AGENDA

City Council Special Meeting

5:30 PM - Tuesday, July 10, 2018

City Hall Council Chambers, Sammamish, WA

Page		Estimated Time
	CALL TO ORDER	**5:30 pm**
	ROLL CALL	
	PLEDGE OF ALLEGIANCE	
	APPROVAL OF AGENDA	
	EXECUTIVE SESSION Executive session to evaluate the qualifications of an applicant for public employment and to review the performance of a public employee pursuant to RCW.42.30.110(1)(g)	**5:35 pm**
	PUBLIC COMMENT **Note:***This is an opportunity for the public to address the Council. Three-minutes limit per person or five-minutes if representing the official position of a recognized community organization. If you would like to show a video or PowerPoint, it must be submitted or emailed by 5 pm, the end of the business day, to the City Clerk, Melonie Anderson at manderson@sammamish.us. Please be aware that Council meetings are videotaped and available to the public.*	**7:05 pm**
	CONSENT CALENDAR	**7:35 pm**
4 - 23	1. **Resolution**: Relating To Compliance With The Public Records Act, Specifically, Adopting Public Records Act Rules, Issuing A Formal Order That Maintaining An Index Would Be Unduly Burdensome, Ordering Publication Of This Resolution And The Public Records Act Rules View Agenda Item	

24 - 27	2.	**Ordinance:** Repealing Sammamish Municipal Code (SMC) Chapter 2.45 Related To Public Records Disclosure; Providing For Severability; And Establishing An Effective Date View Agenda Item	
28 - 38	3.	**Bid Award:** Louis Thompson Road Slide Repair and Drainage Improvements/RW Scott **Contract Amendment:** Construction Management/David Evans & Assoc. View Agenda Item	
39 - 46	4.	**Interlocal Agreement**: Zackuse Creek Fish Passage and Stream Restoration Project - Sammamish Plateau Water View Agenda Item	
47 - 50	5.	**Approval**: 2018 Curb Ramp Retrofit and Sidewalk Repair Project - Change Order View Agenda Item	
51 - 52	6.	**Approval:** Notes for the June 12, 2018 Study Session View Agenda Item	
53 - 57	7.	**Approval:** Minutes for the June 19, 2018 Regular Meeting View Agenda Item	
58 - 59	8.	**Approval**: Minutes for the June 23, 2018 Special Meeting View Agenda Item	
	PRESENTATIONS / PROCLAMATIONS		
	PUBLIC HEARINGS		**7:40 pm**
60 - 264	9.	**Public Hearing and Deliberation:** Emergency Amendments to the Comprehensive Plan Related to Transportation Concurrency and Level of Service View Agenda Item	
	UNFINISHED BUSINESS		
	NEW BUSINESS		**8:40 pm**
265 - 370	10.	**Discussion:** Introduction of the Information Technology Gap Analysis and the GIS Strategic Plan Reports View Agenda Item	
371 - 424	11.	**Discussion:** Police Services Study Progress Update View Agenda Item	
	COUNCIL REPORTS/ COUNCIL COMMITTEE REPORTS		**9:30 pm**
425 - 455	12.	**Discussion**: State Lobbyist Selection View Agenda Item	

456 - 457 13. **Report:** Mayor Malchow
View Report

CITY MANAGER REPORT

EXECUTIVE SESSION – IF NECESSARY

ADJOURNMENT **10:00 pm**

LONG TERM CALENDAR

458 - 461 View Calendar

City Council meetings are wheelchair accessible. American Sign Language (ASL) interpretation is available upon request. Please phone (425) 295-0500 at least 48 hours in advance. Assisted Listening Devices are also available upon request.

Agenda Bill

City Council Special Meeting
July 10, 2018

SUBJECT:	Resolution: Relating to compliance with the Public Records Act, specifically, adopting Public Records Act Rules, issuing a formal order that maintaining an index would be unduly burdensome, ordering publication of this resolution and the Public Records Act Rules.
DATE SUBMITTED:	June 25, 2018
DEPARTMENT:	City Clerk
NEEDED FROM COUNCIL:	☑ Action ☐ Direction ☐ Informational
RECOMMENDATION:	Adopt the resolution.
EXHIBITS:	1. Exhibit 1 - Resolution - Public Disclosure Rules- DRAFT 05-21-18
BUDGET:	
Total dollar amount N/A	☐ **Approved in budget**
Fund(s)	☐ **Budget reallocation required**
	☑ **No budgetary impact**

WORK PLAN FOCUS AREAS:

☐ Transportation	☐ Community Safety
☐ Communication & Engagement	☐ Community Livability
☑ High Performing Government	☐ Culture & Recreation
☐ Environmental Health & Protection	☐ Financial Sustainability

NEEDED FROM COUNCIL:

Shall the Council adopt the resolution amending public disclosure policies to align with the State of Washington Model Rules on Public Disclosure and reflect current practices?

KEY FACTS AND INFORMATION SUMMARY:

Responding to public records disclosure is one of the City's unique and core essential functions (RCW 42.56). The complexity and volume of records requested has grown in recent years, straining the capabilities of the City's resources. Similar to other essential functions, the staffing and resources that the City can devote to responding to public records requests are necessarily limited.

The current budget for staff time to fulfill public records requests is 0.5 FTE. Actual staff time spent by the City Clerk's Office is closer to 0.77 FTE. In 2017, it is conservatively estimated that 1350 staff hours in the Clerk's office were spent fulfilling public records requests. If, in 2018, trends continue, total hours spent will be closer to 2,000 or more.

More difficult to quantify is the time spent by other department staff, City Council members, and Commissioners in responding to these requests. For some departments it is conservatively estimated that staff are spending 2.5% or more of their time responding to public records requests.

Although the volume of public records requests is certainly a concern, the larger challenge is the absence of policy authorizing categorization of requests. Generally, requests are handled in the order in which they are received. This means that when a number of larger and complicated requests are in the queue, the simple and straightforward requests may be held up.

Another challenge related to categorization is time-sensitive requests. For example, a citizen may be preparing for a public hearing and need specific documents for their case. Again, since requests are processed in the order in which they are received, time-sensitive requests are often held up.

The City Clerk's office is known for providing a very high level of customer service. When we note that a time-sensitive request is in the queue, we do everything possible to process that request in a timely manner. This often means that other work duties (duties not related to public records requests) are put on hold so that the requests can be processed.

In summary, the staff are recommending the City Council consider a policy that would allow public records requests to be categorized. This addresses the challenges associated with the volume of requests and our need to categorize requests. Staff have researched public disclosure policies in other cities and identified a sample policy from the City of Kirkland that accomplishes the goals we are striving for. Their policies have been in place for a number of years, are effective and have not been challenged in the courts.

Updating our Public Records Disclosure Policies will ensure that all customers are being treated uniformly, will increase transparency in our practices in providing public records, and limit excessive interference with other City operations.

Staff proposes to repeal Section 2.45 of the Sammamish Municipal Code and establish, by Resolution, four broad categories of public disclosure requests, reflecting increasing levels of complexity and time required to respond. Each category includes the approximate timeline to respond, and may be extended depending on the nature of the request.

- **Category 1** records requests are routine and/or can be readily filled for easily identified and immediately accessible records, requiring little or no coordination between departments.

Generally, the City will respond to Category 1 requests within 5 business days but if records cannot be made available within 5 business days, the City may extend the time up to 30 business days.

- **Category 2** records requests are routine requests that involve:
    - A large number of records,
    - Third-party notification,
    - Records are not easily identified, located and accessible, and/or
    - Records that require some coordination between departments.

The City will provide a written response to the requestor within five business days with a reasonable estimate of the time necessary to make the records available. The estimate is made on a case-by-case basis. Depending on the nature and scope of the request, Category 2 records requests may require between 30 and 120 business days.

- **Category 3** records requests are complex requests which may be complex, broad or vague that involve:
    - A large number of records that are not easily identified, located or accessible, requiring significant coordination between multiple departments,
    - Research by City staff who are not primarily responsible for public disclosure, and/or
    - Review by public disclosure staff to determine whether any of the records are exempt from production.

The City will provide a written response to the requestor within five business days with a reasonable estimate of the time necessary to make the records available. The estimate is made on a case-by-case basis. Depending on the nature and scope of the request, Category 3 records requests may require several months or up to a year to respond.

- **Category 4** records requests are complex requests that may be especially broad or vague which involve:
    - A large number of records that are not easily identified, located or accessible, requiring coordination between multiple departments, and,
    - Research by City staff who are not primarily responsible for public disclosure and/or
    - Legal review and creation of an exemption log. These requests may require additional assistance from third-parties in identification and assembly.

The City will provide a written response to the requestor within five business days with a reasonable estimate of the time necessary to make the records available. The estimate is made on a case-by-case basis, depending on the nature and scope of the request. Category 4 records requests will usually require several months or more than a year to respond.

In the case of Category 3 and 4 requests, records may be provided in installments and the staff will endeavor to provide records on a monthly basis as they become available.

Once these polices have been approved by Council, they will be posted to the City's website to ensure that the public knows and understands the new polices and categories of requests.

The City Council Governance Committee reviewed the suggested policies their April 19, 2018, meeting. The City Council reviewed the recommended policies at the July 9, 2018, Special Meeting. The policies have been prepared in consultation with the City's legal team and contain other general amendments to update the policies to be consistent with Washington State Model Rules of Public Disclosure.

FINANCIAL IMPACT:

N/A

OTHER ALTERNATIVES CONSIDERED:

There are many other policies that could be considered for processing public disclosure requests. Staff is recommending this process because it has proven effective for the City of Kirkland and has not been challenged. Staff is also recommending adoption of the policies by Resolution rather than codification to allow for administrative changes as needed.

CITY OF SAMMAMISH
WASHINGTON
RESOLUTION NO. R2018-___

A RESOLUTION OF THE CITY OF SAMMAMISH WASHINGTON RELATING TO COMPLIANCE WITH THE PUBLIC RECORDS ACT, SPECIFICALLY, ADOPTING PUBLIC RECORDS ACT RULES, ISSUING A FORMAL ORDER THAT MAINTAINING AN INDEX WOULD BE UNDULY BURDENSOME, ORDERING PUBLICATION OF THIS RESOLUTION AND THE PUBLIC RECORDS ACT RULES

WHEREAS, RCW Sections 42.56.040, 42.56.070 and 42.56.100 of the Public Records Act ("the ACT") collectively require that state and local agencies provide, publish and prominently display certain information, exemptions and rules governing disclosure of public records; and

WHEREAS, the City of Sammamish ("the City") is a local agency as defined in the Act and must therefore comply with its provisions; and

WHEREAS, the attached Public Records Act Rules ("the Rules") fulfill one of these requirements and were developed using the Attorney General's Office advisory Model Rules for disclosure of public records; and

WHEREAS, RCW 42.56.070 requires an agency to maintain an index of certain records unless the local agency determines that it would be unduly burdensome to do and issues and publishes a formal order specifying the reasons why and the extent to which compliance would unduly burden or interfere with agency operations;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SAMMAMISH, WASHINGTON, DO RESOLVE AS FOLLOWS:

Section 1. The Rules as shown in Attachment A of this resolution are adopted as the rules the City will follow in handling public records requests, and the City Manager is hereby authorized to amend the Rules as necessary to remain in compliance with evolving law governing public records requests. All amendments to the Rules shall be reported to the City Council.

Section 2. The City is comprised of six departments, with divisions and subdivisions serving over 62,000 citizens. The different departments maintain separate databases and/or record keeping systems for the indexing of records and information. Because these records are diverse, complex and stored in multiple locations and in multiple computer systems and databases, and due to the ever-changing nature and creation of new public records, it would be unduly burdensome to maintain a central index of the records enumerated in RCW 42.56.070(3).

Therefore, the Council finds that maintaining the index required by RCW 42.56.070(3) would be unduly burdensome and would interfere with City operations. Pursuant to RCW 42.56.070(4), the Council formally orders that such an index need not be maintained so long as all other City indexes are available for public inspection and copying in conformity with applicable law.

Section 3. The City Clerk is directed to publish this Resolution and the availability of the Rules in the City's paper or record, post and maintain the Rules on the City's website and make the Rules available for inspection and copying at City Hall.

Section 4. Severability. Should any section, paragraph, sentence, clause or phrase of this Resolution, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this Resolution be pre-empted by state or federal law or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this Resolution or its application to other persons or circumstances.

ADOPTED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE _____ DAY OF JUNE, 2018.

CITY OF SAMMAMISH

_____
Mayor Christie Malchow

ATTEST/AUTHENTICATED:

_____
Melonie Anderson, City Clerk

Approved as to form:

_____
Michael R. Kenyon, City Attorney

Filed with the City Clerk:
Passed by the City Council:
Resolution No. R2018-_____

ATTACHMENT A

PUBLIC RECORDS ACT RULES

PRA Rule 010. Authority and purpose.

1. **Authority.** RCW 42.56.070(1) requires each agency to make available for inspection and copying nonexempt public records in accordance with published rules. The Public Records Act (the Act") defines "public record" to include any "writing containing information relating to the conduct of government or the performance of any governmental or proprietary function prepared, owned, used, or retained" by the agency. RCW 42.56.070(2) requires each agency to set forth "for informational purposes" every law, in addition to the Act, the exempt or prohibits the production of public records held by that agency.

2. **Purpose of Rules.** The purpose of these Rules is to establish the procedures the City of Sammamish ("the City") will follow in order to provide full access to public records, fullest assistance to inquirers and the timeliest possible action, as required by RCW 42.56.100, mindful of the further requirement that the Rules must also protect the records from damage or disorganization and prevent excessive interference with other essential functions of the City. These Rules provide information to persons wishing to request access to public records of the City and establish processes for both requestors and City staff that are designed to best assist members of the public in obtaining such access.

3. **Purpose of the Act.** The purpose of the Act is to provide the public full access to information concerning the conduct of government, mindful of individuals' privacy rights and the desirability of the efficient administration of government. The Act and these Rules will be interpreted in favor of disclosure. In carrying out its responsibilities under the Act, the City will be guided by the provisions of the Act describing its purposes and interpretation.

4. **Amendment of the Rules.** By authorization of the City Council in the Resolution approving these Rules, the City Manager is authorized to amend the Rules as necessary to remain in compliance with evolving law governing the handling of public records requests. All amendments to the Rules will be reported to the City Council.

PRA Rule 020. Agency description – Contact information – Public Records Officer.

1. Agency description. The City provides the services of a non-charter, code city, including but not limited to, building and plans inspection, parks and recreation, planning and community development, public safety and public works service, which are supported and supplemented by financial and administrative services.

   The general course and method by which the City's operations are channeled and determined is through laws adopted and direction given by the City Council and other competent authority in conformity with all applicable city, state and federal law, which

are implemented by the City Manager, Department Directors and their designees in conformity with the requirements of those same laws The City's rules of procedure are set forth in those same laws or in rules adopted pursuant to authority granted to others as provided in those laws. The City's substantive rules of general applicability that were adopted as authorized by law, as well as the statements of general policy or interpretations of general applicability formulated and adopted by the City are contained in the Sammamish Municipal Code, or in rules regulations and interpretations authorized to be adopted or issued in those laws or under federal or state law.

The City has offices at the following locations:

Main City Hall	801 228th Avenue SE, Sammamish, WA 98075
Maintenance and Operations Center	1801 244th Avenue SE, Sammamish, WA 98075

2. **Contact Information-Public Records Officer.** Any person wishing to request access to public records of the City, or seeking assistance in making such a request, should follow the procedures set forth in these Rules and contact the following Public Records Officer (the "PRO") of the City and submit such a request to obtain assistance in making such a request.

   Public Records Officer
   City of Sammamish
   801 228th Avenue SE
   Sammamish, WA 98075
   Phone (425) 295-0500 Fax (425) 295-0600
   Information is also available at the City's website at https://www.sammamish.us/.

3. **Requests for Police records:** The City contracts for police services with the King County Sheriff's Office. Requests to inspect or copy police records should be made to the King County Records Unit at:

   Records Unit
   King County Courthouse
   516 Third Avenue
   Room W-150
   Seattle, WA 98104

   Telephone: (206) 263-2626
   Online: https://www.kingcounty.gov/depts/sheriff/services/public-disclosure/online-requests.aspx

4. **Requests for Fire and Emergency records:** The City contracts for fire and emergency medical services with the Eastside Fire and Rescue. Requests to inspect or copy police records should be made to the King County Records Unit at:

   Eastside Fire & Rescue
   175 Newport Way NW

Issaquah, WA 98027
Telephone: (425) 313-3200

E-mail: records@esf-r.org

PRA Rule 030. Availability of public records.

1. **Availability**. Public records are available for inspection and copying during normal business hours of the City, Monday through Friday, 8:30 am to 5:00 pm, excluding legal holidays. Inspection of records shall occur at the central offices of the City unless another location is approved by the PRO or designee.

2. **Records index**. Through the Resolution approving these Rules, the Sammamish City Council issued a formal order finding that the maintenance of an index required by RCW 42.56.070(3) would be unduly burdensome and would interfere with City operations due to the number and complexity of records generated as a result of the wide range of City activities.

3. **Organization of records.** The City will maintain its records in a reasonably organized manner. While committed to fully comply with the Act and these Rules, the City must also take reasonable actions to protect records from damage and disorganization and prevent excessive interference with other essential function of the City. A requestor shall not take City records from City offices. A variety of records are available on the City's website at www.sammamish.us. Requestors are encouraged to view the documents available on the website prior to submitting a records request.

4. **Reasonable notice that the request is for public records**. A requestor must provide the City with reasonable notice that the request being made is for public records. If a request is contained in a larger document unrelated to a public records request, the requestor should point out the public records request by labeling the front page of the document as containing a public records request or otherwise calling the request to the attention of the PRO to facilitate timely response to the request.

5. **Making a request for public records.**

   a. Any person seeking to inspect or copy public records of the City should make the request by completing the online form available on the City's website at https://www.sammamish.us/, by making the request in writing on the City's request form, or by letter, fax or email addressed to the PRO. The following information should be included in the request:

      - Name of requestor;
      - Contact information, such as address, telephone number, or e-mail address, and preferred method of contact;
      - Identification of the public records adequate for the PRO to locate the records;

- The date of the request; and
- Whether the requestor intends to inspect the records or desires copies of the records (see PRA Rule 130 below).

b. Public records requests are public records and are subject to inspection or copying.

c. The PRO may accept requests for public records that contain the above information by telephone or in person. If the PRO accepts such a request, he or she will confirm receipt of the information and the substance of the request in writing. The confirmation will be deemed the correct statement of the scope of the request unless the requestor responds with a different statement of the scope.

d. Records requests may only encompass existing records. They cannot be used to obtain copies of records not yet in existence. The City is not obligated to hold current records requests open to respond to requests for records that may be created in the future**.** If a public record is created after a request is received by the City, it is not responsive to the request and will not be provided. A new request must be made to obtain later-created public records.

6. **Requests made directly to City departments**. Requests for public records that are made directly to departments shall be delivered to the PRO immediately upon receipt for coordinated processing.

7. **Purpose of request**. Generally, the City shall not distinguish among persons requesting records. To that end, a requestor need not state the purpose of the request, except that the City will require the requestor to provide information as to the purpose of the request in the following instances:

   a. If the request is for a list of individuals to use for commercial purposes (see Rule 090 below).

   b. The City may request information from a requestor sufficient to allow a determination as to whether another statute prohibits disclosure of specific information or records to certain persons.

PRA Rule 040. Processing of public records requests.

1. **Providing the "fullest assistance"**. Mindful of the requirements of RCW 42.56.100, to the extent reasonably possible, the PRO will process request in the order allowing the most requests to be processed in the most efficient manner. In an effort to better understand the request and provide all responsive records, the PRO can inquire about the purpose for the request but the requestor is not required to answer except to establish whether inspection and copying would violate RCW 42.56.070(9) (See PRA Rule 090 below) or other statutes which exempts or prohibits production of specific information or records to certain persons.

2. **Acknowledging receipt of request**. Within five business days of receipt of the request, not including the day the request was received, the PRO will do one or more of the following:

   a. Make the records available for inspection or copying (subject to payment of fees pursuant to PRA Rule 130 below);

   b. Provide a link to the City's website where the requested records are posted;

   c. Acknowledge that the request has been received and provide a reasonable estimate of time needed to respond to the request;

   d. If the request is unclear or does not sufficiently identify the requested records, acknowledge receipt of the request, request clarification from the requestor and provide a reasonable estimate of time need to respond to the request if it is not clarified. Such clarification may be requested and provided by telephone; or

   e. Deny the request, specifying the reasons for the denial.

3. **Reasonable estimate of time.** If not able to fulfill the request within the five-business-day period, the PRO must provide a reasonable estimate of the time it will take to fully respond to the request. Additional time may be needed to clarify the scope of the request, locate and assemble the records, redact confidential information, prepare an exemption log, notify third parties affected by the request and/or consult with the City Attorney about whether the records are exempt from disclosure. The PRO should briefly explain the basis for the time estimated to respond. Should an extension of time be necessary to fulfill the request, the PRO will provide a revised estimate and explain the changed circumstances that make the extension necessary.

4. **Consequences of failure to respond.** If the PRO does not respond in writing within five business days of receipt of the request for disclosure, the requestor should consider contacting the PRO to determine the reason for the failure to respond.

5. **Requesting Clarification.** In acknowledging receipt of a public record request that is unclear, the City may ask the requestor to clarify what information the requestor is seeking. Additionally, clarification may be sought in the following, non-exhaustive, circumstances:

   a. To determine the specific date or date range of records sought, if known.

   b. To ask a requestor to prioritize the records he or she is requesting so that the City is able to provide the most important records first. The City is not required to ask for prioritization, and a requestor is not required to provide it.

   c. To clarify requests for identified in vague terms such as "any and all documents related to," "all records relating to" or similar language. If the requestor is unable or unwilling to help narrow the scope of the documents being sought in order to expedite

the City's response and/or reduce the volume of potentially responsive documents, the Public Records Officer may err on the side of producing more rather than fewer documents in response to such a broad, general request. City staff shall not be obligated to interpret such a broad, general request in order to decipher which specific documents may be of interest to the requestor and the Act does not allow a requestor to search through the City's files for records which cannot be identified or described to the City.

Such clarification may be requested and provided by telephone. If the clarification is made by telephone, the Public Records Officer will confirm the scope of the clarification in writing. The confirmation will be deemed the correct statement of the scope of the request unless the requestor responds with a different statement of the scope.

If the requestor fails to respond to a City request to clarify the request within 30 days, and the entire request is unclear, the City may consider the request abandoned. Otherwise, the City must respond to those portions of the request that are clear. If the City considers the request abandoned, it shall send a closing letter to the requester.

6. **Court protection of records (Third-party notice)**. If the requested records contain information that may affect rights of a person who is named in the record or to whom the record specifically pertains and that may be exempt from disclosure, prior to providing the records the Public Records Officer may give notice to such persons. Generally, 14-days' notice will be given in order to make it possible to contact the requestor and ask him or her to revise the request or, if necessary, allow affected individuals to take action seek an order from a court to prevent or limit the disclosure. The notice to the affected person(s) will include a copy of the request. Nothing in this section requires the City to provide such third-party notice, unless otherwise required by law.

7. **Bot requests.** The City may deny a bot request that is one of multiple requests from the requestor to the City within a twenty-four-hour period, if the City establishes that responding to the multiple requests would cause excessive interference with other essential functions of the agency. For purposes of this subsection, "bot request" means a request for public records that an agency reasonably believes was automatically generated by a computer program or script.

8. **Multiple requests by the same requestor.** In order to provide the fullest assistance to all records requestors and to prevent excessive interference with other essential functions of the City, if the same requestor, or their representative, has submitted multiple unrelated requests categorized by the City as Category 3 or 4 requests, the Public Records Officer may process the requests one at a time and in the order received while simultaneously processing other requestors' later-received requests. Requestors may prioritize the order in which the City processes such multiple requests. If a requestor submits multiple Category 3 or 4 requests that relate to the same subject, project, keyword, etc., the Public Records Officer may consolidate such requests to be processed simultaneously. The City shall endeavor to provide all requestors, and their representatives, with equal assistance and attention, to the extent reasonably and feasibly possible.

9. **Prisoner Injunction.** Pursuant to RCW 42.56.565, the City may seek to enjoin the inspection or copying of any nonexempt public records by persons serving criminal sentences in state, local or privately operated correctional facilities.

PRA Rule 050. Categories of requests.

1. When a public records request is received, the PRO will categorize the request according to the nature, volume and availability of the requested records as well as the complexity of the request as follows:

    a. **Category 1** records requests are routine and/or can be readily filled for easily identified and immediately accessible records, requiring little or no coordination between departments.

    b. **Category 2** records requests are routine requests that involve:
        i. A large number of records,
        ii. Third-party notification,
        iii. Records are not easily identified, located and accessible, and/or
        iv. Records that require some coordination between departments.

    c. **Category 3** records requests are complex requests which may be complex, broad or vague that involve:
        i. A large number of records that are not easily identified, located or accessible, requiring significant coordination between multiple departments,
        ii. Research by City staff who are not primarily responsible for public disclosure, and/or
        iii. Review by public disclosure staff to determine whether any of the records are exempt from production.

    d. **Category 4** records requests are complex requests that may be especially broad or vague which involve:
        i. A large number of records that are not easily identified, located or accessible, requiring coordination between multiple departments, and
        ii. Research by City staff who are not primarily responsible for public disclosure and/or
        iii. Legal review and creation of an exemption log. These requests may require additional assistance from third-parties in identification and assembly.

2. After initial categorization, records requests may be re-categorized in response to unanticipated circumstance or additional information.

PRA Rule 060. Standard time periods for response.

1. The following time standard periods for response to all categories of records requests are established as goals. The City may not be able to comply with the goals, but will notify the requester if the goal will not be met.

a. **Category 1 records request.** Generally, the City will respond to Category 1 requests within 5 business days but if records cannot be made available within 5 business days, the City may extend the time up to 30 business days.

b. **Category 2 records request.** The City will provide a written response to the requestor within five business days with a reasonable estimate of the time necessary to make the records available. The estimate is made on a case-by-case basis. Depending on the nature and scope of the request, Category 2 records requests may require between 30 and 120 business days.

c. **Category 3 records request**. The City will provide a written response to the requestor within five business days with a reasonable estimate of the time necessary to make the records available. The estimate is made on a case-by-case basis. Depending on the nature and scope of the request, Category 3 records requests may require several months or up to a year to respond.

d. **Category 4 records request.** The City will provide a written response to the requestor within five business days with a reasonable estimate of the time necessary to make the records available. The estimate is made on a case-by-case basis, depending on the nature and scope of the request. Category 4 records requests will usually require several months or more than a year to respond.

PRA Rule 070. Records requests queues.

1. All Categories of records requests shall be maintained and tracked in records requests queues with a separate queue for each category. The queues will identify the status of the records as “pending”, “open”, “referred”, “abandoned” or “closed”.

2. Records requests will initially be entered in the respective queues in the chronological order in which they are received by the City. Responding to a records request is not always a sequential process. The PRO will manage the active queues by moving between requests based on circumstance that may include, but are not limited to the following:

   a. A request is waiting for records to be retrieved from storage;

   b. A request is waiting for records to be retrieved from person or entities that hold them on behalf of the City (e.g. employees, consultants);

   c. A request is waiting for legal review of records to determine if the records are responsive or the applicability of exemptions and production of an exemption log;

   d. A request is waiting for the requestor to respond to a request for clarification;

   e. A request is waiting for a response after notifying a third party named in a record;

f. A request is waiting for resolution of a legal action filed by a third party to enjoin release of records;

g. A request is waiting for consideration of a petition to review denial of access;

h. A request is waiting for an external vendor reproduction of records;

i. A request is waiting for the requestor to claim an installment or physically inspect records.

PRA Rule 080. Managing the queues.

The PRO is primarily responsible for managing the records requests queues based on the following criteria:

1. The number of records responsive to the given request;

2. The number and size of other records requests in the queue;

3. The amount of processing required for the subject request and other requests in the queue;

4. The status of a particular request that is waiting for third party review or requestor action; and

5. The current volume of other City work, as it affects the amount of staff time that can be devoted to the subject request or requests.

PRA Rule 090. Redactions and exemptions

1. **Records exempt or prohibited from production.** The Public Records Act provides that some records are exempt or prohibited from production, in whole or in part. In addition, documents are exempt from disclosure if any "other statute" exempts or prohibits disclosure. Exemptions are permissive rather than mandatory. Therefore, the City has the discretion to provide an exempt record. However, in contrast to a waivable "exemption," the City cannot provide a record when a statute makes it "confidential" or otherwise prohibits disclosure.

2. **Exemption log and brief explanation.** Whenever the City claims an exemption for a record, the City's response will include an exemption log. The log will identify the record, typically by name, type of record, date, number of pages and the author or recipient, if such information is known. The log will also provide a brief explanation of why the record or a portion of the record is being withheld. The description should include enough information to allow a requestor to make a threshold determination of whether the City has properly invoked the exemption. If only a portion of a record is

exempt from production, the PRO will redact the exempt portions and produce the nonexempt portions.

3. **List of "Other Statute" Exemptions.** Requesters should be aware of exemptions, outside the Act, that may restrict the availability of some records held by the City for inspection and copying/scanning. The Municipal Research and Services Center also maintains an up-to-date list of current exemptions and prohibitions on their website at www.mrsc.org. The City's failure to list an exemption shall not affect the effectiveness of the exemption.

4. **Lists of individuals for commercial purposes.** The City is prohibited by statute from producing lists of individuals for commercial purposes. Therefore, if a request is received for any type of list of individuals, an inquiry as to whether the requestor intends to use the list for commercial purposes must be answered before the list can be provided. If the answer is that it will be used for such purposes, the list cannot be produced.

PRA 100. Inspection of Records

1. Inspection of records.

   a. Consistent with other demands, the City shall promptly provide space to inspect public records. No member of the public may remove a document from the viewing area or dissemble or alter any document.

   b. The requestor must claim or review the assembled records within 30 days of the PRO's notification to him or her that the records are available for inspection or copying/scanning. The PRO will notify the requestor, in writing, of this requirement and inform the requestor that he or she should contact the PRO to make arrangements to claim or review the records. If the requestor or a representative of the requestor fails to claim or review the records within the 30-day period or make other arrangements, the PRO may close the request. Other public records requests can be processed ahead of a subsequent request by the same person for the same or almost identical records, which can be processed as a new request.

PRA Rule 110. Providing records.

1. **Providing records in installments.** When the request is for a large number of records, the PRO may provide access for inspection and copying in installments, if he or she reasonably determines that it would be practical to provide records in that manner. If, within 30 days, the requestor fails to inspect the entire set of records, or one or more of the installments, the PRO may stop searching for the remaining records and close the request.

2. **Searching for records**. The City must conduct an objectively reasonable search for responsive records. The PRO will determine where responsive records are likely to be

located and involve other departments, as needed, to assemble the records. After potentially responsive records are located, the PRO should take reasonable steps to narrow down the number of records assembled to those that are responsive. The City will not "bury" a requestor with non-responsive documents. However, the PRO is allowed to provide arguably, but not clearly, responsive records to allow the requestor to select the ones he or she wants, particularly if the requestor is unable or unwilling to help narrow the scope of the documents being sought.

3. **Closing a withdrawn or abandoned request.** When the requestor either withdraws the request or fails to fulfill his or her obligations to inspect the records or pay the deposit or final payment for the requested copies, the PRO will close the request and so inform the requestor.

4. **Later discovered document.** If, after the PRO has informed the requestor that he or she has provided all available records, the PRO becomes aware of additional responsive documents existing at the time of the request that had not been provided previously, he or she will promptly inform the requestor of the additional documents and provide them on an expedited basis.

5. **Identifiable record.** A requestor must request an "identifiable record" or "class of records" before and agency must respond. An identifiable record is one in existence at the time the request is made and that City staff can reasonably locate. A request for all or substantially all records prepared, owned, used, or retained by the City is not a valid request for identifiable records under this chapter, provided that a request for all records regarding a particular topic or containing a particular keyword or name shall not be considered a request for all of the City's records. The Act does not allow a requestor to search through agency files for records which cannot be reasonably identified or described to the agency.

6. **Disclosing a record in error**. The City, and it officials, agents, employees or custodians shall not be liable, nor shall a cause of action exist, for loss or damage based on release of a public record if the City, official, agent, employee or custodian acted in good faith in attempting to comply with the Public Records Act.

7. **Requests for information or nonexistent records.** Requests for information are not public records requests. An agency is not required to conduct legal research for a requestor. An agency is not required to create records to respond to a request; however, the City may, with the requestor's approval, create such a new record to fulfill the request where it may be easier for the City to create a record responsive to the request than to collect and make available voluminous records that contain small pieces of information responsive to the request.

PRA Rule 120. Processing of public records request: Electronic records.

1. **Requesting electronic records.** The process for requesting electronic public records is the same as for requesting paper public records.

2. **Providing electronic records.** If public records are requested in an electronic format, the PRO will provide the nonexempt records or portions of such records that are reasonably locatable in an electronic format that is used by the agency and is generally commercially available, or in a format that is reasonably translatable from the format in which the agency keeps the record.

3. **Paper records provided electronically.** Paper records that are specifically requested to be provided electronically are subject to processing fees listed in the Fee Schedule.

4. **Customized access to databases.** With the consent of the requestor, the City may provide customized access under RCW 42.56.120(3) and (4) if the City estimates that the request would require the use of information technology expertise to prepare data compilations, or provide customized electronic access services when such compilations and customized access services are not used by the City for other purposes. Such charge shall be the actual cost of providing the customized access service. The City must notify the requestor in advance of the customized service charge to be applied, including an explanation of why the customized service charge applies, a description of the specific expertise, and a reasonable estimate cost of the charge, and the City must provide the requestor the opportunity to amend the public records request in order to avoid or reduce the cost of a customized service charge.

5. **No access to City network or systems.** Requestors shall not be permitted to access or "plug into" City networks or systems or copy records using personal devices or equipment, such as USBs or scanners, which must be connected to City equipment in order to copy records.

PRA Rule 130. Costs for providing copies of public records.

1. **Costs for copies.** A requestor may obtain copies or scans as provided under RCW 42.56.070(7), 42.56.120 and WAC 44-14-07003; the City will charge for copies or scans, as well as for records in other forms (e.g. CD/DVD, flash drive, etc.) according to their fee schedule.

   Before beginning to make copies, the PRO may require a deposit of up to ten percent of the estimated costs of copying or scanning all the records selected by the requestor. The PRO may also require the payment of the remainder of the copying/scanning costs before providing all the records, or the payment of the costs of copying/scanning an installment before providing that installment. The PRO will not charge sales tax when it makes copies or scans of public records but if the records are sent to a third party for copying/scanning, that third party may charge sales tax and the requestor will be responsible for payment of that tax as well as the third party's actual charges for copies or scans.

2. **Costs of mailing.** The City may also charge actual costs of mailing, including the cost of the shipping container.

3. **Use of an outside vendor.** An agency is not required to copy/scan records at its own facilities. An agency can send the project to a commercial copying/scanning center and bill the requestor for the amount charged by the vendor. An agency can arrange with the requestor to pay the vendor directly. An agency cannot charge the default per page copying/scanning charge when its cost at a vendor is less.

4. **Payment**. Payment may be made by cash, debit card, credit card, check or money order made payable to the City of Sammamish.

PRA Rule 140. Retention of records.

1. **Local Government Retention Schedule.** The City retains its records in accordance with retention schedules approved by the State Local Records Committee. The City is not required to retain all records it creates or uses. The retention schedules for local agencies are available at: https://www.sos.wa.gov/archives/RecordsManagement/Managing-City-Records.aspx.

2. **Preserving requested records**. Public records may not be destroyed per a retention schedule if a public records request or actual or anticipated litigation is pending. If a requested record is scheduled shortly for destruction under the City's records retention schedule, the record cannot be destroyed until the public disclosure request has been resolved. Once a request has been closed, the Public Records Officer can return the assembled records to their original locations and destroy the record in accordance with the retention schedule.

PRA Rule 150. Review of denials of public records requests.

1. **Petition for internal administrative review of denial of access.** Any person who objects to the initial denial or partial denial of a records request may petition in writing (including email) to the PRO for a review of that decision. The petition shall include a copy of, or reasonably identify, the written statement by the PRO denying the request, and the basis for the requestor's challenge to the denial.

2. **Consideration of petition for review.** The Public Records Officer shall promptly provide the petition and any other relevant information to the City Attorney or his or her designee to conduct the review. The City Attorney or designee will promptly consider the petition and either affirm or reverse the denial within two business days following the City's receipt of the petition, or within such other time to which the City and the requestor mutually agree.

3. **Judicial review.** Any person may obtain court review of denials of public records requests pursuant to RCW 42.56.550 at the conclusion of two business days after the initial denial regardless of any internal administrative appeal.

Agenda Bill

City Council Special Meeting
July 10, 2018

SUBJECT:	Ordinance: Repealing Sammamish Municipal Code (SMC) Chapter 2.45 related to Public Records Disclosure; providing for severability; and establishing an effective date.
DATE SUBMITTED:	July 02, 2018
DEPARTMENT:	City Clerk
NEEDED FROM COUNCIL:	☑ Action ☐ Direction ☐ Informational
RECOMMENDATION:	Adopt the ordinance.
EXHIBITS:	1. Exhibit 1 - Ordinance - Repealing SMC 2.45 Public Records
BUDGET:	
Total dollar amount	N/A
Fund(s)	

☐ **Approved in budget**
☐ **Budget reallocation required**
☑ **No budgetary impact**

WORK PLAN FOCUS AREAS:

☐ Transportation
☐ Communication & Engagement
☐ High Performing Government
☐ Environmental Health & Protection
☐ Community Safety
☐ Community Livability
☐ Culture & Recreation
☐ Financial Sustainability

NEEDED FROM COUNCIL:

Shall the City Council adopt an ordinance repealing SMC 2.45?

KEY FACTS AND INFORMATION SUMMARY:

On July 10, 2018, the City Council will consider a resolution to adopt rules relating to the Public Records Act. If adopted, the rules will be posted on our website and readily available to the public. Once the resolution is approved, it will supersede the regulations currently in the SMC. Staff has been advised by legal that repealing the entire section of code would be preferable to revising it, as it would be repetitive and unnecessary.

FINANCIAL IMPACT:

There is no budgetary impact by the passage of this ordinance.

OTHER ALTERNATIVES CONSIDERED:

The SMC could be revised to duplicate the resolution adopting the Public Disclosure Rules. There would be additional costs associated with rewriting the ordinance and having it codified by the code publisher.

CITY OF SAMMAMISH
WASHINGTON
ORDINANCE NO. O2018-

AN ORDINANCE OF THE CITY OF SAMMAMISH, WASHINGTON REPEALING SAMMAMISH MUNICIPAL CODE CHAPTER 2.45 RELATED TO PUBLIC RECORDS DISCLOSURE; PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

WHEREAS, open government leads to a better informed electorate, greater public participation, better government and more effective use of public resources; and

WHEREAS, under the Public Records Act ("PRA"), agencies are "to provide full public access to public records . . ." and to "provide for the fullest assistance to inquirers and the most timely possible action on requests for information" (RCW 42.56.100); and

WHEREAS, it is the policy of the City of Sammamish that all persons are entitled to the greatest possible information regarding the affairs of City government and the official acts of those officers and employees who serve the public; and

WHEREAS, RCW 42.56.040 requires local agencies to publish and display their public disclosure rules; and

WHEREAS, RCW 42.56.570 provides that local agencies should consult the Attorney General's Model Rules, Chapter 44-14 WAC, when establishing local ordinances for compliance with the PRA; the PRA, however, does not require an agency's public records rules be adopted by ordinance; and

WHEREAS, the City Council desires to establish the City's public records policies by resolution to allow for more efficient administration and flexibility in amending the policies as necessary and has consulted the Model Rules, the PRA and relevant case law in developing the policies; and

WHEREAS, the City Council desires to repeal Sammamish Municipal Code Chapter 2.45, Public Records Disclosure, to avoid potential conflicts with the PRA in the City's handling of public records;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SAMMAMISH, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. SMC Chapter 2.45, Repealed. Sammamish Municipal Code Chapter 2.45, Public Records Disclosure, is hereby repealed in its entirety.

Section 2. Severability. Should any section, paragraph, sentence, clause or phrase of this Ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this Ordinance be pre-empted by state

or federal law or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this Ordinance or its application to other persons or circumstances.

Section 3. Effective Date. This Ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

ADOPTED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE _____ DAY OF _____, 2018.

CITY OF SAMMAMISH

_____
Mayor Christie Malchow

ATTEST/AUTHENTICATED:

_____
Melonie Anderson, City Clerk

Approved as to form:

_____
Mike Kenyon, City Attorney

Filed with the City Clerk: July 2, 2018
Passed by the City Council:
Date of Publication:
Effective Date:

Agenda Bill

City Council Regular Meeting
July 10, 2018

SUBJECT:	Louis Thompson Road Slide Repair and Drainage Improvements
DATE SUBMITTED:	June 28, 2018
DEPARTMENT:	Public Works
NEEDED FROM COUNCIL:	☑ Action ☐ Direction ☐ Informational
RECOMMENDATION:	Authorize the City Manager to award and execute a contract with RW Scott Construction Co. for construction of the Louis Thompson Road Slide Repair and Drainage Improvements in the amount of $1,275,730.00, administer a ten percent (10%) project construction contingency of $127,573.00, and execute a contract supplement for construction support with David Evans and Associates in the amount of $47,656.
EXHIBITS:	1. Exhibit 1 - Bid Opening Summary 2. Exhibit 2 - Vicinity Map_Louis Thompson Slide 3. Supplemental Amendment Form #3 DEA

BUDGET:

Total dollar amount	$1,450,959	☑ **Approved in budget**
Fund(s)	Surface Water Capital Improvement Fund 438-434-595-40-63-00, Transportation CIP 340-168-595-30-63-00	☐ **Budget reallocation required** ☐ **No budgetary impact**

WORK PLAN FOCUS AREAS:

☑	Transportation	☐	Community Safety
☐	Communication & Engagement	☐	Community Livability
☐	High Performing Government	☐	Culture & Recreation
☑	Environmental Health & Protection	☐	Financial Sustainability

NEEDED FROM COUNCIL:

Should the City of Sammamish enter into contract with the apparent low bidder, RW Scott Construction Co. to replace the retaining wall on Louis Thompson Road?

KEY FACTS AND INFORMATION SUMMARY:

The Louis Thompson Road Slide Repair and Drainage Improvements project is the City's response to a significant storm event that occurred in November of 2015. This event led to stormwater bypassing a clogged culvert crossing 210th Place SE which washed out over a portion of the existing soldier pile retaining wall, creating a slope failure. The project includes a new soldier pile wall and new storm drain outfall which serve to address road stability and safety concerns. Additionally, the storm drain outfall will also reduce further erosion potential of the slope along Zackuse Creek.

Council approved the engineering design contract with David Evans and Associates (DEA) on May 2, 2017, which did not include construction support services, roadway and a retrofit of the adjacent storm drain system and outfall. Staff is requesting to include construction management for DEA to the existing contract for support during construction of the project.

Bids for this project were received on June 14, 2018. Two contractors submitted bids for this project, with the lowest bidder being R.W. Scott Construction Co in the amount of $1,275,730.00

FINANCIAL IMPACT:

Funding for this project in the amount of $1,450,959 is proposed to be funded though Transportation and Surface Water Capital Improvement Funds. Included in these funds is a King County Wastewater Treatment Division grant of $195,000 awarded for reducing the erosion potential to upper Zackuse Creek and thereby improving water quality.

The bids received were higher than the engineer's estimate. Review of the bids showed that the difference was due to high unit prices for the soldier pile wall. Both bids were extremely close and had nearly identical soldier pile wall prices. Further review showed that the high prices for the retaining wall was due to new tariffs on foreign steel and a lack of local inventory.

OTHER ALTERNATIVES CONSIDERED:

The alternative is to not proceed with acceptance of the received bids and not move to construction. This would delay to the repair of the failed slope and retaining wall and is not recommended by staff. It is currently unknown if steel prices will come down in the near term. There is no current estimate to support this, so rebidding in hopes of a more favorable bid climate is unlikely. Additionally, delaying the project could jeopardize the $195,000 grant from the King County Wastewater Treatment Division.

RELATED CITY GOALS, POLICIES, AND MASTER PLANS:

City of Sammamish Storm and Surface Water Management Comprehensive Plan

- Goal G.1 – Comprehensively evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

City of Sammamish Transportation Element

- Goal T.3 – Operations, Maintenance, Management and Safety

Bid Opening

City of Sammamish Public Works Department

Project: Louis Thompson Road SE Slide Repair and Drainage Improvements

Bid Date & Time: June 14, 2018, 2:00 PM

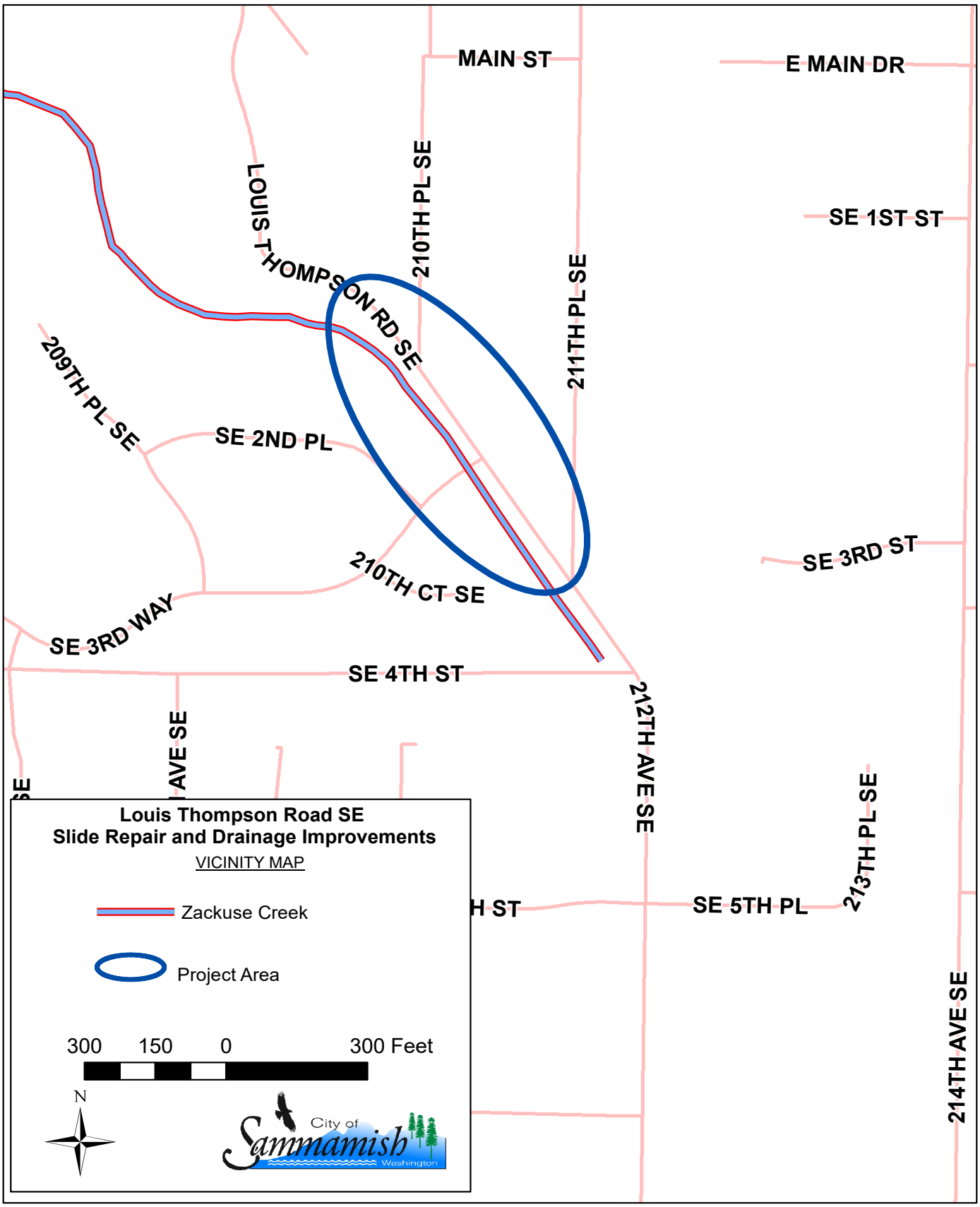
	Bidder	Signed Proposal	Bid Security Form	Acknowledge Addendum 1	Bidder Information and Signature	Non-Collusion and Debarment Affidavit	Minimum Wage Affidavit	Statement of Bidder's Qualifications*	Responsible Bidder Criteria*	Bid Price
1	**R.W. Scott Construction Co.**	√	√	√	√	√	√	√	√	**$1,275,730**
2	**Road Construction Northwest, Inc.****	√	√	√	√	√	√	√	√	**$1,281,184**
3										
4										
5										
6										
7										
8										
9										
10										

*The two lowest bidders shall submit these forms within 48-hours after the bid opening.

**The bid price for Road Construction NW includes a small arithmetic correction, which does not impact bid result.

Apparent Low Bidder: R.W. Scott Construction Co.

Engineer's Estimate: $885,000


MAIN ST
E MAIN DR
SE 1ST ST
LOUIS THOMPSON RD SE
210TH PL SE
211TH PL SE
209TH PL SE
SE 2ND PL
210TH CT SE
SE 3RD ST
SE 3RD WAY
SE 4TH ST
212TH AVE SE
213TH PL SE
SE 5TH PL
214TH AVE SE
Louis Thompson Road SE
Slide Repair and Drainage Improvements
VICINITY MAP
Zackuse Creek
Project Area
300 150 0 300 Feet
N
City of
Sammamish
Washington

SUPPLEMENTAL AGREEMENT

Amendment Number: 3	Date: July 3,2018
Project: Louis Thompson Slide Repair	City Project number: N/A
Consultant: David Evans and Associates, Inc.	Contract Number: C2017-180

The City of Sammamish desires to amend the agreement with (Consultant) for the (Project name) Project. All provisions in the basic agreement remain in effect except as modified by this agreement.

Original Contract Amount:	Current Contract Amount	Net Change This Amendment	Estimated Contract Total After Change
249,599.00	269,571.00	47,656.00	317,227.00

(Consultant) Date 7/3/18	Approved: City of Sammamish Date

EXHIBIT A

CITY OF SAMMAMISH
LOUIS THOMPSON ROAD SE SLIDE REPAIR
AND DRAINAGE IMPROVEMENTS
Supplement No. 3
Scope of Services

Prepared by:

David Evans and Associates, Inc.
14432 SE Eastgate Way
Suite 400
Bellevue, WA 98007

425-519-6500

June 26, 2018

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INTRODUCTION

Supplement No. 3 modifies the Original Agreement dated May 5, 2017, Supplement No. 1 dated November 17, 2017, and Supplement No. 2 dated April 6, 2018, with the following revisions.

SECTION 9.00 CONSTRUCTION SUPPORT SERVICES (NEW SECTION)

9.01 Project Description

The CONSULTANT shall provide Construction Support as requested by the CITY for the following activities.

9.02 Site Meetings

The CONSULTANT shall attend site visits and record observations made. Assume 3 site visits.

9.03 Requests for Information (RFIs)

The CONSULTANT shall provide responses in a timely manner. Generally, the CITY will need RFI responses within 3 business days of the request, however more or less time may be allocated for this task depending on the issue.

9.04 Constructability Issues/Plan Clarifications

The CONSULTANT will be required to provide input and guidance on the constructability issues. This includes on-site visits, design revisions based on field conditions, or suggested plan changes by CITY staff. The CITY will provide a minimum of 48 hours notice for the CONSULTANT to perform the initial site visit to gather information to review. The CONSULTANT shall provide written review and input in a timely manner so that the CITY Contractor's work flow is not unnecessarily disrupted. This may necessitate the CONSULTANT providing direction at the time of the field visit. Nothing herein shall require the CONSULTANT to provide services in a manner that would precipitate performance below the generally accepted standard of care for the CONSULTANT's industry.

9.05 Approval of Shop Drawings/Submittals

The CONSULTANT shall evaluate shop drawings, and proposals for substitutions of materials and procedures as submitted by the Contractor for general conformance with the project requirements and intent. The CONSULTANT shall provide review and approval of shop drawings and other submittals within 5 business days.

9.06 Project Walkthrough

The CONSULTANT shall conduct a final walkthrough with the CITY, and assist with the preparation of a punch list of items for completion prior to the final acceptance of the project. The CONSULTANT will conduct a follow-up review to confirm completion.

9.07 As-Builts

The CONSULTANT shall prepare draft and final as-built drawings based upon the Contractor's redlined construction record drawings. The as-built drawings will be delivered in AutoCAD format, along with a printable PDF format scaled to be printed at 11x17 inch sheet size.

DELIVERABLES:

- *Invoices with Work Report Summary*
- *RFI Responses*
- *Signed and Stamped Approval of Shop Drawings*
- *Draft and final as-built drawings*

Attachment B
CITY OF SAMMAMISH
LOUIS THOMPSON ROAD SLIDE REPAIR

Cost Estimate
Supplement No. 1

David Evans and Associates, Inc.

	Classification	Hrs.	x	Rate	=	Cost
1	Project Manager (PMGR)	36		$ 237.98	$	8,567
2	QA/QC Manager (MGPE)	8		$ 231.68	$	1,853
3	Professional Engineer (PFEN)	55		$ 166.82	$	9,175
4	Sr. Bridge Engineer (SBEN)	16		$ 200.62	$	3,210
5	Bridge Engineer (BREN)	69		$ 150.05	$	10,353
6	Sr. CADD Technician (SCAD)	26		$ 140.01	$	3,640
7	Sr. Scientist (SSCI)	11		$ 155.91	$	1,715
8	Sr. Landscape Architect (SLAN)	18		$ 162.15	$	2,919
9	Sr. Landscape Designer (SLAD)	8		$ 120.05	$	960
10	Administrative Assistant (ADMA)	16		$ 88.43	$	1,415
11	Project Administrator (PADM)	6		$ 114.53	$	687
	Total Hrs.	274				
	Salary Cost				**$**	**44,496**

Direct Expenses	**No.**	**Unit**	**Each**		**Cost**	
Reproduction Costs						
Reports			$70	est.	$ -	
Plans		sets @	$10	/set	$ -	
Potholing		@	$700		$ -	
Mail/Deliveries/Fed Ex			$30	est.	$ -	
Underground Utility Locates		hours @	$90		$ -	
Mileage	300	miles @	$0.535	/mile	$ 161	
Subtotal						**$ 161**
DEA Subtotal						**$ 44,656**
Subconsultants						
HWA Geosciences						**$ 3,000**
Subconsultant Total						**$ 3,000**
DEA & Subconsultants Subtotal						**$ 47,656**

Item No.	Work Item	1 Project Manager (PMGR)	2 QA/QC Manager (MGPE)	3 Professional Engineer (PFEN)	4 Sr. Bridge Engineer (SBEN)	5 Bridge Engineer (BREN)	6 Sr. CADD Technician (SCAD)	7 Sr. Scientist (SSCI)	8 Sr. Landscape Architect (SLAN)	9 Sr. Landscape Designer (SLAD)	10 Administrative Assistant (ADMA)	11 Project Administrator (PADM)	DEA Total	DEA Dollars	HWA Geosciences Dollars	DEA and Sub-consultants Total Dollars
	David Evans and Associates, Inc.															
	Direct Labor	$237.98	$231.68	$166.82	$200.62	$150.05	$140.01	$155.91	$162.15	$120.05	$88.43	$114.53				
		Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total $	Total $	Total $
2.00	**Project Management and Quality Control**															
2.03	Monthly Invoices/Progress Reports (4 Total)	8									4	6	23	$2,945		$2,945
	Work Item 2.00 Total	8									4	6	23	$2,945		$2,945
9.00	**Construction Support Services (If requested)**															
9.02	Site Meetings (Assume 3)	6		9		9		3	6				33	$5,720		$5,720
9.03	Requests for Information (RFIs)	4		8	4	16		4	4		8		48	$7,469		$7,469
9.04	Constructability Issues/Plan Clarifications	8	4	16	4	16	8	4	4	8			72	$12,056	$3,000	$15,056
9.05	Approval of Shop Drawings/Submittals	4	4	12	8	24					4		56	$9,440		$9,440
9.06	Project Walkthrough	4		4		4			4				16	$2,868		$2,868
9.07	As-Builts	2		6			18						26	$3,997		$3,997
	Work Item 9.00 Total	28	8	55	16	69	26	11	18	8	12		251	$41,551	$3,000	$44,551
	EXPENSES													$161		$161
	PROJECT WORK TOTALS ITEMS 1.0 - 8.0	36	8	55	16	69	26	11	18	8	16	6	274	$44,656.22	$3,000	$47,656
	Management Reserve Total															
	TOTAL CONTRACT AMOUNT	36	8	55	16	69	26	11	18	8	16	6	274	$44,656	$3,000	$47,656

6/26/2018

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Agenda Bill

City Council Special Meeting
July 10, 2018

SUBJECT:	Zackuse Creek Fish Passage and Stream Restoration Project - Interlocal Agreement with Sammamish Plateau Water
DATE SUBMITTED:	June 08, 2018
DEPARTMENT:	Public Works
NEEDED FROM COUNCIL:	☑ Action ☐ Direction ☐ Informational
RECOMMENDATION:	Authorize the City Manager to approve the Interlocal Agreement with Sammamish Plateau Water for construction coordination and reimbursement for work related to water and sewer relocates for the Zackuse Creek Fish Passage and Stream Restoration Project.
EXHIBITS:	1. Exhibit 1 - Zackuse Creek Fish Passage and Stream Restoration Project Interlocal Agreement with Sammamish Plateau Water and Sewer District

BUDGET:

Total dollar amount	$0	☐ **Approved in budget**
Fund(s)	Zackuse Project Storwater Capital Fund	☐ **Budget reallocation required**
		☑ **No budgetary impact**

WORK PLAN FOCUS AREAS:

☐ Transportation	☑ Community Safety
☐ Communication & Engagement	☐ Community Livability
☐ High Performing Government	☐ Culture & Recreation
☑ Environmental Health & Protection	☑ Financial Sustainability

NEEDED FROM COUNCIL:

Shall the Council authorize the City Manager to sign the Interlocal Agreement (ILA) with Sammamish Plateau Water for construction coordination and reimbursement for work related to water and sewer relocates for the Zackuse Creek Fish Passage and Stream Restoration Project?

KEY FACTS AND INFORMATION SUMMARY:

The Zackuse Creek Fish Passage and Stream Restoration Project includes the construction of a 12-ft span concrete box culvert. The construction of this culvert will require special excavation conditions

within East Lake Sammamish Parkway (ELSP) and removal of 20 plus feet of underlying peat subgrade. Due to the need for both wide and deep excavation, support-in-place of existing water and sewer mains within ELSP was deemed unsafe and the utilities will need to be relocated.

The ILA records the agreement between the City and Sammamish Plateau Water ("the District") for construction of the City's Zackuse Creek Fish Passage and Stream Restoration Project. The ILA confirms the coordination efforts between the City and the District and, additionally, documents City reimbursement by the District for bid items work related to water and sewer relocates on East Lake Sammamish Parkway.

The City and the District achieve cost savings and benefits to the public by relocating water and sewer utilities during construction.

FINANCIAL IMPACT:

The City shall be reimbursed by the District for construction bid items related to water and sewer relocation. Reimbursement will be based on unit bid costs awarded by the City construction contract with Pacific Civil & Infrastructure. Estimated reimbursement based on unit bid costs and quantities is $37,805 and shall not exceed $50,000.

OTHER ALTERNATIVES CONSIDERED:

Council may choose to not enter into an ILA with Sammamish Plateau Water for the Zackuse project and be responsible for the full cost of the utility relocation.

RELATED CITY GOALS, POLICIES, AND MASTER PLANS:

City of Sammamish Storm and Surface Water Management Comprehensive Plan

- Goal 7 – Coordinate surface and stormwater management services with neighboring jurisdictions

INTERLOCAL AGREEMENT

CITY OF SAMMAMISH AND SAMMAMISH PLATEAU WATER AND SEWER DISTRICT

ZACKUSE CREEK FISH PASSAGE AND STREAM RESTORATION PROJECT

RECITALS

This Agreement ("Agreement") is made and entered into by and between the City of Sammamish, a municipal corporation (the "City") and the Sammamish Plateau Water and Sewer District, a municipal corporation (the "District") (individually a "Party" and collectively the "Parties"), for the purposes set forth below.

WHEREAS, the City has prepared and bid Plans and Specifications for the City's Zackuse Creek Fish Passage and Stream Restoration Project ("Project"), and has awarded the Project by contract (the "Contract") to the lowest responsible bidder ("Contractor"); and

WHEREAS, the District provides water and sewer services in the general area of the Project; and

WHEREAS, the District has sewer and water mains within the limits of the Project that will need to be bypassed and relocated as part of the Project; and

WHEREAS, the City and the District can achieve cost savings and benefits in the public interest by bypassing and relocated sewer and water mains during construction of the Project, hereinafter referred to as the "District Work; and

WHEREAS, the City and the District have the authority to undertake joint and cooperative action pursuant to Chapter 39.34 RCW;

NOW, THEREFORE, in consideration of the following terms and conditions, the Parties agree as follows:

I. CONTRACT ADMINISTRATION

A. City Responsibilities

1. The City agrees to include and have constructed the District Work as part of the Project as further provided in this Agreement.
2. The City shall provide the administrative and clerical services necessary for the execution of the District Work.
3. The City shall include in the contract plans and specifications ("Contract Plans") engineering specifications and details provided by the District to perform the District Work.

4. The City will notify the District of any changes required by the City which substantially change the nature of the District Work and shall obtain the District's approval of such changes. Such approval shall not be unreasonably withheld by the District. Written notification by the City shall be given to the District prior to the commencement of the work.
5. Upon written notice from the District of any changes to the District Work needed during construction, the City shall make such changes, if feasible, to the Contract as part of the Contract's standard change order process.
6. The City shall provide the District with the Contractor's proposed schedule for the District Work and written notice when the Contractor begins the District Work.
7. The City will make monthly progress payments to the Contractor for District Work accepted by the District as complete.
8. The City will submit the paid monthly Contractor invoices to the District for reimbursement of District Work completed and accepted by the District.
9. The City will not grant the Contractor final acceptance for the District Work until the District has provided the City with written notice that the District Work is complete and approved for final acceptance.
10. The City shall require the Contractor to schedule any temporary shutdowns of the water and sewer system a minimum of one (1) week in advance.
11. The City shall approve daily quantities and pay requests when they include the District pay items.
12. The City shall invoice District for actual costs incurred for the District pay items.
13. The City shall provide surveyed as-built record drawings of the relocated water and sewer facilities.

B. District Responsibilities

1. The District shall provide inspection to verify proper compliance with requirements in the Contract Plans while the Contractor is doing the District Work and shall provide the City with a written summary of pay item quantities to be included in the City's monthly progress payments to the Contractor.
2. The District shall promptly provide the City with written documentation describing any change(s) in the District Work required during construction.
3. The District shall promptly provide a response to the City after the District is notified of any changes required by the City that substantially change the nature of the District Work per section A. 3. above.
4. Upon notice from the Contractor that the District Work is complete, the District shall, within five (5) working days, complete a final inspection of the completed work, and provide to the City a list of the accepted work and/or provide an

itemized and detailed response as to why any portion of the District Work cannot be given acceptance.

5. The District shall furnish an inspector and the City will allow the District's inspector to be onsite while Contractor is performing work on the water and sewer system.
6. The District shall approve any change orders relating to the water and sewer that the City will seek reimbursement from the District for before commencement on that work.
7. The District shall approve daily quantities and pay requests when they include the District pay items.

II. PAYMENT

A. The District shall reimburse the City at the unit bid prices for the Zackuse Creek Fish Passage and Stream Restoration project.

The following reimbursement of the actual bid items will pertain to the District Work ("District Pay Items"):

1. 100% of the following items, A3-01, A3-02, A3-03, A3-04, A3-06, A3-07A, A3-10, A3-11, A3-14
2. 50% of the following items, A3-08, A3-12

Other District Work pay items may be added by project specific engineering details and specifications provided by the District and agreed upon by the City, which shall then be included in the City's Contract documents.

B. The City shall be responsible for all other costs relating to the temporary bypass and relocation of the District's existing water and sewer utilities on the Project not identified in the bid items listed herein. The District's total reimbursement to the City for the District Work shall not exceed Fifty Thousand dollars, including applicable tax ($50,000.00).

C. The District shall reimburse the City at the unit bid prices bid for any other work approved by the District and completed by the Contractor for the District Work in accordance with the Contract and the Contract Plans, or in conformance with a District approved and City executed change order.

D. In the event the Contractor uncovers any materials, while doing work solely related to completion of the District Work that require special handling and/or disposal under any local, state or federal laws or regulations (including, but not limited to, hazardous waste, dangerous waste, toxic waste or contaminated soil), the District will be responsible for all costs incurred in handling and/or disposing of such materials, provided the District's cost responsibility shall be included in and limited by the total District reimbursement obligation set forth in Section II.B. above.

E. All payments shall be due within forty-five (45) days from the date the City invoices the District for the District Work performed on the Project, and when due shall accrue simple interest at the rate of one percent per month.

III. PARTIES INDEMNIFICATION AND HOLD HARMLESS

A. Each Party to this Agreement agrees to protect, defend, and indemnify the other Party, its officers, officials, employees, and agents from any and all costs, claims, claims for delay, judgments and/or awards of damages arising out of or in any way resulting from the Party's default, failure of performance, or negligent conduct associated with this Agreement, by the Party, its employees, subcontractors or agents.

B. Each Party agrees that its obligations under this provision extend to any claim, demand, and/or cause of action brought by or on behalf of any of its employees or agents. The foregoing indemnity is specifically and expressly intended to constitute a waiver of each Party's immunity under Washington's Industrial Insurance Act, RCW Title 51, but only as respects the other Party, and only to the extent necessary to provide each Party with a full and complete indemnity of claims made by the other Party's employees. The Parties acknowledge that these provisions were specifically negotiated and agreed upon by them.

C. In the event either Party incurs any costs, including attorney fees or expert witness fees, to enforce this Agreement, and prevails in such enforcement action, all such costs and fees shall be recoverable from the losing Party.

D. The provisions of this section shall survive the expiration or earlier termination of the Agreement with regard to any event that occurred prior to or on the date of such expiration or earlier termination.

IV. CONTRACTOR INDEMNIFICATION OF DISTRICT AND INSURANCE

A. The City shall require the Contractor building the Project to have the District named as an additional insured on all policies of insurance to be maintained by Contractor(s) under the terms of any Project contract(s); and any Project contract shall require Contractor to maintain Commercial General Liability Insurance, Commercial Automobile Insurance and Workers Compensation and provide satisfactory proof thereof prior to commencing construction.

B. The City shall require the Contractor to indemnify, defend, and save harmless the District and its officers, agents, or employees from any claim, real or imaginary, filed against the District or its officers, agents, or employees alleging damage or injury arising out of the Contractor's participation in the Project.

C. The City shall contractually require the Contractor to be solely and completely responsible for safety of all persons and property during performance of the District's Work. The Contractor shall be contractually required to comply with all

applicable City and State regulations, ordinances, orders, and codes regarding safety.

V. OTHER PROVISIONS

A. The City agrees to require in its contract with the Contractor for the District Work to be constructed in a good and workmanlike manner in accordance with the terms of this Agreement and the Contract Bid Documents.

B. This Agreement contains the entire agreement of the Parties and supersedes all prior discussions. This Agreement may be amended only in writing, signed by both Parties.

C. Nothing contained herein is intended to, nor shall be construed to, create any rights in any third party, or to form the basis for any liability on the part of the Parties or their officials, officers, employees, agents or representative, to any third party.

D. Waiver of any default or breach of this Agreement shall not be deemed to be a waiver of any other prior or subsequent default or breach and shall not be construed to be a modification of the terms of this Agreement unless stated to be such through written agreement of both Parties.

E. If any provision of this Agreement is held invalid or unenforceable by a court of competent jurisdiction, the remainder of the Agreement shall not be affected thereby and shall continue in full force and effect if such remainder would then continue to serve the purposes and objectives of the Parties.

F. This Agreement is authorized under RCW 39.34.080. Nothing herein shall be construed to create a partnership or joint venture between the Parties.

G. The individuals signing this Agreement on behalf of the respective Party represent and warrant they have the power and authority to do so.

H. The recitals set forth above are incorporated herein by this reference.

I. This Agreement shall be effective upon the date Agreement execution by both Parties ("Effective Date"), and shall remain in effect until City acceptance of the Project and release of all Contract retainage

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the dates set forth below.

CITY OF SAMMAMISH	SAMMAMISH PLATEAU WATER AND SEWER DISTRICT
Lyman Howard, City Manager	John C. Krauss, General Manager
Date	6-22-18 Date

Agenda Bill

City Council Regular Meeting
July 10, 2018

SUBJECT:	2018 Curb Ramp Retrofit and Sidewalk Repair Project – Change Order 001
DATE SUBMITTED:	July 02, 2018
DEPARTMENT:	Public Works
NEEDED FROM COUNCIL:	☑ Action ☐ Direction ☐ Informational
RECOMMENDATION:	Authorize the City Manager to execute a Change Order with RRJ Company, LLC for additional construction on the 2018 Curb Ramp Retrofit and Sidewalk Repair Project in the amount of $125,015.88 in addition to the previously approved $599,202.80 and fifteen percent (15%) project contingency.
EXHIBITS:	1. Exhibit 1 - 2018 Curb Ramp Retrofit - Change Order 001

BUDGET:

Total dollar amount	$814,068.68	☑ **Approved in budget**
Fund(s)	Overlay & Pavement Preservation - Roadway, 101-000-542-30-48-51, Overlay & Pavement Preservation - Sidewalk, 101-000-542-61-48-50	☐ **Budget reallocation required** ☐ **No budgetary impact**

WORK PLAN FOCUS AREAS:

☑ Transportation	☐ Community Safety
☐ Communication & Engagement	☐ Community Livability
☐ High Performing Government	☐ Culture & Recreation
☐ Environmental Health & Protection	☐ Financial Sustainability

NEEDED FROM COUNCIL:

Should the City of Sammamish extend a contract with RRJ Company, LLC for additional Curb Ramp and Maintenance construction on the 2018 Curb Ramp Retrofit and Sidewalk Repair Project?

KEY FACTS AND INFORMATION SUMMARY:

The 2018 Curb Ramp Retrofit and Sidewalk Repair Project was publically advertised for construction in March, 2018. Bid proposals were opened on March 22, 2018. The City Council authorized the City Manager to execute a contract with RRJ Company, LLC for construction on April 17, 2018.

Background:

Curb ramp retrofits and sidewalk repairs are a critical component of maintaining our current roadway network. Per the Americans with Disabilities Act (ADA) laws that went into effect in 2009, all street crossings with a pavement overlay area that crosses an intersection must improve all curb ramps to meet the current standards specified in the Americans with Disabilities Act. This project is designed to update all crossings before we overlay our streets. More information about the project can be viewed at the City's project webpage.

Additional background about the City's pavement management program was provided at the March 13, 2018 City Council Meeting.

RRJ Company, LLC has assisted the City's Maintenance crew by replacing additional broken sidewalks and ramps that our crews have not been able to repair beyond the approved project limits. To date, they have replaced sidewalk at six (6) additional Citizen Action Request locations and have used up the allotted 5% project Contingency allocated towards maintenance assistance.

The award Agenda Bill was provided at the April 17, 2018 City Council Meeting.

Summary:

The City is proposing an additional 21 curb ramps be added to the existing 2018 Curb Ramp Retrofit and Sidewalk Repair project as a result of Citizen Action Requests. The original contract called for a total of 76 ramps. The additional work is specified below:

- 205th Pl NE Overlay Pavement Limit Extension: The City was able to extend the limits of our paving project beyond what was anticipated when the 2018 Curb Ramp Retrofit and Sidewalk Repair Project was bid. Due to favorable bid amounts, the City was able to extend the limits by an additional five (5) blocks to the south, which adds twelve (12) ramps that need to be retrofitted.
- 205th Pl NE/Blackwell Elementary Raised Crosswalks: In order to keep the existing raised crosswalks in compliance with the set ADA Standards, additional concrete work is needed at the four (4) intersection corners between the two raised crosswalks (NE 32nd Ct and NE 31st St).
- 205th Pl NE/NE 34th Pl: This location is in-between two sites that were paved in 2013. In 2013, the ramps were never modified and are now out of compliance with current standards. There are a total of five (5) additional ramps out of compliance along the street. In addition to the ramps, there are existing broken sidewalk panels that will be replaced.
- Additional Sidewalk Locations Near the Project: Our contractor has been willing to work with the City to address Citizen Action Requests around their project sites.

FINANCIAL IMPACT:

Funding for this change order is proposed to come from two available sources;

- $104,011.90 is proposed to be funded through available funds in the Overlay & Pavement Preservation Roadway budget,
- $21,003.98 and will be funded through the Overlay & Pavement Preservation Sidewalk budget.

The total estimate for the Change Order is $125,015.88. This will bring the total Concrete Curb Ramp and Sidewalk Repair project contract to $814,068.68.

OTHER ALTERNATIVES CONSIDERED:

Failure to award this change order will result in an inability to continue with our 2018 Pavement Program – Overlay project within these locations in a timely manner and will result in delays and higher costs.

RELATED CITY GOALS, POLICIES, AND MASTER PLANS:

Comprehensive Plan - Transportation Element

- **Goal T.3**: Operations, Maintenance, Management and Safety

City of Sammamish
801 228th Avenue SE
Sammamish, WA 98075
Phone: (425) 295-0500
Fax: (425) 295-0600

DATE: 7/2/2018

CHANGE ORDER NO.	CONTRACT NO.	FEDERAL AID NO.	AGREEMENT NO.
001	C2018-154	N/A	
PROJECT: 2017 Curb Ramp Retrofit and Sidewalk Repair Project	**CONTRACTOR:** RRJ Company, LLC		

COP	BID ITEM	QTY	UNIT	UNIT PRICE	DESCRIPTION	ORIGINAL AMOUNT	REVISED AMOUNT	DIFF.
	10	670	CY	$ 73.16	Pavement Repair Ex. and Backfill, Incl. Haul	$ 49,017.20	$ 60,086.31	$ 11,069.11
	15	985	Ton	$ 59.00	Remove and Replace Cem. Conc. Curb and Gutter	$ 58,115.00	$ 75,962.50	$ 17,847.50
	16	1000	Ton	$ 116.00	Remove and Replace Cem. Conc. Sidewalk	$ 116,000.00	$ 149,802.40	$ 33,802.40
	17	49	Ton	$ 3,118.51	Remove and Replace Cem. Conc. Parallel A	$ 152,806.99	$ 205,821.66	$ 53,014.67
	19	10	Ton	$ 2,320.55	Remove and Replace Cem. Conc. Perpendicular	$ 23,205.50	$ 32,487.70	$ 9,282.20
							Total Change Order Cost:	**$125,015.88**
							Total Time Extension (Working Days):	**0.0**

Total Original Contract Amount	Current Contract Amount Including Previous Change Orders	This Change Order Total	Revised Contract Amount
$599,202.80	**$599,202.80**	**$125,015.88**	**$724,218.68**

This change order constitutes full and complete compensation for all work and costs required to perform the above-described change.
This document will become a supplement to the Contract and all provisions in the contact will apply hereto.
Unless additional working days are specifically designated in this change order, no additional working days shall be granted based on this change order.

ACCEPTED: The above prices and specifications of this Change Order are satisfactory and are hereby accepted.

Contractor Approval

Signature: _____ Date of acceptance: _____
Rick Schroeder, President

Owner Approval
City of Sammamish

Signature: _____ Date: _____
Andrew Zagars, City Engineer

Signature: _____ Date: _____
Steve Leniszewski, Director Public Works

Signature: _____ Date: _____
Benjamin Ressler, Project Engineer

Signature: _____ Date: _____
Lyman Howard, City Manager

Draft

NOTES
City Council Special Study Session

5:30 PM - June 12, 2018
City Hall Council Chambers, Sammamish, WA

Mayor Christie Malchow called the special study session of the Sammamish City Council to order at 5:30 p.m.

EXECUTIVE SESSION

Executive session to evaluate the performance of a public employee pursuant to RCW42.30.110(1)(g)

Council retired to an executive session at 5:30 pm and returned 7:03 pm with no action.

PUBLIC COMMENT

Mary Wictor, 408 208th Ave NE, spoke about Stormwater and showed a presentation (available upon request to the City Clerk)
Karen Herring, 23684 SE 32nd St, spoke about Stormwater and ERB
Tom Odell, 2831 220th Pl NE, spoke about traffic and concurrency.
James Eastman, 3636 E Lake Sammamish Pkwy NE, spoke about Stormwater.

TOPICS

1. **Recognition:** Government Finance Officer's Award

Jack Prells- Presented a Certificate of Achievement to the Sammamish Finance department for excellence in financial reporting. He also presented the Government Finance Officers Association's Distinguished Budget Award.

2. **Discussion:** 2019-2024 Six-Year Transportation Improvement Plan (TIP)

Steve Leniszewski, Public Works Director and Cheryl Paston, Deputy Public Works Director gave the staff report.

Draft

3. **Discussion:** Proposed Amendments to Sammamish Municipal Code (SMC) 21A.15, 21A.~~45, 21B.15~~, 21B.45 and 23.10 Updating Sign Regulations

Jeff Thomas, Community Development Director introduced David Goodman, Senior Management Analyst and Charlotte Archer, City Attorney. They gave the staff report and showed a PowerPoint Presentation (Presentation is available in the City's Document Center here)

4. **Discussion:** Stormwater Capital Improvement Project Prioritization Criteria and Ranking Method

Tawni Dalziel, Senior Stormwater Program Manager introduced Danika Globokar, Associate Stormwater Engineer gave the staff report and showed a PowerPoint presentation (available in the City's Document Center here)

ADJOURNMENT

The meeting adjourned at 10:50 pm.

Draft

MINUTES
City Council Regular Meeting

6:30 PM - June 19, 2018
City Hall Council Chambers, Sammamish, WA

Mayor Christie Malchow called the regular meeting of the Sammamish City Council to order at 6:30 p.m.

Councilmembers Present:
Mayor Christie Malchow
Deputy Mayor Karen Moran
Councilmember Jason Ritchie
Councilmember Ramiro Valderrama
Councilmember Chris Ross
Councilmember Tom Hornish
Councilmember Pam Stuart

Councilmembers Absent:

Staff Present:
City Manager Lyman Howard
Deputy City Manager Jessi Bon
City Attorney Charlotte Archer
Management Analyst Mike Sugg
Director of Community Development Jeff Thomas
Deputy Director of Community Development David Pyle
Planning Manager Kellye Hilde
Senior Planner Doug McIntyre
Management Analyst David Goodman
Director of Parks & Recreation Angie Feser
Deputy Director of Parks & Recreation Anjali Myer
Director of Finance & Risk Management; Assistant City Manager Aaron Antin
Deputy Director of Finance & IT Chris Gianini
Director of Public Works Steve Leniszewski
Deputy Director of Public Works Cheryl Paston
Senior Stormwater Program Manager Tawni Dalziel
City Engineer Andrew Zagars
Director of Organizational Development Glenn Akramoff
City Clerk Melonie Anderson
City Attorney Michael Kenyon

Draft

CALL TO ORDER

ROLL CALL

Roll was called.

PLEDGE OF ALLEGIANCE

Councilmember Stuart led the pledge.

APPROVAL OF AGENDA

MOTION: Councilmember Ramiro Valderrama moved to approve the agenda. Deputy Mayor Karen Moran seconded. Motion carried unanimously 7-0.

PUBLIC COMMENT

Steve Danzey, 1750 7244 SE., spoke in support of the Pride Month proclamation.

Karen Herring, 23684 SE 32nd Way, spoke regarding the City purchasing the YMCA property.

Mary Wictor, 408 208th Ave NE, spoke regarding the pond mowing contract and the ditches and culvert contract (see comment email submitted).

Paul Stickney, 504 228th Avenue SE, spoke regarding the causes of congestion and its relationship to concurrency.

Anant Mithal, 2611 260th Place SE, spoke regarding infrastructure improvements that are needed in the City.

Jennifer Adut, Executive Director and Jim Barry, Friends of Lake Sammamish, spoke about the accomplishments of their group this year.

Cheryl Hooper, 2002 251st SE Street, spoke regarding the YMCA property. She is against electronic reader boards.

Liz Falen, 2238 236th Avenue NE, spoke regarding the Pride Month proclamation.

CONSENT CALENDAR

Payroll: for the period ending May 31, 2018 for pay date of June 5, 2018 in the amount of $408,187.01

Approval: Claims For Period Ending June 19, 2018 in The Amount Of $4,565,962.64 For Check No. 50796 through 50916

Contract: Stormwater Pond Cattail Vegetation Removal

Resolution: Amending Resolution R2017-703 the City's Master Fee Schedule

Resolution: Granting Final Plat Approval of The Crownfield Subdivision, FSUB 2018-00323

Draft

Contract: Award for East Lake Sammamish Parkway (Phase 2 South Segment) Ditch and Culvert Maintenance

Approval: Zackuse Creek Fish Passage and Stream Restoration Project – Memorandum of Understanding with Snoqualmie Indian Tribe

Approval: Minutes from the June, 5, 2018 Regular Meeting

PRESENTATIONS / PROCLAMATIONS

Presentation: Sammamish Arts Commission Progress Report

Parks and Recreation Director Angie introduced staff and members of the Arts Commission. Margaret Rosenow, Commissioner and Chair Ramu Iyer, gave a PowerPoint presentation and update for the Arts Commission.

Proclamation: Pride Month LGBT June 2018

MOTION: Councilmember Ramiro Valderrama moved to approve the Proclamation. Councilmember Pam Stuart seconded. Motion carried unanimously 7-0.

Council recessed from 8:43 pm to 8:54 pm.

Presentation: Innovative Traffic Data and Updated AM Traffic Model Results

Cheryl Paston, Public Works Deputy Director and Kendra Breiland with Fehr and Peers gave a presentation and update (Presentation available in the City's Document Center here).

PUBLIC HEARINGS

Resolution: Adopting An Updated Six-Year Transportation Improvement Plan for 2019-2024

Steve Leniszewski, Public Works Director and Cheryl Paston, Public Works Deputy Director gave the update on the current Six Year Transportation Plan.

Public Hearing opened at 8:45 pm and closed at 8:59 pm with the following comments:

Amanda Reichdahl, Representing STCA, urged adoption of the TIP tonight to keep on schedule to lift the moratorium.

MOTION: Councilmember Pam Stuart moved to approve the Resolution adopting the Six Year Transportation Plan. Councilmember Jason Ritchie seconded. Motion carried 4-3 with Mayor Christie Malchow, Deputy Mayor Karen Moran, and Councilmember Tom Hornish dissenting.

Mayor Malchow and Councilmember Ritchie pointed out that it would be difficult to get state funding as long as the City continues to bank the allowable 1% property tax. Councilmember Ross suggested that Council might begin to consider taking on debt to fund the TIP.

Draft

Ordinance: Amending Chapters 21A.15, 21A.45, 21B.15, 21B.45 And 23.10 Of The Sammamish Municipal Code Pertaining To Permanent And Temporary Signs And Enforcement

Charlotte Archer, Kenyon-Disend, Jeff Thomas, Community Development Director and David Goodman, Management Analyst gave the staff report.

Public Hearing opened at 9:36 pm and closed at 9:40 pm with the following comment:

Mary Wictor, 408 208 Avenue NE, spoke in favor of allowing electronic reader boards for noncommercial on the east side of 228th Avenue NE.

MOTION: Councilmember Pam Stuart moved to extend the meeting to 11:00 pm. Councilmember Tom Hornish seconded. Motion carried unanimously 7-0.

MOTION: Councilmember Pam Stuart moved to approve the ordinance amending Chapters 21A.15, 21A.45, 21B.45 and 23.10 of the Sammamish Municipal Code as recommended by the Planning Commission. Councilmember Tom Hornish seconded. Motion carried 6-1 with Councilmember Ramiro Valderrama dissenting.

UNFINISHED BUSINESS

NEW BUSINESS

Discussion: YMCA Property Development Plan

Angie Feser, Parks Director and Anjali Myer, Deputy Parks Director gave the staff report and showed a PowerPoint presentation (Presentation available in the City's Document Center here).

MOTION: Councilmember Pam Stuart moved to direct staff to submit the proposed YMCA Property Development Plan, dated June, 2018 to the YMCA by the June 30, 2018 deadline, to comply with the outlined terms of the Recreational Property Ground Lease Agreement. Deputy Mayor Karen Moran seconded. Motion carried unanimously 7-0.

COUNCIL REPORTS/ COUNCIL COMMITTEE REPORTS

Councilmember Ritchie reported on the interviews he participated in to hire a lobbyist for the City.
Councilmember Valderrama reported on Eastside Fire & Rescue activities. He reported on the local high school graduations. He reported on the status of the Peace Pole.
Councilmember Stuart reported on the Water Resource Inventory Area 8 (WRIA 8)meeting. She toured the Maintenance & Operations Facility. She attended the GMAC meeting. Attended the Lake Washington School District Sustainability Summit. She requested parliamentary training for the Council.

Report: Mayor Malchow submitted a written report.

Report: Councilmember Pamela Stuart submitted a written report.

Report: Deputy Mayor Karen Moran submitted a written report.

Draft

MOTION: Councilmember Jason Ritchie moved to extend the meeting to 11:30 pm. Councilmember Pam Stuart seconded. Motion carried unanimously 7-0.

CITY MANAGER REPORT

Mr. Howard reminded the Council that the Fourth of July will soon be here and the City has new regulations regarding illegal fireworks usage. The next Council meeting will be July 9, 2018.

EXECUTIVE SESSION

Potential Litigation pursuant to RCW42.30.110(1)(i) and Evaluate the Performance of an Public Employee pursuant to RCW42.30.110 (1)(g)

Council retired to Executive Session at 10:34 pm and returned at 11:46 pm. No action was taken.

ADJOURNMENT

The meeting adjourned at 11:46 pm.

MOTION: Councilmember Ramiro Valderrama moved to adjourn. Deputy Mayor Karen Moran seconded. Motion carried unanimously 7-0.

Melonie Anderson, City Clerk

Christie Malchow, Mayor

Draft

MINUTES
City Council Special Meeting

10:00 AM - June 23, 2018
City Hall Council Chambers, Sammamish, WA

Deputy Mayor Karen Moran called the special meeting of the Sammamish City Council to order at 10:00 a.m.

Councilmembers Present:
Mayor Christie Malchow
Deputy Mayor Karen Moran
Councilmember Jason Ritchie
Councilmember Ramiro Valderrama
Councilmember Chris Ross
Councilmember Tom Hornish
Councilmember Pam Stuart

Mayor Malchow and Councilmember Valderrama both attended via teleconference phone calls.

Councilmembers Absent:

Staff Present:
City Manager Lyman Howard
Deputy City Manager Jessi Bon
Deputy Director of Community Development David Pyle
Network Administrator John Whitlock
City Attorney Kim Pratt
City Clerk Melonie Anderson

ROLL CALL

Roll was called.

PLEDGE OF ALLEGIANCE

Councilmember Hornish led the pledge.

APPROVAL OF AGENDA

MOTION: Councilmember Tom Hornish moved to approve the agenda as amended. Councilmember Jason Ritchie seconded. Motion carried unanimously 7-0.

EXECUTIVE SESSION

Draft

Executive session to discuss with legal counsel regarding litigation to which the City is a party, pursuant to RCW42.30.110(1)(i)

Council retired to an executive session at 10:03 am and returned at 11:35 am with no action.

ADJOURNMENT

The meeting adjourned at 11:36 am.

MOTION: Councilmember Jason Ritchie moved to adjourn. Councilmember Chris Ross seconded. Motion carried unanimously 5-0 with Mayor Christie Malchow and Councilmember Ramiro Valderrama absent.

Melonie Anderson, City Clerk

Christie Malchow, Mayor

Agenda Bill

City Council Regular Meeting
July 10, 2018

SUBJECT:	Public Hearing and Deliberation: Emergency amendments to the Comprehensive Plan related to transportation concurrency and level of service
DATE SUBMITTED:	July 02, 2018
DEPARTMENT:	Public Works
NEEDED FROM COUNCIL:	☑ Action ☐ Direction ☐ Informational
RECOMMENDATION:	Conduct Public Hearing on the emergency amendments to the Comprehensive Plan related to transportation concurrency and level of service.
EXHIBITS:	1. Exhibit 1 High level TMP LOS timeline 2. Exhibit 2 - 20180710 Draft Ordinance Attachment A - 20180710 Glossary redlined Attachment A - 20180710 TE Policies redlined Attachment A - 20180710 TE Background redlined 3. Exhibit 3 - 20180710 Glossary clean 4. Exhibit 4 - 20180710 TE Policies clean 5. Exhibit 5 - 20180710 TE Background clean 6. Exhibit 6 - 20180710 CC Hearing Q&A 7. Exhibit 7 20180621 PC Recommendation Letter

BUDGET:

Total dollar amount N/A

Fund(s)

☐ **Approved in budget**
☐ **Budget reallocation required**
☑ **No budgetary impact**

WORK PLAN FOCUS AREAS:

☑ Transportation
☐ Community Safety
☐ Communication & Engagement
☑ Community Livability
☐ High Performing Government
☐ Culture & Recreation
☐ Environmental Health & Protection
☐ Financial Sustainability

NEEDED FROM COUNCIL:

Public Hearing and Deliberations: Emergency amendments to the Comprehensive Plan related to transportation concurrency and level of service.

KEY FACTS AND INFORMATION SUMMARY:

Summary

After work on the City's first Transportation Master Plan (TMP) had begun last summer, the Council turned their attention to the City's transportation concurrency and level of service (LOS) policies due to increasing concerns about traffic congestion and development. They directed staff to pause work on the TMP and to instead focus on revising the concurrency and level of service (LOS) policies. Staff held a number of meetings and workshops with the Council to discuss options for revising the policies. In Fall 2017, Council imposed an emergency six-month moratorium on accepting certain land use applications in order to allow time for staff to update the concurrency program and consider amendments to the Comprehensive Plan and related regulations.

Earlier this year, Council affirmed their preferred concurrency policy an intersection-wide, volume weighted average delay approach with an LOS of C for minor and collector arterials, LOS of D for principal arterials with allowance for LOS E where LOS D cannot be achieved with three approach lanes per direction. Council also directed staff to finish revising the concurrency and LOS policies before the August 2018, recess and before resuming work on the TMP. Council approved a schedule in March which showed key milestone dates that included three joint sessions between the Planning Commission and City Council; two Planning Commission Public Hearings on June 21, 2018; and two City Council Public Hearings on July 10 and July 17, 2018. The Planning Commission unanimously recommended that the proposed emergency amendments to the Comprehensive Plan be approved by Council.

Project Background (Exhibit 1)

Staff began work on developing the City's first Transportation Master Plan (TMP) last spring in response to the Council and community's great concerns about current and future growth and its impacts on the City's transportation network and quality of life. The TMP is intended to create a 20-year road map (out to year 2035) to achieve the community's vision for a safe, accessible, and reliable multimodal transportation system. It will describe options for mobility, ensure growth pays for growth, leverage new technologies, identify partnership opportunities, maintain high impact fees, and produce a prioritized set of fiscally prudent investments in the transportation system.

The project team spent Spring 2017, reaching out to local and regional stakeholders, the community at large, and the Council to establish the following vision, goals, and objectives for the TMP. The three goals that rose to the top were 1) Complete connections for all modes, 2) Supported by the community, and 3) Fundable and implementable. The community told us their transportation priorities were:

1. To have an efficient system that maximizes traffic capacity,
2. To make it easier to get to/from regional destinations with more transit options,
3. To have more connections to make it easier to get around by various means,
4. That management of the system should be grounded on fiscal sustainability,
5. That the network should be safe and welcoming, and
6. To design the right of way and trails in a way that supports community character by connecting trails, be safe and aesthetically pleasing.

While the TMP was getting underway, efforts to make minor updates to the Comprehensive Plan Transportation Element background chapter was also happening in parallel. Council began focusing on concurrency and LOS policies and directed staff to pause work on the TMP and the Transportation Element update, and to instead shift resources towards revising the City's transportation concurrency and level of service (LOS) policies. Over the summer into last fall, staff participated in a number of meetings and workshops with the Council to discuss options for revising the policies. In early fall, Council imposed an emergency six-month moratorium on accepting certain land use applications in order to allow time for staff to update the concurrency program and consider amendments to the Comprehensive Plan and related regulations (O2017-445, O2017-445A, O2017-445B; O2018-458).

Earlier this year, Council also affirmed their preferred concurrency policy an intersection-wide, volume weighted average delay approach with an LOS of C for minor and collector arterials, LOS of D for principal arterials with allowance for LOS E where LOS D cannot be achieved with three approach lanes per direction (R2018-782, R2018-789). Another key decision made by Council was to proceed with finishing development of the concurrency and LOS policies before resuming work on the TMP. An accelerated schedule was presented to Council in March outlining key milestone dates that included three joint sessions between the Planning Commission and City Council, two Public Hearings before the Planning Commission on June 21, and Public Hearings on the Comprehensive Plan amendments and updates to the related codes before the City Council on July 10 and July 17, 2018, respectively.

Staff presented the draft emergency amendments to the Comprehensive Plan Transportation Element at the first joint session with the Planning Commission and Council on April 30th (link to packet materials). The scope of the edits is limited to only those items that relate to the emergency action regarding the City's transportation level of service and concurrency policies and program. The project team returned on May 15, 2018, with proposed code changes needed as a result of changing the concurrency and LOS policies at the second joint meeting (link to packet materials). Finally, staff brought the remaining edits on all documents for final discussion with the Council and Planning Commission on June 4 (link to packet materials).

Attached are the following exhibits about which the Council is scheduled to hold a Public Hearing and conduct deliberations.

- Exhibit 2: Draft Ordinance
- Attachment A: Redlined version of the Glossary
- Attachment A: Redlined version of the Transportation Element Policy chapter
- Attachment A: Redlined version of the Transportation Element Background chapter
- Exhibit 3: Clean version of the Glossary
- Exhibit 4: Clean version of the Transportation Element Policy chapter
- Exhibit 5: Clean version of the Transportation Element Background chapter
- Exhibit 6: Questions & Answers
- Exhibit 7: Planning Commission's Recommendation Letter

The changes shown in redlined text are all proposed edits that were presented and discussed at the joint meetings held on April 30, May 15, and June 4, 2018. The yellow highlighted redlined text are edits made based on feedback from the June 4th meeting. The blue highlighted text are edits made upon request by the Planning Commission to include more details about the traffic models or to correct page references. None of the other changes since the June 4th meeting are substantive and most were made to improve readability and clarity.

Next Steps

Staff requests the Council open and close the Public Hearings on the draft emergency amendments to the Comprehensive Plan Glossary and Transportation Element and move to adopt the attached Ordinance. The Council is scheduled to hold a second Public Hearing on amendments to related concurrency and LOS codes on July 17th.

FINANCIAL IMPACT:

N/A

OTHER ALTERNATIVES CONSIDERED:

None, as this implements Council's previous direction regarding revising the City's transportation concurrency and LOS policies.

RELATED CITY GOALS, POLICIES, AND MASTER PLANS:

Comprehensive Plan - Transportation Element

TMP and Concurrency/LOS Policy update - high level timeline of events

2017

- April
  - Signed contract with Fehr & Peers to support fresh approach to transportation
- May-Sept
  - Conducted public and stakeholder outreach, established TMP vision, goals and objectives
- Spring-Summer
  - Minor updates to the Comp Plan Transportation Element and Capital Facilities Chapter presented to Council
  - Regular TMP updates made to Council
- Mid-Summer
  - Council began focusing on concurrency and LOS. Staff presented detailed description of concurrency, level of service, Growth Management Act, city's traffic model and existing concurrency program, and policy issues and considerations.
- Late-Summer
  - Council directed staff to stop work on updating the Comp Plan Transportation Element and the TMP and instead to focus on updating the concurrency and LOS policies. Concurrency and LOS best practices and options for revising Sammamish's program were presented to Council a number of times. Council provided direction on most important metrics to measure:
    - AM and PM peak hours
    - Simplify the program
    - Leverage best available data
    - Maintain high impact fees
    - Driver experience
- Late fall
  - Held two technical workshops (Oct & Nov). Continued to explore various methods for LOS standards, including those for non-motorized travel. Council narrowed to two options for further staff evaluation.
    - Option 1: Keep existing program but delete non-motorized improvements from Table T-8.
    - Option 2: Intersection only (this was later modified to consider by intersection average and by worst leg approach)
  - Staff recommended that the TMP be finished before revising the concurrency policy. Informed Council that the TMP would develop a prioritized, long-range capital list.
  - Council agreed to develop the non-motorized capital project list as part of the TMP and directed staff to create an AM travel demand model and use it to forecast future volumes. They also directed staff to use the worst of the AM and PM modeling results.
  - October: Council passed ordinance declaring a six-month emergency moratorium and directed staff to revise the concurrency and LOS policies. Revised ordinance in Nov and Dec, and extended moratorium for another six months on April 3, 2018.
  - Council directed staff to look for quick, inexpensive solutions and added budget to install more flashing yellow arrows and construct minor intersection improvements.

≈280k in consultant fees

5/10/18

2018

- Late Winter
  - Staff continued discussing with Council regarding which of the three proposed intersection-only LOS standards was their preferred option. A preliminary list of intersection failures resulting from each option was presented.
  - Staff again highlighted the fact that working on the concurrency policy before completing the TMP would create problems. Staff again recommended that the TMP be finished first.
  - February 13th: Split Council provided staff with verbal direction to proceed with concurrency in advance of the TMP.

- March/April
  - March 5th: Staff presented revised schedule showing adoption of the updated Transportation Element and revised codes in July, and restarting the TMP in the fall per Council direction.
  - March 6th: Council unanimously passed R2018-782 establishing an intersection-wide, volume weighted average delay approach concurrency methodology with an LOS D for principal arterials with allowance for LOS E where LOS D cannot be achieved with more than three approach lanes in any direction.
  - April 17th: Council unanimously amended R2018-782 to add LOS C for minor and collector arterials.
  - April:
    - Staff presented the draft Transportation Element amendments to the Council and Planning Commission.
    - Some Councilmembers expressed surprise that the future forecast section which addresses needs by year 2035 was not updated to reflect current Council direction outlined in R2018-782. Staff has informed Council since the project started that one of the goals of the TMP was to create a 20 year list of prioritized CIP projects.
    - There was some concern at not being able to monitor ELSP north of Inglewood, or on 244th north of NE 8th as there are no adequate intersections to monitor.

≈96k in consultant fees

≈376k in consultant fees

New tools from process:

Supporting Comp Plan Policy T.3.5 – "apply technologies, programs and other strategies that optimize the use of existing infrastructure in order to improve mobility, reduce congestion, increase energy efficiency, reduce maintenance requirements, and reduce the need for new infrastructure".

INRIX data – $25k/year

i. Pro:
   1. Lots of time / speed data available
   2. Easy access to data & user friendly
   3. Data sets likely to expand as time goes by.

ii. Con:
   1. Data only exists back to 2014
   2. Is not volume data
   3. Currently supports major roads only

Opportunities for use:

iii. Use INRIX as a tool to check for operational hot spots.

iv. Use the speed data and our TIP list to help establish priority projects.

Exhibit 2

CITY OF SAMMAMISH
WASHINGTON
ORDINANCE NO. O2018-

AN ORDINANCE OF THE CITY OF SAMMAMISH, WASHINGTON, AMENDING THE GLOSSARY AND TRANSPORTATION ELEMENT OF THE CITY OF SAMMAMISH COMPREHENSIVE PLAN; PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, the City of Sammamish plans under Chapter 36.70A RCW, the Growth Management Act ("GMA"), which requires cities to adopt a comprehensive plan that is consistent with the GMA and with county and regional planning policies; and

WHEREAS, RCW 36.70A.070(6) requires each city and county planning under the GMA to include a transportation element that implements, and is consistent with, the land use element; and

WHEREAS, on April 17, 2018, the City Council adopted Resolution R2018-789, identifying a concurrency methodology and establishing the associated policy review schedule and timeline for adoption; and

WHEREAS, on April 30, 2018, the City Council and Planning Commission conducted a joint study session to discuss the proposed amendments to the Transportation Element related to the concurrency methodology identified in Resolution R2018-789; and

WHEREAS, on May 15, 2018, the City Council and Planning Commission conducted a joint study session to discuss the associated code amendments related to the concurrency methodology identified in Resolution R2018-789; and

WHEREAS, on June 4, 2018, the City Council and Planning Commission conducted a joint study session to discuss the proposed Glossary and Transportation Element amendments and associated City code amendments related to the concurrency methodology identified in Resolution R2018-789; and

WHEREAS, on June 7, 2018, the City submitted the proposed Transportation Element amendments and associated City code amendments to the Washington State Department of Commerce in accordance with RCW 36.70A.106; and

WHEREAS, on June 26, 2018, the City was granted expedited review by the Department of Commerce and has met the Growth Management Act requirement for notice to state agencies, pursuant to RCW 36.70A.106; and

WHEREAS, an environmental review of the Comprehensive Plan amendments and associated City code amendments was conducted in accordance with the requirements of the State Environmental Policy Act (SEPA), including a submittal of a SEPA checklist, which included Attachment A, *Transportation Issue Paper*, containing analysis of the potential environmental impacts associated with amended policy language in the Transportation Element; and

WHEREAS, on June 19, 2018, a SEPA threshold determination of non-significance ("2018 DNS") was issued for the amendments to the Glossary and Transportation Element of the Comprehensive Plan, and no appeals of the 2018 DNS were filed; and

WHEREAS, on June 21, 2018, the Planning Commission held a public hearing on the proposed Transportation Element amendments and associated City code amendments, considered public comment, and made a unanimous recommendation of approval to the City Council; and

WHEREAS, on July 10, 2018, the City Council held a public hearing on the proposed Glossary and Transportation Element amendments in order to provide further opportunity for public comment and participation; and

WHEREAS, the City Council has determined that the proposed Glossary and Transportation Element amendments meet the City's goals and objectives for transportation concurrency;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SAMMAMISH, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Comprehensive Plan Glossary and Transportation Element, Amended. The Glossary and Transportation Element of the Sammamish Comprehensive Plan is hereby amended as shown in **Attachment A**, which is attached hereto and incorporated by this reference.

Section 2. Severability. Should any section, paragraph, sentence, clause or phrase of this Ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this Ordinance be pre-empted by state or federal law or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this Ordinance or its application to other persons or circumstances.

Section 3. Effective Date. This Ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

ADOPTED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE ___ DAY OF _____ 2018.

CITY OF SAMMAMISH

_____
Christie Malchow, Mayor

ATTEST/AUTHENTICATED:

_____
Melonie Anderson, City Clerk
Approved as to Form:

_____
Michael R. Kenyon, City Attorney

Filed with the City Clerk: _____
First Reading: _____
Passed by the City Council: _____
Date of Publication: _____
Effective Date: _____

Attachment A - Redlined version, 7/10/18

Concurrency: Concurrency is a land use planning and implementation tool, introduced in the Washington State Growth Management Act (GMA), which is designed to ensure that necessary public facilities and services to support new development are available and adequate (based on adopted Level of Service standards) at the time ~~the impacts~~ of ~~new~~ development ~~occur~~.

Congestion: Congestion results when traffic demand approaches or exceeds the available capacity of the system. While this is a simple concept, it is not constant. Traffic demands vary significantly depending on the season of the year, the day of the week and even the time of day. Also, the capacity, often mistaken as constant, can change because of weather, work zones, traffic incidents, or other non-recurring events.

Connectivity: The state or extent of being connected or interconnected for all modes of transportation.

Context-sensitive Infill: Infill development designed to be compatible with the existing community character. Compatible implies a response to basic neighborhood patterns—such as green street edges of front yards and street trees or frontage patterns, forms and orientation of buildings—whose continuation allows change to be accommodated while preserving cherished aspects of neighborhood character. The continuation of these patterns can accommodate a diversity of architectural styles, while providing an underlying sense of cohesion and "place" that helps define the character of neighborhoods.

Cottage Housing: Detached bungalow scale houses clustered around a common open space and/or private spaces aggregated together in a commons arrangement.

Critical Areas: Include the following areas and ecosystems: (a) Wetlands; (b) areas with a critical recharging effect on aquifers used for potable water; (c) fish and wildlife habitat conservation areas; (d) frequently flooded areas; and (e) geologically hazardous areas (RCW 36.70A.030(5)).

Density Averaging: Density averaging, also known as lot size averaging, allows the size of individual lots within a development to vary from the zoned maximum density, provided that the average density in the development as a whole meets that maximum.

Erosion Hazard Areas: Erosion hazard areas means those areas in the City underlain by soils that are subject to severe erosion when disturbed. Such soils include, but are not limited to, those classified as having a severe or very severe erosion hazard according to the USDA Soil Conservation Service, the 1973 King County Soils Survey or any subsequent revisions or addition by or to these sources.

Fair Housing: Fair Housing is the ability for all people to choose where they live without discrimination based on race, color, national origin, sex, family status, or disability—these are the "protected classes" under state and federal law. (Some places also protect age, sexual orientation, or having a Section 8 voucher). Cities may not make zoning or land use decisions or implement policies that exclude or otherwise discriminate against protected persons, including individuals with disabilities. Sammamish's fair housing practices are evaluated periodically by King County as part of a countywide report to the federal government.

Floodplain: Floodplain means the total area subject to inundation by the base flood, i.e., a flood having a one percent chance of being equaled or exceeded in any given year, often referred to as the 100- year flood.

Functional Plans: "Functional plans" are detailed plans for facilities and services and action plans for other governmental activities such as parks, surface water, streets, etc. Functional plans should be consistent with the Comprehensive Plan.

Geologically Hazardous Areas: Areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events, are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns (RCW 36.70A.030(9)).

Goal: A general statement expressing a desired result consistent with the vision and towards which policies and objectives aim.

Habitat Area : An ecological or environmental area that is inhabited by a particular species of animal or plant. A place where a living thing lives is its habitat. It is a place where it can find food, shelter, protection and mates for reproduction.

Heritage Tree: See the Sammamish Municipal Code for a definition of heritage trees.

Historically Significant Housing: Used in this plan, historically significant housing is intended to indicate housing that has a unique physical, social, cultural and environmental quality that contributes to Sammamish's history and sense of place.

Human Scale: Human scale means that the size of the building relates to the approximate dimensions of the human body.

Infill: Urban infill is defined as new development that is sited on vacant or undeveloped land within an existing community, and that is enclosed by other types of development. The term "urban infill" itself implies that existing land is mostly built-out and what is being built is in effect "filling in" the gaps. The term most commonly refers to building single-family homes in existing neighborhoods but may also be used to describe new development in commercial, office or mixed-use areas.

Landmark Tree: See the Sammamish Municipal Code for a definition of landmark trees.

Landslide Hazard Areas: Landslide hazard areas means those areas in the City of Sammamish potentially subject to risk of mass movement due to a combination of geologic, topographic and hydrologic factors. These areas are typically susceptible to landslides because of a combination of factors including: bedrock, soil, slope gradient, slope aspect, geologic structure, groundwater, or other factors.

Legacy Development : Development that existed, was underway or approved for development prior to incorporation of the City of Sammamish.

~~**Level of Service:** Level of Service (LOS) is a qualitative measurement which describes traffic conditions based on service measures such as speed, travel time freedom to maneuver, traffic interruptions, comfort and convenience. Level of Service is expressed qualitatively using letters A through F, with A representing very good operations and F representing undesirable operations.~~

Location Efficient Housing: Location-efficient housing refers to homes that have easy or inexpensive access to workplaces, schools, shopping and other necessary destinations. Housing locations are efficient to the most people when the ways to these destinations are easily walkable, don't require the resident to own an automobile and can be reached in 20 minutes or less.

Low Impact Development: Design concepts including a variety of strategies and techniques to address the negative impacts associated with stormwater runoff, such as, but not limited to:

- Reduce the street width and road network within a development.
- Replace impervious roadways, driveways and sidewalks with more pervious materials where feasible.
- Reduce lot size and setbacks/frontage requirements through cluster designs.

Land development and use contributes to increased phosphorus loadings to downstream water resources in several ways. Erosion of disturbed areas on construction sites can result in sediment transport to surface waters, which can cause algal blooms. Over-application of fertilizers and the discharge of detergents containing phosphates to the storm drainage system can also increase watershed loading of phosphorus-

Shall: When "shall" is used in a policy, such language requires that the City take steps to accomplish the purpose of the policy.

Should: When "should" is used in a policy, such language indicates the City has the option to take steps to accomplish the purpose of the policy.

Single Family Dwelling: A building containing one dwelling unit which is not attached to any other dwelling by any means except fences, has a permanent foundation and is surrounded by open space or yards.

Special Needs Housing: Special needs housing in this plan includes homes suitable for and occupied by people with one or more self-help limitations, such as physical or mental disability, long-term illness, or alcohol or drug issues. The housing may or may not incorporate supportive services, and may be permanent or transitional. Examples include adult family homes, assisted living facilities and group homes for people with developmental disabilities.

Sustainable Community : In a sustainable community, resource consumption is balanced by resources assimilated by the ecosystem. The sustainability of a community is determined by the availability of resources and by the ability of natural systems to process its wastes. A community is unsustainable if it consumes resources faster than they can be renewed, produces more wastes than natural systems can process or relies upon distant sources for its basic needs (based on City of Sammamish Sustainability Strategy, March 2011).

Transfer of Development Rights: Transfer of Development Rights (TDR) means the transfer of the right to develop or build from sending sites to receiving sites. The sending site is the parcel of land from which development rights will be transferred. After transferring the development rights from the sending parcel, future development is limited. Receiving sites are sites to which development rights are transferred. Typically, these are parcels of land in urban areas where the existing services and infrastructure can accommodate additional growth. Development rights that are "sent" off of a sending site are placed on a receiving site.

Transit Oriented Development: Transit-oriented development (TOD) describes a mix of housing, office, retail and amenities integrated into a walkable neighborhood and anchored by high quality public transit.

Transportation Level of Service: Level of Service (LOS) measures average peak hour delay for vehicles at key intersections. LOS is expressed qualitatively using letters A through F, with A representing very good operations and F representing undesirable operations.

Total Maximum Daily Load: A Total Maximum Daily Load (TMDL) is a regulatory term in the U.S. Clean Water Act, describing a value of the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards.

Attachment A – Redlined version, 7/10/18

TRANSPORTATION

soap box derby —

someone's front wheel

whee

someone'

l

a littlewobbly

Transportation Goals

Goal T.1 **Supporting Growth**
Support the city's and region's growth strategy by focusing on moving people and goods within the city and beyond with a highly efficient multimodal transportation network.

Goal T.2 **Greater Options and Mobility**
Invest in transportation systems that offer greater options, mobility, and access in support of the city's growth strategy.

Goal T.3 **Operations, Maintenance, Management and Safety**
As a high priority, maintain, preserve, and operate the city's transportation system in a safe and functional state.

Goal T.4 **Sustainability**
Design and manage the city's transportation system to minimize the negative impacts of transportation on the natural environment, to promote public health and safety, and to achieve optimum efficiency.

TRANSPORTATION

Introduction

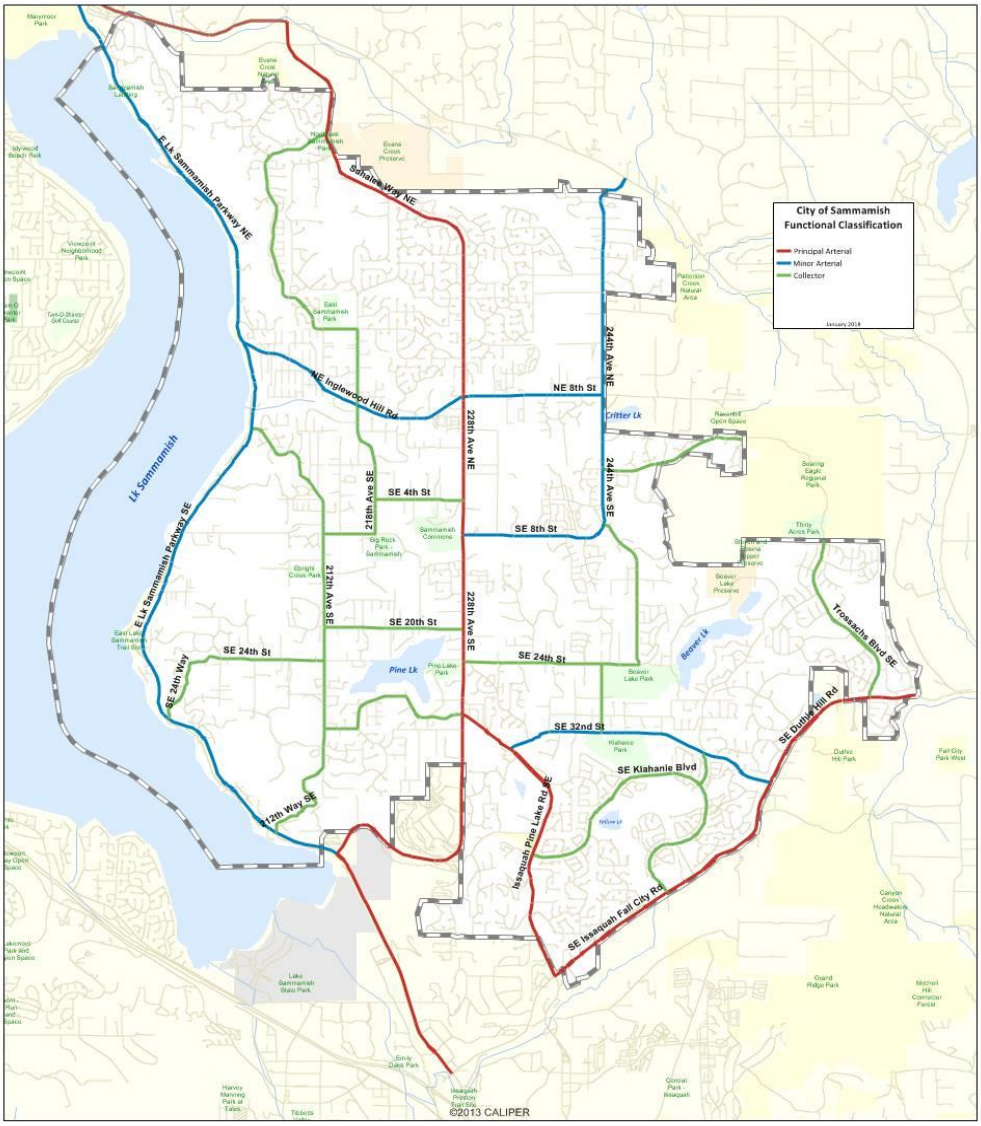
The Transportation Element ensures that the City's transportation system supports land uses envisioned by the Comprehensive Plan. Current challenges faced by the City include a relatively unconnected street system, limited transit service, and a hilly topography that makes active modes of transportation difficult for many users. These factors combine to create a car-centric transportation system that funnels drivers onto only a few streets (see Figure T–1). In order to address these challenges, goals and policies in this element are intended to promote more efficient use of existing roads, a shift of traffic to other modes, and a shift to other times of day.

228th Ave NE

The Transportation Element is supported by and inter-connected with many other elements of the Comprehensive Plan. In particular, the transportation system needs to be designed and sized appropriately to support the planned densities described in the Land Use Element. Consistent with the Plan's framework goals and emphasis on sustainability and healthy communities, transportation goals and policies include measures to help reduce air pollution, and promote active transportation. As part of promoting active transportation and mobility, the Transportation Element supports goals and policies in the Parks Element that address the public trail system. Goals and policies related to non-motorized transportation are also consistent with guidance in the Sammamish *Trails, Bikeways and Paths Master Plan.*

Please look for this icon for goals and policies that focus specifically on sustainability and healthy communities.

Figure T–1
Street Classification Map


City of Sammamish
Functional Classification
Principal Arterial
Minor Arterial
Collector
January 2018
E Lk Sammamish Parkway NE
Sahalee Way NE
NE Inglewood Hill Rd
NE 8th St
244th Ave NE
228th Ave NE
Critter Lk
Lk Sammamish
SE 4th St
218th Ave SE
244th Ave SE
SE 8th St
212th Ave SE
228th Ave SE
SE 20th St
E Lk Sammamish Parkway SE
SE 24th St
SE 24th Way
Pine Lk
SE 24th St
Beaver Lk
Trossachs Blvd SE
SE 32nd St
SE Duthie Hill Rd
SE Klahanie Blvd
212th Way SE
Issaquah Pine Lake Rd SE
SE Issaquah Fall City Rd
©2013 CALIPER

As required by the Growth Management Act, the Transportation Element must demonstrate that there is enough transportation system capacity to serve the land uses that are planned, and to serve them at the level of service established in the goals and policies. This element also needs to include a financing plan to show how planned transportation improvements will be funded. This Transportation Element satisfies these requirements.

The Transportation Element Supporting Analysis contains the background data and analysis that provide the foundation for the Transportation Element goals and policies.

Based on the assumptions described in the Land Use Element, the City has development capacity to meet the adopted 2035 targets of 4,640 houses and 2,088 jobs.

***Concurrency** is a land use planning and implementation tool, introduced in the Washington State Growth Management Act (GMA), which is designed to ensure that necessary public facilities and services to support new development are available and adequate (based on adopted Level of Service standards) at the time the impacts of new development occur.*

Goals and Policies

Goal T.1 **Supporting Growth**

Support the city's and region's growth strategy by focusing on moving people and goods within the city and beyond with a highly efficient multimodal transportation network.

Concurrency

Policy T.1.1 *Maintain a concurrency management system that monitors the impacts of growth and development on the transportation system and ensures that level-of-service standards are met within required timeframes. Focus level-of-service standards for transportation on the performance of key intersections during the AM and PM peak periods. ~~movement of people and goods instead of only on the movement of vehicles.~~*

The discussion of concurrency is integrated throughout Volume II.T, Transportation. For a summary, please see page T.~~69–T.72~~28.

Policy T.1.2 *Address non-motorized, pedestrian, and other multimodal types of transportation options. ~~in the city's concurrency program—both in assessment and mitigation of transportation impacts.~~*

Bike lane on SE 8th Street

For more information, see the Traffic Level-of-Service Analysis Section in Volume II.T, page T.~~18~~24.

~~Arterial Corridor Level of Service (LOS)~~

~~Policy T.1.3 Arterial capacity is based upon the number and size of travel lanes, turning lanes shoulders and/ or bike lanes and sidewalks. Fully improved streets that provide for all modes have a higher capacity than streets that do not. Key arterial corridors are defined according to functional classification. The~~

~~longer corridors are divided into segments that reflect likely improvement limits and similar operations conditions. The LOS arterial corridors is determined by averaging the forecast traffic volume over the arterial capacity (v/c) ratios of the segments within each corridor. This provides an average LOS for~~

~~the corridor. This has the effect of tolerating some congestion in a segment or more within a corridor while resulting in the ultimate completion of the corridor improvements. The average v/c of the segments comprising a corridor must be 1.00 or less for the corridor to be considered adequate. All corridors must pass the Corridor LOS standard for~~

~~the transportation system to be considered adequate. Corridors comprised of just one concurrency segment must have a v/c of 1.0 or less to be considered adequate. Segments at or near capacity should be reviewed closely and innovative localized solutions should be considered and encouraged.~~

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Format single

Level of Service (LOS) *is a qualitative measurement which describes traffic conditions based on service measures such as speed, travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Level of Service is expressed qualitatively using letters A through F, with A representing very good operations and F representing undesirable operations.*

Congestion *results when traffic demand approaches or exceeds the available capacity of the system. While this is a simple concept, it is not constant. Traffic demands vary significantly depending on the season of the year, the day of the week, and even the time of day. Also, the capacity, often mistaken as constant, can change because of weather, work zones, traffic incidents, or other non-recurring events.*

The provision of ***non-motorized facilities on arterial roadways*** *is a key element of the city's roadway segment LOS methodology. The roadway segment allowable AWDT volume thresholds are based upon providing facilities for all users and recognizes that if sidewalks or bike lanes are absent; vehicle capacity is reduced and non-motorized capacity and safety are affected. While non-motorized demand and capacity are not explicitly measured; allowable vehicle volumes are constrained until facilities for all modes are present. This has the effect of prioritizing multi-modal projects on all classifications of roadways, and encourages provision of non-motorized facilities to increase capacity rather than additional travel lanes.*

Intersection Level of Service (LOS)

Policy T.1.~~4~~3 *Calculate i~~On a case by case basis calculate I~~ntersection LOS ~~is calculated~~ using traffic volumes during the AM and PM peak hours.~~. Alternatives may be considered and utilized on a case by case basis.~~*

This measures average peak hour delay for vehicles at key intersections.

For more information, see the Intersection Level of Service Criteria Section in Volume II.T, page T.23-T.25.

Coordination

Policy T.1.~~5~~4 *Coordinate planning efforts for all transportation issues and problems directly with adjacent jurisdictions and through regional transportation planning organizations to develop and operate a highly efficient transportation system that addresses all city transportation needs.*

Multimodal travel options

Freight

Policy T.1.~~6~~5 *Ensure the freight system meets the needs of local distribution.*

For more information, see the Freight Routes Section in Volume II.T, page T.14 and Background Figure T–3 on page T.16.

Goal T.2 Greater Options and Mobility

Invest in transportation systems that offer greater options, mobility and access in support of the city's growth strategy.

Mobility Options

Policy T.2.1 *Encourage an increase in the proportion of trips made by transportation modes other than driving alone.*

Policy T.2.2 *Encourage the integration of transportation systems to make it easy for people to move from one mode or technology to another.*

Policy T.2.3 *Encourage the promotion of the mobility of people and goods through a multi-modal transportation system consistent with regional priorities and Vision 2040.*

Policy T.2.4 *Address the needs of non-driving populations in the development and management of local and regional transportation systems.*

Policy T.2.5 *Encourage siting and designing transit facilities to enable access for pedestrian and bicycle patrons, where appropriate.*

Sammamish youth walking to the bus stop after school

Bike parking at Sammamish Highlands

For more information, see the Transportation Demand Management Section in Volume II.T, page T.~~65~~45-T.46.

For more information on non-motorized transportation, see Volume II.T, ~~T.31,~~ the Existing Non-Motorized Conditions Section in Volume II.T, page T.~~38~~32, the Non-Motorized Plan Section in Volume II.T, page T.~~67~~47 ~~and~~, Background Figure T-~~11~~ 9 on page T.~~40~~34 ~~and Background Figure T-14 on page T.49.~~

Policy T.2.6 *Encourage local street connections between existing developments and new developments to provide an efficient network of travel route options for pedestrians, bicycles, autos and emergency vehicles.*

Policy T.2.7 *Support regional efforts to effectively manage regional air, marine and rail transportation capacity and address future capacity needs in cooperation with responsible agencies, affected communities and users.*

Transportation Demand Management

Policy T.2.8 *Reduce the need for new capital improvements through investments in operations, demand management strategies, and system management activities, including: broadband communication systems, providing for flexible work schedules, public and private transit, vanpool systems and public transit subsidies.*

Policy T.2.9 *Support local transportation demand management programs (education and/or local regulations) to reduce the impacts of high traffic generators not addressed by the Washington State Commute Trip Reduction Act including: city offices, recreational facilities, schools, and other high traffic generating uses. The City of Sammamish should serve as a model to the community by striving to comply with the requirements of the State Commute Trip Reduction Act, CTR. The City should work with schools to reduce vehicular traffic.*

Policy T.2.10 *Support the reduction of vehicle dependence in the city by supporting "ride share" and on demand car/bike services.*

Design

Policy T.2.11 *Promote developments that are designed in a way that improves overall mobility and accessibility to and within such development.*

Policy T.2.12 *Design, construct, operate, and maintain transportation facilities to serve all users safely and conveniently, including motorists, pedestrians, bicyclists and transit users. Pedestrian crossings should be consistent with the citizens' desire to develop and maintain a pedestrian-friendly, walkable community.*

Policy T.2.13 *Consider paving materials that are safe and quiet for all users (pedestrians, bicycle riders, wheelchairs, etc.) when mixed use of the pavement is expected.*

Policy T.2.14 *Encourage noise reduction on roadways in innovative ways other than the use of noise walls.*

Transit

Policy T.2.15 *Work with public and private employer based transit service providers to expand local transit service designed to connect to adjacent jurisdictions and to serve employment centers and local activity patterns.*

Policy T.2.16 *Encourage transit oriented development in the town center, commercial use centers and joint-use park-and-ride facilities, where appropriate.*

Policy T.2.17 *Park-and-ride facilities should include safe and convenient access for automobiles, buses, pedestrians and bicycles.*

Policy T.2.18 *New development and redevelopment in the city should be designed to provide and encourage non-motorized access to transit where appropriate. The location of bus stops and shelters should be incorporated into a project's development design.*

Policy T.2.19 *Where appropriate, adopt road design standards, site-access guidelines, and land use regulations that support transit.*

Policy T.2.20 *Through cooperation with other jurisdictions, work regionally to promote transit services that are dependable, maintain regular schedules and provide an adequate LOS throughout the day, weekends and holidays.*

Policy T.2.21 *Encourage a transit system that can serve mixed use centers with frequent, regular transit service.*

Policy T.2.22 *Explore options for expanding both intracity and intercity transportation services, such as expanded King County Metro service, city-sponsored shuttle or other private/public partnership options.*

King County Metro Route 216

For more information, see the Transit Service and Facilities Section in Volume II.T, page T.~~65~~45.

South Sammamish Park-and-Ride

Construction on Pine Lake Transit Access Road

For more information, see the discussion of monitoring on page T.~~71~~49.

For more information, see the Roadway Design Standards Section in Volume II.T, page T.14 and Background Figure T–~~5~~4 on page T.19~~7~~.

Goal T.3 **Operations, Maintenance, Management and Safety**

As a high priority, maintain, preserve, and operate the city's transportation system in a safe and functional state.

Maintenance and Preservation

Policy T.3.1 *Maintain and operate the city's transportation systems to minimize impacts to mobility from maintenance activities and provide continuous safe, efficient, and reliable movement of people, goods, and services.*

Policy T.3.2 *Prioritize safety improvements to the existing transportation system to protect mobility and lower overall life-cycle costs.*

Transportation Systems Management

Policy T.3.3 *Maintain a citywide traffic monitoring system to collect AM, PM and daily traffic volumes periodically to determine how transportation investments are performing over time.*

Policy T.3.4 *Design or redesign arterial and connector streets, including retrofit projects, to improve traffic flow, accommodate a range of motorized and non- motorized travel modes in order to reduce injuries and fatalities and to encourage non-motorized travel. The design should include well-defined, safe and appealing spaces for pedestrians and bicyclists.*

Policy T.3.5 *Apply technologies, programs and other strategies that optimize the use of existing infrastructure in order to improve mobility, reduce congestion, increase energy-efficiency, reduce maintenance requirements, and reduce the need for new infrastructure.*

Policy T.3.6 *Strive to increase the efficiency of the current transportation system to move goods, services, and people to, from and within the city by means such as expanded left and right turn lanes and bus turnouts where suitable before adding additional capacity.*

Traffic circle at NE 16th St and 220th Pl NE

Policy T.3.7	*Protect the transportation system against major disruptions by third party infrastructure projects and maintenance.*	*For more information, see the Utilities Element, Policy UT.2.1.*
Policy T.3.8	*Develop disaster response plans, which include strategies to prevent damage to transportation facilities as a result of disaster and plans for repairing, reopening, and operating transportation facilities after disasters.*	
	Safety	
Policy T.3.9	*Continue to improve the safety of the transportation system to achieve the state's goal of zero deaths and disabling injuries.*	*For more information, see the Collision Analysis Section in Volume II.T, page T.~~35~~29 and Background Figure T~~10~~8 on page T.~~36~~30.*
Policy T.3.10	*Provide education on safe non-motorized travel.*	
Policy T.3.11	*Enforce motorized and non-motorized safety laws.*	
Policy T.3.12	*Create and support a multi-modal traffic safety and management plan specific to Sammamish's location and geography as a long term strategy to reduce traffic accidents and potential fatalities using street designs that emphasize safety, predictability, and the potential for human error, along with targeted education and data-driven enforcement.*	

Financial

For more information, see the Financing Section in Volume II.T, page T.~~72~~50.

Policy T.3.13 *Consider transportation investments that provide and encourage alternatives to single-occupancy vehicle travel and increase travel options, especially to and within commercial and mixed use areas and along corridors served by transit.*

228th Ave NE

Policy T.3.14 *Consider prioritizing investments in transportation facilities and services that support compact, pedestrian- and transit-oriented development.*

Policy T.3.15 *Focus on investments that produce the greatest net benefits to people and minimize the environmental impacts of transportation.*

Policy T.3.16 *Encourage public and private sector partnerships to identify and implement improvements to personal mobility.*

Policy T.3.17 *Utilize transportation financing methods that sustain maintenance, preservation, and operation of facilities.*

Policy T.3.18 *Consider transportation impact fees for the expansion of multi-modal transportation capital facilities necessary to support growth.*

Policy T.3.19 *Consider city financing methods that sustain or expand local transit service.*

For more information, see the Contingency Plans in the Event of Revenue Shortfall Section in Volume II.T, page T.~~73~~50.

Policy T.3.20 *Maintain a balance between available revenue and needed capital facilities. If funding is inadequate, to finance needed capital facilities, seek to identify additional funding, adjust the level-of-service standards, and, lastly, adjust land use assumptions.*

Policy T.3.21 *A multiyear financing plan should serve as the basis for the six-year transportation improvement program and should be coordinated with the state's six-year transportation improvement program.*

Goal T.4 **Sustainability**

Design and manage the city's transportation system to minimize the negative impacts of transportation on the natural environment, to promote public health and safety, and to achieve optimum efficiency.

Sustainability and Natural Environment

Policy T.4.1 *Foster a less polluting system that reduces the negative effects of transportation infrastructure and operation on the climate, natural environment and residents.*

Policy T.4.2 *Require where feasible the use of rain gardens and other techniques to reduce pollutants in storm drains.*

Policy T.4.3 *Seek the development and implementation of transportation modes and technologies that are energy-efficient, reduce vehicular emissions, support regional and national efforts and improve vehicular traffic flow, and overall system flow and performance.*

Policy T.4.4 *Encourage transportation system development that minimizes existing tree canopy removal and replaces any necessary tree removal along traffic rights of way.*

240th Ave NE

Policy T.4.5 *Design and operate transportation facilities in a manner that is compatible with and integrated into the natural and built environment including features, such as natural drainage, native plantings, and local design themes.*

Policy T.4.6 *Where financially feasible, promote the expanded use of alternative fuel vehicles by converting public fleets, applying public incentive programs, and encouraging the establishment of electric vehicle charging stations throughout the city where appropriate.*

Electric vehicle charging station at City Hall

Policy T.4.7 *Plan and develop a transportation system that reduces greenhouse gas emissions by shortening average trip length by encouraging trip consolidation and improving arterial traffic flows. Where practical, encourage replacement of vehicle trips with other modes of transportation to decrease vehicle miles traveled.*

Residents walking in northwest Sammamish

Trails connect neighborhoods to local parks throughout Sammamish

Human Health and Safety

Policy T.4.8 *Integrate the needs of pedestrians and bicyclists in the local and regional transportation plans and systems.*

Policy T.4.9 *Develop a transportation system that minimizes negative impacts to human health, including exposure to environmental toxins generated by vehicle emissions, noise, or a lack of non-motorized options.*

Policy T.4.10 *Ensure continued maintenance and preservation of existing equestrian/pedestrian trails in Sammamish.*

Balancing Costs and Human Impacts of Transportation

Policy T.4.11 *Ensure mobility choices for people with special transportation needs, including persons with disabilities, the elderly and the young, and low-income populations.*

Attachment A - Redlined version, 7/10/18

Background Information

TRANSPORTATION

soap box derby —

someone's front wheel

a little wobbly

Painting by Anna Macrae
Haiku by Michael Dylan Welch

The purpose of the Transportation Element is to establish goals and policies that will guide the development of surface transportation in the City of Sammamish, in a manner consistent with the overall goals of the Comprehensive Plan. Based upon existing and projected land use and travel patterns, the Transportation Element Background Information addresses roadway classifications, levels of service, transit and non-motorized modes, future travel forecasts, transportation system improvements, financing strategies, and concurrency management. It establishes the technical basis for transportation system development, and for existing and future improvement of transportation programs and facilities guided by the Transportation Polices of the Comprehensive Plan.

Planning Context

The Plan's Transportation Element has been developed to be consistent with transportation policy and plans that have been adopted at the State and local levels, as described in the following sections.

State of Washington

Growth Management Act

Transportation planning at the State, County and local levels is mandated by the State of Washington Growth Management Act (GMA) [RCW 36.70A]. The GMA contains many requirements for the preparation of a Comprehensive Plan's Transportation Element. In addition to requiring consistency with the land use element, specific GMA requirements for a Transportation Element include [RCW 36.70A.070(6)]:

- Inventory of facilities by mode of transport.
- Level-of-service standards to aid in determining the existing and future operating conditions of the facilities.
- Proposed actions to bring ~~these~~ deficient facilities into compliance with adopted level-of-service standards.
- Traffic forecasts, based upon land use.
- Identification of transportation infrastructure needs to meet current and future demands.
- Funding analysis for needed improvements, as well as possible additional funding sources.
- Identification of intergovernmental coordination efforts.
- Identification of transportation demand management strategies as available.
- Identification of improvements for pedestrian and bicycle facilities and corridors.

In addition to these elements, GMA mandates that development cannot occur unless infrastructure exists, infrastructure improvements or strategies are concurrent with development, or a financial commitment is in place to complete the improvements or strategies within six years. In addition to construction of new capital facilities, infrastructure may include transit service, ride share programs, transportation demand management (TDM) strategies, or transportation system management (TSM) strategies.

Washington Transportation Plan

The Washington Transportation Plan (WTP) 2030 presents the State of Washington's strategy for implementation programs and budget development over a 20-year planning horizon. The WTP contains an overview of the current conditions of the statewide transportation system, as well as an assessment of the State's future transportation investment needs. The WTP policy framework sets the course for meeting those future needs. The WTP is based on the following six transportation policy goals:

- Economic Vitality: To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy.
- Preservation: To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services;
- Safety: To provide for and improve the safety and security of transportation customers and the transportation system;
- Mobility: To improve the predictable movement of goods and people throughout Washington state;
- Environment: To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment; and
- Stewardship: To continuously improve the quality, effectiveness, and efficiency of the transportation system.

The WTP addresses the essential and interconnected roles of the Regional Planning Organizations and their local jurisdictions, and the important transportation issues of tribal governments in Washington State. It highlights the role of the Washington State Department of Transportation (WSDOT) to maintain, preserve and improve the transportation system while meeting the other societal goals defined above.

Puget Sound Region

Puget Sound Regional Council—*Transportation 2040*

Transportation 2040 is a 30-year action plan for transportation in the central Puget Sound Region (King, Pierce, Snohomish, and Kitsap Counties). The plan identifies investments to support growth and improve transportation services to people and businesses, provides a financing plan for funding transportation improvements, and proposes strategies for reducing environmental impacts. *Transportation 2040* establishes three integrated and sustainable strategies: congestion and mobility; environment; and funding. These three strategies are then broken into four major investment categories that pertain to maintaining existing services; enhancing safety and security; improving system efficiency through travel demand management (TDM); and implementing strategic capacity investments for all travel modes and facilities.

Transportation 2040 is an offshoot of the *Vision 2040* plan whose fundamental goal is to focus growth in urban areas to maintain and promote the well-being of people and communities, economic vitality, and a healthy environment (PSRC 2014).

King County

2012 King County Planning Policies

Supporting Growth

An effective transportation system is critical to achieving the Regional Growth Strategy and ensuring that centers are functional and appealing to the residents and businesses they are designed to attract.

> *Goal Statement: Local and regional development of the transportation system is consistent with and furthers realization of the Regional Growth Strategy.*

Mobility

Mobility is necessary to sustain personal quality of life and the regional economy. For individuals, mobility requires an effective transportation system that provides safe, reliable, and affordable travel options for people of all ages, incomes and abilities. While the majority of people continue to travel by personal automobile, there are growing segments of the population (e.g. urban, elderly, teens, low income, minorities, and persons with disabilities) that rely on other modes of travel such as walking, bicycling, and public transportation to access employment, education and training, goods and services.

The movement of goods is also of vital importance to the local and regional economy. International trade is a significant source of employment and economic activity in terms of transporting freight, local consumption, and exporting of goods.

> *Goal Statement: A well-integrated, multi-modal transportation system transports people and goods effectively and efficiently to destinations within the region and beyond.*

System Operations

The design, management and operation of the transportation system are major factors that influence the region's growth and mobility.

> *Goal Statement: The regional transportation system is well-designed and managed to protect public investments, promote public health and safety, and achieve optimum efficiency.*

King County Metro Strategic Plan for Public Transportation 2011–2021

The King County Strategic Plan for Public Transportation 2011–2021 describes a vision for the county's future transportation system and sets objectives, goals, and strategies for getting there. The plan is consistent with other regional and countywide policies and plans, such as *Vision 2040*. Strategies to achieve Metro's goals are as follows:

- Increase safety and security in public transportation operations and facilities.
- Increase travel opportunities and public transportation products to serve appropriate markets (including low-income, elderly, and students) and mobility needs.
- Provide travel options and alternatives to regular fixed route-transit, such as ridesharing and other alternative or "right-sized" services.
- Expand services to account for the region's growing population and serve new transit markets.
- Support CTR and TDM strategies for employers, local jurisdictions, and other agencies.
- Enhanced service to and within jurisdictions that aggressively implement local land use plans, growth management strategies, and transit-oriented development.
- Design and modification of services and infrastructure to be more efficient and effective.
- Coordinate with Sound Transit, Community Transit, Pierce Transit, and the Washington State Ferry System to provide integrated efficient service to major destinations throughout the region.
- Improve access for pedestrians (with and without disabilities) and bicyclists, as well as the waiting environment at transit facilities with the highest use.
- Provide service that is easy to understand, use and promote. (King County Metro 2013)

Sound Transit

Sound Transit 2 expands mass transit with the addition of more regional express transit and link light rail and commuter rail service. This second mass transit phase builds onto the Sound Move strategic program, approved by voters in 1996. Sound Transit 2 expands the link light rail system to include link light rail from North Seattle into Snohomish County (Sound Transit 2008).

Inventory and Existing Conditions

The primary objective of this section of the report is to assess existing traffic conditions within and adjacent to the City of Sammamish. In order to identify existing traffic conditions, a comprehensive data collection process has been undertaken. The data was primarily collected from the City of Sammamish, King County, and WSDOT. The assessment of existing conditions serves as a baseline for measurement of capacity for future land use and transportation planning.

The following categories are included in this section:

- Identification of State Highways;
- Roadway Inventory;
- Traffic Signal Inventory;
- Roadway Design Standards;
- Traffic Level-of-Service Analysis;
- Analysis of Access to the city;
- Traffic Calming;
- Current Six-Year Transportation Improvement Program (TIP);
- Existing Transit Service; and
- Existing Non-Motorized Conditions.

Identification of State Highways

Identification of State Highways

No state highways are located within ~~the~~ Sammamish city limits. However, three State-controlled highways, Interstate 90 (I-90), State Route 520 (SR 520), and State Route 202 (SR 202)~~, run near or adjacent to Sammamish, providing~~ provide the primary means of access into and out of the city. Improvements on these facilities will highly impact traffic conditions in Sammamish and in turn, conditions on the highways will be impacted by transportation conditions and improvements in Sammamish.

I-90 is a limited-access freeway that consists of three lanes in each direction and runs east-west, approximately one mile south of the southern Sammamish city limits. From just west of Issaquah to Seattle, I-90 also has an HOV lane in each direction. I-90 serves as the primary east-west freeway for regional travel within and beyond western Washington. To the west, it provides direct connection to the Cities of Bellevue, Mercer Island, and Seattle. To

the east, it serves as the major east-west freeway across the State of Washington, connecting to Spokane at the eastern state border, and running beyond to the eastern coast of the United States.

SR 520 is a limited access freeway that consists primarily of two to three lanes in each direction and runs east west between the Cities of Redmond, Bellevue and Seattle. There are HOV lanes present along various stretches of this highway, but these lanes are not continuous.

SR 202, which runs adjacent to the northern Sammamish city limits, connects to SR 520 west of the city. SR 202 (also called Redmond-Fall City Road in the area adjacent to Sammamish) consists of one lane in each direction, widening to two lanes in each direction west of Sahalee Way. SR 520/SR 202 is the primary east-west highway alternative to I-90. This highway corridor provides direct connection to the Cities of Redmond, Bellevue, Kirkland, and Seattle to the west, and to the Cities of Snoqualmie and North Bend to the east.

Both I-90 and SR 520 connect directly to Interstate 405 (I-405) and Interstate 5 (I-5) to the west, which are the primary north-south freeways within the region.

Highways of Statewide Significance

In 1998, Highways of Statewide Significance (HSS) legislation was passed by the Washington State Legislature and codified as RCW 47.06.140. Highways of Statewide Significance are those facilities deemed to provide and support transportation functions that promote and maintain significant statewide travel and economic linkages. The legislation emphasizes that these significant facilities should be planned from a statewide perspective (WSDOT 2004). Thus, level-of-service requirements for HSS highways are established by WSDOT, not by local standards.

Adjacent to the City of Sammamish, I-90 carries the HSS designation (Washington State Transportation Commission 2004) and thus is controlled by State level-of-service requirements. Additionally, SR 520 is also identified as an HSS.

Roadway Inventory

Roadway Functional Classification and Inventory

Transportation roadway systems consist of a hierarchy of streets that provide the dual functions of access to land and development, and

through movement for travelers. Streets are classified based upon the relative degree to which they provide these functions. Land use policies and street standards typically vary according to the street function. For example, most jurisdictions designate minimum right-of-way requirements, stopping and entering sight distances, roadway width, design speed, design traffic volumes, access control, and sidewalk requirements in accordance with an adopted classification system. These requirements are usually codified in the jurisdiction's municipal code and/or adopted as street standards.

Based on state law, cities and counties are required to adopt a street classification system that is consistent with state and federal guidelines. In the State of Washington, these requirements are codified in RCW 35.78.010 and RCW 47.26.090. Each local jurisdiction is responsible for defining its transportation system into the following functional classifications: freeway, principal arterial, minor arterial, and collector. All other roadways are assumed to be local access streets.

Background Figure T–1 shows the existing classification of roadways for the City of Sammamish. The classifications are summarized as follows:

- **Freeways/Interstates** are multi-lane, high-speed, high-capacity roadways intended exclusively for motorized traffic. All access is controlled by interchanges and bridges separate road crossings. While I-90 to the south and SR 520 to the northwest are classified as freeways, no roadways of this designation exist within the city limits.
- **Principal Arterials** are roadways connecting between major community centers and facilities, and are often constructed with limited direct access to abutting land uses. Principal arterials serve high-volume corridors, carrying the greatest portion of through or long-distance traffic within a city. The selected routes should provide an integrated system for complete circulation of traffic, including ties to the major rural highways entering the urban area. There is an estimated 11 miles of principal arterial roads in the city. The following is a list of roadways currently designated as principal arterials in the City of Sammamish:
  - Sahalee Way NE, between 228th Ave NE and the north city limits;
  - 228th Ave, between SE 43rd Way and Sahalee Way NE;
  - SE 43rd Way, between the south city limits and 228th Ave SE;
  - ~~SE~~ Issaquah-Pine Lake Rd SE, between city limits ~~SE Issaquah-Fall City Rd~~ and 228th Ave SE;

Background Figure T–1
Existing Roadway Inventory and Functional Classifications

T.12

City of Sammamish
Functional Classification
Principal Arterial
Minor Arterial
Collector Arterial
©2013 CALIPER

~~–~~ SE Issaquah-Fall City Rd, between city limits~~Issaquah-Pine Lake Rd~~
– ~~SE~~ and SE Duthie Hill Rd; and
– SE Duthie Hill Rd, between Issaquah-Fall City Rd and the east city limits.

- **Minor Arterials** are roadways connecting centers and facilities within the community and serving some through traffic, while providing a greater level of access to abutting properties. Minor arterials connect with other arterial and collector roads extending into the urban area, and serve less concentrated traffic-generating areas, such as neighborhood shopping centers and schools. These roads also serve as boundaries to neighborhoods and collect traffic from collector streets. Although the predominant function of minor arterial streets is the movement of through traffic, they also provide for considerable local traffic with origins or destinations at points along the corridor. The following is a list of roadways currently designated as minor arterials in the City of Sammamish:
  - E Lake Sammamish Pkwy, between the south city limits and the north city limits;
  - NE Inglewood Hill Rd, between E Lake Sammamish Pkwy and 228th Ave NE;
  - NE 8th St, between 228th Ave NE and 244th Ave NE;
  - SE 8th St, between 228th Ave SE and 244th Ave SE;
  - 244th Ave NE, between ~~E Main Dr~~SE 8th St~~NE 8th St~~ and the north city limits;
  - ~~244th Ave SE Corridor, between SE 24th St and SE 8th St;~~
  - ~~244th Ave SE, between SE 32nd St and SE 24th St;~~
  - ~~SE 4th St, between 218th Ave SE and 228th Ave SE; and~~
  - 244th Ave SE, between SE 8th St and ~~NE 8th St~~E Main Dr; ~~and~~
  - SE 32nd Way~~/~~SE 32nd St-SE Issaquah Beaver Lk Rd, between Issaquah-Pine Lake Rd SE and SE Issaquah-Fall City Rd/ SE Duthie Hill Rd.

- ~~**Collectors**~~ **Collector Arterials** are roadways that connect two or more neighborhoods or commercial areas, while also providing a high degree of property access within a localized area. These roadways "collect" traffic from local neighborhoods and carry it to the arterial roadways. Additionally, collector~~s~~ arterials provide direct access to services and residential areas, local parks, churches and areas with similar uses of the land. Collector~~s~~ arterials may be separated into principal and minor designations according to~~and~~ the degree of travel between areas and the expected traffic volumes. The following is a list of roadways currently designated as collector arterials in the City of Sammamish:
  - NE 37th Way~~/~~-205th Pl NE/NE 16th St, between

Sahalee Way NE and 216th Ave NE;

- 216th Ave NE, between NE Inglewood Hill Rd and NE 16th St;
- Louis Thomson Rd, between 212th Ave SE and East Lake Sammamish Pkwy NE;

- 216th Ave NE, between NE Inglewood Hill Rd and NE 16th StNE 20th Pl;
- 212th Ave, between E Lk Sammamish Pkwy SNE and Louis Thomson Rd;
- SE 8th St, between 212th Ave SE and 218th Ave SE;
- 218th Ave SE, between SE 8th St and SE 4th St;
- SE 4th St, between 218th Ave SE and 228th Ave SE;
- 248th Ave SE, between SE 24th St and SE 14th St;
- E Main Dr, between 244th Ave SE and the east city limits;
- SE 20th St, between 212th Ave SE and 228th Ave SE;
- SE 24th Way/SE 24th St, between E Lk Sammamish Pkwy SE and 212th Ave SEPine Lake;
- SE 24th St, between 228th Ave SE and 248th Ave SE; and
- Trossachs Boulevard SE, between SE Duthie Hill Rd and the north city limits;
- SE Windsor Blvd/248th Ave SE, between SE 8th St and SE 124th St;
- South Pine Lake Route (SE 32nd St-/216th Ave SE-/SE 28th St-/222nd Pl SE-/SE 30th St), between 212th Ave SE and 228th Ave SE;
- 244th Ave SE, between SE 24th St and SE 32nd St;
- SE Klahanie Blvd/Klahanie Dr SE, between Issaquah-Pine Lake Rd SE and SE Issaquah-Fall City Rd; and
- 256th Ave SE, between SE Issaquah-Beaver Lake Rd and SE Klahanie Blvd.
- 218th Ave SE-217th Ave NE-216th Ave NE, between SE 4th St to Inglewood Hill Rd, between SE 6th St NE and Inglewood Hill Rd

Background Table T–1 provides a comparison of the City of Sammamish arterial and collector roadway miles to Federal Highway Administration (FHWA) guidelines (FHWA 1989), which must be followed to qualify the City of Sammamish streets for State and Federal grant programs.

The topography and development patterns within the City of Sammamish limit opportunities to add Principal or Minor Arterial routes. Some additional Collector mileage could be added and the totals would still remain within the FHWA guidelines.

Background Table T–1
Miles of Roadway by Functional Classification

FUNCTIONAL CLASSIFICATION	EXISTING MILES OF ROADWAY IN SAMMAMISH[1]	TYPICAL RANGE OF PERCENTAGE OF TOTAL ROADWAY[2]	TYPICAL RANGE OF MILES BASED UPON FHWA GUIDELINES
Freeway & Principal Arterial	~~11.7~~14~~.0~~	5%–10%	~~8–16~~10-20
Minor Arterial	~~17.1~~16~~.0~~	10%–15%	16–24
Collector Arterial	~~11.1~~21~~.0~~	5%–10%	8–16
Non-Arterial Street~~Local Access~~	~~121.1~~157~~.0~~	—	~~104–128~~135-167
TOTAL	~~160.0~~208~~.0~~	—	~~160~~207

1. *Source: City of Sammamish ~~2015~~2016~~8~~*
2. *Source: FHWA 1989*

Traffic Signal and Roundabout Intersection Inventory

An inventory of the signalized and roundabout (RAB) intersections, and those with four way flashers within inside and nearby the City of Sammamish was conducted by the City of Sammamish. The locations of the twenty-onethirty-fivesix existing signalized, five two intersections with flashing beacons and threesix RABsix RABintersections, are illustrated in Background Figure T–2., and These are the intersections that most directly affect City of Sammamish residents' travel patterns.

Freight Routes

See Volume I, Transportation Element Policy T.1.65 on page 87.

Freight destined to and from Sammamish is associated primarily with retail oriented commercial developments in the city. There are no significant industrial, manufacturing, or import/export freight generators in the city. Limited through freight associated with FedEx sorting facilities in Issaquah to the south and UPS sorting facilities in Redmond to the north travel through the city. Freight traffic uses two corridors. Through freight typically uses East Lake Sammamish Parkway and local freight traffic uses Sahalee Way/228th Ave. Background Figure T–3 shows these routes.

Roadway Design Standards

See Volume I, Transportation Element Policy T.3.4 on page 90.

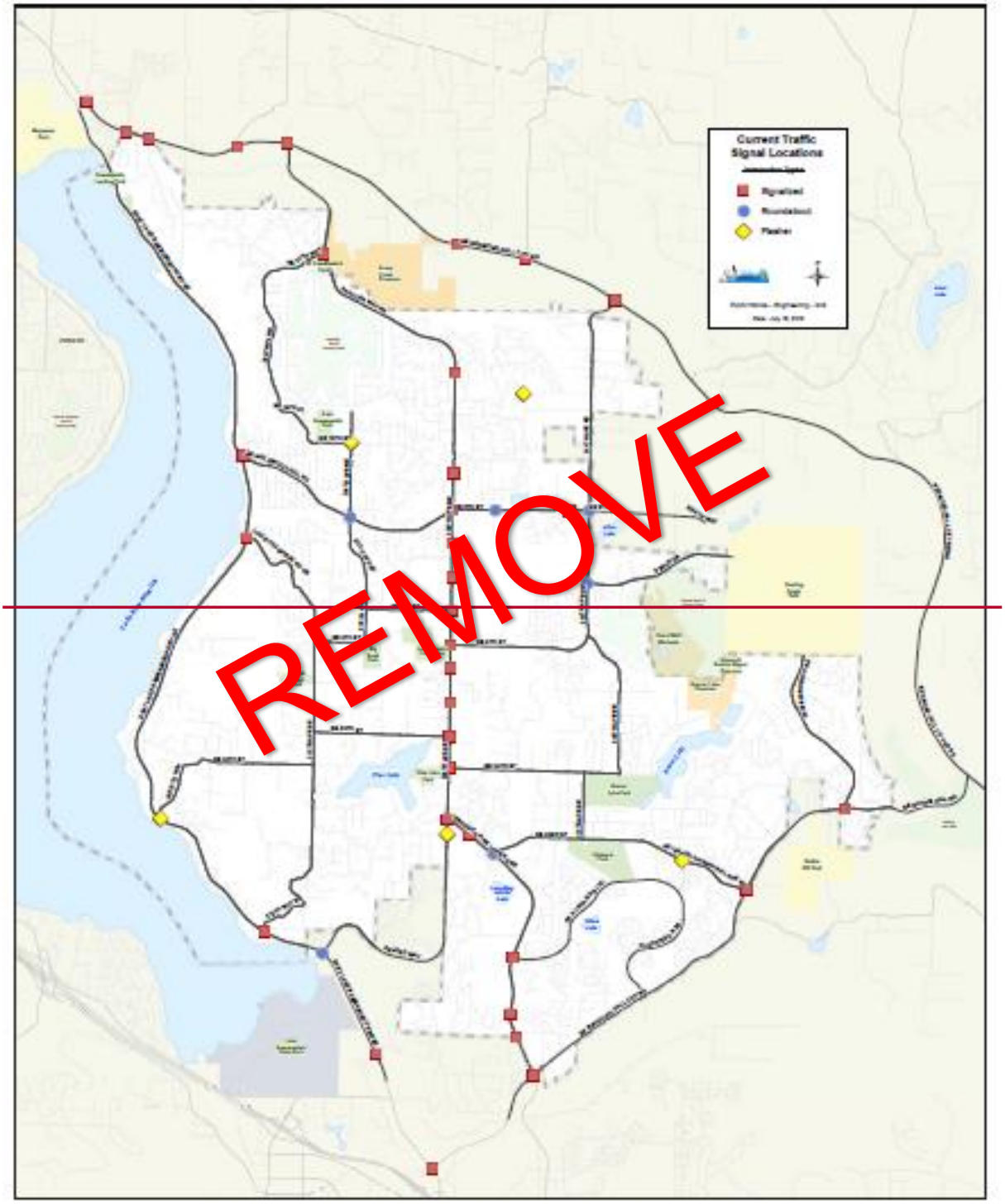
The City has adopted interim standards for development of City streets, as documented in the *Interim Public Works Standards* (April 2000) 2016 Public Works Standards (December 31, 2016)and as amended for the local road section, per City memorandum (July 1, 2014). As the city reconstructs roadways to improve vehicular capacity and safety, they will become more urban in nature. The Goals, Objectives and Policies of the Transportation Element relate street design to the desires of the local community, and advise that design be at a scale commensurate with the function that the street serves. Guidelines are therefore important to provide designers with essential elements of street design as desired by the community.

Background Figure T–4 illustrates typical street sections for Arterial and Collector Street design. This design is consistent with most municipalities' urban roadway design standards. In this illustration, the vertical curbs provide access control and the overall character suggests a "city" driving behavior with lower travel speeds.

In June 2008, the City of Sammamish adopted the Sammamish Town Center Plan. The Town Center Plan established policy direction that amends the previous Comprehensive Plan. The Town Center provides a central area for the increased residential and commercial densities. Transportation improvements associated with the Town Center are

intended to provide safe, efficient and attractive connections to central

Background Figure T–2
~~Current~~ 2016 ~~Traffic~~ Signal, Roundabout, and Four-Way Flasher Locations



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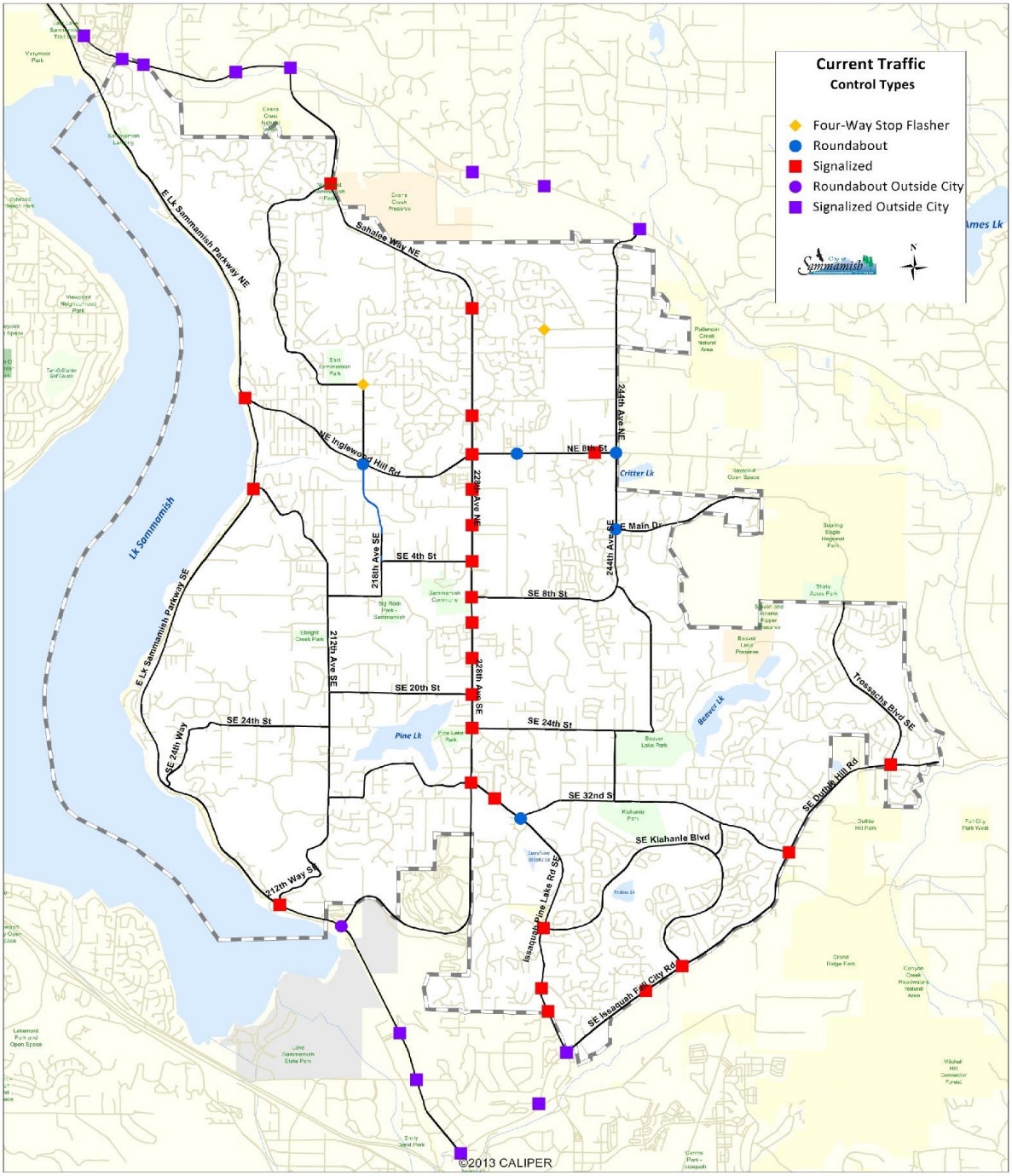

Background Figure T–3
Freight Routes

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City of Sammamish
Freight Routes
Freight Routes
City Limit
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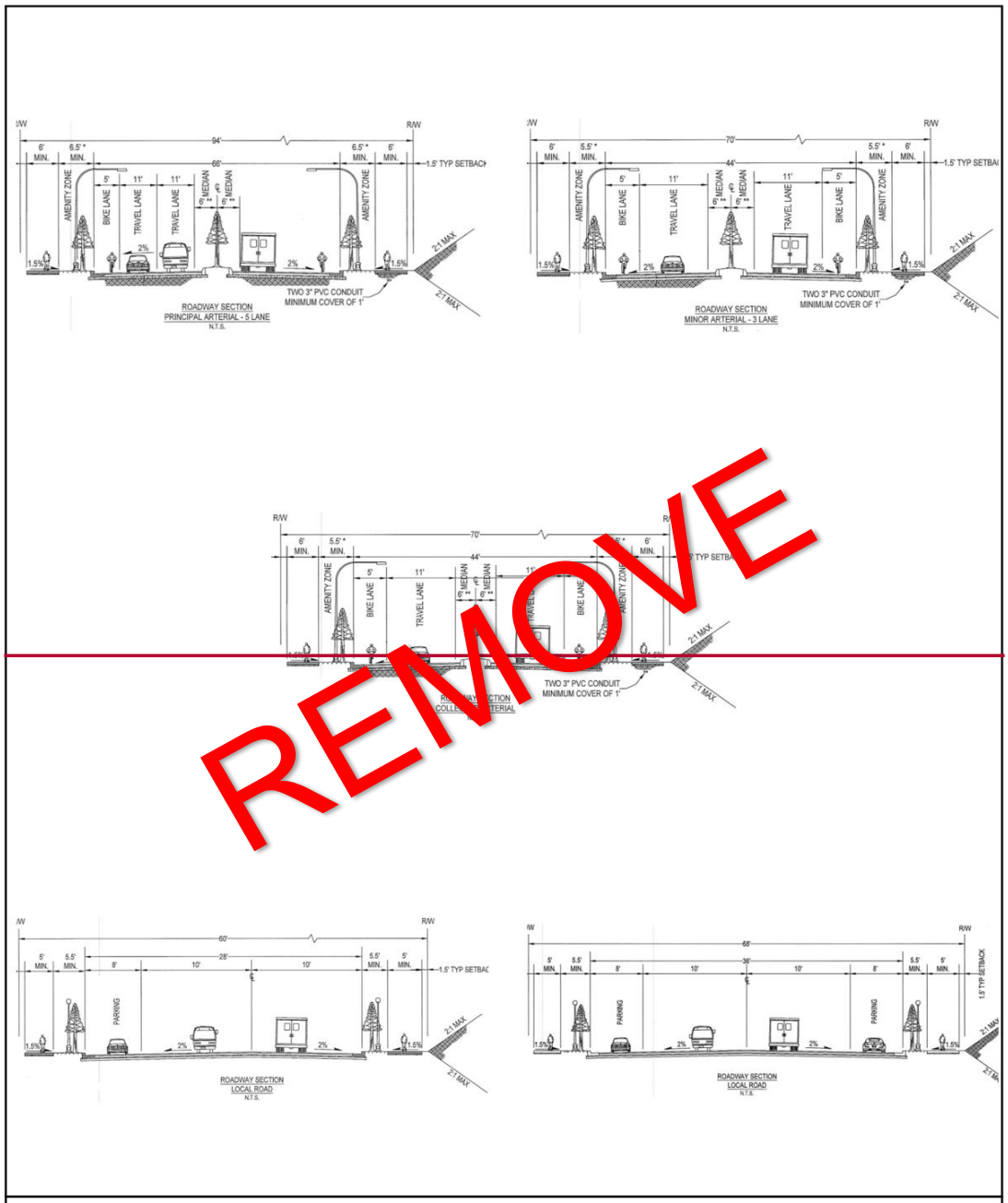
~~*Background Figure T-4*~~
~~*Current Roadway Design Standards*~~



2016 Public Works Standards
Street Cross-Sections

Source: City of Sammamish 2016 Public Works Standards

uses and amenities, minimize congestion impacts within the Town Center and surrounding areas, and promote alternative travel modes. To support the Town Center Plan improvement concepts including roadway cross-sections specific to roadways supporting the Town Center were developed.

~~Background Figure T–5~~ Background Figure T–4 and ~~Background Figure T–6~~ Background Figure T–5 illustrate the conceptual Sammamish Town Center street cross-sections (Sammamish Town Center Plan June 2008).

Traffic Counts

Daily traffic counts were collected by the City in 2016 at 74 locations throughout the city. Average weekday daily traffic (AWDT) counts were calculated by averaging the daily traffic counts of Monday, Tuesday, Wednesday, Thursday, and Friday during a typical week. Locations and volumes for existing AWDTs are listed in Background Table T–2 and illustrated in Background Figure T–6.

The highest traffic volumes shown occur near ~~the high schools and City Hall on 228th Ave SE.~~228th Ave SE/SE 10th Street and 228th Ave SE/SE 20th St.

In addition, intersection turning movement counts were collected at 43 locations during the AM and PM peak hours within the City in 2016. These counts were collected during a Tuesday and Thursday in April and May, in order to reflect typical weekday conditions. These counts consider vehicle traffic volumes making each turn movement during the AM and PM peak hours. These counts are collected manually and are further described in the following section.

See Volume I, Transportation Element Policy T.1.3 on page 86.

Traffic Intersection Operations Models

The City uses the Synchro and SIDRA software programs to analyze intersection operations. These models are leading traffic capacity software programs used to analyze signalized, stop-controlled, and roundabout intersections, and they support the methodologies recommended by the Highway Capacity Manual.

Model outputs are used to evaluate concurrency, predict intersection capacity and delays, inform signal timing plan options to optimize intersection operations, and evaluate potential solutions for a failing intersection. Notwithstanding these uses, there are limitations to the use of these models, including their accuracy in predicting delays and queues when the backup is caused by a downstream intersection; as well as accurately measuring delays when intersections are overcapacity.

Traffic Level-of-Service Analysis

Level-of-Service (LOS) is the primary measurement used to determine the operating condition of an roadway segment _or intersection. In general, LOS is determined by the average delay of all approaches for signalized, roundabouts (RAB), and all way stop-controlled intersections. The LOS for two way side-street stop-controlled intersections is determined by the average delay for the worst minor approach, or left turn movement of the major street.comparing traffic volumes (counted or modeled) to the carrying capacity of the intersection or roadway segment The following section describes the traffic counts volumes that were collected, the approaches used for intersection LOS analysis, and the results of the analyses under existing conditions.

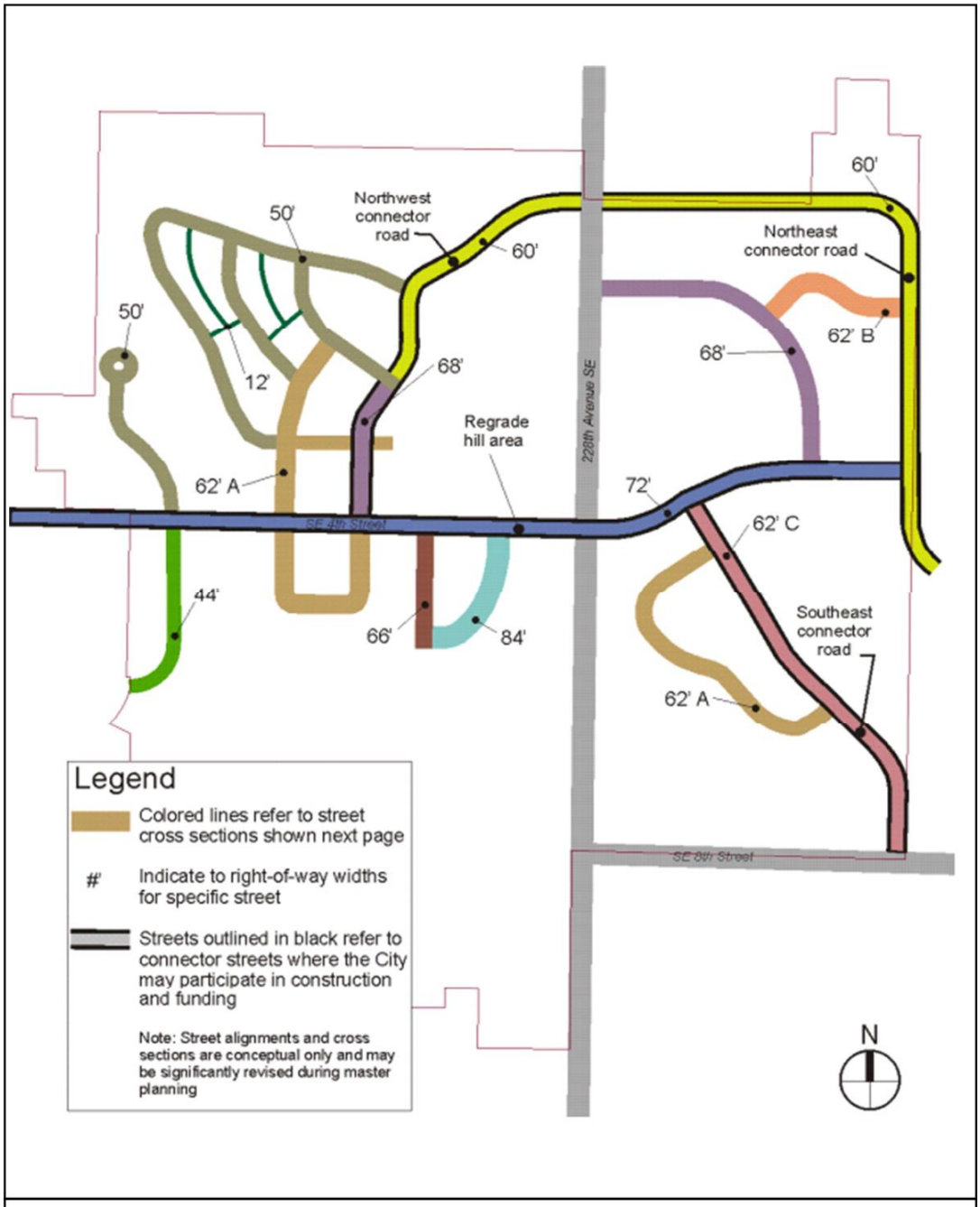
Average Weekday Daily Traffic

Daily traffic counts were collected by the City of Sammamish in 2012 2016 at sixteen 78 locations throughout the city. Average weekday daily traffic (AWDT) counts were calculated by averaging the daily traffic counts of Monday, Tuesday, Wednesday, and Thursday, and Friday during a typical week. Locations and volumes for existing AWDTs are listed in Background Table T-2 and illustrated in Background Figure T-7.

The highest traffic volumes shown occur near the high schools and City Hall.

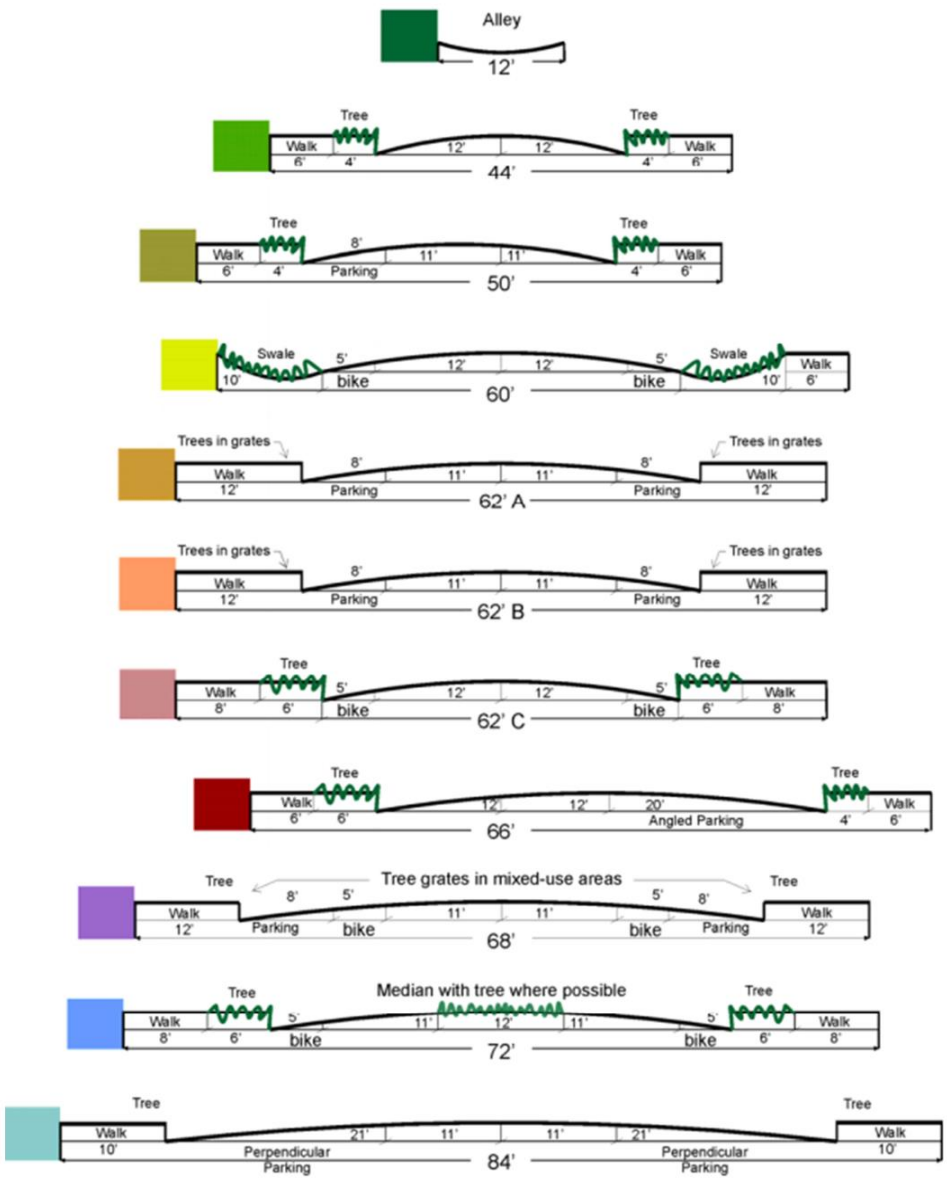
Background Figure T-~~5~~4

Sammamish Town Center Plan Roadway Locations



Sammamish Town Center Plan
Roadway Locations

Source: City of Sammamish Town Center Plan



Sammamish Town Center Plan
Street Cross-Sections

Source: City of Sammamish Town Center Plan

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Sammamish Comprehensive Plan
Transportation Background Information ~~June 2017~~~~April 2018~~Amended July 10, 2018

Background Table T–2
2016~~2~~ Average Weekday Daily Traffic (AWDT)

SITE #	LOCATION	2016~~2~~ AWDT
1	East Lake Sammamish Parkway NE, south of 187th Avenue NE	19,070~~17,770*~~
2	Sahalee Way SE, south of NE 50th Street	21,210
3	244th Ave ~~S~~NE, south of SR-202	7,000~~5,800~~
4	East Lake Sammamish Parkway SE, south of Louis Thompson Road	10,020~~8,200~~
5	212th Avenue SE, south of SE 8th Street	4,710~~3,600~~
6	228th Avenue SE, south of SE 10th Street	29,750
7	East Lake Sammamish Parkway, south of 212th Avenue SE	16,830~~14,100~~
8	228th Avenue SE, south of SE 32nd Street	18,160
9	Issaquah-Pine Lake Road, east~~south~~ of 228th Avenue SE	15,260~~17,160*~~
10	244th Avenue SE, north of SE 32nd Street	5,670~~5,500~~
11	Beaver Lake Drive SE, north of Issaquah-Beaver Lake Road	2,690
12	SE Duthie Hill Road, north of Issaquah-Beaver Lake Road	15,170~~13,400~~
13	East Lake Sammamish Parkway, south of SE 43rd Way	35,150
14	Issaquah-Fall City Road, southwest of Issaquah-Pine Lake Road	28,190
15	Issaquah-Pine Lake Road, south of SE Klahanie Boulevard	19,500
16	Trossachs Boulevard SE, north of SE Duthie Hill Road	8,930~~7,700~~
17	East Lake Sammamish Parkway, south of NE Inglewood Hill Road	13,210
18	East Lake Sammamish Pkwy, north of ~~Inglewood Hill Road~~NE 18th Place	18,990~~15,500~~
19	East lake Sammamish Parkway, south of SE 32nd Street	11,580
20	NE Inglewood Hill Road, east of East Lake Sammamish Parkway	10,200
21	NE 8th Street, east of 228th Avenue NE	10,250~~9,100~~
22	228th Avenue NE, north of NE 8th Street	20,740
23	228th Avenue NE, south of NE Inglewood Hill Road/NE 8th Street	24,920~~23,200~~
24	228th Avenue SE, south of SE 8th Street	26,650~~23,000~~
25	212th Avenue SE, south of SE 20th Street	5,270
26	228th Avenue SE, south of Issaquah-Pine Lake Rd	18,370~~15,500~~
27	SE 20th Street, west of 228th Avenue SE	5,050
28	SE 28th Street, east of 218th Avenue SE (South Pine Lake Route)	2,340
29	SE 8th Street, east of 228th Ave SE	8,540~~7,700~~
30	SE 24th Street, east of Audubon Park Drive	7,320
31	244th Avenue SE, north of SE Windsor Boulevard	6,790
32	East Main Drive, east of 244th Avenue SE	2,950
33	244th Avenue NE, north of NE 8th Street	8,260
34	NE 8th Street, west of 244th Avenue NE	7,630
35	South Pine Lake Route (Issaquah-Pine Lake Rd ext), west of 228th Ave SE	4,190
36	West Beaver Lake Drive SE, south of SE 18th Place	710
37	205th Place NE, south of NE 37th Way	3,210
38	SE 4th Street, west of 228th Avenue SE	2,820
39	248th Avenue SE, north of SE 24th Street	3,100
40	244th Ave ~~S~~NE, north of NE 3rd Way (on bridge)~~E Main Street~~	7,430~~6,990*~~

41	216th Avenue NE, south of NE 16th Street	4,780
42	217th Avenue NE, south of NE 4th Street	1,600
43	218th Avenue SE, south of SE 4th Street	2,140
44	Louis Thompson Road NE, east of East Lake Sammamish Parkway NE	4,170
45	212th Way SE, east of East Lake Sammamish Parkway SE	4,870
46	SE 32nd Street, west of 228th Avenue SE	1,100
47	SE 32nd Street, west of 244th Avenue SE	6,470
48	SE Issaquah-Beaver Lake Road, west of SE Duthie Hill Road	6,070
49	SE 32nd Street, east of 244th Avenue SE	7,630
50	SE Duthie Hill Road, south of SR-202	7,530
51	East Lake Sammamish Parkway NE, south of NE 30th Street	18,680
52	East Lake Sammamish Parkway SE, north of SE 24th Way	10,560
53	SE 24th Way, east of East Lake Sammamish Parkway SE	1,320
54	212th Avenue SE, north of SE 20th Street	5,090
55	212th Avenue SE, south of SE 32nd Street	4,800
56	SE 20th Street, east of 212th Avenue SE	4,670
57	Sahalee Way NE, north of NE 25th Way	16,960~~19,410*~~
58	228th Avenue NE, north of NE 12th Place	18,720
59	228th Avenue SE, south of SE 20th Street	31,680
60	Issaquah-Pine Lake Road, south of SE 32nd Way~~Street~~	16,870~~18,925*~~
61	Issaquah-Pine Lake Road SE, north of SE 48th Street	21,630
62	SE 32nd Way, east of Issaquah-Pine Lake Road SE	8,330
63	SE Klahanie Boulevard, east of Issaquah-Pine Lake Road SE	5,440
64	SE 24th Street, west of 244th Avenue SE	6,040
65	SE Issaquah-Fall City Road, northeast of Issaquah-Pine Lake Road SE	25,720~~27,160~~
66	SE Issaquah-Fall City Road, west~~south~~ of Klahanie Drive SE	23,020~~26,830*~~
67	SE Issaquah-Fall City Road, east of Klahanie Drive SE	15,200
68	Klahanie Drive SE, north of SE Issaquah-Fall City Road	12,470
69	SE Klahanie Boulevard, northeast of SE 37th Street	3,410
70	SE Issaquah-Fall City Road, south of SE Duthie Hill Road	14,350
71	SE Duthie Hill Road, south of SE Issaquah-Beaver Lake Road	13,630
72	SE Duthie Hill Road, west of Trossachs Boulevard SE	14,220
73	Sahalee Way NE, south of NE 37th Way	19,990~~18,400~~
74	Sahalee Way NE, south of 217th Place NE	19,120
~~10b~~	~~SE 24th Street, west of 212th Avenue SE~~	~~1,840~~
~~16b~~	~~NE Inglewood Hill Rd, west of 228th Ave NE216th Avenue NE~~	~~9,940~~8,600
~~50b~~	~~Issaquah-Pine Lake Road SE, north of SE Issaquah-Fall City Road~~	~~22,230~~
~~56b~~	~~256th Avenue SE, north of SE Klahanie Boulevard~~	~~4,920~~

~~** 2014 volumes were collected at locations marked with asterisks.*~~

Background Figure T–~~7~~6
~~2012~~ 2016 Average Weekday Daily Traffic

2016 Average Weekday Daily Traffic
2016 Count Location
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~~Roadway Level of Service Analysis~~

~~The Highway Capacity Manual (HCM 20002010) is the recognized source for the techniques used to measure transportation facility performance. Using the HCM procedures, the quality of traffic operation is graded into one of six levels-of-service: A, B, C, D, E, or F. Background Table T-3 summarizes the characteristic traffic flow for the varying levels-of-service. As the table shows, LOS A and B represent the best traffic operation. LOS C and D represent intermediate operation and LOS E and F represent high levels of traffic congestion.~~

~~*See Volume I, Transportation Element Policy T.1.3 on page 86.*~~

~~*Background Table T-3*~~
~~*Characteristic Traffic Flow for Level-of-Service Measures*~~

~~LEVEL-OF-SERVICE~~		~~CHARACTERISTIC TRAFFIC FLOW~~
~~A~~		~~Free flow, low volumes and no delays~~
~~B~~		~~Stable flow, speeds restricted by travel conditions, minor delays,~~
~~C~~		~~Stable flow, speeds and maneuverability closely controlled due to higher volumes.~~
~~D~~		~~Stable flow, speeds and maneuverability closely controlled due to higher volumes.~~
~~E~~		~~Unstable flow, low speeds, considerable delay, volume at or near capacity, freedom to maneuver is extremely difficult.~~
~~F~~		~~Forced flow, very low speeds, volumes exceed capacity, long delays with stop-and-go traffic.~~

~~*Source: HCM 1997.*~~

~~Level of service standards are used to evaluate the transportation impacts of long-term growth and concurrency. In order to monitor concurrency, the city must adopt standards by which the minimum acceptable roadway operating conditions are determined and deficiencies may be identified.~~ The Highway Capacity Manual (HCM) is the recognized source for the techniques used to measure transportation facility performance. Using the HCM procedures, the quality of controlled intersection operations is graded into one of six levels-of-service: A, B, C, D, E, or F.

Intersection Level of Service

The intersection level of service (LOS) is calculated using the standard analysis procedures described in this section for the AM and PM peak hours. Intersections with LOS' below the defined standards will be considered deficient. For intersections of roadways with different functional classifications, the standard for the higher classification applies to the entire intersection.

The intersection LOS standards adopted in this Transportation Element are LOS C for intersections that include Minor Arterial or Collector Arterial roadways, and LOS D or E for intersections that include Principal Arterials. Attaining LOS D at major intersections with high approach volumes can result in large intersections with exclusive right-turn lanes, double left-turn lanes and additional through lanes. While these improvements reduce delays for These improvements improve LOS for vehicles, they can but result in very long crosswalksing distances for pedestrians, as well as increased and increase potential for pedestrian-vehicle conflicts at free right turns. Therefore, Principal Arterials have a standard of if LOS Dfor intersections onprincipal arterialsexcept where LOS D cannot be met with three approach lanes in any direction. In those cases, attained with fewer than four approach lanes in any direction, the LOS may be reduced to LOS E is assigned.

AM and PM Peak-Hour Intersection Level of Service

Intersection turning movement counts were collected at 43 locations during the AM and PM peak hours within the City in 2016. These counts were collected during a Tuesday and Thursday in April and May, in order to reflect typical weekday conditions. Level of service analysis was performed for existing AMandPM peak- hour conditions at the 43 intersections.at the 43 intersections during pre-defined AM and PM peak hours.

Background Table T–5 summarizes the intersection locations, the existing traffic control for each intersection, and the calculated LOS using the HCM methodology based upon 2016 traffic counts for the AM (7-8) and PM (4:45-5:45) peak hours. The intersection LOS is also illustrated in Background Figure T–87.

Intersection Level of Service Criteria

Level of service for intersections is determined by the average amount of vehicle control delay experienced by vehicles at the intersection.

For signalized and roundabout (RAB) controlled intersections the LOS is calculated based on average control delay for the entire intersection. Background Table T–4 Background Table T–3 summarizes the LOS criteria for signalized and RAB controlled intersections.

For two-way stop-controlled (TWSC) intersections, LOS is based on the control delay for each minor-street movement (or shared movements) and for left turn movements from the major street.the worst approach, which tends to be the stop-controlled minor streets.

All-way stop-controlled (AWSC) intersections require drivers on all

See Volume I, Transportation Element Policy T.1.4 on page 8~~7~~6.

~~approaches to stop before proceeding into the intersection. Level of service for AWSC intersections is determined by the average computed or measured delay for all movements.~~

Background Table T–~~4~~3
Level-of-Service Criteria for Signalized and Roundabout Intersections

LEVEL-OF-SERVICE (LOS)	AVERAGE DELAY PER VEHICLE (SECONDS/VEHICLE)
A	~~=~~ ≤10
B	> 10–20
C	> 20–35
D	> 35–55
E	> 55–80
F	> 80

Source: HCM 2010.

~~Roundabouts (RAB's) are generally circular intersections characterized by yield control on entry and counterclockwise circulation around a central island. Level of service for RAB's is determined by the control delay at the intersections worst approach.~~

The LOS criteria for ~~unsignalized~~ side-street ~~two way~~ stop controlled (~~TW~~SSSC) and all-way stop controlled (AWSC) intersections ~~(TWSC and ,AWSC and RAB's)~~ have different threshold values than those for signalized and RAB controlled intersections, primarily because drivers expect different levels of performance from ~~distinct~~ different types of transportation facilities. In general, stop-controlled intersections are expected to carry lower volumes of traffic than signalized and RAB controlled intersections. Thus for the same LOS, a lower level of delay is acceptable at stop-controlled intersections than for signalized and RAB controlled intersections.

For ~~TW~~SSSC intersections, LOS is calculated based on the control delay of the worst approach, which tends to be the stop-controlled minor streets, or for left turn movements from major streets, whichever is worse.

~~Background Table T–5~~ Background Table T–4 summarizes the LOS thresholds for both ~~TWSC~~ SSSC and AWSC intersections.

Background Table T–~~5~~4
Level-of-Service Criteria for ~~TWSC, AWSC and RAB~~Stop Controlled Intersections

LEVEL-OF-SERVICE (LOS)	AVERAGE DELAY PER VEHICLE (SECONDS/VEHICLE)
A	~~=~~ ≤10
B	> 10–15
C	> 15–25

D	> 25–35
E	> 35–50
F	> 50

Source: HCM 2010.

Intersection Level of Service Standards

Level of service standards are used to evaluate the transportation impacts of long-term growth and concurrency. In order to monitor concurrency, the city must adopt standards by which the minimum acceptable roadway operating conditions are determined and deficiencies may be identified. The intersection LOS standards adopted in this Transportation Element are LOS D or E for intersections that include Principal Arterials and LOS C for intersections that include Minor Arterial or Collector roadways. For intersections of roadways with different functional classifications, the higher classification (and thus the lower standard) applies. Attaining LOS D at major intersections with high approach volumes can result in large intersections with exclusive right-turn lanes, double left-turn lanes and additional through lanes. These improvements improve LOS for vehicles, but result in very long crosswalks and increase potential for pedestrian-vehicle conflicts at free right-turns.

The LOS for intersections with Principal Arterials should be LOS D, when LOS D can be attained with a maximum of three approach lanes per direction (for example, a typical intersection of two five-lane roadways). The LOS for intersections with principal arterials may be reduced to LOS E, up to 80 seconds average delay, for intersections that require more than three approach lanes in any direction.

Intersection LOS is calculated using the standard analysis procedures described in this section for the AM and PM peak hours. Intersections with LOS below the defined standards will be considered deficient.

AM and PM Peak-Hour Intersection Level of Service

Intersection turning movement counts were collected at 43 locations during the AM and PM peak hours within the City of Sammamish in 2016. These counts were collected during a Tuesday and Thursday in April, in order to reflect typical weekday conditions. Level of service analysis was performed for existing AM and PM peak- hour conditions at 3050 intersections within and adjacent to the Sammamish city limits. Background Table T–6 Background Table T–5 summarizes the intersection locations, the existing traffic control for each intersection, and the calculated LOS using HCM 2010 methodology, based upon 20122016 traffic counts for the AM and PM peak hours. The intersection LOS is also illustrated in Background Figure T–8. The results shown in the table represent LOS based upon average delay for all traffic movements at signalized, RAB, and AWSC intersections. At TWSC intersections, the LOS is based on

~~the average delay for the worse minor stop controlled approach or left turn movement from the major road. Thus, at TWSC intersections there may be significantly longer delays for certain directions of traffic movements than the composite LOS measure shows. At roundabouts, the LOS is based on the control delay at the worst approach.~~

Table T-5 shows that 34 of the 43 study intersections satisfy their adopted ~~defined~~ LOS standard in the AM and PM peak hours.

Background Table T–65
2016 Intersection LOS— AM and PM Peak Hour

ID #	INTERSECTION	LOS STANDARD[1]	TRAFFIC CONTROL[2]	AM[3] DELAY[4]	AM LOS[4]	PM[3] DELAY[4]	PM LOS[4]
1	Issaquah-Pine Lake Road and SE 48th Street	D	Signal	27.4	C	7.913.1	BA
2	228th Avenue NE SENE & and NE 12th PlaceSt	D	Signal	12.44	B	22.416 8.3	CAB
3	Klahanie Drive SE and SE Issaquah-Fall City Road	D	Signal	59	E	39161121+[6]	DF
4	244th Avenue SE and SE 24th Street	C	TWSSSC	16.6	C	14.614.5	B
5	SE 32nd StreetWayStreet and 244th Avenue SE	C	TWSSSC	17.7	C	52.337.3	F*E
6	Issaquah-Pine Lake Road SE and SE 32nd Way	D	RAB	5.2	A	5.595.3	A
7	228th Avenue SE and SE 40th Street	D	TWSSSC	32	D	8767.4	F*
8	SE Klahanie Boulevard and 256th Avenue SE	C	AWSC	15.4	C	11.414	B
9	247th Place SE and SE Issaquah-Fall City Road & (Pacific Cascade Middle School)/247th Pl SE	D	Signal	63.8	E	33.132.4	C
10	Sahalee Way NE and NE 36th LaneStreet[5]	D	TWSSSC	224.14	FC	670.869.6 20.8	F*C
11	242nd Avenue NE and NE 8th Street	C	Signal	38.7	D	11.612.1	B
12	228th Avenue SE and SE 8th Street	D	Signal	12.9	B	18.714.424	BC
13	228th Avenue NSNE and NE 19th Drive[5]	D	TWS SSC	22.6	C	61.321.2	F*C
14	216th Avenue NE and NE Inglewood Hill Road	C	RAB	6.9	A	6.66.4	A
15	228th Avenue NE SENE and NE 8th Street (NE Inglewood Hill Road)/NE 8th Street	D	Signal	29.732.6	C	32.32140 23	CD
16	228th Ave NE SNE and NE 4th Street	DE	Signal	32	C	15.615.526	BC
17	228th Avenue SE and SE 4th Street	DEE	Signal	16.6	B	8.610.811	ABB
18	212th Avenue SE and SE 8th Street	C	TWS CSS SC	10.7	B	11.112.510	B
19	228th Avenue SE and SE 16th StreetPlStreet	D	Signal	10.1	B	7.49.7	A
20	East Lake Sammamish Parkway and 212th Way SE	C	Signal	5.1	A	7.54.59	A
21	East Lake Sammamish Parkway and SE 24th Way	C	TWSCSS SC	15.7	C	17.918.821	ACC
22	212th Avenue SE and SE 20th Street	C	AWSC	10.5	B	10.712.29	AB
23	East Lake Sammamish Pkwy NE and Louis Thompson Rd NE	C	Signal	10	A	12.310.911	B
24	East Lake Sammamish Pkwy NE and NE Inglewood Hill Road	C	Signal	23.3	C	13.17	BA
25	Sahalee Way NE and NE 37th WaySt	D	Signal	12.8	B	24.910.411	CB B
26	244th Avenue NE and NE 8th Street and 244th Avenue NE	C	RAB	5.4	A	4.24.45	A
27	228th Avenue SE and SE 20th Street	D	Signal	10.6	B	13.5	B

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28	228th Avenue ~~N~~SE and SE 24th Street	~~DE~~E	Signal	16.5	B	~~32.8~~27.4~~33~~	C
29	228th Avenue SE and Issaquah-Pine Lake Road ~~SE~~	E	Signal	23	C	~~79.6~~35.4~~46~~	~~E~~D ~~D~~
30	Issaquah-Pine Lake Road SE and SE Klahanie Boulevard	D	Signal	28	C	~~22.9~~19.~~52~~17.8	~~C~~B
31	~~SE~~ Duthie Hill Road and Issaquah-Beaver Lake Road	D	Signal~~TWSC~~[6]	29.8	C	~~21.5~~18.9~~235~~	~~C~~B ~~F*~~
32	256th Ave SE/E Beaver Lake Dr SE and Issaquah-Beaver Lake Road	C	~~TW~~SSSC	~~275.2~~ 120+[6]	F F	~~36.1~~32.3	~~E*~~ D
33	228th Avenue ~~NS~~NE and NE 14th Street[5]	D	~~TW~~SSSC	22.9	C	~~290.3~~23.4	~~F*~~ C
34	228th Avenue ~~NE S~~NE and NE 25th ~~Street~~Way	D	Signal	16.9	B	~~20.8~~11.1~~16~~	~~C~~B ~~B~~
35	Issaquah-Pine Lake Road ~~SE~~ and SE 42nd Street	D	~~TW~~SSSC	18.2	C	~~306.4~~51.4	~~F*~~
36	Issaquah-Pine Lake Road ~~SE~~ and 230th Lane SE/231st Lane SE	D	Signal	79.4	E	~~11.3~~22 12	~~BC~~ B
37	~~Sahalee Way NE and~~ NE 28th ~~PlaceWay~~Place/223rd Avenue and Sahalee Way NE	D	~~TW~~SSSC	~~361.1~~ 120+[6]	F	~~74.9~~57.3	~~F*~~
38	Issaquah-Pine Lake Road ~~SE~~ and SE 47th Way/238th Way SE	D	Signal	13	B	~~6.3~~12.6	~~A~~B
39	~~NE 8th Street and~~ 233rd Avenue NE and NE 8th Street	C	RAB	17.2	B	~~2.9~~6.2	A
40	228th Avenue ~~NE~~ SE ~~&~~ and East~~,~~ Main Street	D	Signal	3.4	A	~~4.8~~5.4~~0~~	A
41	24~~8~~4th Avenue NE and East Main Drive	C	RAB	5.8	A	4.8	A
42	~~Trossachs Boulevard SE and SE~~ Duthie Hill Road and Trossachs Boulevard SE	D	Signal	~~28.3~~2 3.6	C	~~35.1~~23.2~~14~~	~~D~~C ~~B~~
43	228th Avenue SE and SE 10th Street(~~/~~Skyline High School)	D	Signal	~~7.7~~22	~~A~~C	~~1~~4~~7~~.4	~~B~~A
~~44~~	~~192nd Drive NE and NE Redmond Fall City Rd (SR202)~~	~~D~~	~~Signal~~			~~7~~8	~~A~~
~~100~~	~~East Lake Sammamish Pkwy and SR 202 (NE Redmond Fall City Rd (SR202)[5]~~	~~D~~	~~Signal~~			~~118.7~~1~~6~~	~~F*~~
~~101~~	~~E Lk Sammamish Pkwy and SE 43rd Way[5]~~	~~D~~	~~RAB~~			~~4.5~~6	~~A~~
~~102~~	~~Sahalee Way NE and SR 202 (Redmond-Fall City Rd)[5]~~	~~DE~~	~~Signal~~			~~27.8~~36	~~CD~~
~~103~~	~~244th Ave NE and SR 202 (NE Redmond-Fall City Rd (SR202)[5]~~	~~D~~	~~Signal~~			~~20.9~~16	~~C~~B
~~104~~	~~Duthie Hill Road and SR 202 (Redmond-Fall City Road)[5]~~	~~D~~	~~Signal~~			~~10.3~~	~~B~~
~~105~~	~~Issaquah-Pine Lk Rd SE and SE Issaquah-Fall City Rd[5]~~	~~E~~	~~Signal~~			~~31.4~~10 ~~7~~	~~C~~F ~~*~~
	~~E Lk Sammamish Pkwy and SE 56th St[5]~~	~~D~~	~~S~~			~~160~~	~~F*~~
	~~E Lk Sammamish Pkwy and SE Issaquah-Fall City Rd[5]~~	~~E~~	~~S~~			~~137~~	~~F*~~

1. *LOS standards are based upon the functional classifications of the intersecting roadways. Intersections that include Principal Arterials have a standard of LOS D except where LOS D cannot be met with three approach lanes in any direction. In those cases, LOS E is assigned. Intersections that include Minor Arterials or Collectors have a standard of LOS C.*
2. *Intersection Traffic Control: Signal=signalized; TWSCSSSC=two-wayside-street stop-controlled; AWSC=all-way stop-controlled; RAB = roundabout*
3. *City's defined AM peak hour is from 7:00-8:00 AM. PM peak hour is from 4:45-5:45 PM.traffic model peak hour, see Sammamish Municipal Code.*
4. *Delay is measured in seconds per vehicle. At S andsignal, RAB, and AWSC intersections, it represents average delay for the intersection. For TWSC SSSC intersections, it represents average delay for the worst minor approach . movements or major street left turn movements. . For RABs, it represents the worst approach. Analysis is based on 2016 traffic counts.*

3.5. AM Delay and AM LOS peak hhours are is from 7:00-8:00 AM.
PM peak hour is from 4:45-5:45 PM.

LOS is the level-of-service based on the methodology outlined in the Highway Capacity Manual (HCM 2000 2010).
All other intersections are based on HCM 2010. (*) Denotes an LOS below the defined standard, indicating that the intersection is considered deficient.phis

4. Intersection is outside of the city limits.
Intersection was signalized in late 2012 and is no longer deficient.

6. When intersections are overcapacity, the model shows delays growing exponentially, which likely overstates the delay that would actually be realized. The model estimates AM delay for intersection 32 at 275.2 seconds, AM delay at intersection 37 at 361.1 seconds, and PM delay for intersection 3 at 161 seconds.

Concurrency

Level of service standards are used to evaluate the transportation impacts of long-term growth and concurrency. In order to monitor concurrency, the City must adopt standards by which the minimum acceptable roadway operating conditions are determined and deficiencies may be identified.

A Concurrency Management System (CMS) is a policy procedure designed to enable a city or county to determine whether adequate facilities are available to serve new development. The Growth Management Act (GMA) requires each city and county to incorporate a Concurrency Management System into the Transportation Element of its comprehensive plan.

In a CMS, local jurisdictions must adopt and enforce ordinances that prohibit development approval if the development causes the LOS on a locally owned transportation facility to decline below the standard adopted in the Transportation Element of the Comprehensive Plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. (Growth Management Act, RCW 36.70A, 1990)

The City of Sammamish has adopted an intersection LOS to monitor for concurrency on selected functionally classified roadways within the City.

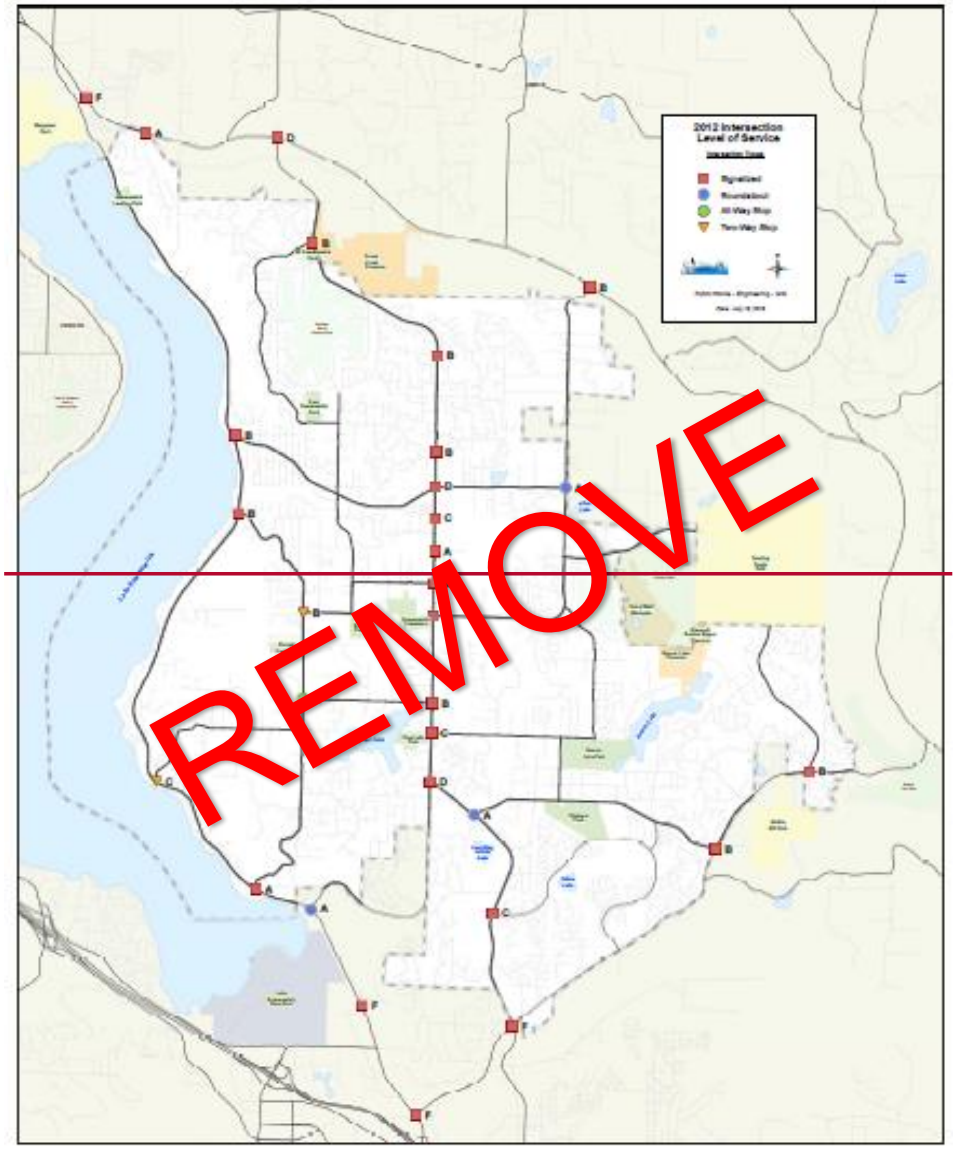
Key Intersections Outside of the City

The ~~city also collected AM and PM peak hour turning movement counts in 2016 at the~~ following key intersections fall outside of Sammamish city limits; but have a significant impact on mobility for people travelling to and from Sammamish:

- ~~192nd Drive NE and NE Redmond Fall City Rd (SR 202)~~
- East Lake Sammamish Pkwy and SR 202 (NE Redmond Fall City Rd ~~(SR 202~~)
- E Lk Sammamish Pkwy and SE 43rd Way
- Sahalee Way NE and SR 202 (Redmond Fall City Rd)
- 244th Ave NE and SR 202 (NE Redmond Fall City Rd ~~(SR 202)~~)
- ~~Duthie Hill Road and SR 202 (Redmond Fall City Rd)~~
- Issaquah Pine Lk Rd SE and SE Issaquah Fall City Rd
- SR 520 ramp terminal intersections with SR 202
- I-90 ramp terminal intersections with 17th Ave NW, Front St, and Highlands Dr NE
- ~~E Lk Sammamish Pkwy and SE 56th St~~
- ~~E Lk Sammamish Pkwy and SE Issaquah Fall City Rd~~

While the ~~c~~City does not control the operations of these intersections, their function has a strong impact on Sammamish residents' ability to a~~ss~~ccess opportunit~~y~~ies in the region. Traffic analysis shows that Sammamish residents experience longer delays leaving the city in the morning and entering in the evening. The ~~c~~City is committed to partnering~~monitoring operations at these facilities and being an active partner in collaborating~~ with the jurisdictions who own those intersections to find ~~on regional~~ solutions to these key regional facilities.

Background Figure T–~~8~~7
2016~~2~~ Intersection Level of Service



T.44

Sammamish Comprehensive Plan
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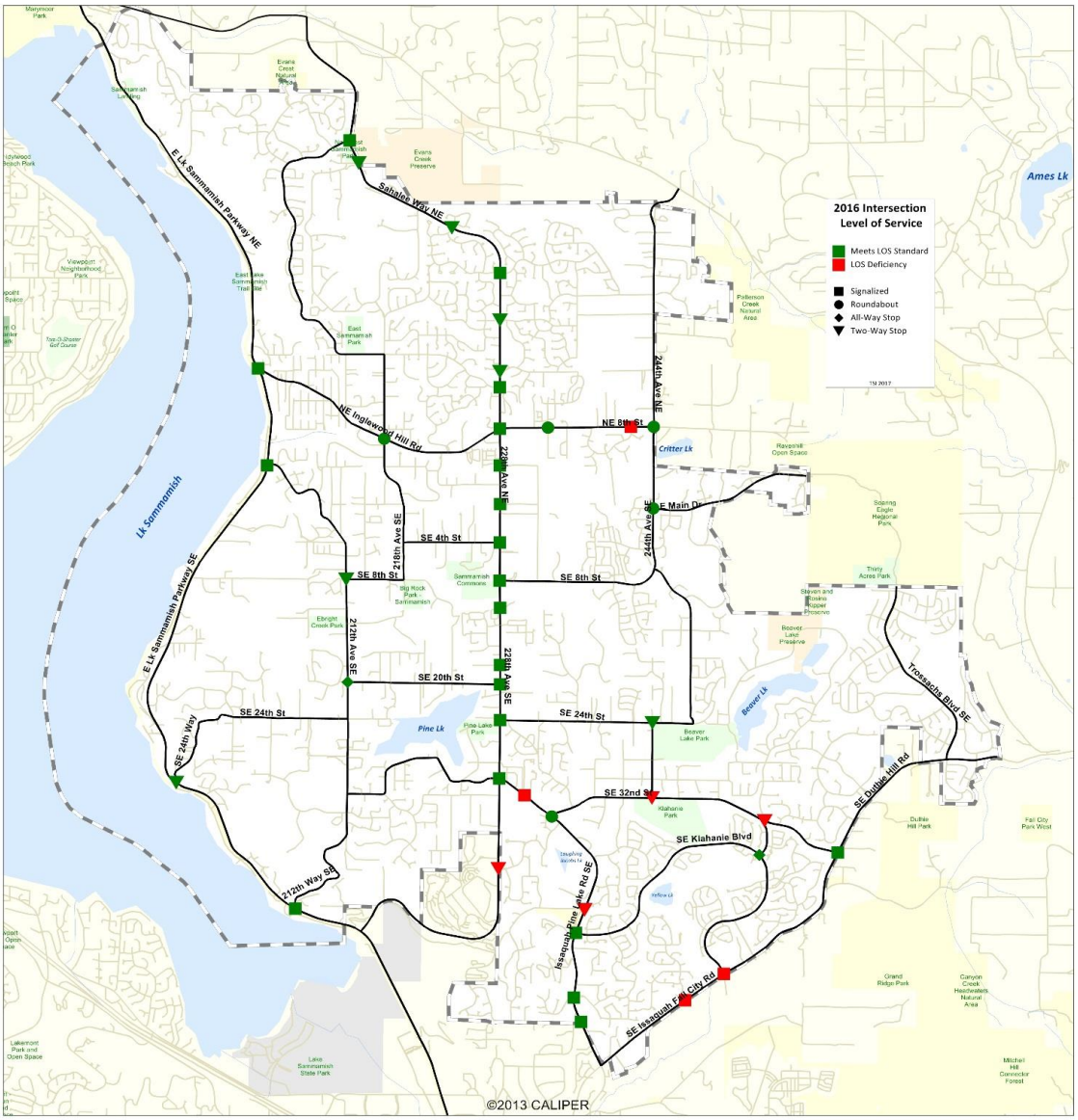


~~In year 2012, the table shows that 25 of the 30 study intersections satisfy their defined LOS standard. Within the city limits and in 2012 the SE Duthie Hill Road at SE Issaquah-Beaver Lake Road intersection operated at LOS F. This intersection was stop sign controlled on SE Issaquah-Beaver Lake Road approaching SE Duthie Hill Road, and the stop sign controlled approach experienced high levels of delay. This intersection was signalized in late 2012 and is no longer deficient.~~

~~*Background Table T-8*~~
~~*Background Assumptions for Concurrency AWDT Threshold Definitions*~~

~~TWO-LANE ROADWAY~~		~~TWO-DIRECTIONAL CAPACITY (VEHICLES PER DAY)~~		
		~~*Principal or Minor Arterial*~~	~~*Collector*~~	~~*Neighborhood Collector*~~
~~**Base Capacity**~~		~~**12,850**~~	~~**9,020**~~	~~**2,850**~~
~~**Lane Width**~~	~~10 feet~~	~~0~~	~~0~~	~~0~~
	~~11 feet~~	~~1,620~~	~~1,130~~	~~320~~
	~~12 feet~~	~~3,240~~	~~2,260~~	~~640~~
~~**Striped Bike Lane/ Shoulder width[1]**~~	~~8 feet max.~~	~~580~~	~~410~~	~~120~~
~~**Median**~~	~~None~~	~~0~~	~~0~~	~~0~~
	~~Median~~	~~4,640~~	~~3,240~~	~~920~~
	~~Left-Turn Lane or Physically Constrained~~	~~4,640~~	~~3,240~~	~~920~~
~~**Walkway/Bikeway[2]**~~	~~None~~	~~0~~	~~0~~	~~0~~
	~~Sidewalk or BikewayWalkway~~	~~1,160~~	~~810~~	~~230~~
	~~Bikeway~~	~~1,620~~	~~1,130~~	~~320~~
	~~Both or Multi-use Path~~	~~1,620~~	~~1,130~~	~~320~~
~~**Regional Trail width[3]**~~	~~12 feet max.~~	~~580~~	~~0~~	~~0~~
~~MAXIMUM CAPACITY~~		~~25,370~~	~~17,800~~	~~5,100~~

~~FOUR-LANE ROADWAY~~		~~TWO-DIRECTIONAL CAPACITY (VEHICLES PER DAY)~~		
		~~*Principal or Minor Arterial*~~	~~*Collector*~~	~~*Neighborhood Collector*~~
~~**Base Capacity**~~		~~**25,920**~~	~~**18,100**~~	~~**5,180**~~
~~**Lane Width**~~	~~10 feet~~	~~0~~	~~0~~	~~0~~
	~~11 feet~~	~~3,240~~	~~2,260~~	~~640~~
	~~12 feet~~	~~6,480~~	~~4,540~~	~~1,300~~
~~**Striped Bike Lane/ Shoulder width[1]**~~	~~8 feet max.~~	~~580~~	~~410~~	~~120~~
~~**Median**~~	~~None~~	~~0~~	~~0~~	~~0~~
	~~Median~~	~~4,630~~	~~3,240~~	~~930~~
	~~Left-Turn Lane or Physically Constrained~~	~~4,630~~	~~3,240~~	~~930~~
~~**Walkway/Bikeway[2]**~~	~~None~~	~~0~~	~~0~~	~~0~~
	~~Sidewalk or BikewayWalkway~~	~~1,160~~	~~810~~	~~230~~
	~~Bikeway~~	~~1,620~~	~~1,130~~	~~320~~
	~~Both or Multi-use Path~~	~~1,620~~	~~1,130~~	~~320~~

T.46

~~MAXIMUM CAPACITY~~	~~41,670~~	~~29,160~~	~~8,370~~

~~*1. To qualify as a bike lane, the pavement must be marked as such, and have a minimum width of 5 feet.*~~
~~*2. For the purpose of these calculations, a bikeway is defined as a bicycle facility that is physically separated from the roadway. Walkway and bikeway values only apply if the roadway has shoulders of less than 4-foot width.*~~
~~*3. In order to realize the capacity benefits, the "regional trips" must be parallel and in close proximity to the City's arterial. The measured portion of the trail must be paved.*~~

Collision Analysis

Collision statistics were compiled between 2010 and 2014 by the WSDOT Transportation Data Office for the City of Sammamish. During this five year period, there were a total of 1,015 collisions reported. ~~Background Table T–9~~ Background Table T–6 summarizes the collisions by type and ~~Background Figure T–10~~ Background Figure T–~~98~~ shows the location and type of collisions within the city.

See Volume I, Transportation Element Policy T.3.9–Policy T.3.11 on page 91.

The 228th Avenue corridor shows a high number of collisions likely due to high volumes, vehicle speeds and inexperienced drivers, the latter related to the various schools along the corridor. In addition, the 228th Avenue corridor provides access to the city's major commercial and institutional areas.

Collisions on the East Lake Sammamish Parkway corridor were concentrated at NE Inglewood Hill Road, a major access point to and from the city's existing major commercial area.

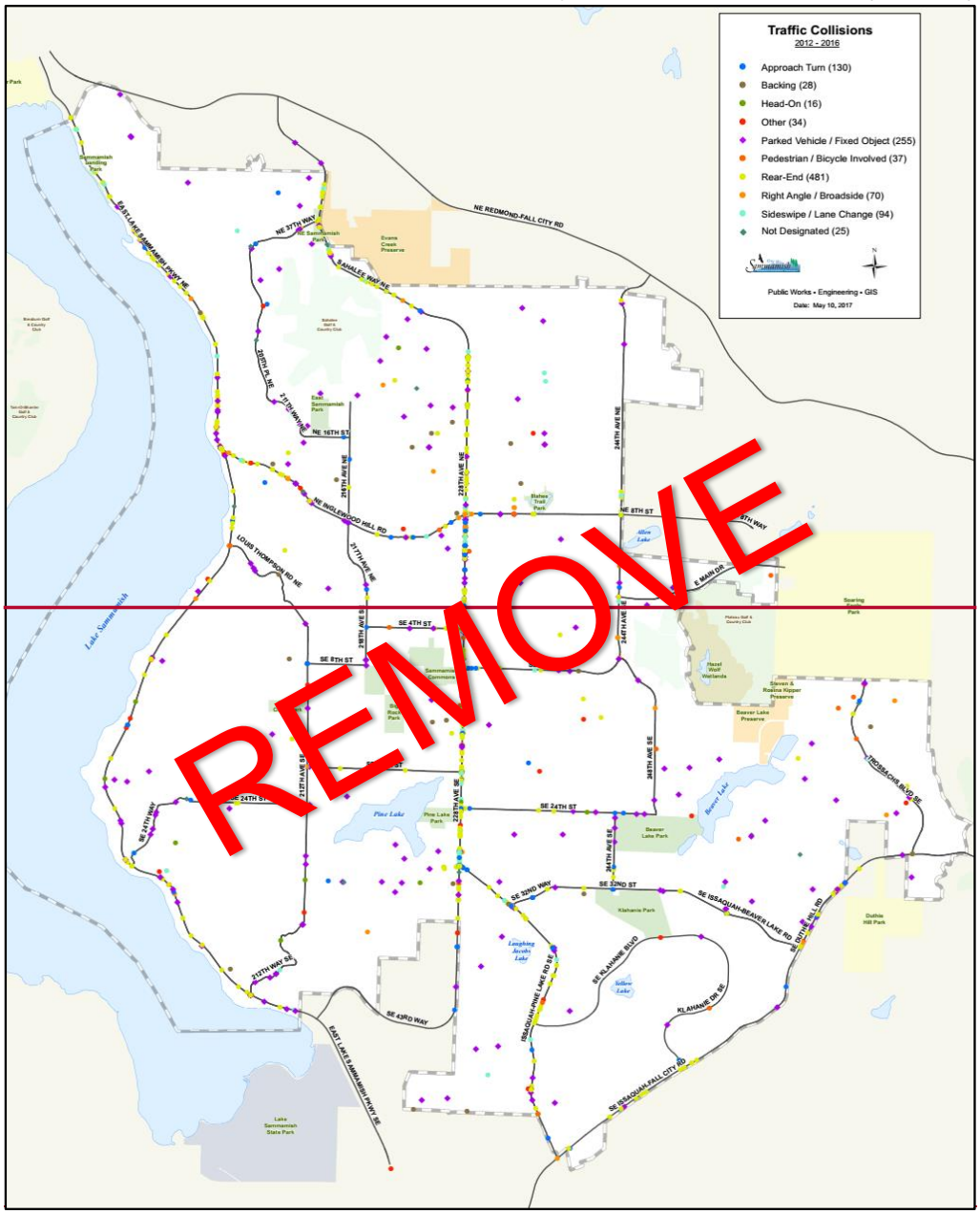
Topography and weather conditions likely play a role in a portion of the collisions reported.

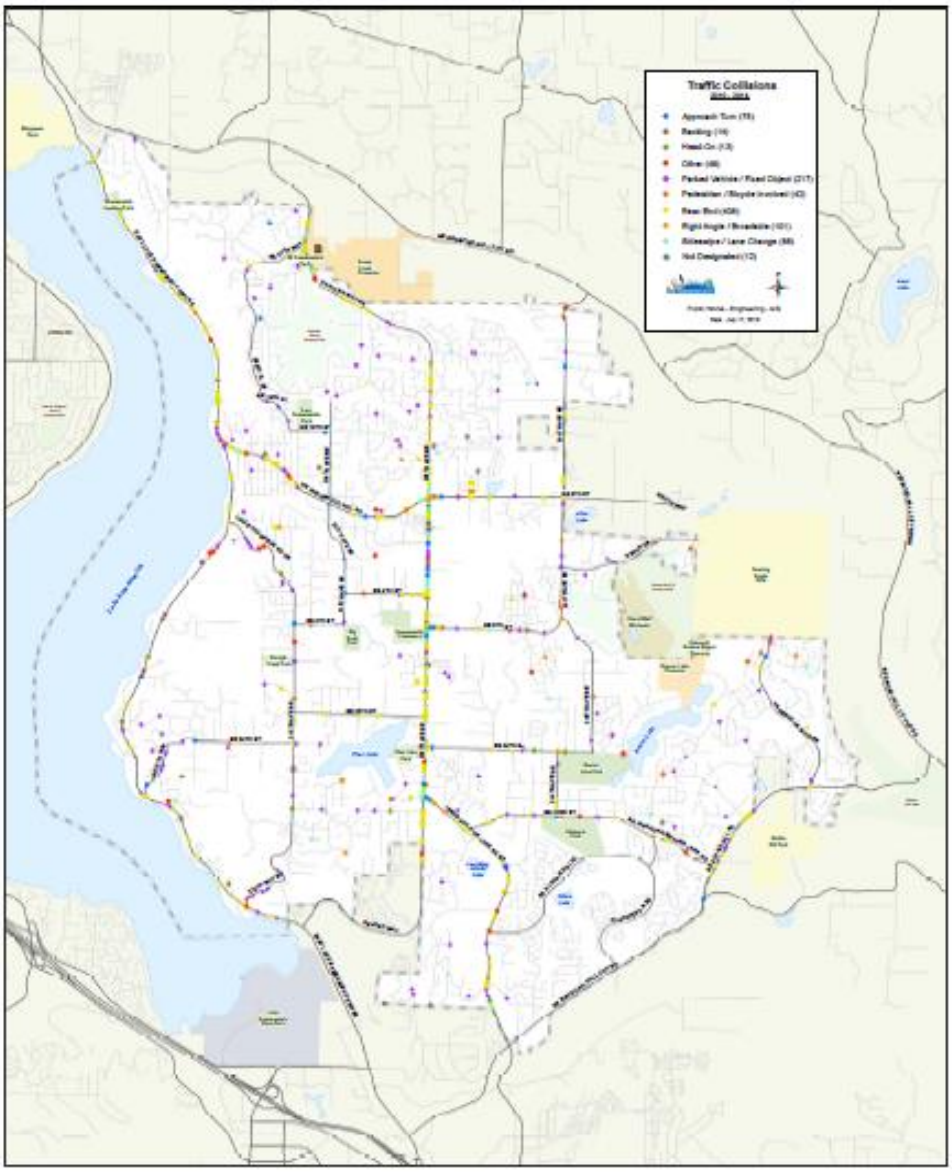
There were 42 total pedestrian and bicycle-related collisions reported, or 8.4 per year. These collisions were spread throughout the city. Goals to reduce collisions, particularly pedestrian and bicycle-related collisions should be addressed.

Background Table T–~~9~~6
Collision Summary (2010-2014)

COLLISION TYPE	TOTAL COLLISIONS	COLLISIONS PER YEAR
Rear-End	406	81.2
Parked Vehicle/Fixed Object	217	43.4
Right-Angle/Broadside	101	20.2
Sideswipe/Lane Change	86	17.2
Approach Turn	75	15.0
Other	49	9.8
Pedestrian/Bicycle	42	8.4
Backing	14	2.8
Head-On	13	2.6
Not Designated	12	2.4
TOTAL	1,015	203.0

Background Figure T–~~10~~98
City of Sammamish Traffic Collisions (2010-2014)




Traffic Collisions

Traffic Calming

As population and employment in the Sammamish region continue to grow, City streets are experiencing increased traffic pressure. City policy can accommodate growth in a way that can protect neighborhoods from unsafe impacts of traffic through the following measures:

- Develop standards to improve the function, safety, and appearance of the City street system;
- Develop facilities for pedestrians and bicyclists as alternative travel modes to the automobile;
- Protect the quality of life in residential neighborhoods by limiting vehicular traffic and monitoring traffic volumes on collector streets;
- Encourage improvements in vehicular and pedestrian traffic circulation within the City;
- Maintain a consistent LOS on the arterial system that mitigates impacts of new growth and is adequate to serve adjoining land uses; and
- Maintain the public street system to promote safety, comfort of travel, and cost-effective use of public funds.

Traffic calming programs serve to deter through-traffic on local residential streets, protect neighborhoods from vehicular traffic moving at excessive speeds, and discourage parking unrelated to residential activities.

Presently, traffic calming devices within the City of Sammamish are located primarily along:

- NE 14th Drive from 228th Avenue NE to 220th Avenue NE;
- NE 19th Drive from 228th Avenue NE to 236th Avenue NE;
- NE 25th Way from 228th Avenue NE to 239th Avenue NE;
- 217th Avenue NE from Inglewood Hill Road to Main Street;
- SE 32nd Street from 228th Avenue SE to 220th Avenue SE;
- NE 14th Street from 228th Avenue NE to 235th Avenue NE;
- Audubon Park Drive from SE 24th Street to SE 32nd Street;
- 205th Place NE from NE 31st Street to NE 37th Way;
- SE 30th Street from 244th Avenue SE to 252nd Avenue SE;
- 230th Way SE from SE 42nd Street to SE 48th Street;
- SE Windsor Blvd from 244th Avenue SE to Windsor Drive SE;
- NE 20th Way from 216th Avenue NE to NE 25th Way; and
- Sahalee Way NE at NE 28th Place.
- ~~248th Avenue SE at SE 17th Place~~

Traffic calming features include digital speed boards, traffic circles, chokers, speed humps, ~~raised tables at crosswalks, chicanes, roadway narrowing, raised intersections, medians~~ and curb bulb-outs.

~~Current~~ Six-Year Transportation Improvement Program (TIP)

~~Background Table T–10~~ Background Table T–7 summarizes the list of projects that make up the ~~current~~ Six-Year Transportation Improvement Program (TIP), 2019~~6~~ ~~2021~~2024. Funding for some of these projects is secured, while funding for other projects is not. Detailed evaluation of future conditions should assume completion only of financially committed projects.

Field Co

Existing Non-Motorized Conditions

See Volume I, Transportation Element Policy T.2.12 on page 88.

An inventory of existing non-motorized facilities, including sidewalks and walkways was undertaken to identify any system gaps. Roughly 50% of the city's local roads have sidewalks and most of the primary and minor arterials includes sidewalks, paved shoulders or shared use paths. ~~Background Figure T–11~~ Background Figure T–~~10~~9 illustrates existing non-motorized facilities and includes the locations of the public open spaces and parks.

Field Co

Field Co

T.52

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Transportation Background Information ~~June 2017~~~~April 2018~~Amended July 10, 2018

Background Table T–~~10~~7
~~2016~~2019-~~2021~~-2024 Six Year Transportation Improvement Program (TIP)

TIP #	PROJECT TITLE[1]	*Total Project*
TR-01~~1~~	SE 4th St—218th Ave SE to 228th Ave SE ~~C,CP~~	15~~.~~,~~171~~203
TR-02	Issaquah-Pine Lake Rd—Klahanie Blvd to SE 32nd ~~C,CP~~	~~8.000~~13,340
TR-03	Issaquah-Pine Lake Rd—SE 48th to Klahanie Blvd ~~C,CP~~	~~17.618~~20,214
TR-04	East Lake Sammamish Pkwy SE / SE 24th St Intersection ~~C,CP~~	~~3.698~~3,900
TR-05	Sahalee Way NE: NE 25th Way to ~~220th Ave NE~~ to North City Limits ~~C,CP~~	~~14.588~~848
TR-07	Issaquah-Fall City Rd: 242nd Avenue SE to Klahanie Dr SE (Phase 1) ~~Issaquah-Fall City Rd—SE 48th St to Klahanie Dr SE~~ ~~CP~~	~~14.000~~28~~.~~,807
TR-08	Issaquah-Fall City Rd—Klahanie Dr SE to Issaquah-Beaver Lk Rd ~~CP~~	~~9~~17~~.~~,000
TR-18	SE 8th Street/218th Avenue SE: 212th Avenue SE to SE 4th Street	15,.000
~~TR-189~~	~~SE 8th Street/218th Avenue SE: 212th Avenue SE to SE 4th Street~~ ~~Public Works Trust Fund Loan Repayment (228th Avenue)~~ ~~CP~~	~~15.000~~ ~~3.256~~
TR-19	Intelligent Transportation System (ITS)	3,~~.~~000
TR-20	SE 14th Street Extension: Lawson Park Plat to 248th Ave SE	~~0.~~280
TR-34	228th Avenue SE & SE 8th Street Intersection	4,~~.~~600
TR-39	256th Ave SE/E Beaver Lake Dr SE/Issaquah Beaver Lake Rd	1~~.~~,600
TR-42	218th Avenue SE/216th Avenue SE: SE 4th Street to Inglewood Hill Road NE Analysis	7~~.~~,300
TR-45	SE 32nd St/244th Ave SE Intersection Improvement	~~0.~~110
TR-51	SE Issaquah Fall City Rd/247th Pl SE	Cost included in TR-07
TR-52	SE Issaquah Fall City Rd/Klahanie Dr S	Cost included in TR-07
TR-53	Sahalee Way/NE 28th Pl/223rd Ave NE	1~~.~~,300
TR-54	228th Ave/SE 40th	~~0.~~800
TR-55	242nd Ave NE/NE 8th St	~~0.~~880
TR-56	Issaquah-Pine Lake Rd/230th Ln SE/231st Lane SE	~~0.~~115
	OTHER TIP PROGRAMS	
TR-A	Public Works Trust Fund Loan Repayment (228th Avenue)	10~~.~~,002
~~10~~	~~212th Ave SE Gap Project—SE 24th St to Crossings Subdivision~~ ~~CP,NM~~	~~0.600~~
~~11~~TR-B	Non-motorized Transportation Projects ~~CP,NM~~	~~0.~~750 annually ~~4.500~~

12TR-C	Sidewalk Projects NM,P	0.160 annually 0.960
13TR-D	Intersection and Safety Improvements P	1.2000.200 annually
14TR-E	Neighborhood CIP P	0.600.100 annually
TR-F	Street Lighting Program	0.015 annually
TR-G	School Zone Safety Improvements	0.050 annually
TR-H	Capital Contingency Reserve Placeholder	0.500 annually

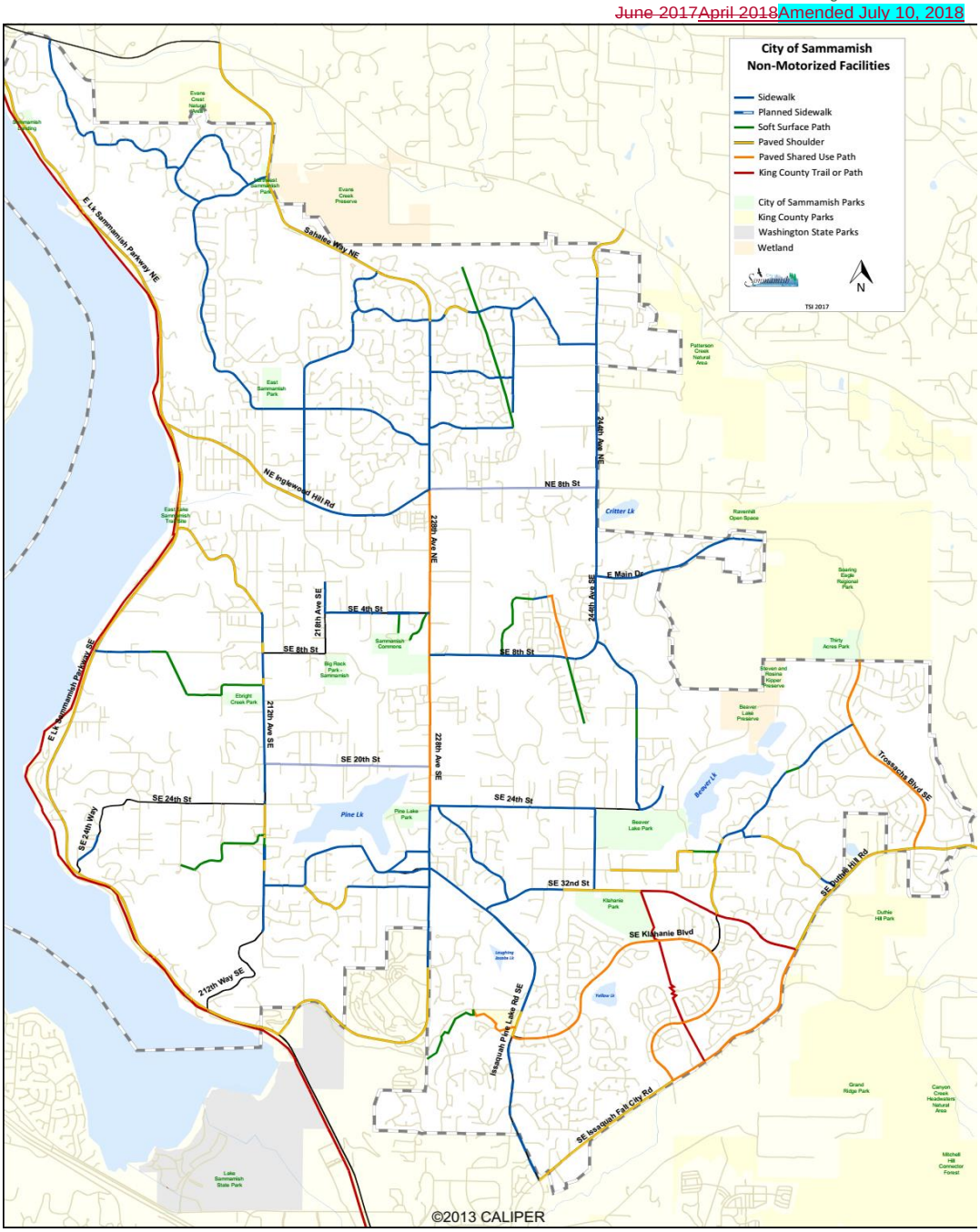
1.

2. Project Type: C = Concurrency Project; CP = Capital Project; NM = Non-Motorized Project; P = City Program. All project costs are in 2013 dollars.

Background Table T–7
2019–2024 Six Year Transportation Improvement Program (TIP)

TIP #	PROJECT TITLE	PROJECT EXPENDITURE (X $1,000) *Total Project*
TR-01	SE 4th St—218th Ave SE to 228th Ave SE	15,203
TR-02	Issaquah-Pine Lake Rd—Klahanie Blvd to SE 32nd	13,340
TR-03	Issaquah-Pine Lake Rd—SE 48th to Klahanie Blvd	20,214
TR-04	East Lake Sammamish Pkwy SE / SE 24th St Intersection	3,900
TR-05	Sahalee Way NE: NE 25th Way to North City Limits	848
TR-07	Issaquah-Fall City Rd: 242nd Avenue SE to Klahanie Dr SE (Phase 1)	28,807
TR-08	Issaquah-Fall City Rd—Klahanie Dr SE to Issaquah-Beaver Lk Rd	17,000
TR-18	SE 8th Street/218th Avenue SE: 212th Avenue SE to SE 4th Street	15,000
TR-19	Intelligent Transportation System (ITS)	3,000
TR-20	SE 14th Street Extension: Lawson Park Plat to 248th Ave SE	280
TR-34	228th Avenue SE & SE 8th Street Intersection	4,600
TR-39	256th Ave SE/E Beaver Lake Dr SE/Issaquah Beaver Lake Rd	1,600
TR-42	218th Avenue SE/216th Avenue SE: SE 4th Street to Inglewood Hill Road NE Analysis	7,300
TR-45	SE 32nd St/244th Ave SE Intersection Improvement	110
TR-51	SE Issaquah Fall City Rd/247th Pl SE	Cost included in TR-07
TR-52	SE Issaquah Fall City Rd/Klahanie Dr S	Cost included in TR-07
TR-53	Sahalee Way/NE 28th Pl/223rd Ave NE	1,300
TR-54	228th Ave/SE 40th	800
TR-55	242nd Ave NE/NE 8th St	880
TR-56	Issaquah-Pine Lake Rd/230th Ln SE/231st Lane SE	115
OTHER TIP PROGRAMS		
TR-A	Public Works Trust Fund Loan Repayment (228th Avenue)	10,002
TR-B	Non-motorized Transportation Projects	750 annually
TR-C	Sidewalk Projects	160 annually
TR-D	Intersection and Safety Improvements	200 annually
TR-E	Neighborhood CIP	100 annually
TR-F	Street Lighting Program	15 annually
TR-G	School Zone Safety Improvements	50 annually
TR-H	Capital Contingency Reserve Placeholder	500 annually

Background Figure T–~~11~~ ~~10~~9 City of Sammamish
Existing Non-Motorized Facilities



Existing Transit Service

Transit Service

King County Metro and Sound Transit provide transit service to the City of Sammamish. Four transit routes currently serve the City, with service as summarized in ~~Background Table T–11~~Background Table T–8.

Background Table T–~~11~~8
Existing Transit Service for the City of Sammamish

ROUTE #	ROUTE DESCRIPTION	SERVICE	AVERAGE HEADWAY (MINUTES) *Peak*	*Midday*
216[1]	Downtown Seattle to Issaquah Highlands P&R, to South Sammamish P&R and to Bear Creek P&R	Weekday AM and PM peak hours	30	—
219[1]	Downtown Seattle to Issaquah Highlands P&R, to South Sammamish P&R and to Redmond	Weekday AM and PM peak hours	30–40	—
269[1]	Issaquah TC to Issaquah Highlands P&R, to Bear Creek P&R and to Overlake P&R	Weekday AM and PM peak hours	20–30	—
554[2,3]	NE Redmond-Fall City Road at 185th Ave NE to South Sammamish P&R, to Issaquah TC, to North Mercer Island and to downtown Seattle	Weekday Saturday	60–120 60–120	60–120 60–120

1. *King County Metro Transit Route.*
2. *Sound Transit Route; this route make infrequent trips to the City Sammamish.*

Park-and-Ride Facilities

Sammamish currently has ~~three~~two park-and-ride (P&R) facilities:

- Sammamish Hills Lutheran Church at SE 8th Street and 228th Avenue SE (54 spaces).
- South Sammamish P&R at Issaquah-Pine Lake Road SE and 228th Avenue SE (265 spaces).
- ~~Klahanie P&R at Klahanie Boulevard and 244th Place SE (30 spaces).~~

Existing transit routes and P&R lots within the Sammamish city limits are shown in ~~Background Figure T–12~~Background Figure T–1~~1~~0. Outside of the city limits, the nearest P&R lots are:

- Klahanie P&R at SE Klahanie Boulevard and 244th Place SE, King County (30 spaces).
- Klahanie P&R at SE Klahanie Boulevard and SE Issaquah-Fall City Road (30 spaces).
- Tibbett's Valley P&R at 12th NW and Newport Way, Issaquah (94 spaces).
- Issaquah Highlands P&R at Highlands Drive NE and NE High Street, Issaquah (1,010 spaces).
- Bear Creek P&R at NE Union Hill Road and 178th Place NE,
- Redmond (283 spaces)

Background Figure T-~~12~~ ~~11~~0 Existing Transit Service

Travel Demand Forecasts and Projected Needs

In order to evaluate future transportation needs, forecasts must be made of future travel demand. Developing traffic forecasts for existing streets based on future land use allows the adequacy of the street system to be evaluated.

Travel Forecasting Model

For the City of Sammamish Transportation Element, a transportation computer model was developed using the VISUM software to analyze future travel demand and traffic patterns. VISUM is among the world's leading software for traffic analyses and forecasting and is applied by engineers, planners, and scientists, as well as numerous city, State and Federal transportation agencies. VISUM aids in predicting long-term trends in traffic, trip generation, distribution and growth over an area, such as a city. It is not intended to assess operations or a particular solution for a specific intersection.

The City has three VISUM-based travel models that differ in their time horizon. The first models 2016 existing conditions (Existing Conditions Model). The second represents the City's six-year TIP (Pipeline Concurrency Model) and forecasts traffic to evaluate concurrency failures over the next six years with approved pipeline projects. The third model forecasts further out into the future to the Comprehensive Plan horizon year of 2035 (Forecast Model). Following the concurrency policy adopted in this Comprehensive Plan, the City will maintain both an AM and PM version for each model.

There are three key data points that feed into VISUM including land use, physical roadway network characteristics, and traffic counts. How these data are incorporated into the model is described in the following sections.

The major steps of the modeling process are as follows:

- Current Land Use Assessment;
- Trip Generation;
- Trip Distribution;
- Network Assignment;
- Model Calibration;
- Forecast of Future Land Use; and
- Model of Future Traffic Conditions.

These general steps of the modeling process are described in the following sections and the technical aspects of the model are described in detail in the Traffic Forecasting Model Documentation Report (DEA 2012), which has been produced for the city as a supplemental document to the Comprehensive Plan.

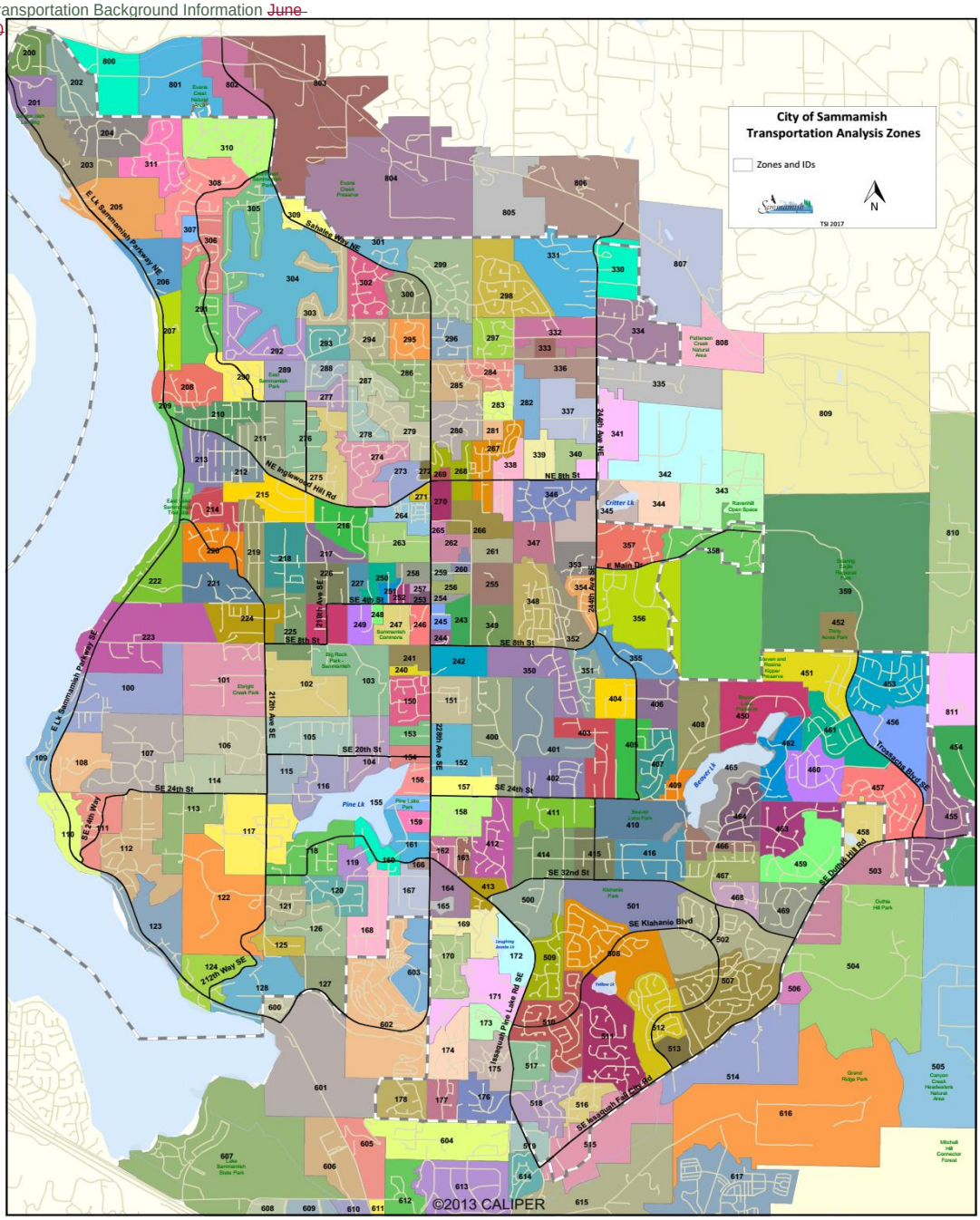
Current Land Use Assessment

The primary method of determining future travel demand is based on future land use patterns and community growth. The entire study area is divided into Transportation Analysis Zones (TAZs) that have similar land use characteristics. The TAZ boundaries that were established for the City of Sammamish travel-forecasting model are shown in Background Figure T–13Background Figure T–112. For each zone, land use characteristics of population and employment were estimated based on the City of Sammamish Comprehensive Land Use Plan. In order to establish an accurate base map of existing land use, consultants to the city began with the King County Assessor records, supplemental aerial photos, and field verification of a subset of lots. City staff compiled unit counts of multi-family dwellings and commercial building square feet based on King County records supplemented with some field review.

Background Figure T–13 11
Transportation Analysis Zones

T.60

Sammamish Comprehensive Plan
Transportation Background Information ~~June 20~~



Trip Generation

The trip generation step forecasts the total number of trips generated by and attracted to each TAZ. The trips were forecast using statistical data that take into account population and household characteristics, employment information, economic model output, and land-use information. Trips generated are categorized by their general purpose, which are:

- Home-based-work: any trip with home as one end and work as the other end
- Home-based-other: any non-work trip with home as one end
- Non-home-based: any trip that does not have home at either end

The trip generation model forecasts the total number of trips that are generated per household or non-residential unit during the analysis period for the trip categories under consideration.

Trip Distribution

The trip distribution step allocates the trip generation to a specific zonal origin and destination. This is accomplished through use of the gravity model, which distributes trips according to two basic assumptions: (1) more trips will be attracted to larger zones (the size of a zone is defined by the number of attractions estimated in the trip generation phase, not the geographical size), and (2) more trip interchanges will take place between zones that are closer together than the number that will take place between zones that are farther apart. The result is a trip matrix (for each of the trip purposes specified as input to the trip generation model) that estimates the percentage of trips are taken from each zone to every other zone. These trips are often referred to as trip interchanges.

Transportation Network Characteristics and Assignment

The physical characteristics of the City's roadway network as of 2016 is reflected in the model. This includes the number of lanes and posted speed limits. The number of legs, type of intersection controls (e.g. stop-controlled, signalized or roundabouts), and turn pocket lengths are also included for the concurrency intersections.

The ~~arterial~~ street system is coded into the city's Traffic Model as a series of links that represent roadways and nodes that represent the intersection of those roadways. Each roadway link and intersection node is entered into the model with an assigned functional classification, and associated characteristics such as length, capacity, and speed. This information is then used to determine the optimum path between all the zones based on travel time and distance. The model then distributes the trips from each of the zones onto the street network.

The forecasted trips are assigned to the transportation network using an incremental assignment process where the total traffic is assigned to the network, one increment at a time. Vehicle travel paths reflect the best travel time between each origin and destination. After a portion of the vehicles is assigned, the zone- to-zone travel times with the additional traffic are recalculated.
The next increment of traffic is assigned to the network, and the optimal paths are determined based upon the adjusted travel times. The zone-to-zone travel times are calculated again, reflecting the added traffic. The cycle of network assignment and travel time recalculation is repeated, until all vehicles have been assigned to the network. The result is a computerized road network with traffic volumes calculated for each segment of roadway, which takes into account the effects of increasing traffic congestion on the system.

Model Calibration

The ~~2012~~ 2016 calibrated VISUM travel demand model developed by DEA has a mean relative error of ~~2~~3% and is a very good representation of the traffic generated by a known land uses (~~2012~~ 2016 occupied development). The calibration error does not directly relate to the accuracy of the forecast in that the land use assumptions are general, factors including fuel prices, social objectives, and other issues modify travel behaviors over time. In most case future forecasts should be considered with a broader margin of error. A range of plus or minus 10% is a reasonable
error to assume for a 20-year planning horizon. This potential error should be considered when evaluating the travel demand forecasts and level of service summaries. Forecast volumes could be 10% more or less in most cases. Standard industry best practices for the frequency of model calibration is every 4-6 years.

Model Update and Validation

The City conducts annual validation of its traffic models to ensure they continue to predict traffic volumes and growth within industry standards for accuracy. This is done by comparing the most recent traffic counts with the model outputs. All trips generated by approved concurrency certificates are also added to the model at the time of approval.

Land Use Assumptions used in Travel Demand Forecasting

The land use assumptions used in the VISUM travel demand forecasting model are based upon the Land Use Element of the Comprehensive Plan, which in turn is based upon the PSRC residential and employment allocations for Sammamish. External land use assumptions were based upon PSRC forecasts for the jurisdictions around Sammamish, including the cities of Redmond, Issaquah and Bellevue to ensure that the forecast trip distribution for trips originating in or destined to the region outside the city are modeled correctly. Key elements of the land use forecast include infill single family residential development in vacant and

underdeveloped land identified in the buildable lands analysis and the realization of the Town Center, a mixed use subarea planned for ~~1,760~~2,000 ~~multifamily residential~~dwelling units, ~~200,000 square feet of office,~~ and ~~400~~600,000 square feet of ~~retail~~ commercial space.

Future Traffic Conditions

Once future land use conditions were input, the model was run to forecast PM peak hour traffic conditions that are expected to result from the projected land use. ~~The PM peak hour is modeled since~~

~~it is the most congested time of day. However, since the segment analysis requires projected daily traffic volumes, the PM peak hour volumes are converted to AWDT volumes. The conversion to daily volumes was accomplished by applying a post-processing method, based primarily upon application of a peak-to-daily conversion factor. This factor was based upon the declining K-factor observed in citywide traffic counts since 2002.~~

~~2035 Committed Capital Improvement Projects (CIP)~~

~~Background Table T–12 lists the future improvements for which funding is secure; and thus, are assumed to be in place for analysis of future conditions.~~

~~*Background Table T–12*~~
~~*Committed Capital Improvement Projects (CIP)*~~

~~LOCATION~~	~~CIP IMPROVEMENT~~
~~SE 4th St–218th Ave SE to 228th Ave SE~~	~~Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk~~
~~Issaquah-Pine Lake Rd–Klahanie Blvd to SE 32nd~~	~~Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk~~
~~Issaquah-Pine Lake Rd–SE 48th to Klahanie Blvd~~	~~Widen to 5 lanes with bike lanes, curb, gutter, and sidewalk~~
~~East Lake Sammamish Pkwy SE/SE 24th St Intersection~~	~~Construct traffic signal, turn lanes, curb, gutter, and sidewalk~~
~~Sahalee Way NE–220th Ave NE to North City Limits~~	~~Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk~~
~~228th Ave SE–SE 32nd St to Issaquah-Pine Lake Road~~	~~Provide additional southbound through lane~~
~~Issaquah-Fall City Rd–SE 48th St to Klahanie Dr SE~~	~~Widen to 5 lanes with bike lanes, curb, gutter, and sidewalk~~
~~212th Ave SE Gap Project–SE 24th St to Crossings Subdivision~~	~~Provide non-motorized facilities~~

~~Level-of-Service Analysis for 2035 Land Use~~

~~Background Table T–13~~ ~~Background Table T–10~~ ~~summarizes the intersection LOS expected under the 2035 land use scenario if no additional transportation improvements are made beyond the committed CIP. The 2035 intersection LOS is illustrated in Background Figure T–14~~~~Background Figure T–12~~~~.~~

~~The committed improvements listed in Background Table T–13~~ ~~Background Table T–10~~ ~~address several existing deficiencies identified in the 2012 existing conditions analysis. However, the future 2035 analyses show that the increase in traffic resulting from additional development would cause increased congestion at other locations, if no additional~~

Background Table T-1310
2035 Intersection LOS – PM Peak Hour – Committed Improvements Only

INTERSECTION	LOS STANDARD[1]	TRAFFIC CONTROL[2]	DELAY[3]	LOS[4]
228th Ave NE and NE 12th St	D	S	21	C
Sahalee Way NE and NE 37th St	D	S	21	C
228th Ave SE and SE 4th St	E	S	156	F*
228th Ave SE and SE 8th St	D	S	190	F*
228th Ave SE and SE 20th St	D	S	21	C
228th Ave NE and SE 24th St	E	S	77	E
228th Ave SE and Issaquah-Pine Lk Rd SE	E	S	69	E
Issaquah-Pine Lk Rd SE and SE Klahanie Blvd	D	S	83	F*
E Lk Sammamish Pkwy and NE Inglewood Hill Rd	C	S	20	C
E Lk Sammamish Pkwy and 212th Way SE	C	S	17	B
228th Ave NE and NE 8th St (NE Inglewood Hill Rd)	D	S	57	E*
192nd Drive NE and NE Redmond Fall City Rd (SR202)	D	S	23	C
Issaquah-Pine Lk Rd SE and SE 32nd Way	D	RAB	94	F*
E Lk Sammamish Pkwy and Louis Thompson Rd NE	C	S	17	B
212th Ave SE and SE 20th St	C	AWSC	25	C
SE Duthie Hill Rd and SE Issaquah-Beaver Lk Rd	D	S	19	B
Trossachs Blvd SE and SE Duthie Hill Rd	D	S	28	C
E Lk Sammamish Pkwy and SE 24th Way	C	S	7	A
244th Ave NE and NE 8th St	C	RAB	15	B
228th Ave NE and NE 25th St	D	S	22	C
228th Ave NE and NE 4th St	D	S	43	D
228th Ave NE and E. Main St	D	S	5	A
212th Ave SE and SE 8th St	C	TWSC	21	C
Sahalee Way NE and SR202[5]	E	S	131	F*
Issaquah-Pine Lk Rd SE and SE Issaquah-Fall City Rd[5]	E	S	203	F*
244th Ave NE and NE Redmond Fall City Rd (SR202)[5]	D	S	102	F*
E Lk Sammamish Pkwy and NE Redmond Fall City Rd (SR202)[5]	D	S	175	F*
E Lk Sammamish Pkwy and SE 56th St[5]	D	S	252	F*
E Lk Sammamish Pkwy and SE Issaquah-Fall City Rd[5]	E	S	216	F*
E Lk Sammamish Pkwy and SE 43rd Way[5]	D	RAB	31	C

1. LOS standards are based upon the functional classifications of the intersecting roadways. Intersections that include Principal Arterials have a standard of LOS D. Intersections that include Minor Arterials or Collectors have a standard of LOS C.
2. Intersection Control: S = signalized; TWSC = two-way stop-controlled; AWSC = all-way stop-controlled; RAB = roundabout
3. Delay is measured in seconds per vehicle.
4. LOS is the level-of-service based on the methodology outlined in the Highway Capacity Manual (HCM 2010). (*) Denotes an LOS below the defined standard, indicating that the intersection is considered deficient.
5. Intersection is outside of the city limits.

Background Figure T–~~14~~12
2035 Level of Service–2035 Land Use and Committed Transportation Improvements

~~improvements were made. On 228th Ave three signalized intersections are projected to operate above their LOS standard: SE 4th Street (LOS F), SE 8th Street (LOS F), and NE 8th Street (LOS E). The NE 8th Street intersection falls just above its LOS D standard by 2 seconds. On Issaquah-Pine Lake Road SE the signal at SE Klahanie Boulevard and the roundabout at SE 32nd Way are forecast to operate at LOS F.~~

~~Outside of the city limits six signalized intersections are projected to operate at LOS F. Continued coordination with Issaquah, Redmond and King County will be necessary.~~

~~Background Table T–14~~ ~~Background Table T–11~~ ~~summarizes the concurrency status for each of the 49 roadway segments, under the 2035 land use with only committed improvements, based upon the policy-defined AWDT thresholds previously described. Measuring the forecasted volumes against the policy-defined roadway segment concurrency thresholds and considering only the committed improvements documents above, three road corridors and eleven road segments will fail under the future land use scenario with the committed improvements only.~~

~~Travel Demand Forecast Accuracy–Implications to LOS Results~~

~~The LOS failures indicated in the 2035 forecast are generally less than 10% over the volume-to-capacity (v/c) thresholds assumed for the 2035 network. Given the accuracy of the forecast these failures could be worse than anticipated or may not materialize at all. The magnitude of the LOS failures (generally less than 10%) predicted for 2035 suggest the need for ongoing monitoring to determine if the LOS forecast is reasonably accurate or if future conditions are better or worse than projected. The city's concurrency management system is designed to monitor the cumulative impacts of growth and will provide an early warning of potential future problems.~~

~~*Background Table T-14~~*~~*11*~~

~~*AWDT Concurrency Thresholds and 2035 Volumes for Roadway Segments—Committed Improvements Only*~~

	~~SEGMENT~~	~~ROAD FUNCTIONAL CLASSIFICATION~~	~~CONCURRENCY THRESHOLD~~	~~2035 PROJECTED AWDT~~	~~Fails?~~
~~**1–3**~~	~~**East Lk Sammamish Parkway North Corridor**~~		~~**25,877**~~	~~**22,000**~~	
~~1~~	~~E Lk Sammamish Pkwy, City limits–196th Ave NE (Weber Point)~~	~~Minor Arterial~~	~~24,330~~	~~21,900~~	
~~2~~	~~E Lk Sammamish Pkwy, 196th Ave NE–NE 26th Pl~~	~~Minor Arterial~~	~~24,330~~	~~21,800~~	
~~3~~	~~E Lk Sammamish Pkwy, NE 26th Pl–NE Inglewood Hill Rd~~	~~Minor Arterial~~	~~28,970~~	~~22,300~~	
~~**4–6**~~	~~**East Lk Sammamish Parkway Central Corridor**~~		~~**17,370**~~	~~**13,167**~~	
~~4~~	~~E Lk Sammamish Pkwy, Inglewood Hill Rd–Louis Thompson Rd~~	~~Minor Arterial~~	~~17,370~~	~~15,800~~	
~~5~~	~~E Lk Sammamish Pkwy, Louis Thompson Rd NE–SE 8th St~~	~~Minor Arterial~~	~~17,370~~	~~12,100~~	
~~6~~	~~E Lk Sammamish Pkwy, SE 8th St–SE 24th Way~~	~~Minor Arterial~~	~~17,370~~	~~11,600~~	
~~**7–8**~~	~~**East Lk Sammamish Parkway South Corridor**~~		~~**17,370**~~	~~**16,550**~~	
~~7~~	~~E Lk Sammamish Pkwy, SE 24th Way–212th Ave SE~~	~~Minor Arterial~~	~~17,370~~	~~13,600~~	
~~8~~	~~E Lk Sammamish Pkwy, 212th Ave SE–City Limit~~	~~Minor Arterial~~	~~17,370~~	~~19,500~~	~~X~~
~~**11–14**~~	~~**Louis Thompson Road–212th Corridor**~~		~~**10,786**~~	~~**7,100**~~	
~~11~~	~~Louis Thompson Rd, E Lk Sammamish Pkwy–SE 8th St~~	~~Collector Arterial~~	~~9,820~~	~~4,900~~	
~~12~~	~~212th Ave SE, SE 8th St–SE 20th St~~	~~Collector Arterial~~	~~11,425~~	~~9,000~~	
~~13~~	~~212th Ave SE, SE 20th St–SE 32nd St~~	~~Collector Arterial~~	~~11,350~~	~~7,800~~	
~~14~~	~~212th Ave SE, SE 32nd St–E Lk Sammamish Pkwy~~	~~Collector Arterial~~	~~10,550~~	~~6,700~~	
~~**21–23**~~	~~**Sahalee Way–228th Avenue North Corridor**~~		~~**20,077**~~	~~**22,533**~~	~~**X**~~
~~21~~	~~Sahalee Way/228th Ave NE, City Limit–220th Ave NE~~	~~Principal Arterial~~	~~22,010~~	~~23,200~~	~~X~~
~~22~~	~~Sahalee Way/228th Ave NE, 220th Ave NE–NE 25th Way~~	~~Principal Arterial~~	~~18,530~~	~~20,000~~	~~X~~
~~23~~	~~228th Ave, NE 25th Way–NE 12th St~~	~~Principal Arterial~~	~~19,690~~	~~24,400~~	~~X~~
~~**24–25**~~	~~**228th Avenue Central Corridor**~~		~~**34,950**~~	~~**36,100**~~	
~~24~~	~~228th Ave, NE 12th St–SE 4th St~~	~~Principal Arterial~~	~~34,950~~	~~33,500~~	
~~25~~	~~228th Ave, SE 4th St–SE 20th St~~	~~Principal Arterial~~	~~34,950~~	~~38,700~~	~~X~~
~~**26–27**~~	~~**228th Avenue South Corridor**~~		~~**28,726**~~	~~**28,850**~~	~~**X**~~
~~26~~	~~228th Ave, SE 20th St–Issaquah Pine Lake Rd SE~~	~~Principal Arterial~~	~~36,023~~	~~36,100~~	~~X~~
~~27~~	~~228th Ave, Issaquah Pine Lake Rd SE–SE 43rd Way~~	~~Principal Arterial~~	~~21,430~~	~~21,600~~	~~X~~
~~**32–34**~~	~~**Issaquah-Pine Lake Road Corridor**~~		~~**28,513**~~	~~**24,400**~~	
~~32~~	~~Issaquah-Pine Lk Rd, 228th Ave SE–SE 32nd Way~~	~~Principal Arterial~~	~~31,480~~	~~20,300~~	
~~33~~	~~Issaquah-Pine Lk Rd, SE 32nd Way–SE Klahanie Blvd~~	~~Principal Arterial~~	~~17,370~~	~~22,200~~	~~X~~
~~34~~	~~Issaquah-Pine Lk Rd, SE Klahanie Blvd–SE 48th St~~	~~Principal Arterial~~	~~36,690~~	~~30,700~~	

~~*continued on following page*~~

~~*Background Table T-14*~~*11*
~~*AWDT Concurrency Thresholds and 2035 Volumes for Roadway Segments—Committed Improvements Only (cont.)*~~

	~~SEGMENT~~	~~ROAD FUNCTIONAL CLASSIFICATION~~	~~CONCURRENCY THRESHOLD~~	~~2035 PROJECTED~~ ~~*AWDT*~~	~~*Fails?*~~
~~**35–37**~~	~~**224th Avenue North Corridor**~~		~~**17,370**~~	~~**12,600**~~	
~~35~~	~~244th Ave NE, NE 30th Pl–NE 20th St~~	~~Minor Arterial~~	~~15,050~~	~~11,900~~	
~~36~~	~~244th Ave NE, NE 20th St–NE 8th St~~	~~Minor Arterial~~	~~15,050~~	~~15,500~~	~~X~~
~~37~~	~~244th Ave NE, NE 8th St–SE 8th St~~	~~Minor Arterial~~	~~22,010~~	~~10,400~~	
~~**39**~~	~~**244th Avenue South Corridor**~~		~~**16,330**~~	~~**11,100**~~	
~~39~~	~~244th Avenue, SE 24th St–SE 32nd Way~~	~~Minor Arterial~~	~~16,330~~	~~11,100~~	
~~9~~	~~SE 24th St, E Lk Sammamish Pkwy–200th Ave SE~~	~~Collector Arterial~~	~~9,420~~	~~1,100~~	
~~10~~	~~SE 24th St, 200th Ave SE–212th Ave SE~~	~~Collector Arterial~~	~~9,420~~	~~2,600~~	
~~15~~	~~NE Inglewood Rd, E Lk Sammamish Pkwy–216th Ave NE~~	~~Minor Arterial~~	~~16,790~~	~~14,400~~	
~~16~~	~~NE Inglewood Rd, 216th Ave NE–228th Ave NE~~	~~Minor Arterial~~	~~17,370~~	~~12,600~~	
~~17~~	~~SE 8th St/218th Ave SE, 212th Ave SE–SE 4th St~~	~~Collector Arterial~~	~~9,430~~	~~6,900~~	
~~18~~	~~SE 4th St, 218th Ave SE–228th Ave SE~~	~~Minor Arterial~~	~~22,010~~	~~23,000~~	~~X~~
~~19~~	~~SE 20th St, 212th Ave SE–219th Pl SE~~	~~Collector Arterial~~	~~11,070~~	~~6,500~~	
~~20~~	~~SE 20th St, 219th Pl SE–228th Ave SE~~	~~Collector Arterial~~	~~11,070~~	~~7,300~~	
~~28~~	~~NE 8th St, 228th Ave NE–244th Ave NE~~	~~Minor Arterial~~	~~21,430~~	~~15,000~~	
~~29~~	~~SE 8th St, 228th Ave SE–244th Ave SE~~	~~Minor Arterial~~	~~20,730~~	~~14,700~~	
~~30~~	~~SE 24th St, 228th Ave SE–244th Ave SE~~	~~Collector Arterial~~	~~10,550~~	~~11,000~~	~~X~~
~~31~~	~~SE 24th St, 244th Ave SE–W Beaver Lk Dr SE~~	~~Collector Arterial~~	~~10,550~~	~~6,600~~	
~~38~~	~~248th Ave SE, SE 24th St–SE 14th S~~	~~Collector Arterial~~	~~9,420~~	~~400~~	
~~40~~	~~SE 32nd Way, Issaquah-Pine Lk Rd–244th Ave SE~~	~~Minor Arterial~~	~~16,790~~	~~12,700~~	
~~41~~	~~SE 32nd St, 244th Ave SE–W Beaver Lk Dr SE~~	~~Minor Arterial~~	~~16,790~~	~~12,600~~	
~~42~~	~~Issaquah-Beaver Lk Rd, W Beaver Lk Dr SE–SE Duthie Hill Rd~~	~~Minor Arterial~~	~~17,950~~	~~9,000~~	
~~43~~	~~SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd–266th Ave SE~~	~~Principal Arterial~~	~~16,790~~	~~19,600~~	~~X~~
~~44~~	~~SE Duthie Hill Rd, 266th Ave SE–Trossachs Blvd SE~~	~~Principal Arterial~~	~~16,790~~	~~19,500~~	~~X~~
~~45~~	~~Trossachs Blvd SE, SE 9th St–SE Duthie Hill Rd~~	~~Collector Arterial~~	~~13,680~~	~~11,600~~	
~~46~~	~~218th Ave NE, SE 4th St–SE 8th St~~	~~Collector Arterial~~	~~9,420~~	~~6,800~~	
~~47~~	~~SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd–SE Issaquah-Fall City Rd~~	~~Principal Arterial~~	~~22,010~~	~~18,600~~	
~~48~~	~~SE Issaquah-Fall City Rd, SE Duthie Hill Rd–Klahanie Dr SE~~	~~Principal Arterial~~	~~22,010~~	~~24,100~~	~~X~~
~~49~~	~~SE Issaquah-Fall City Rd, Klahanie Dr SE–Issaquah-Pine Lk Rd~~	~~Principal Arterial~~	~~36,690~~	~~33,600~~	

Recommended Plan

Based upon evaluation of existing conditions, travel demand forecast and evaluation of future conditions that result from the 2035 land use forecast, and the concurrency standards and priorities stated by the city, the Recommended Plan contains the following elements:

- Recommended Transportation Improvements
- Functional Classification Assessment
- Connectivity Assessment
- Roadway Design Guidelines
- Traffic Calming Program
- Transportation Demand Management
- Transit Service and Facilities
- Non-Motorized Facilities

Recommended Transportation Improvements

Based upon the analysis of 2016~~,~~ and 2024~~2~~ traffic operations against the level of service policy described earlier this chapter and ~~and~~ 2035 level of service analysis performed as part of the 2015 Comprehensive Plan, a list of recommended improvement projects was developed for the 2035 planning horizon. The list of improvement projects is summarized in ~~Background Table T–15~~Background Table T–~~12~~9.

Planning level estimates were prepared for each of the projects under consideration. ~~The cost estimates (in current dollars) are included in the City of Sammamish Capital Facilities Plan.~~

Background Table T–9
Summary of Recommended Transportation Improvements

PROJECT	~~PRIORITY 2015–2035 TIP~~ LOCATION	IMPROVEMENT	~~CONCURRENCY~~ PROJECT COST (X $1,000)[1]
~~1~~TR-23	E Lk Sammamish Pkwy SE, 212th Ave SE–South City Limits	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	10,935
~~2~~TR-03	Issaquah-Pine Lk Rd SE, SE 48th St–SE Klahanie Blvd	Widen to 5 lanes with bike lanes, curb, gutter and sidewalk	21,315
~~3~~TR-02	Issaquah-Pine Lk Rd SE, SE Klahanie Blvd–SE 32nd Way	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	21,651
~~4~~TR-01	SE 4th St, 218th Ave SE to 228th Ave SE	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	18,981
~~5~~TR-05	Sahalee Way NE, ~~220th Ave NE~~NE 25th Way– North City Limits	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	~~12,327~~16,802

~~6~~	~~Sahalee Way NE, NE 25th Way–220th Ave NE~~	~~Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk~~	~~4,474~~

# PROJECT	LOCATION	IMPROVEMENT	PROJECT COST (X $1,000)[1]
~~7~~TR-04	~~E Lk Sammamish Pkwy SE at SE 24th St Intersection~~	~~Construct traffic signal, turn lanes, curb, gutter, and sidewalk~~	~~13,716~~
~~8~~TR-24	SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd–"notch"	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk on west side, 8-foot shoulder on east side	13,230
~~9~~TR-26	SE Duthie Hill Rd, West side of "notch" to Trossachs Blvd SE	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk on west side, 8-foot shoulder on east side	13,230
Old/Loan Recognition~~10~~	228th Ave	Public Works Trust Fund Loan Repayment (remaining loan balance)	3,808
~~11~~TR-27	Issaquah-Pine Lake Rd SE, SE Issaquah-Fall City Rd–SE 48th St	Widen to 5 lanes with bike lanes, curb, gutter, and sidewalk	7,882
~~12~~TR-07	SE Issaquah-Fall City Rd, ~~SE 48th St~~242nd Avenue SE– Klahanie Dr SE	Widen to 5 lanes with bike lanes, curb, gutter, and sidewalk	17,321
TR-08~~13~~	SE Issaquah-Fall City Rd, Klahanie Dr SE–SE Issaquah-Beaver Lk Rd	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	15,917
TR-29~~14~~	SE Belvedere Way, E Beaver Lk Rd–263rd Pl SE	New roadway connection, extend SE Belvedere Way to E Beaver Lk Dr SE	761
~~15~~TR-30	New Roadway Connection to E Beaver- Lk Dr SE at 266th Way SE	Extend 266th Way SE to E Beaver Lk Dr SE and widen E Beaver Lk Dr SE, 266th Way SE to Beaver Lk Way SE	8,498
~~16~~TR-25	212th Way SE (Snake Hill), E Lk Sammamish Pkwy SE–212th Ave SE	Improve 2 lanes with left-turn pockets, curb, gutter, and sidewalk	13,738
~~17~~TR-18	SE 8th St/218th Ave SE, 212th Ave SE–SE 4th St	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	10,117
~~18~~	Sidewalk Projects	Various sidewalk projects, includes gap projects, extensions, safety improvements	5,000
~~19~~	Transit Program	Provide funding for capital project matching funds and/or provide for additional transit service.	10,000
~~20~~	Neighborhood CIP	Various capital improvement including safety improvements, gap projects, bike routes, pedestrian safety enhancements, and school zone safety improvements.	2,000
~~21~~	Street Lighting Program	Provide street lighting at high priority locations with significant safety issues that can be addressed through better street lighting	400
~~22~~	Intersection Improvements	Various intersection and other spot improvement as needed, including channelization, signing, safety improvements, signalization, or other control devices.	5,000

TR-04	East Lake Sammamish Parkway SE / SE 24th St Intersection	Add turn pocket and acceleration lane on East Lake Sammamish Parkway, separate turn lanes on SE 24th	3,900[2]

~~*continued on following page*~~

TR-39	256th Ave SE/E Beaver Lake Dr SE/ Issaquah Beaver Lake Rd	Construct roundabout	1,600[2]
TR-51	SE Issaquah Fall City Rd/247th Pl SE	Construct roundabout ~~(will be installed as part of TR-07. Costs are incl in TR-07)~~	Cost included in TR-07
TR-52	SE Issaquah Fall City Rd/Klahanie Dr S	Construct roundabout ~~(will be installed as part of TR-07. Costs are incl in TR-07)~~	Cost included in TR-07
TR-45	SE 32nd St/244th Ave SE Intersection Improvement	Install all-way stop control	110[2]
TR-53	Sahalee Way/NE 28th Pl/223rd Ave NE	Install signal	1,300[2]
TR-54	228th Ave/SE 40th	Create center turn lane on 228th, modify median on SE 40th	800[2]
TR-55	242nd Ave NE/NE 8th St	Add westbound right turn pocket, widen NE 8th	880[2]
TR-56	Issaquah-Pine Lake Rd/230th Ln SE/231st Lane SE	Rechannelize/restripe 230th Ln & 231st Ln, extend WB left turn pocket on Issaquah Pine Lake Rd	115[2]
	~~TOTAL EXPENDITURES~~		~~237,071~~

1. All project costs are in 2014 dollars unless separately noted.
2. 2018 cost estimates.

~~2035 Level of Service Analysis with Recommended Improvements~~

~~The recommended projects included in the long range plan are illustrated in Background Figure T–15~~Background Figure T–13~~. This list was developed after review of concurrency requirements.~~

~~Background Table T–16~~ ~~Background Table T–13~~ ~~summarizes the expected levels of service at the 30 designated major intersections with the recommended long range transportation improvements in place. The table includes two future alternative analyses with Sahalee Way NE widened to 3 lanes and to 5-lanes. Analysis shows that 18 of the 30 intersections are expected to operate at an LOS at or better than the intersection concurrency thresholds. On 228th Avenue the six signalized intersections projected at LOS E or worse are at: SE 4th Street, SE 8th Street, SE 24th Street, Issaquah-Pine Lake Road SE, NE 8th Street, and NE 4th Street. On Issaquah-Pine Lake Road SE the signal at SE Klahanie Boulevard and the roundabout at SE 32nd Way are forecast to operate at LOS E. The intersection LOS for the 2035 land use is illustrated in Background Figure T–16~~Background Figure T–14~~.~~

~~Outside of the city limits six signalized intersections are projected to operate at LOS E and LOS F. The LOS deficiencies discussed above are not significantly affected by the proposed widening on Sahalee Way NE.~~

~~Background Table T–17~~ ~~Background Table T–14~~ ~~summarizes the roadway segment concurrency status for the 2035 Land Use assumed in the Comprehensive Plan, with the recommended transportation improvements in place. The table includes two future alternative analyses with Sahalee Way NE widened to 3-lanes and to 5-lanes. The table shows that with the 3-lane Sahalee Way NE improvement there are six road segments and three corridors forecast to fail concurrency. With the 5-lane Sahalee Way NE improvement there are five road segments and two corridors forecast to fail concurrency.~~

Background Figure T–~~15~~ 12 Recommended Transportation Improvements

~~*Background Table T-16*~~*13*

~~*2035 Intersection LOS – PM Peak Hour – With Recommended Improvements*~~

~~INTERSECTION~~	~~LOS STD[1]~~	~~TRAFFIC CONTROL[2]~~	~~3-LANE SAHALEE WAY~~		~~5-LANE SAHALEE WAY~~	
			~~*Delay[3]*~~	~~*LOS[4]*~~	~~*Delay[3]*~~	~~*LOS[4]*~~
~~228th Ave NE and NE 12th St~~	~~D~~	~~S~~	~~20~~	~~B~~	~~9~~	~~A~~
~~Sahalee Way NE and NE 37th St~~	~~D~~	~~S~~	~~21~~	~~C~~	~~13~~	~~B~~
~~228th Ave SE and SE 4th St~~	~~E~~	~~S~~	~~70~~	~~E~~	~~77~~	~~E~~
~~228th Ave SE and SE 8th St~~	~~D~~	~~S~~	~~109~~	~~F*~~	~~114~~	~~F*~~
~~228th Ave SE and SE 20th St~~	~~D~~	~~S~~	~~23~~	~~C~~	~~24~~	~~C~~
~~228th Ave NE and SE 24th St~~	~~E~~	~~S~~	~~61~~	~~E~~	~~60~~	~~E~~
~~228th Ave SE and Issaquah-Pine Lk Rd SE~~	~~E~~	~~S~~	~~84~~	~~F*~~	~~83~~	~~F*~~
~~Issaquah-Pine Lk Rd SE and SE Klahanie Blvd~~	~~D~~	~~S~~	~~64~~	~~E*~~	~~63~~	~~E*~~
~~E Lk Sammamish Pkwy and NE Inglewood Hill Rd~~	~~C~~	~~S~~	~~17~~	~~B~~	~~16~~	~~B~~
~~E Lk Sammamish Pkwy and 212th Way SE~~	~~C~~	~~S~~	~~14~~	~~B~~	~~13~~	~~B~~
~~228th Ave NE and NE 8th St (NE Inglewood Hill Rd)~~	~~D~~	~~S~~	~~57~~	~~E*~~	~~65~~	~~E*~~
~~192nd Drive NE and NE Redmond Fall City Rd (SR202)~~	~~D~~	~~S~~	~~11~~	~~B~~	~~11~~	~~B~~
~~Issaquah-Pine Lk Rd SE and SE 32nd Way~~	~~D~~	~~RAB~~	~~73~~	~~E*~~	~~75~~	~~E*~~
~~E Lk Sammamish Pkwy and Louis Thompson Rd NE~~	~~C~~	~~S~~	~~17~~	~~B~~	~~16~~	~~B~~
~~212th Ave SE and SE 20th St~~	~~C~~	~~AWSC~~	~~16~~	~~C~~	~~15~~	~~C~~
~~SE Duthie Hill Rd and SE Issaquah-Beaver Lk Rd~~	~~D~~	~~S~~	~~22~~	~~C~~	~~21~~	~~C~~
~~Trossachs Blvd SE and SE Duthie Hill Rd~~	~~D~~	~~S~~	~~27~~	~~C~~	~~26~~	~~C~~
~~E Lk Sammamish Pkwy and SE 24th Way~~	~~C~~	~~S~~	~~7~~	~~A~~	~~7~~	~~A~~
~~244th Ave NE and NE 8th St~~	~~C~~	~~RAB~~	~~14~~	~~B~~	~~12~~	~~B~~
~~228th Ave NE and NE 25th St~~	~~D~~	~~S~~	~~20~~	~~C~~	~~12~~	~~B~~
~~228th Ave NE and NE 4th St~~	~~D~~	~~S~~	~~63~~	~~E*~~	~~82~~	~~F*~~
~~228th Ave NE and E. Main St~~	~~D~~	~~S~~	~~28~~	~~C~~	~~28~~	~~C~~
~~212th Ave SE and SE 8th St~~	~~C~~	~~TWSC~~	~~19~~	~~C~~	~~18~~	~~C~~
~~Sahalee Way NE and SR202[5]~~	~~E~~	~~S~~	~~89~~	~~F*~~	~~119~~	~~F*~~
~~Issaquah-Pine Lk Rd SE and SE Issaquah-Fall City Rd[5]~~	~~E~~	~~S~~	~~180~~	~~F*~~	~~178~~	~~F*~~
~~244th Ave NE and NE Redmond Fall City Rd (SR202)[5]~~	~~D~~	~~S~~	~~67~~	~~F*~~	~~62~~	~~E*~~
~~E Lk Sammamish Pkwy and NE Redmond Fall City Rd (SR202)[5]~~	~~D~~	~~S~~	~~170~~	~~F*~~	~~169~~	~~F*~~
~~E Lk Sammamish Pkwy and SE 56th St[5]~~	~~D~~	~~S~~	~~263~~	~~F*~~	~~260~~	~~F*~~
~~E Lk Sammamish Pkwy and SE Issaquah-Fall City Rd[5]~~	~~E~~	~~S~~	~~207~~	~~F*~~	~~208~~	~~F*~~
~~E Lk Sammamish Pkwy and SE 43rd Way[5]~~	~~D~~	~~RAB~~	~~27~~	~~C~~	~~25~~	~~C~~

~~*1. LOS standards are based upon the functional classifications of the intersecting roadways. Intersections that include Principal Arterials have a standard of LOS D. Intersections that include Minor Arterials or Collectors have a standard of LOS C.*~~

~~*2. Intersection Control: S=signalized; TWSC=two-way stop-controlled; AWSC=all-way stop-controlled; RAB = roundabout.*~~

~~*3. Delay is measured in seconds per vehicle.*~~

~~*4. LOS is the level-of-service based on the methodology outlined in the Highway Capacity Manual (HCM 2010). (*) Denotes an LOS below the defined standard, indicating that the intersection is considered deficient.*~~

~~*5. Intersection is outside of the city limits.*~~

Background Figure T–~~16~~ 14 2035 Level of Service—2035 Land Use with Recommended Transportation Improvements

~~*Background Table T-17~~*~~14~~
~~*2035 Segment Concurrency Status—With Recommended Improvements*~~

		~~ROAD~~	~~3-LANE SAHALEE WAY~~			~~5-LANE SAHALEE WAY~~		
	~~SEGMENT~~	~~FUNCTIONAL CLASSIFICATION~~	~~*Concurrency Threshold*~~	~~*AWDT*~~	~~*Fails?*~~	~~*Concurrency Threshold*~~	~~*AWDT*~~	~~*Fails?*~~
~~**1–3**~~	~~**East Lk Sammamish Parkway North Corridor**~~		~~**25,877**~~	~~**21,100**~~		~~**25,877**~~	~~**20,300**~~	
~~1~~	~~E Lk Sammamish Pkwy, City limits–196th Ave NE (Weber Point)~~	~~Minor Arterial~~	~~24,330~~	~~21,000~~		~~24,330~~	~~20,200~~	
~~2~~	~~E Lk Sammamish Pkwy, 196th Ave NE–NE 26th Pl~~	~~Minor Arterial~~	~~24,330~~	~~20,900~~		~~24,330~~	~~20,100~~	
~~3~~	~~E Lk Sammamish Pkwy, NE 26th Pl–NE Inglewood Hill Rd~~	~~Minor Arterial~~	~~28,970~~	~~21,400~~		~~28,970~~	~~20,600~~	
~~**4–6**~~	~~**East Lk Sammamish Parkway Central Corridor**~~		~~**17,370**~~	~~**13,533**~~		~~**17,370**~~	~~**13,300**~~	
~~4~~	~~E Lk Sammamish Pkwy, Inglewood Hill Rd–Louis Thompson Rd~~	~~Minor Arterial~~	~~17,370~~	~~16,000~~		~~17,370~~	~~15,700~~	
~~5~~	~~E Lk Sammamish Pkwy, Louis Thompson Rd NE–SE 8th St~~	~~Minor Arterial~~	~~17,370~~	~~12,700~~		~~17,370~~	~~12,500~~	
~~6~~	~~E Lk Sammamish Pkwy, SE 8th St– SE 24th Way~~	~~Minor Arterial~~	~~17,370~~	~~11,900~~		~~17,370~~	~~11,700~~	
~~**7–8**~~	~~**East Lk Sammamish Parkway South Corridor**~~		~~**19,690**~~	~~**16,700**~~		~~**19,690**~~	~~**16,400**~~	
~~7~~	~~E Lk Sammamish Pkwy, SE 24th Way–212th Ave SE~~	~~Minor Arterial~~	~~17,370~~	~~14,000~~		~~17,370~~	~~13,700~~	
~~8~~	~~E Lk Sammamish Pkwy, 212th Ave SE–City Limit~~	~~Minor Arterial~~	~~22,010~~	~~19,400~~		~~22,010~~	~~19,100~~	
~~**11–14**~~	~~**Louis Thompson Road–212th Corridor**~~		~~**12,150**~~	~~**6,650**~~		~~**12,150**~~	~~**6,600**~~	
~~11~~	~~Louis Thompson Rd, E Lk Sammamish Pkwy–SE 8th St~~	~~Collector Arterial~~	~~12,150~~	~~4,700~~		~~12,150~~	~~4,600~~	
~~12~~	~~212th Ave SE, SE 8th St–SE 20th St~~	~~Collector Arterial~~	~~12,150~~	~~8,100~~		~~12,150~~	~~8,000~~	
~~13~~	~~212th Ave SE, SE 20th St–SE 32nd St~~	~~Collector Arterial~~	~~12,150~~	~~7,400~~		~~12,150~~	~~7,400~~	
~~14~~	~~212th Ave SE, SE 32nd St–E Lk Sammamish Pkwy~~	~~Collector Arterial~~	~~12,150~~	~~6,400~~		~~12,150~~	~~6,400~~	
~~**21–23**~~	~~**Sahalee Way–228th Avenue North Corridor**~~		~~**22,010**~~	~~**23,667**~~	~~**X**~~	~~**36,690**~~	~~**28,567**~~	
~~21~~	~~Sahalee Way/228th Ave NE, City Limit–220th Ave NE~~	~~Principal Arterial~~	~~22,010~~	~~24,500~~	~~X~~	~~36,690~~	~~28,700~~	
~~22~~	~~Sahalee Way/228th Ave NE, 220th Ave NE–NE 25th Way~~	~~Principal Arterial~~	~~22,010~~	~~21,300~~		~~36,690~~	~~26,300~~	
~~23~~	~~228th Ave, NE 25th Way–NE 12th St~~	~~Principal Arterial~~	~~22,010~~	~~25,200~~	~~X~~	~~36,690~~	~~30,700~~	
~~**24–25**~~	~~**228th Avenue Central Corridor**~~		~~**34,950**~~	~~**36,250**~~	~~**X**~~	~~**34,950**~~	~~**37,450**~~	~~**X**~~
~~24~~	~~228th Ave, NE 12th St–SE 4th St~~	~~Principal Arterial~~	~~34,950~~	~~35,500~~	~~X~~	~~34,950~~	~~37,300~~	~~X~~
~~25~~	~~228th Ave, SE 4th St–SE 20th St~~	~~Principal Arterial~~	~~34,950~~	~~37,000~~	~~X~~	~~34,950~~	~~37,600~~	~~X~~

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~~*Background Table T-14~~~~7~~*
~~*2035 Segment Concurrency Status—With Recommended Improvements (cont.)*~~

	~~SEGMENT~~	~~ROAD FUNCTIONAL CLASSIFICATION~~	~~3-LANE SAHALEE WAY~~ ~~*Concurrency Threshold*~~	~~*AWDT*~~	~~*Fails?*~~	~~5-LANE SAHALEE WAY~~ ~~*Concurrency Threshold*~~	~~*AWDT*~~	~~*Fails?*~~
~~**26–27**~~	~~**228th Avenue South Corridor**~~		~~**29,016**~~	~~**29,050**~~	~~**X**~~	~~**29,016**~~	~~**29,300**~~	~~**X**~~
~~26~~	~~228th Ave, SE 20th St–Issaquah-Pine Lake Rd SE~~	~~Principal Arterial~~	~~36,023~~	~~35,900~~		~~36,023~~	~~36,400~~	~~X~~
~~27~~	~~228th Ave, Issaquah-Pine Lake Rd SE–SE 43rd Way~~	~~Principal Arterial~~	~~22,010~~	~~22,200~~	~~X~~	~~22,010~~	~~22,200~~	~~X~~
~~**32–34**~~	~~**Issaquah-Pine Lake Road Corridor**~~		~~**30,060**~~	~~**22,333**~~		~~**30,060**~~	~~**22,600**~~	
~~32~~	~~Issaquah-Pine Lk Rd, 228th Ave SE–SE 32nd Way~~	~~Principal Arterial~~	~~31,480~~	~~20,500~~		~~31,480~~	~~21,000~~	
~~33~~	~~Issaquah-Pine Lk Rd, SE 32nd Way–SE Klahanie Blvd~~	~~Principal Arterial~~	~~22,010~~	~~21,100~~		~~22,010~~	~~21,400~~	
~~34~~	~~Issaquah-Pine Lk Rd, SE Klahanie Blvd–SE 48th St~~	~~Principal Arterial~~	~~36,690~~	~~25,400~~		~~36,690~~	~~25,400~~	
~~**35–37**~~	~~**224th Avenue North Corridor**~~		~~**22,010**~~	~~**12,400**~~		~~**22,010**~~	~~**12,133**~~	
~~35~~	~~244th Ave NE, NE 30th Pl–NE 20th St~~	~~Minor Arterial~~	~~22,010~~	~~11,700~~		~~22,010~~	~~11,500~~	
~~36~~	~~244th Ave NE, NE 20th St–NE 8th St~~	~~Minor Arterial~~	~~22,010~~	~~15,300~~		~~22,010~~	~~14,800~~	
~~37~~	~~244th Ave NE, NE 8th St–SE 8th St~~	~~Minor Arterial~~	~~22,010~~	~~10,200~~		~~22,010~~	~~10,100~~	
~~**39**~~	~~**244th Avenue South Corridor**~~		~~**15,630**~~	~~**10,500**~~		~~**15,630**~~	~~**10,300**~~	
~~39~~	~~244th Avenue, SE 24th St–SE 32nd Way~~	~~Minor Arterial~~	~~15,630~~	~~10,500~~		~~15,630~~	~~10,300~~	
~~9~~	~~SE 24th St, E Lk Sammamish Pkwy–200th Ave SE~~	~~Collector Arterial~~	~~9,420~~	~~900~~		~~9,420~~	~~900~~	
~~10~~	~~SE 24th St, 200th Ave SE–212th Ave SE~~	~~Collector Arterial~~	~~9,420~~	~~2,400~~		~~9,420~~	~~2,400~~	
~~15~~	~~NE Inglewood Rd, E Lk Sammamish Pkwy–216th Ave NE~~	~~Minor Arterial~~	~~22,010~~	~~12,300~~		~~22,010~~	~~11,900~~	
~~16~~	~~NE Inglewood Rd, 216th Ave NE–228th Ave NE~~	~~Minor Arterial~~	~~22,010~~	~~12,800~~		~~22,010~~	~~11,200~~	
~~17~~	~~SE 8th St/218th Ave SE, 212th Ave SE–SE 4th St~~	~~Collector Arterial~~	~~9,420~~	~~6,400~~		~~9,420~~	~~6,400~~	
~~18~~	~~SE 4th St, 218th Ave SE–228th Ave SE~~	~~Minor Arterial~~	~~15,390~~	~~6,500~~		~~15,390~~	~~6,500~~	
~~19~~	~~SE 20th St, 212th Ave SE–219th Pl SE~~	~~Collector Arterial~~	~~22,010~~	~~17,700~~		~~22,010~~	~~18,100~~	
~~20~~	~~SE 20th St, 219th Pl SE–228th Ave SE~~	~~Collector Arterial~~	~~15,390~~	~~6,500~~		~~15,390~~	~~6,200~~	
~~28~~	~~NE 8th St, 228th Ave NE–244th Ave NE~~	~~Minor Arterial~~	~~15,390~~	~~7,200~~		~~15,390~~	~~7,000~~	
~~29~~	~~SE 8th St, 228th Ave SE–244th Ave SE~~	~~Minor Arterial~~	~~22,010~~	~~13,400~~		~~22,010~~	~~13,400~~	
~~30~~	~~SE 24th St, 228th Ave SE–244th Ave SE~~	~~Collector Arterial~~	~~20,730~~	~~11,000~~		~~20,730~~	~~10,800~~	

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~~*Background Table T-14~~~~7~~*
~~*2035 Segment Concurrency Status—With Recommended Improvements (cont.)*~~

	~~SEGMENT~~	~~ROAD FUNCTIONAL CLASSIFICATION~~	~~3-LANE SAHALEE WAY~~			~~5-LANE SAHALEE WAY~~		
			~~*Concurrency Threshold*~~	~~*AWDT*~~	~~*Fails?*~~	~~*Concurrency Threshold*~~	~~*AWDT*~~	~~*Fails?*~~
~~31~~	~~SE 24th St, 244th Ave SE–W Beaver Lk Dr SE~~	~~Collector Arterial~~	~~10,550~~	~~8,500~~		~~10,550~~	~~8,300~~	
~~38~~	~~248th Ave SE, SE 24th St–SE 14th S~~	~~Collector Arterial~~	~~10,550~~	~~6,400~~		~~10,550~~	~~6,500~~	
~~40~~	~~SE 32nd Way, Issaquah-Pine Lk Rd–244th Ave SE~~	~~Minor Arterial~~	~~9,420~~	~~400~~		~~9,420~~	~~400~~	
~~41~~	~~SE 32nd St, 244th Ave SE–W Beaver Lk Dr SE~~	~~Minor Arterial~~	~~16,790~~	~~12,200~~		~~16,790~~	~~12,200~~	
~~42~~	~~Issaquah-Beaver Lk Rd, W Beaver Lk Dr SE–SE Duthie Hill Rd~~	~~Minor Arterial~~	~~16,790~~	~~12,100~~		~~16,790~~	~~11,900~~	
~~43~~	~~SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd–266th Ave SE~~	~~Principal Arterial~~	~~17,950~~	~~9,500~~		~~17,950~~	~~9,400~~	
~~44~~	~~SE Duthie Hill Rd, 266th Ave SE–Trossachs Blvd SE~~	~~Principal Arterial~~	~~22,010~~	~~20,000~~		~~22,010~~	~~19,900~~	
~~45~~	~~Trossachs Blvd SE, SE 9th St–SE Duthie Hill Rd~~	~~Collector Arterial~~	~~22,010~~	~~19,600~~		~~22,010~~	~~19,400~~	
~~46~~	~~218th Ave NE, SE 4th St–SE 8th St~~	~~Collector Arterial~~	~~13,680~~	~~11,600~~		~~13,680~~	~~11,600~~	
~~47~~	~~SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd–SE Issaquah-Fall City Rd~~	~~Principal Arterial~~	~~22,010~~	~~18,700~~		~~22,010~~	~~18,500~~	
~~48~~	~~SE Issaquah-Fall City Rd, SE Duthie Hill Rd–Klahanie Dr SE~~	~~Principal Arterial~~	~~22,010~~	~~24,400~~	~~X~~	~~22,010~~	~~24,300~~	~~X~~
~~49~~	~~SE Issaquah-Fall City Rd, Klahanie Dr SE–Issaquah-Pine Lk Rd~~	~~Principal Arterial~~	~~36,690~~	~~34,100~~		~~36,690~~	~~33,900~~	

~~Actions to Meet LOS Standards~~

~~Both the 2035 3-lane Sahalee Way NE and 2035 5-lane Sahalee Way NE road networks experience some segment capacity and intersection LOS deficiencies. The LOS and segment capacity deficiencies may be slightly worse or not materialize at all based upon the accuracy of the travel demand model and 2035 land use forecast.~~

~~The deficiencies on 228th Ave SE are a result of significant institutional uses in a concentrated area along 228th Ave SE including, Town Center to the south, Sammamish City Hall, the Community Center, the King County Library, Skyline High School, and two churches. On a positive note the institutional nature of these uses lend themselves to Transportation Demand Management (TDM) strategies that smaller individual uses may not be able to achieve.~~

~~Infrastructure improvements could also be considered to improve LOS including:~~

~~Background Table T-16~~ ~~Background Table T-13~~ ~~identified the following intersection LOS deficiencies with the 2035 recommended improvements and with both Sahalee Way NE widening alternatives.~~

- ~~Within the city there are seven intersections forecast to operate at LOS E or F and above their LOS respective thresholds. Monitoring programs are recommended at all key city intersections, including those projected to operate at failure to justify future improvement needs. Intersections that do not meet their LOS thresholds are outlined below along with physical or strategic future improvement options:~~
  - ~~*228th Avenue SE at SE 8th Street* operates at LOS F; LOS D threshold—add turn lanes or a connector roadway to SE 10th Street to reduce the vehicle demand.~~
  - ~~*228th Avenue SE at SE Issaquah-Pine Lake Rd SE* operates at LOS F; LOS E threshold—add capacity to the south leg of the intersection.~~
  - ~~*Issaquah-Pine Lake Road SE at SE Klahanie Boulevard* operates at LOS E; LOS D threshold—add turn lanes.~~
  - ~~*228th Avenue NE at NE 8th Street/NE Inglewood Hill Road* operates at LOS E; LOS D threshold—add turn lanes or consider modifying the LOS threshold to keep intersection more pedestrian friendly.~~
  - ~~*Issaquah-Pine Lake Road SE at SE 32nd Way* operates at LOS E; LOS D threshold—add bypass lanes.~~
  - ~~*228th Avenue NE at NE 4th Street* operates at LOS E; LOS D threshold—through monitoring determine the future LOS when the actual Town Center land uses are identified.~~
- ~~Six intersections outside of the city limits operate above their LOS thresholds. Similar to intersections within the city limits, monitoring programs are also recommended and in addition the monitoring should be coordinated with adjacent agencies to facilitate long term improvement solutions, support enhanced transit service and consider community wide TDM education. Intersection outside of the city limits operating at LOS E or F include:~~
  - ~~*Sahalee Way NE at NE Redmond-Fall City Road (SR202)* operates at LOS F.~~
  - ~~*Issaquah-Pine Lake Road SE at SE Issaquah-Fall City Road* operates at LOS F.~~
  - ~~*244th Avenue NE at NE Redmond-Fall City Road (SR202)* operates at LOS F under the 3-lane Sahalee Way NE and LOS E under the 5-lane Sahalee Way NE alternatives.~~

- *East Lake Sammamish Parkway at Redmond-Fall City Road (SR202)* operates at LOS F.
- *East Lake Sammamish Parkway at SE 56th Street* operates at LOS F.
- *East Lake Sammamish Parkway at SE Issaquah-Fall City Road* operates at LOS F.

Background Table T–17 Background Table T–14 identified the following road segment capacity deficiencies with the 2035 recommended improvements and with both Sahalee Way NE widening alternatives:

- *Sahalee Way*—228th Avenue North Corridor (North City Limits to 12th St) is overcapacity with the 3-lane Sahalee Way NE alternative and operates sufficiently under the 5-lane Sahalee Way NE alternative.
- *228th Avenue Central Corridor (NE 12th St to SE 20th St)* is overcapacity—through monitoring determine future AWDT volume impacts when the actual Town Center land uses are identified.
- *228th Avenue South Corridor (SE 20th St–SE 43rd Way)*—through monitoring determine the future AWDT volume impacts when the actual Town Center land uses are identified.
- *SE Issaquah Fall City Road from SE Duthie Hill Road-Klahanie Drive SE*—through monitoring determine the future AWDT volume impacts when the actual Town Center land uses are identified and also consider additional improvements.

3- Lane and 5-Lane Sahalee Way NE Widening

The projected 2035 volumes exceed capacity of the 3-lane Sahalee Way NE section as proposed. A future 3-lane Sahalee Way NE improvement does not meet city LOS standard for concurrency. This results in traffic diverting to other arterials and local streets.

The 5-lane Sahalee Way NE section has sufficient capacity to meet city LOS standards for 2035 and beyond. The additional capacity attracts traffic off of East Lake Sammamish Parkway, 244th Avenue NE and other residential collectors west of Sahalee Way NE. With the 5-lane Sahalee Way NE improvement alternative the following AWDT volume changes are projected when compared to the 3-lane alternative:

- Reduces AWDT volume on East Lake Sammamish Parkway north of Inglewood Hill Road by 850 vehicles per day (vpd)
- Reduces AWDT volume on 205th Place NE near Elizabeth Blackwell Elementary School by 1,000 vpd
- Reduces AWDT volume on 216th Avenue SE north of NE Inglewood Hill Road by 1,600 vpd

- ~~Reduces AWDT volume on NE Inglewood Hill Road west of 228th Avenue NE by 1,400 vpd~~
- ~~Reduces AWDT volume on 244th Avenue NE north of NE 8th Street)by 450 vpd~~
- ~~Increases AWDT volume on 228th Avenue NE north of NE 8th Street by 4,900 vpd~~
- ~~Increases AWDT volume on 228th Avenue NE south of SE 4th Street by 650 vpd~~
- ~~Reduces traffic volumes in neighborhoods to the west of Sahalee Way NE~~

~~Additionally, the 5-lane Sahalee Way NE alternative reduces or eliminates the need for future improvements on East Lake Sammamish Parkway north of NE Inglewood Hill Road and on 244th Avenue NE north of NE 8th Street.~~

Intersections Outside City Limits

Outside of the city limits, several key intersections are projected to have a significant impact on city mobility. Continued coordination with jurisdictional partners like Issaquah, Redmond, King County and WSDOT will be necessary.

Flexibility in Roadway Design Guidelines

Essential functions of streets in Sammamish include vehicle mobility, pedestrian access, bicycle access, and aesthetics. City standards specify lane widths of 11 feet. Left-turn lanes increase capacity, reduce vehicular collisions, and improve access to adjacent property. Bicycle lanes should be provided along major traffic corridors, and when striped should be a minimum of 5 feet in width. Sidewalk widths should be a minimum of 6 feet. Landscaped medians are especially important to soften wide expanses of pavement, to provide a haven for crossing pedestrians, and to provide aesthetic treatment to streets.

Often when designing streets, obstacles are encountered that require modification in design approach. Impediments might include topographic features that make road construction difficult or very expensive; inadequate available right-of-way to allow for all desired features; or environmentally sensitive areas that require modification to avoid adverse impacts. Additionally, funding or grant sources may require specific features or dimensions.

Traffic CalmingProgram

The City of Sammamish has a comprehensive traffic calming program in place with the Neighborhood Traffic Management Program (NTMP) described in the Existing Conditions section of this Transportation Element. Thus, it is recommended that the city continue the NTMP in its current form, as already adopted by City ordinance.

Transportation Demand Management

Transportation Demand Management (TDM) consists of strategies that seek to maximize the efficiency of the transportation system by reducing demand on the system. The results of successful TDM can include:

See Volume I, Transportation Element Policy T.2.8–Policy T.2.10 on page 8~~9~~7.

- Travelers switch from single-occupancy-vehicle (SOV) to HOV
  modes such as transit, vanpools or carpools,
- Travelers switch from driving to non-motorized modes such as bicycling or walking,
- Travelers change the time they make trips from more congested to less congested times of day,
- Travelers eliminate trips altogether through such means as compressed workweeks, consolidation of errands, or use of telecommunications.

Within the State of Washington, alternative transportation solutions are further necessitated by the objectives of the Commute Trip Reduction (CTR) Law. Passed in 1991 as a section of the Washington Clean Air Act (RCW 70.94), the CTR Law seeks
to reduce workplace commute trips in the nine most populous counties in the state. This law requires that in designated high population counties, each city within the county adopt a commute trip reduction plan requiring private and public employers with 100 or more employees implement TDM programs. Programs provide various incentives or disincentives to encourage use of alternative transportation modes, other than the SOV. The purpose of CTR is to help maintain air quality in metropolitan areas by reducing congestion and air pollution.

The city can promote TDM through policy and/or investments that may include, but are not limited to, the following:

- Public Education related to the benefits of TDM and individual
  actions to reduce vehicle trips
- Commute Trip Reduction (CTR) Ordinances
- Voluntary Compliance with CTR requirements by the city
- Managed access to facilities and activity centers
- Transit-oriented and pedestrian-friendly design
- Parking management

See Volume I, Transportation Element Policy T.2.15–Policy T.2.22 on page 8~~9~~9.

Transit Service and Facilities

As supported by the Goals, Objectives and Policies of the Transportation Element, public transportation has long-range benefits for the community because it offers:

- Primary mobility for those who cannot drive, including many of our youth, seniors, and citizens with disabilities,
- Mobility options for people who choose not to drive, either to avoid congestion, save money, or support the environment,
- Preservation of the quality of our environment by conserving energy, supporting better air quality, and reducing congestion on our roadways.

Central to the success of a public transportation system is the development of a compatible land use plan. Low-density suburbs and strip development are not designed to accommodate public transportation services. Changing the land use or traditional transit services is difficult and special attention is required to increase the effectiveness of transit by controlling development; modifying the existing arterial street system; and modifying pedestrian facilities to bring passengers to the transit system.

The City of Sammamish can influence compatibility with public transportation by considering the following development issues:

- Pedestrian access and facilities,
- Amount, cost, and location of parking,
- Location of higher density residential developments,
- Location and design of commercial and employment activities,
- Location of transit facilities,
- Location of community activity centers,
- Design of building complexes and their surroundings.

228th Avenue provides the primary corridor to support activity centers and more transit-oriented development. New development, redevelopment, or in-fill development that occurs in major activity centers can be designed to incorporate features that are compatible with public transportation. These features include:

- Land use that creates densities to support transit,
- Facilities that are oriented toward transit service,
- Walking distances that are on a reasonable pedestrian scale,
- Site design that encourages transit riders.

Zoning provisions are the primary means of implementing transportation-related land use policy. In order to accomplish this, the zoning code for major activity centers can be reviewed to ensure transit friendly design in these areas. Some factors that may be considered are:

- Encourage public transportation-compatible in-fill development on areas near transit routes and stops,

- Support the development of park-and-ride lots along transit routes,
- Encourage pedestrian uses at street-level buildings to stimulate activity and interest,
- Support increased residential densities along transit routes,
- Support increased employment densities in activity centers.

See Volume I, Transportation Element Policy T.2.8~~, Policy T.2.9 and~~ Policy T.2.10 on page 88.

In addition, transit can be made more compatible with pedestrian travel by observing the following design guidelines:

- Provide sidewalks and safe crosswalks for access to the transit system,
- Include provisions for weather protection of the pedestrian,
- Eliminate barriers that discourage pedestrian access,
- Keep walking distances to a quarter-mile or less,
- Provide curb ramps and other facilities conforming to the Americans with Disabilities Act (ADA),
- Provide lighting to improve pedestrian safety and security,
- Provide design guidelines to foster and encourage pedestrian activity.

Special emphasis should be placed on the identification and public awareness of the transit system. Specific tasks could include improved signing, identification, and improved transit stops; route and schedule information provided at all transit stop sites; and shelters provided at some sites. Shelters provide a visual reminder of transit availability and provide an incentive for residents and visitors to use the transit system. Shelters can be installed only in locations with adequate public right-of-way and where appropriate pads can be constructed.

The success of the public transportation system is dependent on integrating key elements that comprise the overall plan. Integration of the transit system with streets, bicycle facilities, and pedestrian facilities is critical to transit's success.

Non-Motorized Plan

See Volume I, Transportation Element Policy T.2.12 and Policy T.2.13 on page 8~~9~~8.

The Trails, Bikeways and Paths Plan is a comprehensive planning document for the City of Sammamish addressing a 20-year vision for development of recreational trails and non-motorized transportation facilities within the city. The dual focus on recreational trails and public right-of-way non-motorized facilities is an intentional effort to create a well-integrated system for pedestrians, bicyclists, equestrians, and other trail users in the city. The title of the plan is also a reflection of the desire for an

integrated system. “Trails, Bikeways and Paths” is a melding of terminologies to de-emphasize the differences between recreation- based and transportation-based facilities, and to underscore the common themes and the benefits of an integrated system.

A vital aspect of the plan and a key part of the message is that this vision is for an integrated system. It was decided early on to
pursue a system that avoided the historical, but somewhat arbitrary, distinctions between a non-motorized and a trails plan. This more holistic approach will provide additional flexibility in implementing the overall vision to connect key destinations that in many instances may not be possible to connect using one type of route or the other. It will also provide opportunities for interdepartmental coordination and will bring a greater efficiency to the effort. The benefits far outweigh the inconveniences of developing the plan in such a manner. The resulting system will be greatly enhanced as a result of this integrated approach.

This vision has been developed through a concentrated community outreach effort and through consistent dialogue and involvement of a citizen advisory committee called the Trails, Bikeways and Paths (TBP) Subcommittee. This advisory committee was formed to assist in guiding the development of this plan and reports to the Parks and Recreation Commission regarding the progress of the plan. In addition, community input was gathered at multiple points during the planning process and through the review and adoption process by the City Council.

The development of a vision for the future required an extensive effort to document existing trail and non-motorized facilities to provide a current picture and identify gaps in the system. An existing conditions inventory was completed for all trail and non-motorized facilities in the city, including private trail systems. Documentation of private trail systems was done to provide an understanding of how
a proposed public system could integrate with private neighborhood facilities. In addition, key challenges and obstacles were identified to assist in developing proposed system improvements.

Key survey data was collected from the public regarding use of trails, destinations, locations, intensity of use, etc.

This information, along with feedback from the TBP Subcommittee and guidance from state and regional policy on non-motorized facilities, provided the basis for the development of TBP goals and policies. Then, basic overall trail corridors were identified to
provide for east/west and north/south connectivity through the city.

With consideration of state, regional, and local design standards a hierarchy of pathways and trail types, as well as bicycle facility types, was created to specifically address the needs and
conditions on the Sammamish Plateau. Each facility type description includes detailed information on facility width, height clearances, appropriate location, and surfacing.

The pathway and trail facility types range from paved multi-use trails to primitive soft surface trails, and also include all of the standard sidewalk facilities along streets and roadways. The bicycle facility types are consistent with state and regional standards for signed and striped bike lanes, designated shared bike routes, and multi-use shared paths.

Next, the identified corridors and field conditions were taken into consideration in assigning the hierarchy of facility types to all of the proposed routes. Considerations in this process included existing right-of-way and obstacles, topography, community destinations, and types of potential users. This process resulted in a 20-year pathways and trail system plan and bicycle system plan.

The overall vision is a direct reflection of the community's desire to use trails, bikeways, and paths for travel and recreation purposes. Please see the City of Sammamish *Trails, Bikeways and Paths Master Plan*.

~~Concurrency~~

~~A Concurrency Management System (CMS) is a policy procedure designed to enable a City or County to determine whether adequate facilities are available to serve new development. The transportation element of the Growth Management Act (GMA) requires each City and County planning department to incorporate a Concurrency Management System into their comprehensive plan. In a Concurrency Management System, local jurisdictions must adopt and enforce ordinances that prohibit development approval if the development causes the LOS on a transportation facility to decline below the standard adopted in the Transportation Element of the Comprehensive Plan. Transportation improvements or strategies that accommodate the impacts of development can be made concurrent with the development. (State of Washington Growth Management Act, RCW 36.70A, 1990)~~

~~The city of Sammamish Concurrency Management System must be adopted as ordinance, and will involve the following components.~~

~~*See Volume I, Transportation Element Policy T.1.1- Policy T.1.3 - on page 85.*~~

Identification of facilities to be monitored

The City of Sammamish has identified both segments and intersections for concurrency monitoring. All intersections with functionally classified roadways within the city will be monitored. Additionally, all roadway segments, as identified in Background Figure T–9, will be monitored for concurrency.

Field Co

Field Co

Establishment of LOS standardsStandards & Monitoring

In order to monitor concurrency, the city City must adopt standards by whichto identify deficiencies may be identified, which were presented earlier in this plan. While the GMA requires that LOS standards be adopted for concurrency, it does not mandate how those standards should be defined. Thus, the city City is free to adopt by ordinance whatever standards it deems appropriate. The LOS standards that will be used to evaluate the transportation impacts of long-term growth and concurrency are defined as follows:

Roadway intersections. Intersection LOS is calculated using standard HCM analysis procedures and for the AM or PM peak hour, whichever is worse. For intersections, the city shall adopt a standard of LOS D for intersections that include principal arterials and LOS C for intersections that include minor arterial or collector roadways.

Attaining LOS D at major intersections with high approach volumes can result in large intersections with exclusive right- turn lanes, double left-turn lanes and additional through lanes. These improvements improve LOS for vehicles, but result in very long crosswalks and increased potential for pedestrian- vehicle conflicts at free right turns.

The LOS for intersections with principal arterials should be LOS D, when LOS D can be attained with maximum of three approach lanes per direction. For An example, is a

typical intersection of two five-lane roadways. The LOS for intersections with principal arterials may be reduced to E for intersections that require more than three approach lanes in any direction.

- **Roadway segments.** Segment LOS is based on allowable AWDT on a roadway segment as a function of roadway characteristics, as described earlier in this Transportation Element. The AWDT thresholds for each of these roadway segments, based upon the roadway characteristics, are defined in Background Table T–7. These thresholds would be adopted as ordinance by the City Council.

- ~~**Corridor LOS.** Roadway LOS will be based upon performance of key corridors.~~

  ~~Corridor LOS will be determined by averaging the incremental corridor segment volume over capacity (v/c) ratios within each adopted corridor. This has the effect of tolerating some congestion in a segment or more within a corridor while resulting in the ultimate completion of the corridor improvements. The average v/c of the segment s comprising a corridor must be 1.00 or less for the corridor to be considered adequate. All corridors must pass the Corridor LOS standard for the transportation system to be considered adequate. Corridors comprised of one concurrency segment segments must have a v/c of 1.0 or less to be considered adequate.~~

~~*See Volume I, Transportation Element Policy T.3.3 on page 90.*~~

~~The following corridors comprised of the concurrency segments shown on the Background Figure T-9 will be monitored:~~

- ~~East Lake Sammamish Parkway North Corridor~~
  ~~*Concurrency segments 1, 2 and 3*~~
- ~~East Lake Sammamish Parkway Central Corridor~~
  ~~*Concurrency segments 5 and 6*~~
- ~~East Lake Sammamish Parkway South Corridor~~
  ~~*Concurrency segments 7 and 8*~~
- ~~Sahalee Way—228th Avenue North Corridor~~
  ~~*Concurrency segments 21, 22, and 23*~~
- ~~228th Avenue Central Corridor~~
  ~~*Concurrency segments 24 and 25*~~
- ~~228th Avenue South Corridor~~
  ~~*Concurrency segments 26 and 27*~~
- ~~Issaquah-Pine Lake Road Corridor~~
  ~~*Concurrency segments 32, 33 and 34*~~
- ~~244th Corridor North Corridor~~
  ~~*Concurrency segments 35, 36 and 37*~~
- ~~244th Corridor South Corridor~~
  ~~*Concurrency segments 39*~~
- ~~Louis Thompson Road—212th Corridor~~
  ~~*Concurrency segments 11, 12, 13 and 14*~~
- ~~NE Inglewood Hill Road Corridor~~
  ~~*Concurrency segments 15 and 16*~~
- ~~NE 8th Street~~
  ~~*Concurrency segment 28*~~
- ~~SE 32nd Way—Issaquah Beaver Lake Road Corridor~~
  ~~*Concurrency segments 40, 41 and 42*~~
- ~~SE Duthie Hill Road—Trossachs Boulevard Corridor~~
  ~~*Concurrency segments 43, 44 and 45*~~

- ~~SE 4th Street~~
  ~~*Concurrency segments 17 and 18*~~
- ~~SE 8th Street~~
  ~~*Concurrency segments 29*~~
- ~~SE 20th Street~~
  ~~*Concurrency segments 19 and 20*~~
- ~~SE 24th Street West Corridor~~
  ~~*Concurrency segments 9 and 10*~~
- ~~SE 24th Street East Corridor~~
  ~~*Concurrency segments 30 and 31*~~

~~Monitoring~~

On a continuing basis, the City shall monitor and evaluate the adequacy of the concurrency policies and established LOS standards as new development occurs and as traffic levels grow. ~~Analyze external~~

~~influences on the Concurrency Management System.~~ The City shall m~~M~~ake periodic adjustments to the Concurrency Management System and LOS standards as needed and as part of the annual Comprehensive Plan amendment process, based on the on-going evaluation.

Mitigation Fee System

The City has adopted a transportation impact fee.

Financing

See Volume I, Transportation Element Policy T.3.12–Policy T.3.21 on page 9~~2~~1.

The Growth Management Act requires that the transportation-related provisions of comprehensive plans address the financing of the local transportation system. The multiyear financing plans serve as the basis for the six-year street, road, or transit program for cities, counties, and public transportation systems and should
be coordinated with the state's six-year transportation improvement program.

Total revenue available to the City of Sammamish for concurrency projects over a 20-year period is estimated in Background Table ~~T–18~~T–1~~5~~0. The estimated revenue projection is $237,000,000 (year 2015 dollars). The projected revenue presented in Background ~~Table T–18~~ Table T–1~~5~~0 provides a revenue stream for the expenditures proposed for the next 20 years, based upon these preliminary estimates.

Format

Background Table T–1~~5~~80
Transportation Capital Improvement Funding: 2015–2035

FUNDING SOURCE	AMOUNT (2015 DOLLARS)
Transportation Fund Revenue (REET)	25,000,000
Road Impact Fees (includes beginning fund balance)	35,000,000
Anticipated grants	15,000,000
Funding to be determined	162,000,000
TOTAL REVENUE	237,000,000

Contingency Plans in the Event of Revenue Shortfall

Some of the revenue forecasts are for revenues that are very secure, and highly reliable. However, other revenue forecasts are for sources that are volatile, and therefore difficult to predict
with confidence, including grants, joint agency funding, the motor vehicle registration fee, general obligation bonds, and mitigation payments (which have not been enacted), and which fluctuate with the amount of new development.

See Volume I, Transportation Element Policy T.3.19 on page 92

In the event that revenues from one or more of these sources is not forthcoming, the city has several options: add new sources of revenue or increase the amount of revenue from existing sources; require developers to provide such facilities at their own expense; reduce the number of proposed projects; change the Land Use
Element to reduce the travel demand generated by development; or change and/or lower the LOS standard.

Exhibit 2: Comprehensive Plan Glossary – clean version 7/10/18

Concurrency: Concurrency is a land use planning and implementation tool, introduced in the Washington State Growth Management Act (GMA), which is designed to ensure that necessary public facilities and services to support new development are available and adequate (based on adopted Level of Service standards) at the time of development.

Congestion: Congestion results when traffic demand approaches or exceeds the available capacity of the system. While this is a simple concept, it is not constant. Traffic demands vary significantly depending on the season of the year, the day of the week and even the time of day. Also, the capacity, often mistaken as constant, can change because of weather, work zones, traffic incidents, or other non-recurring events.

Connectivity: The state or extent of being connected or interconnected for all modes of transportation.

Context-sensitive Infill: Infill development designed to be compatible with the existing community character. Compatible implies a response to basic neighborhood patterns—such as green street edges of front yards and street trees or frontage patterns, forms and orientation of buildings—whose continuation allows change to be accommodated while preserving cherished aspects of neighborhood character. The continuation of these patterns can accommodate a diversity of architectural styles, while providing an underlying sense of cohesion and "place" that helps define the character of neighborhoods.

Cottage Housing: Detached bungalow scale houses clustered around a common open space and/or private spaces aggregated together in a commons arrangement.

Critical Areas: Include the following areas and ecosystems: (a) Wetlands; (b) areas with a critical recharging effect on aquifers used for potable water; (c) fish and wildlife habitat conservation areas; (d) frequently flooded areas; and (e) geologically hazardous areas (RCW 36.70A.030(5)).

Density Averaging: Density averaging, also known as lot size averaging, allows the size of individual lots within a development to vary from the zoned maximum density, provided that the average density in the development as a whole meets that maximum.

Erosion Hazard Areas: Erosion hazard areas means those areas in the City underlain by soils that are subject to severe erosion when disturbed. Such soils include, but are not limited to, those classified as having a severe or very severe erosion hazard according to the USDA Soil Conservation Service, the 1973 King County Soils Survey or any subsequent revisions or addition by or to these sources.

Fair Housing: Fair Housing is the ability for all people to choose where they live without discrimination based on race, color, national origin, sex, family status, or disability—these are the "protected classes" under state and federal law. (Some places also protect age, sexual orientation, or having a Section 8 voucher). Cities may not make zoning or land use decisions or implement policies that exclude or otherwise discriminate against protected persons, including individuals with disabilities. Sammamish's fair housing practices are evaluated periodically by King County as part of a countywide report to the federal government.

Floodplain: Floodplain means the total area subject to inundation by the base flood, i.e., a flood having a one percent chance of being equaled or exceeded in any given year, often referred to as the 100- year flood.

Functional Plans: "Functional plans" are detailed plans for facilities and services and action plans for other governmental activities such as parks, surface water, streets, etc. Functional plans should be consistent with the Comprehensive Plan.

Exhibit 2: Comprehensive Plan Glossary – clean version 7/10/18

Geologically Hazardous Areas: Areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events, are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns (RCW 36.70A.030(9)).

Goal: A general statement expressing a desired result consistent with the vision and towards which policies and objectives aim.

Habitat Area : An ecological or environmental area that is inhabited by a particular species of animal or plant. A place where a living thing lives is its habitat. It is a place where it can find food, shelter, protection and mates for reproduction.

Heritage Tree: See the Sammamish Municipal Code for a definition of heritage trees.

Historically Significant Housing: Used in this plan, historically significant housing is intended to indicate housing that has a unique physical, social, cultural and environmental quality that contributes to Sammamish's history and sense of place.

Human Scale: Human scale means that the size of the building relates to the approximate dimensions of the human body.

Infill: Urban infill is defined as new development that is sited on vacant or undeveloped land within an existing community, and that is enclosed by other types of development. The term "urban infill" itself implies that existing land is mostly built-out and what is being built is in effect "filling in" the gaps. The term most commonly refers to building single-family homes in existing neighborhoods but may also be used to describe new development in commercial, office or mixed-use areas.

Landmark Tree: See the Sammamish Municipal Code for a definition of landmark trees.

Landslide Hazard Areas: Landslide hazard areas means those areas in the City of Sammamish potentially subject to risk of mass movement due to a combination of geologic, topographic and hydrologic factors. These areas are typically susceptible to landslides because of a combination of factors including: bedrock, soil, slope gradient, slope aspect, geologic structure, groundwater, or other factors.

Legacy Development : Development that existed, was underway or approved for development prior to incorporation of the City of Sammamish.

Location Efficient Housing: Location-efficient housing refers to homes that have easy or inexpensive access to workplaces, schools, shopping and other necessary destinations. Housing locations are efficient to the most people when the ways to these destinations are easily walkable, don't require the resident to own an automobile and can be reached in 20 minutes or less.

Low Impact Development: Design concepts including a variety of strategies and techniques to address the negative impacts associated with stormwater runoff, such as, but not limited to:

- Reduce the street width and road network within a development.
- Replace impervious roadways, driveways and sidewalks with more pervious materials where feasible.
- Reduce lot size and setbacks/frontage requirements through cluster designs.

Land development and use contributes to increased phosphorus loadings to downstream water resources in several ways. Erosion of disturbed areas on construction sites can result in sediment transport to surface waters, which can cause algal blooms. Over-application of fertilizers and the discharge of detergents containing phosphates to the storm drainage system can also increase watershed loading of phosphorus-

Shall: When "shall" is used in a policy, such language requires that the City take steps to accomplish the purpose of the policy.

Should: When "should" is used in a policy, such language indicates the City has the option to take steps to accomplish the purpose of the policy.

Single Family Dwelling: A building containing one dwelling unit which is not attached to any other dwelling by any means except fences, has a permanent foundation and is surrounded by open space or yards.

Special Needs Housing: Special needs housing in this plan includes homes suitable for and occupied by people with one or more self-help limitations, such as physical or mental disability, long-term illness, or alcohol or drug issues. The housing may or may not incorporate supportive services, and may be permanent or transitional. Examples include adult family homes, assisted living facilities and group homes for people with developmental disabilities.

Sustainable Community : In a sustainable community, resource consumption is balanced by resources assimilated by the ecosystem. The sustainability of a community is determined by the availability of resources and by the ability of natural systems to process its wastes. A community is unsustainable if it consumes resources faster than they can be renewed, produces more wastes than natural systems can process or relies upon distant sources for its basic needs (based on City of Sammamish Sustainability Strategy, March 2011).

Transfer of Development Rights: Transfer of Development Rights (TDR) means the transfer of the right to develop or build from sending sites to receiving sites. The sending site is the parcel of land from which development rights will be transferred. After transferring the development rights from the sending parcel, future development is limited. Receiving sites are sites to which development rights are transferred. Typically, these are parcels of land in urban areas where the existing services and infrastructure can accommodate additional growth. Development rights that are "sent" off of a sending site are placed on a receiving site.

Transit Oriented Development: Transit-oriented development (TOD) describes a mix of housing, office, retail and amenities integrated into a walkable neighborhood and anchored by high quality public transit.

Transportation Level of Service: Level of Service (LOS) measures average peak hour delay for vehicles at key intersections. LOS is expressed qualitatively using letters A through F, with A representing very good operations and F representing undesirable operations.

Total Maximum Daily Load: A Total Maximum Daily Load (TMDL) is a regulatory term in the U.S. Clean Water Act, describing a value of the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards.

Exhibit 4 - Clean version, 7/10/18

TRANSPORTATION

soap box derby —
someone's front wheel
a little wobbly

Painting by Anna Macrae
Haiku by Michael Dylan Welch

Transportation Goals

Goal T.1 **Supporting Growth**
Support the city's and region's growth strategy by focusing on moving people and goods within the city and beyond with a highly efficient multimodal transportation network.

Goal T.2 **Greater Options and Mobility**
Invest in transportation systems that offer greater options, mobility, and access in support of the city's growth strategy.

Goal T.3 **Operations, Maintenance, Management and Safety**
As a high priority, maintain, preserve, and operate the city's transportation system in a safe and functional state.

Goal T.4 **Sustainability**
Design and manage the city's transportation system to minimize the negative impacts of transportation on the natural environment, to promote public health and safety, and to achieve optimum efficiency.

TRANSPORTATION

Introduction

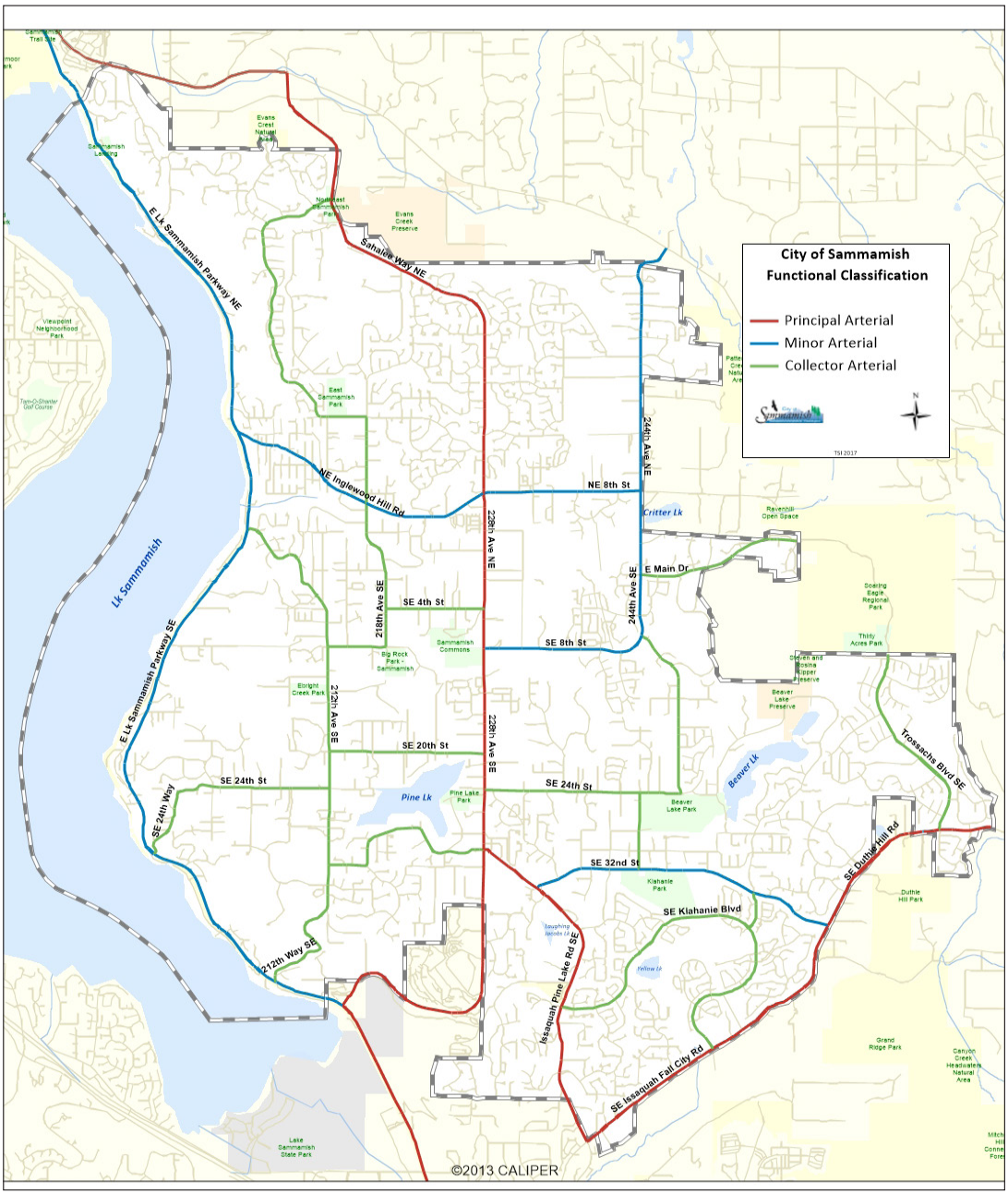
The Transportation Element ensures that the City's transportation system supports land uses envisioned by the Comprehensive Plan. Current challenges faced by the City include a relatively unconnected street system, limited transit service, and a hilly topography that makes active modes of transportation difficult for many users. These factors combine to create a car-centric transportation system that funnels drivers onto only a few streets (see Figure T–1). In order to address these challenges, goals and policies in this element are intended to promote more efficient use of existing roads, a shift of traffic to other modes, and a shift to other times of day.

228th Ave NE

The Transportation Element is supported by and inter-connected with many other elements of the Comprehensive Plan. In particular, the transportation system needs to be designed and sized appropriately to support the planned densities described in the Land Use Element. Consistent with the Plan's framework goals and emphasis on sustainability and healthy communities, transportation goals and policies include measures to help reduce air pollution, and promote active transportation. As part of promoting active transportation and mobility, the Transportation Element supports goals and policies in the Parks Element that address the public trail system. Goals and policies related to non-motorized transportation are also consistent with guidance in the Sammamish *Trails, Bikeways and Paths Master Plan.*

Please look for this icon for goals and policies that focus specifically on sustainability and healthy communities.

Figure T–1
Street Classification Map



As required by the Growth Management Act, the Transportation Element must demonstrate that there is enough transportation system capacity to serve the land uses that are planned, and to serve them at the level of service established in the goals and policies. This element also needs to include a financing plan to show how planned transportation improvements will be funded. This Transportation Element satisfies these requirements.

The Transportation Element Supporting Analysis contains the background data and analysis that provide the foundation for the Transportation Element goals and policies.

Based on the assumptions described in the Land Use Element, the City has development capacity to meet the adopted 2035 targets of 4,640 houses and 2,088 jobs.

Concurrency *is a land use planning and implementation tool, introduced in the Washington State Growth Management Act (GMA), which is designed to ensure that necessary public facilities and services to support new development are available and adequate (based on adopted Level of Service standards) at the time the impacts of new development occur.*

Goals and Policies

Goal T.1 Supporting Growth

Support the city's and region's growth strategy by focusing on moving people and goods within the city and beyond with a highly efficient multimodal transportation network.

Concurrency

Policy T.1.1 *Maintain a concurrency management system that monitors the impacts of growth and development on the transportation system and ensures that level-of-service standards are met within required timeframes. Focus level-of-service standards for transportation on the performance of key intersections during the AM and PM peak periods.*

Policy T.1.2 *Address non-motorized, pedestrian, and other multimodal types of transportation options.*

The discussion of concurrency is integrated throughout Volume II.T, Transportation. For a summary, please see page T.28.

Bike lane on SE 8th Street

Intersection Level of Service (LOS)

For more information, see the Intersection Level of Service Criteria Section in Volume II.T, page T.24.

Policy T.1.3 *Calculate intersection LOS using traffic volumes during the AM and PM peak hours.*

Intersection LOS measures average peak hour delay for vehicles at key intersections.

Coordination

Policy T.1.4 *Coordinate planning efforts for all transportation issues and problems directly with adjacent jurisdictions and through regional transportation planning organizations to develop and operate a highly efficient transportation system that addresses all city transportation needs.*

For more information, see the Traffic Level-of- Service Analysis Section in Volume II.T, page T.23-T.25.

Freight

For more information, see the Freight Routes Section in Volume II.T, page T.14 and Background Figure T–3 on page T.16.

Policy T.1.5 *Ensure the freight system meets the needs of local distribution.*

Level of Service (LOS) *is expressed qualitatively using letters A through F, with A representing very good operations and F representing undesirable operations.*

Congestion *results when traffic demand approaches or exceeds the available capacity of the system. While this is a simple concept, it is not constant. Traffic demands vary significantly depending on the season of the year, the day of the week, and even the time of day. Also, the capacity, often mistaken as constant, can change because of weather, work zones, traffic incidents, or other non-recurring events.*

Goal T.2 Greater Options and Mobility

Invest in transportation systems that offer greater options, mobility and access in support of the city's growth strategy.

Multimodal travel options

Mobility Options

Policy T.2.1 *Encourage an increase in the proportion of trips made by transportation modes other than driving alone.*

Policy T.2.2 *Encourage the integration of transportation systems to make it easy for people to move from one mode or technology to another.*

Policy T.2.3 *Encourage the promotion of the mobility of people and goods through a multi-modal transportation system consistent with regional priorities and Vision 2040.*

Policy T.2.4 *Address the needs of non-driving populations in the development and management of local and regional transportation systems.*

Policy T.2.5 *Encourage siting and designing transit facilities to enable access for pedestrian and bicycle patrons, where appropriate.*

Policy T.2.6 *Encourage local street connections between existing developments and new developments to provide an efficient network of travel route options for pedestrians, bicycles, autos and emergency vehicles.*

Policy T.2.7 *Support regional efforts to effectively manage regional air, marine and rail transportation capacity and address future capacity needs in cooperation with responsible agencies, affected communities and users.*

Transportation Demand Management

Policy T.2.8 *Reduce the need for new capital improvements through investments in operations, demand management strategies, and system management activities, including: broadband communication systems, providing for flexible work schedules, public and private transit, vanpool systems and public transit subsidies.*

Sammamish youth walking to the bus stop after school

Bike parking at Sammamish Highlands

For more information, see the Transportation Demand Management Section in Volume II.T, page T.45-T.46.

Policy T.2.9 *Support local transportation demand management programs (education and/or local regulations) to reduce the impacts of high traffic generators not addressed by the Washington State Commute Trip Reduction Act including: city offices, recreational facilities, schools, and other high traffic generating uses. The City of Sammamish should serve as a model to the community by striving to comply with the requirements of the State Commute Trip Reduction Act, CTR. The City should work with schools to reduce vehicular traffic.*

Policy T.2.10 *Support the reduction of vehicle dependence in the city by supporting "ride share" and on demand car/bike services.*

Design

Policy T.2.11 *Promote developments that are designed in a way that improves overall mobility and accessibility to and within such development.*

Policy T.2.12 *Design, construct, operate, and maintain transportation facilities to serve all users safely and conveniently, including motorists, pedestrians, bicyclists and transit users. Pedestrian crossings should be consistent with the citizens' desire to develop and maintain a pedestrian-friendly, walkable community.*

Policy T.2.13 *Consider paving materials that are safe and quiet for all users (pedestrians, bicycle riders, wheelchairs, etc.) when mixed use of the pavement is expected.*

Policy T.2.14 *Encourage noise reduction on roadways in innovative ways other than the use of noise walls.*

For more information on non-motorized transportation, see Volume II.T, the Existing Non-Motorized Conditions Section in Volume II.T, page T.32, the Non-Motorized Plan Section in Volume II.T, page T.48 and Background Figure T–9 on page T.34

Transit

Policy T.2.15 *Work with public and private employer based transit service providers to expand local transit service designed to connect to adjacent jurisdictions and to serve employment centers and local activity patterns.*

Policy T.2.16 *Encourage transit oriented development in the town center, commercial use centers and joint-use park-and-ride facilities, where appropriate.*

Policy T.2.17 *Park-and-ride facilities should include safe and convenient access for automobiles, buses, pedestrians and bicycles.*

Policy T.2.18 *New development and redevelopment in the city should be designed to provide and encourage non-motorized access to transit where appropriate. The location of bus stops and shelters should be incorporated into a project's development design.*

Policy T.2.19 *Where appropriate, adopt road design standards, site-access guidelines, and land use regulations that support transit.*

Policy T.2.20 *Through cooperation with other jurisdictions, work regionally to promote transit services that are dependable, maintain regular schedules and provide an adequate LOS throughout the day, weekends and holidays.*

Policy T.2.21 *Encourage a transit system that can serve mixed use centers with frequent, regular transit service.*

Policy T.2.22 *Explore options for expanding both intracity and intercity transportation services, such as expanded King County Metro service, city-sponsored shuttle or other private/public partnership options.*

King County Metro Route 216

For more information, see the Transit Service and Facilities Section in Volume II.T, page T.46.

Goal T.3 Operations, Maintenance, Management and Safety

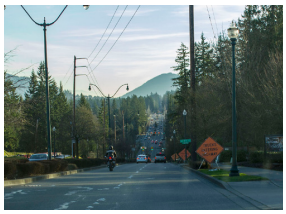
As a high priority, maintain, preserve, and operate the city's transportation system in a safe and functional state.

Maintenance and Preservation

Policy T.3.1 *Maintain and operate the city's transportation systems to minimize impacts to mobility from maintenance activities and provide continuous safe, efficient, and reliable movement of people, goods, and services.*

South Sammamish Park-and-Ride

Construction on Pine Lake Transit Access Road



Construction on 228th Ave SE

For more information, see the discussion of monitoring on page T.50.

For more information, see the Roadway Design Standards Section in Volume II.T, page T.14 and Background Figure T–5 on page T.19.

Policy T.3.2 *Prioritize safety improvements to the existing transportation system to protect mobility and lower overall life-cycle costs.*

Transportation Systems Management

Policy T.3.3 *Maintain a citywide traffic monitoring system to collect AM, PM and daily traffic volumes periodically to determine how transportation investments are performing over time.*

Policy T.3.4 *Design or redesign arterial and connector streets, including retrofit projects, to improve traffic flow, accommodate a range of motorized and non-motorized travel modes in order to reduce injuries and fatalities and to encourage non-motorized travel. The design should include well-defined, safe and appealing spaces for pedestrians and bicyclists.*

Policy T.3.5 *Apply technologies, programs and other strategies that optimize the use of existing infrastructure in order to improve mobility, reduce congestion, increase energy-efficiency, reduce maintenance requirements, and reduce the need for new infrastructure.*

Policy T.3.6 *Strive to increase the efficiency of the current transportation system to move goods, services, and people to, from and within the city by means such as expanded left and right turn lanes and bus turnouts where suitable before adding additional capacity.*

Policy T.3.7 *Protect the transportation system against major disruptions by third party infrastructure projects and maintenance.*

Policy T.3.8 *Develop disaster response plans, which include strategies to prevent damage to transportation facilities as a result of disaster and plans for repairing, reopening, and operating transportation facilities after disasters.*

Traffic circle at NE 16th St and 220th Pl NE

Safety

Policy T.3.9 *Continue to improve the safety of the transportation system to achieve the state's goal of zero deaths and disabling injuries.*

For more information, see the Utilities Element, Policy UT.2.1.

Policy T.3.10 *Provide education on safe non-motorized travel.*

Policy T.3.11 *Enforce motorized and non-motorized safety laws.*

Policy T.3.12 *Create and support a multi-modal traffic safety and management plan specific to Sammamish's location and geography as a long term strategy to reduce traffic accidents and potential fatalities using street designs that emphasize safety, predictability, and the potential for human error, along with targeted education and data-driven enforcement.*

For more information, see the Collision Analysis Section in Volume II.T, page T.29 and Background Figure T–8 on page T.30.

Financial

Policy T.3.13 *Consider transportation investments that provide and encourage alternatives to single-occupancy vehicle travel and increase travel options, especially to and within commercial and mixed use areas and along corridors served by transit.*

For more information, see the Financing Section in Volume II.T, page T.50.

228th Ave NE

Policy T.3.14 *Consider prioritizing investments in transportation facilities and services that support compact, pedestrian- and transit-oriented development.*

Policy T.3.15 *Focus on investments that produce the greatest net benefits to people and minimize the environmental impacts of transportation.*

Policy T.3.16 *Encourage public and private sector partnerships to identify and implement improvements to personal mobility.*

Policy T.3.17 *Utilize transportation financing methods that sustain maintenance, preservation, and operation of facilities.*

Policy T.3.18 *Consider transportation impact fees for the expansion of multi-modal transportation capital facilities necessary to support growth.*

Policy T.3.19 *Consider city financing methods that sustain or expand local transit service.*

Policy T.3.20 *Maintain a balance between available revenue and needed capital facilities. If funding is inadequate, to finance needed capital facilities, seek to identify additional funding, adjust the level-of-service standards, and, lastly, adjust land use assumptions.*

For more information, see the Contingency Plans in the Event of Revenue Shortfall Section in Volume II.T, page T.51.

Policy T.3.21 *A multiyear financing plan should serve as the basis for the six-year transportation improvement program and should be coordinated with the state's six-year transportation improvement program.*

Goal T.4 Sustainability

Design and manage the city's transportation system to minimize the negative impacts of transportation on the natural environment, to promote public health and safety, and to achieve optimum efficiency.

Sustainability and Natural Environment

Policy T.4.1 *Foster a less polluting system that reduces the negative effects of transportation infrastructure and operation on the climate, natural environment and residents.*

Policy T.4.2 *Require where feasible the use of rain gardens and other techniques to reduce pollutants in storm drains.*

Policy T.4.3 *Seek the development and implementation of transportation modes and technologies that are energy-efficient, reduce vehicular emissions, support regional and national efforts and improve vehicular traffic flow, and overall system flow and performance.*

240th Ave NE

Policy T.4.4 *Encourage transportation system development that minimizes existing tree canopy removal and replaces any necessary tree removal along traffic rights of way.*

Policy T.4.5 *Design and operate transportation facilities in a manner that is compatible with and integrated into the natural and built environment including features, such as natural drainage, native plantings, and local design themes.*

Policy T.4.6 *Where financially feasible, promote the expanded use of alternative fuel vehicles by converting public fleets, applying public incentive programs, and encouraging the establishment of electric vehicle charging stations throughout the city where appropriate.*

Electric vehicle charging station at City Hall

Policy T.4.7 *Plan and develop a transportation system that reduces greenhouse gas emissions by shortening average trip length by encouraging trip consolidation and improving arterial traffic flows. Where practical, encourage replacement of vehicle trips with other modes of transportation to decrease vehicle miles traveled.*

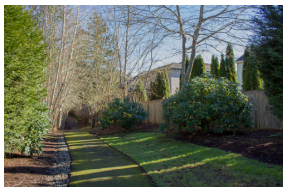
Residents walking in northwest Sammamish

Human Health and Safety

Policy T.4.8 *Integrate the needs of pedestrians and bicyclists in the local and regional transportation plans and systems.*

Policy T.4.9 *Develop a transportation system that minimizes negative impacts to human health, including exposure to environmental toxins generated by vehicle emissions, noise, or a lack of non-motorized options.*

Policy T.4.10 *Ensure continued maintenance and preservation of existing equestrian/pedestrian trails in Sammamish.*



Trails connect neighborhoods to local parks throughout Sammamish

Balancing Costs and Human Impacts of Transportation

Policy T.4.11 *Ensure mobility choices for people with special transportation needs, including persons with disabilities, the elderly and the young, and low-income populations.*

Exhibit 5 - Clean version, 7/10/18

Background Information

TRANSPORTATION

soap box derby —

someone's front wheel

a little wobbly

Painting by Anna Macrae
Haiku by Michael Dylan Welch

Background Information

TRANSPORTATION

The purpose of the Transportation Element is to establish goals and policies that will guide the development of surface transportation in the City of Sammamish, in a manner consistent with the overall goals of the Comprehensive Plan. Based upon existing and projected land use and travel patterns, the Transportation Element Background Information addresses roadway classifications, levels of service, transit and non-motorized modes, future travel forecasts, transportation system improvements, financing strategies, and concurrency management. It establishes the technical basis for transportation system development, and for existing and future improvement of transportation programs and facilities guided by the Transportation Polices of the Comprehensive Plan.

Planning Context

The Plan's Transportation Element has been developed to be consistent with transportation policy and plans that have been adopted at the State and local levels, as described in the following sections.

State of Washington

Growth Management Act

Transportation planning at the State, County and local levels is mandated by the State of Washington Growth Management Act (GMA) [RCW 36.70A]. The GMA contains many requirements for the preparation of a Comprehensive Plan's Transportation Element. In addition to requiring consistency with the land use element, specific GMA requirements for a Transportation Element include [RCW 36.70A.070(6)]:

- Inventory of facilities by mode of transport.
- Level-of-service standards to aid in determining the existing and future operating conditions of the facilities.
- Proposed actions to bring deficient facilities into compliance with adopted level-of-service standards.
- Traffic forecasts, based upon land use.
- Identification of transportation infrastructure needs to meet current and future demands.
- Funding analysis for needed improvements, as well as possible additional funding sources.
- Identification of intergovernmental coordination efforts.
- Identification of transportation demand management strategies as available.
- Identification of improvements for pedestrian and bicycle facilities and corridors.

In addition to these elements, GMA mandates that development cannot occur unless infrastructure exists, infrastructure improvements or strategies are concurrent with development, or a financial commitment is in place to complete the improvements or strategies within six years. In addition to construction of new capital facilities, infrastructure may include transit service, ride share programs, transportation demand management (TDM) strategies, or transportation system management (TSM) strategies.

Washington Transportation Plan

The Washington Transportation Plan (WTP) 2030 presents the State of Washington's strategy for implementation programs and budget development over a 20-year planning horizon. The WTP contains an overview of the current conditions of the statewide transportation system, as well as an assessment of the State's future transportation investment needs. The WTP policy framework sets the course for meeting those future needs. The WTP is based on the following six transportation policy goals:

- Economic Vitality: To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy.
- Preservation: To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services;
- Safety: To provide for and improve the safety and security of transportation customers and the transportation system;
- Mobility: To improve the predictable movement of goods and people throughout Washington state;
- Environment: To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment; and
- Stewardship: To continuously improve the quality, effectiveness, and efficiency of the transportation system.

The WTP addresses the essential and interconnected roles of the Regional Planning Organizations and their local jurisdictions, and the important transportation issues of tribal governments in Washington State. It highlights the role of the Washington State Department of Transportation (WSDOT) to maintain, preserve and improve the transportation system while meeting the other societal goals defined above.

Puget Sound Region

Puget Sound Regional Council—*Transportation 2040*

Transportation 2040 is a 30-year action plan for transportation in the central Puget Sound Region (King, Pierce, Snohomish, and Kitsap Counties). The plan identifies investments to support growth and improve transportation services to people and businesses, provides a financing plan for funding transportation improvements, and proposes strategies for reducing environmental impacts. *Transportation 2040* establishes three integrated and sustainable strategies: congestion and mobility; environment; and funding. These three strategies are then broken into four major investment categories that pertain to maintaining existing services; enhancing safety and security; improving system efficiency through travel demand management (TDM); and implementing strategic capacity investments for all travel modes and facilities.

Transportation 2040 is an offshoot of the *Vision 2040* plan whose fundamental goal is to focus growth in urban areas to maintain and promote the well-being of people and communities, economic vitality, and a healthy environment (PSRC 2014).

King County

2012 King County Planning Policies

Supporting Growth

An effective transportation system is critical to achieving the Regional Growth Strategy and ensuring that centers are functional and appealing to the residents and businesses they are designed to attract.

> *Goal Statement: Local and regional development of the transportation system is consistent with and furthers realization of the Regional Growth Strategy.*

Mobility

Mobility is necessary to sustain personal quality of life and the regional economy. For individuals, mobility requires an effective transportation system that provides safe, reliable, and affordable travel options for people of all ages, incomes and abilities. While the majority of people continue to travel by personal automobile, there are growing segments of the population (e.g. urban, elderly, teens, low income, minorities, and persons with disabilities) that rely on other modes of travel such as walking, bicycling, and public transportation to access employment, education and training, goods and services.

The movement of goods is also of vital importance to the local and regional economy. International trade is a significant source of employment and economic activity in terms of transporting freight, local consumption, and exporting of goods.

> *Goal Statement: A well-integrated, multi-modal transportation system transports people and goods effectively and efficiently to destinations within the region and beyond.*

System Operations

The design, management and operation of the transportation system are major factors that influence the region's growth and mobility.

> *Goal Statement: The regional transportation system is well-designed and managed to protect public investments, promote public health and safety, and achieve optimum efficiency.*

King County Metro Strategic Plan for Public Transportation 2011–2021

The King County Strategic Plan for Public Transportation 2011–2021 describes a vision for the county's future transportation system and sets objectives, goals, and strategies for getting there. The plan is consistent with other regional and countywide policies and plans, such as *Vision 2040*. Strategies to achieve Metro's goals are as follows:

- Increase safety and security in public transportation operations and facilities.
- Increase travel opportunities and public transportation products to serve appropriate markets (including low-income, elderly, and students) and mobility needs.
- Provide travel options and alternatives to regular fixed route-transit, such as ridesharing and other alternative or "right-sized" services.
- Expand services to account for the region's growing population and serve new transit markets.
- Support CTR and TDM strategies for employers, local jurisdictions, and other agencies.
- Enhanced service to and within jurisdictions that aggressively implement local land use plans, growth management strategies, and transit-oriented development.
- Design and modification of services and infrastructure to be more efficient and effective.
- Coordinate with Sound Transit, Community Transit, Pierce Transit, and the Washington State Ferry System to provide integrated efficient service to major destinations throughout the region.
- Improve access for pedestrians (with and without disabilities) and bicyclists, as well as the waiting environment at transit facilities with the highest use.
- Provide service that is easy to understand and use and promote. (King County Metro 2013)

Sound Transit

Sound Transit 2 expands mass transit with the addition of more regional express transit and link light rail and commuter rail service. This second mass transit phase builds onto the Sound Move strategic program, approved by voters in 1996. Sound Transit 2 expands the link light rail system to include link light rail from North Seattle into Snohomish County (Sound Transit 2008).

Inventory and Existing Conditions

The primary objective of this section of the report is to assess existing traffic conditions within and adjacent to the City of Sammamish. In order to identify existing traffic conditions, a comprehensive data collection process has been undertaken. The data was primarily collected from the City of Sammamish, King County, and WSDOT. The assessment of existing conditions serves as a baseline for measurement of capacity for future land use and transportation planning.

The following categories are included in this section:

- Identification of State Highways;
- Roadway Inventory;
- Traffic Signal Inventory;
- Roadway Design Standards;
- Traffic Level-of-Service Analysis;
- Analysis of Access to the city;
- Traffic Calming;
- Current Six-Year Transportation Improvement Program (TIP);
- Existing Transit Service; and
- Existing Non-Motorized Conditions.

Identification of State Highways

Identification of State Highways

No state highways are located within Sammamish city limits. However, three State-controlled highways, Interstate 90 (I-90), State Route 520 (SR 520), and State Route 202 (SR 202) provide the primary means of access into and out of the city. Improvements on these facilities will highly impact traffic conditions in Sammamish and in turn, conditions on the highways will be impacted by transportation conditions and improvements in Sammamish.

I-90 is a limited-access freeway that consists of three lanes in each direction and runs east-west, approximately one mile south of the southern Sammamish city limits. From just west of Issaquah to Seattle, I-90 also has an HOV lane in each direction. I-90 serves as the primary east-west freeway for regional travel within and beyond western Washington. To the west, it provides direct connection to the Cities of Bellevue, Mercer Island, and Seattle. To the east, it serves as the major east-west freeway across the State

of Washington, connecting to Spokane at the eastern state border, and running beyond to the eastern coast of the United States.

SR 520 is a limited access freeway that consists primarily of two to three lanes in each direction and runs east west between the Cities of Redmond, Bellevue and Seattle. There are HOV lanes present along various stretches of this highway, but these lanes are not continuous.

SR 202, which runs adjacent to the northern Sammamish city limits, connects to SR 520 west of the city. SR 202 (also called Redmond-Fall City Road in the area adjacent to Sammamish) consists of one lane in each direction, widening to two lanes in each direction west of Sahalee Way. SR 520/SR 202 is the primary east-west highway alternative to I-90. This highway corridor provides direct connection to the Cities of Redmond, Bellevue, Kirkland, and Seattle to the west, and to the Cities of Snoqualmie and North Bend to the east.

Both I-90 and SR 520 connect directly to Interstate 405 (I-405) and Interstate 5 (I-5) to the west, which are the primary north-south freeways within the region.

Highways of Statewide Significance

In 1998, Highways of Statewide Significance (HSS) legislation was passed by the Washington State Legislature and codified as RCW 47.06.140. Highways of Statewide Significance are those facilities deemed to provide and support transportation functions that promote and maintain significant statewide travel and economic linkages. The legislation emphasizes that these significant facilities should be planned from a statewide perspective (WSDOT 2004). Thus, level-of-service requirements for HSS highways are established by WSDOT, not by local standards.

Adjacent to the City of Sammamish, I-90 carries the HSS designation (Washington State Transportation Commission 2004) and thus is controlled by State level-of-service requirements. Additionally, SR 520 is also identified as an HSS.

Roadway Inventory

Roadway Functional Classification and Inventory

Transportation roadway systems consist of a hierarchy of streets that provide the dual functions of access to land and development, and through movement for travelers. Streets are classified based upon

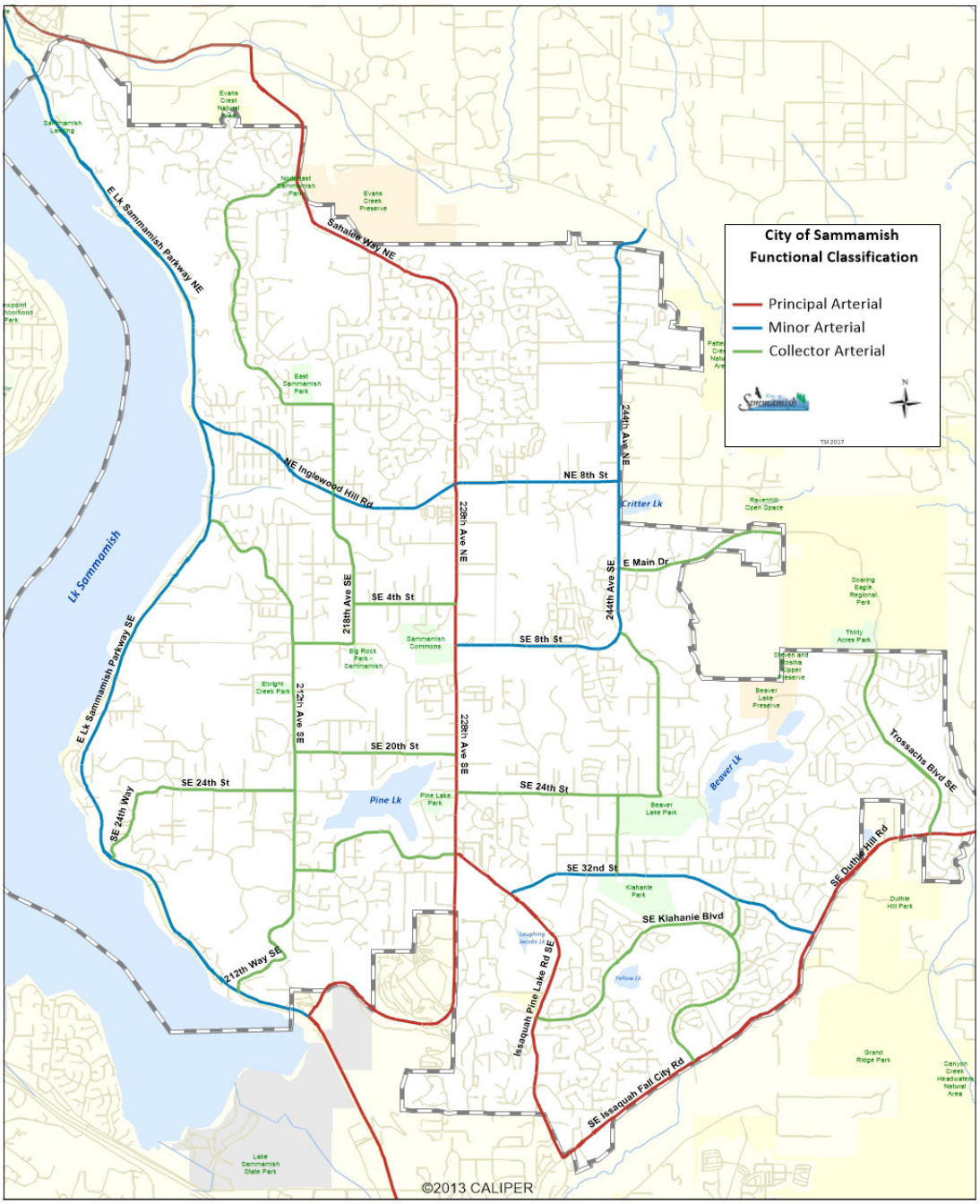
the relative degree to which they provide these functions. Land use policies and street standards typically vary according to the street function. For example, most jurisdictions designate minimum right-of-way requirements, stopping and entering sight distances, roadway width, design speed, design traffic volumes, access control, and sidewalk requirements in accordance with an adopted classification system. These requirements are usually codified in the jurisdiction's municipal code and/or adopted as street standards.

Based on state law, cities and counties are required to adopt a street classification system that is consistent with state and federal guidelines. In the State of Washington, these requirements are codified in RCW 35.78.010 and RCW 47.26.090. Each local jurisdiction is responsible for defining its transportation system into the following functional classifications: freeway, principal arterial, minor arterial, and collector. All other roadways are assumed to be local access streets.

Background Figure T–1 shows the existing classification of roadways for the City of Sammamish. The classifications are summarized as follows:

- **Freeways/Interstates** are multi-lane, high-speed, high-capacity roadways intended exclusively for motorized traffic. All access is controlled by interchanges and bridges separate road crossings. While I-90 to the south and SR 520 to the northwest are classified as freeways, no roadways of this designation exist within the city limits.
- **Principal Arterials** are roadways connecting between major community centers and facilities, and are often constructed with limited direct access to abutting land uses. Principal arterials serve high-volume corridors, carrying the greatest portion of through or long-distance traffic within a city. The selected routes should provide an integrated system for complete circulation of traffic, including ties to the major rural highways entering the urban area. There is an estimated 11 miles of principal arterial roads in the city. The following is a list of roadways currently designated as principal arterials in the City of Sammamish:
  - Sahalee Way NE, between 228th Ave NE and the north city limits;
  - 228th Ave, between SE 43rd Way and Sahalee Way NE;
  - SE 43rd Way, between the south city limits and 228th Ave SE;
  - Issaquah-Pine Lake Rd SE, between city limits and 228th Ave SE;
  - SE Issaquah-Fall City Rd, between city limits and SE

Background Figure T–1
Existing Roadway Inventory and Functional Classifications



Duthie Hill Rd; and
  - SE Duthie Hill Rd, between Issaquah-Fall City Rd and the east city limits.

- **Minor Arterials** are roadways connecting centers and facilities within the community and serving some through traffic, while providing a greater level of access to abutting properties. Minor arterials connect with other arterial and collector roads extending into the urban area, and serve less concentrated traffic-generating areas, such as neighborhood shopping centers and schools. These road also serve as boundaries to neighborhoods and collect traffic from collector streets. Although the predominant function of minor arterial streets is the movement of through traffic, they also provide for considerable local traffic with origins or destinations at points along the corridor. The following is a list of roadways currently designated as minor arterials in the City of Sammamish:
  - E Lake Sammamish Pkwy, between the south city limits and the north city limits;
  - NE Inglewood Hill Rd, between E Lake Sammamish Pkwy and 228th Ave NE;
  - NE 8th St, between 228th Ave NE and 244th Ave NE;
  - SE 8th St, between 228th Ave SE and 244th Ave SE;
  - 244th Ave NE, between SE 8th St and E Main Dr;
  - 244th Ave SE, between SE 8th St and the north city limits;
  - SE 32nd Way/SE 32nd St-SE Issaquah Beaver Lk Rd, between Issaquah-Pine Lake Rd SE and SE Issaquah-Fall City Rd/SE Duthie Hill Rd.

- **Collector Arterials** are roadways that connect two or more neighborhoods or commercial areas, while also providing a high degree of property access within a localized area. These roadways "collect" traffic from local neighborhoods and carry it to the arterial roadways. Additionally, collector arterials provide direct access to services and residential areas, local parks, churches and areas with similar uses of the land. Collector arterials may be separated into principal and minor designations according to the degree of travel between areas and the expected traffic volumes. The following is a list of roadways currently designated as collector arterials in the City of Sammamish:
  - NE 37th Way-205th Pl NE/NE 16th St, between Sahalee

Way NE and 216th Ave NE;
- 216th Ave NE, between NE Inglewood Hill Rd and NE 16th St;
- Louis Thomson Rd, between 212th Ave SE and East Lake Sammamish Pkwy NE;
- 212th Ave, between E Lk Sammamish Pkwy SE and Louis Thomson Rd;
- SE 8th St, between 212th Ave SE and 218th Ave SE;
- 218th Ave SE, between SE 8th St and SE 4th St;
- SE 4th St, between 218th Ave SE and 228th Ave SE;
- 248th Ave SE, between SE 24th St and SE 14th St;
- E Main Dr, between 244th Ave SE and the east city limits;
- SE 20th St, between 212th Ave SE and 228th Ave SE;
- SE 24th Way/SE 24th St, between E Lk Sammamish Pkwy SE and 212th Ave SE;
- SE 24th St, between 228th Ave SE and 248th Ave SE;
- Trossachs Boulevard SE, between SE Duthie Hill Rd and the north city limits;
- SE Windsor Blvd, between SE 8th St and SE 14th St;
- South Pine Lake Route (SE 32nd St-216th Ave SE-SE 28th St-222nd Pl SE-SE 30th St), between 212th Ave SE and 228th Ave SE;
- 244th Ave SE, between SE 24th St and SE 32nd St;
- SE Klahanie Blvd/Klahanie Dr SE, between Issaquah-Pine Lake Rd SE and SE Issaquah-Fall City Rd;
- 256th Ave SE, between SE Issaquah-Beaver Lake Rd and SE Klahanie Blvd; and
- 218th Ave SE-217th Ave NE-216th Ave NE, between SE 4th St to Inglewood Hill Rd.

Background Table T–1 provides a comparison of the City of Sammamish arterial and collector roadway miles to Federal Highway Administration (FHWA) guidelines (FHWA 1989), which must be followed to qualify the City of Sammamish streets for State and Federal grant programs.

The topography and development patterns within the City of Sammamish limit opportunities to add Principal or Minor Arterial routes. Some additional Collector mileage could be added and the totals would still remain within the FHWA guidelines.

Background Table T–1
Miles of Roadway by Functional Classification

FUNCTIONAL CLASSIFICATION	EXISTING MILES OF ROADWAY IN SAMMAMISH[1]	TYPICAL RANGE OF PERCENTAGE OF TOTAL ROADWAY[2]	TYPICAL RANGE OF MILES BASED UPON FHWA GUIDELINES
Freeway & Principal Arterial	14	5%–10%	10–20
Minor Arterial	16	10%–15%	16–24
Collector Arterial	21	5%–10%	8–16
Non-Arterial Street	157	—	135–167
TOTAL	208	—	207

Traffic Signal and Roundabout Intersection Inventory

An inventory of the signalized and roundabout intersections, and those with four way flashers within and nearby the City of Sammamish was conducted. The locations are illustrated in Background Figure T–2, and are the intersections that most directly affect City of Sammamish residents' travel patterns.

Freight Routes

See Volume I, Transportation Element Policy T.1.5 on page 86.

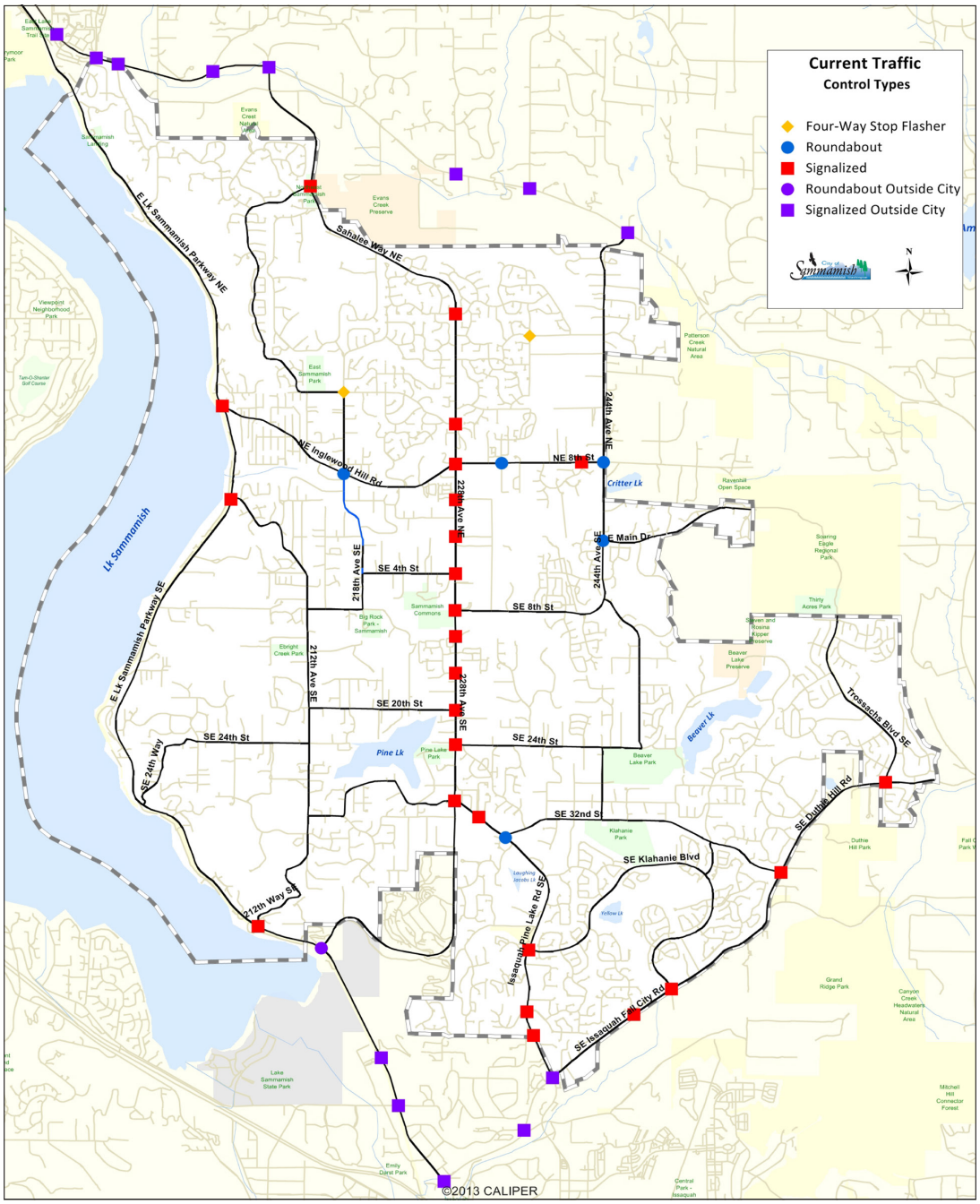
Freight destined to and from Sammamish is associated primarily with retail oriented commercial developments in the city. There are no significant industrial, manufacturing, or import/export freight generators in the city. Limited through freight associated with FedEx sorting facilities in Issaquah to the south and UPS sorting facilities in Redmond to the north travel through the city. Freight traffic uses two corridors. Through freight typically uses East Lake Sammamish Parkway and local freight traffic uses Sahalee Way/228th Ave. Background Figure T–3 shows these routes.

See Volume I, Transportation Element Policy T.3.4 on page 90.

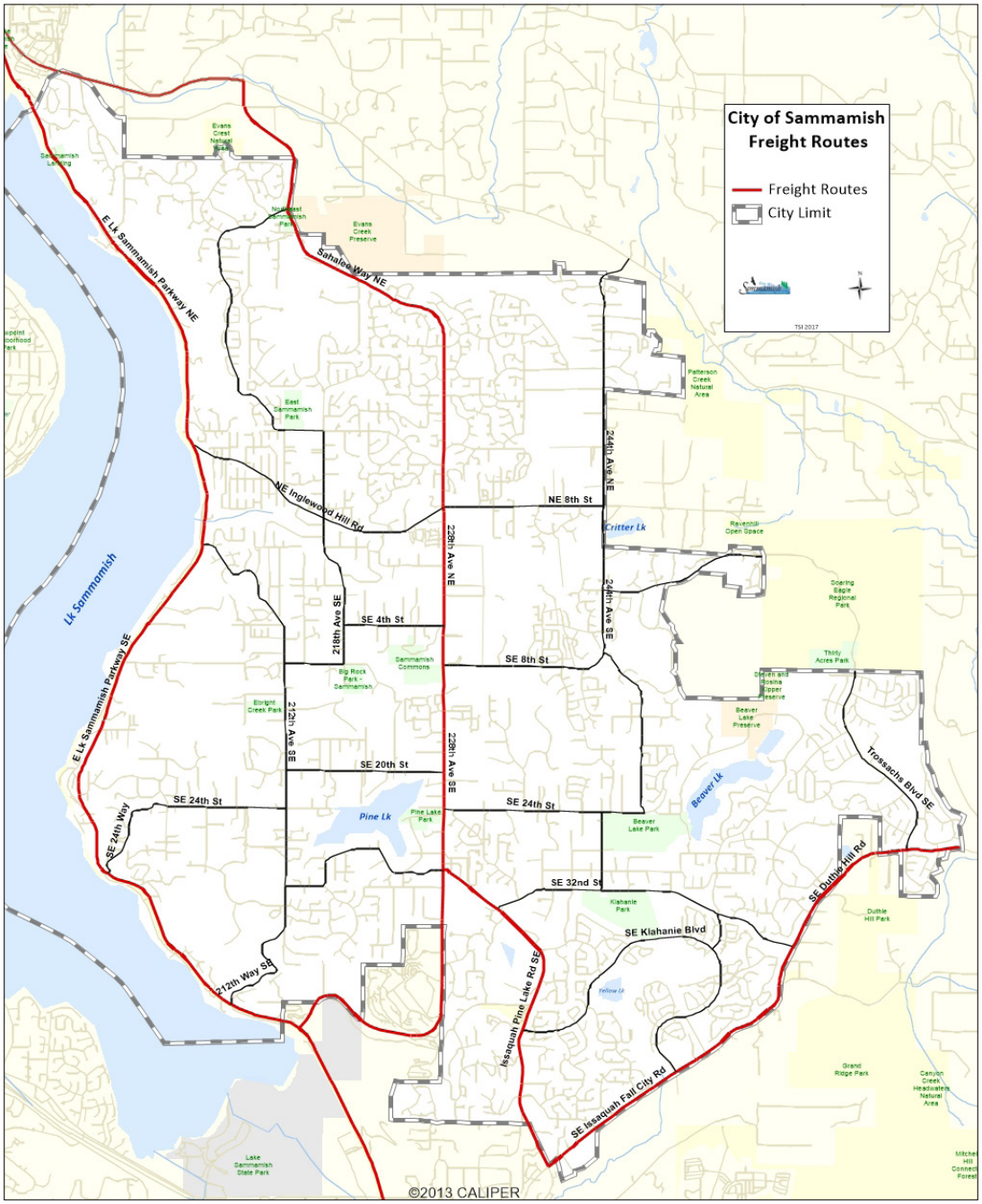
Roadway Design Standards

The City has adopted standards for development of City streets, as documented in the *2016 Public Works Standards* (December 31, 2016). As the city reconstructs roadways to improve vehicular capacity and safety, they will become more urban in nature. The Goals, Objectives and Policies of the Transportation Element relate street design to the desires of the local community, and advise that design be at a scale commensurate with the function that the street serves. Guidelines are therefore important to provide designers with essential elements of street design as desired by the community.

Background Figure T–2
2016 Signal, Roundabout, and Four-Way Flasher Locations



Background Figure T–3
Freight Routes



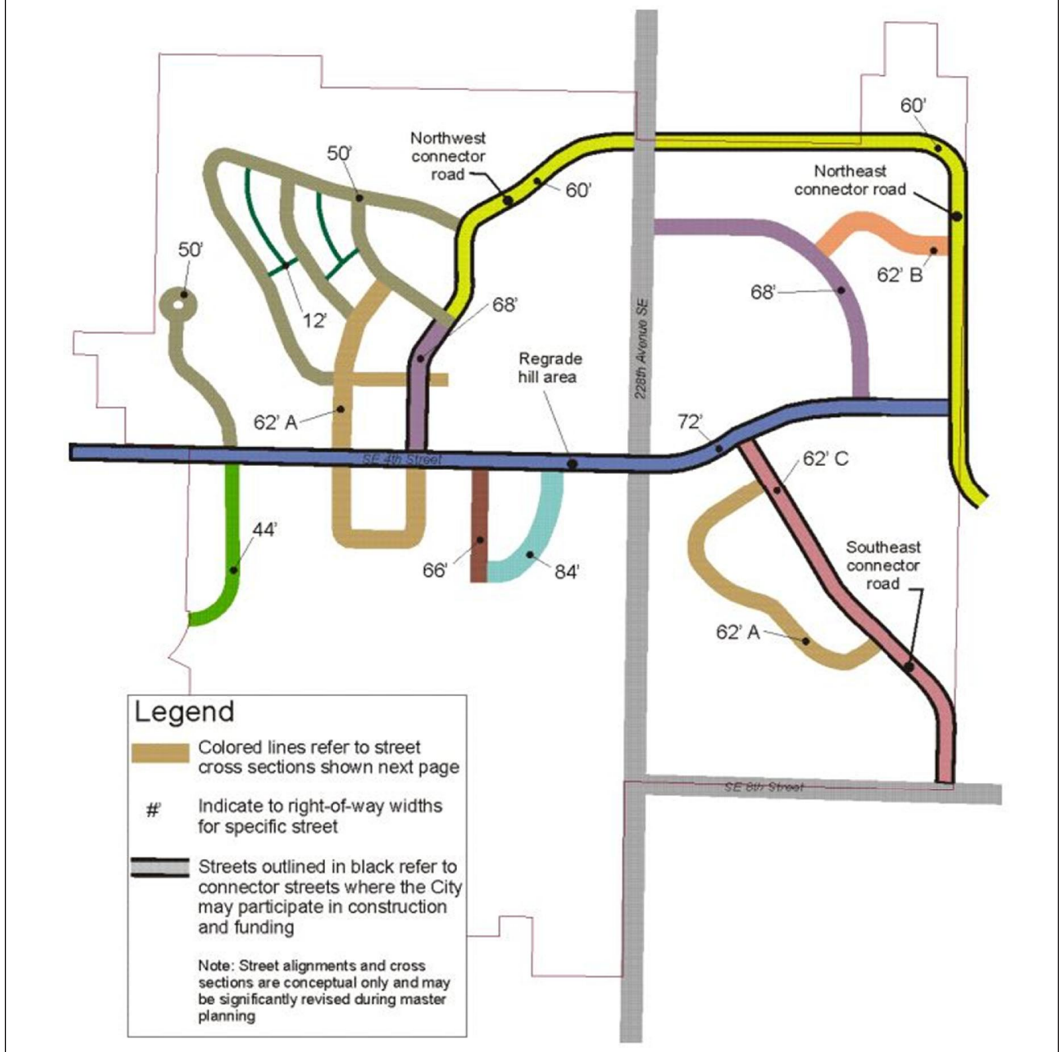
In June 2008, the City of Sammamish adopted the Sammamish Town Center Plan. The Town Center Plan established policy direction that amends the previous Comprehensive Plan. The Town Center provides a central area for the increased residential and commercial densities. Transportation improvements associated with the Town Center are intended to provide safe, efficient and attractive connections to central uses and amenities, minimize congestion impacts within the Town Center and surrounding areas, and promote alternative travel modes. To support the Town Center Plan improvement concepts including roadway cross-sections specific to roadways supporting the Town Center were developed. Background Figure T–4 and Background Figure T–5 illustrate the conceptual Sammamish Town Center street cross-sections (Sammamish Town Center Plan June 2008).

Traffic Counts

Daily traffic counts were collected in 2016 at 74 locations throughout the city. Average weekday daily traffic (AWDT) counts were calculated by averaging the daily traffic counts of Monday, Tuesday, Wednesday, Thursday, and Friday during a typical week. Locations and volumes for existing AWDTs are listed in Background Table T–2 and illustrated in Background Figure T–6. The highest traffic volumes shown occur near 228th Ave SE/SE 10th Street and 228th Ave SE/SE 20th Street.

In addition, intersection turning movement counts were collected at 43 locations during the AM and PM peak hours within the city in 2016. These counts were collected during a Tuesday and Thursday in April and May, in order to reflect typical weekday conditions. These counts consider vehicle traffic volumes making each turn movement during the AM and PM peak hours. These counts are collected manually and are further described in the following section.

Background Figure T–4
Sammamish Town Center Plan Roadway Locations



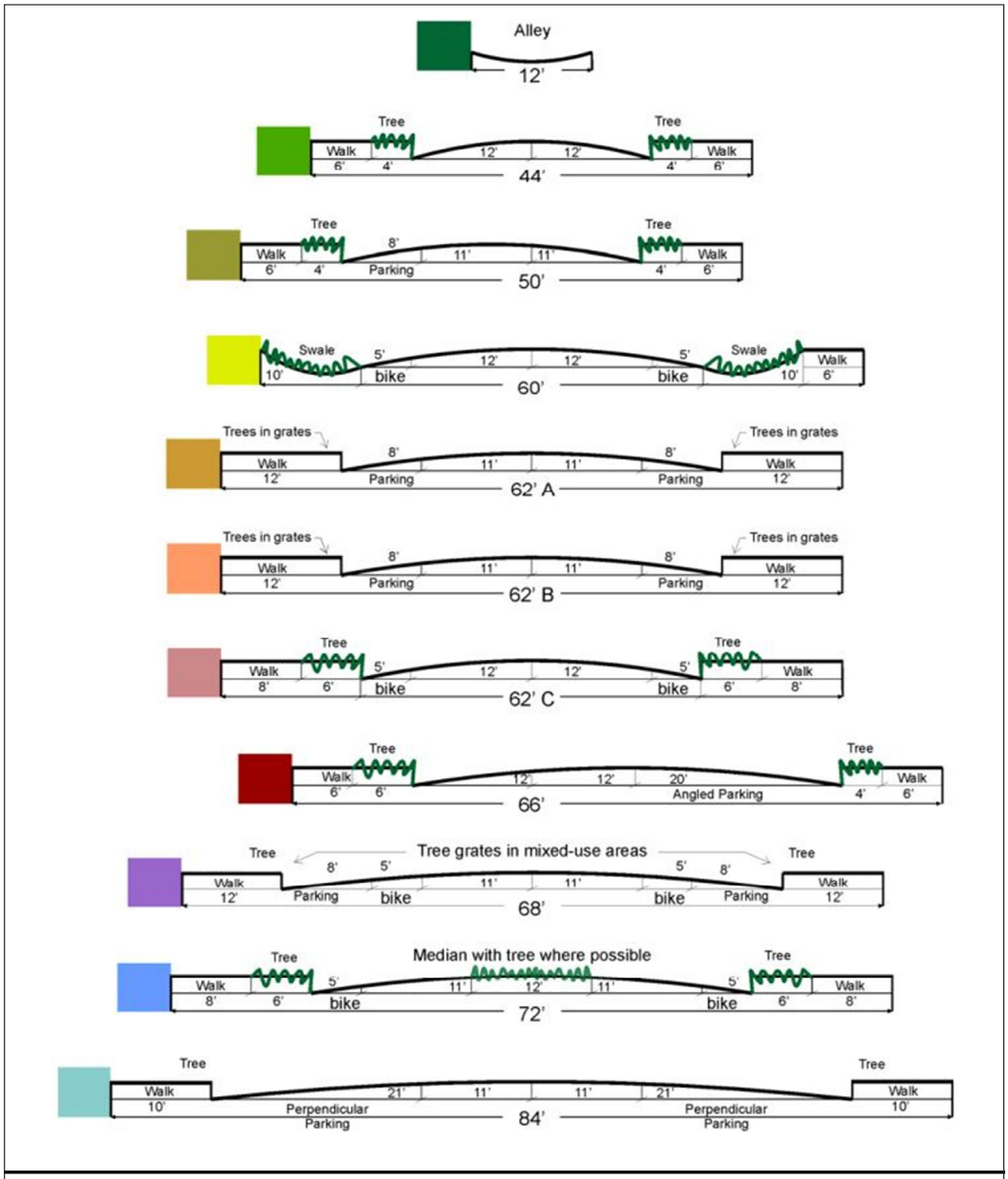
Conceptual Sammamish Town Center Streets Layout

N

SOURCES: City of Sammamish 2014
DISCLAIMER: This map is derived from various data sources. While care has been taken to ensure the accuracy of the information shown on this page, the City of Sammamish assumes no responsibility or liability for any errors or ommissions in this information. This map is provided "as is."

Figure 4

Background Figure T–5
Sammamish Town Center Plan Roadway Standards



Conceptual Sammamish Town Center Street Cross-Section

SOURCES: City of Sammamish 2014
DISCLAIMER: This map is derived from various data sources. While care has been taken to ensure the accuracy of the information shown on this page, the City of Sammamish assumes no responsibility or liability for any errors or ommissions in this information. This map is provided "as is."

Figure 5

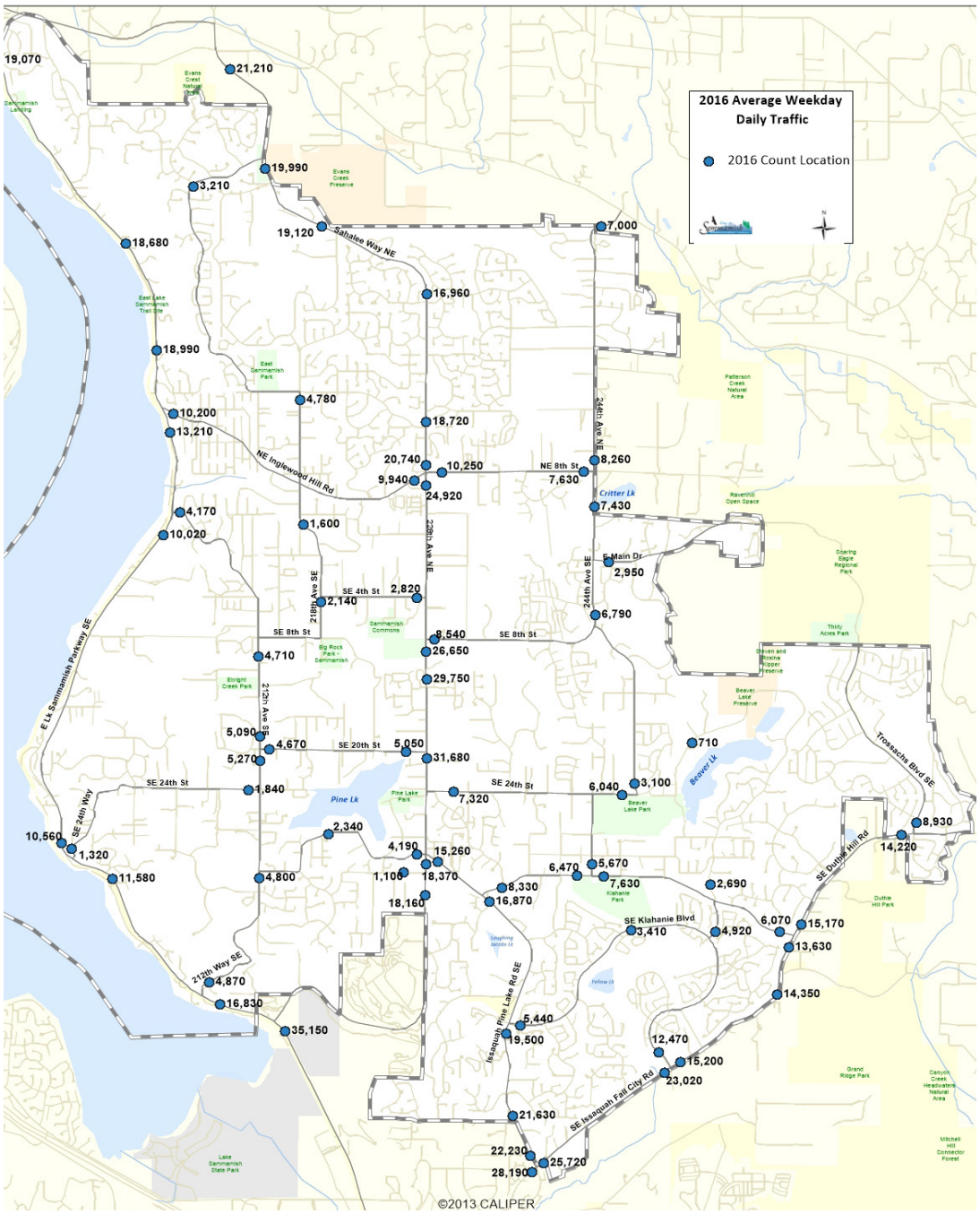
Background Table T–2
2016 Average Weekday Daily Traffic (AWDT)

	LOCATION	2016 AWDT
1	East Lake Sammamish Parkway NE, south of 187th Avenue NE	19,070
2	Sahalee Way SE, south of NE 50th Street	21,210
3	244th Ave NE, south of SR-202	7,000
4	East Lake Sammamish Parkway SE, south of Louis Thompson Road	10,020
5	212th Avenue SE, south of SE 8th Street	4,710
6	228th Avenue SE, south of SE 10th Street	29,750
7	East Lake Sammamish Parkway, south of 212th Avenue SE	16,830
8	228th Avenue SE, south of SE 32nd Street	18,160
9	Issaquah-Pine Lake Road, east of 228th Avenue SE	15,260
10	244th Avenue SE, north of SE 32nd Street	5,670
11	Beaver Lake Drive SE, north of Issaquah-Beaver Lake Road	2,690
12	SE Duthie Hill Road, north of Issaquah-Beaver Lake Road	15,170
13	East Lake Sammamish Parkway, south of SE 43rd Way	35,150
14	Issaquah-Fall City Road, southwest of Issaquah-Pine Lake Road	28,190
15	Issaquah-Pine Lake Road, south of SE Klahanie Boulevard	19,500
16	Trossachs Boulevard SE, north of SE Duthie Hill Road	8,930
17	East Lake Sammamish Parkway, south of NE Inglewood Hill Road	13,210
18	East Lake Sammamish Pkwy, north of NE 18th Place	18,990
19	East lake Sammamish Parkway, south of SE 32nd Street	11,580
20	NE Inglewood Hill Road, east of East Lake Sammamish Parkway	10,200
21	NE 8th Street, east of 228th Avenue NE	10,250
22	228th Avenue NE, north of NE 8th Street	20,740
23	228th Avenue NE, south of NE Inglewood Hill Road/NE 8th Street	24,920
24	228th Avenue SE, south of SE 8th Street	26,650
25	212th Avenue SE, south of SE 20th Street	5,270
26	228th Avenue SE, south of Issaquah-Pine Lake Rd	18,370
27	SE 20th Street, west of 228th Avenue SE	5,050
28	SE 28th Street, east of 218th Avenue SE (South Pine Lake Route)	2,340
29	SE 8th Street, east of 228th Ave SE	8,540
30	SE 24th Street, east of Audubon Park Drive	7,320
31	244th Avenue SE, north of SE Windsor Boulevard	6,790
32	East Main Drive, east of 244th Avenue SE	2,950
33	244th Avenue NE, north of NE 8th Street	8,260
34	NE 8th Street, west of 244th Avenue NE	7,630
35	South Pine Lake Route (Issaquah-Pine Lake Rd ext), west of 228th Ave SE	4,190
36	West Beaver Lake Drive SE, south of SE 18th Place	710
37	205th Place NE, south of NE 37th Way	3,210

Background Table T–2
2016 Average Weekday Daily Traffic (AWDT) (cont.)

	LOCATION	2016 AWDT
38	SE 4th Street, west of 228th Avenue SE	2,820
39	248th Avenue SE, north of SE 24th Street	3,100
40	244th Ave NE, north of NE 3rd Way (on bridge)	7,430
41	216th Avenue NE, south of NE 16th Street	4,780
42	217th Avenue NE, south of NE 4th Street	1,600
43	218th Avenue SE, south of SE 4th Street	2,140
44	Louis Thompson Road NE, east of East Lake Sammamish Parkway NE	4,170
45	212th Way SE, east of East Lake Sammamish Parkway SE	4,870
46	SE 32nd Street, west of 228th Avenue SE	1,100
47	SE 32nd Street, west of 244th Avenue SE	6,470
48	SE Issaquah-Beaver Lake Road, west of SE Duthie Hill Road	6,070
49	SE 32nd Street, east of 244th Avenue SE	7,630
50	SE Duthie Hill Road, south of SR-202	7,530
51	East Lake Sammamish Parkway NE, south of NE 30th Street	18,680
52	East Lake Sammamish Parkway SE, north of SE 24th Way	10,560
53	SE 24th Way, east of East Lake Sammamish Parkway SE	1,320
54	212th Avenue SE, north of SE 20th Street	5,090
55	212th Avenue SE, south of SE 32nd Street	4,800
56	SE 20th Street, east of 212th Avenue SE	4,670
57	Sahalee Way NE, north of NE 25th Way	16,960
58	228th Avenue NE, north of NE 12th Place	18,720
59	228th Avenue SE, south of SE 20th Street	31,680
60	Issaquah-Pine Lake Road, south of SE 32nd Way	16,870
61	Issaquah-Pine Lake Road SE, north of SE 48th Street	21,630
62	SE 32nd Way, east of Issaquah-Pine Lake Road SE	8,330
63	SE Klahanie Boulevard, east of Issaquah-Pine Lake Road SE	5,440
64	SE 24th Street, west of 244th Avenue SE	6,040
65	SE Issaquah-Fall City Road, northeast of Issaquah-Pine Lake Road SE	25,720
66	SE Issaquah-Fall City Road, west of Klahanie Drive SE	23,020
67	SE Issaquah-Fall City Road, east of Klahanie Drive SE	15,200
68	Klahanie Drive SE, north of SE Issaquah-Fall City Road	12,470
69	SE Klahanie Boulevard, northeast of SE 37th Street	3,410
70	SE Issaquah-Fall City Road, south of SE Duthie Hill Road	14,350
71	SE Duthie Hill Road, south of SE Issaquah-Beaver Lake Road	13,630
72	SE Duthie Hill Road, west of Trossachs Boulevard SE	14,220
73	Sahalee Way NE, south of NE 37th Way	19,990
74	Sahalee Way NE, south of 217th Place NE	19,120

Background Figure T–6
2016 Average Weekday Daily Traffic



Traffic Intersection Operations Models

The City uses the Synchro and SIDRA software programs to analyze intersection operations. These models are leading traffic capacity software programs used to analyze signalized, stop-controlled, and roundabout intersections, and they support the methodologies recommended by the Highway Capacity Manual.

Model outputs are used to evaluate concurrency, predict intersection capacity and delays, inform signal timing plan options to optimize intersection operations, and evaluate potential solutions for a failing intersection. Notwithstanding these uses, there are limitations to the use of these models, including their accuracy in predicting delays and queues when the backup is caused by a downstream intersection; andas well as accurately measuring delays when intersections are overcapacity.

Traffic Level-of-Service Analysis

See Volume I, Transportation Element Policy T.1.3 on page 86.

Level-of-Service (LOS) is the primary measurement used to determine the operating condition of an intersection. LOS is determined by the average delay of all approaches for signalized, roundabouts (RAB), and all way stop-controlled intersections. The LOS for side-street stop-controlled intersections is determined by the average delay for the worst minor approach, or left turn movement of the major street. The following section describes the traffic counts volumes that were collected, the approaches used for intersection LOS analysis, and the results of the analyses under existing conditions.

The Highway Capacity Manual (HCM) is the recognized source for the techniques used to measure transportation facility performance. Using the HCM procedures, the quality of controlled intersection operations is graded into one of six levels-of-service: A, B, C, D, E, or F.

Intersection Level of Service

The intersection level of service (LOS) is calculated using the standard analysis procedures described in this section for the AM and PM peak hours. Intersections with LOS' below the defined standards will be considered deficient. For intersections of roadways with different functional classifications, the standard for the higher classification applies to the entire intersection.

The intersection LOS standards adopted in this Transportation Element are LOS C for intersections that include Minor Arterial or Collector Arterial roadways, and LOS D or E for intersections that include Principal Arterials. Attaining LOS D at major intersections with high approach volumes can result in large intersections with exclusive right-turn lanes, double left-turn lanes and additional through lanes. While these improvements reduce delays for vehicles, they can result in very long crossing distances for pedestrians, as well as increased pedestrian-vehicle conflicts. Therefore, Principal Arterials have a standard of LOS D except where LOS D cannot be met with three approach lanes in any direction. In those cases, the LOS E is assigned.

AM and PM Intersection Level of Service

Intersection turning movement counts were collected at 43 locations within the City in 2016. These counts were collected during a Tuesday and Thursday in April and May, in order to reflect typical weekday conditions. Level of service analysis was performed at the 43 intersections during pre-defined AM and PM peak hours.

Background Table T–5 summarizes the intersection locations, the existing traffic control for each intersection, and the calculated LOS using the HCM methodology based upon 2016 traffic counts. The intersection LOS is also illustrated in Background Figure T–7.

See Volume I, Transportation Element Policy T.1.3 on page 86.

Intersection Level of Service Criteria

Level of service for intersections is determined by the average amount of vehicle control delay experienced by vehicles at the intersection.

Background Table T–3
Level-of-Service Criteria for Signalized and Roundabout Intersections

LEVEL-OF-SERVICE (LOS)	AVERAGE DELAY PER VEHICLE (SECONDS/VEHICLE)
A	≤ 10
B	> 10–20
C	> 20–35
D	> 35–55
E	> 55–80
F	> 80

For signalized and roundabout (RAB) controlled intersections the LOS is calculated based on average delay for the entire intersection. Background Table T–3 summarizes the LOS criteria for signalized and RAB controlled intersections.

The LOS criteria for side-street stop controlled (SSSC) and all-way stop controlled (AWSC) intersections have different threshold values than those for signalized intersections, primarily because drivers expect different levels of performance from different types of transportation facilities. In general, stop-controlled intersections are expected to carry lower volumes of traffic than signalized and RAB controlled intersections. Thus for the same LOS, a lower level of delay is acceptable at stop-controlled intersections than it is for signalized and RAB controlled intersections.

For SSSC intersections, LOS is calculated based on the control delay of the worst approach, which tends to be the stop-controlled minor streets, or for left turn movements from major streets, whichever is worse.

Background Table T–4 summarizes the LOS thresholds for both SSSC and AWSC intersections.

Table T-5 shows that 34 of the 43 study intersections satisfy their adopted LOS standard in the AM and PM peak hours.

Background Table T–4
Level-of-Service Criteria for Stop Controlled Intersections

LEVEL-OF-SERVICE (LOS)	AVERAGE DELAY PER VEHICLE (SECONDS/VEHICLE)
A	≤ 10
B	> 10–15
C	> 15–25
D	> 25–35
E	> 35–50
F	> 50

Source: HCM 2010.

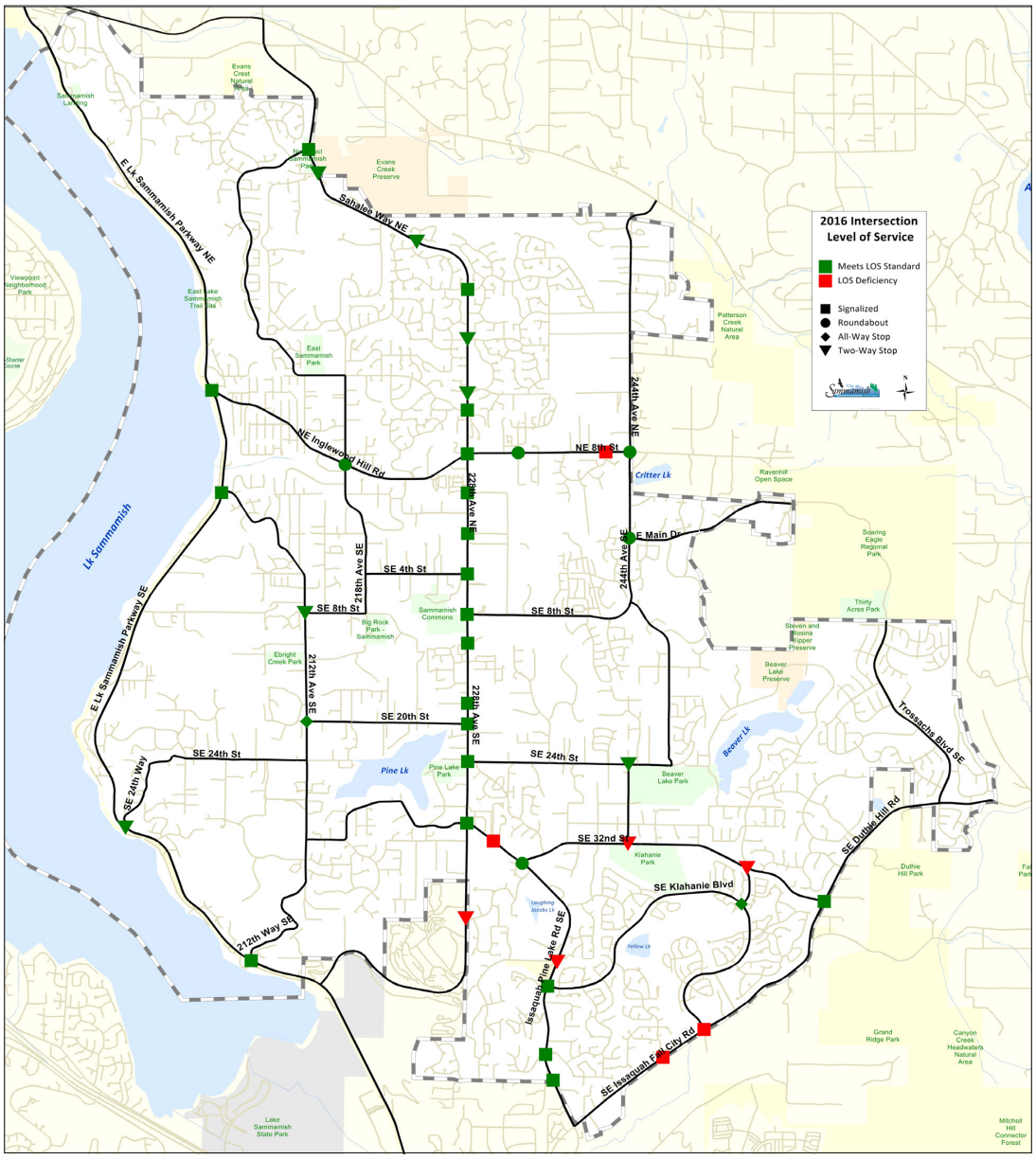
T.26

Background Table T–5
2016 Intersection LOS – AM and PM Peak Hour

	INTERSECTION	LOS STANDARD[1]	TRAFFIC CONTROL[2]	AM[3] DELAY[4]	AM LOS[1]	PM[3] DELAY[4]	PM LOS[1]
1	Issaquah-Pine Lake Road and SE 48th Street	D	Signal	27.4	C	13.1	B
2	228th Avenue NE and NE 12th Place	D	Signal	12.4	B	8.3	A
3	Klahanie Drive SE and SE Issaquah-Fall City Road	D	Signal	59	E	120+[6]	F
4	244th Avenue SE and SE 24th Street	C	SSSC	16.6	C	14.5	B
5	SE 32nd Street and 244th Avenue SE	C	SSSC	17.7	C	37.3	E
6	Issaquah-Pine Lake Road and SE 32nd Way	D	RAB	5.2	A	5.3	A
7	228th Avenue SE and SE 40th Street	D	SSSC	32	D	67.4	F
8	SE Klahanie Boulevard and 256th Avenue SE	C	AWSC	15.4	C	14	B
9	247th Place SE and SE Issaquah-Fall City Road (Pacific Cascade Middle)	D	Signal	63.8	E	32.4	C
10	Sahalee Way NE and NE 36th Street[5]	D	SSSC	24.1	C	20.8	C
11	242nd Avenue NE and NE 8th Street	C	Signal	38.7	D	12.1	B
12	228th Avenue SE and SE 8th Street	D	Signal	12.9	B	14.4	B
13	228th Avenue NE and NE 19th Drive[5]	D	SSSC	22.6	C	21.2	C
14	216th Avenue NE and NE Inglewood Hill Road	C	RAB	6.9	A	6.4	A
15	228th Avenue NE and NE Inglewood Hill Road/NE 8th Street	D	Signal	32.6	C	23	C
16	228th Ave NE and NE 4th Street	E	Signal	32	C	15.5	B
17	228th Avenue SE and SE 4th Street	E	Signal	16.6	B	10.8	B
18	212th Avenue SE and SE 8th Street	C	SSSC	10.7	B	12.5	B
19	228th Avenue SE and SE 16th Street	D	Signal	10.1	B	9.7	A
20	East Lake Sammamish Parkway and 212th Way SE	C	Signal	5.1	A	4.5	A
21	East Lake Sammamish Parkway and SE 24th Way	C	SSSC	15.7	C	18.8	C
22	212th Avenue SE and SE 20th Street	C	AWSC	10.5	B	12.2	B
23	East Lake Sammamish Pkwy and Louis Thompson Road NE	C	Signal	10	A	10.9	B
24	East Lake Sammamish Pkwy and Inglewood Hill Road	C	Signal	23.3	C	7	A
25	Sahalee Way NE and NE 37th Way	D	Signal	12.8	B	10.4	B
26	NE 8th Street and 244th Avenue NE	C	RAB	5.4	A	4.4	A
27	228th Avenue SE and SE 20th Street	D	Signal	10.6	B	13.5	B
28	228th Avenue SE and SE 24th Street	E	Signal	16.5	B	27.4	C
29	228th Avenue SE and Issaquah-Pine Lake Road	E	Signal	23	C	35.4	D
30	Issaquah-Pine Lake Road SE and SE Klahanie Boulevard	D	Signal	28	C	17.8	B
31	Duthie Hill Road and Issaquah-Beaver Lake Road	D	Signal	29.8	C	18.9	B
32	256th Ave SE/E Beaver Lake Dr SE and Issaquah-Beaver Lake Road	C	SSSC	120+[6]	F	32.3	D
33	228th Avenue NE and NE 14th Street[5]	D	SSSC	22.9	C	23.4	C
34	228th Avenue NE and NE 25th Way	D	Signal	16.9	B	11.1	B
35	Issaquah-Pine Lake Road and SE 42nd Street	D	SSSC	18.2	C	51.4	F
36	Issaquah-Pine Lake Road and 230th Lane SE/231st Lane SE	D	Signal	79.4	E	12	B
37	NE 28th Place/223rd Avenue and Sahalee Way NE	D	SSSC	120+[6]	F	57.3	F
38	Issaquah-Pine Lake Road and SE 47th Way/238th Way SE	D	Signal	13	B	12.6	B
39	233rd Avenue NE and NE 8th Street	C	RAB	17.2	B	6.2	A
40	228th Avenue SE and East Main Street	D	Signal	3.4	A	5.4	A
41	244th Avenue NE and East Main Drive	C	RAB	5.8	A	4.8	A
42	Duthie Hill Road and Trossachs Boulevard SE	D	Signal	28.3	C	12.3	B
43	228th Avenue SE and SE 10th Street (Skyline High School)	D	Signal	21.8	C	9.7	A

1. *LOS standards are based upon the functional classifications of the intersecting roadways. Intersections that include Principal Arterials have a standard of LOS D except where LOS D cannot be met with three approach lanes in any direction. In those cases, LOS E is assigned. Intersections that include Minor Arterials or Collectors have a standard of LOS C.*
2. *Traffic Control: Signal=signalized; SSSC=side-street stop-controlled; AWSC=all-way stop-controlled; RAB = roundabout*
3. *City's defined traffic model peak hour, see Sammamish Municipal Code.*
4. *Delay is measured in seconds per vehicle. At signal, RAB, and AWSC intersections, it represents average delay for the intersection. For SSSC intersections, it represents average delay for the worst minor approach or major street left turn movements. Analysis is based on 2016 traffic counts.*
5. *LOS is the level-of-service based on the methodology outlined in the Highway Capacity Manual (HCM 2000). All other intersections are based on HCM 2010.*
6. *When intersections are overcapacity, the model shows delays growing exponentially, which likely overstates the delay that would actually be realized. The model estimates AM delay for intersection 32 at 275.2 seconds, AM delay at intersection 37 at 361.1 seconds, and PM delay for intersection 3 at 161 seconds.*

Background Figure T–7
2016 Intersection Level of Service



Concurrency

Level of service standards are used to evaluate the transportation impacts of long-term growth and concurrency. In order to monitor concurrency, the City must adopt standards by which the minimum acceptable roadway operating conditions are determined and deficiencies may be identified.

A Concurrency Management System (CMS) is a policy procedure designed to enable a city or county to determine whether adequate facilities are available to serve new development. The Growth Management Act (GMA) requires each city and county to incorporate a Concurrency Management System into the Transportation Element of its comprehensive plan.

In a CMS, local jurisdictions must adopt and enforce ordinances that prohibit development approval if the development causes the LOS on a locally owned transportation facility to decline below the standard adopted in the Transportation Element of the Comprehensive Plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. (Growth Management Act, RCW 36.70A, 1990)

The City of Sammamish has adopted an intersection LOS to monitor for concurrency on selected functionally classified roadways within the City.

Key Intersections Outside of the City

The following key intersections fall outside of Sammamish city limits; but have a significant impact on mobility for people travelling to and from Sammamish:

- East Lake Sammamish Pkwy and SR 202 (NE Redmond Fall City Rd
- E Lk Sammamish Pkwy and SE 43rd Way
- Sahalee Way NE and SR 202 (Redmond Fall City Rd)
- 244th Ave NE and SR 202 (NE Redmond Fall City Rd)
- Issaquah Pine Lk Rd SE and SE Issaquah Fall City Rd
- SR 520 ramp terminal intersections with SR 202
- I-90 ramp terminal intersections with 17th Ave NW, Front St, and Highlands Dr NE

While the City does not control the operations of these intersections, their function has a strong impact on Sammamish residents' ability to access opportunities in the region. Traffic analysis shows that Sammamish residents experience longer delays leaving the city in the morning and entering in the evening. The City is committed to partnering witth the jurisdictions who own those intersections to find solutions to these key regional facilities.

Collision Analysis

Collision statistics were compiled between 2010 and 2014 by the WSDOT Transportation Data Office for the City of Sammamish. During this five year period there were a total of 1,015 collisions reported. Background Table T–6 summarizes the collisions by type and Background Figure T–8 shows the location and type of collisions within the city.

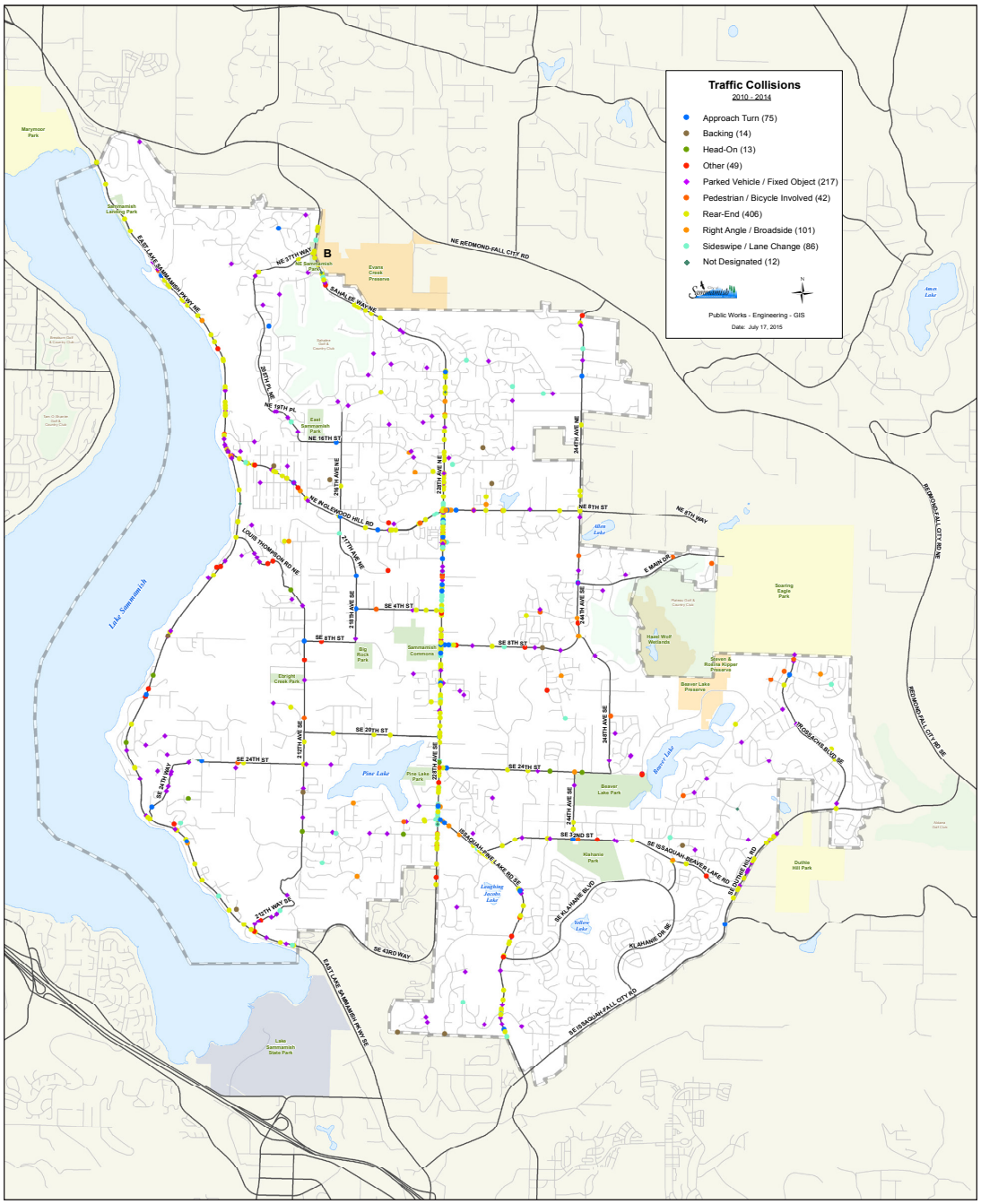
The 228th Avenue corridor shows a high number of collisions likely due to high volumes, vehicle speeds and inexperienced drivers, the latter related to the various schools along the corridor. In addition, the 228th Avenue corridor provides access to the city's major commercial and institutional areas.

Collisions on the East Lake Sammamish Parkway corridor were concentrated at NE Inglewood Hill Road, a major access point to and from the city's existing major commercial area.

Topography and weather conditions likely play a role in a portion of the collisions reported.

There were 42 total pedestrian and bicycle-related collisions reported, or 8.4 per year. These collision were spread throughout the city. Goals to reduce collisions, particularly pedestrian and bicycle-related collisions should be addressed.

Background Figure T–8
City of Sammamish Traffic Collisions (2010–2014)



Background Table T–6
Collision Summary (2010–2014)

COLLISION TYPE	TOTAL COLLISIONS	COLLISIONS PER YEAR
Rear-End	406	81.2
Parked Vehicle/Fixed Object	217	43.4
Right-Angle/Broadside	101	20.2
Sideswipe/Lane Change	86	17.2
Approach Turn	75	15.0
Other	49	9.8
Pedestrian/Bicycle	42	8.4
Backing	14	2.8
Head-On	13	2.6
Not Designated	12	2.4

Traffic Calming

As population and employment in the Sammamish region continue to grow, City streets are experiencing increased traffic pressure. City policy can accommodate growth in a way that can protect neighborhoods from unsafe impacts of traffic through the following measures:

- Develop standards to improve the function, safety, and appearance of the City street system;
- Develop facilities for pedestrians and bicyclists as alternative travel modes to the automobile;
- Protect the quality of life in residential neighborhoods by limiting vehicular traffic and monitoring traffic volumes on collector streets;
- Encourage improvements in vehicular and pedestrian traffic circulation within the City;
- Maintain a consistent LOS on the arterial system that mitigates impacts of new growth and is adequate to serve adjoining land uses; and
- Maintain the public street system to promote safety, comfort of travel, and cost-effective use of public funds.

Traffic calming programs serve to deter through-traffic on local

residential streets, protect neighborhoods from vehicular traffic moving at excessive speeds, and discourage parking unrelated to residential activities.

Presently, traffic calming devices within the City of Sammamish are located primarily along:

- NE 14th Drive from 228th Avenue NE to 220th Avenue NE;
- NE 19th Drive from 228th Avenue NE to 236th Avenue NE;
- NE 25th Way from 228th Avenue NE to 239th Avenue NE;
- 217th Avenue NE from Inglewood Hill Road to Main Street;
- SE 32nd Street from 228th Avenue SE to 220th Avenue SE;
- NE 14th Street from 228th Avenue NE to 235th Avenue NE;
- Audubon Park Drive from SE 24th Street to SE 32nd Street;
- 205th Place NE from NE 31st Street to NE 37th Way;
- SE 30th Street from 244th Avenue SE to 252nd Avenue SE;
- 230th Way SE from SE 42nd Street to SE 48th Street;
- SE Windsor Blvd from 244th Avenue SE to Windsor Drive SE;
- NE 20th Way from 216th Avenue NE to NE 25th Way; and
- Sahalee Way NE at NE 28th Place.

Traffic calming features include digital speed boards, traffic circles, chokers, speed humps and curb bulb-outs.

Six-Year Transportation Improvement Program (TIP)

Background Table T–7 summarizes the list of projects that make up the Six-Year Transportation Improvement Program (TIP), 2019–2024. Funding for some of these projects is secured, while funding for other projects is not. Detailed evaluation of future conditions should assume completion only of financially committed projects.

See Volume I, Transportation Element Policy T.2.12 on page 88.

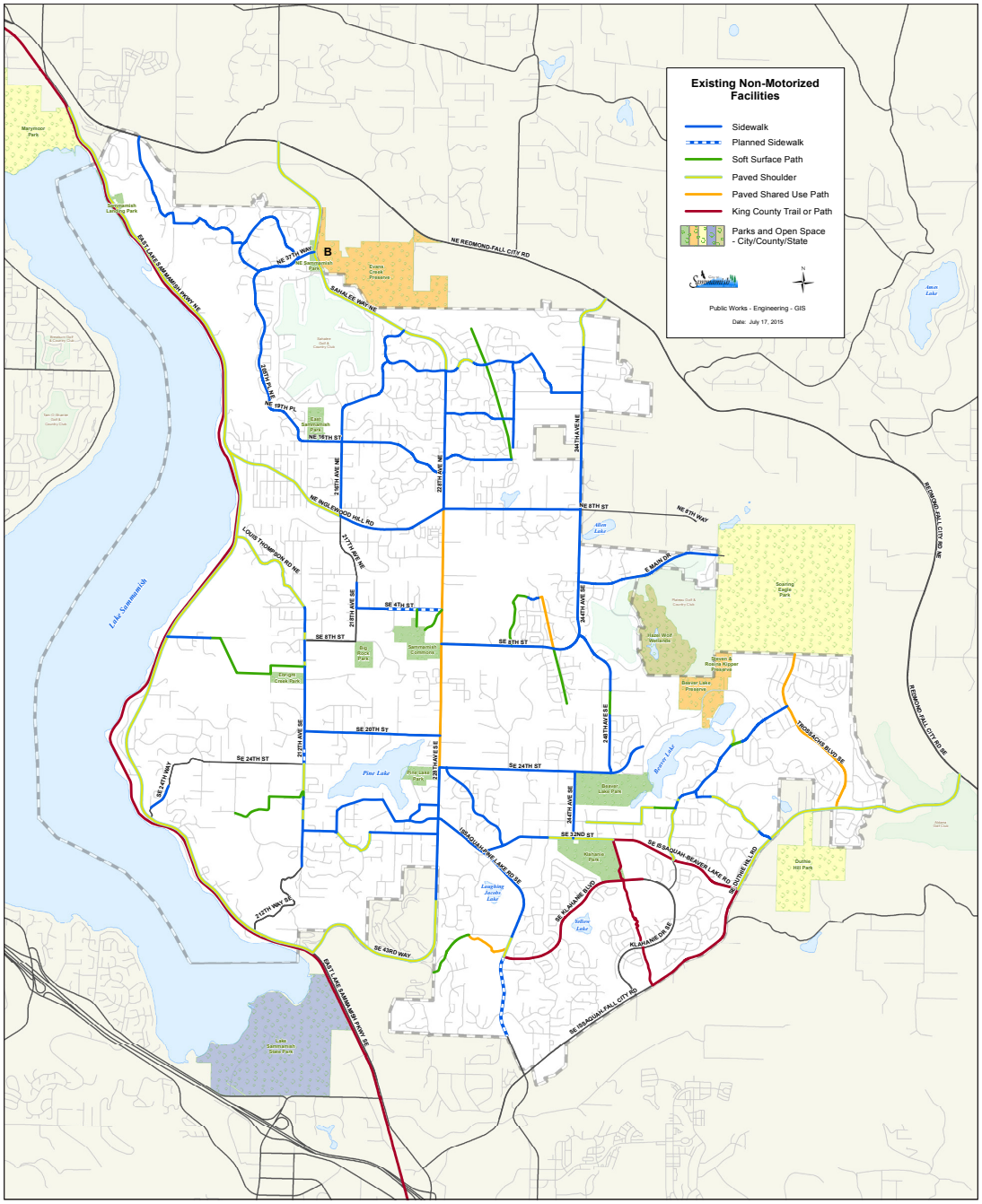
Existing Non-Motorized Conditions

An inventory of existing non-motorized facilities, including sidewalks and walkways was undertaken to identify any system gaps. Roughly 50% of the city's local roads have sidewalks and most of the primary and minor arterials includes sidewalks, paved shoulders or shared use paths. Background Figure T–9 illustrates existing non-motorized facilities and includes the locations of the public open spaces and parks.

Background Table T–7
2019–2024 Six Year Transportation Improvement Program (TIP)

TIP #	PROJECT TITLE	PROJECT EXPENDITURE (X $1,000) *Total Project*
TR-01	SE 4th St—218th Ave SE to 228th Ave SE	15,203
TR-02	Issaquah-Pine Lake Rd—Klahanie Blvd to SE 32nd	13,340
TR-03	Issaquah-Pine Lake Rd—SE 48th to Klahanie Blvd	20,214
TR-04	East Lake Sammamish Pkwy SE / SE 24th St Intersection	3,900
TR-05	Sahalee Way NE: NE 25th Way to North City Limits	848
TR-07	Issaquah-Fall City Rd: 242nd Avenue SE to Klahanie Dr SE (Phase 1)	28,807
TR-08	Issaquah-Fall City Rd—Klahanie Dr SE to Issaquah-Beaver Lk Rd	17,000
TR-18	SE 8th Street/218th Avenue SE: 212th Avenue SE to SE 4th Street	15,000
TR-19	Intelligent Transportation System (ITS)	3,000
TR-20	SE 14th Street Extension: Lawson Park Plat to 248th Ave SE	280
TR-34	228th Avenue SE & SE 8th Street Intersection	4,600
TR-39	256th Ave SE/E Beaver Lake Dr SE/Issaquah Beaver Lake Rd	1,600
TR-42	218th Avenue SE/216th Avenue SE: SE 4th Street to Inglewood Hill Road NE Analysis	7,300
TR-45	SE 32nd St/244th Ave SE Intersection Improvement	110
TR-51	SE Issaquah Fall City Rd/247th Pl SE	Cost included in TR-07
TR-52	SE Issaquah Fall City Rd/Klahanie Dr S	Cost included in TR-07
TR-53	Sahalee Way/NE 28th Pl/223rd Ave NE	1,300
TR-54	228th Ave/SE 40th	800
TR-55	242nd Ave NE/NE 8th St	880
TR-56	Issaquah-Pine Lake Rd/230th Ln SE/231st Lane SE	115
OTHER TIP PROGRAMS		
TR-A	Public Works Trust Fund Loan Repayment (228th Avenue)	10,002
TR-B	Non-motorized Transportation Projects	750 annually
TR-C	Sidewalk Projects	160 annually
TR-D	Intersection and Safety Improvements	200 annually
TR-E	Neighborhood CIP	100 annually
TR-F	Street Lighting Program	15 annually
TR-G	School Zone Safety Improvements	50 annually
TR-H	Capital Contingency Reserve Placeholder	500 annually

Background Figure T–9
City of Sammamish Existing Non-Motorized Facilities



Existing Transit Service

Transit Service

King County Metro and Sound Transit provide transit service to the City of Sammamish. Four transit routes currently serve the City, with service as summarized in Background Table T–8.

Background Table T–8
Existing Transit Service for the City of Sammamish

ROUTE #	ROUTE DESCRIPTION	SERVICE	AVERAGE HEADWAY (MINUTES) *Peak*	*Midday*
216[1]	Downtown Seattle to Issaquah Highlands P&R, to South Sammamish P&R and to Bear Creek P&R	Weekday AM and PM peak hours	30	—
219[1]	Downtown Seattle to Issaquah Highlands P&R, to South Sammamish P&R and to Redmond	Weekday AM and PM peak hours	30–40	—
269[1]	Issaquah TC to Issaquah Highlands P&R, to Bear Creek P&R and to Overlake P&R	Weekday AM and PM peak hours	20–30	—
554[2,3]	NE Redmond-Fall City Road at 185th Ave NE to South Sammamish P&R, to Issaquah TC, to North Mercer Island and to downtown Seattle	Weekday	60–120	60–120
		Saturday	60–120	60–120

1. *King County Metro Transit Route.*
2. *Sound Transit Route; this route make infrequent trips to the City Sammamish.*

Park-and-Ride Facilities

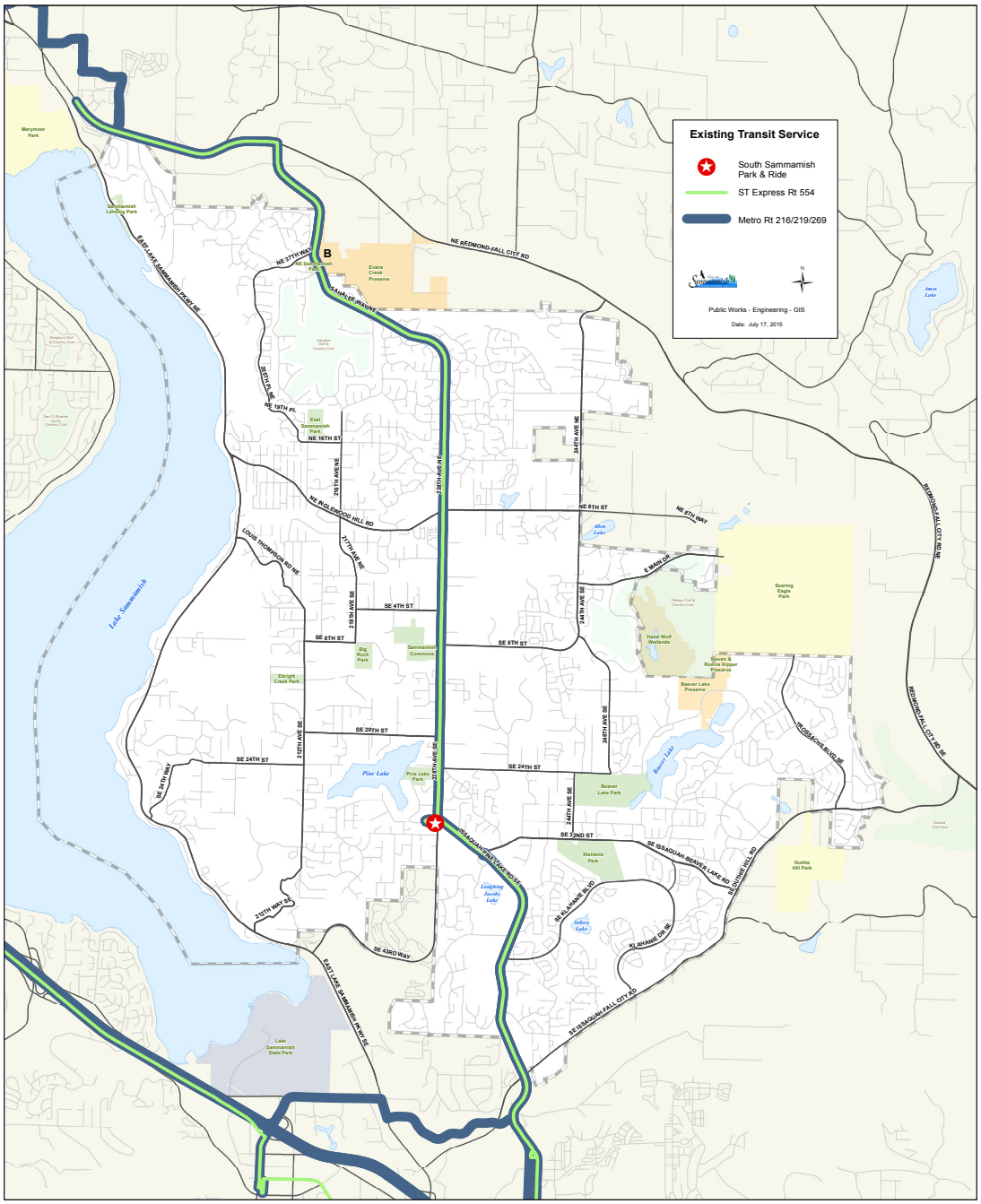
Sammamish currently has two park-and-ride (P&R) facilities:

- Sammamish Hills Lutheran Church at SE 8th Street and 228th Avenue SE (54 spaces).
- South Sammamish P&R at Issaquah-Pine Lake Road SE and 228th Avenue SE (265 spaces).

Existing transit routes and P&R lots within the Sammamish city limits are shown in Background Figure T–10. Outside of the city limits, the nearest P&R lots are:

- Klahanie P&R at SE Klahanie Boulevard and 244th Place SE, King County (30 spaces).
- Klahanie P&R at SE Klahanie Boulevard and SE Issaquah-Fall City Road (30 spaces).
- Tibbett's Valley P&R at 12th NW and Newport Way, Issaquah (94 spaces).
- Issaquah Highlands P&R at Highlands Drive NE and NE High Street, Issaquah (1,010 spaces).
- Bear Creek P&R at NE Union Hill Road and 178th Place NE, Redmond (283 spaces).

Background Figure T–10
Existing Transit Service



Travel Demand Forecasts and Projected Needs

In order to evaluate future transportation needs, forecasts must be made of future travel demand. Developing traffic forecasts for existing streets based on future land use allows the adequacy of the street system to be evaluated.

Travel Forecasting Model

For the City of Sammamish Transportation Element, a transportation computer model was developed using the VISUM software to analyze future travel demand and traffic patterns. VISUM is among the world's leading software for traffic analyses and forecasting and is applied by engineers, planners, and scientists, as well as numerous city, State and Federal transportation agencies. VISUM aids in predicting long-term trends in traffic, trip generation, distribution and growth over an area, such as a city. It is not intended to assess operations or a particular solution for a specific intersection.

The City has three VISUM-based travel models that differ in their time horizon. The first models 2016 existing conditions (Existing Conditions Model). The second represents the City's six-year TIP (Pipeline Concurrency Model) and forecasts traffic to evaluate concurrency failures over the next six years with approved pipeline projects. The third model forecasts further out into the future to the Comprehensive Plan horizon year of 2035 (Forecast Model).Following the concurrency policy adopted in this Comprehensive Plan, the City will maintain both an AM and PM version for each model.

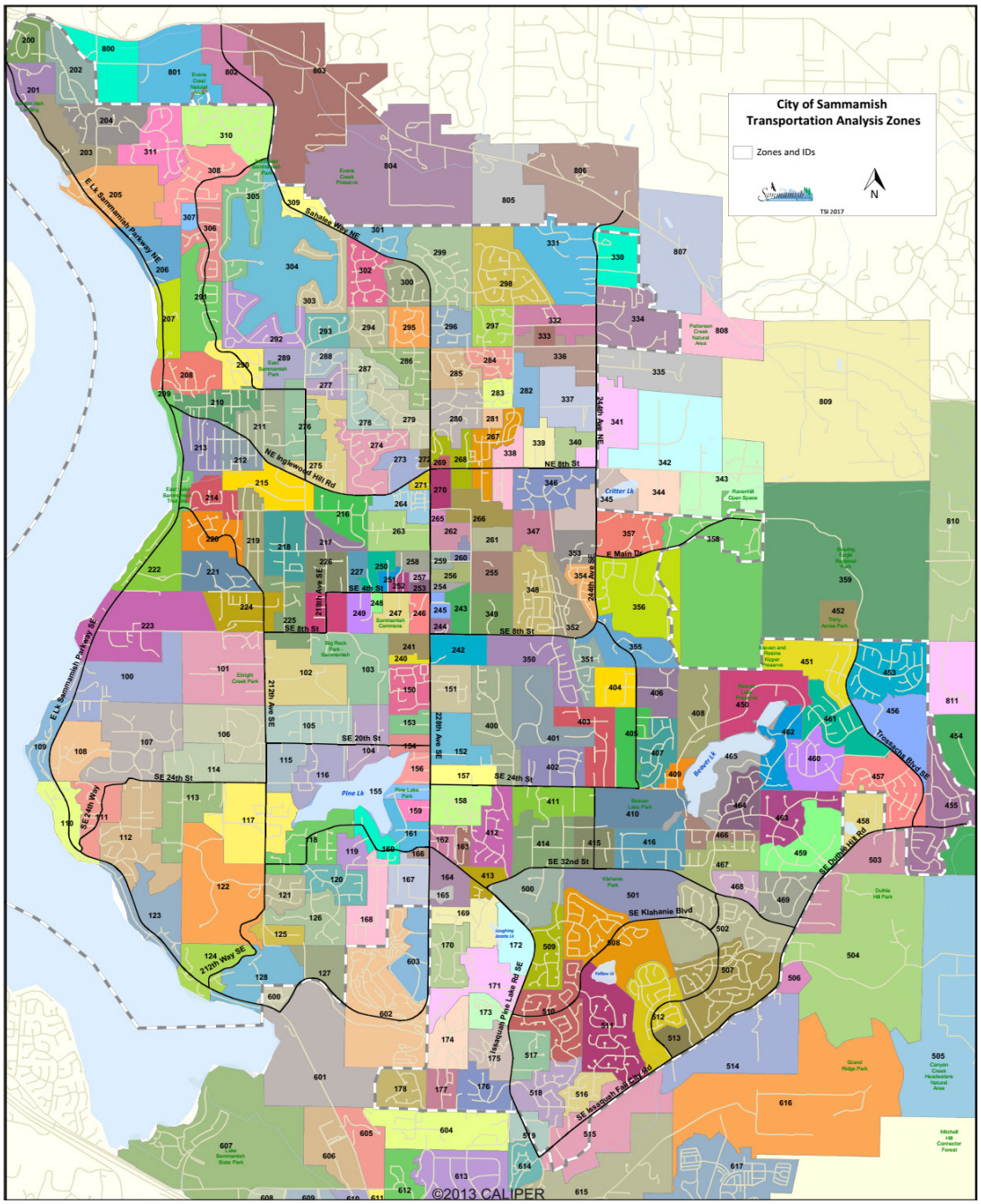
There are three key data points that feed into VISUM including land use, physical roadway network characteristics, and traffic counts. How these data are incorporated into the model is described in the following sections.

The major steps of the modeling process are as follows:

- Current Land Use Assessment;
- Trip Generation;
- Trip Distribution;
- Network Assignment;
- Model Calibration;
- Forecast of Future Land Use; and
- Model of Future Traffic Conditions.

These general steps of the modeling process are described in the following sections, and the technical aspects of the model are described in detail in the Traffic Forecasting Model Documentation Report (DEA 2012), which has been produced for the city as a supplemental document to the Comprehensive Plan.

Background Figure T–11
Transportation Analysis Zones



Current Land Use Assessment

The primary method of determining future travel demand is based on future land use patterns and community growth. The entire study area is divided into Transportation Analysis Zones (TAZs) that have similar land use characteristics. The TAZ boundaries that were established for the City of Sammamish travel-forecasting model are shown in Background Figure T–11. For each zone, land use characteristics of population and employment were estimated based on the City of Sammamish Comprehensive Land Use Plan. In order to establish an accurate base map of existing land use, consultants to the city began with the King County Assessor records, supplemental aerial photos, and field verification of a subset of lots. City staff compiled unit counts of multi-family dwellings and commercial building square feet based on King County records supplemented with some field review.

Trip Generation

The trip generation step forecasts the total number of trips generated by and attracted to each TAZ. The trips were forecast using statistical data that take into account population and household characteristics, employment information, economic model output, and land-use information. Trips generated are categorized by their general purpose, which are:

- Home-based-work: any trip with home as one end and work as the other end
- Home-based-other: any non-work trip with home as one end
- Non-home-based: any trip that does not have home at either end

The trip generation model forecasts the total number of trips that are generated per household or non-residential unit during the analysis period for the trip categories under consideration.

Trip Distribution

The trip distribution step allocates the trip generation to a specific zonal origin and destination. This is accomplished through use of the gravity model, which distributes trips according to two basic assumptions: (1) more trips will be attracted to larger zones (the size of a zone is defined by the number of attractions estimated in the trip generation phase, not the geographical size), and (2) more trip interchanges will take place between zones that are closer together than the number that will take place between zones that are farther apart. The result is a trip matrix (for each of the

trip purposes specified as input to the trip generation model) that estimates the percentage of trips are taken from each zone to every other zone. These trips are often referred to as trip interchanges.

Transportation Network Characters and Assignment

The physical characteristics of the City's roadway network as of 2016 is reflected in the model. This includes the number of lanes and posted speed limits. The number of legs, type of intersection controls (e.g. stop-controlled, signalized or roundabouts), and turn pocket lengths are also included for the concurrency intersections.

The street system is coded into the city's Traffic Model as a series of links that represent roadways and nodes that represent the intersection of those roadways. Each roadway link and intersection node is entered into the model with an assigned functional classification, and associated characteristics such as length, capacity, and speed. This information is then used to determine the optimum path between all the zones based on travel time and distance. The model then distributes the trips from each of the zones onto the street network.

The forecasted trips are assigned to the transportation network using an incremental assignment process where the total traffic is assigned to the network, one increment at a time. Vehicle travel paths reflect the best travel time between each origin and destination. After a portion of the vehicles is assigned, the zone-to-zone travel times with the additional traffic are recalculated. The next increment of traffic is assigned to the network, and the optimal paths are determined based upon the adjusted travel times. The zone-to-zone travel times are calculated again, reflecting the added traffic. The cycle of network assignment and travel time recalculation is repeated, until all vehicles have been assigned to the network. The result is a computerized road network with traffic volumes calculated for each segment of roadway, which takes into account the effects of increasing traffic congestion on the system.

Model Calibration

The 2016 calibrated VISUM travel demand model developed by DEA has a mean relative error of 3% and is a very good representation of the traffic generated by a known land uses (2016 occupied development). The calibration error does not directly relate to the accuracy of the forecast in that the land use assumptions are general, factors including fuel prices, social objectives, and other issues modify travel behaviors over time. In most case future forecasts should be considered with a broader

margin of error. A range of plus or minus 10% is a reasonable error to assume for a 20-year planning horizon. This potential error should be considered when evaluating the travel demand forecasts and level of service summaries. Forecast volumes could be 10% more or less in most cases. Standard industry best practices for the frequency of model calibration is every 4-6 years.

Model Update and Validation

The City conducts annual validation of its traffic models to ensure they continue to predict traffic volumes and growth within industry standards for accuracy. This is done by comparing the most recent traffic counts with the model outputs. All trips generated by approved concurrency certificates are also added to the model at the time of approval.

Land Use Assumptions used in Travel Demand Forecasting

The land use assumptions used in the VISUM travel demand forecasting model are based upon the Land Use Element of the Comprehensive Plan, which in turn is based upon the PSRC residential and employment allocations for Sammamish. External land use assumptions were based upon PSRC forecasts for the jurisdictions around Sammamish, including the cities of Redmond, Issaquah and Bellevue to ensure that the forecast trip distribution for trips originating in or destined to the region outside the city are modeled correctly. Key elements of the land use forecast include infill single family residential development in vacant and underdeveloped land identified in the buildable lands analysis and the realization of the Town Center, a mixed use subarea planned for for 2,000 dwelling units, and 600,000 square feet of commercial space.

Future Traffic Conditions

Once future land use conditions were input, the model was run to forecast PM peak hour traffic conditions that are expected to result from the projected land use.

Background Table T–9
Summary of Recommended Transportation Improvements

TIP#	LOCATION	IMPROVEMENT	PROJECT COST (X $1,000)[1]
TR-23	E Lk Sammamish Pkwy SE, 212th Ave SE–South City Limits	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	10,935
TR-03	Issaquah-Pine Lk Rd SE, SE 48th St–SE Klahanie Blvd	Widen to 5 lanes with bike lanes, curb, gutter and sidewalk	21,315
TR-02	Issaquah-Pine Lk Rd SE, SE Klahanie Blvd–SE 32nd Way	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	21.651
TR-01	SE 4th St, 218th Ave SE to 228th Ave SE	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	18,981
TR-05	Sahalee Way NE, NE 25th Way–North City Limits	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	16,801
TR-24	SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd–"notch"	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk on west side, 8-foot shoulder on east side	13,230
TR-26	SE Duthie Hill Rd, West side of "notch" to Trossachs Blvd SE	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk on west side, 8-foot shoulder on east side	13,230
OLD/ LOAN recognition	228th Ave	Public Works Trust Fund Loan Repayment (remaining loan balance)	3,808
TR-27	Issaquah-Pine Lake Rd SE, SE Issaquah-Fall City Rd–SE 48th St	Widen to 5 lanes with bike lanes, curb, gutter, and sidewalk	7,882
TR-07	SE Issaquah-Fall City Rd, 242nd Avenue SE–Klahanie Dr SE	Widen to 5 lanes with bike lanes, curb, gutter, and sidewalk	17,321
TR-08	SE Issaquah-Fall City Rd, Klahanie Dr SE–SE Issaquah-Beaver Lk Rd	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	15,917
TR-29	SE Belvedere Way, E Beaver Lk Rd–263rd Pl SE	New roadway connection, extend SE Belvedere Way to E Beaver Lk Dr SE	761
TR-30	New Roadway Connection to E Beaver-Lk Dr SE at 266th Way SE	Extend 266th Way SE to E Beaver Lk Dr SE and widen E Beaver Lk Dr SE, 266th Way SE to Beaver Lk Way SE	8,498
TR-25	212th Way SE (Snake Hill), E Lk Sammamish Pkwy SE–212th Ave SE	Improve 2 lanes with left-turn pockets, curb, gutter, and sidewalk	13,738
TR-18	SE 8th St/218th Ave SE, 212th Ave SE–SE 4th St	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	10,117
	Sidewalk Projects	Various sidewalk projects, includes gap projects, extensions, safety improvements	5,000
	Transit Program	Provide funding for capital project matching funds and/or provide for additional transit service.	10,000
	Neighborhood CIP	Various capital improvement including safety improvements, gap projects, bike routes, pedestrian safety enhancements, and school zone safety improvements.	2,000
	Street Lighting Program	Provide street lighting at high priority locations with significant safety issues that can be addressed through better street lighting	400

Background Table T–9
Summary of Recommended Transportation Improvements (cont.)

TIP#	LOCATION	IMPROVEMENT	PROJECT COST (X $1,000)[1]
	Intersection Improvements	Various intersection and other spot improvement as needed, including channelization, signing, safety improvements, signalization, or other control devices.	5,000
TR-04	East Lake Sammamish Parkway SE / SE 24th St Intersection	Add turn pocket and acceleration lane on East Lake Sammamish Parkway, separate turn lanes on SE 24th	3,900[2]
TR-39	256th Ave SE/E Beaver Lake Dr SE/ Issaquah Beaver Lake Rd	Construct roundabout	1,600[2]
TR-51	SE Issaquah Fall City Rd/247th Pl SE	Construct roundabout	Cost included in TR-07
TR-52	SE Issaquah Fall City Rd/Klahanie Dr S	Construct roundabout	Cost included in TR-07
TR-45	SE 32nd St/244th Ave SE Intersection Improvement	Install all-way stop control	110[2]
TR-53	Sahalee Way/NE 28th Pl/223rd Ave NE	Install signal	1,300[2]
TR-54	228th Ave/SE 40th	Create center turn lane on 228th, modify median on SE 40th	800[2]
TR-55	242nd Ave NE/NE 8th St	Add westbound right turn pocket, widen NE 8th	880[2]
TR-56	Issaquah-Pine Lake Rd/230th Ln SE/231st Lane SE	Rechannelize/restripe 230th Ln & 231st Ln, extend WB left turn pocket on Issaquah Pine Lake Rd	115[2]

1. All project costs are in 2014 dollars unless separately noted.
2. 2018 cost estimates.

Recommended Plan

Based upon evaluation of existing conditions, travel demand forecast and evaluation of future conditions that result from the 2035 land use forecast, and the concurrency standards and priorities stated by the city, the Recommended Plan contains the following elements:

- Recommended Transportation Improvements
- Functional Classification Assessment
- Connectivity Assessment
- Roadway Design Guidelines
- Traffic Calming Program
- Transportation Demand Management
- Transit Service and Facilities
- Non-Motorized Facilities

Recommended Transportation Improvements

Based upon the analysis of 2016 and 2024 traffic operations against the level of service policy described earlier this chapter and 2035 level of service analysis performed as part of the 2015 Comprehensive Plan, a list of recommended improvement projects was developed for the 2035 planning horizon. The list of improvement projects is summarized in Background Table T–9.

Planning level estimates were prepared for each of the projects under consideration.

Intersections Outside City Limits

Outside of the city limits, several key intersections are projected to have a significant impact on city mobility. Continued coordination with jurisdictional partners like Issaquah, Redmond, King County and WSDOT will be necessary.

See Volume I, Transportation Element Policy T.2.15–Policy T.2.22 on page 89.

Flexibility in Roadway Design Guidelines

Essential functions of streets in Sammamish include vehicle mobility, pedestrian access, bicycle access, and aesthetics. City standards specify lane widths of 11 feet. Left-turn lanes increase capacity, reduce vehicular collisions, and improve access to adjacent property. Bicycle lanes should be provided along major traffic corridors, and when striped should be a minimum of 5 feet in width. Sidewalk widths should be a minimum of 6 feet. Landscaped medians are especially important to soften wide expanses of pavement, to provide a haven for crossing pedestrians, and to

provide aesthetic treatment to streets.

Often when designing streets, obstacles are encountered that require modification in design approach. Impediments might include topographic features that make road construction difficult or very expensive; inadequate available right-of-way to allow for all desired features; or environmentally sensitive areas that require modification to avoid adverse impacts. Additionally, funding or grant sources may require specific features or dimensions.

Traffic Calming Program

The City of Sammamish has a comprehensive traffic calming program in place with the Neighborhood Traffic Management Program (NTMP) described in the Existing Conditions section of this Transportation Element. Thus, it is recommended that the city continue the NTMP in its current form, as already adopted by City ordinance.

Transportation Demand Management

See Volume I, Transportation Element Policy T.2.8–Policy T.2.10 on page 87–88.

Transportation Demand Management (TDM) consists of strategies that seek to maximize the efficiency of the transportation system by reducing demand on the system. The results of successful TDM can include:

- Travelers switch from single-occupancy-vehicle (SOV) to HOV modes such as transit, vanpools or carpools,
- Travelers switch from driving to non-motorized modes such as bicycling or walking,
- Travelers change the time they make trips from more congested to less congested times of day,
- Travelers eliminate trips altogether through such means as compressed workweeks, consolidation of errands, or use of telecommunications.

Within the State of Washington, alternative transportation solutions are further necessitated by the objectives of the Commute Trip Reduction (CTR) Law. Passed in 1991 as a section of the Washington Clean Air Act (RCW 70.94), the CTR Law seeks to reduce workplace commute trips in the nine most populous counties in the state. This law requires that in designated high population counties, each city within the county adopt a commute trip reduction plan requiring private and public employers with 100 or more employees implement TDM programs. Programs provide various incentives or disincentives to encourage use of alternative transportation modes, other than the SOV. The purpose of CTR

is to help maintain air quality in metropolitan areas by reducing congestion and air pollution.

The city can promote TDM through policy and/or investments that may include, but are not limited to, the following:

- Public Education related to the benefits of TDM and individual actions to reduce vehicle trips
- Commute Trip Reduction (CTR) Ordinances
- Voluntary Compliance with CTR requirements by the city
- Managed access to facilities and activity centers
- Transit-oriented and pedestrian-friendly design
- Parking management

Transit Service and Facilities

As supported by the Goals, Objectives and Policies of the Transportation Element, public transportation has long-range benefits for the community because it offers:

- Primary mobility for those who cannot drive, including many of our youth, seniors, and citizens with disabilities,
- Mobility options for people who choose not to drive, either to avoid congestion, save money, or support the environment,
- Preservation of the quality of our environment by conserving energy, supporting better air quality, and reducing congestion on our roadways.

Central to the success of a public transportation system is the development of a compatible land use plan. Low-density suburbs and strip development are not designed to accommodate public transportation services. Changing the land use or traditional transit services is difficult and special attention is required to increase the effectiveness of transit by controlling development; modifying the existing arterial street system; and modifying pedestrian facilities to bring passengers to the transit system.

The City of Sammamish can influence compatibility with public transportation by considering the following development issues:

- Pedestrian access and facilities,
- Amount, cost, and location of parking,
- Location of higher density residential developments,
- Location and design of commercial and employment activities,
- Location of transit facilities,
- Location of community activity centers,

- Design of building complexes and their surroundings.

228th Avenue provides the primary corridor to support activity centers and more transit-oriented development. New development, redevelopment, or in-fill development that occurs in major activity centers can be designed to incorporate features that are compatible with public transportation. These features include:

- Land use that creates densities to support transit,
- Facilities that are oriented toward transit service,
- Walking distances that are on a reasonable pedestrian scale,
- Site design that encourages transit riders.

Zoning provisions are the primary means of implementing transportation-related land use policy. In order to accomplish this, the zoning code for major activity centers can be reviewed to ensure transit friendly design in these areas. Some factors that may be considered are:

- Encourage public transportation-compatible in-fill development on areas near transit routes and stops,
- Support the development of park-and-ride lots along transit routes,
- Encourage pedestrian uses at street-level buildings to stimulate activity and interest,
- Support increased residential densities along transit routes,
- Support increased employment densities in activity centers.

In addition, transit can be made more compatible with pedestrian travel by observing the following design guidelines:

- Provide sidewalks and safe crosswalks for access to the transit system,
- Include provisions for weather protection of the pedestrian,
- Eliminate barriers that discourage pedestrian access,
- Keep walking distances to a quarter-mile or less,
- Provide curb ramps and other facilities conforming to the Americans with Disabilities Act (ADA),
- Provide lighting to improve pedestrian safety and security,
- Provide design guidelines to foster and encourage pedestrian activity.

Special emphasis should be placed on the identification and public awareness of the transit system. Specific tasks could include improved signing, identification, and improved transit stops; route and schedule information provided at all transit stop sites; and shelters provided at some sites. Shelters provide a visual reminder of transit availability and provide an incentive for residents and

visitors to use the transit system. Shelters can be installed only in locations with adequate public right-of-way and where appropriate pads can be constructed.

The success of the public transportation system is dependent on integrating key elements that comprise the overall plan. Integration of the transit system with streets, bicycle facilities, and pedestrian facilities is critical to transit's success.

Non-Motorized Plan

The Trails, Bikeways and Paths Plan is a comprehensive planning document for the City of Sammamish addressing a 20-year vision for development of recreational trails and non-motorized transportation facilities within the city. The dual focus on recreational trails and public right-of-way non-motorized facilities is an intentional effort to create a well-integrated system for pedestrians, bicyclists, equestrians, and other trail users in the city. The title of the plan is also a reflection of the desire for an integrated system. "Trails, Bikeways and Paths" is a melding of terminologies to de-emphasize the differences between recreation-based and transportation-based facilities, and to underscore the common themes and the benefits of an integrated system.

A vital aspect of the plan and a key part of the message is that this vision is for an integrated system. It was decided early on to pursue a system that avoided the historical, but somewhat arbitrary, distinctions between a non-motorized and a trails plan. This more holistic approach will provide additional flexibility in implementing the overall vision to connect key destinations that in many instances may not be possible to connect using one type of route or the other. It will also provide opportunities for interdepartmental coordination and will bring a greater efficiency to the effort. The benefits far outweigh the inconveniences of developing the plan in such a manner. The resulting system will be greatly enhanced as a result of this integrated approach.

This vision has been developed through a concentrated community outreach effort and through consistent dialogue and involvement of a citizen advisory committee called the Trails, Bikeways and Paths (TBP) Subcommittee. This advisory committee was formed to assist in guiding the development of this plan and reports to the Parks and Recreation Commission regarding the progress of the plan. In addition, community input was gathered at multiple points during the planning process and through the review and adoption process by the City Council.

The development of a vision for the future required an extensive effort to document existing trail and non-motorized facilities to provide a current picture and identify gaps in the system. An existing conditions inventory was completed for all trail and non-motorized facilities in the

city, including private trail systems. Documentation of private trail systems was done to provide an understanding of how a proposed public system could integrate with private neighborhood facilities. In addition, key challenges and obstacles were identified to assist in developing proposed system improvements.

Key survey data was collected from the public regarding use of trails, destinations, locations, intensity of use, etc.

This information, along with feedback from the TBP Subcommittee and guidance from state and regional policy on non-motorized facilities, provided the basis for the development of TBP goals and policies. Then, basic overall trail corridors were identified to provide for east/west and north/south connectivity through the city.

With consideration of state, regional, and local design standards a hierarchy of pathways and trail types, as well as bicycle facility types, was created to specifically address the needs and conditions on the Sammamish Plateau. Each facility type description includes detailed information on facility width, height clearances, appropriate location, and surfacing.

The pathway and trail facility types range from paved multi-use trails to primitive soft surface trails, and also include all of the standard sidewalk facilities along streets and roadways. The bicycle facility types are consistent with state and regional standards for signed and striped bike lanes, designated shared bike routes, and multi-use shared paths.

Next, the identified corridors and field conditions were taken into consideration in assigning the hierarchy of facility types to all of the proposed routes. Considerations in this process included existing right-of-way and obstacles, topography, community destinations, and types of potential users. This process resulted in a 20-year pathways and trail system plan and bicycle system plan.

The overall vision is a direct reflection of the community's desire to use trails, bikeways, and paths for travel and recreation purposes. Please see the City of Sammamish *Trails, Bikeways and Paths Master Plan*.

Establishment of LOS Standards & Monitoring

In order to monitor concurrency, the City must adopt standards to identify deficiencies, which were presented earlier in this plan. While the GMA requires that LOS standards be adopted for concurrency, it does not mandate how those standards should be defined. Thus, the City is free to adopt by ordinance whatever standards it deems appropriate.

On a continuing basis, the City shall monitor and evaluate the adequacy of the concurrency policies and established LOS standards as new development occurs and as traffic levels grow. The City shall make periodic adjustments to the Concurrency Management System and LOS standards as needed and as part of the annual Comprehensive Plan amendment process, based on the on-going evaluation.

Mitigation Fee System

The City has adopted a transportation impact fee.

See Volume I, Transportation Element Policy T.3.12–Policy T.3.21 on page 92.

Financing

The Growth Management Act requires that the transportation-related provisions of comprehensive plans address the financing of the local transportation system. The multiyear financing plans serve as the basis for the six-year street, road, or transit program for cities, counties, and public transportation systems and should be coordinated with the state's six-year transportation improvement program.

Background Table T–10
Transportation Capital Improvement Funding: 2015–2035

FUNDING SOURCE	AMOUNT (2015 DOLLARS)
Transportation Fund Revenue (REET)	25,000,000
Road Impact Fees (includes beginning fund balance)	35,000,000
Anticipated grants	15,000,000
Funding to be determined	162,000,000
TOTAL REVENUE	237,000,000

Total revenue available to the City of Sammamish for concurrency projects over a 20-year period is estimated in Background Table T–10. The estimated revenue projection is $237,000,000 (year 2015 dollars). The projected revenue presented in Background Table T–10 provides a revenue stream for the expenditures proposed for the next 20 years, based upon these preliminary estimates.

See Volume I, Transportation Element Policy T.3.19 on page 92.

Contingency Plans in the Event of Revenue Shortfall

Some of the revenue forecasts are for revenues that are very secure, and highly reliable. However, other revenue forecasts are for sources that are volatile, and therefore difficult to predict with confidence, including grants, joint agency funding, the motor vehicle registration fee, general obligation bonds, and mitigation payments (which have not been enacted), and which fluctuate with the amount of new development.

In the event that revenues from one or more of these sources is not forthcoming, the city has several options: add new sources of revenue or increase the amount of revenue from existing sources; require developers to provide such facilities at their own expense; reduce the number of proposed projects; change the Land Use Element to reduce the travel demand generated by development; or change and/or lower the LOS standard.

Exhibit 6: Q&A Matrix, 7/10/18

City Council & Planning Commission Q&A

Date	No.	Commenter	Questions and Comments	Staff Response to Questions and Comments
4/30/2018	1		Why is 218th Avenue SE changing to a Collector Arterial south of Inglewood Hill Road under this emergency amendment?	It adds the intersection of Inglewood Hill Road and 218th Ave SE as a concurrency intersection.
4/30/2018	2		How do the changes to Policy T.1.2 impact multi-modal transportation issues?	As directed by City Council, the concurrency policy will focus on intersections only. Multi-modal level of service will be incorporated into the Transportation Maser Plan (TMP) work to allow for a more holistic approach later this year and into 2019.
4/30/2018	3		Does the terminology, "address," in the proposed Policy T.1.2, adequately cover the City's intent to do something about multi-modal transportation facilities and options?	Yes, the term, "address" is appropriate for this policy language and identifies the City's intent to focus on and implement measure to address multi-modal transportation facilities and options.
4/30/2018	4		Is the new concurrency policy only about car trips?	Yes, concurrency testing will focus on intersections and vehicles. The TMP will address multi-modal level of service.
4/30/2018	5		With regard to the sidebar for the re-numbered Policy T.1.3, should the reference to a specific time for the peak hour be deleted? Can it be a dynamic reference?	Yes. In addition, the reference to the specific time for the AM and PM peak hours will be removed from page T.24 of Transportation Element Background Chapter (and any other locations in the Plan) for consistency.
4/30/2018	6		Why is Duthie Hill Road mentioned twice under Principal Arterials on Page T.10 of the clean version of the Transportation Element Background Chapter (Exhibit #3)?	A portion of the road is not in the City limits, so it reflects the portions within the City limits.
4/30/2018	7		On page T-14 of Exhibit #3, where the proposed amendments state, "Traffic signal and roundabout intersection inventory," should it also add the language, "those with four-way flashers."	Noted.
4/30/2018	8		Does it matter if the traffic counts do not state whether they were taken in the AM or PM timeframe?	The text does explain when the counts are taken. The daily traffic counts are 24 hour counts, Monday-Friday. The intersection turning movement counts are collected on a Tuesday and Thursday during the AM and PM peak hours.
4/30/2018	9		Why are we not using the 2017 traffic counts in this emergency amendment of the Comprehensive Plan?	Updating the model was started in 2017 using the 2016 traffic counts in support of the then planned update to the Comprehensive Plan Transportation Element. Staff felt it didn't make sense to throw away that work and redo it again with the 2017 data. Updating the traffic model to include the 2017 counts data would be excessively time consuming and expensive to do and would not provide much benefit. Once the model is adequately calibrated, the 2017 (and subsequent years) traffic counts data will be used to validate the model.
4/30/2018	10		Is it true that the traffic model uses 2016 traffic counts, but also incorporates new development into the model, so it can be verified against the 2017 traffic counts?	Yes. This is regularly done.
4/30/2018	11		On Page T-28 of Exhibit #3 in the discussion of concurrency, use of the word, "can" should be changed to shall. How does this relate to the GMA? Is it more or less restrictive?	Staff will make the change for consistency with the GMA (RCW 36.70A.070(6)(b)). The term "concurrent" means that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years.

Date	No.	Commenter	Questions and Comments	Staff Response to Questions and Comments
4/30/2018	12		What are the performance indicators we are looking for with the new concurrency policy? What is the outcome we are looking for and how do we measure it?	Staff conducted significant outreach last spring to the community, regional and local stakeholders, and the Council to understand what the community cares about. The feedback will be incorporated into the TMP work, including concurrency and LOS changes, and impacts of the investments that the City makes. The three goals that rose to the top were 1) Complete connections for all modes, 2) Supported by the community, and 3) Fundable and implementable. The community told us their transportation priorities were: 1.To have an efficient system that maximizes traffic capacity, 2.To make it easier to get to/from regional destinations with more transit options, 3.To have more connections to make it easier to get around by various means, 4.That management of the system should be grounded on fiscal sustainability, 5.That the network should safe and welcoming, and 6.To design the right of way and trails in a way that supports community character by connecting trails, be safe and aesthetically pleasing.
4/30/2018	13		A clarification of how the concurrency and LOS tools work. If an intersection needs to be improved, the improvement will affect driver experience and could potentially make for a slightly worse driver experience for the majority of drivers at that intersection to improve the experience for a smaller group of drivers.	In a situation where there is a two-way stop at a principal arterial, this could be the case. The City has options for addressing the needed improvements with different strategies to determine the optimal solution that balances cost, safety, and efficiency.
4/30/2018	14		Does the Comp Plan need additional language to give the City the ability and flexibility to address situations in which there may be limited options for improvements in a more direct manner?	Concurrency is relatively prescriptive and the better choice might instead be to focus on how the City identifies concurrency intersections in the Comp Plan. There are many other tools available to the Council to help achieve its vision for the transportation system. Please refer to the March 5, 2018 Council meeting materials and video for more information.
4/30/2018	15		Can the City be forced to make an improvement that we do not want to do or that is not in the best interest of the public?	The City would have to accept development and make necessary changes if identified as a concurrency project. The City will also be focusing on this topic in the TMP with a more holistic and comprehensive look at the City's future roadway network.
4/30/2018	16		For intersections outside the City limits, we should leave the delay times in Table T-5	Noted.
4/30/2018	17		Has the City verified Table T-5 with what happens on the ground in the AM peak hour? E.g. Sahalee Way and NE 36th Street.	The table is still in draft form and the City is continuing to refine the model and verify the data inputs.
4/30/2018	18		Can we show information about the intersections outside the city in a separate	Information will be shown as a separate table.
4/30/2018	19		What time and date was Mayor Malchow timing the delays? The data could be compared against the model outputs.	The video is time and date stamped.
4/30/2018	20		There are inconsistencies in the proposed Comp Plan. Example Pg. T-70 of redlined version, Vol 2. Talks about concurrency, LOS, roadway segments. That's not the direction we gave staff. Struggling with why segments are even discussed in the chapter.	Will go back and try to make the document as consistent as possible. May take quite a bit of time to make it completely cohesive.
4/30/2018	21		If modeled results are under/overestimating by quite a bit, how can we trust the models?	Please see the attachment to the 5/15/18 packet material regarding the models, and what has and is being done to calibrate and verify the input data.
4/30/2018	22		Are there new employment allocations for Sammamish that might impact the travel model, and what impacts does the moratorium have on the Town Center?	For 2035 we assumed that the moratorium has been lifted. The growth allocations have been updated based on the State's Office of Financial Management's 2030 projections but extrapolated another 5 years to match the City's 2035 planning horizon.
4/30/2018	23		Should consider adding SR520 and I90 interchanges in the TMP in the section discussing intersections outside the City.	Noted.
5/10/18	24	Malchow	Traffic counts in the background Element of the Comp Plan were taken on 4/17-23/16. Counts for NE 37th/Sahalee were actually taken 5/31-6/16. Why the different date? Was there an issue with the tubing there?	Likely due to a bad count and the need to recollect the count once the volumes were reviewed and the error was identified. It was taken before school was out and is considered to have been collected with a comparable time period.
5/11/18	25	Malchow	Andrew TSI – January 16, 2018 stated there were two types of counts, the 24 hour tube counts and then there's the counts used in the travel demand model. This is where your intersection turning movement counts are taken via either video camera or someone stands there with equipment & counts cars turning L/R, straight. Which counts are we using for our model?	Both types of counts are used in the model for calibration/validation procedures.

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5/12/18	26	Malchow	Email from DEA states the volume in counts decreased in the peak hour (another slide shows this email) and that's what's in the model. Our own AWDT counts show an increase in overall counts, so how can counts go down in the peak hour?	This is the SR202/Sahalee intersection. The counts go down because the downstream congestion on SR202 impacts the intersection and reduces the number of cars that pass over the tubes and make it through the intersection during the peak hour.
5/13/18	27	Malchow	Explain the difference between ADT and peak hour counts and how the data is used. (Request paraphrased from PowerPoint slides ~6-10, 13). Using the Peak Hour traffic counts and/or peak hour turning movements for an input into the model is a mistake for the following reasons: * You cannot move as many vehicles passed a tube counter strip (or camera or person) in the road when you have congestion *Fewer vehicles can pass the point, which decreases your counts & leads to the industry term "peak spreading". If you count fewer cars, and use that assumption in the model for LOS at intersections, it will artificially create less of a delay because the model assumes less cars passed the counter strip	ADT is the daily traffic volumes measured along a roadway, often by a tube count. Peak hour counts refer to intersection turn movement counts that are collected at each movement entering an intersection during a peak hour (for example, 7-8am or 4:45-5:45pm). Both data points are used in the calibration and validation of the travel demand model. Only peak hour counts are used in the peak hour intersection analysis, which applies the city's operations model, which is run in Synchro software.
5/14/18	28	Malchow	Andrew (Bratlein) stated specifically they looked at TURNING movements. What about vehicles NOT turning? NE 37th @ Sahalee, many of those cars are not turning if proceeding N bound on Sahalee. Were they counted? If not, was the tube count used? If the tube count was used, then a decrease in the # of vehicles could be attributed to congestion rather than actual fewer cars.	Turn movement counts include all vehicles traveling through and turning at the intersection.
5/15/18	29	Malchow	I asked on January 16, 2018 if the data from the flashing yellows was incorporated into our new LOS at intersections. What I didn't know then is that we were only dealing with 2016 counts. NOTE: traffic counts = 2016 data & the flashing yellows began installation in September of 2017…so the flashing yellow data can't be added into the model unless using 2017 traffic counts (which staff said they couldn't do). This inconsistency in the model is an error. (sic)	Flashing yellow signal have been added to the operations model, but do not affect the results of the travel demand forecasting model. While it is understood that they were not in place in 2016, when the counts were collected, we do not believe that they substantially influence traffic patterns. Thus testing their benefits on top of 2016 traffic volumes is a reasonable approach.

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5/16/18	30	Malchow	What are we using for the (Q) based on congestion levels at the intersections? We would still need a capacity (for the v/c) of the roadway, what are we using for capacity since T-8 is gone & we don't have a defined "capacity". Andrew Bratlein (TSI) stated that Synchro calculates queue values & that he himself altered the DEA model for queue length or what he termed "latent demand" (which wasn't present in our model before). Synchro's website states this about the queue length. This seems to indicate we are using a capacity number for the v/c. Since Council took issue with how we calculated capacity (Table T-8), what capacity is staff using to put into the model to calculate the queue? The equation used in calculating queue (Q) is dependent on the congestion level at the intersection. If the v/c <1.0, then equation one 1 is used. For lane groups with v/c >1.0, equation 2 is used. Equation 2 represents the maximum queue after two cycles, including unserved vehicles from the first cycle plus all arrivals on the second cycle. (1) v/c < 1.0 $Q = \frac{V}{3600} * (R - 6) * \left[1 + \frac{1}{s / v - 1}\right] * \frac{L}{n * fLU}$ = Queue Length (ft) (2) v/c > 1.0 $Q' = (v * (C - 6) + (v - s * g/C) * C/3600$ = Queue Length for Saturated Links (ft) (3) $v95 = v * PHFx * \left[1 + 1.64 * \frac{\sqrt{vc}}{}\right]$ = 95th Percentile Arrival Rate (vph)	The city intersections in the concurrency model are tested using standard HCM methodologies for isolated intersections. Analysis procedures that consider queue lengths more explicitly, such as simulation, are recommended for the City's congested corridors to identify potential infrastructure improvements. This is a much more detailed planning process that will be conducted as part of the TMP, rather than through routine concurrency review. In selecting an appropriate concurrency approach, important considerations include the ability to apply the concurrency model consistently and efficiently - detailed simulation, while important for identifying infrastructure needs, is not a pragmatic tool for concurrency application.
5/15/2018	31	Stuart	Does the pipeline model just have the permitted or certificate of concurrency- approved projects? Would that be the model we'd run for new projects? So we don't need to make any guesses because nothing else would be approved unless it's run through that model with a higher degree of accuracy because we know exactly what they're applying for.	Yes, that's correct.
5/15/2018	32	Stuart	How long does it take to calibrate the model?	It takes about 4-5 months between collecting the traffic counts and calibrating the model.
5/15/2018	33	Malchow	Is the operational model, is it the info baseline that's put into Visum model for the predictive stuff? We're modeling existing state of affairs so that's the baseline in Visum?	Yes. The baseline data (2016) is put into the Visum model as the starting point.
5/15/2018	34	Hornish	You said there's no chance of human error because the Visum output going directly into Synchro, yet at 36th/Sahalee, we had a 234 sec delay and I think in the discussions last week, you said it was because of human error. Can you fix my misunderstanding that if there's no human input, yet there's human error in the outlier in that intersection. [Later] So, just to clarify, there are human inputs in the model? [Later] And yet, as of two weeks ago we hadn't verified it because that outlier was there. Had you run the 6 year plan, you would have shown a great improvement because of the error in human input for the current conditions. Is that what I'm understanding?	When we transfer the data from Visum to Synchro or Sidra, that's automated. The raw data input (traffic counts and turning movement counts) that's input manually. There was an error in the turning movement field counts at 36th/Sahalee, which will be corrected in the model. Yes. [Later] This is a draft product. Staff identified an error in the count and are fixing it. We appreciate the careful attention being given by Council.
5/15/2018	35	Stuart	If I understand correctly, the error was in the count taken where someone actually hit the 10s instead of the 1s counter every time a car was there, it wasn't that there was an error in the inputting of the data.	That's correct.

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5/15/2018	36	Hornish	I just want to clarify that there are human interactions with the model.	Yes, absolutely.
5/15/2018	37	Baughman	Does the pipeline model only count things that have been permitted? Most of Town Center doesn't have a concurrency certificate so is it accurate to say that the 6 year model doesn't take that into account? [Later] So, what is the basis of the longer range forecast? How are TAZs, certificates of concurrency, and what we think will happen used in the model? [Later] So you're not running the model on what could be built, you're running the model on assumptions on forecasted growth.	That is correct. The pipeline model does take into account regional growth trends. For the Town Center, it only includes the development that's been approved. [Later] The 20 yr. model will incorporate the land use section of the Comprehensive Plan, TAZs and regional growth assumptions. We assume that the Town Center is fully built out by 2035. [Later] Yes, that's correct.
5/15/2018	38	Indapure	If we're not accounting for forecasting in the pipeline model, why don't we have the infrastructure before we have permission for these houses to be built? Are those assumptions built into our model going forward, or before permitting happens? Do you run the model and only issue permits if the concurrency is satisfied? I think what we would all like to see is that, yes, we are capable of handling more traffic. [Later] Partially, but what I want to see that when we run these models we can look into the future and know that we can handle future traffic and construction. How can we get to that if we're not putting those numbers into the pipeline? [Later] We're working on now is the car experience only and not. It doesn't take into account transit or other modes?	I think what you're asking about is when the concurrency test is conducted and when a concurrency certificate provided? [Later] Staff can run the model based on different future scenarios to assist in developing policies that make sense. Our intention for the 2035 model is to reflect all of the growth we reasonably can anticipate. [Later] Yes, the proposed concurrency and LOS policies are based is just one piece. As a City we interested in looking at what facilities do we need to make the transportation system welcoming to everyone as part of the TMP. Our intention is to feed that back into your planning process and have the projects land within the impact fee program.
5/15/2018	39	Valderrama	The TMP will allow sensitives for testing for changes-- for example if we we're mandating to take a minimum density of R6, we could look at the impact within the TMP and see how it drives priorities?	That's correct.

Date	No.	Commenter	Questions and Comments	Staff Response to Questions and Comments
5/15/2018	40	Malchow	Follow-up on question #26: I want to clarify that the staff response to my question says that this is the SR 202/ Sahalee intersection. What I showed in my slide deck was that intersection and additional intersections. For the most part, the AWDT are going up and not down. We're only looking at the peak hour-- this speaks to the peak spreading I talked about in my slide desk. My scrutiny is not in the pipeline model, it's in the operational model. If the baseline for Visum, which is the demand model, if we're using the operation model as that baseline I think there are still existing errors in the baseline/ operation model. I'm glad when I highlighted 36 we actually did find and error there and we were able to correct that. For 29 (flashing yellow turn signals), I struggle with the answer. Andrew had mentioned that flashing yellow arrow turn signals has been incorporated into the model. My issue is that you're using an element that hadn't been incorporated until late 2017 and you're framing that against 2016 traffic counts. How are you able to use 2016 counts with an element that didn't exist when those counts were taken? [Later] That would be my suggestion. What transpired on the ground in 2016 is not necessarily what transpired in 2017. There are more cars now, it's inevitable. What we're saying is that our peak traffic counts are going down, which is counter-intuitive to AWDT traffic counts going up at nearly every place in the city. We have more vehicles driving on our road yet our peak hour counts are going down, which is indicative of peak spreading. So, if we have errors in the baseline we can't use the model to project what's happening in the future. This also affects our TIP. We've said our peak hour is 7-8am, but I've seen that our peak hours are all over the place. We've had to land on one peak hour, but it's not reflective of what is going on. At 37th and Sahalee, the peak hour there is actually 7:30-8:30. So our peak hour is not our peak hour there, or at Skyline with the late start where it moves from 8:45-9:45. We completely miss it. There was no queue at 8am at Sahalee when Cheryl and the modeler were standing there, but at 8:45 the queue went all the way back. I struggle with the queue and how we're measuring it. That's question #30, and I still need clarification. What I've found on Synchro's website is they have a tool to calculate the queue, but you need a "c" (capacity). So what are we using as our "c"? Because we got rid of it. [Later] We used to have a capacity based on lane width-- is that the same in the HCM?	I think that's a good point. It might be best if we had a one-on-one. Initially yes, the 2016 Synchro model did not include the flashing yellow arrows. The counts were collected in 2016 before the flashing yellow arrows. Our response was that these flashing yellow arrows were beneficial and I interpreted the question as "can you show the benefit with those signals in place". The 2016 counts are probably not that different than the 2017 counts, which won't be very different from 2018. But that's certainly something we can vet with the new counts. Again, I interpreted the questions as "Are we able to understand how these traffic signals improve traffic operations in Sammamish". If you would like us to truly reflect what conditions were on the ground in 2016 even though that may not be the condition that exists today, that's something we can do. [Later] The Synchro analysis software is based off the HCM. The capacity that is assumed in Synchro is based off formulas assumed in the HCM national standard. It's not based on any local numbers we used to use. It's passenger cars per lane per hour. [Later] No, the HCM takes into account all kinds of factors and is based on national data-- It's not as arbitrary as the old Table T-8 values. In an urban system, we'll often say 600 vehicles per lane per hour. In a non-congested highway setting, it's about 2,000 vehicles per lane per hour. It's probably lower when you're close to an intersection control.
5/15/2018	41	Malchow (cont.)	What staff has said to Council is that Synchro can't predict operation chokepoints and does not know how to handle standstill traffic so it assumes it does not occur. Obviously it does occur, so how do we overcome that? [Later] I'm still struggling with the queue, event if we can address that in the TMP later.	We know that queues are occurring, I see it myself when I'm coming into Sammamish. There's a lot of weight hanging on the concurrency policy right now, more than one policy can bear. I strongly think that standing queues are a huge issue here that we need to model and understand, but that's not something appropriate for a tool that is used routinely for development review. The best place for it is in the TMP. We can then see about other development scenarios and how it fits in. Concurrency isn't the place to address that. [Later] I understand. A segment type analysis done during peak one- or two- hour with a volume to capacity analysis could be done to answer your questions.
5/15/2018	43	Stuart	If understand correctly, the way the current 2016 existing conditions model works, to keep at existing conditions you add in all the new development that has come online and all of the improvements that have been made. Is that correct? Or does the 2016 existing conditions just stay as 2016? [Later] So the additions of the flashing yellows are put into the pipeline model then?	Correct. [Later] In this case, we put the flashing yellows into the operations/ Synchro model. [Later] I want to be clear about our two models. First, the operations model reports delays and is based on traffic counts. The Travel demand forecasting/Visum model shows future conditions and takes into account growth and transportation investments. The outcome of that model is volume forecasts. We can use those volume forecasts to assess whether or not an intersection will operate effectively or not in 2024 and pull that back into our operations model and test whether anything new, like a flashing yellow arrow, will have an effect. The flashing yellow arrows will be in the pipeline model.
5/15/2018	44	Malchow	I don't understand the point of using 2016 counts with 2017 flashing arrows that didn't exist.	They will be removed from the 2016 model.

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5/15/2018	45	Stuart	Do we use a single peak hour because if we tried to do an individualized peak hour for every intersection we're not really measuring the efficiency of our system, we're measuring the efficiency of individualized intersections? So, we need to pick an hour or two hours, but it has to be the same across the system, correct? [Later] So, to be clear, the only tool at our disposal to ensure that the property development is taking place is not concurrency, because they still have to pass SEPA and other traffic tests.	The main reason for the uniform peak hour has to do with forecasting. Our system wide peak was 8-9am and we moved it back to 7-8am to account for school start times. Concurrency enables us to forecast whether bringing new development in allows us to continue to maintain our level of service during our prescribed time period. Peak hours are absolutely different at different intersections. Developers have to collect counts from 7-9am, so we could include anything in that window. We talked about 7-8am not being the system wide peak, but there was a desire from Council to use it because of school traffic. [Later] Yes. And the difference between the peak hours is less than 1% in total traffic counts. One of the reasons we have so much peaking between 7-8am is because there are such short windows for school drop off, so that's when conditions are the worst. We actually do encourage peak spreading by working with schools to spread their start times apart because it minimizes traffic peaking.
5/15/2018	46	Malchow	Why did we move the peak hour from 7-8am? Was it to account for schools or was it because the majority of trips were occurring during that time?	The majority of trips actually occurred from 8-9am. Technically the system-wide peak was 8-9am, but there wasn't a huge difference and the hotspots really occurred near the schools during the school starting times. The Council did direct staff to go with 7-8am.
5/15/2018	47	Ritchie	What does 97% accuracy on the model mean? [Later] So, you're staying there was a statistical model done which was verified by an on-site counts. Was this done at all of our intersections? [Later] I appreciate that. Is that your standard operating procedure? [Later] So, is it fair to say this model does not reflect driver experience? We're not talking about the time from my house to x. Because in order to build that, we'd have to say x to y. So how to do you plug in data for driver's experience for each person, all of whom go different ways?	The Sammamish Visum Model Calibration Plot shows a comparison on the Y axis on the left side with the model assigned volumes on your network in the travel demand model. The X axis on the bottom show a comparison to the count at the exact same location. The green line shows a 1:1 relationship, so if the x falls on that line the volume we're modeling exactly matches the count that we took. There's some variation and some intersections where the observed count was slightly higher than what the model shows. But, according to a statistical analysis, the R^2 or likeness of fit is .995 (almost 1). But R^2 is not always the best value, and you can also use root mean square error. Anything under a percent real mean square error of 35 is assumed to be calibrated within industry standards. We're at 4. So this model is extremely well calibrated model. [Later] Correct, this was based on data collected at about 77 locations in both directions, so there were about 154 locations. [Later] We did more count locations than is typically done so it took longer to calibrate the model. Having a calibrated AM and PM models to this level is very robust. Later] You're looking long-term and thinking about how to build the city out so residents have a reliable origin and destination trip. What we're talking about today is concurrency analysis, so that isn't necessarily the place to look at that long term conversation. Your concurrency program needs to identify failing intersections or segments that need to receive funding to mitigate impacts. The HCM does that. To go beyond that, you need a simulation (there's a companion program that runs with Synchro). Because of the amount of information and data that goes into that model, it's difficult to use for concurrency so it's more on the TMP side. Syncho analysis just says which intersections are failing. To go beyond that, you need to use a different simulation model to get origin and destination travel time. It's a very complicated model with lots of data needs to set up and calibrate.
5/15/2018	48	Malchow	The 97% accuracy refers to the future Visum model, not that the current Synchro model is 97% accurate.	The 97% refers to how well the Visum model, which generates the volumes that we put into Synchro, matches conditions on the ground today and what is our confidence with its ability to predict traffic volumes given the reasonable growth we're anticipating. We're continually looking at ways to confirm that the current model matches driver's experience, but depending on what part of an intersection you're in you could have a very different experience. The drone videos will be a good opportunity to see whether Synchro is matching what we're seeing.
5/15/2018	49	O'Farrell	With the opening of Snake Hill Rd, we may experience differences in delays trying to get off the Plateau, so we need to think of that too. This is a third way of getting off the plateau.	Yes, that's why we're waiting to collect traffic counts for 2018 until people get used to using Snake Hill again.
5/15/2018	50	Malchow	Why are we making changes in code/ public works standards not tied to level of service? Because we weren't allowed to do that for the Comp Plan.	We were trying to get it all into one unified code section for ease of use. We did not make any substantive changes to the public works standards. Changes to the Comp Plan are limited to the emergency action taken by the Council.
5/15/2018	51	Baughman	The code revision text does not reflect the peak hour we've been discussing. It says "for particular roadways or intersections", but we have the same hour for all.	We can operationalize this comment.

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5/15/2018	52	Malchow	[For #7 in the matrix] There's a word missing. [Later] Who is the director's designee where it mentions that in the code? [Later] [For #13 in the matrix] Not sure "reasonable assurance" is the right term to stay consistent with the WAC. Maybe the city attorney can check that. [Later] Under project improvements, Council should be written with a capital C [Later] The rate study should say "or the most current update" to be congruent with code.	Okay. [Later] Typically the Deputy Director, City Engineer, or Traffic Engineer. [Later] Okay. [Later] Okay. [Later] Yes.
5/15/2018	53	Malchow	Comment on 14A.10.040: Needs to be a comma-- "The concurrency test as needed, in the order..."	We'll make sure that doesn't introduce an unintended consequence and add it to the list.
5/15/2018	54	Malchow	21.A.15.870 Peak hour needs to be flagged. I suggest you stop calling it peak hour and say AM hour or PM hour instead.	We'll take a look at that but it might have a ripple effect.
6/3/2018	55	Malchow	I noted the date change says “June 2018” for the policy section of our updates, but still says “April 2018” for the background element. Does that mean no changes were made to it since we last looked at it or that the date wasn’t updated to June?	The dates in the policy and background chapters headers should be June, 2018. Due to the challenges with having to use Word for the redlined versions and InDesign for the clean versions, the dates have to be manually updated on each page and we frankly ran out of time. I meant to make a note of that in the agenda bill and forgot. The documents will have the corrected dates by the Planning Commission's hearing on June 21. Hope that answers your question.
6/4/2018	56	Brooks	I have attached a figure I acquired from Staff in September 2014 showing the road classifications - -please note SE 24th St west of 212th Ave SE, classifies as a "local road." On recent maps, this stretch is now indicated a "collector arterial" or "collector" depending on the document. Can you tell me when this change happened? Or is this change part of the current update?	It appears that the attached figure is from the 2003 Comp Plan. The functional classification of that road was changed in the 2015 Comp Plan.
6/4/2018	57	Indapure	Hi. This weekend I noticed that there were road tube traffic counters setup throughout the city. Do these capture bicycle traffic in addition to car/motorcycle traffic? (The Flying Wheels bicycle event was held this weekend, and over 1500 people participated in this event which went through different parts of Sammamish). I wanted to check if this would impact the traffic counts/calculation for the city.	The tube counters do not count bicycles traffic.
6/5/2018	58	Garrison	Page 100 - You call off several names for 32nd in the text. If you use several names in the text, you should show all of them on the map. I know there's not room. Maybe if you place them carefully above and below the road, you can do it. Mapping seems to be behin6.	Many streets have multiple names so adding all of them while keeping them readable is challenging. We encourage the reader to view the street map of the City on Google maps.
6/5/2018	59	Garrison	Page 107 - Should you show the new signal on Pine Lake Rd. just north of Klahanie Blvd? On that map, I really appreciate seeing a regional map that shows the connections outside of the City limits. If you don't like going beyond the City limits on all of the maps, maybe you could have one called "Region," so we can see how we link to major transportation corridors and mass transit networks.	The map shows the types of intersection controls as of 2016. The signal at SE 42nd St/Issaquah Pine Lake Road was installed by the developer in 2018. We included information outside of the City limits where we felt it was helpful to the reader. We encourage the reader to go to the websites of our adjoining neighbors (CIties of Redmond, Bellevue and Issaquah), King County, WSDOT and Sound Transit to see their transportation networks and transit routes.
6/5/2018	60	Garrison	I tried to find a definition for "public facilities" and couldn't find one. Maybe it's in there, but it seems important enough to me that it should appear in the revised glossary. It's sounds very general, but if I were a developer, I would want to know my options. (If I'm not being clear, I believe paying for "public facilities" is one of the options a developer has when s/fle cannot make concurrency.)	The definition for Public facilities is as follows and can be found in Chapter 14A.05.010 Definitions: “Public facilities” means the following capital facilities owned or operated by government entities: (a) public streets and roads; (b) publicly owned parks, open space, and recreation facilities; (c) school facilities; and (d) fire protection facilities in jurisdictions that are not part of a fire district.

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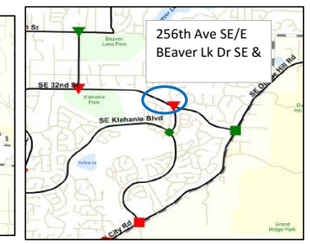
6/5/2018	61	Garrison	Page 126 - I found 5 intersections classified as LOS F. I wondered if the new light at Iss/Pine Lake Rd. and 42nd should be shown as a signal on the map (p. 132.) Also did that signal kick the intersection out of the F category? I couldn't find 223rd and Sahalee Way on the map. The 256th and Beaver Lake roads are not shown on the map either, and I believe if they are mentioned in the text, they should be shown on the maps.	The light at Issaquah Pine Lake Rd & SE 42nd was installed in 2018. The LOS at that intersection improved from LOS F to LOS A when the signal was activated April. The map shows the types of intersection controls as of 2016. Staff confirmed that the two intersections in question are on Background Figure T-7 2016 Intersection Level of Service. 
6/5/2018	62	Garrison	Page 144- Does not show the p&r lots in Klahanie as being in Sammamisn.	Edits to the Transportation Element are limited to the emergency action relating to transportation concurrency and LOS. Updating the Park and Ride inventory is not related to the emergency action so it was not done. However, it will be updated when the Transportation Master Plan is developed.
6/5/2018	63	Garrison	Page 145 - The map needs updating; it's deficient in many ways. I hate to go over maps in the meeting, since it takes time, and I don't know if all the maps are expected to be updated at a later time.	Edits to the Transportation Element and codes were limited to the emergency action relating to transportation concurrency and LOS. However, all the information will be updated when the Transportation Master Plan is developed.
6/5/2018	64	ritchie	If we were to approve the motion and want to meet project deadline, is it doable? What'll need to happen? Later: Do you have an estimate of how much more time you'll need?	The Planning Commission is scheduled to hold a hearing on 6/21. If the Council wants to approve all modeling assumptions, we don't have any time to do so and still meet the schedule. Since we weren't given the questions ahead of time, we unfortunately not prepared to give a solid estimate of how much more time we'd need to update the model.
6/5/2018	65	Malchow	How long would it take to alter peak hour in the model? We already have 7-8am. Later: How hard is it to marry those two (7-8am and 8-9am model results)? Later: How did we get to 7-8am as the peak hour in the morning? The slide (in a previous presentation) says "System Peak 7-8". The Council was given incorrect information and wasn't told that it wasn't the peak hour in the slide deck. It was stated about 6 seconds later. Supports 7-9am peak 2 hours because it'll capture some of the other problems in the City that's being missed. Look at school peaks but concerned about commuter peaks outside of school peaks.	We have the 8-9AM data for the most part but we don't have 4:15-6:15 pm field data so we can't run those hours. We have 24 hour system traffic counts but not intersection movement counts. Later: Not sure what you're looking for. Most cities collect traffic counts over 2 hours. City's traffic model is based on single unified peak hour which is consistent with other cities. How would you use the 2 hours worth of data? The longer the period, the more it'll cover wash out cogestion. Do you want developers to look at all 3 peaks for each concurrency test (i.e. 7-8, 8-9 and 4:45-5:45)? Most cities only look at one peak hour. Later: The 7-8am peak was used because the reason for developing the AM model was the Council's concerns about capturing the school traffic. It therefore did not make sense to staff not to use the school peak in the AM model, which is generally 7-8am. The table showing the System Peak as 7-8am was staff's communication to council that that was the system peak that would be used in the model.
6/5/2018	66	Malchow	Does changing the queue length at 500 or 650' start to break down as the model goes? If the queue length is changed, does it matter about the 120 seconds?	We're not clear on how you'd like us to operationalize changing the queue length. The queue length is an output of the model, not an input. The turn pocket length is a model input and is what is actually in the field. If you want us to make all turn pockets 650 feet regardless of what length they actually are, the model results will be very questionable so we don't recommend it.

Date	No.	Commenter	Questions and Comments	Staff Response to Questions and Comments
6/5/2018	67	Malchow	If we use 7-9 am as the peak, would there be more failures?	Depends on how its operationalized. If we look at 2, one hour peaks and average the results, there may be fewer failures, or maybe more. Will need time to evaluate.
6/5/2018	68	Stuart	What's the impact of adding hour in morning and extending the queue length?	We haven't had time to analyse the impacts and will need a week or so to determine how long it'll take. We don't want to give Council wrong information.
6/5/2018	69	Malchow	How can we capture all of the problem intersections without cherry picking. Don't know if that means we should widen the peak hours.	As we've presented to Council, there are a lot of tools that can be used to evaluate hot spots, help determine which projects to put on the TIP, and improve the transportation system, including the Public Works Standards, impact fees, development regulations, SEPA, and Comp Plan.
6/21/2018	70	Indapure	The motion that Council member Ritchie mentions (#64). If this motion was voted upon and what was the result?	The motion which ultimately passed was to run the 2016 existing conditions model for 8-9am. The results are shown in the 6/19 Council packet on the City's website. To summarize, the failing intersections for 7-8am, 8-9am and 4:45-5:45pm are shown below. An update on the drone vido and INRIX data was also discussed at that meeting. **Report Back: Failing Intersections by Peak Hour** 2016 Existing Conditions No. / Intersection / Delay (sec)/LOS: 7-8am / 8-9am / 4:45-5:45pm 3* Klahanie Dr SE & SE Issaquah Fall City Rd: 59/E / 93.6/F / 120+/F 5 SE 32nd St & 244th Ave SE: / / 37.3/E 7 228th Ave SE & SE 40th St: / / 67.4/F 9* 247th Pl SE & SE Issaquah Fall City Rd (Pacific Cascade MS): 63.8/E / / 11 242nd Ave NE & NE 8th St: 38.7/D / / 32 256th Ave SE/E Beaver Lake Dr SE & Issaquah Beaver Lake Rd: 120+/F / 32.9/D / 32.3/D 35** Issaquah-Pine Lk Rd & SE 42nd St: / / 51.4/F 36 Issaquah-Pine Lk Rd & 230th Lane SE/231st Lane SE: 79.4/F / / 37 NE 28th Pl/223rd Ave NE & Sahalee Way NE: 120+/F / 120+/F / 57.3/F * Issaquah-Fall City Road Project will construct ** Developer installed temp signal in 2018, improving LOS from F to A.
6/21/2018	71	Indapure	Were there any decisions/changes by the Council regarding the updates that we will be reviewing today?	The only edits that have been made since the last joint meeting on 6/4 between the Planning Commission and Council are redlined and highlighted in yellow in your packet.

Date	No.	Commenter	Questions and Comments	Staff Response to Questions and Comments
6/21/2018	72	Baughman	1. Prior comments have indicated that the currently proposed Intersection Level of Service model doesn't analyze or predict corridor congestion ("it essentially ignores it"). The INRIX data should show these conditions historically. 2. How is the INRIX data being used in conjunction with the Intersection Level of Service model, or is the proposed concurrency methodology not using the INRIX data? 3. Is there some reason that corridor congestion isn't important in a concurrency testing traffic model?	1. The Synchro model, which models signalized intersections, cannot predict delays due to congestion (backups) caused by a downstream chokepoint so it "ignores" that condition. If the congestion is solely due to the lack of capacity at the intersection and not because the backup from the downstream intersection spills into said intersection, Synchro does estimate the delay and queue length. For corridors where INRIX data is available, it does show historical information. The City has access to data from May 2017. 2. INRIX is useful for identifying past and existing problem areas, and can help prioritize projects. It does not predict future conditions. 3. The City's existing concurrency policy is based on a three-part LOS standard which considers PM peak hour intersection LOS, daily segment LOS and daily corridor LOS. The City Council decided that the existing policies and approach were overly complicated, didn't connect well to the driver's experience, didn't consider the AM school peak hour traffic impacts, was poorly documented, and focused on arterials and north-south corridors. Staff discussed with Council about revising our LOS including giving presentations on the following options. (See packet materials for 9/5, 9/17, 10/11, 11/6, 11/28, & 12/12 Council meetings): A.Intersection only LOS, which was later subdivided into two variations - worst leg approach and average of all legs approach. It was later determined that the worst leg approach wasn't worthwhile pursuing and was dropped from further consideration. B. Corridor level intersection delay C. Average speeds and travel times D. Multimodal E. System completeness F. Person trips available G. Removing the non-motorized elements (Table T-8) of the existing policy and keeping intersections, segments and corridors H. Travel time and multimodal After much discussion and many meetings with Council, R2018-789 was adopted which affirmed an intersection-wide, volume weighted average delay approach with allowances for LOS C, D or E depending on the road classification and intersection configuration. Corridor congestion is of critical importance and will be evaluated as part of the TMP and development of the 20 yr capital project list.
6/21/2018	73	Baughman	1. What are the likely implications if the City were to go back to our prior corridor/segment method of modeling and just fix the previously identified errors (missing AM peak, manipulated segments, incorrect future projects list, etc., etc.)? Is this difficult? Possible? Realistic? 2. There have been comments about the Intersection Level of Service model not being 'validated'. How and when will this model be "validated", and what will this mean? How was our prior model/method validated? Should it be described as an alternative choice that could be considered?	1. That was one of the options presented to council in the fall (see response 3G to question 72 above). Regarding "manipulted segments", the City's Comprehensive Plan stipulates a three-part LOS standard that includes an intersection LOS, segment LOS and corridor LOS. Page T.71 says "Corridor LOS will be determined by averaging the incremental corridor segment volume over capacity (v/c) ratios within each adopted corridor. This has the effect of tolerating some congestion in a segment or more within a corridor while resulting in the ultimate compeltion of the corridor improvements. The average v/c of the segments comprising a corridor must be 1.00 or less for the corridor to be considered adequate. All corridors must pass the Corridor LOS standard for the transportation system to be considered adequate." With respect to your questions would making these changes be difficult, possible, and realistic - since these options were all brought to council as possibilities in the fall, they are all possible. Changing course in how concurrency is measured would require a modification to the current project schedule and potentially the overall cost, but the technical ask is not outside the realm of possibility. 2. The model has been calibrated to an accuracy far above industry standards. Please see Pgs T.37-T.41 of the Transportation Element that is in the 6/21/18 packet for a general description of how the model is set up and calibrated. Staff have engaged Council and the Planning Commission numerous times regarding the model including at Council, Planning Commission and joint meetings on 7/10/17, 11/28/17, 12/12/17, 1/16/18, 6/4/18, and 6/5/18 as well as at other meeetings. Please refer to materials from the May 15, 2018 meeting during which the consultant modeler described discussed how he calibrated the model and its accuracy. A description of the different models that the City uses was also described at that meeting. Questions have been asked of staff whether they have measured intersection delays in the field. That is not practical to do for every movement at every intersection; however, staff and consultants have confirmed spot locations where questions have been raised about the modelled results. Drone data, INRIX data, and in-person observations are all tools that been applied.

Date	No.	Commenter	Questions and Comments	Staff Response to Questions and Comments
6/21/2018	74	Baughman	Have the City Council's comments about extending the AM peak time, a more realistic list of future improvement projects, etc. been incorporated into the model and the forecast, or will they be?	At the June 19, 2018 meeting the consultant presented the results of an 8-9am peak with the 7-8 am peak results. See response to question 70 above. The modeling is performed based on the adopted 2018-2023 TIP, as well as the assumptions described at the May 15, 2018 meeting.
6/21/2018	75	Baughman	We've been told that projects that have been 'permitted', including both Town Center and other residential developments, have been included in the forecast model. What has actually been included? There were 2,000+ new single family homes that had submitted some level of application, but how many of these reached the level of review such that they are incorporated into the forecast? Similarly, if none of the Sammamish Town Center Associates' planned development has reached the level of any permit, then none of that (which is the majority of Town Center) was included, correct? Can we have more specifics about how many homes and how much of town center, that is not yet already under construction, was included in the forecast model?	As presented at the June 4, 2018 meeting, these are the modelled assumptions for the Town Center: 6 year pipeline includes only projects that have been permitted or issued certificates of concurrency, including those in the Town Center. The 20 year forecast includes 600,000 sq ft of commercial space and 2,000 residential units in the Town Center. Here is some additional detail about the Land Use assumptions which were included in the packet for the 5/15 meeting: a. Model took 2030 OFM/King County/PSRC projections for the region and adjusted it another five years to meet Sammamish's 2035 forecast year. The results were applied to Redmond, Issaquah, and greater surrounding areas. b. OFM's growth projections over the past 30 years have been within 3%-5% of actual growth for the region c. Growth from neighboring cities will occur in a straight line fashion. For example, if in 2015 a zone shows 100 dwelling units (DUs), and in 2035 shows 300 DUs, then the 2025 model would calculate 200 DUs. d. Sammamish's land use assumptions are modified by trips assigned in approved concurrency certificates. e. The Pipeline Concurrency Model only include projects that are permitted or issued certificates of concurrency, including those in the Town Center.

Exhibit 7, 7/10/18

City of Sammamish Washington

Memorandum

801 228th Avenue SE ■ Sammamish, WA 98075 ■ phone: 425-295-0500 ■ fax: 295-295-0600 ■ web: www.sammamish.us

Date: June 22, 2018

To: City Council

From: Shanna Collins, Planning Commission Chair
Larry Crandall, Planning Commission Vice Chair

Re: Summary of the Planning Commission Recommendation for Transportation Concurrency and LOS Comprehensive Plan and Code Amendments

On behalf of the Planning Commission, we are pleased to forward to the City Council this unanimous recommendation to amend transportation concurrency policies and level of service (LOS) standards referred to in the 2015 Sammamish Comprehensive Plan and make associated updates to the Sammamish Municipal Code (SMC).

Project Scope

The Department of Public Works has proposed draft emergency amendments to the Comprehensive Plan Glossary and Transportation Element as well as associated amendments to SMC Titles 14, 14A, 20, 21A, 21B, and 27A. The scope of the edits is limited to only those items that relate to the emergency action regarding the City's transportation LOS and concurrency policies and program.

Project History

City staff, Council and the Planning Commission began working on this issue in April 2018. Below is a summary of the public meetings that have been held for this effort.

1. April 30, 2018 Joint City Council and Planning Commission Meeting: City staff and Fehr & Peers presented proposed amendments to the Comprehensive Plan Transportation Element Policy and Background chapters to a joint session of the City Council and Planning Commission. As noted above, the scope of the amendments was limited to only those items that relate to the emergency action; the latter part of the background chapter discussing the long range travel demand forecasts out to the year 2035 and projected needs will be updated once the Transportation Master Plan is completed next year.
2. May 15, 2018 Joint City Council and Planning Commission Meeting: The project team presented draft code revisions necessary to implement the proposed changes to the concurrency and LOS policies. The changes were pursuant to the Council's direction in R2018-789, which affirmed the preferred transportation concurrency policy and LOS approach. At this meeting Council also directed staff to revise the future forecast section of the Transportation Element Background chapter to reflect the proposed intersection-only LOS concurrency policy, including the proposed 2019-2024 intersection concurrency projects, verify the 2013-2016 intersection turning movement field counts; present the video drone footage of four of the failing intersections, and continue to refine the traffic models.
3. June 4, 2018 Joint City Council and Planning Commission Meeting: City staff and Fehr & Peers presented a final revised draft of the Transportation Element and associated code sections. This included an additional revision to the Glossary section of the Comprehensive Plan. In conducting a final review of the Plan to ensure that all proposed changes had been identified, staff realized that two terms in the

Glossary section needed to be updated as a result of the proposed changes to concurrency and LOS policies.

4. June 21, 2018 Planning Commission Public Hearing and Deliberation: The Planning Commission opened and closed two Public Hearings on the draft emergency amendments to the Comprehensive Plan Glossary and Transportation Element, and on the necessary code revisions.

Planning Commission Recommendation Summary

On June 21, 2018 the Planning Commission held two public hearings for, deliberated on, and recommended unanimously that the City Council approve the proposed emergency amendments to the Glossary and Transportation Element of the 2015 Sammamish Comprehensive Plan that directly address concurrency and LOS policies as amended and code amendments to the City of Sammamish's transportation concurrency and LOS regulations including SMC Titles 14, 14A, 20, 21A, 21B, and 27A. The Planning Commission also recommends that City Council include descriptions of the City's two types of traffic models in the Transportation Element of the Comprehensive Plan as outlined in the Traffic Model white paper as presented at the May 15, 2018 City Council Joint Session with the Planning Commission.

Thank you,

Shanna Collins — 6-27-2018

Shanna Collins
Chair, City of Sammamish Planning Commission

Date

Larry Crandall — 6/27/2018

Larry Crandall
Vice Chair, City of Sammamish Planning Commission

Date

Agenda Bill

City Council Special Meeting
July 10, 2018

SUBJECT:	Introduce the Information Technology Gap Analysis and the GIS Strategic Plan Reports
DATE SUBMITTED:	July 02, 2018
DEPARTMENT:	Information Technology (IT)
NEEDED FROM COUNCIL:	☐ Action ☐ Direction ☑ Informational
RECOMMENDATION:	Review and comment on the Information Technology Gap Analysis and the GIS Strategic Plan Reports
EXHIBITS:	1. City of Sammamish GIS Strategic Plan 2. City of Sammamish IT Assessment Final 3. Sammamish Strategic Plan Presentation June 5 4. Technology Management Assessment Readout

BUDGET:

Total dollar amount	$20,000 for 2018	☐ **Approved in budget**
Fund(s)	Technology Replacement Fund (502)	☑ **Budget reallocation required**
		☐ **No budgetary impact**

WORK PLAN FOCUS AREAS:

☐ Transportation	☐ Community Safety
☐ Communication & Engagement	☐ Community Livability
☑ High Performing Government	☐ Culture & Recreation
☐ Environmental Health & Protection	☑ Financial Sustainability

NEEDED FROM COUNCIL:

Introduce the Information Technology Gap Analysis and the GIS Strategic Plan Reports

KEY FACTS AND INFORMATION SUMMARY:

In 2017, the Association of Washington Cities (AWC) partnered with the City of Sammamish to create a plan to better utilize the Geographic Information Systems (GIS) assets at the City's disposal. Under the leadership of the City Manager and supported by GIS staff, Flo Analytics Consulting has drafted a Strategic Plan to guide the improvement process.

In early 2018, the Finance Director, utilizing existing budget funds, contracted with Sietel Systems to complete a Gap Analysis of the Information Technology (IT) systems, structure and resource allocation. The Director of Organizational Development took over the project in February, 2018. The plan was timed to inform the 2019-2020 budget process of IT needs.

The Director of Organizational Development, representatives from Seitel Systems (IT Gap Analysis) and Flo Analytics (GIS Strategic Plan) will present a summary of the reports, answer questions and solicit input on preliminary implementation.

FINANCIAL IMPACT:

The bulk of the implementation of the recommendations of these two plans will occur in 2019. The level of funding will be determined as part of the 2019-2020 budget process. The amount of $20,000 for the 2018 implementation will be needed to address immediate recommendations included in the IT Gap Analysis due to operational, security and redundancy requirements. The amount is being funded by salary saving of open positions within the Technology budget.

OTHER ALTERNATIVES CONSIDERED:

Each report outlines recommendations and includes implementation schedules.

RELATED CITY GOALS, POLICIES, AND MASTER PLANS:

Each of these plans is consistent with the City Council 2018 priority of High Performing Government; Investing in Technology.

GIS STRATEGIC PLAN

Prepared for
CITY OF SAMMAMISH
May 29, 2018
Project No. F1326.02.02

Prepared by
FLO Analytics
2001 NW 19th Avenue, Suite 200
Portland, OR 97209

GIS STRATEGIC PLAN

CITY OF SAMMAMISH

The material and data in this plan were prepared under the supervision and direction of the undersigned.

FLO Analytics

Tyler Vick
Principal

Grant Herbert
Senior GIS Analyst

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6 YEAR ROADMAP

ACRONYMS AND ABBREVIATIONS

AGOL	ArcGIS Online
CAR	Citizen Action Requests
City	City of Sammamish
DMP	Data Management Plan
EDN	Esri Developer Network
ELA	Enterprise License Agreement
EOC	Emergency Operations Center
FLO	FLO Analytics
FTE	Full-Time Equivalent
GIS	Geographic Information Systems
ILA	Interlocal Agreements
IT	Information Technology
LGIM	Local Government Information Model
LOE	Level of Effort
LTE	Limited Term Employee
MS	Microsoft®
PCII	Protected Critical Infrastructure Information
SOP	Standard Operating Procedures
SSMS	SQL Server Management Studio
SWOT	Strengths, Weaknesses, Opportunities, and Threats
the Plan	Strategic Plan

EXECUTIVE SUMMARY

This summary is not intended as a stand-alone document and must be evaluated in context with the entire document.

PURPOSE

The purpose of the Geographic Information Systems (GIS) Strategic Plan (the Plan) is to identify existing requirements, formulate an approach and offer recommendations on how to best implement, integrate, and optimize GIS services at the City of Sammamish (City).

The adoption of a well-coordinated Enterprise GIS environment, where appropriate resources are made available across Departments, and where a well thought out strategic plan is implemented and followed, can provide an organization a significant return on investment, both in terms of saving money and increasing efficiencies. Additional benefits of GIS include:

- Centralized data management, allowing for integration with other systems and thus providing better access to data and reporting, increased field mobility and a common operating picture across the organization.
- More effective inventorying, maintenance, and management of assets resulting in increased efficiencies and cost savings.
- Better access and sharing across Departments of key information, resulting in better decision making and analytical capabilities.
- The ability to capture and memorialize institutional knowledge as our workforce continues to age.
- Improved public transparency and engagement.

In doing so, this document:

- Evaluates the current use of GIS
- Identifies ways the City would like to be using GIS
- Provides a six-year roadmap for implementing GIS services at the City to meet the City's goals

A summary of the identified GIS goals for the City is below:

- Developing an overarching GIS program strategy/vision for the City
- Reducing departmental silos
- Increased public and internal access to GIS data and tools for self-service opportunities
- Capturing and making available institutional knowledge
- Enhancing the City's ability to operate efficiently and provide superior customer service

KEY FINDINGS

Key findings are summarized below:

- **Governance and Personnel Resources:** There is a need for the governing body to establish policies and monitor their implementation in order to ensure accountability and the ability of staff to manage data and responses appropriately. The City's GIS staff are well-trained and currently manage the City's GIS data according to industry best practices. There is a risk of GIS Division staff being expected to take on tasks that they do not have sufficient training for, such as database management. In FLO's opinion, existing internal GIS resources are insufficient to address the backlog of desired data and mapping outputs at the same time as addressing existing day-to-day workloads and GIS requests.

- **Software Technologies:** The City has the necessary software technologies and licensing in place to cover future GIS needs. GIS technology changes are expected within the next six years that are likely to require changes to the server and underlying management practices. The existing ArcGIS Online (AGOL) platform will enable cost-effective delivery of internal and external web maps.

- **Hardware, Server, and Network Resources:** The City's Information Technology (IT) infrastructure is robust and sufficient to handle anticipated GIS needs for the next six years. As the City's GIS program continues to grow, IT will need to ensure that proper resource allocation and optimal performance are maintained.

- **Spatial Data Repositories:** The City has a robust GIS data structure environment utilizing enterprise geodatabases. A number of desired data capture and creation tasks and integration needs for the permitting and asset management systems will provide opportunities to further refine the City's spatial data repositories.

- **Departmental:** A broad cross-section of the City's departmental staff and executive leadership were interviewed as part of the GIS Strategic Plan. While generally satisfied with the GIS Division's responsiveness and internal GIS resources, staff interviewed identified a number of additional datasets, tools, and desired functionality.

KEY RECOMMENDATIONS

Key recommendations are summarized below:

- **Governance and Personnel Resources:** The City should formalize governance responsibilities, develop a data publication policy to provide a framework for the City, and establish long term budgeting for regular data updates (e.g., aerial imagery and data maintenance) and staff training. To meet anticipated GIS needs, external resources and/or additional GIS full-time equivalent (FTE) resources will be required within four years.

- **Software Technologies:** The City should incorporate GIS requirements as a core component of any software consideration. There are several important tools and systems in place that

should be re-evaluated to determine if they can meet the future needs of departments and the City (e.g., Crossroads and MicroPAVER).

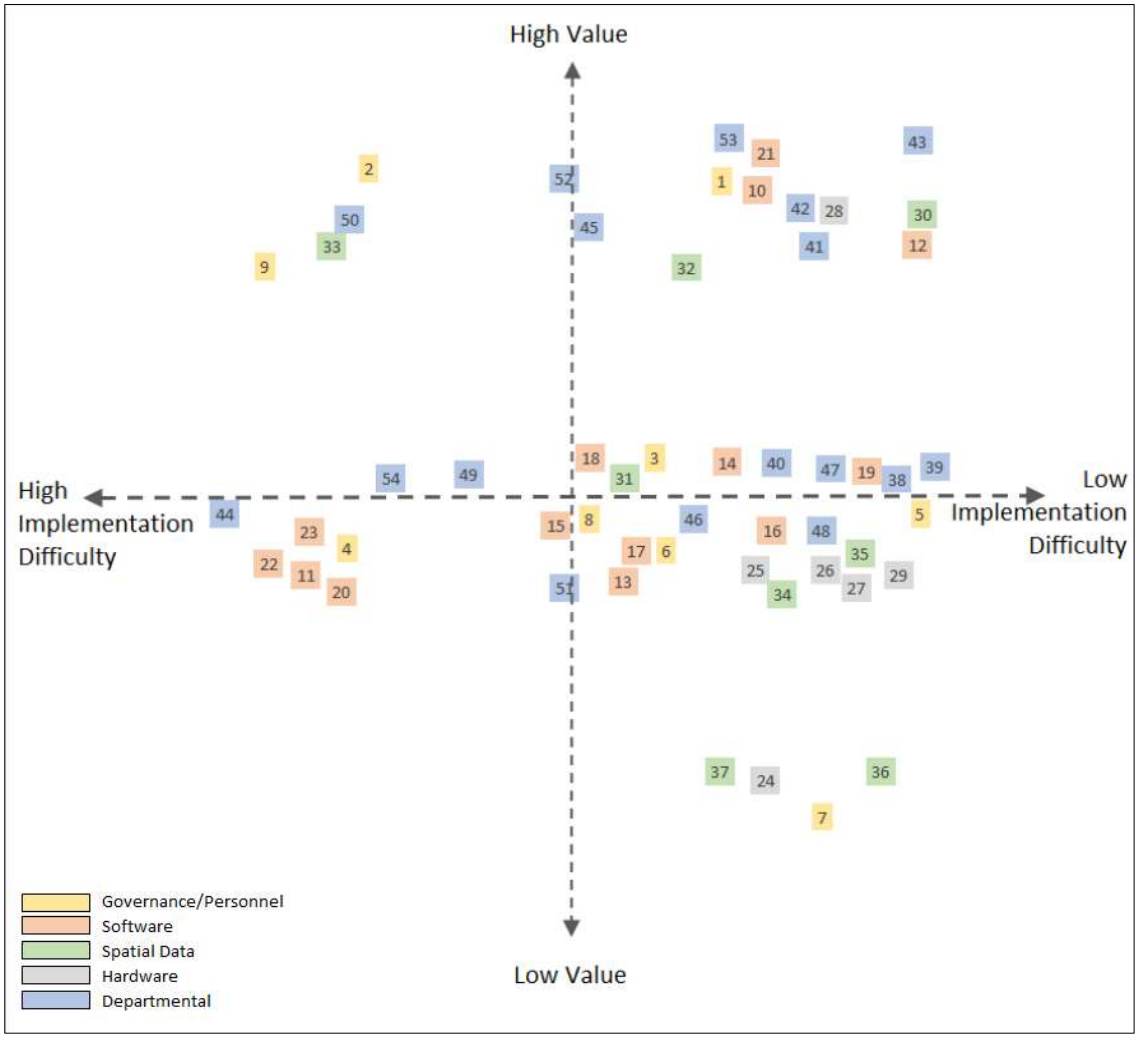
- **Hardware, Software, and Network Resources:** Establish minimum hardware requirements for GIS users and core systems and maintain IT infrastructure accordingly. Monitoring GIS systems for resource use is important.

- **Spatial Data:** The City should further centralize data and provide access via services or direct database connections as appropriate. There is a need to establish standards for data collection, projects and processes and ensure that metadata is available to all users. Data collection projects should be carefully managed and coordinated with departments and GIS Division staff.

- **Departmental:** The City must establish departmental data stewards and connect GIS users with regular meetings. Standardizing symbology and map templates will provide a consistent professional output. There is a need to define various departmental specific data and tool needs, including field data access and capture, analysis, asset management, mapping, and communications. Web Viewers will offer a low-cost, high-benefit way to deliver data to staff. Integration between systems is a high priority, and must be a key metric of any software update or implementation plans.

Figure 1 charts the recommendations given in this document by their likely value and implementation difficulty (also see Appendix A). This allows identification of recommendations, which offer a high value/benefit to effort ratio or "low-hanging fruit". Note that positions in the chart do not reflect an absolute ranking as positions have been adjusted for clarity. The label corresponds to the recommendation ID in this document and the accompanying recommendations table (Appendix B), which provides more detail.

Figure 1 Identifying the "Low Hanging Fruit"



1 INTRODUCTION

1.1 Background

At the request of the City of Sammamish (the City), FLO Analytics (FLO) conducted a Geographic Information Systems (GIS) Needs Assessment to assist the City in developing a GIS Strategic Plan (the Plan). The interview portion of the assessment took place at City Hall from January 22 to 25, 2018. Subsequent phone calls and e-mail correspondence were also conducted as follow-up to the meetings. Various City staff representing a cross-section of the City's departments were involved in the assessment and strategic planning process. Those interviewed are listed below.

Community Development

- Kellye Hyde – Planning Manager
- Doug McIntyre – Senior Planner
- Ryan Harriman – Senior Planner
- Darci Donovan – Permit Center Manager
- Missy Marshall – Senior Permit Technician
- David Goodman – Management Analyst
- Jasvir Singh – Permit/GIS Intern
- Chris Hankins – Code Compliance Officer
- Kurt Aldworth – Building Official
- Scott Perron – Building Inspector

Public Works

- Steve Leniszewski – Public Works Director
- Jim Gruber – Senior Project Engineer
- Ben Ressler – CIP Engineer – Pavement Manager
- Stephanie Sullivan – Development Review Engineer
- Haim Strasbourger – Development Review Engineer
- Jim Krieg – Construction Inspector
- Tawni Dalziel – Stormwater Manager
- Danika Globokar – Associate Stormwater Engineer
- Lisa Werre – Stormwater Technician
- Steven Chen – Traffic Engineer
- Isabel Diaz – Associate Traffic Engineer
- Dan Johnston – Street and Stormwater Maintenance Supervisor
- Maia Knox – Management Analyst

Parks/Recreation/Public Works Maintenance

- Chris Jordan – Recreation Manager
- Shelby Upton – Project Manager
- Mike Keller – Parks Maintenance Supervisor

GIS

- Beth Carpenter – GIS Coordinator
- Brock McNairy – GIS Analyst

City Clerk/Administrative

- Melonie Anderson – City Clerk
- Lita Hachey – Deputy City Clerk
- Tammy Mueller – Administrative Assistant

Emergency Management

- Andrew Stevens – Emergency Manager

Finance/IT

- Chris Gianni – Deputy Finance Director
- John Whitlock – Network Administrator
- Richard Koeford – IT Support Specialist
- Cynthia Tiwana – Webmaster

Executive

- Lyman Howard – City Manager
- Rita Badh – Community Services Coordinator
- Sarah Kimsey – Social Media Communications
- Kellie Stickney – Communications Manager
- Mike Sugg – Management Analyst

1.2 Purpose

The purpose of the Strategic Plan is to identify and evaluate the existing GIS approach and offer recommendations on how to best implement and integrate GIS services at the City.

The adoption of a well-coordinated Enterprise GIS environment, where appropriate resources are made available across Departments, and where a well thought out strategic plan is implemented and followed, can provide an organization a significant return on investment, both in terms of saving money and increasing efficiencies. Additional benefits of GIS include:

- Centralized data management, allowing for integration with other systems and thus providing better access to data and reporting, increased field mobility and a common operating picture across the organization.
- More effective inventorying, maintenance, and management of assets resulting in increased efficiencies and cost savings.
- Better access and sharing across Departments of key information, resulting in better decision making and analytical capabilities.
- The ability to capture and memorialize institutional knowledge as our workforce continues to age.
- Improved public transparency and engagement.

The primary drivers for the development of a GIS Strategic Plan at the City include the rapid population growth of the City in recent years along with increased development pressure, and a need to better track and manage activities at the City. This Plan evaluates the current use of GIS, identifies implementation requirements and considerations, and then offers a six-year roadmap for further optimizing GIS at the City.

In general, the Plan focuses on the following:

- Understanding the City's general short- and long-term goals and objectives
- Evaluating personnel resources and responsibilities
- Evaluating the use of relevant software technologies (e.g., ArcGIS, asset management)
- Identifying and evaluating relevant spatial data repositories
- Evaluating hardware, server, and network resources, including mobile devices
- Understanding, in general, the City's day-to-day workflows and related procedures
- Identifying methods for capturing and recording institutional knowledge to facilitate transfer of such knowledge to other staff. This is particularly important for staff members nearing retirement
- Identifying mechanisms to improve internal and external access to City-maintained GIS datasets, along with other routinely used datasets from supporting sources
- Identifying opportunities for an increased return on investment through the use of GIS, including process automation and capacity building, as well as through the evaluation of the City's current use of software technologies.

2 ORGANIZATIONAL EVALUATION

2.1 Goals and Expectations

Based on our conversations with the City's primary users, a number of priorities related to further developing the City's internal GIS program were identified. In general, City staff were in consensus on the following:

- The City desires to continually improve communication with citizens through delivery of citizen self-service tools and the ability for staff to easily access information relevant to a property or permit.
- GIS is a core component to better deliver services and information to citizens and staff. Maintenance and development of internal GIS capacity (staff and technology) to manage the City's GIS program is critical to the City's ability to operate efficiently and provide superior customer service.
- The impact of software decisions on City users is often underappreciated.
- There is a need to reduce data silos and eliminate data redundancy.
- It is important to develop and strengthen partnerships with other agencies.
- Further integration of data and coordination of effort across the City's departments and software technologies are required.
- There is a need to develop a broader strategy for GIS services at the City. This includes:
  - Developing an overarching GIS vision for the City.
  - Ensuring consistency in City GIS use and products across the City's departments.
  - Developing policies and documenting best practices and procedures for the ongoing management of spatial data at the City.

2.2 Organizational Strengths, Weaknesses, Opportunities, and Threats

For a City, a Strengths, Weaknesses, Opportunities, and Threats (SWOT) assessment generally focusses on internal processes that are being done well or badly, rather than on competitive comparisons, while opportunities and threats tend to be more general in nature. That said, external opportunities and threats do exist, and it is wise to note which ones the City can benefit from or mitigate against. The following SWOT is focused primarily on factors affecting GIS data, technology, and use at the City and is not intended to be exhaustive in nature.

Strengths

- The City recognizes the importance of GIS and IT as core components with political and financial commitment.
- Expansive GIS licensing with an Esri ELA gives access to modern, industry-standard software.
- Departments are supportive of sharing data and committed to data accuracy and public data access where possible.
- Increasing internal recognition of the desirability and use of GIS, including field tools and integration with other systems (CityWorks/TRAKiT).
- The GIS Division is making good use of existing technologies and is capitalizing on these to deliver benefits to the City, such as ArcGIS Online as a geospatial data delivery platform.
- Departmental and GIS staff are enthusiastic about GIS.
- The GIS Division have demonstrated an ability to take on and learn new technologies, often under demanding conditions.

Weaknesses

- Need to rebuild confidence in network storage (P drive) after failure.
- GIS training budget not keeping up with changes in staff or requirements.
- There is a lack of GIS workflow documentation.
- Spatial data is not fully centralized, and it is difficult to identify definitive data or to find it.
- Metadata is lacking in City datasets, which further hampers the ability to easily determine usefulness and timeliness of data.
- Internal GIS staff capacity is insufficient to address desired data-capture projects.
- Departmental GIS staff not well integrated into GIS Division practices, coupled with departmental frustration over resource access leads to departments doing their own thing.

Opportunities

- GIS as a core City activity provides the opportunity to establish overall policy and define the roles of IT and GIS in the organization.
- Increasing public acceptance and use of technology for self-service supports City efforts to use GIS to reduce the cost of delivery for residents.
- The rapid pace of development in web map technologies has led to simplified, configuration-based tools for GIS web application development (e.g., Esri, AGOL, WAB), allowing for faster, easier, lower cost deployment. These are already being exploited by the City to deliver low-cost public web maps and field data collection tools.
- Incorporating requirements for vendor recognition of the importance of GIS integration (e.g., asset management systems) may simplify integration efforts.

- Availability of specialist GIS consultant services to assist with high priority/high return on investment projects.

Threats

- No Database Administrator within the IT/GIS Department.
- Increasing citizen/executive expectations.
- Insufficient City GIS training budgets for existing staff.
- Less efficient and effective internal delivery of GIS services and weaker internal knowledge and skillsets because of insufficient training

Overall, the City shows a high level of support for the move of GIS to IT and the opportunity to make GIS a central component of the City's operations. With several key GIS components currently in place and in use, and with existing staff knowledge, the existing GIS infrastructure provides an excellent base for the future.

Key challenges include establishing appropriate policies and data management practices across both the GIS Division and other departments, maintaining internal skillsets of all GIS practitioners and ensuring that sufficient resources are available to meet City GIS needs. The GIS Division will be expected to take the lead on this and will have to dedicate time to management activities. There is a large backlog of data capture work to be addressed and this will require both resource availability and domain knowledge to manage.

2.3 Vision

Our understanding is that the overall vision for the City is to establish GIS as a core City component and use it to better deliver services and information to citizens and staff. That being said, it is not the scope of this document to provide a fully formed vision for GIS at the City. Key components that the City may decide to include in forming their internal vision are listed below.

- Continually improve citizen communications through access to relevant data.
- Good data is a critical component for future operations at the City and data is an asset.
- GIS should be at the forefront of developing solutions for the City.
- GIS is to be proactive rather than strictly reactive.
- GIS is to be involved at all relevant data entry points.
- GIS expertise should be available across the organization.
- All staff should have the ability to easily access all information pertaining to a property.

2.4 GIS Priorities

There are a number of priorities that were identified during the interviews with staff. These include the need to reduce data silos, standardize data locations and structures, and improve reporting and mapping outputs. It is vital that departments act as data stewards and are properly supported with both domain knowledge and GIS skillsets, and training is an important component of this. Clear advantages have already been realized with the use of web tools to allow staff and citizens to ask and answer questions, and development of these should continue. There is a requirement to consider system integration with all software decisions and establish GIS and other requirements early on the in the process to ensure that systems can be used together appropriately.

Appendix A charts the recommendations given in this document by their likely value and implementation difficulty. This allows identification of recommendations, which offer a high value/benefit to effort ratio or "low-hanging fruit". The table of recommendations in Appendix B provides detail on the estimated implementation difficulty, level of effort, likely value, and possible costs associated with each recommendation. This should be used in conjunction with Appendix A to evaluate, prioritize and schedule tasks. Note that these estimates may require re-evaluation as the plan is implemented and in response to changes in internal priorities. It is important to deliver visible signs of success to encourage staff engagement in the process, as well as demonstrate that the plan will bring tangible benefits.

Level of Effort (LOE) is a subjective assessment of the skills and/or time (effort) likely to be required. A low LOE is one that would cost less than $1,000 in direct costs or take less than one month to achieve. A Medium LOE would be less than $10,000 or six months of effort. High is greater than $10,000 or six months of effort. These assume that staff will be spending greater than 50 percent of their available time on a task. The Cost column considers likely direct costs in dollars, while Value represents a subjective judgement of the desirability, usefulness and benefits to the organization from implementation.

2.5 Recommendations Timeline

A potential timeline of recommendations is given in Appendix C. This is intended as a guideline only and represents an aggressive approach to improving the use of GIS at the City. It is expected that the timeline will be re-evaluated regularly and may be adjusted to take account of changes in the City's situation, resources, priorities, and requirements over time.

In general, the timeline concentrates on the following:

- Year 1-3 Increased GIS Department FTE, GIS data and fundamentals
- Year 2 Software, development environments, technology updates
- Year 3 Increased department GIS FTE, integrations

- Year 4 Revisit the plan and assess technology and priority changes
- Year 5-6 Potential long-term technology change impacts (e.g. Portal)

2.6 Governance

Governance is concerned with the policy, actions, and affairs of an organization. Members of the governing body establish policies and monitor their implementation to ensure accountability and the ability of staff to execute policy. With the hybrid GIS governance model, data, infrastructure, and the GIS Division staff are centralized, with departments optionally having their own GIS staff with specific domain expertise to manage data and conduct projects for the department. Any department without internal GIS resources would be supported by the GIS Division.

GIS Division responsibilities include managing the infrastructure, procedures and policies related to GIS data and use, and tools and technology to support GIS users in departments. This includes managing the core data and infrastructure; setting City standards in data capture and management, map creation, and field data collection; and providing advanced analytics capabilities. It is anticipated that regular external data updates will be managed through the GIS Division, and that training will be coordinated with all GIS users as applicable with internal cross training and through training conducted as needed. Division staff may also be explicitly assigned to support departments without internal GIS resources. Care needs to be taken to ensure that all departments are served with clear roles and responsibilities defined, including those of the departmental data stewards.

Recommendations:

1. Clearly define the governance and management responsibilities around enterprise software such as CityWorks, Esri, and ArcGIS Online. This should include requirements around storing or disclosing sensitive or location information.
2. Establish an appropriate ongoing budget for data maintenance. This includes obtaining update, City-wide aerial imagery and associated products as well as achieving departmental data maintenance service levels. Having a known budget would allow for joining regional projects and other opportunities as they appear or to obtain imagery on a City defined schedule as required. Imagery could be delivered through subscription imagery services, or through a mix of imagery projects and the ability to buy in small sections on imagery in between to address development changes outside of the scheduled updates. Biannual imagery updates should be considered the minimum, with the ability to include additional products like contours, building footprints, and impervious areas as desired. Services may be delivered via contractors, the GIS Division, or departmental staff. The imagery budget range is estimated at $70,000 to $100,000 each year depending on requirements (Urban Forest Plan and Tree Canopy Analysis recommends Summer or "leaf on" high resolution imagery and LiDAR every

two years, and the City also has a need for "leaf-off" imagery), while consultant data maintenance activities are estimated at $90,000 per year.

3. Establish a formal data access and publication policy compatible with existing record request procedures to provide guidelines for data access and response. Where possible, publicly accessible data should be provided via open data sites or public download locations to reduce staff response workloads.

2.7 Personnel Resources and Responsibilities

This section describes the GIS staff and skillsets available to the organization in order to establish the ability to meet current and future GIS related needs. The current GIS personnel resources and responsibilities are described by department. Currently the City is in the process of moving the core GIS Division staff from Public Works to the IT Department in order to better reflect the desires for GIS as a core City support function. The planned use of the IT helpdesk ticket system to tracking GIS requests should help give visibility into both the requests and the capacity of existing staff. At the same time, the Community Development Department have engaged a planning intern with GIS skills and are using this resource to address a number of departmental GIS needs.

Existing GIS Division staff are heavily involved in large scale City projects, such as CityWorks, which does not afford them the flexibility to respond to departments. Coupled with a lack of inter-departmental communications around GIS and GIS resources, this leads many departments to feel that they are not having their requests addressed or that they should try to do their own thing with respect to GIS. There is a clear need at the City for both centralized GIS support (concentrating on larger, complex projects, managing supporting data, and providing standards and structures to support all departments) and GIS staff with specific domain knowledge to assist departments with their specific needs.

Overall, it appears there are insufficient GIS resources available to meet all departments needs in a timely manner. There are 1.8 Full Time Equivalent (FTE) GIS resources in the GIS Division, 1.1 FTE in Public Works, 0.2 FTE in Community Development, and 0.1 FTE in Parks and Recreation, making a total of 3.2 FTE at the City. Community Development currently has a limited term role that has 0.5 FTE GIS, which is not included in the above.

2.7.1 GIS Division

The GIS Division is currently moving from being housed in the Public Works Department to the IT Department, as part of an overall goal to have GIS as a core City component and to improve GIS/IT communication. At present there are two staff dedicated to GIS (90 percent FTE), Beth Carpenter (GIS Coordinator) and Brock NcNairy (GIS Analyst). These staff have been increasingly under

pressure to manage and deliver not just enterprise level data structures and software platforms (like GIS and CityWorks), but also support day-to-day and one-off GIS needs of other departments.

The GIS Staff are managing all current GIS data updates, including receiving data from third party sources such as King County. This data is then made available to departments via the existing GIS Enterprise geodatabase, services and web maps.

There is a large backlog of GIS related work in place at present as the existing GIS staff are being absorbed by other projects (such as the CityWorks implementation) that are stretching their ability to respond to departmental requests. In many cases, departments are hiring interns to assist them with undertaking GIS work. However, the GIS Division has had minimal involvement with these in most cases. Supporting these temporary GIS users has been a challenge, with difficulties in establishing requirements, responsibilities, and procedures to ensure that these staff can contribute in a way that is easily consumed and of benefit to the City.

The Division is keen to be a resource to all users and to especially support GIS users in the departments as needed to ensure consistency and standardize the City's GIS use. It is anticipated that the GIS Division will also be responsible for assessing and testing new GIS software versions or tools, training internal staff, and ensuring that data collection standards are met.

Training continues to be a critical requirement to keep up with the rapid pace of software change in the last several years and to enable GIS staff to evaluate new technologies, incorporate them for the betterment of City efficiency and operations, and support internal users. As GIS staff are expected to take a larger role in the IT sphere they will require more technical knowledge, such as database management. This is especially important with the use and management of enterprise geodatabases.

2.7.2 City Clerk

The City Clerk's office currently has no GIS staff. Staff in this office occasionally make GIS map requests directly to the GIS Division. In addition, they may pass through public records requests regarding maps that were used in Council, which generally involve the creating a document describing the data used and methodologies. The City Clerk is also a user of the TRAKiT permitting system as well as the iCompass meeting management software (iCompass can display an existing address on Google Maps). In general, this department is happy with the GIS Division's response and products.

2.7.3 Emergency Management

There are no GIS resources in the Emergency Management Department. Staff are expected to be in the Emergency Operations Center (EOC) and there is a desire to see GIS training given to any EOC staff in case GIS staff are not available.

2.7.4 Community Development

There are currently a number of staff with GIS skills in the Community Development Department, with Kellye Hilde, Doug McIntyre, Ryan Harriman, and David Goodman reported five percent of their time available for GIS related work. In general, these staff report being comfortable with the idea of making their own maps and doing limited analysis, and together they represent 0.2 FTE GIS resource available to the department. The department has been sending requests to the GIS Division and report that they have been happy with the work done and supportive of the efforts of the GIS staff in general. At the time of evaluation, the department had a planning intern with GIS skills who they were utilizing as a resource (50 percent FTE) to assist with a number of data and analysis needs. Our understanding is that this person has applied for a one-year limited term position within the department. Code enforcement and inspection staff are comfortable with using technology in the field and having access to data.

Overall the department is a major consumer of data and electronic systems, particularly TRAKiT, but also the various GIS web applications that have been developed by the GIS Division. The department would definitely benefit from having a dedicated resource with domain (planning) knowledge to manage their GIS needs. Difficulties have been encountered with the need to impart domain knowledge to GIS Division staff and in establishing GIS priorities for the department.

2.7.5 Public Works Department

This department is a heavy user and creator of GIS data, with several staff who have between five percent and 25 percent of their time dedicated to GIS work. In addition, viewing GIS data is a core requirement for a number of staff in the office and the field. Staff with time dedicated to GIS include Tawni Dalziel, Stephanie Sullivan, Haim Strasbourger, Jim Gruber, and Maia Knox (five percent), Isabel Diaz (ten percent), and Ben Ressler, Danika Globokar and Lisa Werre (25 percent). Together, these staff make up 1.1 FTE of GIS resource available to the Department, allocated as 0.4 FTE to Engineering, 0.55 FTE to Stormwater, and 0.15 FTE to Transportation and other Public Work's needs. A number of staff above reported that their use of GIS is becoming more about viewing information than creating or editing data, and so the reported FTE equivalents may be overstating the existing GIS resource within the department.

Staff conduct a variety of GIS tasks, including making maps, updating asset locations, editing existing data, undertaking geoprocessing activities, and conducting internal task training as needed. Staff reported difficulty in finding appropriate GIS data, with the amount of data available in the organization, its current structure, and the use of various other approaches that made integration with GIS more difficult, such as heavy use of spreadsheets. There is a decided preference for using online tools such as the StormBandit and Property applications developed by the GIS Division and King County online tools like iMap, where the data is already in place and the application itself is faster and

easier to access and use. Staff also use Collector for field verification. Some staff have access to AutoCAD, as well as specialist software for tracking pavement. This department will be a heavy user of CityWorks, and the GIS integration with that software and expect to have increased GIS needs in the future.

There is a large backlog in data capture for the department. Stormwater assets in particular has an approximately two- to three-year data backlog, with approximately 250 as-builts that need to be incorporated into the GIS, as well as a number of sketches representing best management practice stormwater control facilities on properties. The department has been considering hiring an intern to assist with addressing the backlog. Neither the GIS Division or the Department have the capacity to address this work in a timely manner at present, and this data is required for asset tracking purposes. The Department considers that it has limited oversight into the GIS data that is entered, with much of it being generated by outside consultants. As-builts and Record Drawings are approved in the Department and then entered into the GIS. In addition, it was reported that it can be difficult to find and access GIS data from the "P" network drive, and the latest data may only be available in the SDE geodatabases.

2.7.6 Parks and Recreation

The Parks and Recreation Department is currently a light user of GIS, with one staff member (Shelby Upton) with ten percent of their time available for GIS work. Shelby uses ArcGIS for preliminary design work, and conducting site studies (property, sensitive areas, etc.). The King County iMap web application is also used. They consider themselves to be a "high beginner" in skill level and frequently use the GIS Division for assistance in locating data and determining whether data is up to date or not. This department will be a user of CityWorks for much of its field and asset operations.

2.7.7 Information Technology

The IT Department is taking over responsibility for the GIS Division to better support the role of GIS as a core city function. IT Department staff will continue to be responsible for underlying technology management, such as hardware, servers, software, and database maintenance as a service provider. In the last few years, there has been considerable turnover within the IT Department, and new staff noted that there was a general lack of documentation in place initially to assist new staff. The department is currently developing an IT Gap Analysis to assist with the long-term planning and the GIS Strategic plan is anticipated to inform this. Overall, IT staff are comfortable with their abilities to maintain the existing infrastructure, but they believe that their capacity is low and that they need guidance as to the expected responsibilities between GIS and IT.

2.7.8 Finance

There are no GIS resources within the Finance Department, and any work requests are expected to go to the GIS Division directly. Finance staff generally use the King County resources, especially the Assessor website, to gather information as needed. There is a specific GIS data workflow associated with the department, which is covered in the IT departmental considerations section. Maps of the levy code areas are requested yearly from the GIS Division.

2.7.9 Executive

The Executive team currently have no GIS expertise and make limited direct use of GIS. The Executive group expect staff to utilize the GIS Division as needed to generate reports for executive use.

2.7.10 Recommendations

The GIS hybrid model has advantages in allowing for domain expertise to be incorporated within a department to improve responsiveness through dedicated resources, while allowing users to take advantage of a centrally managed enterprise environment, technologies, policies, and procedures. In addition, the presence of the GIS Division serves as a resource for advanced analytics etc., and to support departmental staff as needed. A hybrid model is expected to require higher GIS FTE staff hours due to the need for both domain specific departmental support and city-wide management roles. This model offers benefits in both ensuring that the core GIS functions are met while departments have the appropriate specialist knowledge available, and in allowing for more directed staffing. While an in-depth comparison with cities of similar sizes was not conducted, in general it is expected that a city with the size and GIS needs of the City would have approximately 4-6 FTE GIS staff, and we consider 4.5-6 FTE to be appropriate for the City of Sammamish and a hybrid model.

4. Establish appropriate roles, requirements, duties and budgets for GIS Division staff. This may be modelled against cities of similar population sizes, such as Kirkland, Shoreline, and Redmond. This should be conducted with IT to ensure that responsibilities are appropriately assigned. The role of the GIS coordinator within the hybrid structure, and specialist tasks such as geodatabase and database maintenance should be identified within a joint IT/GIS organization.

Recommended GIS Division staff position titles:

Role/Title	*Responsibilities*
GIS Coordinator	Overall responsibility for GIS operations, systems, reporting, and management activities
GIS Analyst	Day to day operations and advanced GIS needs
GIS Technician	Data entry and general GIS tasks

5. Plan to increase GIS FTE across the City within four years, from a total of 3.2 FTE to approximately five to six FTE. This will be made up of three FTE in the GIS Division with the remainder as departmental resources. Departmental resources are expected to be funded by their own budgets respectively.
    a. Within one year the GIS Division should be increased from two to three FTE through the addition of a GIS Technician to provide departmental support. Note that in 2018 the GIS Division has an additional 0.5 FTE working under an LTE contract within the planning department. This will also free up the GIS Coordinator to be able to adequately manage the enterprise GIS environment.
    b. Departmental FTE resources should be increased within three to five years from 1.1 to 1.4 FTE in Public Works, from 0.2 to 0.8 FTE in Community Development, and from 0.1 to 0.2 FTE in Parks and Recreation (specific departments may want to accelerate this timeframe based on immediate needs). This will be important to not only provide data consistency and domain knowledge commensurate with those departments, but to ensure that the GIS Division is able to concentrate on the remaining departments and the support for the organization as a whole. In general, it is recommended that departmental staff responsible for GIS data capture and management have at least 25 percent of their time tasked to GIS.
6. Establish appropriate training budgets to ensure that all departments can benefit. It is important to ensure that training is maintained for all GIS staff, and some departments may need more training that others. Internal cross-training should also be encouraged.
7. Obtain Protected Critical Infrastructure Information (PCII) clearance for GIS Division staff and Emergency Operations Center staff as needed to be able to support Emergency Management data needs and operations.
8. Develop procedures to ensure the appropriate use and integration of GIS interns and external contractors. This should include software access, data capture procedures, and QA requirements.

9. Consider supplementing GIS departmental and division resources in the short term (one to three years) with outside consultants to help consolidate data, undertake data entry and capture, or develop missing data as required. Outside consultants can offer additional resources to more easily catch up with outstanding GIS data capture work such as incorporation of as-built data.
10. Maintain training to ensure that staff are able to fully utilize the software and tools in place. This includes training both GIS and non-GIS staff in ArcGIS, AGOL, web viewer use, and field tools as appropriate when these are rolled out at the City. This will assist in successful deployments and effective use of the tools.

2.8 Use of Software Technologies

This section describes the relevant software technologies in use at the City. Software is defined as any program or set of instructions running on a computer or related device, as opposed to the physical machinery. Management of the software related to GIS is currently split between the GIS Division and the IT Department which they are a part of.

2.8.1 Esri ArcGIS Desktop

The City has an ESRI Enterprise License Agreement (ELA) to manage licensing for Esri software. This provides users access to the latest versions of ArcGIS Desktop at the Advanced license level with a concurrent license type (currently the City is running version 10.4.1). The license convers all City users across multiple departments, and the Advanced level gives full access to ArcGIS tools and extensions. The ELA allows all ArcGIS users at the City to utilize the same version and functionality of the software between departments, reducing the barrier to deploying software and simplifying license management.

2.8.2 Esri ArcGIS Pro

The City currently does not use ArcGIS Pro, but does have all licensing required to utilize it through the ELA.

2.8.3 Esri ArcGIS for Server

The City has ArcGIS for Server 10.5 installed and licensed through the City ELA, which is used to publish data used by ArcGIS Online web maps and applications. Currently, GIS Division staff are managing and maintaining ArcGIS for Server and the associated geodatabases, with the IT Department managing the servers and database software.

2.8.4 Esri ArcGIS Online

The City's GIS group is currently deploying several AGOL web maps and applications to suit the needs of different departments, as well as Esri developed tools hosted in the AGOL environment such as Collector. Web applications include: Property Tool, Storm Bandit, Engineering Records Vault, Development Activity Map, Staff Location Map, and the Potential Land Acquisition Map. Most departments use at least one of these AGOL applications and report very few issues with them, but they would like better search capabilities. Some departments use Collector for field data collection, which is also set up by the GIS Division. Issues have been experienced with regard to using offline, adding data, establishing accurate location information, and knowing which datasets are available offline.

2.8.5 CityWorks

The City has CityWorks 10.1.7 with a standard license level and access for 500 users and is undertaking a re-implementation of the software. Once completed, it is envisioned that CityWorks will be widely used across multiple departments for infrastructure asset tracking, both in the office and in the field via mobile tools. The software can be customized to suit varying department needs and has a GIS integration component. Currently, a CityWorks add-on called Freeance Mobile is being used to enable offline access to field applications and data. CityWorks also has a Pavement Management Interface available that exports data to MicroPAVER for analysis and imports results from MicroPAVER.

2.8.6 Superion TRAKiT

The City currently has TRAKiT 2015.5.1.8 for organizing project and parcel data, as well as accessing permit and code enforcement data. It is the primary place to store this data. TRAKiT has replaced all the City's paper submissions and is currently used for all electronic submissions. The system prior to TRAKiT contained large amounts of corrupted data, so TRAKiT currently has several duplicates of projects and permits. TRAKiT is also used to log incoming Citizen Action Requests (CAR), especially those pertaining to traffic and code enforcement. CAR's will be migrated to the SeeClickFix platform.

The City is currently considering updating to the cloud based TRAKiT9 system by early 2019. TRAKiT9 offers greater GIS functionality than the existing version, and there are plans to integrate it with external systems such as MyBuildingPermit.com in addition to GIS data sources. Currently, the GIS Division are manually updating parcel and address references in TRAKiT.

2.8.7 iCompass

The City's Administrative Services Department uses iCompass for creating and managing City Council meeting packets. The software helps organize agendas, city projects, budgets, and other talking points for their meetings.

2.8.8 Microsoft® SQL Server

The City uses Microsoft (MS) SQL Server to support a number of business application database needs, including the existing installation of TRAKiT, and the Esri Enterprise Geodatabases. Maintenance for these is generally the responsibility of the IT Department, with the GIS group taking responsibility for some components of the geodatabase management. The GIS staff have also installed local versions of MS SQL Server Express for testing.

2.8.9 AutoDesk AutoCAD

The City has AutoDesk AutoCAD 2017, with a concurrent license for four users. AutoCAD is primarily used in the Public Works and Parks departments for engineering, stormwater and transportation projects.

2.8.10 Rhythm Engineering InSync

The City uses Rhythm Engineering InSync software for managing traffic signals, and also enables viewing live traffic via CCTV cameras. This software is hosted externally and is integrated with hardware at each intersection. Rhythm Engineering provide a web map which displays the signal location and allows users to interact with. The City intends to take over configuration and maintenance and operation of the system in the future.

2.8.11 Crossroads Software

The City uses the Crossroads Software Traffic Collision Database product to track vehicle collisions, hosted in Microsoft Access. The data is received from Police Department reports and entered by hand by an administrative assistant into the database, which is then joined to GIS to visualize it. The data is used to apply for grants, as well as for tracking safety concerns, prioritizing projects, and responding to Citizen Action Requests. Although the data is currently accessible, there are a number of known issues and it is considered end-of-life with no further support.

2.8.12 Bluebeam

The City uses Bluebeam 2016 digital plan review software. Bluebeam is primarily used by the Community Development and Public Works Departments for marking up and managing plan review. Bluebeam is connected to TRAKiT, which updates when plans are reviewed and approved/denied in Bluebeam.

2.8.13 Civil 3D

The City has AutoDesk Civil 3D 2017, with a concurrent license for 2 users. Civil 3D is primarily used in the Public Works department for engineering, stormwater and transportation projects.

2.8.14 Umbraco

The City's IT Department uses Umbraco, an open source content management system, for maintaining the City website.

2.8.15 MicroPAVER

The City's Public Works Department uses the MicroPAVER pavement condition analysis software. Overall, the department considers this software to be outdated and with several issues related to user interface and GIS integration. Results coming out of the software are difficult to analyze, the use of plats for analysis tends to average results resulting in masked/hidden issues, and there is no visual interface for edits. MicroPAVER is also unable to export to a GIS format, and changes are difficult to reconcile between the systems. Attempts to import GIS data into MicroPAVER have been unsuccessful thus far. CityWorks has a MicroPAVER compatible interface for exporting and importing data between the software environments.

2.8.16 SysAid Helpdesk

The City's GIS Division is planning to utilize the SysAid IT Helpdesk ticketing software for tracking GIS work requests, analyzing trends, and forecasting future work.

2.8.17 Amazon Web Services

The City currently uses Amazon Storage Gateway to allow on-premise applications to use Amazon Web Services (AWS) cloud storage. In practice, the AWS storage contains much more data than the local "P" drive which users interact with, as the P drive acts as a cache to buffer the data access to/from AWS. Limitations at present include the inability to do a file level restore, however the IT Department are looking at other options which will afford more flexibility in this regard.

2.8.18 Civic Engagement Application

It is our understanding that the City is planning to implement SeeClickFix for their civic engagement purposes. This application claims to integrate with existing data and provide robust analytics and reporting tools to measure public engagement.

2.8.19 Recommendations

This section contains general recommendations regarding the use and management of GIS or specified software at the City.

11. The City should continue to maintain their Esri ELA licensing to allow for easier access to GIS software by staff, as well as allowing for additional GIS environments as required. At each ELA renewal date, the City should calculate current usage and non-ELA costs to ensure that maximum benefit is being realized through the ELA program.

12. Establish IT Department/GIS Division evaluation of GIS integration and data needs as a component of all software purchasing and implementation requirements. This may include developing tools and metrics for software selection applicable to all city purchases, including support and implementation impacts.

13. Establish a clear procedure for handling GIS software requests (both for new installations of Esri software and new GIS related software) to ensure these are compatible with existing data management workflows.

14. Develop consistent GIS software installation and update procedures, to ensure that users are all on the same version. This includes establishing test procedures to ensure that new versions of GIS software (including ArcGIS Desktop and ArcGIS Server) meet any associated third-party tool requirements or integrations. Desktop software requirements can be documented for IT staff to follow.

15. Evaluate immediate web mapping platform options (such as ArcGIS Online and GeoCortex). It is anticipated that this platform would be used for public and/or departmental tools. An assessment of functionality would include factors such as providing departments with the ability to make their own internal maps, conduct various analysis tasks, set up simple data collection tools for emergency response or public interaction purposes, and the ability to migrate the web applications if needed. Note that the City currently has licensing and sufficient users for AGOL in place. After that time the City should consider whether internal use applications should be migrated to a Portal environment, which is likely to be a required element in the Esri software system.

16. Provide the GIS Division with access to appropriate GIS components (such as the Esri license manager for establishing and controlling software access) under the supervision (as required) of the IT Department. In general, the IT Department and GIS Division should consider their level of comfort in managing Esri and related GIS software and assign these tasks accordingly. In particular, Enterprise geodatabase management responsibilities should be clearly delineated between IT and GIS staff. GIS Division staff should have administrative access sufficient to

be able to update indexes, manage versions, and establish GIS users as needed. Appropriate cross training for IT and GIS staff regarding geodatabase and database management would be desirable.

17. Ensure that Esri best practice security guidelines are in place for ArcGIS Server. In particular, any services with update or delete operations enabled and open to anonymous access pose a data integrity risk. Editable services should be secured. Similarly, HTTPS should be configured for server access, and all Web Adaptors should be registered over HTTPS. It may also be an advantage to host web adaptor(s) on a separate web server machine.

18. Develop a plan to test and transition into using ArcGIS Pro (with the expectation that ArcMap will be end of life within 6 years) and evaluate the impacts on existing ArcGIS Enterprise systems at the City. Most notably, full use of ArcGIS Pro at present requires a federated ArcGIS Enterprise environment with Portal and ArcGIS Identity requirements.

19. Establish a development environment for testing Esri GIS Enterprise software and updates. In a full enterprise setup, it is considered best practice to have a development, staging and production environment. A development environment is typically run on a single, small machine, while a staging environment is a duplicate of the production environment, where changes can be tested before deploying to production. This ensures that the production environment is never altered without first testing on staging, and ideally each environment should have its own databases and infrastructures. It is recommended that the City plan to establish at least a development environment, either through the use of existing ELA licenses or through an Esri Developer Network (EDN) license ($1,480).

20. Develop a TRAKiT migration and integration plan to ensure that GIS data access is established and integrations such as the Development Activity Map are appropriately updated. Other integration needs (such as MyBuildingPermit) should also be defined, as well as data aspects including permit linking and ability to update errors.

21. Contact Superion to communicate and address an issue with the map-based inspection routing function in TRAKiT no longer working properly in the iPad or desktop applications.

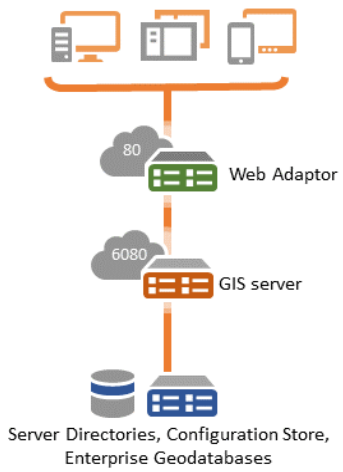
22. Evaluate options to replace the Crossroads database. An appropriate solution should be able to directly import (or access) electronic records from the State and enable analysis and reporting either internally or via external tools such as GIS.

23. Critically evaluate MicroPAVER functionality and data management in conjunction with CityWorks/GIS integration. At present there are concerns over the existing user interface, the ability to share data with CityWorks, and in the ability to divide streets in ways other than plats or segments (e.g., span blocks, sub blocks).

2.9 Use of Hardware, Server, and Network Resources

Hardware, server and network resources are defined as the physical or virtual machinery required to run software, support enterprise databases, and establish computer connectivity both within the City and to the internet. The City currently has a significant investment in IT infrastructure in place, with mostly virtualized servers supporting GIS operations. Overall, there is good separation of GIS applications and databases, as well as separation from other systems such as TRAKiT and CityWorks. Figure 2 shows the existing GIS server deployment, while Figure 3 shows this in relation to the actual machines.

Figure 2: Existing GIS Server deployment



For GIS specifically, the main systems are hosted as follows:

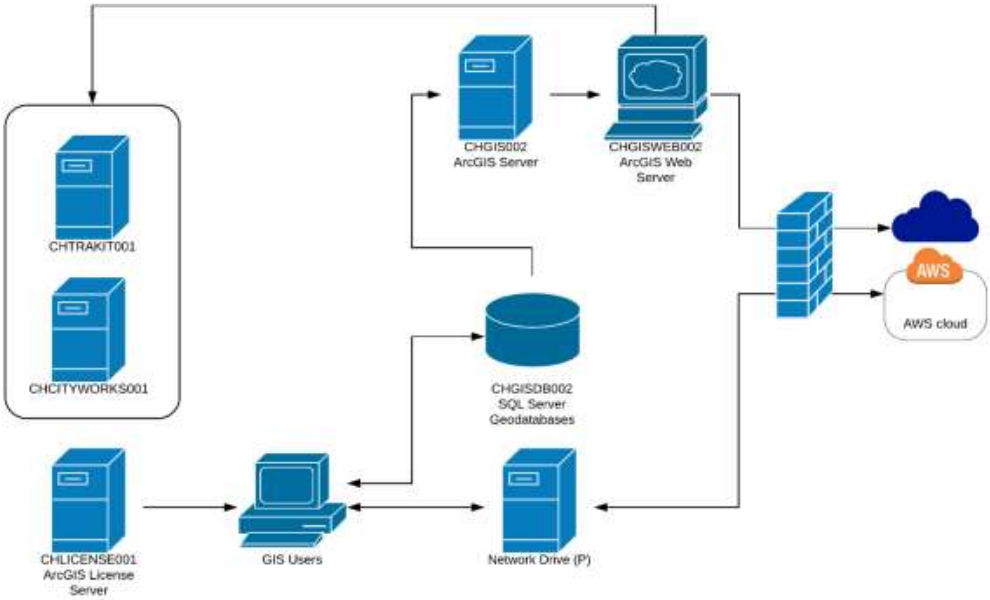
- ArcGIS Server application (chgis002)
- ArcGIS geodatabase store (MS SQL Server) (chgisdb002)
- ArcGIS Web Server (chgisweb002)

ArcGIS Software license server (chlicense001) To simplify GIS data updates into the TRAKiT system, a linked database connection has been set up on the TRAKiT database server (chtrakitdb001) to read data from chgisdb002. This linked database connection was leveraged during the development of the Development Activity Map by the creation of a Trakit Integration SQL Server database on chtrakitdb001 to assist in joining GIS spatial data with TRAKiT permit data for display via an ArcGIS Server service.

Cellular coverage is considered to be good throughout the City, and iPad tablets and laptops have been, or are being, supplied to a number of field staff. Although issues have been experienced with attempting to load large as-builts while on mobile devices, it is likely that these are related to limitations at the device level and are not likely to be easily addressed other than by maximizing device specifications and splitting particularly large as-built files.

The P drive failure in 2017 (affecting both spatial and non-spatial data) and the delays in being able to recover much of that data have caused a loss of faith in the P drive. This also resulted in the need to do a considerable amount of rework for the GIS Department as they were partway through the process of establishing data updates into the TRAKiT system. The IT Department are actively looking at solutions to address this.

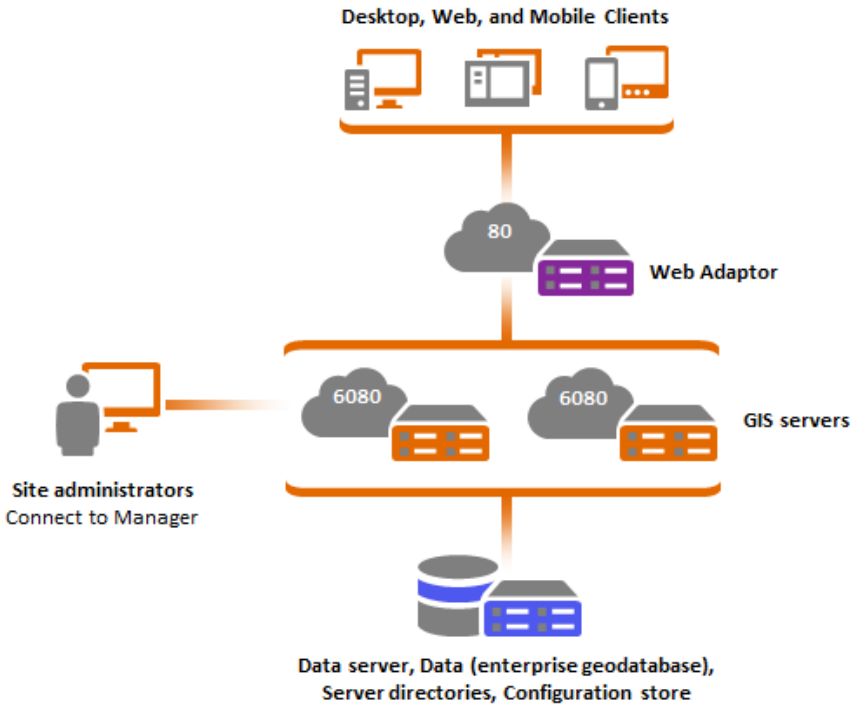
Figure 3: Existing GIS Server configuration (includes external connections)



2.9.1 Recommendations

In general, GIS recommendations related to hardware, server and network resources are primarily concerned with maintaining sufficient capacity and performance on the server and data storage side, and performance on the client side. The current GIS configuration is within best practice guidelines for an Esri Enterprise geodatabase configuration, with clear separation of activity and resources set appropriately. In general, unless a high availability environment is required, best performance is achieved through increasing system resources rather than additional machines. Figure 4 shows a best practice multi-machine deployment (not high-availability), the best practice installation for a single GIS server is essentially the same. The web adaptor tier could be replaced with a reverse proxy or network load balancer if desired.

Figure 4: Esri recommended multi-machine deployment



24. Establish the minimum specifications for running ArcGIS Desktop and ArcGIS Pro at each release and compare to existing machines to determine if there are likely to be any issues when updating the software. Particular attention should be paid to the need for extensions such as 3D Analyst (graphics card) or large processing tasks (RAM). Specifications for ArcGIS Pro should also be considered. GIS hardware replacement schedules should be aligned with general IT replacement schedules and budgeted accordingly.

25. Maintain sufficient network data storage for GIS project and other non-enterprise geodatabase data. This is especially important in managing large imagery collections, and historic versions of these. At present there is approximately 1.2TB of data in the known GIS section of the P drive. In general, approx. 1.5 – 2TB of storage space would be expected to manage anticipated project data for a city of this size (dependent on archiving policies), with an additional 1-2TB of imagery storage to handle future historic imagery collections.

26. Designate appropriate laptops, hardware (such as hard drives and printers) and devices for use in an emergency situation and ensure that these are appropriately maintained. Establish portable data drives for emergency use in case of network or server issues - regularly updated

by the GIS Division and stored in a secure location. Data can include emergency plans as well as GIS data. Drives should be tested regularly to ensure functionality and data is intact.

27. Monitor the ArcGIS Server and geodatabase servers to ensure that resources (CPU, RAM and storage space) are sufficient as data and service use increases. A general rule is 4-5 map services per CPU core for continuous use services, however this varies with the number and complexity of features and labeling. For cached imagery and the like, ArcGIS Server can provide a cache size estimate, and the following calculation can provide a general indication: Cache Size in MBytes is approximately (Km2/pixelsize^2)/4. Storage space should be expected to require from 500MB to 2TB depending on the amount of cached services and geoprocessing activity. The GIS Division should establish metrics such as acceptable service response times etc. that can be used to determine impacts. For performance it is preferable to extend machine resources rather than add additional machines, unless high availability is a requirement.

28. Document database management and backup policies for the network drives and enterprise geodatabases in SQL Server. Backups should be regularly tested.

29. Establish remote and VPN access for GIS and emergency services staff.

2.10 Spatial Data Repositories

Spatial data refers to any data that identifies the geographic location of features. These may include physical features like a water pipe or road or non-physical features like tax parcels. The City currently manages GIS data in both Esri Enterprise geodatabases hosted in Microsoft SQL Server and on the "P" drive file network storage location (which acts as a cache for the Amazon Gateway Storage device). Overall, a key requirement for spatial data management at the City is that it can be easily managed by the GIS Division, accessed by staff, and visualized and interacted with in a variety of different environments, especially via web and mobile tools. In order to achieve this, the City will be relying heavily on enterprise geodatabases and ArcGIS Server.

The City Enterprise geodatabases are hosted on the chgisdb002 server. There are a number of geodatabases hosted, with those in active data storage use being "Publish", "Production", "Imagery", and "Stormwater" (see Figure 5). The "Publish" geodatabase (Figure 6) is intended to be the primary and definitive datastore at the City and is used to serve GIS datasets up through ArcGIS Server. The "Production" geodatabase is used for working data and is frequently updated. The "Trakit_import" geodatabase is used exclusively for pushing parcel and address updates into TRAKiT. This process was impacted by both staff changes and the P drive failure, parcel data is back to updating TRAKiT monthly, while address updates are currently being worked on. There is also a "Cityworks" geodatabase, which will be used to support CityWorks. The "GIS_Data" geodatabase is currently used to support the Engineering Vault application with project footprints and pdf engineering drawing

attachments. The "TrakitIntegration" geodatabase supports custom datasets and views connecting TRAKiT with GIS data as needed.

Figure 5: GIS enterprise geodatabases

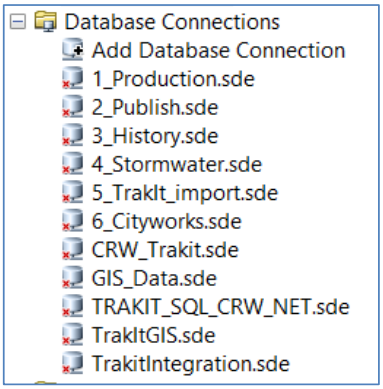
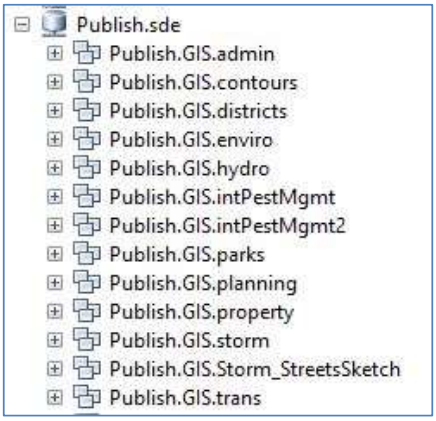


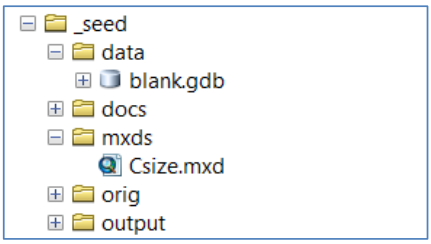
Figure 6: "Publish" enterprise geodatabase organization



The P drive suffered a data failure in 2017 (affecting both spatial and non-spatial data) and a considerable amount of data has not been recovered, which has resulted in a loss of confidence in the P drive for file storage. Some staff report that they are maintaining local copies of the data in addition to the P drive data. There are a large number of GIS files and map documents stored on the P drive, Departments appear to manage their GIS data within the GIS_Server\Projects folder, organized by year. GIS Division staff are using a standardized project folder template to organize their project files (Figure 7). Departmental datasets vary in size, storage approach and quality. Folder names are not standardized and it can be difficult to identify projects or departments if staff are unfamiliar with them. Often these projects contain duplicated, or re-downloaded supporting data. There is no

documentation on whether a dataset is designed to be updated regularly or only relevant to a project or analysis task. Where departments are adding the data to the network and informing the GIS Division, it is uncertain whether this is being migrated to the enterprise geodatabases or not.

Figure 7: Standardized GIS Project folder template



Metadata is generally limited or non-existent for much of the data, and it can be difficult to know whether data is up to date. Departmental staff reported that finding data is still an issue. Within the departments, there is still a large amount of data stored in MS Access databases or Excel files with limited documentation and knowledge of this outside of a few people. A number of projects have generated GIS data over the years for departments, but there is some uncertainty over whether this data has been brought into the City system or not. An example is the Transmap project, which generated a lot of data and had a hosted map available for some time, but now staff are uncertain where this data is.

The GIS Division is currently receiving and managing a variety of external data sources, most notably from King County. Monthly updates of King County data are received by the division and processed for updating TRAKiT and other systems. The TRAKiT data update was impacted by staff changes and the P drive failure, leaving a backlog of work to address (of these, parcels are considered to be up to date with restoration of address updates planned soon). The bulk of the supporting data appears to be managed within the Enterprise geodatabases, with intermediate data managed within project files on the P drive. Currently, any departmental GIS staff may request supporting data independently, and anecdotal evidence suggests that this is happening if staff cannot find what they need internally.

The City's existing imagery data to date has been captured as part of collaborative projects with neighboring entities, or from regional projects. The regional projects are cheaper but suffer from long lead times and issues with developing suitable requirements that are aligned with all parties. This has resulted in 2-3 years elapsing between imagery updates. In the past, additional products such as contours, building footprints and impervious surface capture have also been generated from the imagery by contractors.

The City has a number of desired data products, updates and deployments, including:

- Higher resolution and more frequent aerial imagery.

- Continuously updated GIS parcel and address data available to the TRAKiT system.
- TRAKiT data. TRAKiT stores other information that staff would like more visibility into, such as notices served against a property, land use and environmental conditions, and variances.
- Capturing all City assets, with a goal to map everything around the sidewalk, in the right of way, and in a park. This includes: ADA mapping, street lights, playgrounds, benches, bins, and access to asset and maintenance records.
- Access to relevant as-built and operations and maintenance data and CCTV records from a map or asset record.
- Updating GIS data attributes from inspections systems, such as CCTV.
- Visually marking inspection activities against facilities and assets.
- Traffic operation and maintenance data, road closures, trouble spots and road alerts.
- Mapping of Citizen action requests and applications to report and track complaints (via tools such as SeeClickFix) and to store that data for public records requests.
- Interactive map on CIP projects.
- City Tree information, including as-builts, planting schedules, location, species, trees to be removed and irrigation attributes.
- Expanded property information, including up-to-date owner and structure information.
- Updating or obtaining additional supporting data such as soils, geotechnical information, and LiDAR surface data and derived products.

2.10.1 Recommendations

Spatial data recommendations are organized as general recommendations first, with and move into more specific recommendations as needed. Recommendations around AGOL data storage and data agreements are also included in this section. The primary benefits are in data consistency, access and trust.

30. The City should establish well-known, centralized data locations and data services. Editing/viewing permissions should be set as appropriate to each department as well as the IT/GIS Department as needed for administrative purposes. Departmental data visibility to be set by the department in conjunction with GIS Division staff. The centralized data locations/services should form the primary source of data for the majority of data viewers at the City. Related components include dataset naming conventions, data update schedules, and ensuring metadata is up to date.
31. Evaluate the suitability of versioning workflows to allow departments to edit and manage their data while allowing for preliminary or project data to be incorporated as appropriate into definitive City datasets. Scenarios can include departments incorporating new data or data

updates (e.g., as-builts and plans) for visualization, and when finalized requesting the GIS Division to incorporate these into the definitive, published datasets.

32. Establish metadata templates and populate metadata for all internal datasets at the City. Data stewards should be responsible for ensuring metadata is complete and stays updated. This includes adding and maintaining appropriate metadata to all internally managed datasets and ensuring that external data is delivered with metadata and that this is persisted within analysis tasks. Metadata must be updated as required.
33. Develop simple, clear procedures for managing all data, data updates and data requests. A schedule for regularly required external data updates (such as data received from the County) should be established and processed by the GIS Division, and stored in a centralized and well-known location for use by all departments, including web maps. Most of these datasets should be read only, with policies in place to describe when it is appropriate to develop a local copy for modification. Internal data updates should be managed via the appropriate departmental data steward, with either regular updates to the centralized location or direct editing by the department against a centralized dataset.
34. Enforce minimum City data standards for project and temporary data. This includes base folder structures, file naming and storage recommendations, metadata, coordinate systems and requirements including accuracy and tolerances where applicable.
35. Develop Interlocal agreements (ILA's) and other methods that allow Sammamish to utilize other local government data or services where applicable to remove barriers to regional projects.
36. Consider the use of data replication to file geodatabases as the data source for ArcGIS Server services in order to maximize the performance and provide a degree of redundancy for those services.
37. Establish an appropriate AGOL organization structure to manage department maps. This should be based on the use of folders, groups and roles to manage users and data on AGOL. Groups should be restricted to their specific folder(s). If multiple people will be uploading data, then appropriate sharing and ownership changes may be required to ensure that appropriate staff can see, access, or manage the data.

2.11 Departmental Considerations

FLO met with City staff to understand their day-to-day workflows, concerns, and desires related to creating, maintaining, using, and interacting with GIS software, spatial data, and GIS Division staff. Overall, staff reported that they were generally happy with the responsiveness of the GIS staff. Staff identified that there was a large number of datasets and tools that they would like to see developed and expressed concern that personnel resources would be not be available to do this work.

The most common concern expressed involved access to related documents and data, with a number of difficulties reported in finding information within the variety of systems at the City. There was also frustration over the lack of integration between software systems and difficulties experienced in using a number of analysis outputs. For the purposes of this report non-GIS data concerns will be listed for reference only.

Overall, the main considerations include:

- Multiple departments reported that they anticipated increased GIS needs in the future.
- Widespread desire for staff to be able to generate quick maps for presentations, documents and reports, with consistent map layouts, standardized symbology and data, and style guides.
- A need for consistent Records Management practices.
- Interest in departmental GIS data stewardship.
- A need for more formal GIS data workflows and standards.
- A requirement for improved data flows and integration between software systems.

2.11.1.1 General Recommendations:

Many of the departmental GIS needs and workflows are similar and can be supported with the same underlying technology and tools. The recommendations in this section will provide general recommendations that can be implemented across departments with the guidance or leadership of the GIS Division as appropriate. Specific departmental recommendations are given under the appropriate heading where these differ or warrant being described.

38. Establish regular GIS meetings with all GIS users to share knowledge, discuss issues, and reduce the effect of departmental separation and silos.
39. Establish departmental data stewards, with the authority to manage (or delegate management) of departmental data. Departments should be considered the responsible party for their data, including metadata, even if the data is managed or edited by the GIS Division. For departments with GIS resources, this includes access and edit rights to enterprise geodatabases for centralized data.
40. Create a data management plan (DMP) to document the City's use of spatial data and their associated workflows, spearheaded by the GIS Division. A DMP is an excellent way to not only capture and manage institutional GIS knowledge, but also provides a way for the City to document best practices related to staff responsibilities and the collection, management, and dissemination of spatial data and related work products. Examples include Standard Operating Procedures (SOP), metadata requirements, file/data management, coordinate systems, and defining best practices and workflow processes. A DMP can serve as onboarding procedures

for GIS staff, and can be hosted as a set of documents, web pages, wikis, and SharePoint resources, as appropriate.

41. Establish City GIS data deliverable requirements for internal and external projects. Where necessary, incorporate defined GIS deliverables into contracts and develop procedures to check received data meets the contract requirements (such as an enforceable as-built standard). Internal GIS project data standards and workflows should define processes to incorporate project data into the definitive datasets as required
42. Create standardized basemaps and layer files for use by all staff (in both desktop GIS and web-based viewers) to increase the overall efficiency of map making and to provide consistency across City staff.
43. Create desktop GIS map templates for the organization/departments to standardize and promote consistency in map generation. These can be leveraged via custom services to provide printing functionality to the web-based viewers as desired.
44. Conduct a full review of existing field-based data collection workflows and associated software integration workflows be conducted to identify opportunities for streamlining associated workflows. Requirements should consider system, data access and editing needs, ease of use, offline capabilities, interface and operating system.
45. Define and develop additional web viewers and tools to support departmental task requirements. Each of these should be primarily task focused, and identified as a public, department, or city general application as appropriate. Applications can share underlying base maps, services and functionality as desired (e.g., custom printing). Examples include the ability to be able to create standardized custom maps for travel issues and events, visualizing Citizen Action requests, public notification tools, exporting tabular data and linking to external sources such as the King County Assessors site. This may also involve integrating with other applications such as TRAKiT or SeeClickFix.
46. Each department should coordinate with IT, the GIS Division and emergency response staff to define the priority data, products and delivery, and analysis requirements and procedures to be followed to meet emergency response considerations. For example, the GIS Division could automate the regular creation of PDF map books in advance, allowing these to be immediately available for either viewing on devices or printed as needed.

2.11.2 GIS Division

The GIS Division has been heavily involved with a number of city-wide software implementation projects. This has impacted the amount of resource available, with one staff member being mostly working on the CityWorks project and a corresponding reduction in resources available for GIS work. Overall, although the GIS Division feel they had little involvement or input in the initial CityWorks

project, they have had to dedicate considerable resources to address schema designs, data needs, and learn how to administer the system.

The primary workflow needs for the GIS Division are focused on enterprise geodatabase management, GIS data management, providing GIS support to departments and delivering tools to support GIS users. To that end a number of considerations have been listed below:

- The current GIS approach has been primarily reactive and needs to shift to a proactive, long term.
- There is often uncertainty over long term budget requirements for GIS needs.
- There is a lack of GIS job description and requirements documentation.
- The development and adoption of data management procedures and quality control is required to ensure that all departments can manage GIS data to appropriate standards.
- There is a need to be able to manage data editors at an enterprise level and establish best practices around SDE users.
- There is a need to track GIS requests, and the GIS Division has started using the SysAid Helpdesk ticket system for this.
- There is concern that the existing IT infrastructure may not meet GIS needs, primarily around the response to the failure of the P network drive.
- CityWorks is a core part of the City's data management plan and a vital component to implement. The CityWorks implementation has required more a GIS resource than initially anticipated. Impacts include GIS data structures, functionality, and integration needs.
- There is a desire and a need to be able to use tools such as SQL Server Management Studio (SSMS) to assist in managing GIS data and integrating data with other systems in conjunction with IT Department staff.
- The group is looking to migrate to ArcGIS Pro and develop an appropriate training and implementation schedule.
- There is a need to improve coordination between IT and GIS with respect to GIS software and support. Examples include establishing requirements for GIS software and lines of responsibility for support and licensing.
- The GIS Division would like to be more involved in software specification and purchasing considerations, to ensure that data integration and/or GIS needs are incorporated at the earliest stages.

2.11.2.1 Recommendations:

The recommendations given here are predominantly related to core GIS functionality and Enterprise requirements.

47. All GIS Division requests should be received and logged in the IT Department SysAid helpdesk system so that they can be tracked appropriately and to enhance visibility. The GIS

Coordinator should be responsible for the overall tracking and analysis of requests. Optionally, departments may want to track GIS requests as well.

48. Establish metrics to use for evaluating internal GIS resource responsiveness and capacity (including GIS requests, service response and availability, and other measures as necessary). This can be used to determine identify issues and estimate resource requirements as well as the appropriate allocation to tasks and departments. Mechanisms for receiving departmental feedback may also be a component of this.
49. Coordinate and conduct GIS outreach both within the City and in the greater community in order to encourage the use and consideration of GIS. This can include establishing relationships with GIS staff at other cities and organizations and encourage the sharing of information and ideas related to GIS through regional events and forums as well as local ones. These forums provide an opportunity to learn from the experience of others and to share GIS knowledge to strengthen the region as a whole.

2.11.3 City Clerk

The primary considerations for the City Clerk revolve around data access and retention and in making data visible to the public. Their main tools, iCompass and TRAKiT, can handle electronic documents, however there is little option for organizing these. TRAKiT is the primary software managing permit and property information. There are a large number of duplicate documents within TRAKiT, the initial migration generated a number of these, and the situation is exacerbated by TRAKiT renaming not affecting download name, and the software not tracking versions. Documents older than 2015 are generally only available on the P drive and following the restoration of this drive the file dates have been reset, making it more difficult to identify them. As the City was incorporated in 1999, requests for data older than that go to King County.

Different departments follow their own scanning and document management processes. There is often confusion over the status of draft versus final documents in many cases and varying naming conventions in use. Overall, determining the version of a document is difficult regardless of the system. Paper documents need to be stored for retention purposes (set largely by the departments) and the City is looking into electronic alternatives. iCompass has a records management plugin and can link to an address via google maps, although the department would prefer to use the internal GIS data instead and has requested this enhancement to the company.

Overall, this department reported a need for a document management system or public records request software, and an inventory of all records. Most records requests concern permits or properties, and the department desires the ability to more easily extract this information to answer questions. The City Clerk currently uses some of the web applications and GIS data and sends other request to the GIS Division

2.11.3.1 Recommendations:

Although the recommendation below is not specifically related to GIS, improving document management at the City will positively impact document access and linking in general and assist in being able to do so from systems including GIS.

50. Spearhead an effort to inventory records and establish consistent document management procedures and processes, including naming conventions, and the deletion or destruction of records. It is expected that this will assist with the development of City document management system requirements.

2.11.4 Emergency Management

This department is concerned largely with planning for and responding to emergency events. To that end they generally wish to be able to access a variety of data, some of which is restricted access. In general, the data desired includes demographic, socio-economic, built environment, hazards (liquefaction, landslides), and infrastructure. External data from other entities makes up a large part of the data, and there is a need for close communication with groups such as fire and police.

Planning phases include the desire to do analysis to determine impacts, traffic modeling for evacuation scenarios, query infrastructure, and identify likely affected populations to events such as a water main break.

Response activities require access to real-time, or near real-time data, as well as the ability to quickly pull in external data into centralized dashboards (based on emergency type) to be able to understand and communicate the situation. Examples include responding to high frequency events such as snow and ice, where the ability to track snowplows and update road, utility, and weather conditions quickly are important.

The department would like to be able to conduct post disaster activities, such as mobile damage assessments, and allow the public to input data into the system (especially disaster data, creating hubs, self-register for volunteers). Overall, the department does not feel that they are close to accomplishing their GIS goals and are concerned about the availability of GIS resources in an emergency.

2.11.4.1 Recommendations:

51. Ensure that sufficient documentation and training is available for EOC staff to be able to utilize GIS machines and data in the event of an emergency. Cross training between staff for GIS tasks would be advised. This should be specific to the computers, tasks, and data that will be likely used in an emergency, and may include HAZUS training, the use of specific tools, and documenting standard workflows used.

52. Establish requirements for emergency management analysis, tools, and dashboards, including data, functionality and resilience. Data may be internal, external, or crowdsourced. Dashboard visibility should be set as appropriate. Examples include infrastructure queries, demographic impact analysis, include communicating traffic impacts, snow/ice and plowing progress, or neighborhood disaster planning and response tools. Hazard mitigation and scenario planning may include HAZUS and hazard information (flood, landslide,), facilities and open spaces, infrastructure and utilities, road access, and population and demographic data.

2.11.5 Community Development

The Community Development Department encompasses planning, permitting, and code enforcement operations. General observations and considerations are covered in this section with specific details as required under the sections following.

Staff use both ArcGIS Desktop and online tools such as King County iMap and internal ArcGIS Online hosted applications as appropriate. Overall, they reported that access to GIS and other data in the City can be difficult, and they generally have to go through the GIS Division for analysis and maps, or IT to get reports from systems such as TRAKiT. Planning data may be stored/processed on personal drives, and it is not certain that all data is on the network or fully communicated to the GIS Division as to whether it is project data or enterprise data. The department expressed a desire for more GIS resources and support. They reported that there is no process to follow for GIS requests, and there can be frustration and confusion over the time it takes to address a request.

This department is particularly affected by parcel and address updates in TRAKiT as they report only being able to search by address while in the field, and permits are linked to addresses or parcels. Currently, parcel and address data in TRAKiT is manually updated by the GIS Division.

The department uses TRAKiT for inspections, and the existing approach uses Apple Maps on the iPad. Concerns over the Apple Maps accuracy and errors in routing have been reported, and there are a number of changes that staff would like to see with the inspection application, including altering the email setup. In addition, staff often have to call back to the office to work around mobile TRAKiT limitations. Some staff have access to BlueBeam software in the field for reviewing and viewing development plans (this has read only access) and have used Procore in the past (software was supplied by developers). This was well received and has proved to be very useful in general. There has been a lot of interest in using additional software, such as Power BI or QGIS, for departmental tasks and frustration over the process for requesting and obtaining software (this is not specifically a GIS issue).

A number of considerations were raised overall:

- The desire for a defined GIS level of service, with timeframes, to address the need for time sensitive responses.

- The ability for staff to generate quick maps for presentations, documents, and reports with consistent map layouts, standardized symbology and data, and style guides.
- The need for consistent Records Management practices.
- Access to a variety of up to date data, including more frequent aerial imagery, TRAKiT information, and county data.
- The Department has a lot of analysis and mapping needs coming up including: buildable lands, development code rewrite, comprehensive plan update, critical areas, potential annexation analysis that will require GIS assistance to define the tools and analyze impacts.
- There is a need to have planning domain expertise matched to GIS skills within the department.
- GIS training is an ongoing requirement.

Permitting

The Permitting group are heavy users of the TRAKiT software and are currently looking into migrating to the cloud based TRAKiT9 system. TRAKiT9 offers extended GIS functionality over the existing, self-hosted software. The GIS Division will be involved in establishing an appropriate migration path, and in re-establishing approaches to visualizing the development activity following a migration. This includes mapping out a new workflow for creating new parcels and plats in TRAKiT and in managing the updates of GIS parcel and address point information.

Code Enforcement

The Code Enforcement team are very reliant on GIS and TRAKiT data. They are currently relying largely on King County iMap data but expressed frustration with the pace of data updates and the data granularity available on that system. In general, there is a need for more detailed data and the ability to access both TRAKiT information and other systems to establish impacts at an individual property level. This will likely require the ability to access county and local data together.

Development Plan Review/Inspectors

The Development Plan Review Team and Inspectors are largely using TRAKiT and iMap, and they expressed frustration with incorrect permit linking, the need to call back to the office due to mobile TRAKiT limitations, and a general lack of supporting data available in the TRAKiT app such as environmental data. The ability to search by multiple criteria and develop workflows for updating incorrect data are also desired (e.g., flagging permits that are linked to the wrong place or incorrect address locations).

2.11.5.1 Recommendations:

53. Conduct forward planning and scheduling of regular GIS needs and GIS projects with the GIS Division to enable efficient resource allocation. This is particularly important with respect to coordinating advanced analytics requirements and domain expertise.
54. Evaluate the cost and benefits of updating TRAKiT with historical information in order to simplify data search and extraction.
55. Establish TRAKiT data update procedures to allow for error correction.
56. Assess building permit tools for automation opportunities, such as populating a permit with GIS data.

2.11.6 Public Works Department

The Public Works department manages stormwater utilities for the City. Sewer, water and other utilities are managed by external entities. Day to day, the bulk of the Public Works Department use the existing ArcGIS Online hosted web applications for interacting with GIS data and to understand the existing system. Overall, the department has a variety of data capture, management, and visualization needs.

A number of considerations and issues were raised overall:

- The department expects to increase its GIS needs in the future, especially with respect to asset management and data integration.
- The department is interested in managing its data more closely and being a data steward within the hybrid GIS governance structure.
- Esri desktop software users reported that finding GIS data was one of the biggest issues that they had to deal with.
- Staff use TRAKiT for access to property information but have experienced difficulties with searching and accessing the information required.
- Increased access to the online tools has highlighted that the data is often out of date. Additional metadata access is desired to be able to understand the quality and accuracy of the data available.
- Increased data visualization requirements include CIP projects, traffic, cameras, Citizen Action Requests, and road closures.
- There is a need for more formal data workflows and procedures, particularly in managing as-built data and standards, field verification and generating new GIS data.
- There is a high desire to maximize GIS and CityWorks integration. Field staff are expecting to work largely in CityWorks and to be able to visualize the progress of inspections in either system.

- There is concern over the current lack of visibility into the CityWorks implementation project, and the low level of interaction the Department has had in defining and setting up either the software or the GIS data.
- Increased integration between Citizen Action Requests, asset management and GIS are desired, including assisting with adding location information and asset linking.
- Cross training opportunities exist between the CAD and GIS users, particularly in understanding the requirements and limitations of each system, and how best to use them together.

Further specific considerations raised are continued below:

Engineering CIP, Development Review, and Inspector:

- Accessing projects via the map interface can be difficult with the current overlapping and stacking of project geometries.
- MicroPAVER is difficult to use, does not reference GIS well, and is not integrated with other systems (especially GIS sections).
- Additional desired data requirements and integrations include CCTV (including footage), storm basins, geotechnical reports, traffic study reports, and pavement cut moratoriums.
- Ability to import CAD data into GIS for presentations.

Engineering Stormwater, Transportation, Management Analyst

- Additional GIS integration and data requirements include right of ways, sign inventory, mobile mapping data, traffic camera feeds, traffic signals, work orders in CityWorks, collision data, and streetlights.
- CIP now have an as-built in spec in place, get as-built on project close out.
- Very interested in functionality such as tracing stormwater downstream from a parcel.

2.11.6.1 Recommendations:

Overall the Department is very interested in increasing its ownership and management of departmental data, increasing the interactivity of the City's GIS maps and tools, and in incorporating a number of additional datasets. The department has also expressed interest in utilizing field tools such as Collector for ArcGIS for both access and field data updates. The majority of requirements can be met by the recommendations in other sections.

57. Establish the requirements for additional data and tools, including data sources, standardization and technical requirements, access considerations, data combinations and functionality. Examples include:
    - Traffic camera feeds
    - CIP projects (design and construction stage)

- Development activity not currently shown on the Development Activity Map
- Citizen Action Requests, CityWorks data and complaint reports
- Visualizing facility inspections

2.11.7 Parks and Recreation

The Parks and Recreation Department is responsible for managing public recreation facilities and assets in the City and will be using the CityWorks software internally. Overall, the department requires user friendly data access, management and visualization tools. Much of this must be available in the field, particularly asset management and inventory data. In addition to attribute data, there is a desire for photos and other information to assist visitors and staff. There are requirements to manage large amounts of third party arborist data, including reports, which may cover varying geographical areas. In addition, there is a desire to be able to access supporting data such as site and mitigation reports, stormwater controls, and plantings. The department is also interested in receiving regular updates from the GIS Division on new data, software and other items of interest.

The department also requires a variety of mapping products for public and internal use, both hard copy and web based. Access to maps of facilities, including shelters, parking, fields, and assets as well as the ability to generate site maps for events on demand are required. Site maps should include vendor locations in addition to existing information and be able to communicate additional parking or other temporary changes. Volunteer events such as planting trees or pulling blackberries include related aspects such as tracking the events each time, managing safety and access elements, and generating public facing information.

Data should be available to assist with activities such as booking facilities and feed back into booking sites as required to identify the availability of grills, picnic tables, power, and water. In addition, the ability to communicate facility information and status on the website is important. Ideally this would include displaying operating hours as well as temporary park facility closures via a link to the asset management and work order system.

2.11.7.1 Recommendations:

The Parks and Recreation Department have immediate needs related to asset and facility management. It is anticipated that the CityWorks environment will be able to address a number of these. In addition, the department should:

58. In conjunction with the GIS Division, identify GIS related data management and access requirements, including mapping and tracking City trees, arborist reports, as-built and planting schedules, and assets such as irrigation, playgrounds, and benches.
59. Identify facility management requirements and investigate software options. This may include the need to integrate with GIS or CityWorks data and manage bookings.

60. Establish requirements to allow the department to generate public facing maps and communicate facility information. Examples include public booking of facilities or communicating issues and facility/park status such as repairs or closures. This may utilize third-party components such as CityWorks work orders or a facility management system.

2.11.8 Information Technology

Departmental GIS considerations are covered under the GIS Division section. Overall, the department is primarily concerned with understanding GIS storage requirements, server and data management needs, and user roles. There is a workflow in place that is jointly managed by the GIS and web teams involving a list of levy codes used to make a map for use by Finance and other staff. This workflow involves a data request to King County being passed through GIS (who check and prepare the data) to Cynthia Tiwana (who manages the bulk of the SQL Server components for the City) who updates a local SQL database. Maps of the levy codes are used to determine applicability within the city.

2.11.8.1 Recommendations:

The IT Department has no specific GIS workflows or requirements, and any recommendations impacting the department are covered in the personnel, software, hardware or spatial data sections as applicable.

2.11.9 Finance

The Finance Department primarily use the King County Assessor website and make very little direct use of GIS data or the GIS Division other than occasional map requests. Datasets of interest include tax and school district boundaries to be able to identify specific taxes applying to properties.

2.11.9.1 Recommendations:

The Finance Department has no specific GIS workflows or requirements, and any recommendations impacting the department are covered in the personnel, software, hardware or spatial data sections as applicable.

2.11.10 Executive

In general, this group is interested in access to demographic and growth-related data for understanding the City and fostering citizen communication. They do not make many direct GIS requests as they are often unaware of what data is available, although staff in this group may go out to external sites (such as the Census and American FactFinder) for data. Some staff would like the ability to generate a quick

map on demand, such as to communicate a road closure. There is interest in expanding the Development Activity Map and to develop similar applications.

Overall, the primary considerations are:

- Ensuring that appropriate staff can maintain and access data.
- Assist new residents in learning more about the town.
- Interest in live reporting and Citizen Action Request management, including forwarding requests to appropriate agencies.
- Maximize use of mapping where it makes sense.
- There is currently no official policy on making data public.

2.11.10.1 Recommendations:

Overall, the Executive are interested in increasing their use of predictive data such as demographics and permits, and in identifying the potential impact on City resources. The recommendations below are centered on further defining the needs of this group and identifying the appropriate data sources, requirements and deliverables.

61. Define GIS data analytics needs and appropriate timeframes. This can include projects such as demographic or socioeconomic analysis, economic development factors, school enrollment and the like.
62. Establish data sources for Executive reporting dashboards. These should provide a high-level overview of City functions and/or responses, and it is likely that these will require data from a variety of systems at the City, such as CityWorks, TRAKiT, and GIS.

2.12 Summary of Recommendations

The following table provides a summary of the recommendations, grouped by section for reference purposes. See Appendix B Recommendations for details on level of effort, value, and priority. A six-year roadmap is provided as Appendix C and outlines the recommended sequencing described below and in Appendix B.

Section Name	Section	ID	Recommendation	19/20 budget
Governance	2.6	1	Clearly define enterprise software governance responsibilities	$425K
Governance	2.6	2	Establish ongoing budget for regular City data updates and maintenance e.g. aerial imagery	
Governance	2.6	3	Establish a formal data access and publication policy	

Section Name	Section	ID	Recommendation	19/20 budget
Personnel	2.7.10	4	Establish appropriate GIS Division roles, responsibilities and duties	$142K*
Personnel	2.7.10	5	Plan for increased GIS FTE across the city within 4 years from 3.2 to 5-6 FTE	
Personnel	2.7.10	6	Establish appropriate specialist training budgets for all GIS staff	
Personnel	2.7.10	7	Obtain appropriate clearance for GIS and EOC staff	
Personnel	2.7.10	8	Develop procedures for appropriate use and integration of external GIS resources	
Personnel	2.7.10	9	Supplement GIS resources with external consultants as needed to accelerate timelines	
Personnel	2.7.10	10	Maintain general staff training for GIS related tools	
Software	2.8.19	11	Maintain ELA licensing and monitor cost/benefits	$100K**
Software	2.8.19	12	Establish IT/GIS as component of software selection process	
Software	2.8.19	13	Establish clear procedures for handling staff GIS software requests	
Software	2.8.19	14	Develop consistent GIS software installation and update procedures	
Software	2.8.19	15	Continue to develop tools on AGO and review when Portal is considered	
Software	2.8.19	16	Provide the GIS Division direct access to GIS software/server environments under the supervision of IT staff	
Software	2.8.19	17	Implement ArcGIS Server security best practices	
Software	2.8.19	18	Test and plan ArcGIS Pro migration	
Software	2.8.19	19	Establish an Esri Enterprise development environment	
Software	2.8.19	20	Develop a TRAKiT migration and integration plan	
Software	2.8.19	21	Address existing TRAKiT routing issues with TRAKiT manufacturer	
Software	2.8.19	22	Evaluate options to replace Crossroads database	
Software	2.8.19	23	Critically evaluate use of MicroPAVER and data integration options	
Hardware/ Network	2.9.1	24	Establish minimum hardware requirements for ArcMap/ArcGIS Pro	*Not Budgeted*
Hardware/ Network	2.9.1	25	Maintain sufficient network storage for GIS data	

Section Name	Section	ID	Recommendation	19/20 budget
Hardware/ Network	2.9.1	26	Designate hardware for emergency use and establish EOC data drives	
Hardware/ Network	2.9.1	27	Monitor ArcGIS Server and geodatabase server resources	
Hardware/ Network	2.9.1	28	Document database management and backup policies	
Hardware/ Network	2.9.1	29	Establish remote/VPN access as needed for GIS/EOC staff	
Spatial Data	2.10.1	30	Establish well known, centralized data locations and services with appropriate permissions to form the primary source for the City	
Spatial Data	2.10.1	31	Evaluate versioning options for departmental data management	
Spatial Data	2.10.1	32	Establish metadata templates and populate datasets	
Spatial Data	2.10.1	33	Develop data management procedures for internal and external data	$30K
Spatial Data	2.10.1	34	Enforce project data standards	
Spatial Data	2.10.1	35	Develop interlocal agreements to share/access regional data	
Spatial Data	2.10.1	36	Consider filegeodatabase replication for ArcGIS Server performance and redundancy	
Spatial Data	2.10.1	37	Establish appropriate AGO organizational structure for departments	
Departmental	2.11.1.1	38	Establish regular GIS user meetings to share knowledge, procedures and reduce silos	
Departmental	2.11.1.1	39	Establish departmental data stewards and responsibilities	
Departmental	2.11.1.1	40	Create a Data Management Plan to consolidate GIS documentation and procedures	
Departmental	2.11.1.1	41	Establish GIS data deliverable requirements for projects	$175K***
Departmental	2.11.1.1	42	Create standardized basemaps and layer files	
Departmental	2.11.1.1	43	Create standardized map templates and custom printing as required	
Departmental	2.11.1.1	44	Review existing field-based data collection workflows and software to identify streamlining opportunities	
Departmental	2.11.1.1	45	Define and develop additional web viewers and tools	

Section Name	Section	ID	Recommendation	19/20 budget
Departmental	2.11.1.1	46	Departmental coordination around emergency response requirements	
GIS	2.11.2.1	47	Log all GIS requests in the IT Helpdesk system for tracking and visibility	
GIS	2.11.2.1	48	Establish GIS metrics for evaluating GIS capacity	
GIS	2.11.2.1	49	Coordinate and conduct GIS outreach and build relationships in the greater community	
City Clerk	2.11.3.1	50	Spearhead document inventory and management procedures	
Emergency Mgt	2.11.4.1	51	Ensure documentation and training is available for EOC staff	
Emergency Mgt	2.11.4.1	52	Establish analysis, data and dashboard requirements	
Community Dev	2.11.5.1	53	Conduct forward planning and scheduling of high workload tasks	
Community Dev	2.11.5.1	54	Evaluate cost/benefit of updating TRAKiT with historical data	
Community Dev	2.11.5.1	55	Establish TRAKiT data update procedures	
Community Dev	2.11.5.1	56	Assess building permit tool automation opportunities	
Public Works	2.11.6.4	57	Establish requirements for additional data and web tools	
Parks/Rec	2.11.7.1	58	Identify data management and access requirements	
Parks/Rec	2.11.7.1	59	Identify facility management options	
Parks/Rec	2.11.7.1	60	Establish public map and communication needs	
Executive	2.11.8.1	61	Define GIS analytics needs and timeframes	
Executive	2.11.8.1	62	Establish reporting dashboard data sources and requirements	

*GIS Division staff only, also includes Tier 4 consortium costs
**Does not include additional software that may be identified through evaluations
***A number of Departmental recommendations will likely identify additional budget requirements

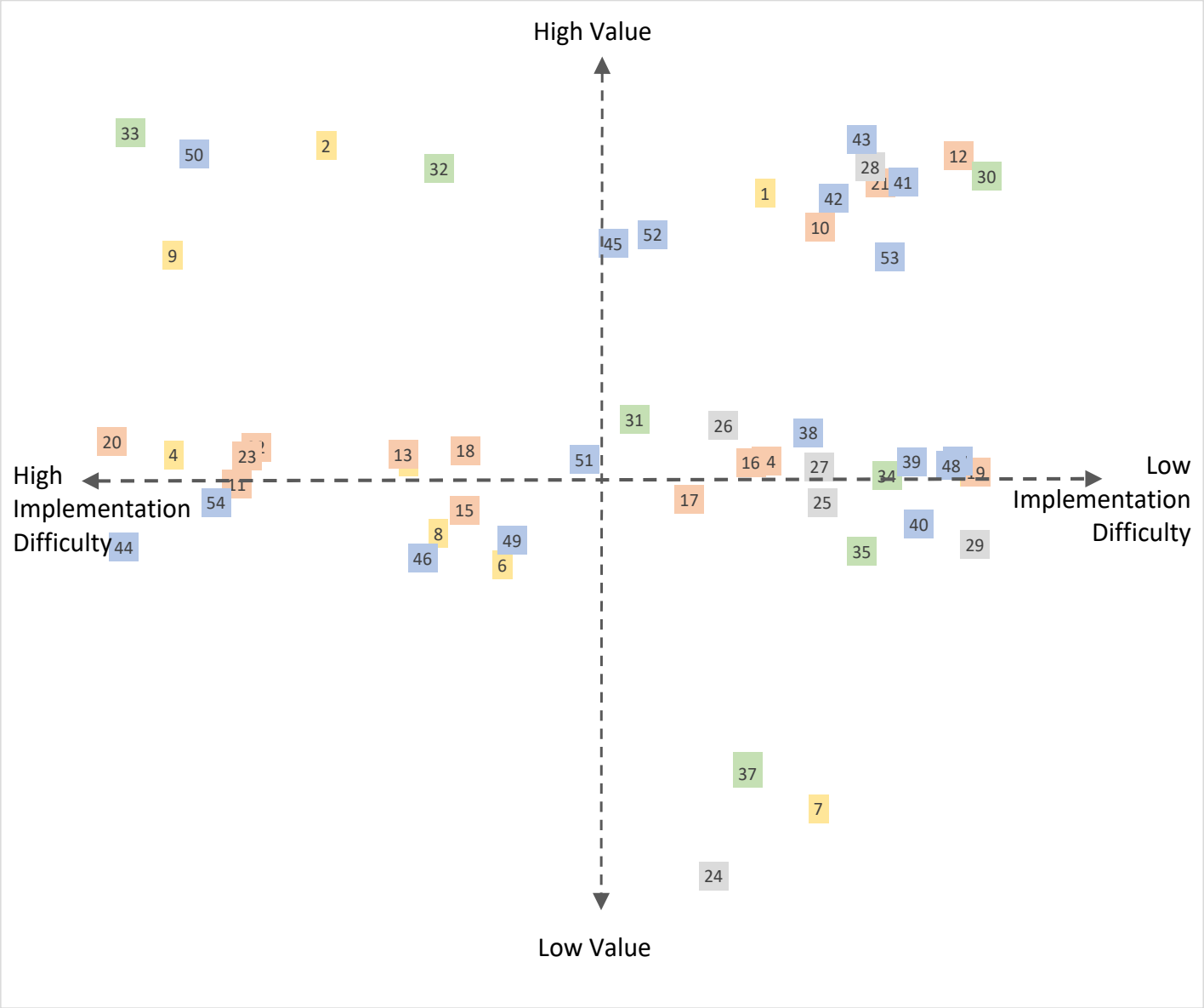
LIMITATIONS

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

APPENDIX A

VALUE-EFFORT RATIO CHART


High Value
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High Implementation Difficulty
Low Implementation Difficulty
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APPENDIX B

RECOMMENDATIONS TABLE

City of Sammamish Strategic Plan Recommendations Table

Level of Effort (LOE) considers skills and time (effort) likely to be required
Cost considers direct costs such as software etc.
Value represents a subjective judgement of the desirability, usefulness and benefits to the organization

LOE		Cost	
Low	< $1000 or < 1 month	Low	< $1000
Medium	< $10000 or < 6 months	Medium	< $10000
High	> $10000 or > 6 months	High	> $10000

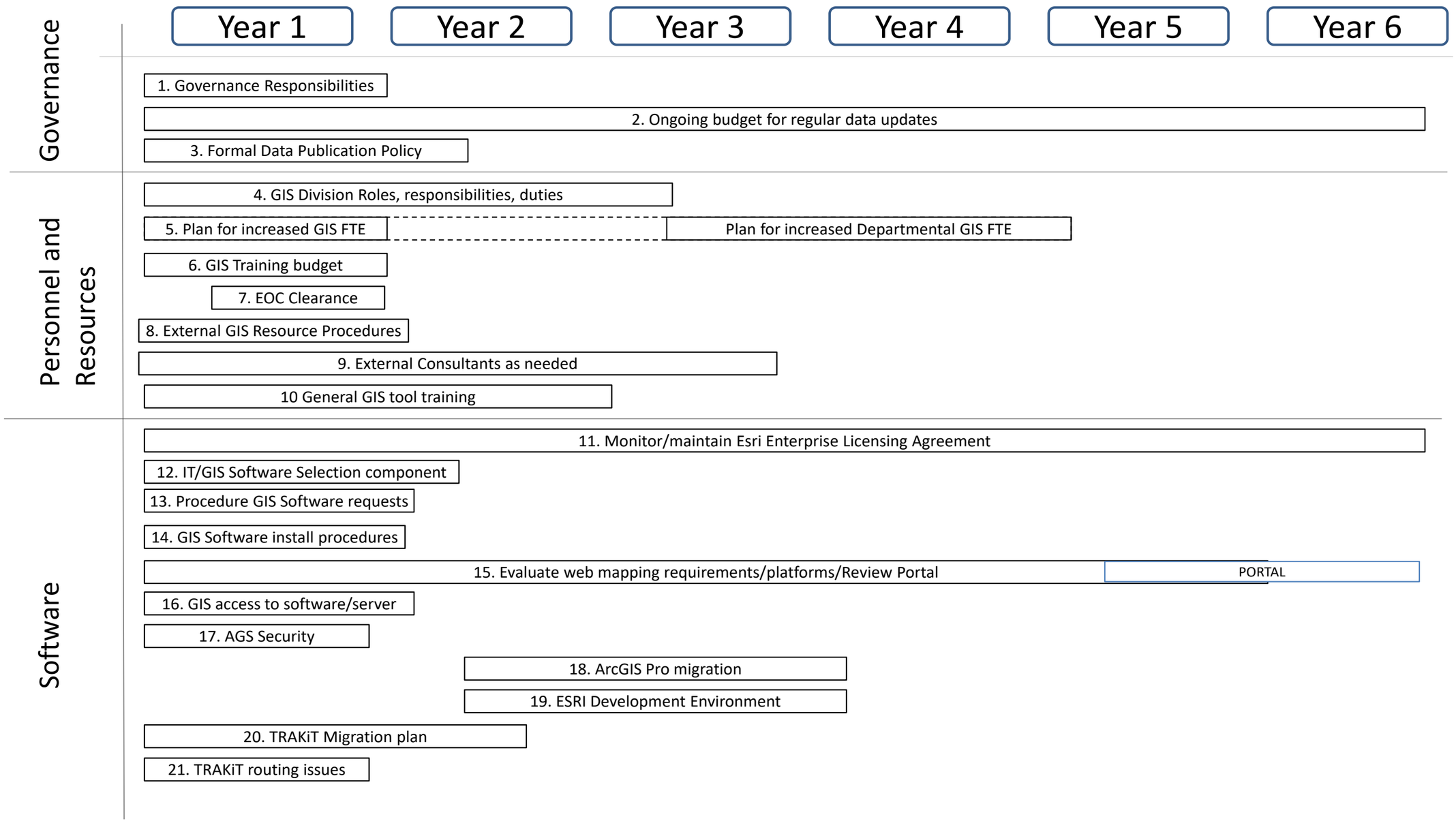
Section Name	Section	ID	Recommendation	Implementation Difficulty	LOE (Time/ Skills)	Cost ($)	Value	Year	Priority	Start Year	Dependency
Governance	2.6	1	Clearly define enterprise software governance responsibilities	Low	Low	Low	High	1	3	1	
Governance	2.6	2	Establish ongoing budget for regular City data updates and maintenance e.g. aerial imagery	Medium	Low	High	High	ongoing	1	1	
Governance	2.6	3	Establish a formal data access and publication policy	Medium-Low	Medium	Low	Medium	1-2	2	1	
Personnel	2.7.10	4	Establish appropriate GIS Division roles, responsibilities and duties	Medium	Medium	Low	Medium	1	1	1	
Personnel	2.7.10	5	Plan for increased GIS FTE across the city within 4 years from 3.2 to 5-6 FTE	Low	Low	High	Medium	4	5	3	
Personnel	2.7.10	6	Establish appropriate specialist training budgets for all GIS staff	Medium-Low	Low	Medium	Medium	1-2	1	1	
Personnel	2.7.10	7	Obtain appropriate clearance for GIS and EOC staff	Low	Low	Low	Low	1	4	1	
Personnel	2.7.10	8	Develop procedures for appropriate use and integration of external GIS resources	Medium-Low	Medium	Low	Medium	1	1	1	
Personnel	2.7.10	9	Supplement GIS resources with external consultants as needed to accelerate timelines	Medium	Low	High	High	1-3	2	1	
Personnel	2.7.10	10	Maintain general staff training for GIS related tools	Low	Low	Low	High	1-2	1	1	
Software	2.8.19	11	Maintain ELA licensing and monitor cost/benefits	Medium	Low	High	Medium	ongoing	3	1	
Software	2.8.19	12	Establish IT/GIS as component of software selection process	Low	Low	Low	High	1	3	1	
Software	2.8.19	13	Establish clear procedures for handling staff GIS software requests	Medium-Low	Medium	Low	Medium	1	2	1	
Software	2.8.19	14	Develop consistent GIS software installation and update procedures	Low	Low	Low	Medium	1	3	1	
Software	2.8.19	15	Evaluate immediate web mapping options (ArcGIS Online, GeoCortex) and requirements, and review when Portal is considered	Medium-Low	Medium	Medium	Medium	1-4	5	1	
Software	2.8.19	16	Provide the GIS Division direct access to GIS software/server environments under the supervision of IT staff	Low	Low	Low	Medium	1	2	1	
Software	2.8.19	17	Implement ArcGIS Server security best practices	Medium-Low	Medium	Low	Medium	1-2	4	1	
Software	2.8.19	18	Test and plan ArcGIS Pro migration	Medium-Low	Medium	Low	Medium	2-3	6	1	
Software	2.8.19	19	Establish an Esri Enterprise development environment	Low	Low	Medium	Medium	2-3	8	3	
Software	2.8.19	20	Develop a TRAKiT migration and integration plan	Medium	Medium	Low	Medium	1	2	1	
Software	2.8.19	21	Address existing TRAKiT routing issues with TRAKiT manufacturer	Low	Low	Medium	High	1	2	1	
Software	2.8.19	22	Evaluate options to replace Crossroads database	Medium	Medium	Medium	Medium	1-2	6	1	
Software	2.8.19	23	Critically evaluate use of MicroPAVER and data integration options	Medium	Medium	Medium	Medium	2-3	6	1	
Hardware/ Network	2.9.1	24	Establish minimum hardware requirements for ArcMap/ArcGIS Pro	Low	Low	Low	Low	1	3	1	
Hardware/ Network	2.9.1	25	Maintain sufficient network storage for GIS data	Low	Low	Low	Medium	ongoing	1	1	
Hardware/ Network	2.9.1	26	Designate hardware for emergency use and establish EOC data drives	Low	Low	Low	Medium	1-2	2	1	
Hardware/ Network	2.9.1	27	Monitor ArcGIS Server and geodatabase server resources	Low	Low	Low	Medium	ongoing	1	1	
Hardware/ Network	2.9.1	28	Document database management and backup policies	Low	Low	Low	High	1	1	1	

Section Name	Section	ID	Recommendation	Implementation Difficulty	LOE (Time/ Skills)	Cost ($)	Value	Year	Priority	Start Year	Dependency
Hardware/ Network	2.9.1	29	Establish remote/VPN access as needed for GIS/EOC staff	Low	Low	Low	Medium	1	1	1	
Spatial Data	2.10.1	30	Establish well known, centralized data locations and services with appropriate permissions to form the primary source for the City	Low	Low	Low	High	1-2	1	1	
Spatial Data	2.10.1	31	Evaluate versioning options for departmental data management	Medium-Low	Medium	Low	Medium	2-3	3	2	30
Spatial Data	2.10.1	32	Establish metadata templates and populate datasets	Medium-Low	Medium	Low	High	1	1	1	
Spatial Data	2.10.1	33	Develop data management procedures for internal and external data	Medium	Medium	Low	High	1	1	1	30
Spatial Data	2.10.1	34	Enforce project data standards	Low	Low	Low	Medium	1-2	2	1	
Spatial Data	2.10.1	35	Develop interlocal agreements to share/access regional data	Low	Low	Low	Medium	2-3	4	2	
Spatial Data	2.10.1	36	Consider filegeodatabase replication for ArcGIS Server performance and redundancy	Low	Low	Low	Low	3-4	6	3	30
Spatial Data	2.10.1	37	Establish appropriate AGO organizational structure for departments	Low	Low	Low	Low	2	6	2	
Departmental	2.11.1.1	38	Establish regular GIS user meetings to share knowledge, procedures and reduce silos	Low	Low	Low	Medium	2-3	2	2	
Departmental	2.11.1.1	39	Establish departmental data stewards and responsibilities	Low	Low	Low	Medium	1-2	1	1	
Departmental	2.11.1.1	40	Create a Data Management Plan to consolidate GIS documentation and procedures	Low	Low	Low	Medium	ongoing	3	1	
Departmental	2.11.1.1	41	Establish GIS data deliverable requirements for internal/external projects	Low	Low	Low	High	2-3	6	1	
Departmental	2.11.1.1	42	Create standardized basemaps and layer files	Low	Low	Low	High	1-2		2	30
Departmental	2.11.1.1	43	Create standardized map templates and custom printing as required	Low	Low	Low	High	1-2	1	1	30, 42
Departmental	2.11.1.1	44	Review existing field-based data collection workflows and software to identify streamlining opportunities	Medium	Medium	Medium	Medium	2-3	3	2	
Departmental	2.11.1.1	45	Define and develop additional web viewers and tools	Medium-Low	Medium	Low	High	ongoing	2	2	
Departmental	2.11.1.1	46	Departmental coordination around emergency response requirements	Medium-Low	Medium	Low	Medium	1	3	1	
GIS	2.11.2.1	47	Log all GIS requests in the IT Helpdesk system for tracking and visibility	Low	Low	Low	Medium	1	1	1	
GIS	2.11.2.1	48	Establish GIS metrics for evaluating GIS capacity	Low	Low	Low	Medium	1-2	2	1	47
GIS	2.11.2.1	49	Coordinate and conduct GIS outreach and build relationships in the greater community	Medium-Low	Medium	Low	Medium	2-4	3	2	
City Clerk	2.11.3.1	50	Spearhead document inventory and management procedures	Medium	Medium	High	High	2-4	1	2	
Emergency Mgt	2.11.4.1	51	Ensure documentation and training is available for EOC staff	Medium-Low	Medium	Low	Medium	2-3	1	2	
Emergency Mgt	2.11.4.1	52	Establish analysis, data and dashboard requirements	Medium-Low	Medium	Low	High	1-2	1	1	
Community Dev	2.11.5.1	53	Conduct forward planning and scheduling of high workload tasks	Low	Low	Low	High	1-2	1	1	
Community Dev	2.11.5.1	54	Evaluate cost/benefit of updating TRAKiT with historical data	Medium	Medium	Medium	Medium	2-4	4	2	
Community Dev	2.11.5.1	55	Establish TRAKiT data update procedures	Low	Low	Low	Medium	2-3	2	2	
Community Dev	2.11.5.1	56	Assess building permit tool automation opportunities	Medium	Medium	Medium	Medium	2-3	2	2	
Public Works	2.11.6.4	57	Establish requirements for additional data and web tools	Medium	Medium	Medium	Medium	2-3	1	2	
Parks/Rec	2.11.7.1	58	Identify data management and access requirements	Medium	Medium	Medium	High	1-2	1	1	
Parks/Rec	2.11.7.1	59	Identify facility management options	Medium	Medium	Medium	Medium	2-3	2	2	
Parks/Rec	2.11.7.1	60	Establish public map and communication needs	Low	Low	Low	Medium	2-3	2	2	
Executive	2.11.8.1	61	Define GIS analytics needs and timeframes	Low	Low	Low	Medium	1-2	1	1	
Executive	2.11.8.1	62	Establish reporting dashboard data sources and requirements	Medium-Low	Medium	Low	Medium	2-3	2	2	

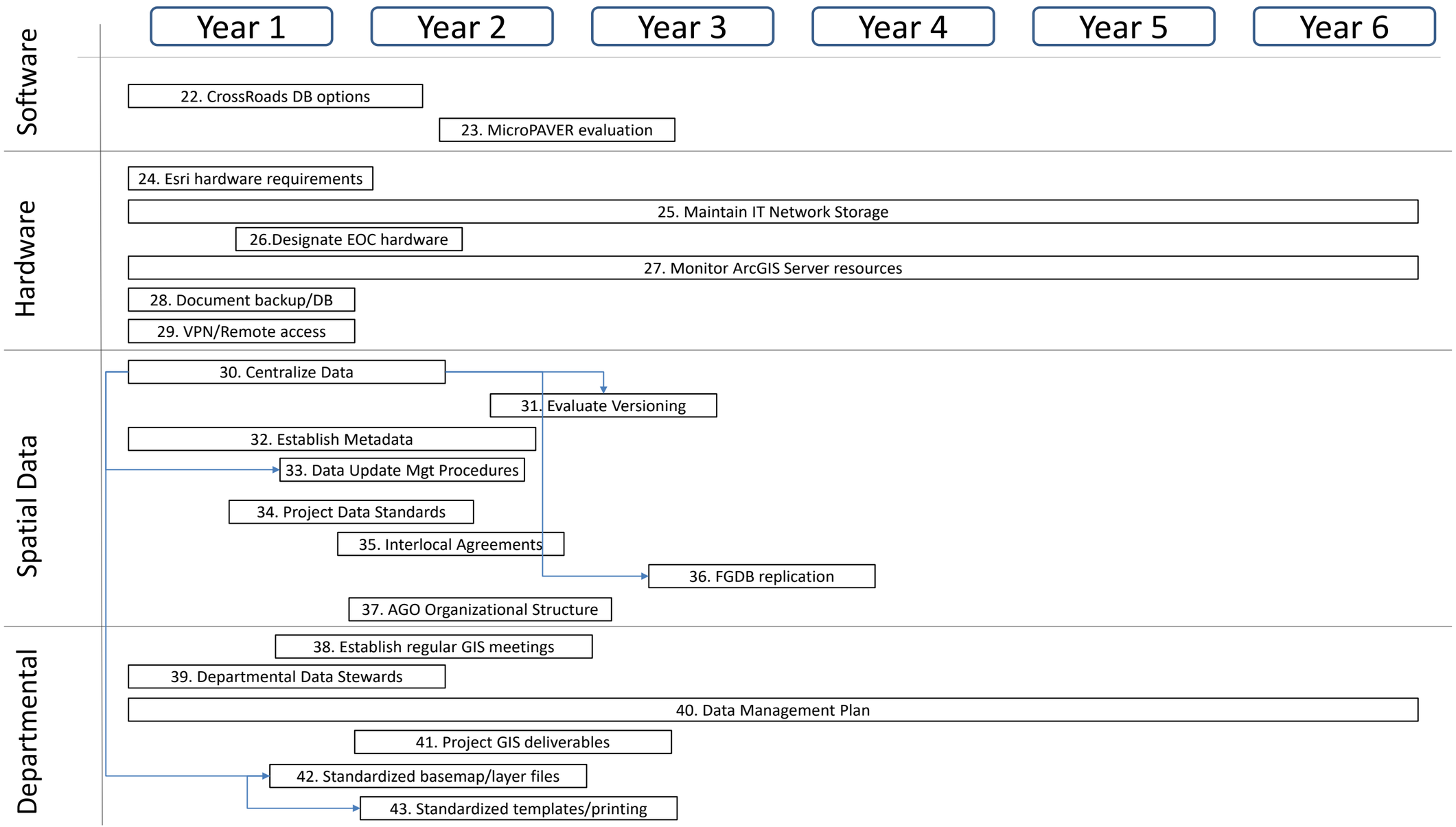
APPENDIX C

6 YEAR ROADMAP

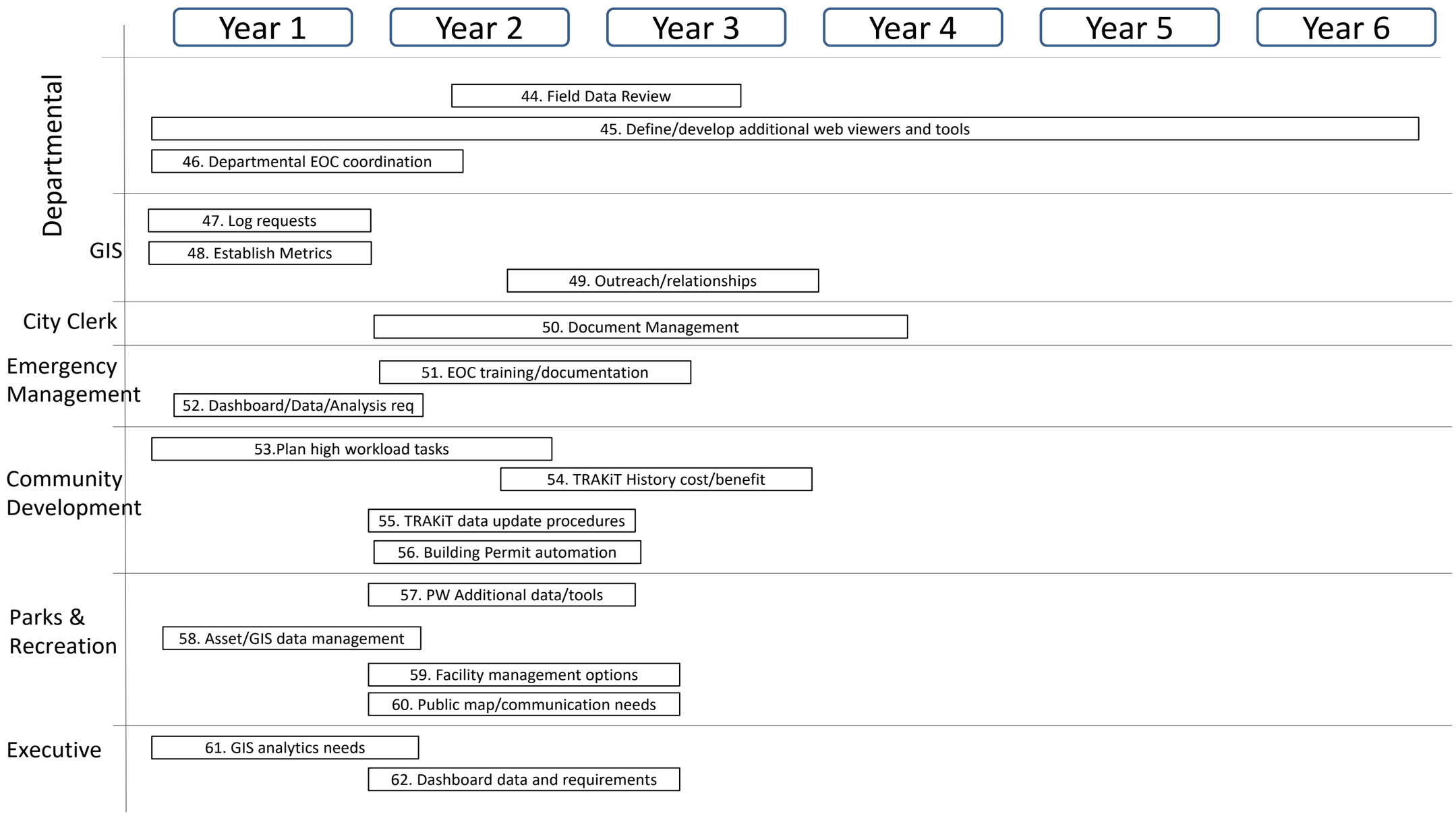
City of Sammamish 6-Year Roadmap



City of Sammamish 6-Year Roadmap



City of Sammamish 6-Year Roadmap



Seitel SYSTEMS

Seattle | Tacoma

Information Technology Management Assessment

Prepared for City of Sammamish

May 2018

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1 Executive Summary

The City of Sammamish is a relatively new jurisdiction that was formed 19 years ago. Since its inception, the city's population has doubled with rapid growth occurring over the last 5-6 years. As with any new and rapidly growing city, the City of Sammamish has continually expanded and matured the services they provide and doubled the number of staff to a total of 114. The rapid growth in City services and staff, increased City population, change in demographics and expectations, technology driven global changes in public sector service models, and the need to increase efficiency and cost effectiveness has and will continue to increase the City's demand for technology solutions and services.

In 1999 the newly formed City of Sammamish required information technology services to support their staff and hired a high school student with technical ability to design and build their core network, server, and data storage information technology infrastructure. The student was eventually hired and served as the Information Technology Manager for 16 years, organically growing and adding to the original core infrastructure. Over the last two years the Information Technology Department had 2 managers and has struggled to keep up with the needs of the City. A year ago, the City's file storage system failed resulting in the loss of the P Drive that contains almost all of the departments' electronic files. While the Information Technology team was able to recover the data after two weeks, the failure highlighted serious system and support issues.

In response to Information Technology management turnover, project issues, and service failures, City management named Glenn Akaroff to the acting Information Technology Director position with the task of reengineering the department and hiring new leadership. Prior to Glenn taking the position the City released an RFP to have an external consulting firm complete an Information Technology Infrastructure and Technology Management assessment to support the Information Technology reengineering effort. Seitel Systems was awarded the Technology Management assessment contract and worked closely with the interim Information Technology Director and leadership to complete the assessment.

The Seitel Systems team divided the assessment into the three areas listed below.

1. Technology Services 360° Analysis: To engage key staff and managers to assess if existing and planned Information Technology systems and services are aligned with the City's vision and help them achieve their goals and objectives.
2. Technology Management Department Analysis: To assess the maturity, efficiency and cost effectiveness of the City's approach to technology management.
3. Information Technology Infrastructure and Core Services Assessment: To assess the stability and reliability of the existing information technology infrastructure, identify gaps, and recommend changes.

Information technology based services support every aspect of an organization's work and are composed of a wide range of complex, integrated, and interdependent technologies and technical services supported by a wide range of vendors. Technologies and technical services are divided into four major categories that include:

1. *Information Technology Infrastructure* is a mix of hardware, software and services that include networks, servers, desktops, printers, phones, email audio visual

equipment, system backup and recovery, etc. All other applications and services are dependent on this core infrastructure.

2. *Applications* include all the business applications that staff use to support their day to day work and deliver services to the City's constituents. These applications include GIS, Cityworks, Springbrook, Trackit, SeeClickFix, the City's Website, etc.
3. *Data and Analytics* includes the files stored in shares like the PDrive and application data stored on a data base server. This category also includes business intelligence technologies that support planning and decision making across all departments.
4. *Security* is a rapidly growing area that includes policies, procedures, technologies and services that together secure an organization's data and core services.

Summary of Findings:

The City's approach to technology management is immature and not aligned with industry best practices and norms. This approach significantly reduces the City's return on technology investments; limits the City's capability to optimize and innovate services; and increases the risk of service disruption, data loss, and security incidents. Below is a summary of findings.

- Over their 19 year history, the City divided technology management responsibility across teams, individuals, and departments. No team was responsible for the design and deliver of technology solutions that are aligned with the City's goals and objectives. Coordination across teams was ad hoc and the skill level of technology support staff was low and varied greatly.
- The City lacks a technology vision and has not adopted a model for managing the City's technology through its lifecycle. The approach to technology management varies by team and for the most part is ad hoc.
- Until recently, the City did not have a way to calculate total technology spend or measure return on investments. Each department tracked their individual technology spend with minimal ability to aggregate technology costs.
- The City has no defined technology management processes and metrics to manage activities from solution design to ongoing operations. Staff providing technology support report that they are reacting 85% of the time and have no time to proactively fix long standing issues and help to defined new solutions. The process to select, design, and implement new technology is ad hoc and varies across teams and has resulted in implementations that delivered low value (Website) or needed to be redone (City Works).
- The City's information technology infrastructure is not stabile nor reliable and was built in an ad hoc manner without following best practice design principals. While the City has purchased good server and network equipment, the lack of design led to over purchase of systems (e.g., the City has double the servers they need). The infrastructure needs to be redesigned and software and systems updated.
- The City has recently purchased a set of good applications that are providing value. While the systems are working as intended, there were a number of

implementation issues that increased total costs and there is little to no cross system design or integration.

- The City does minimal data design and management, lacks staff with data management skills, and lacks robust and reliable data backup and recovery capability. The City's approach to data management has increased the risk of data loss, reduces security, and limits the data available to support decision making.
- The City has no defined data and system security model, greatly increasing the risk of a breach or loss of service.

Recommendations:

Seitel recommends that the City continue the work of the Interim Information Technology Director to reengineer the City's technology department and capability. We recommend the City take a phased approach with an initial focus on technology stability, reliability, availability, and security. In parallel, Seitel recommends the City complete high priority technology projects that have been delayed and begin the process to define a progressive City services vision that leverages technologies to drive innovation, efficiency, and cost effectiveness. Below are a set of summary recommendations.

1. Reengineer the Information Technology Department to establish a centralized technology management team tasked with the delivery of high performance and cost effective information technology services that are designed to help the City achieve their vision and meet their strategic goals and objectives.
2. Hire a new Information Technology Director with a depth of experience in the design and implementation of innovative and cost effective technology services that deliver value to the City.
3. Have the new Information Technology Director report to the Deputy City Manager to work proactively with all Department heads to drive service innovation.
4. Complete an integrated City services and technology vision that is designed to achieve a set of measurable goals.
5. Implement industry best practice information technology service and process models.
6. Partner with information technology services companies to procure senior level infrastructure, data, and security contract staff with needed experience.
7. Reengineer the City's core information technology infrastructure to ensure the City has a stable, reliable, available and secure foundation that will support new and innovative technology services.
8. Task the new Director to build a comprehensive Information Technology roadmap with a plan and budgets. Execute per the defined roadmap and measure the results.

2 Introduction

2.1 Background

The City of Sammamish was incorporated in August 1999 with a population of ~34,000. In the last 19 years the City's population has almost doubled in size. In April of 2017, the City was listed as the second fastest growing city in the Seattle Metropolitan area with 22% growth between 2015-16. To support this growth, City leadership has increased their staff 50% in the last six years to a total of 114 today.

In 1999 the newly formed City of Sammamish required Information Technology services to support their staff and hired a high school student with technical ability to design and build their core network, server, and data storage information technology infrastructure. The student was eventually hired and served as the Information Technology Manager for 16 years, organically growing and adding to the original core infrastructure. Over the last two years the Information Technology Department had 2 managers and has struggled to keep up with the needs of the City. A year ago, the City's file storage system failed resulting in the loss of the P Drive that contains almost all of the departments electronic files. While the Information Technology team was able to recover the data after two weeks, the failure highlighted serious system and support issues.

After the departure of the last Information Technology manager the City decided to reassess their information technology services and approach to technology management.

2.2 Recent Context

In response to Information Technology management turnover, project issues, and service failures, City management named Glenn Akaroff to the acting Information Technology Director position with the task of reengineering the department and hiring new leadership. Prior to Glenn taking the position the City released an RFP to have an external consulting firm complete an Information Technology Infrastructure and Technology Management Assessment to support the Information Technology reengineering effort.

The City's assessment objectives as stated in the RFP included the following items.

1. Review existing information technology capabilities, infrastructure and programs.
2. Evaluate the current organizational structure and staffing levels for its ability to effectively support, manage and maintain the existing equipment, software and systems.
3. Perform a gap analysis comparing the City's current state to peer jurisdictions (3) and best practices for a modern, service-centric information technology organization.
4. Develop a written report that includes:
    a. Observations on the effectiveness of current capabilities and practices.
    b. Analysis of the City's current technology for network, storage, backup, database, desktop, mobile, reporting, data analytics, business intelligence, and communications. Is the City on a track that will meet the City's needs and if not, what should be changed?

c. Identification of opportunities for significant improvements in information technology operations and for new ways that information technology can add substantial value to the City.
d. Discussion on high-level strategy for technology areas such as the cloud and infrastructure as a service, data analytics, storage technology, document management and retention, and any other identified by the consultant.
e. Specific recommendations for changes in current practices, organizational structure, staffing, tools currently in use and new tools to enhance service and security.
f. An implementation plan prioritizing the recommendations and identifying resource and timeline requirements necessary to achieve the desired outcome.

Seitel Systems was awarded the Technology Management Assessment contract and worked closely with the interim Information Technology Director and leadership to complete that assessment.

2.3 Assessment Approach and Methodology

The Seitel Systems team divided the assessment into the three areas listed below.

4. Technology Services 360° Analysis: Technology services are provided to meet the business needs of Sammamish staff and citizens. The focus of the 360° Analysis is to engage key staff and managers in each department to assess if the existing and planned information technology systems and services support their work and help them achieve their goals and objectives. The outcome of this work is a gap analysis.
5. Technology Management Department Analysis: The focus of this effort is to assess the efficiency and effectiveness of the technology team. The consultant team will use technology management industry best practice and performance measures to identify areas of improvement.
6. Information Technology Infrastructure and Core Services Assessment: Since the City has conducted information technology assessments within the past 5 years, a comprehensive review of the information technology infrastructure and core services is necessary. The findings from this assessment will be integrated into the final report.

Each team followed a best practice assessment approach that included the following steps.

1. Discovery: Work with Information Technology and City staff and management to collect information about existing technologies, tools, architecture, approaches, processes, and policies.
2. Analysis: Analyze the data and information to identify which systems and processes are working well, which are aligned with industry best practices, and which need improvement or change.
3. Document: The findings, results of the analysis and recommendations.
4. Review: The findings with Information Technology and City key staff and management and make adjustments as required.

5. Present: The findings and recommendations to City leadership, answer outstanding questions and support their decision making and planning process.

3 Technology Management Assessment

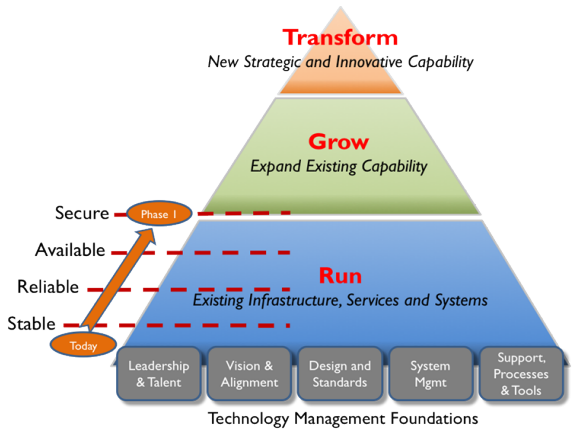
This section presents the findings from the three areas of the Information Technology Management Assessment. Seitel also completed a set of stand-alone documents that include the Information Technology Infrastructure and Core Services Assessment report, technical readouts and proposals for recommended work.

3.1 Technology Management Models and Approach

Information technology usage has grown over the last 30 years from a set of back office systems to essential services that support every aspect of an organization's operations and help drive change and innovation. In response to the increased importance and cost of technologies, organizations and industry groups have worked together to develop and mature technology management service, process, governance, and management models. In the last 15 years a number of international, best practice models have emerged and are now accepted as technology management industry standards. Organizations that adopt these best practice models can quickly ramp up critical technology services and build high performance support teams the ensure they get the highest return from their technology investments.

Figure 1 below shows the Gartner "Run, Grow, Transform" model. Seitel uses this base model and added Technology Management Foundations and technology service maturity measures to help our clients assess where they are today and where they need to go in the future.

Figure 1 – Gartner Run, Grow, Transform Technology Model



The Run, Grow, Transform model was designed to help organizations categorize their technology investments and ensure that these investments are aligned with and support the

organization's core objectives and future vision and direction. It was also designed to help leadership teams understand that adding technologies that Grow and Transform the organization's capability will also expand the Run services and supporting Information Technology operational budgets.

Seitel adds to this model a high-level method to assess the health of the existing Information Technology infrastructure, services, and systems that the organization relies on to *run* their day to day operations. The health measures of base technology services are:

- Stable – Are the technologies well architected, designed and implemented? Do the systems meet agreed to perform measures? What is the frequency and severity of outages and incidents? Is the level of risk measured, within agreed to level, and are mitigation plans in place? Does the Information Technology department proactively address problems to reduce or avoid outages?
- Reliable – Are staff confident in the technology systems and services? Do staff build in work arounds to compensate for the lack of system reliability? Is Information Technology confident the existing infrastructure can support critical services?
- Available – Are their defined availability targets and service levels agreed to by both Information Technology and the business? Do project teams use availability measures when selecting new systems? Does Information Technology track and manage to agreed to availability targets? Is there a tested Information Technology disaster recovery or business continuity plan?
- Secure – Does the City have a technology security model in place that includes policies, procedures, designs, systems and tools? Has the City done an information technology security assessment and do they have a plan to address the findings? Is there clear ownership of information technology system and data security?

Figure 1 also shows the Technology Management Foundations that, when built and managed properly, help organizations get the most from their technology investments. The remainder of this report will present our findings and recommendations using the Technology Management Foundations as a framework.

Findings

This section provides high level findings that will be discussed in more detail in subsequent sections.

The City's technology management function is immature and there is no agreed to model (e.g., Figure 1) to manage this function through its lifecycle. Prior to the work of the new Interim Information Technology Director, the technology management function was decentralized and organized using a 20 year old model. The Information Technology team lacked design and level 3 engineering skills needed to architect high performance solutions aligned with the City's needs. The decentralization of information technology also meant that the City was unable to track the total level of information technology spend to ensure they were getting the most from their information technology investments and to accurately plan for ongoing replacement and long term support costs.

The City's core information technology infrastructure and services have been built over the years in an ad hoc fashion and need to be reengineered. One positive finding was that

previous Information Technology Directors purchased good server and network hardware, avoiding the expense of buying new equipment. Referring again to Figure 1, today the existing core information technology infrastructure and services as implemented are not stable or reliable nor has it been designed to achieve an agreed to availability target. Some examples of the low level of stability and reliability include:

- The Information Technology team reported that the existing core server and network infrastructure is "held together with paper clips and rubber bands". They reported that there was no infrastructure design and that they lacked tools to model, monitor, and manage the infrastructure. The team reported that they spent 80-90% of their time reacting to issues and lacked the experience, knowledge or tools to proactively identify and address root causes or to undertake projects to reengineer failing systems.
- Seitel identified 40 servers in the core infrastructure. Seitel engineers estimate that the same services could be provided by 20 servers, supporting the lack of design and ad hoc approach to building new services.
- After assessing the network infrastructure, Seitel recommended that the City reengineer the network and use best practice designs to build stable, available, redundant and high performance services.
- In the last year the P Drive that contains most of the City's files and data was lost for two weeks. The Information Technology team was able to recover all files, however, they almost lost all data. All interviewees reported a lack of confidence in the P Drive and feel that the lack of design and standards continues to reduce the value of this core service. Interviewees reported that after the P Drive came back on line, most staff now store their files on their local drives or on external storage devices because they feel the service is not stable or reliable.

Recommendations

1. Establish a centralized technology management team tasked with the delivery of high performance and cost effective information technology services that are designed to help the City achieve their vision and meet their strategic goals and objectives. *See Section 3.2*
2. Adopt a best practice technology management conceptual model like Run, Grow, Transform to build technology understanding and facilitate planning.
3. Build a hybrid staff and strategic contract vendor team that has the expertise to design, build and manage through their lifecycle stabile, reliable, available, scalable, and secure information technology services. *See Section 3.2*
4. Define a Technology Management vision that is aligned with the City's vision, goals, and objectives. *See Section 3.3*
5. Execute on the Seitel recommended projects to reengineer the City's core information technology infrastructure to ensure core services are stable, reliable, and available. *See Section 3.5*

3.2 Technology Management Organization, Leadership and Talent

Information technology based services support every aspect of most organization's work and are composed of a wide range of complex, integrated, and interdependent technologies and technical services supported by a wide range of vendors. Information Technology technologies and technical services are divided into four major areas that include the following categories.

5. *Information Technology Infrastructure* is mix of hardware, software and services that include networks, servers, desktops, desktop applications, printers, phones, audio visual equipment, remote access services, user and access management, system backup and recovery, file shares, email, collaboration sites, etc. All other applications and services are dependent on this core infrastructure.
6. *Applications* include all the business applications that staff use to support their day to day work and deliver services to the City's constituents. These applications include GIS, Cityworks, Springbrook, Trackit, SeeClickFix, the City's Website, etc. and can be run locally in the City's data center or in the "cloud" as a service.
7. *Data and Analytics* includes the files stored in shares like the PDrive and application data stored on a data base server. This category also includes business intelligence technologies that pull data from a variety of sources and provide analysis and presentation tools that support planning and decision making across all departments.
8. *Security* is a rapidly growing area that includes policies, procedures, technologies and services that together secure data and protect an organization from disruptions caused by malicious cyber-attacks.

Organization's that get the most from their technology investments recognize the depth, breadth, interdependencies, and complexity of technologies and consolidate the management of information technology services into a single Information Technology team.

Because information technology services are composed of a wide range of complex technologies, small to mid-size organization like the City cannot afford to build in-house Information Technology departments that have the breadth and depth of expertise to manage their technologies and services. The most successful organizations build virtual Information Technology teams that include the following staff resources.

- In-house Information Technology staff that understand the organization's vision, goals, and objectives and then work with vendors and service providers to design and deliver high value and cost effective technology services per the agreed to plan. This staff manages information technology services through their lifecycle and work closely with staff, management, and constituents to continually improve the services. In-house Information Technology staff also provide hands on support and coordinate with contract support and vendor teams to ensure support meets or exceeds agreed to service levels. This team is also responsible for information technology security and disaster recovery and business continuity.
- Contract information technology infrastructure and application senior engineering, architecture, and security support staff with expertise across an organization's wide range of technologies and services. These senior staff are essential to design and

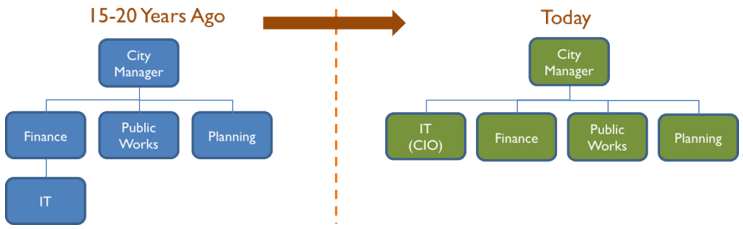
maintain core services that are reliable, available, scalable, and secure and to create high value solutions for emerging issues. Contracts can be with individuals or firms that have the needed experience.

- Vendor support teams that provide level 1-3 support for their products and services (e.g., CityWorks or GIS vendor application support). Best practice is to integrate these support services into the City's information technology support process model.

One of the most important foundations of high performance, scalable and secure information technology services is a best practice based design that covers information technology infrastructure, systems, and data elements. Effective designs also include security considerations. The architecting of effective designs requires level 3 engineering expertise across a wide range of technologies.

As the strategic importance and cost of information technology services has grown, the role of the Information Technology Department has broadened and elevated. In addition, the Information Technology Director role became more strategic and required information technology leaders to have both business and technology expertise and to align their services with the organization's vision, direction and needs. In recognition of the strategic value of technology services, organization leaders have elevated the Information Technology Director/Chief Information Officer role. Figure 2 below shows the evolution of Information Technology Department reporting over the last 15-20 years and the creation of the more strategic CIO role.

Figure 2 – Evolution of Information Technology Departments



Findings:

Interviewees were asked to identify the strengths of the Information Technology Department. All interviewees said that the existing staff were very responsive, conscientious and worked hard to resolve issues. All interviewees recognized that the existing Information Technology team inherited a fragile environment with many issues and that the team spent most of their time reacting and "putting out fires". They felt the team was doing their best to provide support in difficult environment.

One area of improvement cited by the interviewees was that Information Technology staff did not have the time nor expertise to complete more complex projects. The cited the Office 365 and VPN system deployments as projects that were not getting done.

Prior to Glenn assuming the role of the interim Information Technology Director, the City's Information Technology Department managed only the information technology infrastructure. The individual departments were responsible for the scope, selection, implementation, and support of their applications and data. In the interviews, Seitel asked the non-information technology department staff that support their technologies to estimate the percent of time they spend on technical support. The amount of time ranged from 10-25%. The City's Information Technology Department, until recently, reported to the Finance Department and no single group at the City was responsible for the design and delivery of Information Technology services. The new interim Information Technology Director has started to consolidate teams involved in technology management work.

No individual was responsible for information technology infrastructure, system or data design. This is supported by the interview finding that no information technology infrastructure or application technical staff have level 3 engineering training, certification or experience. The City's Information Technology Department did not have standing contracts with information technology service vendors that provided level 3 infrastructure and data engineering and design services. The staff interviewed reported that software or system vendor teams provided design and architecture support for individual system implementations, however, the City does not do formal integration and cross application design or architecture. This finding was supported by the Seitel Information Technology Infrastructure Technical Assessment that found that the server and network infrastructure lacked a design and needed to be reengineered. The lack of design capability also resulted in the City purchasing almost double the amount of server hardware needed to support existing systems and services.

The non-information technology staff that are responsible for critical department systems reported that they have minimal to no technology management training and expertise. All interviewees said that, other than the use of RFPs, there was no standard or formal process for application selection and implementation. Because of this, the interviewees identified projects like CityWork where initial implementation issues required them to redo the implementation at a cost to the City. Staff interviewed also cited the lack of a formal process for the Website design, resulting in the need to redo the Website a few years after launching the site.

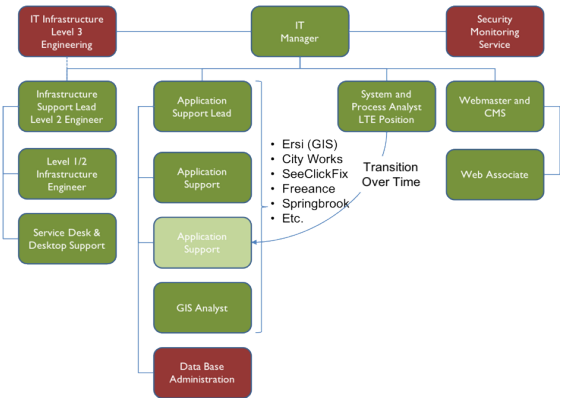
The interviewees reported that their "decentralized" approach to system design and implementation meant that they would miss system integration requirements and/or critical information technology infrastructure needs. They identified a number of implementations where a more inclusive and thorough design process would have resulted in an implementation that provided expanded functionality and value to City staff. The Clerk's staff gave an example of the TrackIt implementation and reported how the system has the ability to allow the public to view documents, however, this requirement was missed and TrackIt was implemented without this capability. The Clerk's office reported that 75% of their information requests are for TrackIt data and that without this functionality Clerk's staff must instead find the requested files on TrackIt, copy them to another location, and then send the information to the requestor.

Despite the lack of a system selection and implementation processes and design and architecture capability, City staff did select applications and services that are industry

standard and appropriate for a City the size of Sammamish. The interviewees reported surveying other local cities of a similar size to identify best in class applications, which is a best practice.

Recommendations:

1. Expand the Information Technology Director role to be responsible for the design and deliver of all information technology services and solutions. Hire an Information Technology Director with broad application management skills and experience and a track record of building integrated, cloud based solutions.
    a. Broad experience in the design and implementation of public sector application and data services
    b. Ability to partner with departments to understand their need and deliver solutions/services that help them achieve their goals and objectives
    c. Experience managing hybrid staff/vendor Information Technology teams
    d. Experience with cloud based applications and services
    e. Experience managing support teams and using best practice support processes, SLAs, and performance metrics
    f. Understanding of information technology service management best practices and processes
    g. Understanding of information technology infrastructure systems and designs
    h. Vendor management experience
2. City leadership work with the new Information Technology Director to (a) continue the interim Information Technology Director's work to consolidate information technology support staff and (b) reengineer the department's structure, roles, and responsibilities. Seitel recommends the Phase 1 Information Technology Department redesign below. The green boxes represent FTEs and the maroon boxes represent outsourced services.



3. Have the Information Technology Director report directly to the Assistant City Manager at the same level as the department directors.

4. Select strategic vendors to provide infrastructure, data (data base administrator – DBA), and security level 3 engineering support.
5. Expand the role of the GIS Information Technology support staff to include all applications.

3.3 Technology Management Vision and Alignment

Like the private sector, the public sector is embracing technology to achieve the following tangible benefits:

- Innovate service delivery;
- Drive efficiency and cost effectiveness;
- Engage, collaborate, and communicate with their constituents;
- Align with commonly accepted and expected service and information access norms (robust, anywhere, anytime and 24x7);
- Improve planning and more proactively manage risk;
- Improve decision making through the use of data and analytics;
- Leverage county, state, and federal services and data.

Organizations that get the most out of their technology investments have a clearly defined technology vision that is aligned with their overall goals and objectives and a roadmap to achieve that vision.

To assess the City's technology vision and roadmap, the Seitel team (a) reviewed City strategic direction documents and (b) asked the 20+ interviewees if the City has a clearly defined and communicated technology vision that when implemented will help the City meet their goals and objectives, provide the services their constituents want, and help their department be efficient and cost effective. The Seitel consultant asked the interviewees to rate the vision and roadmap on a scale of 1 to 5 with 1 = no defined and communicated vision and 5 = a clearly defined vision, understood by all that is backed by roadmap to achieve the vision.

Findings:

All interviewees rated the City's technology vision a **1**. In addition, the Seitel team did not find any City statements or strategic documents that referenced a technology vision or the role of technology to support existing and planned services. Seitel concluded that that City lacks a technology vision and agreement on the benefits and use of technology to support existing services and drive growth, change, improvements, and innovations.

Most of the interviewees reported that early City leadership and Council members did not understand the value of technology and minimized investments in new technologies. These interviewees recognized that early City leadership was focused on establishing essential services for a new city and they understood why technology was not a major focus. All interviewees reported that new City management and Council understand the value of technology and they were excited about and supportive of the Information Technology Department reengineering and assessment work.

The Seitel consultant did identify teams and individuals that embraced technology and were attempting to define a future vision built on technology based services. Some examples include:

- The interim Information Technology Director is discussing the idea of a technology based "Virtual City Hall" that is open 24x7 and provides a breadth of services to citizens.
- Many interviewees cited the use of technology to streamline the passport request process.
- The Recreation Manager wants to implement event and volunteer management technologies that will provide the following benefits: "process efficiency and automation; easier for constituents to access event information; facilitate event advertising and connecting with constituents; linkage to social media magnify our outreach; increased participation and use data; use of digital versus paper documents".
- The Clerk's office is starting to think of ways to digitize and publish frequently requested data to reduce the number of information requests and streamline the process when requested.

Recommendations:

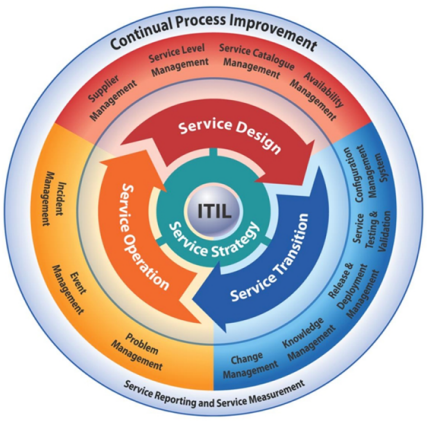
1. Research city government and service innovations and emerging best practices.
2. City leadership team engage the council and key department staff to build a forward thinking service and civic engagement vision that leverages technologies.
3. City management and the Council work together to build a technology vision and 3-5 year roadmap that when executed enables the City to achieve their agreed to vision.
4. Execute to the agreed to roadmap and supporting plans.

3.4 Technology Management Service and Support Processes and Models

Over the last 30 years, the technology management industry has matured. International industry groups have developed standard, best practice based, and proven information technology service and support process models. The existence of these standard models allows organizations like the City of Sammamish to quickly adopt and implement high value information technology service management and support models.

The most common, technology industry model is Information Technology Service Management (ITSM) that is shown in Figure 3 below. This model is designed to ensure information technology services are tightly aligned with the needs of the business and that information technology designs, implements and continually improves high quality, efficient and cost effective services. The ITSM model also includes a defined set of support processes that help an organization's Information Technology Department quickly implement efficient processes that achieve agreed to service levels.

Figure 3 – ITSM Model



At the center of the ITSM model is Service Strategy, Design, Transition (implementation), Operation, and Continuous Improvement. Firms that implement the ITSM service model create cost effective technology services that are aligned with the goals, objectives, and needs of the organization. In addition, organizations that adopt this model focus less on individual technologies and instead focus on services that more closely match the needs of the organization's staff, clients/constituents, and partners. A good example of this is the communication and collaboration service. This service is composed of email, telecom, instant messaging, social media, and team site technologies that work together to meet the City user's collaboration and communication needs.

Information Technology Departments like the City's that lack system scope, design, and implementation processes will implement simplified ITSM service design models for core services and mature their service management capability over time.

Surrounding the outside of the core service delivery model is a set of best practice and optimized support processes that, when implemented, improve the performance of an Information Technology Department across a wide range of performance metrics. Information Technology Departments implement the ITSM process model in phases, using widely available ITSM training materials. They start with the core technology support processes that include the bulleted list below and select and implement supporting management tools (e.g., Service Now).

- Incident Management – Reactive process designed to quickly identify, diagnose and resolve information technology service performance issues and outages.
- Request Management – Proactive process to identify, prioritize and fulfill user requests.
- Problem Management – Proactive process to identify and resolve the root cause of incidents to prevent them from happening again and increasing the stability, reliability, and availability of information technology services.

- Change Management – Proactive process to manage changes to ensure they adhere to design and architectural standards and to prevent incidents that result from poorly managed changes.
- Configuration Management – Proactive process to document and manage system configurations to support design, change management, and troubleshooting efforts.
- Alert and Event Management – Reactive/Proactive process to capture, filter, and act upon alerts detected by system monitoring tools to prevent or more quickly resolve incidents.

Findings:

The City Information Technology Department has no defined and documented information technology system or service design model nor a set of documented support processes. Technology support interviewees reported that they have discussed the need for standardized approaches and support processes and have done some work to define a request management process. The Information Technology Department has implemented a ticketing tool, however, they plan to replace this tool because it lacks needed functionality.

Recommendations:

1. Identify a set of freely available ITSM overview training videos and have all Information Technology support staff view the videos to familiarize themselves with the ITSM model.
2. After the new Information Technology Director is hired, develop and execute a phased plan to implement the ITSM service delivery model and support processes.

3.5 Information Technology Technical Assessment – Infrastructure, Application, Data, and Security

The Seitel technical team completed an in-depth assessment of the City's information technology Infrastructure and developed a set of proposals for recommended Phase 1 work. In his interviews, Sean Kennedy, the technology management consultant, collected information about applications, data, and security systems to complete a high-level assessment of the City's capability in these areas. This section contains the findings and recommendations from these assessment efforts.

Findings:

Infrastructure

The local and wide area networks are built using appropriate hardware, but said hardware needs to be thoroughly reviewed and re-configured. For example, recovery efforts from a recent switch failure have left the De-Militarized Zone (DMZ) not as secure as recommended. In addition, given the increasing reliance on hosted software and systems, a redundant Internet Service Provider connection should be deployed.

The physical and virtual server environments are built using appropriate hardware and software, but here again would benefit from a thorough scrubbing and reconfiguration. The number of active servers is far larger than expected, there are multiple warnings that

require troubleshooting, and the overall topology needs a review and re-design. Lastly, there are eight different storage solutions deployed which results in an overly-complex environment that is difficult to manage. In short, the server environment warrants a review and re-design which will likely result in the addition of hosted servers/services from Amazon Web Services or Microsoft Azure.

There are two backup systems deployed with plans in place to consolidate to a single solution in 2020 when support ends for one of the systems (Unitrends). The core components are appropriate, but configuration issues that should be addressed include servers missing from the backup sets, no offsite protection for email and SQL, and recurring errors during backup jobs.

Email services are provided via an onsite Microsoft Exchange Server, but these are being migrated to Microsoft's Office365 Hosted Exchange service offering. As part of this migration several improvements are anticipated including refinements to email archiving/retention policies, improved email security, and better tools to protect against inadvertent sharing of sensitive information. This migration will also allow better deployment of security policies to manage data on mobile devices.

Application

In the last 3-4 years, the City has purchased and implemented a set of industry standard applications that include Cityworks, Asset Trac, SeeClickFix, Esri GIS, and others. The interviewees that use these applications reported that they met the existing needs of the departments. The City's finance application Springbrook is old and will need to be replaced in the near future. Many interviewees reported that the existing website does not meet the City's needs and that leadership has approved a project and budget to redesign and relaunch the site.

Interviewees here asked if they were missing any applications or technologies to do their work. They identified the list below.

- A document management system with the capability to proactively push data, that is often part of information requests, to the website so citizens can access it at any time.
- Replacement of the City's Parks reservation system called Class. The Parks team has chosen a cloud based application called Perfect Mind.
- The Parks team wants to implement a volunteer coordination system to replace existing manual and paper based processes. The team clearly articulated a business case and the benefits of this system.
- The Communications team wants to design an integrated communications platform to replace the existing collection of outdated technologies and services.
- Continue to improve and expand the iCompass Council system.
- A number of interviewees discussed the need to reengineer and expand the City's audio visual and video production capability and integrate these services with the redesigned website to quickly push content to the site.

- Many of the younger staff discussed the need for improved communication and collaboration services that are built on the latest technology and provide anywhere and anytime access.
- The City Engineers cited the need for project management software to track large projects through their lifecycle.
- Engineering staff reported the use of desktop traffic management software that has limited capability and the need for a cloud based application solutions that are backed up and supported.
- The existing Finance system is old and is no longer being updated. The system has limited functionality to automate core finance processes.

Data

As discussed earlier in this report, the City does not have system design and architecture capability. After the interviews and review of information technology documents provided by the City, Seitel concludes that there has been no holistic data analysis and design work completed to date. The interviewees that provide technical support, reported the need for DBA expertise to help in data design and critical ongoing database maintenance, however, the City has not hired or contracted for these services.

All interviewees pointed to the P Drive as an example of the City's level of data design capability. Interviewees reported that the P Drive has grown in an ad hoc manner with little to no structure, norms, policies, etc. Interviewees reported that they had little to no confidence in the P Drive and that it needs to be completely reengineered. The interviewees also talked about the need to take a more comprehensive approach to data analysis and design that includes all City data repositories (e.g., file shares and databases).

Security

During the 360° assessment, the Seitel consultant asked all Information Technology and non-Information Technology interviewees if:

- The City has clearly defined technology and data security policies, procedures, management tools, etc.; and
- If yes, who in the City "owns" technology and data security?

In all cases the interviewees said that they were unaware of a technology and data security model and did not know who in the City would be responsible for this function. To Seitel's knowledge the City has never had an outside firm complete a security assessment that resulted in a readout with finding and recommendations.

The Seitel technical team completed a security assessment as part of the Information Technology Infrastructure Technical Assessment. The team concluded that the security posture of the City is at a medium level with deficiencies found in the aforementioned DMZ, lack of systematic updates to third-party applications such as Adobe, and some minor improvements needed to the firewall configuration and password policies. The current antivirus solution in use is the Russian-sourced Kaspersky, which has been banned for use at Federal agencies by the US government and should be replaced. It should also be noted

that Kaspersky is an older-generation solution that does not offer the same level of protection afforded by next-generation antivirus systems.

Recommendations:

Infrastructure

The Seitel technical team submitted their 2019 recommendations for projects to reengineer the server and network infrastructure and worked with City Information Technology staff and management to prioritize the project list. This list of projects includes additional assessment and design activities, infrastructure reengineering efforts, and efforts to complete information technology infrastructure projects that have been delayed for a number of reasons. Seitel has also submitted a proposal to provide level 3 engineering support through 2019.

1. We recommend that the City approval the proposals and move forward on the work.

Application

2. We recommend that the new Information Technology Director work with the departments to:
   a. craft a future vision for the City;
   b. identify new information technology services needed to support that vision;
   c. identify information technology service gaps;
   d. work with City leadership to prioritize information technology service additions and changes; and
   e. build and execute a plan to implement the needed services over the following 3-4 years.

Data

3. Seitel recommends that, when hired, the new Information Technology Director contract with a firm that specializes in data architecture and management to complete an assessment that includes:
   a. identify existing data sources;
   b. assess their health;
   c. work with City staff and management to document existing and future data needs and identify gaps; and
   d. recommend next steps.

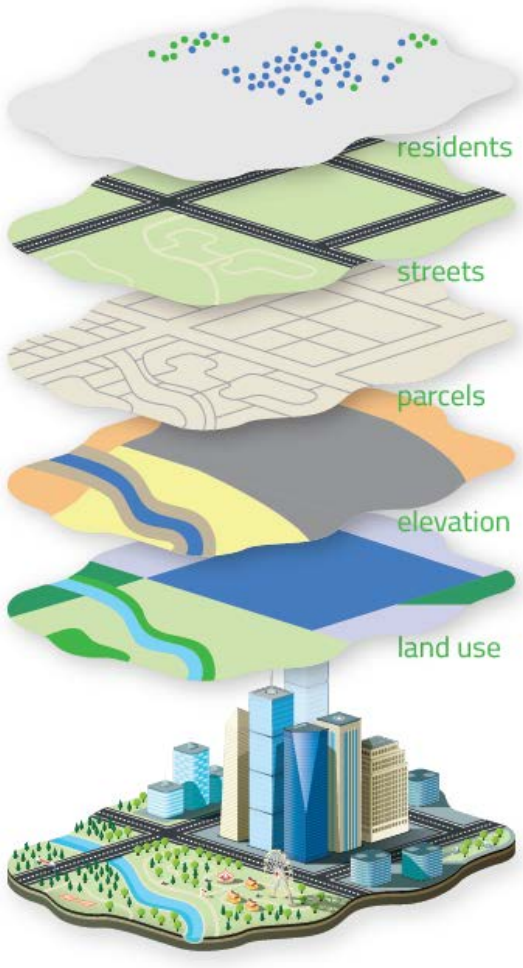
Security

4. Seitel recommends that the City engage a technology security firm that specializes in cities the size of Sammamish to complete a security assessment. The Information Technology Director will then build a plan to address the assessment findings and work with City leadership to fund and execute the plan.

Sammamish
GIS Strategic Plan

What is GIS?

People
Software
Data
GIS
Hardware
Analysis

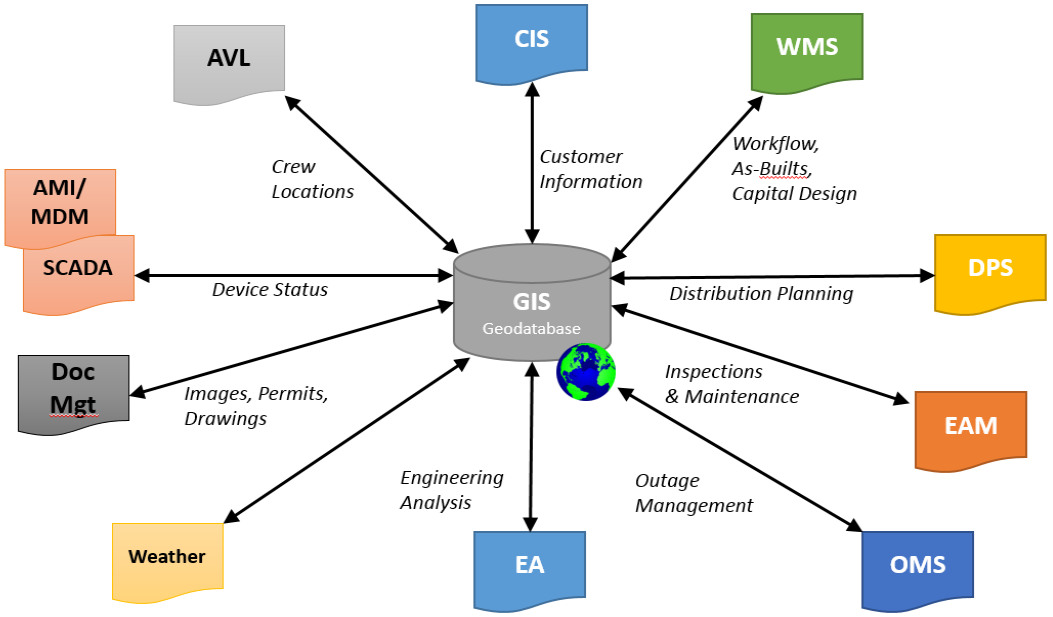

residents
streets
parcels
elevation
land use

Benefits of GIS

- Integrate with other systems (e.g., Asset Management, Permits)
- Improve Efficiency = Cost Savings
- Provide Analytics
- Aid in Decision making
- Public Communication and Engagement

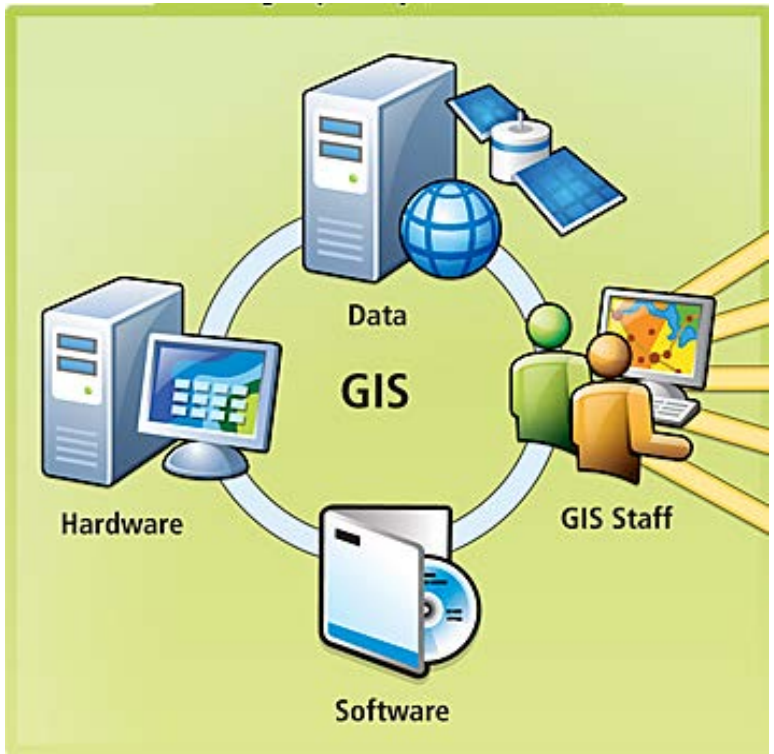
Goal

- Evaluate GIS at the City
- Develop a Strategic Plan to ensure that the City takes maximum advantage of GIS
- GIS plan to inform IT plan



Approach

- Staff interviews
  - 41 interviews, across 8 departments
- Evaluate
  - Software and data
  - Network resources
  - Departmental workflows
- Identify pain points and future needs
- Develop recommendations and timeline



City of Sammamish GIS “Vision”

- GIS is vital to city operations, efficiency, and customer service
- Increase public and internal access to GIS data and tools for self-service opportunities
- Capture and make available institutional knowledge
- Enhance the City’s ability to operate efficiently and provide superior customer service

Lots of good GIS things happening at the City

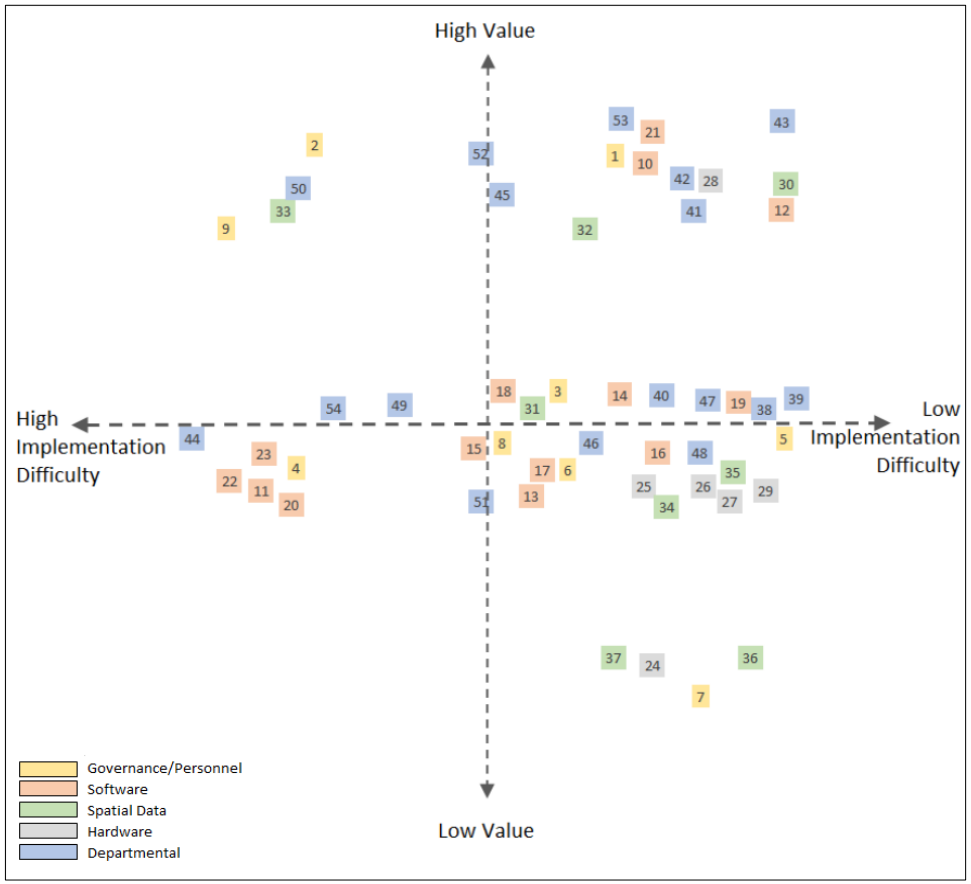
- GIS is well recognized within the City
- Supportive Departments
- Good IT environment
- Existing expansive software licensing enables advanced tools and applications
- GIS Division is making good use of technologies, and a demonstrated ability to deliver

Challenges and opportunities

- Data not fully centralized
- Backlog of data capture needs
- Lack of documentation and metadata
- Departments desire data, tools, and enhanced functionality
- Departmental GIS staff not integrated into GIS Division practices

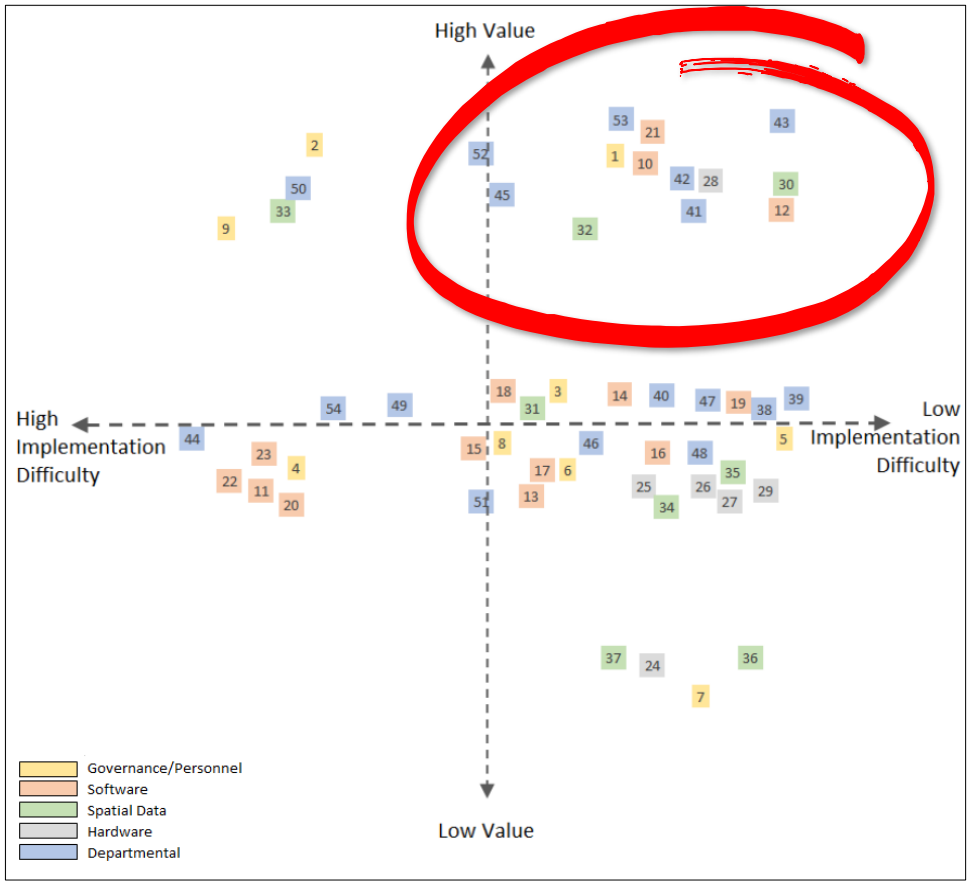
Findings

- Increasing data requests and maintenance needs
- Specialist departmental requirements and domain knowledge
- Insufficient GIS resources for projected workload
- Need governing policies



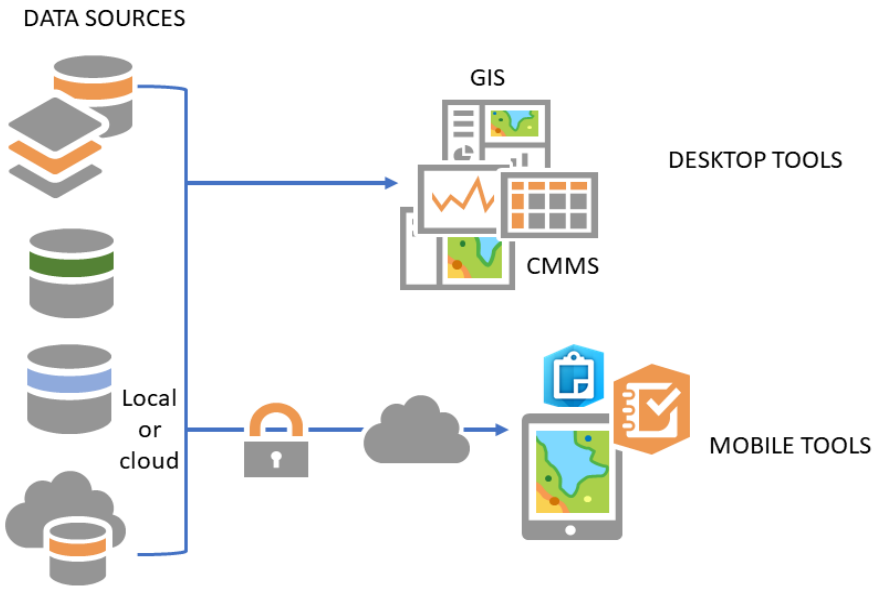
General recommendations

- **Year 1** – Governance, Data, Training, GIS Division FTE
- **Year 2** – Software, Cont'd Data Capture, Technology updates
- **Year 3** – Departmental GIS FTE, Integrations
- **Year 4** – revisit the plan



Next steps.

- A number of tasks identified
- Can be implemented over the next 4-6 years
- Grow both GIS and the City's capabilities
  - Staff skills
  - Web mapping
  - Systems integration
  - Mobile tools
  - Common Operating Picture



Questions?

Information Technology Gap Analysis

Readout

July 2018

Today's Objectives

- Readout from the Technology Management Assessment
- Highlight major findings and recommendations
- Forum for discussion and questions

Seitel SYSTEMS

360º Assessment Approach Overview

City Leadership

City Management

IT Department

Strategic Planning
Tech Service Design
Investment Decisions
Staffing Plans
Budgets

Technology Services

- What services do we provide?
- Do these meet the existing needs of our staff and constituents?
- Are they aligned with the City's vision?
- Do they support future service plans?
- What are the gaps?

Technology Dept.

- What services do we provide?
- What is our workload?
- Do we have sufficient staff and budget?
- Do we have the breadth of skillsets we need?
- How do we compare to best practices and others our size?

IT Infrastructure

- What infrastructure services do we provide?
- Do they meet our needs and what are the gaps?
- Are they efficient and cost effective?
- How do we compare to best practices?
- What are recommended next step?

Seitel SYSTEMS

Assessment Summary

Findings:

The City's approach to technology management is ad hoc, decentralized, and not aligned with industry best practices and norms. This has led to increased system outages, reduced ROI on technology investments, lack of vision and focus, and increased system/data and security risk.

Recommendations:

- Develop a technology vision aligned with the City's strategic direction
- Reengineer your approach to technology management – adopt best practice models
- Consolidate, elevate, and reengineer technology management team – contract for senior engineering services
- Reengineer your IT infrastructure with a focus on stability and reliability
- Focus on application & data architecture and lifecycle management

Seitel SYSTEMS

City Technology Vision

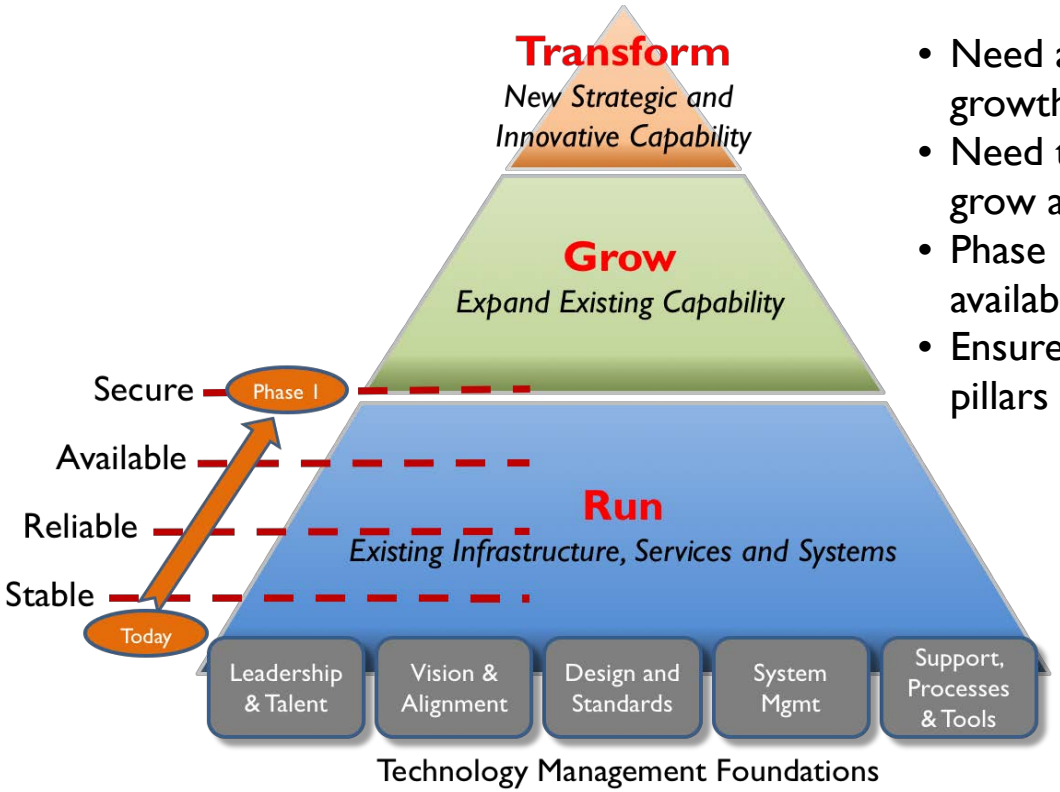
Like the private sector, the public sector is embracing technology to:

- Innovate service delivery
- Drive efficiency and cost effectiveness
- Engage, collaborate and communicate with their constituents
- Improve planning and more proactively manage risk
- Improve decision making through the use of data and analytics
- Leverage county, state and federal services and data

To ensure you get the highest return from your technology investments, the City needs a clear technology vision and to rethink their approach to technology services and management.

Seitel SYSTEMS

Technology Management Model

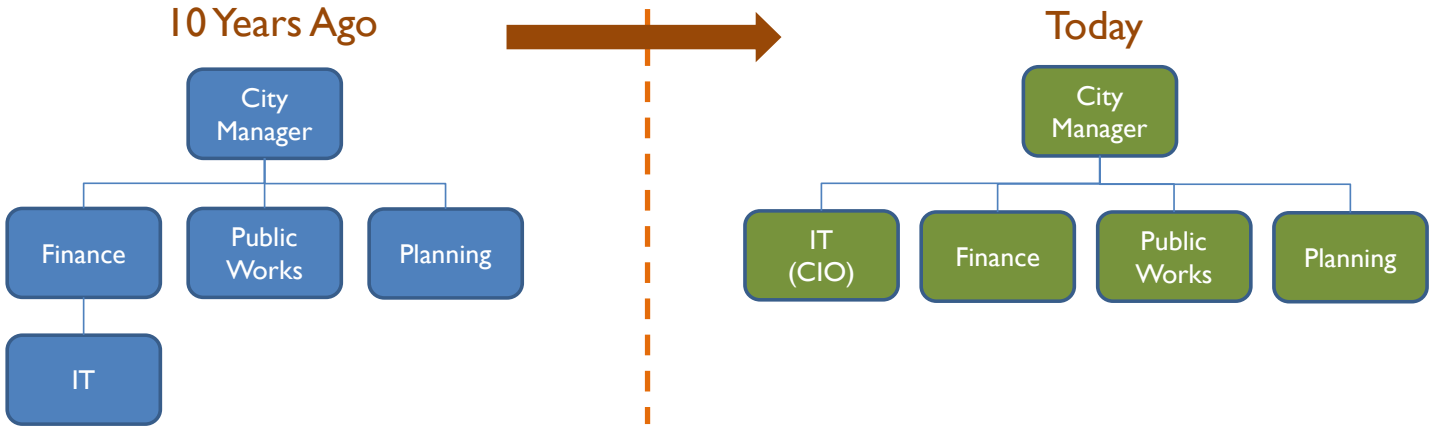


- Need a strong foundation to support growth and innovation
- Need to do Run right before you can grow and transform
- Phase I focus is stability, reliability, availability, and security
- Ensure the Technology Management pillars are in place

City Adopt a best practices based Technology Management Model

Seitel SYSTEMS

Technology Management Approach

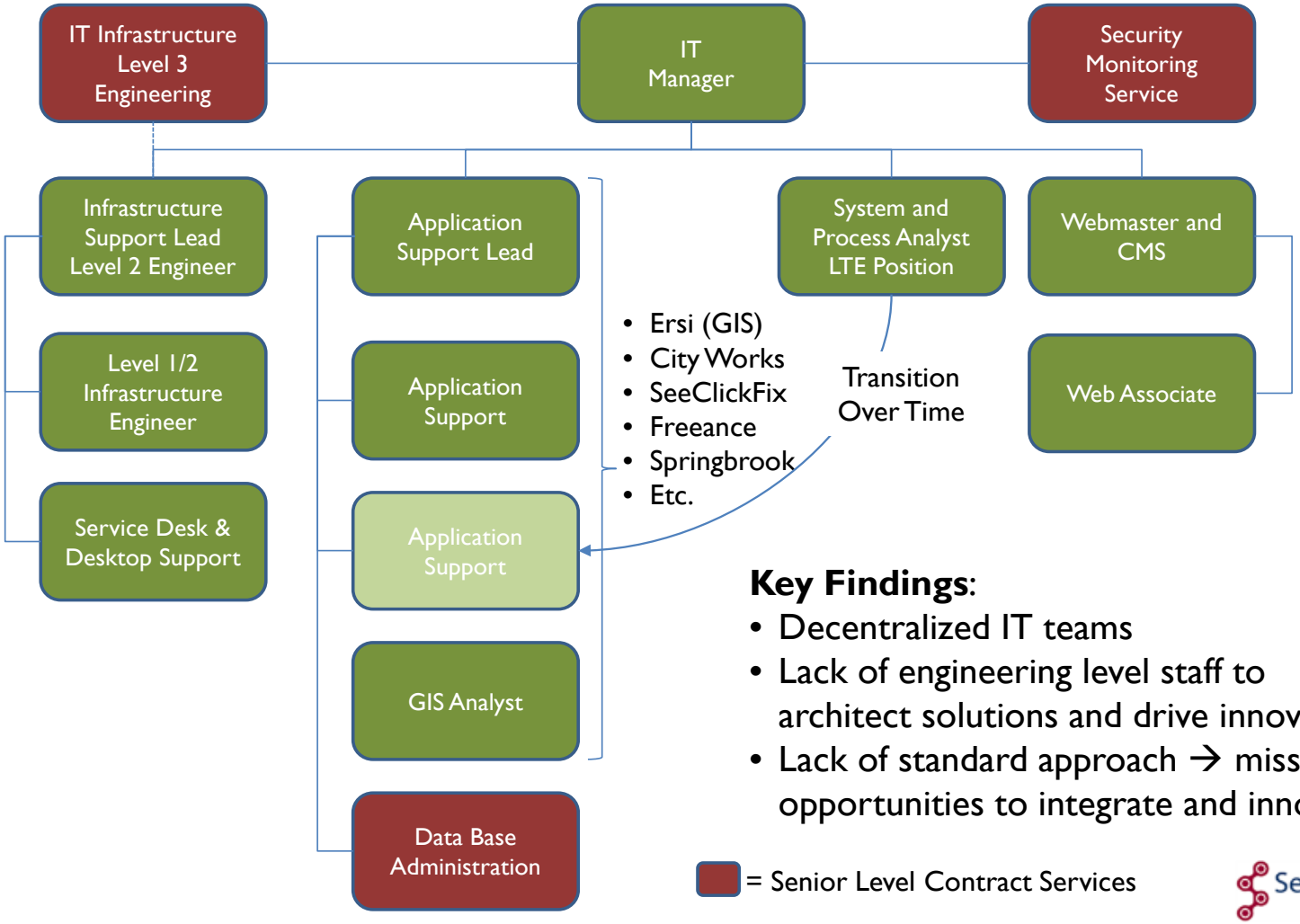


The elevation of IT to senior leadership is driven by:

- Recognition of the strategic importance and value of IT;
- The need to ensure alignment between IT and the organization's vision and direction;
- The level of investment and cost for technology services;
- Changing constituent (customer) expectations;

Seitel SYSTEMS

Recommended IT Organization Chart



Key Findings:

- Decentralized IT teams
- Lack of engineering level staff to architect solutions and drive innovation
- Lack of standard approach → missed opportunities to integrate and innovate

= Senior Level Contract Services

Seitel SYSTEMS

Technology Infrastructure Readout

Findings

- The existing core IT infrastructure needs significant design and reengineering work to ensure IT services are stabile, reliable and available to staff and constituents.
- The City has purchased good quality equipment that is poorly designed and configured, increasing the risk of failure.
- The City lacks IT business continuity plans and tested data backup capability.
- The City has no defined technology & data security policies or procedures and the infrastructure lacks basic security services or tools.

Recommendations:

1. Redesign and reengineer the existing IT infrastructure to achieve stability, reliability and availability
2. Design, implement and test data back up and recovery model
3. Hire team to complete a security assessment and implement the recommendations

Seitel SYSTEMS

Questions and Discussion

Agenda Bill

City Council Special Meeting
July 10, 2018

SUBJECT:	Discussion: Police Services Study Progress Update
DATE SUBMITTED:	June 26, 2018
DEPARTMENT:	City Manager's Office
NEEDED FROM COUNCIL:	☐ Action ☐ Direction ☑ Informational
RECOMMENDATION:	No action necessary.
EXHIBITS:	1. Exhibit 1 - Presentation
BUDGET:	
Total dollar amount	☐ **Approved in budget**
Fund(s)	☐ **Budget reallocation required**
	☑ **No budgetary impact**

WORK PLAN FOCUS AREAS:

☐ Transportation	☑ Community Safety
☐ Communication & Engagement	☐ Community Livability
☑ High Performing Government	☐ Culture & Recreation
☐ Environmental Health & Protection	☐ Financial Sustainability

NEEDED FROM COUNCIL:

Discussion: Police Services Study Progress Update

KEY FACTS AND INFORMATION SUMMARY:

Summary

On July 10, 2018, staff and BERK Consulting will provide the City Council with an update on the Police Services Study project. The attached presentation (Exhibit 1) outlines results from their first phase of work, which included a review of existing conditions and engagement with a variety of internal and external stakeholders. BERK will also present a preliminary look at the upcoming second phase, which will examine future service demands and options for how the City can meet those demands. Throughout the presentation, Councilmembers will have the opportunity to provide feedback on specific questions or strategies they would like to explore during this next phase of work.

Following this meeting, BERK will compile all data from phase one into the first project deliverable - the Existing Conditions Report. This report, expected to be completed by July 31, will summarize their extensive review of stakeholder feedback, crime statistics and current organizational conditions. Going forward, both the Public Safety Committee and City Council will continue to receive regular updates on the project as it progresses. The final report is anticipated to be completed by the end of the year, with tentative adoption of the report planned for December 2018.

Please keep in mind that, although this study is intended to focus on long-term strategies, there may be short-term opportunities identified during the process that the City Council may wish to consider as part of the 2019-20 budget process.

Background

In early 2017, the City Council and staff began discussing the possibility of completing a Police Services Study. This discussion was deferred to the Public Safety Committee, which met twice in 2017 to review similar studies completed by peer jurisdictions and to discuss a preliminary scope of work. During those meetings, Committee members identified a number of desired topics to address through the study, such as the current police response times, resource levels and the City's contract with the King County Sheriff's Office.

Following the Committee's review, the Council approved $100,000 in funding for the project as part of the mid-biennial budget update. The City subsequently released a Request for Proposals (RFP) in late December to which two proposals were submitted. Staff evaluated the proposals and recommended the selection of BERK Consulting, which the City Council approved on March 6, 2018 through contract number C2018-137. This will be the first such study the City has completed since incorporation in 1999.

In early April 2018, BERK held kick-off meetings with the City Council and Public Safety Committee to outline the study's purpose, key tasks and schedule. Feedback on next steps, including public engagement and outreach, was collected from both groups. Based the feedback received, the Healthy Communities Coalition, Sammamish Youth Board and the community at large (through a Virtual Town Hall) were engaged in discussions about police services throughout May 2018.

Scope of Work

The goal of this project is to arrive at a long-term strategy for providing responsive, well-managed, effective and efficient law enforcement services that are reflective of community needs and priorities. The scope of work is summarized below; the full scope can be found in the contract.

- Phase I - Review of Current Organizational Conditions: This initial phase includes a kick-off meeting with the City Council, Public Safety Committee and the internal staff team to review project direction and gather initial ideas and feedback on the planning process. This phase will also involve a compilation of current crime data and calls for service, interviews with stakeholders, shift meetings with police personnel, and a Virtual Town Hall survey. And finally, the consultant will perform an operations assessment, which includes a detailed analysis of the organizational structure, management capacity, scheduling, communication, performance measurement, use of technology and the impact of new laws and regulations. *This first phase of work will be summarized in an "Existing Conditions Report" for review by the City Council.*

- Phase II - Future Service Demand: In the second phase of work, the consulting team will evaluate crime trends, demographics, projected growth and other factors that could impact the future demand for law enforcement services. Included in this phase of work is an analysis of regulatory changes that may impact future operations, such as changes to sentencing requirements, cybercrime, expansion of background checks for weapons purchases and more. *This second phase of work will be summarized in a "Future Services Demand Memo" for review by the City Council.*

- Phase III - Future Services Delivery Models: The third phase of the project will include an analysis and recommendations for future service delivery. This includes a "make vs. buy" comparison of the contract with the King County Sheriff's Office, in-house police operations and/or other partnership opportunities that may be available. Also included is a financial assessment and an evaluation of short-term savings and long-term cost avoidance. *This third phase of work will be summarized in a "Future Services Delivery Models Memo" for review by the City Council.*

- Phase IV – Draft and Final Report: The final phase of the project will include a summarization of the key findings and recommendations from the prior phases of work. The report will look at the Department's mission and guiding philosophy, recommend prioritized actions, provide implementation guidance, and suggest methods to track performance. *A final "Police Services Study Report" containing specific and timebound guidance for implementation will be presented to the City Council for review and final adoption.*

City of Sammamish Police Services Study

Briefing to City Council

Brian Murphy, Kristin Maidt, and Virginia Gleason

July 10, 2018

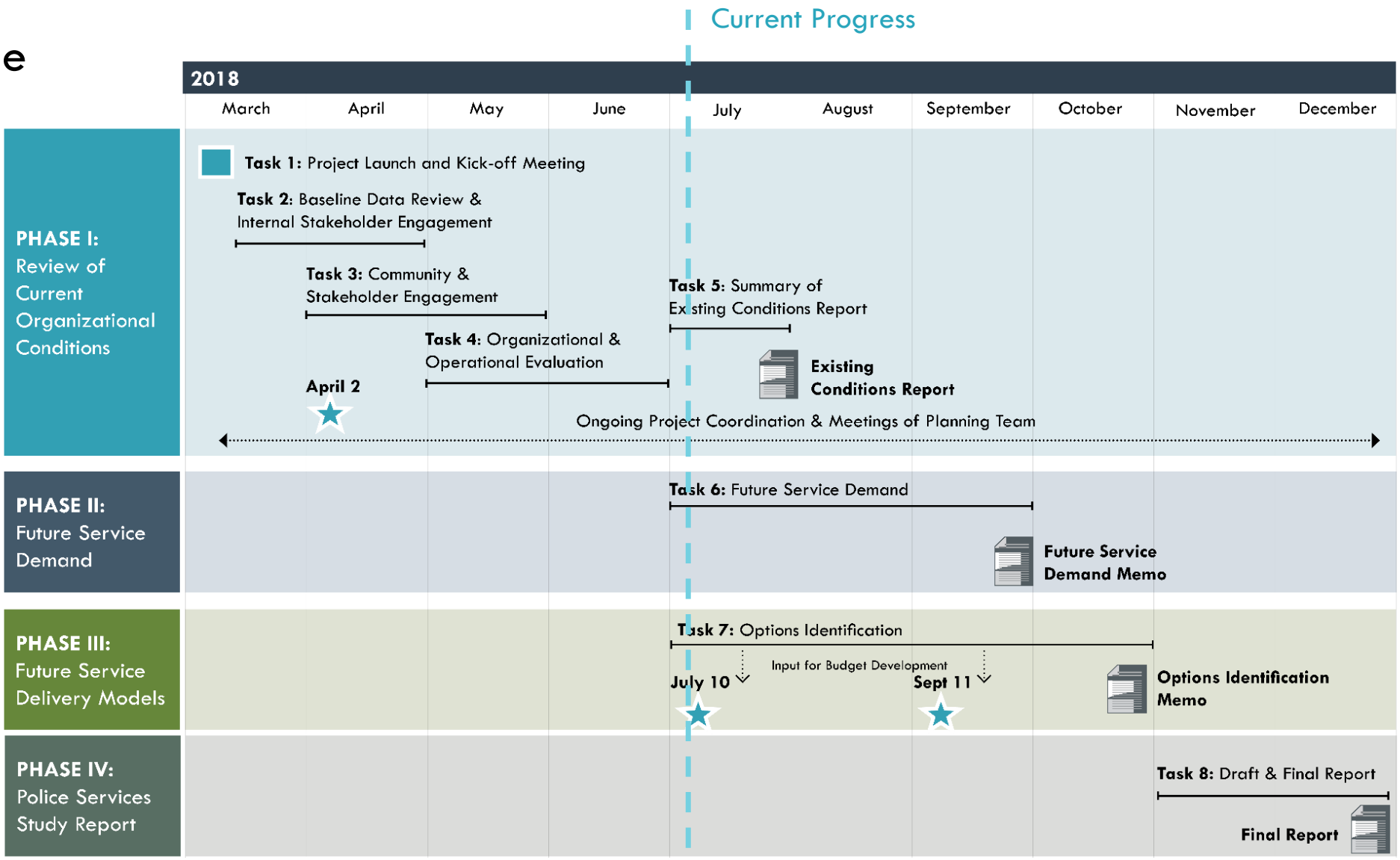
BERK

Today's Briefing

I. Update on current project progress and upcoming deliverables
II. External engagement summary
III. Introduction to Existing Conditions Report (in development)
IV. Discussion about the future service demands and options identification
V. Council questions and feedback + next steps

I. Project Progress and Upcoming Deliverables

Project Schedule



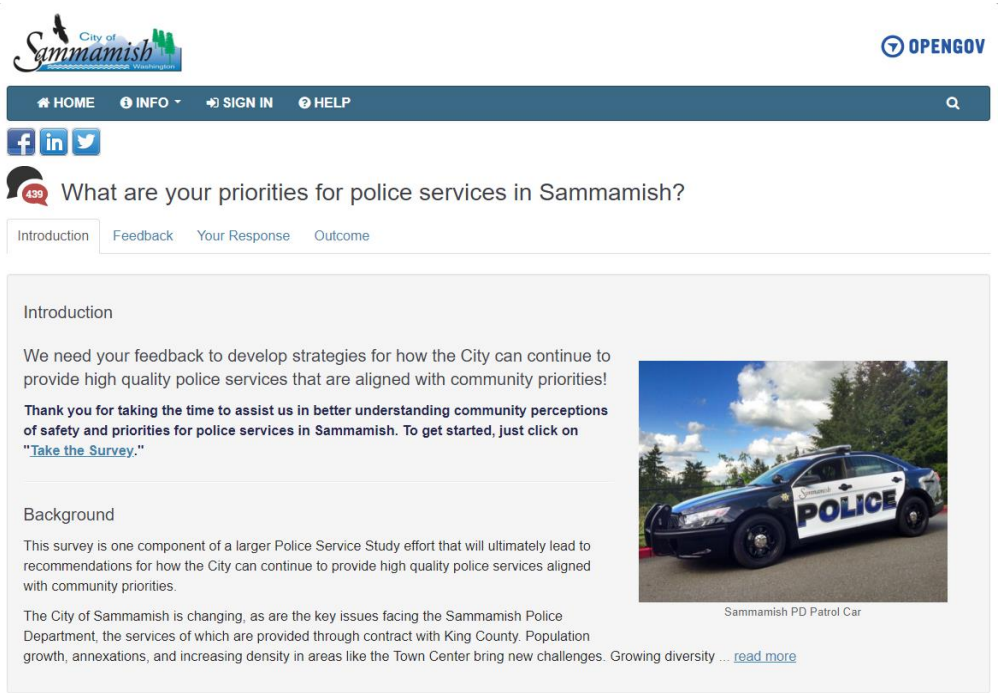
Work Completed to Date

- External Stakeholder Engagement
  - Details in next section
- Internal Stakeholder Engagement
  - Police Department Deputies, Sergeants, Police Chief, and administrative position
  - City staff – Parks, Public Works, Finance, and Risk Management
  - City partners – Eastside Fire and Rescue Fire Chief
- Initial Baseline Data, Organizational, and Operational Review

II. External Engagement Summary

External Stakeholder Engagement

- **Citywide Virtual Town Hall**
  - May 4 – June 4
  - 354 responses
- **Sammamish Youth Board**
  - May 16 Focus Group
- **Healthy Communities Coalition**
  - May 9 Focus Group; included representation by Human Services Commission



Virtual Town Hall Feedback

- **Perception of Safety**
  - **95%** of residents surveyed feel safe in the City
  - **96%** of residents are concerned about Property Crimes and **89%** about Traffic Crimes
- **Perception of Police**
  - **91%** of residents are comfortable calling police if needed and **79%** are confident in ability of police to serve their needs
  - **55%** of residents feel that police coverage is adequate
- **Priorities for Police Services**
  - Residents ranked **prompt response times** and a **visible and present police force** as the highest priority services

Virtual Town Hall Feedback – General Feedback

Appreciation

- For officers, the work they do and enforcement approach
- Of police visibility and public event attendance

Desire for More

- Connection with the community
- Presence at night and on weekends
- Increased presence in Klahanie

Clarification & Concern

- Clarify: relationship between King County and Sammamish Police Department
- Concern: future growth in population and density in the Town Center

External Stakeholder Feedback

Healthy Communities Coalition Feedback

- Interested in:
  - Strong intentional partnerships with schools
  - Adding SROs to elementary or middle schools
  - Proactive police approaches, not reactive
  - Community policing and increased presence
  - Using non-law enforcement approaches to behavioral health
- Worried about: populations that are more wary of the police and what their needs are

Sammamish Youth Board Feedback

- Youth feel safe
- Majority of youth interactions with police are through SROs or being pulled over for speeding
- Youth that have interacted with Sammamish police viewed them favorably
- Some youth find the concept of police intimidating and aren't sure when it's appropriate to call 911
- Youth expressed a desire for more police outreach and better connections with the community
- Worried about: drugs, on campus safety, and park safety

III. Introduction to Existing Conditions Report

Current Service Model

- Sammamish has contracted with King County Sheriff's Office (KCSO) for law enforcement services since incorporation.
- KCSO provides contract services to:
  - 10 cities: Burien, Carnation, Covington, Kenmore, Maple Valley, Newcastle, Sammamish, SeaTac, Shoreline, and Woodinville
  - 2 towns: Beaux Arts Village, Town of Skykomish
  - 2 transit agencies: King County Metro Transit and Sound Transit
  - The Muckleshoot Indian Tribe
  - King County International Airport
- KCSO provides the following services in addition to day-to-day operations:
  - Access to specialized units and backfill coverage
  - Officer vehicles and equipment
  - Umbrella liability coverage

City and County Roles and Responsibilities

Sammamish

- Policing priorities
- Interviewing and hiring Police Chief
- Day-to-day interaction with Chief and other staff
- Community engagement direction and priorities
- Communications with public

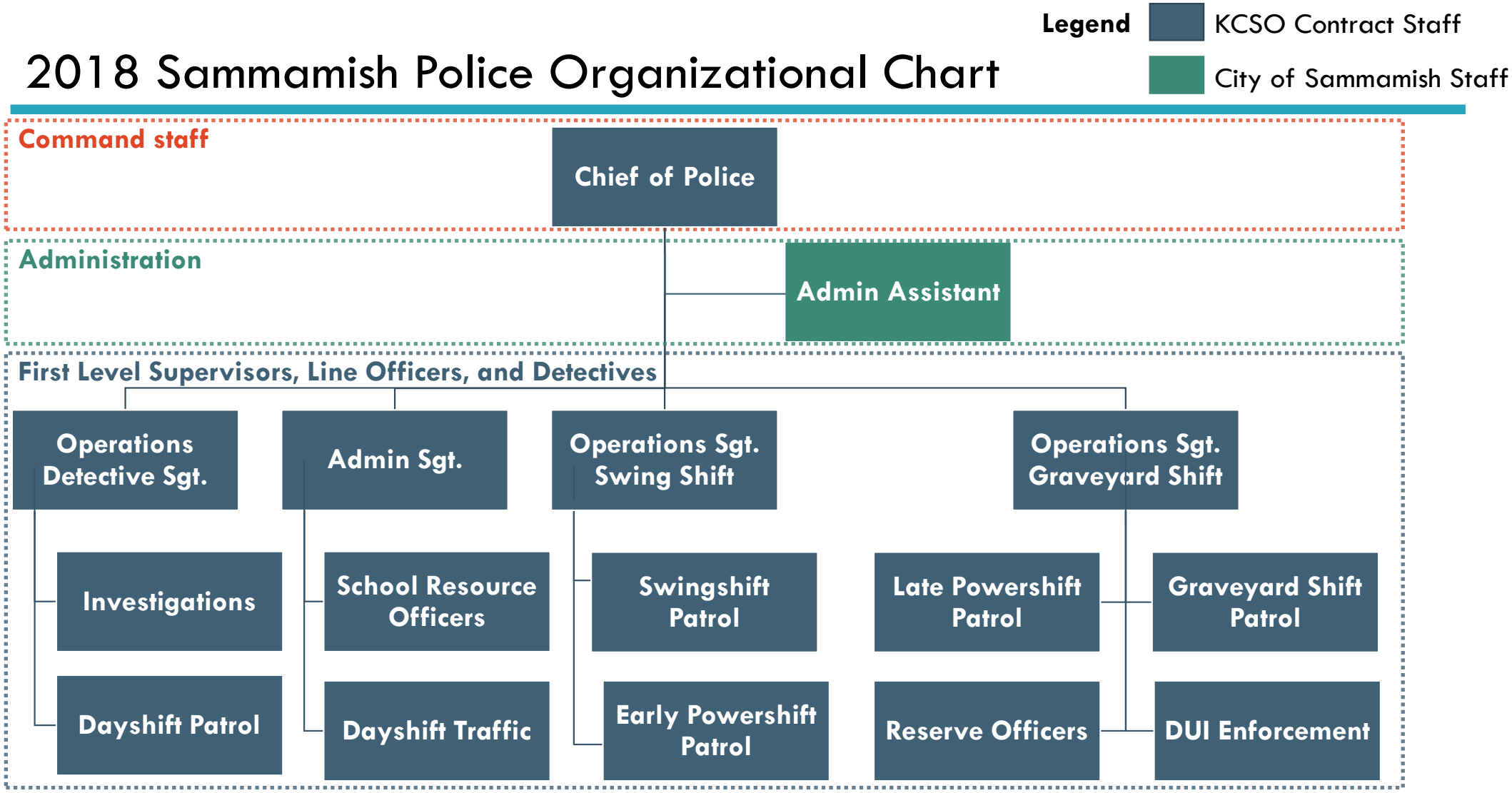
King County

- Risk and liability
- Accreditation
- HR management practices, systems, including performance evaluations of deputies and recruitment
- Performance Standards and discipline, including internal investigations
- Data collection systems and analytical capacity
- Records management and public disclosure requests (WSP handles moving violation records requests)
- Administrative oversight and internal investigations

Shared

- Internal communications and culture
- Performance management and accountability

2018 Sammamish Police Organizational Chart

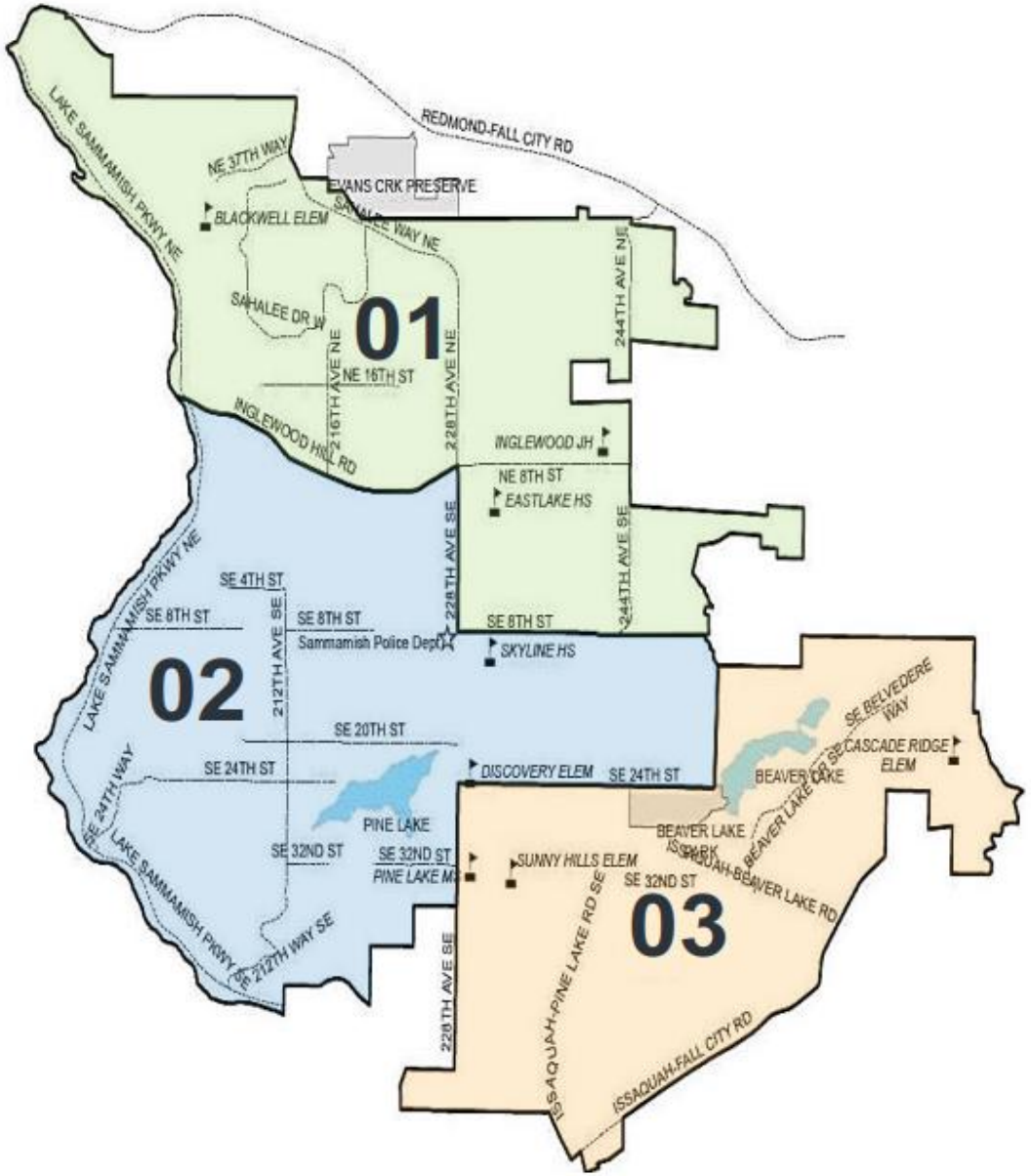


King County Sheriff's Office Contract Positions

Staff	Budgeted Positions	Filled Positions
Chief	1	1
Sergeants	4	3
Traffic Enforcement/Motorcycle	1	1
School Resource Officers	2	2
Investigations-dedicated commissioned officers	3	3
Deputies available for 24/7 coverage	19	17
Total KCSO Contract Staff	**30**	**27**
City Administrative Staff	1	1
Total Department Staff	**31**	**28**
Reserve Officers	3	3
Total Resources	**34**	**31**

Sammamish Patrol Districts

- Districts developed based on volume of Calls for Service
- Sammamish staffing model:
  - 1 patrol officer per district
  - = 3 officers on duty



How is the Department Doing?

a. Resources: *how are you resourced?*

– contract cost, staff levels

b. Safety: *is your community safe?*

– dispatched calls, Part I crimes, incidents, response times

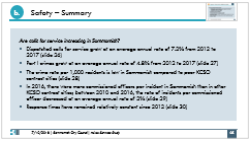
c. Functional Capacity: *do you have sufficient capacity based on your desired quality of service and comfort with risk?*

– surge capacity

– administrative and supervisory capacity

– staffing sustainabilty

a. Police Resources – Summary



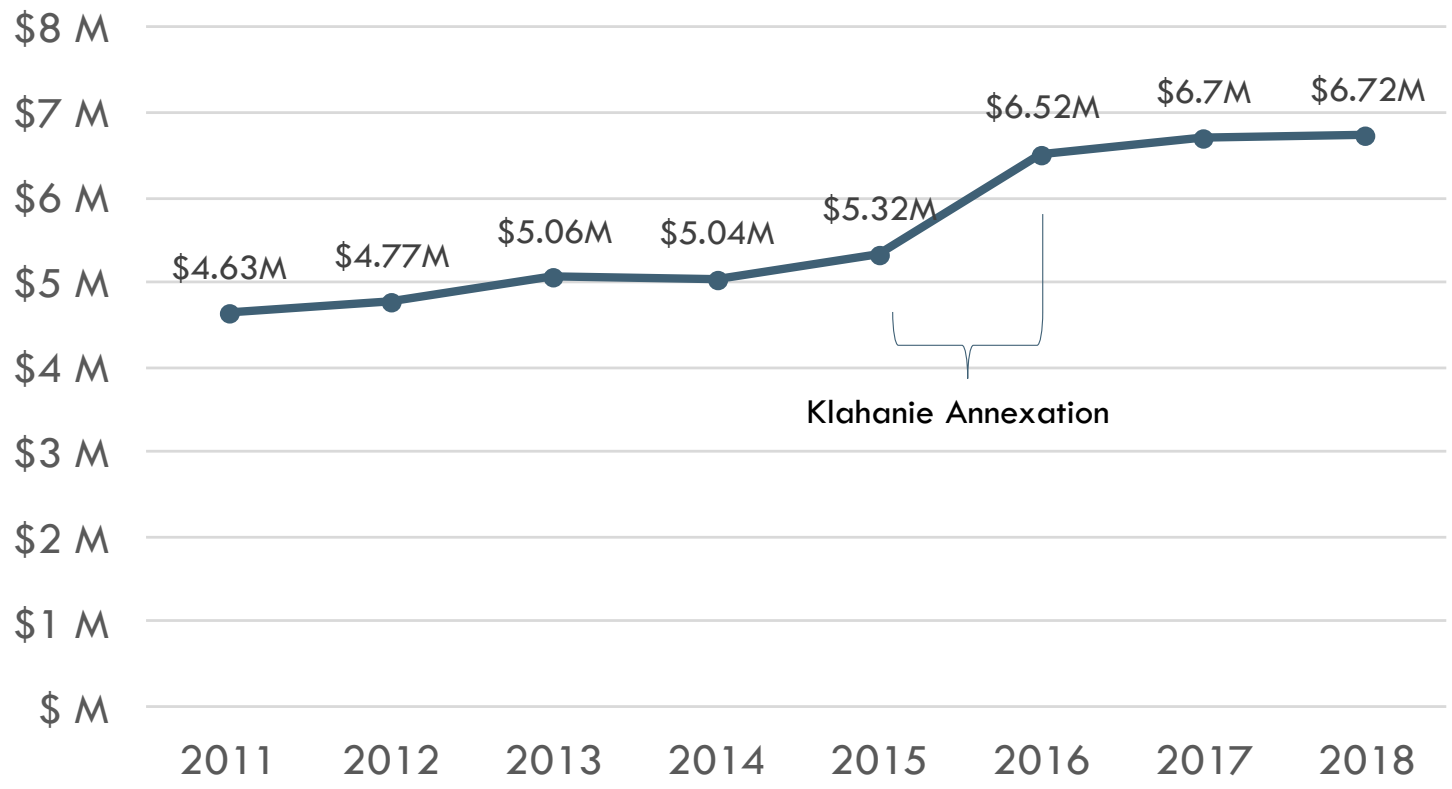
How are public safety costs changing?

- KCSO contract costs are increasing in line with additional staff and inflation; adjusted for inflation, the cost per FTE remained relatively steady over the last seven years (slide 19)
- Police expenditures as a percent of total General Fund expenditures have remained relatively steady over the last five biennium (slide 20)
- Compared to peers, Sammamish pays less per capita for police services (slide 21)

Is staffing keeping pace with population growth?

- Population has almost doubled since incorporation; police staffing has been growing with population, but at a slower rate (slide 22)
  - The number of commissioned officers per 1,000 residents has been a slight downward trend since 2000 (slide 23)
- Compared to peer jurisdictions, Sammamish has a lower number of commissioned police officers per 1,000 residents (slide 24)

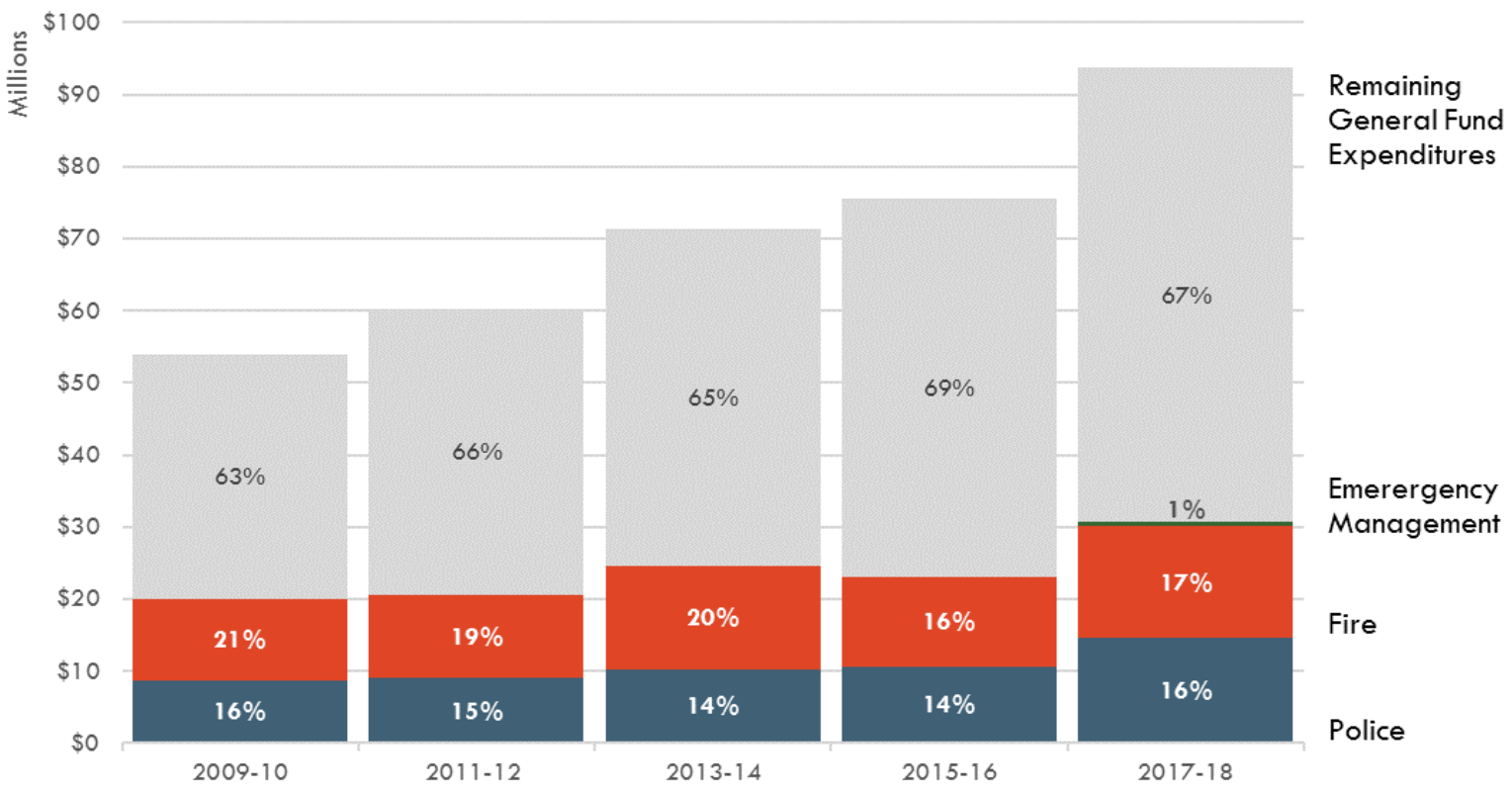
a. Resources – Cost of KCSO Contract over Time (2017 dollars)



Note: Values shown in 2017 dollars

- KCSO contact costs have been increasing over time
- The largest increase happened with the Klahanie annexation
- Increases in the contract cost of police services are mostly attributable to increases in staffing
- When adjusted for inflation, the cost/FTE has remained relatively steady over the last seven years

a. Resources – Public Safety Expenditures Over Time

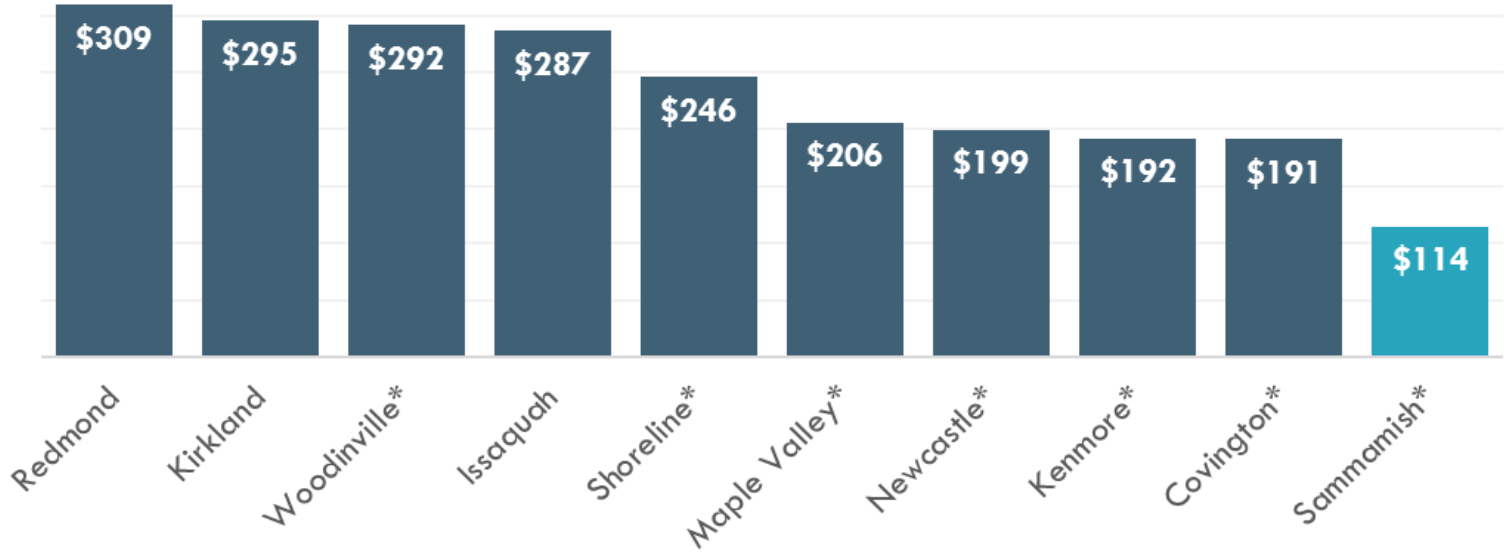


- General Fund expenditures have been growing over time and jumped with the annexation of Klahanie
- Police expenditures as a percent of total General Fund expenditures have remained relatively steady over the last five biennium
- 16% of 2017-2018 General Fund expenditures are expected to be on police services

a. Resources – Public Safety Costs

- Sammamish Police Services are budgeted at $7.4M for 2018
- The King County Sheriff's Office Contract represents 92% of the budgeted amount at a total of $6.9M.

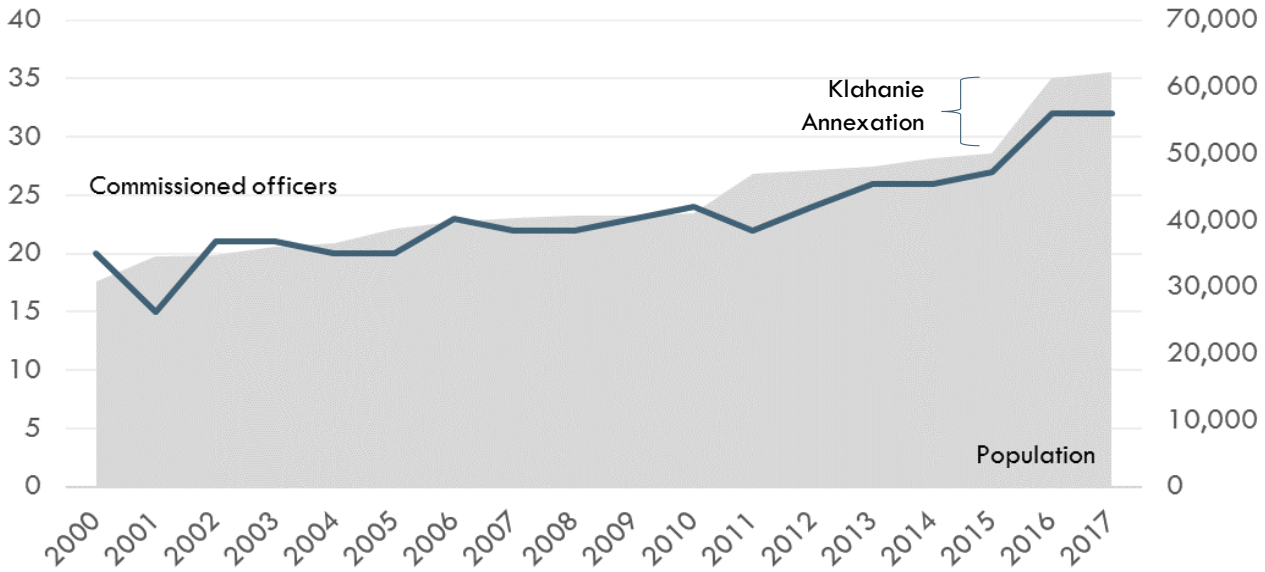
Peer Comparison of Public Safety Costs Per Capita (2017)



Note: Uses full 2017 budgeted amounts. Cities with an asterisk are KCSO contract cities.

a. Resources – Staffing and Population Growth

- Population has almost doubled since incorporation due to regional growth and annexation
- Commissioned law enforcement resource levels have increased for annexation and traffic enforcement

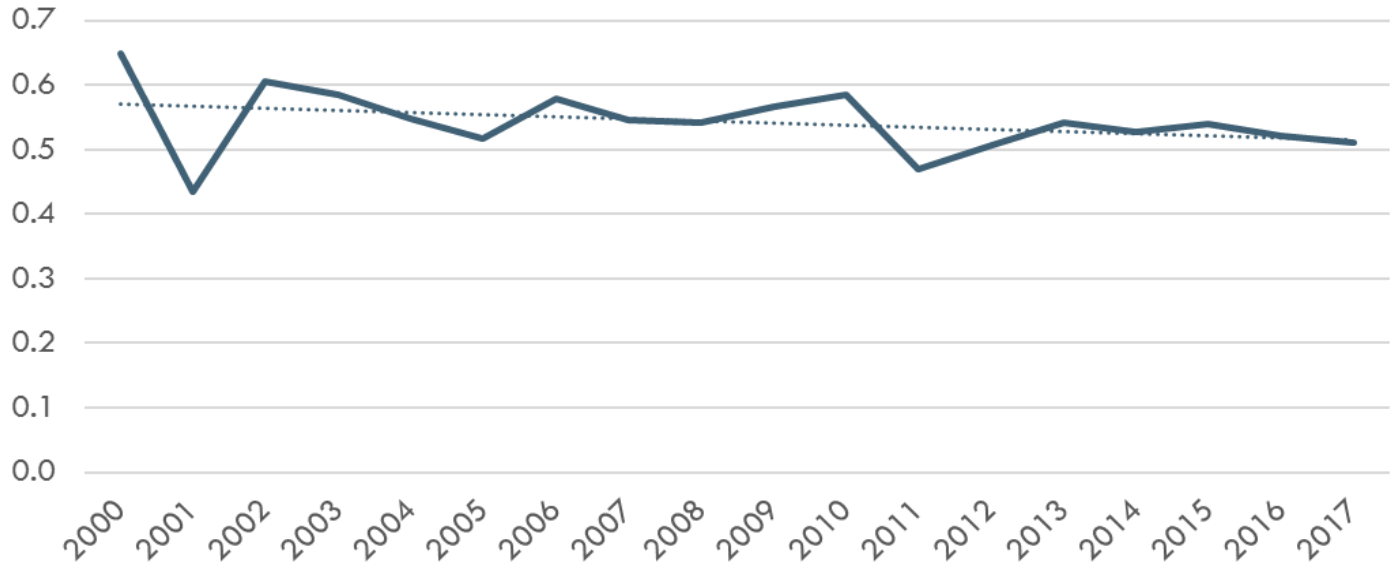


From 2000 – 2017

- The number of commissioned officers grew at an average annual rate of 2.8%
- Population grew at an average annual rate of 4.2%

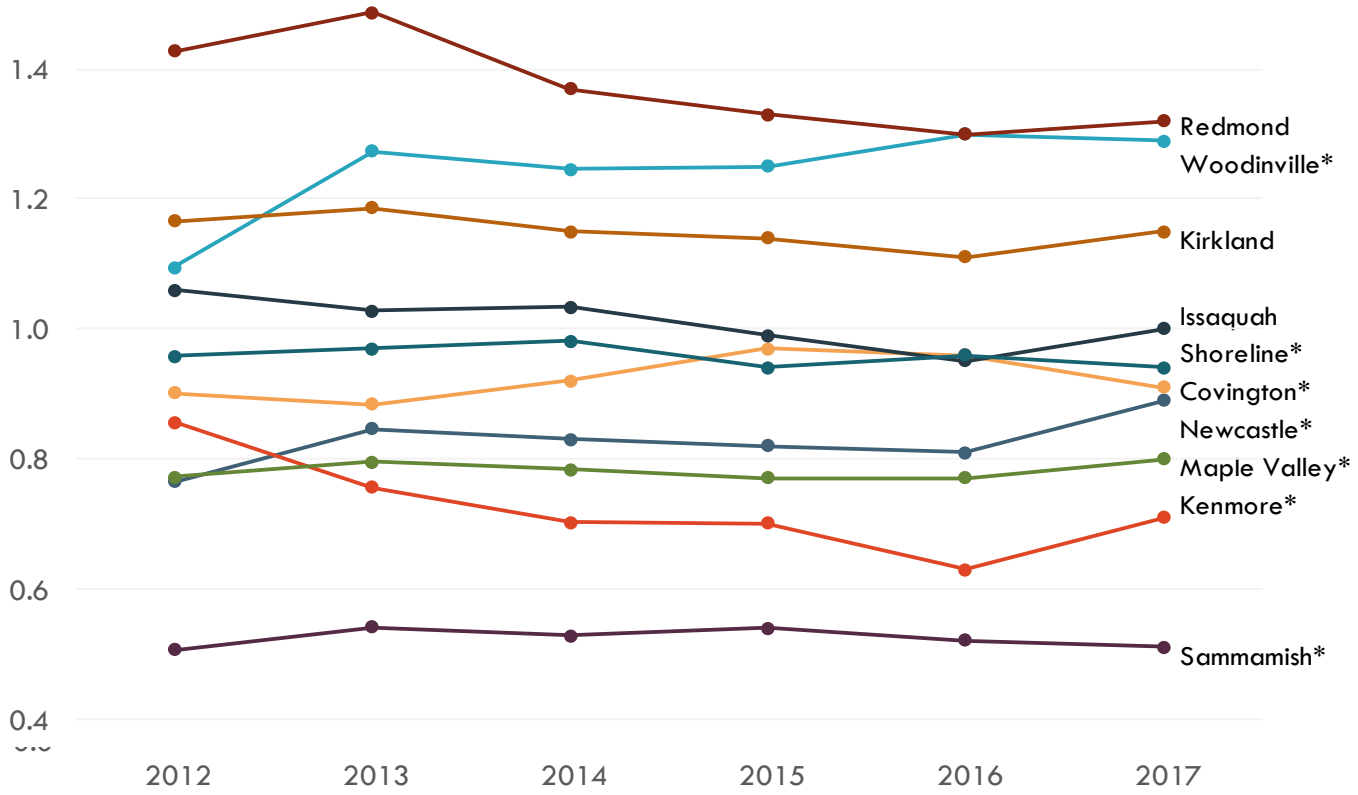
a. Resources – Staffing and Population Growth

- The commissioned rate per 1,000 Sammamish residents is on a slight downward trend since incorporation
- Since 2000, the rate has been declining at an average of 1.4% per year



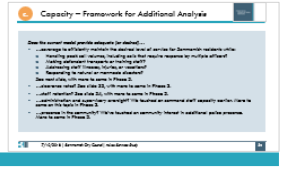
a. Resources – Staffing and Population Growth

Commissioned Officers/1,000 population



- Sammamish has a lower number of commissioned officers for every 1,000 residents compared to peer jurisdictions.

b. Safety – Summary



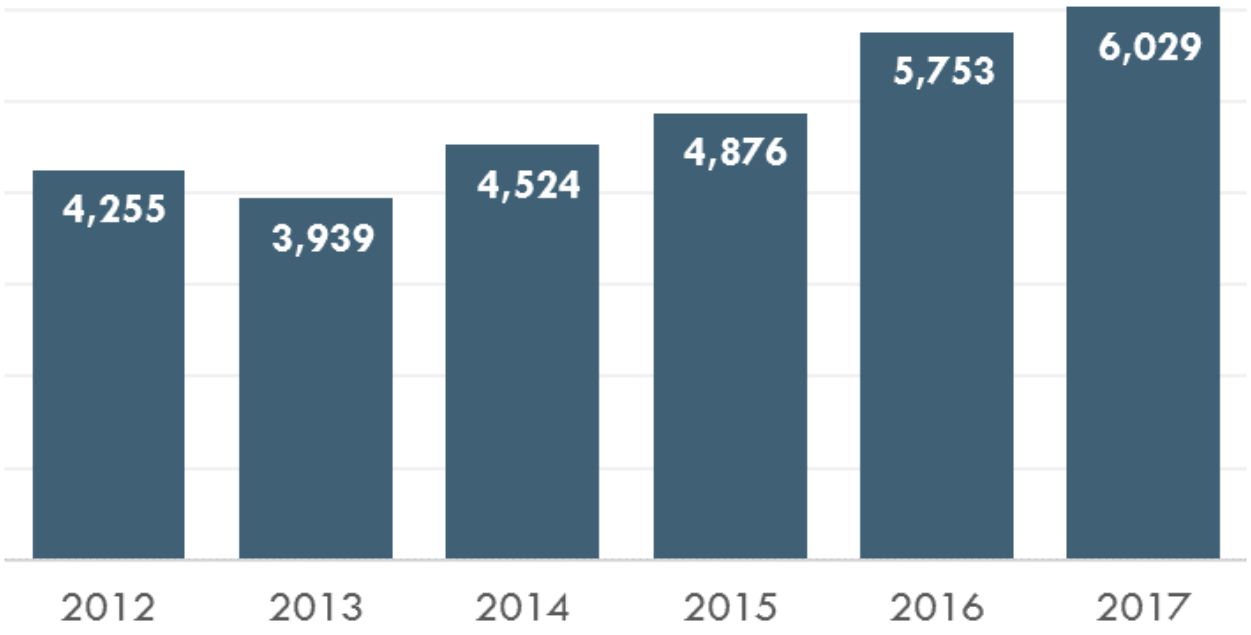
Are calls for service increasing in Sammamish?

- Dispatched calls for service grew at an average annual rate of 7.2% from 2012 to 2017 (slide 26)
- Part I crimes grew at an average annual rate of 4.8% from 2012 to 2017 (slide 27)
- The crime rate per 1,000 residents is low in Sammamish compared to peer KCSO contract cities (slide 28)
- In 2016, there were more commissioned officers per incident in Sammamish than in other KCSO contract cities; between 2010 and 2016, the rate of incidents per commissioned officer decreased at an average annual rate of 2% (slide 29)
- Response times have remained relatively constant since 2012 (slide 30)

b. Safety – Dispatched Calls

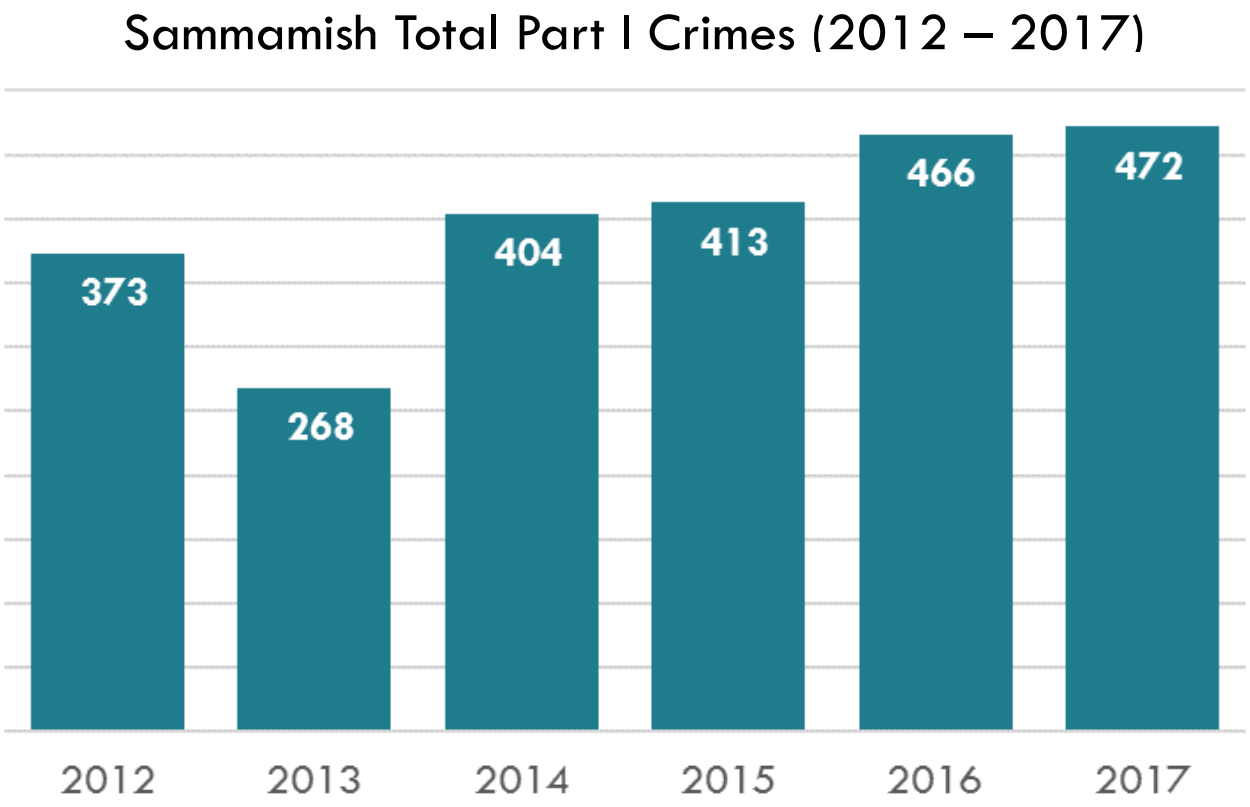
- Sammamish dispatched calls for service have been increasing at an average annual rate of 7.2% since 2012

Sammamish Dispatched Calls for Service (2012 – 2017)



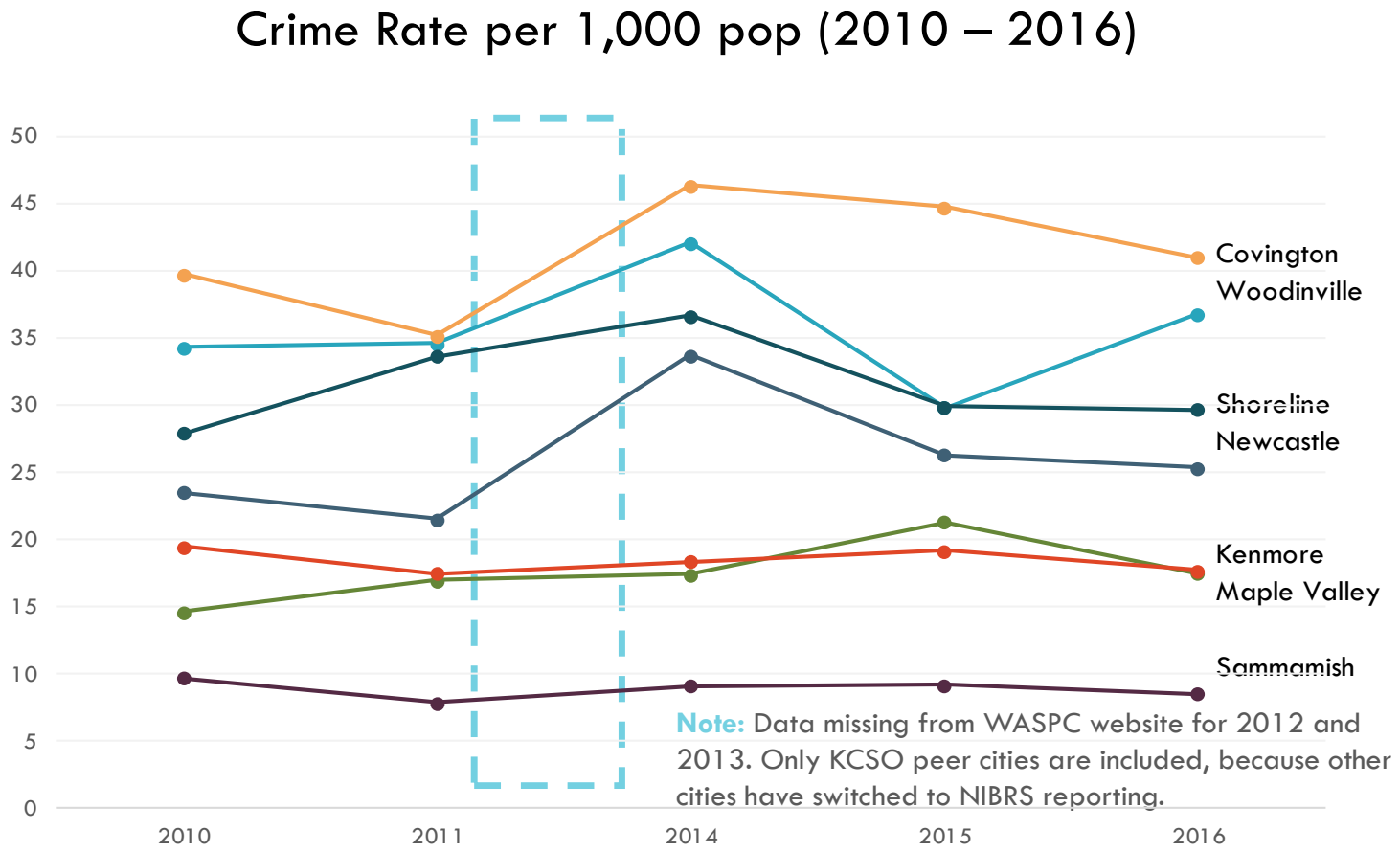
b. Safety – Part I Crimes

- Sammamish Part I crimes have been increasing at an average annual rate of 4.8% since 2012



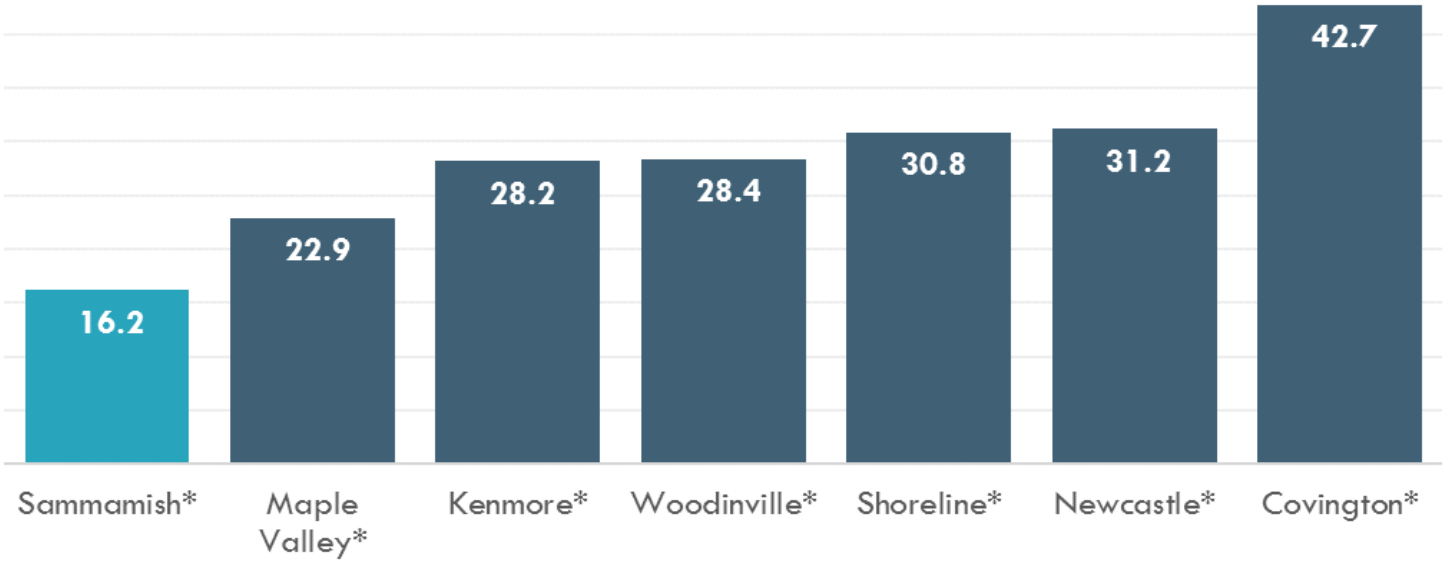
b. Safety – Crime Rate Comparison with Peers

- The crime rate per population in Sammamish has remained relatively steady, despite annexation and population growth



b. Safety – Staffing and Incidents

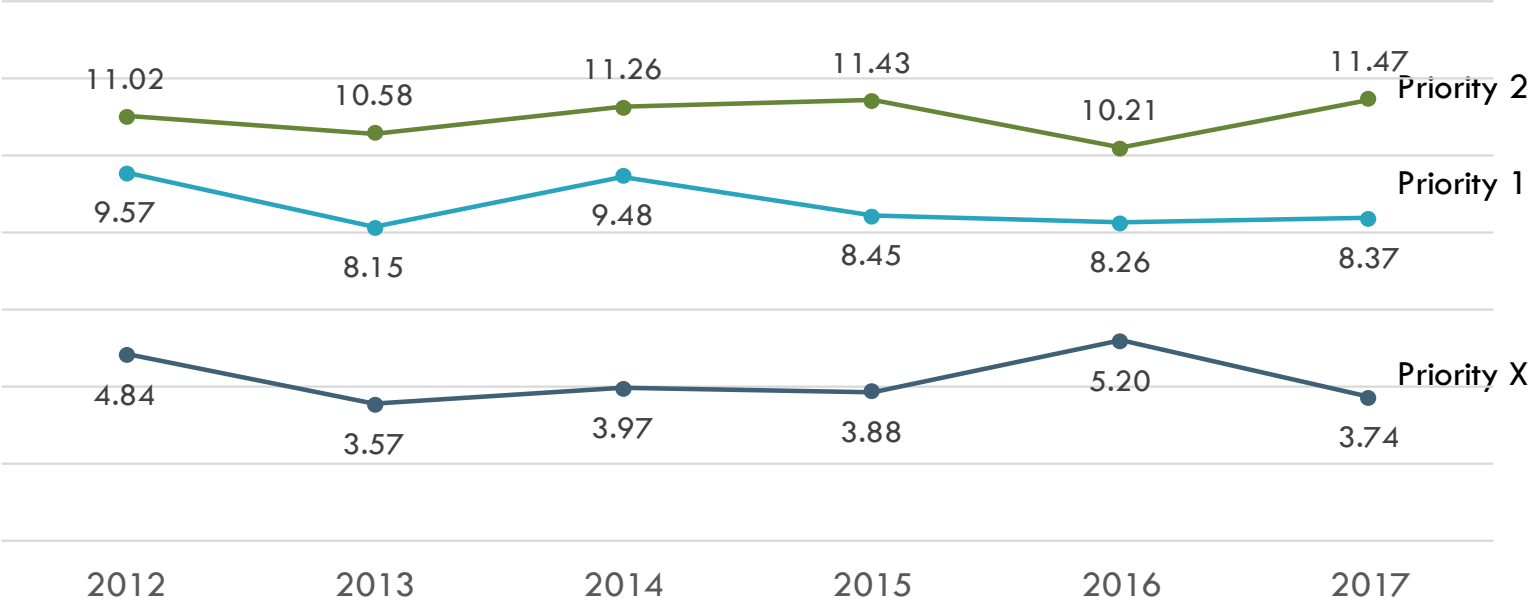
- In 2016, the number of incidents per commissioned officer was lower in Sammamish than in other peer KCSO contract cities
- Between 2010 and 2016, incidents per commissioned officer declined at an average annual rate of 2%



b. Safety – Response Times

- Response times have remained relatively constant since 2012

Sammamish Response Times for Priority X, 1, 2 Calls (2012 – 2017)



c. Capacity – Framework for Additional Analysis

Does the current model provide adequate (or desired)…

- …coverage to efficiently maintain the desired level of service for Sammamish residents while:
  - Handling peak call volumes, including calls that require response by multiple officers?
  - Making defendant transports or training staff?
  - Addressing staff illnesses, injuries, or vacations?
  - Responding to natural or manmade disasters?

  See next slide, with more to come in **Phase 2.**
- …clearance rates? See slide 33, with more to come in **Phase 2.**
- …staff retention? See slide 34, with more to come in **Phase 2.**
- …administration and supervisory oversight? We touched on command staff capacity earlier. More to come on this topic in **Phase 2.**
- …presence in the community? We've touched on community interest in additional police presence. More to come in **Phase 2.**

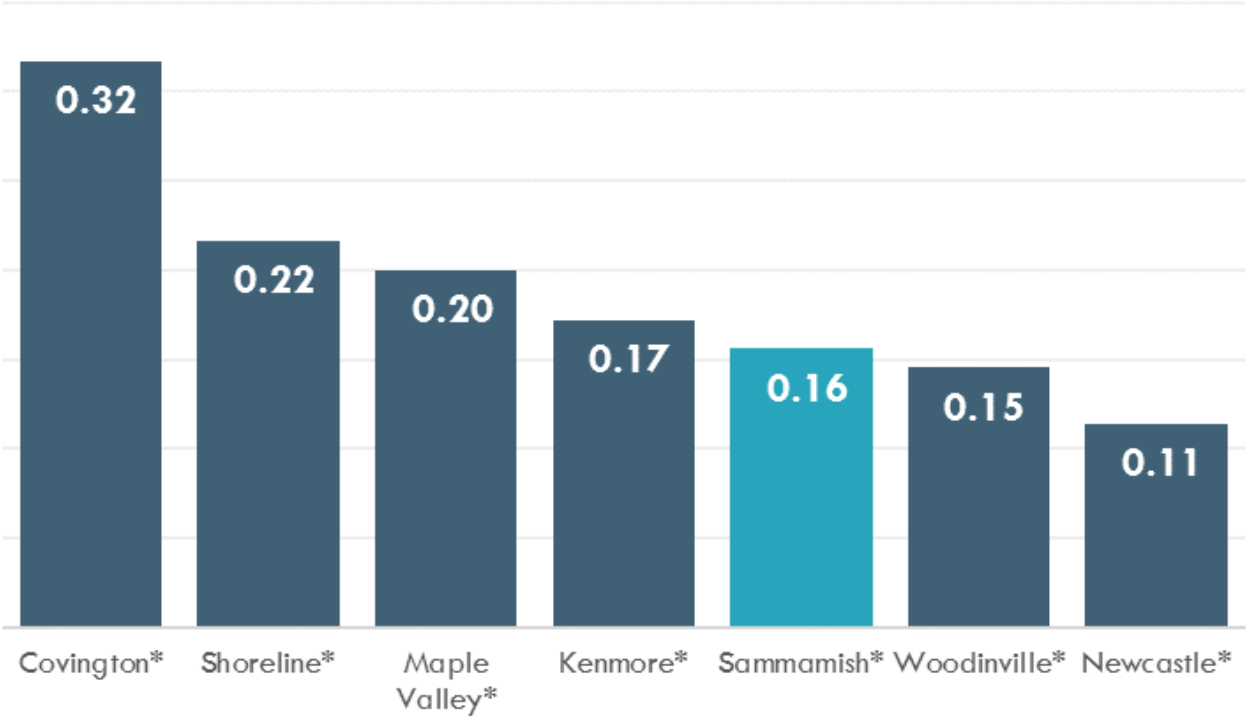
c. Coverage

Examples of coverage constraints:

- Some activities, such as **domestic violence calls**, require a response by more than one officer, leaving one officer available for other calls elsewhere in the city.
- At other times, a patrol officer may be outside of city-limits doing **defendant transports** from the Issaquah Jail to the King County Courthouse.
- When staffing for the **Fourth of July**, 15 officers are needed. Extreme whether events can similarly create a demand for more officers.
  - Sammamish Police Officers are asked to provide coverage first, then KCSO. Holidays, severe weather, or other events create excess demand for KCSO as well, diminishing their pool.
  - Coverage by KCSO means the responding officer is less familiar with Sammamish and Sammamish resident expectations.

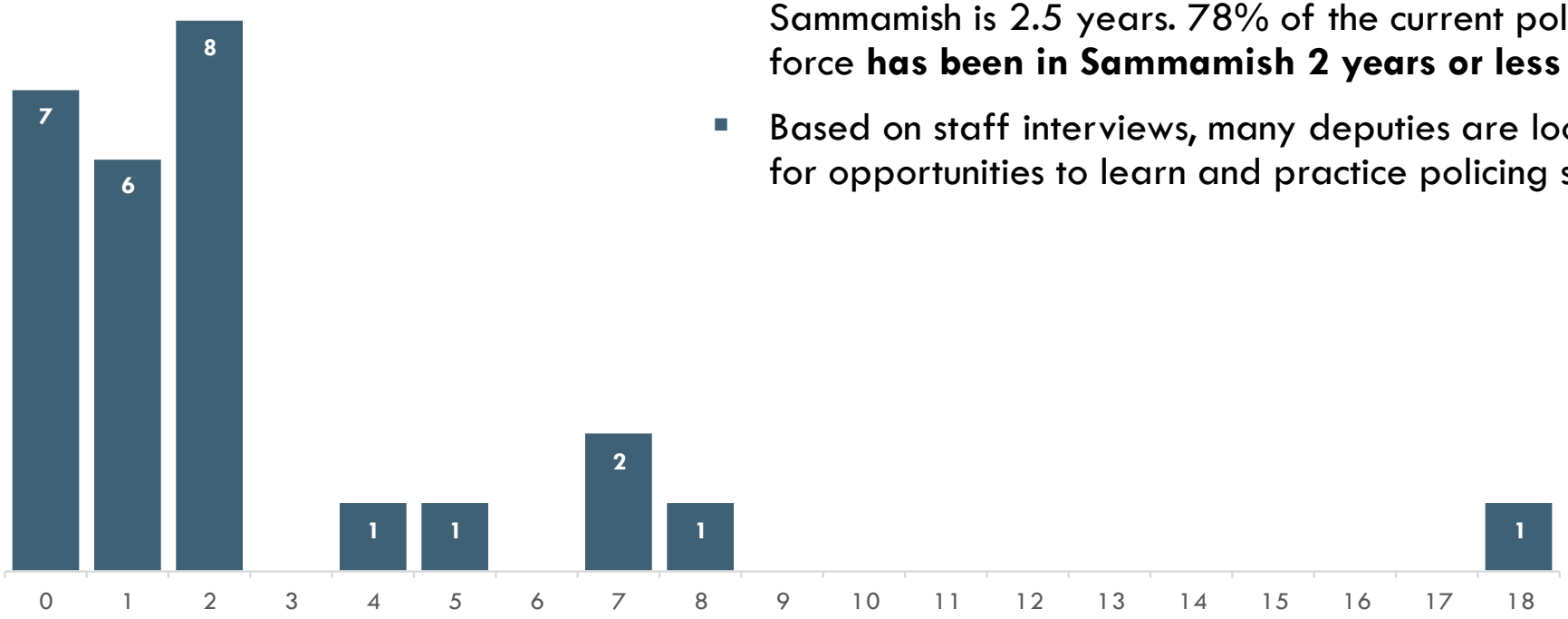
c. Clearance Rates

Sammamish and Peer Jurisdiction
Clearance Rates (2016)



- Sammamish had relatively low clearance rates in 2016 compared to peer jurisdictions

c. Sammamish Police Tenure



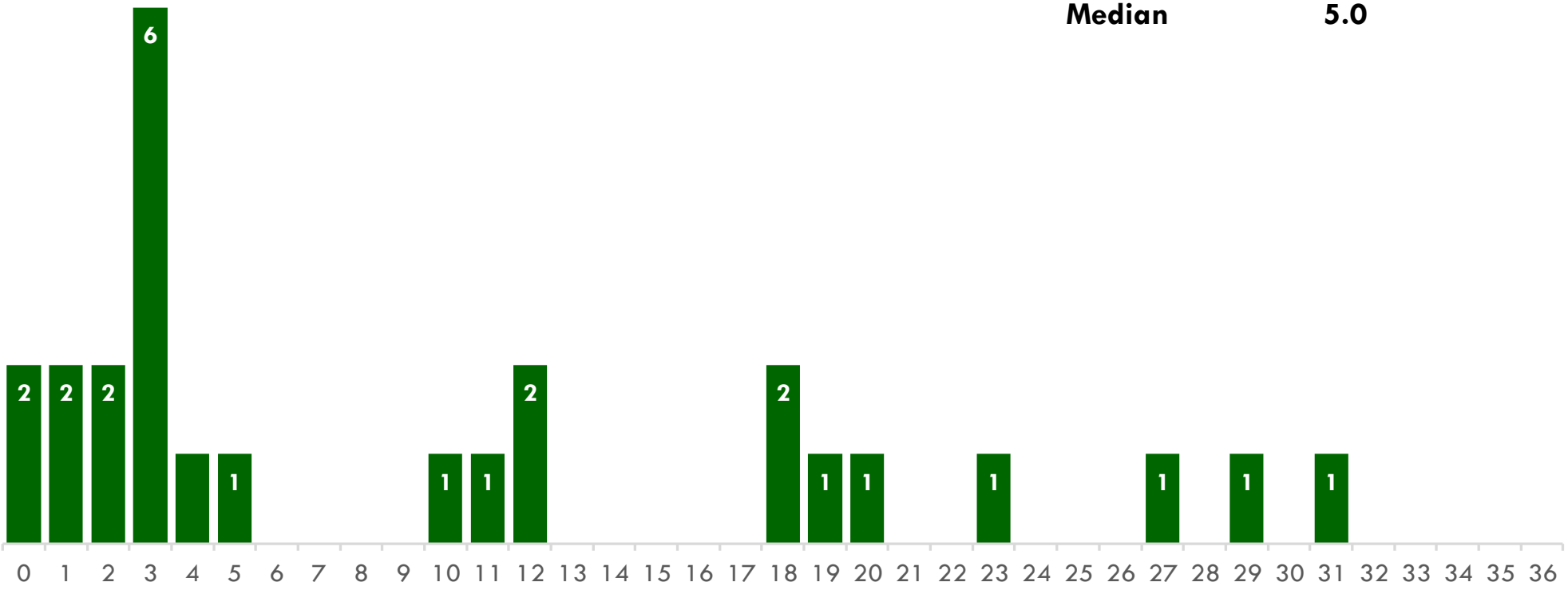
- Most KCSO staff are assigned on 2-year contracts; the median number of years a KCSO deputy stays in Sammamish is 2.5 years. 78% of the current police force **has been in Sammamish 2 years or less**
- Based on staff interviews, many deputies are looking for opportunities to learn and practice policing skills

c. Sammamish Police Turnover 2016 - 2018

- 22 officers have left the department since March 2016 with a median tenure in Sammamish of 2.5 years
- Of the 22 that left
  - 8 left for other assignments
  - 3 retired
  - 1 was put on administrative leave
- Of the 18 that left for other assignments
  - 9 went to another contract city
  - 4 went to another contract such as the airport or Metro
  - 4 went to KCSO, either to a precinct or HQ
  - And 1 went to the marine specialty unit
  - Reasons for the change are evenly split between promotions, a desire to be busier, a more convenient location, or a change of role (such as taking on an SRO position instead of patrol)

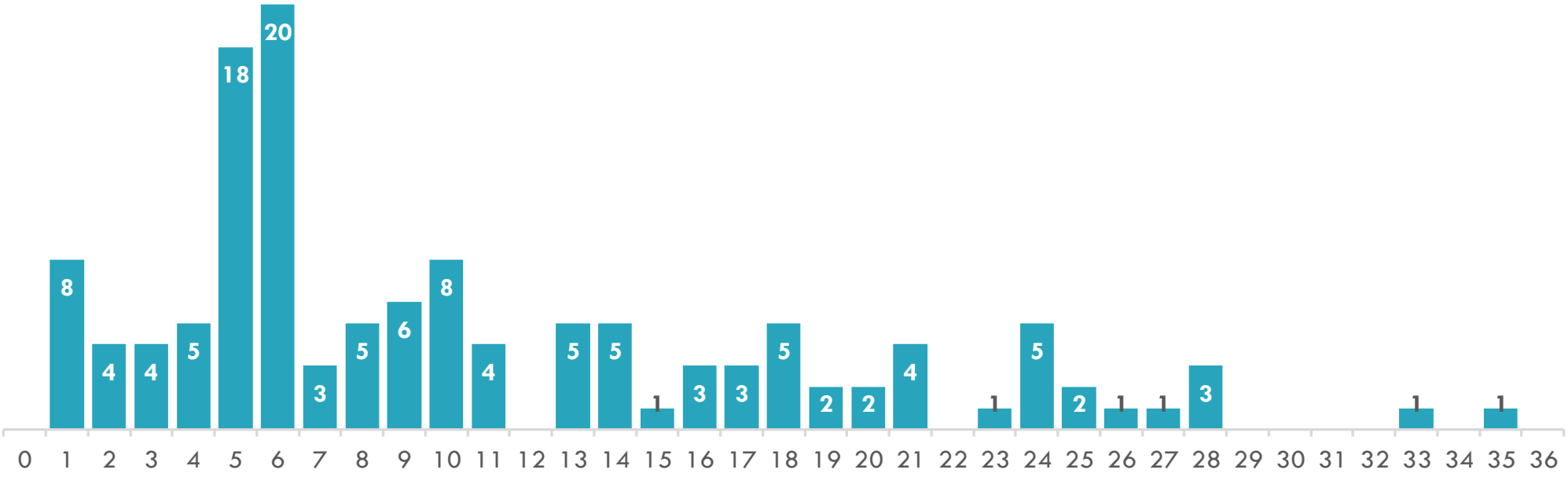
c. Sammamish Police Tenure with KCSO

	Years
Mean	11.1
Median	5.0

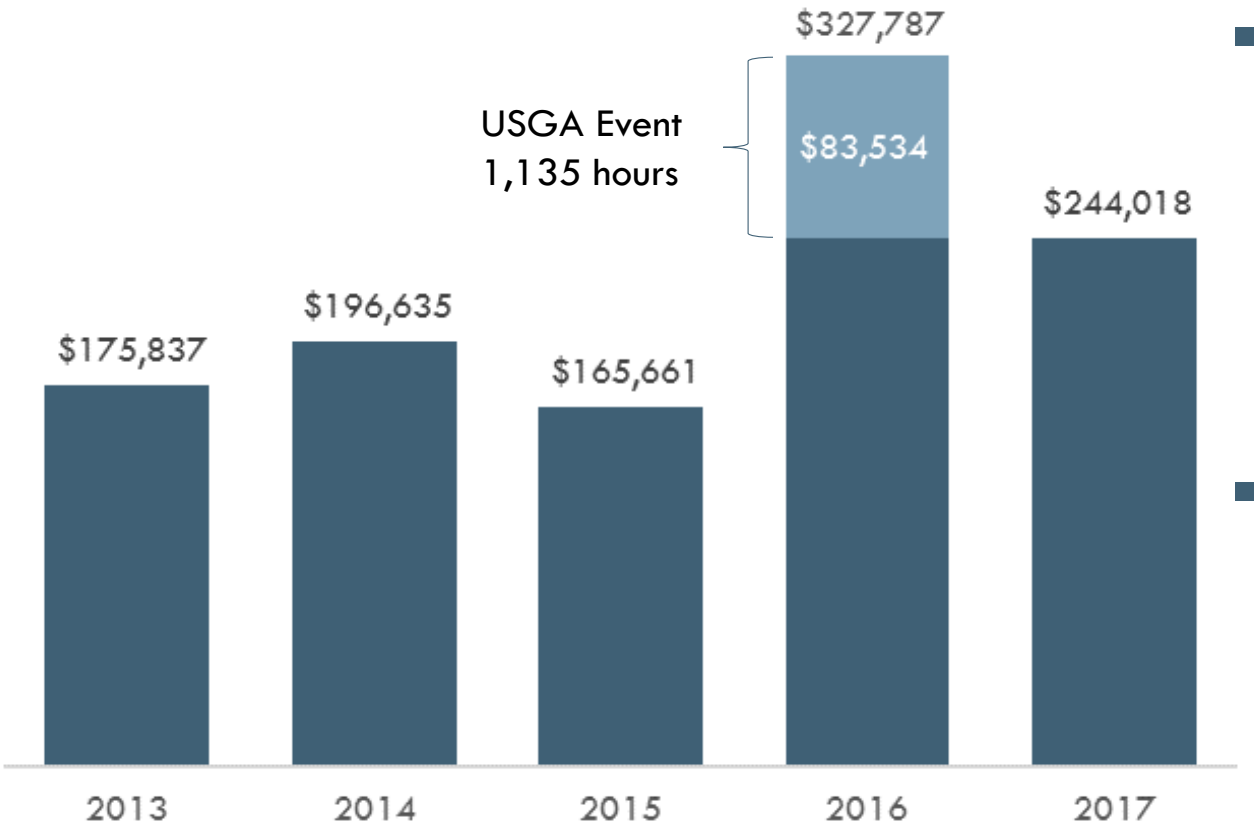


c. Kirkland Police Tenure

	Years
Mean	10.7
Median	8.0

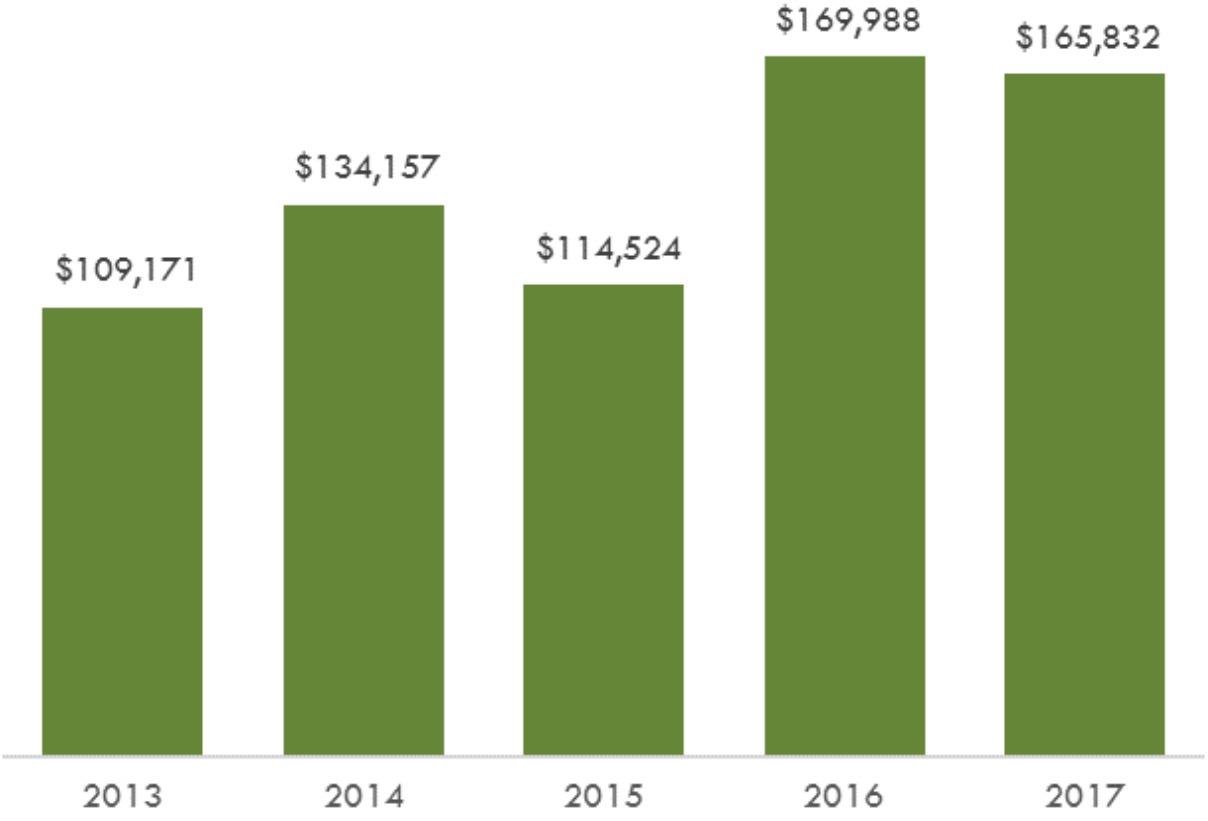


c. Sammamish Overtime Use and Cost



- In addition to the USGA event in 2016, there has been an increase in backfill and distracted driving emphasis that cost
  - $3,820 in 2016
  - $3,619 in 2017
- **Cost of overtime in 2017 is roughly equivalent to 1.5 commissioned FTE. Given shift relief factors, 1 FTE does not equal 1 shift or position.**

c. Sammamish Overtime Use and Cost – Backfill



- Backfill is used to fill shifts when officers are on leave or at training
- Hiring more staff can reduce backfill overtime, but would be more expensive

IV. Future Service Demands and Options Identification

Key Questions to Address in our Next Phase of Work

- How will you staff for future growth and changes in the community?
- How will you provide the policing services desired by the community?
- As the community grows, at what point will you need to make choices? How can you best navigate tradeoffs to provide the level of service the community wants?
  - **Find efficiencies** in current capacity
    - What do you do now that could be done more efficiently?
  - **Reduce community expectations and levels of service**
    - What do you do now that you could do less of, recognizing that the community would like to see *more*?
  - **Increase resources** to match increasing demands and expectations of community
    - Incremental growth in officers, which will trigger a need for additional administrative and oversight capacity
    - Fundamental changes to the current Sammamish staff/patrol model

Strategies to Explore in Phase II

- Increase command capacity and supervision
  - Move to a "Major model", with a second-in-command at the Captain level, increasing capacity to handle reporting and other items that only a command-level officer can do
- Increase administrative capacity
  - Another administrative position (City staff?) to create two distinct administrative roles, one that maintains responsiveness to the community at the front desk and another that serves as the Chief's administrative assistant
- Add capacity to meet growth needs, considering most efficient staffing options
  - Deputies, City staff, or volunteers to increase crime prevention and community policing
  - Community Resource Officer position to maintain and build relationships with the community
  - Limited commission position to handle defendant transports
  - Fourth patrol district as transportation issues continue and to provide more on-call support in case of emergency
  - Consider shared staff with the King County Precinct
- Reduce demands on police
  - Reduce or eliminate house checks, or assign to others rather than commissioned officers
  - Eliminate park closure duties

V. Council Questions and Feedback + Next Steps

Questions and Feedback from Council?

Immediate Next Steps

- Existing Conditions Report by **July 31**

Next Phase of Work

- Options Identification **July to October**
  - To determine recommendations for efficiencies, best use of resources, and alternative staffing models
- Next Council Meeting **September 11**
- Final Report on Police Services by **end of year**

Appendix: Supporting Materials

Virtual Town Hall Feedback – Who Responded

What is your race or ethnicity (choose all that apply)

	Percent	*Count*
White	82%	265
Asian	10%	32
Black or African American	1%	2
American Indian or Alaska Native	0%	0
Native Hawaiian or Pacific Islander	0%	0
Some other race	3%	10
Multiple races	4%	13
Total	**100%**	**322**

Hispanic	**3%**	10

What is your annual household income?

	Percent	*Count*
Under $25,000	1%	3
$25,000 - $50,000	3%	9
$50,001 - $75,000	5%	14
$75,001 - $100,000	8%	24
$100,001 - $150,000	24%	69
$150,001 - $200,000	24%	70
Over $200,000	35%	103
Total	**100%**	**292**

What is your age?

	Percent	*Count*
18-34	6%	22
35-49	35%	118
50-64	37%	126
65-84	22%	75
Total	**100%**	**341**

What is your gender?

	Percent	*Count*
Male	45%	154
Female	54%	183
Prefer not to say	1%	2
Total	**100%**	**339**

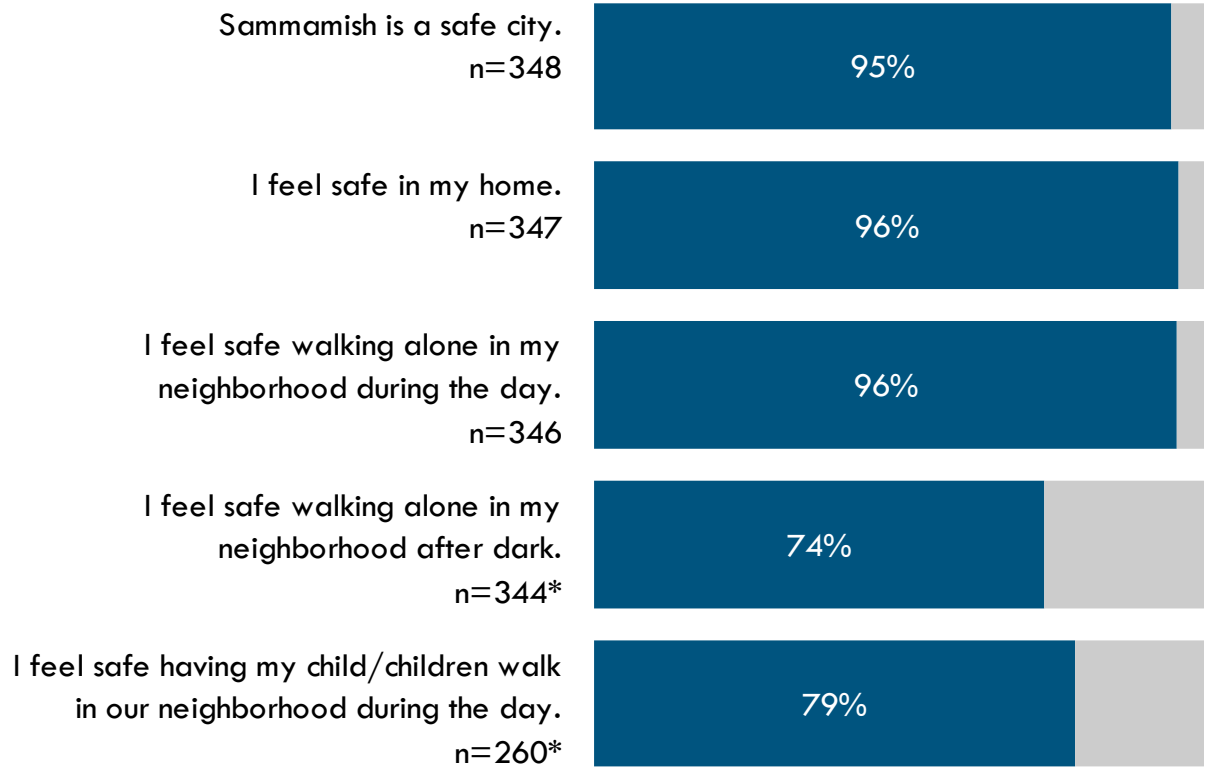
Are you a business owner in the City of Sammamish?

	Percent	*Count*
Yes	9%	30
No	91%	311
Total	**100%**	**341**

*Those reporting 'Does not apply' are not included.

Virtual Town Hall Feedback – Safety

- Residents overwhelmingly feel safe in the City



*Those reporting 'Does not apply' are not included.

"I feel safer in Sammamish than in 95%+ of the US."

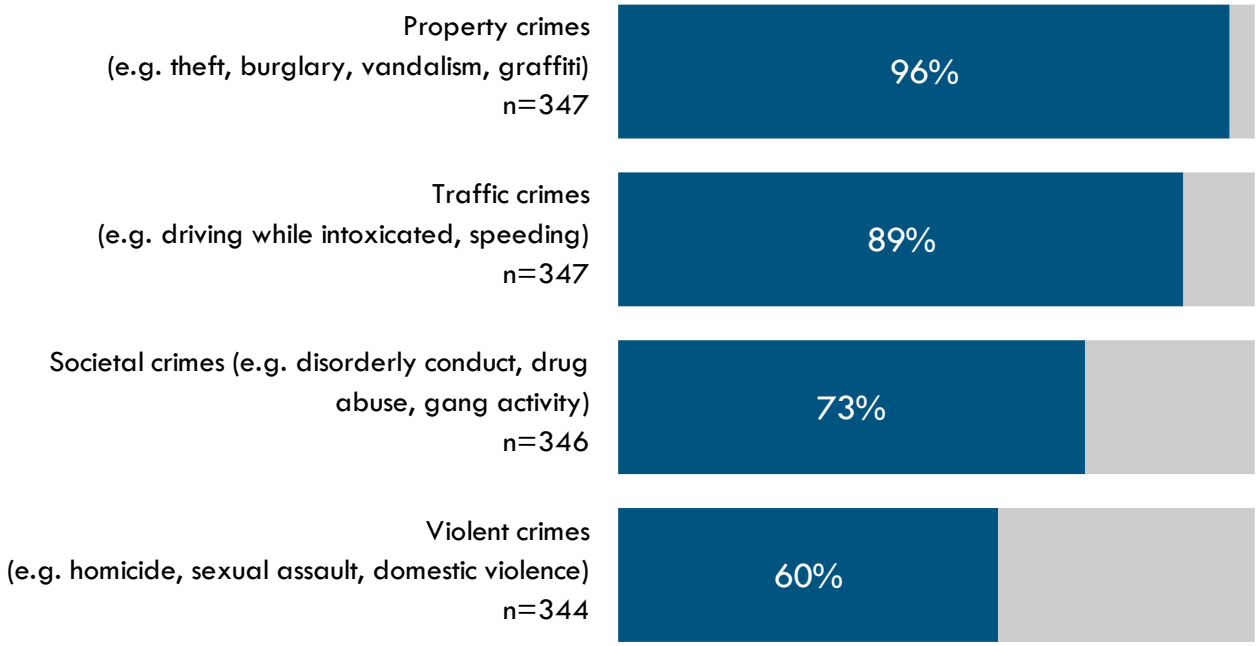
Virtual Town Hall Feedback – Safety

- Residents are most concerned about Property Crimes and Traffic Crimes

"Now that I am so aware of break-ins in Klahanie, I am anxious. I am looking into a security system."

"I purchased an exterior security camera."

"Speeding and cell phone usage while driving is a problem. Traffic around schools during school start end times is a problem and I'd love to see more police visibility during these times."

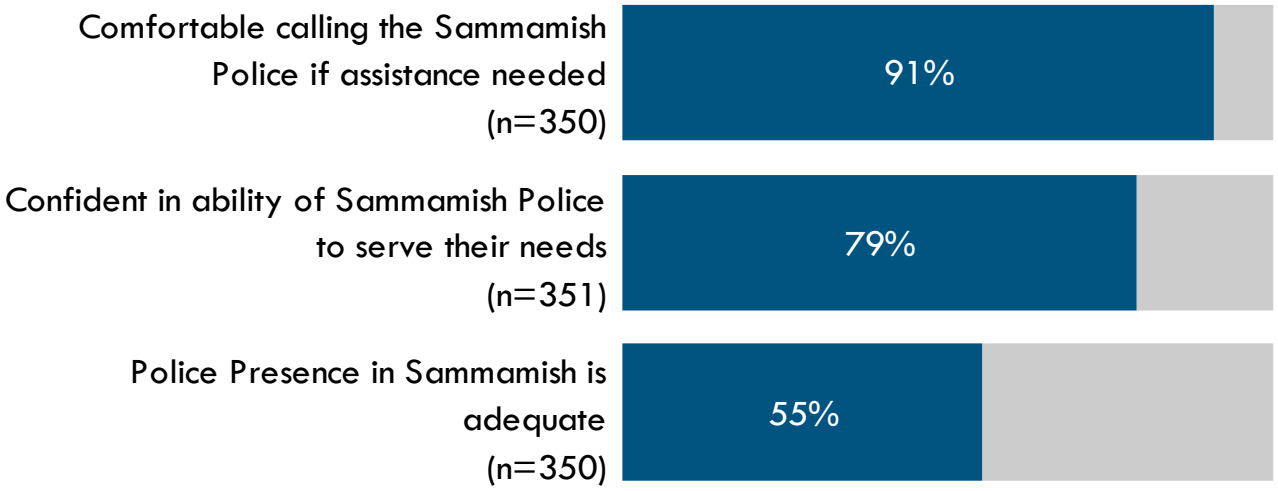


Virtual Town Hall Feedback – Community Perception of Police

- 34% of those surveyed had contact with Sammamish Police over last year
  - Of this, 39% was for non-crime police services

"…very happy with the Sammamish Police. They wave, smile, and acknowledge people in the community. I have witnessed them break up unruly parties without incident. Thank you for the outstanding service."

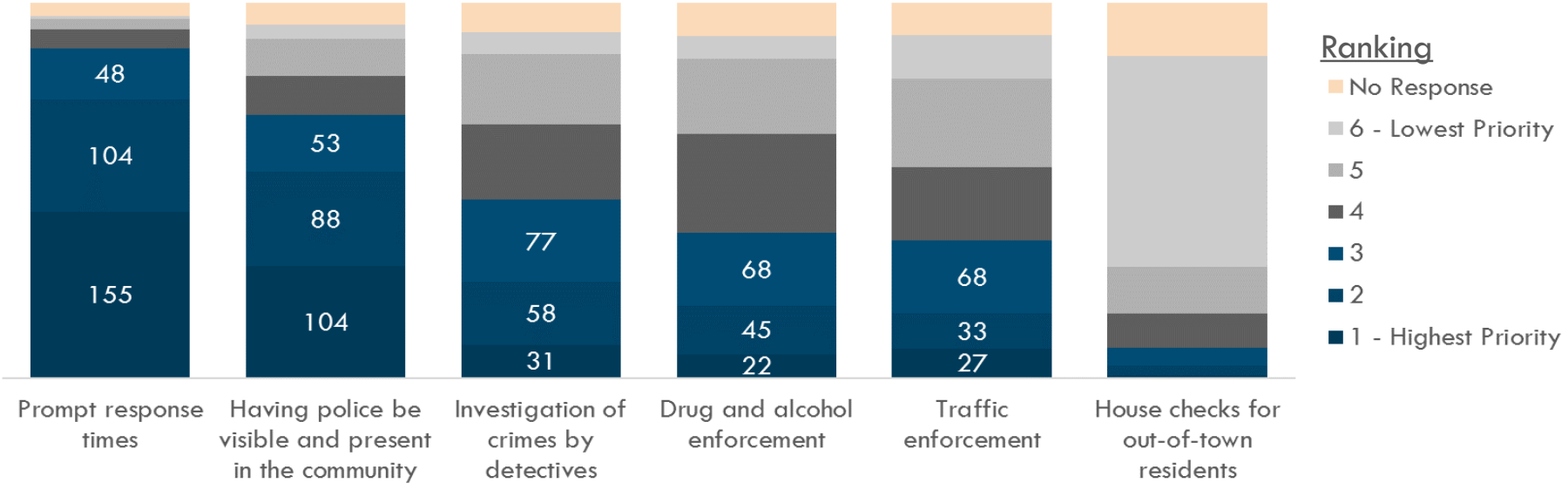
"I moved to the plateau in 1989 and there has been a tremendous improvement with our police force. While I have objections to many ways my tax dollars are spent, our police force is not one of them. My feeling is they do a great job!"



Virtual Town Hall Feedback – Police Services

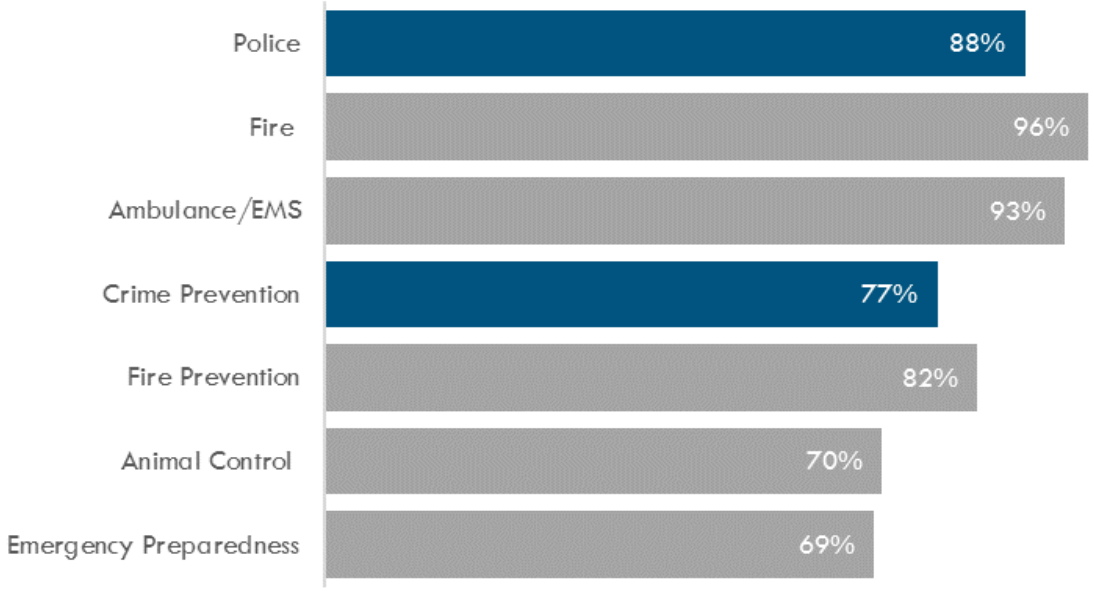
Residents were asked to rank the following police services. Of the 349 responses:

- **Prompt response times** and a **visible and present police force** were ranked the highest
- House checks for out-of-town residents were ranked the lowest



2016 National Citizen Survey – Community Livability Report

Percent of respondents rating safety aspects of government favorably



- All safety services were ranked similarly to national benchmarks
- 'Favorably' is defined as excellent or good

Agenda Bill

City Council Special Meeting
July 10, 2018

SUBJECT:	Discussion: State Lobbyist Selection
DATE SUBMITTED:	June 26, 2018
DEPARTMENT:	City Manager's Office
NEEDED FROM COUNCIL:	☐ Action ☑ Direction ☐ Informational
RECOMMENDATION:	Provide direction on next steps.
EXHIBITS:	1. Exhibit 1 - Proposal from The Arledge Group
BUDGET:	
Total dollar amount	☐ **Approved in budget**
Fund(s)	☐ **Budget reallocation required**
	☐ **No budgetary impact**

WORK PLAN FOCUS AREAS:

☐ Transportation	☐ Community Safety
☐ Communication & Engagement	☐ Community Livability
☑ High Performing Government	☐ Culture & Recreation
☐ Environmental Health & Protection	☐ Financial Sustainability

NEEDED FROM COUNCIL:

Discussion: State Lobbyist Selection

KEY FACTS AND INFORMATION SUMMARY:

Summary

On May 1, 2018, the City Council reviewed and approved the release of an RFP for state lobbying services. Eight proposals were received by the due date, and a staff committee scored each proposal according to the criteria outlined in the RFP. The six top-scoring firms were then interviewed by a panel made up of two staff members and the three Councilmembers of the Legislative Committee (with one substitute). Following discussion, the interview panel determined that, if a lower fee could be achieved, The Arledge Group was the unanimous first choice. Staff subsequently worked with The Arledge Group to negotiate a lower fee than proposed and are in the process of developing a preliminary scope of work.

The intent of tonight's discussion is to brief the full Council on work completed by the interview panel and to confirm direction on next steps. The panel recommends execution of a contract with The Arledge Group for $5,500 per month for a 12-month period. Pending the Council's direction on July 10, staff will work to finalize finalize a contract for approval on July 17. Please see Exhibit 1 for the proposal submitted by The Arledge Group.

Duties of a Lobbyist

The following list includes examples of lobbyist duties:

- Assist in the development of State legislative priorities.
- Represent the City's legislative objectives to the appropriate parties.
- Monitor State legislation and other activities which pertain to the objectives of the City;
- Recommend appropriate action regarding pertinent legislation;
- Identify opportunities for City representatives to testify before legislative committees and subcommittees and communicate such opportunities to the City. Assist in preparation of testimony, and as requested, testify on behalf of the City;
- Attend City meetings to brief City officials on legislative activities;
- Provide reports to the City regarding the status of pertinent legislation;
- Provide support on City efforts and initiatives beyond the legislative session to position the City to advance its objectives.

THE ARLEDGE GROUP

State Legislative Advocacy Services Proposal

City of Sammamish
May 22, 2018

Cody Arledge

The Arledge Group

May 21, 2018

Debbie Beadle
Sr. Executive Assistant, City Manager's Office
801 228th Ave SE
Sammamish, WA 98075

RE: Request for Proposal for State Legislative Advocacy Services - City of Sammamish

Dear Ms. Beadle and the selection team:

Thank you for the opportunity to submit my proposal to provide state legislative advocacy services for the City of Sammamish. I am excited about the prospect of playing a lead role in advocating for the City of Sammamish's legislative priorities in 2018 and beyond. My work on transportation, public transportation-oriented development, the capital budget, and local tax issues has been the most rewarding work of my career.

I am also excited about the City of Sammamish developing positive relationships with Governor Inslee, Speaker of the House Frank Chopp and the future Senate Majority Leader, as well as other legislative leaders. Given the city's leadership, the challenges and opportunities and the leadership we have in Olympia at this time, I believe we can accomplish great things in the coming years.

Executive Summary

The following proposal provides relevant information regarding the methodology, qualifications, expertise, experiences and examples of demonstrated successes for myself and my team member, Jeff DeVere.

We would be honored to work with the City of Sammamish to capitalize on the many strengths of the Council and to help create meaningful and productive relationships in Olympia to further your legislative agenda. Cody Arledge has more than 20 years of legislative and electoral experience including working with clients to design, implement, and manage legislative and political strategies, effectively communicating and advocating complex policy issues and securing funding before the Legislature, as well as state and local government agencies, and negotiating successful resolution of issues. Jeff DeVere has 28 years of state government experience, relationships and successes that have resulted in long-standing trusted relationships with key decision makers in Olympia, as well as with key stakeholders inside and outside Olympia. Both are highly respected for collaborations on a variety of issues across the political spectrum.

Cody Arledge will serve as the lead for advocacy services as the principal of the Arledge Group.

The Arledge Group

Our contact information is:

The Arledge Group
PO Box 815
Olympia, WA 98507
360-359-1238
cody@johnsonarledge.com

Methodology

Cody Arledge will lead the Arledge Group consisting of Cody and Jeff DeVere. Cody and Jeff will work in close collaboration with the City of Sammamish including the Legislative Committee, City Council, City Manager and staff, city partners and will serve as the lead contractor in developing and maintaining relationships between the City, the Governor, State Agency and Legislative Leadership.

Cody and Jeff will lead and support the development and execution of a comprehensive legislative strategy to secure the City's legislative goals in the following areas:

1. Salmon Passage Culvert Improvements;
2. Double Taxation of Annexed Park District Areas;
3. Public Transportation /Development/Options; and
4. Public safety (Police and Fire protection), Parks and Recreation, Public Works, Community Development, and other related issues as identified by the City.

The Arledge Group proposes the following Scope of Services and Duties:

• In-depth development and drafting of legislation, budget provisos, executive orders, agency rules and related amendments as needed on City priorities.

• Assist the City in the ongoing development and execution of political strategy to successfully gain bipartisan support to accomplish the City's legislative goals. Assist the City in development of strategic messaging and talking points to achieve those goals.

• Advocate for the City of Sammamish's positions with the legislative and executive branches of Washington State government and appointed officials to develop support for the City's policy and funding goals, as determined by the City of Sammamish in consultation with the Arledge Group.

• Maintain a strong presence for the City in Olympia and legislative districts during and outside the legislative session.

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Methodology cont.

• Assist the City of Sammamish in relationship development with state government leaders in key agencies where the City will focus its policy and legislative objectives; build and maintain coalitions with business, labor, environment, and other local community groups to build broad support for the City of Sammamish objectives.

• Provide support to the City, including the Mayor, Council, City Manager and Legislative Committee, by identifying key legislation, state programs, and budget issues that impact the City and its policy priorities and providing continuous and consistent monitoring and intelligence-gathering.

• Develop with the City Council and contract team information, data, and stories and disseminate to legislators to inform their understanding of key issues and the City's legislative priorities and provide the Council with necessary information from these interactions.

• Work to build and maintain coalitions and develop relationships with business, labor, human services, and other community groups.

• Provide continued road mapping of legislative targets for City priorities, facilitate legislator meetings with the Mayor, City Manager and City Council throughout session and in the interim.

• Coordinate with the City Council and contract team to prepare for the 2019 legislative session, including analysis and research for 2019 priorities and providing a strategic plan for legislative and coalition engagement to pass 2019 priorities. Coordinate and participate in weekly discussions with the City and lobbying team to prepare for upcoming committee hearings and legislative action on key bills and budget items relevant to City's legislative priorities.

• Identify and track political events and legislation that could impact the City's policy and funding priorities.

• Provide state legislative and state regulatory testimony, and coordinate and assist with City staff, Mayor and City Council participation in legislative committees and meetings on City priorities.

• Assist as needed with activities related to high-priority City of Sammamish special events such as lobby days, delegation meetings and legislative receptions.

• Assist with developing and presenting weekly written reports to the Mayor and City Council that include the top priorities and actions that happened the previous week and that will happen in the coming week.

• Provide a final written report to the Mayor and City Council, summarizing activities and accomplishments at the conclusion of the 2019 legislative session.

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Methodology cont.

• Work during the interim with city staff, legislative committee, and City Council to prepare for the 2019 legislative session. This will include issue analysis, research, and identification for 2019; outlining implementation plans for goals; legislator education; coalition building; and other activities to continue to strengthen outcomes in the issue areas outlined in the final contract agreement.

• Be available to city staff and the council for direct communication and access.

• Comply with all state laws and regulations, including but not limited to lobbyist registration and related filings

Qualifications

Cody Arledge, Principal, The Arledge Group

Cody is exceptionally suited to represent the City of Sammamish's policy priorities. Cody has more than 20 years of legislative and electoral experience working with clients to design, implement, and manage legislative and public policy strategies; effectively communicating and advocating complex policy and funding issues on behalf of clients before the Legislature; and negotiating successful resolution of issues. He has long-standing trusted relationships with key decision makers in leadership in Olympia, as well as with key stakeholders inside and outside Olympia. He is highly respected for his collaborations on a variety of issues across the political spectrum.

For almost two decades, Cody has represented entities before the Legislature to achieve their funding and policy goals. He understands the range of issues the City is facing from providing public safety and emergency services and investing in public health, natural resource and environment concerns to completing critical transportation and utility infrastructure investments for economic growth. Cody has worked with clients to pass critical legislation and funding. His advocacy on behalf of his clients has included human services, homelessness and housing affordability, social safety-net budget priorities, public safety, land use and environment, capital budget and transportation issues. He has served as lead on relationships between his clients, the Governor, the Speaker and the Senate Majority Leader. Cody also sits at numerous land use, climate change and environment, transportation, and affordable housing advocacy coalition tables.

Cody Arledge has one of the most successful political and legislative track records because of his knowledge and commitment to the issues, his talent for creating and implementing successful short and long term strategic plans, his ability to build coalitions and mediate difficult issues and his strong relationships with legislators, staff, agency directors and the advocacy community. In addition to his policy work, Cody's engagement in countless political, community

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Qualifications cont.

and initiative campaigns has made him one of the most highly respected and sought after political strategists in Washington State.

For his clients, Cody plays a critical role in developing annual and bi-annual legislative agendas, crafting and implementing legislative and political strategies, and participating in regular weekly update and strategy sessions. He understands the issues the City of Sammamish faces to enhance services to the community. See Attachment – Cody Arledge Resume

Jeff DeVere

Jeff has over 28 years of experience working in state government at the operational, management and executive levels. From 1990-2015, he worked for the Washington State Patrol in multiple capacities. As the Director of Government and Media Relations, Jeff served as the liaison to legislators, local governments, industry groups and the media. Jeff coordinated the agency's legislative priorities and agendas, researched and drafted legislation, advocated for agency priorities to both support and stop legislation, presented agency request legislative proposals at committee hearings and assisted legislators in developing several policy initiatives. He developed successful working relationships with state legislators and staff, county and city governments, the media, public and private stakeholders, and various citizen organizations to collaborate in solving issues to enhance public safety and the services the state patrol provides to Washington State Citizens. Jeff led driving safety education campaign efforts, oversaw Washington Administrative Code maintenance and revision processes, and worked with multiple groups to build consensus and practical solutions to many issues such as Driving Under the Influence, occupant protection, transportation infrastructure design safety and cellular phone use. His successful efforts at the Washington State Patrol resulted in significant changes in the State regulation of trucking companies, which became a national model trucking safety program that reduced costs for the industry.

After retiring from the Washington State Patrol, Jeff served as the Deputy Assistant Director, co-managing the workers' compensation program, at the Washington State Department of Labor and Industries. He developed comprehensive knowledge of the impact worker injuries can have on public and private entity budgets and helped many groups improve their worker safety and subsequent costs.

More recently, Jeff served as the Deputy Director at the Washington State Department of Licensing. At both the Department of Labor and Industries and the Department of Licensing, Jeff negotiated changes to long-standing agency practices that provided benefits for businesses, stakeholders and citizens. As the Licensing Deputy Director, Jeff oversaw the agency legislative priorities to include the successful passage of the REAL ID Act, agency rule-making and budget development proposals. Jeff also managed the day to day operations of the agency, providing licensing for over seven million vehicles, over six million drivers, and 44 professions. Jeff has

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Qualifications cont.

extensive organizational management, leadership, and strategic planning skills that he has used to successfully improve performance and results everywhere he has been.

As a result of Jeff's unique and varied agency experiences, Jeff has developed strong working relationships with leaders across multiple state, county and local agencies, as well with various industry groups. Jeff has built and maintained a reputation of integrity and hard work. He has a thorough understanding of state government, the legislative process, and the methods to navigate process and procedures to assist clients attain their objectives. See Attachment- Jeff DeVere Resume

Experience

a. Outcomes

Cody Arledge currently represents the Cities of Seattle and Tumwater. Critical outcomes, which he has helped to advance include Washington State's largest ever transportation package in 2015 – a $16 billion package which also provided $54 billion for expansion of light rail, critical affordable housing and transit oriented development policies, significant funding in the capital budget for the Housing Trust Fund and Homeless Innovation Center. Cody played a crucial role in developing legislative agendas for clients, crafting legislative and political strategy, and providing weekly legislative updates. Cody has an in-depth knowledge of local government policy priorities and has been instrumental in crafting successful legislative and political strategies including successful efforts to obtain millions in funding for badly needed infrastructure and transportation improvements for cities the last two biennium.

In addition to the cities of Seattle and Tumwater, Cody has represented clients in the legislature on issues of transportation, infrastructure, public safety, climate change, energy, environment and land use, including Futurewise, Transportation Choices Coalition, Samish Indian Nation, and the Alliance for Gun Responsibility.

Jeff DeVere oversaw the development and implementation of the Department of Licensing's legislative priorities and agenda in 2016, 2017, and 2018, which included the request and successful passage of the REAL ID Act in 2017. Since 2005, Washington State has not gained compliance with federal identification requirements to board commercial aircraft and enter military facilities. The passage of this legislation was critical to provide residents of Washington access to commercial aircraft utilizing state identification before the 2020 federal deadline. Since passage of the REAL ID act Jeff oversaw the project implementation, which included agency rule-making, budget development proposals and appropriations to implement and gain Department of Homeland Security Certification.

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Experience cont.

Jeff has also been successful in the planning, budget acquisition and implementation of large Information Technology projects at the Department of Licensing. Over the last four years, the Department of Licensing has developed requirements, obtained Governor's office support, and legislative appropriations of nearly $90 million for technology modernization projects to replace aged vehicle, professional licensing and driver licensing systems. In 2016, both the vehicle system responsible for licensing over six million vehicles and the professional licensing system were successfully implemented on-time and under budget. Jeff oversaw the projects, reporting and accountability requirements and the implementation of these systems that nearly every resident in Washington State utilizes.

References

Cody Arledge

City of Seattle
Lily Wilson-Codega, Director
Office of Intergovernmental Relations
Lily.wilson-codega@seattle.gov
206-255-8707

City of Tumwater
John Doan, City Manager
jdoan@ci.tumwater.wa.us
360-754-4120

Hilary Franz, Commissioner of Public Lands
Washington State Department of Natural Resources
Hilary@hilaryfranz.com
206-734-9729

Jeff DeVere

Janice Lucero, President and CEO
MVD Express
(505) 259-6793
janice@mvdexpress.com

The Arledge Group

References cont.

Sheri Call, Executive Vice President
Washington Trucking Associations
(253)-838-1650
sheri@watrucking.org

Mayor Steve Peterson
City of Liberty Lake, Washington
(509)990-0509
speterson@libertylakewa.gov

Chief John R. Batiste
Washington State Patrol
(360) 951-3314
John.Batiste@wsp.wa.gov

Jennifer Ziegler, Principal
Jennifer Ziegler Public Affairs, former Senior Transportation Policy Advisor to Governor Gregoire
(360) 280-0082
Jennifer@Zieglergov.com

Client List

Cody Arledge

City of Tumwater

City of Seattle

Washington State Convention Center

Amalgamated Transit Union Legislative Council

Cypress Creek Renewables

Futurewise

Renewable Northwest

Samish Indian Nation

Transportation Choices Coalition

United Food & Commercial Workers Local #21

Washington State Data Center Competitiveness Coalition

The Arledge Group

Client List cont.

Jeff DeVere

City of Liberty Lake (Contract Pending)

MVD Express (Consulting)

Washington Trucking Association (Consulting)

Pricing

The Arledge Group is very eager to partner with the City of Sammamish. We propose an 18 - month contract, beginning on July 1, 2018 with a $6840 monthly retainer.

CODY ARLEDGE

P.O. Box 815, Olympia, Washington 98507 • (360) 359-1238 • Cody@johnsonarledge.com

PROFESSIONAL EXPERIENCE

Johnson Arledge Strategies **Olympia, WA**
Principal January 2010-present

- Works closely with clients to develop policy priorities and effective political and legislative strategy.
- Advocates for clients' positions with elected officials, staff and coalition partners at all stages, from policy development to law passage and administrative rulemaking.
- Facilitates effective relationships between clients and elected officials, staff and other interested stakeholders.
- Clients include the City of Seattle, Transportation Choices Coalition, United Food & Commercial Workers Local 21, the Washington State Democratic Party and the Washington Alliance for Gun Responsibility.

Sheet Metal Workers, Local 66, AFL-CIO **Olympia, WA**
Director of Governmental Affairs September 2007-present

- Leads all aspects of state and federal legislative program, including legislative agenda development, political endorsements and coordinating member involvement in the legislative and political process.
- Works closely with the environmental, labor and business communities to develop support for common goals, like the $1.8 Billion 2012 Jobs Now package, capital budget priorities, transportation and overall job creation.
- Advises the executive board on the most effective ways to engage in the political process, including endorsements and member engagement with their local, state and federal elected officials.

Washington House of Representatives **Olympia, WA**
Democratic Caucus Staff December 2006-August 2007

- Engaged with a broad array of stakeholders to develop Caucus legislative priorities.
- Policy research, analysis and development for the Judiciary committee.
- Provided technical and strategic advice to stakeholders and Caucus leadership.

Washington State Council of Firefighters, **Olympia, WA**
Director of Government Relations January 1997-January 2002

- Developed legislative agenda and strategy in conjunction with the membership and executive board.
- Coordinated lobbying efforts at local, state and federal levels.
- Developed and implemented political action program at the state and local levels including: training, grass roots lobbying program; endorsement process and PAC development and fund distribution.
- Negotiated contracts with Fire District Commissioners as part of Executive Board member duties.

City of Tumwater Fire Department **Tumwater, WA**
Captain October 1986-October 2002

- Command officer, including emergency incident command.
- Respond to all types of fire and medical emergency calls.
- Oversee training of firefighters and paramedics.

EDUCATION

The Evergreen State College, Olympia, WA **2006-2009**

JEFF DEVERE

6723 Prairie Ridge Drive Northeast, Olympia, Washington 98516 ◆ (360) 250-9627 ◆ Jeff@DeVeregov.com

PROFESSIONAL PROFILE

Government Affairs professional with 28 years of state agency and legislative experience. Skilled at advancing legislative interests on politically sensitive matters, organizational and media communications, and strategic leadership. Excellent communication and people skills, thorough understanding of government processes, and a proven aptitude to analyze and translate complex issues to negotiate and realize effective solutions. Effective project management and oversight of large technology modernization improvements including statewide licensing systems.

PROFESSIONAL EXPERIENCE

DE VERE PUBLIC AFFAIRS AND CONSULTING
Owner | January 2018 to present

- Provide public affairs services in legislative advocacy, government relations, consulting and strategic communications. Clients include MVD Express, Washington Trucking Association.

WASHINGTON STATE DEPARTMENT OF LICENSING
Deputy Director | May 2016 to Jan 2018

- Strategic and operational leadership of Washington's second largest revenue collecting agency, overseeing the collection of over $2.9 billion in taxes and fees annually, policy development and the licensing of 7 million vehicles, 6 million driver licenses, and 44 profession licenses each year.
- Directed the development and implementation of legislative agendas, coordination with governor's office, state agencies and stakeholders and the coordinated response to issues by DOL programs.
- Provided strategic and day-to-day leadership in the successful implementation of driver's license card issuance and vehicle license system technology modernization projects.
- Worked extensively with County auditors and vehicle licensing sub- contractors who served as agents of the state providing vehicle licensing services and revenue collection. Built and maintained productive relationships and communication strategies resulting in effective program and fiscal policies benefitting county and state government.
- Executive sponsor in the compliance with United States Department of Justice and Department of Transportation expectations regarding language service access for licensing customers, implementation of REAL ID to include the passage of necessary legislation and substantial statewide customer wait time reductions at Driver Licensing Offices.

WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES
Deputy Assistant Director | Feb 2015 to May 2016

- Co-managed the nation's sixth largest worker's compensation insurance program providing insurance for over 2.4 million workers and 166,000 employers, which realized $515 million in system savings in 2015 to Washington State Employers and employees.
- Served on the agency leadership team partnering with other executives to solve problems and set agency strategic direction.
- Improved agency performance to comply with Department of Justice and Department of Labor agreements regarding access to services for injured workers with limited English proficiency.

WASHINGTON STATE PATROL
Assignments from 2004 -2015 listed | 1990 to 2015

Government and Media Relations Commander

- Liaison to legislators, governor's office, local governments, industry groups, citizen/community groups and the media.

- Developed and implemented the legislative agenda for the Washington State Patrol (WSP) on a range of issues including traffic safety issues such as impaired driving and vehicle collisions, Crime Lab services, Commercial Vehicle safety program improvements, and Fire Marshall services. Coordinated the legislative activities of the WSP, which included monitoring and tracking legislation pertaining to multiple topics, including transportation, public safety, and general government. Improved relationships with the governor's office and the Legislature, which led to increased budget allotments and employee resources contributing to increased public safety.
- Coordinated agency community and media communications program. Represented the agency to media for crisis situations and directed the assistance and training to agency personnel responsible for publishing agency media releases and answering media inquiries.
- Implemented communication strategies and public education campaigns to gain public support and compliance with safety initiatives such as seat belt usage, commercial vehicle safety, and the reduction of impaired driving.

Human Resources Division Commander

- Directed agency human resource staff, management strategy, and divisional operational plan to meet the legal, operational, and customer satisfaction requirements for a public agency of over 2,100 employees in diverse classifications.
- Oversaw all aspects of personnel recruitment, polygraph, and background investigations, medical and pre-hire psychological examinations.
- Instituted safety and medical review process leading to a 50% reduction in work days lost across the agency.
- Department of Retirement Systems Retirement Advisory Committee member.

Field Operations District (Regional) Commander

- Managed all logistical and operational functions, and more than 120 commissioned (Troopers) and support personnel assigned within Pierce and Thurston counties.
- Collaborated with district staff, peer commanders, other public agencies, private organizations citizens, and stakeholders, to achieve increased public safety.
- Provided leadership and critical incident management for two incidents involving officers killed in the line of duty.

AWARDS

- ***2015 GOVERNOR'S DISTINGUISHED MANAGER AWARD RECIPIENT*** **-** Annual award that recognizes managers in state government who demonstrate extraordinary leadership through performance results in the previous year. Elected and served as Secretary/Treasurer for 2015 and 2016

EDUCATION

Federal Bureau of Investigation National Academy
Graduate level courses certified by the University of Virginia
Leadership and Police Management Graduate, 2008.

Central Washington University
Ellensburg, Washington
Bachelor of Science, Finance, 1989

MEMBERSHIPS AND RELATED ACTIVITIES

Board Member, WSDOT Memorial Foundation
Member, Washington Highway Users Federation
Member, Federal Bureau of Investigation National Academy Associates
Member, Governor's Distinguished Manager's Association

WORK SAMPLES FOLLOW

TheArledgeGroup

Arledge Group
2018 Washington State Legislature Update
City of Tumwater
February 17, 2018

Week of February 12 to 16 Highlights & February 19 to 23 Updates

There remain only three weeks left in the 2018 regular legislative session until its scheduled sine die on March 8. February 14 was the last day for chambers of origin to pass their own bills off the floor in order to proceed to the opposite chamber for consideration. The next cut off date is policy committee cutoff for the opposite chamber on February 23. This is the last day for policy committees to pass out bills from the opposite house. The fiscal committee cutoff for bills from the opposite house is February 26.

It is important to keep in mind that any bill deemed NTIB (necessary to implement the budget) can be exempt from these cut off deadlines. It is also important to note that "dead" bills can be brought back to life through either extraordinary procedural maneuvers or creative amendments on other bills moving through the process.

Below is a summary of the highlights from this week and events for next week.

Budget

Revenue Forecast Higher

On February 15 the state's economic and revenue forecast was released by the Washington State Economic and Revenue Forecast Council. The forecast showed a significant boost from projections. Combined with forecast changes in other revenue sources, the total general fund-state (GF-S) forecast increase for the current biennium is $647 million. The increase for the 2019-21 biennium is $671 million.

The positive news from the revenue forecast quickly turned to conversations regarding the best use for this revenue. House Majority Leader Pat Sullivan (D-Covington) stated House Democrats would release a plan to lower property tax rates. Senate Ways & Means Chair Christine Rolfes (D-Bainbridge Island) released this statement that the revenue will allow for property tax reduction in the supplemental budget plan released on Monday, February 19.

Supplemental Budgets To Be Released

During this short session, adjustments made to the enacted 2017-19 biennium operating, transportation and capital budgets are done through supplemental budgets. Next week the supplemental budgets will be released. The Senate proposals will come out first on February 19 followed by the House.

New Revenue

There are still several new revenue sources being considered this session, including the below legislation.

Carbon Emissions Tax

This week, former US Secretary of State John Kerry was in Olympia to provide support for Governor Inslee's requested carbon tax bill, SSB 6203. This bill would impose a new tax of $12 per metric ton of carbon emissions beginning in July 2019. In 2021 the tax would increase $1.80 per ton each year until capped at $30 a ton. The bill received a public hearing in Senate Ways & Means on February 15.

Capital Gains Tax

Capital gains tax legislation HB 2967 had a public hearing on February 16 and is scheduled for an executive session on February 19 in the House Finance Committee. The legislation imposes a 7% tax on long-term capital gains. It also funds a reduction in the state's property tax levy and the senior citizen, disabled persons, and qualifying veterans property tax exemption.

Business & Labor

B&O Tax Relief for Rural Manufacturers

HB 2947 plans to provide business & occupation tax relief for rural manufacturers. The bill will have a public hearing on February 16 with executive session planned for February 19 in the House Finance Committee. The bill provides a preferential B&O tax rate for eligible manufacturers that would begin in January 2020.

Fair Chance Act

The "Fair Chance Act" (2SHB 1298) will have a February 19 public hearing and February 21 executive session in the Senate Labor & Commerce Committee. This bill prohibits employers from asking about a job applicant's prior criminal background until the employer has established the applicant is otherwise qualified for the position. Exemptions, such as for law enforcement and work with children, are included.

Sexual Harassment & Assault Prevention

SSB 5996 is designed to reduce sexual harassment and sexual assault in the workplace. It had a public hearing on February 15 and executive action is scheduled for February 22 in the House Committee on Labor & Workplace Standards. In the same committee SB 6471, which is designed to improve the workplace by developing model policies and best practices to prevent sexual harassment, had a February 15 public hearing and is scheduled for executive action on February 20. SSB 6313 would prevent employee contracts that limit an employee's right to file a sexual harassment action. It unanimously passed the Senate on February 14. It has a public hearing on February and executive session on February 22 in the House Labor & Workplace Standards Committee. EHB 2759, which establishes a Women's Commission, passed the House on February 13 with a 65-33 vote. It has a public hearing on February 19 and executive session on February 21 in the House State Government, Tribal Relations & Elections Committee.

Transportation

Transportation Benefit Districts

There was a February 15 public hearing in the Senate Local Government Committee on HB 1606. The bill would require transportation benefit districts to hold a public hearing prior to imposing fees or charges by a vote of the governing board. Also impacting transportation, a recent federal budget proposal would eliminate federal funding for planned Washington State transit lines. As noted in this *Seattle Times* article, eight transit projects in the state would lose funding under the proposal.

Autonomous Vehicle Work Group

SHB 2970, establishing an autonomous vehicle work group, passed the House (96-2) on February 14 and has a February 19 public hearing in the Senate Transportation Committee.

Elections

Voting Rights Act legislation (ESSB 6002) was passed out of the House State Government, Elections & Information Technology Committee on February 15. This bill creates a state Voting Rights Act to protect the equal opportunity for minority groups to participate in local elections. It also creates a cause of action and authorizes courts to order appropriate remedies for a violation of the Act, including redistricting. Finally, it authorizes local governments to change their election systems to remedy violations of the Act.

Environment

The House passed (50-48) greenhouse gas emission reduction legislation E3SHB 1144 on February 14. This legislation requires the state's Department of Ecology and Department of Commerce to provide a per capita and greenhouse gas emissions report to the governor and legislators. Among other things, the bill requires the calculation of greenhouse gas emissions from wildfires in Washington State. It has a February 21 public hearing in the Senate Energy, Environment, & Technology Committee.

Health Care

Reproductive Health Care

SSB 6219 was passed out of the House Committee on Health Care & Wellness on February 16. This legislation requires health carriers to cover contraceptives without cost-sharing. It also requires health plans that cover maternity care to cover voluntary termination of a pregnancy. SSB 6102, enacting the Employee Reproductive Choice Act, was passed by the Senate with a vote of 26-21 (2 excused) on February 12 and has a February 22 public hearing followed by an executive session in the House Judiciary Committee. This legislation makes it an unfair practice for an employer to not provide employees contraceptive coverage at no cost to the employees. It also makes it an unfair practice for an employer not regulated by the state due to federal preemption to not comply with Affordable Care Act and federal rules on barrier-free access to contraceptive coverage.

Rural Health Care Access

The House unanimously passed ESHB 2408 on February 14 and it has a February 19 public hearing in the Senate Health & Long Term Care Committee. This legislation requires for plan years beginning in January 2020, a health carrier offering a health plan approved by the School Employees Board to offer a qualified health plan in counties where no qualified health plans are offered on the Health Benefit Exchange. It also allows an individual until December 2019 to purchase a health plan outside of his or her county of residence, but within same geographic rating area, under certain circumstances.

Drug Take Back Program

ESHB 1047 creates a system for safe and secure collection and disposal of unwanted medications. The bill has a public hearing on February 19 in the Senate Health & Long Term Care Committee.

Health Benefit Exchange

On February 12 the House passed SHB 2516 with a 58-40 vote. It was referred to the Senate Health & Long Term Care Committee and has a public hearing scheduled for February 20. Among other things, this

legislation removes all references to the Affordable Care Act found in the Health Benefit Exchange (Exchange) statutes. It also allows an assessment on insurers that is imposed only if the funds are insufficient to fund Exchange operations for the following calendar year, to include three months of additional operating costs.

Law & Justice

Legal Financial Obligations

E2SHB 1783 was passed out of the Senate Law & Justice Committee on February 15. The intent of the legal financial obligations bill is to prioritize victim restitution and give judges the ability to reduce or waive other fees and fines if a defendant is found to be indigent at the time of sentencing.

Eliminating the Death Penalty

On February 14, the Senate passed SB 6052 to eliminate the death penalty with a vote of 26-22 (1 excused). The bill replaces the death penalty with life imprisonment without possibility of release or parole as the sentence for aggravated first-degree murder. It is now in the House Judiciary Committee and has a public hearing on February 20 and executive sessions on February 22.

Tribal

Fuel Compacts

Fuel compact legislation SHB 1063 was passed with a vote of 52-46 on February 13. It has a February 19 public hearing in the Senate Transportation Committee. Among other things, this bill allows the Department of Licensing to enter into fuel tax agreements with certain federally recognized tribes with lands held in trust.

Tribal Compact Schools

On February 13, the Senate passed (44-3, 2 excused) SSB 6474. It has a February 19 public hearing in the House Education Committee. This bill creates a pilot project for tribal compact schools. Among other things, the pilot would explore and implement accommodating cultural and agricultural events.

City of Tumwater

Upcoming Legislative Events

Human Services & Corrections (Senate) - SHR 2, JACB - 2/19 @ 1:30pm

- E2SHB 1570 - Public Hearing - Concerning access to homeless housing and assistance.

Bill #	Status	Sponsor	Priority	Position
SHB 1067 (ESSB 5048)	H Approps	Ormsby	Monitoring	Neutral
2SHB 1075 (ESSB 5086)	H Rules X	Tharinger	Monitoring	Neutral
SHB 1147	H Trans	Clibborn	Monitoring	Neutral

(ESB 5096)				
SHB 1410 (ESB 5288)	H Rules R	Doglio	Medium	Support
E2SHB 1570	S Human Svcs/Corr	Macri	Medium	Support
HB 2655 (SB 6286)	H Approps	Dolan	Monitoring	Neutral
SHB 2665 (SSB 6312)	H Rules R	Macri	Monitoring	Neutral
HB 2955	H Commerce & Gam	Springer	Monitoring	Neutral
ESSB 5048 (SHB 1067)	S Rules X	Braun	Monitoring	Neutral
ESSB 5086 (2SHB 1075)	S Rules X	Honeyford	Monitoring	Neutral
SB 6286 (HB 2655)	S Ways & Means	Braun	Monitoring	Neutral
SSB 6312 (SHB 2665)	S Rules 2	Hunt	Monitoring	Neutral

Legislative Tracking Information

Support

Bill Details		Status	Sponsor	Priority
SHB 1410 (ESB 5288)	**Trans. benefit tax increase** Authorizing certain public transportation benefit areas to impose a sales and use tax increase approved by voters. *Sponsors:* Doglio (Prime), Dolan, Farrell, Fey, Fitzgibbon, Jinkins, Pollet, Springer *Summary:*	H Rules R	Doglio	Medium
E2SHB 1570	**Homeless housing & assist.** Concerning access to homeless housing and assistance. *Sponsors:* Macri (Prime), Appleton, Bergquist, Chapman, Clibborn, Cody, Doglio, Dolan, Farrell, Fey, Fitzgibbon, Frame, Goodman, Gregerson, Hudgins, Jinkins, Kagi, Kloba, McBride, Ormsby, Ortiz-Self, Orwall, Peterson, Pettigrew, Pollet, Riccelli, Robinson, Ryu, Sawyer, Senn, Slatter, Stanford, Stonier, Tarleton, Tharinger *Summary:* HB 1570-S2 - DIGEST Establishes the Washington housing opportunities act. Improves resources available to aid with increasing access and removing barriers to housing for individuals and families in the state. Increases the surcharge for local homeless housing and assistance. Requires the department of commerce to: (1) In collaboration with the state institute for public policy, conduct a statewide homeless study every ten years to better understand the causes and characteristics of the homeless in the state and help decision makers promote efforts toward housing stability; (2) Coordinate its efforts on the state homeless housing strategic plan with the office of homeless youth prevention and protection programs advisory committee; and (3) Provide an update on the state's homeless housing strategic plan and its activities for the prior fiscal year.	S Human Svcs/Corr	Macri	Medium

Oppose

No bills.

Neutral

Bill Details		Status	Sponsor	Priority
SHB 1067 (ESSB 5048)	**Operating budget** Making operating appropriations for the 2015-2017 and 2017-2019 fiscal biennia. *Sponsors:* Ormsby (Prime), Jinkins *Summary:* Makes operating appropriations for the 2015-2017 and 2017-2019 fiscal biennia.	H Approps	Ormsby	Monitoring
2SHB 1075 (ESSB 5086)	**Capital budget 2017-2019** Concerning the capital budget. *Sponsors:* Tharinger (Prime) *Summary:* Makes appropriations and authorizes expenditures for capital improvements.	H Rules X	Tharinger	Monitoring
SHB 1147 (ESB 5096)	**Transport. budget 2017-2019** Making transportation appropriations for the 2017-2019 fiscal biennium. *Sponsors:* Clibborn (Prime), Farrell, Fey, Wylie *Summary:* Makes transportation appropriations for the 2017-2019 fiscal biennium.	H Trans	Clibborn	Monitoring
HB 2655 (SB 6286)	**SEBB board membership** Adding members to the school employees' benefits board. *Sponsors:* Dolan (Prime), Harris, Kilduff, Robinson, Santos *Summary:* Changes the composition of the school employees' benefits board.	H Approps	Dolan	Monitoring
SHB 2665 (SSB 6312)	**Unincorp. island annexation** Eliminating certain requirements for the annexation of an unincorporated island of territory. *Sponsors:* Macri (Prime), Appleton *Summary:*	H Rules R	Macri	Monitoring
HB 2955	**Craft distillers prod. cap** Removing the production cap on craft distillers. *Sponsors:* Springer (Prime), Condotta *Summary:* Modifies craft distiller provisions by removing the production cap on distillers.	H Commerce & Gam	Springer	Monitoring
ESSB 5048	**Operating budget**	S Rules X	Braun	Monitoring

(SHB 1067)	Making operating appropriations for the 2015-2017 and 2017-2019 fiscal biennia. *Sponsors:* Braun (Prime), Ranker *Summary:* Makes operating appropriations for the 2015-2017 and 2017-2019 fiscal biennia.			
ESSB 5086 **(2SHB 1075)**	**Capital budget 2017-2019** Concerning the capital budget. *Sponsors:* Honeyford (Prime), Frockt *Summary:* Addresses the capital budget to fund capital projects.	S Rules X	Honeyford	Monitoring
SB 6286 **(HB 2655)**	**SEBB board membership** Adding members to the school employees' benefits board. *Sponsors:* Braun (Prime), Rolfes, Wellman, Zeiger *Summary:* Changes the composition of the school employees' benefits board.	S Ways & Means	Braun	Monitoring
SSB 6312 **(SHB 2665)**	**Unincorp. island annexation** Eliminating certain requirements for the annexation of an unincorporated island of territory. *Sponsors:* Hunt (Prime) *Summary:* Eliminates certain requirements for the annexation of an unincorporated island of territory.	S Rules 2	Hunt	Monitoring

Concerns

No bills.

TheArledgeGroup

Arledge Group
2018 Washington State Legislature Update
City of Tumwater
March 12, 2018

Week of March 5 to 8 Sine Die Report

On March 8, legislators were successful in ending the 60-day Washington State legislative session on time. This is the first session to end on its scheduled sine die, without needing at least one special session, since the 2014 session. Over 300 bills were passed out of the over 1,400 bills introduced this session. The primary focus during the last week of the 2018 legislative session was on finishing supplemental budget negotiations.

Below is a summary of the highlights from this week.

Supplemental Budgets

Final negotiations regarding the 2018 supplemental operating, capital and transportation budgets for the 2017-19 biennium were wrapped up the last few days of session.

2018 Supplemental Operating Budget

The adopted 2018 supplemental operating budget (ESSB 6032) relies upon an anticipated $1.3 billion in projected new revenue combined with $700 million from state reserves. The budget increases 2017-19 biennium appropriations by $941 million, as explained in this Washington Research Council blog. It fully funds the increase in school staff salaries required by the McCleary decision. These raises are implemented a year earlier than originally planned (estimated cost of $776 million). The supplemental operating budget also includes a reduction in property tax increases implemented last year as a revenue source for education funding. ESSB 6614 lowers the property taxes in 2019 by 30 cents per $1000 of assessed value (estimated cost of $391 million). Senate and House Republicans expressed concerns about the sustainability of funding sources relied on in ESSB 6614 which redirects $935 million in revenue generated by the additional state levy to the Education Legacy Trust Account in fiscal year 2019. ESSB 6614 passed the Senate (25-23, 1 excused) on March 7 and House (59-38) on March 8.

The agreed upon supplemental operating budget leaves an ending fund balance of $1.22 billion for the 2017-19 biennium and $103 million for the 2019-21 biennium. It also leaves $1.139 billion for the 2017-19 biennium and $1.691 billion for the 2019-21 biennium in the budget stabilization account (rainy day fund). In the end, the 2018 supplemental operating budget was passed in the House by a vote of 54-44 on March 8. That same day the legislation passed the Senate with a vote of 25-24. It will be sent to the governor to be signed into law. You can view the 2018 supplemental operating budget documents here.

2018 Supplemental Capital Budget

The proposed compromise 2018 supplemental capital budget for the 2017-19 biennium (ESSB 6095) was passed by the House on March 6 with a 96-2 vote. The Senate passed the same budget by a vote of 49-0 on

March 8. It will be sent to the governor to be signed into law. You can view the 2018 supplemental capital budget and its corresponding documents here.

2018 Supplemental Transportation Budget

The proposed compromise 2018 supplemental transportation budget (ESSB 6106) passed the House on March 7 with a 96-1 (1 excused) vote and the Senate on March 8 with a vote of 47-1 (1 excused). You can access the final negotiated 2018 supplemental transportation budget and its corresponding documents here.

Business & Labor

Pay Equity

On March 6 a conference committee report was produced for pay equity legislation (2SHB 1506). It was promptly passed by the Senate 36-12 and by the House with a vote of 70-28. The bill modifies the Equal Pay Act by defining "similarly employed," referring to gender, modifying defenses, providing an administrative remedy, and making other changes. It also prohibits discrimination in providing career advancement opportunities based on gender and prohibits retaliation for certain workplace discussions about wages and other matters.

Religious Affiliation Disclosure

On March 5 the House unanimously passed EHB 2097, which, among other things, makes it an unfair practice for an employer to require the disclosure of certain information about religious affiliation and beliefs. Over a month later the Senate passed it with amendments by a vote of 48-0. On March 5 the Senate concurred. The bill is now with the governor for consideration.

Tax Preference for Fishing Fleets

SHB 1154 ensures the competitiveness of Washington State's fishing and seafood processing industries by supporting the recapitalization of fishing fleets through certain tax preferences. The bill passed the House 97-1, but the Senate did not take action.

B&O Tax Preference for Accountable Communities of Health

On March 7 the Senate unanimously passed an amended SHB 2998, which provides a business and occupation tax exemption for certain Medicaid demonstration project funds received by an Accountable Community of Health from federal, state or local government. The bill has fully passed the Legislature and is on its way to the governor for consideration.

Health Care

Cigarette, Tobacco & Vapor Product Minimum Age

E2SHB 1054 raises the minimum age to purchase cigarettes, tobacco products and vapor products. The bill was passed with a vote of 63-35 by the House on March 7. The Senate declined to take action and the bill died this session.

Rural Health Care Access

An amended ESHB 2408 was passed unanimously by the House on February 14, the Senate (30-18) on March 7 and the House concurred (58-40) with the Senate amendments on March 8. This legislation

requires a health carrier offering a health plan approved by the School Employees Board to offer a qualified health plan in counties where no qualified health plans are offered on the Health Benefit Exchange. It also reduces premiums for enrollees in the Washington Health Insurance Pool in counties where there is no other individual market coverage available. It has been delivered to the governor for his signature.

Substance Use Disorder Health Coverage

This bill (2SHB 2572) requires commercial health plans to cover inpatient and residential substance use. After passing the House unanimously, it was not brought to the Senate floor for a vote.

Medicaid Fraud Control

On March 5, the Senate concurred with House amendments and unanimously passed SSB 6051. The bill creates a new chapter in the Medicaid statute that authorizes the Medicaid Fraud Control Unit (MFCU) to investigate and prosecute Medicaid fraud. It has been delivered to the governor to be signed into law.

Women's Health Care

Catholic Bishops have requested that Governor Inslee veto the Reproductive Parity Act legislation SSB 6219, as noted in this KOMO News article. The bill requires that health plans include coverage for contraceptives with no cost sharing. It also establishes an abortion coverage requirement for health plans that provide maternity care coverage.

Law & Justice

I-940 De-Escalate Washington

The "De-Escalate Washington" Initiative 940 (I-940) proposes to revise the state law on use of deadly force in policing. Last week the House Public Safety Committee and the Senate Law & Justice Committee each held a public hearing and passed their respective initiatives to the Legislature. After considerable negotiations, on March 7 an agreement was reached by legislators to pass the initiatives and also pass a bill (ESHB 3003) to change the initiative once it goes into effect. The bill agreed to by most stakeholders removes the reference to "malice" and inserts language that sufficiently protects officers who act within their training by defining "good faith" to a standard recognized nationally. On March 8 Senate Initiative 940 passed the Senate 25-24 and House Initiative 940 passed 55-43. ESHB 3003 passed the House with a 73-25 vote and the Senate with a 25-24 vote. As explained in this *Yakima Valley Herald* article, most stakeholders support the bill and this outcome will take the initiative off the November ballot despite the Legislature's modified approach to the matter in ESHB 3003. The legislation was signed by the governor the same day it passed both chambers.

State Government

On March 6, Representative Morris (D-Mt. Vernon) introduced HB 3011 to expand the scope of the Public Records Act to include every office, department, and division of all three branches of government. It did not see movement. The supplemental 2018 operating budget includes funding for a task force to "examine establishing standards for maintaining and disclosing public records for the legislative branch of government."

Environment

Oil Transportation Safety

Legislation (E2SSB 6269) to strengthen oil transportation safety was passed by the House on March 7 with a 62-35 vote after the Senate approved it on March 3 by a vote of 42-7. As noted in this *Seattle Times* article, the bill extends the state's existing oil barrel tax to pipelines. It has been delivered to the governor for his signature.

Tax on Carbon

Following last-week's announcement that carbon tax legislation (2SSB 6203) was dead this session, supporters of the bill filed an initiative that would impose a fee of $15 per metric ton of carbon effective January 1, 2020. This fee would rise annually by $2 plus the rate of inflation. The fee would become fixed after Washington State meets its 2035 greenhouse gas reduction goals. Nearly 260,000 signatures for the initiative will need to be collected by July 6 to certify it for the November 2018 ballot. In response, Senators Baumgartner (R-Spokane) and Ericksen (R-Ferndale) introduced SB 6629 on March 6, but it had no movement after its introduction.

Green Energy

There was a last-minute final push on March 8 regarding energy-related legislation in SHB 2995, but in the end it was not passed. Among other things, it would have required all electric utilities by year 2030 to eliminate from electric rates all costs associated with delivering electricity generated from a coal-fired resource to Washington State customers.

Fall Elections

As the session came to a close, more legislators announced they would not be running for re-election. Those include House Transportation Chair Rep. Judy Clibborn (D-Mercer Island), Rep. Terry Nealey (R-Dayton), House Minority Leader Dan Kristiansen (R-Snohomish), and Rep. Ruth Kagi (D-Seattle).

Legislative Leadership Changes

Republicans in the House announced new leadership positions on March 8. Rep. Wilcox (R-Roy) has been appointed the new House Minority Leader. Rep. Stokesbary (R-Auburn) is the new House Republican Floor Leader and Rep. MacEwen (R-Union) is the new Assistant Floor Leader.

City of Tumwater

Upcoming Legislative Events

Bill #	Status	Sponsor	Priority	Position
SHB 1067 (ESSB 5048)	H Approps	Ormsby	Monitoring	Neutral
2SHB 1075 (ESSB 5086)	H Rules X	Tharinger	Monitoring	Neutral
SHB 1147 (ESB 5096)	H Trans	Clibborn	Monitoring	Neutral
SHB 1410 (ESB 5288)	H Rules R	Doglio	Medium	Support
E2SHB 1570	Del to Gov	Macri	Medium	Support
HB 2655 (SB 6286)	H Approps	Dolan	Monitoring	Neutral
SHB 2665 (SSB 6312)	H Rules R	Macri	Monitoring	Neutral

HB 2955	H Commerce & Gam	Springer	Monitoring	Neutral
ESSB 5048 (SHB 1067)	S Rules X	Braun	Monitoring	Neutral
ESSB 5086 (2SHB 1075)	S Rules X	Honeyford	Monitoring	Neutral
SB 6286 (HB 2655)	S Ways & Means	Braun	Monitoring	Neutral
SSB 6312 (SHB 2665)	S Rules X	Hunt	Monitoring	Neutral

Legislative Tracking Information

Support

Bill Details		Status	Sponsor	Priority
SHB 1410 (ESB 5288)	**Trans. benefit tax increase** Authorizing certain public transportation benefit areas to impose a sales and use tax increase approved by voters. *Sponsors:* Doglio (Prime), Dolan, Farrell, Fey, Fitzgibbon, Jinkins, Pollet, Springer *Summary:* Authorizes the legislative body of a public transportation benefit area to also submit an authorizing proposition to the voters and, if approved, impose a sales and use tax if the area is located in a county with a population of more than two hundred fifty thousand but less than four hundred thousand and contains two or more cities with a population of at least forty thousand.	H Rules R	Doglio	Medium
E2SHB 1570	**Homeless housing & assist.** Concerning access to homeless housing and assistance. *Sponsors:* Macri (Prime), Appleton, Bergquist, Chapman, Clibborn, Cody, Doglio, Dolan, Farrell, Fey, Fitzgibbon, Frame, Goodman, Gregerson, Hudgins, Jinkins, Kagi, Kloba, McBride, Ormsby, Ortiz-Self, Orwall, Peterson, Pettigrew, Pollet, Riccelli, Robinson, Ryu, Sawyer, Senn, Slatter, Stanford, Stonier, Tarleton, Tharinger *Summary:* HB 1570-S2 - DIGEST Establishes the Washington housing opportunities act. Improves resources available to aid with increasing access and removing barriers to housing for individuals and families in the state. Increases the surcharge for local homeless housing and assistance. Requires the department of commerce to: (1) In collaboration with the state institute for public policy, conduct a statewide homeless study every ten years to better understand the causes and characteristics of the homeless in the state and help decision makers promote efforts toward housing stability; (2) Coordinate its efforts on the state homeless housing strategic plan with the office of homeless youth prevention and protection programs advisory committee; and (3) Provide an update on the state's homeless housing strategic plan and its activities for the prior fiscal year.	Del to Gov	Macri	Medium

Oppose

No bills.

Neutral

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ESSB 5048 (SHB 1067)	**Operating budget** Making operating appropriations for the 2015-2017 and 2017-2019 fiscal biennia. *Sponsors:* Braun (Prime), Ranker *Summary:* Makes operating appropriations for the 2015-2017 and 2017-2019 fiscal biennia.	S Rules X	Braun	Monitoring

ESSB 5086 **(2SHB 1075)**	**Capital budget 2017-2019** Concerning the capital budget. *Sponsors:* Honeyford (Prime), Frockt *Summary:* Addresses the capital budget to fund capital projects.	S Rules X	Honeyford	Monitoring
SB 6286 **(HB 2655)**	**SEBB board membership** Adding members to the school employees' benefits board. *Sponsors:* Braun (Prime), Rolfes, Wellman, Zeiger *Summary:* Changes the composition of the school employees' benefits board.	S Ways & Means	Braun	Monitoring
SSB 6312 **(SHB 2665)**	**Unincorp. island annexation** Eliminating certain requirements for the annexation of an unincorporated island of territory. *Sponsors:* Hunt (Prime) *Summary:* Eliminates certain requirements for the annexation of an unincorporated island of territory.	S Rules X	Hunt	Monitoring

Concerns

No bills.

CHRISTIE MALCHOW – COUNCIL REPORT

JULY 10, 2018

7/12/18 Upcoming Public Issues Committee (PIC)

- There will be an action item:
  - Appointments to 4Culture Task Force & Regional Policy Committee (RPC) will be made. The Nominating Committee met on 7/6/18 for recommendations, I do not have those at this juncture to tell you who they are.
  - I need Council's okay to vote in favor of the Nominating Committee's recommendations.
- Input needed:
  - Potential New Revenue Sources At the June 29 Task Force meeting, SCA representatives identified a need for SCA cities to weigh in on potential new revenue sources and whether recommendations. According to data reviewed by the Task Force, the region will need 176,000 additional affordable homes by 2040 (including new construction or subsidies to reduce housing cost burden) to meet the needs of those earning below 50% of AMI. Private sector representatives on the Task Force have stated that this portion of need cannot be met by the private sector and would require public or philanthropic investment. Affordable housing advocates have testified to the Task Force that increasing public funding to construct or subsidize affordable units should be a top priority for the region. From 2012 to 2017, capital funding for affordable housing averaged $306.5 million on an annual basis as shown in Figure 1. The largest proportion of funds are those leveraged through the Federal Low-Income Housing Tax Credit program, a federal program that gives private investors a dollar-for-dollar reduction in their federal tax liability in exchange for financing affordable housing projects.
  - *The Task Force has reviewed a list of potential countywide and city funding sources* that could contribute to the construction and operation of affordable housing. In addition, the Task Force is reviewing potential state sources of revenue or tax credits that could be authorized to reduce the cost of constructing affordable housing. Revenue options presented to the Task Force at its June 29 meeting include: • Sending a proposal for a 1/10 of a percent sales tax to the ballot to fund affordable housing and behavioral health series (per RCW 82.14.530), or seeking state approval for councilmanic authority to implement the tax at the countywide level (approximately $69 million per year); • Sending a regional affordable housing property tax levy to the ballot (approximately $5.4 million per $0.01 per $1,000 of assessed value countywide); • Pursuing increased funding to the Washington State Housing Trust Fund, which has decreased from a peak of $200 million per year to an average of between $50 and $100 million more recently; • Expanding authority for a .25% Real Estate Excise Tax (i.e. REET 4) to King County (approximately $95 million per year); and, • Authorizing a state sales tax exemption for construction costs for new or rehabilitated affordable housing. Some Task Force members expressed interest in recommending a countywide source of funding be pursued, such as the 1/10 of a percent sales tax or a countywide housing levy. SCA representatives on the Task Force asked that SCA staff bring forward the options presented to PIC for guidance from SCA cities on which, if any, of the options would be preferred as short or long-term funding options. Implementation and Governance: The Task Force is also considering recommendations to form or assign an organization with responsibility for setting regional housing goals, coordinating resources, adjusting strategies as needed, and monitoring outcomes. Several potential governance options were discussed at the June 29 meeting, including: • Assigning responsibility to an existing countywide or regional organization, such as the King County Growth Management Planning Council or through the Puget Sound Regional Council; • Adding a regional

committee to the King County Charter with a dedicated focus on affordable housing; or, • Creating a new regional entity with independent authority.

7/4/18 Attended 4th on the Plateau Event

- 4th on the Plateau event was incredibly well done. Thank you to all volunteers, Parks Staff, MOC crews, Sammamish Police, EFR, King Co. Sheriff, Sammamish Explorers and every volunteer, vendor & attendee that made this event so amazing!

Last printed 7/5/18

AGENDA CALENDAR

Meeting Date	Packet Material Due	Time	Meeting Type	Topics
July 2018				
Tues 7/17	7/09	6:30 pm	Regular Meeting	Public Hearing/Ordinance: Code Changes related to Transportation Concurrency & LOS (45 minutes) Resolution: Arts Commission Appointments Discussion: Introduction to the Water Quality Monitoring and Habitat Strategic Plan and Implementation (30 minutes) Executive Session: Discuss Qualifications <u>Consent:</u> Resolution: Adopting the Social Media Policy Contract: Pacific Estates Bog (21st St/21st Pl) Stormwater Improvement Project - Consultant Services/TBD Contract: George Davis Fish Passage Project - Consultant Services/PBS Engineering Bid Award: Flashing Yellow Arrow Installation Project/TBD Bid Award: Minor Intersection Improvements Project/TBD Bid Award: Sahalee Way HDPE Tightline/TBD Resolution: Stormwater CIP Prioritization Criteria Resolution: Interlocal Agreement with King County - Zackuse Creek Fish Passage and Stream Restoration Project Contract Amendment: Issaquah Fall City Road Project
Aug 2018				**No Meetings**
Sept 2018				
Mon 9/03		6:30 pm	Study Session	**<u>Canceled for Labor Day</u>**
Tues 9/04	8/28	6:30 pm	Regular Meeting	Resolution: Adopting Employee Handbook (60-minutes) Presentation: Housing Strategy – Part I (60-minutes) <u>Consent:</u> Contract: Beaver Lake Park Phase 1 Improvements, Design/TBD Contract: Laughing Jacobs Creek Basin Plan - Consultant Services/TBD Contract: Big Rock Park, Site B, Phase I Improvements/KPG Resolution: 212th Way SE Project Acceptance
Tues 9/11	9/03	6:30 pm	Study Session	Discussion: Police Services Study Update (60-minutes) Discussion: 2019-20 Budget (2-hours) Discussion: Transportation Master Plan Funding Options (90-minutes)

Last printed 7/5/18

Tues 9/18	9/10	6:30 pm	Regular Meeting	Presentation: Transportation Master Plan and Traffic Impact Fee Study Update (60-minutes) Presentation: Housing Strategy-Part II (60-minutes) <u>Consent:</u> Contract: ITS Phase 2 Design/TBD Resolution: Water Quality and Aquatic Habitat Monitoring Strategic Plan
Oct 2018				
Mon 10/01	9/24	6:30 pm	Study Session	Discussion: Capital Facilities Element Updates – School Impact Fees (30-minutes) Discussion: 2019-20 Budget (2-hours)
Tues 10/02	9/24	6:30 pm	Regular Meeting	Public Hearing/Ordinance: First Reading Capital Facilities Element Updates – School Impact Fees (30-minutes) Public Hearing/Resolution: Housing Strategy Approval (60-minutes) <u>Consent:</u>
Tues 10/09	10/01	6:30 pm	Study Session	Discussion: Transportation Master Plan Update and Traffic Impact Fee Update (60-minutes) Discussion: 2019-20 Budget (2-hours)
Tues 10/16	10/08	6:30 pm	Regular Meeting	Resolution: Housing Strategy Approval (if needed) Public Hearing/Ordinance First Reading Housing Element Updates – Housing Strategy (15-minutes) Discussion: Urban Forest Management Plan (60-minutes) <u>Consent:</u> Resolution: Flashing Yellow Arrow Installation Project Acceptance Resolution: East Lake Sammamish Parkway Ditch Maintenance Project Acceptance
Nov 2018				
Mon 11/05	10/29	6:30 pm	Study Session	<u>Discussion: Issaquah Pine Lake Road Phase 1- Project Update</u>

Last printed 7/5/18

Tues 11/06	10/29	6:30 pm	Regular Meeting	Public Hearing/Ordinance: First Reading of the 2019-20 Budget Public Hearing/Ordinance: First Reading for the 2019 Property Tax Levy Ordinance including Presentation of 2019 Revenue Estimates from all Sources <u>Consent:</u> Resolution: ELSP/SE 33rd Crosswalk Project Acceptance
Tues 11/13	11/05	6:30 pm	Joint Study Session w/Park & Rec Com.	Discussion: Big Rock Park Parcel B Master Plan Update Discussion: Lower Commons Master Plan Update
Tues 11/20	11/12	6:30 pm	Regular Meeting	Public Hearing/Ordinance: First Reading 2019 School Impact Fee Update (15-minutes) Ordinance: Second Reading of the 2019-20 Budget ordinance. Ordinance: Second Reading of the 2019 Property Tax Ordinance Resolution: 2019 Fee Schedule Resolution: 2019 Salary Schedule (COLA) Resolution: 2019 Medical Premium Co-pay Resolution: Adopting the 2019 Legislative Priorities <u>Consent:</u> Resolution: Minor Intersection Improvements Project Acceptance Resolution: Sahalee Way Stormwater Tightline Project Acceptance
Dec 2018				
Mon 12/03	11/26	6:30 pm	Study Session	Discussion: 2019 Comprehensive Plan Amendments – Docket Requests (60-minutes)

Last printed 7/5/18

Tues 12/04	11/26	6:30 pm	Regular Meeting	Public Hearing/Resolution: 2019 Comprehensive Plan Amendments – Docket Requests (60-minutes) Ordinance: Final Reading Annual Amendments to the Comprehensive Plan (30-minutes) Resolution: Adopting the Police Services Study <u>Consent:</u> Ordinance: Second Reading School Impact Fee Updates Contract: Environmental Review Support Services/TBD Contract: Building Inspection Support Services/TBD Contract: Building Plan Review Support Services/TBD Contract: Planning Review Support Services/TBD Contract: Klahanie Master Plan/TBD Bid Award: Vactoring Contract – Small Public Works Maintenance Contract/TBD Bid Award: Stormwater Facility Maintenance – Small Public Works Maintenance Contract/TBD Bid Award: Stormwater Pond Mowing – Small Public Works Maintenance Contract/TBD Contract: 2019-2020 City-wide Water Quality Monitoring - Consultant Services/TBD
Tues 12/11	12/03	6:30 pm	Study Session	
Tues 12/18	12/10	6:30 pm	Regular Meeting	<u>Consent:</u>

	To Be Scheduled	To Be Scheduled	Parked Items
	• Lk. Sammamish Water Level • Growth Centers • Internet Usage & Social Media Policies • Indexing the impact fee rates • Small Cell Facility Technology	• Special Events Ordinance • Maintenance Safety Program Adoption • M&O Strategic Plan • Fleet Management Policy • Roadway Funding Strategy • Maintenace & Fire Station Facility Assessment • Franchise Agreement/SPWS • Comprehensive Solid Waste Plan • Bid Award: Citywide Guardrail Repair/TBD	• Inner City Bus Service • Good Samaritan Law • Plastic Bags • Policy on Drones in Parks • Review of regulations regarding the overlay areas, low impact development and special protection areas for lakes.