



# Public Works Committee Meeting

Cravath Lakefront Room, 2nd Floor  
312 W. Whitewater St.  
Whitewater, WI 53190  
\*In Person and Virtual

**Tuesday, December 10, 2024 - 5:00 PM**

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## AGENDA

Citizens are welcome (and encouraged) to join our webinar via computer, smart phone, or telephone. Citizen participation is welcome during topic discussion periods.

Please click the link below to join the webinar:

<https://us06web.zoom.us/j/88217346962?pwd=bCTW0icn4KHCK3OY4Zota4HFslxs9Q.1>

**Telephone:** +1 (312) 626-6799 US (Chicago) (Houston)  
**Webinar ID:** 882 1734 6962  
**Passcode:** 830873

Please note that although every effort will be made to provide for virtual participation, unforeseen technical difficulties may prevent this, in which case the meeting may still proceed as long as there is a quorum. Should you wish to make a comment in this situation, you are welcome to call this number: (262) 473-0107.

### CALL TO ORDER

### ROLL CALL

### APPROVAL OF AGENDA

*A committee member can choose to remove an item from the agenda or rearrange its order; however, introducing new items to the agenda is not allowed. Any proposed changes require a motion, a second, and approval from the Committee to be implemented. The agenda shall be approved at each meeting even if no changes are being made at that meeting.*

### APPROVAL OF MINUTES

1. Approval of minutes from November 12, 2024

### HEARING OF CITIZEN COMMENTS

*No formal Committee action will be taken during this meeting although issues raised may become a part of a future agenda. Participants are allotted a three minute speaking period. Specific items listed on the agenda may not be discussed at this time; however, citizens are invited to speak to those specific issues at the time the Committee discusses that particular item.*

***To make a comment during this period, or during any agenda item: On a computer or handheld device, locate the controls on your computer to raise your hand. You may need to move your mouse to see these controls. On a traditional telephone, dial \*6 to unmute your phone and dial \*9 to raise your hand.***

**NEW BUSINESS**

- [2.](#) Discussion and Possible Action regarding the closure of Starin Road between Prairie Street and Warhawk Drive to vehicular traffic.
- [3.](#) Discussion and Possible Action regarding purchasing single axle plow truck instead of replacing the quad axle dump truck as listed in the 2025 CIP budget.
- [4.](#) Discussion and Possible Action regarding the WI-DNR Sanitary Survey Report for the Water Department.

**FUTURE AGENDA ITEMS****ADJOURNMENT**

A quorum of the Common Council may be present. This notice is given to inform the public that no formal action will be taken at this meeting.

**Anyone requiring special arrangements is asked to call the Office of the City Manager / City Clerk (262-473-0102) at least 72 hours prior to the meeting.**



## Public Works Committee Meeting

Cravath Lakefront Room, 2nd Floor  
312 W. Whitewater St.  
Whitewater, WI, 53190  
\*In Person and Virtual

**Tuesday, November 12, 2024 - 5:00 PM**

### MINUTES

#### CALL TO ORDER

The Public Works Committee meeting was called to order by Board President Hicks at 5:01 p.m.

#### ROLL CALL

PRESENT: Board Member Orin Smith, Board Member Neil Hicks, Board Member Greg Majkrzak

ABSENT: None

OTHERS: Marquardt

#### APPROVAL OF AGENDA

Motion made by Board Member Majkrzak to approve the agenda for Tuesday, November 12, 2024,  
Seconded by Board Member Smith.

Voting Yea: Board Member Smith, Board Member Hicks, Board Member Majkrzak

Voting Nay: None

#### APPROVAL OF MINUTES

1. Approval of minutes from October 8, 2024

Motion made by Board Member Majkrzak, Seconded by Board Member Smith to approve the minutes from October 8, 2024.

Voting Yea: all via voice (3)

Voting Nay: None

#### HEARING OF CITIZEN COMMENTS

None

#### NEW BUSINESS

2. **Discussion and Possible Action regarding removing parking stalls from Parking Lot C.**

Marquardt stated Kim Adams, Gallery Director for the Whitewater Arts Alliance, and Kristen Burton, Business Outreach at UW-Whitewater and board member for the Whitewater Arts Alliance were present. The Whitewater Arts Alliance asked if the City would be open to removing some or all of the parking stalls from Parking Lot 3 to bring more attention to the mural located at 119 W. Center Street. Adams presented a proposal (Appendix 1) to the committee.

The Public Works Committee would like the Whitewater Arts Alliance to bring back a revised layout with dimension parking, ADA requirements, and the possibility of keeping four to six parking stalls. This information will be brought back to the Public Works Committee to discuss. Adams stated she is hoping to have this information at the January meeting.

**3. Discussion and Possible Action regarding leasing space to AT&T on Lot 10B located off of E. Main Court.**

Marquardt stated the City was approached by a firm representing AT&T about the possibility of leasing land to AT&T for a stand-alone cell tower. The 100' x 100' lease area they are looking at is on Parcel 10B located off of E. Main Court. They have also supplied a sample ground lease.

The committee would like the tower put back to to the north, as much as possible, while avoiding the wetlands. This would keep it away from the residential area. In addition, locating the access road on the west side to keep as much developed land as possible. Marquardt stated this would have to go through PARC for a CUP.

Motion made by Board Member Smith to direct staff to continue negotiations with AT&T regarding Lot B located off of E. Main Court, Seconded by Board Member Majkrzak.

Voting Yea: Board Member Smith, Board Member Hicks, Board Member Majkrzak  
Voting Nay: None

**4. Discussion and Possible Action regarding the Starin Road crosswalks near the University.**

Board Member Smith had requested this item be added to the agenda after receiving concerns about the painting of the crosswalks.

Staff paint the white lines of the crosswalks every summer before the University is in session. There are seven crosswalk areas that were initially textured as brick and painted red when Starin Road was reconstructed in 2001. Street Department staff's recollection is that the paint wore off in the travel areas within a year and the decision was made to not waste paint and time every year to repaint these larger areas. Each crossing area has a pedestrian crossing sign associated with the crossing.

After discussion, the committee's recommendation is to continue to only paint the white crosswalk lines.

**5. Discussion and Possible Action regarding Strand Task Order 24-08, Jefferson Street Reconstruction.**

Marquardt stated Jefferson Street from Main Street to north of Starin Road is scheduled for reconstruction in 2026. Therefore, design work must be completed in 2025. Task Order 24-08 outlines the work Strand will provide for the design and bidding of Jefferson Street. Design work entails the design of all new sanitary sewer, water main, storm sewer, sidewalk, curb & gutter and asphalt pavement. Sanitary sewer work will also include the possibility of rerouting the sanitary sewer that runs cross country between Main Street and North Street.

The estimated cost, based on an hourly rate basis plus expenses, is not to exceed \$196,000. Money was approved in the 2024-2025 CIP budget for this design.

Motion made by Board Member Majkrzak to approve Strand Task Order 24-08, Jefferson Street Reconstruction project, Seconded by Board Member Smith.

Voting Yea: Board Member Smith, Board Member Hicks, Board Member Majkrzak  
Voting Nay: None

**6. Discussion and Possible Action regarding Strand Task Order 24-09, 2025 Stormwater Detention Basin Maintenance.**

Marquardt stated the City has 31 public stormwater management facilities throughout the City. These facilities do require maintenance to keep them in proper working order. Street Department staff is able to do some of the maintenance, like removing brush or trees from the slopes of a detention pond. But when it comes to dredging wet or dry detention basins, the City lacks the necessary equipment to have these cleaned. Task Order 24-09 is for Strand to put together design plans and bidding documents for three basins: East Clay Street Wet Detention Basin, Parkcrest Subdivision Dry Detention Basin, and Walton's Pine Bluff Southwest Dry Detention Basin.

The estimated cost, based on an hourly rate basis plus expenses, is not to exceed \$43,000. Money was approved in the 2024-2025 CIP Budget.

Motion made by Board Member Majkrzak to approve Strand Task Order 24-09, 2025 Stormwater Detention Basin Maintenance project, Seconded by Board Member Smith.

Voting Yea: Board Member Smith, Board Member Hicks, Board Member Majkrzak  
Voting Nay: None

**7. Discussion and Possible Action regarding Strand Task Order 24-10, Starin Road Underground Wet Detention Basin.**

Marquardt stated the City has submitted an Intent to Apply for Clean Water Funds for this project. We will not find out our ranking until sometime in January 2025. If the project ranks high enough to receive funding, final plans need to be sent in by September 30, 2025. In anticipation of receiving funding, staff would like to get the survey work done yet this year so design could commence as soon as possible after the rankings are released. This Task Order is for services to survey and produce a topographical survey of the area. This Task Order would be amended in the future to include design of the wet basin, submittal of a facilities plan (required by March 31, 2025) and submittal of the Clean Water Fund financial assistance application (due by September 30, 2025), if the project ranks high enough.

Staff received approval from Council in March 2024 to apply for a DNR Construction Grant for this project. The Park & Recreation Board approved the location of the underground basin at their November 2023 meeting.

The estimated cost, based on an hourly rate basis plus expenses, is not to exceed \$17,400. This project was added to the 2025 CIP budget.

Motion made by Board Member Smith to approve Strand Task Order 24-10, Starin Road Underground Wet Detention Basin project, Seconded by Board Member Majkrzak.

Voting Yea: Board Member Smith, Board Member Hicks, Board Member Majkrzak  
Voting Nay: None

**8. Discussion and Possible Action regarding the turning movement at the southeast corner of Franklin Street and W. Main Street.**

Marquardt stated at the September 2024 PWC meeting, the Committee asked Strand to come up with a concept and cost estimate eliminating the right turn lane, so there would only be one lane heading north. Attached for discussion is the Intersection Exhibit and Cost Estimate.

The Opinion of Probable Construction Cost is \$126,554. This does not include cost to design, purchase the property, or reprogramming the traffic signals. Marquardt would like to continue moving forward with the project and hopefully add it to the budget for the 2026 streets projects.

Motion made by Board Member Majkrzak to approve the turning movement at the southeast corner of Franklin Street and W. Main Street, Seconded by Board Member Smith.

Voting Yea: all via voice (3)

Voting Nay: None

**9. Discussion and Possible Action regarding an easement and hold harmless agreement for Bower House, 187 W. Main Street.**

Marquardt stated The Bower House, located at 187 W. Main Street, needs to provide ADA access into their remodeled building. They looked at two options, inside the building and outside the building. Their preferred option is to construct an ADA ramp on the outside of their building. The ramp would be 5.5 feet wide with an 18-inch-wide planter along the ramp portion, and a 6-inch raised curb along the landing area. The 6-inch raised curb would be a total of 11 inches above the existing sidewalk.

If the Committee is amenable to this approach, an easement and hold harmless agreement should be signed by the property owner.

All costs should be borne by the property owner.

The City allows outside dining on W. Main Street. The area requested for the ADA ramp is no different than the area for outside dining. With this in mind, staff's recommendation is to recommend approval to the full Council. If approved by the Public Works Committee, staff would work with the City Attorney to draft an easement and hold harmless agreement before bringing it to Council.

Motion made by Board Member Majkrzak to approve an easement and hold harmless agreement for Bower House, 187 W. Main Street, Seconded by Board Member Smith.

Voting Yea: all via voice (3)

Voting Nay: None

**FUTURE AGENDA ITEMS**

Starin Road Closure – Marquardt

**ADJOURNMENT**

Motion made by Board Member Hicks to adjourn the Public Works Meeting at 6:02 p.m., Seconded by Board Member Smith.

Voting Yea: all via voice (3)

Voting Nay: None

Respectfully submitted,

Alison Stoll

Alison Stoll, Administrative Assistant  
Department of Public Works

Date: \_\_\_\_\_ *Minutes Approved*



# Public Works Agenda Item

Meeting Date:	December 10, 2024
Agenda Item:	Starin Road Closure
Staff Contact (name, email, phone):	Brad Marquardt, <a href="mailto:bmarguardt@whitewater-wi.gov">bmarguardt@whitewater-wi.gov</a> , 262-473-0139

**BACKGROUND**  
(Enter the who, what, when, where, why)

The University is looking to improve the safety of pedestrians crossing Starin Road within the campus area. One possibility the University wanted to explore was closing Starin Road to vehicular traffic between Warhawk Drive and Prairie Street during weekday school hours. To see what issues might arise, Starin Road was closed to traffic Monday – Friday from 6:00 am to 6:00 pm from October 7 – October 18. Traffic cameras were installed on Main Street and Schwager Drive to collect vehicle data from October 7 – November 1.

Attached are the data files for Main Street and Schwager Drive. The Volume Change Summary tables show an increase, on average, of 541 more vehicles per day on Main Street and 838 more vehicles per day on Schwager Drive between the hours of 6:00 am and 6:00 pm during the weekday. This is an increase of 6.3% and 68.2% respectively during that timeframe. On Main Street the Average Week Day Traffic (AWDT) was 8,968 with Starin Road open and 9,454 with Starin Road closed. On Schwager Drive the AWDT was 1,448 with Starin Road open and 2,309 with Starin Road closed. The AWDT on Starin Road in February 2024 was 3,677.

Also attached are comments received from various city departments. In general, the consensus is to leave Starin Road open due to: reduced police response times, the additional traffic added to an already busy Main Street, pedestrian accidents on Main Street versus none on Starin Road, the closure of Starin Road not incorporating all of the busy campus crosswalks crossing Starin Road, and the unknowns with snow plowing operations.

The University will also be in attendance to provide feedback they collected.

**PREVIOUS ACTIONS – COMMITTEE RECOMMENDATIONS**  
(Dates, committees, action taken)

At the September 17, 2024 Council meeting, the Council voted to temporary close Starin Road for a two-week trial period.

**FINANCIAL IMPACT**  
(If none, state N/A)

Unknown

**STAFF RECOMMENDATION**



The consensus recommendation from city staff is not to move forward with the closure of Starin Road between Warhawk Drive and Prairie Street.

In lieu of closing the street, perhaps additional signage (2' X 3' yellow) could be added at Prince Street (eastbound) and at Graham Avenue (westbound). Suggested wording could be:

- ENTERING STUDENT CROSSING ZONES – USE CAUTION
- BE PREPARED TO STOP FOR CROSSING STUDENTS

ATTACHMENT(S) INCLUDED  
(If none, state N/A)

1. Main St\_Volume Change Summary
2. Main St\_Starin Closed
3. Main St\_Starin Open
4. Schwager Dr\_Volume Change Summary
5. Schwager Dr\_Starin Closed
6. Schwager Dr\_Starin Open
7. City Department Responses
8. Resident Responses

Main Street Traffic Volume Comparison  
 Starin Road Closure  
 Date: 2024-11-05

Total Main Street Daily Count with Starin Road Open										
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg
0:00	52	58	65	82	171	126	146	86	136	100
1:00	21	39	43	54	164	123	114	64	119	80
2:00	35	20	27	35	89	97	91	41	94	56
3:00	24	37	39	42	60	53	52	40	53	44
4:00	94	82	83	80	80	61	72	84	67	79
5:00	96	110	105	118	115	63	49	109	56	94
6:00	170	190	177	181	163	103	63	176	83	150
7:00	416	396	424	385	358	128	140	396	134	321
8:00	386	428	394	415	405	302	235	406	269	366
9:00	463	469	437	448	459	416	311	455	364	429
10:00	471	481	456	521	543	496	471	494	484	491
11:00	505	532	538	578	653	552	524	561	538	555
12:00	633	589	645	662	693	594	478	644	536	613
13:00	565	590	572	591	632	522	480	590	501	565
14:00	577	574	598	589	627	506	503	593	505	568
15:00	709	763	736	769	704	518	544	736	531	678
16:00	678	694	690	727	702	497	555	698	526	649
17:00	669	630	677	682	664	509	564	664	537	628
18:00	558	532	597	676	611	485	555	595	520	573
19:00	442	445	446	496	503	402	429	466	416	452
20:00	358	329	387	386	411	313	376	374	345	366
21:00	249	284	316	321	338	291	241	302	266	291
22:00	179	191	237	285	281	233	174	235	204	226
23:00	108	114	148	198	222	184	107	158	146	154
Totals	8458	8577	8837	9321	9648	7574	7274	ADT	8527	
% of Total	14.17%	14.37%	14.81%	15.62%	16.16%	12.69%	12.19%			

Total Main Street Daily Count with Starin Road Closed (6 AM to 6 PM, Monday thru Friday)										
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg
0:00	59	52	74	87	102	137	146	75	142	94
1:00	24	38	50	64	99	91	108	55	100	68
2:00	25	25	24	37	62	66	85	35	76	46
3:00	25	29	31	37	56	43	33	36	38	36
4:00	82	79	75	82	67	57	52	77	55	71
5:00	108	112	114	107	115	69	38	111	54	95
6:00	182	196	198	199	197	95	48	194	72	159
7:00	433	451	454	493	474	176	132	461	154	373
8:00	440	478	455	443	458	291	248	455	270	402
9:00	512	508	488	485	508	415	379	500	397	471
10:00	526	534	533	533	538	525	503	533	514	527
11:00	575	585	559	573	679	569	557	594	563	585
12:00	675	693	707	690	734	640	503	700	572	663
13:00	604	637	594	631	677	612	555	629	584	616
14:00	608	601	671	657	679	528	518	643	523	609
15:00	731	765	730	812	806	556	566	769	561	709
16:00	746	759	735	747	740	569	572	745	571	695
17:00	744	713	745	772	686	550	561	732	556	682
18:00	539	597	627	608	604	407	526	595	467	558
19:00	443	478	447	505	445	388	446	464	417	450
20:00	334	342	400	406	415	353	339	379	346	370
21:00	243	276	297	328	334	281	252	296	267	287
22:00	188	191	219	283	281	279	177	232	228	231
23:00	117	126	128	178	172	188	112	144	150	146
Totals	8963	9265	9355	9757	9928	7885	7456	ADT	8944	
% of Total	15.02%	15.52%	15.67%	16.35%	16.63%	13.21%	12.49%			

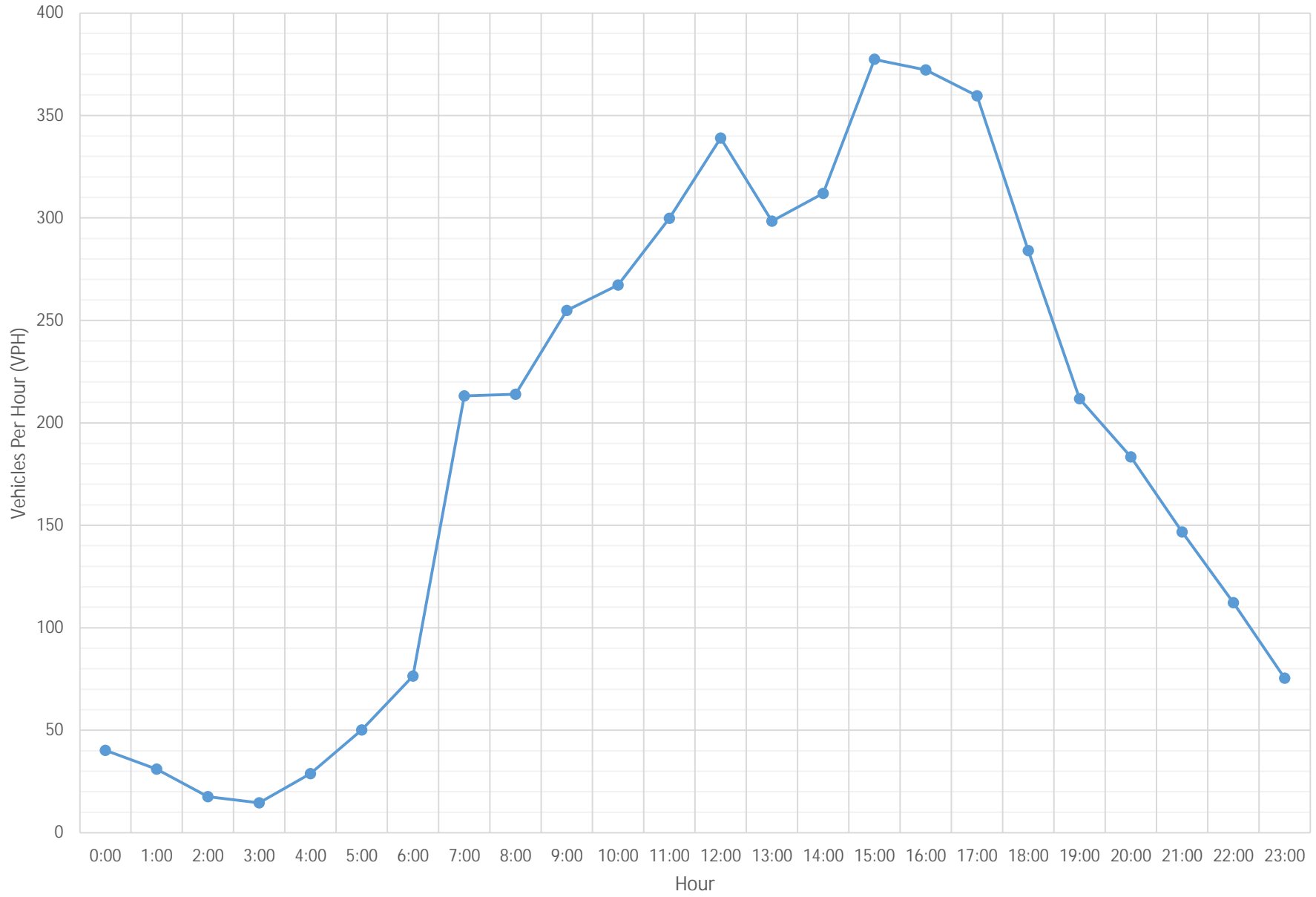
<b>Total Main Street Daily Count Difference with Starin Road Closed</b>							
<b>Hour</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Average</b>	<b>Total</b>
6:00	12	6	21	18	34	18.2	91
7:00	17	55	30	108	116	65.2	326
8:00	54	50	61	28	53	49.2	246
9:00	49	39	51	37	49	45	225
10:00	55	53	77	12	-5	38.4	192
11:00	70	53	21	-5	26	33	165
12:00	42	104	62	28	41	55.4	277
13:00	39	47	22	40	45	38.6	193
14:00	31	27	73	68	52	50.2	251
15:00	22	2	-6	43	102	32.6	163
16:00	68	65	45	20	38	47.2	236
17:00	75	83	68	90	22	67.6	338
Totals	534	584	525	487	573	540.6	2703
% of Daily Traffic	6.26%	6.85%	6.16%	5.71%	6.72%	6.34%	

Count Location: Main Street Westbound  
 Count Begin: 10/7/2024  
 Count End: 10/18/2024

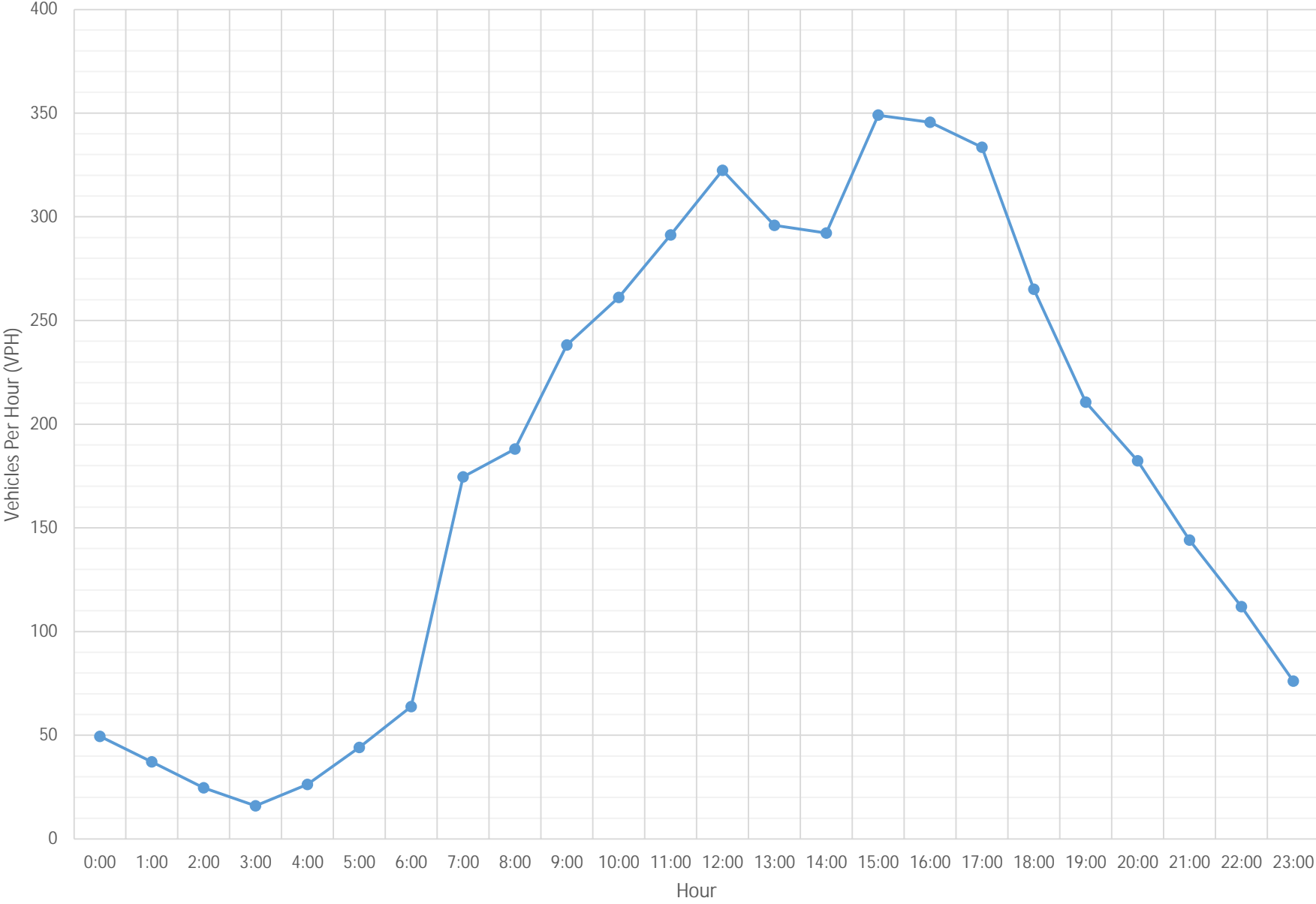
Incoming

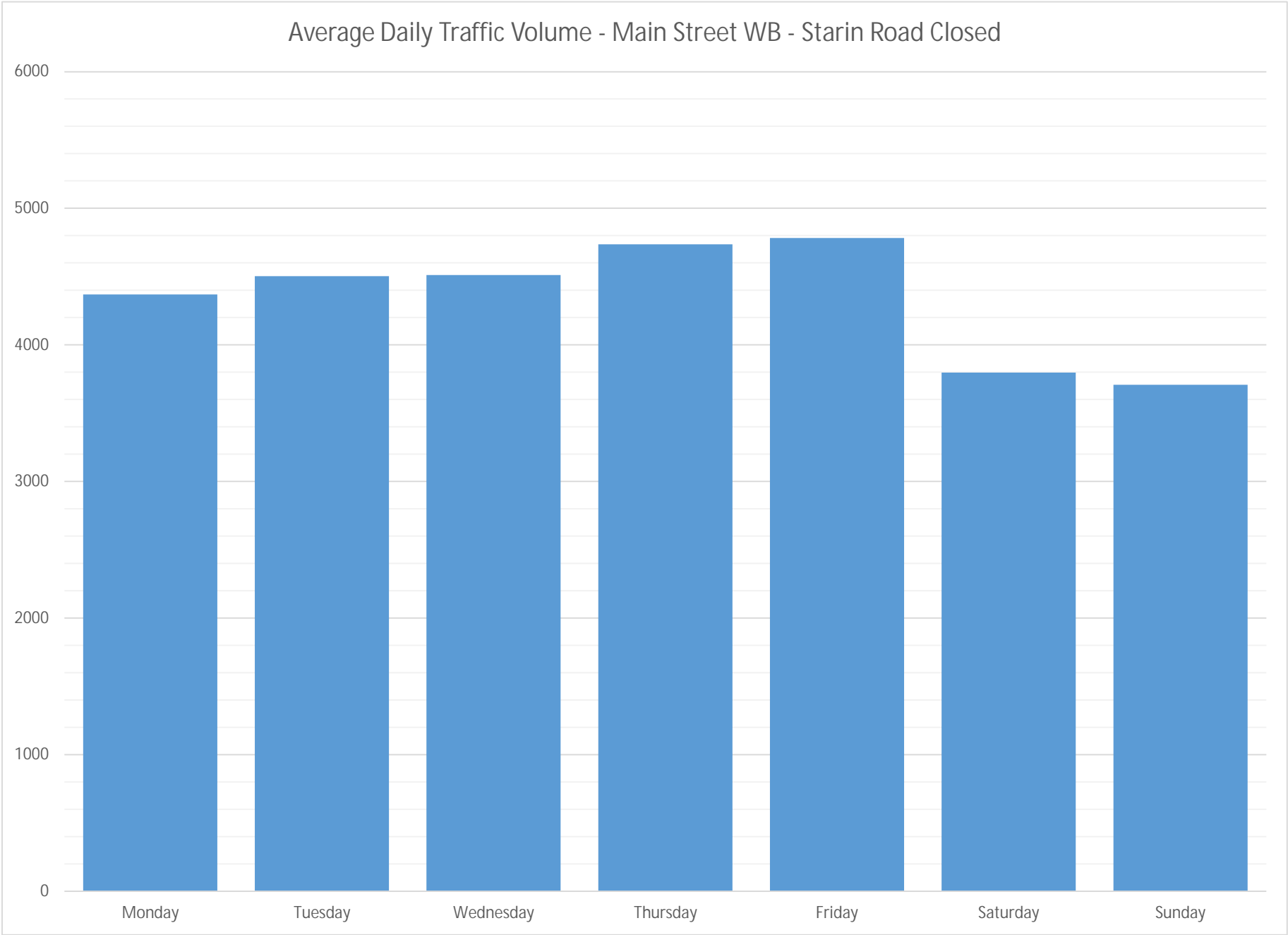
Westbound Main Street Daily Count and Speed Average -Starin Road Closed											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	28	29	38	51	55	70	75	40	73	49	30.9
1:00	13	21	28	35	58	51	54	31	53	37	29.9
2:00	9	12	15	17	35	36	49	18	43	25	30.6
3:00	9	10	10	15	29	21	18	15	20	16	30.1
4:00	32	31	28	29	24	22	18	29	20	26	31.4
5:00	48	52	49	48	54	39	19	50	29	44	30.9
6:00	70	76	82	71	83	41	24	76	33	64	31.2
7:00	198	204	200	234	230	87	69	213	78	175	31.8
8:00	216	228	211	202	213	123	123	214	123	188	32.2
9:00	257	265	257	251	244	200	193	255	197	238	32
10:00	273	268	274	262	259	253	239	267	246	261	31.5
11:00	287	295	273	300	344	270	270	300	270	291	31.8
12:00	319	327	351	338	360	304	258	339	281	322	31.4
13:00	296	301	274	300	321	303	276	298	290	296	31.6
14:00	282	299	326	332	321	241	244	312	243	292	32.4
15:00	369	374	354	405	385	282	274	377	278	349	31.8
16:00	385	378	366	364	368	278	280	372	279	346	31.8
17:00	361	359	357	391	330	259	278	360	269	334	31.5
18:00	264	283	306	287	280	175	260	284	218	265	30.4
19:00	210	220	201	235	193	191	224	212	208	211	30.6
20:00	162	171	189	195	200	176	183	183	180	182	30.7
21:00	121	145	154	154	160	140	135	147	138	144	30.5
22:00	92	90	106	134	139	138	85	112	112	112	30.8
23:00	68	65	62	86	96	96	60	75	78	76	30.7
Totals	4369	4503	4511	4736	4781	3796	3708	ADT	4343	AWDT	4580
% of Total	14.37%	14.81%	14.84%	15.58%	15.72%	12.49%	12.20%				

Average Week Day Hourly Traffic Volume - Main Street WB - Starin Road Closed



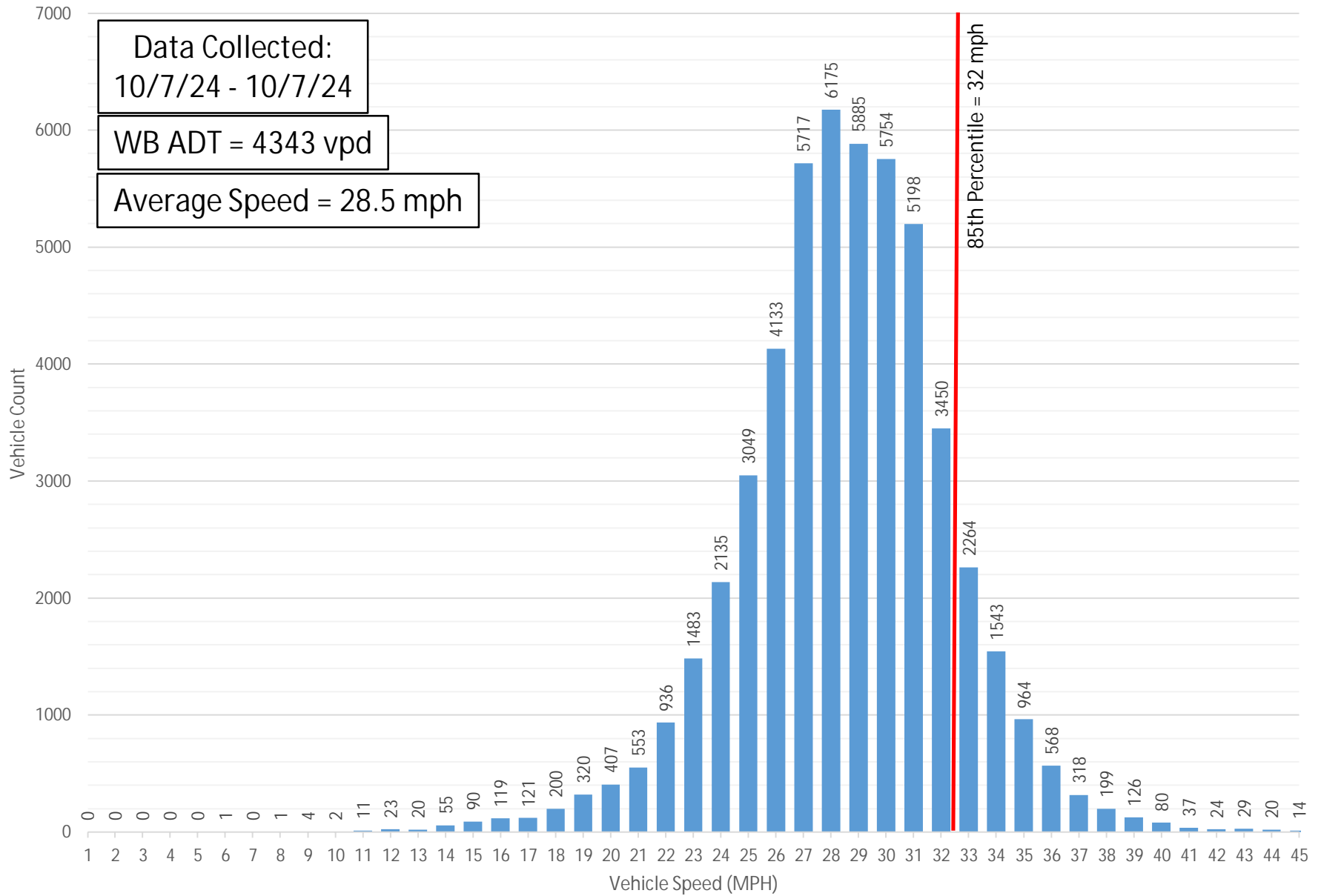
Average Daily Hourly Traffic Volume - Main Street WB - Starin Road Closed







### Vehicle Speed - Main Street WB - Starin Road Closed

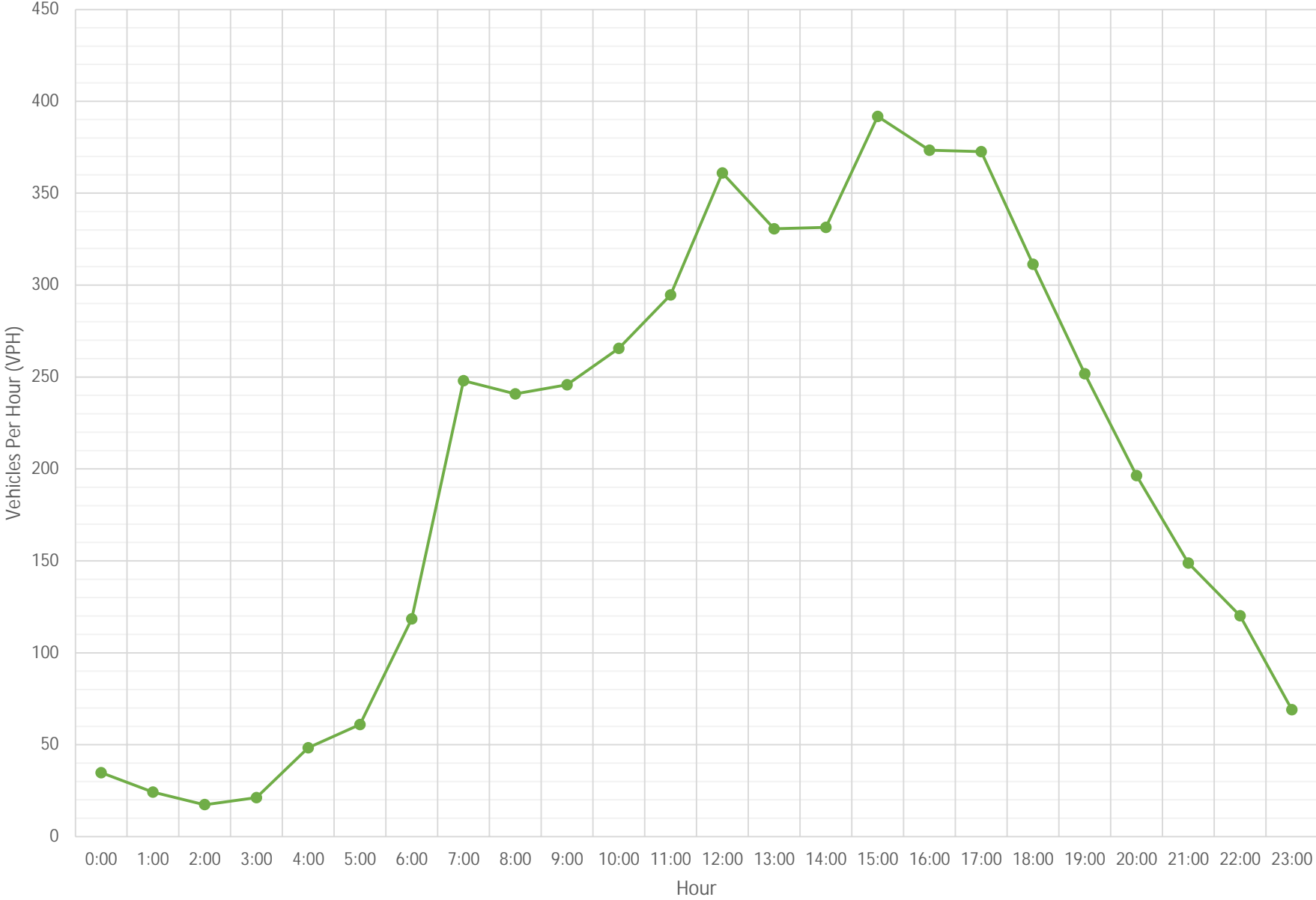


Count Location: Main Street Eastbound  
 Count Begin: 10/7/2024  
 Count End: 10/18/2024

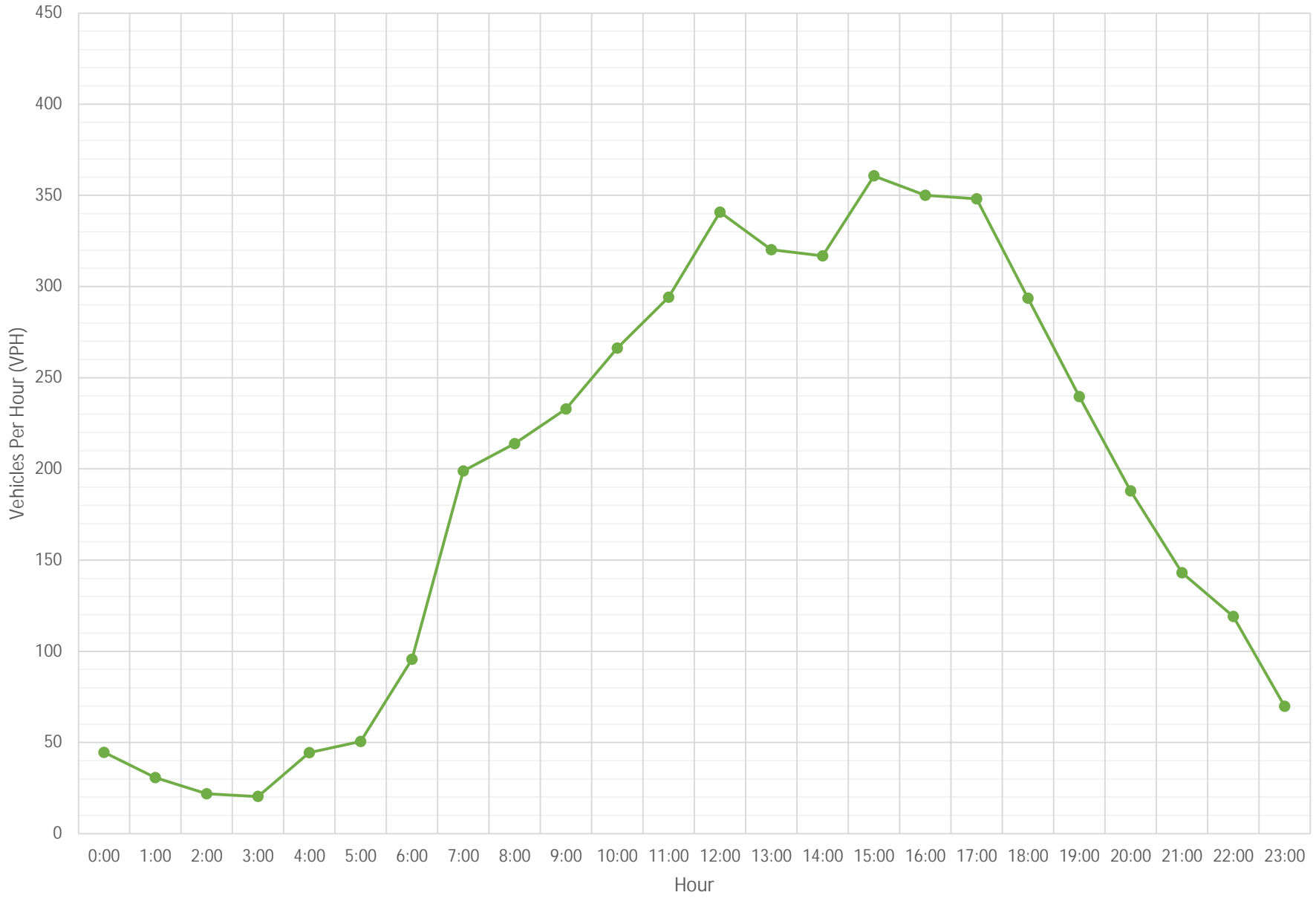
Outgoing

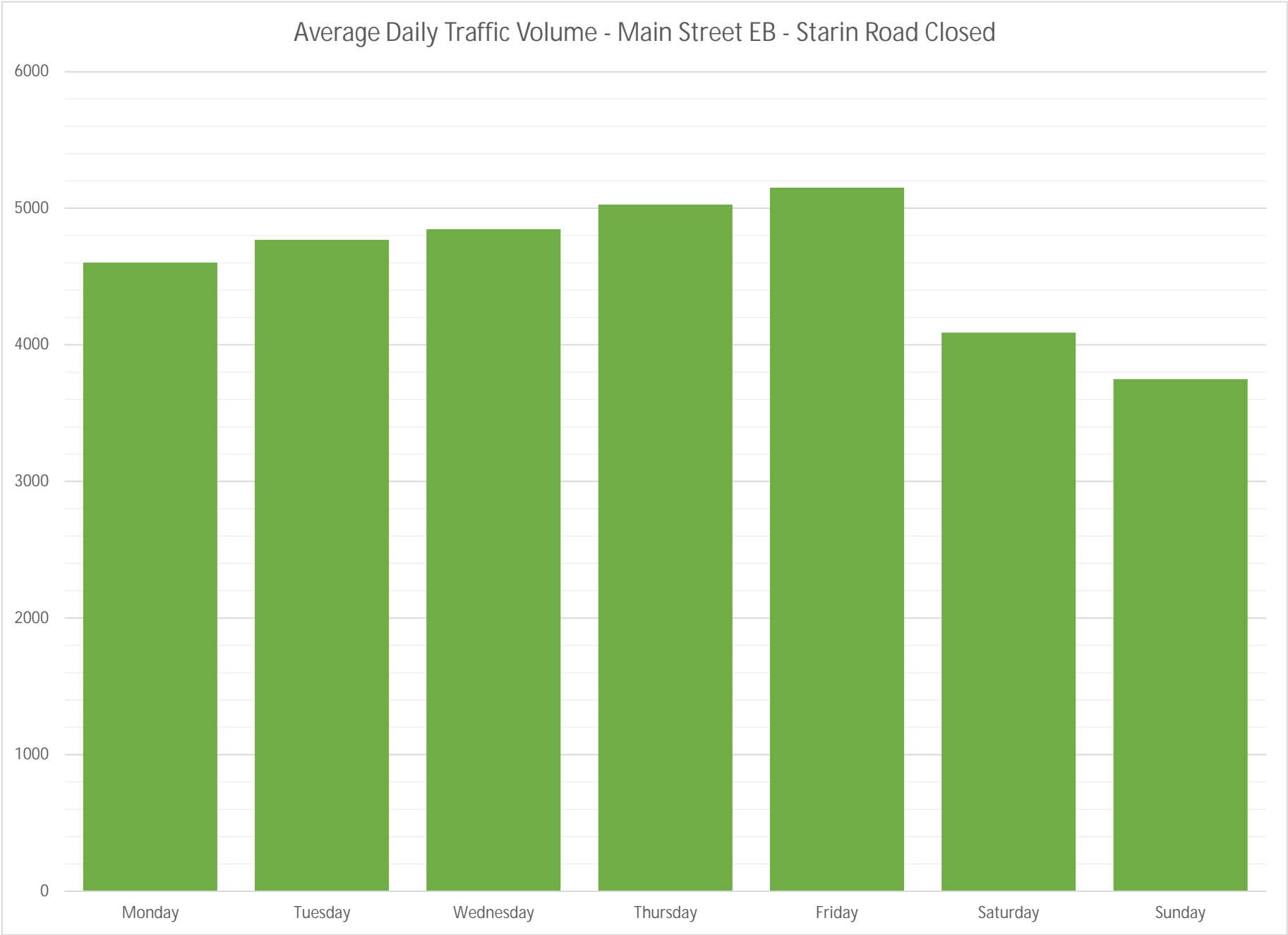
Eastbound Main Street Daily Count and Speed Average -Starin Road Closed											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	31	23	36	36	48	67	71	35	69	45	32.4
1:00	11	17	23	29	41	40	54	24	47	31	32.2
2:00	16	14	9	21	27	30	36	17	33	22	30.8
3:00	16	20	21	22	27	22	15	21	19	20	31.6
4:00	50	48	47	53	44	35	34	48	35	44	31.3
5:00	60	60	65	59	61	30	19	61	25	51	32.2
6:00	112	120	116	129	115	54	24	118	39	96	32.4
7:00	235	247	254	260	244	89	63	248	76	199	31.9
8:00	224	250	244	241	245	168	125	241	147	214	32.6
9:00	255	244	232	234	264	215	186	246	201	233	32.3
10:00	253	266	259	271	279	272	264	266	268	266	32.1
11:00	289	290	286	273	335	299	287	295	293	294	32.6
12:00	357	366	356	352	374	336	245	361	291	341	31.8
13:00	309	336	320	331	357	309	279	331	294	320	32.2
14:00	327	302	345	325	358	287	274	331	281	317	32.5
15:00	362	392	376	408	421	274	292	392	283	361	31.9
16:00	362	381	369	383	372	291	292	373	292	350	31.9
17:00	383	354	389	381	356	291	283	373	287	348	31.3
18:00	276	315	321	321	324	232	266	311	249	294	29.6
19:00	233	258	246	270	252	197	222	252	210	240	31.6
20:00	172	172	211	212	215	177	156	196	167	188	31.9
21:00	122	131	143	174	174	141	117	149	129	143	32.2
22:00	96	101	113	149	142	141	92	120	117	119	32.1
23:00	50	61	66	92	76	92	52	69	72	70	32.1
Totals	4601	4768	4847	5026	5151	4089	3748				
% of Total	14.28%	14.79%	15.04%	15.59%	15.98%	12.69%	11.63%	ADT	4604	AWDT	4879

Average Week Day Hourly Traffic Volume - Main Street EB - Starin Road Closed

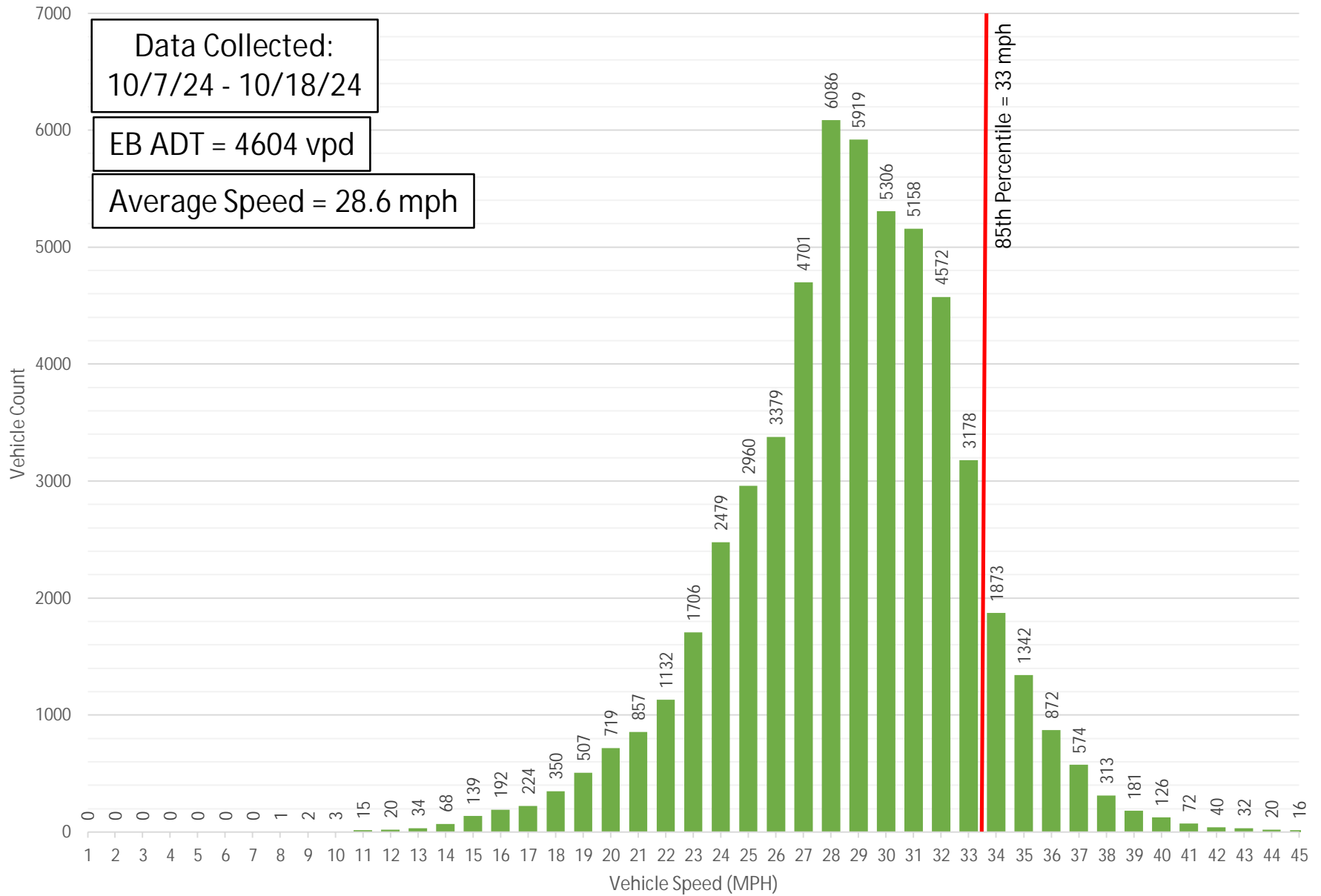


### Average Daily Hourly Traffic Volume - Main Street EB - Starin Road Closed





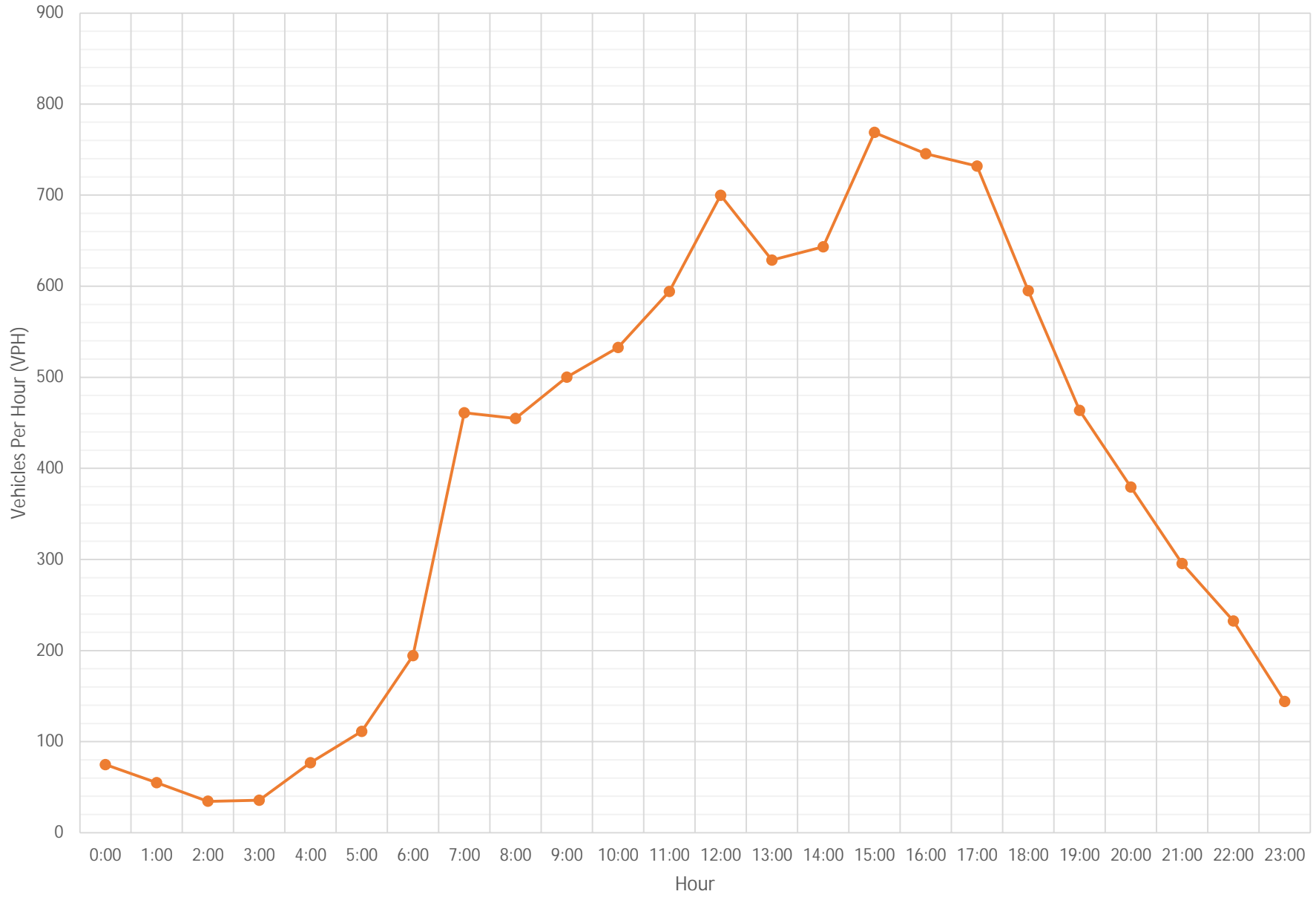
### Vehicle Speed - Main Street EB - Starin Road Closed



Count Location: Main Street Total  
 Count Begin: 10/7/2024  
 Count End: 10/18/2024

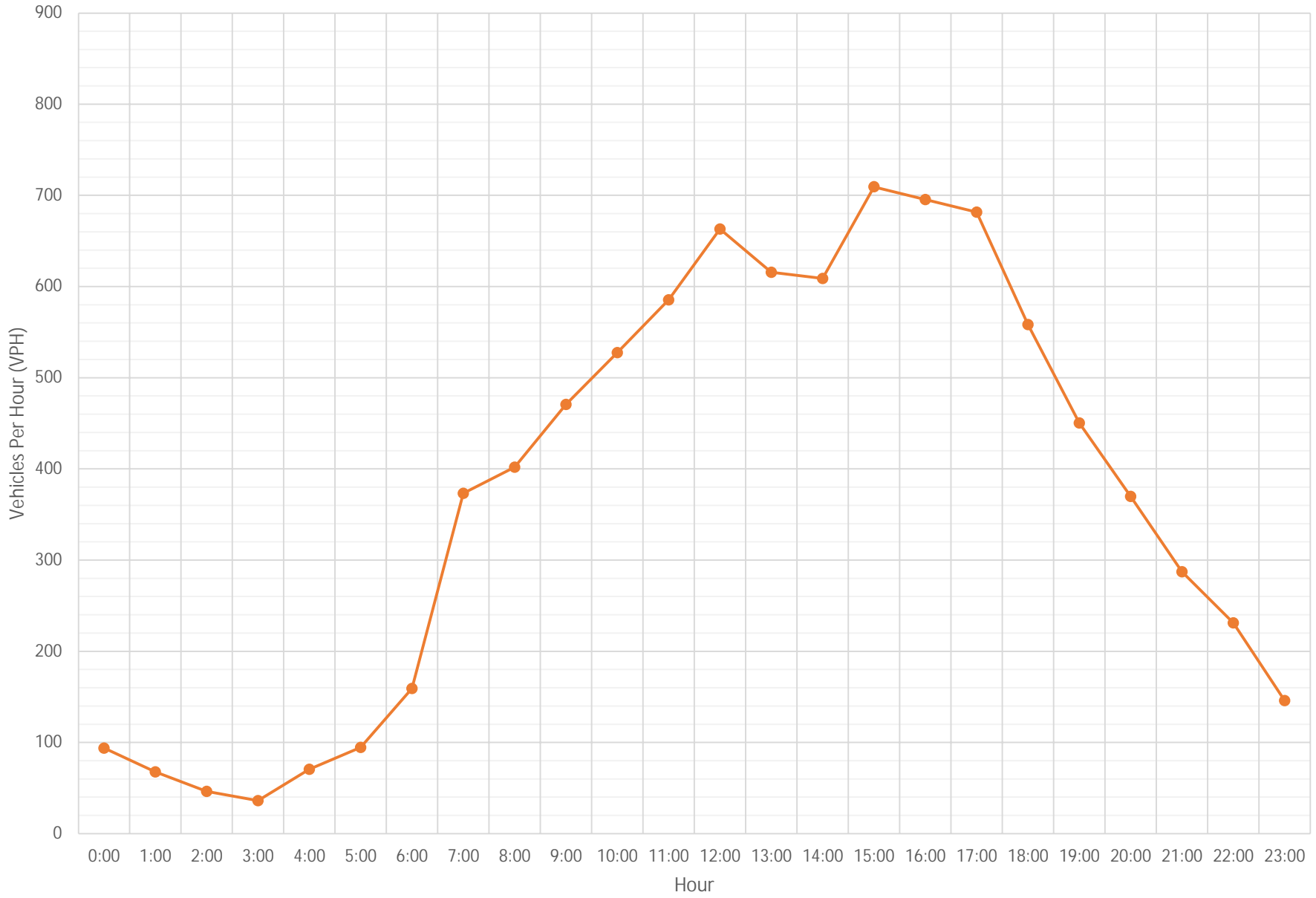
Total Main Street Daily Count and Speed Average -Starin Road Closed											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	59	52	74	87	102	137	146	75	142	94	31.6
1:00	24	38	50	64	99	91	108	55	100	68	30.6
2:00	25	25	24	37	62	66	85	35	76	46	30.9
3:00	25	29	31	37	56	43	33	36	38	36	31.4
4:00	82	79	75	82	67	57	52	77	55	71	31.3
5:00	108	112	114	107	115	69	38	111	54	95	31.5
6:00	182	196	198	199	197	95	48	194	72	159	32
7:00	433	451	454	493	474	176	132	461	154	373	31.9
8:00	440	478	455	443	458	291	248	455	270	402	32.5
9:00	512	508	488	485	508	415	379	500	397	471	32
10:00	526	534	533	533	538	525	503	533	514	527	31.8
11:00	575	585	559	573	679	569	557	594	563	585	32.2
12:00	675	693	707	690	734	640	503	700	572	663	31.6
13:00	604	637	594	631	677	612	555	629	584	616	31.9
14:00	608	601	671	657	679	528	518	643	523	609	32.3
15:00	731	765	730	812	806	556	566	769	561	709	31.6
16:00	746	759	735	747	740	569	572	745	571	695	31.8
17:00	744	713	745	772	686	550	561	732	556	682	31.6
18:00	539	597	627	608	604	407	526	595	467	558	31.2
19:00	443	478	447	505	445	388	446	464	417	450	31
20:00	334	342	400	406	415	353	339	379	346	370	31.2
21:00	243	276	297	328	334	281	252	296	267	287	31.2
22:00	188	191	219	283	281	279	177	232	228	231	31.4
23:00	117	126	128	178	172	188	112	144	150	146	31.4
Totals	8963	9265	9355	9757	9928	7885	7456				
% of Total	14.32%	14.80%	14.94%	15.58%	15.86%	12.59%	11.91%	ADT	8944	AWDT	9454

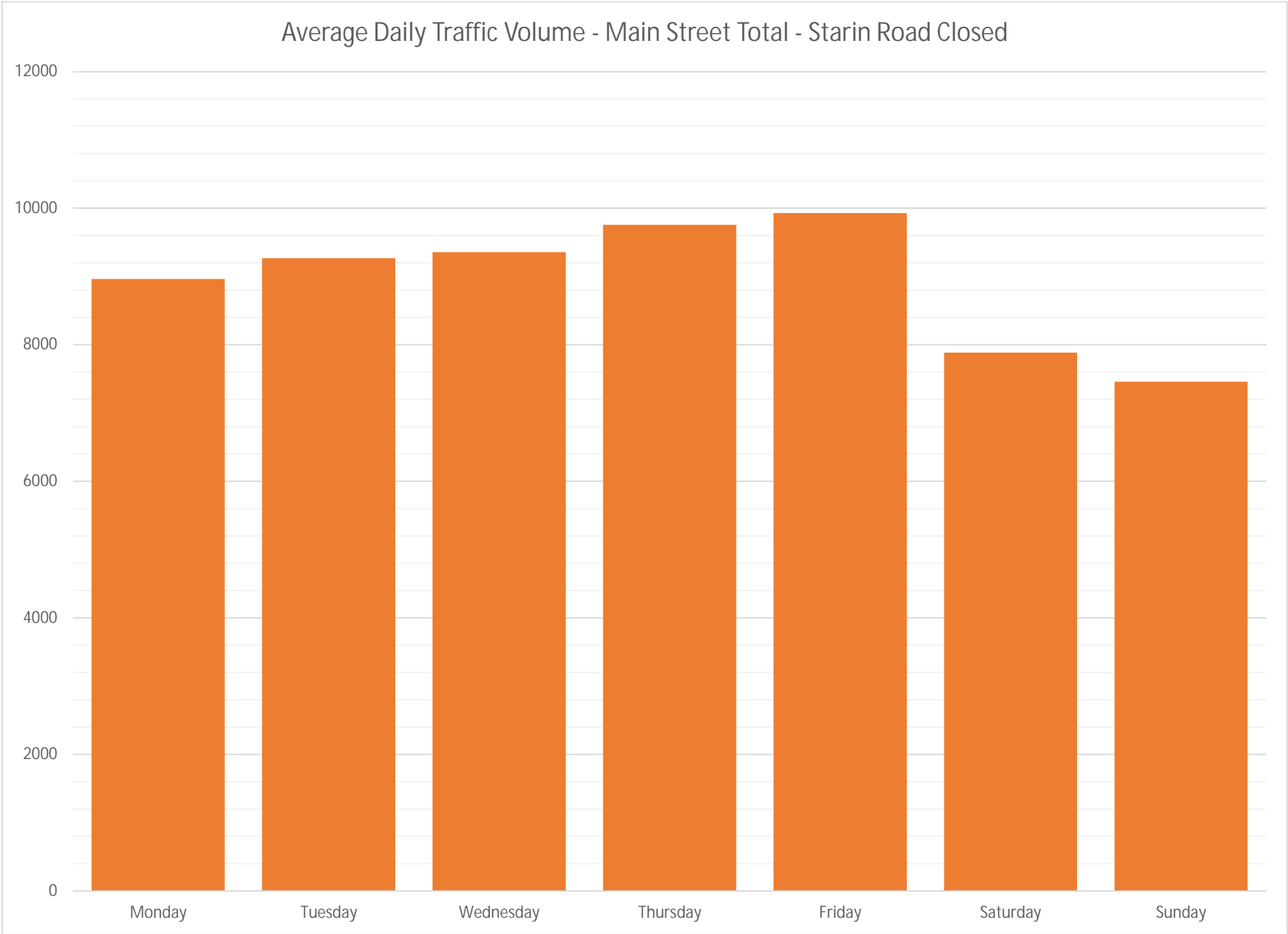
Average Week Day Hourly Traffic Volume - Main Street Total - Starin Road Closed



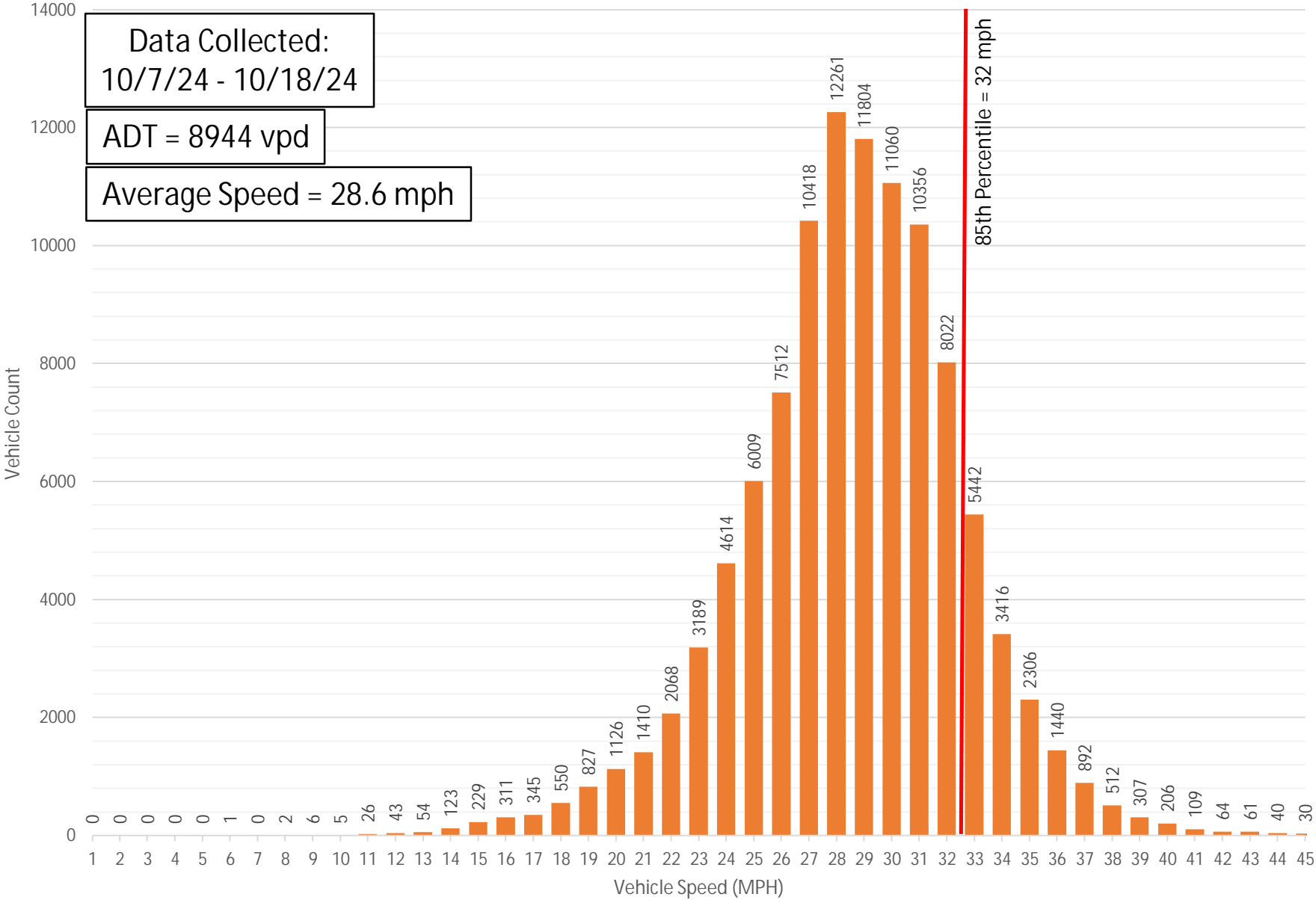


Average Daily Hourly Traffic Volume - Main Street Total - Starin Road Closed





### Vehicle Speed - Main Street Total - Starin Road Closed

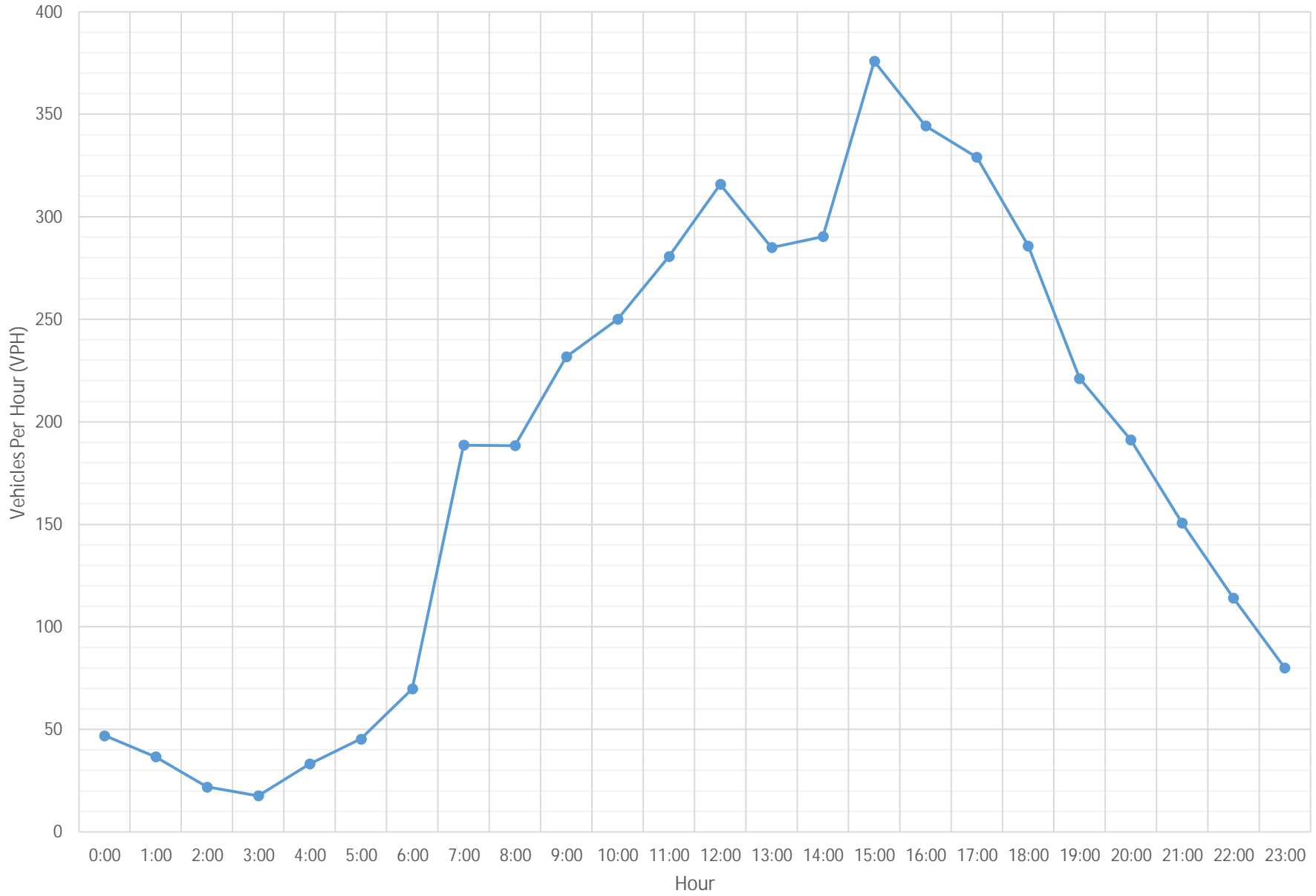


Count Location: Main Street Westbound  
 Count Begin: 10/21/2024  
 Count End: 11/2/2024

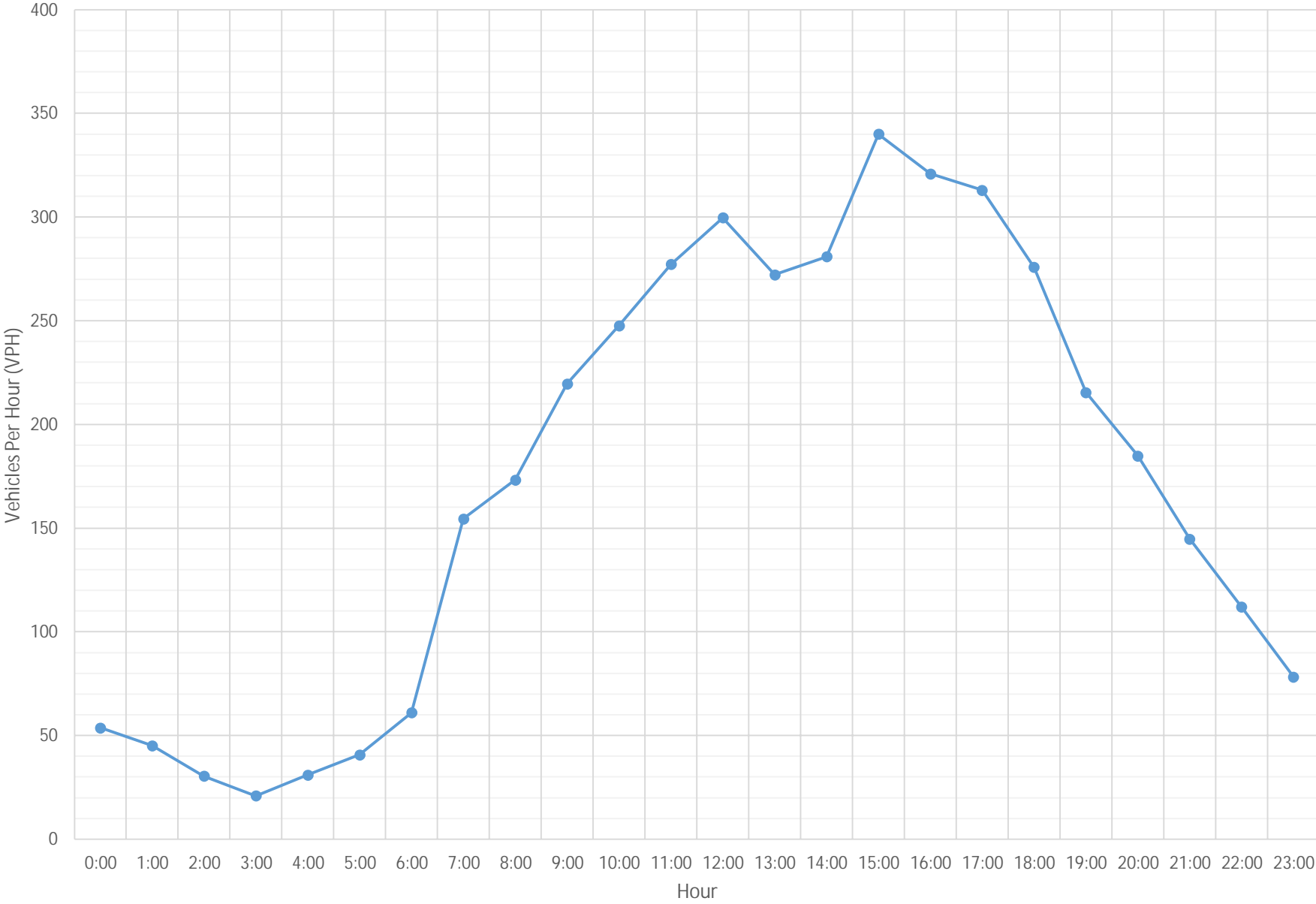
Incoming

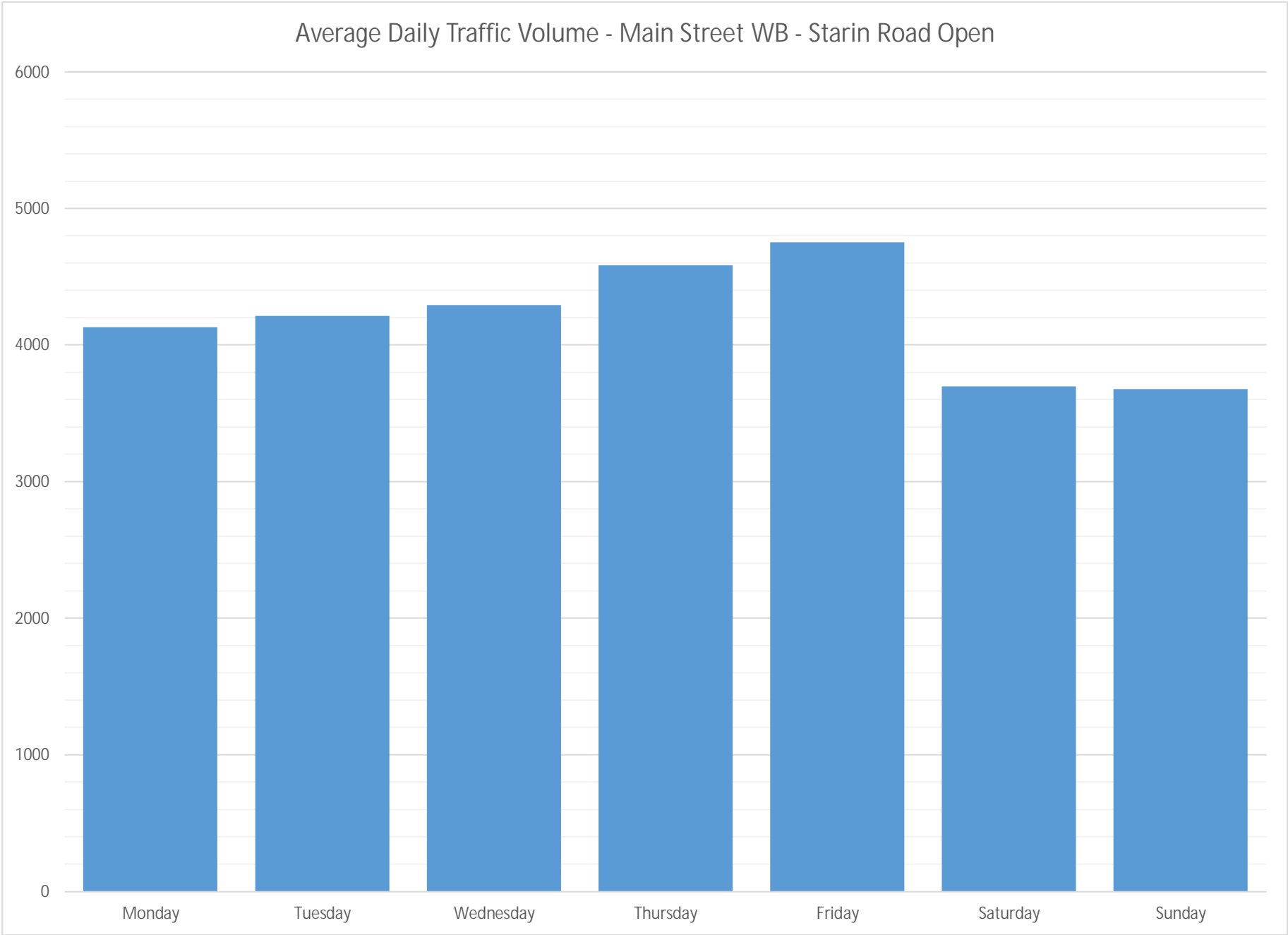
Westbound Main Street Daily Count and Speed Average -Starin Road Open											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	26	34	38	47	90	68	73	47	71	54	30.4
1:00	13	22	26	33	89	75	58	37	67	45	31
2:00	16	13	13	18	50	48	55	22	52	30	31.5
3:00	10	15	18	19	27	27	31	18	29	21	30.5
4:00	37	36	33	28	32	19	32	33	26	31	31.1
5:00	40	46	41	46	54	32	26	45	29	41	30.8
6:00	66	76	73	71	63	47	31	70	39	61	30.6
7:00	197	178	202	194	172	62	76	189	69	154	31
8:00	177	200	177	199	189	142	129	188	136	173	32
9:00	241	243	230	229	216	218	160	232	189	220	32
10:00	236	250	230	263	271	235	248	250	242	248	31.3
11:00	257	263	268	281	334	284	253	281	269	277	32
12:00	302	292	310	324	351	285	233	316	259	300	31.6
13:00	274	285	282	278	306	243	237	285	240	272	31.8
14:00	278	270	300	289	315	239	275	290	257	281	32.2
15:00	358	398	372	387	365	248	252	376	250	340	32
16:00	345	344	330	356	347	251	273	344	262	321	31.6
17:00	333	319	321	348	324	267	279	329	273	313	31.4
18:00	263	255	272	345	294	214	287	286	251	276	30.6
19:00	215	205	213	234	239	190	212	221	201	215	30.6
20:00	178	181	197	200	200	148	190	191	169	185	30.8
21:00	128	145	158	149	173	139	121	151	130	145	30.6
22:00	87	88	112	140	143	119	95	114	107	112	30.2
23:00	53	56	76	107	108	96	52	80	74	78	30.5
Totals	4130	4214	4292	4585	4752	3696	3678	ADT	4192	AWDT	4395
% of Total	14.07%	14.36%	14.63%	15.62%	16.19%	12.59%	12.53%				

Average Week Day Hourly Traffic Volume - Main Street WB - Starin Road Open

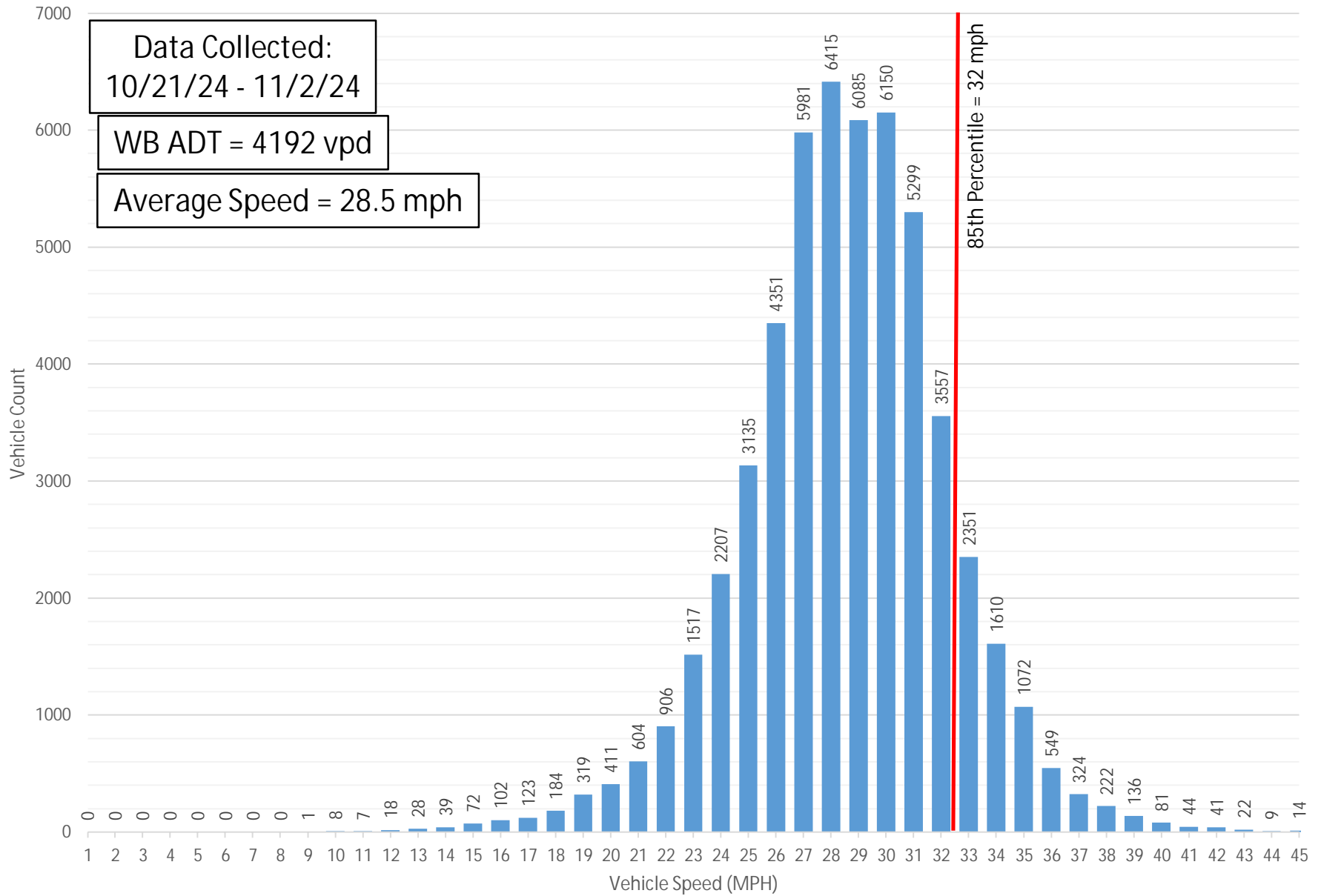


Average Daily Hourly Traffic Volume - Main Street WB - Starin Road Open





### Vehicle Speed - Main Street WB - Starin Road Open



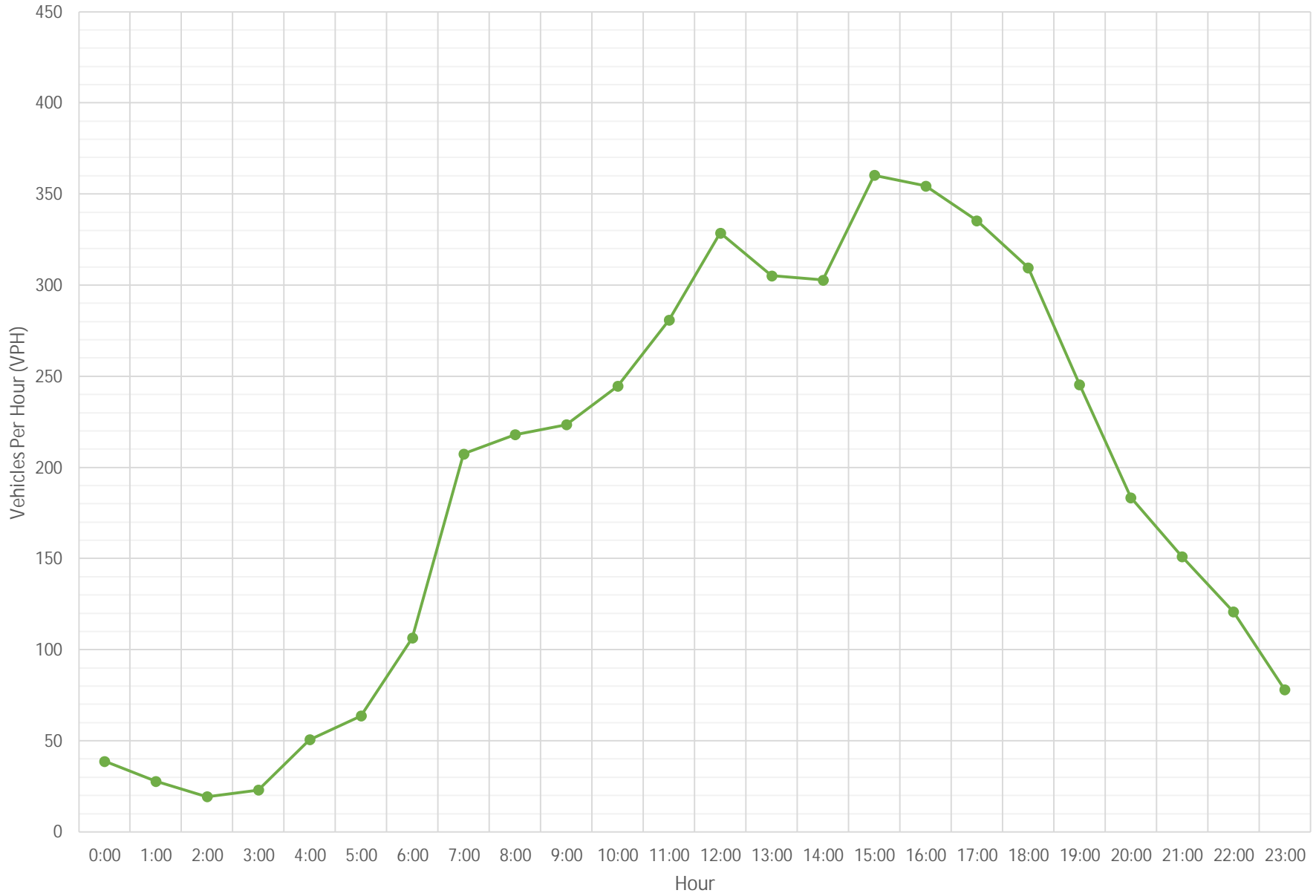


Count Location: Main Street Eastbound  
 Count Begin: 10/21/2024  
 Count End: 11/2/2024

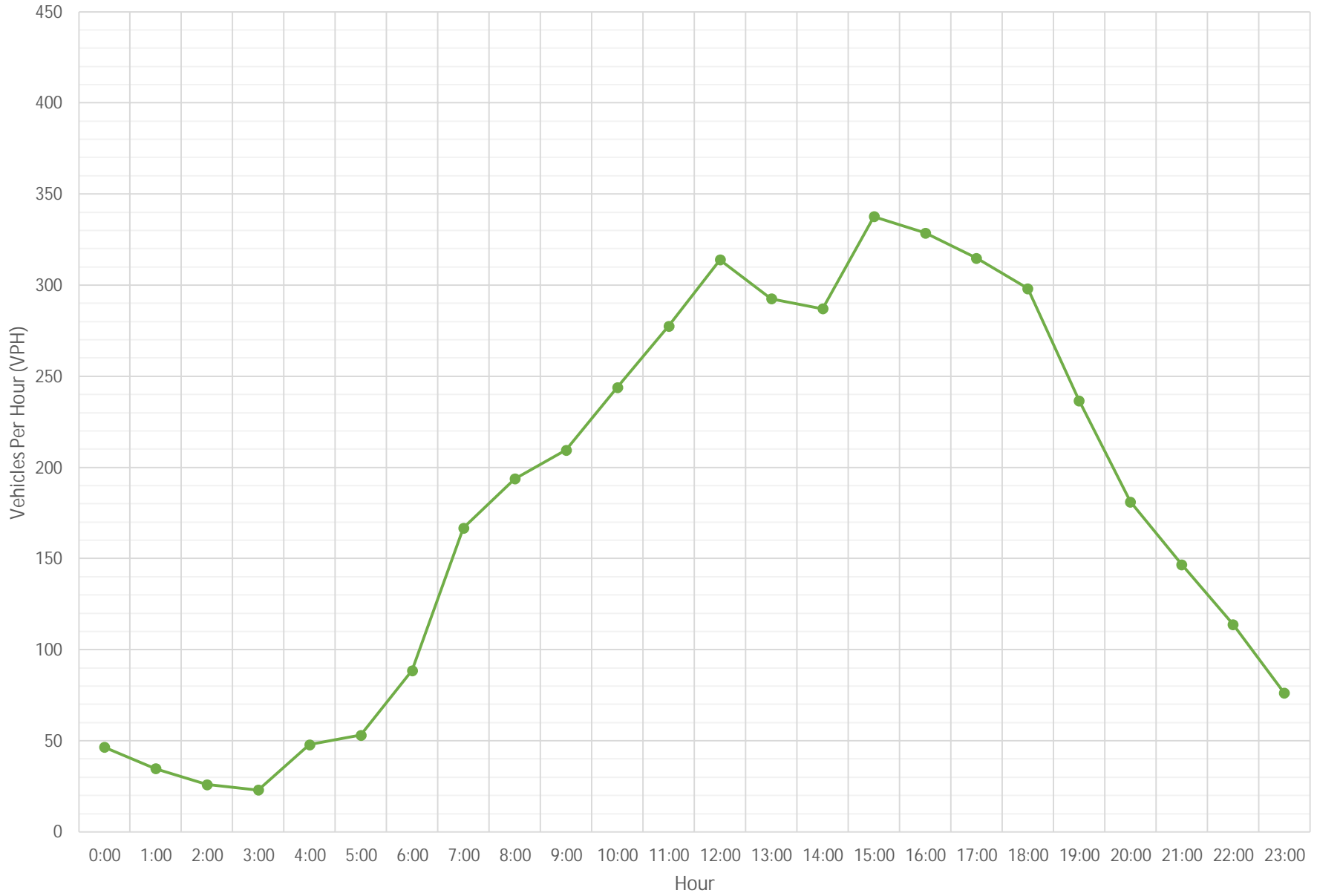
Outgoing

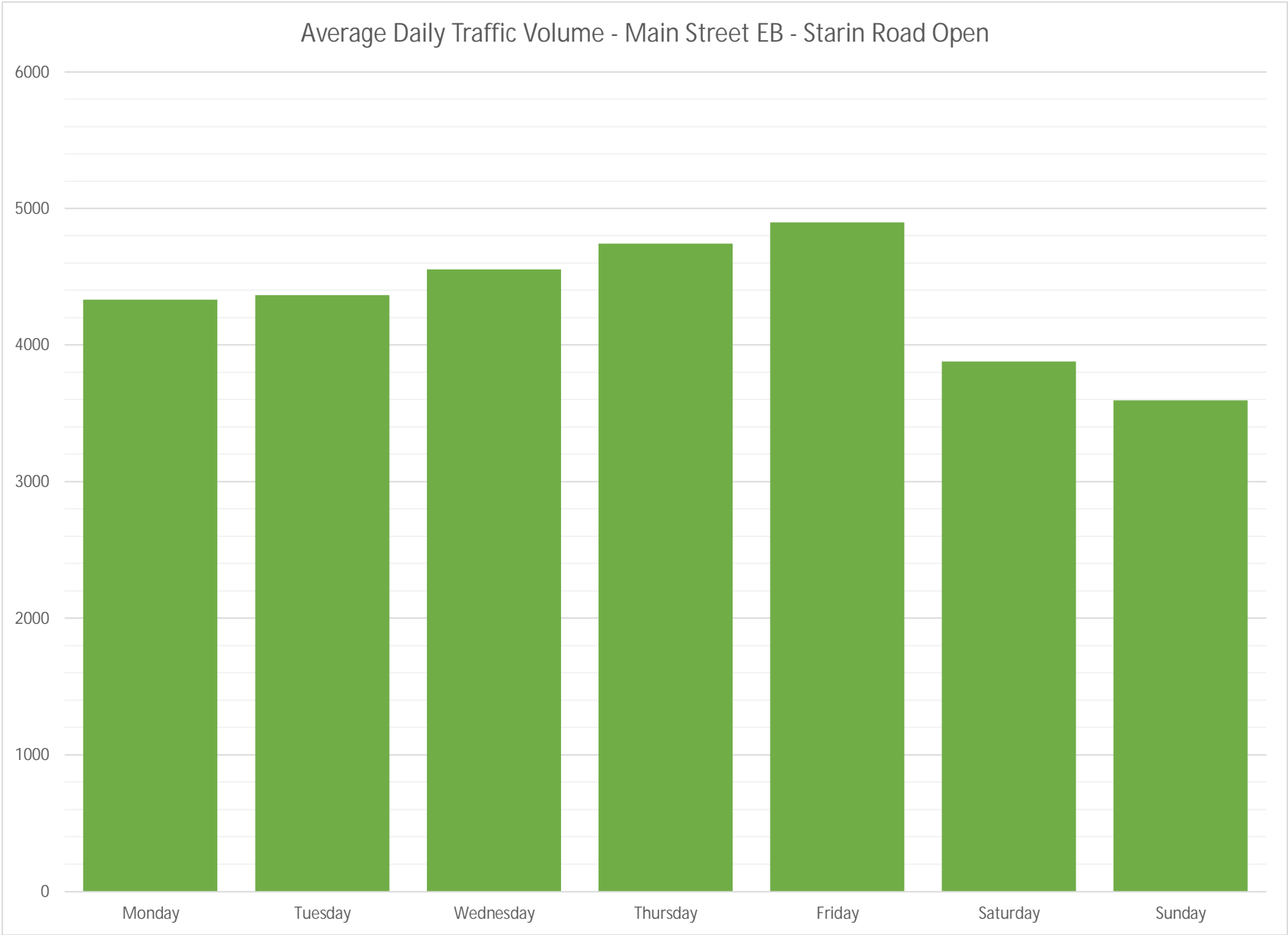
Eastbound Main Street Daily Count and Speed Average -Starin Road Open											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	26	24	28	35	81	58	73	39	66	46	32.6
1:00	8	17	18	21	75	48	56	28	52	35	30.9
2:00	19	7	14	18	39	49	36	19	43	26	32.6
3:00	14	22	22	24	33	26	21	23	24	23	31.8
4:00	57	46	50	52	48	42	40	51	41	48	31.3
5:00	56	64	65	72	61	31	23	64	27	53	31.8
6:00	104	114	104	110	100	56	32	106	44	89	32.6
7:00	219	218	222	192	186	66	64	207	65	167	32.6
8:00	209	229	218	217	217	160	106	218	133	194	32.7
9:00	222	226	207	219	243	198	151	223	175	209	32.2
10:00	236	231	226	258	272	261	223	245	242	244	32.5
11:00	248	269	271	297	319	268	271	281	270	278	33.1
12:00	331	297	335	338	342	309	245	329	277	314	32.3
13:00	291	305	291	313	326	279	243	305	261	293	32.5
14:00	299	304	299	300	312	267	228	303	248	287	33.1
15:00	351	365	365	382	339	270	292	360	281	338	31.9
16:00	334	351	360	372	355	246	282	354	264	329	32.1
17:00	336	311	356	334	340	242	285	335	264	315	31.9
18:00	296	278	325	331	318	271	268	310	270	298	31.4
19:00	227	240	233	262	265	212	217	245	215	237	31.9
20:00	180	148	191	187	211	165	186	183	176	181	32
21:00	121	139	158	172	165	152	120	151	136	147	32.1
22:00	93	103	125	145	138	114	79	121	97	114	31.8
23:00	55	58	72	91	114	88	55	78	72	76	32.1
Totals	4332	4366	4555	4742	4899	3878	3596				
% of Total	14.27%	14.38%	15.00%	15.62%	16.13%	12.77%	11.84%	ADT	4338	AWDT	4579

Average Week Day Hourly Traffic Volume - Main Street EB - Starin Road Open

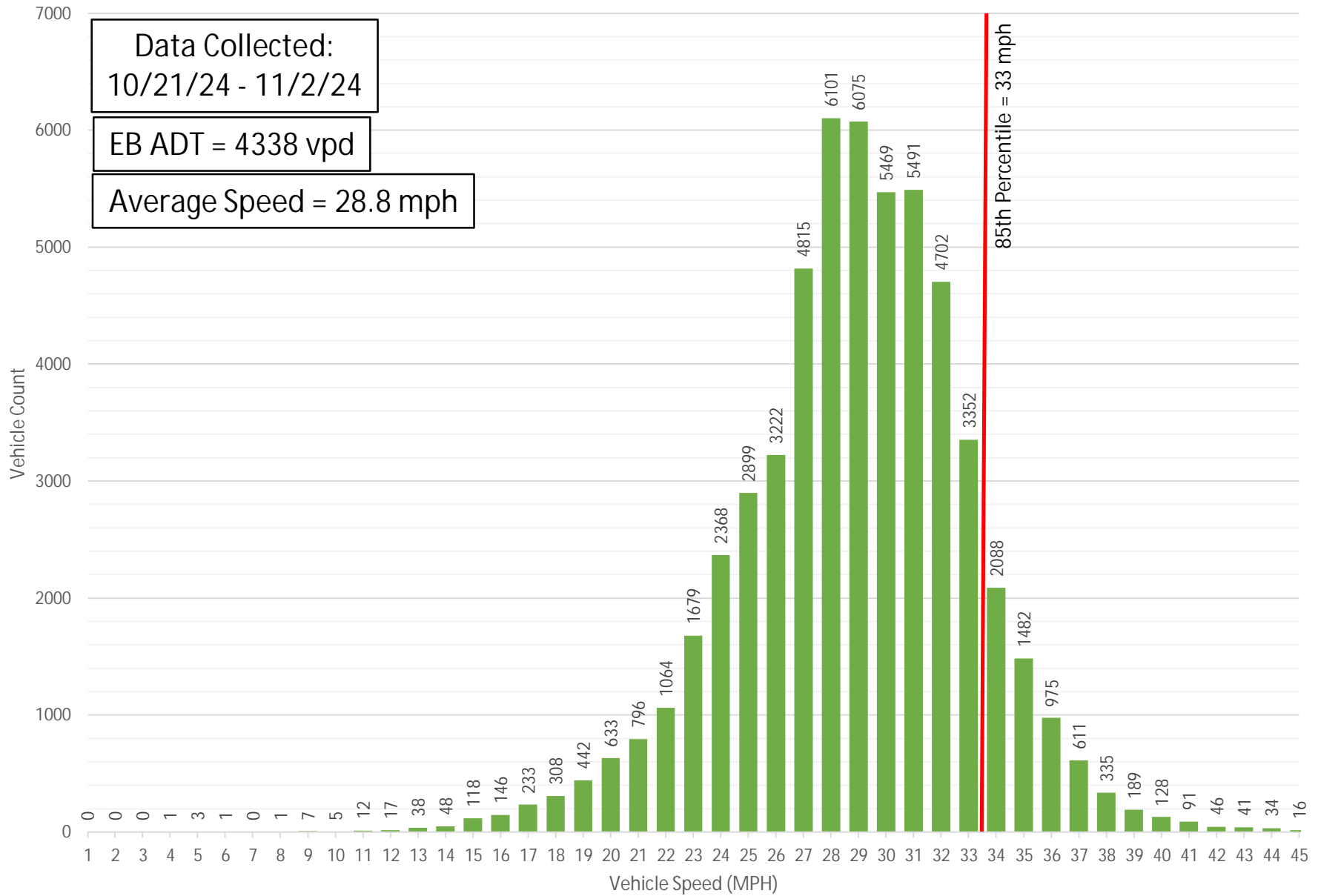


### Average Daily Hourly Traffic Volume - Main Street EB - Starin Road Open





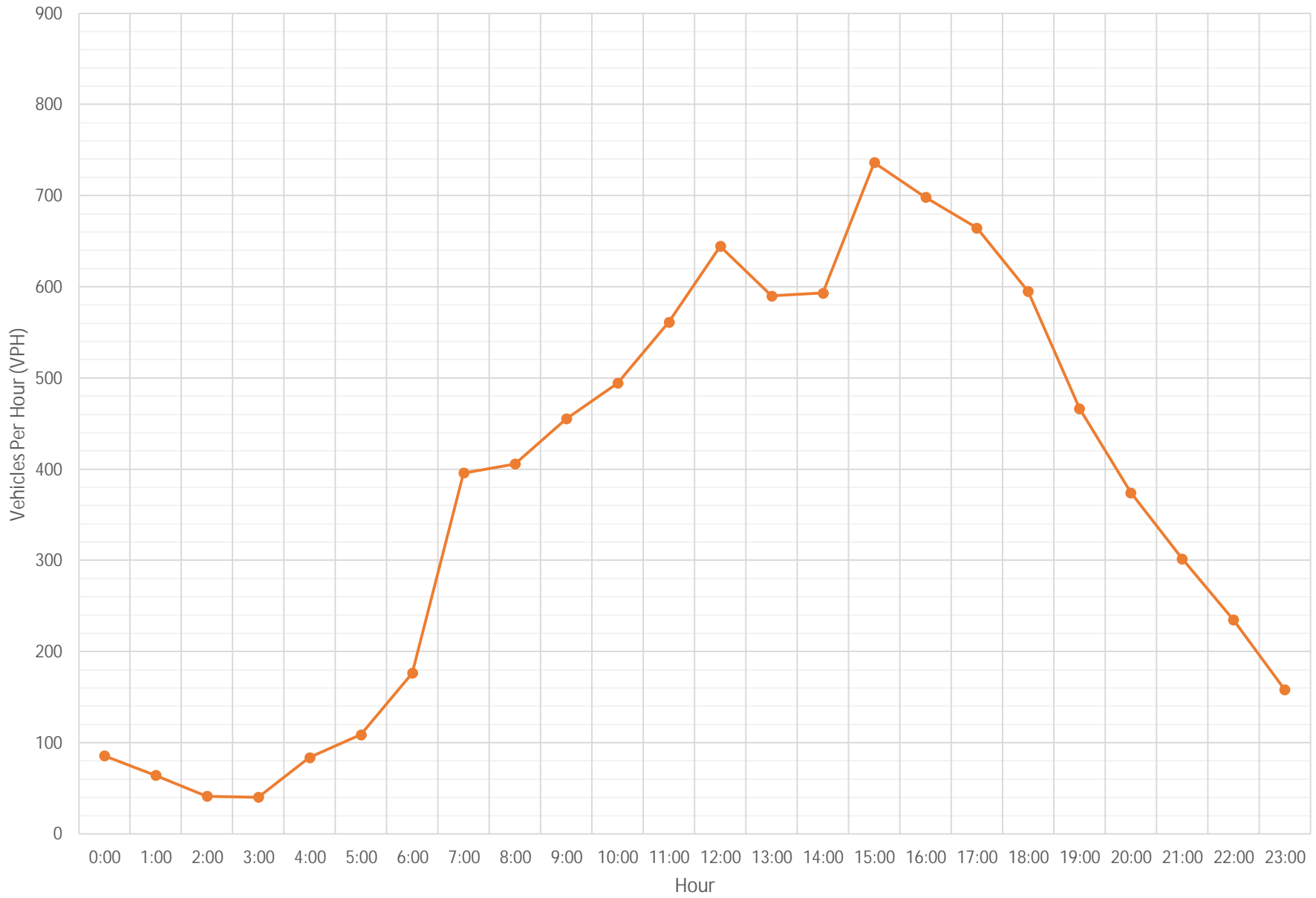
### Vehicle Speed - Main Street EB - Starin Road Open



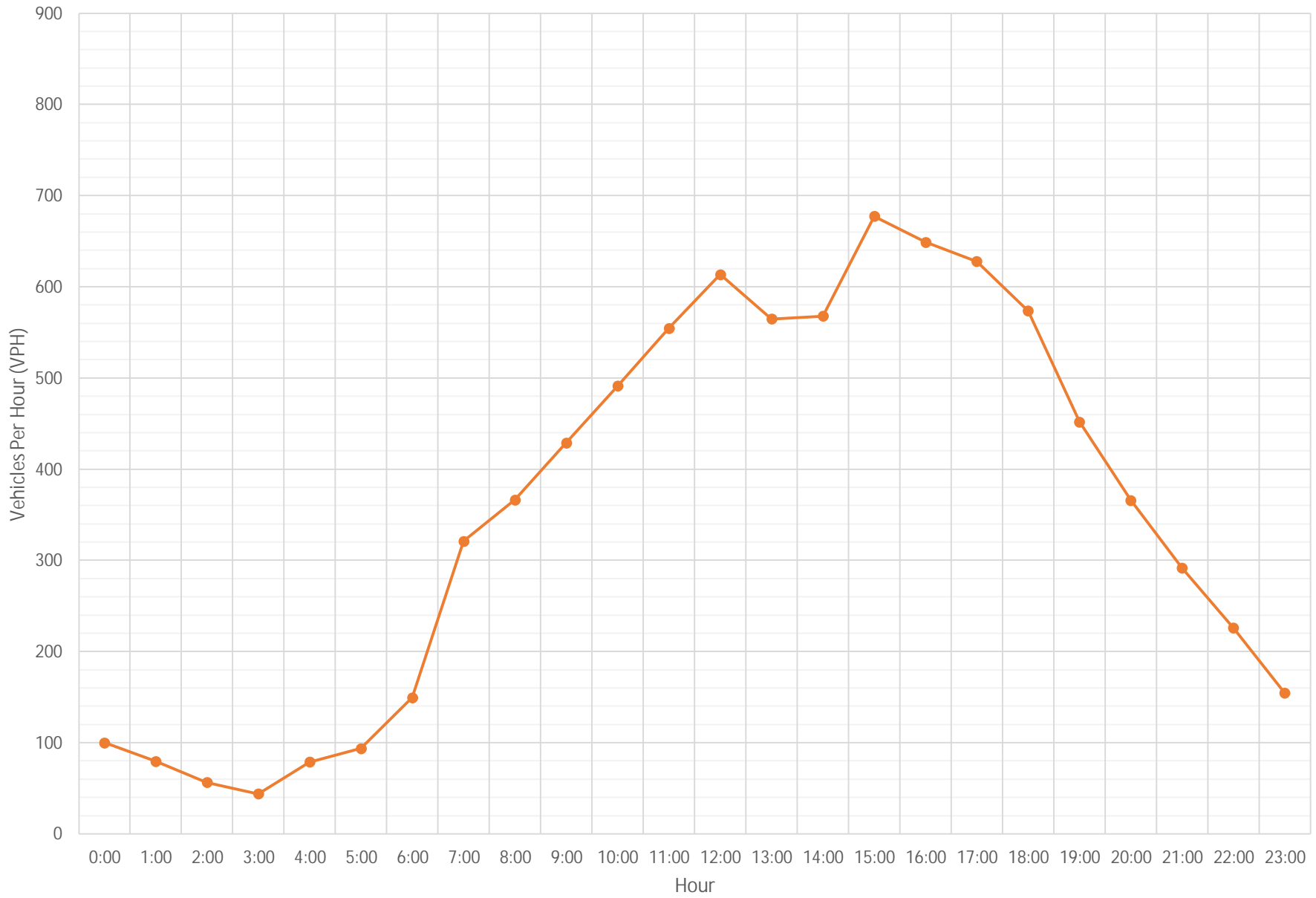
Count Location: Main Street Total  
 Count Begin: 10/21/2024  
 Count End: 11/2/2024

Total Main Street Daily Count and Speed Average -Starin Road Open											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	52	58	65	82	171	126	146	86	136	100	31.6
1:00	21	39	43	54	164	123	114	64	119	80	31.7
2:00	35	20	27	35	89	97	91	41	94	56	32.2
3:00	24	37	39	42	60	53	52	40	53	44	31.6
4:00	94	82	83	80	80	61	72	84	67	79	31.3
5:00	96	110	105	118	115	63	49	109	56	94	31.5
6:00	170	190	177	181	163	103	63	176	83	150	32
7:00	416	396	424	385	358	128	140	396	134	321	31.9
8:00	386	428	394	415	405	302	235	406	269	366	32.4
9:00	463	469	437	448	459	416	311	455	364	429	32.1
10:00	471	481	456	521	543	496	471	494	484	491	32
11:00	505	532	538	578	653	552	524	561	538	555	32.6
12:00	633	589	645	662	693	594	478	644	536	613	32
13:00	565	590	572	591	632	522	480	590	501	565	32.2
14:00	577	574	598	589	627	506	503	593	505	568	32.7
15:00	709	763	736	769	704	518	544	736	531	678	31.9
16:00	678	694	690	727	702	497	555	698	526	649	31.9
17:00	669	630	677	682	664	509	564	664	537	628	31.6
18:00	558	532	597	676	611	485	555	595	520	573	31
19:00	442	445	446	496	503	402	429	466	416	452	31.4
20:00	358	329	387	386	411	313	376	374	345	366	31.4
21:00	249	284	316	321	338	291	241	302	266	291	31.3
22:00	179	191	237	285	281	233	174	235	204	226	31
23:00	108	114	148	198	222	184	107	158	146	154	31.5
Totals	8458	8577	8837	9321	9648	7574	7274				
% of Total	14.17%	14.37%	14.81%	15.62%	16.16%	12.69%	12.19%	ADT	8527	AWDT	8968

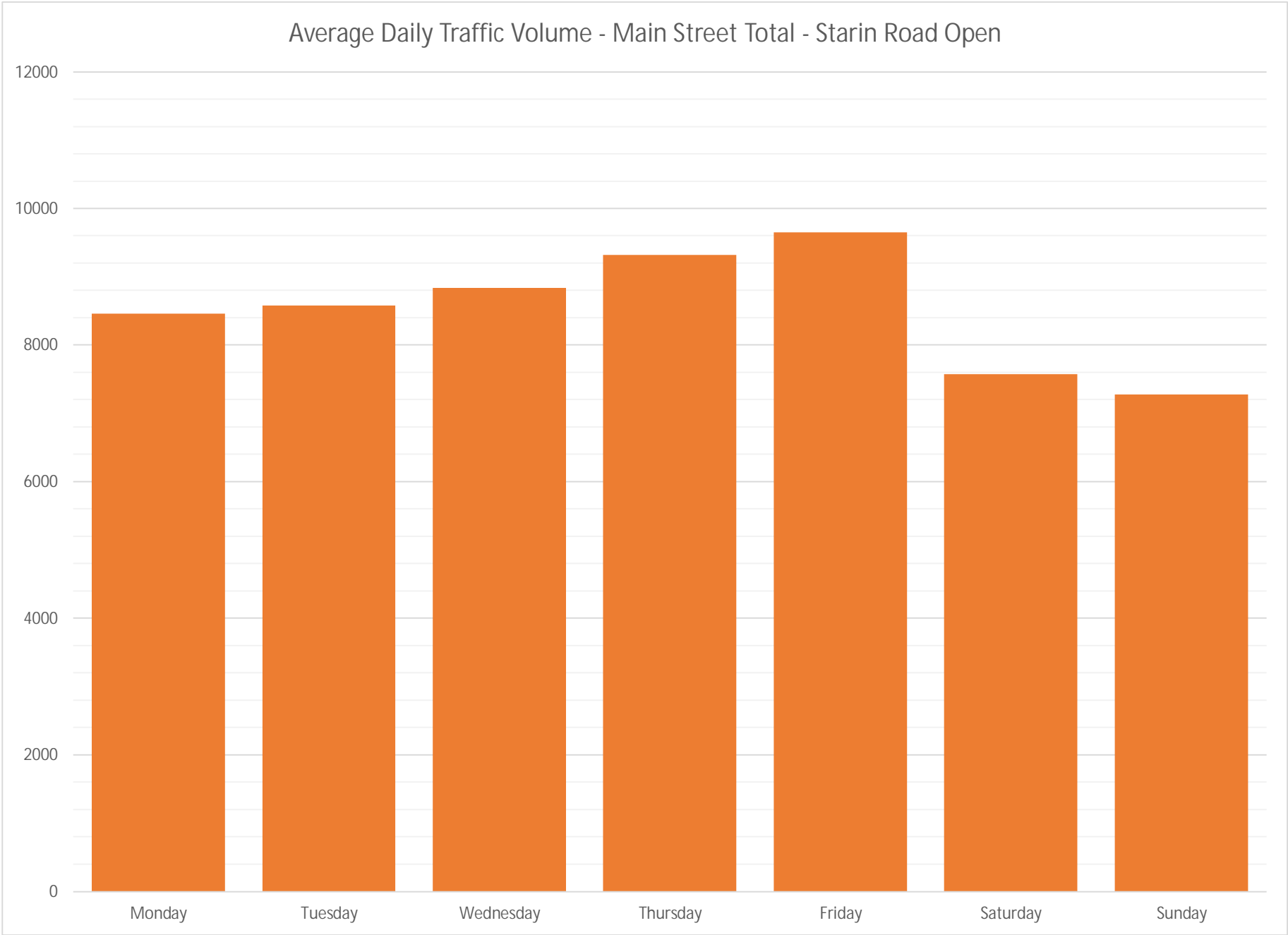
Average Week Day Hourly Traffic Volume - Main Street Total - Starin Road Open



Average Daily Hourly Traffic Volume - Main Street Total - Starin Road Open





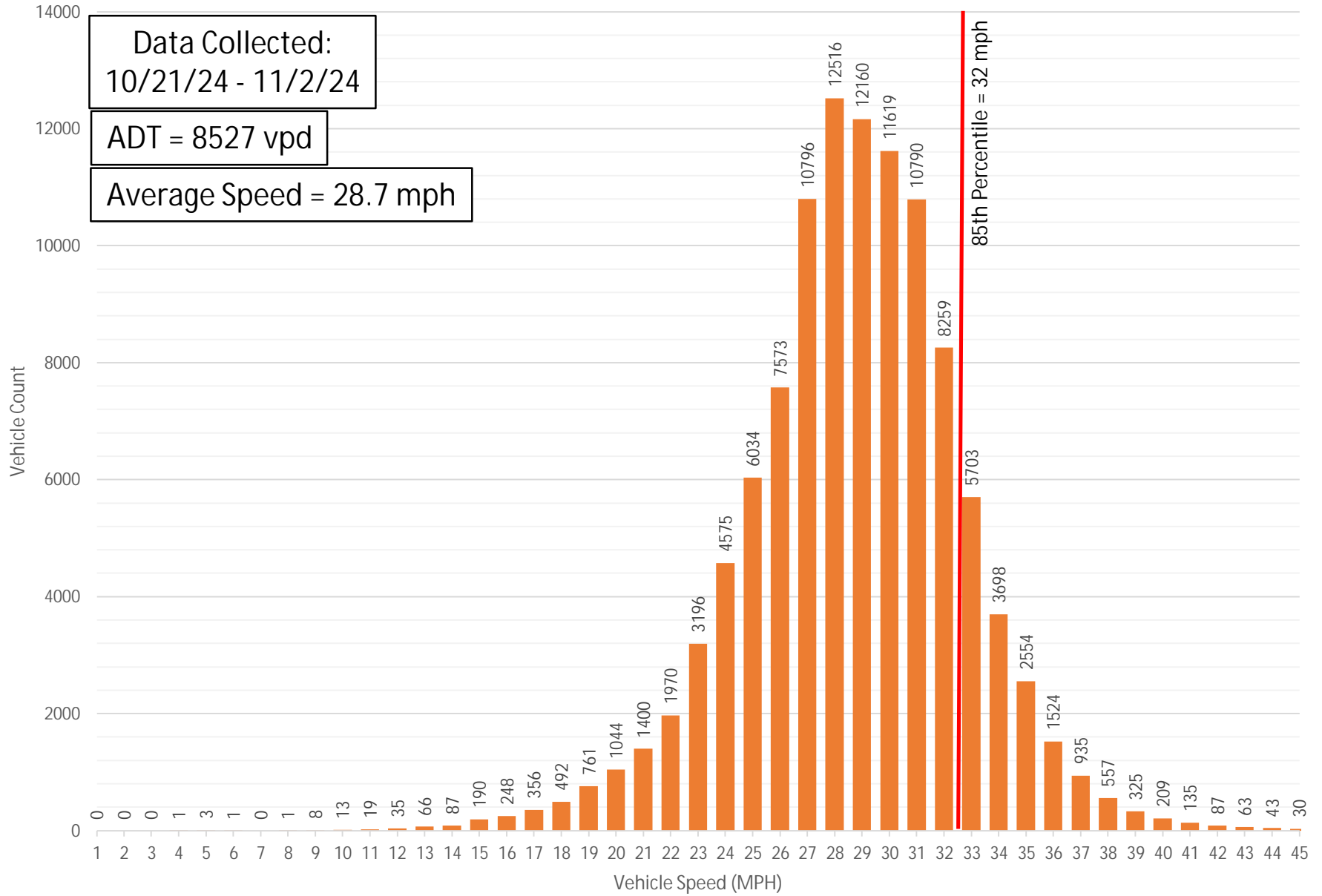


### Vehicle Speed - Main Street Total - Starin Road Open

Data Collected:  
10/21/24 - 11/2/24

ADT = 8527 vpd

Average Speed = 28.7 mph



Main Street Traffic Volume Comparison  
 Starin Road Closure  
 Date: 2024-11-05

Total Schwager Drive Daily Count with Starin Road Open										
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg
0:00	12	11	13	10	12	12	5	12	9	11
1:00	4	3	2	7	11	4	5	5	5	5
2:00	2	3	4	3	8	10	4	4	7	5
3:00	1	0	3	4	6	5	1	3	3	3
4:00	2	5	3	3	6	3	1	4	2	3
5:00	17	9	20	14	12	3	2	14	3	11
6:00	30	18	25	17	25	31	1	23	16	21
7:00	59	55	54	36	31	16	4	47	10	36
8:00	74	62	66	63	51	19	8	63	14	49
9:00	112	106	86	85	74	26	28	93	27	74
10:00	111	107	99	110	91	34	33	104	34	84
11:00	72	79	65	72	83	42	39	74	41	65
12:00	123	110	113	111	84	34	53	108	44	90
13:00	143	148	123	148	143	29	41	141	35	111
14:00	93	101	99	119	101	33	46	103	40	85
15:00	125	113	122	134	104	39	52	120	46	98
16:00	85	90	90	89	109	25	59	93	42	78
17:00	121	91	116	143	119	43	103	118	73	105
18:00	92	113	118	115	57	34	56	99	45	84
19:00	63	61	66	69	49	50	68	62	59	61
20:00	47	62	59	65	54	23	62	57	43	53
21:00	48	36	71	57	33	24	50	49	37	46
22:00	33	30	40	40	22	13	43	33	28	32
23:00	17	14	20	28	25	19	18	21	19	20
Totals	1486	1427	1477	1542	1310	571	782	ADT	1228	
% of Total	17.29%	16.60%	17.18%	17.94%	15.24%	6.64%	9.10%			

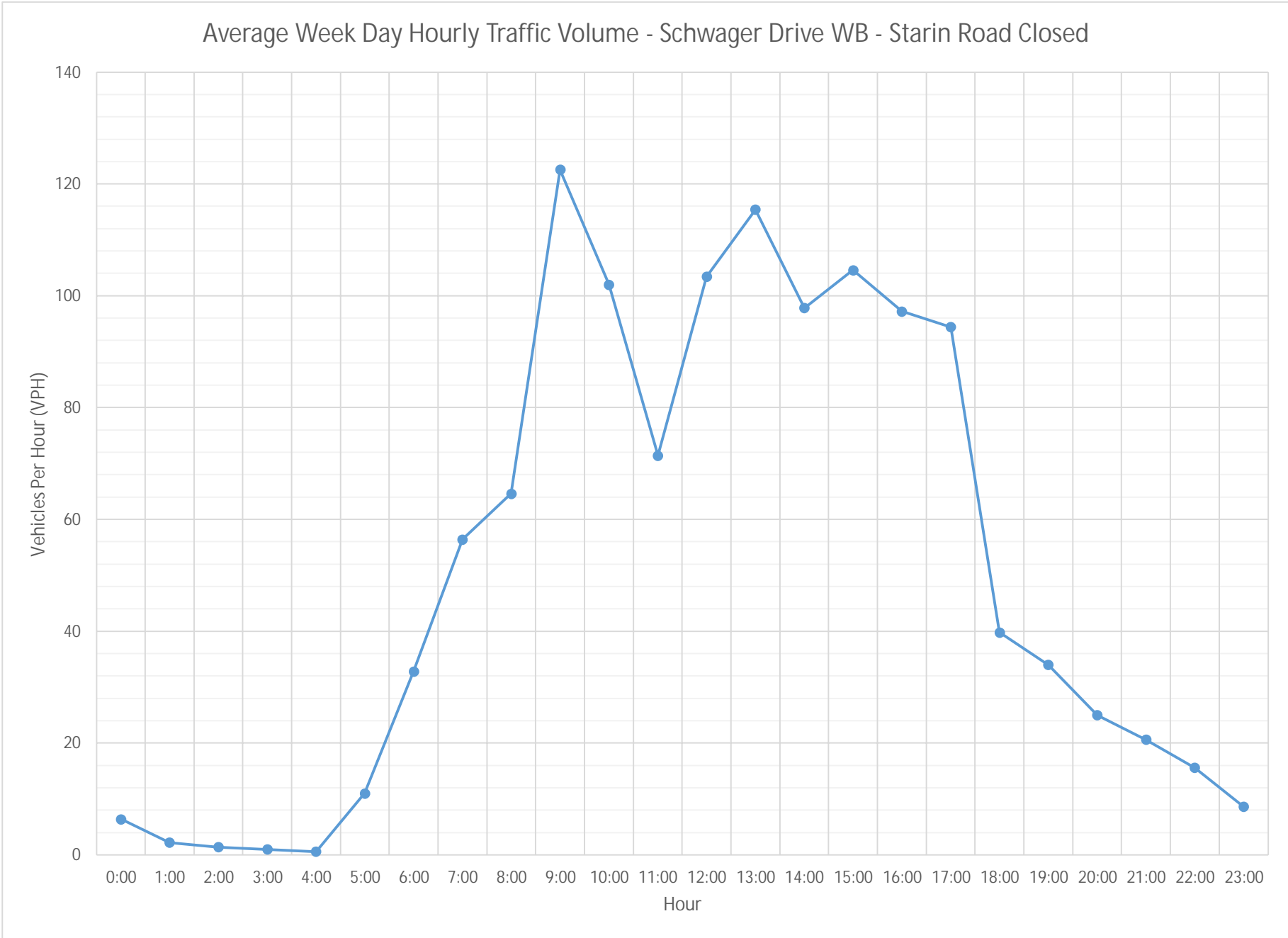
Total Schwager Drive Daily Count with Starin Road Closed (6 AM to 6 PM, Monday thru Friday)										
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg
0:00	6	10	12	15	23	22	5	13	14	13
1:00	1	5	3	5	8	10	15	4	13	7
2:00	4	3	1	5	6	11	5	4	8	5
3:00	1	5	3	3	4	2	0	3	1	3
4:00	3	2	4	3	3	1	0	3	1	2
5:00	18	14	26	13	15	28	4	17	16	17
6:00	48	57	48	45	49	22	4	49	13	39
7:00	108	108	97	95	83	5	2	98	4	71
8:00	140	124	128	110	81	15	11	117	13	87
9:00	182	174	185	163	137	23	20	168	22	126
10:00	186	162	211	160	141	44	35	172	40	134
11:00	113	119	133	143	161	66	48	134	57	112
12:00	202	179	198	206	180	38	39	193	39	149
13:00	183	216	210	252	185	84	83	209	84	173
14:00	155	153	156	224	158	75	46	169	61	138
15:00	182	185	212	279	196	52	87	211	70	170
16:00	170	182	185	250	194	66	80	196	73	161
17:00	202	189	196	282	164	93	65	207	79	170
18:00	111	136	126	141	61	93	72	115	83	106
19:00	70	75	72	78	41	47	90	67	69	68
20:00	53	59	56	58	35	37	66	52	52	52
21:00	50	46	64	61	34	39	59	51	49	50
22:00	25	43	30	56	28	24	50	36	37	37
23:00	18	21	16	28	14	14	15	19	15	18
Totals	2231	2267	2372	2675	2001	911	901	ADT	1908	
% of Total	25.96%	26.38%	27.60%	31.12%	23.28%	10.60%	10.48%			

<b>Total Schwager Drive Daily Count Difference with Starin Road Closed</b>							
<b>Hour</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Average</b>	<b>Total</b>
6:00	18	39	23	28	24	26.4	132
7:00	49	53	43	59	52	51.2	256
8:00	66	62	62	47	30	53.4	267
9:00	70	68	99	78	63	75.6	378
10:00	75	55	112	50	50	68.4	342
11:00	41	40	68	71	78	59.6	298
12:00	79	69	85	95	96	84.8	424
13:00	40	68	87	104	42	68.2	341
14:00	62	52	57	105	57	66.6	333
15:00	57	72	90	145	92	91.2	456
16:00	85	92	95	161	85	103.6	518
17:00	81	98	80	139	45	88.6	443
Totals	723	768	901	1082	714	837.6	4188
% of Daily Traffic	58.88%	62.55%	73.38%	88.12%	58.15%	68.22%	

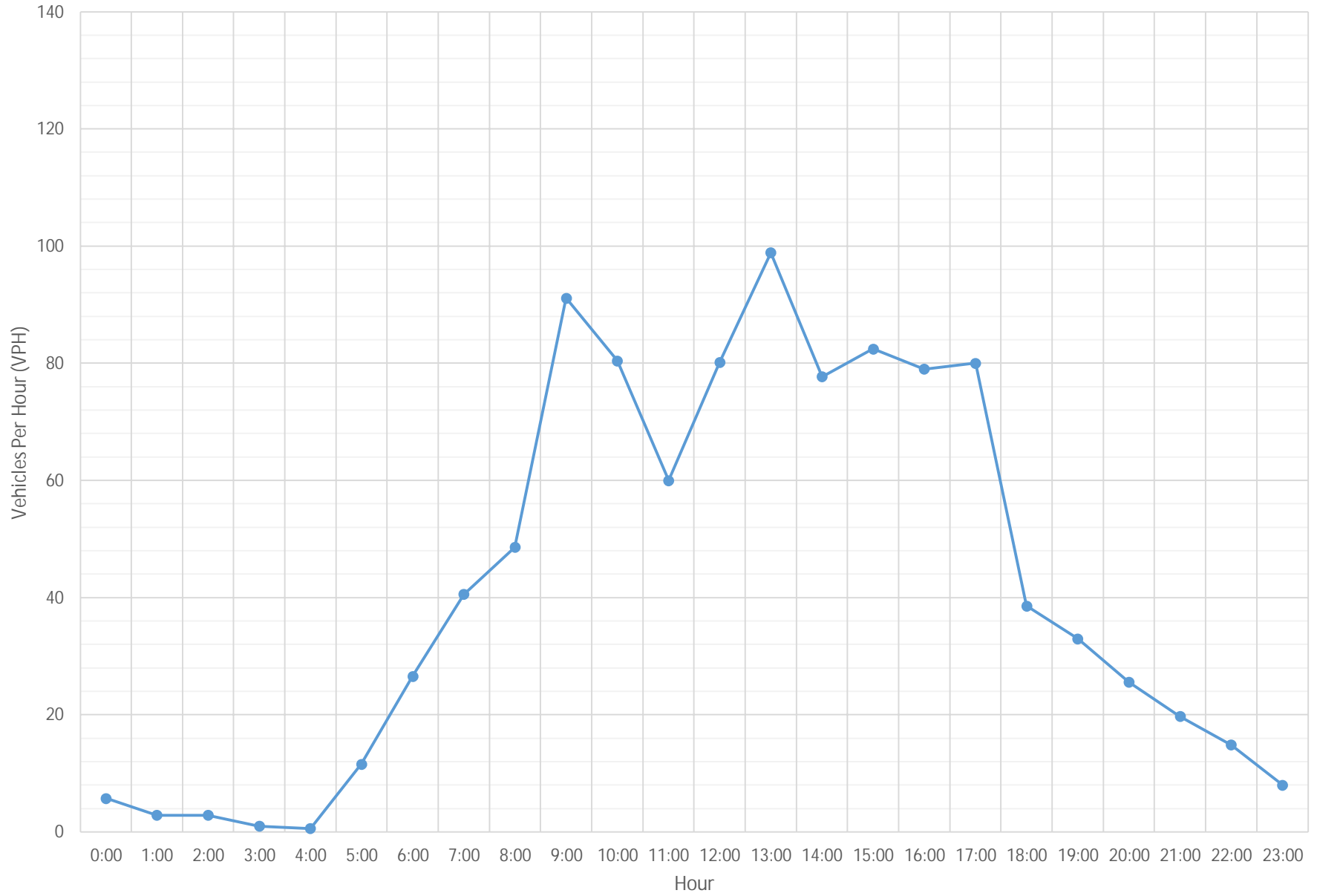
Count Location: Schwager Drive Westbound  
 Count Begin: 10/7/2024  
 Count End: 10/18/2024

Outgoing

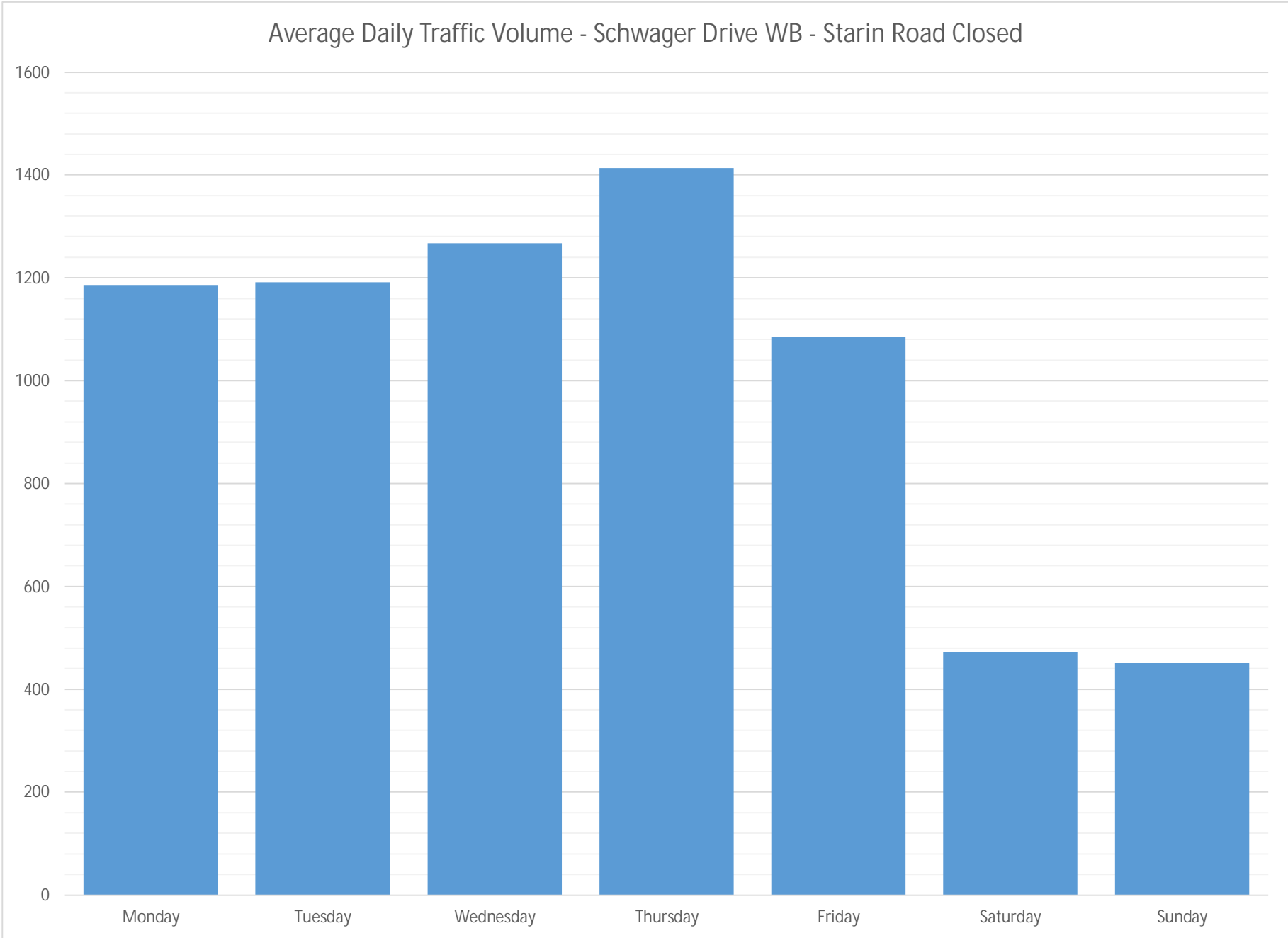
Westbound Schwager Drive Daily Count and Speed Average -Starin Road Closed											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	2	5	6	7	12	6	2	6	4	6	29.1
1:00	1	2	2	2	4	4	5	2	5	3	16
2:00	2	2	0	1	2	8	5	1	7	3	16.6
3:00	1	2	1	1	0	2	0	1	1	1	25.6
4:00	0	0	1	1	1	1	0	1	1	1	9.6
5:00	12	7	20	6	10	24	2	11	13	12	31.7
6:00	35	38	32	29	30	21	1	33	11	27	30.9
7:00	61	65	57	55	44	2	0	56	1	41	33.6
8:00	75	74	65	66	43	11	6	65	9	49	33.7
9:00	136	130	136	119	92	11	14	123	13	91	33.8
10:00	115	104	124	93	74	26	27	102	27	80	33.2
11:00	65	62	72	72	86	41	22	71	32	60	33
12:00	109	97	106	112	93	22	22	103	22	80	33.8
13:00	107	114	109	144	103	50	65	115	58	99	33.6
14:00	89	87	95	144	74	33	22	98	28	78	33.9
15:00	83	84	107	141	108	28	26	105	27	82	33
16:00	82	87	90	123	104	30	37	97	34	79	32.5
17:00	82	81	81	130	98	52	36	94	44	80	33.3
18:00	37	44	57	40	21	34	37	40	36	39	33
19:00	30	35	39	38	28	17	44	34	31	33	31.8
20:00	24	28	23	29	21	23	31	25	27	26	32.1
21:00	21	16	22	25	19	15	20	21	18	20	31.5
22:00	11	18	13	25	11	6	20	16	13	15	30.8
23:00	6	9	9	11	8	6	7	9	7	8	32
Totals	1186	1191	1267	1414	1086	473	451	ADT	1010	AWDT	1229
% of Total	16.78%	16.85%	17.93%	20.01%	15.37%	6.69%	6.38%				



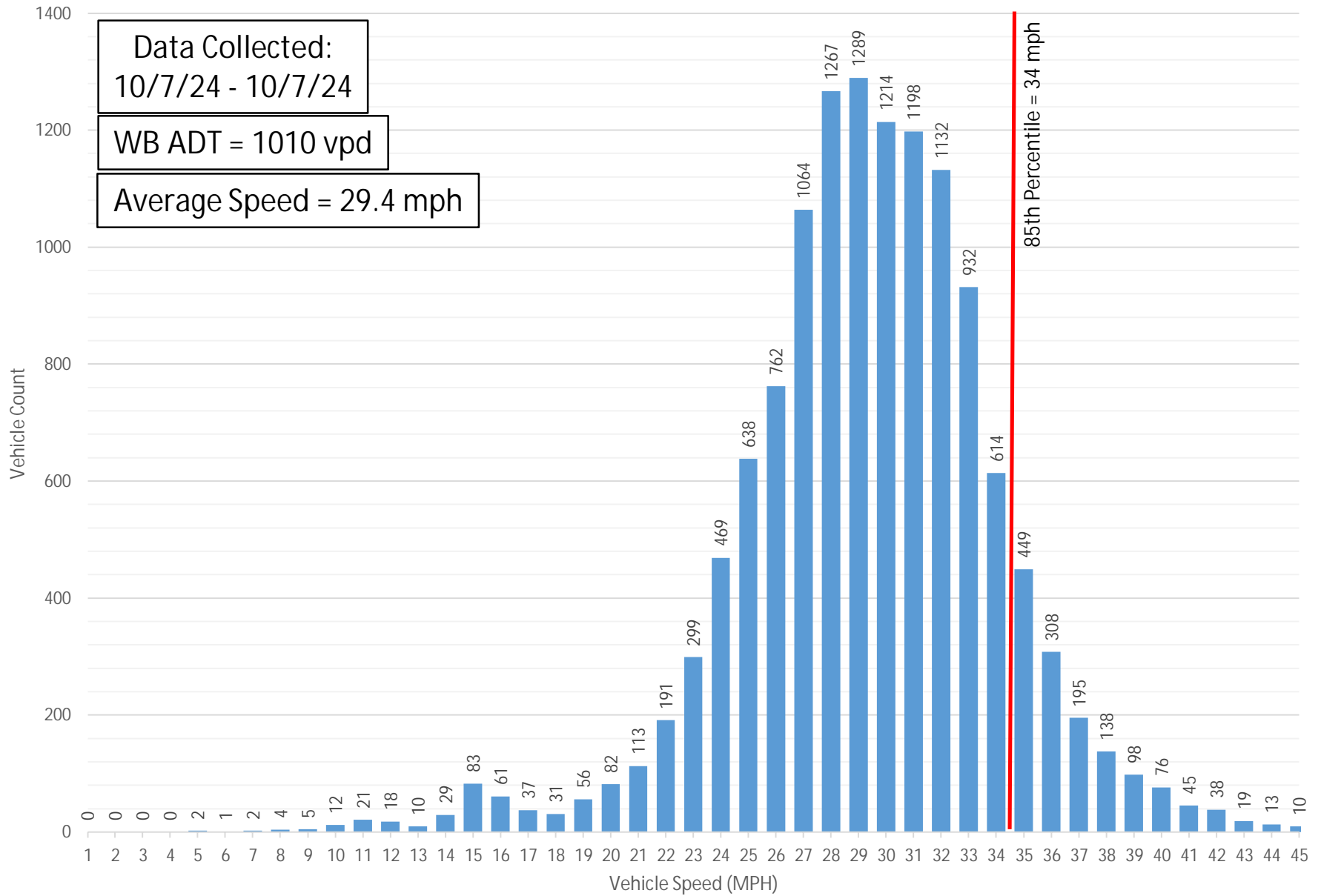
Average Daily Hourly Traffic Volume - Schwager Drive WB - Starin Road Closed







### Vehicle Speed - Schwager Drive WB - Starin Road Closed

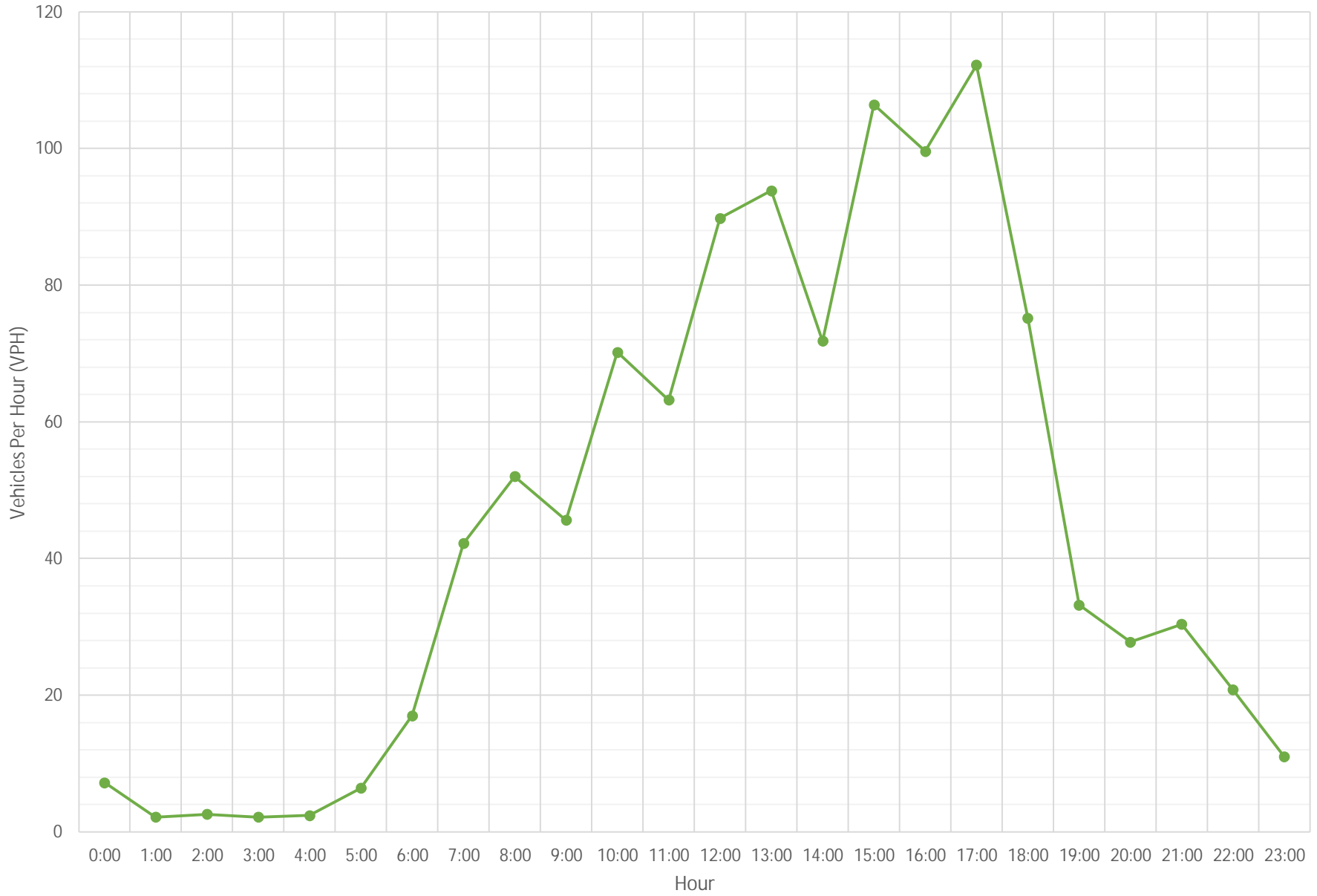


Count Location: Schwager Drive Eastbound  
 Count Begin: 10/7/2024  
 Count End: 10/18/2024

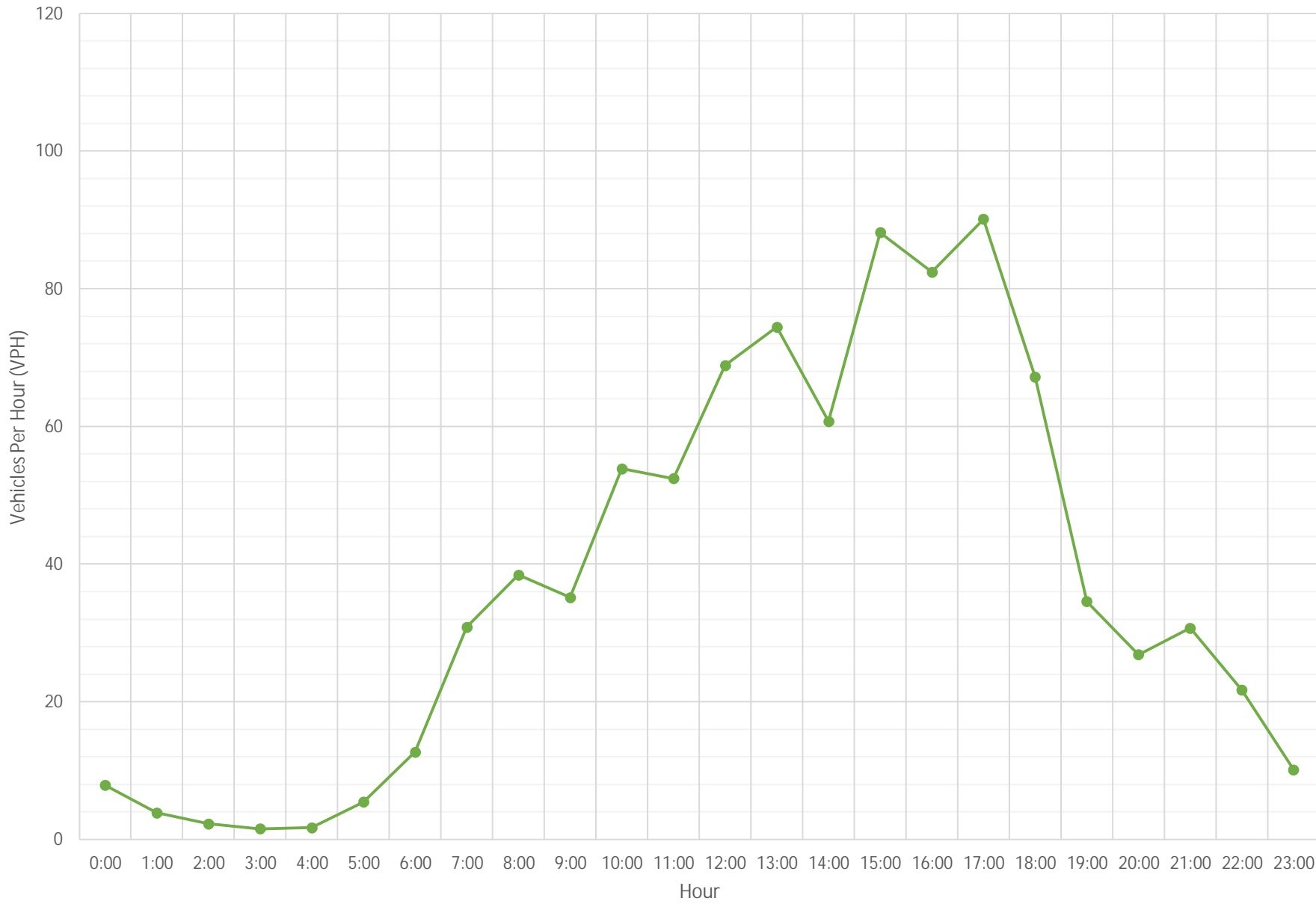
Incoming

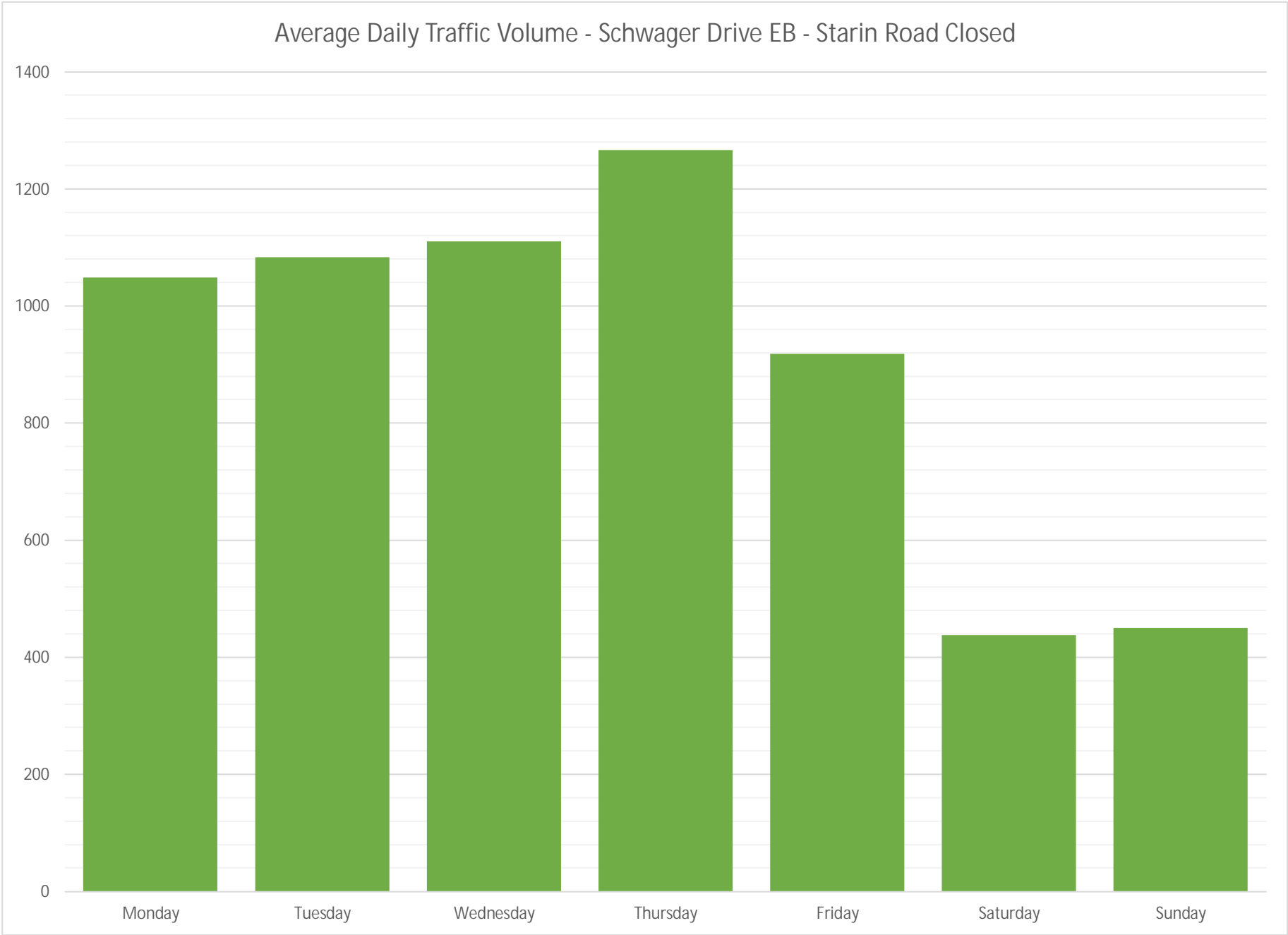
Eastbound Schwager Drive Daily Count and Speed Average -Starin Road Closed											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	4	6	6	9	11	16	3	7	10	8	33.2
1:00	0	3	1	3	4	6	10	2	8	4	27.2
2:00	2	1	1	5	4	3	0	3	2	2	27.4
3:00	0	3	2	2	4	0	0	2	0	2	27.4
4:00	3	2	3	2	2	0	0	2	0	2	37.8
5:00	6	7	7	7	5	4	2	6	3	5	33.4
6:00	14	20	16	16	19	1	3	17	2	13	35.2
7:00	48	44	40	40	39	3	2	42	3	31	36.2
8:00	65	50	63	44	38	4	5	52	5	38	35.8
9:00	46	44	49	44	45	12	6	46	9	35	36.2
10:00	71	58	87	67	68	18	8	70	13	54	35.4
11:00	49	58	61	72	76	25	26	63	26	52	36.2
12:00	93	82	93	94	87	16	17	90	17	69	36.3
13:00	76	102	101	108	82	34	18	94	26	74	36.3
14:00	66	67	62	80	84	42	24	72	33	61	36.2
15:00	99	101	105	138	89	24	61	106	43	88	36.2
16:00	89	96	95	128	90	36	43	100	40	82	36.4
17:00	120	108	115	152	66	41	29	112	35	90	36
18:00	74	92	69	101	40	59	35	75	47	67	35.9
19:00	40	40	33	40	13	30	46	33	38	35	35
20:00	29	32	34	30	14	14	35	28	25	27	34.8
21:00	29	30	42	36	15	24	39	30	32	31	35.7
22:00	14	25	17	31	17	18	30	21	24	22	34.6
23:00	12	12	8	17	6	8	8	11	8	10	33.9
Totals	1049	1083	1110	1266	918	438	450				
% of Total	16.61%	17.15%	17.58%	20.05%	14.54%	6.94%	7.13%	ADT	902	AWDT	1085

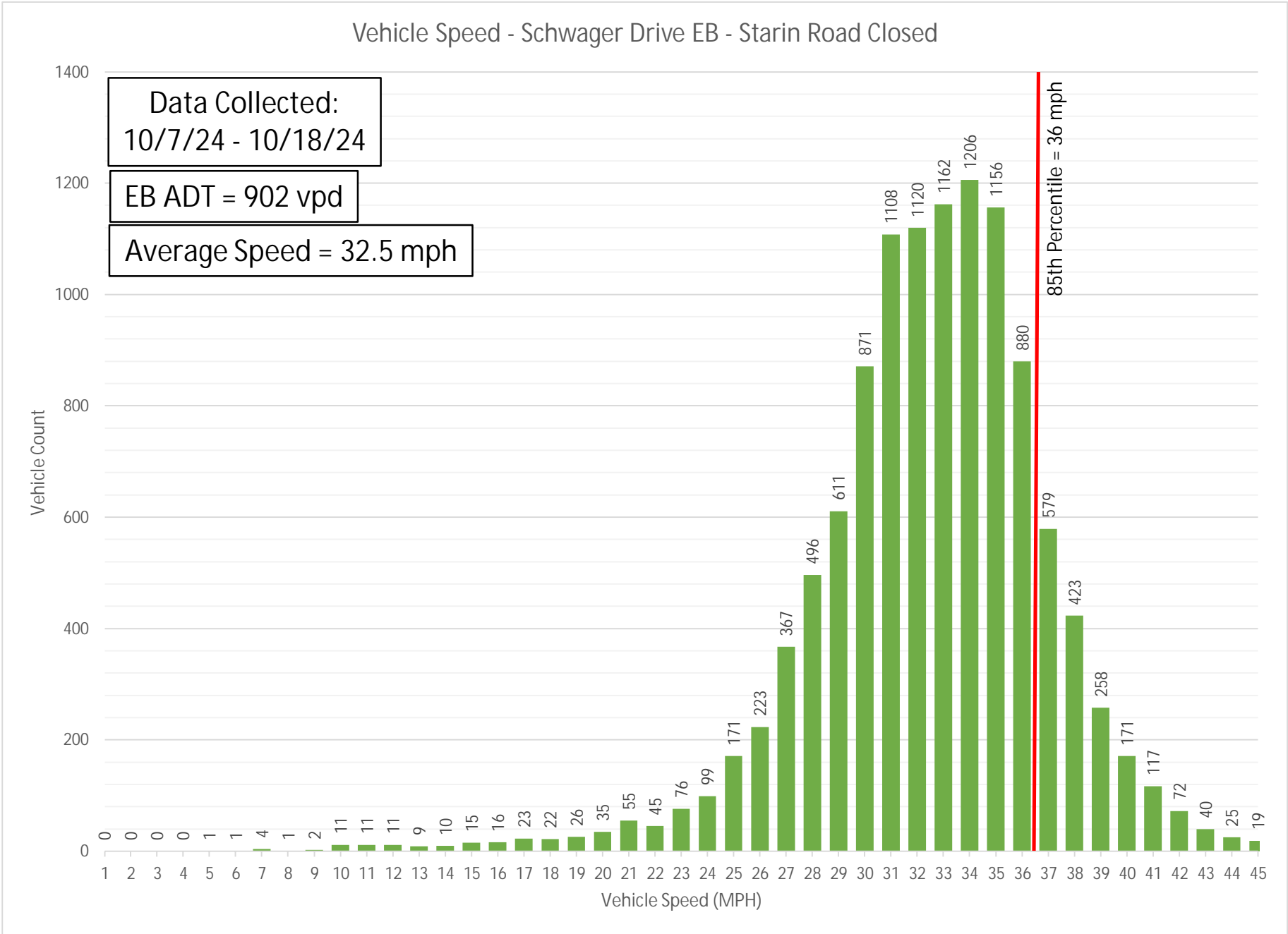
Average Week Day Hourly Traffic Volume - Schwager Drive EB - Starin Road Closed



### Average Daily Hourly Traffic Volume - Schwager Drive EB - Starin Road Closed





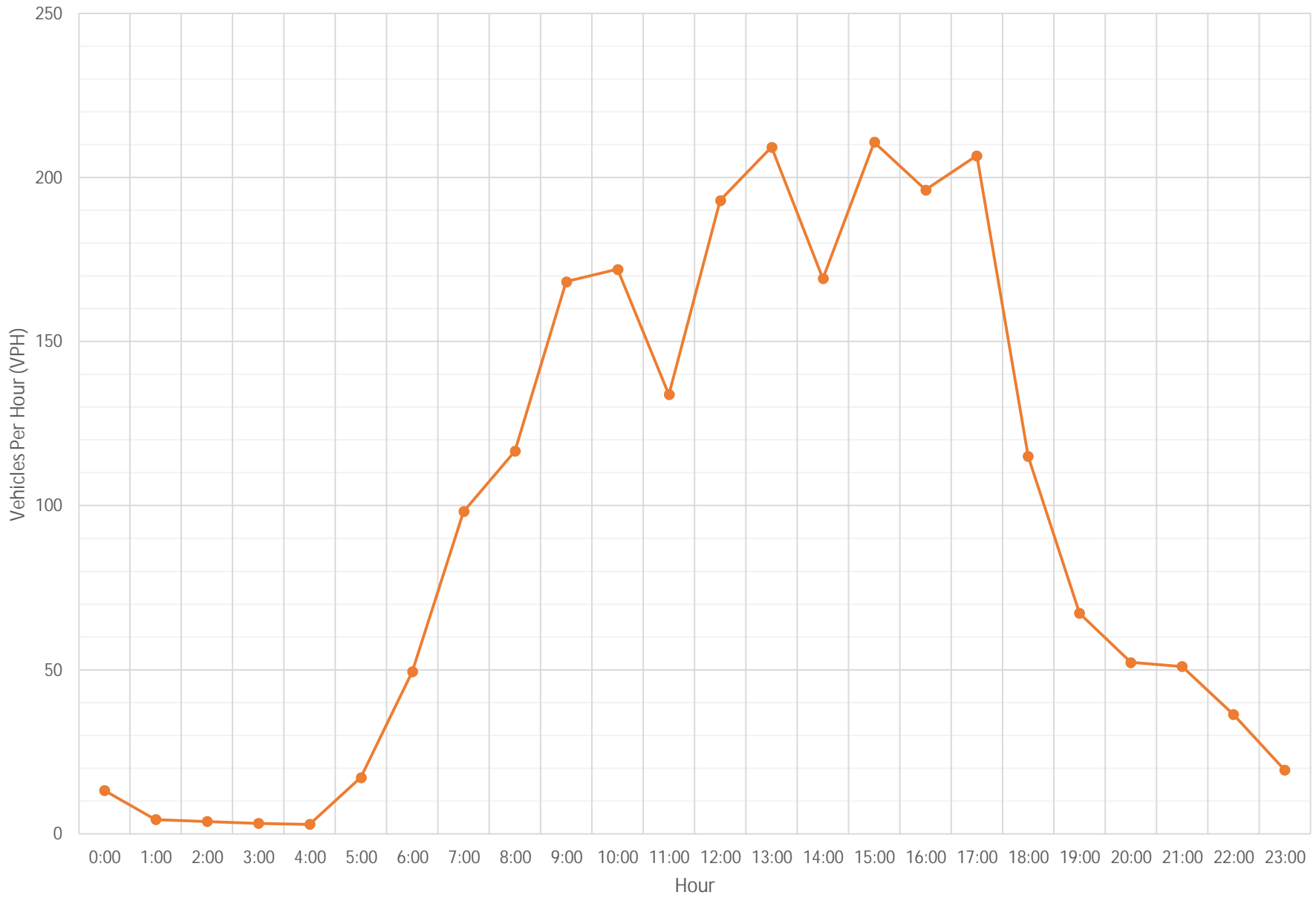


Count Begin: 10/7/2024  
 Count End: 10/18/2024

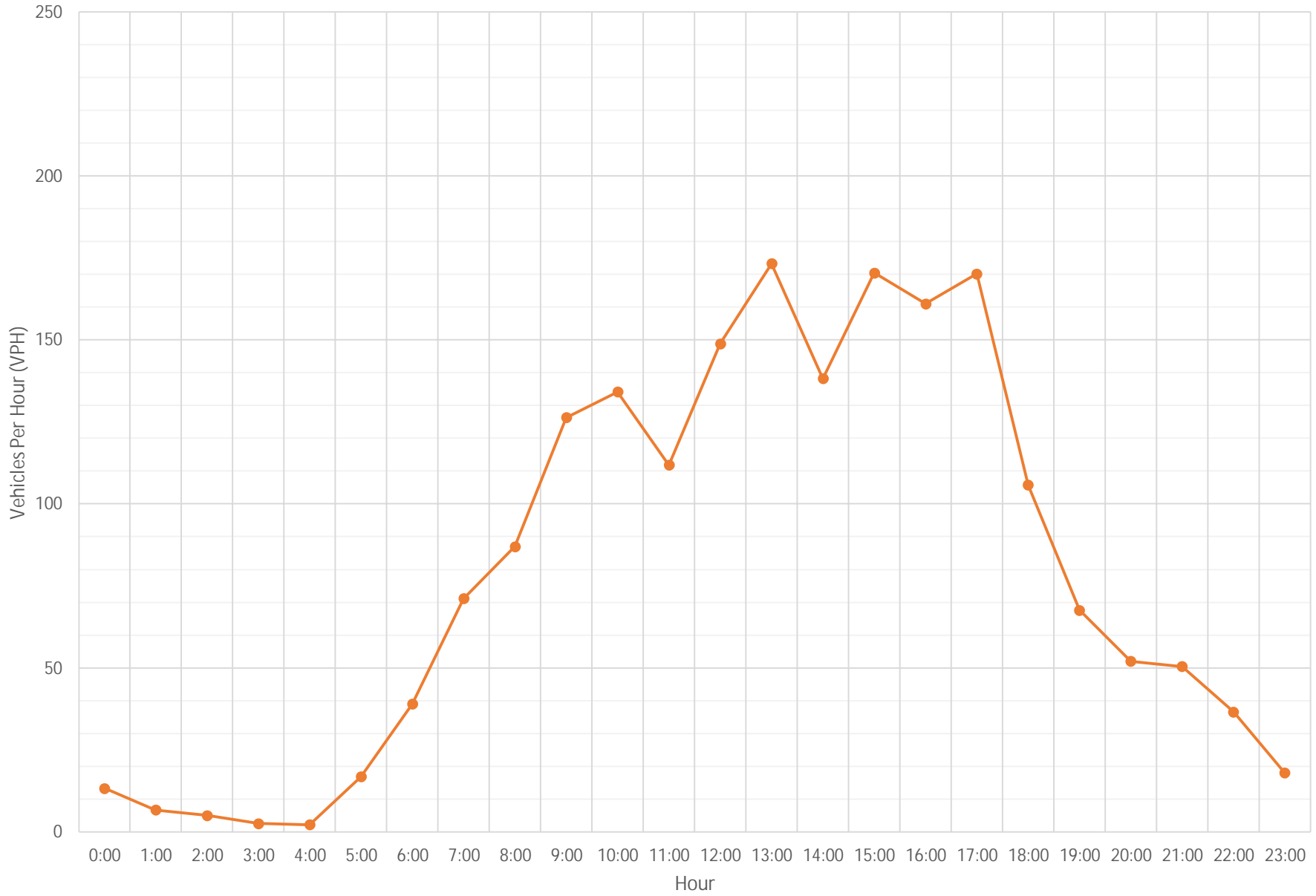
Total Schwager Drive Daily Count and Speed Average -Starin Road Closed											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	6	10	12	15	23	22	5	13	14	13	32.7
1:00	1	5	3	5	8	10	15	4	13	7	32.4
2:00	4	3	1	5	6	11	5	4	8	5	30.6
3:00	1	5	3	3	4	2	0	3	1	3	34.2
4:00	3	2	4	3	3	1	0	3	1	2	37.7
5:00	18	14	26	13	15	28	4	17	16	17	32.5
6:00	48	57	48	45	49	22	4	49	13	39	33.1
7:00	108	108	97	95	83	5	2	98	4	71	34.8
8:00	140	124	128	110	81	15	11	117	13	87	34.8
9:00	182	174	185	163	137	23	20	168	22	126	34.5
10:00	186	162	211	160	141	44	35	172	40	134	34.4
11:00	113	119	133	143	161	66	48	134	57	112	35.1
12:00	202	179	198	206	180	38	39	193	39	149	35.3
13:00	183	216	210	252	185	84	83	209	84	173	35.4
14:00	155	153	156	224	158	75	46	169	61	138	35.1
15:00	182	185	212	279	196	52	87	211	70	170	35.3
16:00	170	182	185	250	194	66	80	196	73	161	34.9
17:00	202	189	196	282	164	93	65	207	79	170	35
18:00	111	136	126	141	61	93	72	115	83	106	34.9
19:00	70	75	72	78	41	47	90	67	69	68	34.5
20:00	53	59	56	58	35	37	66	52	52	52	33.8
21:00	50	46	64	61	34	39	59	51	49	50	34.4
22:00	25	43	30	56	28	24	50	36	37	37	33.3
23:00	18	21	16	28	14	14	15	19	15	18	34.4
Totals	2231	2267	2372	2675	2001	911	901				
% of Total	16.70%	16.97%	17.76%	20.03%	14.98%	6.82%	6.75%	ADT	1908	AWDT	2309

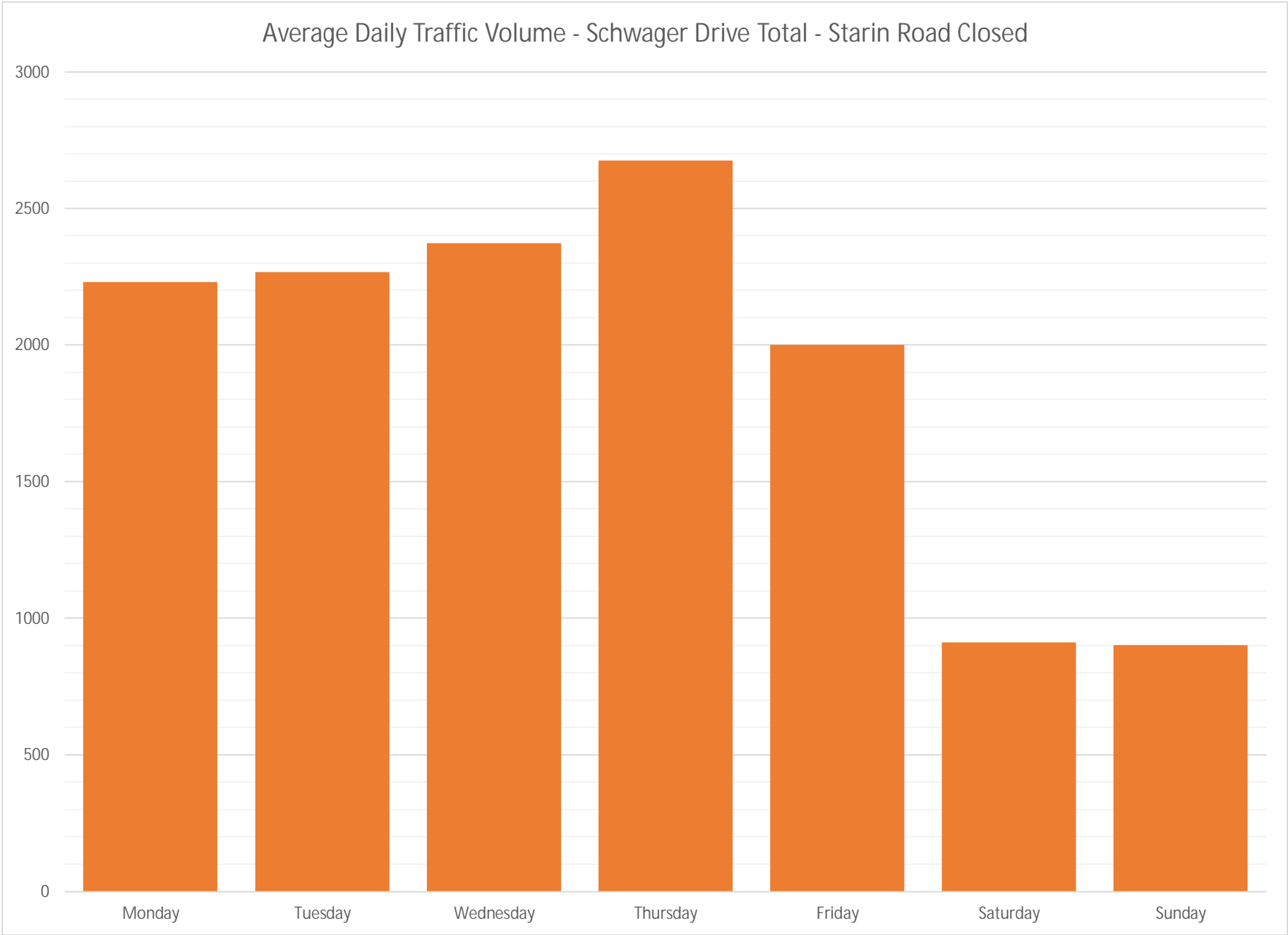


Average Week Day Hourly Traffic Volume - Schwager Drive Total - Starin Road Closed

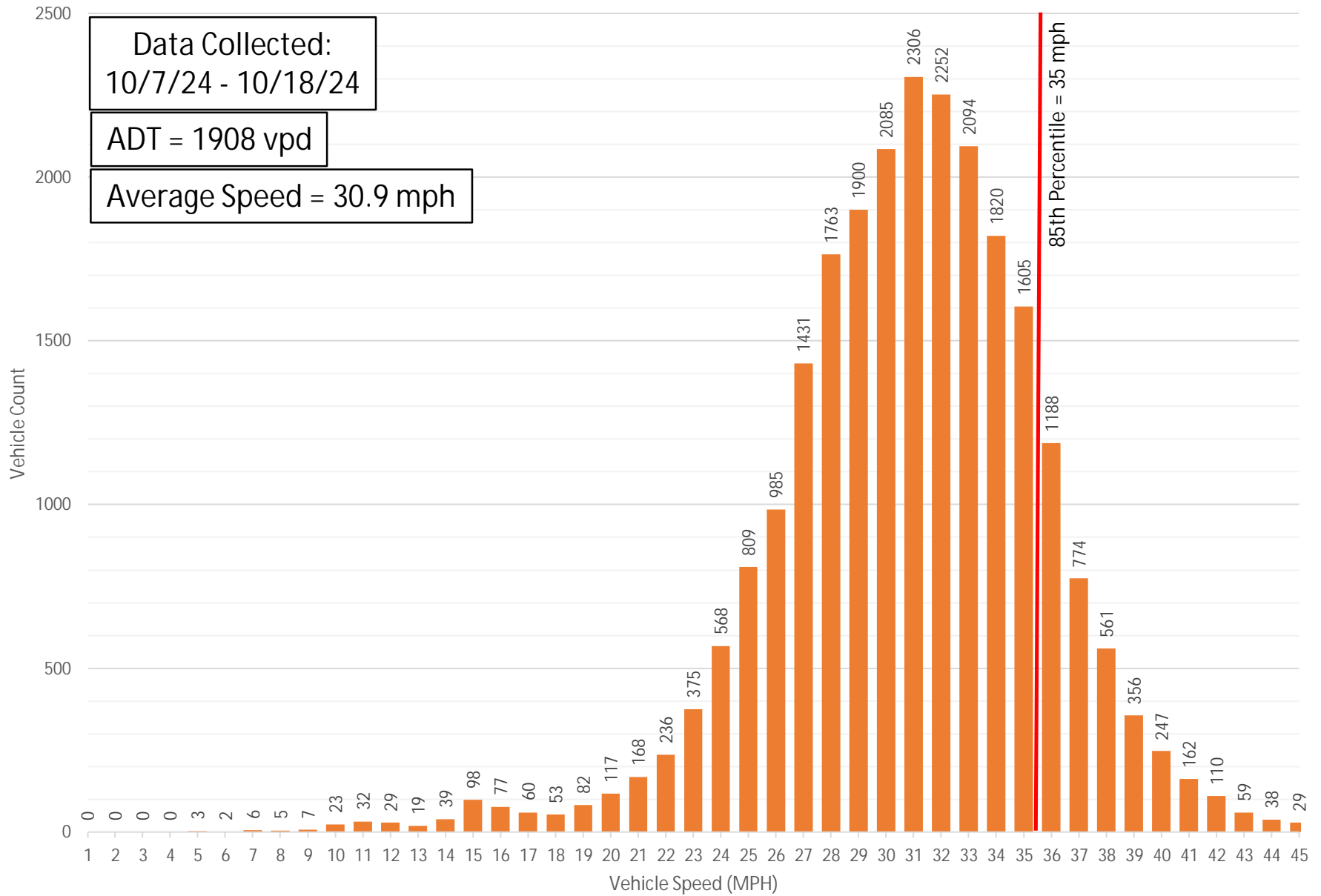


Average Daily Hourly Traffic Volume - Schwager Drive Total - Starin Road Closed





### Vehicle Speed - Schwager Drive Total - Starin Road Closed

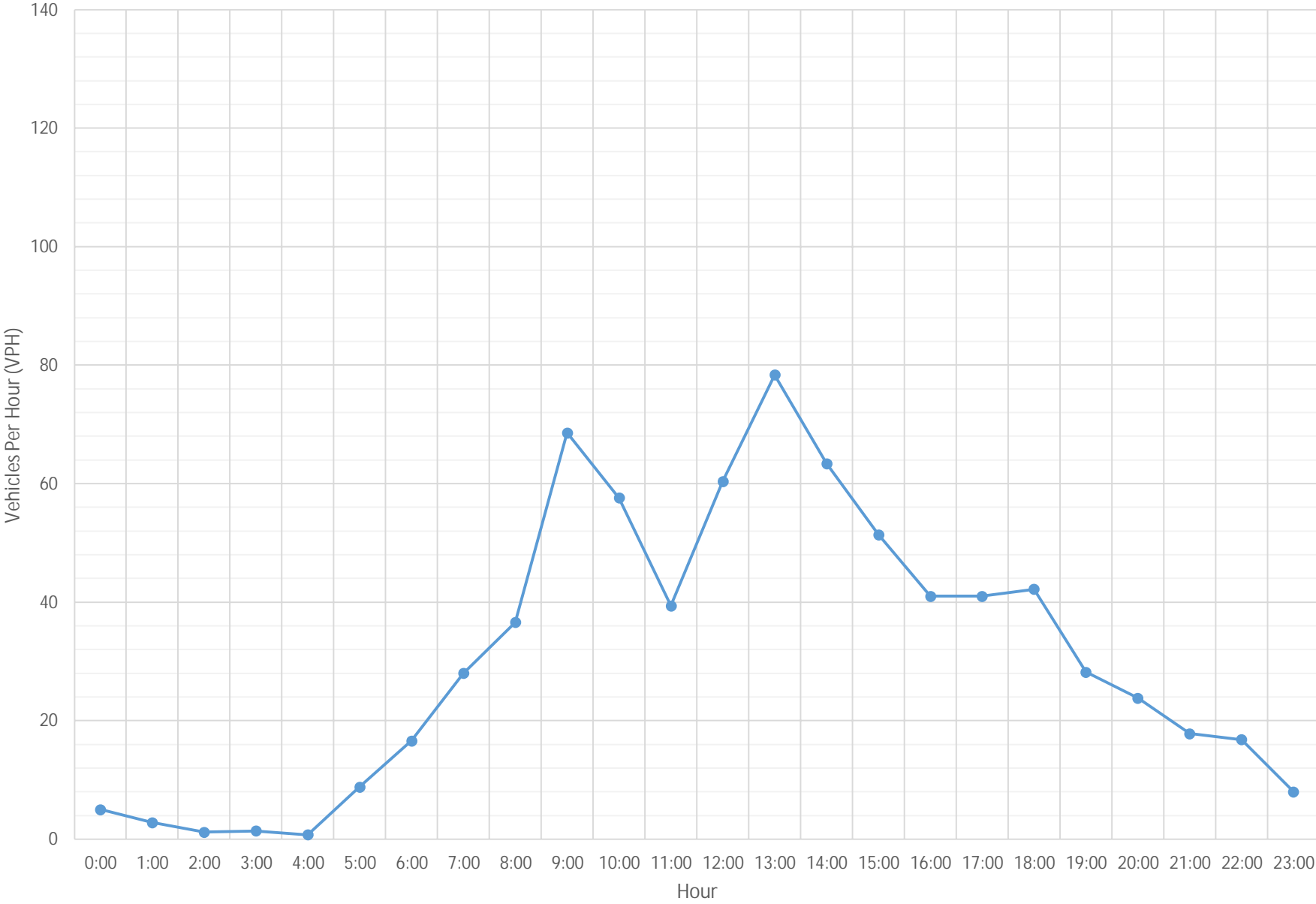


Count Location: Schwager Drive Westbound  
 Count Begin: 10/21/2024  
 Count End: 11/2/2024

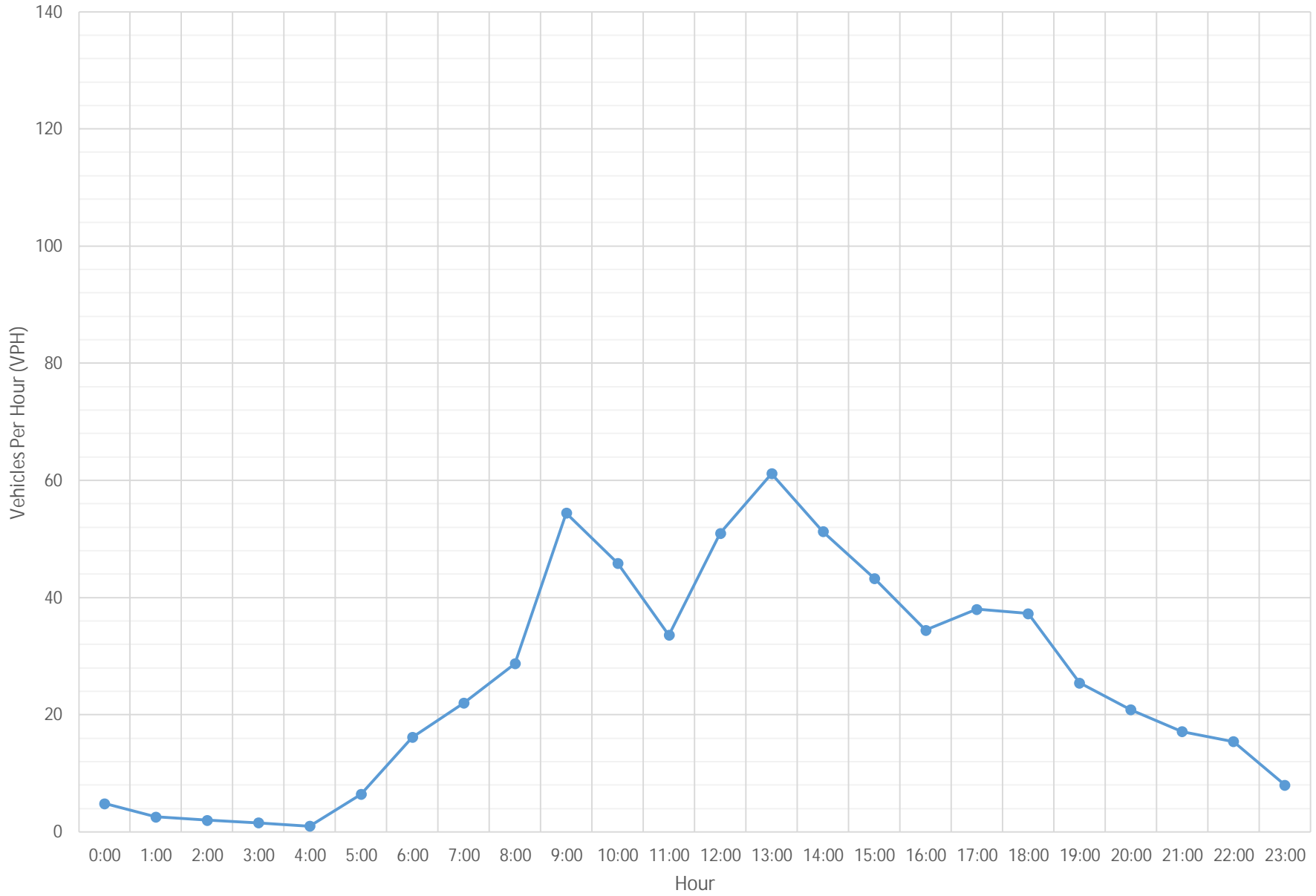
Outgoing

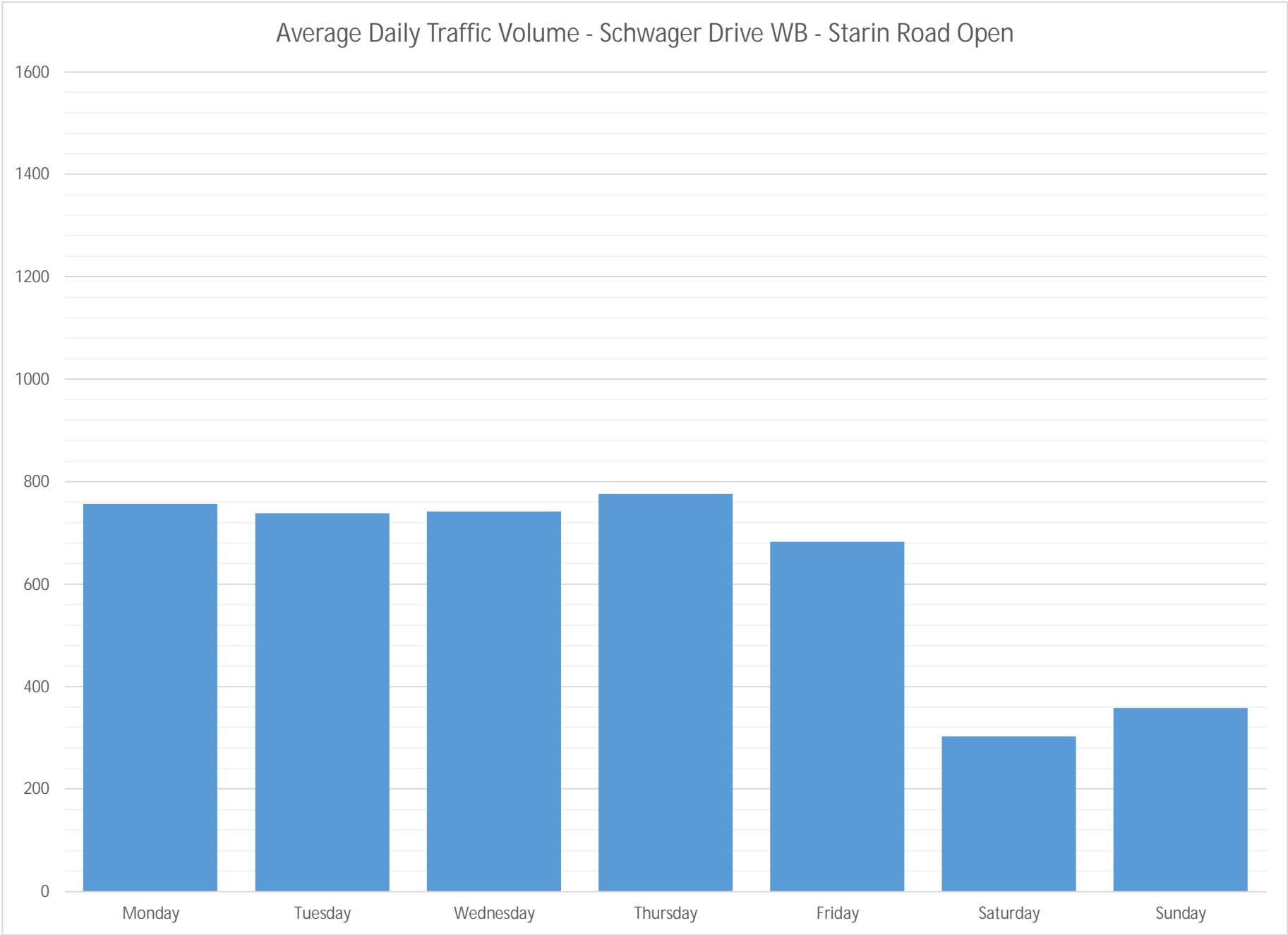
Westbound Schwager Drive Daily Count and Speed Average -Starin Road Open											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	5	4	7	5	4	6	3	5	5	5	31
1:00	2	1	2	3	6	3	1	3	2	3	27.4
2:00	0	1	0	1	4	7	1	1	4	2	11.8
3:00	1	0	1	2	3	3	1	1	2	2	20.2
4:00	0	1	0	1	2	2	1	1	2	1	10.8
5:00	12	4	15	7	6	1	0	9	1	6	29.3
6:00	22	11	18	11	21	29	1	17	15	16	31
7:00	35	31	31	25	18	12	2	28	7	22	32.2
8:00	37	40	40	35	31	13	5	37	9	29	32.9
9:00	81	78	64	66	54	19	19	69	19	54	34.3
10:00	62	58	60	66	42	16	17	58	17	46	33.5
11:00	37	45	28	42	45	18	20	39	19	34	33.7
12:00	63	69	58	64	48	23	32	60	28	51	34.1
13:00	73	82	67	77	93	16	20	78	18	61	33.8
14:00	66	60	61	73	57	18	24	63	21	51	34.3
15:00	46	50	51	56	54	21	25	51	23	43	33
16:00	36	45	45	38	41	12	24	41	18	34	33.5
17:00	40	35	40	46	44	21	40	41	31	38	32.4
18:00	47	29	56	53	26	20	30	42	25	37	32.4
19:00	27	31	34	25	24	13	24	28	19	25	33.3
20:00	24	28	20	26	21	4	23	24	14	21	33.7
21:00	15	15	20	21	18	12	19	18	16	17	32.6
22:00	20	16	16	19	13	7	17	17	12	15	30.8
23:00	6	4	8	14	8	7	9	8	8	8	30.1
Totals	757	738	742	776	683	303	358	ADT	622	AWDT	739
% of Total	17.37%	16.94%	17.03%	17.81%	15.68%	6.95%	8.22%				

Average Week Day Hourly Traffic Volume - Schwager Drive WB - Starin Road Open



Average Daily Hourly Traffic Volume - Schwager Drive WB - Starin Road Open





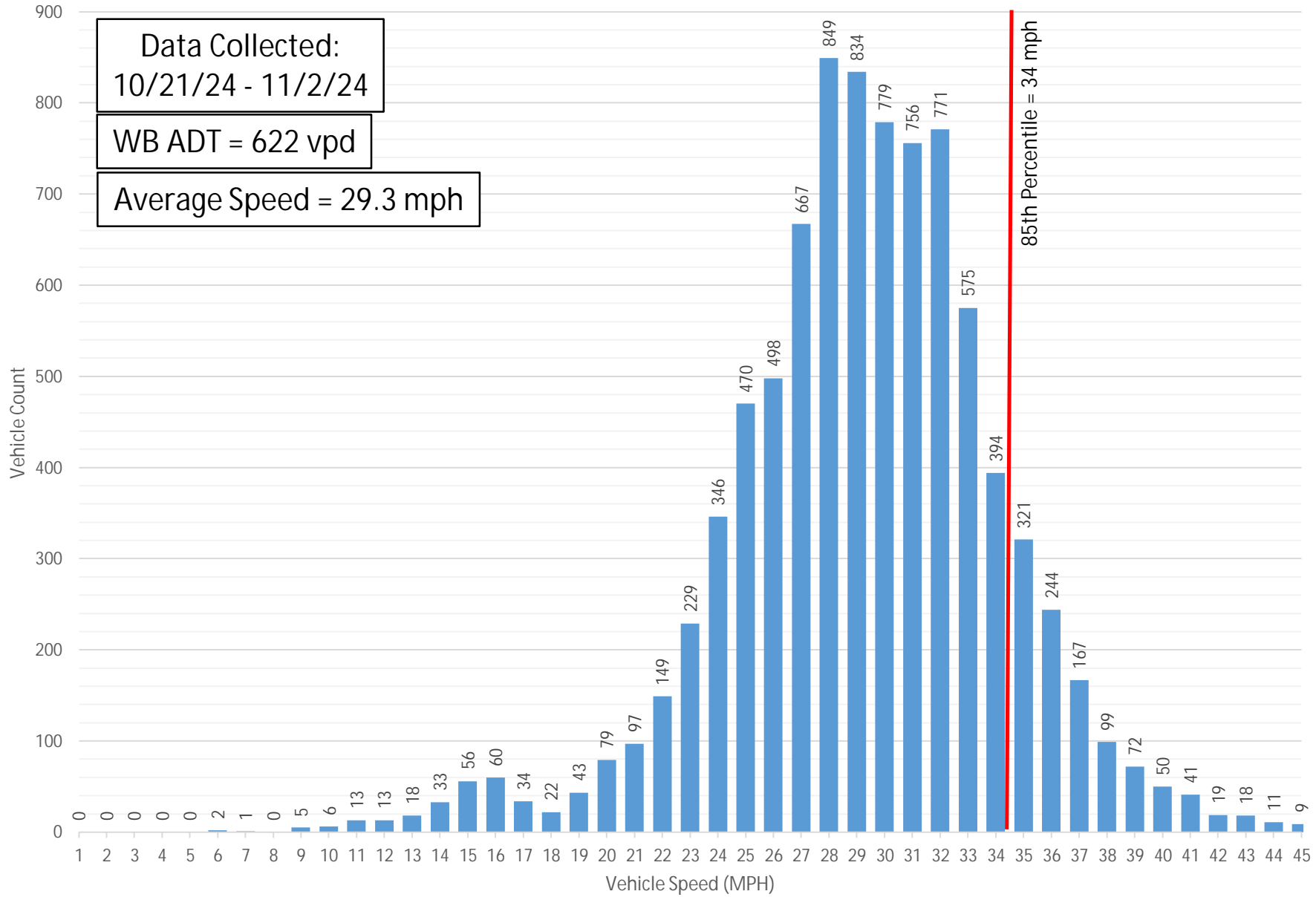


### Vehicle Speed - Schwager Drive WB - Starin Road Open

Data Collected:  
10/21/24 - 11/2/24

WB ADT = 622 vpd

Average Speed = 29.3 mph

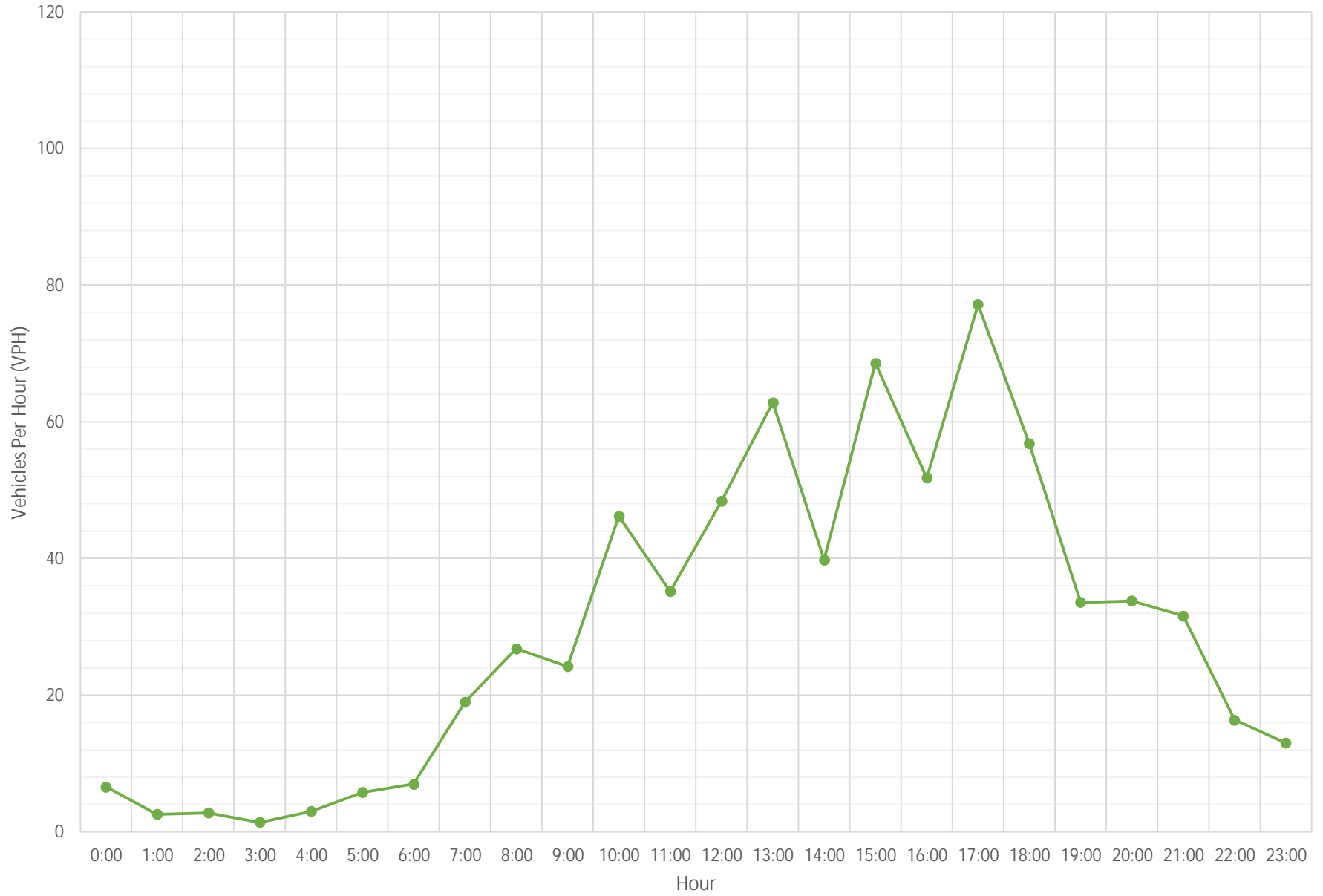


Count Location: Schwager Drive Eastbound  
 Count Begin: 10/21/2024  
 Count End: 11/2/2024

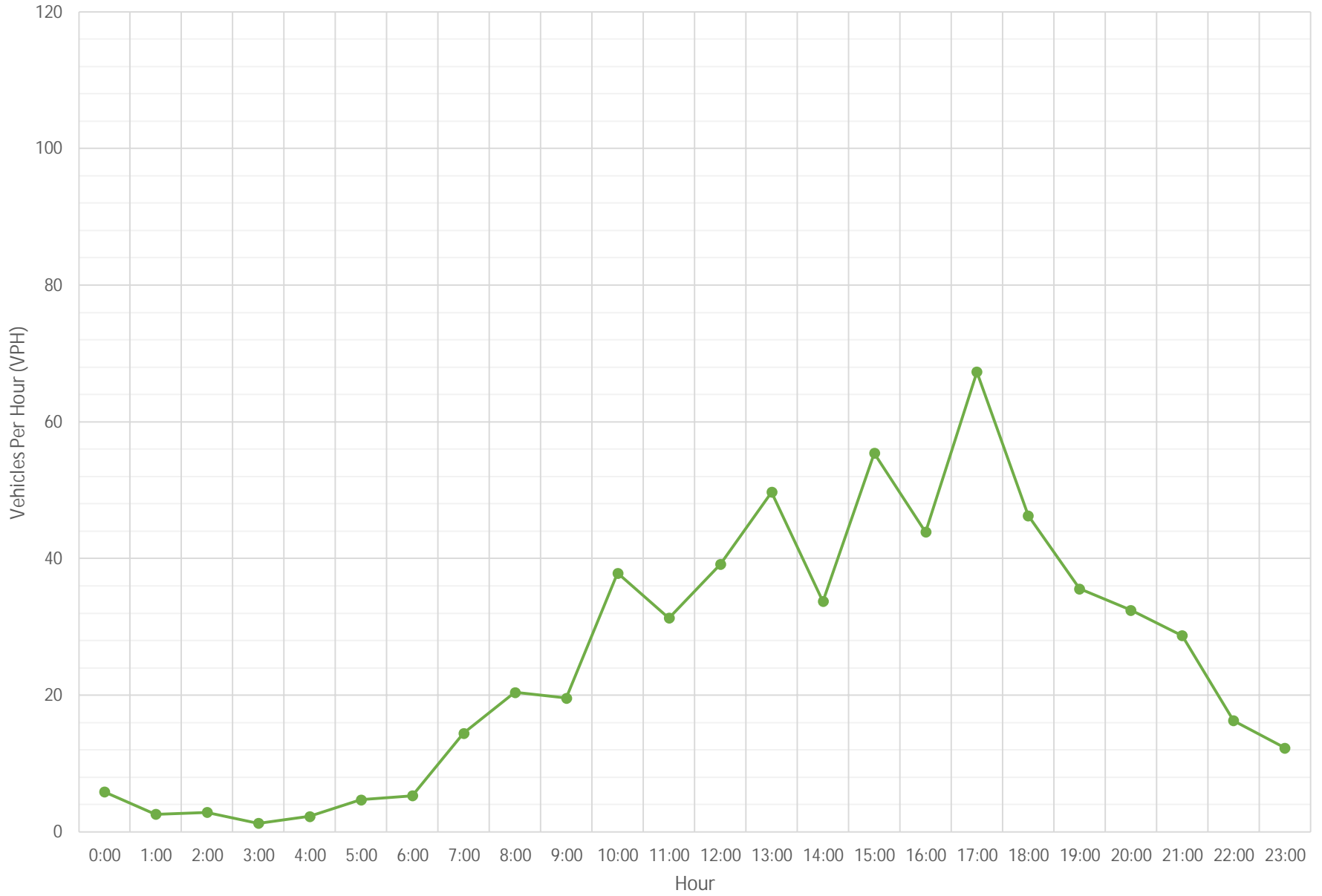
Incoming

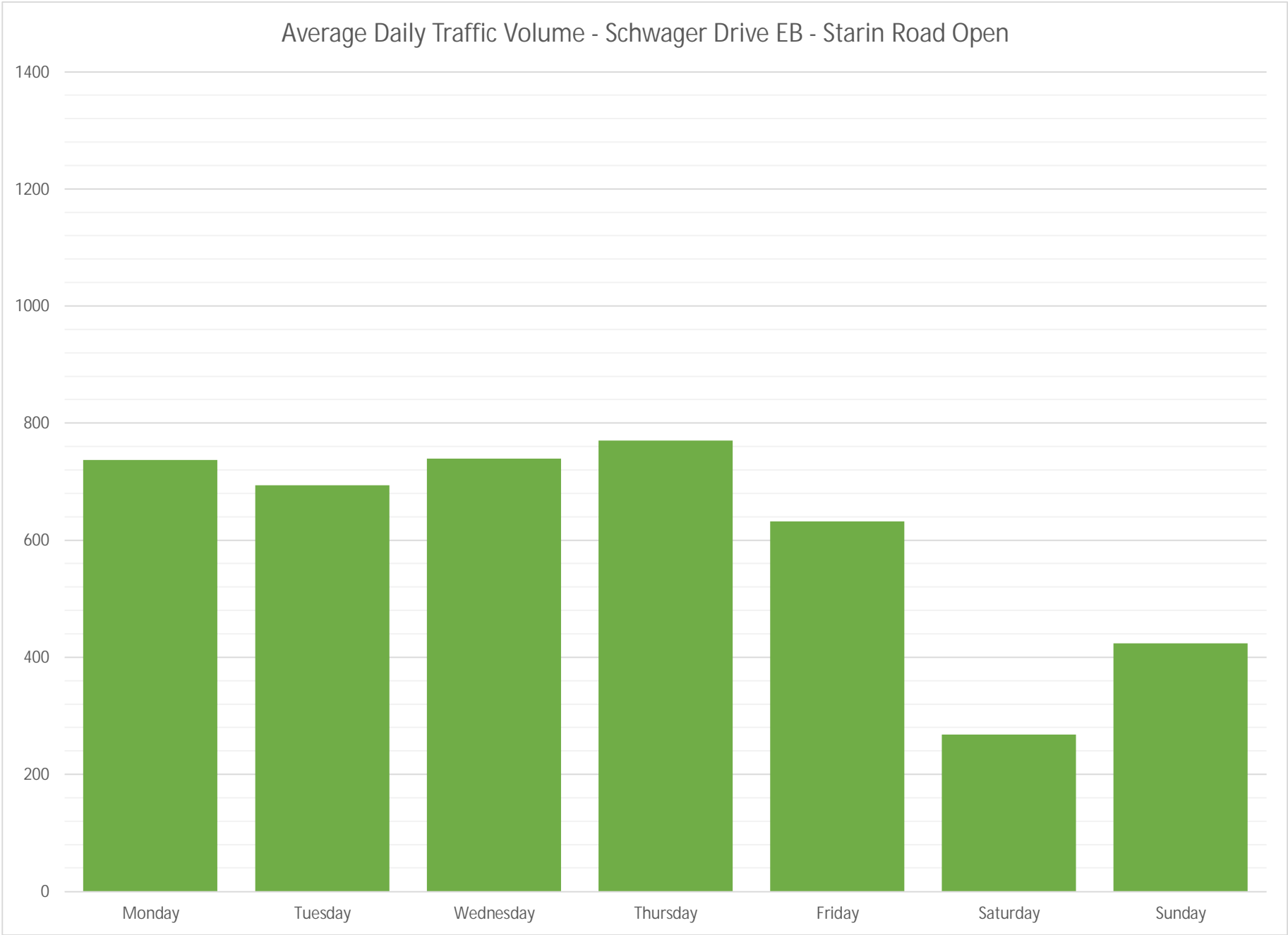
Eastbound Schwager Drive Daily Count and Speed Average -Starin Road Open											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	7	7	6	5	8	6	2	7	4	6	32.9
1:00	2	2	0	4	5	1	4	3	3	3	25.7
2:00	2	2	4	2	4	3	3	3	3	3	34.4
3:00	0	0	2	2	3	2	0	1	1	1	19
4:00	2	4	3	2	4	1	0	3	1	2	37
5:00	5	5	6	7	6	2	2	6	2	5	29
6:00	9	8	7	6	5	2	0	7	1	5	33.6
7:00	24	24	23	11	13	4	2	19	3	14	35.3
8:00	37	22	26	29	20	6	3	27	5	20	34.8
9:00	31	28	23	19	20	7	9	24	8	20	35.1
10:00	50	49	39	44	49	18	16	46	17	38	36.5
11:00	35	35	37	31	38	24	19	35	22	31	35.6
12:00	61	41	56	47	37	11	21	48	16	39	36.2
13:00	71	66	56	71	50	13	21	63	17	50	35.9
14:00	28	41	38	47	45	15	22	40	19	34	35.6
15:00	80	63	72	78	50	18	27	69	23	55	36.4
16:00	49	45	45	51	69	13	35	52	24	44	36.2
17:00	81	56	76	98	75	22	63	77	43	67	36.1
18:00	45	84	62	62	31	14	26	57	20	46	34.6
19:00	36	31	32	44	25	37	44	34	41	36	34.9
20:00	23	35	39	39	33	19	39	34	29	32	34.8
21:00	34	21	51	36	16	12	31	32	22	29	36
22:00	13	15	24	21	9	6	26	16	16	16	35.1
23:00	12	10	12	14	17	12	9	13	11	12	33.6
Totals	737	694	739	770	632	268	424				
% of Total	17.28%	16.28%	17.33%	18.06%	14.82%	6.29%	9.94%	ADT	609	AWDT	714

Average Week Day Hourly Traffic Volume - Schwager Drive EB - Starin Road Open

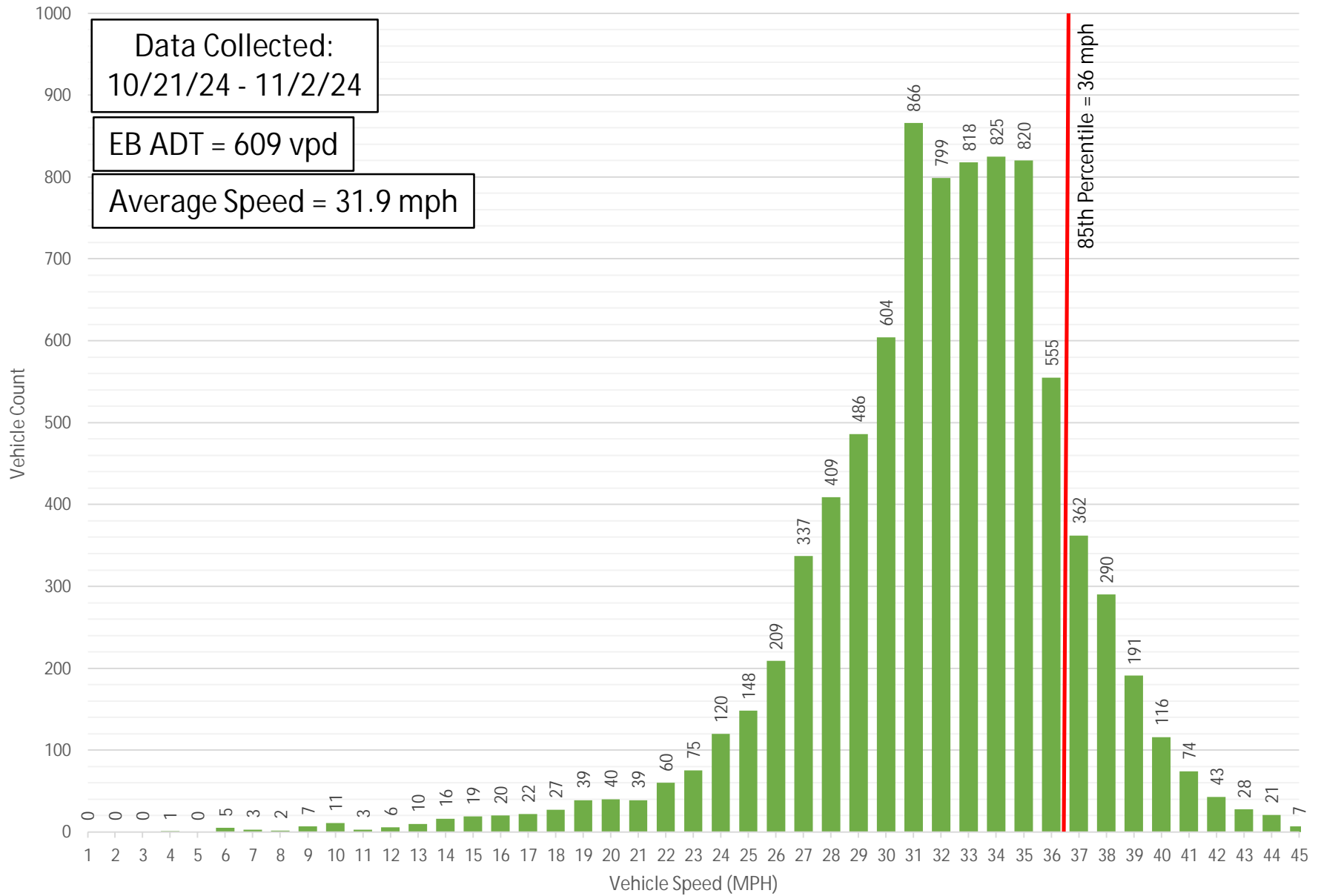


Average Daily Hourly Traffic Volume - Schwager Drive EB - Starin Road Open





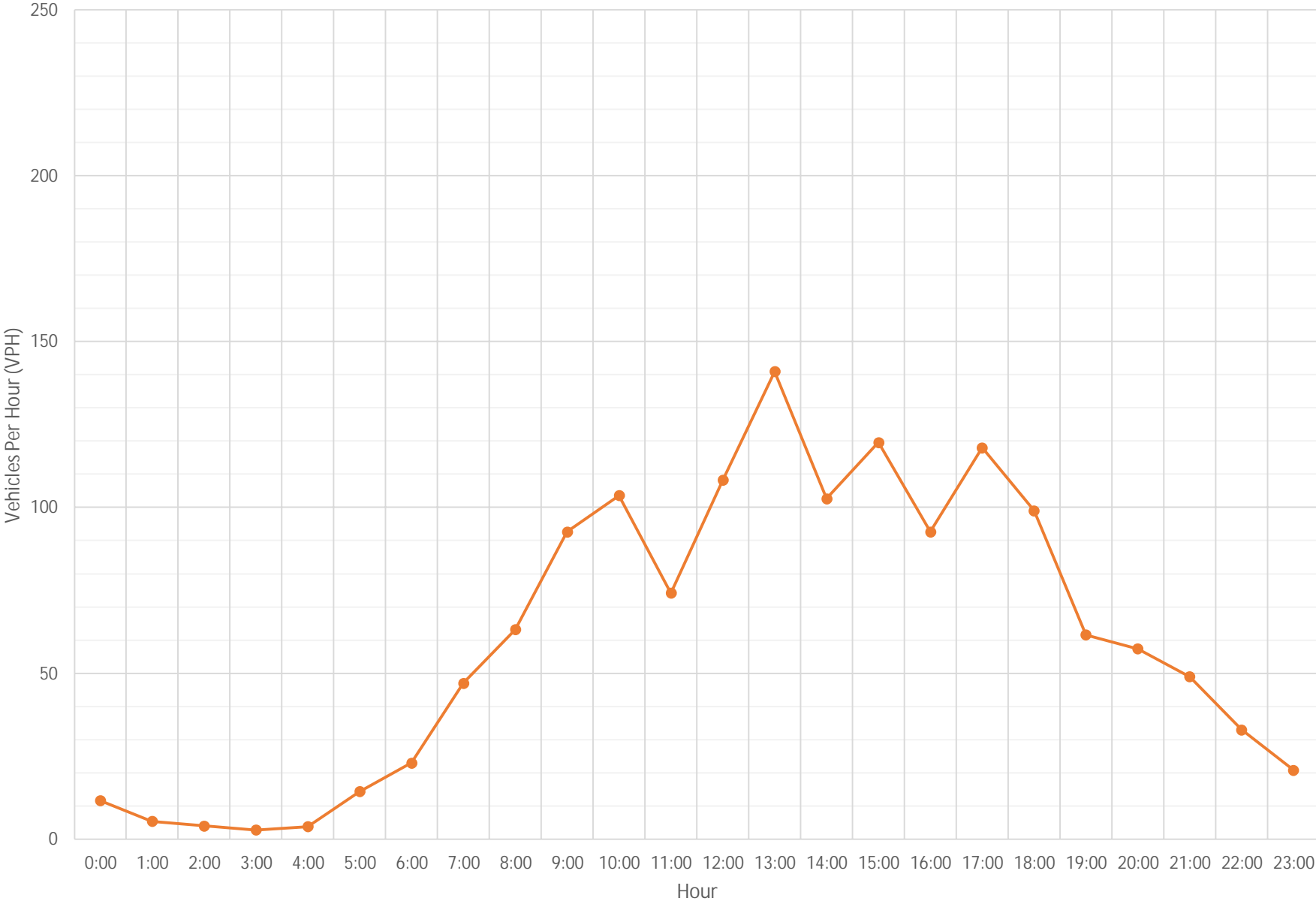
### Vehicle Speed - Schwager Drive EB - Starin Road Open



Count Location: Schwager Drive Total  
 Count Begin: 10/21/2024  
 Count End: 11/2/2024

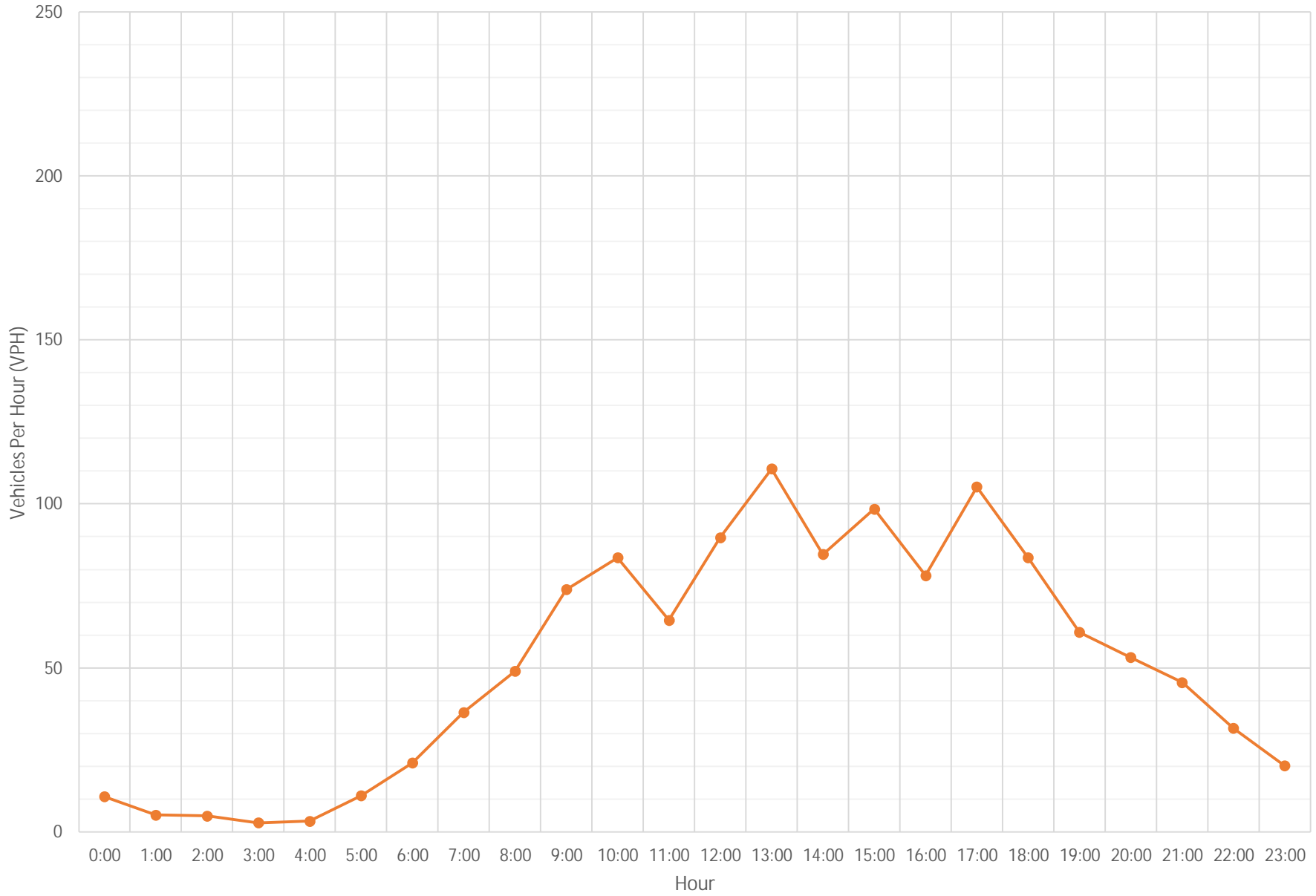
Total Schwager Drive Daily Count and Speed Aveage -Starin Road Open											
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Week Day Avg	Weekend Avg	Weekly Avg	Week Day 85% Avg Speed
0:00	12	11	13	10	12	12	5	12	9	11	32.3
1:00	4	3	2	7	11	4	5	5	5	5	31.8
2:00	2	3	4	3	8	10	4	4	7	5	34.4
3:00	1	0	3	4	6	5	1	3	3	3	26.3
4:00	2	5	3	3	6	3	1	4	2	3	37
5:00	17	9	20	14	12	3	2	14	3	11	29.8
6:00	30	18	25	17	25	31	1	23	16	21	32.5
7:00	59	55	54	36	31	16	4	47	10	36	34
8:00	74	62	66	63	51	19	8	63	14	49	33.7
9:00	112	106	86	85	74	26	28	93	27	74	34.6
10:00	111	107	99	110	91	34	33	104	34	84	35.2
11:00	72	79	65	72	83	42	39	74	41	65	35
12:00	123	110	113	111	84	34	53	108	44	90	35.4
13:00	143	148	123	148	143	29	41	141	35	111	35.3
14:00	93	101	99	119	101	33	46	103	40	85	34.9
15:00	125	113	122	134	104	39	52	120	46	98	35.7
16:00	85	90	90	89	109	25	59	93	42	78	35.3
17:00	121	91	116	143	119	43	103	118	73	105	35
18:00	92	113	118	115	57	34	56	99	45	84	34
19:00	63	61	66	69	49	50	68	62	59	61	34.6
20:00	47	62	59	65	54	23	62	57	43	53	34.3
21:00	48	36	71	57	33	24	50	49	37	46	35.6
22:00	33	30	40	40	22	13	43	33	28	32	33.8
23:00	17	14	20	28	25	19	18	21	19	20	32.6
Totals	1486	1427	1477	1542	1310	571	782				
% of Total	17.29%	16.60%	17.18%	17.94%	15.24%	6.64%	9.10%	ADT	1228	AWDT	1448

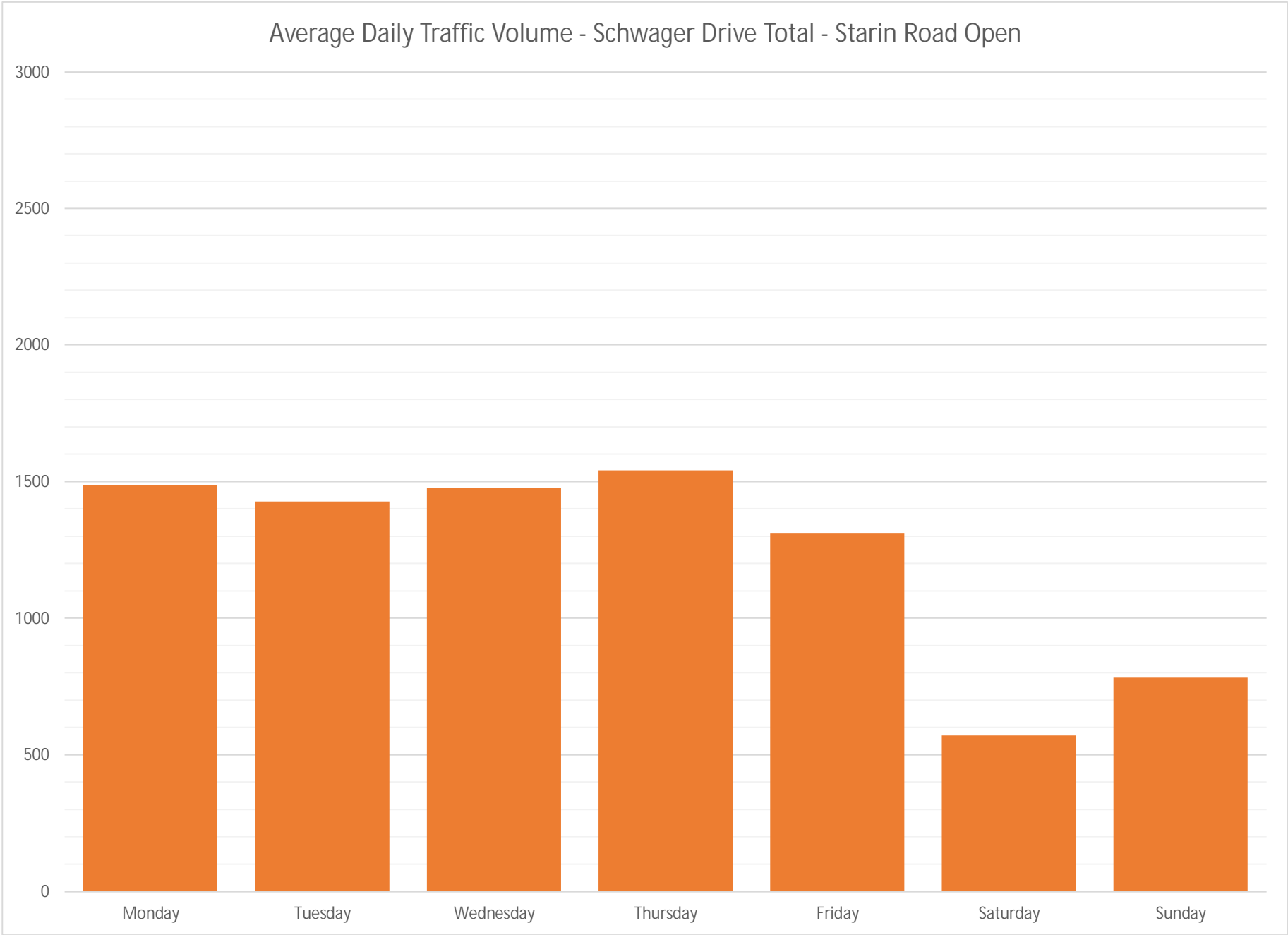
Average Week Day Hourly Traffic Volume - Schwager Drive Total - Starin Road Open



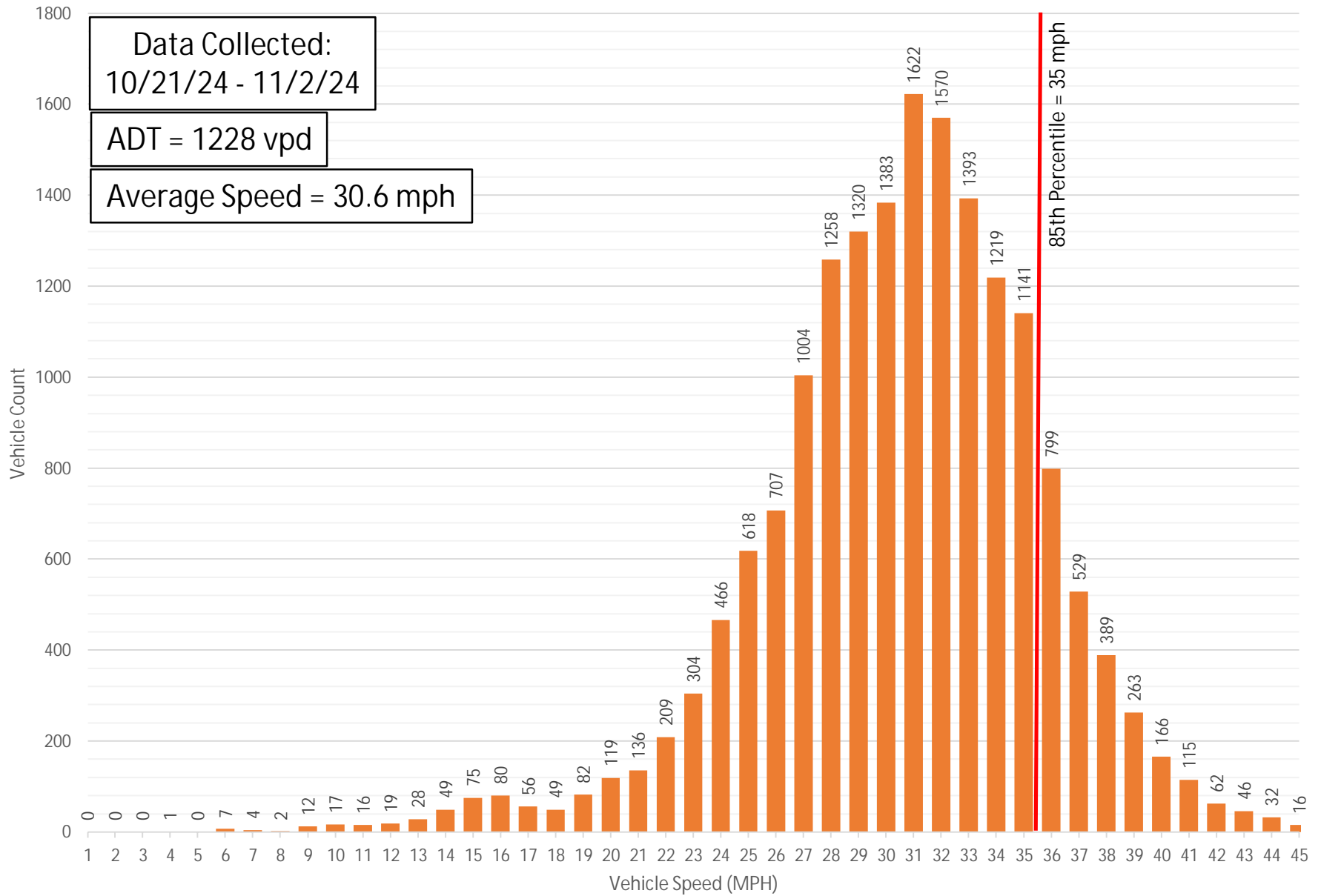


Average Daily Hourly Traffic Volume - Schwager Drive Total - Starin Road Open





### Vehicle Speed - Schwager Drive Total - Starin Road Open



**Brad Marquardt**

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**From:** Jacob Hintz  
**Sent:** Thursday, November 21, 2024 1:46 PM  
**To:** Dan Meyer  
**Subject:** RE: Starin Road Closure

Hey Dan,

The closure of Starin Rd impacted the ability to respond timely to anything in that area. I understand this was done in an effort to reduce possible issues with pedestrians, but simple education of the students on how to use the crosswalks would be great. The other issue that would help visibility and safety would be to take the trees and large planters out in the center of the road that obstruct 100 percent of the view. I have noticed a ton of students pop out of the crosswalks with no way to see them ahead of time because of all the vegetation.

Detective Lieutenant Jacob Hintz #427  
Whitewater Police Department  
312 W Whitewater St.  
Whitewater, WI 53190  
[Jhintz@whitewater-wi.gov](mailto:Jhintz@whitewater-wi.gov)  
262-473-0555

---

**From:** Dan Meyer <DMeyer@whitewater-wi.gov>  
**Sent:** Thursday, November 21, 2024 12:59 PM  
**To:** PD Entire Department <plicedepartment@whitewater-wi.gov>  
**Subject:** FW: Starin Road Closure

All,

If you have any feedback regarding the effects of the temporary Starin Rd. closure, please email them to me by Wednesday, December 4<sup>th</sup>, so Brad can discuss them with the Public Works Committee.

Thanks,  
Dan

*Daniel A. Meyer*  
Chief of Police  
Whitewater Police Department  
312 W. Whitewater St.  
Whitewater, WI 53190  
262-473-1371 (P)  
262-222-5909 (F)  
[dmeyer@whitewater-wi.gov](mailto:dmeyer@whitewater-wi.gov)



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**Brad Marquardt**

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**From:** Richard Ellis  
**Sent:** Saturday, November 23, 2024 5:09 PM  
**To:** Dan Meyer  
**Subject:** RE: Starin Road Closure

Chief Meyer,

Regarding the temporary closure of Starin Rd., I personally was not a fan of it. There were multiple instances where I, while responding to calls, honestly forgot about the closure and it slowed my response time. Thankfully the calls were not emergent, but any response from Starin Rd. to an emergent call could be significantly slowed (one minute or more) by the closure. Due to that, I would rather keep the roadway open.

Please let me know if you have any questions on the above.

Best Regards,

Richard Ellis  
Officer (Badge #419)  
Whitewater Police Department  
(262) 473-0555 Ext. 4  
[rellis@whitewater-wi.gov](mailto:rellis@whitewater-wi.gov)

---

**From:** Dan Meyer <DMeyer@whitewater-wi.gov>  
**Sent:** Thursday, November 21, 2024 12:59 PM  
**To:** PD Entire Department <plicedepartment@whitewater-wi.gov>  
**Subject:** FW: Starin Road Closure

All,

If you have any feedback regarding the effects of the temporary Starin Rd. closure, please email them to me by Wednesday, December 4<sup>th</sup>, so Brad can discuss them with the Public Works Committee.

Thanks,  
Dan

*Daniel A. Meyer*  
Chief of Police  
Whitewater Police Department  
312 W. Whitewater St.  
Whitewater, WI 53190  
262-473-1371 (P)  
262-222-5909 (F)  
[dmeyer@whitewater-wi.gov](mailto:dmeyer@whitewater-wi.gov)

## Brad Marquardt

---

**From:** Dan Meyer  
**Sent:** Wednesday, November 27, 2024 9:58 AM  
**To:** Brad Marquardt  
**Subject:** RE: Starin Road Closure  
**Attachments:** RE: Starin Road Closure; RE: Starin Road Closure

Brad,

Attached is the feedback I received as feedback from staff regarding the Starin Road closure. The two who responded believed it was problematic for response times.

In addition to their feedback, I would add that I think it makes sense to keep the roadway open rather than diverting the traffic to Main St. based on the data. We've had no traffic crashes involving pedestrians on Starin Rd. in the last five years, as opposed to Main St. where we've had five. Given that, I believe closing Starin Rd. would increase the chance of vehicle/pedestrian crashes on Main St. and would only serve to reduce the *perceived* safety concern on Starin Rd. that is not currently supported by the data.

Thanks,  
Dan

*Daniel A. Meyer*

Chief of Police  
 Whitewater Police Department  
 312 W. Whitewater St.  
 Whitewater, WI 53190  
 262-473-1371 (P)  
 262-222-5909 (F)  
[dmeyer@whitewater-wi.gov](mailto:dmeyer@whitewater-wi.gov)



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**From:** Brad Marquardt <[BMarquardt@whitewater-wi.gov](mailto:BMarquardt@whitewater-wi.gov)>  
**Sent:** Tuesday, November 19, 2024 1:29 PM  
**To:** Kelly Freeman <[KFreeman@whitewater-wi.gov](mailto:KFreeman@whitewater-wi.gov)>; Dan Meyer <[DMeyer@whitewater-wi.gov](mailto:DMeyer@whitewater-wi.gov)>; Jim Bergner <[JBergner@whitewater-wi.gov](mailto:JBergner@whitewater-wi.gov)>; Josh Hyndman <[jhyndman@whitewater-wi.gov](mailto:jhyndman@whitewater-wi.gov)>; Ben Mielke <[BMielke@whitewater-wi.gov](mailto:BMielke@whitewater-wi.gov)>; Brian Neumeister <[BNeumeister@whitewater-wi.gov](mailto:BNeumeister@whitewater-wi.gov)>  
**Subject:** Starin Road Closure

**Brad Marquardt**

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**From:** Liam Fritz  
**Sent:** Tuesday, December 3, 2024 4:23 PM  
**To:** Dan Meyer  
**Subject:** Re: Starin Road Closure

My understanding is that the closure of Starin Rd. was done for the safety of college pedestrians. I believe the closure failed to meet this condition as the busiest of the crosswalks was not protected by this closure. This crosswalk is just west of the Starin/Warhawk drive intersection, and the road closure began just east of said intersection. People have to look both ways before they cross anywhere else in the city and the rest of the world, and the presence of a college population shouldn't have to necessitate the closure of a major road. As a resident of Pulliam Hall, this intersection is the interaction I use most frequently and have never felt at risk or in danger when crossing the road at this intersection, so long as I look both ways and make sure that any vehicles present and coming to a stop before crossing.

- Liam Fritz

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**From:** Dan Meyer <DMeyer@whitewater-wi.gov>  
**Sent:** Thursday, November 21, 2024 12:58 PM  
**To:** PD Entire Department <policedepartment@whitewater-wi.gov>  
**Subject:** FW: Starin Road Closure

All,

If you have any feedback regarding the effects of the temporary Starin Rd. closure, please email them to me by Wednesday, December 4<sup>th</sup>, so Brad can discuss them with the Public Works Committee.

Thanks,  
Dan

*Daniel A. Meyer*  
Chief of Police  
Whitewater Police Department  
312 W. Whitewater St.  
Whitewater, WI 53190  
262-473-1371 (P)  
262-222-5909 (F)  
[dmeyer@whitewater-wi.gov](mailto:dmeyer@whitewater-wi.gov)



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**Brad Marquardt**

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**From:** Brian Neumeister  
**Sent:** Wednesday, November 20, 2024 1:21 PM  
**To:** Brad Marquardt  
**Subject:** RE: Starin Road Closure

Brad,  
Creates longer distance and travel times especially for our large/slow moving equipment for us. More traffic on Main St. I believe it may cause an issue for emergency response, if there happens to be a problem with gates or whatever they are using to stop traffic. If they wish to do this we should have them take over all maintenance of the street from Prairie to Prince. Just a few thoughts.

Thank you,

*Brian Neumeister*  
City of Whitewater  
Streets/Parks/Forestry Superintendent  
[BNeumeister@whitewater-wi.gov](mailto:BNeumeister@whitewater-wi.gov)  
(262) 473-0560

---

**From:** Brad Marquardt <BMarquardt@whitewater-wi.gov>  
**Sent:** Tuesday, November 19, 2024 1:29 PM  
**To:** Kelly Freeman <KFreeman@whitewater-wi.gov>; Dan Meyer <DMeyer@whitewater-wi.gov>; Jim Bergner <JBergner@whitewater-wi.gov>; Josh Hyndman <jhyndman@whitewater-wi.gov>; Ben Mielke <BMielke@whitewater-wi.gov>; Brian Neumeister <BNeumeister@whitewater-wi.gov>  
**Subject:** Starin Road Closure

We will be discussing the effects of the temp Starin Road closure at the Dec 10 public works meeting and then at council Dec 17. If you could send me any comments or thoughts on the temp closure by Wed Dec 4 I will include them in the packet. You are also welcomed to attend the public works meeting.

Thank you.

Brad Marquardt, P.E.  
Public Works Director  
City of Whitewater  
312 W Whitewater St  
Whitewater, WI 53190  
262-473-0139



**Brad Marquardt**

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**From:** Kelly Freeman  
**Sent:** Wednesday, November 27, 2024 11:52 AM  
**To:** Brad Marquardt; Dan Meyer; Jim Bergner; Josh Hyndman; Ben Mielke; Brian Neumeister  
**Cc:** Ryan Dion  
**Subject:** RE: Starin Road Closure

Brad,

The Fire Department didn't have any calls for service that can be directly linked to the closure of Starin Rd. We did notice an increase of traffic on W. Main St due to the closure, but that was expected. If this is something that is going to be considered as a long term closure, the Fire Department will need to be involved in the planning before we will approve any plans.

Thank you and stay safe,

*Kelly Freeman*

Fire/EMS Chief  
Whitewater Fire and EMS  
312 W. Whitewater St.  
Whitewater, WI 53190  
[kfreeman@whitewater-wi.gov](mailto:kfreeman@whitewater-wi.gov)  
(262) 473-0116

*Test your theory and document your results....*

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**From:** Brad Marquardt <BMarquardt@whitewater-wi.gov>  
**Sent:** Tuesday, November 19, 2024 1:29 PM  
**To:** Kelly Freeman <KFreeman@whitewater-wi.gov>; Dan Meyer <DMeyer@whitewater-wi.gov>; Jim Bergner <JBergner@whitewater-wi.gov>; Josh Hyndman <jhyndman@whitewater-wi.gov>; Ben Mielke <BMielke@whitewater-wi.gov>; Brian Neumeister <BNeumeister@whitewater-wi.gov>  
**Subject:** Starin Road Closure

We will be discussing the effects of the temp Starin Road closure at the Dec 10 public works meeting and then at council Dec 17. If you could send me any comments or thoughts on the temp closure by Wed Dec 4 I will include them in the packet. You are also welcomed to attend the public works meeting.

Thank you.

Brad Marquardt, P.E.  
Public Works Director  
City of Whitewater  
312 W Whitewater St  
Whitewater, WI 53190  
262-473-0139

**Brad Marquardt**

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**From:** Jani Kau Mortensen <janimortensen@hotmail.com>  
**Sent:** Tuesday, October 15, 2024 4:56 AM  
**To:** Brad Marquardt; City Manager; Dan Meyer; kingc@uww.edu  
**Subject:** Thoughts and questions on Starin Rd Closure

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I am well aware of the hate for change and inconvenience. However, I do have some questions and thoughts about the "trial" closure of the city "owned" and maintained traffic arteries of Whitewater travel.

What are the traffic incident statistics for reported pedestrian problems, incidents or accidents on Starin Rd?

Why is the traffic being sent to Main Street where there has been a documented accident that resulted in the flashing light crossing? Isn't this just pushing the problem to another of town?

Why do non-tax paying temporary individuals that are here for less than 4 years (and not year around) allowed to make decisions on city streets?

As individuals that regularly use Starin for daily travel, it is quickly learned to up defense when there is increased foot traffic.

Over the years and in August, I have chuckled with friends saying: "Wish the Banner and City of Whitewater social media would remind the 365 day a year residents that the temporary residents are back and to up the awareness of more foot traffic.

Freshman individuals in the past were required to take "first year experience" class. If this is still in place; maybe street crossing instructions and demos could be a requirement of said class. All classes start with a syllabus, Could a reminder be added reminding the individuals that they should do defensive walking? Drivers are taught to defensive drive; the syllabus could remind the pedestrians of defensive walking.

I have run this email through my head since hearing about this "trial run". Again, change is never fun. However, closure of a city street to accommodate a temporary population does not seem to be the answer.

Jane Kau Mortensen MS



# Public Works Agenda Item

Meeting Date:	December 10, 2024
Agenda Item:	CIP Budget Change Request
Staff Contact (name, email, phone):	Brad Marquardt, <a href="mailto:bmarguardt@whitewater-wi.gov">bmarguardt@whitewater-wi.gov</a> , 262-473-0139

**BACKGROUND**  
(Enter the who, what, when, where, why)

Included in the 2025 CIP budget is \$250,000 for the replacement of the quad axle dump truck. Instead of moving forward with this purchase, the street department would like to purchase a single axle plow truck in 2025. The single axle plow truck was tentatively scheduled for purchase in 2026, however, staff was informed that the truck dealer currently has a chassis available. The chassis cost is \$133,517, leaving the remaining \$116,483 for outfitting the plow truck. We are in the process of receiving estimates for the outfitting but believe it will be around \$150,000.

**PREVIOUS ACTIONS – COMMITTEE RECOMMENDATIONS**  
(Dates, committees, action taken)

The replacement of the quad axle dump truck was in the 2024-2025 CIP budget approved in November 2023 and was included in the 2025 CIP budget approved in November 2024.

**FINANCIAL IMPACT**  
(If none, state N/A)

As mentioned above the chassis cost is \$133,517 and the outfitting estimated at \$150,000 for a total of around \$284,000. The truck will not be ready until 2026. The additional \$34,000 can be budgeted for in the 2026 budget within the 215 Equipment Replacement Fund.

**STAFF RECOMMENDATION**

Staff would like to take advantage of the available single axle plow truck chassis and push back the replacement of the quad axle dump truck. Based on this, staff recommends a motion to replace the quad axle dump truck with a single axle plow truck in the 2025 CIP budget and forward to council.

**ATTACHMENT(S) INCLUDED**  
(If none, state N/A)

1. N/A

**Brad Marquardt**

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**From:** Brian Neumeister  
**Sent:** Wednesday, November 20, 2024 1:19 PM  
**To:** Brad Marquardt  
**Cc:** Andrew Beckman  
**Subject:** 2025 CIP changes

Brad,

I would like to request the use of funding for the 2025 Quad axle dump truck replacement(\$250,000) to purchase a single axle patrol truck in 2025. The patrol truck is a higher priority and there is a chassis available to purchase in 2025. The chassis cost is \$133,517(price is firm if we agree to purchase next year) leaving \$116,483 for outfitting. I am waiting on estimate for outfitting cost, I'm guessing it will probably leave us short in the area of \$30,000. The quad axle replacement can be moved into a future CIP for approval. Let me know if you have any questions or need further information.

Thank you,

*Brian Neumeister*  
*City of Whitewater*  
*Streets/Parks/Forestry Superintendent*  
[BNeumeister@whitewater-wi.gov](mailto:BNeumeister@whitewater-wi.gov)  
(262) 473-0560



# Public Works Agenda Item

Meeting Date:	December 10, 2024
Agenda Item:	Sanitary Survey at Water Department
Staff Contact (name, email, phone):	Brad Marquardt, <a href="mailto:bmarguardt@whitewater-wi.gov">bmarguardt@whitewater-wi.gov</a> , 262-473-0139

**BACKGROUND**  
(Enter the who, what, when, where, why)

DNR staff visited the Water Department on November 14, 2024 to do a Sanitary Survey. This survey evaluates the systems’ source, facilities, equipment, operation, maintenance, and management as they relate to providing safe drinking water. The report outlines the final findings, discusses problems that need to be addressed, and timelines for corrective action.

No Significant Deficiencies were identified. Only one Deficiency was identified which was to install a 24-mesh screen on the reservoir’s vents. This item was corrected the next day by City staff. The report contains 10 Recommendations which staff will review. No Non-Confirming Features were identified.

The report also indicated the Utility has and excellent record in compliance with monitoring and reporting requirements.

**PREVIOUS ACTIONS – COMMITTEE RECOMMENDATIONS**  
(Dates, committees, action taken)

N/A

**FINANCIAL IMPACT**  
(If none, state N/A)

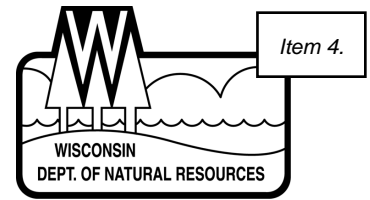
N/A

**STAFF RECOMMENDATION**

No recommendation is required.

**ATTACHMENT(S) INCLUDED**  
(If none, state N/A)

- 2024 Sanitary Survey Report



December 3, 2024

Heather Boehm, Clerk  
Whitewater Waterworks  
308 N Fremont St  
Whitewater, WI, 53190

PWSID#: 26500562  
Region: Southeast  
County: Walworth

Subject: WI-DNR Sanitary Survey Report and Notice of Noncompliance

Dear Ms. Boehm:

The purpose of a Sanitary Survey is to evaluate the system's source, facilities, equipment, operation, maintenance, and management as they relate to providing safe drinking water. The sanitary survey is also an opportunity to update the department's records, provide technical assistance, and identify potential risks that may adversely impact drinking water quality. This Sanitary Survey Report also serves as a Notice of Noncompliance.

On November 14, 2024, Christopher Durgin as well as Serene Tomaszewski conducted a sanitary survey of your water system, Whitewater Waterworks. During the sanitary survey Water Utility Superintendent, Jim Bergner and Operator in Charge, Josh Hyndman, were also present. At the completion of the survey, Mr. Hyndman and Mr. Bergner were briefed on the preliminary findings. This report outlines the final findings, discusses problems that need to be addressed, and timelines for corrective action where appropriate.

**Required action**

A response to this report and a plan for corrective action must be received by the department by January 3, 2025. The response shall include a notification that all deficiencies have been corrected, that you agree to correct the deficiencies identified in this letter by the due dates, or with proposed alternative dates for correcting these deficiencies. A corrective action plan and schedule is included below for your consideration. Depending on the type of corrective action you employ, you may need to obtain prior approval and submit additional plans to the department.

**Significant Deficiencies**

During the course of the sanitary survey, no significant deficiencies were identified. Significant deficiencies indicate noncompliance with one or more Wisconsin Administrative Codes and/or represent an immediate health risk to consumers. As such, the deficiencies listed below should be corrected as soon as possible. All codes cited are from s. NR, Wis. Adm. Code.

**Deficiencies**

During the course of the sanitary survey, **one (1)** deficiency was identified. Deficiencies are problems in drinking water systems that have the potential to cause serious health risks or represent long-term health risks to consumers. These deficiencies indicate noncompliance with one or more Wisconsin Administrative Codes. Corrective action should be completed for these deficiencies as soon as practical. A more detailed explanation is provided later in the report. All codes cited are from s. NR, Wis. Adm. Code.

Deficiency	Brief Description of Deficiency Required Corrective Action	Code Violation(s)	Compliance Due Date
1.	Confirm or install 24 mesh screen on the reservoir’s vents	811.64(8)(d)	1/3/2025

**Recommendations**

During the sanitary survey, **ten (10)** recommendations were identified. Recommendations are problems in the water system that hinder your public water system from consistently providing safe drinking water to consumers.

Recommendations	
1	Consider adding orthophosphate for corrosion control
2	Clean glass for viewing chemical room
3	Investigate the potential of eliminating or replacing the Fremont reservoir
4	Check all anti-siphon devices to ensure functionality
5	Continue to monitor screens covering chemical vents, air vents and overflows
6	Conduct emergency “table-top” exercises to practice emergency situations
7	Replace undersized mains (4 inch) with more adequately sized mains to allow for greater fire flow
8	Confirm that your system is taking adequate measures to protect against cybersecurity threats

**Non-Conforming Features**

During the course of the sanitary survey, no new Non-conforming features were discovered. “Non-conforming features” (NCF) are areas that met code requirements at the time of your public water system’s construction but would not be allowed in the current code. Though you are not required to correct these non-conforming features at this time, they will need to be corrected when a public health risk exists (water-borne illness, water quality complaints, positive bacteria sampling, cross connections and potential for contamination can all be considered when determining public health risk) or it falls within a reviewable project in the future (new water main construction or pipe relay in the area reviewed under chs. NR 811 or DSPS 382, Wis. Adm. Code) per s. NR 811.01, Wis. Adm. Code. This list may not be inclusive of all existing non-conforming features of your water system. When conducting significant upgrades on your facility or pieces of equipment, it is recommended that you contact your DNR representative to aid you in identifying such features. All codes cited are from s. NR, Wis. Adm. Code.

### **Discussion and Schedule for Corrective actions**

The discussion section of the paper provides a more in-depth explanation of the deficiency or recommendation, the risk it poses to your system, and how completing the corrective action benefits you and your customers. If pictures were taken during the survey they will be located in either the discussion or at the end of this report in the appendix.

### **Deficiencies**

1. S. NR 811.64(8)(d), Wis. Adm. Code requires “Vents installed on ground level structures shall terminate in a U-bend or mushroom cap constructed with the opening 24 to 36 inches above the roof or sod and covered with 24-mesh corrosion resistant screen installed within the pipe or cap at a location least susceptible to vandalism.”
  - By 1/3/2025 please fix the vents on the reservoir so that there are no gaps or separations.

Note: During the time of the survey, it was believed that there may be other screens within the vents. Confirmation of this would be enough to correct this deficiency.



Figure 1: inadequate screening for reservoir vent

### **Recommendations:**

1. Currently, Whitewater Waterworks is one of the only water systems in southeast Wisconsin with a population over 10,000 that does not provide any kind of phosphate or silicate product for corrosion inhibition. While Whitewater does not appear to have a corrosion control issue at this time, the potential for one in the future is of concern to the department. As such, it is recommended by the department that the Whitewater Waterworks begin looking into the feasibility and possibility of adding an orthophosphate, blended phosphate, or silicate product. Such a change will require plan review approval.
2. During the time of the survey, it was noticed that the windows for the chemical rooms were fogged to the point of being almost completely opaque. Cleaning or replacement of these windows would allow the viewing of the chemical room in an emergency situation and make it easier for operators to notice if there was an issue within the chemical room.



3. Repair or remove the Fremont Reservoir. The Fremont reservoir is starting to show significant signs of aging. If this reservoir is still in time by the next survey is conducted, a more extensive evaluation of the work that would need to be done to maintain its safe operational capacity may be needed.
4. Over time, anti-siphon devices on peristaltic chemical pumps can corrode, scale, clog, or embrittle. If negative pressure forms and the device were to fail, there is the potential for a large quantity of chemical to be pulled into the system creating an extremely dangerous, and preventable, situation for your customers.
5. Vermin entering the water system are one of the most common reasons for unsafe bacteria samples. Screens are the last line of defense for preventing them from entering your water supply. As such, the department recommends that you continue to ensure that all screens are checked regularly for recent or potential failures.
6. With the exception of an actual emergency, the only way to know if everyone understands the emergency procedures that have been developed is to conduct exercises of who does what in an emergency situation. More information can be found at (<https://www.epa.gov/waterresiliencetraining>) or by contacting your DNR representative. By completing such exercises, you can approach the future with more confidence that you and your peers can handle whatever man or nature sends your way.
7. Several areas of the Whitewater distribution system contain undersized 4 inch mains. The department recommends replacing these with larger sizes when appropriate. Larger sized mains can be beneficial to fire flows in emergency situations.
8. Cyber-attacks have been striking critical infrastructure across the United States with increased frequency, including attacks to public water systems. The department recommends the City/Village/District evaluate the existing cybersecurity practices and make improvements to reduce vulnerability to cyber-attacks.
  - Consider using the following resources to determine if improvements can be made to the City/Village/District's existing system. A copy of the EPA assessment tool was provided to the operator and discussed in detail during the inspection. The [EPA Water Cybersecurity Assessment Tool \(WCAT\)](#) and Risk Mitigation Plan can be used to assess your existing cybersecurity practices and provides a risk mitigation plan.
  - The U.S. EPA offers [cybersecurity technical assistance for water utilities](#) to help water systems improve their cybersecurity practices.
  - Additional information and resources on water system cybersecurity can be found at the [U.S. EPA Cybersecurity Webpage](#).

### **Water Quality Monitoring and Reporting**

Your system has an excellent general record of compliance with monitoring and reporting requirements. We appreciate your continued efforts in complying with the Safe Drinking Water Act requirements.

All monitoring location are required to have a unique Site ID, address, and sampled contaminates assigned to them. If a sampling site needs to be changed, this change must be approved before the site can be officially used for sampling.

### **Required Reports, Records, and Utility Programs**

- Annual Monitoring Schedule: The Utility has excellent record of reporting according to the schedule. (0 M/R violations in the last 10 years)
- Monthly pumpage reports (EMOR): The Utility has excellent record of submitting monthly reports. (0 missed in the last 10 years)
- Wellhead Protection: The Utility has implemented this program in accordance with NR 811.12(6).
- Well Pump Maintenance: The Utility has implemented this program in accordance with NR 810.13(1).
- Valve/hydrant exercising/maintenance/flushing: The Utility has implemented this program in accordance with NR 810.13(2).
- Meter testing/Calibration: The Utility has tested and/or calibrating master meters on wellhouses, high lift pumping stations, booster pumping stations, and metering stations in accordance with NR 810.13(2)(e).
- Emergency Power Exercising: The Utility has continued to exercise emergency power in accordance with NR 810.13(1)(d).
- Extended Well Agreement: N/A
- Monitoring Assessments: A monitoring assessment application must be completed every three years to maintain monitoring waivers and reduced monitoring for applicable SDWA contaminants

### **Operator Certification**

Chapter NR 114 specifies the requirements for how operators must be certified. The Utility must employ at least one person who is fully certified for all classifications/aspects of the water system. The water system must also designate the operator in charge (OIC). All operators must attend continuing education classes and submit evidence of attendance when renewing their certificates. The OIC must be accessible at all times (24/7) and any changes to OIC must be reported to the department no later than 30 days after the changes have been made per NR 114.31. As a reminder, all certified waterworks operators must complete at least 18 hours of approved training every three years to retain their certification.

As a reminder, all certified waterworks operators must complete at least 18 hours of approved training every three years to retain their certification.

### **Water System Security**

We recommend that you conduct a daily security check of your entire drinking water system to insure doors are locked and windows secured and free of any potential vandalism. It is recommended that any areas with ground level storage have motion activated security cameras to alert the system of potential threats.

### **Capacity Development Evaluation**

This sanitary survey serves as an evaluation of the capabilities of your water system. Your system appears to have adequate technical, managerial, and financial capacity to provide safe drinking water at the time of this inspection. The ability to plan for, achieve, and maintain compliance with applicable drinking water standards appears to be adequate.

- Citing information from the Utility and the PSC, the Utility appears to have an average net operating income (NOI) of 500,000 per year.
- Citing information from the Utility and the PSC, the Utility appears to have 90 days of operating cash on hand.

**Water System Analysis**

From a preliminary source capacity analysis, storage capacity analysis, and distribution system analysis from data provided by the Utility, it appears that the Utility meets the standards for source capacity, storage capacity, total capacity, and distribution system.

**Water Loss Evaluation**

Per PSC 185.85, the Whitewater Municipal Water utility is a Class AB Utility (more than 10,000 connections) is higher than 10%, the recommended limit set by the DNR, but is in compliance with the PSC water loss limits set by PSC 185.85. The latest water loss data is as follows:

- Non-Revenue Water Loss is 10%
- Total Water Loss is 7%.

PSC may require a public utility to conduct a leak detection survey of its distribution system if, for three consecutive years, the public utility's percentage of water loss exceeds 15%.

The department recommends that the Utility continue to find and correct sources of water loss.

**System Summary**

The Whitewater water system is owned and operated by the City of Whitewater and serves a population of approximately 14,000 people. The water system consists of:

- 1 pressure zone(s)
- 1 interconnected college with significant private infrastructure and transient population
- 4 pressure sand filtration systems for treatment of iron
- Hypochlorination chemical addition for disinfection
- Fluoride chemical addition for dental benefits
- 5 wells and 5 wellhouses

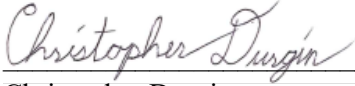
Well #	Pumping Capacity (GPM)	Depth (feet)	Constructed	Last inspection
5	900	657	1944	5
6	1350	1019	09/08/1961	6
7	1200	898	05/26/1965	7
8	1000	800	12/16/1976	8
9	1000	950	02/06/1996	9

Storage	Size (Million gallons)	Last Painted	Last Inspection	Inspection Type
Cravath Street Tower	0.5	2020	2020	Drain Down
Indian Mound Parkway	0.750	2022	2022	New construction
Fremont Reservoir	0.005	N/A	2018	Drain Down

The next sanitary survey of your system is scheduled to take place in 2027. You will be contacted prior to the survey to schedule a date that is convenient for you.

I would like to thank Mr. Bergner, Mr. Hyndman and the City of Whitewater for their cooperation and experienced insight during the DNR inspection of the facilities on the date of my visit. If you have any questions, please contact me at (414) 389-7356, or by e-mail at [Christopher.Durgin@wisconsin.gov](mailto:Christopher.Durgin@wisconsin.gov).

Sincerely,



Christopher Durgin  
Water Supply Engineer - DNR  
1027 W. St. Paul Avenue  
Milwaukee, WI 53233

cc: Bureau of Drinking Water & Groundwater – DG/5  
Jesse Jensen, DNR Drinking Water & Groundwater Field Supervisor  
Water Utility Superintendent, Jim Bergner  
Operator in Charge, Josh Hyndman

## Sanitary Survey - System Inventory Report - WHITEWATER WATERWORKS (26500562) MC

Item 4.

## Water System Summary Information

PWS ID	PWS Name	County	Address	PWS Type	Popn (Non-Trans/Trans)	Svc Connects	ERP Complete Date	ERP Last Updated	Emerg Phone
26500562	WHITEWATER WATERWORKS	Walworth	308 N FREMONT STREET WHITEWATER, WI 53190	MC	14000	0			(262) 949- 5436

## Certified Operators

Operator Name	License #	License Expire Date	Email Address	Phone #	Fax #	Address	Subclasses	OIC Role
Antonio Aranda	39140	12/1/2025	taranda@whitewater-wi.gov	(262)458-2808		W6671 BLUFF RD WHITEWATER, WI 53190	DT - DISTRIBUTION GRADE T, GT - GROUNDWATER GRADE T, IT - IRON REMOVAL GRADE T	N
Ross A Babcock	37441	11/1/2026	rossbabcock@hotmail.com	(262)458-2808		5445 N HENKE RD MILTON, WI 53563	D1 - DISTRIBUTION GRADE 1, G1 - GROUNDWATER GRADE 1, I1 - IRON REMOVAL GRADE 1	N
Jim A Bergner	33201	5/1/2025	jimabergner@gmail.com	(920)650-4845		W9623 WALWORTH WOODS RD DELAVAN, WI 53115	D1 - DISTRIBUTION GRADE 1, G1 - GROUNDWATER GRADE 1, I1 - IRON REMOVAL GRADE 1	N
Josh W Hyndman	34590	5/1/2027	hyndman20@hotmail.com	(608)437-3084		412 BRETTS WAY ORFORDVILLE, WI 53576	D1 - DISTRIBUTION GRADE 1, G1 - GROUNDWATER GRADE 1	Y
Jason R Kelley	37965	11/1/2027	jkelly@whitewater-wi.gov			3457 HEMMING WAY DR. JANESVILLE, WI 53545	D1 - DISTRIBUTION GRADE 1, G1 - GROUNDWATER GRADE 1, I1 - IRON REMOVAL GRADE 1	N
Blaine A Walenton	38785	12/1/2027	Bwalenton@whitewater-wi.gov	(262)473-0560		414 S PLEASANT ST WHITEWATER, WI 53190	D1 - DISTRIBUTION GRADE 1, G1 - GROUNDWATER GRADE 1, I1 - IRON REMOVAL GRADE 1	N

## Affiliations

Name	Affiliation	Primary?	Address	Email	Phone	Item 4.
Christopher Durgin	DNR_REP	Y	1027 W ST PAUL AVE MILWAUKEE WI 53233	Christopher.Durgin@wisconsin.gov	<b>414-389-7356 (Business)</b>	
Josh Hyndman	EMERGENCY	Y	312 WHITEWATER ST WHITEWATER WI 53190	jhyndman@whitewater-wi.gov	<b>920-817-4012 (Cellular)</b> 262-215-8723 (Cellular) 262-215-8723 (Emergency)	
Josh Hyndman	MANAGER	Y	312 WHITEWATER ST WHITEWATER WI 53190	jhyndman@whitewater-wi.gov	<b>920-817-4012 (Cellular)</b> 262-215-8723 (Cellular) 262-215-8723 (Emergency)	
Whitewater Water Utility Attn: Josh Hyndman	OWNER	Y	312 WHITEWATER ST PO BOX 178 WHITEWATER WI 53190	JHYNDMAN@WHITEWATER- WI.GOV	<b>262-473-0560 (Business)</b> 920-817-4012 (Cellular)	
Heather Boehm	PLAN_CON	Y	312 WHITEWATER ST WHITEWATER WI 53190	cityclerk@whitewater-wi.gov	<b>262-473-0102 (Business)</b>	
Ross Babcock	SAMPLER	Y	312 WHITEWATER ST WHITEWATER WI 53190	RBABCOCK@WHITEWATER- WI.GOV	262-473-0560 (Business) 920-542-8842 (Cellular)	
Jim Bergner	EMERGENCY	N	312 WHITEWATER ST PO BOX 178 WHITEWATER WI 53190	JBERGNER@WHITEWATER- WI.GOV	<b>920-650-4845 (Cellular)</b> 262-473-0560 (Business)	

### Entry Points and Sources

Source ID	Source Name	WUWN	Status	Available Desc	Type	Water Source	Depth (ft)	Cased (ft)	Grouted (ft)
5	WELL 5	BH192	Active	Permanent	ENTRY PT/SOURCE	Groundwater	657	557	160
6	WELL 6	BH193	Temporarily Out of Service	Permanent	ENTRY PT/SOURCE	Groundwater	1019	225.2	225.2
7	WELL 7	BH194	Active	Permanent	ENTRY PT/SOURCE	Groundwater	898	562	175
8	WELL 8	BH195	Active	Permanent	ENTRY PT/SOURCE	Groundwater	800	35	350
9	WELL 9	LJ862	Active	Permanent	ENTRY PT/SOURCE	Groundwater	950	270	270

### Entry Points and Sources - Additional Information

Item 4.

Source ID	Well Constr Date	Aquifer	Casing Height (in)	Casing Size (in)	Cap Seal Type	Variance?	Variance Reason	Abn Approval Agreement Date	Original Constr Yr	Prev WUWN
5	1/1/1944									
6	1/1/1961									
7	11/10/1965									
8	10/1/1977									
9	7/24/1996									

Entry Points and Sources - Pump Information

Source ID	Pump Type	Pump Make	Pump HP	Capacity (gpm)	Discharge Type	Pump Last Pulled Date	Aux Power?
5	SUBMERSIBLE			900			Y
6	VERTICAL_TURBINE			1350			Y
7	SUBMERSIBLE			1000			
8	VERTICAL_TURBINE			1000			Y
9	VERTICAL_TURBINE			1000			Y

Storage

ID	Status	Desc	Sub Type	Volume (gal)	Firm Pump Cap (gpm)	Overflow to Ground (in)	MSL Overflow Elevation (ft)	Aux Power?	Manufacturer	Model	Chem Inject Capable?	Active Date
C3	Active	Wood Street TOWER	ELEVATED TANK	500000				Unknown				1/1/1960
C4	Active	FREMONT RESERVOIR	GROUND STORAGE	50000				Unknown				1/1/1960
C5	Active	Indian Mound Parkway	ELEVATED TANK	750000			979.05	Unknown			Y	1/1/1960

Storage - Additional Information

ID	Interior Last Painted	Exterior Last Painted	Interior Last Inspected	Inspect Type	Last Complete Draindown
C3					
C4					
C5			12/01/2022	Complete Drain Down	12/1/2022

Booster Stations

ID	Component Description	Component Sub Type	Status	Firm Pump Capacity (gpm)	Aux Power?	Storage?	Chemical Addition?	Active Date
C1	NONE	ABOVE GROUND	Active	1000	Yes			1/1/1960

System Interconnects

Item 4.

Component ID	Component Description	Component Sub Type	Status	Capacity (gal)	Metered?	Chemical Injection Capable?	Active Date
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Treatment

ID	Treatment	Objective	Begin Date	Pump Model	Capacity (gpm)	Stroke %	Speed %	Solution Tank Cap (gal)	Dilution Ratio
5	344 - Filtration, Pressure Sand	F - Iron Removal	11/8/1999						
5	380 - Fluoridation	Z - Other	1/1/2002						
5	421 - Hypochlorination, Post	D - Disinfection	11/8/1999						
7	344 - Filtration, Pressure Sand	F - Iron Removal	11/8/1999						
7	380 - Fluoridation	Z - Other	1/10/2002						
7	421 - Hypochlorination, Post	D - Disinfection	11/8/1999						
8	344 - Filtration, Pressure Sand	F - Iron Removal	11/8/1999						
8	380 - Fluoridation	Z - Other	1/1/2002						
8	421 - Hypochlorination, Post	D - Disinfection	11/8/1999						
9	344 - Filtration, Pressure Sand	F - Iron Removal	11/8/1999						
9	380 - Fluoridation	Z - Other	1/1/2002						
9	421 - Hypochlorination, Post	D - Disinfection	11/8/1999						

System Evaluation Summary

Inspector/Reviewer	Date	Report Date	Type	Agency	Response Due	Response Rec'd
DURGIN, CHRISTOPHER	11/14/2024		SURVEY	DNR		
DURGIN, CHRISTOPHER	12/29/2021	2/3/2022	SURVEY	DNR	3/11/2022	3/1/2022

Bacteriological Sampling History

Year	Distribution - Absent	Distribution - Present	Confirmed - Present	Triggered - Present	Missed Samples	Raw Water - Absent	Raw Water - Present	Fecal Positive?
2024	164				30	18		N
2023	181					20		N
2022	180					20		N
2021	179	1				20		N
2020	181					20		N
2019	182					20		N



Chemical Sampling History

Item 4.

Year	Sample Group Code	Source ID	Samples Taken	Missed Samples	MCL Violations
2024	DBP		2		
2024	FLUORIDE		11		
2024	NITRATE	5	1		
2024	NITRATE	7	1		
2024	NITRATE	8	1		
2024	NITRATE	9	1		
2024	VOC	7	1		
2023	DBP		2		
2023	FLUORIDE		12		
2023	IOC	5	1		
2023	IOC	6	1		
2023	IOC	7	1		
2023	IOC	8	1		
2023	IOC	9	1		
2023	PBCU		30		
2023	PFOA/PFOS	5	1		
2023	PFOA/PFOS	6	1		
2023	PFOA/PFOS	7	1		
2023	PFOA/PFOS	8	1		
2023	PFOA/PFOS	9	1		
2023	RAD	5	1		
2023	RAD	8	1		
2023	SOC	5	1		
2023	SOC	6	1		
2023	SOC	7	1		
2023	SOC	8	1		
2023	SOC	9	1		
2023	VOC	5	1		
2023	VOC	6	1		
2023	VOC	7	1		
2023	VOC	8	1		
2023	VOC	9	1		
2022	DBP		2		
2022	FLUORIDE		12		
2022	NITRATE	5	1		

Year	Sample Group Code	Source ID	Samples Taken	Missed Samples	MCL Violations	Item 4.
2022	NITRATE	6	1			
2022	NITRATE	7	1			
2022	NITRATE	8	1			
2022	NITRATE	9	1			
2022	VOC	7	1			
2021	DBP		2			
2021	FLUORIDE		12			
2021	NITRATE	5	1			
2021	NITRATE	6	1			
2021	NITRATE	7	1			
2021	NITRATE	8	1			
2021	NITRATE	9	1			
2021	VOC	7	1			
2020	DBP		2			
2020	FLUORIDE		12			
2020	IOC	5	1			
2020	IOC	6	1			
2020	IOC	7	1			
2020	IOC	8	1			
2020	IOC	9	1			
2020	PBCU		30			
2020	PBCU_RULE	5	1			
2020	PBCU_RULE	6	1			
2020	PBCU_RULE	7	1			
2020	PBCU_RULE	8	1			
2020	PBCU_RULE	9	1			
2020	PBCU_RULE		10			
2020	RAD	5	1			
2020	RAD	6	1			
2020	RAD	7	1			
2020	RAD	8	1			
2020	RAD	9	1			
2020	SOC	8	1			
2020	SOC	9	1			
2020	VOC	5	2			
2020	VOC	6	1			

Item 4.

Year	Sample Group Code	Source ID	Samples Taken	Missed Samples	MCL Violations
2020	VOC	7	1		
2020	VOC	8	2		
2020	VOC	9	2		
2019	DBP		2		
2019	FLUORIDE		12		
2019	NITRATE	5	1		
2019	NITRATE	6	1		
2019	NITRATE	7	1		
2019	NITRATE	8	1		
2019	NITRATE	9	1		
2019	VOC	5	4		
2019	VOC	7	4		
2019	VOC	8	4		
2019	VOC	9	4		

Sample Group	Last Sampled
ARSENIC	2017
BACTI	2024
DBP	2024
FLUORIDE	2024
GROSS_ALPHA	2001
HAA5	2009
IOC	2023
NITRATE	2024
PBCU	2023
PBCU_RULE	2020
PFOA/PFOS	2023
RAD	2023
SOC	2023
TTHM	2009
VOC	2024

Bacti MCL Violations

Source ID	Violation Code	Violation Start Date	Violation End Date
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Chemical MCL Violations

Source ID	Contaminant	Contam Description	MCL	Units	Violation Start	Violation End	Continuing Operation?
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Deficiencies / Corrective Actions From Last Survey

Item 4.

Severity	Description	Code Citation	Observations	Location	Required Action	Due Date	Date Completed
Deficiency	Overflows of elevated storages are not provided with a sufficient 4 mesh non corrodible screen and/or ground level overflows are not provided with a sufficient 24 mesh noncorrodible screen.	811.64(4)			Replace or otherwise confirm the existence of adequate 24mesh screen on the Fermont reservoir	01/03/2025	

Sanitary Defects / Corrective Actions Since Last Survey

Inspection Type	Date	Sanitary Defect	Required Action	Due Date	Date Completed
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