Memorandum

Date: December 20, 2013 **W.O.#:** 1405000

To: Steve Kari, P.E. **cc:**

From: Will Webb, P.E., PTOE

Subject: Seldon Road Extension Traffic and Safety Memorandum

In support of the Seldon Road Extension project, this memorandum documents the traffic and safety analysis conducted for the project. This information is intended to provide an input to the design process, specifically with respect to intersection improvements at the ends of the project.

Seldon Road will extend between Church Road and Pittman Road, a distance of approximately 4 miles. Seldon Road has been designated as a Minor Arterial and passes through rolling terrain. The design speed has been set at 55 miles per hour. At Pittman Road, the west end of the project, the location of the project terminus has not yet been established. At Church Road, Seldon Road Extension will form the west leg of the existing Seldon Road/Church Road T-intersection. Both Church Road and Pittman Road are posted at 45 miles per hour.

Traffic Volumes

Since the Seldon Road Extension represents a new link in the Matanuska Susitna Borough's (MSB) transportation network, projected traffic volumes must be developed using traffic planning methodologies. These take into account where people live, work, and shop to estimate where they are traveling, and what will be the most desirable routes for those travels. The modeling data obtained for this project is from the MSB 2025 Long Range Transportation Plan (LRTP). The LRTP model projects that by 2025 there will be up to 8,173 vehicles per day using the new segment of Seldon Road. Since the design year for this project is 2038, we grew the projections forward using a 2-percent per year growth rate. This is equal to the population growth rate the Alaska Department of Labor is projecting for the 2025 to 2035 decade in the MSB. The resulting average daily traffic projections for 2038 are shown in Exhibit 1, along with the actual 2012 average daily traffic (ADT) volumes.

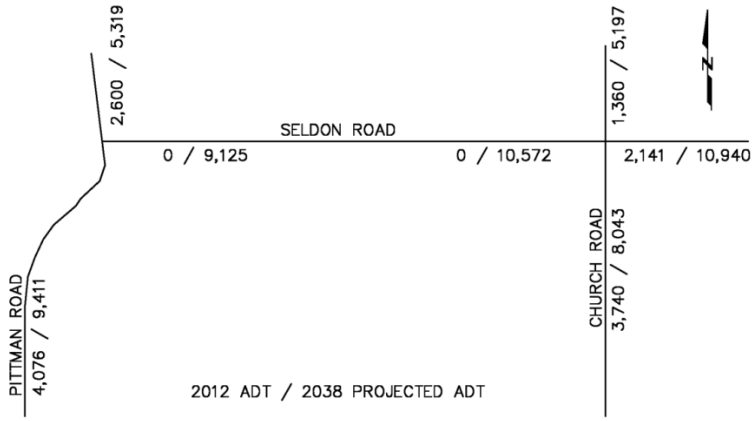


Exhibit 1 – Average Daily Traffic Volumes

These values are projected daily volumes. Since intersection attributes are based on peak hour turning movement volumes, we must determine how much of the daily traffic occurs during the peak hour and estimate which direction the traffic is going. To that end, we have obtained current hourly count data from both MSB and Alaska Department of Transportation and Public Facilities (DOT&PF) in the project area and collected existing turning movement data. The turning movement data reveal that the peak traffic hour occurs between 4:30 pm and 5:30 pm and that the peak hour volumes are roughly 9.0 percent of the daily traffic numbers. During the peak hour, traffic is generally split 60-percent going north or west and 40-percent going south or east.

To develop turning movement counts for the new intersections, we had to make a few assumptions. We have assumed that Seldon Road will accommodate both local traffic going to developments along the corridor, and regional through-traffic. Since the MSB is experiencing high growth, we assumed that the entire area around the corridor will be developed as housing during the design life of the project. Using a housing density of one dwelling unit per two acres to account for roads and undevelopable areas, we anticipate as many as 900 homes in the adjacent area may contribute traffic to Seldon Road. After assigning the 900 peak hour trips this development would create to the road network, through-traffic was added to our projections until the intersection volumes at the Seldon Road/Church Road intersection matched the peak hour volumes predicted by the ADT projections. The mix of through traffic and new development traffic was then adjusted until the two ADT volumes along Seldon Road matched the hourly volumes we projected. Based on these methods, we estimate that the through-traffic volume will be 390 vehicles in the PM peak hour. Using these assumptions, along with the travel patterns identified through the collected data, we developed turning movement projections for the intersections. The resulting turning movement volumes for each end of the project are shown below. Turning movements at intermediate intersections are attached.

Seldon/Pittman

				223	476	253	TEV = 924				
				IN		OUT					
				0	145	78					
				SBR	SBT	SBL					
0	OUT	0	EBL				WBR	79	IN	309	
0		0	EBT				WBT	0		606	
0	IN	0	EBR				WBL	230	OUT	297	
				NBL	NBT	NBR					
				0	174	219					
				OUT		IN					
				374	767	393					

Seldon/Church

				205	458	253	TEV = 1544				
				IN		OUT					
				78	95	33					
				SBR	SBT	SBL					
596	OUT	46	EBL				WBR	74	IN	575	
975		242	EBT				WBT	372		956	
379	IN	91	EBR				WBL	129	OUT	381	
				NBL	NBT	NBR					
				146	133	106					
				OUT		IN					
				314	699	385					

Exhibit 2 – 2038 PM Peak Hour Turning Movement Projections

Traffic Analysis

Traffic operations along the corridor have been analyzed using the methodologies defined in the *Highway Capacity Manual* (Transportation Research Board, 2010) (HCM). The HCM provides methods of grading “level of service” (LOS) of roads and intersections on an A through F scale. For new facilities, LOS C is the desired minimum LOS.

LOS on rural road segments is based on average travel speeds and “percent time spent following”, and takes into account traffic volumes, road grades, and passing opportunities. Given the conditions along

this facility, and assuming that passing will be prohibited on 60-percent of the road segment, Seldon Road is expected to operate at LOS D by 2038. Although this is below the target of LOS C, a two-lane facility is still appropriate considering the peak hour volume is only 31-percent of the capacity of the road and the long-term shift from primarily through-traffic, which expects higher speeds and lower traffic density, to a higher percentage of local traffic as the area develops.

LOS at intersections is based on anticipated vehicular delay, as shown below. LOS criteria are different for signalized and non-signalized intersections because drivers expect to have to wait at signals, and they get less irritated when waiting at signals because of the knowledge that they will eventually get a green light. Lower delay thresholds are set at non-signalized intersections because when drivers get impatient with waiting, they become more likely to accept riskier gaps in traffic, which increases the likelihood of crashes. In addition, LOS and delay for signalized intersections is based on average conditions at the entire intersection, while LOS and delay at stop controlled or roundabout intersections are reported for the lowest-performing approach. Trafficware's Synchro traffic modeling software was used to conduct the intersection traffic analysis.

LOS	Unsignalized/ Roundabout Average Delay (sec/veh)	Signalized Average Delay (sec/veh)	General Description
A	≤10	≤10	Free Flow
B	>10 - 15	>10 - 20	Stable Flow (slight delays)
C	>15 - 25	>20 - 35	Stable flow (acceptable delays)
D	>25 - 35	>35 - 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>35 - 50	>55 - 80	Unstable flow (intolerable delay)
F	>50	>80	Forced flow (jammed)
Source: Highway Capacity Manual (TRB, 2010)			

Exhibit 3 – LOS Criteria

Assuming that Seldon Road is stop controlled at both intersections (at Pittman Road and Church Road) with no new turn lanes, the resulting traffic delays are listed in Exhibit 4. For stop-controlled intersections, the worst approach delay and level of service is reported as the intersection delay and level of service.

	Pittman		Church	
	Delay	LOS	Delay	LOS
Northbound	N/A		N/A	
Westbound	31.4	D	300+	F
Southbound	N/A		N/A	
Eastbound	N/A		300+	F

Exhibit 4 – 2038 LOS with Existing Configurations

Both intersections are projected to fail to meet LOS standards by the design year. As a result, improvements should be considered.

There are several ways to improve LOS at an intersection. The most obvious is to change from stop control to signal or roundabout control. However, there are costs and other disadvantages associated with increasing intersection control, so standard practice is to consider other enhancements first.

Seldon Road/Pittman Road Intersection

At the Pittman Road intersection, the design speeds and traffic volumes suggest that a northbound right turn lane and westbound right turn lane may be justified. Adding only the westbound right turn lane would serve to lower the westbound approach level of service to C, with an average delay of 22.7 seconds. Delay and level of service values for the various improvement options are listed below.

Turn Lane Scenario-→	Westbound Right			Westbound Right, Northbound Right			Westbound Right, Northbound Right, Southbound Left		
Movement ↓	Delay	LOS	Queue	Delay	LOS	Queue	Delay	LOS	Queue
Westbound Approach	22.7	C		17.4	C		17.3	C	
Westbound Right	10.6	B	25’	9.7	A	25’	9.7	A	25'
Westbound Left	26.9	D	100'	20.1	C	100'	19.9	C	100'
Southbound Left	8.4	A	25'	8.4	A	25'	7.8	A	25'

Exhibit 5 – 2038 LOS at Seldon/Pittman with Turn Lanes and Two-Way Stop Control

Considering the costs of construction, the prevailing traffic patterns, and the expected improvements in delay, the southbound left turn lane is probably not a cost effective improvement.

Seldon Road/Church Road Intersection

At the Seldon Road/Church Road intersection, a variety of improvements were analyzed, up to and including right and left turn lanes on each approach and stop control at each approach. However, none of these improvements result in acceptable LOS.

Since stop control will not adequately serve traffic demands in the design year, different control methods were considered.

<u>Roundabout</u>

A roundabout would serve to maintain acceptable LOS at the Seldon Road/Church Road intersection. A single-lane roundabout would be appropriate and would maintain LOS B in 2038. Average vehicle delays would be as follows:

	2018			2038		
Approach:	Delay	LOS	Queue	Delay	LOS	Queue
Eastbound	5.5	A	25’	7.9	A	50’
Northbound	6.1	A	25’	9.0	A	75’
Westbound	7.1	A	25’	14.6	B	150’
Southbound	5.6	A	25’	9.3	A	50’

Exhibit 6 –Roundabout LOS at Seldon/Church

Research has shown that as people become more familiar with roundabouts, they tend to drive them more aggressively, which has the effect of increasing roundabout capacity over time. This effect is reflected in the LOS values listed above, and explains why there is not much difference in some of the delay values between 2018 and 2038.

From an operational perspective, roundabouts are beneficial because fewer crashes tend to occur at them, and the crashes that do occur tend to be less severe than at traditional intersections. However, roundabouts require motorists to slow down to navigate them during all hours of the day, regardless of if there is conflicting traffic or not.

Signal

A signal warrant analysis was conducted on the 2038 traffic volume projections. There are a series of 9 warranting criteria that are outlined in the Manual on Uniform Traffic Control Devices (MUTCD) to help determine if a traffic signal might be an appropriate intersection control treatment. Three are based on traffic volumes, one on pedestrian volumes, one is safety related, and the others are related to the road network. At the Seldon Road/Church Road intersection, only the volume based warrants are relevant at this time. Based on our traffic projections, all three of the volume based warrants (8-hour, 4-hour, and peak hour) will be met by 2038.

If the Seldon Road/Church Road intersection is signalized, the guidance published in National Cooperative Highway Research Program Report 279 recommends left lanes be provided for the northbound and westbound approaches, and right turn lanes be provided on the westbound, northbound, and eastbound approaches. Left turn lanes could also be provided for the southbound and eastbound left turn lanes since both Seldon Road and Church Road will be widened for the opposing direction left turn lanes. No turn lanes are required for the intersection to meet level of service standards, but they will reduce delay and enhance traffic safety at the intersection. LOS projections for the various turn lane scenarios are shown below.

Volume Year:	No New Turn Lanes		Warranted Turn Lanes		All except Southbound Right	
	Delay	LOS	Delay	LOS	Delay	LOS
2018	8.6	A	8.3	A	8.2	A
2038	31	C	10.3	B	10	A

Exhibit 6 –Signalized LOS at Seldon/Church

Turn lanes will ideally be long enough to enable vehicles to slow from full-speed to stop and contain the vehicle queue. At a minimum, the Alaska Highway Preconstruction Manual requires turn lanes be at least 100 feet long. Turn lane lengths should be as follows:

	Decel Length	Queue Length	Total
Eastbound Left*	410’	25’	435’
Eastbound Right	410’	0’	410’
Northbound Left	410’	50’	460’
Northbound Right	410’	0‘	410’
Westbound Left	410’	50’	460’
Westbound Right	410’	0’	410’
Southbound Left*	410’	25’	435’
*Lanes could be 100’ minimum			

Exhibit 7 – Signalized Turn Lane Lengths

Even if left turn lanes are not provided for the approaches where they are not warranted (southbound Church Road, or eastbound Seldon Road), if the medians that will be required on these approaches are flush, they should be large enough to accommodate a vehicle waiting to turn left, since it will likely be used for this purpose by motorists anyway. Also, if the medians are not flush, vehicle detection will need to be provided to ensure motorists do not queue up in these areas and end up left unserved by the signal.

Signalization improvements could be phased at the Seldon Road/Church Road intersection to better match up with the anticipated traffic volumes. It would make sense to construct turn lanes with the Seldon Road extension considering the extent of earthwork that will be done. However, it would be possible to maintain two way stop control for a while, move to all-way stop control, and then implement signalization when necessary. The following table outlines when control changes would be required, assuming linear traffic growth between opening year and the design year.

	Two-Way Stop Control	All-Way Stop Control	Meets Signal Warrants in:
No Turn Lanes	2022	2029	2025
Warranted Lanes	2029	2034	2029
All Lanes	2029	2034	2029

Exhibit 8 – Year LOS Fails Under Given Control Type

If two way stop control is used at the Seldon Road/Church Road intersection, the stop control should be moved from Seldon Road to Church Road after Phase 2 is constructed, since it is expected to become the higher volume road at the intersection at that time.

From an operational perspective, the signalization option is beneficial because it can be phased to meet the traffic demands. In addition, once a signal is installed, it can be operated in a manner that accounts for the variability of traffic throughout the day. However, even though the signal can maintain

better level of service than a roundabout, delay is not necessarily less because of the different LOS criteria for roundabouts and signals.

A decision regarding whether to use roundabout or signalization control is best left to the Design Study Report effort, since the decision should also include factors such as impacts to ROW and water resources, as well as construction costs and current or future funding concerns. Either option would work to meet the LOS criteria for the anticipated traffic demand.

Windy Bottom Road

Windy Bottom Road is near the end of Phase 1 and is the only existing intersection along this first phase of the project corridor. It may be that an intersection with Beverly Lake Road is required, depending on the route chosen for Phase 2, but that will be addressed during the phase 2 development process. Windy Bottom Road will be stop controlled at Seldon Road and currently provides the only access for the Bruce Lake Subdivision. This subdivision consists of 150 lots, many of which are undeveloped. Once this subdivision does build out, it will represent about 150 vehicle trips during the PM peak hour. Based on the previously discussed traffic patterns, we would expect about 57 motorists turning left into the subdivision. Using the methodologies listed in NCHRP Report 457, a left turn lane off of Seldon Road would be appropriate, and should be 410 feet long to accommodate vehicle deceleration outside of the through lane. A single lane approach on Windy Bottom Road is appropriate.

Beverly Lake Road

In Phase 2, the Seldon Road Extension will veer north of Beverly Lake Road (BLR) and provide an opportunity for an intersection between BLR and Seldon Road north of Beverly Lake, west of where Beverly Lake Road makes a 60 degree bend to the south. An intersection at this location would provide convenient routing for residents on BLR who want to travel east on Seldon Road. However, this connection would also increase traffic on BLR north of Beverly Lake, due to eastbound traffic from the west end of BLR.

If the BLR/Seldon Road intersection is created, no auxiliary lanes will be necessary, and it should have stop control on the BLR approach.

Wyoming Drive

In Phase 2, Seldon Road will cross Wyoming Drive. This will result in a 4-leg intersection that will operate acceptably with stop control only on the Wyoming Drive approaches. If BLR is connected to Seldon Road separately, no auxiliary turn lanes will be required. If the BLR/Seldon Road intersection is not constructed, the traffic from that intersection will end up using the Wyoming Drive intersection. As a result of the traffic concentration at this location, a westbound left turn lane would be warranted and should be 410 feet long to accommodate vehicle deceleration outside of the through lane.

Traffic Safety

Crash data was collected from the DOT&PF for both the Seldon Road/Church Road intersection and from the Pittman Road segment where Seldon Road is likely to intersect Pittman Road. The data at the Seldon Road/Church Road intersection covers the period from 2008 through 2010, while the data on Pittman Road is from 2006 through 2010.

At the Seldon Road/Church Road intersection, 3 crashes were reported. That corresponds to a crash rate of 1.06 crashes per million entering vehicles. In comparison, the HSIP handbook reports that the statewide average crash rate at a 3-leg, stop controlled intersection is 0.48 crashes per million entering vehicles. The reported crash rate is higher than the statewide average. However, given the relatively low volume of traffic at the intersection and the short data collection period, the difference between observed and statewide average crash rates are not statistically significant. That is to say, there is a good chance the difference in crash rates is due to random chance. We also cannot identify crash patterns due to the small number of crashes. As a result, no specific safety improvements are recommended at this intersection, but new improvements should be designed to current standards.

Along Pittman Road, there were 15 crashes between Beverly Lake Road and Middle Road. Given this segment length of 1.64 miles and 5-year study period, the resulting crash rate is 3.14 crashes per million vehicle miles. The statewide average is 2 crashes per million vehicle miles. However, the statistically significant “critical” rate is 3.16. This means it’s likely the difference between the observed and average crash rates is due to random chance. As a result, no specific safety improvements are recommended at the future Seldon Road/Pittman Road intersection, but new improvements should be designed to current standards.

Traffic safety along the project should be pursued by designing the project to current design standards. Stopping sight distance must be maintained along the corridor. For the design speed of 55 miles per hour, 495 feet is necessary for stopping sight distance. Where driveways are present, and at intersections, 610 feet of sight distance is necessary to enable vehicles to enter the road without impacting through traffic. This will likely impact where Seldon Road can tie into Pittman Road.

Lighting should be provided at public road intersections within the corridor. This is supported by DOT&PF’s HSIP Handbook, which states that intersection lighting reduces nighttime crashes by 50-percent. Lighting has the benefit of making intersections more conspicuous (aiding navigation), and makes it easier for motorists to identify potentially conflicting traffic. The Illuminating Engineering Society’s RP-8, recommends that “isolated traffic conflict points” should be lit to 0.9 foot-candles with a uniformity of 4.0.

As previously mentioned, the signal and roundabout control generally exhibit differing crash patterns and statistics, which could be an important factor to consider when deciding what kind of intersection control to implement. The Alaska HSIP Handbook reports crash rates for various control schemes at 4-leg intersections as follows: two-way stop control is 0.56, all-way stop control is 0.72, signalized is 1.47, and roundabouts are 0.37. Rates are reported as crashes per million entering vehicles.

Sign Inventory

An inventory of signs within the project area has been completed to ensure signing is consistent with current standards. Since the Seldon Road Extension does not currently exist, there are no signs to inventory within the corridor.

At the Seldon Road/Pittman Road intersection, speed limit signs will need to be added on each departure leg of the intersection. Guide signs alerting drivers of the upcoming road should also be installed about 500 feet upstream of the intersection on each approach.

At the Seldon Road/Church Road intersection, speed limit signs need to be added to the departure legs along Church Road. The existing two-direction large arrow sign west of the intersection will need to be removed. Similarly, the R3-5L/R sign and left turn only pavement markings will need to be removed from the existing Seldon Road approach. New “Right Lane Must Turn Right” or “Right Only” signs will

need be installed to properly delineate the west-bound left turn lane. Guide signs alerting drivers of the upcoming road should also be installed 500 feet upstream of the intersection on each approach, except the westbound approach, which already has a guide sign.

New signing installed for this project will meet current Alaska Traffic Manual standards.

Analysis Outputs

2018 Estimated Peak Hour Trips

Seldon/Pittman

				134	295	161	TEV = 509																								
				IN		OUT																									
				0	97	37																									
				SBR	SBT	SBL																									
0	OUT	0	EBL				WBR	44	IN	166	166	OUT	0	EBL				WBR	0	IN	166	166	OUT	7	EBL				WBR	10	IN	176	176	OUT	0	EBL				WBR	0	IN	186
0		0	EBT				WBT	0		294	294		129	EBT				WBT	166		294	294		109	EBT				WBT	156		298	298		122	EBT				WBT	176		315
0	IN	0	EBR				WBL	122	OUT	129	129	IN	0	EBR				WBL	0	OUT	129	129	IN	13	EBR				WBL	10	OUT	122	122	IN	0	EBR				WBL	10	OUT	129
				NBL	NBT	NBR																									
				0	117	92																									
				OUT		IN																									
				219	428	209																									

Seldon/NEW DEVELOPMENT

				0	0	0	TEV = 294																								
				IN		OUT																									
				0	0	0																									
				SBR	SBT	SBL																									
166	OUT	0	EBL				WBR	0	IN	166	166	OUT	7	EBL				WBR	10	IN	176	176	OUT	0	EBL				WBR	0	IN	186
294		129	EBT				WBT	166		294	294		109	EBT				WBT	156		298	298		122	EBT				WBT	176		315
129	IN	0	EBR				WBL	0	OUT	129	129	IN	13	EBR				WBL	10	OUT	122	122	IN	0	EBR				WBL	10	OUT	129
				NBL	NBT	NBR																									
				0	0	0																									
				OUT		IN																									
				0	0	0																									

Seldon/Wyoming

				10	27	17	TEV = 328																								
				IN		OUT																									
				3	0	7																									
				SBR	SBT	SBL																									
166	OUT	7	EBL				WBR	10	IN	176	176	OUT	0	EBL				WBR	0	IN	186	166	OUT	0	EBL				WBR	0	IN	166
294		109	EBT				WBT	156		298	298		122	EBT				WBT	176		315	294		129	EBT				WBT	166		294
129	IN	13	EBR				WBL	10	OUT	122	122	IN	0	EBR				WBL	10	OUT	129	129	IN	0	EBR				WBL	0	OUT	129
				NBL	NBT	NBR																									
				7	0	7																									
				OUT		IN																									
				24	37	13																									

Seldon/Beverly Lake

				0	0	0	TEV = 315																								
				IN		OUT																									
				0	0	0																									
				SBR	SBT	SBL																									
176	OUT	0	EBL				WBR	0	IN	186	186	OUT	0	EBL				WBR	0	IN	176	176	OUT	7	EBL				WBR	10	IN	166
298		122	EBT				WBT	176		315	315		122	EBT				WBT	156		298	298		109	EBT				WBT	166		294
122	IN	0	EBR				WBL	10	OUT	129	129	IN	0	EBR				WBL	10	OUT	122	122	IN	13	EBR				WBL	10	OUT	129
				NBL	NBT	NBR																									
				0	0	7																									
				OUT		IN																									
				10	17	7																									

Pittman/Beverly Lake

				207	414	207	TEV = 440																								
				IN		OUT																									
				0	198	9																									
				SBR	SBT	SBL																									
0	OUT	0	EBL				WBR	6	IN	14																					
0		0	EBT				WBT	0		41																					
0	IN	0	EBR				WBL	8	OUT	27																					
				NBL	NBT	NBR																									
				0	201	18																									
				OUT		IN																									
				206	425	219																									

Pittman/Parks

				345	683	338	TEV = 1588																								
				IN		OUT																									
				233	40	73																									
				SBR	SBT	SBL																									
709	OUT	152	EBL				WBR	142	IN	595																					
1219		323	EBT				WBT	426		1035																					
510	IN	35	EBR				WBL	26	OUT	440																					
				NBL	NBT	NBR																									
				50	44	44																									
				OUT		IN																									
				102	240	138																									

2018 Estimated Peak Hour Trips

Seldon/Windy Bottom

								0	0	0	TEV = 315																				
								IN		OUT																					
								0	0	0																					
								SBR	SBT	SBL																					
186	OUT	0	EBL									WBR	0	IN	186	186	OUT	0	EBL					WBR	0	IN	186	186	OUT	16	EBL					WBR	50	IN	251
315		129	EBT									WBT	186		315	315		129	EBT					WBT	186		315	315		83	EBT					WBT	115		428
129	IN	0	EBR									WBL	0	OUT	129	129	IN	0	EBR					WBL	0	OUT	129	129	IN	29	EBR					WBL	87	OUT	177
								NBL	NBT	NBR														NBL	NBT	NBR													
								0	0	0														0	0	0													
								OUT		IN														OUT		IN													
								0	0	0														0	0	0													

Seldon/NEW DEVELOPMENT

								0	0	0	TEV = 315																				
								IN		OUT																					
								0	0	0																					
								SBR	SBT	SBL																					
186	OUT	0	EBL									WBR	0	IN	186	186	OUT	16	EBL					WBR	50	IN	251	186	OUT	0	EBL					WBR	0	IN	186
315		129	EBT									WBT	186		315	315		83	EBT					WBT	115		428	315		129	EBT					WBT	186		315
129	IN	0	EBR									WBL	0	OUT	129	129	IN	29	EBR					WBL	87	OUT	177	129	IN	0	EBR					WBL	0	OUT	129
								NBL	NBT	NBR														NBL	NBT	NBR													
								0	0	0														44	89	71													
								OUT		IN														OUT		IN													
								0	0	0														180	384	204													

Seldon/Church

								113	269	155	TEV = 698																				
								IN		OUT																					
								28	64	22																					
								SBR	SBT	SBL																					
186	OUT	16	EBL									WBR	50	IN	251	186	OUT	0	EBL					WBR	0	IN	186	186	OUT	0	EBL					WBR	0	IN	186
315		83	EBT									WBT	115		428	315		129	EBT					WBT	186		315	315		129	EBT					WBT	186		315
129	IN	29	EBR									WBL	87	OUT	177	129	IN	0	EBR					WBL	0	OUT	129	129	IN	0	EBR					WBL	0	OUT	129
								NBL	NBT	NBR														NBL	NBT	NBR													
								44	89	71														0	0	0													
								OUT		IN														OUT		IN													
								180	384	204														0	0	0													

Church/Parks

								190	465	274	TEV = 1788																				
								IN		OUT																					
								62	9	120																					
								SBR	SBT	SBL																					
827	OUT	51	EBL									WBR	217	IN	1017	827	OUT	51	EBL					WBR	217	IN	1017	827	OUT	51	EBL					WBR	217	IN	1017
1349		469	EBT									WBT	758		1649	1349		469	EBT					WBT	758		1649	1349		469	EBT					WBT	758		1649
523	IN	3	EBR									WBL	42	OUT	633	523	IN	3	EBR					WBL	42	OUT	633	523	IN	3	EBR					WBL	42	OUT	633
								NBL	NBT	NBR														NBL	NBT	NBR													
								7	7	44														7	7	44													
								OUT		IN														OUT		IN													
								54	112	57														54	112	57													

2038 Estimated Peak Hour Trips

Seldon/Pittman

				223	476	253	TEV = 924												
				IN		OUT													
				0	145	78													
				SBR	SBT	SBL													
0	OUT	0	EBL				WBR	79	IN	309	309	OUT	5	EBL				WBR	14	IN	330
0		0	EBT				WBT	0		606	606		288	EBT				WBT	303		649
0	IN	0	EBR				WBL	230	OUT	297	297	IN	5	EBR				WBL	14	OUT	319
				NBL	NBT	NBR									NBL	NBT	NBR				
				0	174	219									3	0	15				
				OUT		IN									OUT		IN				
				374	767	393									18	36	18				

Seldon/NEW DEVELOPMENT

				18	36	18	TEV = 663												
				IN		OUT													
				2	0	16													
				SBR	SBT	SBL													
330	OUT	24	EBL				WBR	56	IN	389	389	OUT	5	EBL				WBR	14	IN	426
649		271	EBT				WBT	305		741	741		343	EBT				WBT	384		809
319	IN	25	EBR				WBL	29	OUT	352	352	IN	5	EBR				WBL	29	OUT	383
				NBL	NBT	NBR									NBL	NBT	NBR				
				13	0	25									2	0	25				
				OUT		IN									OUT		IN				
				53	91	38									33	60	27				

Seldon/Wyoming

Seldon/Beverly Lake

Pittman/Beverly Lake

				308	615	307	TEV = 653			
				IN		OUT				
				0	294	14				
				SBR	SBT	SBL				
0	OUT	0	EBL				WBR	8	IN	21
0		0	EBT				WBT	0		60
0	IN	0	EBR				WBL	12	OUT	40
				NBL	NBT	NBR				
				0	299	26				
				OUT		IN				
				306	631	325				

Pittman/Parks

				562	1147	585	TEV = 2491			
				IN		OUT				
				382	72	108				
				SBR	SBT	SBL				
1089	OUT	308	EBL				WBR	211	IN	884
1930		480	EBT				WBT	634		1537
840	IN	52	EBR				WBL	39	OUT	654
				NBL	NBT	NBR				
				74	66	66				
				OUT		IN				
				164	369	205				

2038 Estimated Peak Hour Trips

Seldon/Windy Bottom

								0	0	0	TEV = 878																				
								IN		OUT																					
								0	0	0																					
								SBR	SBT	SBL																					
426	OUT	0	EBL								WBR	0	IN	468	468	OUT	35	EBL					WBR	106	IN	596	596	OUT	46	EBL					WBR	74	IN	575
809		366	EBT								WBT	415		850	850		330	EBT					WBT	437		975	975		242	EBT					WBT	372		956
383	IN	17	EBR								WBL	53	OUT	383	383	IN	18	EBR					WBL	53	OUT	379	379	IN	91	EBR					WBL	129	OUT	381
								NBL	NBT	NBR													NBL	NBT	NBR									NBL	NBT	NBR	
								11	0	17													10	0	16									146	133	106	
								OUT		IN													OUT		IN									OUT		IN	
								70	97	27													71	97	26									314	699	385	

Seldon/NEW DEVELOPMENT

Seldon/Church

Church/Parks

								330	819	489	TEV = 2784																				
								IN		OUT																					
								92	25	213																					
								SBR	SBT	SBL																					
1228	OUT	76	EBL								WBR	403	IN	1592																	
2005		696	EBT								WBT	1126		2567																	
777	IN	5	EBR								WBL	62	OUT	975																	
								NBL	NBT	NBR																					
								10	10	66																					
								OUT		IN																					
								92	178	85																					

Intersection	
Intersection Delay, s/veh	1194.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	46	242	91	129	372	74	146	133	106	33	95	78
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	263	99	140	404	80	159	145	115	36	103	85

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	939	794	146	918	780	202	188	0	0	260	0	0
Stage 1	217	217	-	520	520	-	-	-	-	-	-	-
Stage 2	722	577	-	398	260	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	244	321	901	252	# 327	839	1386	-	-	1304	-	-
Stage 1	785	723	-	539	532	-	-	-	-	-	-	-
Stage 2	418	502	-	628	693	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	-	269	901	# 20	# 274	839	1386	-	-	1304	-	-
Mov Capacity-2 Maneuver	-	269	-	# 20	# 274	-	-	-	-	-	-	-
Stage 1	678	701	-	466	460	-	-	-	-	-	-	-
Stage 2	# 40	434	-	338	672	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	+	$ 3206.2	3	1.3
HCM LOS	-	F		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1386	-	-	+	67	839	1304	-	-
HCM Lane V/C Ratio	0.114	-	-	+	8.528	0.064	0.028	-	-
HCM Control Delay (s)	7.933	0	-	+	$ 3506.2	9.6	7.839	0	-
HCM Lane LOS	A	A		+	F	A	A	A	
HCM 95th %tile Q(veh)	0.387	-	-	+	66.28	0.204	0.085	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	11.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	230	79	174	219	78	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	250	86	189	238	85	158

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	635	308	0	0	427	0
Stage 1	308	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	443	732	-	-	1132	-
Stage 1	745	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	407	732	-	-	1132	-
Mov Capacity-2 Maneuver	407	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	31.4	0	3
HCM LOS	D		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	459	1132	-
HCM Lane V/C Ratio	-	-	0.732	0.075	-
HCM Control Delay (s)	-	-	31.4	8.438	0
HCM Lane LOS			D	A	A
HCM 95th %tile Q(veh)	-	-	5.912	0.242	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	83	29	87	115	50	44	89	71	22	64	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Cap, veh/h	386	375	319	416	375	319	904	1047	890	862	696	298
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1200	1863	1583	1264	1863	1583	1290	1863	1583	1206	1238	531
Grp Volume(v), veh/h	17	90	32	95	125	54	48	97	77	24	0	100
Grp Sat Flow(s),veh/h/ln	1200	1863	1583	1264	1863	1583	1290	1863	1583	1206	0	1769
Q Serve(g_s), s	0.4	1.4	0.6	2.3	1.9	1.0	0.6	0.8	0.8	0.3	0.0	0.9
Cycle Q Clear(g_c), s	2.4	1.4	0.6	3.7	1.9	1.0	1.5	0.8	0.8	1.1	0.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	386	375	319	416	375	319	904	1047	890	862	0	994
V/C Ratio(X)	0.04	0.24	0.10	0.23	0.33	0.17	0.05	0.09	0.09	0.03	0.00	0.10
Avail Cap(c_a), veh/h	783	992	843	835	992	843	904	1047	890	862	0	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.6	11.3	11.0	12.9	11.6	11.2	3.8	3.4	3.4	3.7	0.0	3.4
Incr Delay (d2), s/veh	0.0	0.3	0.1	0.3	0.5	0.2	0.1	0.2	0.2	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.4	0.2	0.5	0.6	0.3	0.1	0.2	0.2	0.1	0.0	0.2
Lane Grp Delay (d), s/veh	12.6	11.7	11.1	13.1	12.1	11.4	3.9	3.6	3.6	3.7	0.0	3.6
Lane Grp LOS	B	B	B	B	B	B	A	A	A	A		A
Approach Vol, veh/h		139			274			222			124	
Approach Delay, s/veh		11.7			12.3			3.7			3.7	
Approach LOS		B			B			A			A	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		10.8			10.8			23.0			23.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		18.0			18.0			19.0			19.0	
Max Q Clear Time (g_c+I1), s		4.4			5.7			3.5			3.1	
Green Ext Time (p_c), s		1.3			1.3			1.2			1.2	

Intersection Summary												
HCM 2010 Ctrl Delay			8.2									
HCM 2010 LOS			A									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	83	29	87	115	50	44	89	71	22	64	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	190.0
Lanes	0	1	1	1	1	1	1	1	1	0	1	0
Cap, veh/h	150	345	330	414	389	330	887	1037	882	234	603	227
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	134	1655	1583	1264	1863	1583	1290	1863	1583	194	1083	408
Grp Volume(v), veh/h	107	0	32	95	125	54	48	97	77	124	0	0
Grp Sat Flow(s),veh/h/ln	1789	0	1583	1264	1863	1583	1290	1863	1583	1685	0	0
Q Serve(g_s), s	0.0	0.0	0.6	2.3	1.9	1.0	0.6	0.8	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.6	0.0	0.6	4.0	1.9	1.0	1.8	0.8	0.8	1.1	0.0	0.0
Prop In Lane	0.16		1.00	1.00		1.00	1.00		1.00	0.19		0.24
Lane Grp Cap(c), veh/h	496	0	330	414	389	330	887	1037	882	1064	0	0
V/C Ratio(X)	0.22	0.00	0.10	0.23	0.32	0.16	0.05	0.09	0.09	0.12	0.00	0.00
Avail Cap(c_a), veh/h	1042	0	835	817	983	835	887	1037	882	1064	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.3	0.0	10.9	13.0	11.5	11.1	4.0	3.5	3.5	3.6	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.1	0.3	0.5	0.2	0.1	0.2	0.2	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	0.2	0.5	0.6	0.3	0.1	0.2	0.2	0.3	0.0	0.0
Lane Grp Delay (d), s/veh	11.5	0.0	11.0	13.3	11.9	11.3	4.1	3.7	3.7	3.8	0.0	0.0
Lane Grp LOS	B		B	B	B	B	A	A	A	A		
Approach Vol, veh/h		139			274			222			124	
Approach Delay, s/veh		11.4			12.3			3.8			3.8	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	11.1	11.1	23.0	23.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	18.0	19.0	19.0
Max Q Clear Time (g_c+I1), s	3.6	6.0	3.8	3.1
Green Ext Time (p_c), s	1.4	1.3	1.3	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.3
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	83	29	87	115	50	44	89	71	22	64	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	1	0	0	1	1	0	1	0	0	1	0
Cap, veh/h	138	255	82	272	230	343	253	472	317	232	597	225
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	94	1178	380	564	1060	1583	228	856	576	194	1083	408
Grp Volume(v), veh/h	139	0	0	220	0	54	222	0	0	124	0	0
Grp Sat Flow(s),veh/h/ln	1652	0	0	1624	0	1583	1660	0	0	1685	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.1	0.0	0.0	4.0	0.0	1.0	2.2	0.0	0.0	1.2	0.0	0.0
Prop In Lane	0.12		0.23	0.43		1.00	0.22		0.35	0.19		0.24
Lane Grp Cap(c), veh/h	475	0	0	501	0	343	1042	0	0	1053	0	0
V/C Ratio(X)	0.29	0.00	0.00	0.44	0.00	0.16	0.21	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	989	0	0	974	0	827	1042	0	0	1053	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.5	0.0	0.0	12.1	0.0	10.9	4.0	0.0	0.0	3.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.6	0.0	0.2	0.5	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	0.0	1.2	0.0	0.3	0.6	0.0	0.0	0.3	0.0	0.0
Lane Grp Delay (d), s/veh	11.8	0.0	0.0	12.7	0.0	11.2	4.4	0.0	0.0	4.0	0.0	0.0
Lane Grp LOS	B			B		B	A			A		
Approach Vol, veh/h		139			274			222			124	
Approach Delay, s/veh		11.8			12.4			4.4			4.0	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	11.5	11.5	23.0	23.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	18.0	19.0	19.0
Max Q Clear Time (g_c+I1), s	6.1	6.0	4.2	3.2
Green Ext Time (p_c), s	1.5	1.5	1.6	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	46	242	91	129	372	74	146	133	106	33	95	78
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	1	0	0	1	1	0	1	0	0	1	0
Cap, veh/h	90	258	82	183	378	704	296	241	161	145	344	242
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	0	580	184	186	850	1583	491	639	427	138	910	641
Grp Volume(v), veh/h	412	0	0	544	0	80	419	0	0	224	0	0
Grp Sat Flow(s),veh/h/ln	764	0	0	1037	0	1583	1556	0	0	1690	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.3	5.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	20.0	0.0	0.0	20.0	0.0	1.3	9.8	0.0	0.0	4.1	0.0	0.0
Prop In Lane	0.12		0.24	0.26		1.00	0.38		0.27	0.16		0.38
Lane Grp Cap(c), veh/h	429	0	0	561	0	704	698	0	0	731	0	0
V/C Ratio(X)	0.96	0.00	0.00	0.97	0.00	0.11	0.60	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	429	0	0	561	0	704	698	0	0	731	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.7	0.0	0.0	12.9	0.0	7.3	11.6	0.0	0.0	10.0	0.0	0.0
Incr Delay (d2), s/veh	33.2	0.0	0.0	30.2	0.0	0.1	3.8	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	6.1	0.0	0.0	8.5	0.0	0.3	3.5	0.0	0.0	1.5	0.0	0.0
Lane Grp Delay (d), s/veh	44.9	0.0	0.0	43.1	0.0	7.4	15.3	0.0	0.0	11.1	0.0	0.0
Lane Grp LOS	D			D		A	B			B		
Approach Vol, veh/h		412			624			419			224	
Approach Delay, s/veh		44.9			38.5			15.3			11.1	
Approach LOS		D			D			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	24.0	24.0	21.0	21.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	20.0	17.0	17.0
Max Q Clear Time (g_c+I1), s	22.0	22.0	11.8	6.1
Green Ext Time (p_c), s	0.0	0.0	1.7	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	30.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	46	242	91	129	372	74	146	133	106	33	95	78
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	190.0
Lanes	0	1	1	1	1	1	1	1	1	0	1	0
Cap, veh/h	154	604	617	392	725	617	571	787	669	156	377	266
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	144	1550	1583	1016	1863	1583	1191	1863	1583	138	892	630
Grp Volume(v), veh/h	313	0	99	140	404	80	159	145	115	224	0	0
Grp Sat Flow(s),veh/h/ln	1695	0	1583	1016	1863	1583	1191	1863	1583	1659	0	0
Q Serve(g_s), s	0.0	0.0	1.7	5.3	7.2	1.4	4.3	2.1	1.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.2	0.0	1.7	12.6	7.2	1.4	8.0	2.1	1.9	3.6	0.0	0.0
Prop In Lane	0.16		1.00	1.00		1.00	1.00		1.00	0.16		0.38
Lane Grp Cap(c), veh/h	758	0	617	392	725	617	571	787	669	800	0	0
V/C Ratio(X)	0.41	0.00	0.16	0.36	0.56	0.13	0.28	0.18	0.17	0.28	0.00	0.00
Avail Cap(c_a), veh/h	848	0	706	450	831	706	571	787	669	800	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.5	0.0	8.5	15.0	10.1	8.4	10.8	7.7	7.7	8.1	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.6	0.7	0.1	1.2	0.5	0.6	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.7	0.0	0.5	1.1	2.4	0.4	1.2	0.8	0.6	1.3	0.0	0.0
Lane Grp Delay (d), s/veh	9.9	0.0	8.6	15.6	10.8	8.5	12.0	8.2	8.2	9.0	0.0	0.0
Lane Grp LOS	A		A	B	B	A	B	A	A	A		
Approach Vol, veh/h		412			624			419			224	
Approach Delay, s/veh		9.6			11.6			9.6			9.0	
Approach LOS		A			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	20.6	20.6	22.0	22.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	19.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	9.2	14.6	10.0	5.6
Green Ext Time (p_c), s	3.5	2.0	1.8	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	46	242	91	129	372	74	146	133	106	33	95	78
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Cap, veh/h	336	655	557	429	655	557	633	836	710	628	424	350
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	908	1863	1583	1016	1863	1583	1191	1863	1583	1115	945	780
Grp Volume(v), veh/h	50	263	99	140	404	80	159	145	115	36	0	188
Grp Sat Flow(s),veh/h/ln	908	1863	1583	1016	1863	1583	1191	1863	1583	1115	0	1725
Q Serve(g_s), s	1.9	4.3	1.7	4.8	7.2	1.4	3.8	1.9	1.7	0.8	0.0	2.7
Cycle Q Clear(g_c), s	9.1	4.3	1.7	9.1	7.2	1.4	6.5	1.9	1.7	2.7	0.0	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	336	655	557	429	655	557	633	836	710	628	0	774
V/C Ratio(X)	0.15	0.40	0.18	0.33	0.62	0.14	0.25	0.17	0.16	0.06	0.00	0.24
Avail Cap(c_a), veh/h	446	882	750	552	882	750	633	836	710	628	0	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	9.8	9.0	13.3	10.8	8.9	8.9	6.6	6.6	7.4	0.0	6.8
Incr Delay (d2), s/veh	0.2	0.4	0.2	0.4	0.9	0.1	0.9	0.5	0.5	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	1.3	0.5	0.9	2.3	0.4	1.0	0.7	0.6	0.2	0.0	0.9
Lane Grp Delay (d), s/veh	14.7	10.2	9.1	13.7	11.7	9.0	9.8	7.1	7.1	7.6	0.0	7.6
Lane Grp LOS	B	B	A	B	B	A	A	A	A	A		A
Approach Vol, veh/h		412			624			419			224	
Approach Delay, s/veh		10.5			11.8			8.1			7.6	
Approach LOS		B			B			A			A	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		18.1			18.1			22.0			22.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		19.0			19.0			18.0			18.0	
Max Q Clear Time (g_c+I1), s		11.1			11.1			8.5			4.7	
Green Ext Time (p_c), s		3.0			3.0			1.9			2.3	

Intersection Summary												
HCM 2010 Ctrl Delay			10.0									
HCM 2010 LOS			A									

Notes

Intersection	
Intersection Delay, s/veh	8.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	230	79	174	219	78	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	250	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	250	86	189	238	85	158

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	635	308	0	0	427	0
Stage 1	308	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	443	732	-	-	1132	-
Stage 1	745	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	407	732	-	-	1132	-
Mov Capacity-2 Maneuver	407	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.7	0	3
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	407	732	1132	-
HCM Lane V/C Ratio	-	-	0.614	0.117	0.075	-
HCM Control Delay (s)	-	-	26.9	10.6	8.438	0
HCM Lane LOS			D	B	A	A
HCM 95th %tile Q(veh)	-	-	3.973	0.397	0.242	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	230	79	174	219	78	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	250	-	250	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	250	86	189	238	85	158

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	516	189	0	0	189	0
Stage 1	189	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	519	853	-	-	1385	-
Stage 1	843	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	484	853	-	-	1385	-
Mov Capacity-2 Maneuver	484	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	682	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.4	0	2.7
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	484	853	1385	-
HCM Lane V/C Ratio	-	-	0.517	0.101	0.061	-
HCM Control Delay (s)	-	-	20.1	9.7	7.769	0
HCM Lane LOS			C	A	A	A
HCM 95th %tile Q(veh)	-	-	2.915	0.335	0.195	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	230	79	174	219	78	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	250	-	250	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	250	86	189	238	85	158

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	516	189	0	0	189	0
Stage 1	189	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Follow-up Headway	3.518	3.318	-	-	2.218	-
Pot Capacity-1 Maneuver	519	853	-	-	1385	-
Stage 1	843	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	487	853	-	-	1385	-
Mov Capacity-2 Maneuver	487	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	686	-	-	-	-	-

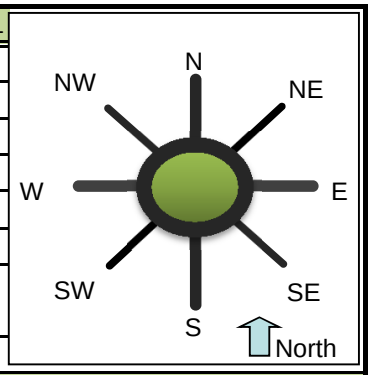
Approach	WB	NB	SB
HCM Control Delay, s	17.3	0	2.7
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	487	853	1385	-
HCM Lane V/C Ratio	-	-	0.513	0.101	0.061	-
HCM Control Delay (s)	-	-	19.9	9.7	7.769	-
HCM Lane LOS			C	A	A	
HCM 95th %tile Q(veh)	-	-	2.884	0.335	0.195	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

General & Site Information		v2.1
Analyst:	W Webb	
Agency/Co:	USKH Inc	
Date:	12/13/2013	
Project or PI#:	1405000	
Year, Peak Hour:	2018 PM	
County/District:	MSB	
Intersection Name:	Seldon Road/Church Road	



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
Exit Legs (TO)	N (1), vph			50		89		16	
	NE (2), vph								
	E (3), vph	22				71		83	
	SE (4), vph								
	S (5), vph	64		87				29	
	SW (6), vph								
	W (7), vph	28		115		44			
	NW (8), vph								
Output	Total Vehicles	113	0	251	0	204	0	129	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	100%	100%	96%	100%	96%	100%	96%	100%
% Heavy Vehicles	0%	0%	4%	0%	4%	0%	4%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
# of Pedestrians **(ped/hr)**	0	0	0	0	0	0	0	0
PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
F_{HV}	1.000	1.000	0.962	1.000	0.962	1.000	0.962	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	56	0	101	0	18	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	24	0	0	0	81	0	94	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	69	0	98	0	0	0	33	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	30	0	130	0	49	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	123	0	284	0	231	0	145	0
Conflicting flow, pcu/h	277	0	169	0	136	0	191	0

Roundabout Type	Standard Single Lane or Urban Compact
Enter type here…	Standard Single Lane

Results: Approach Measures of Effectiveness

HCM 2010 Model (build)	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	856	NA	918	NA	948	NA	897	NA
Entry Flow Rates, vph	123	NA	273	NA	222	NA	140	NA
V/C ratio	**0.14**		**0.30**		**0.23**		**0.16**	
Control Delay, s/veh	**6**		**7**		**6**		**6**	
LOS	A		A		A		A	
95th % Queue (ft)	**13**		**33**		**24**		**14**	
Calibrated Model (future)	**N**	**NE**	**E**	**SE**	**S**	**SW**	**W**	**NW**
Entry Capacity, vph	1091	NA	1169	NA	1208	NA	1143	NA
Entry Flow Rates, vph	123	NA	273	NA	222	NA	140	NA
V/C ratio	**0.11**		**0.24**		**0.19**		**0.13**	
Control Delay, sec/pcu	**4**		**5**		**5**		**4**	
LOS	A		A		A		A	
95th % Queue (ft)	**10**		**25**		**18**		**11**	

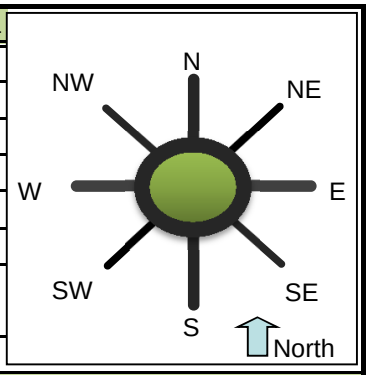
Notes: v2.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	Bypass #1	Bypass #2	Bypass #3	Bypass #4	Bypass #5	Bypass #6
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 2010 Model)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

General & Site Information		v2.1
Analyst:	W Webb	
Agency/Co:	USKH Inc	
Date:	12/13/2013	
Project or PI#:	1405000	
Year, Peak Hour:	2038 PM	
County/District:	MSB	
Intersection Name:	Seldon Road/Church Road	



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
Exit Legs (TO)	N (1), vph			74		133		46	
	NE (2), vph								
	E (3), vph	33				106		242	
	SE (4), vph								
	S (5), vph	95		129				91	
	SW (6), vph								
	W (7), vph	78		372		146			
	NW (8), vph								
Output	Total Vehicles	205	0	575	0	385	0	379	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	100%	100%	96%	100%	96%	100%	96%	100%
% Heavy Vehicles	0%	0%	4%	0%	4%	0%	4%	0%
% Bicycle	0%	0%	0%	0%	0%	0%	0%	0%
# of Pedestrians **(ped/hr)**	0	0	0	0	0	0	0	0
PHF	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*	*0.92*
F_{HV}	1.000	1.000	0.962	1.000	0.962	1.000	0.962	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	83	0	150	0	52	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	36	0	0	0	120	0	274	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	103	0	146	0	0	0	103	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	85	0	421	0	165	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	223	0	650	0	435	0	428	0
Conflicting flow, pcu/h	731	0	367	0	361	0	284	0

Roundabout Type	Standard Single Lane or Urban Compact
Enter type here…	Standard Single Lane

Results: Approach Measures of Effectiveness								
HCM 2010 Model (build)	**N**	**NE**	**E**	**SE**	**S**	**SW**	**W**	**NW**
Entry Capacity, vph	544	NA	753	NA	757	NA	818	NA
Entry Flow Rates, vph	223	NA	625	NA	418	NA	412	NA
V/C ratio	**0.41**		**0.83**		**0.55**		**0.50**	
Control Delay, s/veh	**13**		**28**		**13**		**11**	
LOS	B		D		B		B	
95th % Queue (ft)	**50**		**242**		**89**		**75**	
Calibrated Model (future)	**N**	**NE**	**E**	**SE**	**S**	**SW**	**W**	**NW**
Entry Capacity, vph	693	NA	959	NA	965	NA	1042	NA
Entry Flow Rates, vph	223	NA	625	NA	418	NA	412	NA
V/C ratio	**0.32**		**0.68**		**0.45**		**0.41**	
Control Delay, sec/pcu	**9**		**15**		**9**		**8**	
LOS	A		B		A		A	
95th % Queue (ft)	**35**		**144**		**62**		**53**	

Notes: v2.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)						
Bypass Characteristics	**Bypass #1**	**Bypass #2**	**Bypass #3**	**Bypass #4**	**Bypass #5**	**Bypass #6**
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 2010 Model)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

Highway Capacity Manual Two Lane Uninterupted Flow Analysis

Design Speed	55	See PER		
2035 Volume	10572	From DOT Model	Advancing	611
Design Hourly Volume	0.086	From DOT/MSB Tube Counts	Opposing	379
Split	0.6	From DOT Tube Counts		
Trucks	0.04			
PHF	0.9			

LOS is based on Average Travel Speed and Percent Time Spent Following

ATS = FFS-0.0076(v.d.ats+v.o.ats)-f.np

FFS	55	(no lane width or access adjustments

v.d.ats = Vi/(PHF x f.g x f.hv)

V.d	611		
f.g	0.97		From HCM 15.9 (Assume Rolling Terrain)
f.hv	0.986193	1.7	From HCM 15.11 (Assume Rolling Terrain)
v.d.ats	710		

v.o.ats = Vo/(PHF x f.g x f.hv)

v.o	379		
f.g	0.88		From HCM 15.9 (Assume Rolling Terrain)
f.hv	0.979432	2.05	From HCM 15.11 (Assume Rolling Terrain)
v.o.ats	489		

f.np	2.6	from HCM 15.15 (Assume 60% no passing zones)
ATS	**43.3**	

PTSF = BPTSF.d+f.np*(v.d/(v.d+v.o))

v.d.ptsf = Vd/(PHF x f.g x f.hv)

v.d	611		
f.g	0.97		From HCM 15.16 (Assume Rolling Terrain)
f.hv	0.996016	1.2	From HCM 15.18 (Assume Rolling Terrain)
v.d.ptsf	703		

v.o.ptsf = Vo/(PHF x f.g x f.hv)

v.o	379		
f.g	0.89		From HCM 15.16 (Assume Rolling Terrain)
f.hv	0.987167	1.65	From HCM 15.18 (Assume Rolling Terrain)
v.o.ptsf	479		

f.np

v	1182	
f.np	30.2	From HCM 15.21 (Assume 60% No Passing)

BPTSF.d = 100*(1-exp(a*(v.d)^b))

a	-0.0026	From HCM 15.20
b	0.9	From HCM 15.20
BPTSF.d	61.26959	

PTSF	**79.22321**

Input Data

Project: 1405000 Seldon
North/South: Pittman Rd
East/West: Beverly Lake Rd
Date: 11/19/2013
Field Person: George Tkebuchava
Notes:

V - Vehicles
B - Bus
T - Truck
PHF - Peak Hour Factor
Highlighting indicates peak hour

	NB									EB									SB									WB										
	RIGHT			THRU			LEFT			RIGHT			THRU			LEFT			RIGHT			THRU			LEFT			RIGHT			THRU			LEFT				
PM	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	Max	PHF
16:15	15	0	0	45	0	0																27	0	0	1	0	0	0	0	0				11	0	0		
16:30	13	0	1	33	0	0																32	0	1	2	0	0	2	0	0				5	1	1		
16:45	14	0	0	34	0	1																21	2	0	2	0	0	2	0	0				3	0	1		
17:00	17	0	0	32	0	0																16	0	0	2	0	0	1	0	0				12	0	0		
17:15	13	0	0	35	0	2																33	0	1	6	0	0	2	0	0				10	0	0	353	0.87
17:30	6	0	0	22	0	1																18	0	1	1	0	0	4	0	0				9	0	0		
17:45	17	0	0	28	0	0																18	0	0	2	0	0	0	0	0				8	0	0		
18:00	16	0	0	35	0	0																8	0	0	1	0	0	1	0	0				5	0	0		
Peak Volume	58			137			0			0			0			0			0			106			12			7			0			33				
% HVY	2%			2%																		4%			0%			0%						9%				

PM Peak Hour

Pittman Rd/Beverly Lake Rd

				118	262	144	TEV = 353			
				IN		OUT				
				0	106	12				
				SBR	SBT	SBL				
0	OUT	0	EBL				WBR	7	IN	40
0		0	EBT				WBT	0		110
0	IN	0	EBR				WBL	33	OUT	70
				NBL	NBT	NBR				
				0	137	58				
				OUT		IN				
				139	334	195				

Project: 1405000 Seldon
North/South: Church Rd
East/West: Seldon Rd
Date: 11/19/2013
Field Person: Chuck Hakari
Notes:

V - Vehicles
B - Bus
T - Truck
PHF - Peak Hour Factor
Highlighting indicates peak hour

	NB									EB									SB									WB										
	RIGHT			THRU			LEFT			RIGHT			THRU			LEFT			RIGHT			THRU			LEFT			RIGHT			THRU			LEFT				
PM	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	Max	PHF
16:15	11		1	29	1																	14	2		4			19						14		1		
16:30	7			19																		20	2		5			6						14				
16:45	10			21		1																23		1	6	2		9						11				
17:00	9			23																		17			3			10		1				12			328	0.85
17:15	10			24		1																14						7						6				
17:30	7			37		1																17		1	7			12						5		1		
17:45	8			26																		9			5			12						10				
18:00	7		1	18																		13		2	2			9						16				
Peak Volume	38			94			0			0			0			0			0			79			20			45			0			52				
% HVY	3%			2%																		6%			10%			2%						2%				

PM Peak Hour

Church Rd/Seldon Rd

				99	238	139	TEV = 328				
				IN		OUT					
				0	79	20					
				SBR	SBT	SBL					
0	OUT	0	EBL				WBR	45	IN	97	
0		0	EBT				WBT	0		155	
0	IN	0	EBR				WBL	52	OUT	58	
				NBL	NBT	NBR					
				0	94	38					
				OUT		IN					
				131	263	132					

Project: 1405000 Seldon
North/South: Pittman Rd
East/West: Parks Hwy
Date: 11/20/2013
Field Person: Chuck Hakari/George Tkebuchava
Notes:

V - Vehicles
B - Bus
T - Truck
PHF - Peak Hour Factor
Highlighting indicates peak hour

	NB									EB									SB									WB										
	RIGHT			THRU			LEFT			RIGHT			THRU			LEFT			RIGHT			THRU			LEFT			RIGHT			THRU			LEFT				
PM	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	Max	PHF
16:15	12	0	0	12	0	0	13	1	0	8	0	0	78	1	2	13	0	2	23	0	0	12	0	0	37	1	0	50	1	1	95	0	1	2	0	1		
16:30	9	1	0	9	0	0	13	0	0	10	0	0	98	1	6	21	0	1	25	0	1	6	0	0	26	1	0	40	0	0	133	0	5	9	0	0		
16:45	10	0	1	11	0	0	11	0	0	7	0	0	79	1	5	13	0	0	29	0	1	11	1	0	19	0	0	53	0	0	129	4	1	8	0	0		
17:00	7	0	0	8	0	0	7	0	0	7	0	0	80	7	3	18	0	1	29	0	0	6	0	0	29	1	0	49	0	0	118	0	3	4	0	0	1552	0.93
17:15	11	0	0	8	0	1	11	0	0	5	0	0	57	3	2	8	0	0	30	0	0	10	0	0	28	0	0	45	0	0	120	1	2	11	0	0		
17:30	7	0	0	12	0	0	12	0	0	10	0	0	79	1	0	15	0	0	27	0	0	15	0	0	26	0	0	49	0	0	109	0	2	7	0	0		
17:45	9	0	0	11	0	0	11	0	0	6	0	0	63	1	1	9	0	1	20	0	0	3	0	0	19	0	0	38	0	1	132	0	1	3	0	0		
18:00	4	0	0	15	0	0	6	0	0	8	0	0	40	0	1	7	0	0	22	0	0	7	0	0	42	0	0	42	0	1	127	1	1	6	0	0		
Peak Volume	40			40			45			32			361			69			108			36			114			194			489			24				
% HVY	5%			0%			2%			0%			7%			6%			2%			3%			3%			1%			3%			4%				

PM Peak Hour

Pittman Rd/Parks Hwy

				258	561	303	TEV = 1552				
				IN		OUT					
				108	36	114					
				SBR	SBT	SBL					
642	OUT	69	EBL				WBR	194	IN	707	
1104		361	EBT				WBT	489		1222	
462	IN	32	EBR				WBL	24	OUT	515	
				NBL	NBT	NBR					
				45	40	40					
				OUT		IN					
				92	217	125					

Project: 1405000 Seldon
North/South: Church Rd
East/West: Parks Hwy
Date: 11/21/2013
Field Person: Chuck Hakari/George Tkebuchava
Notes:

V - Vehicles
B - Bus
T - Truck
PHF - Peak Hour Factor
Highlighting indicates peak hour

	NB									EB									SB									WB										
	RIGHT			THRU			LEFT			RIGHT			THRU			LEFT			RIGHT			THRU			LEFT			RIGHT			THRU			LEFT				
PM	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	V	B	T	Max	PHF
16:00	7	0	0	1	0	0	0	0	0	0	0	0	152	2	9	14	0	2	14	0	0	3	0	0	27	0	1	26	0	0	178	0	2	7	0	0		
16:15	8	0	0	0	0	0	1	0	0	0	0	0	95	3	4	9	0	1	12	0	0	0	0	0	21	0	0	30	0	0	216	0	7	8	0	0		
16:30	18	0	0	0	0	0	5	0	0	0	0	0	153	4	1	14	0	0	24	1	0	1	0	0	22	1	1	33	0	1	225	1	2	5	0	0		
16:45	10	0	0	3	0	0	1	0	0	1	0	0	109	1	7	14	0	0	18	0	0	3	0	0	19	1	0	47	0	0	184	2	2	8	0	0		
17:00	6	0	0	1	0	0	0	0	0	1	0	0	129	3	4	20	0	1	13	1	0	1	0	0	21	0	0	38	0	0	196	0	2	13	0	0		
17:15	6	0	0	2	0	0	0	0	0	1	0	0	106	8	3	10	0	0	22	0	2	3	0	0	17	0	0	38	0	0	213	1	2	12	0	0	1838	0.90
17:30	16	0	0	3	0	0	2	0	0	1	0	0	116	2	5	14	0	0	20	1	0	3	1	0	18	0	0	34	0	0	196	0	6	9	0	0		
17:45	5	0	0	0	0	0	1	0	0	0	0	0	95	1	0	9	0	0	17	0	0	2	0	0	20	0	0	38	0	0	193	0	5	8	0	0		
Peak Volume	40			6			6			3			528			59			81			8			82			157			830			38				
% HVY	0%			0%			0%			0%			6%			2%			5%			0%			4%			1%			1%			0%				

PM Peak Hour

Church Rd/Parks Hwy

				171	393	222	TEV = 1838			
				IN		OUT				
				81	8	82				
				SBR	SBT	SBL				
917	OUT	59	EBL				WBR	157	IN	1025
1507		528	EBT				WBT	830		1675
590	IN	3	EBR				WBL	38	OUT	650
				NBL	NBT	NBR				
				6	6	40				
				OUT		IN				
				49	101	52				

2481 ADT

Traffic Count Field Report

Road Name: Seldon Road

Road Code w/ counter location #: 4805-003

Count site location in relation to adjacent roads and/or objects: 100 yds East of Church Rd
(ie. Roads, buildings, mailboxes, etc.)

Road Surface: (circle) Paved, Gravel, Dirt

Posted Speed_____MPH

Set: 8/28/21 11:50AM
Date Time

Battery Voltage: 6.55

Counter Serial #: 0027684

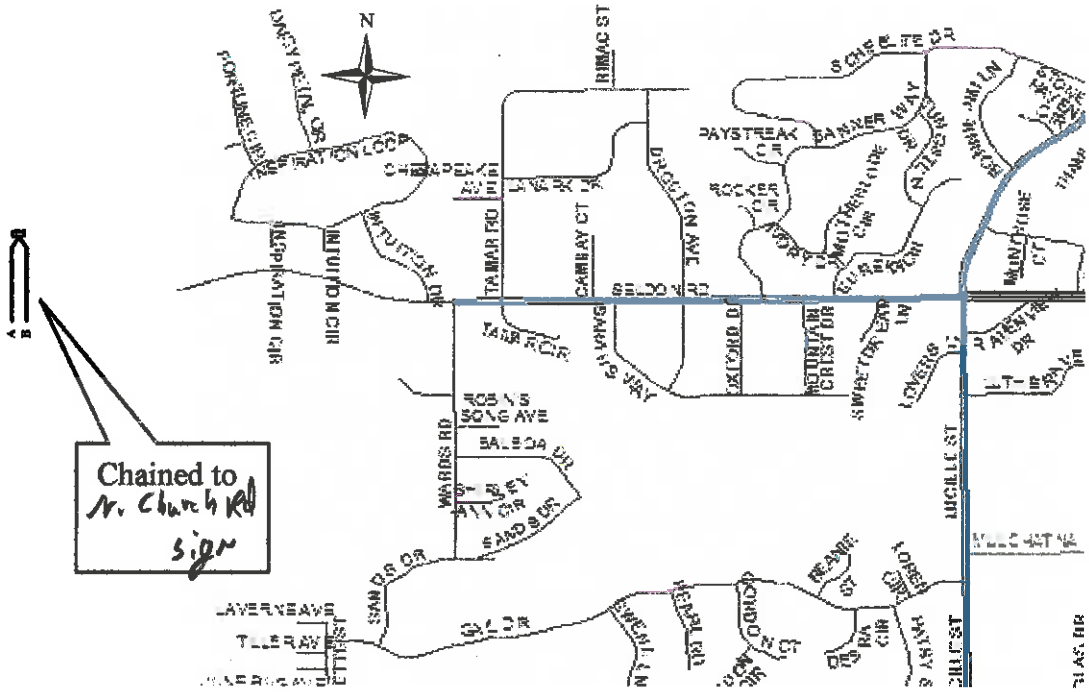
Count Objective: Vol

Road Tube Layout Type/Settings L L I

Traffic Tech Initials: N

	Date	Time	Count	Volts
Checked:				
Checked:				
Checked:				
Checked:				
Checked:				
Pulled:				

Diagram of Set-up: Include North arrow, A&B tube layout, adjacent cross streets, driveways and sufficient permanent physical features or distance estimates to accurately describe location.



Notes:
New pavement 2007

Site ID:A 500300000
Station Num:480500300000
Start Date/Time:08/01/12 00:00
End Date/Time:08/31/12 23:59

August 2012	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Total
Wed 1																									
Thu 2																									
Fri 3																									
Sat 4																									
Sun 5																									
Mon 6																									
Tue 7																									
Wed 8																									
Thu 9																									
Fri 10																									
Sat 11																									
Sun 12																									
Mon 13																									
Tue 14																									
Wed 15																									
Thu 16																									
Fri 17																									
Sat 18																									
Sun 19																									
Mon 20																									
Tue 21																									
Wed 22																									
Thu 23																									
Fri 24																									
Sat 25																									
Sun 26																									
Mon 27																									
Tue 28													154	151	169	191	255	248	221	154	134	123	69	38	1907
Wed 29	20	6	4	3	15	39	87	157	130	135	132	130	122	133	163	195	206	251	239	172	137	100	71	24	2671
Thu 30	18	5	6	3	14	43	103	159	141	121	111	173	121	155	167	211	255	247	200	187	121	63	69	34	2727
Fri 31	15	15	3	6	18	35	79	174	122	116	156	140	154	247	218	183	186	236	225	144	117	119	100	45	2853
Percentages	0.52%	0.26%	0.13%	0.12%	0.46%	1.15%	2.65%	4.82%	3.87%	3.66%	3.93%	4.36%	5.42%	6.75%	7.06%	7.68%	8.88%	9.67%	8.71%	6.47%	5.01%	3.99%	3.04%	1.39%	100.00%
Hour Totals	53	26	13	12	47	117	269	490	393	372	399	443	551	686	717	780	902	982	885	657	509	405	309	141	10158

Site ID:A 500300000
Station Num:480500300000
Start Date/Time:09/01/12 00:00
End Date/Time:09/30/12 23:59

September 2012	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Total
Sat 1	25	11	11	4	13	23	28	46	95	109	111	133	137	139	154	159	142	137	132	118	113	70	88	53	2051
Sun 2	19	14	10	5	4	11	19	34	75	91	125	149	163	161	142	161	142	143	109	107	100	101	73	53	2011
~~Mon 3~~	~~19~~	~~13~~	~~4~~	~~3~~	~~13~~	~~20~~	~~18~~	~~31~~	~~67~~	~~77~~	~~93~~	~~160~~	~~144~~	~~150~~	~~160~~	~~154~~	~~164~~	~~138~~	~~114~~	~~106~~	~~89~~	~~92~~	~~54~~	~~29~~	~~1912~~
Tue 4	12	0	4	7	11	34	106	148	139	125	119	107	110	130	160	158	231	245	165	136	114	78	29	26	2394
Wed 5	11	7	7	8	7	28	82																		150
Thu 6																									
Fri 7																									
Sat 8																									
Sun 9																									
Mon 10																									
Tue 11																									
Wed 12																									
Thu 13																									
Fri 14																									
Sat 15																									
Sun 16																									
Mon 17																									
Tue 18																									
Wed 19																									
Thu 20																									
Fri 21																									
Sat 22																									
Sun 23																									
Mon 24																									
Tue 25																									
Wed 26																									
Thu 27																									
Fri 28																									
Sat 29																									
Sun 30																									
Percentages	1.01%	0.53%	0.42%	0.32%	0.56%	1.36%	2.97%	3.04%	4.41%	4.72%	5.26%	6.45%	6.50%	6.81%	7.23%	7.42%	7.97%	7.78%	6.10%	5.48%	4.88%	4.00%	2.86%	1.89%	100.00%
Hour Totals	86	45	36	27	48	116	253	259	376	402	448	549	554	580	616	632	679	663	520	467	416	341	244	161	8518

Mon was labor day = weekday ADT = 2661

(1213) ADT

Traffic Count Field Report

Road Name: Beverly Lake Road

Road Code w/ counter location #: 242-008

Count site location in relation to adjacent roads and/or objects: at crest of hill chained to power pole # 31-2
(ie. Roads, buildings, mailboxes, etc.)

Road Surface: (circle) **Paved**, Gravel, Dirt

Posted Speed 30 MPH

Set: 7 / 11 / 12 / 1:15PM
Date Time

Battery Voltage: 6.36

Counter Serial #: 37684

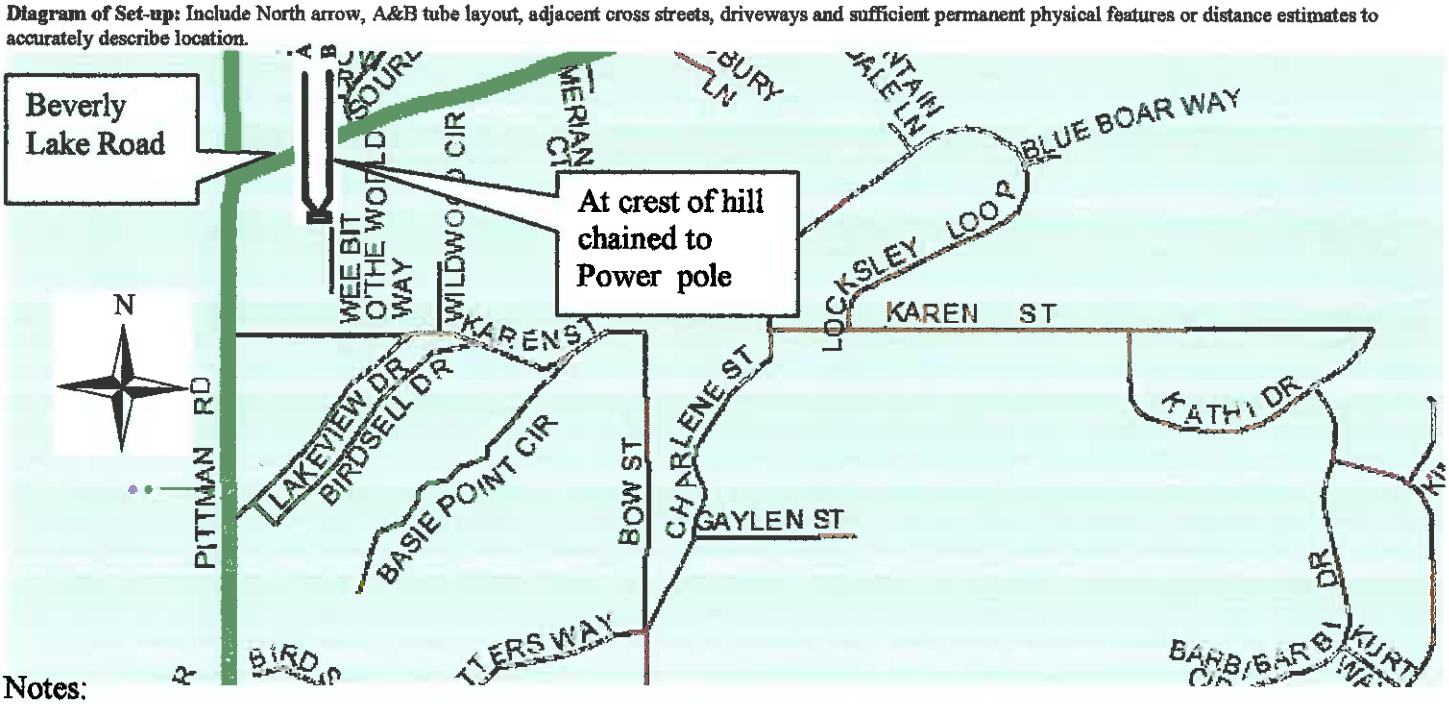
Count Objective: V01

Road Tube Layout Type/Settings L6 I

Traffic Tech Initials: (N)

	Date	Time	Count	Volts
Checked:	7-12	AM		
	7-13	PM		
Checked:	7-16	AM		
Checked:	7-18	AM		
Checked:				
Checked:				
Pulled:	7-19	AM		

Diagram of Set-up: Include North arrow, A&B tube layout, adjacent cross streets, driveways and sufficient permanent physical features or distance estimates to accurately describe location.



Notes:

Site ID:[illegible] .200800000
Station Num:024200800000
Start Date/Time:07/01/12 00:00
End Date/Time:07/31/12 23:59

July 2012	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Total
Sun 1																									
Mon 2																									
Tue 3																									
Wed 4																									
Thu 5																									
Fri 6																									
Sat 7																									
Sun 8																									
Mon 9																									
Tue 10																									
Wed 11														87	105	78	95	106	102	66	65	38	25	18	785
Thu 12	11	16	2	5	5	27	34	44	64	49	56	75	94	106	100	72	106	88	113	78	61	49	31	17	1303
Fri 13	14	14	5	6	5	18	27	55	64	67	66	81	90	73	74	91	104	104	99	108	71	66	47	18	1367
Sat 14	14	10	4	2	5	1	8	30	42	52	58	51	82	85	92	98	106	93	80	69	78	48	38	24	1170
Sun 15	12	18	8	4	2	5	7	13	19	44	61	50	66	81	79	65	84	76	62	68	62	49	31	28	994
Mon 16	4	6	2	4	10	14	29	37	45	55	59	70	62	103	86	67	82	86	90	58	52	45	39	13	1118
Tue 17	13	2	4	2	7	13	39	38	58	61	65	85	83	64	75	82	126	97	98	72	67	67	41	21	1280
Wed 18	10	9	3	1	9	21	28	49	47	68	69	77	92	101	67	86	88	116	102	65	45	56	35	17	1261
Thu 19	11	7	2	6	8	19	33	47	40	58															231
Fri 20																									
Sat 21																									
Sun 22																									
Mon 23																									
Tue 24																									
Wed 25																									
Thu 26																									
Fri 27																									
Sat 28																									
Sun 29																									
Mon 30																									
Tue 31																									
Percentages	0.94%	0.86%	0.32%	0.32%	0.54%	1.24%	2.16%	3.29%	3.99%	4.77%	4.56%	5.14%	5.98%	7.36%	7.13%	6.72%	8.32%	8.06%	7.85%	6.14%	5.27%	4.40%	3.02%	1.64%	100.00%
Hour Totals	89	82	30	30	51	118	205	313	379	454	434	489	569	700	678	639	791	766	746	584	501	418	287	156	9509

(427) ADT

Traffic Count Field Report

Road Name: Beverly Lake Road

Road Code w/ counter location #: 242-009

Count site location in relation to adjacent roads and/or objects: 50 yds West of North Kalmbach Drive
(ie. Roads, buildings, mailboxes, etc.)

Road Surface: (circle) Paved, Gravel, Dirt

Posted Speed 30 MPH

Set: 7/11/17 1:15PM
Date Time

Battery Voltage: 6.55

Counter Serial #: 30989

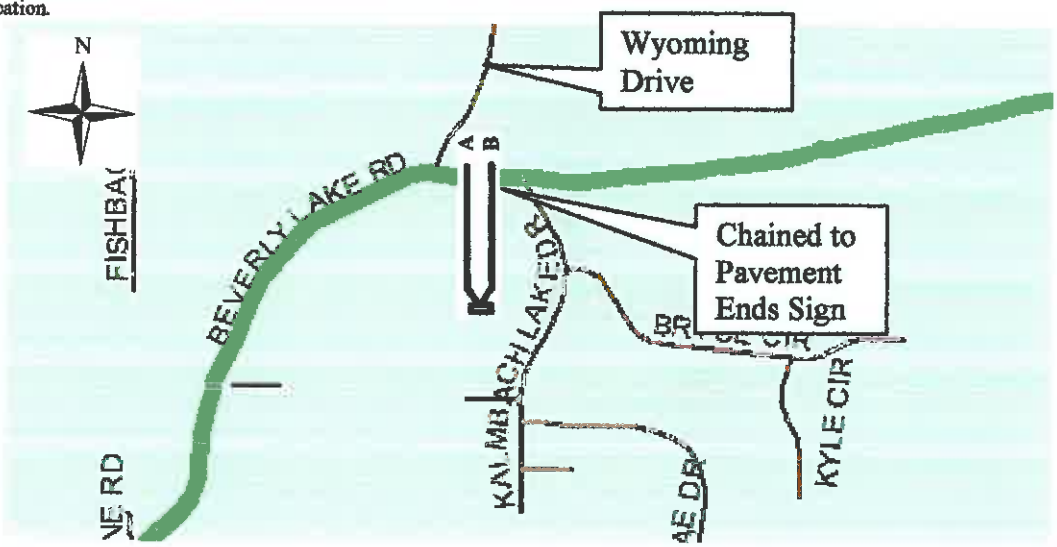
Count Objective: V01

Road Tube Layout Type/Settings L6I

Traffic Tech Initials: (N)

	Date	Time	Count	Volts
Checked:	7-12	AM		
	7-13	PM		
Checked:	7-16	AM		
Checked:	7-18	AM		
Checked:				
Checked:				
Pulled:	7-19	AM		

Diagram of Set-up: Include North arrow, A&B tube layout, adjacent cross streets, driveways and sufficient permanent physical features or distance estimates to accurately describe location.



Notes: bad dog in nearby house watch-out!!

N61°36.934'
W149°35.349'

Site ID:0[illegible]200900000
Station Num:024200900000
Start Date/Time:07/01/12 00:00
End Date/Time:07/31/12 23:59

July 2012	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Total
Sun 1																									
Mon 2																									
Tue 3																									
Wed 4																									
Thu 5																									
Fri 6																									
Sat 7																									
Sun 8																									
Mon 9																									
Tue 10																									
Wed 11															37	34	39	37	35	19	23	17	8	3	252
Thu 12	2	3	2	3	1	8	11	15	35	22	29	37	25	36	42	29	40	48	35	33	30	21	15	5	527
Fri 13	8	7	5	4	2	9	11	26	25	26	21	31	36	19	22	24	23	30	34	34	23	24	13	9	466
Sat 14	3	2	0	0	2	0	4	10	8	19	14	14	20	36	46	41	46	29	34	26	31	22	15	3	425
Sun 15	1	1	3	3	1	0	4	0	5	8	20	13	20	28	28	29	26	29	21	19	16	25	12	10	322
Mon 16	1	1	0	0	3	5	12	10	18	22	17	34	27	30	35	24	33	28	26	21	19	9	8	3	386
Tue 17	4	0	4	1	3	6	14	9	17	18	12	26	24	33	30	33	39	31	36	29	18	19	21	8	435
Wed 18	5	5	1	0	6	5	11	23	14	17	21	35	37	28	20	34	30	40	29	24	15	14	9	2	425
Thu 19	7	0	0	4	1	5	8	10	14	17															66
Fri 20																									
Sat 21																									
Sun 22																									
Mon 23																									
Tue 24																									
Wed 25																									
Thu 26																									
Fri 27																									
Sat 28																									
Sun 29																									
Mon 30																									
Tue 31																									
Percentages	0.94%	0.58%	0.45%	0.45%	0.58%	1.15%	2.27%	3.12%	4.12%	4.51%	4.06%	5.75%	5.72%	6.36%	7.87%	7.51%	8.35%	8.23%	7.57%	6.20%	5.30%	4.57%	3.06%	1.30%	100.00%
Hour Totals	31	19	15	15	19	38	75	103	136	149	134	190	189	210	260	248	276	272	250	205	175	151	101	43	3304

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0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57533000 3 EAST 170088 1.007 SELDON RD BTWN WARDS ROAD & CHURCH ROAD - EB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
JUNE	2012																									
01F																										*
002S																										*
03S																										*
004M																										*
05T																										*
06W																										*
07T																										*
08F																										*
009S																										*
10S																										*
011M																										*
12T																										*
13W																										*
14T																										*
15F																										*
016S																										*
17S																										*
018M																										*
19T																										*
20W	17	9	4	2	8	21	34	57	49	63	53	47	60	56	61	69	90	91	79	74	55	61	38	13	1111	
21T	13	7	3	6	6	22	32	61	43	54	59	73	63	94	89	66	80	100	98	66	67	65	37	27	1231	
22F	17	10	3	3	7	22	34	50	47	55	55	80	74	85	64	71	95	79	95	72	47	46	49	23	1183	
023S	23	10	6	1	3	7	13	23	42	46	62	89	80	101	85	90	88	74	76	55	41	69	47	47	1178	
24S	19	10	13	5	7	4	5	12	23	28	51	43	86	75	81	66	89	70	76	54	41	43	25	14	940	
025M	10	9	5	3	5	22	36	42	45	52	40	49	61	68	50	48	77	84	78	73	44	53	25	22	1001	
26T	6	3	7	0	4	21	36	71	60	52	48	58	70	66	61	54	90	75	84	57	52	41	25	16	1057	*
27W																										*
28T																										*
29F																										*
030S																										*

JUNE MADT = 1100

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

1Page 2 13-10-23 09:37:56

0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57533000 7 WEST 170088 1.007 SELDON RD BTWN WARDS ROAD & CHURCH ROAD - WB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
JUNE	2012																									
01F																										*
002S																										*
03S																										*
004M																										*
05T																										*
06W																										*
07T																										*
08F																										*
009S																										*
10S																										*
011M																										*
12T																										*
13W																										*
14T																										*
15F																										*
016S																										*
17S																										*
018M																										*
19T																										*

```
 20W    15    9    8    4    8   17   31   34   31   40   48   44   54   60   66   90  126  130  118  100   71   61   29   18  1212
 21T    12    4    7    5    6    9   19   36   38   55   57   58   63   62   92   78  104  150  118   92  108   66   49   23  1311
 22F    21    7    1    7    3   13   21   42   36   53   68   67   87   91   68  102  119  141  121   84   87   77   49   23  1388
023S    22   17    6    2    5    9   14   16   24   45   55   95   85  109  104  121   94  104   75   78   57   50   47   45  1279
 24S    25   11   12    6    6    0    8    9   31   35   50   39   63   77   81   63  107   73   76   54   45   42   28   14   955 *
025M     9    7    5    4    8   12   16   43   34   48   41   56   63   63   82   72   65  132   99   98   75   55   32   11  1130
 26T    13    6    3    2    6   14   24   37   47   59   47   55   69   64   75   71  103  131  111   85   62   47   27   22  1180
 27W                                                                                                                                  *
 28T                                                                                                                                  *
 29F                                                                                                                                  *
030S                                                                                                                                  *
 JUNE       MADT =    1208
 LEGEND: D=DAY OF WEEK, N=NOT VERIFIED,  I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME
1Page      3                                                                                                          13-10-23  09:37:56
0R01-TWV-R006             ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
                                                          RAW VOLUME DATA
0STATION  DIRECTION     ALIAS    ROUTE         MIPT NAME
 57533000 0 EAST-WEST            170088       1.007 SELDON RD BTWN WARDS ROAD & CHURCH ROAD - TOTAL
  DNI 0100 0200 0300 0400 0500 0600 0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 TOTAL
 JUNE       2012
 01F                                                                                                                                  *
002S                                                                                                                                  *
 03S                                                                                                                                  *
004M                                                                                                                                  *
 05T                                                                                                                                  *
 06W                                                                                                                                  *
 07T                                                                                                                                  *
 08F                                                                                                                                  *
009S                                                                                                                                  *
 10S                                                                                                                                  *
011M                                                                                                                                  *
 12T                                                                                                                                  *
 13W                                                                                                                                  *
 14T                                                                                                                                  *
 15F                                                                                                                                  *
016S                                                                                                                                  *
 17S                                                                                                                                  *
018M                                                                                                                                  *
 19T                                                                                                                                  *
 20W    32   18   12    6   16   38   65   91   80  103  101   91  114  116  127  159  216  221  197  174  126  122   67   31  2323
 21T    25   11   10   11   12   31   51   97   81  109  116  131  126  156  181  144  184  250  216  158  175  131   86   50  2542
 22F    38   17    4   10   10   35   55   92   83  108  123  147  161  176  132  173  214  220  216  156  134  123   98   46  2571
023S    45   27   12    3    8   16   27   39   66   91  117  184  165  210  189  211  182  178  151  133   98  119   94   92  2457
 24S    44   21   25   11   13    4   13   21   54   63  101   82  149  152  162  129  196  143  152  108   86   85   53   28  1895
025M    19   16   10    7   13   34   52   85   79  100   81  105  124  131  132  120  142  216  177  171  119  108   57   33  2131
 26T    19    9   10    2   10   35   60  108  107  111   95  113  139  130  136  125  193  206  195  142  114   88   52   38  2237
 27W                                                                                                                                  *
 28T                                                                                                                                  *
 29F                                                                                                                                  *
030S                                                                                                                                  *
 JUNE       MADT =    2308
 LEGEND: D=DAY OF WEEK, N=NOT VERIFIED,  I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME
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1Page 1 13-10-23 09:30:53

0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57605000 1 NORTH 170066 1.535 PITTMAN RD - W OF BEVERLY LAKE RD AND SOUTH OF PHILLIPS DRIVE - NB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
JUNE 2010																										
01T																										*
02W																										*
03T																										*
04F																										*
005S																										*
06S																										*
007M																										*
08T																										*
09W																										*
10T																										*
11F																										*
012S																										*
13S																										*
014M																										*
15T																										*
16W	7	3	4	6	15	33	65	74	69	82	92	62	82	79	93	81	81	80	78	63	30	39	29	22	1269	
17T	11	8	3	3	13	34	55	71	66	73	84	78	82	97	76	83	83	74	86	69	73	38	26	19	1305	
18F	10	3	1	5	15	32	60	65	66	89	101	93	87	70	88	108	101	102	86	89	84	64	27	31	1477	
019S	13	10	7	4	9	14	26	33	54	89	82	76	110	99	83	85	77	88	72	83	65	40	37	14	1270	
20S	14	8	1	4	8	4	4	28	38	70	71	76	86	80	93	106	93	89	85	72	59	49	40	11	1189	
021M	15	1	10	8	6	41	50	69	59	85	85	100	87	73	92	98	88	68	88	61	55	36	37	15	1327	
22T	8	3	0	8	12	32	59	72	67	66	74	86	73	85	79	95	99	89	98	84	69	48	28	28	1362	*
23W	13	7	6	3	13	36	50	73	65	66	81	63	95	89	70	79	97	87	90	57	49	39	36	17	1281	
24T																										*
25F																										*
026S																										*
27S																										*
028M																										*
29T																										*
30W																										*

JUNE MADT = 1315

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

1Page 2 13-10-23 09:30:53

0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57605000 5 SOUTH 170066 1.535 PITTMAN RD - W OF BEVERLY LAKE RD AND SOUTH OF PHILLIPS DRIVE - SB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
JUNE 2010																										
01T																										*
02W																										*
03T																										*
04F																										*
005S																										*
06S																										*
007M																										*
08T																										*
09W																										*
10T																										*
11F																										*
012S																										*
13S																										*
014M																										*
15T																										*
16W	16	6	11	1	6	3	16	17	35	53	60	67	66	79	80	112	92	124	119	74	83	52	33	25	1230	
17T	15	6	6	2	1	8	11	27	36	40	42	71	71	72	94	84	86	100	108	94	87	69	42	27	1199	
18F	19	11	6	5	2	5	17	17	33	47	55	84	67	82	81	138	104	100	109	112	90	70	53	23	1330	
019S	21	11	14	9	8	9	10	17	34	49	65	62	62	98	105	100	98	100	92	91	59	62	45	23	1244	

```
 20S    29   15    7    7    3    3    4    5   22   30   42   56   88   92   94  101   89   91   80   79   76   55   47   28  1143
021M    15    6   10    4    1    6   14   25   28   47   77   66   64   73   88   94  106  130  132   98   72   62   36   24  1278
 22T    12    4    4    2    2    4   19   22   33   38   50   69   60   71   84  100  101  126  155  102   73   69   56   42  1298
 23W    14    6    8    2    3    4   13   22   36   43   54   73   60   82   74   93   95  122  104   86   96   62   57   28  1237
 24T                                                                                                                                  *
 25F                                                                                                                                  *
026S                                                                                                                                  *
 27S                                                                                                                                  *
028M                                                                                                                                  *
 29T                                                                                                                                  *
 30W                                                                                                                                  *
 JUNE       MADT =    1247
 LEGEND: D=DAY OF WEEK, N=NOT VERIFIED,  I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME
1Page      3                                                                                                   13-10-23  09:30:53
0R01-TWV-R006             ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
                                                      RAW VOLUME DATA
0STATION  DIRECTION     ALIAS    ROUTE         MIPT NAME
 57605000 9 NORTH-SOUTH          170066       1.535 PITTMAN RD - W OF BEVERLY LAKE RD AND SOUTH OF PHILLIPS DRIVE -TOTAL
  DNI 0100 0200 0300 0400 0500 0600 0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 TOTAL
 JUNE       2010
 01T                                                                                                                                  *
 02W                                                                                                                                  *
 03T                                                                                                                                  *
 04F                                                                                                                                  *
005S                                                                                                                                  *
 06S                                                                                                                                  *
007M                                                                                                                                  *
 08T                                                                                                                                  *
 09W                                                                                                                                  *
 10T                                                                                                                                  *
 11F                                                                                                                                  *
012S                                                                                                                                  *
 13S                                                                                                                                  *
014M                                                                                                                                  *
 15T                                                                                                                                  *
 16W    23    9   15    7   21   36   81   91  104  135  152  129  148  158  173  193  173  204  197  137  113   91   62   47  2499
 17T    26   14    9    5   14   42   66   98  102  113  126  149  153  169  170  167  169  174  194  163  160  107   68   46  2504
 18F    29   14    7   10   17   37   77   82   99  136  156  177  154  152  169  246  205  202  195  201  174  134   80   54  2807
019S    34   21   21   13   17   23   36   50   88  138  147  138  172  197  188  185  175  188  164  174  124  102   82   37  2514
 20S    43   23    8   11   11    7    8   33   60  100  113  132  174  172  187  207  182  180  165  151  135  104   87   39  2332
021M    30    7   20   12    7   47   64   94   87  132  162  166  151  146  180  192  194  198  220  159  127   98   73   39  2605
 22T    20    7    4   10   14   36   78   94  100  104  124  155  133  156  163  195  200  215  253  186  142  117   84   70  2660
 23W    27   13   14    5   16   40   63   95  101  109  135  136  155  171  144  172  192  209  194  143  145  101   93   45  2518
 24T                                                                                                                                  *
 25F                                                                                                                                  *
026S                                                                                                                                  *
 27S                                                                                                                                  *
028M                                                                                                                                  *
 29T                                                                                                                                  *
 30W                                                                                                                                  *
 JUNE       MADT =    2562
 LEGEND: D=DAY OF WEEK, N=NOT VERIFIED,  I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME
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1Page 1 13-10-23 09:29:21
0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME
57602500 1 NORTH 170066 0.997 PITTMAN RD, SOUTH OF LAKEVIEW DR & NORTH OF BIBLE CAMP - NB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL
JULY 2012																									
01S																									*
002M																									*
03T																									*
04W																									*
05T																									*
06F																									*
007S																									*
08S																									*
009M																									*
10T																									*
11W																									*
12T																									*
13F																									*
014S																									*
15S																									*
016M																									*
17T																									*
18W																									*
19T																									*
20F																									*
021S																									*
22S																									*
023M	18	9	9	8	24	53	68	126	99	132	129	136	153	127	137	111	154	144	103	99	135	60	38	30	2102
24T	16	8	7	5	15	61	80	133	106	117	142	111	126	144	120	136	148	120	111	105	145	74	38	25	2093
25W	18	11	3	17	22	48	78	115	139	115	110	122	140	142	160	129	149	130	137	96	110	77	44	42	2154
26T	18	8	8	10	15	49	91	107	114	123	133	128	124	156	110	140	138	182	121	93	170	87	50	35	2210
27F	31	9	9	9	22	40	84	108	131	141	134	133	166	145	155	133	152	157	154	120	121	103	68	34	2359
028S	31	15	9	5	7	27	28	48	85	119	112	132	157	146	130	113	126	118	117	95	88	64	44	39	1855
29S	23	12	6	2	6	20	12	32	62	88	134	118	131	144	111	110	115	121	96	91	92	73	39	21	1659
030M	16	7	7	10	21	57	81	118	134	131	121	126	139	130	128	128	129	153	125	95	102	69	46	31	2104
31T																									*

JULY MADT = 2062
LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

1Page 2 13-10-23 09:29:21
0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME
57602500 5 SOUTH 170066 0.997 PITTMAN RD, SOUTH OF LAKEVIEW DR & NORTH OF BIBLE CAMP - SB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL
JULY 2012																									
01S																									*
002M																									*
03T																									*
04W																									*
05T																									*
06F																									*
007S																									*
08S																									*
009M																									*
10T																									*
11W																									*
12T																									*
13F																									*
014S																									*
15S																									*
016M																									*
17T																									*
18W																									*

19T																										*
20F																										*
021S																										*
22S																										*
023M	28	15	7	8	9	12	19	40	49	76	99	116	104	122	122	148	176	251	199	139	128	102	72	42	2083	
24T	20	8	7	3	3	9	25	46	52	53	95	113	125	111	119	161	158	216	191	172	134	104	91	38	2054	
25W	28	18	10	8	7	8	21	36	68	70	76	107	120	126	136	163	184	233	195	153	146	111	90	68	2182	
26T	28	12	9	4	4	6	26	28	56	83	71	97	112	143	138	160	213	244	222	135	115	114	114	58	2192	
27F	37	23	12	5	6	9	25	31	75	74	85	140	140	111	159	156	172	241	195	157	153	136	91	59	2292	
028S	33	26	12	6	8	11	19	23	37	70	70	110	105	133	155	139	171	173	149	133	113	76	80	41	1893	
29S	29	27	12	10	6	12	8	11	30	40	67	97	120	125	140	131	161	131	151	121	120	88	60	40	1737	
030M	20	14	11	4	5	11	24	79	58	70	88	105	114	148	127	182	180	246	206	133	113	96	76	42	2152	
31T																										*

JULY MADT = 2067

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

1Page 3 13-10-23 09:29:21

0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57602500 9 NORTH-SOUTH 170066 0.997 PITTMAN RD, SOUTH OF LAKEVIEW DR & NORTH OF BIBLE CAMP - TOTAL

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
JULY	2012																									
01S																										*
002M																										*
03T																										*
04W																										*
05T																										*
06F																										*
007S																										*
08S																										*
009M																										*
10T																										*
11W																										*
12T																										*
13F																										*
014S																										*
15S																										*
016M																										*
17T																										*
18W																										*
19T																										*
20F																										*
021S																										*
22S																										*
023M	46	24	16	16	33	65	87	166	148	208	228	252	257	249	259	259	330	395	302	238	263	162	110	72	4185	
24T	36	16	14	8	18	70	105	179	158	170	237	224	251	255	239	297	306	336	302	277	279	178	129	63	4147	
25W	46	29	13	25	29	56	99	151	207	185	186	229	260	268	296	292	333	363	332	249	256	188	134	110	4336	
26T	46	20	17	14	19	55	117	135	170	206	204	225	236	299	248	300	351	426	343	228	285	201	164	93	4402	
27F	68	32	21	14	28	49	109	139	206	215	219	273	306	256	314	289	324	398	349	277	274	239	159	93	4651	
028S	64	41	21	11	15	38	47	71	122	189	182	242	262	279	285	252	297	291	266	228	201	140	124	80	3748	
29S	52	39	18	12	12	32	20	43	92	128	201	215	251	269	251	241	276	252	247	212	212	161	99	61	3396	
030M	36	21	18	14	26	68	105	197	192	201	209	231	253	278	255	310	309	399	331	228	215	165	122	73	4256	
31T																										*

JULY MADT = 4129

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

1Page 1 13-10-23 09:27:13

0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57601000 1 NORTH 170066 0.203 PITTMAN RD, N OF GOLDEN DR - NB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
JUNE		2010																								
01T																										*
02W																										*
03T																										*
04F																										*
005S																										*
06S																										*
007M																										*
08T																										*
09W																										*
10T																										*
11F																										*
012S																										*
13S																										*
014M																										*
15T																										*
16W																										*
17T																										*
18F																										*
019S																										*
20S																										*
021M																										*
22T																										*
23W	32	8	10	3	7	10	15	29	51	67	88	101	115	150	139	183	174	201	211	177	165	105	99	55	2195	
24T	36	21	9	9	6	6	21	35	54	64	76	113	122	140	153	188	193	202	201	175	147	135	89	35	2230	
25F	34	30	13	6	13	4	17	36	49	84	89	136	165	158	172	164	216	221	230	200	147	158	92	67	2501	
026S	46	25	19	15	13	11	17	21	49	63	98	125	167	149	168	167	150	195	180	144	122	115	104	60	2223	
27S	40	37	17	18	12	9	9	10	32	68	64	74	125	167	159	161	166	150	144	113	102	86	62	26	1851	
028M	27	10	12	9	6	5	10	36	42	82	80	110	115	136	129	170	192	218	217	172	127	114	95	54	2168	
29T	25	17	14	8	5	9	21	37	38	50	78	92	124	162	132	184	194	225	242	175	147	134	62	44	2219	
30W																										*

JUNE MADT = 2198

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

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0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57601000 5 SOUTH 170066 0.203 PITTMAN RD, N OF GOLDEN DR - SB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
JUNE		2010																								
01T																										*
02W																										*
03T																										*
04F																										*
005S																										*
06S																										*
007M																										*
08T																										*
09W																										*
10T																										*
11F																										*
012S																										*
13S																										*
014M																										*
15T																										*
16W																										*
17T																										*
18F																										*
019S																										*

20S																										*
021M																										*
22T																										*
23W	16	7	6	7	22	62	102	130	139	117	134	109	151	147	138	146	132	131	142	100	98	66	49	27	2178	
24T	16	15	7	9	15	70	98	148	122	137	141	123	137	151	153	147	146	168	125	108	86	80	45	26	2273	
25F	22	3	3	10	17	59	102	137	118	141	134	179	165	171	182	125	150	162	143	130	112	90	55	44	2454	
026S	29	17	5	13	21	22	39	67	81	141	143	167	176	155	172	152	148	139	118	111	112	94	65	50	2237	
27S	29	19	18	8	5	10	20	48	58	107	134	118	163	132	138	125	123	150	137	104	86	62	37	28	1859	
028M	12	3	7	8	15	62	92	137	135	126	114	153	131	149	138	142	140	136	116	108	85	77	59	42	2187	
29T	16	9	8	10	26	64	101	139	125	109	129	129	153	143	150	132	119	136	136	132	102	61	39	26	2194	
30W																										*

JUNE MADT = 2197

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

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0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57601000 9 NORTH-SOUTH 170066 0.203 PITTMAN RD, N OF GOLDEN DR - TOTAL

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
JUNE	2010																									
01T																										*
02W																										*
03T																										*
04F																										*
005S																										*
06S																										*
007M																										*
08T																										*
09W																										*
10T																										*
11F																										*
012S																										*
13S																										*
014M																										*
15T																										*
16W																										*
17T																										*
18F																										*
019S																										*
20S																										*
021M																										*
22T																										*
23W	48	15	16	10	29	72	117	159	190	184	222	210	266	297	277	329	306	332	353	277	263	171	148	82	4373	
24T	52	36	16	18	21	76	119	183	176	201	217	236	259	291	306	335	339	370	326	283	233	215	134	61	4503	
25F	56	33	16	16	30	63	119	173	167	225	223	315	330	329	354	289	366	383	373	330	259	248	147	111	4955	
026S	75	42	24	28	34	33	56	88	130	204	241	292	343	304	340	319	298	334	298	255	234	209	169	110	4460	
27S	69	56	35	26	17	19	29	58	90	175	198	192	288	299	297	286	289	300	281	217	188	148	99	54	3710	
028M	39	13	19	17	21	67	102	173	177	208	194	263	246	285	267	312	332	354	333	280	212	191	154	96	4355	
29T	41	26	22	18	31	73	122	176	163	159	207	221	277	305	282	316	313	361	378	307	249	195	101	70	4413	
30W																										*

JUNE MADT = 4396

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

1Page 1 13-10-23 09:22:06

0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57582000 1 NORTH 170056 2.567 CHURCH ST BTWN SELDON & PITTMAN/SHAMPINE LN - NB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
AUGUST 2012																										
01W																										*
02T																										*
03F																										*
004S																										*
05S	13	3	3	4	3	3	3	6	7	21	41	45	50	67	79	74	63	60	48	57	34	39	33	17	773	
006M	5	3	2	2	0	3	10	12	20	20	29	42	43	44	42	64	62	78	59	59	50	42	33	12	736	*
07T	6	6	3	2	4	2	7	20	23	37	41	30	59	57	62	54	74	74	54	63	67	45	29	20	839	
08W	12	4	1	3	2	2	6	14	22	23	29	32	31	46	51	79	51	66	70	59	59	47	23	22	754	
09T	11	1	7	2	2	1	4	13	32	38	29	30	57	55	48	67	69	85	71	62	53	41	34	19	831	
10F	12	5	1	2	4	4	8	17	30	33	32	42	39	55	52	45	60	70	66	61	57	35	51	25	806	
011S	17	7	4	5	2	4	4	10	15	21	42	95	44	70	63	73	54	68	74	47	50	26	33	43	871	
12S	9	13	2	3	3	6	9	6	22	25	41	33	62	61	76	70	59	60	68	68	44	37	27	11	815	
013M																										*
14T																										*
15W																										*
16T																										*
17F																										*
018S																										*
19S																										*
020M																										*
21T																										*
22W																										*
23T																										*
24F																										*
025S																										*
26S																										*
027M																										*
28T																										*
29W																										*
30T																										*
31F																										*

AUGUST MADT = 804

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

1Page 2 13-10-23 09:22:06

0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57582000 5 SOUTH 170056 2.567 CHURCH ST BTWN SELDON & PITTMAN/SHAMPINE LN - SB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
AUGUST 2012																										
01W																										*
02T																										*
03F																										*
004S	12	6	18	4	8	7	11	22	32	51	54	68	64	49	48	48	45	57	47	36	33	25	30	18	793	
05S	10	10	8	2	1	15	6	8	14	33	49	46	48	59	68	50	49	66	38	50	34	36	21	18	739	
006M	2	1	1	2	7	33	36	44	35	47	30	42	51	39	46	47	46	43	47	39	27	22	20	12	719	
07T	7	10	2	4	7	27	31	41	45	39	46	36	50	56	55	46	49	52	44	42	37	34	31	15	806	
08W	4	3	2	3	5	35	22	42	44	37	28	30	39	40	41	48	47	45	52	37	46	38	21	13	722	
09T	10	5	2	1	5	31	25	38	45	39	34	41	52	43	52	47	57	49	62	48	45	28	14	17	790	
10F	7	3	2	2	4	20	28	39	35	42	50	35	42	48	48	40	72	45	36	42	32	35	39	10	756	
011S	8	7	5	6	1	9	13	27	24	40	39	68	99	49	47	66	48	54	41	51	41	41	35	21	840	
12S	8	8	3	1	8	8	8	9	21	33	43	37	65	61	67	50	63	51	60	48	41	37	31	8	769	
013M																										*
14T																										*
15W																										*
16T																										*
17F																										*
018S																										*

19S	*
020M	*
21T	*
22W	*
23T	*
24F	*
025S	*
26S	*
027M	*
28T	*
29W	*
30T	*
31F	*

AUGUST MADT = 766

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

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0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57582000 9 NORTH-SOUTH 170056 2.567 CHURCH ST BTWN SELDON & PITTMAN/SHAMPINE LN - TOTAL

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
AUGUST	2012																									
01W																										*
02T																										*
03F																										*
004S																										*
05S	23	13	11	6	4	18	9	14	21	54	90	91	98	126	147	124	112	126	86	107	68	75	54	35	1512	
006M	7	4	3	4	7	36	46	56	55	67	59	84	94	83	88	111	108	121	106	98	77	64	53	24	1455	
07T	13	16	5	6	11	29	38	61	68	76	87	66	109	113	117	100	123	126	98	105	104	79	60	35	1645	
08W	16	7	3	6	7	37	28	56	66	60	57	62	70	86	92	127	98	111	122	96	105	85	44	35	1476	
09T	21	6	9	3	7	32	29	51	77	77	63	71	109	98	100	114	126	134	133	110	98	69	48	36	1621	
10F	19	8	3	4	8	24	36	56	65	75	82	77	81	103	100	85	132	115	102	103	89	70	90	35	1562	
011S	25	14	9	11	3	13	17	37	39	61	81	163	143	119	110	139	102	122	115	98	91	67	68	64	1711	
12S	17	21	5	4	11	14	17	15	43	58	84	70	127	122	143	120	122	111	128	116	85	74	58	19	1584	
013M																										*
14T																										*
15W																										*
16T																										*
17F																										*
018S																										*
19S																										*
020M																										*
21T																										*
22W																										*
23T																										*
24F																										*
025S																										*
26S																										*
027M																										*
28T																										*
29W																										*
30T																										*
31F																										*

AUGUST MADT = 1574

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

1Page 1 13-10-23 09:18:24

0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57313000 1 NORTH 170056 1.850 CHURCH RD BTWN SPRUCE AVE & SELDON RD - NB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
JULY		2009																								
01W																										*
02T																										*
03F																										*
004S																										*
05S																										*
006M																										*
07T																										*
08W																										*
09T																										*
10F																										*
011S																										*
12S																										*
013M																										*
14T																										*
15W																										*
16T																										*
17F																										*
018S																										*
19S																										*
020M																										*
21T																										*
22W																										*
23T																										*
24F																										*
025S	30	18	12	12	6	6	10	21	41	65	75	110	125	131	126	142	130	132	105	117	90	64	58	48	1674	
26S	38	16	9	6	4	6	6	14	21	44	76	73	129	111	115	115	128	98	114	100	88	77	66	31	1485	
027M	17	8	3	6	7	12	13	45	66	85	84	84	104	93	113	118	145	162	141	121	99	75	48	33	1682	
28T	31	9	5	3	4	5	17	48	69	76	73	99	119	141	124	160	167	188	153	116	114	80	51	34	1886	
29W	17	9	5	2	3	13	20	46	57	70	75	79	127	103	97	144	161	199	159	119	106	159	74	29	1873	
30T	15	13	7	6	3	11	20	40	44	59	63	81	86	109	114	119	165	205	172	114	113	88	65	32	1744	
31F	22	10	6	1	4	14	17	38	57	79	76	100	125	99	114	145	178	193	166	133	107	83	72	47	1886	

JULY MADT = 1747

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

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0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57313000 5 SOUTH 170056 1.850 CHURCH RD BTWN SPRUCE AVE & SELDON RD - SB

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
JULY		2009																								
01W																										*
02T																										*
03F																										*
004S																										*
05S																										*
006M																										*
07T																										*
08W																										*
09T																										*
10F																										*
011S																										*
12S																										*
013M																										*
14T																										*
15W																										*
16T																										*
17F																										*
018S																										*

19S																										*
020M																										*
21T																										*
22W																										*
23T																										*
24F																										*
025S	27	9	9	5	8	13	34	47	70	103	129	109	129	138	131	110	121	119	98	72	66	62	39	38	1686	
26S	20	12	14	2	12	3	16	26	51	82	92	131	95	114	104	88	103	107	97	90	75	47	35	26	1442	
027M	19	8	3	7	16	61	67	109	133	112	92	90	128	106	120	98	100	103	121	70	53	54	31	24	1725	
28T	14	6	6	5	16	65	77	114	116	130	99	111	128	118	113	104	131	139	114	92	67	72	40	21	1898	
29W	6	4	7	5	17	59	83	104	138	98	113	101	119	124	94	87	102	144	155	94	73	60	39	26	1852	
30T	16	7	6	11	16	57	73	110	113	91	102	101	101	105	105	115	106	138	104	85	71	53	45	26	1757	
31F	13	3	5	6	17	54	97	92	103	118	116	103	117	103	115	117	139	164	123	101	75	67	43	40	1931	

JULY MADT = 1756

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

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0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

57313000 9 NORTH-SOUTH 170056 1.850 CHURCH RD BTWN SPRUCE AVE & SELDON RD - TOTAL

JULY 2009

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
01W																										*
02T																										*
03F																										*
004S																										*
05S																										*
006M																										*
07T																										*
08W																										*
09T																										*
10F																										*
011S																										*
12S																										*
013M																										*
14T																										*
15W																										*
16T																										*
17F																										*
018S																										*
19S																										*
020M																										*
21T																										*
22W																										*
23T																										*
24F																										*
025S	57	27	21	17	14	19	44	68	111	168	204	219	254	269	257	252	251	251	203	189	156	126	97	86	3360	
26S	58	28	23	8	16	9	22	40	72	126	168	204	224	225	219	203	231	205	211	190	163	124	101	57	2927	
027M	36	16	6	13	23	73	80	154	199	197	176	174	232	199	233	216	245	265	262	191	152	129	79	57	3407	
28T	45	15	11	8	20	70	94	162	185	206	172	210	247	259	237	264	298	327	267	208	181	152	91	55	3784	
29W	23	13	12	7	20	72	103	150	195	168	188	180	246	227	191	231	263	343	314	213	179	219	113	55	3725	
30T	31	20	13	17	19	68	93	150	157	150	165	182	187	214	219	234	271	343	276	199	184	141	110	58	3501	
31F	35	13	11	7	21	68	114	130	160	197	192	203	242	202	229	262	317	357	289	234	182	150	115	87	3817	

JULY MADT = 3503

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

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0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

56955000 3 EAST 170000 9.330 PARKS HWY JUST EAST OF CHURCH ST (LOOPS) - EB

JUNE 2012

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
01F																										*
002S																										*
03S																										*
004M																										*
05T																										*
06W																										*
07T																										*
08F																										*
009S																										*
10S																										*
011M																										*
12T																										*
13W																										*
14T																										*
15F																										*
016S																										*
17S																										*
018M																										*
19T																										*
20W	101	53	38	43	106	401	624	742	706	694	689	726	763	697	721	782	772	654	558	404	376	271	209	142	11272	
21T	77	65	41	51	107	383	605	722	699	697	617	707	749	734	734	725	682	676	614	434	366	352	246	156	11239	
22F	107	64	30	54	101	338	581	670	697	732	722	757	861	836	796	738	755	674	624	499	400	408	347	268	12059	
023S	129	103	75	51	69	131	214	329	381	526	658	718	772	720	756	703	769	720	654	577	544	507	401	297	10804	
24S	184	94	66	52	50	110	96	157	286	477	690	821	965	985	1023	941	831	793	714	571	457	361	221	154	11099	
025M	80	53	34	55	103	403	587	716	658	678	663	821	757	763	706	742	779	699	536	417	307	311	207	101	11176	
26T	78	45	37	44	99	404	636	743	726	649	688	728	739	704	706	637	731	675	572	386	342	304	195	115	10983	
27W																										*
28T																										*
29F																										*
030S																										*

JUNE MADT = 11233

LEGEND: D=DAY OF WEEK, N=NOT VERIFIED, I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME

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0R01-TWV-R006 ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

RAW VOLUME DATA

0STATION DIRECTION ALIAS ROUTE MIPT NAME

56955000 7 WEST 170000 9.330 PARKS HWY JUST EAST OF CHURCH ST (LOOPS) - WB

JUNE 2012

DNI	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	TOTAL	
01F																										*
002S																										*
03S																										*
004M																										*
05T																										*
06W																										*
07T																										*
08F																										*
009S																										*
10S																										*
011M																										*
12T																										*
13W																										*
14T																										*
15F																										*
016S																										*
17S																										*
018M																										*
19T																										*

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 20W   120   84   36   64   45   80  154  249  329  432  570  614  699  719  773  856  988 1126  978  699  586  419  281  205 11106
 21T   133   76   52   43   45   66  154  246  333  463  523  630  701  716  781  897  967 1108 1018  799  556  533  304  220 11364
 22F   134   95   58   61   36   82  142  251  378  449  601  688  834  884  951  967 1128 1151 1130 1010  766  611  437  311 13155
023S   214  139   74   79   74   61   97  202  307  431  641  846  836  948 1005  932  878  785  712  634  500  421  329  259 11404
 24S   179  115   80   53   49   34   80  101  241  325  469  527  699  699  680  687  646  609  546  484  421  330  233  165  8452
025M   104   67   28   42   42   66  117  225  349  421  487  615  680  734  779  815  942 1143  954  659  515  361  274  175 10594
 26T   118   78   36   39   35   60  132  265  320  446  452  565  656  741  708  819 1015 1142  977  695  523  429  291  180 10722
 27W                                                                                                                                  *
 28T                                                                                                                                  *
 29F                                                                                                                                  *
030S                                                                                                                                  *
 JUNE       MADT =   10971
 LEGEND: D=DAY OF WEEK, N=NOT VERIFIED,  I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME
1Page      3                                                                                                   13-10-23  09:49:05
0R01-TWV-R006             ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
                                                          RAW VOLUME DATA
0STATION  DIRECTION     ALIAS    ROUTE         MIPT NAME
 56955000 0 EAST-WEST            170000       9.330 PARKS HWY JUST EAST OF CHURCH ST (LOOPS) - TOTAL
  DNI 0100 0200 0300 0400 0500 0600 0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 TOTAL
 JUNE       2012
 01F                                                                                                                                  *
002S                                                                                                                                  *
 03S                                                                                                                                  *
004M                                                                                                                                  *
 05T                                                                                                                                  *
 06W                                                                                                                                  *
 07T                                                                                                                                  *
 08F                                                                                                                                  *
009S                                                                                                                                  *
 10S                                                                                                                                  *
011M                                                                                                                                  *
 12T                                                                                                                                  *
 13W                                                                                                                                  *
 14T                                                                                                                                  *
 15F                                                                                                                                  *
016S                                                                                                                                  *
 17S                                                                                                                                  *
018M                                                                                                                                  *
 19T                                                                                                                                  *
 20W   221  137   74  107  151  481  778  991 1035 1126 1259 1340 1462 1416 1494 1638 1760 1780 1536 1103  962  690  490  347 22378
 21T   210  141   93   94  152  449  759  968 1032 1160 1140 1337 1450 1450 1515 1622 1649 1784 1632 1233  922  885  550  376 22603
 22F   241  159   88  115  137  420  723  921 1075 1181 1323 1445 1695 1720 1747 1705 1883 1825 1754 1509 1166 1019  784  579 25214
023S   343  242  149  130  143  192  311  531  688  957 1299 1564 1608 1668 1761 1635 1647 1505 1366 1211 1044  928  730  556 22208
 24S   363  209  146  105   99  144  176  258  527  802 1159 1348 1664 1684 1703 1628 1477 1402 1260 1055  878  691  454  319 19551
025M   184  120   62   97  145  469  704  941 1007 1099 1150 1436 1437 1497 1485 1557 1721 1842 1490 1076  822  672  481  276 21770
 26T   196  123   73   83  134  464  768 1008 1046 1095 1140 1293 1395 1445 1414 1456 1746 1817 1549 1081  865  733  486  295 21705
 27W                                                                                                                                  *
 28T                                                                                                                                  *
 29F                                                                                                                                  *
030S                                                                                                                                  *
 JUNE       MADT =   22204
 LEGEND: D=DAY OF WEEK, N=NOT VERIFIED,  I=INVENTED *=MISSING DATA OR 0 COUNT IN LINE, +=NON-0024 START/STOP TIME
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