

AGENDA ITEM 3A

**PUBLIC HEARING AND
RECOMMENDATION OF PRELIMINARY
DEVELOPMENT PLAN AMENDMENT
AND AN OFFICIAL DEVELOPMENT PLAN
FOR SEMPER GARDENS**

**THE FOLLOWING ITEMS WERE
RECEIVED AFTER THE ORIGINAL
PACKETS WAS POSTED ON**

THURSDAY, AUGUST 3, 2023

**THESE ITEMS ARE TO BE INCLUDED AS
PART OF THE PACKET ADDENDUM AND
PUBLIC RECORD FOR THE PLANNING
COMMISSION MEETING**

AUGUST 3, 2023

Baden, Jennifer

From: Kasza, Jacob
Sent: Monday, August 7, 2023 11:09 AM
To: Baden, Jennifer
Cc: German, Dave
Subject: FW: [EXTERNAL] New Developent at 104th and Sheridan

Hi Jen,

Can you include this email as an additional public comment for tomorrow? Thank you!

Jacob

From: mrmunguia@aol.com <mrmunguia@aol.com>
Sent: Sunday, August 6, 2023 10:02 PM
To: Kasza, Jacob <jpkasza@CityofWestminster.us>
Cc: Nancy Manus <livestrongdancelong@gmail.com>
Subject: [EXTERNAL] New Developent at 104th and Sheridan

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.

Hello,

My family and I live at 5431 west 103rd Avenue, Westminster, CO 80020. I see that houses will be built directly behind our house. I have a couple questions.

1. There is a significant drop in elevation between my property and the new housing development. What type of retaining wall is the housing developer planning on building to ensure that the property with the higher elevation (my house) does not slide down into the yard of the new houses? I am certain the builder is planning to do excavation and they don't have the right to harm my property.
2. What exactly are they going to do to prevent my property from eroding away into the new housing development below?

Please "Reply-All" since my wife, Nancy, is copied on this email as well.

Thanks,

Miguel Munguia
720-635-8437

Baden, Jennifer

From: PCPubComm
Sent: Tuesday, August 8, 2023 9:39 AM
To: 'Lucy'
Cc: Kasza, Jacob
Subject: RE: [EXTERNAL] 10155 Sheridan Blvd, Westminster_City of Westminster_05.31.23_TWS - Google Drive

Thank you for your comments related to the project. We appreciate your taking the time to share your thoughts and to participate in this public process. Your comments will be added to the public record for this project.

We encourage you to attend the Planning Commission meeting at 7:00PM on August 8th at City Hall. For details on how to participate in a public hearing please click on www.cityofwestminster.us/pc. Please click on the highlighted and bold text called 'Want to learn how to View, Listen, or Call-in to a Virtual Hearing? CLICK HERE!'

Also, we are unable to access the link provided below as it returns an error message. If you have documents you wish to be included in the public record, please send them in PDF form by 12 noon today, August 8, and they will be included.

Thank you,
City of Westminster Planning Division

-----Original Message-----

From: Lucy <edandlucy@thesiebers.com>
Sent: Tuesday, August 8, 2023 9:30 AM
To: PCPubComm <PCPubComm@CityofWestminster.us>
Subject: [EXTERNAL] 10155 Sheridan Blvd, Westminster_City of Westminster_05.31.23_TWS - Google Drive

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.

Hello my name is Lucy Sieber. Long-term resident of Waverly acres. I appreciate the opportunity to address the Westminster planning commission regarding the Semper Gardens PDP/ODP hearing.

From the onset, I believe our neighborhood has been treated as an afterthought, regardless of the mandated community meetings.

During the upzoning meeting, I inquired why the upzoning? The developer's response was basically more dollars to the bottom line of Berkeley homes. When I inquired why it was our responsibility to ensure Berkeley homes bottom line, no response - still waiting on that. That was my first unanswered question.

Following the city mandated, and totally understandable, demolition of the buildings, a complaint was filed with the Colorado Department of Health and Environment describing this as a major asbestos spill. However, testing did not commence until late May/early June 2023. Why the delay?

Although testing showed minimal risk, why was the only one pile covered? I am awaiting a call back from the CDPHE regarding this issue.

(Testing report attached)

to be included as part of a public record)

With all the chatter involving wildfire mitigation, why hasn't this mess been removed? If I didn't shovel, my snow, the city would be on my case with the threat of a lien on the property.

In short, there are far too many unanswered questions to allow this discussion to move forward. Both of PDP/ODP should be postponed at the very least until the mess has been cleaned up.

[https://urldefense.com/v3/__https://drive.google.com/drive/mobile/folders/1KbXRPp0CrthcDcujhbcsC4guD00UBDBH?usp=sharing&pli=1__;!!E0sFAW4Yvqtm762YPgl3DnLvboVFgs2pJNVWNIthOmpa8IdRks5KC1hoEcWVQ1a4EuBouqSp2BNT-9jwiDNP4kQgraCmC_ztZ4ilPiuzxTbInMo3S3X-Q\\$](https://urldefense.com/v3/__https://drive.google.com/drive/mobile/folders/1KbXRPp0CrthcDcujhbcsC4guD00UBDBH?usp=sharing&pli=1__;!!E0sFAW4Yvqtm762YPgl3DnLvboVFgs2pJNVWNIthOmpa8IdRks5KC1hoEcWVQ1a4EuBouqSp2BNT-9jwiDNP4kQgraCmC_ztZ4ilPiuzxTbInMo3S3X-Q$)

Sent from my iPhone

Baden, Jennifer

From: Kasza, Jacob
Sent: Tuesday, August 8, 2023 9:57 AM
To: pdm.moores@gmail.com
Cc: PCPubComm; Klein, Heath
Subject: RE: [EXTERNAL] Semper Gardens Public Hearing 8/8
Attachments: Accpt-Semper_TIS 05-01-23.pdf

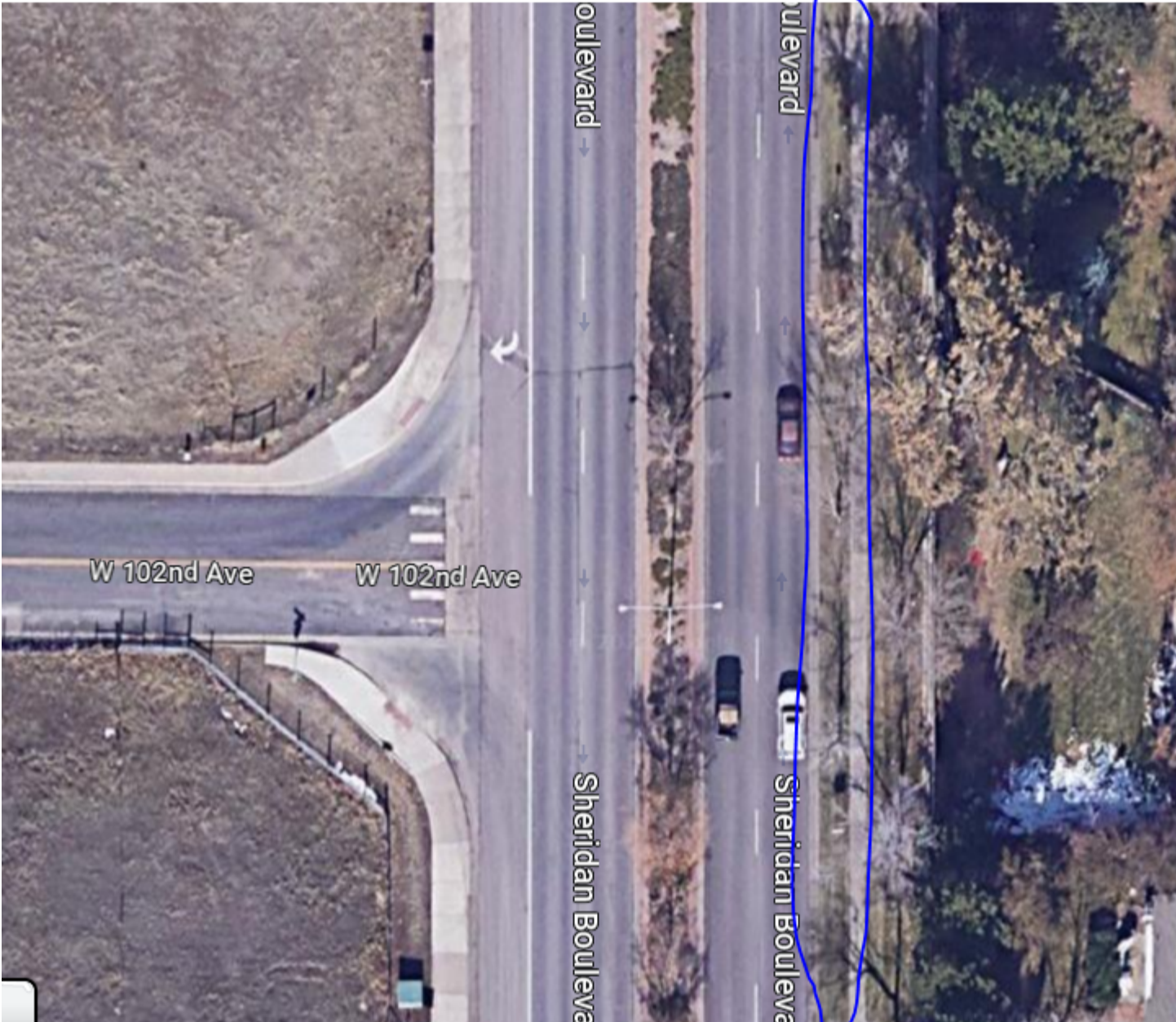
Good morning Pam,

We have received your email and we will include it with the other public comments that are presented to the Planning Commission and City Council at a future public hearing.

To answer your questions, 1. The City's Transportation and Mobility Plan, [available here](#) and [appendices here](#), show Sheridan Boulevard as a six lane road in the future. The City already has the right-of-way to accomplish this adjacent to the Semper Garden project. The section of Sheridan from 112th to 120th is a good example of the what this would ultimately look like. Three through lanes in each direction:

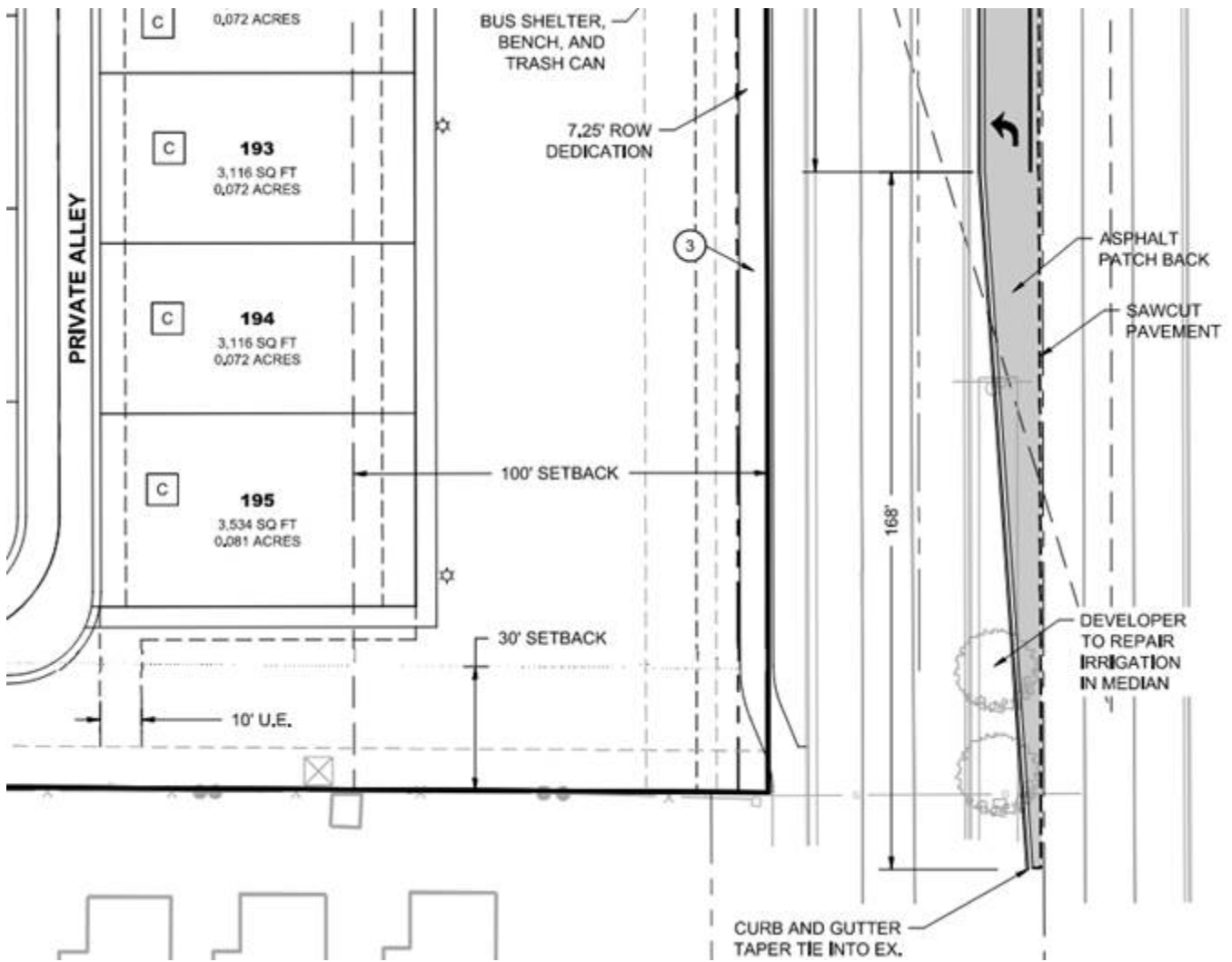


If the City proceeds with the widening of Sheridan in the future to a six lane, the City will need to eliminate the landscaping on the east side of Sheridan, not the west side: (shown in blue)

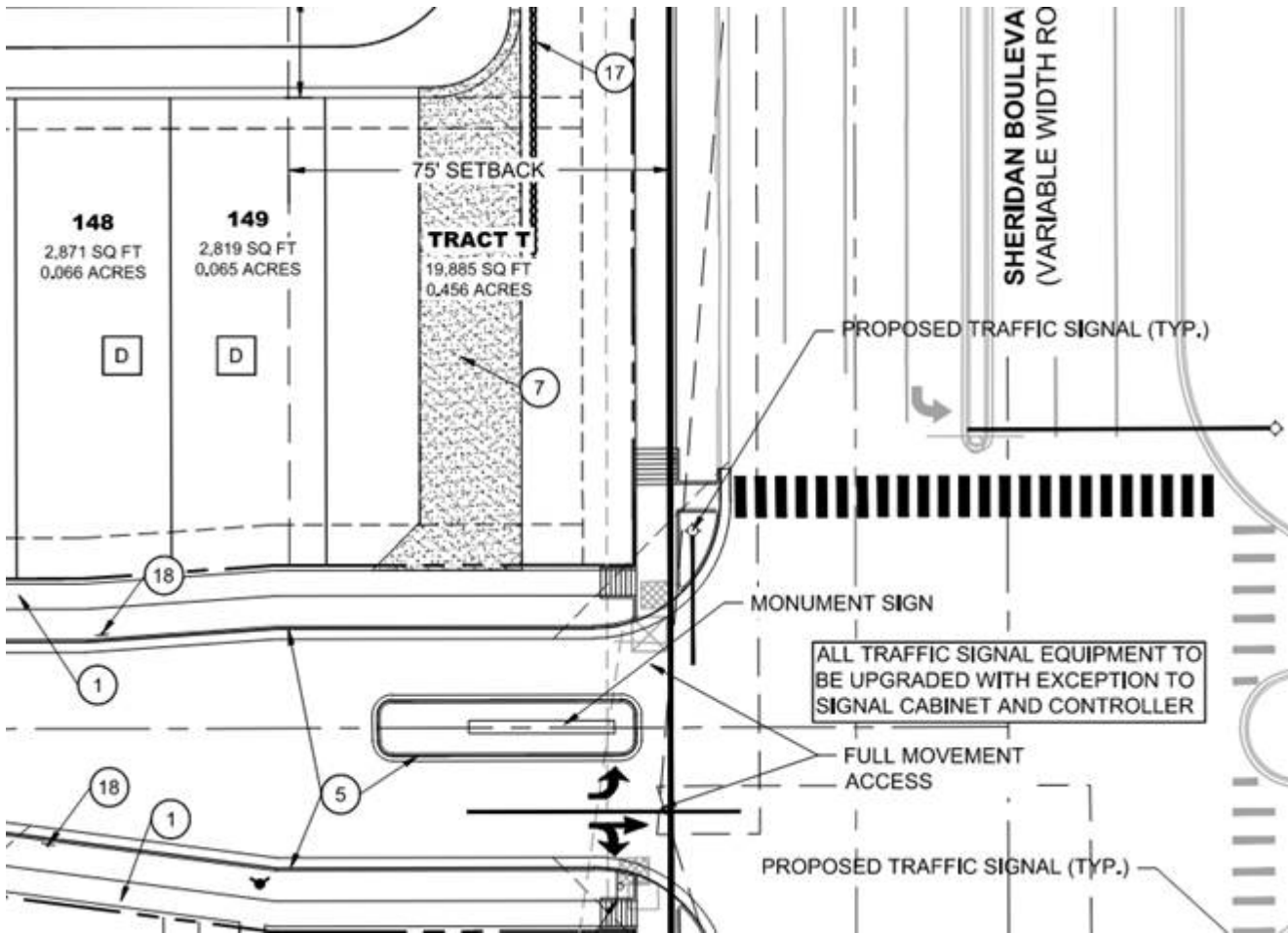


There are other sections that also pose a challenge, such as the bridge over the Lower Hylands Creek (about 98th and Sheridan), which is not sized for a six lane.

The Semper Gardens development features a 100-foot setback from the current ROW line for the single family detached homes:



And a 75-foot setback for the single family attached homes:



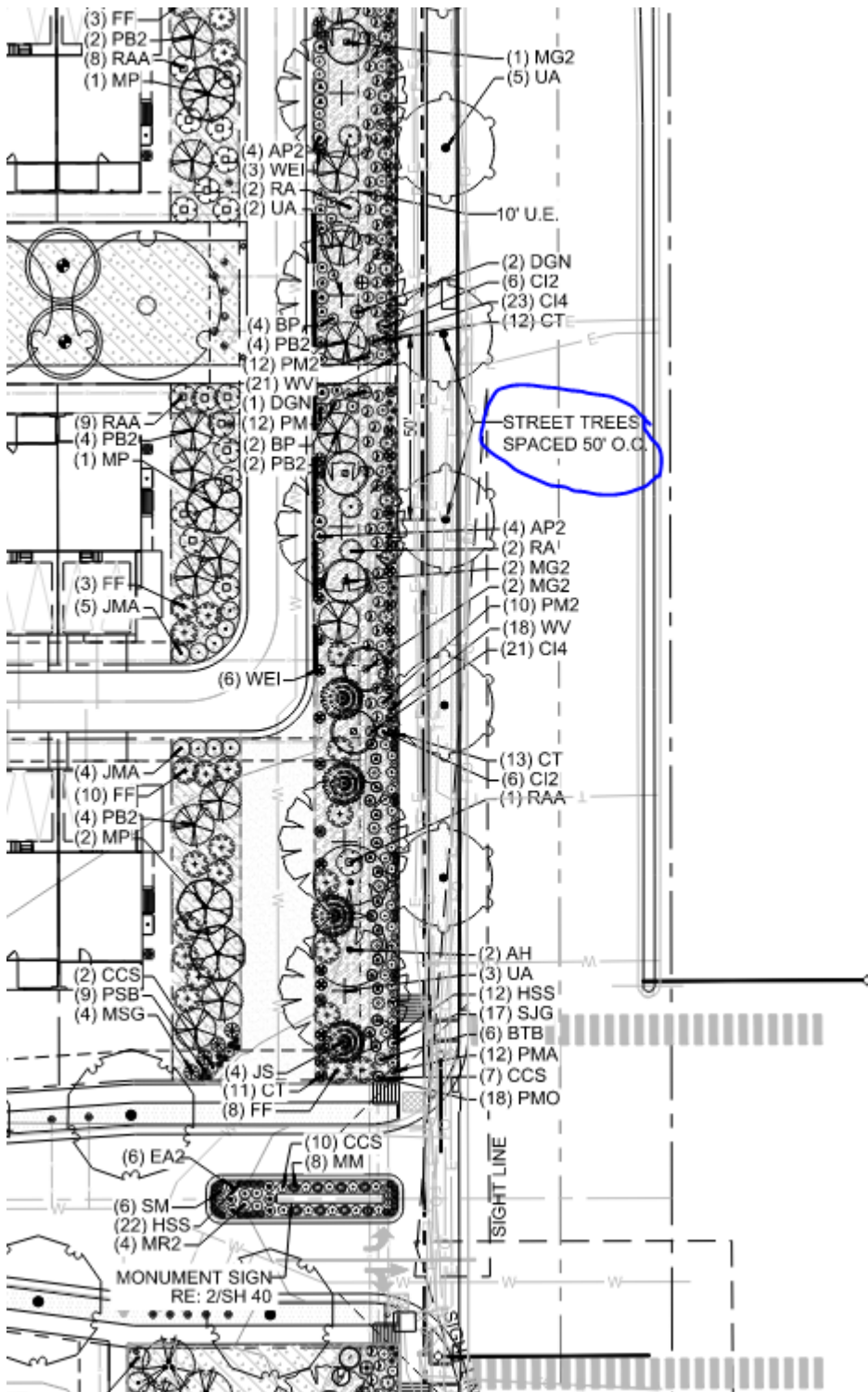
Hyland Meadows is only setback 64 feet:



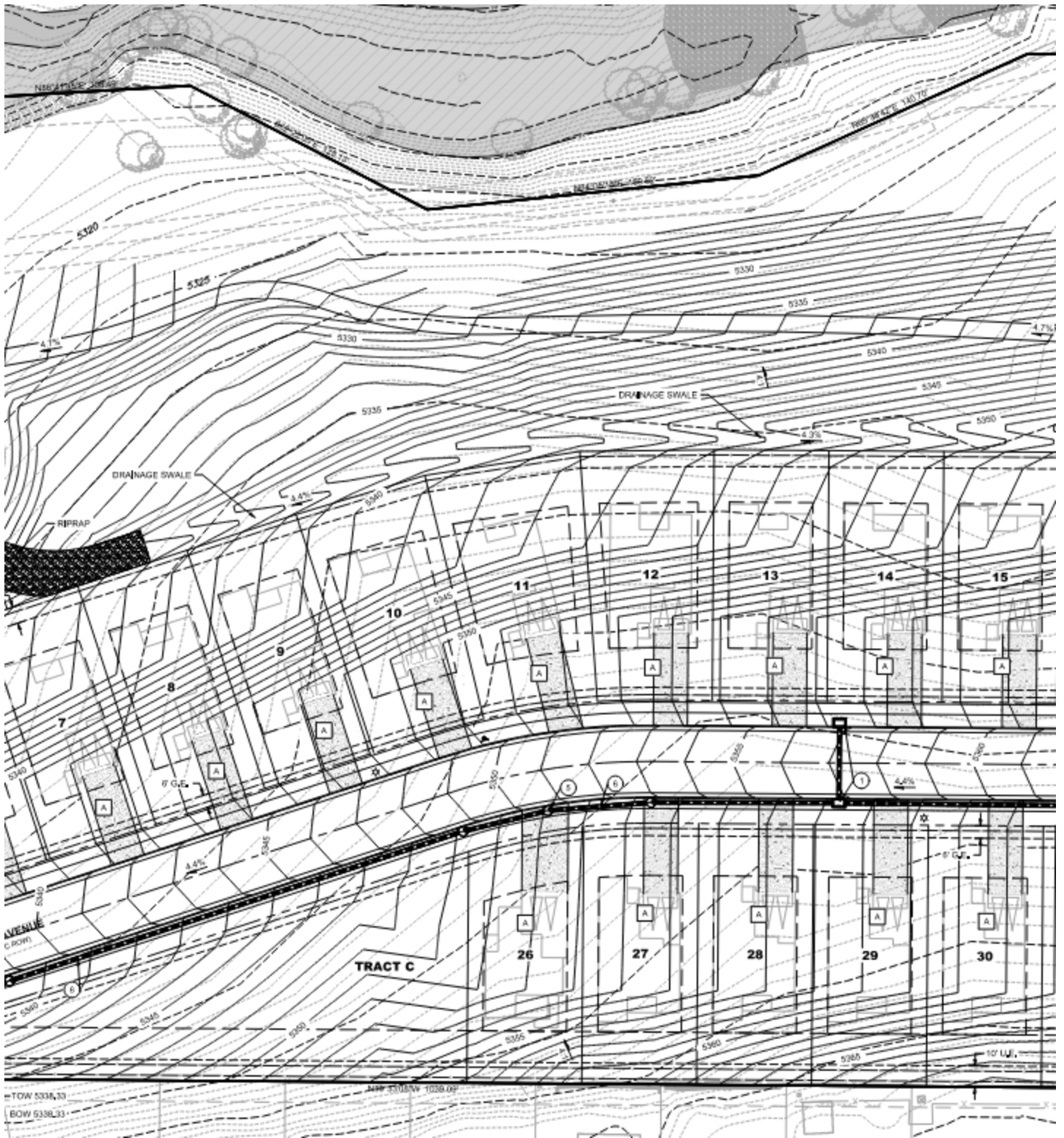
And Hyland Greens is only setback 34 feet:



With this current development application, the City will be taking additional right-of-way along the Semper Gardens project to facilitate a detached sidewalk with a tree lawn:



2. The property currently slopes about fifty feet from south to north along the creek. The developer is generally mirroring the grade. One of the best ways to build on grade is to use walkout basements. This helps eliminate the need for a large amount of retaining walls. Here is a section of their grading plan from the ODP:



The PDP and ODP do not include a two-story limit. They include a height limit of 40 feet:

MINIMUM LOT SIZE: 1,698,992 SF / 39.0 ACRES

PROJECT/SITE DATA

ODP BOUNDARY AREA (SF/ACRES):	1,698,992 SF / 39.0 AC.
GFA (SF):	N/A
FFA (SF):	N/A
FAR/DU PER ACRE (#):	5.0
MAXIMUM BUILDING HEIGHT(S) (FT):	40'-0"

MINIMUM SETBACKS

The walkout homes will look like a two-story home from the front. These styles of home are very common in the City as we have a good number of hills. Here are two in Hyland Greens East at Legacy Ridge Parkway and W 104th Ave:



I have attached the Traffic Impact Statement that was provided with the development application. If you would like to look at their development applications, I recommend looking up the projects in eTRAKiT.

<https://develop.cityofwestminster.us/etrakit/>

Under projects, click search and enter the project number PLN22-0062. It will bring up the project and you can view all the attachments, including things like a traffic study.

Please let me know if you have any additional questions.

Jacob P. Kasza

Senior Planner

City of Westminster | Community Development

jpkasza@cityofwestminster.us | 303.658.2400

4800 West 92nd Avenue, Westminster, CO 80031

City Hall Hours: Monday-Friday, 8 a.m.-5 p.m.



WESTMINSTER | WWW.C

{HYPERLINK "<https://www.cityofwestminster.us>" }

From: Pam Moores <pdm.moores@gmail.com>

Sent: Monday, August 7, 2023 9:54 PM

To: PCPubComm <PCPubComm@CityofWestminster.us>

Subject: [EXTERNAL] Semper Gardens Public Hearing 8/8

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.

Amended Development Plan -

The attached plan in the letter we received from the city was quite a bit different as to the placement/size of homes and the total number that had previously been shared with surrounding neighborhoods.

I have two questions regarding the design and what I could discern from the agenda and documents for the meeting on the 8th.

1. It appears that there is not a significant required setback from Sheridan for this neighborhood, as I understood there was for Hyland Meadows. From looking at the Concept Plan, we would lose the ability to widen Sheridan in the future when the City realizes that the street, as it exists today, is not handling traffic. Please describe what the setback is as proposed and if that allows for future widening of Sheridan.
2. The Development Plan states that these will only be two story homes - that is until you look at the home options for a walkout basement. From looking at that land from the Sheridan side and the open space side, this is a flat 39 acres - with possibly the exception of any homes that will back to the creek on the north side. It appears the builder is finding a way around the two story limit. Won't the land have to be elevated to create the opportunity for a walkout? Some homes have rear walkouts and others have side walkouts. Either way, it would seem the elevation will change on the west side of Sheridan.

As to the potential for widening Sheridan, where might I find the traffic study that was done? I would like to read that and understand why the traffic engineer does not see an issue with increasing up to 400 cars leaving for work/school in the morning.

Thank you for your time.

--

Pam Moores
Hyland Greens



ALDRIDGE TRANSPORTATION CONSULTANTS, LLC
Advanced Transportation Planning and Traffic Engineering

John M.W. Aldridge, P.E.
Colorado Licensed Professional Engineer

1082 Chimney Rock Road
Highlands Ranch, CO 80126
303-703-9112
john@atceng.com

April 15, 2023

Mr. Tyler Jones
Berkley Homes
5291 East Yale Ave.
Denver, CO 80222

RE: Transportation Impact Study - Revised
Berkley Homes – SWC 104th Ave. and Sheridan Blvd., Westminster, CO

Dear Mr. Jones:

Aldridge Transportation Consultants (ATC) is pleased to present this traffic impact study for the proposed Berkley Homes residential development in Westminster.

ATC is professional service firm specializing in traffic engineering and transportation planning. ATC's principal, John M.W. Aldridge is a Colorado licensed professional engineer. In the past 20 years, ATC has prepared over 1,000 traffic impact studies, designed over 100 traffic signals, and has provided expert witness testimony on engineering design and access issues on multi-million-dollar interchange and highway projects in Kansas and Colorado.

ATC appreciates the opportunity to be of service. Please call if you have any questions. We can be reached at 303-703-9112.

Respectfully submitted,
Aldridge Transportation Consultants, LLC

John M.W. Aldridge, P.E.
Principal



WESTMINSTER

Traffic Engineering Accepted

05/01/2023 hklein



We acknowledge that the City of Westminster’s review of this study is only for general conformance with submittal requirements, current design criteria and standard engineering principles and practices. We are also aware of the provisions of section 11-6-5(B)3 of the City Code of the City of Westminster.

A. INTRODUCTION

Berkley Homes is a proposed residential development consisting of single-family detached, paired homes, and townhomes. The site is located on the southwest corner of 104th Ave. and Sheridan Blvd. in Westminster. To the south the site extends to just past 101st Ave. The location and type of residence is depicted in the conceptual site plan in Figure 1. The study area boundaries are defined as the adjoining streets and intersections to the study area. Presently, the site is undeveloped. The land use of the surrounding area is virtually all residential.

1. Existing Roadway and Intersections

104th Ave is a 4-6 lane Major Arterial that currently carries approximately 25,000 AADT per the **Westminster Transportation and Mobility Plan – Current & Future Conditions Report**. The center left turn lane features a raised concrete median. The posted speed limit is 40 mph. There are detached sidewalks on both sides of the street. There is also an available ped/bike tunnel under the north leg of Sheridan Blvd.

Sheridan Blvd. is a 6-lane Major Arterial that currently carries approximately 40,000 AADT per the Current & Future Conditions Report. It is also divided with a raised concrete median and posted at 40 mph. The street features attached sidewalks on west side and detached meandering sidewalk on the east side.

The intersection of 104th Ave. and Sheridan Blvd. is traffic signal controlled and features dual left turn lanes on each approach. There are also exclusive right turn lanes on each approach. The left turn phasing is protected only on all approaches.

102nd Ave is a 2-lane collector that connects Sheridan Blvd. to Benton St. It carries little traffic daily at around 250 ADT. The intersection with Sheridan is right in/right out only and stop sign controlled. 101st Ave. is not yet connected to the site. It is currently a T type with no east leg and is traffic signal controlled. It carries around 1,500 ADT.

AM and PM peak hour intersection counts were taken at three intersections on Tuesday September 29, 2020. The count worksheets are provided in the appendix for reference. Synchro graphics in the appendix show the existing AM and PM peak hour volumes, respectively.



BERKLEY HOMES – WESTMINSTER
Transportation Impact Study



Figure 1 Conceptual Site Plan



B. TRIP GENERATION AND DESIGN HOUR VOLUMES

The following table presents the trip generation from the project based on average rates and values found in the ITE Trip Generation Manual, 10th Edition. The table shows average daily traffic ADT and the AM and PM peak hour trip generation.

Trip Generation Worksheet									
Parcel		LAND USE	UNIT	QUANTITY	ADT	AM		PM	
ITE CODE						IN	OUT	IN	OUT
PA-1	Single-Family	DU	65	9.44	0.19	0.55	0.63	0.37	
210	Detached			614	12	36	41	24	
PA-1	Paired Homes	DU	48	7.32	0.11	0.35	0.35	0.21	
220				351	5	17	17	10	
Sub-Total			113	965	17	53	58	34	
PA-2	Single-Family	DU	32	9.44	0.19	0.55	0.63	0.37	
210	Detached			302	6	18	20	12	
PA-2	Townhomes	DU	50	7.32	0.11	0.35	0.35	0.21	
220				366	5	18	18	10	
Sub-Total			82	668	11	35	38	22	
Total DU			195						
Total Trips					1633	29	88	96	56

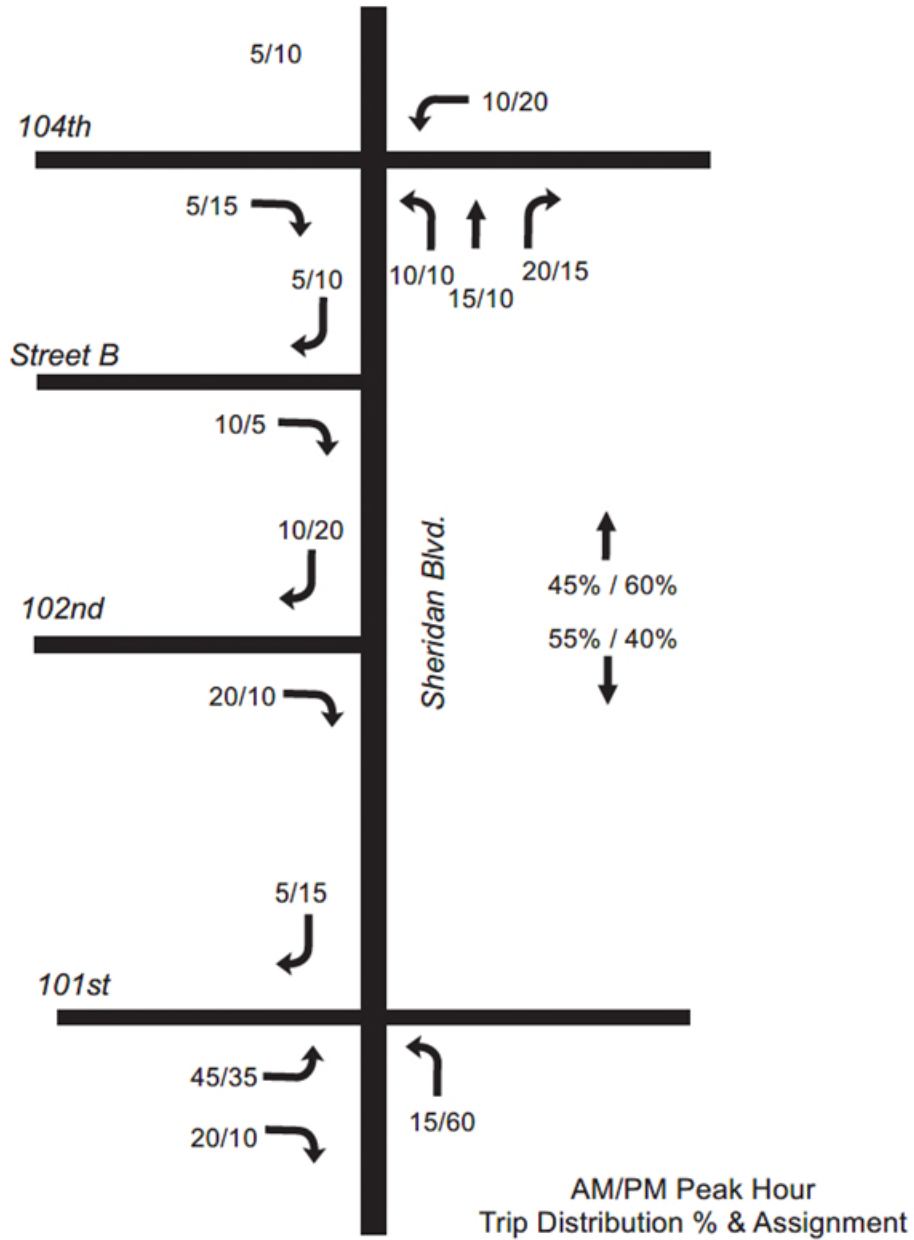
The current land use plan analyzed herein contains 195 dwelling units.

C. TRIP DISTRIBUTION

The trip distribution factors are based on the current directional split of traffic on Sheridan Blvd. in the AM and PM peak hour. The graphic shows the trip distribution and assignment of the site generated trips.



BERKLEY HOMES – WESTMINSTER
Transportation Impact Study





D. TRIP ASSIGNMENT

The trip assignment assumes full development of each planning area. Trip volumes were assigned to each access based on density and orientation to the adjacent streets and intersections. Synchro graphics in the appendix show the background conditions without the site generated trips and total conditions with the site generated trips

E. PROJECTED TRAFFIC VOLUMES

The increase in background traffic for the short-term 2023 and long-term 2040 design horizons is based on the DRCOG Focus Model 2.2 and as reported in the Current & Future Conditions Report. The 2040 ADT for 104th Ave. is 32,700 on the west leg and 36,400 on the east leg. The 2040 ADT for Sheridan Blvd. is 49,400 ADT. The 20-year growth rate is approximately 1.1 percent per annum and the 20-year growth factor is 1.25. The three-year growth factor equates to 1.025.

F. LEVEL OF SERVICE

ATC uses Synchro v.10 for operations analyses. The Synchro v.10 methodologies are based on the **Highway Capacity Manual, 6th Edition** (HCM). The Synchro HCM reports in the appendix are for reference. LOS is letter rating from A to F. LOS A indicates free-flow traffic conditions and no delay at intersections. LOS F is heavy traffic congestion with significant delay. LOS is provided for the overall operations at signalized intersections. LOS D is generally the benchmark for acceptable signalized intersection operations during the weekday peak hours. The critical movement, not the overall, provides the LOS rating for unsignalized intersections. The critical movement is generally a left turn from the minor approach. Caution is advised when evaluating the LOS at unsignalized intersections particularly when LOS F is shown. In cases of a LOS F, the HCM suggests that other evaluation measures should be considered such as the volume over capacity ratio and the 95th percentile queue length to make the most effective traffic control decision. LOS F at unsignalized intersections is considered normal for the weekday peak hour particularly when the v/c ratio and the 95th percentile queue length are acceptable.



Intersection LOS Summary											
<i>Signalized Overall LOS/Control Delay (s/veh) A/< or = 10, B/ >10-20, C/ >20-35, D/ >35-55, E/55-80, F/ >80</i>											
<i>Unsignalized Critical Movement LOS/Control Delay (s/veh) A/0-10, B/ >10-15, C/ >15-25, D/ >25-35, E/35-50, F/ >50</i>											
Intersection ID	Name	Existing		2023 Background		2023 Total		2040 Background		2040 Total	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
<i>Signalized</i>											
3	104th/Sheridan	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>D</i>	<i>C</i>	<i>D</i>
6	Sheridan/101st	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>A</i>	<i>B</i>
<i>Unsignalized</i>											
201	Sheridan/B St.	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>C</i>	<i>C</i>	<i>n/a</i>	<i>n/a</i>	<i>C</i>	<i>C</i>
202	Sheridan/ 102nd	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>C</i>	<i>C</i>	<i>C</i>

The signalized intersections at 104th and 101st Avenues will operate acceptably in all conditions. Likewise, the unsignalized right in/right out intersections at Street B and 102nd Ave. will also operate acceptably in all conditions.

G. MITIGATION RECOMMENDATIONS

The proposed right in/right out intersection at Street B, is recommended with a shared right in/through outside lane. A separate right turn lane is not necessary.

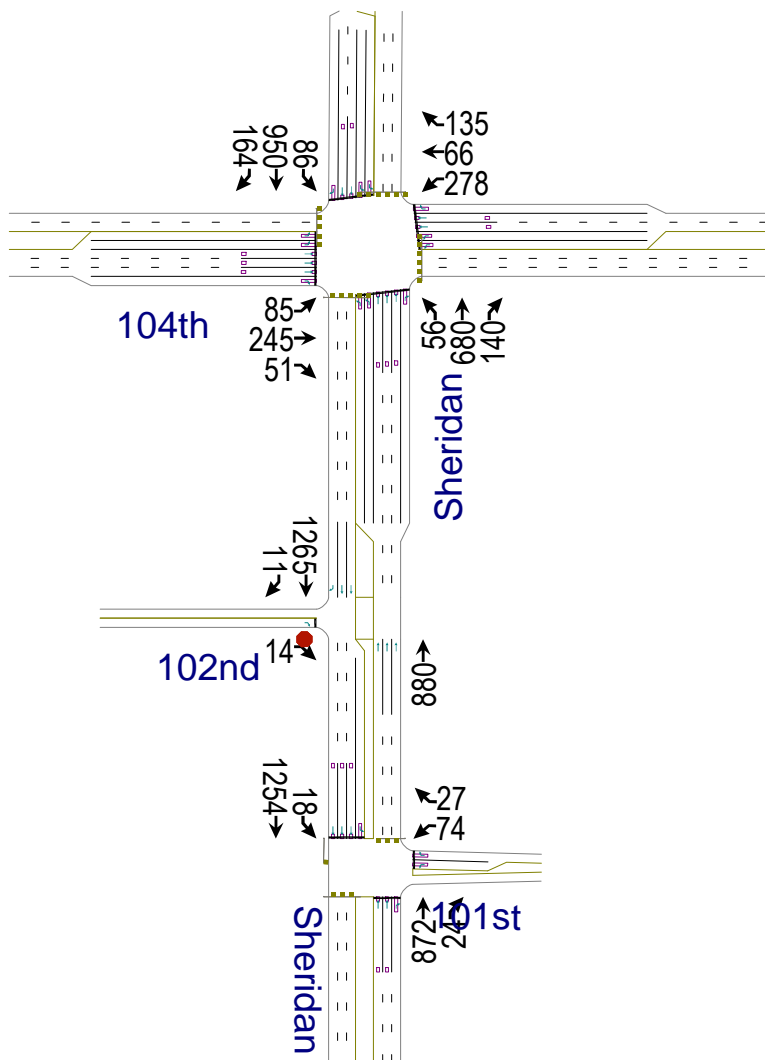
The intersection at 101st Ave. will require modification to include a new northbound left turn lane of approximately 100 feet and accompanying traffic signal modifications likely to be two new poles and mast arms on the east side. A southbound right turn is not necessary when there are three lanes in the same direction.

H. CONCLUSION

Based on the analysis presented herein, we find that traffic generated by the development of Berkley Homes with the requested entitlement of 214 residential units can be absorbed by the adjacent streets and intersections and operate at an acceptable level of service on condition that the access locations and type and street improvements recommended by this traffic impact study are implemented.



APPENDIX



Berkley
3: Sheridan & 104th

EX AM
10/15/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↑↑↑	↗	↖↖	↑↑	↗	↖↖	↑↑↑	↗	↖↖	↑↑	↗
Traffic Volume (veh/h)	85	245	51	278	66	135	56	680	140	86	950	164
Future Volume (veh/h)	85	245	51	278	66	135	56	680	140	86	950	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	266	55	302	72	147	61	739	152	93	1033	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	436	135	391	537	240	144	2900	900	164	2039	909
Arrive On Green	0.05	0.09	0.09	0.11	0.15	0.15	0.04	0.57	0.57	0.05	0.57	0.57
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	92	266	55	302	72	147	61	739	152	93	1033	178
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	2.5	4.9	3.2	8.2	1.7	8.4	1.7	7.1	4.4	2.5	16.9	5.2
Cycle Q Clear(g_c), s	2.5	4.9	3.2	8.2	1.7	8.4	1.7	7.1	4.4	2.5	16.9	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	436	135	391	537	240	144	2900	900	164	2039	909
V/C Ratio(X)	0.56	0.61	0.41	0.77	0.13	0.61	0.42	0.25	0.17	0.57	0.51	0.20
Avail Cap(c_a), veh/h	304	1029	320	732	1157	516	232	2900	900	304	2039	909
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	42.7	41.9	41.7	35.6	38.4	45.2	10.6	10.0	45.1	12.4	9.9
Incr Delay (d2), s/veh	3.0	1.4	2.0	3.3	0.1	2.5	2.0	0.2	0.4	3.1	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.0	1.3	3.6	0.7	3.3	0.7	2.4	1.5	1.1	6.2	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	44.1	43.9	44.9	35.7	40.9	47.2	10.8	10.4	48.2	13.3	10.4
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		413			521			952			1304	
Approach Delay, s/veh		44.9			42.5			13.0			15.4	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	59.4	15.4	12.8	8.5	60.0	9.1	19.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	53.5	20.5	19.5	6.5	55.5	8.5	31.5				
Max Q Clear Time (g_c+I1), s	4.5	9.1	10.2	6.9	3.7	18.9	4.5	10.4				
Green Ext Time (p_c), s	0.1	6.2	0.7	1.4	0.0	9.3	0.1	0.8				
Intersection Summary												
HCM 6th Ctrl Delay											22.9	
HCM 6th LOS											C	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	↗
Traffic Vol, veh/h	0	14	0	880	1265	11
Future Vol, veh/h	0	14	0	880	1265	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	15	0	957	1375	12

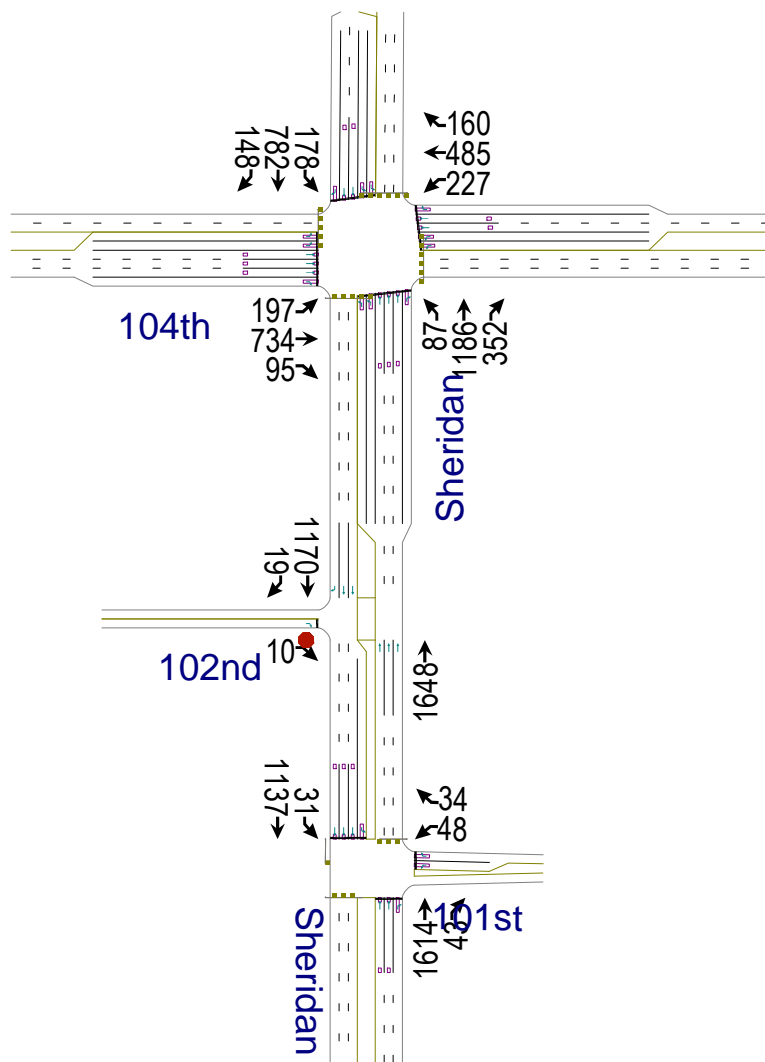
Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	688	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	389	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	389	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	389	-	-
HCM Lane V/C Ratio	-	0.039	-	-
HCM Control Delay (s)	-	14.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	74	27	872	24	18	1254
Future Volume (veh/h)	74	27	872	24	18	1254
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	29	948	26	20	1363
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	177	158	2133	952	503	3065
Arrive On Green	0.10	0.10	0.60	0.60	0.60	0.60
Sat Flow, veh/h	1781	1585	3647	1585	577	5274
Grp Volume(v), veh/h	80	29	948	26	20	1363
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	577	1702
Q Serve(g_s), s	1.3	0.5	4.4	0.2	0.6	4.4
Cycle Q Clear(g_c), s	1.3	0.5	4.4	0.2	4.9	4.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	177	158	2133	952	503	3065
V/C Ratio(X)	0.45	0.18	0.44	0.03	0.04	0.44
Avail Cap(c_a), veh/h	1069	952	2133	952	503	3065
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	12.4	3.3	2.4	4.6	3.3
Incr Delay (d2), s/veh	1.8	0.6	0.7	0.1	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.2	0.2	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.5	12.9	3.9	2.5	4.8	3.7
LnGrp LOS	B	B	A	A	A	A
Approach Vol, veh/h			974			1383
Approach Delay, s/veh			3.9			3.8
Approach LOS			A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		22.5			22.5	7.5
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		18.0			18.0	18.0
Max Q Clear Time (g_c+I1), s		6.4			6.9	3.3
Green Ext Time (p_c), s		4.9			6.6	0.2
Intersection Summary						
HCM 6th Ctrl Delay			4.3			
HCM 6th LOS			A			



Berkley
3: Sheridan & 104th

EX PM
10/15/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑	↔
Traffic Volume (veh/h)	197	734	95	227	485	160	87	1186	352	178	782	148
Future Volume (veh/h)	197	734	95	227	485	160	87	1186	352	178	782	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	214	798	103	247	527	174	95	1289	383	193	850	161
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	1052	327	321	768	343	155	2312	718	262	1719	767
Arrive On Green	0.08	0.21	0.21	0.09	0.22	0.22	0.04	0.45	0.45	0.08	0.48	0.48
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	214	798	103	247	527	174	95	1289	383	193	850	161
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	6.3	15.4	5.8	7.3	14.2	10.1	2.8	19.3	18.2	5.7	16.9	6.1
Cycle Q Clear(g_c), s	6.3	15.4	5.8	7.3	14.2	10.1	2.8	19.3	18.2	5.7	16.9	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	286	1052	327	321	768	343	155	2312	718	262	1719	767
V/C Ratio(X)	0.75	0.76	0.32	0.77	0.69	0.51	0.61	0.56	0.53	0.74	0.49	0.21
Avail Cap(c_a), veh/h	480	1394	433	513	1004	448	248	2312	718	414	1719	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	39.0	35.2	46.3	37.7	36.0	49.0	20.9	20.6	47.2	18.3	15.5
Incr Delay (d2), s/veh	3.9	1.7	0.5	3.9	1.3	1.2	3.9	1.0	2.8	4.0	1.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	6.4	2.2	3.2	6.1	3.9	1.3	7.4	6.9	2.5	6.7	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	40.7	35.7	50.2	38.9	37.2	52.9	21.9	23.4	51.2	19.3	16.1
LnGrp LOS	D	D	D	D	D	D	D	C	C	D	B	B
Approach Vol, veh/h		1115			948			1767			1204	
Approach Delay, s/veh		42.2			41.5			23.9			24.0	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	51.8	14.2	26.0	9.2	55.0	13.1	27.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	45.5	15.5	28.5	7.5	50.5	14.5	29.5				
Max Q Clear Time (g_c+I1), s	7.7	21.3	9.3	17.4	4.8	18.9	8.3	16.2				
Green Ext Time (p_c), s	0.2	11.5	0.4	4.2	0.1	7.0	0.3	3.2				
Intersection Summary												
HCM 6th Ctrl Delay			31.3									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	↗
Traffic Vol, veh/h	0	10	0	1648	1170	19
Future Vol, veh/h	0	10	0	1648	1170	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	0	1791	1272	21

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	636	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	421	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	421	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	0	0
HCM LOS	B		

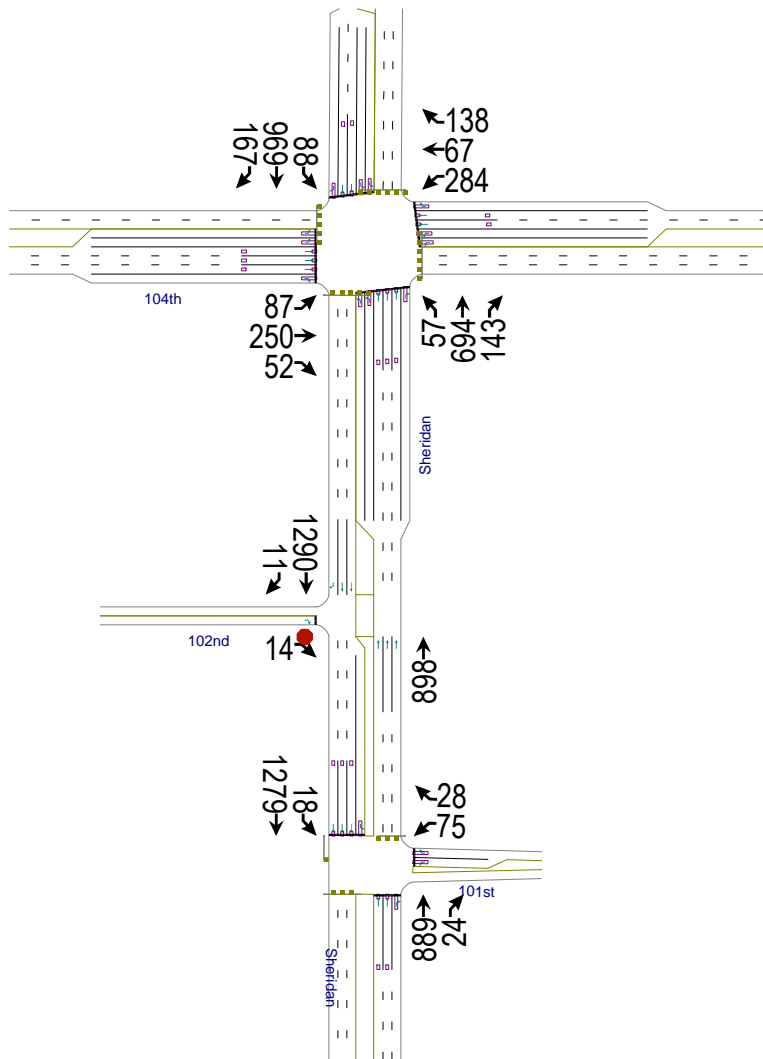
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	421	-	-
HCM Lane V/C Ratio	-	0.026	-	-
HCM Control Delay (s)	-	13.8	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Berkley
8: Sheridan & 101st

EX PM
10/15/2020



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	34	1614	43	31	1137
Future Volume (veh/h)	48	34	1614	43	31	1137
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	37	1754	47	34	1236
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	99	88	2936	1309	266	4218
Arrive On Green	0.06	0.06	0.83	0.83	0.83	0.83
Sat Flow, veh/h	1781	1585	3647	1585	261	5274
Grp Volume(v), veh/h	52	37	1754	47	34	1236
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	261	1702
Q Serve(g_s), s	2.2	1.7	12.9	0.4	3.9	4.2
Cycle Q Clear(g_c), s	2.2	1.7	12.9	0.4	16.8	4.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	99	88	2936	1309	266	4218
V/C Ratio(X)	0.52	0.42	0.60	0.04	0.13	0.29
Avail Cap(c_a), veh/h	423	377	2936	1309	266	4218
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	34.8	2.3	1.2	5.2	1.5
Incr Delay (d2), s/veh	4.2	3.1	0.9	0.1	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.7	1.0	0.0	0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.2	37.9	3.2	1.2	6.1	1.7
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	89		1801			1270
Approach Delay, s/veh	38.7		3.1			1.8
Approach LOS	D		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		67.4			67.4	8.7
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		62.9			62.9	18.1
Max Q Clear Time (g_c+I1), s		14.9			18.8	4.2
Green Ext Time (p_c), s		21.5			12.6	0.2
Intersection Summary						
HCM 6th Ctrl Delay			3.6			
HCM 6th LOS			A			



Berkley
3: Sheridan & 104th

2023 AM BKG
10/15/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↑↑↑	↗	↖↖	↑↑	↗	↖↖	↑↑↑	↗	↖↖	↑↑	↗
Traffic Volume (veh/h)	85	245	51	278	66	135	56	680	140	86	950	164
Future Volume (veh/h)	85	245	51	278	66	135	56	680	140	86	950	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	272	57	308	73	150	62	754	155	95	1053	182
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	442	137	397	548	244	144	2888	897	164	2031	906
Arrive On Green	0.05	0.09	0.09	0.11	0.15	0.15	0.04	0.57	0.57	0.05	0.57	0.57
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	94	272	57	308	73	150	62	754	155	95	1053	182
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	2.6	5.0	3.3	8.4	1.7	8.6	1.7	7.3	4.6	2.6	17.5	5.4
Cycle Q Clear(g_c), s	2.6	5.0	3.3	8.4	1.7	8.6	1.7	7.3	4.6	2.6	17.5	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	442	137	397	548	244	144	2888	897	164	2031	906
V/C Ratio(X)	0.57	0.61	0.42	0.78	0.13	0.61	0.43	0.26	0.17	0.58	0.52	0.20
Avail Cap(c_a), veh/h	302	1025	318	729	1152	514	231	2888	897	302	2031	906
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	42.8	42.0	41.8	35.5	38.4	45.4	10.7	10.2	45.3	12.7	10.1
Incr Delay (d2), s/veh	3.1	1.4	2.0	3.3	0.1	2.5	2.0	0.2	0.4	3.2	1.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.1	1.3	3.7	0.7	3.4	0.7	2.5	1.5	1.2	6.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	44.2	44.0	45.1	35.6	40.9	47.4	11.0	10.6	48.5	13.6	10.6
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		423			531			971			1330	
Approach Delay, s/veh		45.1			42.6			13.2			15.7	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	59.4	15.7	12.9	8.6	60.0	9.1	19.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	53.5	20.5	19.5	6.5	55.5	8.5	31.5				
Max Q Clear Time (g_c+I1), s	4.6	9.3	10.4	7.0	3.7	19.5	4.6	10.6				
Green Ext Time (p_c), s	0.1	6.3	0.7	1.4	0.0	9.6	0.1	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				23.2								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	↗
Traffic Vol, veh/h	0	14	0	880	1265	11
Future Vol, veh/h	0	14	0	880	1265	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	0	976	1403	12

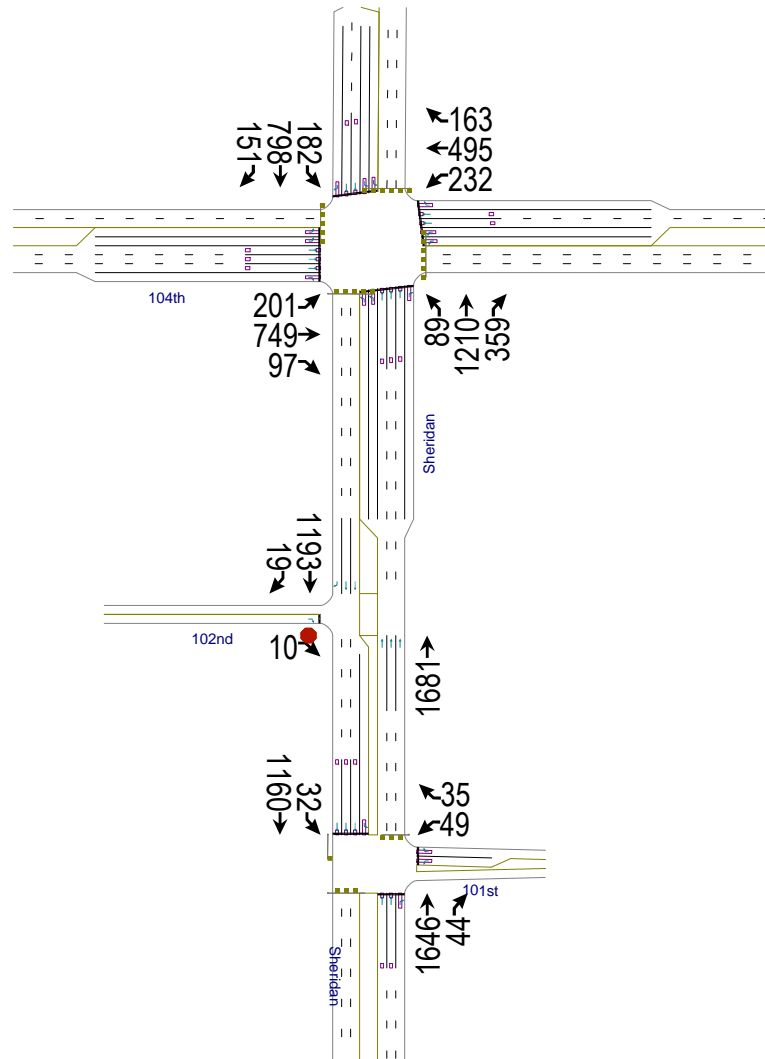
Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	702	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	381	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	381	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	381	-	-
HCM Lane V/C Ratio	-	0.041	-	-
HCM Control Delay (s)	-	14.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	74	27	872	24	18	1254
Future Volume (veh/h)	74	27	872	24	18	1254
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	30	967	27	20	1390
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	122	109	2855	1274	516	4103
Arrive On Green	0.07	0.07	0.80	0.80	0.80	0.80
Sat Flow, veh/h	1781	1585	3647	1585	567	5274
Grp Volume(v), veh/h	82	30	967	27	20	1390
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	567	1702
Q Serve(g_s), s	3.2	1.3	5.2	0.2	0.7	5.2
Cycle Q Clear(g_c), s	3.2	1.3	5.2	0.2	5.9	5.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	122	109	2855	1274	516	4103
V/C Ratio(X)	0.67	0.28	0.34	0.02	0.04	0.34
Avail Cap(c_a), veh/h	621	552	2855	1274	516	4103
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	31.1	1.9	1.4	2.7	1.9
Incr Delay (d2), s/veh	6.3	1.4	0.3	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.5	0.5	0.0	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.3	32.5	2.2	1.4	2.8	2.1
LnGrp LOS	D	C	A	A	A	A
Approach Vol, veh/h			994			1410
Approach Delay, s/veh	36.7		2.2			2.1
Approach LOS	D		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		61.0			61.0	9.3
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		56.5			56.5	24.5
Max Q Clear Time (g_c+I1), s		7.2			7.9	5.2
Green Ext Time (p_c), s		8.1			13.8	0.3
Intersection Summary						
HCM 6th Ctrl Delay			3.7			
HCM 6th LOS			A			



Berkley
3: Sheridan & 104th

2023 PM BKG
10/15/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑	↔
Traffic Volume (veh/h)	197	734	95	227	485	160	87	1186	352	178	782	148
Future Volume (veh/h)	197	734	95	227	485	160	87	1186	352	178	782	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	218	814	105	252	538	177	96	1315	390	197	867	164
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	1066	331	326	780	348	155	2290	711	267	1709	762
Arrive On Green	0.08	0.21	0.21	0.09	0.22	0.22	0.04	0.45	0.45	0.08	0.48	0.48
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	218	814	105	252	538	177	96	1315	390	197	867	164
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	6.5	15.8	5.9	7.5	14.6	10.3	2.9	20.1	18.9	5.9	17.6	6.3
Cycle Q Clear(g_c), s	6.5	15.8	5.9	7.5	14.6	10.3	2.9	20.1	18.9	5.9	17.6	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	1066	331	326	780	348	155	2290	711	267	1709	762
V/C Ratio(X)	0.76	0.76	0.32	0.77	0.69	0.51	0.62	0.57	0.55	0.74	0.51	0.22
Avail Cap(c_a), veh/h	444	1386	430	510	1032	460	247	2290	711	444	1709	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	39.1	35.2	46.5	37.7	36.0	49.3	21.5	21.2	47.4	18.7	15.8
Incr Delay (d2), s/veh	4.0	1.9	0.5	3.9	1.3	1.2	4.0	1.1	3.0	4.0	1.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	6.6	2.3	3.3	6.3	4.0	1.3	7.8	7.2	2.6	7.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.1	41.0	35.8	50.4	39.0	37.2	53.3	22.6	24.2	51.4	19.8	16.4
LnGrp LOS	D	D	D	D	D	D	D	C	C	D	B	B
Approach Vol, veh/h		1137			967			1801			1228	
Approach Delay, s/veh		42.5			41.6			24.6			24.4	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.6	51.6	14.4	26.4	9.2	55.0	13.3	27.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	44.5	15.5	28.5	7.5	50.5	13.5	30.5				
Max Q Clear Time (g_c+I1), s	7.9	22.1	9.5	17.8	4.9	19.6	8.5	16.6				
Green Ext Time (p_c), s	0.3	11.3	0.4	4.2	0.1	7.2	0.3	3.4				
Intersection Summary												
HCM 6th Ctrl Delay				31.7								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	↗
Traffic Vol, veh/h	0	10	0	1648	1170	19
Future Vol, veh/h	0	10	0	1648	1170	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	0	1827	1297	21

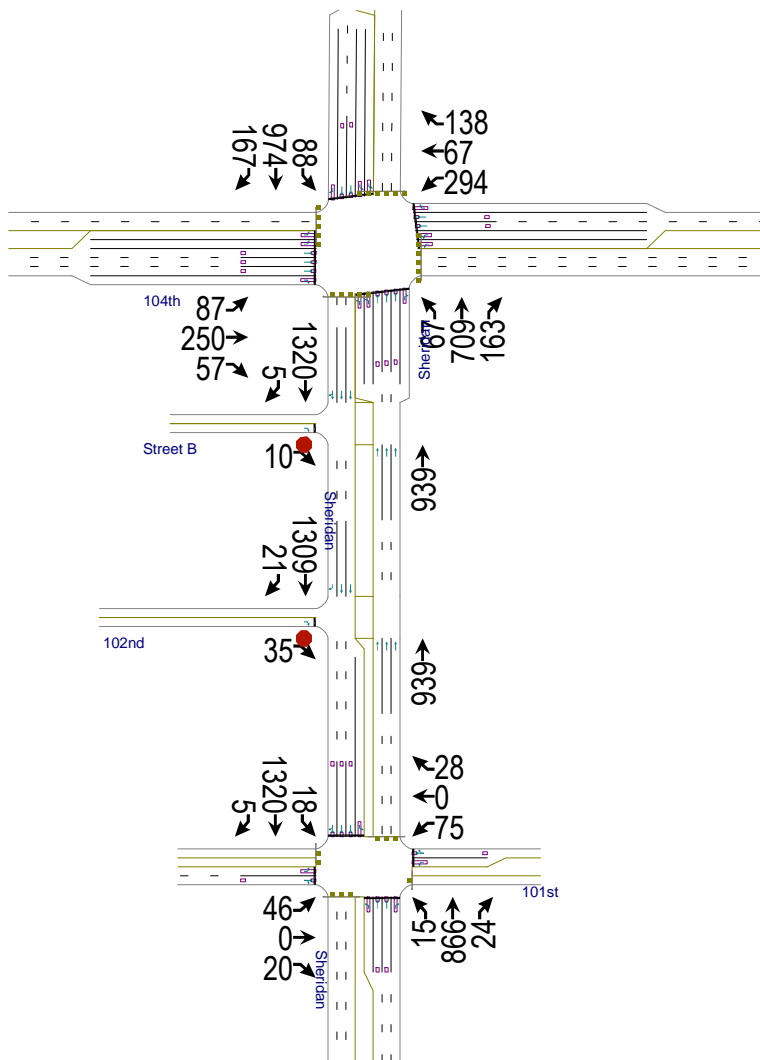
Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	649	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	412	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	412	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	412	-	-
HCM Lane V/C Ratio	-	0.027	-	-
HCM Control Delay (s)	-	14	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	34	1614	43	31	1137
Future Volume (veh/h)	48	34	1614	43	31	1137
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	38	1789	48	34	1261
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	100	89	2935	1309	258	4216
Arrive On Green	0.06	0.06	0.83	0.83	0.83	0.83
Sat Flow, veh/h	1781	1585	3647	1585	252	5274
Grp Volume(v), veh/h	53	38	1789	48	34	1261
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	252	1702
Q Serve(g_s), s	2.2	1.8	13.5	0.4	4.2	4.4
Cycle Q Clear(g_c), s	2.2	1.8	13.5	0.4	17.6	4.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	100	89	2935	1309	258	4216
V/C Ratio(X)	0.53	0.43	0.61	0.04	0.13	0.30
Avail Cap(c_a), veh/h	423	377	2935	1309	258	4216
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	34.8	2.3	1.2	5.4	1.5
Incr Delay (d2), s/veh	4.3	3.2	1.0	0.1	1.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.8	1.0	0.0	0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.3	38.0	3.3	1.2	6.5	1.7
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	91		1837			1295
Approach Delay, s/veh	38.7		3.2			1.8
Approach LOS	D		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		67.4			67.4	8.8
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		62.9			62.9	18.1
Max Q Clear Time (g_c+I1), s		15.5			19.6	4.2
Green Ext Time (p_c), s		22.2			13.0	0.2
Intersection Summary						
HCM 6th Ctrl Delay			3.7			
HCM 6th LOS			A			



Berkley
3: Sheridan & 104th

2023 AM TOTAL
10/15/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑	↖
Traffic Volume (veh/h)	85	245	56	288	66	135	66	695	160	86	955	164
Future Volume (veh/h)	85	245	56	288	66	135	66	695	160	86	955	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	272	62	319	73	150	73	771	177	95	1059	182
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	442	137	408	559	249	152	2881	894	163	2016	899
Arrive On Green	0.05	0.09	0.09	0.12	0.16	0.16	0.04	0.56	0.56	0.05	0.57	0.57
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	94	272	62	319	73	150	73	771	177	95	1059	182
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	2.6	5.0	3.6	8.8	1.7	8.6	2.0	7.6	5.4	2.6	18.0	5.5
Cycle Q Clear(g_c), s	2.6	5.0	3.6	8.8	1.7	8.6	2.0	7.6	5.4	2.6	18.0	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	163	442	137	408	559	249	152	2881	894	163	2016	899
V/C Ratio(X)	0.58	0.62	0.45	0.78	0.13	0.60	0.48	0.27	0.20	0.58	0.53	0.20
Avail Cap(c_a), veh/h	300	1018	316	724	1144	510	230	2881	894	300	2016	899
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.6	43.1	42.5	41.9	35.5	38.4	45.7	10.9	10.5	45.6	13.0	10.3
Incr Delay (d2), s/veh	3.2	1.4	2.3	3.3	0.1	2.3	2.3	0.2	0.5	3.3	1.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.1	1.5	3.8	0.7	3.4	0.9	2.6	1.8	1.2	6.6	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.8	44.5	44.8	45.2	35.6	40.7	48.0	11.2	10.9	48.9	14.0	10.8
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		428			542			1021			1336	
Approach Delay, s/veh		45.5			42.7			13.8			16.1	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	59.7	16.0	13.0	8.8	60.0	9.1	19.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	53.5	20.5	19.5	6.5	55.5	8.5	31.5				
Max Q Clear Time (g_c+I1), s	4.6	9.6	10.8	7.0	4.0	20.0	4.6	10.6				
Green Ext Time (p_c), s	0.1	6.6	0.8	1.4	0.0	9.6	0.1	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				23.5								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	↗
Traffic Vol, veh/h	0	34	0	921	1283	21
Future Vol, veh/h	0	34	0	921	1283	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	38	0	1021	1422	23

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	711	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	375	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	375	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	375	-	-
HCM Lane V/C Ratio	-	0.101	-	-
HCM Control Delay (s)	-	15.7	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Berkley
8: Sheridan & 101st

2023 AM TOTAL
10/15/2020



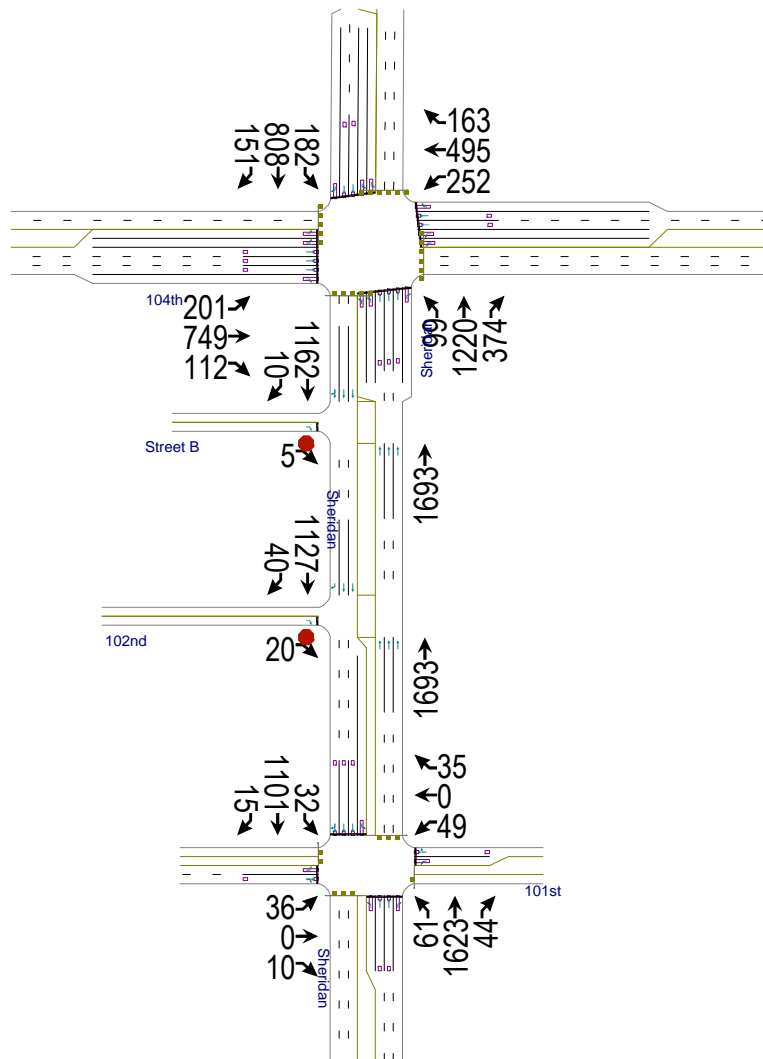
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑↑	
Traffic Volume (veh/h)	45	0	20	74	0	27	15	849	24	18	1294	5
Future Volume (veh/h)	45	0	20	74	0	27	15	849	24	18	1294	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	0	22	82	0	30	17	941	27	20	1435	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	0	97	135	0	120	307	2175	970	408	3212	13
Arrive On Green	0.06	0.00	0.06	0.08	0.00	0.08	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	1781	0	1585	1781	0	1585	370	3554	1585	581	5249	22
Grp Volume(v), veh/h	50	0	22	82	0	30	17	941	27	20	931	510
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	370	1777	1585	581	1702	1866
Q Serve(g_s), s	1.5	0.0	0.7	2.4	0.0	1.0	1.4	7.5	0.4	1.0	7.8	7.8
Cycle Q Clear(g_c), s	1.5	0.0	0.7	2.4	0.0	1.0	9.2	7.5	0.4	8.5	7.8	7.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	109	0	97	135	0	120	307	2175	970	408	2083	1142
V/C Ratio(X)	0.46	0.00	0.23	0.61	0.00	0.25	0.06	0.43	0.03	0.05	0.45	0.45
Avail Cap(c_a), veh/h	845	0	752	600	0	534	307	2175	970	408	2083	1142
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	0.0	24.0	24.1	0.0	23.4	8.0	5.5	4.1	7.8	5.6	5.6
Incr Delay (d2), s/veh	3.0	0.0	1.2	4.4	0.0	1.1	0.3	0.6	0.1	0.2	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.3	1.1	0.0	0.4	0.1	1.8	0.1	0.1	1.8	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	0.0	25.2	28.5	0.0	24.5	8.4	6.1	4.2	8.0	6.3	6.8
LnGrp LOS	C	A	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		72			112			985			1461	
Approach Delay, s/veh		26.7			27.4			6.1			6.5	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		37.4		7.8		37.4		8.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.9		25.5		32.9		18.1				
Max Q Clear Time (g_c+I1), s		11.2		3.5		10.5		4.4				
Green Ext Time (p_c), s		6.9		0.2		10.3		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				7.8								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	10	0	921	1294	5
Future Vol, veh/h	0	10	0	921	1294	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	0	1021	1435	6

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	721	-	0	0
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	317	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	317	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-


































Approach	EB	NB	SB
HCM Control Delay, s	16.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	317	-	-
HCM Lane V/C Ratio	-	0.035	-	-
HCM Control Delay (s)	-	16.8	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-



Berkley
3: Sheridan & 104th

2023 PM TOTAL
10/15/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 		 	  		 	 	
Traffic Volume (veh/h)	197	734	110	247	485	160	97	1196	367	178	792	148
Future Volume (veh/h)	197	734	110	247	485	160	97	1196	367	178	792	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	218	814	122	274	538	177	108	1326	407	197	878	164
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	289	1057	328	349	798	356	167	2262	702	267	1677	748
Arrive On Green	0.08	0.21	0.21	0.10	0.22	0.22	0.05	0.44	0.44	0.08	0.47	0.47
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	218	814	122	274	538	177	108	1326	407	197	878	164
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	6.5	15.8	6.9	8.1	14.5	10.2	3.2	20.5	20.2	5.9	18.2	6.4
Cycle Q Clear(g_c), s	6.5	15.8	6.9	8.1	14.5	10.2	3.2	20.5	20.2	5.9	18.2	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	289	1057	328	349	798	356	167	2262	702	267	1677	748
V/C Ratio(X)	0.76	0.77	0.37	0.78	0.67	0.50	0.65	0.59	0.58	0.74	0.52	0.22
Avail Cap(c_a), veh/h	445	1339	416	544	1033	461	280	2262	702	445	1677	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	39.2	35.7	46.0	37.2	35.5	49.0	22.0	21.9	47.3	19.4	16.3
Incr Delay (d2), s/veh	4.0	2.2	0.7	4.0	1.1	1.1	4.2	1.1	3.5	4.0	1.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	6.6	2.7	3.6	6.2	3.9	1.5	7.9	7.7	2.6	7.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	41.4	36.4	50.0	38.3	36.6	53.2	23.1	25.4	51.3	20.6	17.0
LnGrp LOS	D	D	D	D	D	D	D	C	C	D	C	B
Approach Vol, veh/h		1154			989			1841			1239	
Approach Delay, s/veh		42.7			41.2			25.4			25.0	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.6	51.0	15.1	26.2	9.6	54.0	13.3	28.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.5	44.5	16.5	27.5	8.5	49.5	13.5	30.5				
Max Q Clear Time (g_c+I1), s	7.9	22.5	10.1	17.8	5.2	20.2	8.5	16.5				
Green Ext Time (p_c), s	0.3	11.4	0.5	3.9	0.1	7.2	0.3	3.4				
Intersection Summary												
HCM 6th Ctrl Delay				32.1								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	↗
Traffic Vol, veh/h	0	20	0	1660	1105	39
Future Vol, veh/h	0	20	0	1660	1105	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	0	1840	1225	43

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	613	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	435	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			
Mov Cap-1 Maneuver	-	435	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	435	-	-
HCM Lane V/C Ratio	-	0.051	-	-
HCM Control Delay (s)	-	13.7	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Berkley
8: Sheridan & 101st

2023 PM TOTAL
10/15/2020



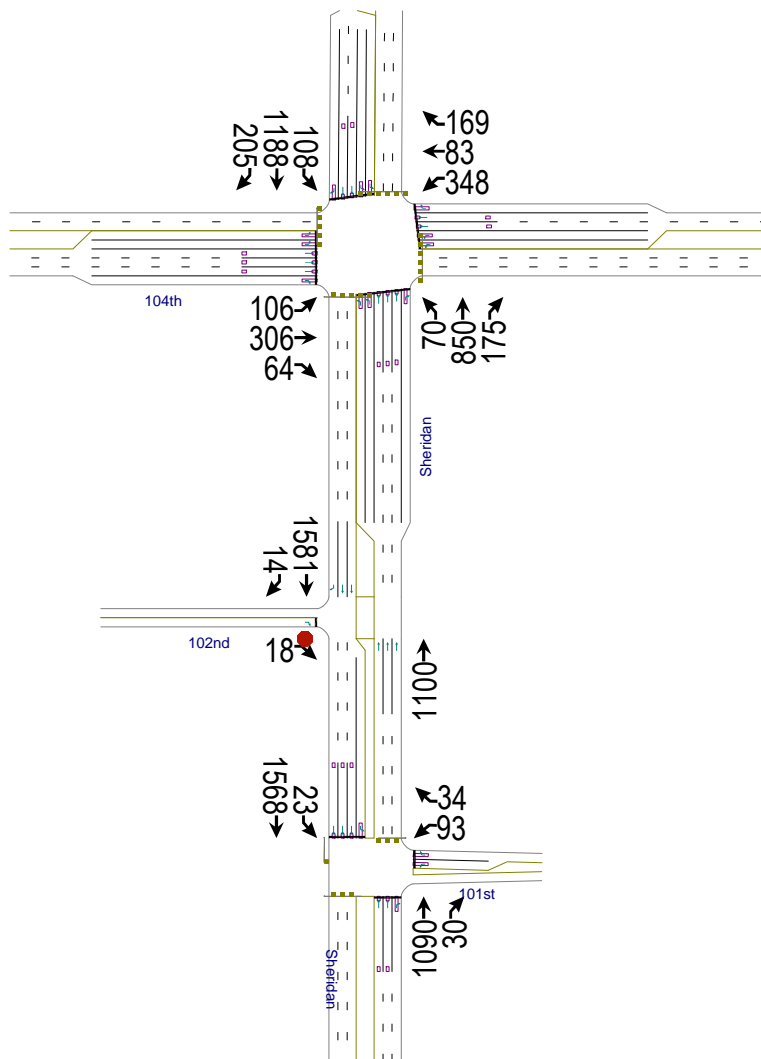
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↘		↗	↘		↗	↑↑	↗	↗	↑↑↑	
Traffic Volume (veh/h)	35	0	10	48	0	34	60	1591	43	31	1079	15
Future Volume (veh/h)	35	0	10	48	0	34	60	1591	43	31	1079	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	0	11	53	0	38	67	1764	48	34	1196	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	0	74	115	0	102	379	2368	1056	206	3457	49
Arrive On Green	0.05	0.00	0.05	0.06	0.00	0.06	0.67	0.67	0.67	0.67	0.67	0.67
Sat Flow, veh/h	1781	0	1585	1781	0	1585	460	3554	1585	259	5187	74
Grp Volume(v), veh/h	39	0	11	53	0	38	67	1764	48	34	785	428
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	460	1777	1585	259	1702	1857
Q Serve(g_s), s	1.3	0.0	0.4	1.7	0.0	1.4	4.5	20.0	0.6	6.1	6.1	6.1
Cycle Q Clear(g_c), s	1.3	0.0	0.4	1.7	0.0	1.4	10.6	20.0	0.6	26.1	6.1	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	84	0	74	115	0	102	379	2368	1056	206	2268	1238
V/C Ratio(X)	0.47	0.00	0.15	0.46	0.00	0.37	0.18	0.74	0.05	0.17	0.35	0.35
Avail Cap(c_a), veh/h	528	0	469	528	0	469	379	2368	1056	206	2268	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	0.0	27.8	27.4	0.0	27.2	6.7	6.7	3.5	15.4	4.4	4.4
Incr Delay (d2), s/veh	4.0	0.0	0.9	2.9	0.0	2.2	1.0	2.2	0.1	1.7	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.2	0.8	0.0	0.6	0.4	4.7	0.1	0.4	1.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.2	0.0	28.7	30.3	0.0	29.5	7.7	8.9	3.6	17.1	4.8	5.2
LnGrp LOS	C	A	C	C	A	C	A	A	A	B	A	A
Approach Vol, veh/h		50			91			1879			1247	
Approach Delay, s/veh		31.5			29.9			8.7			5.3	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.0		7.4		45.0		8.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		40.5		18.0		40.5		18.0				
Max Q Clear Time (g_c+I1), s		22.0		3.3		28.1		3.7				
Green Ext Time (p_c), s		13.1		0.1		6.6		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				8.3								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	5	0	1660	1139	10
Future Vol, veh/h	0	5	0	1660	1139	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	6	0	1840	1263	11

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	637	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	360	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	360	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	360	-	-
HCM Lane V/C Ratio	-	0.015	-	-
HCM Control Delay (s)	-	15.2	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0	-	-



Berkley
3: Sheridan & 104th

2040 AM BKG
10/15/2020



















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↑↑↑	↗	↖↖	↑↑	↗	↖↖	↑↑↑	↗	↖↖	↑↑	↗
Traffic Volume (veh/h)	85	245	51	278	66	135	56	680	140	86	950	164
Future Volume (veh/h)	85	245	51	278	66	135	56	680	140	86	950	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	333	69	378	90	183	76	924	190	117	1291	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	497	154	462	640	285	148	2774	861	178	1961	875
Arrive On Green	0.05	0.10	0.10	0.13	0.18	0.18	0.04	0.54	0.54	0.05	0.55	0.55
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	115	333	69	378	90	183	76	924	190	117	1291	223
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	3.4	6.5	4.2	11.0	2.2	11.1	2.2	10.4	6.4	3.4	26.4	7.6
Cycle Q Clear(g_c), s	3.4	6.5	4.2	11.0	2.2	11.1	2.2	10.4	6.4	3.4	26.4	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	497	154	462	640	285	148	2774	861	178	1961	875
V/C Ratio(X)	0.65	0.67	0.45	0.82	0.14	0.64	0.51	0.33	0.22	0.66	0.66	0.25
Avail Cap(c_a), veh/h	284	890	276	686	1032	460	217	2774	861	284	1961	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	45.0	44.0	43.5	35.6	39.3	48.4	13.2	12.2	48.1	16.3	12.1
Incr Delay (d2), s/veh	4.1	1.6	2.0	4.9	0.1	2.4	2.7	0.3	0.6	4.1	1.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.8	1.7	4.9	0.9	4.4	1.0	3.8	2.2	1.5	10.1	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	46.6	46.0	48.4	35.7	41.7	51.1	13.5	12.8	52.2	18.0	12.8
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		517			651			1190			1631	
Approach Delay, s/veh		47.8			44.8			15.8			19.8	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	60.6	18.3	14.5	8.9	61.5	9.8	23.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	55.0	20.5	18.0	6.5	57.0	8.5	30.0				
Max Q Clear Time (g_c+I1), s	5.4	12.4	13.0	8.5	4.2	28.4	5.4	13.1				
Green Ext Time (p_c), s	0.1	8.2	0.8	1.5	0.0	11.9	0.1	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				26.3								
HCM 6th LOS				C								

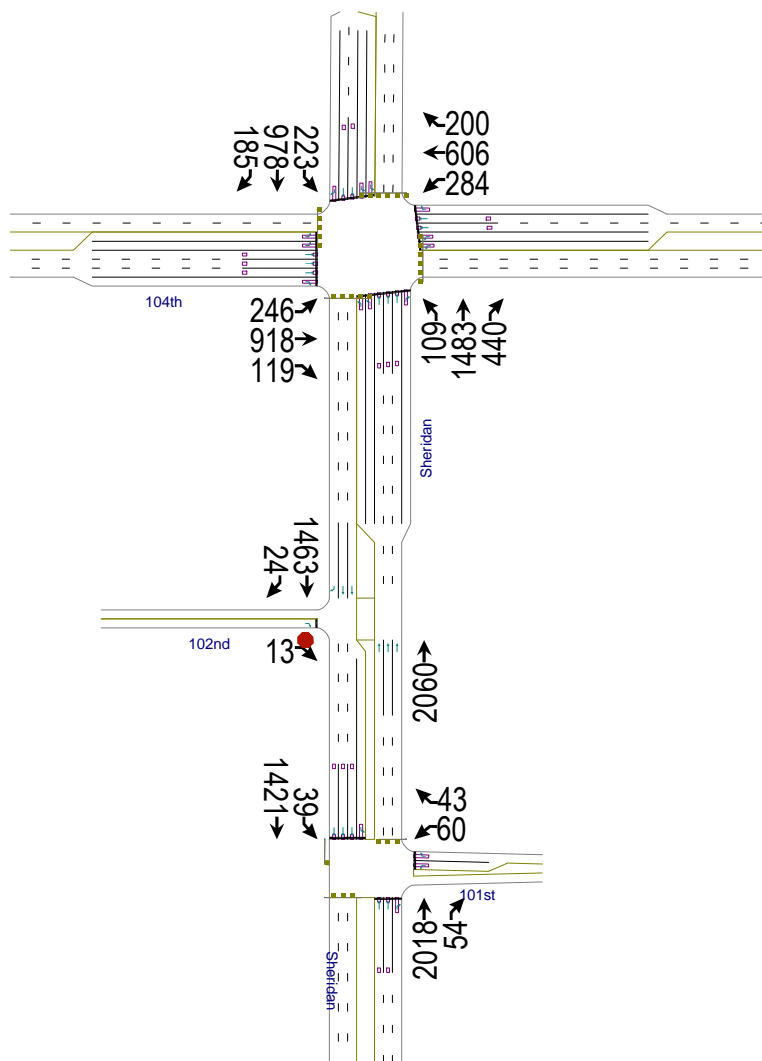
Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	↗
Traffic Vol, veh/h	0	14	0	880	1265	11
Future Vol, veh/h	0	14	0	880	1265	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	19	0	1196	1719	15

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	860	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	299	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	299	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	299	-	-
HCM Lane V/C Ratio	-	0.064	-	-
HCM Control Delay (s)	-	17.9	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			   
Traffic Volume (veh/h)	74	27	872	24	18	1254
Future Volume (veh/h)	74	27	872	24	18	1254
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	37	1185	33	24	1704
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	145	129	2829	1262	416	4064
Arrive On Green	0.08	0.08	0.80	0.80	0.80	0.80
Sat Flow, veh/h	1781	1585	3647	1585	458	5274
Grp Volume(v), veh/h	101	37	1185	33	24	1704
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	458	1702
Q Serve(g_s), s	4.1	1.6	7.5	0.3	1.2	7.5
Cycle Q Clear(g_c), s	4.1	1.6	7.5	0.3	8.7	7.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	145	129	2829	1262	416	4064
V/C Ratio(X)	0.70	0.29	0.42	0.03	0.06	0.42
Avail Cap(c_a), veh/h	545	485	2829	1262	416	4064
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	31.7	2.3	1.6	3.6	2.3
Incr Delay (d2), s/veh	5.9	1.2	0.5	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.7	0.9	0.0	0.1	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.7	32.9	2.8	1.6	3.9	2.6
LnGrp LOS	D	C	A	A	A	A
Approach Vol, veh/h	138		1218			1728
Approach Delay, s/veh	37.2		2.7			2.6
Approach LOS	D		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		63.0			63.0	10.5
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		58.5			58.5	22.5
Max Q Clear Time (g_c+I1), s		9.5			10.7	6.1
Green Ext Time (p_c), s		11.1			19.3	0.3
Intersection Summary						
HCM 6th Ctrl Delay			4.2			
HCM 6th LOS			A			



Berkley
3: Sheridan & 104th

2040 PM BKG
10/15/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↑↑↑	↗	↖↖	↑↑	↗	↖↖	↑↑↑	↗	↖↖	↑↑	↗
Traffic Volume (veh/h)	197	734	95	227	485	160	87	1186	352	178	782	148
Future Volume (veh/h)	197	734	95	227	485	160	87	1186	352	178	782	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	268	997	129	308	659	217	118	1611	478	242	1062	201
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	332	1183	367	372	865	386	175	2107	654	305	1600	714
Arrive On Green	0.10	0.23	0.23	0.11	0.24	0.24	0.05	0.41	0.41	0.09	0.45	0.45
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	268	997	129	308	659	217	118	1611	478	242	1062	201
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	8.6	21.0	7.7	9.8	19.4	13.5	3.8	30.5	28.6	7.7	26.4	9.0
Cycle Q Clear(g_c), s	8.6	21.0	7.7	9.8	19.4	13.5	3.8	30.5	28.6	7.7	26.4	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	332	1183	367	372	865	386	175	2107	654	305	1600	714
V/C Ratio(X)	0.81	0.84	0.35	0.83	0.76	0.56	0.67	0.76	0.73	0.79	0.66	0.28
Avail Cap(c_a), veh/h	414	1292	401	445	930	415	261	2107	654	383	1600	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	41.3	36.2	49.3	39.6	37.4	52.6	28.4	27.8	50.4	24.3	19.5
Incr Delay (d2), s/veh	9.2	4.9	0.6	10.6	3.5	1.5	4.5	2.7	7.1	8.7	2.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	9.1	3.0	4.7	8.6	5.3	1.7	12.3	11.6	3.7	11.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	46.2	36.8	59.9	43.1	38.9	57.0	31.1	34.9	59.1	26.5	20.5
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	C	C
Approach Vol, veh/h		1394			1184			2207			1505	
Approach Delay, s/veh		47.8			46.7			33.3			30.9	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.4	51.0	16.6	30.6	10.2	55.2	15.3	31.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	46.5	14.5	28.5	8.5	50.5	13.5	29.5				
Max Q Clear Time (g_c+I1), s	9.7	32.5	11.8	23.0	5.8	28.4	10.6	21.4				
Green Ext Time (p_c), s	0.2	10.1	0.3	3.1	0.1	8.4	0.3	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			38.5									
HCM 6th LOS			D									

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	↗
Traffic Vol, veh/h	0	10	0	1648	1170	19
Future Vol, veh/h	0	10	0	1648	1170	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	2239	1590	26

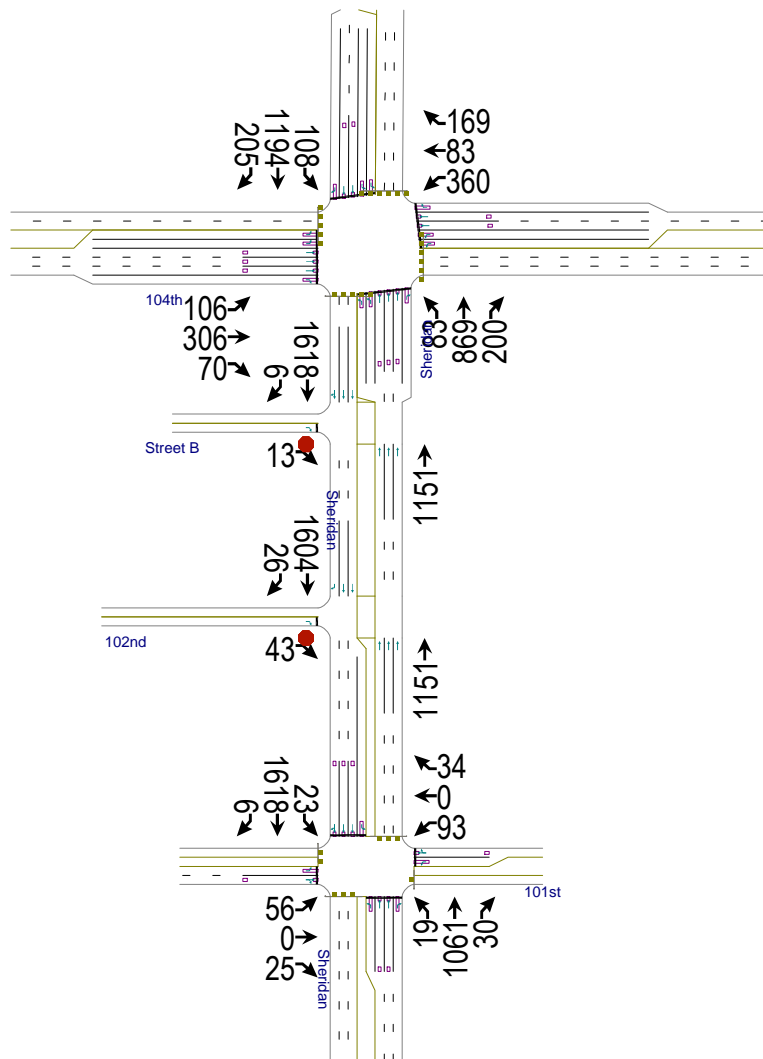
Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	795	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	330	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	330	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	330	-	-
HCM Lane V/C Ratio	-	0.041	-	-
HCM Control Delay (s)	-	16.4	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	34	1614	43	31	1137
Future Volume (veh/h)	48	34	1614	43	31	1137
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	46	2193	58	42	1545
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	105	94	2926	1305	185	4203
Arrive On Green	0.06	0.06	0.82	0.82	0.82	0.82
Sat Flow, veh/h	1781	1585	3647	1585	168	5274
Grp Volume(v), veh/h	65	46	2193	58	42	1545
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	168	1702
Q Serve(g_s), s	2.7	2.2	21.8	0.5	11.8	5.9
Cycle Q Clear(g_c), s	2.7	2.2	21.8	0.5	33.6	5.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	105	94	2926	1305	185	4203
V/C Ratio(X)	0.62	0.49	0.75	0.04	0.23	0.37
Avail Cap(c_a), veh/h	419	373	2926	1305	185	4203
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	34.9	3.1	1.2	10.9	1.7
Incr Delay (d2), s/veh	5.7	3.9	1.8	0.1	2.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.9	2.0	0.0	0.5	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.9	38.8	4.9	1.3	13.7	2.0
LnGrp LOS	D	D	A	A	B	A
Approach Vol, veh/h	111		2251			1587
Approach Delay, s/veh	40.0		4.8			2.3
Approach LOS	D		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		67.5			67.5	9.0
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		63.0			63.0	18.0
Max Q Clear Time (g_c+I1), s		23.8			35.6	4.7
Green Ext Time (p_c), s		27.2			15.0	0.2
Intersection Summary						
HCM 6th Ctrl Delay			4.8			
HCM 6th LOS			A			



Berkley
3: Sheridan & 104th

2040 AM TOTAL
10/15/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	245	56	288	66	135	66	695	160	86	955	164
Future Volume (veh/h)	85	245	56	288	66	135	66	695	160	86	955	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	333	76	391	90	183	90	944	217	117	1298	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	498	155	475	654	292	155	2752	854	178	1939	865
Arrive On Green	0.05	0.10	0.10	0.14	0.18	0.18	0.04	0.54	0.54	0.05	0.55	0.55
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	115	333	76	391	90	183	90	944	217	117	1298	223
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	3.4	6.5	4.7	11.4	2.2	11.0	2.6	10.8	7.5	3.4	27.0	7.7
Cycle Q Clear(g_c), s	3.4	6.5	4.7	11.4	2.2	11.0	2.6	10.8	7.5	3.4	27.0	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	498	155	475	654	292	155	2752	854	178	1939	865
V/C Ratio(X)	0.65	0.67	0.49	0.82	0.14	0.63	0.58	0.34	0.25	0.66	0.67	0.26
Avail Cap(c_a), veh/h	281	891	277	693	1044	466	234	2752	854	281	1939	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	44.9	44.1	43.3	35.2	38.8	48.3	13.4	12.7	48.0	16.8	12.4
Incr Delay (d2), s/veh	4.1	1.6	2.4	5.2	0.1	2.2	3.4	0.3	0.7	4.1	1.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.7	1.9	5.1	0.9	4.3	1.2	3.9	2.6	1.5	10.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	46.5	46.5	48.5	35.3	41.0	51.8	13.8	13.4	52.1	18.6	13.1
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		524			664			1251			1638	
Approach Delay, s/veh		47.8			44.6			16.5			20.3	
Approach LOS		D			D			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	60.1	18.7	14.6	9.1	60.8	9.7	23.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.4	54.9	20.7	18.0	7.0	56.3	8.4	30.3				
Max Q Clear Time (g_c+I1), s	5.4	12.8	13.4	8.5	4.6	29.0	5.4	13.0				
Green Ext Time (p_c), s	0.1	8.6	0.8	1.6	0.0	11.7	0.1	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				26.6								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	↗
Traffic Vol, veh/h	0	34	0	921	1283	21
Future Vol, veh/h	0	34	0	921	1283	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	46	0	1251	1743	29

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	872	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	294	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	294	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	294	-	-
HCM Lane V/C Ratio	-	0.157	-	-
HCM Control Delay (s)	-	19.5	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.6	-	-

Berkley
8: Sheridan & 101st

2040 AM TOTAL
10/15/2020



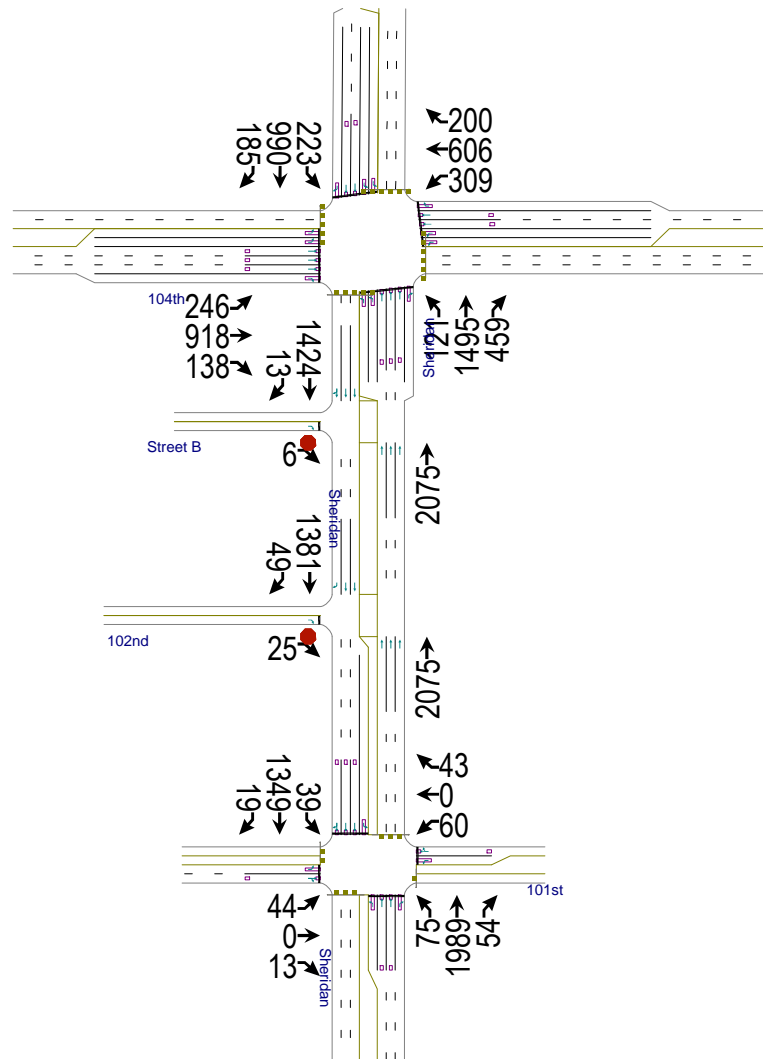
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑↑	
Traffic Volume (veh/h)	45	0	20	74	0	27	15	849	24	18	1294	5
Future Volume (veh/h)	45	0	20	74	0	27	15	849	24	18	1294	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	0	27	101	0	37	20	1154	33	24	1758	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	0	103	151	0	135	239	2196	980	329	3244	13
Arrive On Green	0.07	0.00	0.07	0.09	0.00	0.09	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1781	0	1585	1781	0	1585	271	3554	1585	472	5250	21
Grp Volume(v), veh/h	61	0	27	101	0	37	20	1154	33	24	1140	625
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	271	1777	1585	472	1702	1867
Q Serve(g_s), s	1.9	0.0	0.9	3.2	0.0	1.3	2.7	10.7	0.5	1.8	11.2	11.2
Cycle Q Clear(g_c), s	1.9	0.0	0.9	3.2	0.0	1.3	13.9	10.7	0.5	12.5	11.2	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	116	0	103	151	0	135	239	2196	980	329	2104	1154
V/C Ratio(X)	0.53	0.00	0.26	0.67	0.00	0.27	0.08	0.53	0.03	0.07	0.54	0.54
Avail Cap(c_a), veh/h	688	0	612	550	0	490	239	2196	980	329	2104	1154
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	0.0	25.9	25.8	0.0	25.0	10.4	6.3	4.3	9.8	6.4	6.4
Incr Delay (d2), s/veh	3.6	0.0	1.3	5.0	0.0	1.1	0.7	0.9	0.1	0.4	1.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.4	1.5	0.0	0.5	0.2	2.7	0.1	0.2	2.7	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	27.2	30.8	0.0	26.1	11.1	7.2	4.4	10.2	7.4	8.2
LnGrp LOS	C	A	C	C	A	C	B	A	A	B	A	A
Approach Vol, veh/h		88			138			1207			1789	
Approach Delay, s/veh		29.1			29.5			7.2			7.7	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.5		8.3		40.5		9.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		36.0		22.5		36.0		18.0				
Max Q Clear Time (g_c+I1), s		15.9		3.9		14.5		5.2				
Green Ext Time (p_c), s		8.7		0.2		12.8		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				9.0								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	10	0	921	1294	5
Future Vol, veh/h	0	10	0	921	1294	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	1251	1758	7

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	883	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	248	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	248	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-



































Approach	EB	NB	SB
HCM Control Delay, s	20.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	248	-	-
HCM Lane V/C Ratio	-	0.055	-	-
HCM Control Delay (s)	-	20.4	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-



Berkley
3: Sheridan & 104th

2040 PM TOTAL
10/15/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 		 	  		 	 	
Traffic Volume (veh/h)	197	734	110	247	485	160	97	1196	367	178	792	148
Future Volume (veh/h)	197	734	110	247	485	160	97	1196	367	178	792	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	268	997	149	336	659	217	132	1625	499	242	1076	201
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	331	1176	365	399	889	397	189	2090	649	302	1571	701
Arrive On Green	0.10	0.23	0.23	0.12	0.25	0.25	0.05	0.41	0.41	0.09	0.44	0.44
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	268	997	149	336	659	217	132	1625	499	242	1076	201
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	8.7	21.3	9.1	10.9	19.5	13.6	4.3	31.5	31.0	7.9	27.7	9.3
Cycle Q Clear(g_c), s	8.7	21.3	9.1	10.9	19.5	13.6	4.3	31.5	31.0	7.9	27.7	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	331	1176	365	399	889	397	189	2090	649	302	1571	701
V/C Ratio(X)	0.81	0.85	0.41	0.84	0.74	0.55	0.70	0.78	0.77	0.80	0.69	0.29
Avail Cap(c_a), veh/h	408	1274	395	469	949	423	227	2090	649	348	1571	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	42.1	37.4	49.5	39.4	37.2	53.1	29.2	29.1	51.2	25.5	20.4
Incr Delay (d2), s/veh	9.6	5.2	0.7	11.5	2.9	1.3	7.3	2.9	8.5	11.2	2.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	9.3	3.5	5.2	8.6	5.3	2.0	12.8	12.8	3.8	11.6	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	47.3	38.1	61.0	42.4	38.5	60.4	32.2	37.6	62.4	28.0	21.4
LnGrp LOS	E	D	D	E	D	D	E	C	D	E	C	C
Approach Vol, veh/h		1414			1212			2256			1519	
Approach Delay, s/veh		48.8			46.8			35.0			32.6	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.5	51.3	17.7	30.8	10.7	55.0	15.4	33.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	11.5	46.5	15.5	28.5	7.5	50.5	13.5	30.5				
Max Q Clear Time (g_c+I1), s	9.9	33.5	12.9	23.3	6.3	29.7	10.7	21.5				
Green Ext Time (p_c), s	0.1	9.6	0.3	3.0	0.0	8.3	0.2	3.3				
Intersection Summary												
HCM 6th Ctrl Delay				39.7								
HCM 6th LOS				D								

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	↗
Traffic Vol, veh/h	0	20	0	1660	1105	39
Future Vol, veh/h	0	20	0	1660	1105	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	2255	1501	53

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	751	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	353	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			
Mov Cap-1 Maneuver	-	353	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	353	-	-
HCM Lane V/C Ratio	-	0.077	-	-
HCM Control Delay (s)	-	16	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Berkley
8: Sheridan & 101st

2040 PM TOTAL
10/15/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑↑↗	
Traffic Volume (veh/h)	35	0	10	48	0	34	60	1591	43	31	1079	15
Future Volume (veh/h)	35	0	10	48	0	34	60	1591	43	31	1079	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	0	14	65	0	46	82	2162	58	42	1466	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	0	84	123	0	109	303	2340	1044	139	3417	47
Arrive On Green	0.05	0.00	0.05	0.07	0.00	0.07	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1781	0	1585	1781	0	1585	355	3554	1585	173	5191	71
Grp Volume(v), veh/h	48	0	14	65	0	46	82	2162	58	42	961	525
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	355	1777	1585	173	1702	1858
Q Serve(g_s), s	1.6	0.0	0.5	2.2	0.0	1.7	8.8	32.6	0.8	7.9	8.3	8.3
Cycle Q Clear(g_c), s	1.6	0.0	0.5	2.2	0.0	1.7	17.1	32.6	0.8	40.5	8.3	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	95	0	84	123	0	109	303	2340	1044	139	2241	1223
V/C Ratio(X)	0.51	0.00	0.17	0.53	0.00	0.42	0.27	0.92	0.06	0.30	0.43	0.43
Avail Cap(c_a), veh/h	521	0	464	521	0	464	303	2340	1044	139	2241	1223
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	0.0	27.8	27.7	0.0	27.5	9.1	9.2	3.7	28.7	5.0	5.0
Incr Delay (d2), s/veh	4.2	0.0	0.9	3.5	0.0	2.5	2.2	7.7	0.1	5.5	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.2	1.0	0.0	0.7	0.7	9.4	0.2	0.8	1.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	0.0	28.7	31.1	0.0	30.0	11.3	16.8	3.8	34.2	5.6	6.1
LnGrp LOS	C	A	C	C	A	C	B	B	A	C	A	A
Approach Vol, veh/h		62			111			2302			1528	
Approach Delay, s/veh		31.7			30.7			16.3			6.6	
Approach LOS		C			C			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.0		7.8		45.0		8.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		40.5		18.0		40.5		18.0				
Max Q Clear Time (g_c+I1), s		34.6		3.6		42.5		4.2				
Green Ext Time (p_c), s		5.4		0.1		0.0		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				13.2								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	
Traffic Vol, veh/h	0	5	0	1660	1139	10
Future Vol, veh/h	0	5	0	1660	1139	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	0	2255	1548	14

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	781	-	0	0
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	290	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	290	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	290	-	-
HCM Lane V/C Ratio	-	0.023	-	-
HCM Control Delay (s)	-	17.7	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

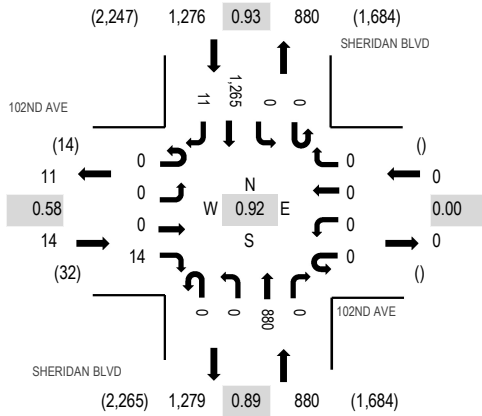
Location: 2 SHERIDAN BLVD & 102ND AVE AM

Date: Tuesday, September 29, 2020

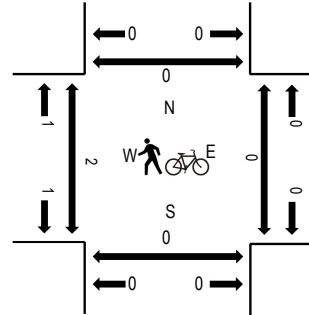
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	102ND AVE Eastbound				102ND AVE Westbound				SHERIDAN BLVD Northbound				SHERIDAN BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	3	0	0	0	0	0	0	156	0	0	0	225	0	384	1,945	0	0	0	0
7:15 AM	0	0	0	4	0	0	0	0	0	0	215	0	0	0	247	0	466	2,101	0	0	0	0
7:30 AM	0	0	0	3	0	0	0	0	0	0	211	0	0	0	287	3	504	2,170	0	0	0	0
7:45 AM	0	0	0	1	0	0	0	0	0	0	246	0	0	0	342	2	591	2,112	1	0	0	0
8:00 AM	0	0	0	9	0	0	0	0	0	0	207	0	0	0	322	2	540	2,018	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	0	0	0	216	0	0	0	314	4	535		0	0	0	0
8:30 AM	0	0	0	3	0	0	0	0	0	0	201	0	0	0	240	2	446		0	0	0	0
8:45 AM	0	0	0	8	0	0	0	0	0	0	232	0	0	0	256	1	497		0	0	0	0
Count Total	0	0	0	32	0	0	0	0	0	0	1,684	0	0	0	2,233	14	3,963		1	0	0	0
Peak Hour	0	0	0	14	0	0	0	0	0	0	880	0	0	0	1,265	11	2,170		1	0	0	0

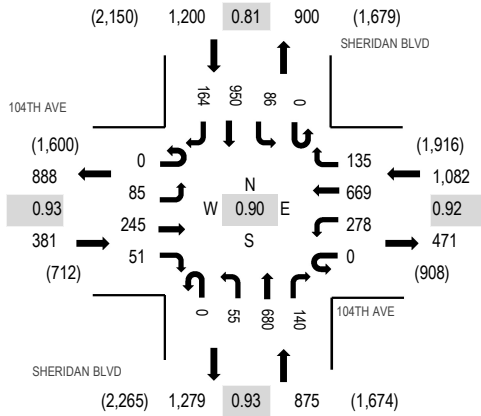
Location: 3 SHERIDAN BLVD & 104TH AVE AM

Date: Tuesday, September 29, 2020

Peak Hour: 07:30 AM - 08:30 AM

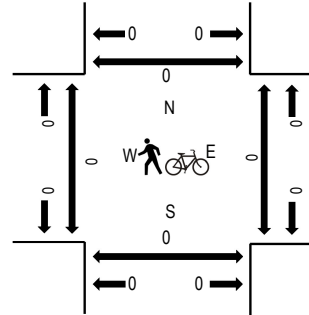
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	104TH AVE Eastbound				104TH AVE Westbound				SHERIDAN BLVD Northbound				SHERIDAN BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	11	46	6	0	41	149	23	0	12	123	25	0	9	181	32	658	3,276	0	0	0	0
7:15 AM	0	12	51	5	1	36	156	25	0	14	156	43	0	14	223	41	777	3,464	0	0	0	0
7:30 AM	0	23	59	6	0	64	208	23	0	16	170	27	0	11	212	40	859	3,538	0	0	0	0
7:45 AM	0	24	60	11	0	63	181	37	0	14	192	30	0	22	290	58	982	3,413	0	0	0	0
8:00 AM	0	14	61	16	0	73	155	42	0	10	142	49	0	30	221	33	846	3,176	0	0	0	0
8:15 AM	0	24	65	18	0	78	125	33	0	15	176	34	0	23	227	33	851		0	0	0	0
8:30 AM	0	28	60	6	0	57	139	30	0	11	157	37	0	15	176	18	734		0	0	0	0
8:45 AM	0	25	72	9	0	53	101	23	0	11	166	44	0	20	193	28	745		0	0	0	0
Count Total	0	161	474	77	1	465	1,214	236	0	103	1,282	289	0	144	1,723	283	6,452		0	0	0	0
Peak Hour	0	85	245	51	0	278	669	135	0	55	680	140	0	86	950	164	3,538		0	0	0	0

Location: 1 SHERIDAN BLVD & 101ST AVE PM

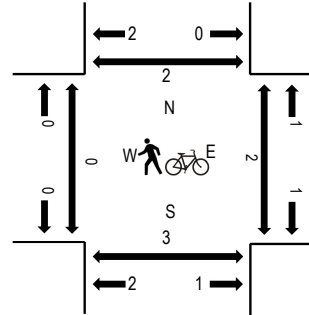
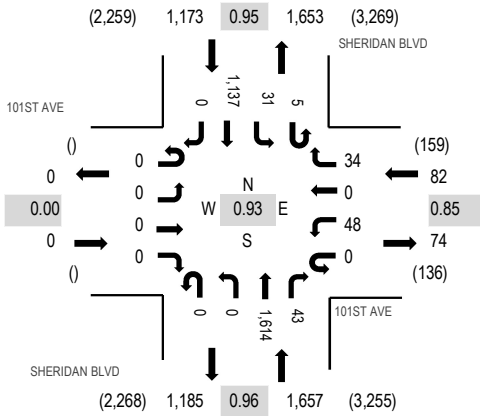
Date: Tuesday, September 29, 2020

Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	101ST AVE Eastbound				101ST AVE Westbound				SHERIDAN BLVD Northbound				SHERIDAN BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	11	0	10	0	0	387	14	1	12	302	0	737	2,906	0	0	1	0
4:15 PM	0	0	0	0	0	10	0	11	0	0	436	7	2	5	310	0	781	2,912	0	0	0	0
4:30 PM	0	0	0	0	0	11	0	4	0	0	363	10	1	12	254	0	655	2,826	0	1	2	0
4:45 PM	0	0	0	0	0	12	0	10	0	0	389	13	2	10	297	0	733	2,853	0	1	0	0
5:00 PM	0	0	0	0	0	15	0	9	0	0	426	13	0	4	276	0	743	2,767	0	0	1	2
5:15 PM	0	0	0	0	0	8	0	11	0	0	423	5	2	7	239	0	695		0	2	0	0
5:30 PM	0	0	0	0	0	10	0	6	0	0	410	4	3	10	239	0	682		0	0	0	0
5:45 PM	0	0	0	0	0	8	0	13	0	0	347	8	3	2	266	0	647		0	0	0	0
Count Total	0	0	0	0	0	85	0	74	0	0	3,181	74	14	62	2,183	0	5,673		0	4	4	2
Peak Hour	0	0	0	0	0	48	0	34	0	0	1,614	43	5	31	1,137	0	2,912		0	2	3	2

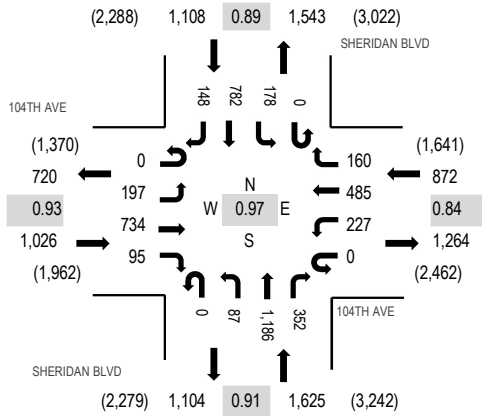
Location: 3 SHERIDAN BLVD & 104TH AVE PM

Date: Tuesday, September 29, 2020

Peak Hour: 04:45 PM - 05:45 PM

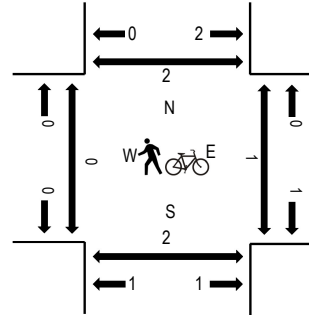
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	104TH AVE Eastbound				104TH AVE Westbound				SHERIDAN BLVD Northbound				SHERIDAN BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	1	44	156	34	0	70	98	40	0	20	258	96	0	45	200	52	1,114	4,555	0	0	0	0
4:15 PM	0	54	166	19	0	51	106	30	0	33	344	98	0	47	255	36	1,239	4,630	1	0	0	0
4:30 PM	0	48	182	22	0	66	110	40	0	18	259	79	0	47	175	22	1,068	4,562	0	0	0	0
4:45 PM	0	43	166	21	0	59	105	26	0	17	291	88	0	45	233	40	1,134	4,631	0	0	0	0
5:00 PM	0	39	207	27	0	75	143	43	0	26	296	84	0	37	180	32	1,189	4,578	0	0	1	0
5:15 PM	0	47	175	24	0	45	124	35	0	20	332	99	0	60	178	32	1,171		0	0	0	2
5:30 PM	0	68	186	23	0	48	113	56	0	24	267	81	0	36	191	44	1,137		0	0	0	0
5:45 PM	0	44	151	15	0	45	89	24	0	29	294	89	0	42	223	36	1,081		0	0	0	0
Count Total	1	387	1,389	185	0	459	888	294	0	187	2,341	714	0	359	1,635	294	9,133		1	0	1	2
Peak Hour	0	197	734	95	0	227	485	160	0	87	1,186	352	0	178	782	148	4,631		0	0	1	2

Baden, Jennifer

From: Greg Jacyszyn <gvox88@gmail.com>
Sent: Tuesday, August 8, 2023 11:59 AM
To: PCPubComm
Subject: [EXTERNAL] Planning Commission - Semper Gardens

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.

There are too many items to mention - But I will highlight those that remain a very large concern for us regarding the approval of this change in density.

First, this directly conflicts with the city's established growth plan - which only allows for R3.5. Rather than chalking this up to a "times have changed" response, perhaps the city - which has been besieged by requests for growth like this - should take the time to refocus on what is best for the city - not just singular plots of land. The approvals of several other developments in this same style and density should prompt the city to act responsibly instead of being reactive.

Second, along with resource issues like water, and a safe number of exits (which some board members just want "on the record" so they can claim they raised the issue - a clear dodge of responsibility), there are environmental concerns. The reckless nature of the tear down if the houses on site - and the asbestos results from said homes - doesn't bode well for the responsible building practices of the involved parties. Quick actions result in errors like this / and the impacts are almost always negative for people and their health.

Third, there is a concern that without proper language, the slow development process (over 3 years) will result on another request for refining in the future to an even higher density for undeveloped lands. If this approval goes through I would recommend that the city places language to freeze this density for a decade or more. Passing the buck on this issue - saying it's not the city's position to limit within the plan approval - will most assuredly come back to haunt residents. And we can guarantee that the any poor council decisions will also come back to negatively impact those council members in the future.

We request that you listen to the citizens on this and deny this development from proceeding. Affordable housing is a false claim when the city is fully invested in the new downtown area - which is the proper place for nearly half of the units being approved in this request.

Greg Jacyszyn
303-404-0380
12050 Benton Street
Westminster, CO 80020

Baden, Jennifer

From: Alan Farb <alanafarb@gmail.com>
Sent: Tuesday, August 8, 2023 11:18 AM
To: PCPubComm
Subject: [EXTERNAL] Testimony for Public Hearing, Tuesday, Aug. 8, 2023: Re. Semper Gardens, Blocks 1.,2,3,16,17 and Tract 32

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.

Testimony for Public Hearing, Tuesday, Aug. 8, 2023: Re. Semper Gardens, Blocks 1.,2,3,16,17 and Tract 32

i. Have not seen Traffic entrance/exit plan(s) for the proposed Development. Major concern is that entrance to and exit from Semper Development onto Sheridan Blvd. will use/incorporate existing traffic signal at 101st Ave, which goes into/through Hyland Greens neighborhood. 101st Ave. travels east until it fluidly merges northward with Wolff St., which connects to 104th Ave.; this is a major street through Hyland Greens neighborhood. The posted speed limit is 25 MPH. When traffic along North Sheridan Blvd. between 98th & 104th Avenues backs up, traffic diverts heavily along 10st Ave./ Wolff St. to connect with 104th Ave. With Hampshire Park entrance abutting 101st Ave., many children, adults and their pets walk along and/or cross 101st Ave. to access the Park (a single marked and designated crosswalk, with signage, notes the crosswalk); some drivers ignore pedestrians. Although three (3) street "calming devices" have been installed, only one actually "calms" traffic; the other two (2) do not effectively slow traffic, despite the Developers' otherwise public claim to Council and Public. Therefore, it is important to the safety, noise and environmental needs of the Hyland Greens neighborhood that traffic from Semper Development is not directed, via the traffic signal at 101st Ave., through Hyland Greens. Should the City choose to incorporate the existing 101st Ave. & Sheridan Blvd. intersection, the Planning Commission should have all traffic exiting the Semper Development to be directed to turn Left or Right only on to Sheridan Blvd. (emergency vehicles excepted). This can be accomplished with a physical construction and/or traffic signage. NOTE: Driving through Hyland Greens to reach 104th Ave. to head east in order to avoid the traffic signal at 104th Ave. & Sheridan Blvd. will naturally occur without restrictions developed by the City's traffic engineers. If, of course, the entrance from Sheridan Blvd. is a new signal at 102nd, Ave., the above might be moot, except that traffic might naturally back up up on Sheridan Blvd., with traffic signals at 101st Ave, 102nd Ave., and 104th Ave.

2. In a Q&A telephone informational forum, the developers/builders of Semper Gardens twice would not commit to incorporating water-conservation appliances in the home/townhomes they are building. For example: dual-flush toilets; shower/tub flow and temperature controls; low-volume shower-heads and faucets; front-loading washing machines.

3. The Semper Development renderings depict a lot of "greenery," meaning trees, shrubs, grass and other foliage. While there was some tepid pronouncements from the Developers that the trees would be hardy, drought-resistant and water-sipping, rather than thirsty, water-guzzling grass, a contracted commitment to install only xeriscape lawns must be secured by the City.

Thank you.

Alan Farb
4810 W 102nd Ave.
Westminster, CO 80031

Baden, Jennifer

From: Lucy <edandlucy@thesiebers.com>
Sent: Tuesday, August 8, 2023 10:54 AM
To: PCPubComm
Subject: [EXTERNAL] 10155 Sheridan Blvd, Westminster_City of Westminster_05.31.23_TWS - Google Drive

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 don't know if this will help or not Regarding the Berkeley homes meeting. The last two files on this link are in PDF format. For whatever reason, I am unable to copy them separately and forward it to you. Consequently, all the preceding pages are included. Can you just print out the last two files? They contain the summary of information.

I do appreciate you drawing this to my attention.

[https://urldefense.com/v3/__https://drive.google.com/drive/mobile/folders/1KbXRpp0CrthcDcujuhbcsc4guD00UBDBH?usp=sharing&pli=1__!!E0sFAW4Yvqtm762YPgl2lqOuwETqfVR59GTHp1b2Rj7Db2R4fra5mH08AVbsLWTiDUuCBR3jdL3HFwJLmoNzOFWbiB8LUeKKzdy4pToS3DIJVxcozGGHQ\\$](https://urldefense.com/v3/__https://drive.google.com/drive/mobile/folders/1KbXRpp0CrthcDcujuhbcsc4guD00UBDBH?usp=sharing&pli=1__!!E0sFAW4Yvqtm762YPgl2lqOuwETqfVR59GTHp1b2Rj7Db2R4fra5mH08AVbsLWTiDUuCBR3jdL3HFwJLmoNzOFWbiB8LUeKKzdy4pToS3DIJVxcozGGHQ$)

Sent from my iPhone



12421 W. 49TH AVENUE, UNIT #6
WHEAT RIDGE, CO 80033 (303) 463-8270

BULK ASBESTOS TEST REPORT - POINT COUNT METHOD
PAGE 1 OF 2

CLIENT:
COLORADO DEPARTMENT OF HEALTH
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246

ANALYSIS DATE: 6-5-23
REPORTING DATE: 6-5-23
REQUEST DATE: 6-5-23
CLIENT JOB NO.: NONE GIVEN
CLIENT PROJECT: 10155 SHERIDAN,
WESTMINSTER
DCMSL PROJECT: CDOH1980
CROSS REFERENCE: CDOH1979

PERCENTAGE COMPOSITION BY AREA/VOLUME

DCM LAB NO.:	-1RR	-2RR
SAMPLE DATE:	5-31-23	5-31-23
% OF TOTAL SAMPLE:	1.0%	3.0%
CLIENT NO.:	10155-9	10155-10
	PART B	PART C

ASBESTIFORM MINERAL FIBERS:

CHRYSTILE	1.00%	1.00%
AMOSITE	ND	ND
CROCIDOLITE	ND	ND
TREMOLITE-ACTINOLITE	ND	ND
ANTHOPHYLLITE	ND	ND
TOTAL ASBESTOS COUNTED	1.00%	1.00%
TOTAL ASBESTOS IN LAYER	1.00%	1.00%
TOTAL ASBESTOS IN SAMPLE	0.01%	0.03%

NOTES: SAMPLE NO. 1RR IS WHITE DRYWALL MUD. SAMPLE NO. 2RR IS WHITE TEXTURE.

ND - NONE DETECTED

DEFINITIONS

- TOTAL ASBESTOS COUNTED = THE AMOUNT OF ASBESTOS PRESENT IN THE SAMPLE EXPRESSED AS A PERCENT.
- TOTAL ASBESTOS IN LAYER = THE PERCENT OF SAMPLE REMAINING TIMES ASBESTOS COUNTED EXPRESSED AS A PERCENT.
- TOTAL ASBESTOS IN SAMPLE = THE PERCENT OF TOTAL SAMPLE (FROM PLM/SM ANALYSIS) TIMES THE TOTAL ASBESTOS IN LAYER (IF NO ASBESTOS IN OTHER LAYERS).

THE SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION. THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED. THE RESULTS OF THIS REPORT APPLY TO THE SAMPLES AS RECEIVED FROM THE CLIENT AND THE VALIDITY OF THE RESULTS IS DEPENDENT ON ANY INFORMATION SUPPLIED BY THE CLIENT. CLIENT SAMPLE NUMBERS, SAMPLE DATES, CLIENT JOB NUMBER AND PROJECT ARE PROVIDED BY THE CLIENT. THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.

ALL INFORMATION PROVIDED BY CLIENTS, INCLUDING SAMPLE RESULTS, IS CONSIDERED PROPRIETARY AND CONFIDENTIAL. CLIENT RESULTS AND OTHER INFORMATION WILL NOT BE RELEASED TO ANYONE BUT THE CLIENT EXCEPT BY CLIENT REQUEST. WHEN THE LABORATORY IS REQUIRED BY LAW OR AUTHORIZED BY CONTRACTUAL ARRANGEMENT TO RELEASE CONFIDENTIAL INFORMATION, THE CLIENT OR INDIVIDUAL CONCERNED SHALL, UNLESS PROHIBITED BY LAW, BE NOTIFIED OF THE INFORMATION PROVIDED.

Quantitative Bulk Sample Analysis (Point Count)

QUANTITATIVE BULK SAMPLE ANALYSIS PROCEDURES:

DCM Science Laboratory, Inc. (DCMSL) analyzes bulk samples in accordance with the National Emission Standard for Hazardous Air Pollutants (NESHAP) for asbestos (Federal Register, Vol. 55, N. 224, pp 48406-48433, 11/20/90). The analytical procedures followed are described in "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (USEPA 600/M4-83-020, 1982) with minor modifications recommended by the Atmospheric Research and Exposure Assessment Laboratory, USEPA, Research Triangle, NC.

Samples analyzed by the point count method are milled to homogenize the sample, prepared on microscope slides and point counted using polarized light microscopy (PLM) in conjunction with a point counting stage and counter. One hundred counts are performed on four separate preparations of each sample for a total of 400 points. If asbestos is identified but not counted during the point counting procedure, total asbestos is reported as <0.25% and presence is noted on the report. Other preparation procedures including ashing and acid washing may be performed with client permission to improved accuracy in determining asbestos concentrations. All samples are archived for six months unless other arrangements are made by the client.

ACCREDITATION:

DCMSL is accredited by NVLAP (since April 1, 1989). DCMSL complies with NVLAP requirements unless otherwise noted.

ENDORSEMENT:

The results of this analysis must not be used by the client to claim endorsement by NVLAP or any agency of the U. S. Government.

This test report relates only to the items tested. This report may not be reproduced except in full without the written approval of the laboratory.

The analysis was performed by:



John Silverman, Analyst



NVLAP Lab Code 101258-0

6-5-23

Date

Ron Schott
Laboratory Director



12421 W. 49TH AVENUE, UNIT #6
 WHEAT RIDGE, CO 80033 (303) 463-8270

BULK ASBESTOS TEST REPORT
 PAGE 1 OF 4

CLIENT:
 COLORADO DEPARTMENT OF HEALTH
 4300 CHERRY CREEK DRIVE SOUTH
 DENVER, CO 80246

ANALYSIS DATE: 6-5-23
 REPORTING DATE: 6-5-23
 RECEIPT DATE: 5-31-23
 CLIENT JOB NO.: NONE GIVEN
 CLIENT PROJECT: 10155 SHERIDAN, WESTMINSTER
 DCMSL PROJECT: CDOH1979

PERCENTAGE COMPOSITION BY VISUAL ESTIMATE

DCMSL SAMPLE NUMBER	SAMPLE NUMBER (C)	SAMPLE DATE (C)	DESCRIPTION	PERCENT OF SAMPLE	ASBESTOS TYPE	RANGE	%	TOTAL ASBESTOS IN SAMPLE	OTHER FIBROUS CONSTITUENTS	NON-FIBROUS CONSTITUENTS	TOTAL PERCENTAGE IDENTIFIED MATERIALS
-1	10155-01	5-31-23	A. RED ROCK	22.0%			ND	_____	0.0	100.0	100.0
			B. BLACK TAR	35.0%		ND	0.0		100.0	100.0	
			C. BROWN FIBROUS TAR	43.0%		ND	65.0		35.0	100.0	
								ND			
-2	10155-02	5-31-23	A. GREEN ROCK	30.0%			ND	_____	0.0	100.0	100.0
			B. BLACK TAR	32.0%		ND	0.0		100.0	100.0	
			C. BROWN FIBROUS TAR	38.0%		ND	65.0		35.0	100.0	
								ND			
-3	10155-03	5-31-23	A. MULTICOLORED RESINOUS TILE	40.0%			ND	_____	20.0	80.0	100.0
			B. MULTICOLORED FIBROUS	60.0%		ND	100.0		0.0	100.0	
								ND			
-4	10155-04	5-31-23	A. MULTICOLORED ROCK	27.0%			ND	_____	0.0	100.0	100.0
			B. BLACK TAR	30.0%		ND	0.0		100.0	100.0	
			C. BLACK FIBROUS TAR	43.0%		ND	20.0		80.0	100.0	
								ND			
-5	10155-05	5-31-23	A. WHITE FIBROUS WOVEN	8.0%			ND	_____	100.0	0.0	100.0
			B. MULTICOLORED WALLPAPER	92.0%		ND	97.0		3.0	100.0	
								ND			
-6	10155-06	5-31-23	A. MULTICOLORED RESINOUS TILE	42.0%			ND	_____	0.0	100.0	100.0
			B. WHITE FIBROUS	58.0%	CHRYBOTILE	[55-65]	60.0		2.0	38.0	100.0
								34.8			
-7	10155-07	5-31-23	A. GREY/WHITE PAINT	6.0%			ND	_____	0.0	100.0	100.0
			B. TAN PERLITIC CEILING TILE	94.0%		ND	74.0		26.0	100.0	
								ND			



12421 W. 49TH AVENUE, UNIT #6
 WHEAT RIDGE, CO 80033 (303) 463-8270

BULK ASBESTOS TEST REPORT
 PAGE 2 OF 4

CLIENT:
 COLORADO DEPARTMENT OF HEALTH
 4300 CHERRY CREEK DRIVE SOUTH
 DENVER, CO 80246

ANALYSIS DATE: 6-5-23
 REPORTING DATE: 6-5-23
 RECEIPT DATE: 5-31-23
 CLIENT JOB NO.: NONE GIVEN
 CLIENT PROJECT: 10155 SHERIDAN, WESTMINSTER
 DCMSL PROJECT: CDOH1979

PERCENTAGE COMPOSITION BY VISUAL ESTIMATE

DCMSL SAMPLE NUMBER	SAMPLE NUMBER (C)	SAMPLE DATE (C)	DESCRIPTION	PERCENT OF SAMPLE	ASBESTOS TYPE	RANGE	%	TOTAL ASBESTOS IN SAMPLE	OTHER FIBROUS CONSTITUENTS	NON-FIBROUS CONSTITUENTS	TOTAL PERCENTAGE IDENTIFIED MATERIALS
-8	10155-08	5-31-23	A. GREY TRANSITE	100.0%	CHRYSOTILE	[5-15]	8.0	8.0	0.0	92.0	100.0
-9	10155-09	5-31-23	A. WHITE MASTIC	0.5%			ND		0.0	100.0	100.0
			B. WHITE DRYWALL MUD	1.0%	CHRYSOTILE	[1-5]	1.0		0.0	99.0	100.0
			C. SILVER FOIL	3.0%			ND		0.0	100.0	100.0
			D. TAN FIBROUS	23.0%			ND		100.0	0.0	100.0
			E. WHITE DRYWALL	72.5%			ND		1.0	99.0	100.0
								<0.1			
-10	10155-10	5-31-23	A. GREY DEBRIS	2.0%			ND		96.0	4.0	100.0
			B. GREEN PAINT	2.0%			ND		0.0	100.0	100.0
			C. WHITE TEXTURE	3.0%	CHRYSOTILE	[1-5]	1.0		0.0	99.0	100.0
			D. TAN FIBROUS	14.0%			ND		100.0	0.0	100.0
			E. WHITE DRYWALL	79.0%			ND		1.0	99.0	100.0
								<0.1			
-11	10155-11	5-31-23	A. GREY/BLUE RESIN	7.0%			ND		0.0	100.0	100.0
			B. GREEN RESINOUS TILE	40.0%			ND		20.0	80.0	100.0
			C. BROWN FIBROUS TAR	53.0%			ND		65.0	35.0	100.0
								ND			
-12	10155-12	5-31-23	A. BLACK TAR	0.5%	CHRYSOTILE	[1-5]	4.0		0.0	96.0	100.0
			B. MULTICOLORED FIBROUS	32.0%			ND		100.0	0.0	100.0
			C. TAN RESINOUS TILE	67.5%			ND		20.0	80.0	100.0
								<0.1			



12421 W. 49TH AVENUE, UNIT #6
 WHEAT RIDGE, CO 80033 (303) 463-8270

BULK ASBESTOS TEST REPORT
 PAGE 3 OF 4

CLIENT:
 COLORADO DEPARTMENT OF HEALTH
 4300 CHERRY CREEK DRIVE SOUTH
 DENVER, CO 80246

ANALYSIS DATE: 6-5-23
 REPORTING DATE: 6-5-23
 RECEIPT DATE: 5-31-23
 CLIENT JOB NO.: NONE GIVEN
 CLIENT PROJECT: 10155 SHERIDAN, WESTMINSTER
 DCMSL PROJECT: CDOH1979

PERCENTAGE COMPOSITION BY VISUAL ESTIMATE

DCMSL SAMPLE NUMBER	SAMPLE NUMBER (C)	SAMPLE DATE (C)	DESCRIPTION	PERCENT OF SAMPLE	ASBESTOS TYPE	RANGE	%	TOTAL ASBESTOS IN SAMPLE	OTHER FIBROUS CONSTITUENTS	NON-FIBROUS CONSTITUENTS	TOTAL PERCENTAGE IDENTIFIED MATERIALS
-13	10155-13	5-31-23	A. WHITE PAINT	2.0%			ND		0.0	100.0	100.0
			B. YELLOW MASTIC	5.0%			ND		0.0	100.0	100.0
			C. TAN MASTIC	7.0%			ND		0.0	100.0	100.0
			D. TAN FIBROUS	20.0%			ND		100.0	0.0	100.0
			E. WHITE DRYWALL	66.0%			ND		1.0	99.0	100.0
								ND			

FOR CALCULATION PURPOSES, TRACE (TR) IS ASSUMED TO BE 0.5%.

(C) INFORMATION PROVIDED BY CLIENT

(I) INSEPARABLE LAYERS

ND - NONE DETECTED

THE SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION. THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED. THE RESULTS OF THIS REPORT APPLY TO THE SAMPLES AS RECEIVED FROM THE CLIENT. THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.

ALL INFORMATION PROVIDED BY OUR CLIENT, INCLUDING SAMPLE RESULTS, IS CONSIDERED PROPRIETARY AND CONFIDENTIAL. CLIENT RESULTS AND OTHER INFORMATION WILL NOT BE RELEASED TO ANYONE BUT THE CLIENT EXCEPT BY CLIENT REQUEST. WHEN THE LABORATORY IS REQUIRED BY LAW OR AUTHORIZED BY CONTRACTUAL ARRANGEMENT TO RELEASE CONFIDENTIAL INFORMATION, THE CLIENT OR INDIVIDUAL CONCERNED SHALL, UNLESS PROHIBITED BY LAW, BE NOTIFIED OF THE INFORMATION PROVIDED.



12421 W. 49TH AVENUE, UNIT #6
WHEAT RIDGE, CO 80033 (303) 463-8270

DCMSL Project No.: **CDOH1979**

Page 4 of 4

Bulk Sample Analysis

BULK SAMPLE ANALYSIS PROCEDURES:

DCM Science Laboratory, Inc (DCMSL) analyzes bulk asbestos samples following procedures developed by the McCrone Research Institute and in compliance with guidelines established by the Environmental Protection Agency (EPA-600/M4-82-020, 1982 and EPA-600/R-93/116, July 1993).

Bulk samples are prepared for analysis using a 10X-80X stereo microscope in a hepa filter hood which provides a contamination-free environment. The sample is then analyzed by polarized light microscopy (PLM) at 100X. When the sample consists of more than one layer, each layer is prepared and analyzed separately. Fiber and matrix materials are identified by the characterization of optical properties including color and pleochroism, form, cleavage, relief, birefringence, extinction, orientation, twinning, interference figure and other distinguishing features. Dispersion staining is also used to further aid in mineral identification. All percentages of asbestos, other fibers and non-fibrous constituents are calculated from the values obtained from analyses using the stereo and PLM microscopes. In-house and NIST standards as well as a chart prepared by R. D. Terry and G. V. Chillingier for "The Journal of Sedimentary Petrology", (Volume 24, pp.229-334, 1955) provide a guide for estimating percentages. All samples are archived for six months unless other arrangements are made by the client.

ACCREDITATION:

DCMSL is accredited by NVLAP (since April 1, 1989). Our NVLAP Lab Code is 101258-0. DCMSL complies with NVLAP requirements unless otherwise noted.

ENDORSEMENT:

The results of this analysis must not be used by the client to claim endorsement by NVLAP or any agency of the U. S. Government.

The analysis was performed by:

John Silverman, Analyst

6-5-23

Date



NVLAP Lab Code 101258-0

Ron Schott
Laboratory Director

Sample submitted by:

Trevor Strosnider
CDPH&E - APCD - Asbestos Unit
4300 Cherry Creek Drive South
Denver, CO 80246-1530
303-692-3180 Fax 303-782-0278

Invoice to:

CDPH&E
APCD - Asbestos Unit
APCD-IE-B1
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Project Title: 10155 Sheridan, Westminster

Project #: _____

Special Instructions:

- Weekend/After Hours Rush
- 2 Hour Rush
- 24 Hour Rush
- Regular
- Other: _____

Bulk Analysis Procedure:

- Standard EPA600/M4-82-020
- Progressive Samples
- Other: tape/dust, water, soil, cement, tars, etc.
- Pb by Flame AA: ___ paint ___ soil ___ dust wipe ___ air
- Pb by ICP: ___ paint ___ soil ___ dust wipe ___ air

Pile 1 = no basement
Pile 2 = house w/ basement

Sample #:	Sample Date:	Sample Location:
10155-01	05-31-23	Pile 1 Perimeter
10155-02	05-31-23	Pile 1 Perimeter
10155-03	05-31-23	Pile 1 Perimeter
10155-04	05-31-23	Pile 1 Perimeter
10155-05	05-31-23	Pile 1 Perimeter
10155-06	05-31-23	Pile 1 Perimeter
10155-07	05-31-23	Pile 2 Perimeter
10155-08	05-31-23	Pile 2 Perimeter
10155-09	05-31-23	Pile 2 Perimeter
10155-10	05-31-23	Pile 2 Perimeter
10155-11	05-31-23	Pile 2 Perimeter
10155-12	05-31-23	Pile 2 Perimeter
10155-13	05-31-23	Pile 2 Perimeter

Relinquished By:

Trevor Strosnider Trevor Strosnider

Date/Time:

05-31-23 12:52

Received By:

D. Hawery

Date/Time:

5/31/23 12:54

Special Instructions:

Point Count all results of less than 2%
Please email the results to trevor.strosnider@state.co.us

*** Archive all samples for minimum of one (1) year.