1.20	0.81			0.60	0.39		0.83	

Intersection Summary

Area Type:	Other
Cycle Length:	88
Actuated Cycle Length:	69.6
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.20
Intersection Signal Delay:	45.1
Intersection LOS:	D
Intersection Capacity Utilization:	94.4%
ICU Level of Service:	F
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	159	632	52	27	615	152	47	14	40	140	20	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950				0.963			0.958	
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	0	1812	1599	0	1802	1599
Flt Permitted	0.157			0.261				0.640			0.707	
Satd. Flow (perm)	295	1881	1599	491	1881	1599	0	1204	1599	0	1330	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			33			129			43			231
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	171	680	56	29	661	163	51	15	43	151	22	231
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	680	56	29	661	163	0	66	43	0	173	231
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8 1		4	4 5
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	15.0	40.0	40.0	15.0	40.0	40.0	19.0	19.0		19.0	19.0	
Total Split (%)	15.5%	41.2%	41.2%	15.5%	41.2%	41.2%	19.6%	19.6%		19.6%	19.6%	
Maximum Green (s)	10.0	35.0	35.0	10.0	35.0	35.0	15.0	15.0		15.0	15.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	None	None	None	None	None	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	44.9	40.1	40.1	37.9	32.5	32.5		13.7	23.6		13.7	26.4
Actuated g/C Ratio	0.62	0.56	0.56	0.53	0.45	0.45		0.19	0.33		0.19	0.37
v/c Ratio	0.48	0.65	0.06	0.08	0.78	0.21		0.29	0.08		0.69	0.32
Control Delay	12.0	19.2	7.6	8.3	27.1	5.8		32.8	5.6		46.2	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	12.0	19.2	7.6	8.3	27.1	5.8		32.8	5.6		46.2	3.4
LOS	B	B	A	A	C	A		C	A		D	A
Approach Delay		17.1			22.4			22.1			21.8	
Approach LOS		B			C			C			C	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	24	208	5	4	218	7		24	0		69	0
Queue Length 95th (ft)	89	#602	32	22	#620	56		78	16		#219	33
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	400	1046	904	478	944	867		259	650		286	765
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.43	0.65	0.06	0.06	0.70	0.19		0.25	0.07		0.60	0.30

Intersection Summary

Area Type: Other
 Cycle Length: 97
 Actuated Cycle Length: 72.1
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 20.2 Intersection LOS: C
 Intersection Capacity Utilization 68.3% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St

ø1 15 s	ø2 40 s	ø4 19 s	ø9 23 s
ø5 15 s	ø6 40 s	ø8 19 s	

East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	560	6	27	586	9	72	0	46	8	2	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.998				0.850		0.904	
Flt Protected	0.950			0.950				0.950			0.988	
Satd. Flow (prot)	1787	1879	0	1787	1877	0	0	1787	1599	0	1680	0
Flt Permitted	0.950			0.950				0.732			0.896	
Satd. Flow (perm)	1787	1879	0	1787	1877	0	0	1377	1599	0	1524	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			1				49			27
Link Speed (mph)		40			40			30				30
Link Distance (ft)		331			1151			412				336
Travel Time (s)		5.6			19.6			9.4				7.6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	35	596	6	29	623	10	77	0	49	9	2	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	602	0	29	633	0	0	77	49	0	38	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	20.0	35.0		20.0	35.0		25.0	25.0		25.0	25.0	
Total Split (%)	20.0%	35.0%		20.0%	35.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	14.0	29.0		14.0	29.0		19.5	19.5		19.5	19.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	7.5	34.2		7.3	36.5			9.5	18.7		9.5	
Actuated g/C Ratio	0.13	0.57		0.12	0.61			0.16	0.31		0.16	
v/c Ratio	0.16	0.56		0.13	0.55			0.35	0.09		0.14	
Control Delay	32.4	19.5		32.6	18.3			32.6	4.9		16.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	32.4	19.5		32.6	18.3			32.6	4.9		16.7	
LOS	C	B		C	B			C	A		B	
Approach Delay		20.3			18.9			21.8			16.7	
Approach LOS		C			B			C			B	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/14/2014

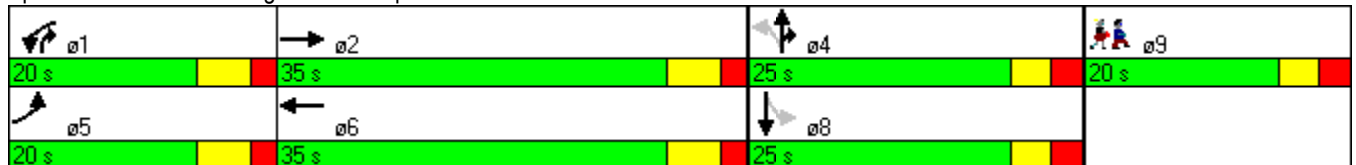


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	12	164		10	95			27	0		4	
Queue Length 95th (ft)	47	#562		42	#611			82	15		33	
Internal Link Dist (ft)		251			1071			332			256	
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	461	1074		461	1145			495	807		566	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.08	0.56		0.06	0.55			0.16	0.06		0.07	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 59.9
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 19.7
 Intersection LOS: B
 Intersection Capacity Utilization 54.0%
 ICU Level of Service A
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St



Existing Coordinated

East Central Street Corridor
1: King St/Chestnut St & East Central St

8/15/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	351	25	228	238	41	22	233	248	20	236	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.990			0.978				0.850		0.967	
Fl _t Protected	0.950			0.950				0.996			0.997	
Satd. Flow (prot)	1719	1791	0	1719	1770	0	0	1802	1538	0	1745	0
Fl _t Permitted	0.582			0.289				0.922			0.970	
Satd. Flow (perm)	1053	1791	0	523	1770	0	0	1668	1538	0	1697	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		4			9				258			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		410			781			825			745	
Travel Time (s)		7.0			13.3			18.8			16.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	72	366	26	238	248	43	23	243	258	21	246	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	392	0	238	291	0	0	266	258	0	355	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5		8	
Permitted Phases	6			2			4			8		
Minimum Initial (s)	6.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	11.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	11.0	23.0		13.0	25.0		31.0	31.0		31.0	31.0	
Total Split (%)	12.2%	25.6%		14.4%	27.8%		34.4%	34.4%		34.4%	34.4%	
Maximum Green (s)	6.0	18.0		8.0	20.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	41.2	35.0		52.2	43.8		22.6	39.4		22.6		
Actuated g/C Ratio	0.46	0.39		0.58	0.49		0.25	0.44		0.25		
v/c Ratio	0.14	0.56		0.50	0.34		0.63	0.32		0.83		
Control Delay	13.6	29.0		14.5	15.4		36.8	2.5		48.9		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		
Total Delay	13.6	29.0		14.5	15.4		36.8	2.5		48.9		
LOS	B	C		B	B		D	A		D		
Approach Delay		26.6			15.0		19.9			48.9		
Approach LOS		C			B		B			D		

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/15/2014

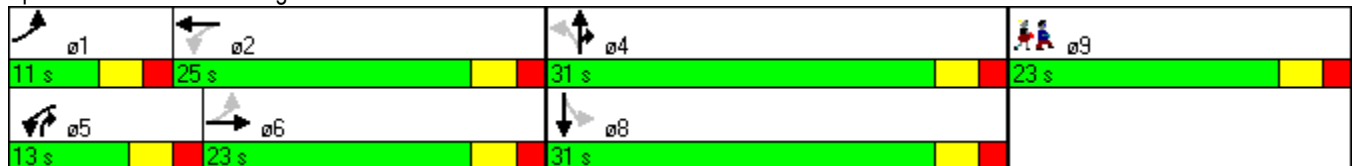


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	15	161		69	108			132	0		187	
Queue Length 95th (ft)	58	#430		#184	#261			207	21		#287	
Internal Link Dist (ft)		330			701			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	527	700		472	867			482	809		490	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.14	0.56		0.50	0.34			0.55	0.32		0.72	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 25.7 Intersection LOS: C
 Intersection Capacity Utilization 79.6% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/15/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	541	14	15	430	62	22	4	11	50	8	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950				0.959			0.958	
Satd. Flow (prot)	1719	1810	1538	1719	1810	1538	0	1735	1538	0	1734	1538
Flt Permitted	0.426			0.401				0.717			0.735	
Satd. Flow (perm)	771	1810	1538	726	1810	1538	0	1297	1538	0	1330	1538
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			12			65			11			58
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	78	564	15	16	448	65	23	4	11	52	8	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	78	564	15	16	448	65	0	27	11	0	60	58
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8	1		4
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	10.0	38.0	38.0	10.0	38.0	38.0	19.0	19.0		19.0	19.0	
Total Split (%)	11.1%	42.2%	42.2%	11.1%	42.2%	42.2%	21.1%	21.1%		21.1%	21.1%	
Maximum Green (s)	5.0	33.0	33.0	5.0	33.0	33.0	15.0	15.0		15.0	15.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	68.7	66.8	66.8	65.2	62.0	62.0		8.4	16.0		8.4	16.8
Actuated g/C Ratio	0.76	0.74	0.74	0.72	0.69	0.69		0.09	0.18		0.09	0.19
v/c Ratio	0.12	0.42	0.01	0.03	0.36	0.06		0.22	0.04		0.48	0.17
Control Delay	3.6	11.8	5.0	1.8	4.3	0.5		40.7	10.3		50.5	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	3.6	11.8	5.0	1.8	4.3	0.5		40.7	10.3		50.5	6.4
LOS	A	B	A	A	A	A		D	B		D	A
Approach Delay		10.7			3.8			31.9			28.9	
Approach LOS		B			A			C			C	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/15/2014

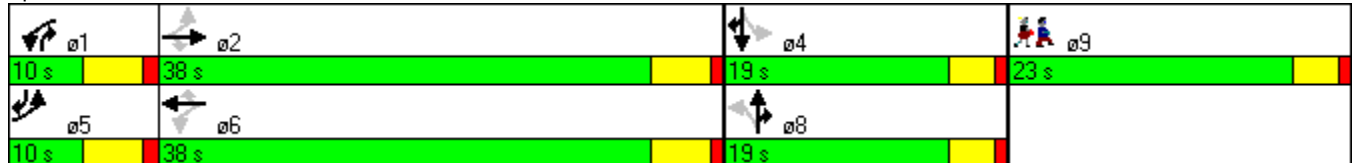


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	3	22	1	0	95	1		15	0		33	0
Queue Length 95th (ft)	m33	#455	m9	m2	144	0		39	8		70	17
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	651	1344	1145	583	1248	1080		216	322		222	372
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.12	0.42	0.01	0.03	0.36	0.06		0.13	0.03		0.27	0.16

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 44 (49%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.48
 Intersection Signal Delay: 10.2 Intersection LOS: B
 Intersection Capacity Utilization 54.2% ICU Level of Service A
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St



East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/15/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	471	1	8	459	14	12	0	6	3	0	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.996				0.850		0.889	
Fl _t Protected	0.950			0.950				0.950			0.991	
Satd. Flow (prot)	1719	1810	0	1719	1802	0	0	1719	1538	0	1594	0
Fl _t Permitted	0.950			0.950							0.935	
Satd. Flow (perm)	1719	1810	0	1719	1802	0	0	1810	1538	0	1504	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2				6			14
Link Speed (mph)		40			40			30				30
Link Distance (ft)		331			1151			412				336
Travel Time (s)		5.6			19.6			9.4				7.6
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	58	506	1	9	494	15	13	0	6	3	0	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	507	0	9	509	0	0	13	6	0	17	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	13.0	46.0		12.0	45.0		12.0	12.0		12.0	12.0	
Total Split (%)	14.4%	51.1%		13.3%	50.0%		13.3%	13.3%		13.3%	13.3%	
Maximum Green (s)	7.0	40.0		6.0	39.0		6.5	6.5		6.5	6.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	7.6	73.9		6.1	65.2			6.3	10.3		6.2	
Actuated g/C Ratio	0.08	0.82		0.07	0.72			0.07	0.11		0.07	
v/c Ratio	0.40	0.34		0.08	0.39			0.10	0.03		0.15	
Control Delay	37.8	13.3		40.9	10.4			41.1	13.3		24.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	37.8	13.3		40.9	10.4			41.1	13.3		24.5	
LOS	D	B		D	B			D	B		C	
Approach Delay		15.8			11.0			32.3			24.5	
Approach LOS		B			B			C			C	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/15/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	34	0		5	71			7	0		2	
Queue Length 95th (ft)	74	411		20	332			25	7		22	
Internal Link Dist (ft)		251			1071			332			256	
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	149	1487		116	1306			131	181		122	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.39	0.34		0.08	0.39			0.10	0.03		0.14	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	18 (20%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	14.0
Intersection LOS:	B
Intersection Capacity Utilization	49.6%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St



East Central Street Corridor
1: King St/Chestnut St & East Central St

8/15/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	362	33	266	374	43	33	120	221	34	121	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.985				0.850		0.950	
Flt Protected	0.950			0.950				0.989			0.993	
Satd. Flow (prot)	1736	1803	0	1736	1800	0	0	1807	1553	0	1723	0
Flt Permitted	0.487			0.310				0.819			0.935	
Satd. Flow (perm)	890	1803	0	566	1800	0	0	1496	1553	0	1623	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		5			6				228			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		417			776			825			745	
Travel Time (s)		7.1			13.2			18.8			16.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	102	373	34	274	386	44	34	124	228	35	125	94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	407	0	274	430	0	0	158	228	0	254	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5		8	
Permitted Phases	6			2			4			8		
Minimum Initial (s)	6.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	11.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	11.0	24.0		15.0	28.0		28.0	28.0		28.0	28.0	
Total Split (%)	12.2%	26.7%		16.7%	31.1%		31.1%	31.1%		31.1%	31.1%	
Maximum Green (s)	6.0	19.0		10.0	23.0		23.0	23.0		23.0	23.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	45.0	38.7		56.7	47.8		18.5	35.7		18.5		
Actuated g/C Ratio	0.50	0.43		0.63	0.53		0.21	0.40		0.21		
v/c Ratio	0.20	0.52		0.52	0.45		0.51	0.30		0.76		
Control Delay	12.3	26.0		12.1	17.5		37.0	2.7		48.3		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		
Total Delay	12.3	26.0		12.1	17.5		37.0	2.7		48.3		
LOS	B	C		B	B		D	A		D		
Approach Delay		23.2			15.4		16.7			48.3		
Approach LOS		C			B		B			D		

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/15/2014

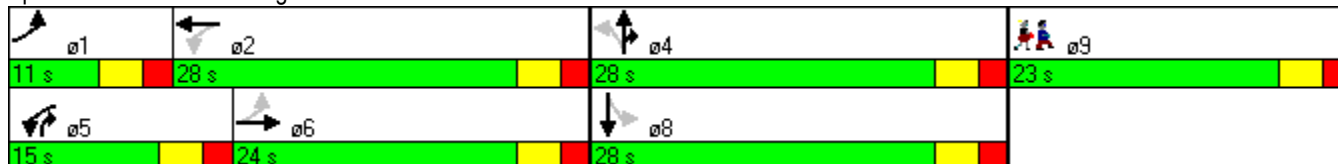


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	17	151		62	167			80	0		136	
Queue Length 95th (ft)	72	#436		#178	#424			133	21		209	
Internal Link Dist (ft)		337			696			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	504	778		528	959			382	739		415	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.20	0.52		0.52	0.45			0.41	0.31		0.61	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 22.3 Intersection LOS: C
 Intersection Capacity Utilization 68.8% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/15/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	132	461	41	25	452	128	34	16	31	105	13	176
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850			0.850			0.850			0.850
Fl _t Protected	0.950			0.950				0.967			0.957	
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1801	1583	0	1783	1583
Fl _t Permitted	0.377			0.428				0.749			0.712	
Satd. Flow (perm)	702	1863	1583	797	1863	1583	0	1395	1583	0	1326	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			37			135			33			185
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	139	485	43	26	476	135	36	17	33	111	14	185
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	485	43	26	476	135	0	53	33	0	125	185
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8 1		4	4 5
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	10.0	35.0	35.0	10.0	35.0	35.0	22.0	22.0		22.0	22.0	
Total Split (%)	11.1%	38.9%	38.9%	11.1%	38.9%	38.9%	24.4%	24.4%		24.4%	24.4%	
Maximum Green (s)	5.0	30.0	30.0	5.0	30.0	30.0	18.0	18.0		18.0	18.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	61.7	57.8	57.8	58.2	53.0	53.0		12.6	22.0		12.6	22.8
Actuated g/C Ratio	0.69	0.64	0.64	0.65	0.59	0.59		0.14	0.24		0.14	0.25
v/c Ratio	0.25	0.41	0.04	0.05	0.43	0.14		0.27	0.08		0.67	0.34
Control Delay	7.0	15.0	5.7	5.2	11.1	1.4		36.2	6.2		53.5	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	7.0	15.0	5.7	5.2	11.1	1.4		36.2	6.2		53.5	4.4
LOS	A	B	A	A	B	A		D	A		D	A
Approach Delay		12.7			8.8			24.7			24.2	
Approach LOS		B			A			C			C	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/15/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	14	191	7	2	52	0		27	0		68	0
Queue Length 95th (ft)	m88	#410	m24	m10	#378	5		58	12		119	27
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	552	1196	1029	572	1096	987		279	413		265	540
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.25	0.41	0.04	0.05	0.43	0.14		0.19	0.08		0.47	0.34

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 44 (49%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 13.9 Intersection LOS: B
 Intersection Capacity Utilization 55.9% ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St

ø1 10 s	ø2 35 s	ø4 22 s	ø9 23 s
ø5 10 s	ø6 35 s	ø8 22 s	

East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/15/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	436	6	26	440	26	48	2	43	13	1	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.992				0.850		0.891	
Flt Protected	0.950			0.950				0.954			0.991	
Satd. Flow (prot)	1752	1841	0	1752	1830	0	0	1760	1568	0	1629	0
Flt Permitted	0.950			0.950				0.776			0.924	
Satd. Flow (perm)	1752	1841	0	1752	1830	0	0	1431	1568	0	1519	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			4				45			62
Link Speed (mph)		40			40			30				30
Link Distance (ft)		350			1151			412				336
Travel Time (s)		6.0			19.6			9.4				7.6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	45	454	6	27	458	27	50	2	45	14	1	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	460	0	27	485	0	0	52	45	0	77	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	12.0	44.0		12.0	44.0		14.0	14.0		14.0	14.0	
Total Split (%)	13.3%	48.9%		13.3%	48.9%		15.6%	15.6%		15.6%	15.6%	
Maximum Green (s)	6.0	38.0		6.0	38.0		8.5	8.5		8.5	8.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	7.0	60.2		6.5	62.2			7.7	16.8		7.7	
Actuated g/C Ratio	0.08	0.67		0.07	0.69			0.09	0.19		0.09	
v/c Ratio	0.33	0.37		0.21	0.38			0.42	0.14		0.41	
Control Delay	38.7	14.1		43.6	11.6			49.6	7.4		21.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	38.7	14.1		43.6	11.6			49.6	7.4		21.1	
LOS	D	B		D	B			D	A		C	
Approach Delay		16.3			13.3			30.0			21.1	
Approach LOS		B			B			C			C	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/15/2014

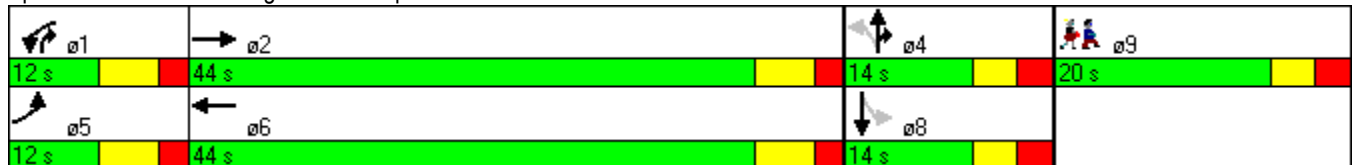


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	26	59		15	126			28	0		8	
Queue Length 95th (ft)	m61	378		41	314			65	19		50	
Internal Link Dist (ft)		270			1071			332			256	
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	137	1231		126	1265			135	322		200	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.33	0.37		0.21	0.38			0.39	0.14		0.39	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 16 (18%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.42
 Intersection Signal Delay: 16.4 Intersection LOS: B
 Intersection Capacity Utilization 55.5% ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St



East Central Street Corridor
1: King St/Chestnut St & East Central St

8/18/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	395	28	267	454	47	44	231	266	23	233	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.986				0.850		0.957	
Flt Protected	0.950			0.950				0.992			0.997	
Satd. Flow (prot)	1787	1862	0	1787	1855	0	0	1866	1599	0	1795	0
Flt Permitted	0.320			0.213				0.775			0.966	
Satd. Flow (perm)	602	1862	0	401	1855	0	0	1458	1599	0	1739	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		4			5				274			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		410			781			825			745	
Travel Time (s)		7.0			13.3			18.8			16.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	130	407	29	275	468	48	45	238	274	24	240	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	436	0	275	516	0	0	283	274	0	386	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5		8	
Permitted Phases	6			2			4			8		
Minimum Initial (s)	6.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	11.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	11.0	22.0		14.0	25.0		31.0	31.0		31.0	31.0	
Total Split (%)	12.2%	24.4%		15.6%	27.8%		34.4%	34.4%		34.4%	34.4%	
Maximum Green (s)	6.0	17.0		9.0	20.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	39.6	32.7		51.6	40.0		23.4	41.7		23.4		
Actuated g/C Ratio	0.44	0.36		0.57	0.44		0.26	0.46		0.26		
v/c Ratio	0.37	0.64		0.61	0.62		0.75	0.31		0.85		
Control Delay	17.0	32.4		18.1	25.4		43.1	2.3		50.1		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		
Total Delay	17.0	32.4		18.1	25.4		43.1	2.3		50.1		
LOS	B	C		B	C		D	A		D		
Approach Delay		28.8			22.8		23.0			50.1		
Approach LOS		C			C		C			D		

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/18/2014

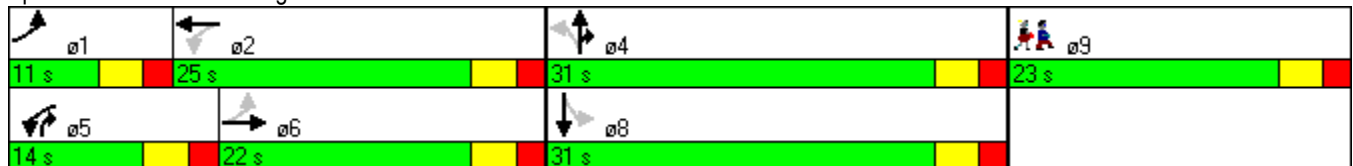


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	29	193		88	242			143	0		202	
Queue Length 95th (ft)	94	#495		#256	#573			232	21		#334	
Internal Link Dist (ft)		330			701			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	356	679		450	828			421	872		502	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.37	0.64		0.61	0.62			0.67	0.31		0.77	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 28.9 Intersection LOS: C
 Intersection Capacity Utilization 89.0% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/18/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	444	53	23	536	144	40	24	29	98	16	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850			0.850			0.850			0.850
Fl _t Protected	0.950			0.950				0.970			0.959	
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	0	1825	1599	0	1804	1599
Fl _t Permitted	0.299			0.462				0.709			0.709	
Satd. Flow (perm)	562	1881	1599	869	1881	1599	0	1334	1599	0	1334	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			53			148			31			197
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	181	467	56	24	564	152	42	25	31	103	17	197
Shared Lane Traffic (%)												
Lane Group Flow (vph)	181	467	56	24	564	152	0	67	31	0	120	197
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8	1		4
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	12.0	38.0	38.0	10.0	36.0	36.0	19.0	19.0		19.0	19.0	
Total Split (%)	13.3%	42.2%	42.2%	11.1%	40.0%	40.0%	21.1%	21.1%		21.1%	21.1%	
Maximum Green (s)	7.0	33.0	33.0	5.0	31.0	31.0	15.0	15.0		15.0	15.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	63.6	58.7	58.7	57.4	52.2	52.2		11.7	21.1		11.7	23.6
Actuated g/C Ratio	0.71	0.65	0.65	0.64	0.58	0.58		0.13	0.23		0.13	0.26
v/c Ratio	0.36	0.38	0.05	0.04	0.52	0.15		0.39	0.08		0.69	0.35
Control Delay	6.0	11.4	3.5	3.9	12.4	1.5		41.1	6.6		57.0	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	6.0	11.4	3.5	3.9	12.4	1.5		41.1	6.6		57.0	4.3
LOS	A	B	A	A	B	A		D	A		E	A
Approach Delay		9.4			9.9			30.2			24.3	
Approach LOS		A			A			C			C	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/18/2014

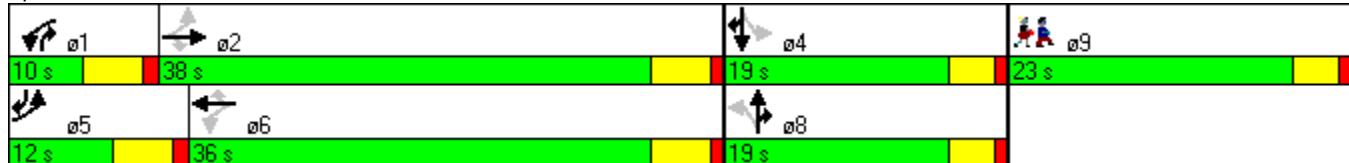


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	9	184	3	2	180	6		35	0		66	0
Queue Length 95th (ft)	m80	m367	m25	m5	#470	9		73	13		120	28
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	504	1226	1061	607	1090	989		222	381		222	551
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.36	0.38	0.05	0.04	0.52	0.15		0.30	0.08		0.54	0.36

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 41 (46%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 13.2 Intersection LOS: B
 Intersection Capacity Utilization 62.3% ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St



East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/18/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	421	3	30	613	8	51	2	41	11	1	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.998				0.850		0.897	
Flt Protected	0.950			0.950				0.954			0.989	
Satd. Flow (prot)	1770	1861	0	1770	1859	0	0	1777	1583	0	1653	0
Flt Permitted	0.950			0.950				0.883			0.910	
Satd. Flow (perm)	1770	1861	0	1770	1859	0	0	1645	1583	0	1521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1				42			39
Link Speed (mph)		40			40			30				30
Link Distance (ft)		331			1151			412				336
Travel Time (s)		5.6			19.6			9.4				7.6
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	28	434	3	31	632	8	53	2	42	11	1	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	437	0	31	640	0	0	55	42	0	51	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	12.0	46.0		12.0	46.0		12.0	12.0		12.0	12.0	
Total Split (%)	13.3%	51.1%		13.3%	51.1%		13.3%	13.3%		13.3%	13.3%	
Maximum Green (s)	6.0	40.0		6.0	40.0		6.5	6.5		6.5	6.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	6.5	61.4		6.6	66.5			6.4	15.6		6.4	
Actuated g/C Ratio	0.07	0.68		0.07	0.74			0.07	0.17		0.07	
v/c Ratio	0.22	0.34		0.24	0.47			0.47	0.14		0.35	
Control Delay	36.5	13.2		44.0	11.0			53.7	8.2		24.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	36.5	13.2		44.0	11.0			53.7	8.2		24.8	
LOS	D	B		D	B			D	A		C	
Approach Delay		14.6			12.5			34.0			24.8	
Approach LOS		B			B			C			C	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/18/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	16	50		17	81			31	0		7	
Queue Length 95th (ft)	m41	358		45	441			#69	18		42	
Internal Link Dist (ft)		251			1071			332			256	
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	128	1270		130	1373			119	309		146	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.22	0.34		0.24	0.47			0.46	0.14		0.35	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 12 (13%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 15.4 Intersection LOS: B
 Intersection Capacity Utilization 52.0% ICU Level of Service A
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St



East Central Street Corridor
1: King St/Chestnut St & East Central St

8/18/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	487	38	325	468	63	46	181	324	45	184	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.982				0.850		0.953	
Flt Protected	0.950			0.950				0.990			0.994	
Satd. Flow (prot)	1787	1860	0	1787	1847	0	0	1862	1599	0	1782	0
Flt Permitted	0.341			0.092				0.734			0.824	
Satd. Flow (perm)	641	1860	0	173	1847	0	0	1381	1599	0	1477	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		3			6				348			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		410			781			825			745	
Travel Time (s)		7.0			13.3			18.8			16.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	147	524	41	349	503	68	49	195	348	48	198	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	147	565	0	349	571	0	0	244	348	0	379	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5		8	
Permitted Phases	6			2			4			8		
Minimum Initial (s)	5.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	14.0	35.0		22.0	43.0		40.0	40.0		40.0	40.0	
Total Split (%)	11.7%	29.2%		18.3%	35.8%		33.3%	33.3%		33.3%	33.3%	
Maximum Green (s)	9.0	30.0		17.0	38.0		35.0	35.0		35.0	35.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	52.0	42.6		73.1	58.7		32.3	61.8		32.3		
Actuated g/C Ratio	0.43	0.36		0.61	0.49		0.27	0.52		0.27		
v/c Ratio	0.40	0.85		0.78	0.63		0.66	0.35		0.95		
Control Delay	18.5	50.4		34.7	36.0		47.6	2.2		77.8		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		
Total Delay	18.5	50.4		34.7	36.0		47.6	2.2		77.8		
LOS	B	D		C	D		D	A		E		
Approach Delay		43.8			35.5		20.9			77.8		
Approach LOS		D			D		C			E		

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/18/2014

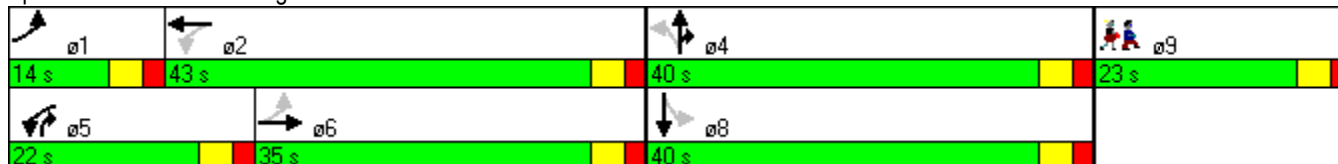


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	43	396		196	415			163	0		280	
Queue Length 95th (ft)	114	#758		#457	#681			254	30		#457	
Internal Link Dist (ft)		330			701			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	378	663		448	907			403	989		431	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.39	0.85		0.78	0.63			0.61	0.35		0.88	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 40.6 Intersection LOS: D
 Intersection Capacity Utilization 94.4% ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/18/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	159	632	52	27	615	152	47	14	40	140	20	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950				0.963			0.958	
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	0	1812	1599	0	1802	1599
Flt Permitted	0.265			0.300				0.522			0.707	
Satd. Flow (perm)	499	1881	1599	564	1881	1599	0	982	1599	0	1330	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			31			116			43			231
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	171	680	56	29	661	163	51	15	43	151	22	231
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	680	56	29	661	163	0	66	43	0	173	231
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8	1		4
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	13.0	59.0	59.0	10.0	56.0	56.0	28.0	28.0		28.0	28.0	
Total Split (%)	10.8%	49.2%	49.2%	8.3%	46.7%	46.7%	23.3%	23.3%		23.3%	23.3%	
Maximum Green (s)	8.0	54.0	54.0	5.0	51.0	51.0	24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	86.1	79.3	79.3	79.8	74.5	74.5		19.1	28.5		19.1	31.3
Actuated g/C Ratio	0.72	0.66	0.66	0.66	0.62	0.62		0.16	0.24		0.16	0.26
v/c Ratio	0.39	0.55	0.05	0.07	0.57	0.16		0.42	0.10		0.82	0.39
Control Delay	5.6	14.0	2.7	6.7	13.9	2.9		52.5	7.5		76.7	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	5.6	14.0	2.7	6.7	13.9	2.9		52.5	7.5		76.7	4.9
LOS	A	B	A	A	B	A		D	A		E	A
Approach Delay		11.7			11.6			34.7			35.6	
Approach LOS		B			B			C			D	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/18/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	11	332	0	4	156	3		46	0		130	0
Queue Length 95th (ft)	m59	m646	m21	m16	#426	23		90	20		205	40
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	451	1243	1067	428	1168	1037		196	411		266	586
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.38	0.55	0.05	0.07	0.57	0.16		0.34	0.10		0.65	0.39

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 44 (37%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 17.0 Intersection LOS: B
 Intersection Capacity Utilization 68.3% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St

10 s	59 s	28 s	23 s
13 s	56 s	28 s	

East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/18/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	560	6	27	586	9	72	0	46	8	2	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.998				0.850		0.904	
Flt Protected	0.950			0.950				0.950			0.988	
Satd. Flow (prot)	1787	1879	0	1787	1877	0	0	1787	1599	0	1680	0
Flt Permitted	0.950			0.950				0.732			0.908	
Satd. Flow (perm)	1787	1879	0	1787	1877	0	0	1377	1599	0	1544	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			1				49			27
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		331			1151			412			336	
Travel Time (s)		5.6			19.6			9.4			7.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	35	596	6	29	623	10	77	0	49	9	2	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	602	0	29	633	0	0	77	49	0	38	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	12.0	68.0		12.0	68.0		20.0	20.0		20.0	20.0	
Total Split (%)	10.0%	56.7%		10.0%	56.7%		16.7%	16.7%		16.7%	16.7%	
Maximum Green (s)	6.0	62.0		6.0	62.0		14.5	14.5		14.5	14.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	7.0	86.3		6.8	88.6			11.4	20.7		11.3	
Actuated g/C Ratio	0.06	0.72		0.06	0.74			0.10	0.17		0.09	
v/c Ratio	0.33	0.45		0.29	0.46			0.59	0.15		0.22	
Control Delay	61.4	10.0		61.7	12.0			69.2	9.1		26.2	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	61.4	10.0		61.7	12.0			69.2	9.1		26.2	
LOS	E	A		E	B			E	A		C	
Approach Delay		12.8			14.2			45.8			26.2	
Approach LOS		B			B			D			C	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/18/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	28	118		22	207			58	0		8	
Queue Length 95th (ft)	m50	325		55	475			108	25		42	
Internal Link Dist (ft)		251			1071			332			256	
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	105	1352		101	1386			166	314		210	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.33	0.45		0.29	0.46			0.46	0.16		0.18	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 31 (26%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 16.6 Intersection LOS: B
 Intersection Capacity Utilization 54.0% ICU Level of Service A
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St

ø1	ø2	ø4	ø9
12 s	68 s	20 s	20 s
ø5	ø6	ø8	
12 s	68 s	20 s	

2024 Future Coordinated

East Central Street Corridor
1: King St/Chestnut St & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	71	362	26	235	245	42	23	240	255	21	243	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.978				0.850		0.966	
Flt Protected	0.950			0.950				0.996			0.997	
Satd. Flow (prot)	1719	1791	0	1719	1770	0	0	1802	1538	0	1743	0
Flt Permitted	0.578			0.287				0.908			0.968	
Satd. Flow (perm)	1046	1791	0	519	1770	0	0	1643	1538	0	1692	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		4			9				266			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		410			781			825			745	
Travel Time (s)		7.0			13.3			18.8			16.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	74	377	27	245	255	44	24	250	266	22	253	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	404	0	245	299	0	0	274	266	0	366	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5		8	
Permitted Phases	6			2			4			8		
Minimum Initial (s)	6.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	11.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	11.0	27.0		14.0	30.0		31.0	31.0		31.0	31.0	
Total Split (%)	11.6%	28.4%		14.7%	31.6%		32.6%	32.6%		32.6%	32.6%	
Maximum Green (s)	6.0	22.0		9.0	25.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	44.2	38.1		56.2	47.7		23.8	41.3		23.8		
Actuated g/C Ratio	0.47	0.40		0.59	0.50		0.25	0.43		0.25		
v/c Ratio	0.14	0.56		0.51	0.34		0.67	0.32		0.86		
Control Delay	13.2	28.7		13.5	14.3		40.2	2.6		54.7		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		
Total Delay	13.2	28.7		13.5	14.3		40.2	2.6		54.7		
LOS	B	C		B	B		D	A		D		
Approach Delay		26.3			14.0		21.7			54.7		
Approach LOS		C			B		C			D		

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/21/2014

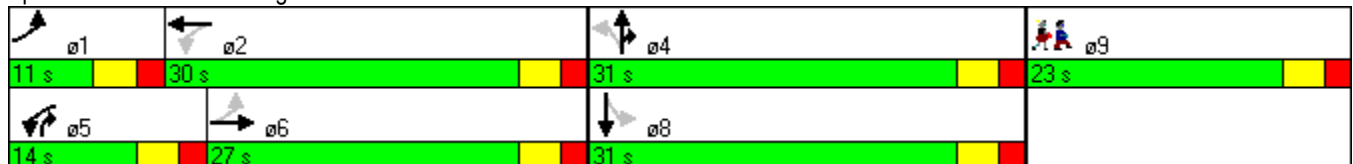


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	16	178		76	118			144	0		204	
Queue Length 95th (ft)	58	#429		#174	255			230	24		#345	
Internal Link Dist (ft)		330			701			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	531	720		478	892			450	815		463	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.14	0.56		0.51	0.34			0.61	0.33		0.79	

Intersection Summary

Area Type: Other
 Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 57 (60%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 26.9 Intersection LOS: C
 Intersection Capacity Utilization 82.1% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	77	557	14	15	443	64	22	4	11	52	8	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950				0.959			0.958	
Satd. Flow (prot)	1719	1810	1538	1719	1810	1538	0	1735	1538	0	1734	1538
Flt Permitted	0.427			0.390				0.722			0.734	
Satd. Flow (perm)	773	1810	1538	706	1810	1538	0	1306	1538	0	1328	1538
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			12			67			11			60
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	80	580	15	16	461	67	23	4	11	54	8	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	580	15	16	461	67	0	27	11	0	62	60
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8	1		4
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	10.0	45.0	45.0	10.0	45.0	45.0	17.0	17.0		17.0	17.0	
Total Split (%)	10.5%	47.4%	47.4%	10.5%	47.4%	47.4%	17.9%	17.9%		17.9%	17.9%	
Maximum Green (s)	5.0	40.0	40.0	5.0	40.0	40.0	13.0	13.0		13.0	13.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	72.8	71.4	71.4	70.3	67.1	67.1		8.9	16.4		8.9	16.7
Actuated g/C Ratio	0.77	0.75	0.75	0.74	0.71	0.71		0.09	0.17		0.09	0.18
v/c Ratio	0.12	0.43	0.01	0.03	0.36	0.06		0.22	0.04		0.50	0.19
Control Delay	4.3	12.7	5.9	3.2	4.4	0.4		42.7	11.1		53.8	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	4.3	12.7	5.9	3.2	4.4	0.4		42.7	11.1		53.8	7.1
LOS	A	B	A	A	A	A		D	B		D	A
Approach Delay		11.6			3.9			33.5			30.8	
Approach LOS		B			A			C			C	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	3	64	1	1	38	1		15	0		36	0
Queue Length 95th (ft)	m43	m476	m10	m4	63	1		40	9		75	20
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	646	1360	1159	577	1279	1106		179	292		182	336
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.12	0.43	0.01	0.03	0.36	0.06		0.15	0.04		0.34	0.18

Intersection Summary

Area Type: Other
 Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 7 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.50
 Intersection Signal Delay: 10.8 Intersection LOS: B
 Intersection Capacity Utilization 55.1% ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St

ø1 10 s	ø2 45 s	ø4 17 s	ø9 23 s
ø5 10 s	ø6 45 s	ø8 17 s	

East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	485	1	8	473	14	12	0	6	3	0	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.996				0.850			0.889
Fl _t Protected	0.950			0.950				0.950				0.991
Satd. Flow (prot)	1719	1810	0	1719	1802	0	0	1719	1538	0	1594	0
Fl _t Permitted	0.950			0.950								0.935
Satd. Flow (perm)	1719	1810	0	1719	1802	0	0	1810	1538	0	1504	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2				6			14
Link Speed (mph)		40			40			30				30
Link Distance (ft)		331			1151			412				336
Travel Time (s)		5.6			19.6			9.4				7.6
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	60	522	1	9	509	15	13	0	6	3	0	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	523	0	9	524	0	0	13	6	0	17	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	15.0	51.0		12.0	48.0		12.0	12.0		12.0	12.0	
Total Split (%)	15.8%	53.7%		12.6%	50.5%		12.6%	12.6%		12.6%	12.6%	
Maximum Green (s)	9.0	45.0		6.0	42.0		6.5	6.5		6.5	6.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	8.2	78.9		6.1	69.6			6.3	10.3		6.2	
Actuated g/C Ratio	0.09	0.83		0.06	0.73			0.07	0.11		0.07	
v/c Ratio	0.41	0.35		0.08	0.40			0.11	0.03		0.15	
Control Delay	42.8	11.0		43.5	10.5			43.8	14.5		25.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	42.8	11.0		43.5	10.5			43.8	14.5		25.8	
LOS	D	B		D	B			D	B		C	
Approach Delay		14.3			11.1			34.6			25.8	
Approach LOS		B			B			C			C	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	37	0		5	75			8	0		2	
Queue Length 95th (ft)	76	362		21	356			26	8		23	
Internal Link Dist (ft)		251			1071			332			256	
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	167	1503		111	1321			124	172		116	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.36	0.35		0.08	0.40			0.10	0.03		0.15	

Intersection Summary	
Area Type:	Other
Cycle Length:	95
Actuated Cycle Length:	95
Offset:	88 (93%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.41
Intersection Signal Delay:	13.3
Intersection LOS:	B
Intersection Capacity Utilization	50.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St



East Central Street Corridor
1: King St/Chestnut St & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	102	373	34	274	385	44	34	124	228	35	125	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.985				0.850		0.950	
Flt Protected	0.950			0.950				0.989			0.993	
Satd. Flow (prot)	1736	1803	0	1736	1800	0	0	1807	1553	0	1723	0
Flt Permitted	0.458			0.342				0.790			0.935	
Satd. Flow (perm)	837	1803	0	625	1800	0	0	1443	1553	0	1623	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		4			5				235			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		417			776			825			745	
Travel Time (s)		7.1			13.2			18.8			16.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Adj. Flow (vph)	105	385	35	282	397	45	35	128	235	36	129	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	420	0	282	442	0	0	163	235	0	262	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5		8	
Permitted Phases	6			2			4			8		
Minimum Initial (s)	6.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	11.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	11.0	30.0		21.0	40.0		36.0	36.0		36.0	36.0	
Total Split (%)	10.0%	27.3%		19.1%	36.4%		32.7%	32.7%		32.7%	32.7%	
Maximum Green (s)	6.0	25.0		16.0	35.0		31.0	31.0		31.0	31.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	60.0	53.5		72.2	61.0		22.9	40.9		22.9		
Actuated g/C Ratio	0.55	0.49		0.66	0.55		0.21	0.37		0.21		
v/c Ratio	0.21	0.48		0.51	0.44		0.54	0.32		0.78		
Control Delay	12.9	25.9		18.2	24.2		44.7	2.8		56.3		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		
Total Delay	12.9	25.9		18.2	24.2		44.7	2.8		56.3		
LOS	B	C		B	C		D	A		E		
Approach Delay		23.3			21.9			20.0			56.3	
Approach LOS		C			C			B			E	

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/21/2014

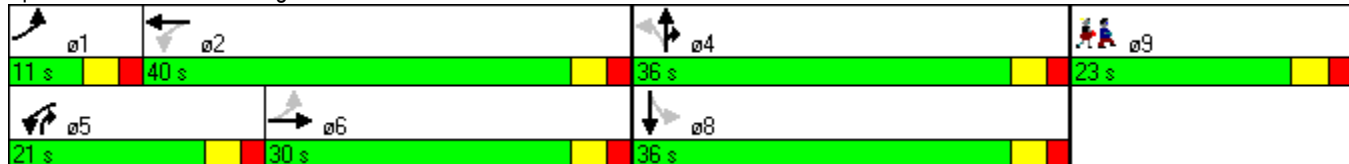


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	21	177		92	182			103	0		176	
Queue Length 95th (ft)	81	#510		281	432			158	23		247	
Internal Link Dist (ft)		337			696			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	510	879		579	1000			407	756		457	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.21	0.48		0.49	0.44			0.40	0.31		0.57	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 80 (73%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 26.6 Intersection LOS: C
 Intersection Capacity Utilization 76.2% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	136	475	42	26	466	132	35	16	32	108	13	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950				0.967			0.957	
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1801	1583	0	1783	1583
Flt Permitted	0.382			0.425				0.689			0.711	
Satd. Flow (perm)	712	1863	1583	792	1863	1583	0	1283	1583	0	1324	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			34			131			34			191
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	143	500	44	27	491	139	37	17	34	114	14	191
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	500	44	27	491	139	0	54	34	0	128	191
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8	1		4
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	14.0	49.0	49.0	10.0	45.0	45.0	28.0	28.0		28.0	28.0	
Total Split (%)	12.7%	44.5%	44.5%	9.1%	40.9%	40.9%	25.5%	25.5%		25.5%	25.5%	
Maximum Green (s)	9.0	44.0	44.0	5.0	40.0	40.0	24.0	24.0		24.0	24.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	79.6	73.3	73.3	74.5	69.2	69.2		15.0	24.5		15.0	26.6
Actuated g/C Ratio	0.72	0.67	0.67	0.68	0.63	0.63		0.14	0.22		0.14	0.24
v/c Ratio	0.24	0.40	0.04	0.05	0.42	0.13		0.31	0.09		0.71	0.36
Control Delay	3.7	8.5	0.7	6.3	11.0	1.7		45.4	7.7		65.5	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	3.7	8.5	0.7	6.3	11.0	1.7		45.4	7.7		65.5	4.8
LOS	A	A	A	A	B	A		D	A		E	A
Approach Delay		7.0			8.8			30.8			29.2	
Approach LOS		A			A			C			C	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	8	135	0	3	102	0		35	0		88	0
Queue Length 95th (ft)	35	418	m2	16	211	13		69	16		143	31
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	617	1241	1066	584	1172	1044		280	407		289	566
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.23	0.40	0.04	0.05	0.42	0.13		0.19	0.08		0.44	0.34

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 12.9 Intersection LOS: B
 Intersection Capacity Utilization 57.1% ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St

ø1	ø2	ø4	ø9
10 s	49 s	28 s	23 s
ø5	ø6	ø8	
14 s	45 s	28 s	

East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	449	6	27	453	27	49	2	44	13	1	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.992				0.850		0.890	
Flt Protected	0.950			0.950				0.954			0.991	
Satd. Flow (prot)	1752	1841	0	1752	1830	0	0	1760	1568	0	1627	0
Flt Permitted	0.950			0.950				0.658			0.926	
Satd. Flow (perm)	1752	1841	0	1752	1830	0	0	1214	1568	0	1520	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			4				46			65
Link Speed (mph)		40			40			30				30
Link Distance (ft)		350			1151			412				336
Travel Time (s)		6.0			19.6			9.4				7.6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Adj. Flow (vph)	46	468	6	28	472	28	51	2	46	14	1	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	474	0	28	500	0	0	53	46	0	80	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	14.0	58.0		12.0	56.0		20.0	20.0		20.0	20.0	
Total Split (%)	12.7%	52.7%		10.9%	50.9%		18.2%	18.2%		18.2%	18.2%	
Maximum Green (s)	8.0	52.0		6.0	50.0		14.5	14.5		14.5	14.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	7.8	77.6		6.7	76.6			10.0	19.4		10.0	
Actuated g/C Ratio	0.07	0.71		0.06	0.70			0.09	0.18		0.09	
v/c Ratio	0.37	0.36		0.26	0.39			0.48	0.15		0.40	
Control Delay	58.6	10.7		55.5	12.6			60.7	8.5		21.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	58.6	10.7		55.5	12.6			60.7	8.5		21.4	
LOS	E	B		E	B			E	A		C	
Approach Delay		15.0			14.8			36.4			21.4	
Approach LOS		B			B			D			C	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	34	81		19	141			36	0		10	
Queue Length 95th (ft)	73	265		50	366			75	22		55	
Internal Link Dist (ft)		270			1071			332			256	
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	133	1300		107	1275			160	326		257	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.35	0.36		0.26	0.39			0.33	0.14		0.31	

Intersection Summary

Area Type:	Other
Cycle Length:	110
Actuated Cycle Length:	110
Offset:	96 (87%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	17.1
Intersection LOS:	B
Intersection Capacity Utilization	56.3%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St



East Central Street Corridor
1: King St/Chestnut St & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	130	407	29	275	468	48	45	238	274	24	240	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.990			0.986				0.850		0.957	
Fl _t Protected	0.950			0.950				0.992			0.997	
Satd. Flow (prot)	1787	1862	0	1787	1855	0	0	1866	1599	0	1795	0
Fl _t Permitted	0.307			0.197				0.770			0.956	
Satd. Flow (perm)	578	1862	0	371	1855	0	0	1449	1599	0	1721	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		3			5				282			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		410			781			825			745	
Travel Time (s)		7.0			13.3			18.8			16.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	134	420	30	284	482	49	46	245	282	25	247	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	134	450	0	284	531	0	0	291	282	0	398	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5		8	
Permitted Phases	6			2			4			8		
Minimum Initial (s)	6.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	11.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	11.0	23.0		15.0	27.0		34.0	34.0		34.0	34.0	
Total Split (%)	11.6%	24.2%		15.8%	28.4%		35.8%	35.8%		35.8%	35.8%	
Maximum Green (s)	6.0	18.0		10.0	22.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	41.6	34.4		54.7	42.6		25.5	45.0		25.5		
Actuated g/C Ratio	0.44	0.36		0.58	0.45		0.27	0.47		0.27		
v/c Ratio	0.39	0.67		0.64	0.64		0.75	0.31		0.86		
Control Delay	18.6	34.3		19.5	26.8		43.9	2.2		51.7		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		
Total Delay	18.6	34.3		19.5	26.8		43.9	2.2		51.7		
LOS	B	C		B	C		D	A		D		
Approach Delay		30.7			24.3		23.4			51.7		
Approach LOS		C			C		C			D		

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/21/2014

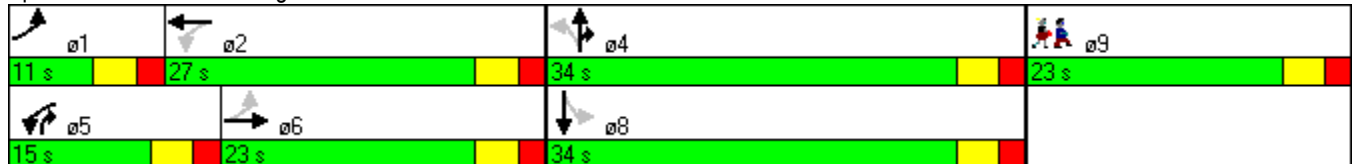


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	31	213		99	268			157	0		223	
Queue Length 95th (ft)	#103	#538		#279	#610			245	21		#351	
Internal Link Dist (ft)		330			701			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	346	675		445	835			442	898		525	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.39	0.67		0.64	0.64			0.66	0.31		0.76	

Intersection Summary

Area Type: Other
 Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 55 (58%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 30.2 Intersection LOS: C
 Intersection Capacity Utilization 91.5% ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	177	457	55	24	552	148	41	25	30	101	16	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950				0.970			0.959	
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	0	1825	1599	0	1804	1599
Flt Permitted	0.283			0.455				0.714			0.707	
Satd. Flow (perm)	532	1881	1599	856	1881	1599	0	1343	1599	0	1330	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			49			136			32			203
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	186	481	58	25	581	156	43	26	32	106	17	203
Shared Lane Traffic (%)												
Lane Group Flow (vph)	186	481	58	25	581	156	0	69	32	0	123	203
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8	1		4
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	12.0	38.0	38.0	10.0	36.0	36.0	24.0	24.0		24.0	24.0	
Total Split (%)	12.6%	40.0%	40.0%	10.5%	37.9%	37.9%	25.3%	25.3%		25.3%	25.3%	
Maximum Green (s)	7.0	33.0	33.0	5.0	31.0	31.0	20.0	20.0		20.0	20.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	67.7	62.2	62.2	60.2	54.9	54.9		13.1	22.6		13.1	25.9
Actuated g/C Ratio	0.71	0.65	0.65	0.63	0.58	0.58		0.14	0.24		0.14	0.27
v/c Ratio	0.38	0.39	0.05	0.04	0.53	0.16		0.37	0.08		0.67	0.35
Control Delay	6.9	12.4	4.3	4.0	12.2	1.2		41.2	6.5		55.7	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	6.9	12.4	4.3	4.0	12.2	1.2		41.2	6.5		55.7	4.1
LOS	A	B	A	A	B	A		D	A		E	A
Approach Delay		10.4			9.7			30.2			23.6	
Approach LOS		B			A			C			C	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/21/2014

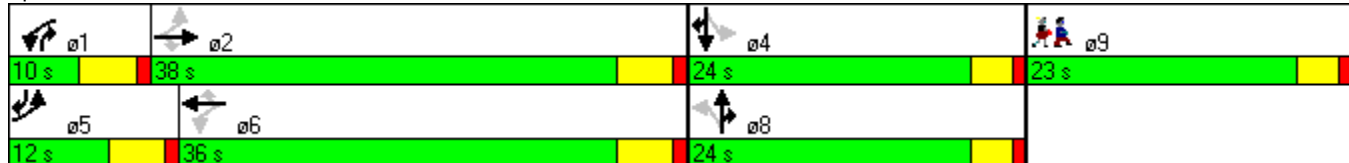


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	9	202	4	2	48	0		38	0		71	0
Queue Length 95th (ft)	m121	400	m29	m5	#535	7		75	13		122	28
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	492	1232	1065	594	1088	982		283	417		280	588
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.38	0.39	0.05	0.04	0.53	0.16		0.24	0.08		0.44	0.35

Intersection Summary

Area Type: Other
 Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 5 (5%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 13.4 Intersection LOS: B
 Intersection Capacity Utilization 63.6% ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St



East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	434	3	31	631	8	53	2	42	11	1	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.998				0.850		0.896	
Flt Protected	0.950			0.950				0.954			0.990	
Satd. Flow (prot)	1770	1861	0	1770	1859	0	0	1777	1583	0	1652	0
Flt Permitted	0.950			0.950				0.852			0.911	
Satd. Flow (perm)	1770	1861	0	1770	1859	0	0	1587	1583	0	1520	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1				43			40
Link Speed (mph)		40			40			30				30
Link Distance (ft)		331			1151			412				336
Travel Time (s)		5.6			19.6			9.4				7.6
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	29	447	3	32	651	8	55	2	43	11	1	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	450	0	32	659	0	0	57	43	0	52	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	12.0	45.0		12.0	45.0		18.0	18.0		18.0	18.0	
Total Split (%)	12.6%	47.4%		12.6%	47.4%		18.9%	18.9%		18.9%	18.9%	
Maximum Green (s)	6.0	39.0		6.0	39.0		12.5	12.5		12.5	12.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	6.6	63.3		6.7	65.8			9.4	18.7		9.4	
Actuated g/C Ratio	0.07	0.67		0.07	0.69			0.10	0.20		0.10	
v/c Ratio	0.24	0.36		0.26	0.51			0.36	0.12		0.28	
Control Delay	39.6	14.5		47.2	14.7			45.6	7.2		20.2	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	39.6	14.5		47.2	14.7			45.6	7.2		20.2	
LOS	D	B		D	B			D	A		C	
Approach Delay		16.0			16.2			29.1			20.2	
Approach LOS		B			B			C			C	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/21/2014

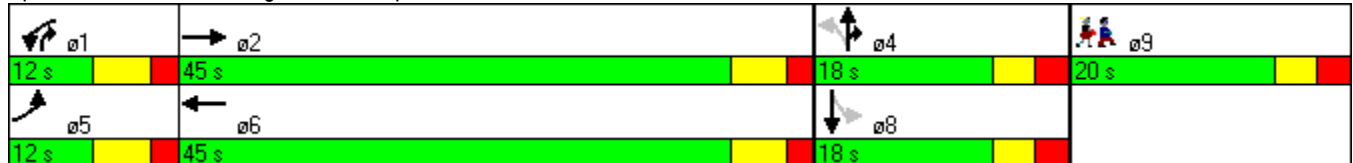


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	18	53		19	199			33	0			7
Queue Length 95th (ft)	m45	386		48	#564			69	18			41
Internal Link Dist (ft)		251			1071			332				256
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	123	1241		124	1289			209	341			235
Starvation Cap Reductn	0	0		0	0			0	0			0
Spillback Cap Reductn	0	0		0	0			0	0			0
Storage Cap Reductn	0	0		0	0			0	0			0
Reduced v/c Ratio	0.24	0.36		0.26	0.51			0.27	0.13			0.22

Intersection Summary

Area Type: Other
 Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 72 (76%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 17.3 Intersection LOS: B
 Intersection Capacity Utilization 53.0% ICU Level of Service A
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St



East Central Street Corridor
1: King St/Chestnut St & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	141	502	39	335	482	65	47	186	334	46	190	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	0		200	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.982				0.850		0.952	
Flt Protected	0.950			0.950				0.990			0.994	
Satd. Flow (prot)	1787	1860	0	1787	1847	0	0	1862	1599	0	1780	0
Flt Permitted	0.314			0.097				0.730			0.824	
Satd. Flow (perm)	591	1860	0	182	1847	0	0	1373	1599	0	1476	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		3			6				359			
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		410			781			825			745	
Travel Time (s)		7.0			13.3			18.8			16.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	152	540	42	360	518	70	51	200	359	49	204	138
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	582	0	360	588	0	0	251	359	0	391	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	1	6		5	2			4	4 5		8	
Permitted Phases	6			2			4			8		
Minimum Initial (s)	5.0	12.0		6.0	12.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	10.0	17.0		11.0	17.0		13.0	13.0		13.0	13.0	
Total Split (s)	13.0	32.0		22.0	41.0		43.0	43.0		43.0	43.0	
Total Split (%)	10.8%	26.7%		18.3%	34.2%		35.8%	35.8%		35.8%	35.8%	
Maximum Green (s)	8.0	27.0		17.0	36.0		38.0	38.0		38.0	38.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	3.0		2.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	50.2	40.2		72.0	57.1		33.4	64.2		33.4		
Actuated g/C Ratio	0.42	0.34		0.60	0.48		0.28	0.54		0.28		
v/c Ratio	0.44	0.93		0.77	0.67		0.66	0.35		0.95		
Control Delay	21.5	62.0		32.5	36.9		46.4	2.0		76.3		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0		
Total Delay	21.5	62.0		32.5	36.9		46.4	2.0		76.3		
LOS	C	E		C	D		D	A		E		
Approach Delay		53.6			35.2		20.3			76.3		
Approach LOS		D			D		C			E		

East Central Street Corridor
 1: King St/Chestnut St & East Central St

8/21/2014

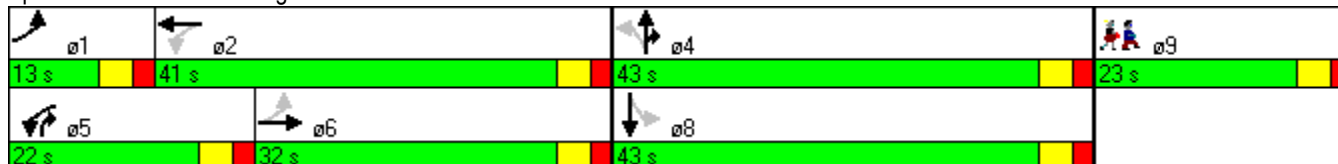


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	45	418		202	429			169	0		292	
Queue Length 95th (ft)	123	#826		#482	#735			253	27		#449	
Internal Link Dist (ft)		330			701			745			665	
Turn Bay Length (ft)	150			250					200			
Base Capacity (vph)	349	626		467	882			435	1018		467	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.44	0.93		0.77	0.67			0.58	0.35		0.84	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 72 (60%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 42.8 Intersection LOS: D
 Intersection Capacity Utilization 96.8% ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: King St/Chestnut St & East Central St



East Central Street Corridor
2: CVS Dr/Horace Mann Plz & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	164	651	54	28	633	157	48	14	41	144	21	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		150	200		200	100		100	0		100
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950				0.963			0.958	
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	0	1812	1599	0	1802	1599
Flt Permitted	0.227			0.288				0.542			0.706	
Satd. Flow (perm)	427	1881	1599	542	1881	1599	0	1020	1599	0	1328	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			29			106			44			238
Link Speed (mph)		40			40			30				30
Link Distance (ft)		445			582			307				196
Travel Time (s)		7.6			9.9			7.0				4.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	176	700	58	30	681	169	52	15	44	155	23	238
Shared Lane Traffic (%)												
Lane Group Flow (vph)	176	700	58	30	681	169	0	67	44	0	178	238
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	pt+ov	Perm	NA	pt+ov
Protected Phases	5	2		1	6			8	8	1		4
Permitted Phases	2		2	6		6	8			4		
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0	21.0	10.0	15.0	15.0	9.0	9.0		9.0	9.0	
Total Split (s)	14.0	53.0	53.0	10.0	49.0	49.0	34.0	34.0		34.0	34.0	
Total Split (%)	11.7%	44.2%	44.2%	8.3%	40.8%	40.8%	28.3%	28.3%		28.3%	28.3%	
Maximum Green (s)	9.0	48.0	48.0	5.0	44.0	44.0	30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0			4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	85.6	77.6	77.6	76.0	70.7	70.7		20.6	30.2		20.6	35.1
Actuated g/C Ratio	0.71	0.65	0.65	0.63	0.59	0.59		0.17	0.25		0.17	0.29
v/c Ratio	0.42	0.58	0.06	0.08	0.61	0.17		0.38	0.10		0.78	0.37
Control Delay	6.9	15.9	4.0	7.0	18.2	3.0		48.3	6.7		69.3	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	6.9	15.9	4.0	7.0	18.2	3.0		48.3	6.7		69.3	4.1
LOS	A	B	A	A	B	A		D	A		E	A
Approach Delay		13.5			14.9			31.8			32.0	
Approach LOS		B			B			C			C	

East Central Street Corridor
 2: CVS Dr/Horace Mann Plz & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	12	400	1	5	279	2		47	0		134	0
Queue Length 95th (ft)	m86	m#683	m31	m14	#758	18		85	18		197	35
Internal Link Dist (ft)		365			502			227			116	
Turn Bay Length (ft)	250		150	200		200			100			100
Base Capacity (vph)	424	1217	1045	399	1108	985		255	464		332	649
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.42	0.58	0.06	0.08	0.61	0.17		0.26	0.09		0.54	0.37

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 1 (1%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 18.2 Intersection LOS: B
 Intersection Capacity Utilization 69.8% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: CVS Dr/Horace Mann Plz & East Central St

ø1	ø2	ø4	ø9
10 s	53 s	34 s	23 s
ø5	ø6	ø8	
14 s	49 s	34 s	

East Central Street Corridor
4: Big Y Dr/Municipal Dr & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	577	6	28	604	9	74	0	47	8	2	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.998				0.850		0.903	
Flt Protected	0.950			0.950				0.950			0.989	
Satd. Flow (prot)	1787	1879	0	1787	1877	0	0	1787	1599	0	1680	0
Flt Permitted	0.950			0.950				0.732			0.914	
Satd. Flow (perm)	1787	1879	0	1787	1877	0	0	1377	1599	0	1553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			1				50			28
Link Speed (mph)		40			40			30				30
Link Distance (ft)		331			1151			412				336
Travel Time (s)		5.6			19.6			9.4				7.6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	36	614	6	30	643	10	79	0	50	9	2	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	36	620	0	30	653	0	0	79	50	0	39	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	pt+ov	Perm	NA	
Protected Phases	5	2		1	6			4	4	1		8
Permitted Phases							4				8	
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	12.0	33.0		12.0	33.0		12.0	12.0		12.0	12.0	
Total Split (s)	12.0	64.0		12.0	64.0		24.0	24.0		24.0	24.0	
Total Split (%)	10.0%	53.3%		10.0%	53.3%		20.0%	20.0%		20.0%	20.0%	
Maximum Green (s)	6.0	58.0		6.0	58.0		18.5	18.5		18.5	18.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5		2.5	2.5	
Total Lost Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		7.0			7.0							
Flash Dont Walk (s)		20.0			20.0							
Pedestrian Calls (#/hr)		5			5							
Act Effct Green (s)	7.3	85.3		7.1	87.6			12.2	21.8		12.0	
Actuated g/C Ratio	0.06	0.71		0.06	0.73			0.10	0.18		0.10	
v/c Ratio	0.33	0.46		0.29	0.48			0.56	0.15		0.22	
Control Delay	57.9	13.1		61.0	13.3			65.8	8.5		24.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	57.9	13.1		61.0	13.3			65.8	8.5		24.8	
LOS	E	B		E	B			E	A		C	
Approach Delay		15.6			15.4			43.6			24.8	
Approach LOS		B			B			D			C	

East Central Street Corridor
 4: Big Y Dr/Municipal Dr & East Central St

8/21/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	29	67		23	219			59	0		8	
Queue Length 95th (ft)	m51	450		55	535			107	24		40	
Internal Link Dist (ft)		251			1071			332			256	
Turn Bay Length (ft)	200			200					100			
Base Capacity (vph)	108	1336		105	1371			212	360		263	
Starvation Cap Reductn	0	0		0	0			0	0		0	
Spillback Cap Reductn	0	0		0	0			0	0		0	
Storage Cap Reductn	0	0		0	0			0	0		0	
Reduced v/c Ratio	0.33	0.46		0.29	0.48			0.37	0.14		0.15	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 96 (80%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 18.1 Intersection LOS: B
 Intersection Capacity Utilization 54.9% ICU Level of Service A
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Big Y Dr/Municipal Dr & East Central St



APPENDIX E

Overview of the Project Development Process

Overview of the Project Development Process

Transportation decision-making is complex and can be influenced by legislative mandates, environmental regulations, financial limitations, agency programmatic commitments, and partnering opportunities. Decision-makers and reviewing agencies, when consulted early and often throughout the project development process, can ensure that all participants understand the potential impact these factors can have on project implementation. Project development is the process that takes a transportation improvement from concept through construction.

The MassDOT Highway Division has developed a comprehensive project development process which is contained in Chapter 2 of the *MassDOT Highway Division's Project Development and Design Guide*. The eight-step process covers a range of activities extending from identification of a project need, through completion of a set of finished contract plans, to construction of the project. The sequence of decisions made through the project development process progressively narrows the project focus and, ultimately, leads to a project that addresses the identified needs. The descriptions provided below are focused on the process for a highway project, but the same basic process will need to be followed for non-highway projects as well.

1. Needs Identification

For each of the locations at which an improvement is to be implemented, MassDOT leads an effort to define the problem, establishes project goals and objectives, and defines the scope of the planning needed for implementation. To that end, it has to complete a Project Need Form (PNF), which states in general terms the deficiencies or needs related to the transportation facility or location. The PNF documents the problems and explains why corrective action is needed. For this study, the information defining the need for the project will be drawn primarily, perhaps exclusively, from the present report. Also, at this point in the process, MassDOT meets with potential participants, such as the Metropolitan Planning Organization (MPO) and community members, to allow for an informal review of the project.

The PNF is reviewed by the MassDOT Highway Division district office whose jurisdiction includes the location of the proposed project. MassDOT also sends the PNF to the MPO, for informational purposes. The outcome of this step determines whether the project requires further planning, whether it is already well supported by prior planning studies, and, therefore, whether it is ready to move forward into the design phase, or whether it should be dismissed from further consideration.

2. Planning

This phase will likely not be required for the implementation of the improvements proposed in this planning study, as this planning report should constitute the outcome of this step. However, in general, the purpose of this implementation step is for the project proponent to identify issues, impacts, and approvals that may need to be obtained, so that the subsequent design and permitting processes are understood.

The level of planning needed will vary widely, based on the complexity of the project. Typical tasks include: define the existing context, confirm project need, establish goals and objectives, initiate public outreach, define the project, collect data, develop and analyze alternatives, make recommendations, and provide documentation. Likely outcomes include consensus on the project definition to enable it to move forward into environmental documentation (if needed) and design, or a recommendation to delay the project or dismiss it from further consideration.

3. Project Initiation

At this point in the process, the proponent, MassDOT Highway Division, fills out a Project Initiation Form (PIF) for each improvement, which is reviewed by its Project Review Committee (PRC) and the MPO. The PRC is composed of the Chief Engineer, each District Highway Director, and representatives of the Project Management, Environmental, Planning, Right-of-Way, Traffic, and Bridge departments, and the MassDOT Federal Aid Program Office (FAPO). The PIF documents the project type and description, summarizes the project planning process, identifies likely funding and project management responsibility, and defines a plan for interagency and public participation. First the PRC reviews and evaluates the proposed project based on the MassDOT's statewide priorities and criteria. If the result is positive, MassDOT Highway Division moves the project forward to the design phase, and to programming review by the MPO. The PRC may provide a Project Management Plan to define roles and responsibilities for subsequent steps. The MPO review includes project evaluation based on the MPO's regional priorities and criteria. The MPO may assign project evaluation criteria score, a Transportation Improvement Program (TIP) year, a tentative project category, and a tentative funding category.

4. Environmental Permitting, Design, and Right-of-Way Process

This step has four distinct but closely integrated elements: public outreach, environmental documentation and permitting (if required), design, and right-of-way acquisition (if required). The outcome of this step is a fully designed and permitted project ready for construction. However, a project does not have to be fully designed in order for the MPO to program it in the TIP. The sections below provide more detailed information on the four elements of this step of the project development process.

Public Outreach

Continued public outreach in the design and environmental process is essential to maintain public support for the project and to seek meaningful input on the design elements. The public outreach is often in the form of required public hearings, but can also include less formal dialogues with those interested in and affected by a proposed project.

Environmental Documentation and Permitting

The project proponent, in coordination with the Environmental Services section of the MassDOT Highway Division, will be responsible for identifying and complying with all applicable federal, state, and local environmental laws and requirements. This includes determining the appropriate project category for both the Massachusetts Environmental Protection Act (MEPA) and the National Environmental Protection Act (NEPA). Environmental documentation and permitting is often completed in conjunction with the **Preliminary Design** phase described below.

Design

There are three major phases of design. The first is **Preliminary Design**, which is also referred to as the 25-percent submission. The major components of this phase include full survey of the project area, preparation of base plans, development of basic geometric layout, development of preliminary cost estimates, and submission of a functional design report. Preliminary Design, although not required to, is often completed in conjunction with the Environmental Documentation and Permitting. The next phase is **Final Design**, which is also referred to as the 75-percent and 100-percent submission. The major components of this phase include preparation of a subsurface exploratory plan (if required), coordination of utility relocations, development of traffic management plans through construction zones, development of final cost estimates, and refinement and finalization of the construction plans. Once Final Design is complete, a full set of **Plans, Specifications, and Estimates (PS&E)** is developed for the project.

Right-of-Way Acquisition

A separate set of Right-of-Way plans are required for any project that requires land acquisition or easements. The plans must identify the existing and proposed layout lines, easements, property lines, names of property owners, and the dimensions and areas of estimated takings and easements.

5. Programming (Identification of Funding)

Programming, which typically begins during the design phase, can actually occur at any time during the process, from planning to design. In this step, which is distinct from project initiation, the proponent requests that the MPO place the project in the region's Transportation Improvement Program (TIP). The proponent requesting the project's listing on the TIP can be the community or it can be one of the MPO member agencies (the Regional Planning Agency, MassDOT, and the Regional Transit Authority). The MPO then considers the project in terms of state and regional needs, evaluation criteria, and compliance with the regional Transportation Plan and decides whether to place it in the draft TIP for public review and then in the final TIP.

6. Procurement

Following project design and programming of a highway project, the MassDOT Highway Division publishes a request for proposals. It then reviews the bids and awards the contract to the qualified bidder with the lowest bid.

7. Construction

After a construction contract is awarded, MassDOT Highway Division and the contractor develop a public participation plan and a management plan for the construction process.

8. Project Assessment

The purpose of this step is to receive constituents' comments on the project development process and the project's design elements. MassDOT Highway Division can apply what is learned in this process to future projects.

Project Development Schematic Timetable

Description	Schedule Influence	Typical Duration
<p>Step I: Problem/Need/Opportunity Identification The proponent completes a Project Need Form (PNF). This form is then reviewed by the MassDOT District office which provides guidance to the proponent on the subsequent steps of the process.</p>	<p>The Project Need Form has been developed so that it can be prepared quickly by the proponent, including any supporting data that is readily available. The District office shall return comments to the proponent within one month of PNF submission.</p>	<p>1 to 3 months</p>
<p>Step II: Planning Project planning can range from agreement that the problem should be addressed through a clear solution to a detailed analysis of alternatives and their impacts.</p>	<p>For some projects, no planning beyond preparation of the Project Need Form is required. Some projects require a planning study centered on specific project issues associated with the proposed solution or a narrow family of alternatives. More complex projects will likely require a detailed alternatives analysis.</p>	<p>Project Planning Report: 3 to 24+ months</p>
<p>Step III: Project Initiation The proponent prepares and submits a Project Initiation Form (PIF) and a Transportation Evaluation Criteria (TEC) form in this step. The PIF and TEC are informally reviewed by the Metropolitan Planning Organization (MPO) and MassDOT District office, and formally reviewed by the PRC.</p>	<p>The PIF includes refinement of the preliminary information contained in the PNF. Additional information summarizing the results of the planning process, such as the Project Planning Report, are included with the PIF and TEC. The schedule is determined by PRC staff review (dependent on project complexity) and meeting schedule.</p>	<p>1 to 4 months</p>
<p>Step IV: Design, Environmental, and Right of Way The proponent completes the project design. Concurrently, the proponent completes necessary environmental permitting analyses and files applications for permits. Any right of way needed for the project is identified and the acquisition process begins.</p>	<p>The schedule for this step is dependent upon the size of the project and the complexity of the design, permitting, and right-of-way issues. Design review by the MassDOT district and appropriate sections is completed in this step.</p>	<p>3 to 48+ months</p>
<p>Step V: Programming The MPO considers the project in terms of its regional priorities and determines whether or not to include the project in the draft Regional Transportation Improvement Program (TIP) which is then made available for public comment. The TIP includes a project description and funding source.</p>	<p>The schedule for this step is subject to each MPO's programming cycle and meeting schedule. It is also possible that the MPO will not include a project in its Draft TIP based on its review and approval procedures.</p>	<p>3 to 12+ months</p>
<p>Step VI: Procurement The project is advertised for construction and a contract awarded.</p>	<p>Administration of competing projects can influence the advertising schedule.</p>	<p>1 to 12 months</p>
<p>Step VII: Construction The construction process is initiated including public notification and any anticipated public involvement. Construction continues to project completion.</p>	<p>The duration for this step is entirely dependent upon project complexity and phasing.</p>	<p>3 to 60+ months</p>
<p>Step VIII: Project Assessment The construction period is complete and project elements and processes are evaluated on a voluntary basis.</p>	<p>The duration for this step is dependent upon the proponent's approach to this step and any follow-up required.</p>	<p>1 month</p>

Source: MassDOT Highway Division Project Development and Design Guide