

RESOLUTION NO. 1120

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GIG HARBOR, WASHINGTON, RELATING TO LAND USE AND ZONING, AUTHORIZING THE EXECUTION OF AMENDMENT NO. 3 TO THE DEVELOPMENT AGREEMENT WITH HARBOR HILL, LLC RELATED TO AN APPROVED PLANNED RESIDENTIAL DEVELOPMENT AND PRELIMINARY PLAT (FILE NOS. PL-PPLAT-08-0001 AND PL-PRD-08-0001) AND LOTS 1A, 1B, 3, 4B, AND 5 OF THE HARBOR HILL BUSINESS PARK (FILE NO. SUB 06-1208); APPLYING TO 235 ACRES OF PROPERTY, GENERALLY LOCATED NORTH AND SOUTH OF BORGEN BOULEVARD BETWEEN HARBOR HILL DRIVE AND PEACOCK HILL AVENUE N.W. IN THE CITY OF GIG HARBOR, WASHINGTON.

WHEREAS, RCW 36.70B.170 authorizes a local government and a person having ownership or control of real property within its jurisdiction to enter into a development agreement; and

WHEREAS, pursuant to Resolution No. 845 adopted by the City Council on November 8, 2010, the City and Harbor Hill, LLC entered into a Development Agreement dated November 9, 2010, which was recorded in the real property records of Pierce County, Washington, under Auditor's File No. 201011160780, with the recording cover sheet amended and rerecorded at Auditor's File No. 201011241249; and

WHEREAS, by a Joinder Agreement dated November 22, 2010, and recorded in the real property records of Pierce County, Washington, under Auditor's File No. 201012020196, OPG as the owner of a portion of the property subject to the Development Agreement joined in and agreed to be bound by the Development Agreement; and

WHEREAS, pursuant to Resolution No. 918 adopted by the City Council on November 26, 2012, the City and Harbor Hill, LLC entered into Amendment No. 1 to the Development Agreement, which was recorded in the real property records of Pierce County, Washington, under Auditor's File No. 201212040216; and

WHEREAS, pursuant to Resolution No. 962 adopted by the City Council on April 28, 2014, the City and Harbor Hill, LLC entered into Amendment No. 2 to the Development Agreement, which was recorded in the real property records of Pierce County, Washington, under Auditor's File No. 201405010313; and

WHEREAS, on December 29, 2017, Developer conveyed Lot 1 of the Plat of Business Park at Harbor Hill to the City by way of Special Warranty Deed, recorded under Pierce County Auditor's File No. 201712290498 (the "City Parcel"); and

WHEREAS, by Partial Assignment and Assumption Agreement dated December 29, 2017 and recorded under Pierce County Auditor's File No. 201712290501, Harbor Hill assigned to the City and the City assumed from Harbor Hill the obligations under the Development Agreement relating to the City Parcel, including the obligation to construct a road pursuant to Section 14(C)(i) of the Development Agreement; and

WHEREAS, the Development Agreement designated commercial development on the City Parcel but now that the City owns the City Parcel the City Parcel is no longer intended for commercial development. Instead the City contemplates development of a sports complex including ballfields among other things; and

WHEREAS, the City and Developer wish to amend the Development Agreement to remove the requirement of construction of a road through what is now envisioned as a sports complex; and

WHEREAS, on June 25, 2018, the City Council held a public hearing on Amendment No. 3 to the Development Agreement during a regular public meeting and after considering the application, the staff report and all public testimony presented, determined to approve such Amendment No.3; Now, Therefore,

THE CITY COUNCIL OF THE CITY OF GIG HARBOR, WASHINGTON,
HEREBY RESOLVES AS FOLLOWS:

Section 1. The City Council hereby approves and authorizes the Mayor to execute Amendment No. 3 to the Development Agreement attached hereto as Exhibit A, with Harbor Hill, LLC.

Section 2. The City Council hereby directs the Planning Director to record Amendment No. 3 to the Development Agreement against the Property legally described in Exhibit A to Amendment No. 3 to the Development Agreement, at the cost of the City, pursuant to RCW 36.70B.190.

PASSED by the Council and approved by the Mayor of the City of Gig Harbor this 25th day of June 2018.

CITY OF GIG HARBOR



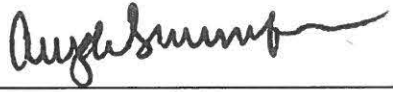
Mayor Kit Kuhn

ATTEST/AUTHENTICATED:



Molly M. Towslee, City Clerk

APPROVED AS TO FORM:
Office of the City Attorney

A handwritten signature in black ink, appearing to read "Angela Summerfield", written over a horizontal line.

Angela Summerfield

FILED WITH THE CITY CLERK: 06/18/18
PASSED BY THE CITY COUNCIL: 06/25/18
RESOLUTION NO. 1120

AFTER RECORDING RETURN TO:

The City of Gig Harbor
Attn: City Clerk
3510 Grandview Street
Gig Harbor, WA 98335

WASHINGTON STATE COUNTY AUDITOR/RECORDER'S INDEXING FORM

Document Title(s) (or transactions contained therein):

Amendment No. 3 to Development Agreement

Grantor(s) (Last name first, then first name and initials)

City of Gig Harbor
Harbor Hill, LLC

Grantee(s) (Last name first, then first name and initials)

Harbor Hill, LLC
City of Gig Harbor

Legal Description (abbreviated: i.e., lot, block, plat or section, township, range)

Lot 1, Plat of Business Park at Harbor Hill, AFN 200605235007; Complete legal
description on Exhibit A attached hereto.

Assessor's Property Tax Parcel or Account Number: 4002470011, 4002470012

Reference Number(s) of Documents assigned or released: 201011160780
(development agreement); 201012020196 (joinder agreement); 201212040216
(Amendment No. 1); 201405010313 (Amendment No. 2)

**AMENDMENT NO. 3 TO DEVELOPMENT AGREEMENT
BETWEEN THE CITY OF GIG HARBOR AND HARBOR HILL LLC
FOR THE HARBOR HILL DEVELOPMENT**

This Amendment No. 3 to Development Agreement is made and entered into this 25 day of June, 2018, by and among the CITY OF GIG HARBOR, a Washington municipal corporation (the "City"), and HARBOR HILL LLC, a Washington limited liability company ("Harbor Hill" or "Developer").

RECITALS

A. RCW 36.70B.170 authorizes the execution of a development agreement between a local government and a person having ownership or control of real property within its jurisdiction. Pursuant to Resolution No. 845 adopted by the City Council, the City and Harbor Hill entered into a development agreement dated November 9, 2010 (the "Original Development Agreement"), which was recorded in the real property records of Pierce County, Washington, under Auditor's File No. 201011160780, concerning the development of the property legally described on Exhibit A to the Original Development Agreement (the "Property") and generally located north and south of Borgen Boulevard between Harbor Hill Drive and Peacock Hill Avenue N.W. in the City of Gig Harbor, Pierce County, Washington.

B. By a subsequent Joinder Agreement dated November 22, 2010, and recorded in the real property records of Pierce County, Washington, under Auditor's File No. 201012020196, OPG Properties LLC, a Washington limited liability company ("OPG"), as the owner of a portion of the Property, joined in and agreed to be bound by the Original Development Agreement. Both Harbor Hill and the City consented to the Joinder Agreement.

C. By Amendment No. 1 recorded under Pierce County Auditor's File No. 201212040216, the parties amended certain provisions of the Original Development Agreement.

D. By Quit Claim Deed recorded under Pierce County Auditor's File No. 201308130540, OPG conveyed to Harbor Hill all of OPG's right, title, and interest in its portion of the Property.

E. Under that certain Omnibus Assignment and Assumption Agreement dated August 13, 2013, OPG assigned to Harbor Hill and Harbor Hill assumed from OPG all of OPG's right, title, and interest in the Development Agreement.

F. By Amendment No. 2 recorded under Pierce County Auditor's File No. 201405010313, the parties amended certain provisions of the Original Development Agreement. The Original Development Agreement, as amended by Amendment Nos. 1 and 2, is referred to here as the "Development Agreement".

G. On December 29, 2017, Harbor Hill LLC conveyed Lot 1 of the Plat of Business Park at Harbor Hill to the City by way of Special Warranty Deed, recorded under Pierce County Auditor's File No. 201712290498 (the "City Parcel").

H. By Partial Assignment and Assumption Agreement dated December 29, 2017 and recorded under Pierce County Auditor's File No. 201712290501, Harbor Hill assigned to the City and the City assumed from Harbor Hill the obligations relating to the City Parcel, including the obligation to construct a road pursuant to Section 14(C)(i) of the Development Agreement.

I. The Development Agreement contemplated commercial development on the City Parcel but now that the City owns the subject property the property is no longer intended for commercial development and instead the City contemplates development of a sports complex including ballfields among other things.

J. The City and Developer wish to amend the Development Agreement as described herein to remove the requirement of construction of a road through what is now envisioned as a sports complex.

K. This Amendment is made under the authority of the City's police power, contracting authority, and other authority, including without limitation the authority granted to the City under RCW 36.70B.170 et seq. to make development agreements and GHMC Chapter 19.08 as amended.

L. On June 25, 2018, the Gig Harbor City Council held a public hearing on this Amendment and approved Resolution 1120 authorizing the Mayor to execute this Amendment;

NOW, THEREFORE, the parties hereto agree as follows:

AGREEMENT

1. Dedication of Public Lands. Section 14 of the Development Agreement is hereby amended to delete subsection C in its entirety.

[Remainder of page intentionally left blank.]

2. Other Provisions. All other provisions of the Development Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed as of the dates set forth below:

HARBOR HILL LLC, a Washington
limited liability company

CITY OF GIG HARBOR, a Washington
municipal corporation

By: _____

Jon Rose, President

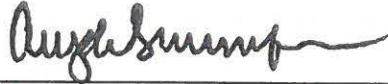
Dated: _____

By: Kit Kuhn

Mayor Kit Kuhn

Dated: 6-26-18

APPROVED AS TO FORM:
OFFICE OF THE CITY ATTORNEY



City Attorney

STATE OF WASHINGTON)
) ss.
COUNTY OF KITSAP)

I certify that I know or have satisfactory evidence that JON ROSE is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the President of Harbor Hill LLC to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

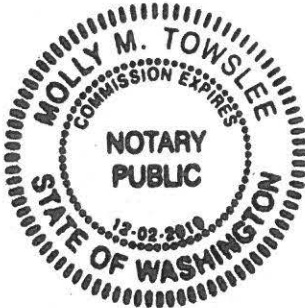
DATED: _____

Printed: _____
NOTARY PUBLIC in and for Washington
Residing at: _____
My appointment expires: _____

STATE OF WASHINGTON)
) ss.
COUNTY OF PIERCE)

I certify that I know or have satisfactory evidence that KIT KUHN is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as Mayor of the City of Gig Harbor, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: June 26, 2018



Molly M Towslee
Printed: Molly M Towslee
NOTARY PUBLIC in and for Washington
Residing at: Gig Harbor
My appointment expires: 12/2/19

EXHIBIT A

LEGAL DESCRIPTION OF THE PROPERTY

TAX PARCEL NUMBER 4002470011

THAT PORTION OF LOT 1, BUSINESS PARK AT HARBOR HILL, PER THE PLAT THEREOF RECORDED UNDER AUDITOR'S FILE NUMBER 200605235007, SAID LOT 1 BEING A PORTION OF THE NORTHWEST QUARTER OF SECTION 31, TOWNSHIP 22 NORTH, RANGE 2 EAST, W.M., PIERCE COUNTY, WASHINGTON DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID LOT 1 LYING 287.61 NORTHERLY OF THE SOUTHEAST CORNER OF SAID LOT 1, AS MEASURED ALONG THE EAST LINE OF SAID LOT 1, THENCE NORTH 77°06'13" WEST 644.52 FEET TO AN ANGLE POINT IN THE WEST LINE OF SAID LOT 1; THENCE ALONG THE BOUNDARY OF SAID LOT 1 THE FOLLOWING COURSES: THENCE NORTH 88°22'24" WEST 110.70 FEET; THENCE NORTH 05°55'53" EAST 181.58 FEET; THENCE SOUTH 88°22'24" EAST 33.73 FEET; THENCE NORTH 14°26'00" EAST 232.65 FEET; THENCE SOUTH 48°15'42" EAST 247.61 FEET; THENCE NORTH 77°19'55" EAST 95.23 FEET; THENCE NORTH 37°16'34" EAST 168.29 FEET; THENCE SOUTH 88°22'24" EAST 177.38 FEET TO A POINT ON A 766.00 FOOT CURVE TO THE RIGHT, THE RADIUS OF WHICH BEARS SOUTH 64°21'11" WEST; THENCE SOUTHERLY ALONG SAID CURVE, AN ARC DISTANCE OF 358.65 FEET, THROUGH A CENTRAL ANGLE OF 26°49'36"; THENCE SOUTH 01°10'47" WEST 189.56 TO THE POINT OF BEGINNING.

TAX PARCEL NUMBER 4002470012

THAT PORTION OF LOT 1, BUSINESS PARK AT HARBOR HILL, PER THE PLAT THEREOF RECORDED UNDER AUDITOR'S FILE NUMBER 200605235007, SAID LOT 1 BEING A PORTION OF THE NORTHWEST QUARTER OF SECTION 31, TOWNSHIP 22 NORTH, RANGE 2 EAST, W.M., PIERCE COUNTY, WASHINGTON DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID LOT 1 LYING 287.61
NORTHERLY OF THE SOUTHEAST CORNER OF SAID LOT 1, AS MEASURED
ALONG THE EAST LINE OF SAID LOT 1, THE FOLLOWING COURSES:
THENCE SOUTH 01°10'47" WEST 287.61 FEET;
THENCE NORTH 88°22'24" WEST 631.54 FEET;
THENCE NORTH 01°15'21" EAST 412.28 FEET TO AN ANGLE POINT IN SAID
BOUNDARY;
THENCE DEPARTING SAID BOUNDARY SOUTH 77°06'13" EAST 644.52 FEET
TO THE POINT OF BEGINNING.

8250 - 165th Avenue NE
Suite 100
Redmond, WA 98052-6628
T 425-883-4134
F 425-867-0898
www.tsinw.com

April 20, 2018

To: Steve Misiurak, P.E.
City Engineer
City of Gig Harbor
3510 Grandview Street
Gig Harbor, WA 98335

From: Andrew Bratlien, P.E.
Senior Transportation Engineer



SUBJECT: MCCORMICK CREEK DRIVE EXTENSION

The purpose of this memorandum is to document the anticipated travel demand impacts of the proposed extension of McCormick Creek Drive from its existing terminus to Harbor Hill Drive to the east. This memorandum also summarizes operational impacts of the McCormick Creek Drive extension at the following intersections:

1. Burnham Drive NW / Canterwood Boulevard NW / SR 16 / Borgen Boulevard,
2. Borgen Boulevard and Harbor Hill Drive,
3. Harbor Hill Drive and Burnham Drive,
4. Harbor Hill Drive and Sentinel Drive, and
5. Harbor Hill Drive and McCormick Creek Drive

Baseline (2023) Conditions

The Gig Harbor concurrency model was used to evaluate the impacts of the proposed McCormick Creek Drive extension. The concurrency model includes all permitted land use developments, and assumes construction of transportation improvement projects to include (1) the Harbor Hill Drive extension, (2) roundabout restriping at Borgen Boulevard and Harbor Hill Drive, and (3) roundabout metering at Burnham Drive NW / Canterwood Boulevard NW / SR 16 / Borgen Boulevard.

A Baseline condition assumed no extension of McCormick Creek Drive. Baseline PM peak hour (4-6 PM) intersection delay and Level of Service (LOS) are summarized in **Table 1** for each of the five study intersections.

Table 1. 2023 PM Intersection LOS Before McCormick Creek Dr Extension

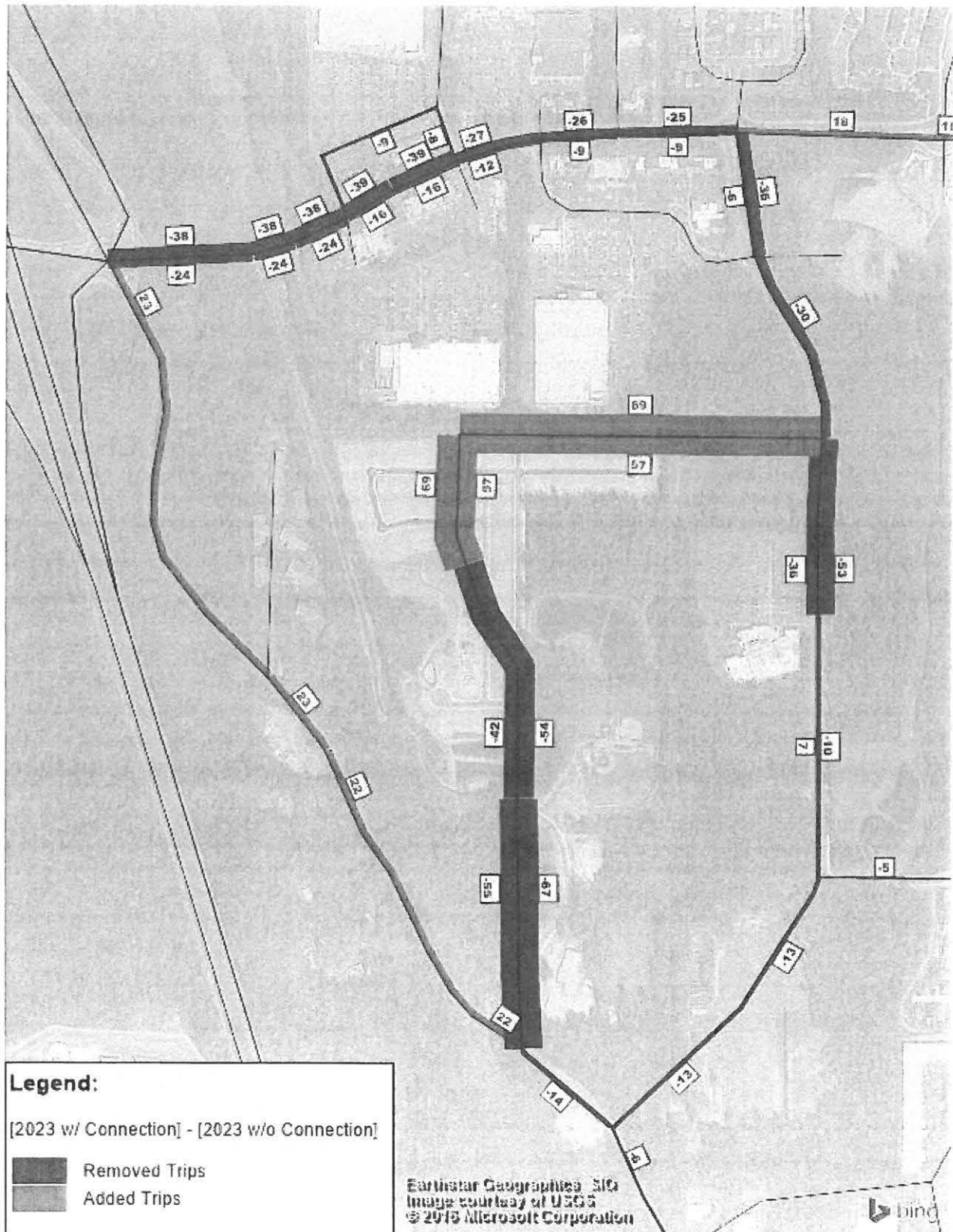
Intersection	Eastbound LOS (Delay)	Westbound LOS (Delay)	Northbound LOS (Delay)	Southbound LOS (Delay)	Overall LOS (Delay)
Burnham/Borgen/ Canterwood & SR 16	C (27.2)	C (25.9)	Burnham: B (11.5) SR 16: B (16.9)	A (7.5)	B (16.9)
Borgen Blvd & Harbor Hill Dr	A (5.4)	A (10.0)	B (11.8)	A (9.2)	A (8.5)
Harbor Hill Dr & Burnham Dr	-	B (10.9)	A (4.6)	A (7.1)	A (7.1)
Harbor Hill Dr & Sentinel Dr	-	A (7.6)	A (4.7)	A (6.3)	A (5.9)
Harbor Hill Dr & McCormick Creek Dr	-	-	-	-	-

McCormick Creek Drive Extension

The McCormick Creek Drive extension was added to the concurrency model to evaluate traffic redistribution and intersection LOS impacts of the project. The model assumed McCormick Creek Drive will be constructed as a 2-lane 25 mph section with a new roundabout at the intersection with Harbor Hill Drive.

A difference plot showing travel demand redistribution resulting from the McCormick Creek Drive extension is shown in **Figure 1**. The model indicates the following travel demand changes:

- Approximately 125 vehicles (55 eastbound; 70 westbound) will use the McCormick Creek Drive extension. This represents approximately 1,400 trips per day.
- Approximately 40 vehicles (35 northbound; 5 southbound) will be removed from Harbor Hill Drive between McCormick Creek Drive and Borgen Boulevard. This represents a decrease of 4 percent and 1 percent in the northbound and southbound directions, respectively.
- Approximately 50 vehicles (20 eastbound; 30 westbound) will be removed from Borgen Boulevard east of SR 16. This represents a decrease of 1.5 percent and 2.3 percent in the eastbound and westbound directions, respectively.
- Approximately 20 vehicles will be added to the northbound direction of Burnham Drive between McCormick Creek Drive and Borgen Boulevard. This represents an increase of 3.8 percent.
- All PM peak hour travel demand on the McCormick Creek Drive extension will reach an origin or destination on McCormick Drive. No cut-through demand is anticipated during the PM peak hour of travel.



The travel demand statistics shown in **Table 2** were extracted from the model for the network links which will be influenced by the McCormick Creek Drive extension.

Table 2. PM Peak Hour Travel Demand Statistics

Scenario	Vehicle-Miles Traveled	Vehicle-Hours Traveled
Before Connection	6,617 miles	231:52:08
After Connection	6,581 miles	229:30:47
Difference	-36.4 miles	2:21:21
Difference (%)	0.6%	1.0%

The travel demand statistics indicate that the McCormick Creek Drive extension will produce environmental benefits by reducing Vehicle-Miles Traveled (VMT) and thereby reducing vehicle-related carbon emissions. The extension will also produce the societal benefit of reducing PM peak hour driving time by a total of 2 hours 21 minutes.

Intersection delay and LOS after the McCormick Creek Drive extension are summarized in **Table 3**.

Table 3. 2023 PM Intersection LOS After McCormick Creek Dr Extension

Intersection	Eastbound LOS (Delay)	Westbound LOS (Delay)	Northbound LOS (Delay)	Southbound LOS (Delay)	Overall LOS (Delay)
Burnham/Borgen/ Canterwood & SR 16	C (26.1)	C (32.1)	Burnham: B (12.0) SR 16: B (18.5)	A (7.6)	B (18.5)
Borgen Blvd & Harbor Hill Dr	A (5.5)	A (9.6)	B (11.1)	A (9.0)	A (8.2)
Harbor Hill Dr & Burnham Dr	-	B (10.8)	A (4.5)	A (7.0)	A (7.0)
Harbor Hill Dr & Sentinel Dr	-	A (7.5)	A (4.7)	A (6.3)	A (5.9)
Harbor Hill Dr & McCormick Creek Dr	A (9.1)	-	A (4.9)	A (3.9)	A (5.1)

The McCormick Creek Drive extension will not result in any LOS changes. All study intersections will continue to operate at LOS B or better, assuming construction of baseline transportation network improvements.

Attachment: Intersection Level of Service Reports

MOVEMENT SUMMARY

 Site: [2. Borgen & Harbor Hill]

Gig Harbor 2023 PM w/o McCormick Creek Dr
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Harbor Hill Dr											
3	L2	550	1.0	0.744	16.3	LOS B	6.1	153.2	0.88	1.09	32.0
8	T1	42	1.0	0.744	10.4	LOS B	6.1	153.2	0.88	1.09	32.0
18	R2	317	1.0	0.191	4.1	LOS A	0.0	0.0	0.00	0.48	36.7
Approach		909	1.0	0.744	11.8	LOS B	6.1	153.2	0.57	0.88	33.5
East: Borgen Blvd											
1	L2	255	3.0	0.562	15.3	LOS B	5.2	133.6	0.89	0.94	33.4
6	T1	742	3.0	0.562	8.2	LOS A	5.7	145.0	0.90	0.86	34.5
16	R2	26	3.0	0.562	8.2	LOS A	5.7	145.0	0.90	0.83	33.9
Approach		1022	3.0	0.562	10.0	LOS A	5.7	145.0	0.89	0.88	34.2
North: Borgen Loop											
7	L2	3	0.0	0.039	14.2	LOS B	0.2	4.3	0.74	0.80	35.1
4	T1	10	0.0	0.039	8.2	LOS A	0.2	4.3	0.74	0.80	35.0
14	R2	6	0.0	0.039	8.4	LOS A	0.2	4.3	0.74	0.80	34.0
Approach		19	0.0	0.039	9.2	LOS A	0.2	4.3	0.74	0.80	34.7
West: Borgen Blvd											
5	L2	4	0.0	0.552	11.5	LOS B	4.7	118.1	0.67	0.55	35.8
2	T1	1211	0.0	0.552	5.4	LOS A	5.0	125.1	0.66	0.55	35.8
12	R2	203	0.0	0.552	5.4	LOS A	5.0	125.1	0.65	0.54	34.8
Approach		1418	0.0	0.552	5.4	LOS A	5.0	125.1	0.66	0.55	35.7
All Vehicles		3369	1.2	0.744	8.5	LOS A	6.1	153.2	0.71	0.74	34.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: TRANSPORTATION SOLUTIONS INC | Processed: Wednesday, April 18, 2018 12:59:03 PM

Project: C:\Users\jakep\Dropbox (TSI)\TSI Projects\2017\217018 Gig Harbor Comprehensive Plan\50th St Analysis\LOS\2023 wo 50th St Connection.sip7

MOVEMENT SUMMARY

 Site: [7. Burnham & Harbor Hill]

Gig Harbor 2023 PM w/o McCormick Creek Dr
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Burnham Dr NW											
8	T1	403	2.0	0.416	4.5	LOS A	2.8	71.7	0.39	0.46	36.8
18	R2	136	2.0	0.416	4.6	LOS A	2.8	71.7	0.39	0.46	35.7
Approach		539	2.0	0.416	4.6	LOS A	2.8	71.7	0.39	0.46	36.5
East: Harbor Hill Dr											
1	L2	264	2.0	0.396	12.6	LOS B	2.7	67.4	0.66	0.76	34.3
16	R2	109	2.0	0.396	6.7	LOS A	2.7	67.4	0.66	0.76	33.3
Approach		373	2.0	0.396	10.9	LOS B	2.7	67.4	0.66	0.76	34.0
North: Burnham Dr NW											
7	L2	134	2.0	0.332	11.0	LOS B	2.1	53.2	0.50	0.58	35.6
4	T1	253	2.0	0.332	5.1	LOS A	2.1	53.2	0.50	0.58	35.5
Approach		386	2.0	0.332	7.1	LOS A	2.1	53.2	0.50	0.58	35.6
All Vehicles		1298	2.0	0.416	7.1	LOS A	2.8	71.7	0.50	0.58	35.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: TRANSPORTATION SOLUTIONS INC | Processed: Wednesday, April 18, 2018 12:59:02 PM

Project: C:\Users\jakep\Dropbox (TSI)\TSI Projects\2017\217018 Gig Harbor Comprehensive Plan\50th St Analysis\LOS\2023 wo 50th St Connection.sip7

MOVEMENT SUMMARY

 Site: [258. Harbor Hill & Sentinel Dr]

Gig Harbor 2023 PM w/o McCormick Creek Dr
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Harbor Hill Dr											
8	T1	179	2.0	0.212	4.7	LOS A	1.1	26.9	0.36	0.49	36.9
18	R2	85	2.0	0.212	4.8	LOS A	1.1	26.9	0.36	0.49	35.8
Approach		264	2.0	0.212	4.7	LOS A	1.1	26.9	0.36	0.49	36.5
East: Sentinel Dr											
1	L2	29	0.0	0.041	10.3	LOS B	0.2	4.7	0.30	0.57	35.7
16	R2	24	0.0	0.041	4.4	LOS A	0.2	4.7	0.30	0.57	34.6
Approach		53	0.0	0.041	7.6	LOS A	0.2	4.7	0.30	0.57	35.2
North: Harbor Hill Dr											
7	L2	220	0.0	0.385	9.9	LOS A	2.5	62.0	0.15	0.50	36.5
4	T1	335	0.0	0.385	3.9	LOS A	2.5	62.0	0.15	0.50	36.4
Approach		555	0.0	0.385	6.3	LOS A	2.5	62.0	0.15	0.50	36.5
All Vehicles		872	0.6	0.385	5.9	LOS A	2.5	62.0	0.23	0.50	36.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 Site: [308. Borgen-Burnham & SR16 WB + EB METER]

Gig Harbor 2023 PM w/o McCormick Creek Dr
(Includes EB approach metering)
Roundabout Metering

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Burnham Dr NW											
3	L2	179	1.0	0.692	14.8	LOS B	3.4	85.1	0.89	0.96	34.8
3a	L1	134	1.0	0.692	13.4	LOS B	3.4	85.1	0.89	0.96	34.2
8	T1	143	1.0	0.692	7.5	LOS A	3.4	85.1	0.89	0.96	34.3
18	R2	52	1.0	0.099	6.1	LOS A	0.3	7.8	0.74	0.71	35.5
Approach		507	1.0	0.692	11.5	LOS B	3.4	85.1	0.87	0.93	34.5
East: Borgen Blvd											
1	L2	47	2.0	0.842	17.6	LOS B	5.0	126.3	0.93	1.10	35.5
6	T1	458	2.0	0.842	10.4	LOS B	5.0	126.3	0.93	1.10	35.1
16a	R1	743	2.0	1.023	34.2	LOS F	23.1	586.1	1.00	1.95	25.5
16	R2	143	2.0	1.023	35.0	LOS F	23.1	586.1	1.00	1.95	25.0
Approach		1391	2.0	1.023	25.9	LOS C	23.1	586.1	0.97	1.65	28.3
North: Canterwood Blvd NW											
7	L2	91	1.0	0.310	13.7	LOS B	1.1	27.4	0.79	0.82	35.4
4	T1	72	1.0	0.310	6.5	LOS A	1.1	27.4	0.79	0.82	34.9
14	R2	171	1.0	0.213	6.2	LOS A	1.1	27.6	0.83	0.74	35.4
14b	R3	63	1.0	0.040	3.3	LOS A	0.0	0.0	0.00	0.45	37.3
Approach		398	1.0	0.310	7.5	LOS A	1.1	27.6	0.68	0.73	35.6
West: Burnham Dr NW											
5b	L3	138	3.0	0.941	34.0	LOS C	8.5	218.0	1.00	1.45	27.9
5	L2	117	3.0	0.941	32.6	LOS C	8.5	218.0	1.00	1.45	27.5
2	T1	395	3.0	0.941	24.5	LOS C	10.6	271.8	1.00	1.46	28.5
12	R2	197	3.0	0.941	24.5	LOS C	10.6	271.8	1.00	1.46	28.1
Approach		847	3.0	0.941	27.2	LOS C	10.6	271.8	1.00	1.46	28.2
SouthWest: SR16 WB Offramp											
5bx	L3	288	3.0	0.527	14.1	LOS B	2.6	66.8	0.63	0.84	34.8
5x	L2	6	3.0	0.527	11.2	LOS B	2.6	66.8	0.63	0.84	34.2
5ax	L1	212	3.0	0.527	11.3	LOS B	2.6	66.8	0.63	0.84	33.6
12ax	R1	828	3.0	0.681	4.6	LOS A	4.7	119.2	0.74	0.55	36.5
12bx	R3	189	3.0	0.123	3.3	LOS A	0.0	0.0	0.00	0.45	37.2
Approach		1522	3.0	0.681	7.2	LOS A	4.7	119.2	0.62	0.63	35.8
All Vehicles		4665	2.3	1.023	16.9	LOS B	23.1	586.1	0.83	1.12	31.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 Site: [2. Borgen & Harbor Hill]

Gig Harbor 2023 PM w/ McCormick Creek Dr
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Harbor Hill Dr											
3	L2	510	1.0	0.700	15.6	LOS B	5.3	134.0	0.87	1.06	32.3
8	T1	42	1.0	0.700	9.7	LOS A	5.3	134.0	0.87	1.06	32.3
18	R2	319	1.0	0.193	4.1	LOS A	0.0	0.0	0.00	0.48	36.7
Approach		871	1.0	0.700	11.1	LOS B	5.3	134.0	0.55	0.85	33.8
East: Borgen Blvd											
1	L2	259	3.0	0.553	14.9	LOS B	5.0	128.7	0.87	0.92	33.5
6	T1	756	3.0	0.553	7.9	LOS A	5.4	138.4	0.87	0.83	34.6
16	R2	26	3.0	0.553	7.9	LOS A	5.4	138.4	0.87	0.79	34.0
Approach		1041	3.0	0.553	9.6	LOS A	5.4	138.4	0.87	0.85	34.3
North: Borgen Loop											
7	L2	3	0.0	0.036	14.0	LOS B	0.2	4.0	0.73	0.79	35.2
4	T1	9	0.0	0.036	8.0	LOS A	0.2	4.0	0.73	0.79	35.1
14	R2	6	0.0	0.036	8.1	LOS A	0.2	4.0	0.73	0.79	34.0
Approach		18	0.0	0.036	9.0	LOS A	0.2	4.0	0.73	0.79	34.7
West: Borgen Blvd											
5	L2	21	0.0	0.556	11.5	LOS B	4.8	119.0	0.68	0.56	35.8
2	T1	1212	0.0	0.556	5.4	LOS A	5.0	126.0	0.66	0.55	35.8
12	R2	193	0.0	0.556	5.5	LOS A	5.0	126.0	0.65	0.54	34.8
Approach		1427	0.0	0.556	5.5	LOS A	5.0	126.0	0.66	0.55	35.6
All Vehicles		3357	1.2	0.700	8.2	LOS A	5.4	138.4	0.70	0.72	34.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).


HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 Site: [7. Burnham & Harbor Hill]

Gig Harbor 2023 PM w/ McCormick Creek Dr
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Burnham Dr NW											
8	T1	397	2.0	0.406	4.5	LOS A	2.7	69.4	0.36	0.45	36.9
18	R2	136	2.0	0.406	4.5	LOS A	2.7	69.4	0.36	0.45	35.8
Approach		533	2.0	0.406	4.5	LOS A	2.7	69.4	0.36	0.45	36.6
East: Harbor Hill Dr											
1	L2	261	2.0	0.392	12.5	LOS B	2.6	66.2	0.65	0.75	34.4
16	R2	111	2.0	0.392	6.6	LOS A	2.6	66.2	0.65	0.75	33.3
Approach		372	2.0	0.392	10.8	LOS B	2.6	66.2	0.65	0.75	34.0
North: Burnham Dr NW											
7	L2	120	2.0	0.318	11.0	LOS B	2.0	50.2	0.49	0.58	35.7
4	T1	252	2.0	0.318	5.0	LOS A	2.0	50.2	0.49	0.58	35.6
Approach		371	2.0	0.318	7.0	LOS A	2.0	50.2	0.49	0.58	35.6
All Vehicles		1276	2.0	0.406	7.0	LOS A	2.7	69.4	0.49	0.58	35.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 Site: [258. Harbor Hill & Sentinel Dr]

Gig Harbor 2023 PM w/ McCormick Creek Dr
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Harbor Hill Dr											
8	T1	169	2.0	0.201	4.7	LOS A	1.0	25.1	0.36	0.49	36.9
18	R2	80	2.0	0.201	4.8	LOS A	1.0	25.1	0.36	0.49	35.8
Approach		249	2.0	0.201	4.7	LOS A	1.0	25.1	0.36	0.49	36.5
East: Sentinel Dr											
1	L2	26	0.0	0.038	10.3	LOS B	0.2	4.3	0.29	0.56	35.8
16	R2	23	0.0	0.038	4.4	LOS A	0.2	4.3	0.29	0.56	34.6
Approach		49	0.0	0.038	7.5	LOS A	0.2	4.3	0.29	0.56	35.2
North: Harbor Hill Dr											
7	L2	224	0.0	0.390	9.9	LOS A	2.5	63.1	0.14	0.50	36.6
4	T1	339	0.0	0.390	3.9	LOS A	2.5	63.1	0.14	0.50	36.4
Approach		564	0.0	0.390	6.3	LOS A	2.5	63.1	0.14	0.50	36.5
All Vehicles		862	0.6	0.390	5.9	LOS A	2.5	63.1	0.22	0.50	36.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).


HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 Site: [259. Harbor Hill & 50th Ave NW]

Gig Harbor 2023 PM w/ McCormick Creek Dr
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Back of Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Harbor Hill Dr											
3	L2	26	2.0	0.125	9.9	LOS A	0.6	14.8	0.15	0.43	37.2
8	T1	148	2.0	0.125	4.0	LOS A	0.6	14.8	0.15	0.43	37.1
Approach		175	2.0	0.125	4.9	LOS A	0.6	14.8	0.15	0.43	37.2
North: Harbor Hill Dr											
4	T1	113	2.0	0.112	3.9	LOS A	0.5	12.7	0.10	0.39	37.8
14	R2	46	2.0	0.112	4.0	LOS A	0.5	12.7	0.10	0.39	36.6
Approach		159	2.0	0.112	3.9	LOS A	0.5	12.7	0.10	0.39	37.5
West: 50th Ave NW											
5	L2	49	1.0	0.044	10.1	LOS B	0.2	4.6	0.22	0.60	35.0
12	R2	10	1.0	0.044	4.2	LOS A	0.2	4.6	0.22	0.60	33.9
Approach		59	1.0	0.044	9.1	LOS A	0.2	4.6	0.22	0.60	34.8
All Vehicles		393	1.8	0.125	5.1	LOS A	0.6	14.8	0.14	0.44	36.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 Site: [308. Borgen-Burnham & SR16 WB + EB METER]

Gig Harbor 2023 PM w/ McCormick Creek Dr
(Includes EB approach metering)
Roundabout Metering

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Burnham Dr NW											
3	L2	204	1.0	0.730	15.1	LOS B	3.7	93.3	0.90	0.98	34.6
3a	L1	138	1.0	0.730	13.7	LOS B	3.7	93.3	0.90	0.98	34.0
8	T1	142	1.0	0.730	7.9	LOS A	3.7	93.3	0.90	0.98	34.1
18	R2	47	1.0	0.088	6.1	LOS A	0.3	7.0	0.74	0.71	35.5
Approach		531	1.0	0.730	12.0	LOS B	3.7	93.3	0.88	0.96	34.4
East: Borgen Blvd											
1	L2	38	2.0	0.809	16.8	LOS B	4.4	111.0	0.92	1.05	35.9
6	T1	434	2.0	0.809	9.6	LOS A	4.4	111.0	0.92	1.05	35.4
16a	R1	736	2.0	1.054	43.7	LOS F	28.0	710.1	1.00	2.20	23.0
16	R2	144	2.0	1.054	44.5	LOS F	28.0	710.1	1.00	2.20	22.6
Approach		1351	2.0	1.054	32.1	LOS C	28.0	710.1	0.97	1.80	26.2
North: Canterwood Blvd NW											
7	L2	91	1.0	0.305	13.8	LOS B	1.1	27.0	0.79	0.82	35.3
4	T1	71	1.0	0.305	6.6	LOS A	1.1	27.0	0.79	0.82	34.8
14	R2	169	1.0	0.208	6.3	LOS A	1.1	27.2	0.83	0.75	35.4
14b	R3	64	1.0	0.041	3.3	LOS A	0.0	0.0	0.00	0.45	37.3
Approach		396	1.0	0.305	7.6	LOS A	1.1	27.2	0.68	0.73	35.6
West: Burnham Dr NW											
5b	L3	139	3.0	0.933	32.9	LOS C	8.3	212.9	1.00	1.43	28.3
5	L2	116	3.0	0.933	31.5	LOS C	8.3	212.9	1.00	1.43	27.9
2	T1	374	3.0	0.933	23.4	LOS C	10.4	265.3	1.00	1.43	28.8
12	R2	213	3.0	0.933	23.4	LOS C	10.4	265.3	1.00	1.43	28.5
Approach		843	3.0	0.933	26.1	LOS C	10.4	265.3	1.00	1.43	28.5
SouthWest: SR16 WB Offramp											
5bx	L3	288	3.0	0.526	14.1	LOS B	2.6	66.3	0.63	0.84	34.8
5x	L2	6	3.0	0.526	11.1	LOS B	2.6	66.3	0.63	0.84	34.2
5ax	L1	213	3.0	0.526	11.3	LOS B	2.6	66.3	0.63	0.84	33.7
12ax	R1	828	3.0	0.678	4.5	LOS A	4.5	115.6	0.74	0.52	36.5
12bx	R3	184	3.0	0.120	3.3	LOS A	0.0	0.0	0.00	0.45	37.2
Approach		1518	3.0	0.678	7.2	LOS A	4.5	115.6	0.61	0.62	35.8
All Vehicles		4639	2.3	1.054	18.5	LOS B	28.0	710.1	0.82	1.16	30.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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