



CITY OF KIRKLAND
Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033 425.587-3225 -
www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager **Quasi-judicial**

From: Tony Leavitt, Associate Planner
Eric Shields, AICP, Planning Director

Date: November 7, 2012

Subject: Kirkland Children's School Master Plan, PCD File No. ZON12-00659

RECOMMENDATION

Staff recommends that the City Council consider the Process IIB Master Plan application for the Kirkland Children's School project and pass the enclosed resolution to grant the application as recommended by the Hearing Examiner. Prior to voting on the resolution, the Council must pass a motion to allow the vote to occur at the November 20th meeting, rather than at the following (December 11th) meeting.

BACKGROUND DISCUSSION

City Council Rules of Procedure

Under the Council Rules of Procedure, Section 26, the City Council shall consider a Process IIB application at one meeting and vote on the application at the next or a subsequent meeting. The City Council may, by a vote of at least five members, suspend the rule to vote on the matter at the next meeting and vote on the application at this meeting.

Quasi-Judicial Decisions

This application is reviewed under Process IIB in which the Hearing Examiner holds a public hearing and then makes a recommendation to the City Council for the final decision. It is a quasi-judicial process. Quasi-judicial processing is for permits that:

- Require a hearing (held by the Hearing Examiner);
- Involve discretionary criteria for approval; and
- Require the decision-maker to review the facts and applicable code in order to issue a decision (similar to a judge).

City Council Consideration

The City Council must consider the Process IIB application based on the record before the Hearing Examiner and the Houghton Community Council and the recommendation of the Hearing Examiner. Process IIB does not provide for testimony and oral arguments at the Council meeting. However, the City Council, in its discretion, may ask questions of the applicant and the staff regarding facts in the record, and may request oral argument on legal issues.

The City Council has four options when reviewing a Process IIB application:

- Grant the application as recommended by the Hearing Examiner; or
- Modify and grant the application; or
- Deny the application; or
- If the Council determines that the record compiled by the Hearing Examiner is incomplete or inadequate for the Council to make a decision, direct that the application be considered at a reopening of the hearing before the Hearing Examiner and Houghton Community Council and specify the issues to be considered at the rehearing.

This application is subject to the disapproval of the Houghton Community Council. The decision of the City Council will not be effective unless and until it is affirmed by the Community Council or the Community Council does not disapprove of the decision within 60 days.

Kirkland Children's School Project Proposal

The owners of the Kirkland Children's School, represented by Steve Lee of Studio Meng Strazzara, are proposing a Master Plan zoning permit to allow the construction of a new 3,400 square foot building on the existing Kirkland Children's School site (see Enclosure 1). The building will house 3 new classrooms for the preschool/daycare environmental education program, restroom facilities, and storage areas. The project also includes other site improvements including the addition of 9 parking stalls, a rain garden, parking lot lighting and landscaping. The existing buildings and parking lot on the property will remain.

Public Hearing

Prior to the hearing, Staff prepared an Advisory Report that was forwarded to all parties of record, the Hearing Examiner and the Houghton Community Council. The report recommended approval of the application subject to conditions.

The Hearing Examiner and the Houghton Community Council held a joint open record public hearing on October 15, 2012. City Staff, the applicant and representatives, and 9 individuals (including neighbors and parents of students) testified during the hearing (see Enclosure 2 for Hearing Minutes). A majority of the people who testified spoke in favor of the project. A couple of neighbors raised concerns about the continued use of the adjoining alley, onsite lighting, playground noise and existing tree impacts. Staff and the applicant addressed these concerns during the hearing.

Houghton Community Council Recommendation

On October 15th, The Houghton Community Council deliberated and drafted a recommendation to the Hearing Examiner (see Enclosure 3). The Houghton Community Council concurred with the staff analysis and the recommendation of approval.

Hearing Examiner Recommendation

On October 22nd, the Hearing Examiner recommended that the City Council approve the application subject to the conditions outlined in her report (see Enclosure 4).

ENCLOSURES

1. Site/ Landscape Plan
2. Hearing Minutes from October 15th Joint Hearing
3. Houghton Community Council Recommendation
4. Hearing Examiner Recommendation

**Kirkland Children's School
City Council Memo
Enclosure 1**



EXISTING BUILDING

RS 8.5

PROPERTY LINE

N88°40'11"W 110.03'

50'-0"

50'-0"

27'-8 1/2"

50'-0" BUILDING SETBACK

KINDERGARTEN

BOYS

GIRLS

STORAGE/LAUNDRY

STAFF TOILET

ENTRY VESTIBULE

CLASSROOM 1

TOILET

TOILET

CLASSROOM 2

SIDEWALK

EXISTING SIDEWALK

EXISTING SHED

EXISTING BUILDING

COVERED PLAY AREA

EXISTING PLAY HOUSE

EXISTING SANDBOX

EXISTING SANDBOX

EXISTING BUILDING

WOOD GATE

BANK GARDEN

RAIN GARDEN

20'-0" SETBACK

EXISTING TURNAROUND

18'-6"

24'-0"

14'-0"

5'-0" TALL WOOD SCREEN TRANSPARENT FENCE, TYP.

EXISTING DUMPSTERS SCREENED WITH SOLID SCREENING ENCLOSURE ON ALL SIDES

EXISTING POWER POLI W/ LIGHT, TYP.

EXISTING STRIPING TO REMAIN ON EAST SIDE PARKING LOT, TYP.

24" PARKING OVERHANG

SIDEWALK

108th AVE NE

EXISTING CURB CUT TO REMAIN

EXISTING PARKING LOT

18'-6" TYP.

RESTRIPE WEST SIDE PARKING LOT TO INCLUDE 15 STANDARD SIZE STALLS, PLUS TWO ADA STALLS

8'-6"

PARKING LOT LIGHT FIXTURE (3) TYP.

5'-0" WIDE PAINTED CROSSWALK / PEDESTRIAN WALKWAY

PEDESTRIAN WALKWAY

EXISTING CURB CUT TO REMAIN

EXISTING CONCRETE V (197 SF COVERAGE)

EXISTING WATER METER

EXISTING FIRE HYDRANT

EXISTING POWER POLI

EXISTING PLAY TRAIL

RS 8.5

N01°17'53"E

N01°18'17"E

N87°30'07"W

118'-02'

92'-01'

PROPERTY LINE

273.84'

77'-0"

55'

55'

55'

55'

55'

55'

55'

55'

55'

55'

55'

55'

55'

55'

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**KIRKLAND HOUGHTON COMMUNITY COUNCIL & HEARING
EXAMINER MEETING
October 15, 2012**

1. Call to Order and Roll Call (7:05 PM)

Members Present: Rick Whitney ~ Chair, John Kappler - Vice Chair, Betsy Pringle, Elsie Webber, Bill Goggins, and Sue Tanner - Hearing Examiner.

Members Absent: None.

Staff Present: Nancy Cox - Development Review Manager, Tony Leavitt - Associate Planner, Rob Jammerman - Development Engineering Manager, and Susan Hayden - Recording Secretary.

2. Announcement of Agenda (7:05 PM)

3. Public Hearing (7:05 PM)

A. Project Name: Kirkland Children's School Master Plan, File No.: ZON12-00659

Ms. Tanner opened the public hearing at 7:05 PM. She provided the file number, ZON12-00659 and the address, 5311 108th Avenue NE. She listed the applicant and described hearing procedures. She will issue a decision within 8 calendar days. There were no preliminary matters.

City Presentation:

Ms. Tanner swore in Associate Planner, Tony Leavitt. Ms. Tanner entered three citizen emails into the record as Exhibit B.

Mr. Leavitt gave background information on the project including the city review process. He also gave an overview of the applicant's proposal including major elements, existing buildings, parking lot, initial public comment, the SEPA determination, and development standards. He closed his presentation by stating that staff recommends approval subject to conditions in the staff advisory report.

Mr. Leavitt deferred to the applicant to answer Council members' questions regarding student registrations and population maximums.

Mr. Leavitt responded to Council Members' questions regarding Page 47, reference to Enclosure note number 2 and the letter from Gary Porter concerning the alley.

Ms. Tanner swore in Development Engineering Manager, Rob Jammerman, and he responded the Council members questions regarding fencing in unopened alleys.

Applicant Presentation:

Ms. Tanner swore in Donna Caditz, 16310 170th NE, Woodinville, representing the applicant. Ms. Caditz gave the history of the school. She also provided background information on the proposal including keeping the existing building and playground

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and adding three additional classrooms to meet the community need as well as address the two year waiting list.

Ms. Caditz addressed the former questions regarding Council members' questions regarding student registrations and population maximums. She also addressed questions regarding parking spaces for school busses. She concluded her presentation and team members to come forward to address further questions of the Council.

Ms. Tanner swore in Christopher Brown, 9688 Rainier Avenue South, Seattle. He represents the applicant and addressed bus parking concerns, concerns regarding delays in service levels, and concerns regarding the level of traffic accidents.

Mr. Jammerman, Public Works, addressed the question about the C-curb.

Public Testimony

1. Ms. Tanner swore in Jennipher and Scott Judge, 11237 NE 58th Place, Kirkland. Mrs. Judge stated that she approves of the project, feels the school is supportive of the community, and feels that the school is good for adults as well as children.

Ms. Tanner swore in all audience members who are planning to testify tonight.

2. Gary Porter, 5444 106th Avenue Kirkland, stated that he approves of the project, but also expressed his concerns about the alley and the applicant's future plans for the alley.

3. Brian Gawthrop, 11233 NE 58th Place, Kirkland, approves of the project and feels the school has been a good neighbor.

4. Brooks and Carol Walton, 5403 108th Avenue NE, expressed support for the project, but also expressed concerns 1) about children playing close too the fence that they share with the school, 2) the expansive root system of the existing Cypress trees along the North property line, 3) garbage containers properly closed as to not attract wildlife including rats and raccoons.

The applicant, Donna Caditz, returned to address concerns about the Leyland Cypress, fence and garbage.

Mr. Leavitt returned to address concerns about the Leyland Cypress trees. Ms. Caditz returned to address concerns about the lights shining into neighbors' yards,

5. Rasek Rifaat, 5430 106th Avenue, approves of the project, agrees with concerns about the alley, and expressed concern about the wait list.

6. Geary Britton-Simmons, 167122 19th Place, expressed support for the project.

7. Sacha Bailey, expressed support for the project and the staff.

8. Greg Wall, 13259 124th Ct NE, Kirkland, expressed support for the project, especially the emphasis on nature.

9. Eric Synn, 10916 NE 139th Place, Bellevue, expressed support for the project.

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Mr. Leavitt addressed the Hearing Examiner's questions regarding setbacks, root growth of the Leyland Cypress and the current non-conformance of the shed. Mr. Jammerman addressed potential opening of the alley and potential future plantings.

4. **Adjournment (8:22 PM)**

Ms. Tanner closed the hearing at 8:22 PM

Planning Staff
Department of Planning and Community Development



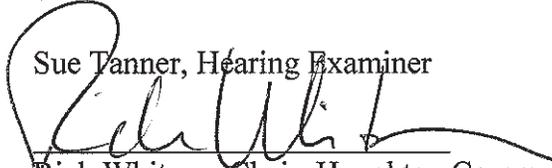
Houghton Community Council

CITY OF KIRKLAND

123 Fifth Avenue, Kirkland, WA 98033 425.587-3225
www.ci.kirkland.wa.us

MEMORANDUM

To: Sue Tanner, Hearing Examiner

From: 
Rick Whitney, Chair, Houghton Community Council

Date: October 15, 2012

Subject: KIRKLAND CHILDREN'S SCHOOL MASTER PLAN, ZON12-00659
RECOMMENDATION OF HOUGHTON COMMUNITY COUNCIL

Recommendation to the Hearing Examiner:

After consideration of the testimony and record presented at the public hearing on File ZON12-00659 held on October 15, 2012, the Houghton Community Council (HCC) concurs with the staff analysis and the recommendation of approval.

Motion – To approve this recommendation regarding the Kirkland Children's School Master Plan as written. (6 yes, 0 no)

**CITY OF KIRKLAND
HEARING EXAMINER FINDINGS,
CONCLUSIONS AND RECOMMENDATION**

APPLICANT: Steve Lee of Studio Meng Strazzara for Kirkland Children's School

FILE NO: ZON12-00659

APPLICATION:

Site Location: 5311 108th Avenue NE

Request: Master Plan zoning permit to allow construction of a new 3,400 square foot building on the existing Kirkland Children's School site. The building will house three new classrooms, totaling 2,750 square feet, for the preschool/daycare environmental education program, restroom facilities, and storage/laundry areas. The project includes other improvements, including the addition of 9 parking stalls, as well as a rain garden, parking lot lighting, and landscaping.

Review Process: Process IIB, Houghton Community Council and Hearing Examiner hold a public hearing and make recommendations; City Council makes final decision. The Houghton Community Council has disapproval jurisdiction over the land use proposal.

Key Issues: Compliance with Zoning Permit approval criteria and applicable development regulations

SUMMARY OF RECOMMENDATIONS:

| | |
|--|-------------------------|
| Department of Planning and Community Development | Approve with conditions |
| Houghton Community Council | Approve with conditions |

PUBLIC HEARING:

The Hearing Examiner and Houghton Community Council held a joint public hearing on the application at 7:00 p.m. on October 15, 2012, in the Council Chamber, City Hall, 123 Fifth Avenue, Kirkland, Washington. A verbatim recording of the hearing is available in the City Clerk's office. The minutes of the hearing and the exhibits are available for public inspection in the Department of Planning and Community Development. The Examiner visited the site in advance of the hearing.

FINDINGS, CONCLUSIONS AND RECOMMENDATION:

For purposes of this recommendation, all section numbers refer to the Kirkland Zoning Code (KZC or Code) unless otherwise indicated. After considering the evidence in the

record and inspecting the site, the Examiner enters the following findings of fact, conclusions and recommendation.

Findings of Fact:

1. The Findings of Fact set forth in section II.A of the Department's Advisory Report, Exhibit A, ("Site Description") are accurate, complete and supported by the record, and are therefore adopted by reference.
2. The Findings of Fact set forth in section II.B of the Department's Advisory Report ("History") are accurate, complete and supported by the record, and are therefore adopted by reference.
3. The initial public comment period ran from July 24, to August 23, 2012. The Planning Department received 28 comments during this period. All but two supported the application. Three additional written comments, as well as public testimony were received at the joint public hearing. A list of the applicant and staff representatives and the members of the public who testified at the hearing, and a list of the exhibits offered, are included at the end of this recommendation. The testimony is summarized in the hearing minutes.
4. The Applicant submitted a response to public comments that had expressed concerns about the project. *See* Exhibit A, Attachment 8.
5. The alley to the west of the Applicant's property is unopened and unimproved, and the City has no current plans to improve it.
6. The alley is usable by motor vehicles from NE 55th Street for approximately one-half of the block and is used for access by residents of some of the adjacent properties. The south half of the alley is obstructed by a tree and other vegetation and by a fence that parallels the Applicant's property and extends into the right-of-way.
7. The City makes unopened alleys available for use by the owners of property adjacent to them until the City decides to open and improve the alley. At that time, encroachments must be removed.
8. A neighbor who uses the northern part of the alley for access to his property believes that the alley is needed for emergency access. He asked that the City open the alley all the way to NE 53rd Street and require the Applicant to remove the encroaching fence.
9. One neighboring property owner expressed concern about impacts from the lighting to be installed as part of the new parking lot.
10. KZC 115.85.1 requires that light sources be directed so that, to the maximum extent possible, glare does not extend to adjacent properties or to the right-of-way.

11. Although the Applicant did not include a detailed lighting plan as part of the application, one will be required as part of the building permit application. In addition, the Applicant offered to work with the neighbors on the time settings for the parking lot lights.
12. A neighbor expressed concern about the environmental impact of the proposed parking stalls and the additional traffic on 108th Avenue NE.
13. The applicant is proposing the use of pervious paving for the new parking stalls and an onsite infiltration system for all stormwater drainage.
14. The project included a traffic study and was reviewed for traffic impacts. It was determined that the project will not create significant traffic impacts. *See Exhibit A, Attachments 10 and 15.*
15. A neighbor expressed concern about the noise impacts of additional children on the playground, which is near the neighbor's home.
16. The existing playground will remain unchanged. The applicant has indicated that the site design of the project will help to minimize noise impacts by creating an additional buffer. The applicant also stated an intent to stagger the children's outdoor time so that no more children would be on the playground at one time than are there with the existing school. *Exhibit A, Attachment 8.*
17. The Findings of Fact set forth in section II.D of the Department's Advisory Report ("State Environmental Policy Act (SEPA) and Concurrency") are accurate, complete and supported by the record, and are therefore adopted by reference.
18. The Findings of Fact set forth in section II.E of the Department's Advisory Report ("Approval Criteria") are accurate, complete and supported by the record, and are therefore adopted by reference.
19. The Findings of Fact set forth in section II.F of the Department's Advisory Report ("Development Regulations") are accurate, complete and supported by the record, and are therefore adopted by reference.
20. The Findings of Fact set forth in section II.G of the Department's Advisory Report ("Comprehensive Plan") are accurate, complete and supported by the record, and are therefore adopted by reference.
21. The Findings of Fact set forth in section II.H of the Department's Advisory Report ("Development Standards") are accurate, complete and supported by the record, and are therefore adopted by reference.

22. The Houghton Community Council has concurred with the Staff Analysis and Recommendation on the proposal and recommends approval of the proposal as set forth therein.

Conclusions:

1. The Conclusions set forth in section II.A of the Department's Advisory Report, Exhibit A, ("Site Description") are supported by the facts in the record, and are therefore adopted by reference.

2. The Conclusions set forth in section II.B of the Department's Advisory Report ("History") are supported by the facts in the record, and are therefore adopted by reference.

3. Because the City does not have current plans to open the alley to the west of the Applicant's property, the Examiner finds no basis at this time for requiring the Applicant to remove the fence that encroaches on that right-of-way.

4. The evidence in the record does not support the imposition of lighting or noise attenuation conditions beyond those required by Code.

5. The evidence in the record does not support the imposition of traffic or drainage conditions beyond those included in the project and required by Code. Further, these impacts were considered in the City's traffic concurrency and SEPA reviews, and neither the SEPA Determination of Nonsignificance nor the Traffic Concurrency Determination were appealed.

6. The Conclusions set forth in section II.D of the Department's Advisory Report ("State Environmental Policy Act (SEPA) and Concurrency") are supported by the facts in the record, and are therefore adopted by reference.

7. The Conclusions set forth in section II.E of the Department's Advisory Report ("Approval Criteria") are supported by the facts in the record, and are therefore adopted by reference.

8. The Conclusions set forth in section II.F of the Department's Advisory Report ("Development Regulations") are supported by the facts in the record, and are therefore adopted by reference.

9. The Conclusions set forth in section II.G of the Department's Advisory Report ("Comprehensive Plan") are supported by the facts in the record, and are therefore adopted by reference.

10. The Conclusions set forth in section II.H of the Department's Advisory Report ("Development Standards") are supported by the facts in the record, and are therefore adopted by reference.

Recommendation:

Based upon the foregoing findings of fact and conclusions, the Hearing Examiner recommends that the Council approve the Master Plan zoning permit, subject to the four conditions set forth in section IB of Exhibit A.

Entered this 22nd day of October, 2012.



Sue A. Tanner
Hearing Examiner

SUBSEQUENT MODIFICATIONS

Modifications to the approval may be requested and reviewed pursuant to the applicable modification procedures and criteria in effect at the time of the requested modification.

CHALLENGES AND JUDICIAL REVIEW

The following is a summary of the deadlines and procedures for challenges. Any person wishing to file or respond to a challenge should contact the Planning Department for further procedural information.

CHALLENGE

Section 152.85 of the Zoning Code allows the Hearing Examiner's recommendation to be challenged by the applicant or any person who submitted written or oral comments or testimony to the Hearing Examiner. A party who signed a petition may not challenge unless such party also submitted independent written comments or information. The challenge must be in writing and must be delivered, along with any fees set by ordinance, to the Planning Department by 5:00 p.m., October 31, 2012, seven (7) calendar days following distribution of the Hearing Examiner's written recommendation on the application. Within this same time period, the person making the challenge must also mail or personally deliver to the applicant and all other people who submitted comments or testimony to the Hearing Examiner, a copy of the challenge together with notice of the deadline and procedures for responding to the challenge.

Any response to the challenge must be delivered to the Planning Department within seven (7) calendar days after the challenge letter was filed with the Planning Department. Within the same time period, the person making the response must deliver a copy of the response to the applicant and all other people who submitted comments or testimony to the Hearing Examiner.

Proof of such mail or personal delivery must be made by affidavit, available from the Planning Department. The affidavit must be attached to the challenge and response letters, and delivered to the Planning Department. The challenge will be

considered by the City Council at the time it acts upon the recommendation of the Hearing Examiner.

JUDICIAL REVIEW

Section 152.110 of the Zoning Code allows the action of the City in granting or denying this zoning permit to be reviewed in King County Superior Court. The petition for review must be filed within twenty-one (21) calendar days of the issuance of the final land use decision by the City.

LAPSE OF APPROVAL

Under KZC 152.115, the applicant must submit to the City a complete building permit application approved under Chapter 152 within four (4) years after the final approval on the matter, or the decision becomes void; provided, however, that in the event judicial review is initiated per Section 152.110, the running of the four years is tolled for any period of time during which a court order in said judicial review proceeding prohibits the required development activity, use of land, or other actions. Furthermore, the applicant must substantially complete construction approved under Chapter 152 and complete the applicable conditions listed on the Notice of Approval within six (6) years after the final approval on the matter, or the decision becomes void.

TESTIMONY:

The following persons testified at the public hearing:

From the City:

Tony Leavitt, Project Planner
Rob Jammerman, Development Engineering Mgr.
Department of Public Works

From the Applicant:

Donna Caditz, Owner
Christopher Brown, PE

From the Public:

Scott and Jennifer Judge
Gary Porter
Brian Gawthrop
Carol and Brooks Walton
Wen LaCasse
Rasekh Rifaat
George Britton-Simmons
Sacha Bailey
Gregory Wall
Eric Synn

EXHIBITS:

The following exhibits were offered and entered into the record at the public hearing:

- A. Department of Planning and Community Development Staff Advisory Report dated October 8, 2012, with 15 attachments
- B. Three public comments, dated October 1, 2 and 10, 2012

PARTIES OF RECORD

Steve Lee, Studio Meng Strazzara, Applicant

Donna Caditz, Simca Group, Owner

Christopher Brown, PE

Scott and Jennifer Judge

Gary Porter

Rachel Mikulec

Brian Gawthrop

Carol and Brooks Walton

Wen LaCasse

Cheryl Hight

Spring Vitus

Rasekh Rifaat

George Britton-Simmons

Sacha Bailey

Gregory Wall

Eric Synn

Department of Planning and Community Development

Department of Public Works

Department of Building and Fire Services



CITY OF KIRKLAND
Planning and Community Development Department
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**ADVISORY REPORT
FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS**

To: Houghton Community Council
Kirkland Hearing Examiner

From:  Tony Leavitt, Associate Planner
 Eric R. Shields, AICP, Planning Director

Date: October 8, 2012

File: ZON12-00659, KIRKLAND CHILDREN'S SCHOOL MASTER PLAN

Hearing Date and Place: October 15, 2012; 7:00 PM
City Hall Council Chamber
123 Fifth Avenue, Kirkland

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I. INTRODUCTION

A. APPLICATION

1. Applicant: Steve Lee of Studio Meng Strazzara representing the Kirkland Children's School, Property and Business Owners
2. Site Location: 5311 108th Avenue NE (see Attachment 1)
3. Request: Proposal of a Master Plan zoning permit to allow the construction of a new 3,400 square foot building on the existing Kirkland Children's School site (see Attachments 2 and 3). The building will house 3 new classrooms (totaling 2,750 square feet) for the preschool/daycare environmental education program, restroom facilities, and storage areas. The project also includes other site improvements including the addition of 9 parking stalls, a rain garden, parking lot lighting and landscaping. The existing buildings (totaling 6,750 square feet) and parking lots (23 stalls) on the property will remain.
4. Review Process: Process IIB; Houghton Community Council and Hearing Examiner conduct a public hearing and make recommendations; City Council makes final decision. The Houghton Community Council has disapproval jurisdiction over the land use proposal.
5. Summary of Key Issues:
 - a. Compliance with Zoning Permit Approval Criteria (see Section II.E)
 - b. Compliance with Applicable Development Regulations (see Section II.F).

B. RECOMMENDATIONS

Based on Statements of Fact and Conclusions (Section II), and Attachments in this report, we recommend approval of this application subject to the following conditions:

1. This application is subject to the applicable requirements contained in the Kirkland Municipal Code, Zoning Code, and Building and Fire Code. It is the responsibility of the applicant to ensure compliance with the various provisions contained in these ordinances. Attachment 4, Development Standards, is provided in this report to familiarize the applicant with some of the additional development regulations. This attachment does not include all of the additional regulations. When a condition of approval conflicts with a development regulation in Attachment 4, the condition of approval shall be followed.
2. The minimum required number of onsite parking stalls for the project shall be 32 (see Conclusion II.F.5).
3. The applicant shall retain all trees during the construction of the school as shown in Attachment 3 and comply with the recommendations contained in the Tree Retention Plan (see Conclusion II.F.7).
4. As part of the building permit application, the applicant shall:
 - a. Submit plans for the installation 5 trees along the northwest corner of the site. The trees should be deciduous trees of 2-inch caliper, minimum, and/or coniferous trees at least six (6) feet in height,

minimum. At least 50 percent of the required trees shall be evergreen (see Conclusion II.F.6).

- b. Submit a lighting plan showing the location, height, fixture type and wattage of all proposed exterior lights. The lighting plan shall be consistent with the requirements in KZC Section 115.85 (see Conclusion II.F.8).

II. FINDINGS OF FACT AND CONCLUSIONS

A. SITE DESCRIPTION

1. Site Development and Zoning:

a. Facts:

- (1) Size: 57,385 Square Feet (1.32 acres)
- (2) Land Use: The subject property contains the existing Kirkland Children's School.
- (3) Zoning: The subject property is zoned RS 8.5 (Residential Single-family). A School Use is an allowed use, subject to approval of a Process IIB Master Plan Zoning Permit, within this zone.
- (4) Terrain: The subject property is relatively flat with the west property line being approximately 6 feet below the east property line.
- (5) Vegetation: The subject property contains a total of 49 significant trees.

b. Conclusions:

- (1) Size, land use, and terrain are not constraining factors in the review of this application.
- (2) Retention of significant trees is addressed in Section II.F.7.
- (3) Zoning is a relevant factor in the review of this application, due to the fact that a School Use must be approved through a Process IIB Zoning permit process (see Section II.F.1).

2. Neighboring Development and Zoning:

a. Facts: The neighboring properties are zoned as follows and contain the following uses:

North, West and South: Zoned RS 8.5, Single-family residences

East: Zoned RS 8.5, Kirkland Seventh-day Adventist School and Emerson (formerly BEST) High School.

- b. Conclusion: The neighboring single family development and zoning are factors in the review of the proposed Master Plan application.

B. HISTORY

1. Facts:

- a. King County Assessor's Office Records show that the main building on the site was constructed in 1945.
- b. The property was part of the Houghton-Kirkland Consolidation that occurred on July 3, 1968.
- c. According to the property and business owner, the Kirkland Children's School has been located on the site since 1970.
- d. The City has approved two minor modifications on the site. The first one, in 1994, allowed the addition of an enclosed play area. As part of that permit, the parking lot and associated landscaping were brought into conformance with the applicable code requirements. Additional landscaping and fencing was also added.
- e. The second modification, approved in 1999, allowed the construction of a reception and office area addition to the main building.

2. Conclusion: The history of the site is relevant in the review of the proposed Master Plan application.

C. PUBLIC COMMENT

1. Facts: The initial public comment period ran from July 24th to August 23rd, 2012. The Planning Department received a total of 28 comment emails, letters, and postcards during this comment period. A majority of comments were showing support for the application (see Attachment 5). Two of the letters (see Attachments 6 and 7) raised issues that staff addresses below. Additionally, the applicant responded to one of the letters with a response letter (see Attachment 8).

- Impacts to Adjacent Alley

A neighbor would like the City to require that the school move its fence that extends into the alley and open the alley for emergency access.

Staff Response: The existing alley is an unimproved alley that is used by some of the adjacent property. The City allows the continued use of these alleys by neighboring property owners including the installation of fence. If the City decides to pave the alley in the future, the school would be required to move the fence to the edge of its property line. The City has no plans at this time to improve the alley.

- Lighting

One neighbor is concerned about the lighting that will be installed as part of the new parking lot.

Staff Response: Staff addresses site lighting in Section II.F.8 of this report. The applicants state in their response letter that the light fixtures will be oriented away from the neighbor's residence and will meet the City's requirements.

- Parking and Traffic

One neighbor is concerned about the environmental impact of the proposed parking stalls and additional traffic on 108th Avenue NE.

Staff Response: The applicant is proposing the use of pervious paving for the new parking stalls and an onsite infiltration system for all stormwater drainage. The project was reviewed for traffic impacts and it was determined that the project will not create significant traffic impacts (see Attachment 10).

- Playground Noise

A neighbor is concerned about the noise impacts of additional children on the playground near their home.

Staff Response: The existing playground will remain unchanged as part of this project. The applicant states the site design of the project will help to minimize noise impacts by creating an additional buffer. The applicants state that they will limit the amount of children that use the playground at any one time to address the neighbor's concern.

D. STATE ENVIRONMENTAL POLICY ACT (SEPA) AND CONCURRENCY

1. Facts:

- a. A Determination of Nonsignificance (DNS) was issued on September 10, 2012. The Environmental Determination and Memo are included as Attachment 9.
- b. The project passed Traffic Concurrency on December 23, 2012 (see Attachment 10).
- c. No appeals of the SEPA Determination or Traffic Concurrency were filed.

2. Conclusion: The applicant and the City have satisfied the requirements of SEPA and Concurrency.

E. APPROVAL CRITERIA

1. Zoning

a. Facts:

- (1) Kirkland Zoning Code (KZC) Section 15.10.030 Special Regulation 10 requires that a School Use with a property size of less than five acres or more and within the Houghton Community Council jurisdiction receive approval through a Process IIB review.

- (2) Zoning Code section 152.70.3 states that a Process IIB application may be approved if:
 - (a) It is consistent with all applicable development regulations and, to the extent there is no applicable development regulation, the Comprehensive Plan; and
 - (b) It is consistent with the public health, safety, and welfare.
- b. Conclusions: The proposal complies with the criteria in KZC Section 152.70.3. It is consistent with all applicable development regulations (see Section II.F) and the Comprehensive Plan (see Section II.G). In addition, the proposal is consistent with the public health, safety, and welfare because the project will provide the community with an expanded school while minimizing impacts on the surrounding neighborhood.

F. DEVELOPMENT REGULATIONS

1. School Location Criteria

- a. Facts: KZC Section 17.10.030, Special Regulation No. 3, states that a school use may be located in a RS zone only if:
 - It will not be materially detrimental to the character of the neighborhood in which it is located.
 - Site and building design minimizes adverse impacts on surrounding residential neighborhoods.
 - The property is served by a collector or arterial street (does not apply to existing school sites).
- b. Conclusions: The proposal is consistent with the criteria established in KZC Section 17.10.030, Special Regulation No. 3 as follows:
 - There is an existing school at the site which includes recreational, parking, and other facilities normally associated with a school use. The proposal will not introduce new uses or activities which would materially impact the character of the neighborhood.
 - The building has been designed to minimize impacts on surrounding residential uses by locating it as far as possible from the residential properties near the existing parking lot and by limiting the height to 15 feet.
 - The property is served by 108th Avenue NE, which is classified as an arterial street.

2. Existing Nonconformances

a. Facts:

- (1) King County Assessor's Office Records show that the main building on the site was constructed in 1945. The property has been a school since at least 1970, when the current property owner bought the property.
- (2) The existing structures do not comply with the current property line setback requirements of 50 feet. Additionally, a portion of the existing parking lot does not comply with the current 20 foot setback requirement.
- (3) KZC Section 162.40 states that if a development activity on the subject property is being decided upon using a Process IIB review process, the City shall in such process consider the degree of nonconformance, its relationship to the proposed development activity, and pursuant to the relevant provisions of Chapter 162, may require that the applicant correct any nonconformance that exists on the subject property.
- (4) KZC Section 162.35.7 requires that any structural alteration of a roof or exterior wall which does not comply with required yard standards requires that the nonconforming setback be brought into conformance.
- (5) The existing nonconforming parking area would be classified as any other nonconformance per KZC Section 162.35.12. KZC Section 162.35.12 requires that this type of nonconformance be brought into conformance if The applicant is making any alteration or change or doing any other work in a consecutive 12-month period to an improvement that is nonconforming or houses, supports or is supported by the nonconformance, and the cost of the alteration, change or other work exceeds 50 percent of the replacement cost of that improvement.
- (6) The applicant is proposing no structural alterations to the existing structures.
- (7) The proposed structure complies with all applicable code requirements including setbacks, maximum lot coverage, and maximum height. The additional parking stalls will be located outside of the required 20 foot setback.

b. Conclusion: The existing nonconformances on the site are not being modified as part of the proposal. Staff recommends that the nonconforming structures and parking lot be allowed to remain. KZC Chapter 162 would continue to govern the nonconformances in the future.

3. School Use General Regulation 2

a. Facts:

- (1) KZC Section 15.08 General Regulation 2 states that if any portion of a structure is adjoining a detached dwelling unit in a low density zone, then either the height of that portion of the structure shall not exceed 15 feet above average building elevation or the maximum horizontal façade shall not exceed 50 feet (see Attachment 14).
- (2) The proposed structure adjoins detached dwelling units in a low density zone to the north, west and south. As a result, the structure must comply with KZC Section 15.08 General Regulation 2.
- (3) The proposed structure will be a maximum of 15 feet above average building elevation.

b. Conclusion: The proposed structure complies with KZC Section 15.08 General Regulation 2.

4. Passenger Loading Area

a. Facts:

- (1) KZC Section 15.10.030 Special Regulations 6 requires that an on-site passenger loading area be provided.
- (2) According to the applicant, parents who drop off their children at the school are required by the Department of Early Learning to enter the school with their children and sign their children in. During pick-up of their children, parents are required to enter the school and sign out the children.

b. Conclusion: Based on the information from the applicant, Public Works Staff has concluded that a passenger loading area is not needed for this type of school.

5. Parking

a. Facts:

- (1) KZC Section 15.10.030 does not establish a parking requirement for school uses. Instead, it defers to KZC Section 105.25, which authorizes the Planning Official to establish the number of required parking stalls based on the parking demand for the proposed use.
- (2) A parking demand study was submitted as part of the Traffic Impact Analysis (see Attachment 15).
- (3) The City's Transportation Engineer has reviewed the parking demand study and recommends that the completed project contain at least 32 onsite parking stalls (see Attachment 10).

(4) The applicant is proposing a total of 32 onsite parking stalls.

b. Conclusions: The minimum required number of onsite parking stalls for the project is 32. The applicant is proposing an adequate number of parking stalls to serve the proposed project.

6. Landscaping Requirements

a. Facts:

(1) KZC Section 15.10.030 requires School Use in a RS zone to comply with Landscape Category D.

(2) KZC Section 95.42 lists the minimum land use buffer requirements for Landscape Category D. The subject property is bordered on three sides by single family residential uses and this section requires the installation of a landscape buffer that complies with Buffering Standard 2. For standard 2, the applicant shall provide a 5-foot-wide landscaped strip with a 6-foot-high solid screening fence or wall. Within the landscape strip, trees spaced 10 feet apart are required.

(3) KZC Section 95.40.6.h states that if the subject property is occupied by a school, landscape buffers are not required along property lines adjacent to a street.

(4) The subject property is surrounded by an existing 6 foot high solid wood fence. Existing significant trees along the perimeter of the site are proposed to be retained.

b. Conclusions:

(1) A landscape buffer is not required along the east property line as this property lines is adjacent to a street.

(2) The existing trees on site provide an adequate buffer along a majority of the site perimeter. Staff is recommending that a total of 5 trees be planted in the northwest corner of the site to fill-in the required buffer.

(3) As part of the building permit application, the applicant should submit plans for the installation 5 trees along the northwest corner of the site. The trees should be deciduous trees of 2-inch caliper, minimum, and/or coniferous trees at least six (6) feet in height, minimum. At least 50 percent of the required trees shall be evergreen.

7. Natural Features- Significant Landscaping

a. Facts:

(1) Regulations regarding the retention of trees can be found in Chapter 95 of the Kirkland Zoning Code. The applicant is required to retain all trees with a moderate to high retention value to the maximum extent possible.

- (2) The applicant has submitted a Tree Retention Plan prepared by a certified arborist (see Attachments 3 and 11).
 - (3) The City's Urban Forester has reviewed the Tree Retention Plan (see Attachment 12) and designated the onsite significant trees.
- b. Conclusions: The applicant should retain all trees during the construction of the school as shown in Attachment 3 and comply with the recommendations contained in the Tree Retention Plan.

8. Site Lighting

a. Facts:

- (1) KZC Section 115.85.1 requires that the applicant use energy efficient light sources, comply with the Washington Energy Code with respect to the selection and regulation of light sources, and select, place, and direct light sources both directable and nondirectable so that glare produced by any light source, to the maximum extent possible, does not extend to adjacent properties or to the right-of-way.
 - (2) The current submittal does not contain a detailed lighting plan that would show the location, height, fixture type, and wattage of proposed lights.
- b. Conclusion: As part of its building permit application, the applicant should submit a lighting plan showing the location, height, fixture type and wattage of all proposed exterior lights. The lighting plan shall be consistent with the requirements in KZC Section 115.85.

G. COMPREHENSIVE PLAN

1. Facts:

- a. The subject property is located within the Central Houghton neighborhood. The Central Houghton Neighborhood Land Use Map designates the subject property for low density residential use (see Attachment 13).
 - b. The newly adopted Central Houghton Neighborhood Plan includes a policy, CH-8.1, which states "provide opportunities for early community involvement in any expansion plans for, modifications to, or changes in uses within schools".
 - c. The owners of the school held community meetings and discussions with neighbors and the community members during their design process.
2. Conclusion: The proposal is consistent with low density residential use designation and policies within the Comprehensive Plan.

H. DEVELOPMENT STANDARDS

1. Fact: Additional comments and requirements placed on the project are found on the Development Standards, Attachment 4.
2. Conclusion: The applicant should follow the requirements set forth in Attachment 4.

III. SUBSEQUENT MODIFICATIONS

Modifications to the approval may be requested and reviewed pursuant to the applicable modification procedures and criteria in effect at the time of the requested modification.

IV. CHALLENGES AND JUDICIAL REVIEW

The following is a summary of the deadlines and procedures for challenges. Any person wishing to file or respond to a challenge should contact the Planning Department for further procedural information.

A. CHALLENGE

Section 152.85 of the Zoning Code allows the Hearing Examiner's recommendation to be challenged by the applicant or any person who submitted written or oral comments or testimony to the Hearing Examiner. A party who signed a petition may not challenge unless such party also submitted independent written comments or information. The challenge must be in writing and must be delivered, along with any fees set by ordinance, to the Planning Department by 5:00 p.m., _____, seven (7) calendar days following distribution of the Hearing Examiner's written recommendation on the application. Within this same time period, the person making the challenge must also mail or personally deliver to the applicant and all other people who submitted comments or testimony to the Hearing Examiner, a copy of the challenge together with notice of the deadline and procedures for responding to the challenge.

Any response to the challenge must be delivered to the Planning Department within seven (7) calendar days after the challenge letter was filed with the Planning Department. Within the same time period, the person making the response must deliver a copy of the response to the applicant and all other people who submitted comments or testimony to the Hearing Examiner.

Proof of such mail or personal delivery must be made by affidavit, available from the Planning Department. The affidavit must be attached to the challenge and response letters, and delivered to the Planning Department. The challenge will be considered by the City Council at the time it acts upon the recommendation of the Hearing Examiner.

B. JUDICIAL REVIEW

Section 152.110 of the Zoning Code allows the action of the City in granting or denying this zoning permit to be reviewed in King County Superior Court. The petition for review must be filed within twenty-one (21) calendar days of the issuance of the final land use decision by the City.

V. LAPSE OF APPROVAL

Under Section 152.115 of the Zoning Code, the applicant must submit to the City a complete building permit application approved under Chapter 152, within four (4) years after the final approval on the matter, or the decision becomes void; provided, however, that in the event judicial review is initiated per Section 152.110, the running of the four years is tolled for any period of time during which a court order in said judicial review proceeding prohibits the required development activity, use of land, or other actions. Furthermore, the applicant must substantially complete construction approved under Chapter 152 and complete the applicable conditions listed on the Notice of Approval within six (6) years after the final approval on the matter, or the decision becomes void.

VI. APPENDICES

Attachments 1 through 15 are attached.

1. Vicinity Map
2. Project Description
3. Development Plans
4. Development Standards
5. Comments and Postcard Summaries
6. Comment Letter from Gary Porter
7. Comment Email from Brooks and Carol Porter
8. Comment Response Letter from Kirkland Children's School
9. SEPA Determination and Memo
10. Public Works Traffic Impacts Analysis Review Memo
11. Arborist Report
12. Urban Forester Review Memo
13. Central Houghton Neighborhood Land Use Map
14. RS Use Zone Chart
15. Traffic Impact Analysis

VII. PARTIES OF RECORD

Applicant: Steve Lee, Studio Meng Strazzara
Owner: Donna Caditz, Simca Group
Parties of Record
Department of Planning and Community Development
Department of Public Works
Department of Building and Fire Services

A written recommendation will be issued by the Hearing Examiner within eight calendar days of the date of the open record hearing unless additional time is provided per KZC 152.70.2.

**Kirkland Children's School
ZON12-00659**

Northwest
University
PLA

5311 108th Avenue NE

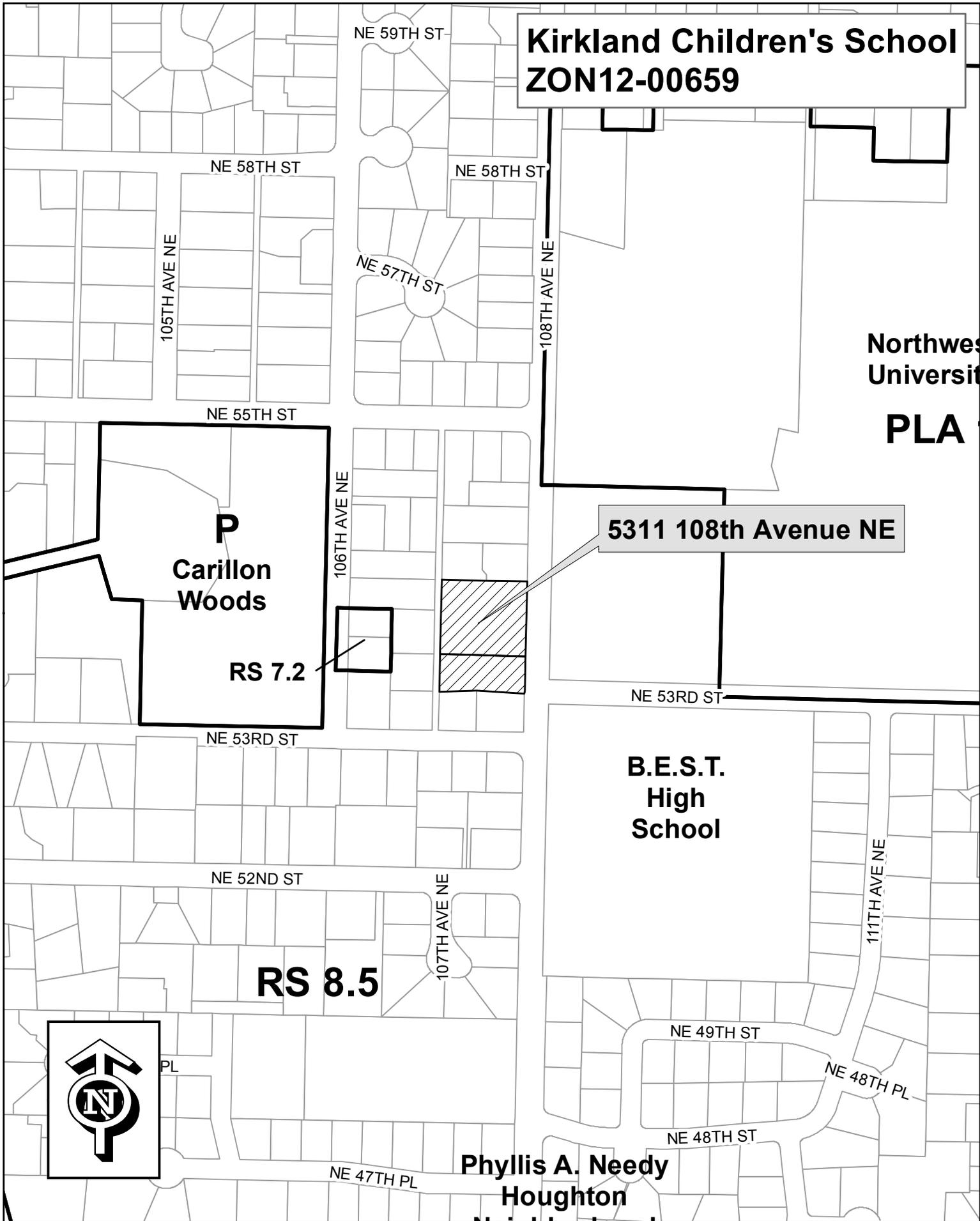
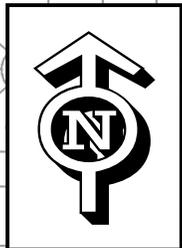
**P
Carillon
Woods**

RS 7.2

**B.E.S.T.
High
School**

RS 8.5

**Phyllis A. Needy
Houghton**





ARCHITECTURE
PLANNING
CONSULTING

04 April 2012

City of Kirkland
Planning & Community Development
123 5th Avenue
Kirkland, WA 98033

RE: Zoning Code Statement

A statement describing how the application specifically complies with applicable criteria set forth in the Zoning Code.

City of Kirkland Planner:

The new classroom building at Kirkland Children's School complies with the Kirkland Zoning Code. All set back requirements are per zoning code. Per our pre application meeting, the building height is set at 15'-0" per code. The project follows the LID process for storm water and small project classifications. The design of the building reflects the residential neighborhood scale and materials.

The parking area has been improved to add nine (9) standard sized stalls, and the remaining west portion of the existing stalls have been restriped to meet the 50% standard stall percentage requirements. No new curb cuts are required for the project. Additional lighting has been added to the parking lot to meet light level requirements. We have provided a pedestrian connection route from the front door of facility to the sidewalk along 108th Ave NE.

As discussed in our pre application meeting on November 11, 2011, existing frontage improvements facing 108th Ave NE meet the zoning code requirements.

Sincerely,

A handwritten signature in blue ink, appearing to read "S. Lee".

Steven H. Lee
Applicant, Project Manager

KIRKLAND CHILDREN'S SCHOOL

NEW CLASSROOM BUILDING

5311 108th AVE NE, KIRKLAND, WA

ZON12-00659 Staff Report
Attachment 3



2001 WESTERN AVE
SUITE 200
SEATTLE, WA 98121
TEL: 206.587.3787
FAX: 206.587.2588

CONSULTANT

CLIENT/OWNER



TITLE

NEW CLASSROOM BUILDING

5311 108th Ave NE
Kirkland, WA

STAMP

© COPYRIGHT 2012
PROJECT NUMBER
11103 01

ISSUED FOR: DATE:
ZONING PERM: 08.20.12

PLAN APPROVAL
DRAWN BY: JL
CHECKED: JL

SHEET CONTENTS

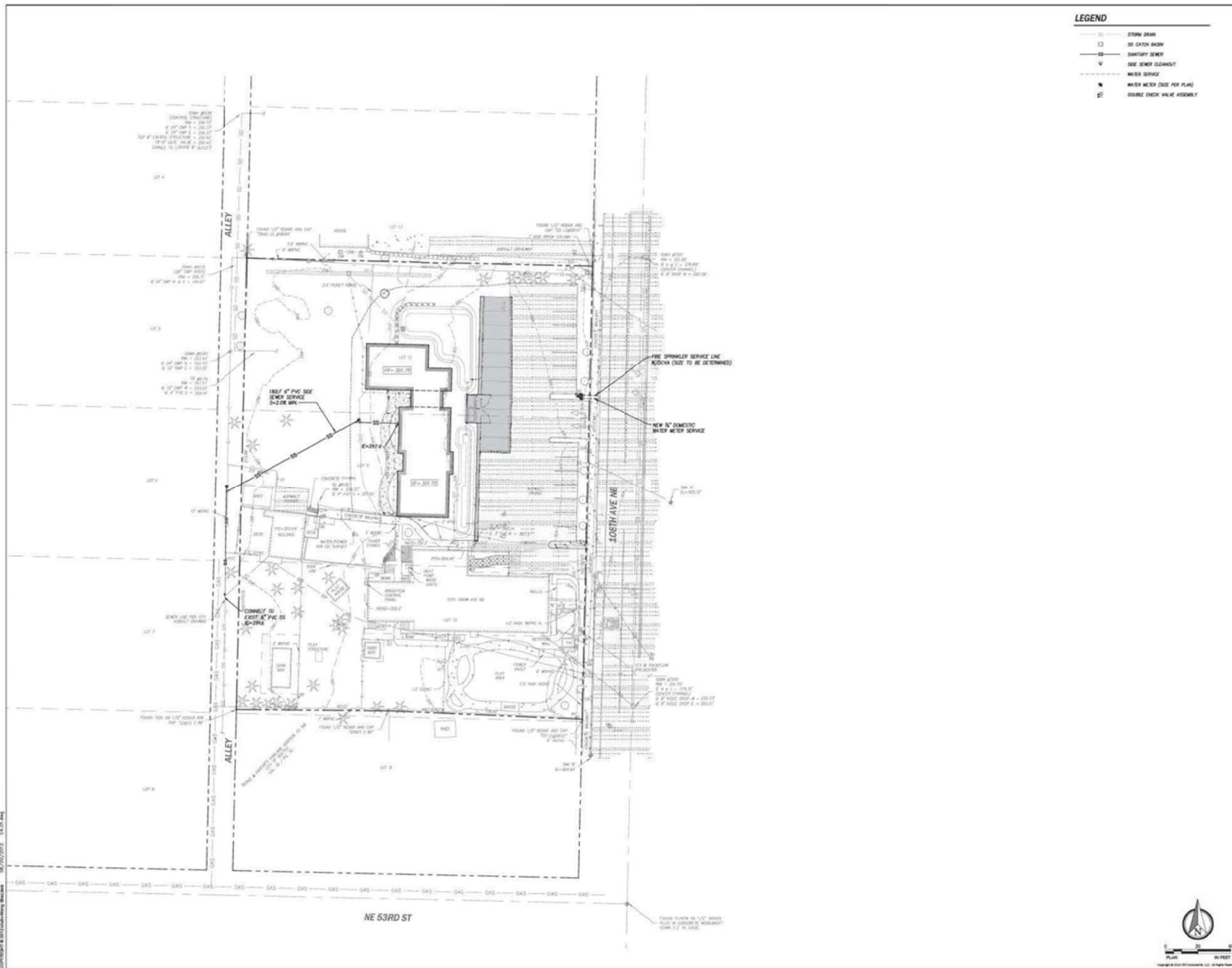
GENERAL PROJECT INFORMATION SHEET

SHEET NUMBER

G-001

ABBREVIATIONS

| | | | | |
|-------|----|------------------|----|------------------------|
| A and | CA | open corner | R | rear, there |
| B | CB | closed | RA | radius |
| C | CC | center | RB | reference |
| D | CD | center diameter | RC | reflected |
| E | CE | center elevation | RD | reflector |
| F | CF | center face | RE | reflector, reflectance |
| ADW | CG | center grade | RF | radius |
| APW | CH | center height | RH | radius, horizontal |
| ACC | CI | center inside | RI | radius, interior |
| AD | CJ | center joint | RJ | radius, joint |
| ADU | CK | center knee | RK | radius, knee |
| ADV | CL | center line | RL | radius, line |
| ADW | CM | center mark | RM | radius, mark |
| ADY | CN | center nose | RN | radius, nose |
| ADZ | CO | center offset | RO | radius, offset |
| ADW | CP | center point | RP | radius, point |
| ADW | CQ | center quarter | RS | radius, square |
| ADW | CR | center radius | RT | radius, tangent |
| ADW | CS | center square | RU | radius, unit |
| ADW | CT | center top | RV | radius, vertical |
| ADW | CU | center under | RW | radius, width |
| ADW | CV | center vertical | RX | radius, x-axis |
| ADW | CW | center width | RY | radius, y-axis |
| ADW | CA | center axis | RZ | radius, z-axis |
| ADW | CB | center base | RA | radius, a-axis |
| ADW | CC | center center | RB | radius, b-axis |
| ADW | CD | center diameter | RC | radius, c-axis |
| ADW | CE | center elevation | RD | radius, d-axis |
| ADW | CF | center face | RE | radius, e-axis |
| ADW | CG | center grade | RF | radius, f-axis |
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| ADW | CI | center inside | RH | radius, h-axis |
| ADW | CJ | center joint | RI | radius, i-axis |
| ADW | CK | center knee | RJ | radius, j-axis |
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| ADW | CQ | center quarter | RD | radius, d-axis |
| ADW | CR | center radius | RE | radius, e-axis |
| ADW | CS | center square | RF | radius, f-axis |
| ADW | CT | center top | RG | radius, g-axis |
| ADW | CU | center under | RH | radius, h-axis |
| ADW | CV | center vertical | RI | radius, i-axis |
| ADW | CW | center width | RJ | radius, j-axis |
| ADW | CA | center axis | RK | radius, k-axis |
| ADW | CB | center base | RL | radius, l-axis |
| ADW | CC | center center | RM | radius, m-axis |
| ADW | CD | center diameter | RN | radius, n-axis |
| ADW | CE | center elevation | RO | radius, o-axis |
| ADW | CF | center face | RP | radius, p-axis |
| ADW | CG | center grade | RQ | radius, q-axis |
| ADW | CH | center height | RS | radius, r-axis |
| ADW | CI | center inside | RT | radius, t-axis |
| ADW | CJ | center joint | RU | radius, u-axis |
| ADW | CK | center knee | RV | radius, v-axis |
| ADW | CL | center line | RW | radius, w-axis |
| ADW | CM | center mark | RX | radius, x-axis |
| ADW | CN | center nose | RY | radius, y-axis |
| ADW | CO | center offset | RZ | radius, z-axis |
| ADW | CP | center point | RA | radius, a-axis |
| ADW | CQ | center quarter | RB | radius, b-axis |
| ADW | CR | center radius | RC | radius, c-axis |
| ADW | CS | center square | RD | radius, d-axis |
| ADW | CT | center top | RE | radius, e-axis |
| ADW | CU | center under | RF | radius, f-axis |
| ADW | CV | center vertical | RG | radius, g-axis |
| ADW | CW | center width | RH | radius, h-axis |
| ADW | CA | center axis | RI | radius, i-axis |
| ADW | CB | center base | RJ | radius, j-axis |
| ADW | CC | center center | RK | radius, k-axis |
| ADW | CD | center diameter | RL | radius, l-axis |
| ADW | CE | center elevation | RM | radius, m-axis |
| ADW | CF | center face | RN | radius, n-axis |
| ADW | CG | center grade | RO | radius, o-axis |
| ADW | CH | center height | RP | radius, p-axis |
| ADW | CI | center inside | RQ | radius, q-axis |
| ADW | CJ | center joint | RS | radius, r-axis |
| ADW | CK | center knee | RT | radius, t-axis |
| ADW | CL | center line | RU | radius, u-axis |
| ADW | CM | center mark | RV | radius, v-axis |
| ADW | CN | center nose | RW | radius, w-axis |
| ADW | CO | center offset | RX | radius, x-axis |
| ADW | CP | center point | RY | radius, y-axis |
| ADW | CQ | center quarter | RZ | radius, z-axis |
| ADW | CR | center radius | RA | radius, a-axis |
| ADW | CS | center square | RB | radius, b-axis |
| ADW | CT | center top | RC | radius, c-axis |
| ADW | CU | center under | RD | radius, d-axis |
| ADW | CV | center vertical | RE | radius, e-axis |
| ADW | CW | center width | RF | radius, f-axis |
| ADW | CA | center axis | RG | radius, g-axis |
| ADW | CB | center base | RH | radius, h-axis |
| ADW | CC | center center | RI | radius, i-axis |
| ADW | CD | center diameter | RJ | radius, j-axis |
| ADW | CE | center elevation | RK | radius, k-axis |
| ADW | CF | center face | RL | radius, l-axis |
| ADW | CG | center grade | RM | radius, m-axis |
| ADW | CH | center height | RN | radius, n-axis |
| ADW | CI | center inside | RO | radius, o-axis |
| ADW | CJ | center joint | RP | radius, p-axis |
| ADW | CK | center knee | RQ | radius, q-axis |
| ADW | CL | center line | RS | radius, r-axis |
| ADW | CM | center mark | RT | |



- LEGEND**
- STORM DRAIN
 - 30' CATCH BASIN
 - SS— SANITARY SEWER
 - W— 30" SEE SEWER CLEAROUT
 - M— WATER SERVICE
 - N— WATER METER (SIZE PER PLAN)
 - E— DOUBLE CHECK VALVE ASSEMBLY

studio MENG STRAZZARA
 ARCHITECTURE
 PLANNING
 INTERIOR DESIGN

2001 WESTERN AVE
 SUITE 200
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 TEL: 206 587 2797
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CONSULTANT
CPH
 CONSULTANTS
 Civil, Mechanical, Electrical, Plumbing, Fire Protection, Land Use Consulting, Project Management
 1000 Western Ave, Suite 200, Seattle, WA 98101
 www.cphconsultants.com

CLIENT/OWNER

KIRKLAND
 COMMUNITY DEVELOPMENT SERVICES

TITLE

NEW CLASSROOM BUILDING

5311 108th Ave NE
 Kirkland, WA



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PROJECT NUMBER

11103.01

ISSUED FOR: DATE:
 (DATE) (TIME) (DATE)

PLAN APPROVAL
 DRAWN BY: PVE
 CHECKED: JDS

SHEET CONTENTS

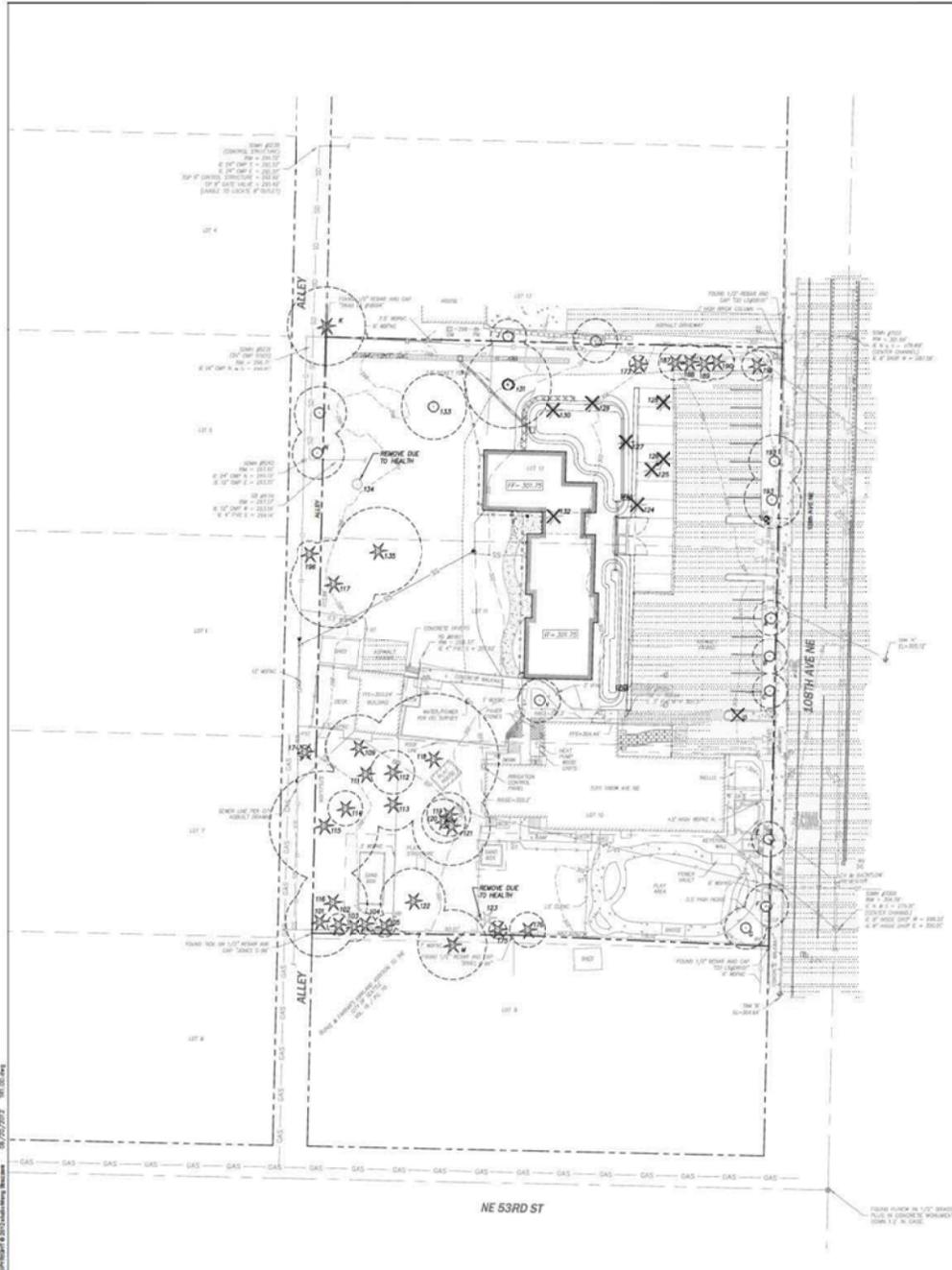
CONCEPTUAL UTILITY PLAN

SHEET NUMBER

C4.01



10/20/2012 11:41 AM
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LEGEND

- TREE TO REMAIN
- TREES TO BE REMOVED FOR CONSTRUCTION
- TREES TO BE REMOVED FOR HEALTH/SAFETY
- APPROX. TREE DROPLETS/AMTS OF DISTURBANCE

TREE CALCULATIONS AND SUMMARY

| Item # | Species/Tree Name | Common Name | Size (Inches) | Condition | Tree | Target | MA (Inches) | USE | Management Options | Notes | Tree Status |
|--------|-------------------|------------------|---------------|-----------|------|--------|-------------|-----|--------------------|---|-------------|
| 101 | Planting | Shagbark Hickory | 24.0 | SB | Tree | 2 | 2 | 2 | Shagbark Hickory | Bank creek with top flow, log missing. Bank creek bank, bank before tree. Affected. | Active |
| 102 | Planting | Hickory | 7.0 | S | Tree | 1 | 1 | 1 | Hickory | Remains in place. | Active |
| 103 | Planting | Hickory | 7.0 | S | Tree | 1 | 1 | 1 | Hickory | Remains in place. | Active |
| 104 | Planting | Hickory | 4.7 | S | Tree | 1 | 1 | 1 | Hickory | Remains in place. | Active |
| 105 | Planting | Hickory | 10.0 | S | Tree | 1 | 1 | 1 | Hickory | Remains in place. | Active |
| 106 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 107 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 108 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 109 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 110 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 111 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 112 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 113 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 114 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 115 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 116 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 117 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 118 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 119 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 120 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 121 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 122 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 123 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 124 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 125 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 126 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 127 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 128 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 129 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 130 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 131 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 132 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 133 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 134 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 135 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 136 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 137 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 138 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 139 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 140 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 141 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 142 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 143 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 144 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 145 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 146 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 147 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 148 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 149 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 150 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 151 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 152 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 153 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 154 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 155 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 156 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 157 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 158 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 159 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 160 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 161 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 162 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 163 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 164 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 165 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 166 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 167 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 168 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 169 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 170 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 171 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 172 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 173 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 174 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 175 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 176 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 177 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 178 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 179 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 180 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 181 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 182 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 183 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 184 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 185 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 186 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 187 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 188 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 189 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 190 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 191 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 192 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 193 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 194 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 195 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 196 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 197 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 198 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 199 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |
| 200 | Planting | Hickory | 10.0 | S | Tree | 2 | 2 | 2 | Hickory | Remains in place. | Active |

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FAX: 206 587 0568

CONSULTANT
CPH
CONSULTANTS

CLIENT/OWNER

KIRKLAND
CREATING VALUE & CHANGING PRACTICES

TITLE

NEW CLASSROOM BUILDING

5311 53RD AVE NE
Kirkland, WA

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PROJECT NUMBER
11103.01

ISSUED FOR: DATE:
ZONING PERMIT: 08.20.12

PLAN APPROVAL
DRAWN BY: JVE
CHECKED: JVE

SHEET CONTENTS

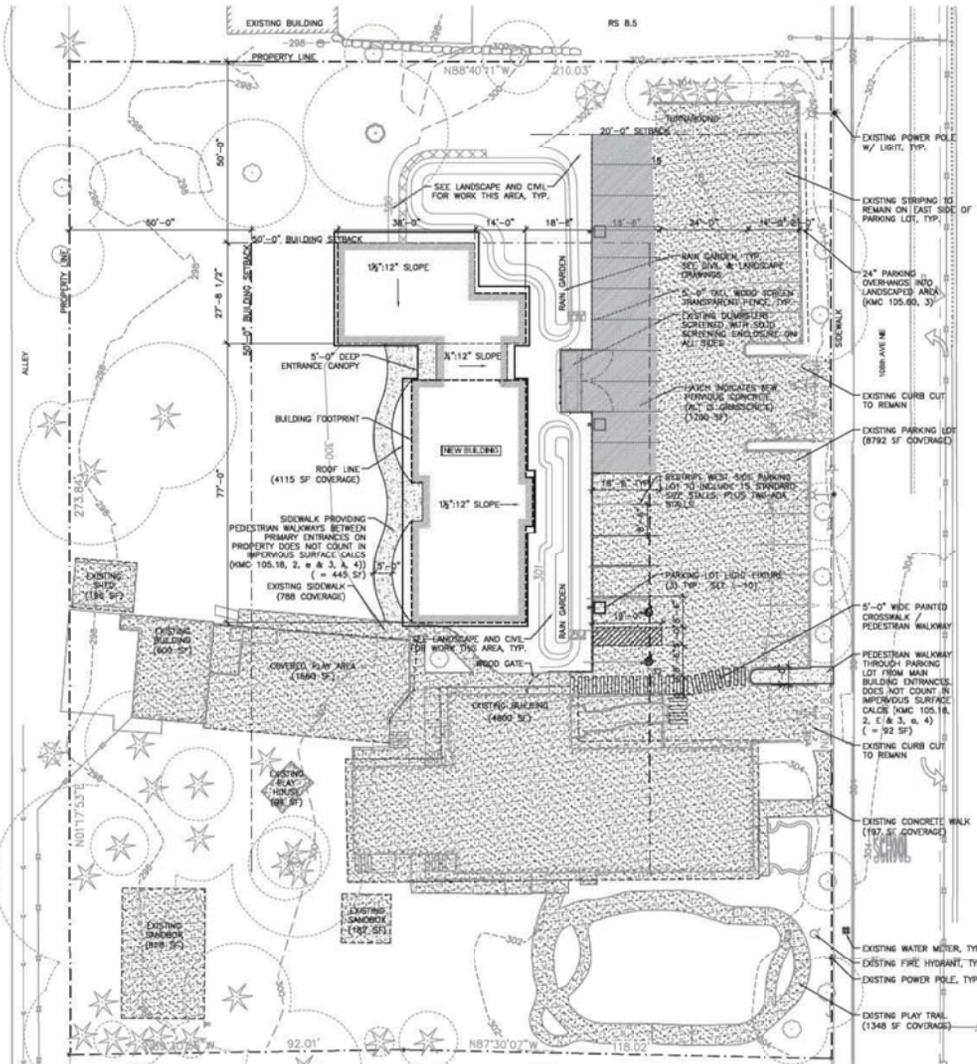
TREE PLAN

SHEET NUMBER

TR1.00



DATE: 08/20/12 10:42 AM



1 ARCHITECTURAL SITE PLAN
SCALE: 1/160

CODE INFORMATION

JURISDICTION: CITY OF KIRKLAND
NEIGHBORHOOD OF CENTRAL HOUGHTON

BUILDING CODE: 2009 INTERNATIONAL BUILDING CODE WITH WASHINGTON STATE AMENDMENTS

OCCUPANCY CLASSIFICATION: GROUP E

TYPE OF CONSTRUCTION: TYPE V-B (NON RATED)
BUILDING FULLY FIRE SPRINKLERED

ZONING: RS 8.5

ADJACENT LAND USE:
N - RS 8.5 SINGLE FAMILY
E - RS 8.5 COMMERCIAL (CHURCH)
W - RS 8.5 SINGLE FAMILY
S - RS 8.5 SINGLE FAMILY

PARCEL NUMBER: 1234000650 & 1234000640

LOT SIZE: 57,385 SF (1.32 ACRES) (TWO PARCELS COMBINED)

TOTAL LOT COVERAGE: 6291 SF = PROPOSED NEW
18,281 SF = EXISTING
25,272 SF TOTAL = 43% COVERAGE

NUMBER OF DWELLING UNITS: NOT APPLICABLE. NO DWELLING UNITS.

NUMBER OF STORES: 1 STORY = PROPOSED NEW
1 STORY = EXISTING BUILDINGS

TOTAL GROSS BUILDING AREA: 3474 SF = PROPOSED NEW (2750 SF CLASSROOMS + 724 SF VESTIBULE/STAFF BATH-ROOM/STORAGE)
8750 SF = EXISTING
16,224 SF = TOTAL

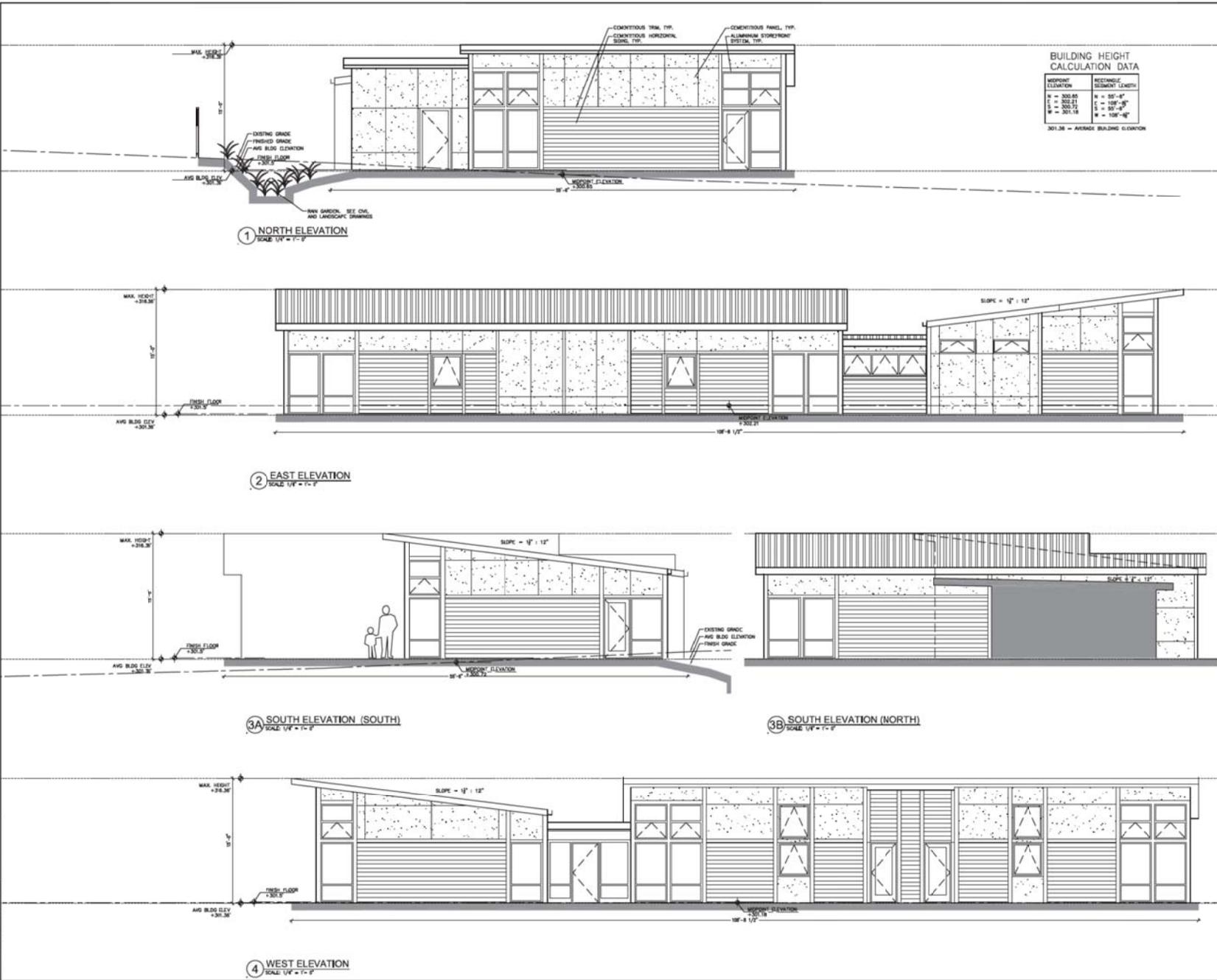
TOTAL GROSS ROOF AREA: 4088 SF = PROPOSED NEW
5400 SF = EXISTING
9488 SF = TOTAL

TOTAL PARKING: 32 = PROPOSED DESIGN (15 EXISTING STALLS AND 17 NEW STANDARD AND ADA STALLS)
23 = EXISTING

LEGAL DESCRIPTION: BURKE-FARRARS KIRKLAND DIV # 7 LESS POR OF LOT 10 OF BLOCK 8 OF SD PLAT DAF --- BIG AT SE COR OF SD LOT 10 TH N 88-41-37 W ALG THE S LN THOF A DIST OF 210.01 FT TO WLY IN OF SD LOT 10 TH N 01-18-32 E A DIST OF 2.31 FT TH S 89-33-44 E A DIST OF 92.01 FT TH S 87-32-55 E A DIST OF 118.02 FT TO ELY IN OF SD LOT 10 TH S 01-18-32 W A DIST OF 1.35 FT TO POB PER SCC NO. 80-2-07556-0 DATED APRIL 19 1983

IMPERVIOUS CALCULATIONS

--- 3474 SF = BUILDING FOOTPRINT
--- 4115 SF = ROOF COVERAGE (BUILDING FOOTPRINT + ROOF OVERHANGS)
--- 850 SF = (1700 SF TOTAL) NEW PERVIOUS PAVING FOR PARKING & DUMPSTERS
■ 4960 SF = TOTAL IMPERVIOUS SURFACE (NOT INC. WALKWAYS DUE TO EXCEPTION KMC 105.18.2.4 & 3.A.4)



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SEATTLE, WA 98121
TEL: 206.567.3787
FAX: 206.567.2588

CONSULTANT

CLIENT/OWNER

KIRKLAND
COMMERCIAL REAL ESTATE

TITLE

NEW CLASSROOM BUILDING

5311 108th Ave NE
Kirkland, WA

STAMP

FOR RECORD ARCHITECT
[Signature]
DATE: 06/20/12

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PROJECT NUMBER

11103 01

ISSUED FOR: DATE:

DRAWING PERM: 06/20/12

PLAN APPROVAL

DRAWN BY: *[Signature]*

CHECKED BY: *[Signature]*

SHEET CONTENTS

EXTERIOR ELEVATIONS

SHEET NUMBER

A-201



CITY OF KIRKLAND

Planning and Community Development Department

123 Fifth Avenue, Kirkland, WA 98033 425.587-3225

www.kirklandwa.gov

DEVELOPMENT STANDARDS LIST

KIRKLAND CHILDREN'S SCHOOL MASTER PLAN, ZON12-00659

ZONING CODE STANDARDS

95.51.2.a Required Landscaping. All required landscaping shall be maintained throughout the life of the development. The applicant shall submit an agreement to the city to be recorded with King County which will perpetually maintain required landscaping. Prior to issuance of a certificate of occupancy, the proponent shall provide a final as-built landscape plan and an agreement to maintain and replace all landscaping that is required by the City.

95.44 Parking Area Landscape Islands. Landscape islands must be included in parking areas as provided in this section.

95.45 Parking Area Landscape Buffers. Applicant shall buffer all parking areas and driveways from the right-of-way and from adjacent property with a 5-foot wide strip as provided in this section. If located in a design district a low hedge or masonry or concrete wall may be approved as an alternative through design review.

95.50 Tree Installation Standards. All supplemental trees to be planted shall conform to the Kirkland Plant List. All installation standards shall conform to Kirkland Zoning Code Section 95.45.

95.52 Prohibited Vegetation. Plants listed as prohibited in the Kirkland Plant List shall not be planted in the City.

100.25 Sign Permits. Separate sign permit(s) are required. In JBD and CBD cabinet signs are prohibited.

105.18 Pedestrian Walkways. All uses, except single family dwelling units and duplex structures, must provide pedestrian walkways designed to minimize walking distances from the building entrance to the right of way and adjacent transit facilities, pedestrian connections to adjacent properties, between primary entrances of all uses on the subject property, through parking lots and parking garages to building entrances. Easements may be required. In design districts through block pathways or other pedestrian improvements may be required. See also Plates 34 in Chapter 180.

105.32 Bicycle Parking. All uses, except single family dwelling units and duplex structures with 6 or more vehicle parking spaces must provide covered bicycle parking within 50 feet of an entrance to the building at a ratio of one bicycle space for each twelve motor vehicle parking spaces. Check with Planner to determine the number of bike racks required and location.

105.18 Entrance Walkways. All uses, except single family dwellings and duplex structures, must provide pedestrian walkways between the principal entrances to all businesses, uses, and/or buildings on the subject property.

105.18 Overhead Weather Protection. All uses, except single family dwellings, multifamily, and industrial uses, must provide overhead weather protection along any portion of the building, which is adjacent to a pedestrian walkway.

105.18.2 Walkway Standards. Pedestrian walkways must be at least 5' wide; must be

distinguishable from traffic lanes by pavement texture or elevation; must have adequate lighting for security and safety. Lights must be non-glare and mounted no more than 20' above the ground.

105.65 Compact Parking Stalls. Up to 50% of the number of parking spaces may be designated for compact cars.

105.60.2 Parking Area Driveways. Driveways which are not driving aisles within a parking area shall be a minimum width of 20 feet.

105.60.3 Wheelstops. Parking areas must be constructed so that car wheels are kept at least 2' from pedestrian and landscape areas.

105.60.4 Parking Lot Walkways. All parking lots which contain more than 25 stalls must include pedestrian walkways through the parking lot to the main building entrance or a central location. Lots with more than 25,000 sq. ft. of paved area must provide pedestrian routes for every 3 aisles to the main entrance.

105.77 Parking Area Curbing. All parking areas and driveways, for uses other than detached dwelling units must be surrounded by a 6" high vertical concrete curb.

110.60.5 Street Trees. All trees planted in the right-of-way must be approved as to species by the City. All trees must be two inches in diameter at the time of planting as measured using the standards of the American Association of Nurserymen with a canopy that starts at least six feet above finished grade and does not obstruct any adjoining sidewalks or driving lanes.

115.25 Work Hours. It is a violation of this Code to engage in any development activity or to operate any heavy equipment before 7:00 am. or after 8:00 pm Monday through Friday, or before 9:00 am or after 6:00 pm Saturday. No development activity or use of heavy equipment may occur on Sundays or on the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas Day. The applicant will be required to comply with these regulations and any violation of this section will result in enforcement action, unless written permission is obtained from the Planning official.

115.45 Garbage and Recycling Placement and Screening. For uses other than detached dwelling units, duplexes, moorage facilities, parks, and construction sites, all garbage receptacles and dumpsters must be setback from property lines, located outside landscape buffers, and screened from view from the street, adjacent properties and pedestrian walkways or parks by a solid sight-obscuring enclosure.

115.75.2 Fill Material. All materials used as fill must be non-dissolving and non-decomposing. Fill material must not contain organic or inorganic material that would be detrimental to the water quality, or existing habitat, or create any other significant adverse impacts to the environment.

115.90 Calculating Lot Coverage. The total area of all structures and pavement and any other impervious surface on the subject property is limited to a maximum percentage of total lot area. See the Use Zone charts for maximum lot coverage percentages allowed. Section 115.90 lists exceptions to total lot coverage calculations See Section 115.90 for a more detailed explanation of these exceptions.

115.95 Noise Standards. The City of Kirkland adopts by reference the Maximum Environmental Noise Levels established pursuant to the Noise Control Act of 1974, RCW 70.107. See Chapter 173-60 WAC. Any noise, which injures, endangers the comfort, repose, health or safety of persons, or in any way renders persons insecure in life, or in the use of property is a violation of this Code.

115.115 Required Setback Yards. This section establishes what structures, improvements and activities may be within required setback yards as established for each use in each zone.

115.115.3.g Rockeries and Retaining Walls. Rockeries and retaining walls are limited to a maximum height of four feet in a required yard unless certain modification criteria in this section are met. The combined height of fences and retaining walls within five feet of each other in a required yard is limited to a maximum height of 6 feet, unless certain modification

criteria in this section are met.

115.115.3.p HVAC and Similar Equipment: These may be placed no closer than five feet of a side or rear property line, and shall not be located within a required front yard; provided, that HVAC equipment may be located in a storage shed approved pursuant to subsection (3)(m) of this section or a garage approved pursuant to subsection (3)(o)(2) of this section. All HVAC equipment shall be baffled, shielded, enclosed, or placed on the property in a manner that will ensure compliance with the noise provisions of KZC 115.95.

115.135 Sight Distance at Intersection. Areas around all intersections, including the entrance of driveways onto streets, must be kept clear of sight obstruction as described in this section.

Prior to issuance of a grading or building permit:

95.30(4) Tree Protection Techniques. A description and location of tree protection measures during construction for trees to be retained must be shown on demolition and grading plans.

95.34 Tree Protection. Prior to development activity or initiating tree removal on the site, vegetated areas and individual trees to be preserved shall be protected from potentially damaging activities. Protection measures for trees to be retained shall include (1) placing no construction material or equipment within the protected area of any tree to be retained; (2) providing a visible temporary protective chain link fence at least 6 feet in height around the protected area of retained trees or groups of trees until the Planning Official authorizes their removal; (3) installing visible signs spaced no further apart than 15 feet along the protective fence stating "Tree Protection Area, Entrance Prohibited" with the City code enforcement phone number; (4) prohibiting excavation or compaction of earth or other damaging activities within the barriers unless approved by the Planning Official and supervised by a qualified professional; and (5) ensuring that approved landscaping in a protected zone shall be done with light machinery or by hand.

Prior to occupancy:

95.51.2.a Required Landscaping. All required landscaping shall be maintained throughout the life of the development. The applicant shall submit an agreement to the city to be recorded with King County which will perpetually maintain required landscaping. Prior to issuance of a certificate of occupancy, the proponent shall provide a final as-built landscape plan and an agreement to maintain and replace all landscaping that is required by the City

110.60.5 Landscape Maintenance Agreement. The owner of the subject property shall sign a landscape maintenance agreement, in a form acceptable to the City Attorney, to run with the subject property to maintain landscaping within the landscape strip and landscape island portions of the right-of-way. It is a violation to pave or cover the landscape strip with impervious material or to park motor vehicles on this strip.

DEVELOPMENT STANDARDS

ZON12-00659



BUILDING DEPARTMENT

1. Prior to issuance of Building, Demolition or Land surface Modification permit applicant must submit a proposed rat baiting program for review and approval. Kirkland Municipal Ordinance 9.04.040
2. Building permits must comply with the 2009 editions of the International Building, Residential and Mechanical Codes and the Uniform Plumbing Code as adopted and amended by the State of Washington and the City of Kirkland.
3. Structure must comply with the 2009 Washington State Energy Code.
4. Structures to be designed for seismic design category D, wind speed of 85 miles per hour and exposure B.
5. Plumbing meter and service line shall be sized in accordance with the current UPC.
6. Demolition permit required for removal of existing structures, if applicable.
7. A geotechnical report is required to address this development activity. The report must be prepared by a Washington State licensed Professional Engineer. Recommendations contained within the report shall be incorporated into the design of the subsequent structures. Norkirk Houghton Kirkland
8. This parcel is comprised of multiple lots and must be consolidated prior to permit issuance. A Lot Consolidation by Restrictive Covenant document will be created by the City for signature by the property owners and sent to King County for recording at the time of permit issuance.
9. If the property is to be surrounded by a fence that would not provide a direct and unobstructed access to the public way, then a safe dispersal area per the Exception to IBC Section 1027.6 shall be provided.
10. The access aisle between the barrier free parking stalls shall adjoin the accessible route without overlapping with the vehicular way per ICC/ANSI A117.1.

FIRE DEPARTMENT

A sprinkler system is required to be installed throughout the building. The system shall be designed and the plans stamped by a person holding a Washington State Certificate of Competency. The system shall be installed by a state licensed sprinkler contractor.

A fire alarm system is required.

Portable fire extinguishers are required throughout the building.

Access as shown is acceptable for the fire department.

"NO PARKING - FIRE LANE" signs, curb stenciling, and painting required on the south side of the north parking lot.

Fire flow on 108th Ave NE is approximately 3,000 gpm, which is adequate for this project.

One additional hydrant is required on the northwest corner of the property. It shall be equipped with a 5" Stortz fitting.

PUBLIC WORKS DEPARTMENT

PUBLIC WORKS CONDITIONS

Permit #: ZON12-00659

Project Name: Kirkland Children's School

Project Address: 5311 108th Ave. NE

Date: August 3, 2012

Public Works Staff Contacts

Land Use and Pre-Submittal Process:

Rob Jammerman, Development Engineering Manager

Phone: 425-587-3845 Fax: 425-587-3807

E-mail: rjammer@kirklandwa.gov

Building and Land Surface Modification (Grading) Permit Process:

John Burkhalter, Development Engineer Supervisor

Phone: 425-587-3846 Fax: 425-587-3807

E-mail: jburkhalter@kirklandwa.gov

Or

Building and Land Surface Modification (Grading) Permit Process:

Philip Vartanian, Development Engineer

Phone: 425-587-3856 Fax: 425-587-3807

E-mail: pvartanian@kirklandwa.gov

General Conditions:

1. All public improvements associated with this project including street and utility improvements, must meet the City of Kirkland Public Works Pre-Approved Plans and Policies Manual. A Public Works Pre-Approved Plans and Policies manual can be purchased from the Public Works Department, or it may be retrieved from the Public Works Department's page at the City of Kirkland's web site at www.kirklandwa.gov.
2. This project will be subject to Public Works Permit and Connection Fees. It is the applicant's responsibility to contact the Public Works Department by phone or in person to determine the fees. The fees can also be review the City of Kirkland web site at www.kirklandwa.gov. The applicant should anticipate the following fees:
 - o Water and Sewer connection Fees (paid with the issuance of a Building Permit)
 - o Side Sewer Inspection Fee (paid with the issuance of a Building Permit)
 - o Water Meter Fee (paid with the issuance of a Building Permit)
 - o Right-of-way Fee
 - o Review and Inspection Fee (for utilities and street improvements).
 - o Traffic Impact Fee (paid with the issuance of Building Permit). For additional information, see notes below.
3. Transportation Concurrence has been applied for and has been granted.
4. Building Permits associated with this proposed project will be subject to the traffic, impact fees per Chapter 27 of the Kirkland Municipal Code. The impact fees shall be paid prior to issuance of the Building Permit(s).
5. All civil engineering plans which are submitted in conjunction with a building, grading, or right-of-way permit must conform to the Public Works Policy titled ENGINEERING PLAN REQUIREMENTS. This policy is contained in the Public Works Pre-Approved Plans and Policies manual.
6. All street improvements and underground utility improvements (storm, sewer, and water) must be designed by a Washington State Licensed Engineer; all drawings shall bear the engineers stamp.
7. All plans submitted in conjunction with a building, grading or right-of-way permit must have elevations which are based on the King County datum only (NAVD 88).
8. A completeness check meeting is required prior to submittal of any Building Permit applications.
9. Prior to issuance of any commercial or multifamily Building Permit, the applicant shall provide a plan for garbage storage and pickup. The plan shall conform to Policy G-9 in the Public Works Pre-approved Plans and be approved by Waste Management and the City.

Sanitary Sewer Conditions:

1. The proposed project will be served by an existing side sewer that serves the existing buildings. The new 6-inch side sewer shall be extended to the new buildings and sewer clean-outs shall be added to the existing and new line every 100 ft. or at other location as required by Public Works Pre-approved Plans. Also, the existing side sewer in the alley to the west shall be cleaned, video inspected, and any deficiencies shall be repaired.

Water System Conditions:

1. Provide water service to the new buildings sized per the Uniform Plumbing Code.

Surface Water Conditions:

2009 KCSWDM

1. Provide temporary and permanent storm water control per the 2009 King County Surface Water Design Manual and the Kirkland Addendum. See Policies D-2 and D-3 in the PW Pre-Approved Plans for drainage review information, or contact city of Kirkland Surface Water staff at (425) 587-3800 for help in determining drainage review requirements. Summarized below are the levels of drainage review based on site and project characteristics:

Small Project Drainage Review (Types I & II)

Small project drainage reviews are divided into two types, Type I and Type II, primarily based on the amount of impervious surface area. Typical Type I projects create between 500 and 1,999ft² impervious surface area. Type II projects involve between 2,000 and 9,999ft² impervious surface areas, with a total of no more than 5,000ft² of new impervious area and not more than a total of 9,999ft² impervious surface area added since 01/08/01.

Full Drainage Review

A full drainage review is required for any proposed project, new or redevelopment, that will:

Add or replaces 5,000ft² or more of new impervious surface area,

Propose 7,000ft² or more of land disturbing activity, or,

Be a redevelopment project on a single or multiple parcel site in which the total of new plus replaced impervious surface area is 5,000ft² or more and whose valuation of proposed improvements (including interior improvements but excluding required mitigation and frontage improvements) exceeds 50% of the assessed value of the existing site improvements.

2. Evaluate the feasibility and applicability of dispersion, infiltration, and other stormwater low impact development facilities on-site (per section 5.2 in the 2009 King County Surface Water Design Manual). If feasible, stormwater low impact development facilities are required. See PW Pre-Approved Plan Policy L-1 for more information on this requirement.

3. Amended soil per Ecology BMP T5.13 is recommended for all landscaped areas.

4. If a storm water detention system is required, it shall be designed to Level II standards. Historic (forested) conditions shall be used as the pre-developed modeling condition.

5. Provide a level one off-site analysis (based on the King County Surface Water Design Manual, core requirement #2).

6. Provide an erosion control report and plan with Building or Land Surface Modification Permit application. The plan shall be in accordance with the 2009 King County Surface Water Design Manual.

7. Construction drainage control shall be maintained by the developer and will be subject to periodic inspections. During the period from May 1 and September 30, all denuded soils must be covered within 7 days; between October 1 and April 30, all denuded soils must be covered within 12 hours. Additional erosion control measures may be

required based on site and weather conditions. Exposed soils shall be stabilized at the end of the workday prior to a weekend, holiday, or predicted rain event.

8. All roof and driveway drainage must be tight-lined to the storm drainage system or utilize low impact development techniques.

Street and Pedestrian Improvement Conditions:

1. Remove and replace any cracked curb and gutter or sidewalk.
2. A 2-inch asphalt street overlay will be required where three or more utility trench crossings occur within 150 lineal ft. of street length or where utility trenches parallel the street centerline. Grinding of the existing asphalt to blend in the overlay will be required along all match lines.
3. All street and driveway intersections shall not have any visual obstructions within the sight distance triangle. See Public Works Pre-approved Policy R.13 for the sight distance criteria and specifications.
4. It shall be the responsibility of the applicant to relocate any above-ground or below-ground utilities which conflict with the project associated street or utility improvements.
5. Underground all new overhead transmission lines.
6. Per KZC 110.10.1, because undergrounding of the overhead lines along the project frontage would exceed 20% of the value of the proposed improvements, undergrounding cannot be required and the applicant is not required to sign a Local Improvement No Protest Agreement (as described in KZC 110.60.7.b)

Tony Leavitt

From: Stacey Auer <contactsba@gmail.com>
Sent: Thursday, August 02, 2012 2:19 PM
To: Tony Leavitt
Subject: Case #ZON12-00659

Dear Mr. Leavitt –

I'm writing to you to express support of the expansion project at the Kirkland Children's school (Case #ZON12-00659). My children have attended the school for two years, and in that time I have been very impressed with the school's commitment to their students, the environment, their community, and their immediate neighbors. There are several reasons it is important Kirkland Children's School expands.

1. **Excellent education and care.** We toured over five well qualified daycare/schools for our children, and KCS was by far the best. In a time when it can be difficult to find quality childcare, KCS has offered our children a place of caring, imagination, inspiration, learning, and safety. I feel each of the teachers and staff at KCS takes personal interest in my children, showing them love and compassion, all the while having fun. It is no wonder there is so much demand for the few spots available at KCS. An expansion will allow the school's teachers and staff to share their amazing care and education with more members of our community.
2. **Commitment to the neighborhood and the environment.** As a professional in the environmental field I am delighted with KCS's commitment to the environment and their neighborhood. The school, and its surroundings, are always clean and well maintained. The play areas are modern and safe, and even include an organic garden. I am confident the school's expansion will incorporate comprehensive consideration for kids, neighbors, and wildlife.
3. **The expanded school will be an asset to the neighborhood.** The school's expansion plans have been carefully designed to bring value to the neighborhood by adding an attractive, well-constructed, environmentally-minded facility that will house excellence in care and education.

Thank you for your time and consideration in this matter. I am confident that your examination of Kirkland Children's School's plans for expansion will result in a positive outcome for both the school and the City of Kirkland.

Sincerely,

Stacey Auer

Tony Leavitt

From: Tia <digdig@mac.com>
Sent: Saturday, August 11, 2012 9:57 AM
To: Tony Leavitt
Subject: Kirkland Children's School expansion

I've seen the renderings for the new Kirkland Children's School and I encourage you to support this project. Its new look will be a significant improvement and fits with the aesthetic of Houghton. I've worked with KCS staff in local parks and know that they support a healthy natural environment; I've no doubt that their landscape design and maintenance will be of the highest caliber.

Sincerely,

Tia Scarce
10633 NE 45th St

Tony Leavitt

From: Xin G. <magang0615@yahoo.com>
Sent: Monday, August 13, 2012 11:59 AM
To: Tony Leavitt
Cc: KCS Office
Subject: Case No. ZON12-00659

Dear Tony - we recently moved to central Houghton area and was glad to find out there is a pre-school nearby to our house. Unfortunately, after contacting the Kirkland Children's school, we learned the current wait time is 2-years. We are forced to look for other learning opportunity for our kids until there is a spot available. We support KCS's expansion plan so we can have a neighborhood school for our kids which we can walk over and drop our kids.

Thank you.
Xin

Tony Leavitt

From: Peggy Etchevers <Chora12@comcast.net>
Sent: Monday, August 13, 2012 1:42 PM
To: Tony Leavitt
Cc: rachel@kirklandschool.com
Subject: Kirkland Children's School Expansion

Hello Tony,

I'm writing to let you know that my family supports the expansion of the Kirkland Children's School (project #ZON12-00659) ! My daughter went there for preschool and pre-K and had a wonderful experience. She continued to go there over school holidays up till the 3rd grade while I was still working. When she grew older and attended ICS, she would stop by there periodically to chat with the former director and her teachers. They have been constantly improving the facility within the confines of the existing footprint. But now they want to grow and allow more families to enroll their children and provide an even richer environment for those kids. Kirkland is growing and so should the Kirkland Children's School. I saw the plans on Friday, and they look beautiful and very reasonable. Thank you for facilitating that endeavor.

Sincerely,
Peggy Etchevers

Tony Leavitt

From: bronson874@aol.com
Sent: Tuesday, August 14, 2012 8:38 PM
To: Tony Leavitt
Subject: kirkland childrens school

I support the expansion/rebuild of the children's school. They have always been helpful in the community and sensitive to the surrounding neighborhood. My own children were students there many years ago under previous management and I can say that the current owner and management are not only a great improvement but positive community stewards. Recently the school hosted a plant sale for the local chapter of Audubon. They were supportive and helpful in promoting the use of native plants in our community and helping Eastside Audubon promote good stewardship in our community.

thanks.

Melinda Bronsdon
12229 NE 64th St
Kirkland, WA 98033
bronson874@aol.com
425-827-5708

Tony Leavitt

From: Calero Monteagudo, David <dcalero@sice.com>
Sent: Wednesday, August 15, 2012 1:48 PM
To: Tony Leavitt
Cc: office@kirklandschool.com
Subject: Expansion project at Kirkland CHildrens School

Dear Tony,

This is David Calero, a new resident of the Central Houghton Neighborhood. We have recently moved in from Spain to Kirkland, and we have been looking for a Daycare Center to enroll our 20 months old son.

Even though we have been visiting all the centers around the neighborhood, we still would like to enroll our son in the Kirkland Children's School. We loved it when we visited it, and we will be delighted if you take into account the expansion project they are trying to perform.

I look forward to hearing good news from you 😊

Sincerely,

David & Family

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Tony Leavitt

From: Mike Spring <spring00@comcast.net>
Sent: Tuesday, August 21, 2012 9:51 PM
To: Tony Leavitt
Subject: Yes to KCS

Mr. Leavitt,

I would like to request your vote in approving the expansion of the Kirkland Children's School. My son has attended the school for the last 3 years and has not only enjoyed school but has thrived in the learning environment that the school offers. The school and the teachers are pillars in the community. We would like our 1 year old daughter to attend (currently on the waiting list) and hope this expansion speeds up her admittance. 😊

YES TO KCS!

Thanks,
Mike and Elisabeth Spring

Tony Leavitt

From: Geary Britton-Simmons <gearybs@earthlink.net>
Sent: Wednesday, August 22, 2012 11:58 AM
To: Tony Leavitt
Subject: Our support for the Kirkland Children's School expansion (project #ZON12-00659)

Mr. Leavitt,

The Kirkland Children's School is quite an asset to Kirkland parents and their children! Not only does the School provide warm, loving, high quality care and education for young children, but it also teaches respect and love for plants and animals in our environment.

Our involvement with the School is through the five year relationship that Eastside Audubon Society has had with the School. Our Eastside Audubon volunteers are invited to the School to assist their teachers in teaching the children about birds and the importance of native plants to bird's survival. Moreover, the School hosts Eastside Audubon's annual fund raiser, a native plant sale on its School property.

Consequently, we are delighted that Kirkland Children's School plans to expand its physical plant to serve 60 more children and their families. We perceive the School's building plans to be quite consistent with the physical plants of schools directly across the street and elsewhere close by in the neighborhood. The School's plans also include a significant expense to mitigate the impact of a new building by planting a substantial number of trees and plants.

We urge Kirkland City government to approve the Kirkland Children's School expansion plans as soon as possible.

Sincerely,

Geary and Mary Britton-Simmons

Kirkland Children's School "Yes to KCS" Postcard Summary

Ana Bacioiu
10505 NE 45th Street
Kirkland, WA 98033
Central Houghton Resident

Our neighborhood needs more quality daycares like KCS. KCS has a long waitlist. I hope you'll make the right decision.

Tara Mikosz
17918 NE 156th St
Woodinville, WA 98072

My two children attend KCS and they've been blessed there. It would be wonderful for even more children to benefit from the nurturing, high quality care that my kids love.

Erna Geiesdottie
12017 NE 68th Pl
Kirkland, WA 98033

We love Kirkland Children's School. My son, Oliver, is so happy here that he hardly ever wants to leave when I come and pick him up. My older son, Thor, was also happy here. The staff is fantastic.

Jen Judge
11237 NE 58th Pl
Kirkland, WA 98033
Central Houghton Resident

It is a fabulous place my child has been here for 4years+ the kids deserve a great building + the community deserves a lovely building, it creates community.

Liron Torres
10242 NE 65th St
Kirkland, WA 98033
Central Houghton Resident

We need great initiatives to support high quality education in the neighborhood

Connie J McDermott
7320 116th Ave NE
Kirkland, WA 98033

I work at KCS and I love to walk to the new school ☺

Jonathan Milstein
31 10th Place South
Kirkland, WA 98033

KCS is an incredible asset to the community and the addition will enhance my neighborhood and Kirkland as a whole. Thank you!

Heather DeVil
11826 NE 141st St
Kirkland, WA 98034

It is a great school that more kids need to be able to attend!

Hilary Pike
4548 108th Ave NE
Kirkland, WA 98033
Central Houghton Resident

We walk to KCS, I love their support of the environment and the neighborly feel.

Adam and Sarah Wujick
12902 NE 91st LN
Kirkland, WA 98033

KCS provides high quality education and childcare, is a caring neighborhood partner and loves Kirkland. Support this project and you support Kirkland and its children!

Ortal Plinner
6418 146th Ave NE
Redmond, WA 98052

It is very hard to find a place like KCS where children get the whole package: beautiful facility, great staff, good program. I have been on the waiting list.

Wen LaCasse
1121 6th St
Kirkland, WA 98033

I support KCS.

Tana Carpita
10206 NE 60th St
Kirkland, WA 98033
Central Houghton Resident

Great design. Great addition to the neighborhood.

Gregory Wau
13259 124th St NE
Kirkland, WA 98034

KCS is a wonderful school! Expansion will allow more families to experience this great neighborhood resource.

Jennifer Timmerman
7131 NE 167th St
Kenmore, WA 98028

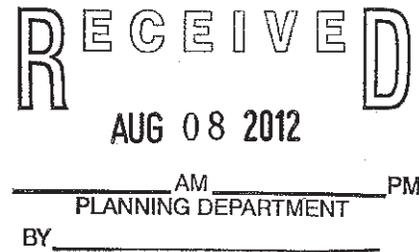
My kids go to Kirkland Children's School and love it. They would definitely benefit!

Jennifer Daher
11150 NE 97th Street
Kirkland, WA 98033

KCS has been such a great impact on my daughter and all of her abilities! All of the staff is so flexible and truly loves my daughter! We need more schools and programs for all of our youth like this! Thank you!

Torey Smith
7623 115th PI NE
Kirkland, WA 98033

I have been waiting for over 1 ½ years to have my child placed at the Kirkland School.



City of Kirkland
Planning and Community Development Department
123 Fifth Avenue
Kirkland, WA 98033

RE: Kirkland Children's School Master Plan, Case No. Zon12-00659

Attn: Tony Leavitt

My name is Gary L. Porter and I live at 5444 106th Avenue NE. (See Enclosure Note #1)
I do have a comment concerning the Children's School Master Plan Proposal. The
proposed new building property backs up to an alley that is supposed to extend through
the entire block.

Approximately five years ago the subject school moved their fence over nine feet into the
center of the alley restricting full access from 53rd Avenue NE to 55th Avenue NE.
Also, the landscaping for the home located on 53rd Avenue NE closed off the alley prior
to the school's action. (See Enclosure Note #2.)

I am requesting that the city open the alley as shown. This would require that the school
return its fence to its property line and the owners on NE 53rd remove their impediments
so homeowners have full access. The alley provides access for owners and emergency
vehicles.

If my request is not implemented, I would not be in favor of Proposal Case No. ZON12-
00659.

Thank you for your consideration.



Gary L. Porter
5444 106th Ave. NE
Kirkland, WA 98033
425-828-4457

Enclosure (1)

Tony Leavitt

From: Carol Walton <cwalton@kndservices.net>
Sent: Friday, August 24, 2012 4:24 PM
To: Tony Leavitt
Subject: ZON12-00659

Good morning Tony,

My husband and I have raised our family and lived next door to the Kirkland children's school for the past 20 years. We have enjoyed building a positive relationship with the school over the many years we have been close neighbors to the north, sharing a fence with them.

We are concerned about the following:

1. The proposed new lighting for the new parking lot, and how it may impact the privacy of our home.
2. The proposed new parking stalls and the impact those might have on the environment (additional black top) along with the additional traffic it will add to the already seriously congested 108th ave Ne.
3. The proposed new building sites will mean that the children will then use the area along the fence line we share for their outside time, and we are concerned about increased noise level due to both the close proximity to our home and yard as well as the increased number of children that the school will then be able to hold.

Our address is:

Brooks and Carol Walton
5403 108th Ave NE
Kirkland Wa.
98033

We would like to receive a layout of the proposed plan for development on the site. We also want to be notified in a ten day advance of any and all hearings that will take place regarding the proposal.

Thank you,

Carol

K & D Services Inc. Confidentiality Notice:

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RECEIVED
OCT 02 2012
AM _____ PM
PLANNING DEPARTMENT
BY _____

October 2, 2012

Tony Leavitt, Associate Planner
City of Kirkland Planning and Community Development
123 5th Avenue; Kirkland, WA 98033

RE: ZON12-00659 Kirkland Children's School - email of concern from Carol Walton

Mr. Leavitt,

We wanted to take this opportunity to address some of Carol Walton's concerns that she stated in her email to you dated 8/24/2012. We have always enjoyed a positive and working relationship with our neighbors, and plan to continue to do so as we move through this process.

We believe we understand her and her husband's concerns regarding the new classroom building at Kirkland Children School. In response to those concerns, we are providing the below additional information to help address and respond to her email:

1. CONCERN: "The proposed new lighting for the new parking lot, and how it may impact the privacy of our home."

RESPONSE: The proposed light fixture located in the new parking lot has been proposed for parent and children's safety and meets the City of Kirkland zoning code requirements outlined in chapter 105. The fixture as proposed is approximately 16' tall and will be oriented toward east, facing away from Ms. Walton's property, and the nearest light pole will be nearly 90' away from corner of the their garage. Currently there is also an existing 6' tall fence separating the property:

2. CONCERN: "The proposed new parking stalls and the impact those might have on the environment (additional black top) along with the additional traffic it will add to the already seriously congested 108th Ave NE. "

RESPONSE: We are proposing pervious paving at the new parking stalls near the new building as well as an infiltration system for all stormwater drainage for the improvements. This will allow all new stormwater to drain directly into the ground on our property and it will not impact any offsite properties. Also, traffic impacts along 108th are addressed in the traffic study which has been submitted to the City and is part of our application. The results of the study show how little, if any impact we have on peak hour traffic. In

KIRKLAND

CHILDREN'S SCHOOL

NURTURING CHILDREN & ENRICHING FAMILIES

addition, The Kirkland Children's School will also pay traffic Impact mitigation fees to the City who will be able to best direct these funds to where they will be most effective when proposing traffic improvements..

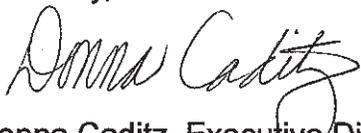
3. CONCERN: "The proposed new building sites will mean that the children will then use the area along the fence line we share for their outside time, and we are concerned about increased noise level due to both the close proximity to our home and yard as well as the increased number of children that the school will then be able to hold."

RESPONSE: The area adjacent to the common fence line is currently an outdoor play area for the school and will remain unchanged as part of this proposal. We are not increasing the size of the play area; actually we are reducing the size due to the proposed new classroom building and the rain garden. The rain garden was placed between the fence line and the proposed new building to act as additional buffer. In addition, even though the school will hold more children, we will be staging outdoor time so that no more children will be on the playground at any one time than there are today to help address Mrs. Walton's concerns.

As a closing note, the Kirkland Children School plans to enjoy and continuing the great relationship they have with the neighbors and overall community. Because of the concern for the community, during our initial planning phases for this project we evaluated many options of new classroom configurations to best meet the community needs for additional classroom space at Kirkland Children School and how to maintain the "fit" into the community. These options varied from replacing the existing school with a new large 2 story school to adding on to the existing building and revising the outdoor play areas. The proposed design was selected after many community meetings and discussions with many in the community because based on the feedback, it had the smallest impact to the neighbors and the overall community. We have tried very hard to provide the best result while still meeting the growing community need for quality child care.

We hope this address Mrs. Walton's concern but if there are additional concerns, or if you have any questions please contact me anytime.

Sincerely,



Donna Caditz, Executive Director
Newport Children's School, Inc
d/b/a Kirkland Children's School

CITY OF KIRKLAND
123 FIFTH AVENUE
KIRKLAND, WA 98033-6189
425.587.3225



Determination Of Nonsignificance

CASE #: SEP12-00660

DATE ISSUED: September 10, 2012

DESCRIPTION OF PROPOSAL: Construction of a new 3,400 square foot building on the existing Kirkland Children's School site to house new classrooms. The project also includes other site improvements including the addition of 9 parking stalls, a rain garden, parking lot lighting and landscaping. The existing buildings and parking lots on the property will remain.

APPLICANT: Steve Lee, Studio Meng Strazarra

PROJECT LOCATION: 5311 108th Avenue NE

LEAD AGENCY IS THE CITY OF KIRKLAND

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21.030 (2) (c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public upon request. There is no comment period for this DNS.

There is no comment period for this DNS. September 24, 2012

Responsible Official:

Eric Shields, Director
Department of Planning and Community Development
425-587-3225

9/6/12
Date

Address:

City of Kirkland
123 Fifth Avenue
Kirkland, WA 98033-6189

You may appeal this determination to the Planning Department at Kirkland City Hall, 123 Fifth Avenue, Kirkland, WA 98033 no later than 5:00 p.m., September 24, 2012 by WRITTEN NOTICE OF APPEAL.

You should be prepared to make specific factual objections. Contact the Planning Department at 425-587-3225 to read or ask about the procedures for SEPA appeals.

Please reference case # SEP12-00660

Distribute this form with a copy of the checklist to the following:

Owner: Newport Children's School

cc: Case # ZON12-00659

Distributed to agencies along with a copy of the checklist (see attached).

Distributed By:

9/10/12
Date:



CITY OF KIRKLAND

Planning and Community Development Department

123 Fifth Avenue, Kirkland, WA 98033 425.587-3225

www.kirklandwa.gov

MEMORANDUM

To: Eric R. Shields, AICP, Planning Director

From: Tony Leavitt, Associate Planner

Date: September 6, 2012

File: SEP12-00660

Subject: **ENVIRONMENTAL DETERMINATION FOR KIRKLAND CHILDREN'S SCHOOL MASTER PLAN, PCD FIL NO. ZON12-00659**

PROPOSAL

Steve Lee of Studio Meng Strazarra, the applicant, is requesting approval of a Master Plan zoning permit to allow the construction of a new 3,400 square foot building on the existing Kirkland Children's School site located at 5311 108th Avenue NE (see Enclosures 1 and 2). The building will house 3 new classrooms (totaling 2,750 square feet) for the preschool/daycare environmental education program, restroom facilities, and storage areas. The project also includes other site improvements including the addition of 9 parking stalls, a rain garden, parking lot lighting and landscaping. The existing buildings and parking lots on the property will remain.

ENVIRONMENTAL ISSUES

I have had an opportunity to visit the site and review the environmental checklist (Enclosure 3), the Traffic Impact Analysis (Enclosure 4) and the Traffic Impact Analysis Review Memo (Enclosure 5). Based a review of these materials, the main environmental issue related to the project is potential traffic impacts.

PUBLIC COMMENTS

During the initial comment period for the SEPA Determination and zoning permit application, the City received a total of 28 emails and postcards from interested parties (see Enclosure 6). Most of the comments were in support of the facility. Two emails brought up concerns about lighting, parking, playground noise and impact to an adjacent alley. These concerns will be addressed as part of the master plan zoning permit review by Staff.

TRAFFIC IMPACTS

Public Works Staff concludes that the proposed project will not create significant traffic impacts. Staff recommends approval with the following conditions:

1. Pay Road Impact Fee.
2. Provide 32 parking stalls

The applicant's proposed plans comply with the parking requirement condition. The applicant will be required to pay road impact fees as part of the building permit.

SUMMARY

It will be necessary to further analyze certain aspects of the proposal, to determine if the project complies with all the applicable City codes and policies. That analysis is most appropriately addressed through the master plan zoning permit review process. In contrast, State law specifies that this environmental review under the State Environmental Policy Act (SEPA) is to focus only on potential significant impacts to the environment that could not be adequately mitigated through the Kirkland regulations and Comprehensive Plan.¹

Based on my review of the submitted information, I have not identified any significant adverse environmental impacts. Therefore, I recommend that a Determination of Non-Significance be issued for this proposed action.

SEPA ENCLOSURES

- 1. Vicinity Map
- 2. Site Plan
- 3. Environmental Checklist
- 4. Traffic Impact Analysis
- 5. Traffic Impact Analysis Review Memo
- 6. Public Comments

Review by Responsible Official:

I concur

I do not concur

Comments:

Eric R. Shields, AICP
Planning Director

Date

¹ESHB 1724, adopted April 23, 1995

DEPARTMENT OF PUBLIC WORKS
MEMORANDUM

To: Tony Leavitt, Planner

From: Thang Nguyen, Transportation Engineer

Date: July 13, 2012

Subject: Kirkland Children's School Expansion, TRANS12-00620

This memo summarizes Public Works review of the traffic impact analysis report for the proposed Kirkland Children School expansion.

Project Description

The current school is 7,000 square feet and the applicant is proposing to add 2,750 gross square feet for two additional classrooms and other ancillary use.

Trip Generation

The expansion is calculated to generate 35 AM peak hour, 19 PM peak hour and 218 daily peak trips.

Traffic Concurrency

All developments subject to SEPA review are required to pass traffic concurrency. The proposed project passed traffic concurrency. A traffic concurrency test notice was issued December 23, 2011 and will expire December 23, 2012 unless a building permit is issued or a traffic concurrency test extension is requested prior to December 23, 2012 and it is approved by the City.

Traffic Impacts

Project traffic distribution and assignment was estimated using the City's BKR Traffic Model.

The City's Traffic Impact Analysis Guidelines (TIAG) requires a Level of Service (LOS) Analysis using the Highway Capacity Manual Operational Method for intersections that have proportionate share greater than 1%. Based on the proportionate share calculation the intersection of 108th Avenue NE/NE 53rd Street met the 1% proportionate share threshold for PM peak hour; thus, requiring safety and level of service analyses. In addition, the immediate intersection to the north of the site 108th Avenue NE/NE 55th Street was also analyzed for LOS and safety.

The City requires developers to mitigate traffic impacts when one of the following two conditions is met:

1. An intersection level of service is at E and the project traffic is more than 15% of the intersection traffic volumes.
2. An intersection level of service is at F and the project traffic is more than 5% of the intersection traffic volumes.

The intersection of 108th Avenue NE/NE 53rd Street and 108th Avenue NE/NE 55th Street were calculated to operate at LOS-C or better during the PM peak hour. The resulting level of service is acceptable therefore; off-site traffic mitigation is not warranted.

Driveway Operation

All the project driveways are calculated to operate at an acceptable LOS-B or better and the project driveway meets the City of Kirkland minimum requirements for safe sight distance. Thus, no mitigation is warranted.

Parking

A parking demand analysis was completed by the traffic consultant and the peak parking demand at any one 5-minute is 20 spaces with an 85th percentile of 19 spaces. Based on the additional expanded space, the parking demand was computed to be 26 spaces. The applicant is proposing a total of 32 spaces. It appears that the proposed supply will accommodate the growth and demand.

On-site Circulation

On-site circulation was reviewed and it is anticipated that the school expansion and increase enrollment will not cause traffic to queue onto 108th Avenue NE.

Road Impact Fees

Per City's Ordinance 3685, Road Impact Fees per Impact Fee Schedule in effect September 1, 2010 are required for all developments. Road impact fees are used to construct transportation improvements throughout the City. The road impact rate Day Care Center is \$21.39 per gross square foot. With 2,750 additional square feet, the calculated transportation impact fee is \$58,822.50 (\$21.39 x 2,750). Thus, the impact fee assessed for the proposed project will be \$58,822.50. Final impact fee shall be determined at building permit acceptance.

Staff Recommendations

Public Works Staff concludes that the proposed project will not create significant traffic impacts that would require specific off-site traffic mitigation. Staff recommends approval of the proposed project with the following conditions:

- Pay Road Impact Fee.
- Provide 32 parking spaces

If you have any questions, call me at (425) 587-3869.

cc: EnerGov Filing

TO: Donna Caditz, Executive Director, Kirkland Children's School
JOB SITE: 5311 108th Avenue Northeast, Kirkland Washington
SUBJECT: Tree Inventory and Arborist Report for Kirkland Children's School
DATE: June 19, 2012
PREPARED BY: Sean Dugan
ASCA Registered Consulting Arborist #457
ISA Board Certified Master Arborist #PN-5459B
PNW-ISA Certified Tree Risk Assessor #149

Contents

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Appendix B – Tree Risk Assessor Method
Appendix C - Tree Protection Specification
Attachments:
Table of Trees
Site Survey with Tree Locations

Summary

Forty-three (43) significant trees on the subject property were included in this inventory. Eight significant trees will need to be removed due to being within the building envelope or having a significant portion of the tree's root system that will be negatively impacted by the proposed construction. Two significant trees will be removed for health/structural reasons. Thirty-three (33) significant trees, or 77 percent, can be retained based on the proposed development plans and tree viability. All of the remaining trees are viable and unlikely to be negatively impacted by construction or adjacent tree removal. No significant trees on adjacent properties will be negatively impacted.

Assignment & Scope of Report

This report outlines the site inspection by Sean Dugan and Scott Selby of Tree Solutions Inc. made on June 5, 2012. We were asked to visit the site and collect the data needed to provide a tree inventory and retention plan as required by the city of Kirkland as stated in the Zoning Code 95.30. Included in this arborist report are observations, discussion, and recommendations needed to address the City's requirements. Donna Caditz, Executive Director of the Kirkland Children's School, requested these services to acquire information for project planning and to be in accord with City code.

Limits of Assignment

Unless stated otherwise: 1) information contained in this report covers only those trees that were examined and reflects the condition of those trees at the time of inspection; and 2) the inspection is limited to visual examination of the subject trees without dissection, excavation, probing, climbing, or coring unless explicitly specified. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future.

The International Society of Arboriculture's Standard of Care defines "Hazard Tree" as "a tree that has been assessed as having characteristics that make it an unacceptable risk for continued retention. A hazard tree, or a hazardous component, exists when the sum of the risk factors equals or exceeds a predetermined threshold of risk." The predetermined threshold for risk and the actions required to reduce the risk below that threshold is established by the risk manager.

As a Certified Tree Risk Assessor, my job is to provide the risk manager, in this case the property owners, with technical information required to make informed decisions. The risk manager must make the decision about how to implement the actions required to reduce risk levels to acceptable levels.

Additional Assumptions and Limiting Conditions can be found in [Appendix A](#).

Methods

I evaluated tree health and structure utilizing visual tree assessment (VTA) methods. The basis behind VTA is the identification of symptoms, which the tree produces in reaction to a weak spot or area of mechanical stress. A tree reacts to mechanical and physiological stresses by growing more vigorously to re-enforce weak areas, while depriving less stressed parts. (Mattheck & Breloer 1994) An understanding of the uniform stress allows one to make informed judgments about the condition of a tree.

Using the Pacific Northwest International Society of Arboriculture (PNWISA) Tree Risk Assessment method, I assigned a risk potential rating to each tree. This method is adapted from the United States Forest Service risk assessment approach and is considered the present Standard of Care. This method provides assessors a structured process, based on good science and arboriculture, to assign recommended thresholds for action for the purpose of informing risk managers. The PNWISA Tree Risk Assessment method requires assessor certification. Additional information regarding this method can be found in [Appendix B](#).

The diameter of each tree was measured at the diameter at standard height (DSH), 54 inches above grade. All trees with a DSH of six inches or greater were included in the report. The species, DSH, health and structural condition, risk potential rating, limits of disturbance, management options, notes, and tree status for each tree can be found in the attached [Table of Trees](#). A marked up [Site Survey with Tree Locations](#) has also been attached to this report.

Each significant tree was previously tagged and the numbers are shown on the site survey. These numbers are referred to in the attached [Table of Trees](#). Significant trees that were not tagged have been included into the attached Site Survey. Several trees on adjacent properties with canopies that overhang the subject property were labeled with a Letter identifier on the site survey.

Limits of disturbance (LOD) is indicated throughout the report as radial feet extending out from the face of the trunk. The LOD was determined on a case-by-case basis for individual trees. Trees with good tolerance to root zone disturbance or that are not in an area near proposed construction can be protected to drip line, if necessary. Trees with high preservation value should be protected to the greater of the drip line or the critical root zone (CRZ).

I contacted Tony Leavipt, Associate Planner with the city of Kirkland working on the Kirkland Children's School project, to determine what information the City would require. Mr. Leavipt advised me that the Tree Retention Plan for Multifamily, Commercial, and Non-Residential properties would be needed.

Observations

The Site

The property is in a residential/commercial district and is currently being used as the Kirkland Children's School. The property had previously been farm land. Soils on the site are compacted at the surface but are looser further below grade. I was able to easily insert a steel probe 42 inches deep. The soil texture has a high sand component. The topography of the site is generally flat.

The site has several existing buildings and surrounding infrastructure, including parking area, walkways, covered patios, and playground areas. The site receives consistent use throughout the daytime hours. There is less use of the playground areas in the evening.

A new building and parking area is being proposed for the site north of the existing structures. (see attached [Site Survey with Tree Locations](#))

The Trees

Information specific to each tree can be found in the attached Table of Trees. Tree species that were observed on site include Douglas-fir (*Pseudotsuga menziesii*), Western Red cedar (*Thuja plicata*), Red alder (*Alnus rubra*), Flowering cherry (*Prunus sp.*), Pear (*Pyrus sp.*), Leyland cypress (*Cupressus x leylandii*), Blue ash (*Fraxinus excelsior*), Little leaf linden (*Tilia cordata*), and Japanese styrax (*Styrax japonica*). Additional species observed on adjacent properties include Beaked hazelnut (*Corylus cornuta*) and Quaking aspen (*Populus tremuloides*).

Discussion

Forty-three (43) significant-size trees were observed on the subject property. Thirty-three (33) significant trees, or 77 percent, can be retained, based on the proposed development plans and tree viability.

Eight significant trees, numbers 124 thru 130 and tree 132, will need to be removed due to being within the building envelope or having a significant portion of the tree's root system that will be negatively impacted by the proposed construction.

Two significant trees, numbers 123 and 134, will be removed for health/structural reasons. Tree 123 is a Douglas-fir located in a play area utilized by young children for extended periods throughout the day. The tree's trunk leans to the northeast and has a defect at the base, which has resulted in 20 percent of the circumference exuding significant amounts of resin. The moderate diameter-size parts in the upper canopy have previously failed into the play area below. The risk managers would like to significantly reduce the risk of falling parts and remove the risk potential presented from the trunk. Tree removal is the only option to accomplish these goals. If the City does not believe the issues with the tree are serious enough to warrant removal, the tree will be one of the two trees allowed for removal from the site with a tree removal permit.

Tree 134 is a small ash tree that was planted voluntarily. The tree was injured, creating a wound over 30 percent of the trunk's circumference. The tree is not in imminent risk of failure, but will likely have long term decay issues that will ultimately lead to the tree's removal. The risk managers of the property would like to eliminate the risk from this tree while it is still small.

Based on the location of the eight trees proposed for removal in relation to the adjacent trees, it does not appear that there will be any negative impact to retained trees on the subject property or adjacent properties.

Two additional significant trees, numbers 192 and 193, should be considered for removal in the future, as these Red alders are not suitable trees to be located along a roadway and sidewalk. These trees currently have a *Retain* status.

Six (6) trees below significant size were also observed. One of these, tree D, will need to be removed for the construction of a walkway. Seven (7) significant trees on adjacent properties with canopies overhanging the subject property were observed. All of these will be retained.

A row of healthy Leyland cypress trees are located along the north property line adjacent to the existing parking lot. The trees have spread beyond the limits of the planting bed and are now encroaching into the parking lot and residential property to the north. The trees have also grown to a height where they are blocking the solar access to the residential property. In my opinion they may be an inappropriate plant for the limited space.

Leyland cypress has the potential to get over 80 feet tall and have a canopy spread greater than 30 feet across. The row of trees approaching this size will reduce the ability to use critically needed parking space in the lot and will completely block the sun to the neighboring site. The Children's School would like to manage these trees before they overwhelm the space.

The options the School has that would allow for the management of these trees includes beginning to create a hedge by pruning the spread of the trees back to the edge of the parking lot and reducing the height by approximately 15 feet. Hedging of the trees will require ongoing maintenance and operational costs but will achieve the goals of the School and the site to the north. Otherwise, the trees should be removed and replaced with a tree species that is more appropriate to the limited planting area. Trees to consider are:

- Hinoki cypress
- English yew
- Japanese yew
- Callery pear
- Maidenhair tree
- Paperbark maple

Tree Protection

The Tree Protection Specification found in [Appendix C](#) should be applied to all trees that will be preserved and that are near proposed construction. This shall occur prior to the commencement of site work.

The trees with the greatest potential to be negatively impacted by site development is 131. Tree protection fencing should be established around the tree. When excavating within the CRZ care should be made not to remove or damage roots that can be retained and still complete the adjacent trenching. All roots that need to be removed should be cut with a pruning tool and not by ripping out with a back hoe.

All of the significant Leyland cypress can be preserved by placing a tree protection barrier at the edge of the tree's drip line. This will prevent the canopy from being damaged by any passing vehicles. This tree species is tolerant to contractor pressures and is unlikely to be negatively impacted during site development.

None of the trees located to the west and south of the existing structures will have any construction-related activity within the tree's CRZ or below the canopy. These trees are unlikely to be negatively impacted by site development activities. It is my opinion that tree protection measures are not necessary to be placed around these trees.

None of the trees on the adjacent properties with canopies overhang the subject property will be close to any of the site development activities and they are all unlikely to be negatively impacted from construction.

Recommendations

Tree specific recommendations can be found in the attached Table of Trees.

- All tree protection measures should be installed prior to the commencement of site work.
- No trees should be removed before attaining City permission.
- Trees located on adjacent properties and new significant trees found on site are shown in the attached Site Survey and should be included into the primary survey in the plan set to be submitted to the City.
- The CRZ and tree protection measures should be shown on the survey for all trees that will be preserved.
- The Site Survey should show the LOD for all trees.
- A preservation and maintenance agreement will need to be obtained with the City for all remaining trees on the property.

Glossary

- absorbing roots:** common term describing the fine, non-woody, short-lived roots that absorb water and mineral nutrients and that are often infected with beneficial organisms (Matheny *et al.* 1998)
- cabaling:** installation of hardware in a tree to help support weak branches or crotches (Lilly 2001)
- cracks:** defects in trees that, if severe, may pose a risk of tree or branch failure (Lilly 2001)
- crown:** the aboveground portions of a tree (Lilly 2001)
- crown cleaning:** selective pruning to remove one or more of the following parts: dead, diseased, and/or broken branches (ANSI A300)
- DBH or DSH:** diameter at breast or standard height; the diameter of the trunk measured 54 inches (4.5 feet) above grade (Matheny *et al.* 1998)
- ISA:** International Society of Arboriculture
- included bark:** bark that becomes embedded in a crotch between branch and trunk or between codominant stems and causes a weak structure (Lilly 2001)
- lateral:** secondary or subordinate branch (Lilly 2001)
- Limits of Disturbance:** The boundary between the protected area around a tree and the allowable site disturbance as determined by a qualified professional measured in feet from trunk. (KZC)
- mitigation:** process of reducing damages or risk (Lilly 2001)
- monitoring:** keeping a close watch; performing regular checks or inspections (Lilly 2001)
- phototropic growth:** growth toward light source or stimulant (Harris *et al.* 1999)
- PNWISA:** Pacific Northwest Chapter of ISA
- significant size:** a tree measuring 6" DSH or greater (KZC)
- soil structure:** the arrangement of soil particles (Lilly 2001)
- structural defects:** flaws, decay, or other faults in the trunk, branches, or root collar of a tree, which may lead to failure (Lilly 2001)
- target:** person, object, or structure that could be injured or damaged in the event of tree or branch failure (Lilly 2001)

References

- ANSI A300 (Part 1) – 2008 American National Standards Institute. American National Standard for Tree Care Operations: Tree, Shrub, and Other Woody Plant Maintenance: Standard Practices (Pruning). New York: Tree Care Industry Association, 2008.
- ANSI A300 (Part 2) – 2004 American National Standards Institute. American National Standard for Tree Care Operations: Tree, Shrub, and Other Woody Plant Maintenance: Standard Practices (Fertilization). New York: Tree Care Industry Association, 2004.
- City of Kirkland Zoning Code (KZC) Chapter 95,
http://kirklandcode.ecitygov.net/CK_KZC_Search.html
- Dunster & Associates Environmental Consultants Ltd. Assessing Trees in Urban Areas and the Urban-Rural Interface, US Release 1.0. Silverton: Pacific Northwest Chapter ISA, 2006
- Lilly, Sharon. Arborists' Certification Study Guide. Champaign, IL: The International Society of Arboriculture, 2001.
- Matheny, Nelda and James R. Clark. Trees and Development: A Technical Guide to Preservation of Trees During Land Development. Champaign, IL: International Society of Arboriculture, 1998.
- Mattheck, Claus and Helge Breloer, The Body Language of Trees.: A Handbook for Failure Analysis. London: HMSO, 1994.

Appendix A - Assumptions & Limiting Conditions

1. Consultant assumes that any legal description provided to Consultant is correct and that title to property is good and marketable. Consultant assumes no responsibility for legal matters. Consultant assumes all property appraised or evaluated is free and clear, and is under responsible ownership and competent management.
2. Consultant assumes that the property and its use do not violate applicable codes, ordinances, statutes or regulations.
3. Although Consultant has taken care to obtain all information from reliable sources and to verify the data insofar as possible, Consultant does not guarantee and is not responsible for the accuracy of information provided by others.
4. Client may not require Consultant to testify or attend court by reason of any report unless mutually satisfactory contractual arrangements are made, including payment of an additional fee for such Services as described in the Consulting Arborist Agreement.
5. Unless otherwise required by law, possession of this report does not imply right of publication or use for any purpose by any person other than the person to whom it is addressed, without the prior express written consent of the Consultant.
6. Unless otherwise required by law, no part of this report shall be conveyed by any person, including the Client, the public through advertising, public relations, news, sales or other media without the Consultant's prior express written consent.
7. This report and any values expressed herein represent the opinion of the Consultant, and the Consultant's fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event or upon any finding to be reported.
8. Sketches, drawings and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys. The reproduction of any information generated by architects, engineers or other consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by Consultant as to the sufficiency or accuracy of the information.
9. Unless otherwise agreed, (1) information contained in this report covers only the items examined and reflects the condition of the those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, climbing, or coring. Consultant makes no warranty or guarantee, express or implied, that the problems or deficiencies of the plans or property in question may not arise in the future.
10. Loss or alteration of any part of this Agreement invalidates the entire report.

Appendix B - Tree Risk Assessor Method

The Pacific Northwest International Society of Arboriculture (PNWISA) Tree Risk Assessment method is adapted from the United States Forest Service risk assessment approach and is considered the present Standard of Care. This method provides assessors a structured process, based on good science and arboriculture, to assign recommended thresholds for action for the purpose of informing risk managers. The PNWISA Tree Risk Assessment method requires assessor certification.

The method uses a 12 point system, divided into three categories, to rate the potential risk from a tree and its parts.

P **Probability of Failure** is rated at 1-5 points based on the judgment of the assessor.

1 point = Low risk – The defect is not likely to lead to imminent failure and no further action is required. In many cases these defects might not even be recorded.

2 points = Moderate risk – One or more defects that are well established but would typically not lead to failure for several years. Corrective action might be useful to prevent future problems but only if time and money are available. Not the highest priority for action, these are the “retain and monitor” situations that can be used to inform budget and work schedules for subsequent years.

3 points = Moderately High risk – One or more defects areas well established but not yet deemed to be a high priority issue. Additional testing may be required or, the assessor may feel the problems are not serious enough to warrant immediate action, but do warrant placing the tree on a list of trees to be inspected more regularly. These are Retain and Monitor trees.

4 points = High risk – The defect is serious and imminent failure is likely and corrective action is required immediately. These cases require treatment within the next few days or weeks.

5 points = Extreme - The tree or component part is already failing. An emergency situation where treatment is required today.

S **Size of the Defective Part(s)** is rated 1-3 with 1 point for branches or stems up to 10cm (4 inches) in diameter, 2 points for branches or stems between 10-50cm (4-20 inches) in diameter and, 3 points for branches or stems over 50cm (20 inches) in diameter.

T **Target Area** is rated 1-4 based on the following target descriptions.

1= Low – Sites rated at one point are very rarely used for any long period of time, and people passing through the area (regardless of how they travel) do not spend a lot of time within the striking range of the tree within any one day. There are no valuable buildings or other facilities within striking range.

2= Moderate – Valuable buildings are at the edge of striking distance, so they would not be seriously damaged even if the tree did fall down. The site has people within striking range occasionally, meaning less than 50% of the time span in any one day, week, or month, and do not stay within striking range for very long.

3= Moderately High – The site has valuable buildings within striking range. People are within striking range more than 50% of the time span in any one day, week, or month, and their exposure time can be more than just passing by.

4= High – The highest rated targets have a building within striking range frequently used by people, often for longer periods of time, or high volumes of people coming and going within striking range

The Overall Risk Rating and Action Thresholds

| Risk Rating | Risk Category | Interpretation & Implications |
|-------------|---------------|---|
| 3 | Low 1 | <i>Insignificant- no concern at all.</i> |
| 4 | Low 2 | <i>Insignificant – very minor issues</i> |
| 5 | Low 3 | <i>Insignificant – minor issues not of concern for many years yet</i> |
| 6 | Moderate 1 | <i>Some issues but nothing that is likely to cause any problems for another 10 years or more</i> |
| 7 | Moderate 2 | <i>Well defined issues – retain and monitor. Not expected to be a problem for at least another 5 – 10 years</i> |
| 8 | Moderate 3 | <i>Well-defined issues – retain and monitor. Not expected to be a problem for at least another 1 – 5 years.</i> |
| 9 | High 1 | <i>The assessed issues have now become very clear. The tree can still reasonable be retained as it is not likely to fall apart right away, but it must now be monitored annually.</i> |
| 10 | High 2 | <i>The assessed issues have now become very clear. The probability of failure is now getting serious, or the target rating and/or site context have changed such that mitigation measures should now be on a schedule with a clearly defined timeline for action.</i> |
| 11 | High 3 | <i>The tree, or a part of it has reached a stage where it could fail at any time. Action to mitigate the risk is required within weeks rather than months.</i> |
| 12 | Extreme | <i>This tree, or part of it, is in the process of failing. Immediate action is required. All other less significant tree work should be suspended, and roads or work areas should be closed off until the risk issues have been mitigated.</i> |

Options for Mitigation of Risk Trees include:

Remove the risk altogether if possible by cutting off one or more branches, removing dead wood, or possibly removing the entire tree. Extreme risk situations should be closed off until the risk is abated.

Modify the risk of failure probability. In some cases it may be possible to reduce the probability of failure by adding mechanical support in the form of cables braces or props.

Modify the risk rating by moving the target. Risk ratings can sometimes be lowered by moving the target so that there is a much lower probability of the defective part striking anything. Moving the target should generally be seen as an interim measure.

Retain and monitor. This approach is used where some defects have been noted but they are not yet serious and the present risk level is only moderate.

Reference:

Dunster & Associates Environmental Consultants Ltd. Assessing Trees in Urban Areas and the Urban-Rural Interface, US Release 1.0. Silverton: Pacific Northwest Chapter ISA, 2006

Appendix C - Tree Protection Specifications

1. This specification must be followed for all trees that are in close proximity to any clearing and grading limits.

2. Educate all workers on site about tree protection techniques and requirements during preconstruction meetings and by sharing and posting this Tree Protection Specification.

3. After the site has been surveyed and clearing and grading stakes are in place, the project arborist should visit the site to determine the actual placement of tree protection measures based on the potential impact to tree root systems. Final adjustment of clearing limits by the arborist will be made on site prior to construction.

4. Tree Protection Zone (TPZ) fencing or other barriers shall be installed along all clearing limits to protect the Critical Root Zones (CRZ) of trees that are to be preserved. Optimal CRZ areas should be the greater of the drip line or calculated at 1-foot radius for every 1-inch of tree diameter. Actual limits of disturbance can be found in the attached Table of Trees. TPZ fencing shall be a minimum of a 4-foot tall orange plastic fencing anchored with steel stakes or a 6-foot tall chain link fence, depending on the project needs. Alternative barriers may be approved with consent of the project arborist. One entry point into the TPZ to gain access to the tree shall be provided for all trees, especially those surrounded by a chain link fence. Damaged barriers shall be re-established or replaced.

5. The project arborist may require chain link fencing or plywood boxing around trees in certain high traffic areas. The arborist will meet on site with the contractor to determine the specific types of fencing and placement, and the specific clearing instructions for areas near preserved trees. Adjustment of the initial TPZ lay out may be required as construction progresses and should be approved by the project arborist.

6. Post appropriate signage to the fencing to help convey the importance of the CRZ to workers.

7. TPZ fencing shall not be moved without authorization from the project arborist or the site supervisor. All fencing is to be left in place until the completion of the project. Tree protection signage shall be attached to fencing only.

8. A 4 to 6-inch deep layer of coarse arborist woodchips or hog fuel mulch shall be layered over the top of the soil surface. The mulch shall be kept 12-inches away from the base of any tree. Alternative mulch may be used with the prior approval of the project arborist.

9. Work required for removal of unwanted vegetation within the CRZ areas will be hand work only. NO HEAVY EQUIPMENT SHALL BE USED IN THE TPZ.

10. Within the TPZ areas, no parking, materials storage, dumping, or burning is allowed.

11. Do not attach anything to trees using nails, screws, and/or spikes.

12. Any trees adjacent to high traffic areas or building envelopes shall be pruned to attain proper safety and clearance prior to the construction. The project arborist will provide a recommendation using American national Standards Institute ANSI A300 Standard Practices for Pruning. Use of an International Society of Arboriculture Certified Arborist to perform the recommended work is strongly recommended.

13. When removing trees outside of the TPZ determined to be unacceptable for retention, use methods such as directional felling to avoid damage to trees and other valuable vegetation that is being retained. Small trees and other native vegetation in these areas should be carefully preserved.

14. Tree stumps that are within a TPZ or immediately adjacent to the CRZ of a preserved tree or other vegetation shall be removed by grinding.

15. Where the project arborist has determined that roots of a preserved tree may be encountered during excavation or grading, a Certified Arborist shall be on site to supervise any root pruning and to assess the potential impact of such pruning.

16. Excavation equipment shall have flat front buckets to be used when lower the grade that may contact roots of a preserved tree.

17. Excavation should occur at perpendicular angles that will reduce the potential to tear and break roots further back towards the tree.

18. Any root greater than 1-inches in diameter that is encountered shall be carefully cut with a sharp tool and not torn with a backhoe. Avoid, when feasible, cutting any root greater than 4 inches in diameter. Roots cut shall be immediately covered with soil or mulch and kept moist. When roots must be exposed around concrete forms before back-filling can occur, cover the roots with wet burlap and a white plastic sheeting.

19. Where access for machinery or any vehicle is required within the CRZ or TPZ of any preserved tree, the soil should be protected from compaction. Acceptable methods include an 18 inch deep layer of wood chips or hog fuel, 1 inch thick plywood, Alturna Mats, or steel sheets be placed over the soil surface.

20. Do not trench for utilities installation or repair, or for irrigation system installation within the TPZ without consent of the project arborist. Alter routes of underground infrastructure or use alternate methods such as pipe boring, air excavation, or HVAC to work around roots.

21. Landscaping specified within the TPZ areas shall be designed to limit disturbance of surface soils and preserved vegetation. No root pruning is permitted. New plants added in these areas should be of the smallest size possible to minimize disturbance.

22. Do not change grade by cutting or filling within the TPZ without consent of the project arborist.

23. Where backfill is required within a CRZ or TPZ area, the project arborist shall determine the amount and type of fill material to be used.

24. Supplemental irrigation for all protected trees is required during the summer months or prolonged periods of dry weather. In the absence of adequate rainfall, apply at least 1 inch of water per week by deep soaking methods. THIS IS MOST IMPORTANT FOR SUCESSFUL TREE RETENTION.

25. Fertilize trees as necessary with phosphorus, potassium, calcium, magnesium, and other macro- and micro-nutrients as indicated by a soil nutrient analysis test, but wait at least 1 year to apply any nitrogen. Nitrogen shall only be applied according to the American National Standards Institute A300 (part 2) Standard Practices for Fertilization (ANSI A300 Part 2, 2004) or the International Society of Arboriculture's Best Management Practice for Fertilization.

26. Monitoring of all trees, especially those exposed to new environmental conditions such as exposure to wind, sun, or deep shade, should be monitored during construction and annually for several seasons following construction to check for adverse changes to the tree health or stability.

Attachments: Table of Trees, Site Survey with Tree Locations



Kirkland Children's School
5311 108th Ave NE Kirkland

Date of Inventory: June 5, 2012
Table Prepared: June 5, 2012

| Tree # | Scientific Name | Common Name | DSH (inches) | Drip Line | Condition | Prob | Size | Target | Risk Potential | LOD | Management Options | Notes | Tree Status |
|--------|----------------------------------|------------------|--------------|-----------|-----------|------|------|--------|----------------|-----------|--|---|-------------|
| 101 | <i>Pseudotsuga menziesii</i> | Douglas fir | 24.8 | 16.0 | Good | 2 | 2 | 4 | 8 | Drip line | Crown clean as time and money allows | Bark crack with sap flow; tag missing; self-corrected lean; branch failure most probable | Retain |
| 102 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 7.8 | 5 | Fair | 1 | 1 | 3 | 5 | Drip line | | Phototropic lean | Retain |
| 103 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 7 | 5 | Fair | 1 | 1 | 4 | 6 | Drip line | | Topped | Retain |
| 104 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 6.7 | 5 | Fair | 1 | 1 | 4 | 6 | Drip line | | Topped; trunk sweep | Retain |
| 105 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 12.5 | 5 | Good | 1 | 1 | 4 | 6 | Drip line | | Phototropic lean | Retain |
| 109 | <i>Pseudotsuga menziesii</i> | Douglas fir | 22.9 | 15 | Good | 2 | 2 | 4 | 8 | Drip line | Crown clean as time and money allows | | Retain |
| 111 | <i>Pseudotsuga menziesii</i> | Douglas fir | 25.2 | 15 | Good | 2 | 2 | 4 | 8 | Drip line | Crown clean as time and money allows; consider subordinating smaller lead to reduce the potential for part failure | 8" subordinate lead at 8' with sap flow from union with main stem; not a significant risk | Retain |
| 112 | <i>Pseudotsuga menziesii</i> | Douglas fir | 17 | 10 | Good | 2 | 1 | 4 | 7 | Drip line | Crown clean as time and money allows | Tag removed | Retain |
| 113 | <i>Thuja plicata</i> | Western redcedar | 25 | 12 | Good | 2 | 2 | 4 | 8 | Drip line | | | Retain |
| 114 | <i>Pseudotsuga menziesii</i> | Douglas fir | 16.8 | 8 | Good | 2 | 2 | 4 | 8 | Drip line | Crown clean as time and money allows | Tag removed | Retain |
| 115 | <i>Pseudotsuga menziesii</i> | Douglas fir | 32.8 | 25 | Good | 2 | 2 | 4 | 8 | Drip line | Crown clean as time and money allows | Tag removed | Retain |
| 116 | <i>Pseudotsuga menziesii</i> | Douglas fir | 24.8 | 16 | Good | 2 | 2 | 4 | 8 | Drip line | Crown clean as time and money allows | Tag removed; self-corrected lean | Retain |
| 117 | <i>Pseudotsuga menziesii</i> | Douglas fir | 30.3 | 20 | Good | 2 | 2 | 4 | 8 | Drip line | Crown clean as time and money allows | Protect CRZ; deadwood, remove hangers, reduce longer scaffold limbs | Retain |
| 118 | <i>Pseudotsuga menziesii</i> | Douglas fir | 40 | 30 | Good | 2 | 3 | 4 | 9 | Drip line | Retain, test, and monitor; crown clean as time and money allows | Basal swelling; recommend advanced testing to assess if defect present; tag missing | Retain |

Kirkland Children's School
5311 108th Ave NE Kirkland

Date of Inventory: June 5, 2012
Table Prepared: June 5, 2012

| Tree # | Scientific Name | Common Name | DSH (inches) | Drip Line | Condition | Prob | Size | Target | Risk Potential | LOD | Management Options | Notes | Tree Status |
|--------|------------------------------|------------------|--------------|-----------|-----------|------|------|--------|----------------|-------------|---|--|-------------------------|
| 119 | <i>Pseudotsuga menziesii</i> | Douglas fir | 19.7 | 10 | Good | 2 | 2 | 4 | 8 | Drip line | Excavate root flare to assess for possible girdling roots. Crown clean as time and money allows | Buried root crown | Retain |
| 120 | <i>Pseudotsuga menziesii</i> | Douglas fir | 16.3 | 10 | Good | 2 | 2 | 4 | 8 | Drip line | Excavate root flare to assess for possible girdling roots. Crown clean as time and money allows | Buried root crown | Retain |
| 121 | <i>Pseudotsuga menziesii</i> | Douglas fir | 24.4 | 18 | Good | 2 | 2 | 4 | 8 | Drip line | Excavate root flare to assess for possible girdling roots. Crown clean as time and money allows | Buried root crown | Retain |
| 122 | <i>Pseudotsuga menziesii</i> | Douglas fir | 24.6 | 15 (S) | Good | 2 | 2 | 4 | 8 | Drip line | Excavate root flare to assess for possible girdling roots. Crown clean as time and money allows | Buried root crown; bark crack with sap flow | Retain |
| 123 | <i>Pseudotsuga menziesii</i> | Douglas fir | 41.9 | 35 | Fair | 3 | 3 | 4 | 10 | Drip line | Retain, test, crown clean, reduce scaffold branch length, and monitor; or remove | Basal swelling, sap flow 20% around trunk; corrected lean; advanced decay test for extent of internal issues | Remove health |
| 124 | <i>Pseudotsuga menziesii</i> | Douglas fir | 33 | 14 | Fair | 2 | 1 | 4 | 7 | NA | | Restricted trunk due to gazebo | Remove for construction |
| 125 | <i>Pseudotsuga menziesii</i> | Douglas fir | 13.7 | 12 | Fair | 2 | 2 | 4 | 8 | NA | | Remaining trunk long-term decay issues | Remove for construction |
| 126 | <i>Thuja plicata</i> | Western redcedar | 29 | 13 | Fair | 3 | 3 | 4 | 10 | NA | | Internal decay seam - both sides; bird holes; poor choice for retention | Remove for construction |
| 127 | <i>Pseudotsuga menziesii</i> | Douglas fir | 33.2 | 15 | Good | 2 | 1 | 4 | 7 | NA | | | Remove for construction |
| 128 | <i>Pseudotsuga menziesii</i> | Douglas fir | 33.2 | 15 | Fair | 2 | 1 | 4 | 7 | NA | | small twig dieback; flat trunk on parking area side | Remove for construction |
| 129 | <i>Pseudotsuga menziesii</i> | Douglas fir | 28.5 | 24 | Good | 2 | 2 | 4 | 8 | 15' to east | Reduce length of longer laterals | previously "wind-sailing" limits ability to prune; shallow roots; trunk with kink | Remove for construction |



Kirkland Children's School
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| Tree # | Scientific Name | Common Name | DSH (inches) | Drip Line | Condition | Prob | Size | Target | Risk Potential | LOD | Management Options | Notes | Tree Status |
|--------|----------------------------------|------------------|----------------|-----------|-----------|------|------|--------|----------------|--------------|---|--|-------------------------|
| 130 | <i>Thuja plicata</i> | Western redcedar | 29.7 | 12 | Fair | 2 | 2 | 4 | 8 | 15' to south | Monitor junction for resin flow after severe weather events; or cable | Forked trunk at 40' w/narrow union; old nurse log tree, shows no sign of movement, upper canopy sparse; top soil layer compacted | Remove for construction |
| 131 | <i>Pyrus calleryana</i> | Flowering pear | 14, 13.5, 13.3 | 20 | Good | 2 | 2 | 4 | 8 | Drip line | Reduce limb endweight & raise canopy, selective thinning, can install a dynamic catch cable to further reduce risk potential, high preservation value | SW leaning trunk; monitor union between 2 south trunks for separation or sap flow especially after heavy snow or ice load. | Retain |
| 132 | <i>Pseudotsuga menziesii</i> | Douglas fir | 31 | 14 | Good | 2 | 1 | 4 | 7 | NA | | Branch failure | Remove for construction |
| 133 | <i>Tilia cordata</i> | Linden | 10.4 | 15 | Good | 1 | 1 | 4 | 6 | Drip line | | Protect CRZ; sap sucker holes | Retain |
| 134 | <i>Fraxinus excelsior</i> | Ash (blue) | 9.2 | 14 | Fair | 2 | 2 | 4 | 8 | NA | Retain & monitor trunk for continued defect or remove | Significant trunk wound - long-term decay issue; trunk leaning west | Rmove |
| 135 | <i>Pseudotsuga menziesii</i> | Douglas fir | 36.5 | 20 | Good | 2 | 2 | 4 | 8 | Drip line | Crown clean as time and money allows, reduce length of longest scaffold branches | Protect CRZ; deadwood, remove hangers, reduce longer scaffold limbs | Retain |
| 173 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 6.2 | 4 | Good | 1 | 1 | 1 | 3 | Drip line | | Protect to dripline | Retain |
| 174 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 6.4 | 3 | Fair | 1 | 1 | 3 | 5 | Drip line | | Topped; phototropic lean; our tag | Retain |
| 175 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 6.2 | 4 | Fair | 1 | 1 | 3 | 5 | Drip line | | Phototropic lean; our tag | Retain |
| 176 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 12.8 | 8 | Good | 1 | 1 | 3 | 5 | Drip line | | Root obstruction - curb | Retain |
| 187 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 12 | 8 | Good | 1 | 1 | 3 | 5 | Drip line | | Root obstruction - curb | Retain |

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| Tree # | Scientific Name | Common Name | DSH (inches) | Drip Line | Condition | Prob | Size | Target | Risk Potential | LOD | Management Options | Notes | Tree Status |
|--------|----------------------------------|-----------------|--------------|-----------|-----------|------|------|--------|----------------|-----------|---|--|---------------------|
| 188 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 11 | 8 | Fair | 2 | 2 | 3 | 7 | Drip line | | Long-term risk issue possible; forked trunk & narrow angle of attachment, crack, included bark, enveloped wire; root obstruction - curb | Retain |
| 189 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 14 | 8 | Good | 1 | 1 | 3 | 5 | Drip line | | Self-corrected lean; sprinkler at base; root obstruction - curb | Retain |
| 190 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 14 | 8 | Good | 1 | 1 | 3 | 5 | Drip line | | Root obstruction - curb | Retain |
| 191 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 8.5 | 7 | Good | 1 | 1 | 3 | 5 | Drip line | | Root obstruction - curb | Retain |
| 192 | <i>Alnus rubra</i> | Red Alder | 10 | 12 | Fair | 2 | 2 | 4 | 8 | Drip line | Consider for removal due to unsuitable species for location | This tree is a poor choice for the location. The species has weak wood and often fail quickly, short life span. Ice/snow load possible issue; monitor lean correcting; trunk leans east; small twig dieback; touching utility line | Retain |
| 193 | <i>Alnus rubra</i> | Red Alder | 16.2 | 13 | Fair | 2 | 1 | 4 | 7 | Drip line | Consider for removal due to unsuitable species for location | Girdling root; top dieback; branch failure; maintain clearance on walk/road/parking | Retain |
| 196 | <i>Cupressocyparis leylandii</i> | Leyland cypress | 8 | 6 | Good | 1 | 1 | 3 | 5 | Drip line | | In CRZ of 117, 135 | Retain |
| A | <i>Malus</i> | Crabapple | 4 | | | 1 | 1 | 3 | 5 | Drip line | | | Retain |
| B | <i>Malus</i> | Crabapple | 5 | | | 1 | 1 | 3 | 5 | Drip line | | | Retain |
| C | <i>Malus</i> | Crabapple | 5 | 8 | Good | 1 | 1 | 1 | 3 | Drip line | | | Retain |
| D | <i>Malus</i> | Crabapple | 5 | 8 | Good | 1 | 1 | 1 | 3 | NA | | | Remove construction |
| E | <i>Malus</i> | Crabapple | 5.6 | 8 | Good | 1 | 1 | 1 | 3 | Drip line | | | Retain |
| F | <i>Tilia cordata</i> | Linden | 8.3 | 10 | Good | 1 | 1 | 1 | 3 | Drip line | | | Retain |



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| Tree # | Scientific Name | Common Name | DSH (inches) | Drip Line | Condition | Prob | Size | Target | Risk Potential | LOD | Management Options | Notes | Tree Status |
|--------|------------------------------|-------------------|--------------|-----------|-----------|------|------|--------|----------------|-----------|--------------------|---|-------------|
| H | <i>Styrax</i> | Japanese snowbell | 5.6 | 10 | Good | 1 | 1 | 1 | 3 | Drip line | | | Retain |
| I | <i>Acer circinatum</i> | Vine maple | 6+ | 8 | Good | 1 | 1 | 1 | 3 | Drip line | | N of tree 129 | Retain |
| J | <i>Acer circinatum</i> | Vine maple | 6+ | 8 | Fair | 1 | 1 | 1 | 3 | Drip line | | N of #131 on adjacent site; fair condition; some canopy dieback | Retain |
| K | <i>Pseudotsuga menziesii</i> | Douglas fir | ~24 | 18 | Good | 2 | 1 | 3 | 3 | Drip line | | NW corner on adjacent site; 18' dripline, app. 24" DSH; good condition; | Retain |
| L | <i>Corylus cornuta</i> | Beaked hazelnut | 6+ | 12 | Good | 1 | 1 | 1 | 3 | Drip line | | | Retain |
| M | <i>Thuja plicata</i> | Western redcedar | 22 | 16 | Good | 1 | 1 | 4 | 6 | Drip line | | Located on adjacent property next to fence with 8' overhang; behind #123 | Retain |
| N | <i>Populus sp</i> | Aspen | 22 | 12 | Good | 1 | 1 | 3 | 5 | Drip line | | On adjacent lot south of "L", 12' dripline radius, 8' from property line, | Retain |



CITY OF KIRKLAND

Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033
425.587-3225 - www.kirklandwa.gov

MEMORANDUM

To: Tony Leavitt, Associate Planner

From: Tina Cohen, Consulting Urban Forester

Date: September 26, 2012

Subject: Urban Forester Review, ZON12-00659

The City's objective is to retain as many viable trees as possible on a development site while still allowing the development proposal to move forward in a timely manner. In order to make better decisions about tree retention, an approved tree retention plan that establishes the priorities of tree retention is required for zoning permit applications. Tree retention values are assessed based on the site, the location of trees and the information provided by the applicant's arborist.

The following tree retention values, based on Kirkland Zoning Code definitions, for the project are listed below:

- The High Retention Value trees on this site are Trees 101, 115, 116, 117, 135, 175, 176, 187, and 190 and G (10 total). Per the requirements in KZC 95.30, the applicant is required to retain and protect High Retention Value trees to the maximum extent possible. High Retention value trees are significant viable trees that are located within required yards or landscape buffers and fit the criteria defined in KZC 95.10.
- The Moderate Retention Value trees are Trees 102 thru 105, 109, 111 thru 114, 118 thru 122, 131, 133, 173, 189, 191, 192, 193, H (22 total). Moderate Retention Value trees are viable trees that are to be retained if feasible.
- The Low Retention Value trees are Trees 123 thru 130, 132, 134, 188, and A thru F (17 total). These are typed as Low Retention Value trees based on their current condition or are located in an area where removal is unavoidable due to the anticipated development activity.

No trees are approved for removal with the approval of a zoning permit. A new retention plan shall be required at each phase of the project as more information about the location of the proposed improvements is known, subject to the requirements in KZC 95.30.

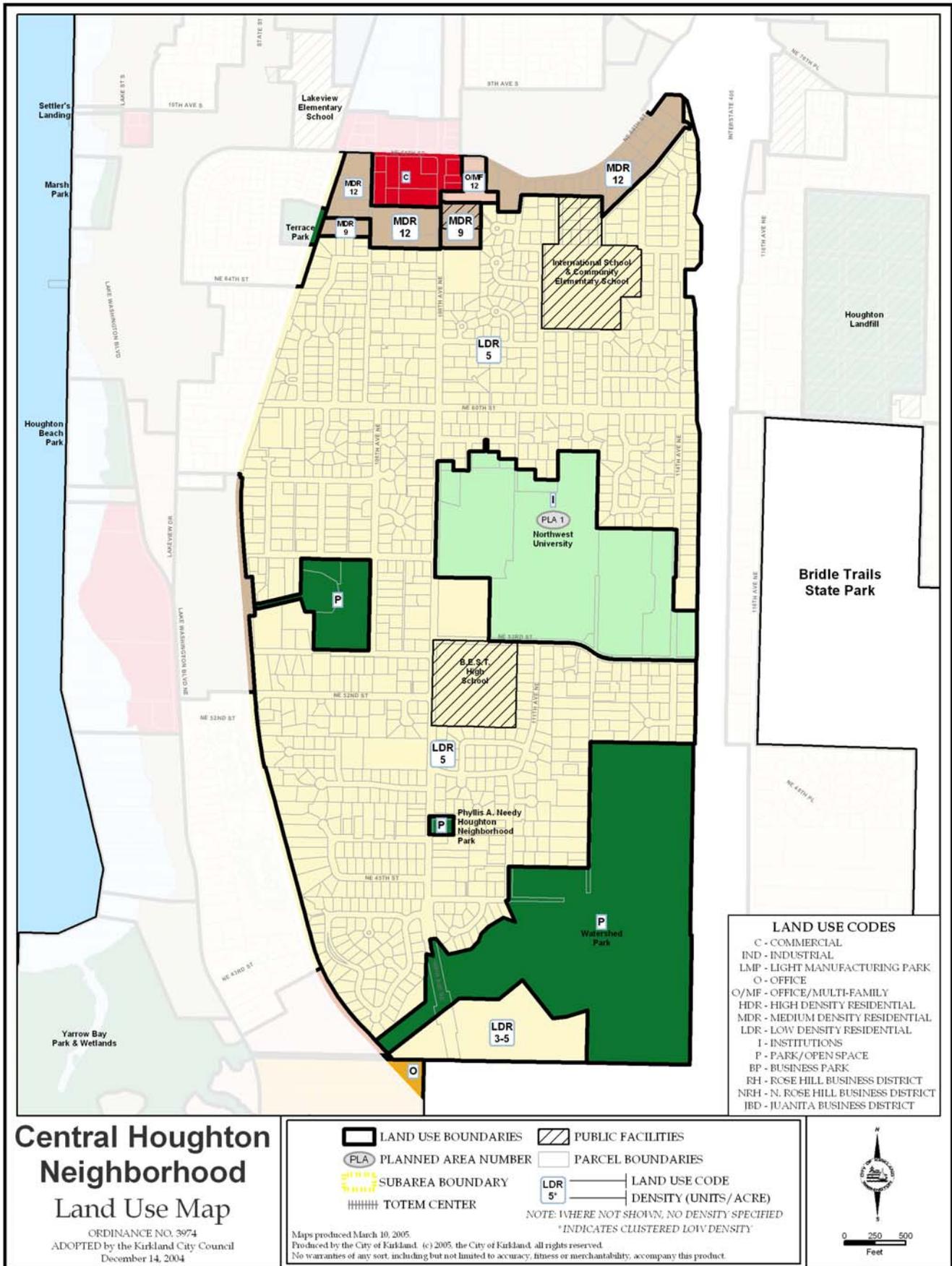


Figure CH-1: Central Houghton Land Use

CHAPTER 15 - SINGLE-FAMILY RESIDENTIAL (RS) ZONES

15.05 User Guide.

The charts in KZC [15.10](#) contain the basic zoning regulations that apply in each RS 35, RS 12.5, RS 8.5, RS 7.2, RS 6.3 and RS 5.0 zones of the City. Use these charts by reading down the left hand column entitled Use. Once you locate the use in which you are interested, read across to find the regulations that apply to that use.

Section 15.08



Section 15.08 – GENERAL REGULATIONS
The following regulations apply to all uses in this zone unless otherwise noted:

1. Refer to Chapter [1](#) KZC to determine what other provisions of this code may apply to the subject property.
2. If any portion of a structure is adjoining a detached dwelling unit in a low density zone, then either:
 - a. The height of that portion of the structure shall not exceed 15 feet above average building elevation, or
 - b. The maximum horizontal facade shall not exceed 50 feet.See KZC [115.30](#), Distance Between Structures/Adjacency to Institutional Use, for further details.
(Does not apply to Detached Dwelling Unit and Mini-School or Mini-Day-Care Center uses).
3. May not use lands waterward of the ordinary high water mark to determine lot size or to calculate allowable density.
4. May also be regulated under the Shoreline Master Program; refer to Chapter [83](#) KZC.

| DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS | | | | | | | | | | | |
|---|-------------------------|---|--|------|----------|--------------|--|-----------------------------|---------------------------------------|--|--|
| USE ↓ ↑ REGULATIONS | Required Review Process | MINIMUMS | | | MAXIMUMS | | Landscape Category (See Ch. 95) | Sign Category (See Ch. 100) | Required Parking Spaces (See Ch. 105) | Special Regulations (See also General Regulations) | |
| | | Lot Size | REQUIRED YARDS (See Ch. 115) | | | Lot Coverage | | | | | Height of Structure |
| | | | Front | Side | Rear | | | | | | |
| .030 School or Day-Care Center | See Spec. Reg. 10. | As established on the Zoning Map. See Spec. Reg. 1. | If this use can accommodate 50 or more students or children, then: 50' 50' on each side 50' | | | 70% | 25' above average building elevation. See Spec. Reg. 12. | D | B See Spec. Reg. 8. | See KZC 105.25. | <ol style="list-style-type: none"> Minimum lot size is as follows: <ol style="list-style-type: none"> In RS 35 zones, the minimum lot size is 35,000 square feet. In RS 12.5 zones, the minimum lot size is 12,500 square feet. In RS 8.5 zones, the minimum lot size is 8,500 square feet. In RS 7.2 zones, the minimum lot size is 7,200 square feet. In RS 6.3 zones, the minimum lot size is 6,300 square feet. In RS 5.0 zones, the minimum lot size is 5,000 square feet. May locate on the subject property only if: <ol style="list-style-type: none"> It will not be materially detrimental to the character of the neighborhood in which it is located. Site and building design minimizes adverse impacts on surrounding residential neighborhoods. The property is served by a collector or arterial street (does not apply to existing school sites). A six-foot-high fence along the side and rear property lines is required only along the property lines adjacent to the outside play areas. Hours of operation and maximum number of attendees at one (1) time may be limited to reduce impacts on nearby residential uses. Structured play areas must be setback from all property lines as follows: <ol style="list-style-type: none"> 20 feet if this use can accommodate 50 or more students or children. 10 feet if this use can accommodate 13 to 49 students or children. An on-site passenger loading area must be provided. The City shall determine the appropriate size of the loading area on a case-by-case basis, depending on the number of attendees and the extent of the abutting right-of-way improvements. Car-pooling, staggered loading/unloading time, right-of-way improvements or other means may be required to reduce traffic impacts on nearby residential uses. The location of parking and passenger loading areas shall be designed to reduce impacts on nearby residential uses. Electrical signs shall not be permitted. May include accessory living facilities for staff persons. The required review process is as follows: <ol style="list-style-type: none"> If the subject property, including all contiguous property owned by the applicant and held by others for future use by the applicant, is less than five acres, the required review process is Process IIA, Chapter 150 KZC; provided, however, that within the jurisdiction of the Houghton Municipal Corporation, the required review process is Process IIB, Chapter 152 KZC. |

REGULATIONS CONTINUED ON NEXT PAGE

Section 15.10

Zone
RS

USE ZONE CHART

| DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS | | | | | | | | | | | |
|---|---------------------------------------|-----------------------------|---|------|--|--------------|---------------------------------|---------------------------------------|---------------------------------------|--|---------------------|
| USE ↓ REGULATIONS → | Required Review Process | MINIMUMS | | | MAXIMUMS | | Landscape Category (See Ch. 95) | Sign Category (See Ch. 100) | Required Parking Spaces (See Ch. 105) | Special Regulations (See also General Regulations) | |
| | | Lot Size | REQUIRED YARDS (See Ch. 115) | | | Lot Coverage | | | | | Height of Structure |
| | | | Front | Side | Rear | | | | | | |
| .030 | School or Day-Care Center (continued) | | | | | | | | | REGULATIONS CONTINUED FROM PREVIOUS PAGE | |
| | | | | | | | | | | b. If the subject property, including all contiguous property owned by the applicant and held by others for future use by the applicant, is five or more acres, a Master Plan, approved through Process IIB, Chapter 152 KZC, is required. The Master Plan must show building placement, building dimensions, roadways, utility locations, land uses within the Master Plan area, parking location, buffering, and landscaping. 11. These uses are subject to the requirements established by the Department of Social and Health Services (WAC Title 388). 12. For school use, structure height may be increased, up to 35 feet, if: a. The school can accommodate 200 or more students; and b. The required side and rear yards for the portions of the structure exceeding the basic maximum structure height are increased by one foot for each additional one foot of structure height; and c. The increased height is not specifically inconsistent with the applicable neighborhood plan provisions of the Comprehensive Plan. d. The increased height will not result in a structure that is incompatible with surrounding uses or improvements. <i>This special regulation is not effective within the disapproval jurisdiction of the Houghton Community Council.</i> | |
| .040 | Mini-School or Mini-Day-Care Center | Process I, Chapter 145 KZC. | As established on the Zoning Map. See Special Regulation 1. | 20' | 5' but 2 side yards must equal at least 15'. | 10' | 50% | 25' above average building elevation. | E | B See Spec. Reg. 8. | See KZC 105.25. |
| | | | | | | | | | | 1. Minimum lot size is as follows: a. In RS 35 zones, the minimum lot size is 35,000 square feet. b. In RS 12.5 zones, the minimum lot size is 12,500 square feet. c. In RS 8.5 zones, the minimum lot size is 8,500 square feet. d. In RS 7.2 zones, the minimum lot size is 7,200 square feet. e. In RS 6.3 zones, the minimum lot size is 6,300 square feet. f. In RS 5.0 zones, the minimum lot size is 5,000 square feet. 2. May locate on the subject property if: a. It will not be materially detrimental to the character of the neighborhood in which it is located. b. Site design must minimize adverse impacts on surrounding residential neighborhoods. 3. A six-foot-high fence is required along the property lines adjacent to the outside play areas. | |

REGULATIONS CONTINUED ON NEXT PAGE

TRAFFIC IMPACT ANALYSIS



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The Kirkland Children's School

TRAFFIC IMPACT ANALYSIS

for a

2,750 gsf Addition to the existing School Building

located at

5311 108th Avenue NE

in the

City of Kirkland



February 21, 2012

The Kirkland Children's School

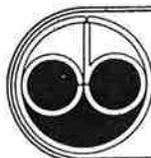
TRAFFIC IMPACT ANALYSIS

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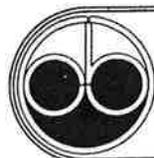
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The Kirkland Children's School

TRAFFIC IMPACT ANALYSIS

The following Traffic Impact Analysis (TIA) has been prepared for a proposed 2,750 gsf expansion of an existing school located on 108th Avenue NE in the southwest quadrant of the City of Kirkland.

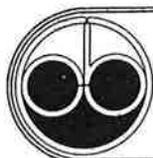
The school enlargement will be undertaken in a single phase and will be completed by the end of 2012.

Coincidentally, the project will take place at the same time as the relocation of the Northstar Junior High/Middle School to the B.E.S.T. high school campus on 108th Avenue NE at NE 53rd Street. Accordingly, the forecast traffic demands from this new public school are included in this TIA.

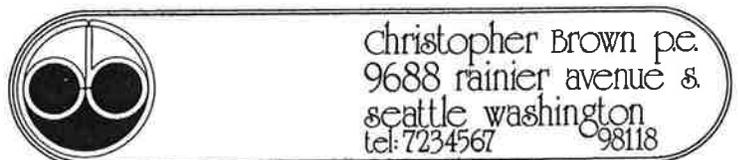
Findings & Conclusions

The following principal conclusions may be considered with respect to the proposed expansion of the existing Kirkland Children's School.

- The proposed expansion of the existing school will increase the size of the facility by 2,750 gsf.
- The expansion program will under a worst case assessment produce an additional 218 trips per day and increase the morning peak hour traffic demand at the site by 35 trips per hour and the p.m. peak hour demand of the arterial street by 19 trips per hour.
- The existing facility has in situ parking for 23 full sized vehicles in a 90° degree angle style configuration on a paved lot accessed with a pair of one-way drives.
- The 85th percentile parking demand of the existing school is for 19 stalls.
- The highest number of parked vehicles, over only one 5-minute interval, was 20.
- On completion of the expansion program an additional 9 stalls will be provided to bring the on site total parking supply to 32 stalls which is sufficient to meet the expected worst case parking demand.
- The road network under review in this TIA includes the adjacent arterial – 108th Avenue NE – and the proximate intersections extending from NE 53rd Street to the Northwest University main campus driveway.
- Peak hour traffic observations were conducted over both a.m. and p.m. arterial street peak hours at the end of January 2012.
- This late January date was chosen to allow regional traffic to consolidate after the December 2011 tolling of SR 520 that induced substantial traffic diversion.



- Level of Service (LOS) analyses were conducted for three conditions: (I) Current a.m. and p.m. peak hours, (II) 2012 conditions with the Northstar Junior High/Middle School completed and in full operation but without the Kirkland Children's School expansion, and (III) for 2012 with the Kirkland Children's School expansion completed.
- For all three LOS cases, the current year, 2012 *without* the project and 2012 *with* the project the lowest computed value was 'C'.
- Since the project does not cause a shift in the LOS at any of the intersections impacted by site-generated traffic no mitigation measures of any kind are required.
- A proportional share evaluation was conducted pursuant to the *Traffic Impact Analysis Guidelines* to determine if any intersection is impacted by more than one (1) percent.
- No intersection was determined to meet or exceed this one percent criterion.
- Four-year accident data (2008-2011) were provided by DPW for 108th Avenue NE from NE 52nd to NE 58th Street, covering the site's access.
- The computed mean accident rate along this section of 108th Avenue NE was 0.415 per million vehicle miles of travel.
- The WSDOT previously published mean accident rate for "urban minor arterial streets" was 3.44/mvm (million vehicle miles) suggesting accident causation or culpability does not reside with the street system. Fundamentally, 108th Avenue NE is considered to be a very safe street by this comparative measure.
- The existing children's school has in situ parking for 23 automobiles in a 90° degree angle configuration.
- Access to the paved parking lot is from a pair of one-way driveways.
- The 85th percentile parking demand was for 19 vehicles.
- The highest observed demand over a 5-minute interval was by 22 vehicles.
- On completion of the building expansion program an additional 9 stalls will be added to the existing parking lot.
- This additional parking will be entirely adequate to accommodate the increased parking demand occasioned by the proposed facility expansion.
- Considering no impacts to the arterial street network level of service, no likely shift in accident frequency or rate to the network, and no impacts to in situ parking, no traffic mitigation measures are necessary nor are any recommended on the basis of the findings of this traffic impact analysis.



The Kirkland Children's School

TRAFFIC IMPACT ANALYSIS

for a

2,750 gsf Addition to the existing School Building

City of Kirkland

Purpose

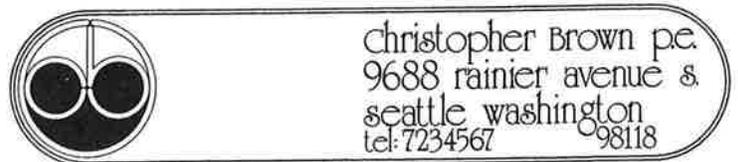
Briefly, the purpose of this traffic impact analysis (TIA) is to obtain and review the current a.m. and p.m. peak hour traffic volumes at the proximate key local arterial street intersections that may be impacted by vehicular traffic generated by the school's addition of two new class rooms, determine the expected new travel demands (trip generation) associated with the expansion program, assess the adequacy of parking on the site given the expanded school enrollment, review the local street accident records to determine if there are any current street elements that may increase traffic hazards, and determine if there are any "intersection proportionate share" costs that may be attributable to the school expansion.

Location

The Kirkland Children's School is located at 5311 108th Avenue NE. The existing school site, within the southern region of the City of Kirkland, is shown on Figure 1, the *Vicinity Map*. Further, Figure 2 is an aerial photograph of the site showing both the current school building occupying the southern part of the property and its attendant parking lot and dual one-way access driveways on the northern part of the site, situated on the west side of 108th Avenue NE, directly opposite the Kirkland Adventist School.

Site Traffic Design Parameters

At the present time the school includes the following traffic related design elements.



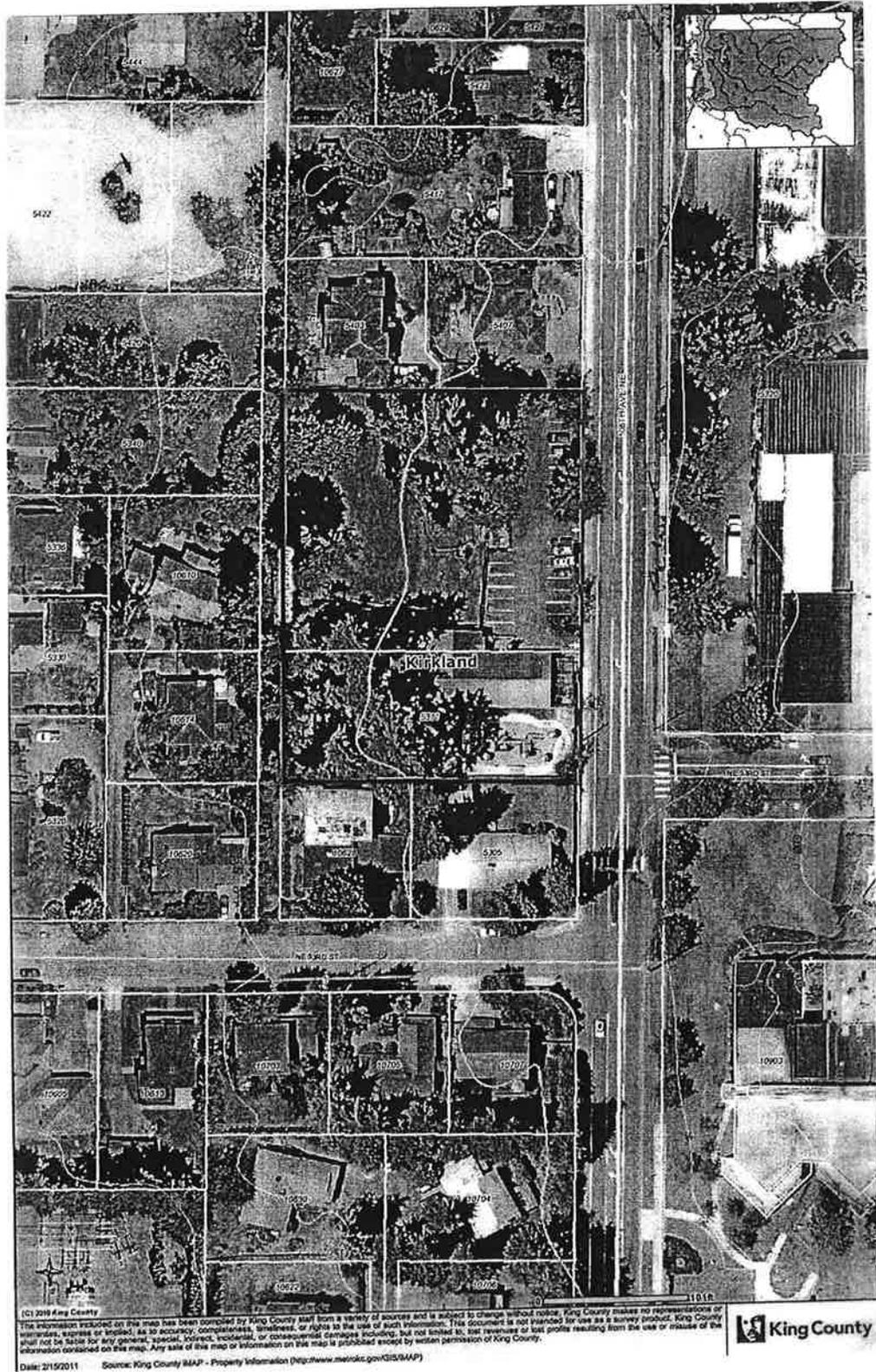
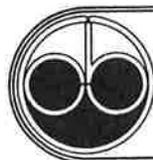


FIGURE 2

Kirkland Children's School
King County Aerial View of Site



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| | |
|------------------------------|------------------------------|
| Current building size | 7,000 gsf |
| Proposed addition | 2,750 gsf |
| Current enrollment | 92 pupils |
| ITE Land Use Designation | LUC 565 – Child Care |
| Site access | 2 one-way driveways |
| Current parking supply | 23 stalls |
| To be added, on-site parking | 9 stalls |
| Parking style | 90° angle with central aisle |

Reference Documents & Scope

Reference is made to the City of Kirkland's *Traffic Impact Analysis Guidelines* (revised February, 2004) and to the 2009 *Concurrency Management Review Application*.

The trip generation data for the development is based on the **Institute of Transportation Engineers (ITE)** 7th edition of the *Trip Generation Manual* published by the Institute of Transportation Engineers (ITE).

For the analysis scope, it may be noted that while the p.m. peak hour is the highest peak hour of the average weekday, since it contains work, school, shopping and social-recreation travel demands, the city Department of Public Works (DPW) has requested the TIA include the a.m. peak hour. The a.m. peak hour is the highest in terms of the school's site trip generation and, as a consequence, this TIA bases its conclusions and recommendations on the worst-case peak hour of the average weekday. Capacity analysis is in accordance with the *2000 Highway Capacity Manual* (HCM) publication by the Transportation Research Board, Washington, D.C.

Adjacent Land Uses

To the north, south and west of the children's school site the land uses are single-family residential while to the east (across from the site on 108th Avenue NE) the land uses are all institutional. There are three of these and include (1) the Lake Washington School District's B.E.S.T. alternative school abutting and to the south of NE 53rd Street, (2) the Kirkland Adventist School adjacent to and immediately north of NE 53rd Street, and to its immediate north, (3) the Northwest University.

Proposed Adjacent Development

The Lake Washington School District is adding a new school to the campus of B.E.S.T.

This new school is the Northstar Junior/Middle School. It is being relocated to the B.E.S.T. campus from its present location at the Lake Washington High School, 12033 NE 80th Street, Kirkland. At its new location it will be revised to include grades 6-8 from its present 7-9 format. Its proposed capacity will be for 90 students with 5 staff.

The new Northstar Junior/Middle School is expected to be occupied by late 2012. In terms of its new traffic demands on the local network it will add 397 daily vehicular trips, 144 a.m. peak hour trips, and 103 trips in the mid-afternoon. During the evening peak hour of the arterial street, it will add only one (1) trip.

The projected a.m. and p.m. peak hour traffic assignments for the Northstar Junior/Middle School are shown on Figures 3 and 4, respectively.

Phasing

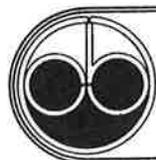
The Kirkland Children's School expansion program will be developed in a single phase and is expected to be completed and fully occupied by the end of the 2012-year.

Street System

The adjacent arterial street serving the site is 108th Avenue NE. This facility is a 3-lane minor arterial with bicycle lanes on the east and west sides, curbs, gutters and sidewalks, also on both sides, and overhead nighttime illumination. At intervals the center, two-way left turn lane has raised median landscaping. The posted speed limit is 30 mph. No on-street curbside parking is permitted.

The traffic volume on 108th Avenue NE at the project site is 11,590 vehicles per day per 2007 data. In the year 2000 the average daily traffic volume (ADT) was reported as being 11,401. The annual arterial traffic growth rate is less than 0.2 percent per year. This growth rate is inconsequential and suggests the neighborhood is at a plateau in terms of traffic intensification.

To the south of the Kirkland Children's School site is NE 53rd Street. At its intersection with 108th Avenue NE it is offset by about 120 feet (centerline to centerline) so it forms two "tee" type intersections that essentially preclude direct through traffic movements. On its western approach (east leg) to 108th Avenue NE it is striped for separate left and right turning lanes. It has a posted speed limit of 25 mph and an ADT of 3,020. This street provides the primary access to both the B.E.S.T. school and the Kirkland Adventist School.



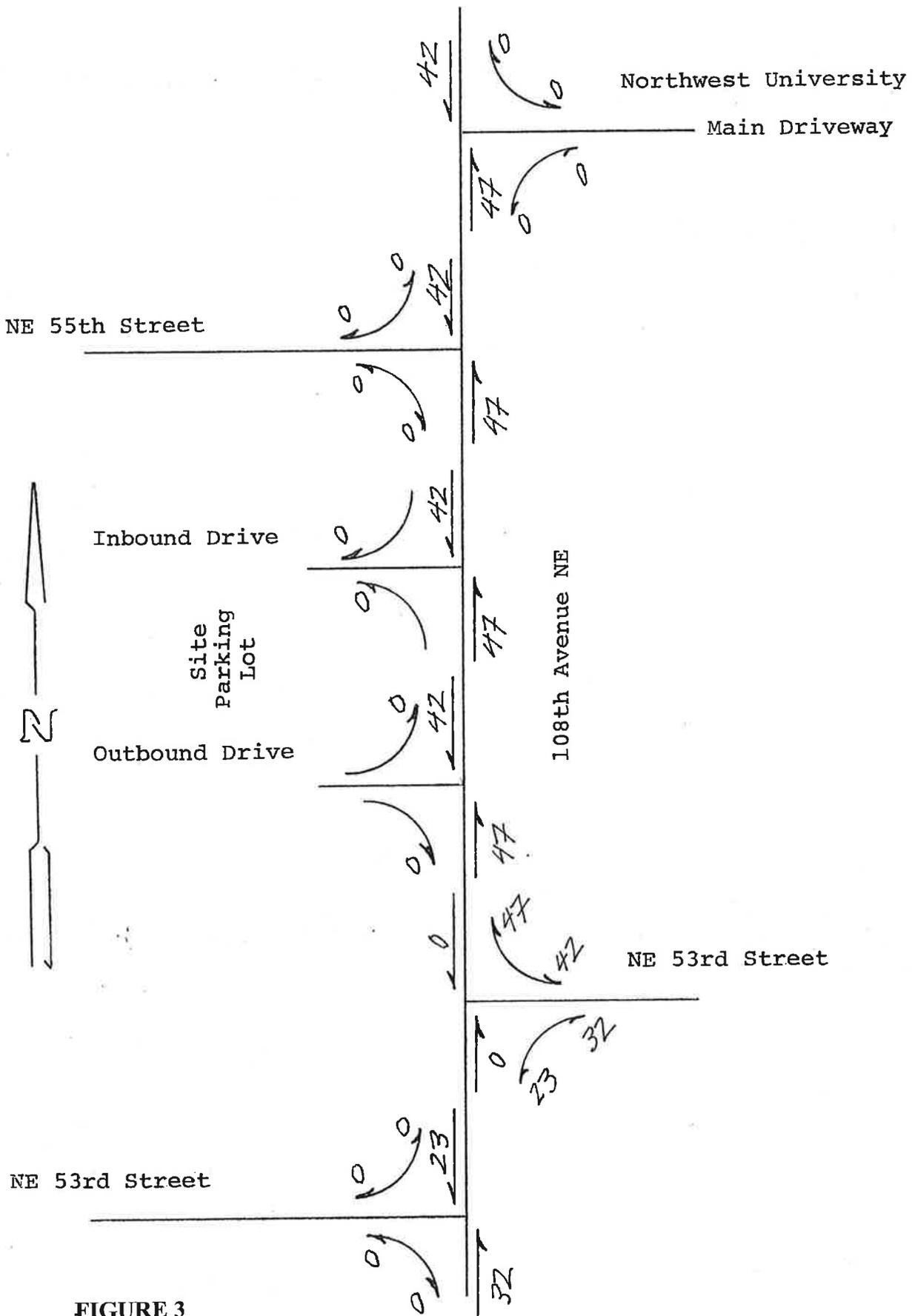
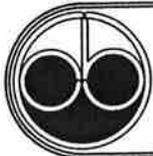


FIGURE 3

Northstar Jr. High/Middle School
A.M. Peak Hour Traffic Assignment



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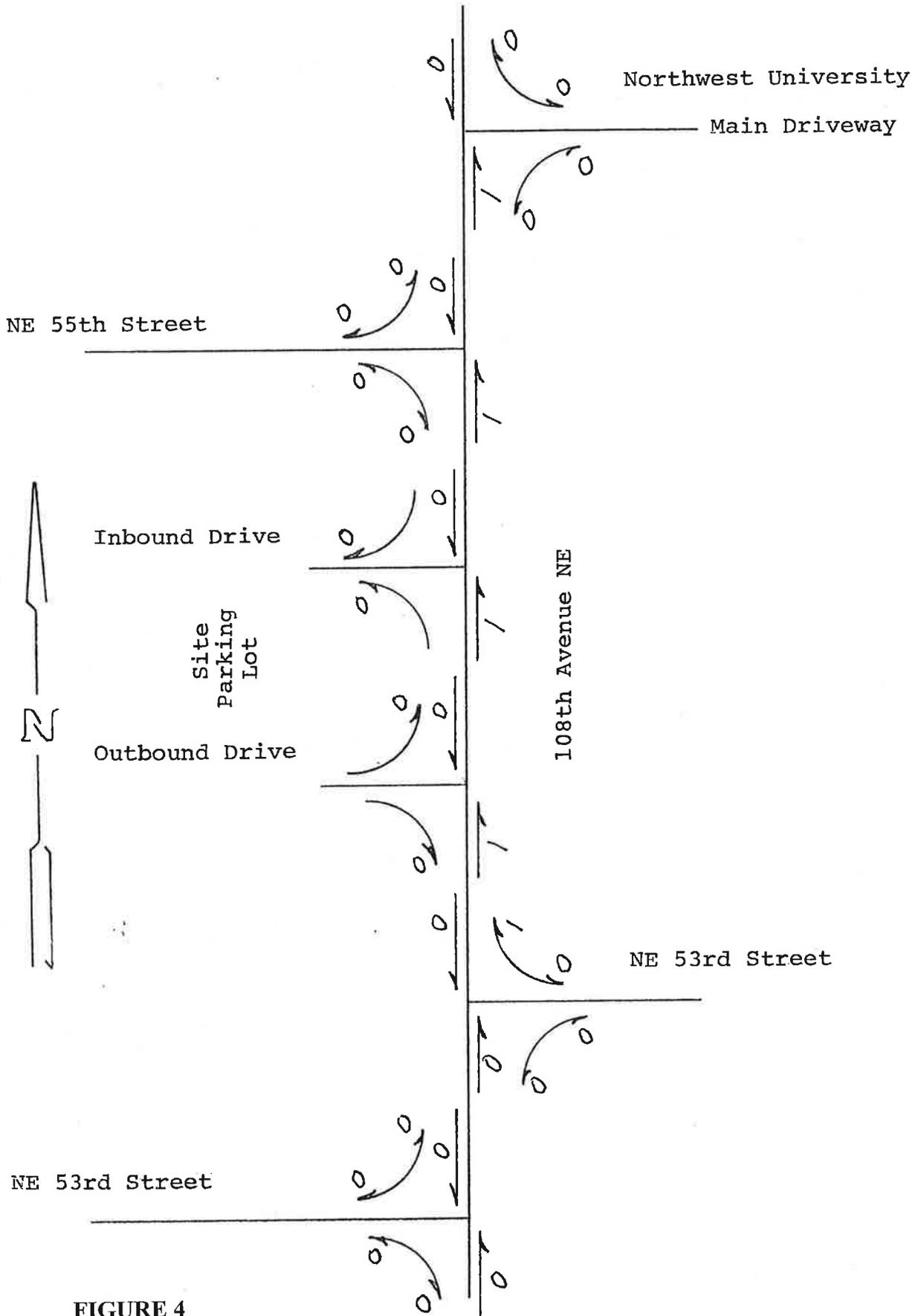
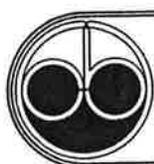


FIGURE 4

Northstar Jr. High/Middle School
P.M. Peak Hour Traffic Assignment



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On the west side of 108th Avenue NE, NE 53rd Street serves a residential neighborhood and has similar design standards as its counterpart described above except it has only a single lane approach to 108th Avenue NE. It has a 25 mph speed limit. It has an ADT of 350 vehicles per day.

To the immediate north of the project side is NE 55th Street. It is similar to its counterpart – NE 53rd Street – in that its ADT is also 350 vehicles per day, serves the same kind of residential development, has the identical roadway design and a single lane approach to 108th Avenue NE.

About 170 feet north of NE 55th Street is the main access to Northwest University. This is a parkway style access street with a center landscaped median separating the single lane inbound and outbound traffic movements. This access road has an ADT of 970.

The current a.m. and p.m. peak hour traffic volumes on these intersecting facilities on 108th Avenue NE are shown on the schematic diagrams of Figures 5 and 6. The data are also contained in the appendix in raw form along with bus, truck and pedestrian volumes. These figures also show the peak hour traffic volumes at the site's two one-way driveways, inbound and outbound.

Traffic Accidents

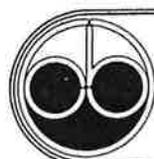
Kirkland DPW provided four-year traffic accident data along 108th Avenue NE from NE 52nd Street to NE 58th Place for the interval January 1, 2008 through 2011. The frequencies, by location, are noted below.

Table I

Accident Frequency by Location and Year

| Segment | 2011 | 2010 | 2009 | 2008 |
|---|------|------|------|------|
| @ NE 52 nd Street | 0 | 0 | 0 | 0 |
| NE 52 nd to NE 53 rd Street | 0 | 0 | 1 | 0 |
| @ NE 53 rd Street * | 0 | 0 | 1 | 0 |
| NE 53 rd to NE 55 th Street * | 0 | 2 | 0 | 0 |
| @ NE 55 th Street | 0 | 0 | 0 | 0 |
| NE 55 th to NE 57 th Street * | 0 | 0 | 1 | 0 |
| @ NE 57 th Street | 0 | 0 | 0 | 0 |
| NE 57 th to NE 58 th Place | 0 | 0 | 0 | 0 |
| @ NE 58 th Place | 0 | 0 | 0 | 0 |

* Note: Of this 2010 data, 1 accident, 25 feet N of 53rd NB, rear end type, w/ no injuries or property damage and 1 accident, 320 feet N of I/S. Hit parked car, injury type. In 2009, 2 accidents involved ped./bicyclist collisions, 1 w/injuries.



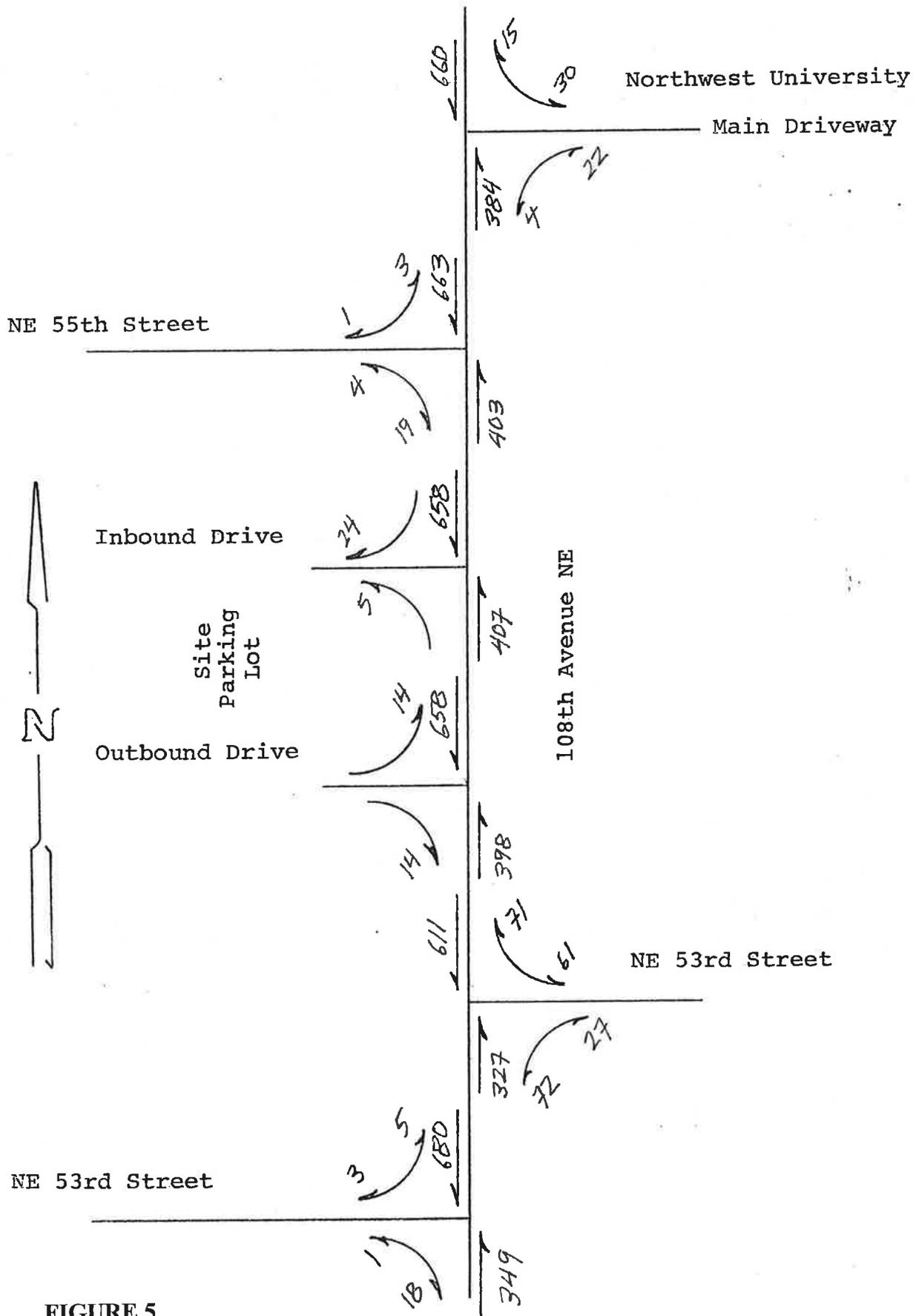
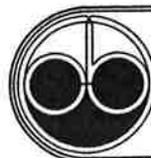


FIGURE 5

Current A.M. Peak Hour
Traffic Volumes



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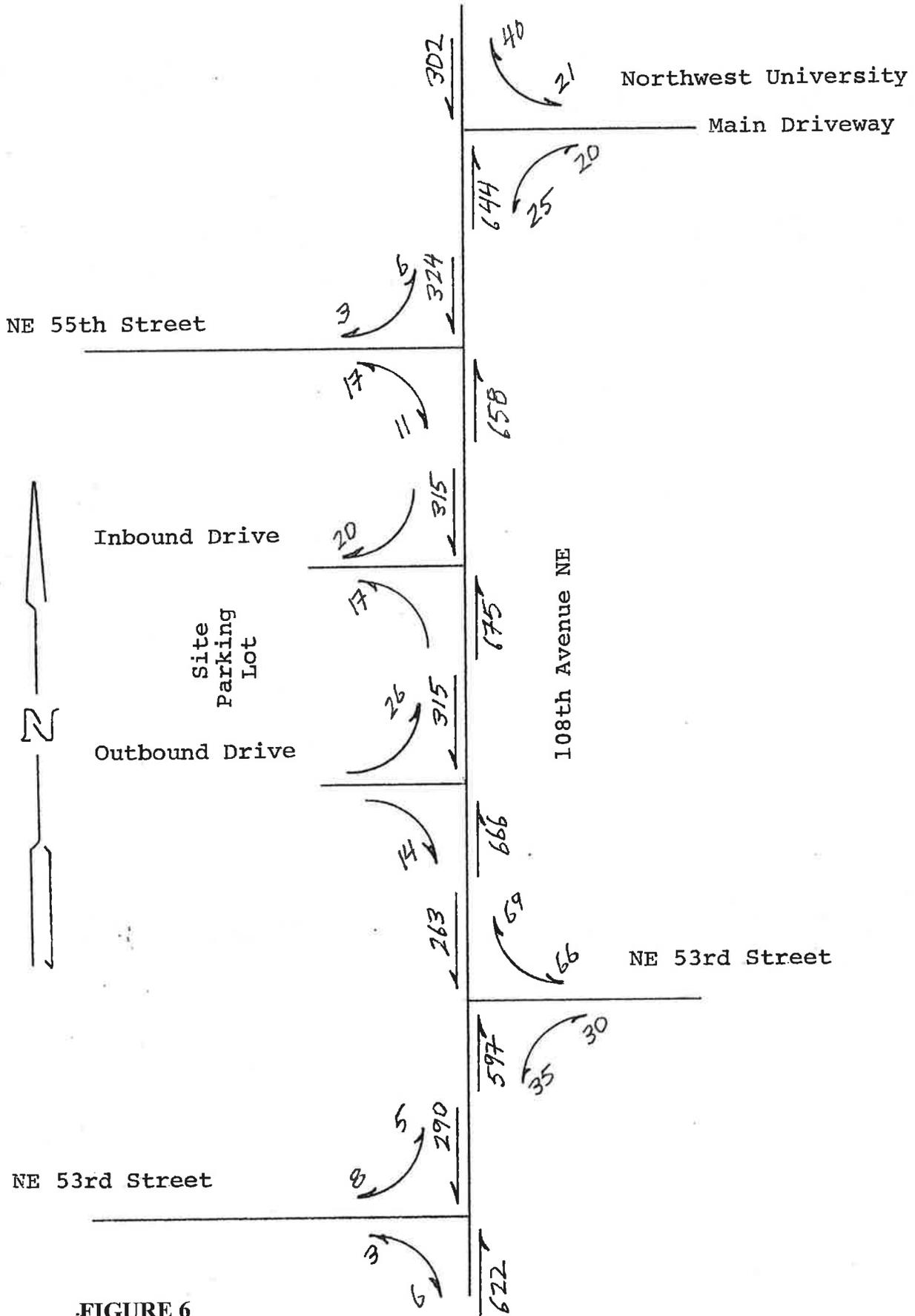
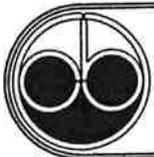


FIGURE 6

Current P.M. Peak Hour
Traffic Volumes



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In the above 4-year data, three (3) injury accidents were reported. There were no fatal accidents. One injury accident involved a bicycle-pedestrian collision in the early morning peak hour (between 55th and 57th at 7:20 a.m. on 1/5/09). Since it did not involve a motor vehicle it may be discounted when computing the average accident rate on 108th Avenue NE.

The average accident rate over this section of 108th Avenue NE (with 4 accidents in four years and an ADT of 11,590) is computed to be 0.415 accidents per million vehicle miles of travel (mvm). WSDOT published a statewide minor arterial accident rate in urban areas of 3.44/mvm. Consequently, with the accident rate on 108th Avenue NE being (0.415/3.44 X 100) only twelve percent (12%) of the published statewide average there is no statistical evidence to suggest accident causation or culpability resides with the road network. Stated another way, the traffic accidents on this minor arterial are likely due to driver error or ambient conditions-vehicle elements and, as a result, cannot be remediated by roadway construction alternatives.

The proposed expansion program of the Kirkland Children's School will not adversely impact traffic hazards.

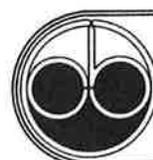
Transit

Metro Transit Routes 253 and 540 serve the project site. The articulated bus headways, over the two peak hours, are not more than 15- minutes. Transit stops are conveniently located at the corner of NE 53rd Street and 108th Avenue NE.

There is no bus "turn out" on 108th Avenue NE, for north or southbound routes, and so through arterial street traffic is of necessity stopped during transit loading and disembarking operations. This is not considered a traffic issue since, by peak hour observation, transit usage is relatively light at this intersection. As described above, too, traffic hazard does not show up in the data.

Year 2012 Volumes without Project

To validate expected traffic growth on the arterial system, to obtain the year 2012 traffic volumes *without* the project, and noting that the city's published traffic volumes on 108th Avenue NE do not extend forward from 2007, WSDOT traffic statistics from the *Annual Traffic Report* were reviewed. At *Permanent Traffic Recorder #822* located on I-405 at MP 18.71 the 2007 volume was 182,000. By the year 20120 it had increased to only to 184,000. With a rate of growth of marginally more than a quarter of a percent (0.275%),



for the purposes of this study, the traffic growth on 108th Avenue NE to the end of 2012 is assumed to be negligible.

The year 2012 a.m. and p.m. traffic volumes *without* the project, but including the forecast traffic for the Northstar Junior High/Middle School described earlier on page 4, are shown on Figures 7 and 8. As before, these are schematic diagrams to display the various traffic movements, by direction.

Trip Generation

Trip generation for the proposed Kirkland Children's School 2,750 gsf addition is based on the 7th edition of the **Institute of Transportation Engineers (ITE) *Trip Generation Manual***, for *Land Use Code 565*, (Day Care Center). Excerpts from this publication are included in the appendix, for reference purposes. The trip generation data are shown below in Table II.

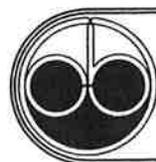
TABLE II

The Kirkland Children's School Expansion Trip Generation

| | |
|---------------|------------------|
| A.W.D.T. | 218 Trips/Day |
| A.M. Inbound | 19 vehicles/hour |
| A.M. Outbound | 16 vehicles/hour |
| P.M. Inbound | 9 vehicles/hour |
| P.M. Outbound | 10 vehicles/hour |

Trip Distribution & Assignment

The new traffic generated by this expansion program will be distributed onto the adjacent roadway system and then onto the regional transportation network. The traffic distribution and assignment of site-generated traffic is based on the *Analogy Method* described in *Transportation and Land Development*, Vergil G. Stover, 1988, published by the Institute of Transportation Engineers (ITE). A schematic diagram showing the trip assignment for both the a.m. and p.m. peak hours is shown on Figures 9 and 10. In developing these figures there are no assumed arterial facility capacity restraints and, as noted above, the distribution of school traffic follows the same pattern as now extant.



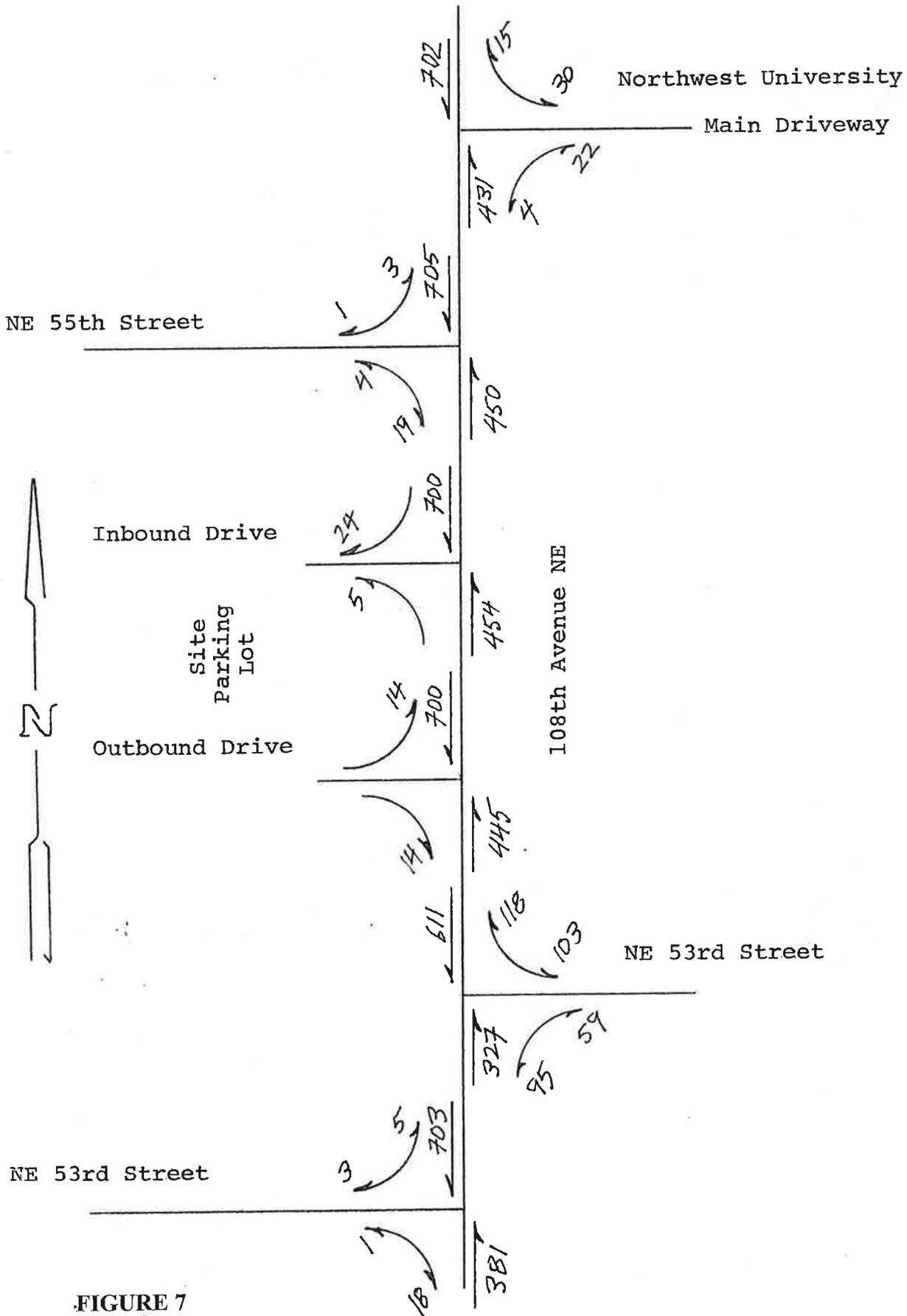
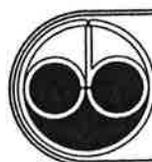


FIGURE 7

2012 A.M. Peak Hour Traffic Volumes
Without the Project



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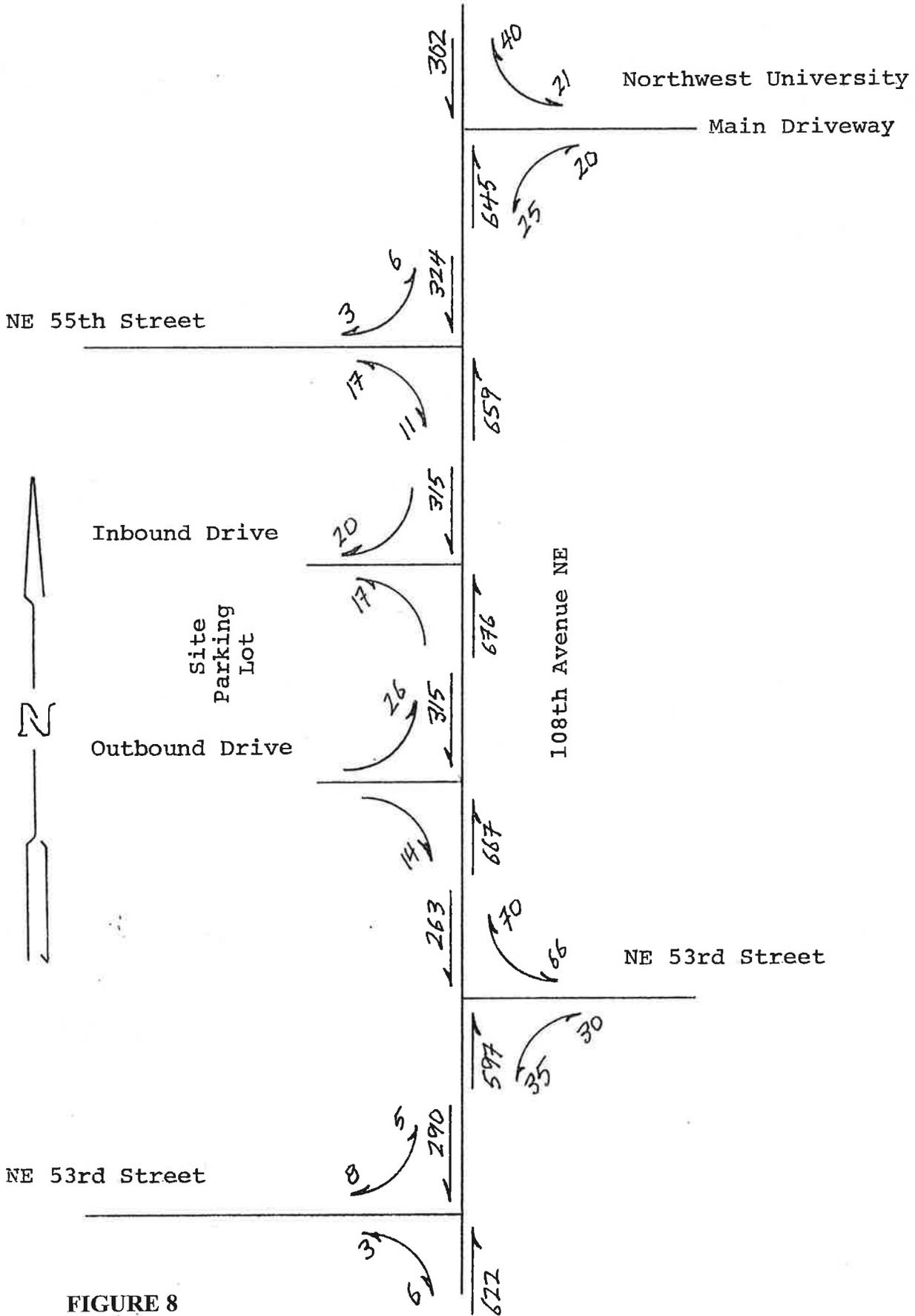
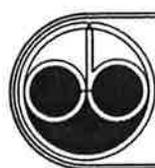


FIGURE 8

2012 P.M. Peak Hour Traffic Volumes
Without the Project



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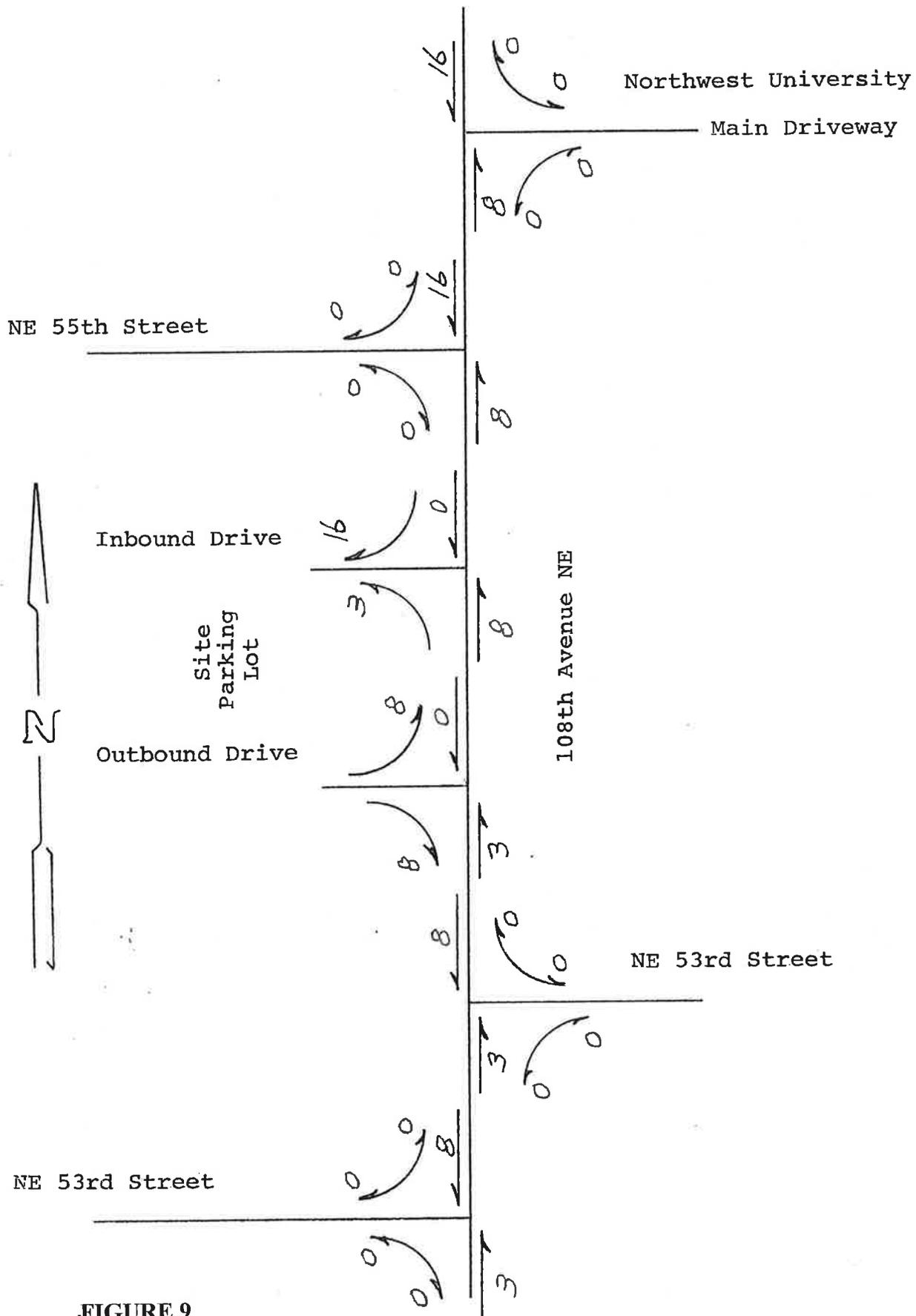
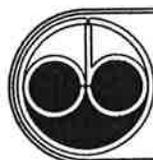


FIGURE 9

2012 A.M. Peak Hour Project
Traffic Assignment



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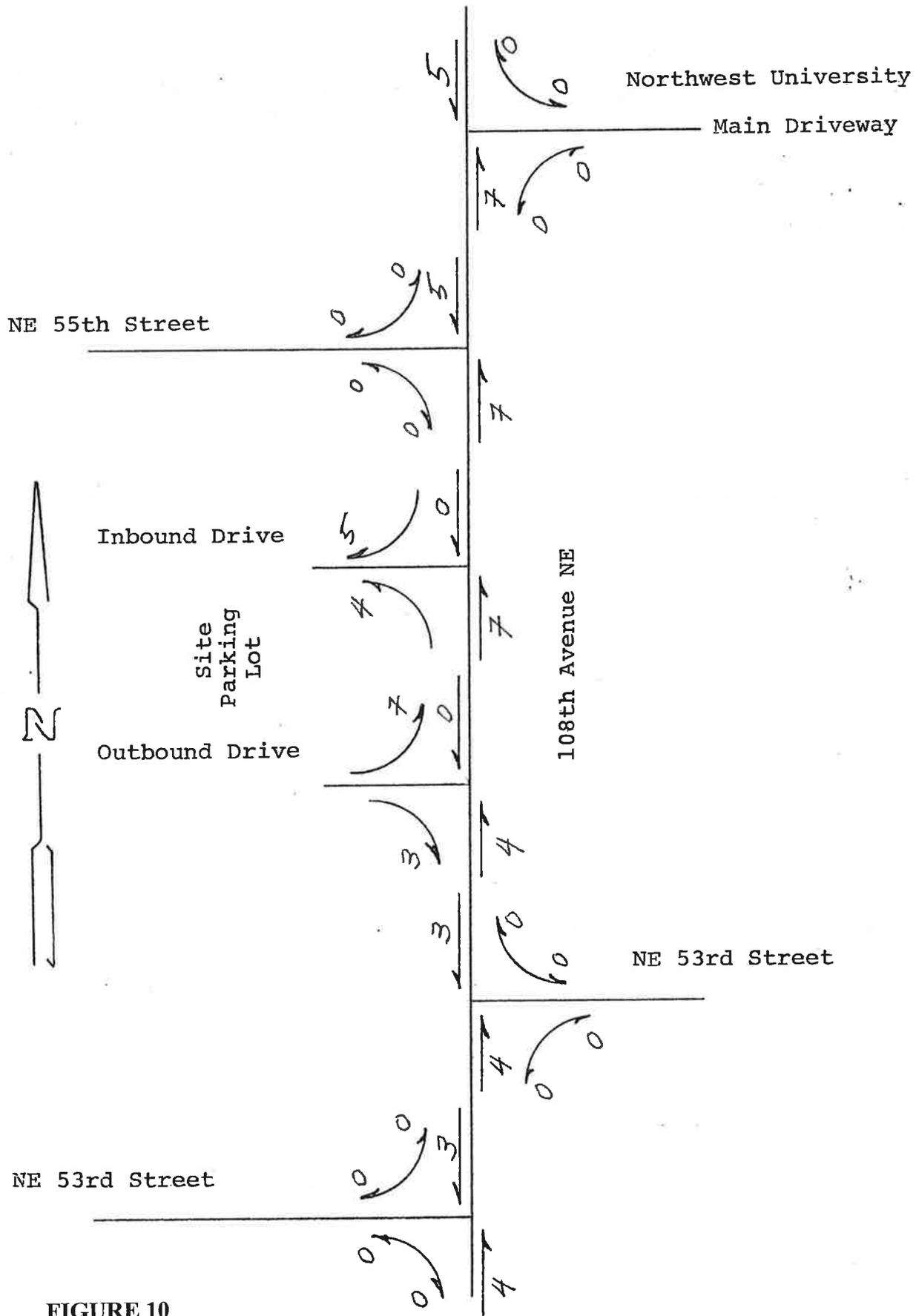
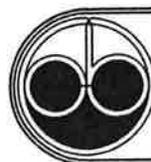


FIGURE 10

2012 P.M. Peak Hour Project
Traffic Assignment



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2012 Volumes with Project

Figures 11 and 12 show the a.m. and p.m. peak hour traffic volumes with the project completed and fully occupied. The data also includes the forecast volumes for the Northstar Junior High/Middle School relocated to the B.E.S.T. school campus.

Capacity Analysis

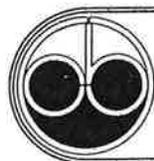
Capacity analysis is in accordance with the **2000 Highway Capacity Manual (HCM)** publication by the Transportation Research Board. The analysis was accomplished using the software entitled **HCS 3**, produced by the McTrans Center at the University of Florida. The results of the analysis are noted in Table III.

When reviewing the following LOS tabulated summaries, note that the computer input and results are included in the *Appendix*. The appendix computations show the entering traffic volumes and approach lane configurations. From observations, heavy (truck) volumes, noted in the appended raw field notes, were insignificant in number and do not, as a consequence, impact vehicular operations. Similarly, the absence of any significant approach road grades suggests negligible impacts from that consideration. The average intersection approach delays and levels of service (LOS) for these STOP sign controlled intersections are described below.

TABLE III

Levels of Service & Delay (in seconds)

| Intersection | Current | 2012 (W/O Project) | 2012 With Project |
|--|---------|-----------------------|----------------------|
| A.M. Peak Hour | | | |
| 108 th Ave. NE/NE 53 rd (west leg) | C, 15.8 | C, 16.4 | C, 16.5 |
| 108 th Ave. NE/NE 53 rd (east leg) | C, 15.2 | C, 17.5 | C, 17.6 |
| 108 th Ave. NE/S. Driveway | B, 14.1 | B, 14.7 | C, 15.2 |
| 108 th Ave. NE/N. Driveway | A, 9.1 | A, 9.3 | A, 9.4 |
| 108 th Ave. NE/NE 55 th Street | B, 14.1 | B, 14.7 | B, 15.0 |
| 108 th Ave. NE/Northwest Univ. Dr. | B, 11.6 | B, 12.0 | B, 12.1 |



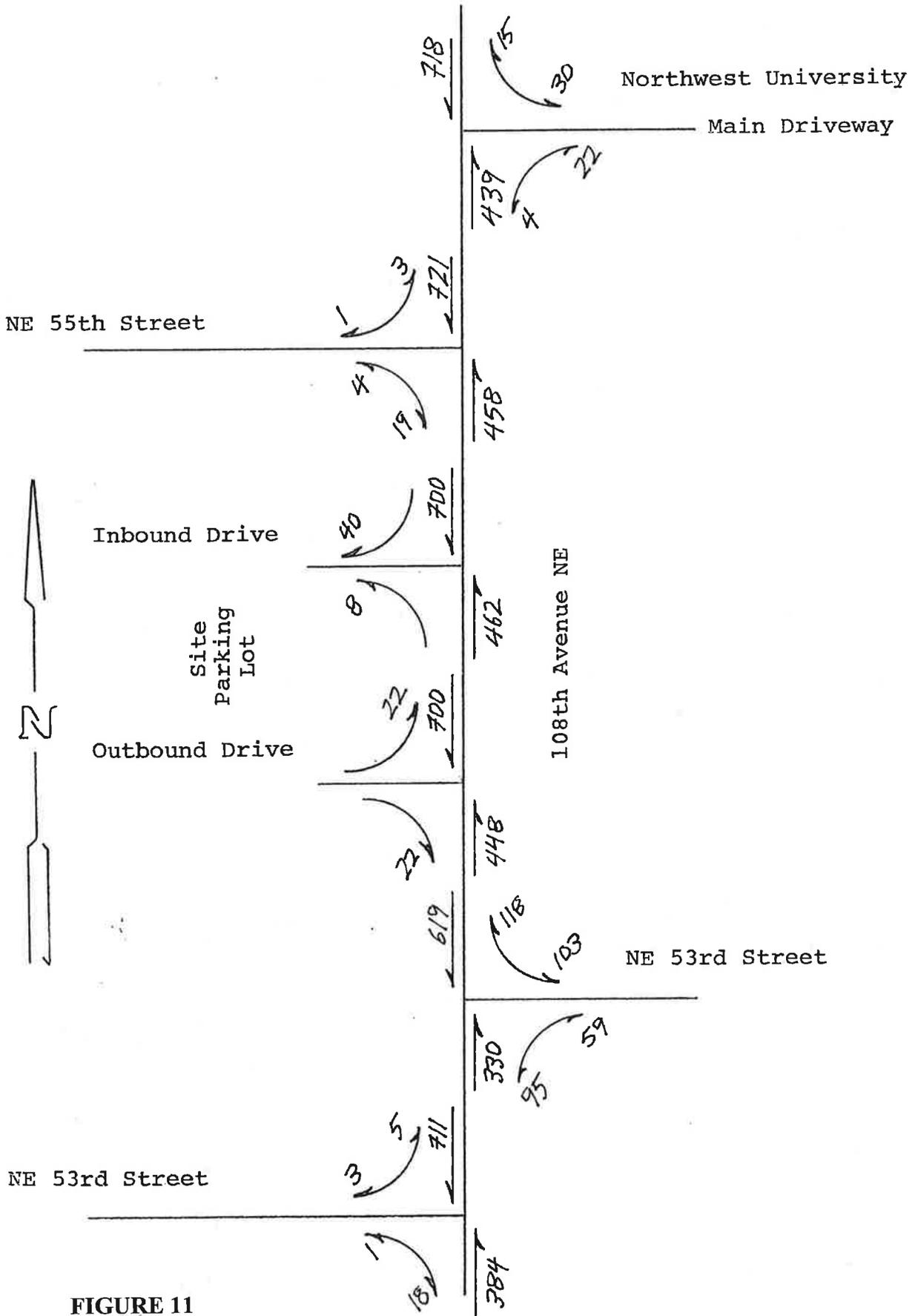


FIGURE 11

2012 A.M. Peak Hour Traffic Volumes
KCS Project Completed



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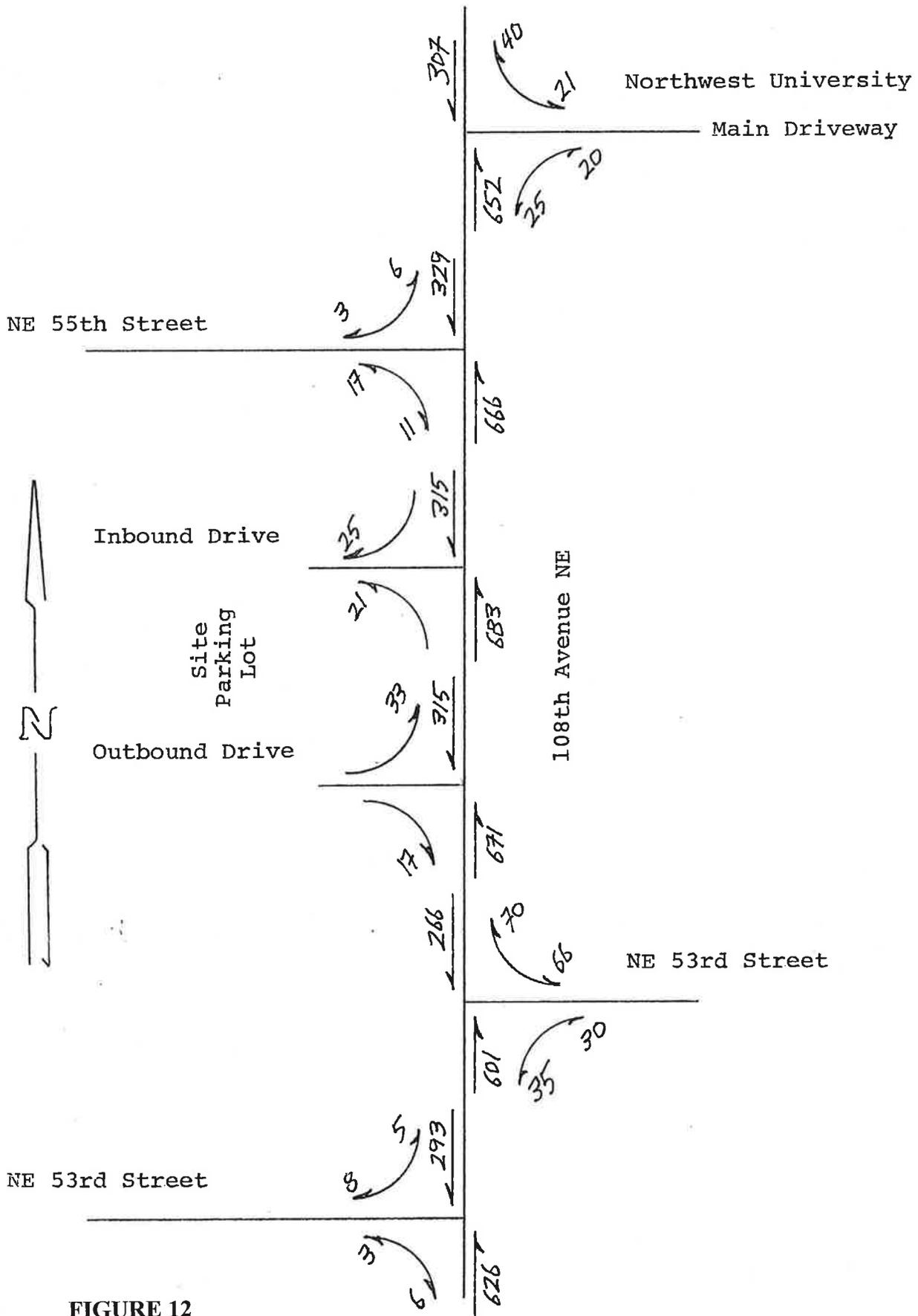
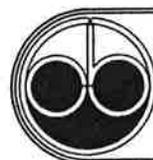


FIGURE 12

2012 P.M. Peak Hour Traffic Volumes
KCS Project Completed



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TABLE III - CONTINUATION

Levels of Service & Delay (in seconds)

| Intersection | Current | 2012 (W/O Project) | 2012 With Project |
|---|----------------|-----------------------|----------------------|
| | P.M. Peak Hour | | |
| 108 th Ave. NE/NE 53 rd (west leg) | B, 12.0 | B, 14.0 | B, 14.1 |
| 108 th Ave. NE/NE 53 rd (east leg)* | C, 16.4 | C, 16.4 | C, 16.4 |
| 108 th Ave. NE/S. Driveway | B, 12.2 | B, 12.9 | B, 13.2 |
| 108 th Ave. NE/N. Driveway | A, 8.0 | A, 8.0 | A, 8.1 |
| 108 th Ave. NE/NE 55 th Street | B, 12.2 | B, 12.2 | B, 12.2 |
| 108 th Ave. NE/Northwest Univ. Dr. | B, 14.1 | B, 14.1 | B, 14.2 |

* Note: East leg has two approach lanes. Worst case LOS is shown is for the LT movement.

LOS Criteria & Conclusions

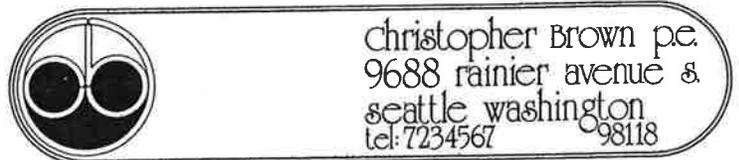
When reviewing the levels of service at the various intersections and the site driveways the following criteria apply.

TABLE IV

Levels of Service Criteria, Unsignalized Intersections

| Level of Service | Delay Range |
|------------------|----------------------|
| A | Less than 10 seconds |
| B | 10 to 15 seconds |
| C | 15 to 25 seconds |
| D | 25 to 35 seconds |
| E | 35 to 50 seconds |
| F | more than 50 seconds |

On completion of the school's expansion program, there is no change in the LOS at any intersection in the vicinity, on 108th Avenue NE. Indeed, every studied intersection continues to function at a very good level. At worst, the project increases delay at the site's exiting driveway by 0.5 seconds in the morning and 0.3 seconds in the afternoon.



Fundamentally, the Kirkland Children's School expansion program will not have any significant or material impact on the street network. This conclusion is made even with the proposed Northstar Junior High/Middle School relocation to the B.E.S.T. school campus.

Proportional Share Evaluation

The City of Kirkland DPW has requested that a proportional share evaluation be conducted pursuant to the *Traffic Impact Analysis Guidelines*. This section concerns those intersections where more than one (1) percent of the total traffic is added from the subject development.

From the Northstar Junior High/Middle School Relocation, Traffic Impact Study, dated January 26, 2012, by Transportation Engineers Northwest (TENW), page 19, Table 6, the following data is replicated.

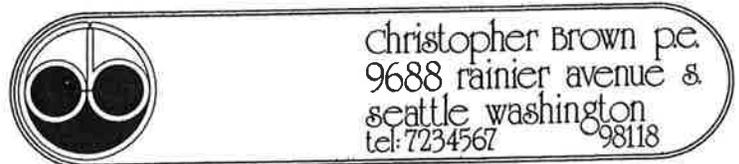
Intersection Proportional Shares

| Kirkland Int. Code # | Intersection | Proportional Share | Detailed Analysis Required |
|----------------------|---|--------------------|----------------------------|
| NA | 108 th Ave. NE/NE 53 rd St. | 2.39 % | Yes |
| 103 | State Street/NE 68 th Street | 0.12 % | No |
| 104 | 108 th Ave. NE/NE 68 th St. | 0.99 % | No |
| 112 | 6 th Street/Kirkland Way | 0.27 % | No |
| 407 | NE 70 th St./116 th Ave. NE | 0.46 % | No |

Since the Northstar Junior High/Middle School relocation project imposes 397 daily trips to the city's street network, and since the Kirkland Children's School expansion program increases daily traffic by 218 daily trips, in other words by about half (55%) of the Northstar project, and noting that only the intersection of 108th Avenue NE at NE 53rd Street is above the one percent code threshold, then only this intersection merits a proportional share analysis.

The proportional share analysis worksheet (page 12 of the City of Kirkland's Traffic Impact Analysis Guidelines) is appended for reference purposes.

The proportional share, it will be seen, is 0.001, which clearly falls well below the one (1) percent threshold. Nonetheless, a detailed LOS analysis was conducted with results shown in Table III, above.



Site Specific Improvements

For site traffic impacted street intersections falling within LOS A through D, no improvements are required.

From Table III no intersection falls below LOS D. Consequently, no improvements are mandated.

Study Comparisons

A comparison with the *Traffic Impact Study*, dated January 26, 2012, by Transportation Engineers Northwest, at that study's page 22, Table 7, shows the westbound left turn movement at the intersection of 108th Avenue NE and NE 53rd Street operating at LOS F. However, the input data for that study was dated November 10, 2011, before WSDOT implemented toll collections on SR 520.

For the Kirkland Children's School study, conversely, it was decided to wait until January 30th, 2012 to conduct intersection counts at this location. This delay was to ensure an adequate amount of time for SR 520 traffic to settle down to the new tolling program and, naturally, wait for its attendant traffic diversion to also stabilize.

The data of January 30th, 2012 was taken under dry albeit winter conditions. Nonetheless, it is considered adequate for the purposes of this impact analysis.

Parking Analysis

Based on observations at the school over the p.m. peak hour, taken under dry, cloudy weather conditions and with no evident unusual traffic conditions on the adjacent arterial street, the following parking characteristics may be of interest.

First, the in-situ parking lot is linear in form, paralleling the adjacent three-lane arterial-street, 108th Avenue SE. It has two driveways. The southern driveway, along the edge of and closest to the school building, is designated as one-way 'out' while the northern driveway operates as an "inbound" access.

Between these two driveways, on the east side of the paved parking lot, there are seven (7) parking stalls in a 90° degree configuration. Opposite these stalls on the west side of the lot there are also seven (7) parking in a similar 90° degree configuration. On the east side of the parking lot, on the north side of the northern driveway, there are eight (8) stalls also in a 90° degree style. Parallel to a fence that sets off the play area there is a

parallel style-parking stall used on occasion for the school bus. Thus, at this time, the automobile capacity of the current parking lot is for 23 vehicles and the school mini-bus.

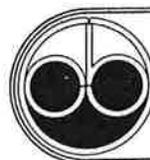
Recalling the current parking lot capacity of 23 vehicles, including a space for one (1) jitney bus, the following parking lot occupancy (next page, Table V) was observed.

Table V

Parked Lot Occupancy

| Time Ends @ | Demand (Stalls) |
|-------------------------------------|--------------------|
| 4:20 | 20) |
| 4:25 | 22) |
| 4:30 | 19) |
| 4:35 | 19) |
| 4:40 | 20) |
| 4:45 | 18) |
| 4:50 | 18) |
| 4:55 | 17) |
| 5:00 | 19) |
| 5:05 | 17) |
| 5:10 | 16) |
| 5:15 | 13) |
| 5:20 | 15 |
| 5:25 | 15 |
| 5:30 | 12 |
| 5:35 | 14 |
| 5:40 | 10 |
| 5:45 | 10 |
| 5:50 | 6 |
| 5:55 | 8 |
| 6:00 | 8 |
| Mean parking demand | 18 stalls |
| Median parking demand | 18 stalls |
| Mode, parking demand | 19 stalls |
| 85 th Percentile, demand | 19 stalls |

For the existing facility, a design load for 19 vehicles is appropriate for this kind of facility with a scale of 7,000 gsf in that it satisfies both the 85th percentile and the mode.



As described earlier on page 4, the parking lot will be increased to accommodate an additional nine (9) parking stalls. This will increase the parking capacity to (23+9) 32 stalls. These new stalls will be in a 90° degree configuration and are to be located along the internal school fence at the north end of the playground.

The adequacy of this additional parking was verified against the scale of the existing school, at 7,000 gsf, versus the scale of the school after its modification, 9,750 gsf.

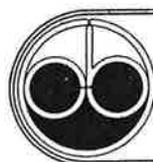
The 9,750 gsf-expanded school building will require, at the 85th percentile, a total of 26 stalls.

If an absolute worst-case analysis is to be considered over the single 5-minute interval, when the maximum number of parked cars were observed at only one time (4:25 p.m.), then for the expanded school building a total of 31 parking stalls would be required.

Considering the new parking lot capacity of 32 stalls, clearly even the worst-case parking demand of 31 stalls for the larger school facility will be adequately met.

Additionally, the lack of any historical accident data over the last four years at these two access driveways serving the existing parking lot and school does not suggest any likely increased hazard as a result of the larger parking lot associated with the bigger school building. Accordingly, no change in the street access to the parking lot, from the current one-way driveway couplet, is required and none is proposed.

In summary, the addition of 9 new parking stalls to the existing supply of 23 stalls will be adequate to meet event the worst case parking demands.

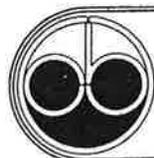


The Kirkland Children's School

TRAFFIC IMPACT ANALYSIS

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| LOS Comps. A.M. Peak, Future w/out @ 108 th Ave. NE/NE 53 rd St. WB | 29. |
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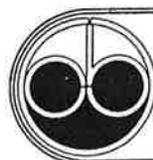
The Kirkland Children's School

TRAFFIC IMPACT ANALYSIS

Appendix – Table of Contents

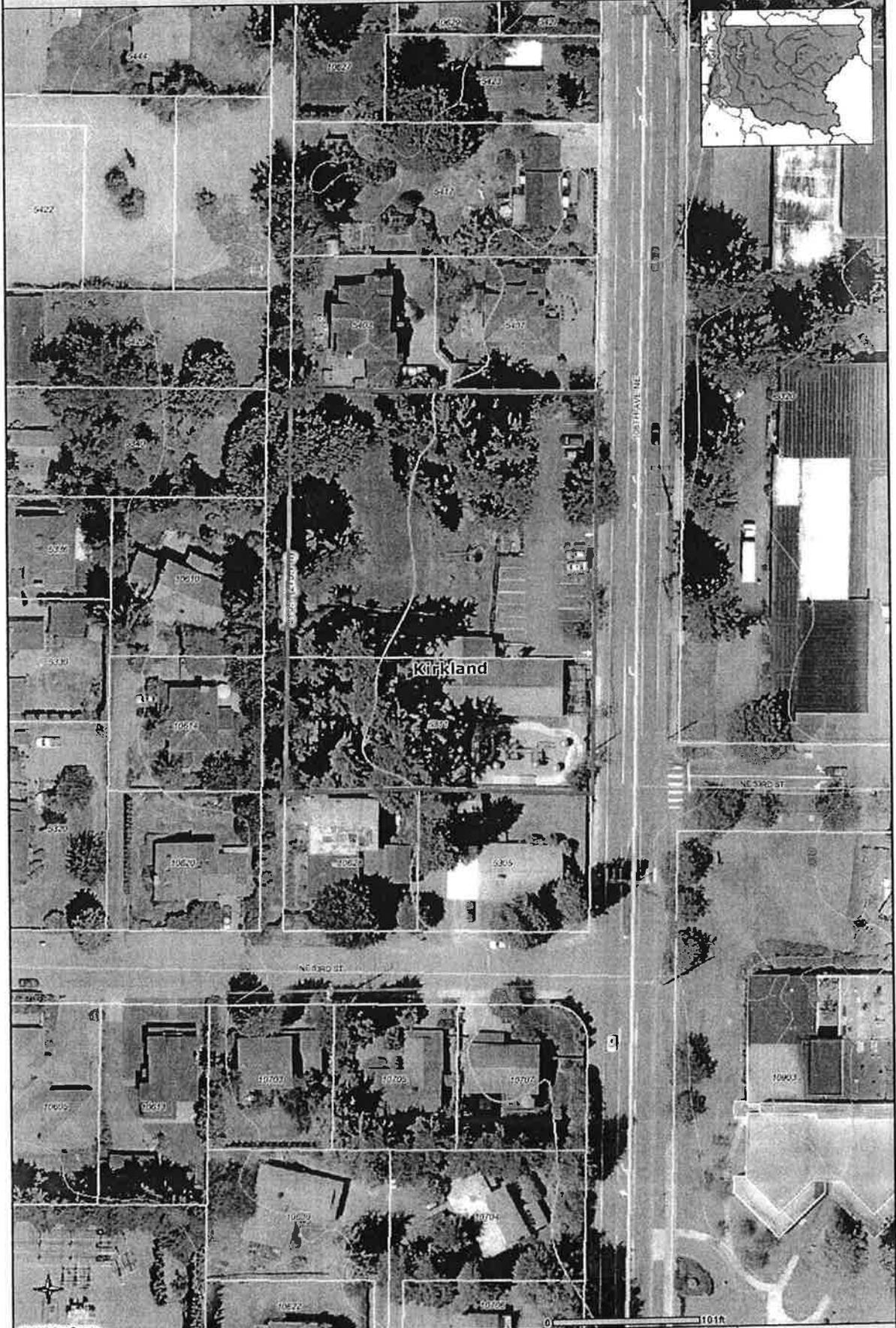
Continuation

| | | | |
|---|---|----|-----|
| LOS Comps. A.M. Peak, Future With/ | @ 108 th Ave. NE/NE 53 rd St. | EB | 40. |
| LOS Comps. A.M. Peak, Future With/ | @ 108 th Ave. NE/NE 53 rd St. | WB | 41. |
| LOS Comps. A.M. Peak, Future With/ | @ 108 th Ave. NE/Site Exit | EB | 42. |
| LOS Comps. A.M. Peak, Future With/ | @ 108 th Ave. NE/Site Entry | EB | 43. |
| LOS Comps. A.M. Peak, Future With/ | @ 108 th Ave. NE/NE 55 th St. | EB | 44. |
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| LOS Comps. P.M. Peak, Future With/ | @ 108 th Ave. NE/NE 53 rd St. | WB | 47. |
| LOS Comps. P.M. Peak, Future With/ | @ 108 th Ave. NE/Site Exit | EB | 48. |
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KIRKLAND CHILDREN'S SCHOOL



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Date: 2/15/2011 Source: King County iMAP - Property Information (<http://www.metrokc.gov/GIS/iMAP>)



Land Use: 565 Day Care Center

Description

A day care center is a free-standing facility where care for pre-school aged children is provided, normally during the daytime hours. Day care facilities generally include classrooms, offices, eating areas and playgrounds. Some centers also provide after-school care for children.

Additional Data

Peak hours of the generator—

The weekday a.m. and p.m. peak hours of the generator typically coincided with the peak hours of the adjacent street traffic.

The sites were surveyed from the mid-1980s to the 2000s throughout the United States.

Source Numbers

169, 208, 216, 253, 335, 336, 337, 355, 418, 423, 536, 550, 562, 583

Day Care Center (565)

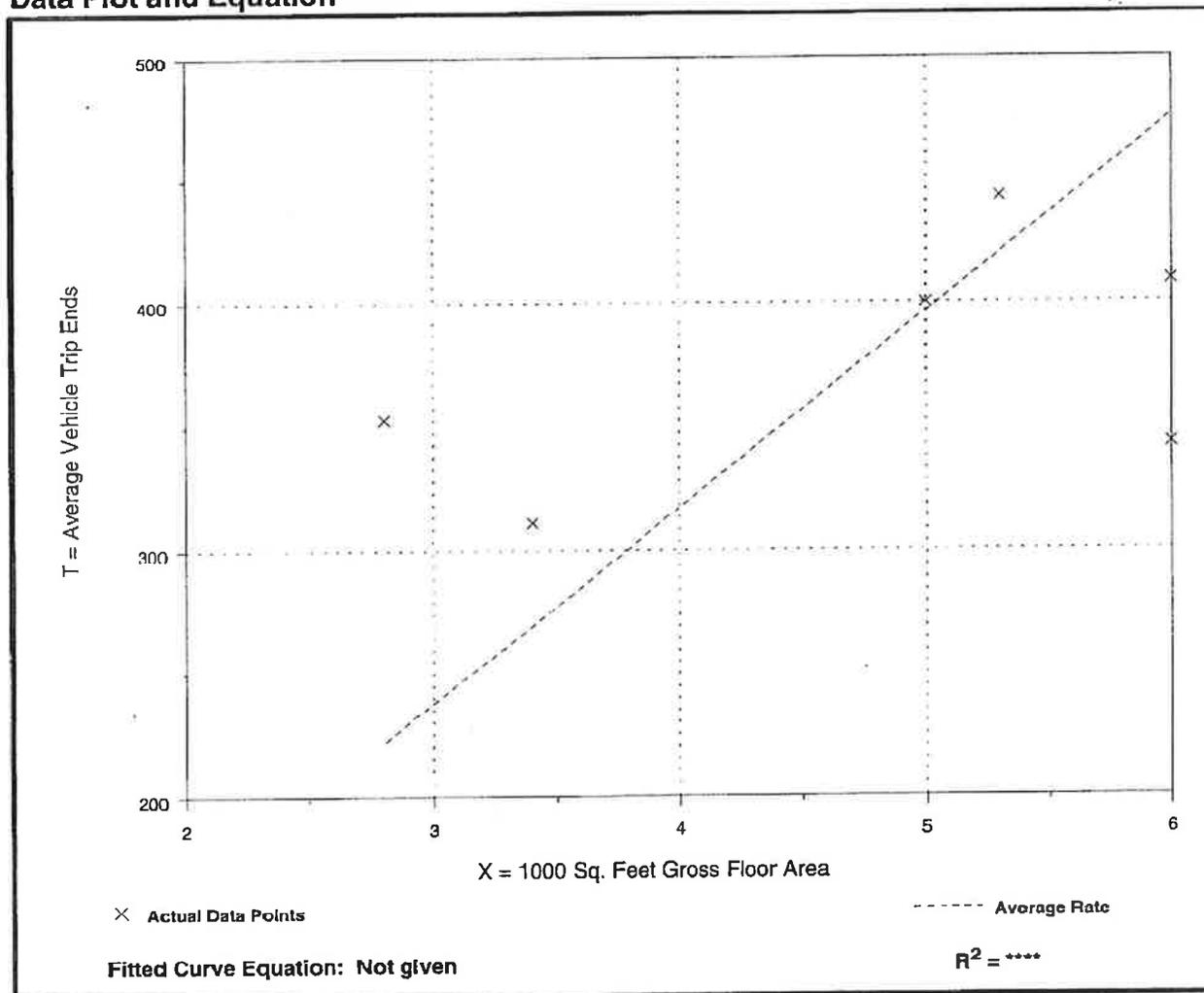
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: **Weekday**

Number of Studies: 6
Average 1000 Sq. Feet GFA: 5
Directional Distribution: 50% entering, 50% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 79.26 | 57.17 - 126.07 | 21.03 |

Data Plot and Equation



Day Care Center (565)

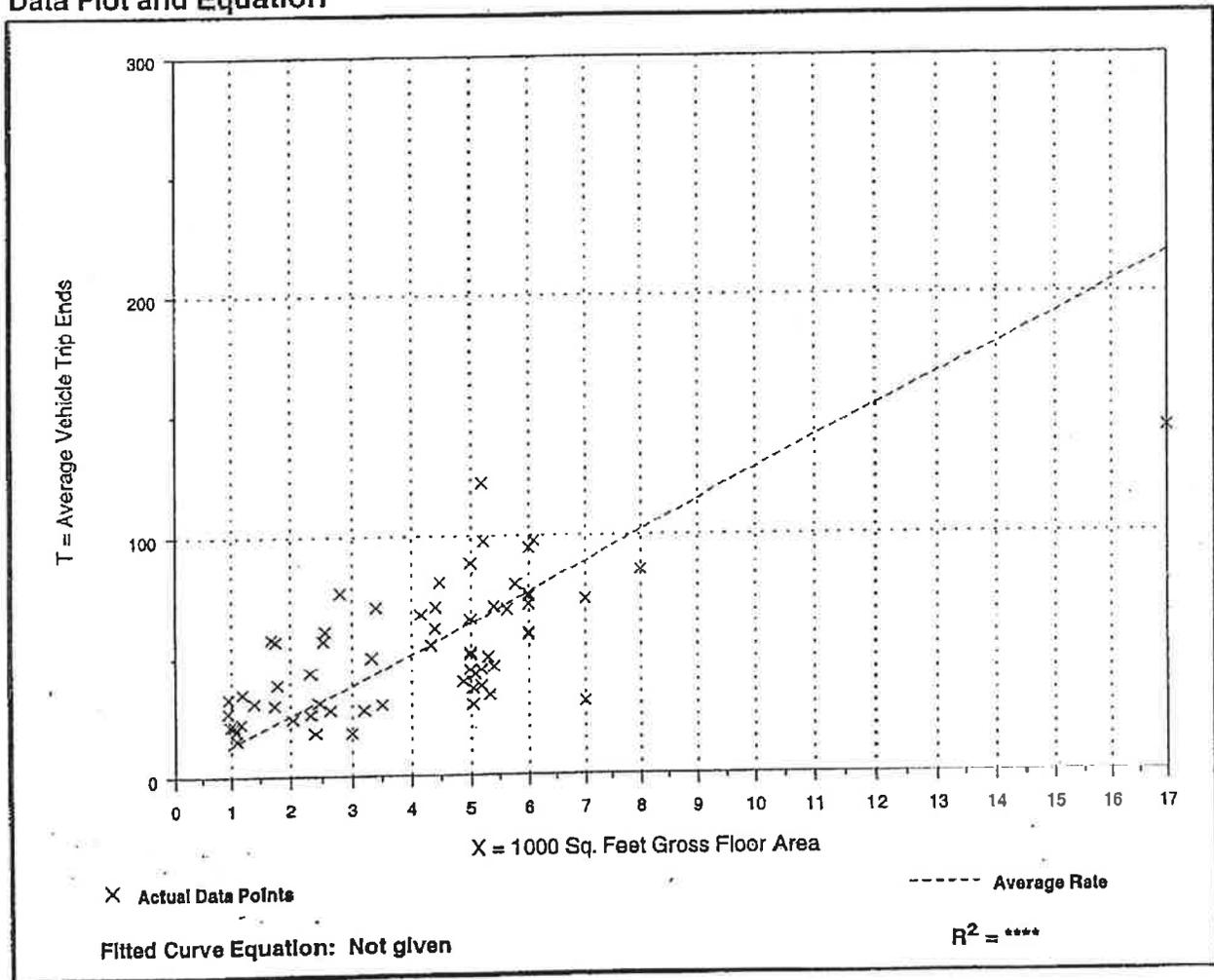
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 62
 Average 1000 Sq. Feet GFA: 4
 Directional Distribution: 53% entering, 47% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 12.79 | 4.43 - 34.92 | 6.49 |

Data Plot and Equation



Day Care Center (565)

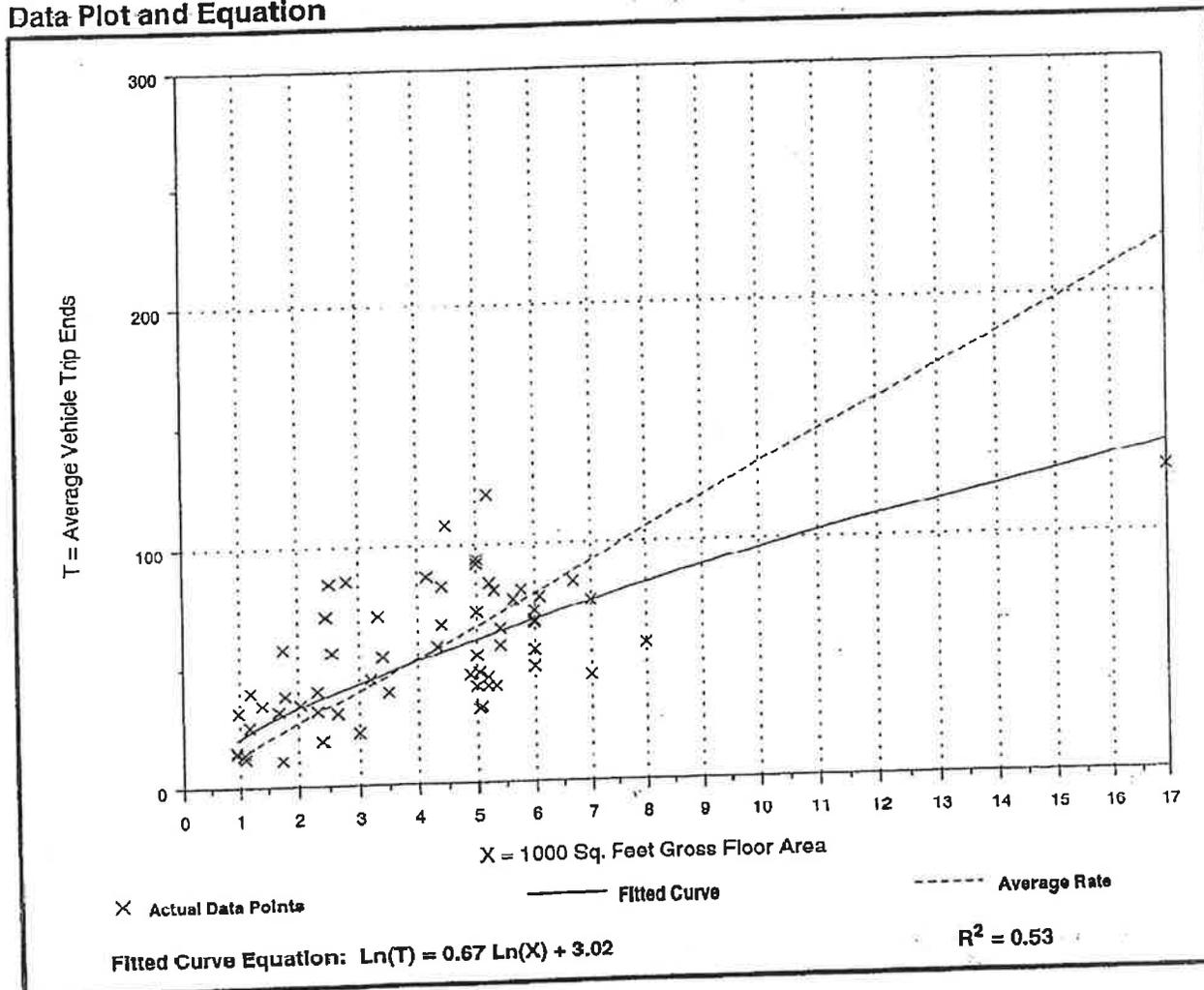
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 63
 Average 1000 Sq. Feet GFA: 4
 Directional Distribution: 47% entering, 53% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 13.18 | 6.15 - 33.66 | 6.86 |

Data Plot and Equation



TRAFFIC VOLUME SUMMARY

PROJECT Kirkland Children's School DATE January 27, 2012 DAY Friday
 INTERSECTION OF: 108th Ave NE AND Northwest University - Main Drive
NE 55th St - offset ~ 90 ft
 TIME 3:45 PM TO 5:45 PM P = PEAK HOUR

| TIME | Eastbound NE 55 th St | | | Westbound NU Main Dr. | | | Northbound | | | Southbound | | | 15 mi- Total |
|-----------------|-------------------------------------|---|----|--------------------------|---|----|------------|------|----|------------|------|---|--------------------|
| | L | S | R | L | S | R | L | S | R | L | S | R | |
| 345 - 400 | 1 | 0 | 3 | 7 | 0 | 6 | 2 | 103 | 4 | 6 | 101 | 2 | 231 |
| 400 - 415 | 2 | | 3 | 7 | | 13 | 3 | 143 | 4 | 5 | 81 | 1 | 262 |
| 415 - 430 | 1 | | 1 | 2 | | 10 | 2 | 129 | 4 | 4 | 71 | 3 | 225 |
| 430 - 445 | 3 | | 5 | 10 | | 8 | 4 | 151 | 4 | 2 | 73 | 0 | 261 |
| 445 - 500 | 2 | | 1 | 6 | | 9 | 4 | 142 | 4 | 9 | 77 | 0 | 255 |
| 500 - 515 | 0 | | 1 | 5 | | 11 | 5 | 174 | 7 | 4 | 68 | 3 | 278 |
| 515 - 530 | 1 | | 4 | 4 | | 12 | 4 | 177 | 5 | 6 | 82 | 0 | 291 |
| 530 - 545 | 1 | ✓ | 3 | 4 | ✓ | 11 | 4 | 150 | 5 | 5 | 75 | 1 | 255 |
| Metro #255, 540 | | | | | | | | 17 | | | 14 | | |
| School Bus | | | | | | | | 2 | | | 2 | | |
| 2ax HV | | | | | | | | 5 | | | 3 | | |
| P 430-530 | 6 | 0 | 11 | 25 | | 40 | 17 | 644 | 20 | 21 | 302 | 3 | |
| PHP | | | | | | | | 0.91 | | | 0.92 | | |
| TOTALS | | | | | | | | | | | | | |
| % of TOTAL | | | | | | | | | | | | | |



Prepared for: **Christopher Brown & Associates**
Traffic Count Consultants, Inc.

Phone: (425) 861-8866 FAX: (425) 861-8877 E-Mail: TC2inc@aol.com

WBE/DBE

Intersection: Kirkland Children's School
 Location: Kirkland

Date of Count: Tues 8-3-10
 Checked By: JP

| Time Interval Ending at | From North on (SB) 108th Ave NE | | | | From South on (NB) 108th Ave NE | | | | From East on (WB) 0 | | | | From West on (EB) School Driveways | | | | Interval Total |
|-------------------------|---------------------------------|---|----|---|---------------------------------|---|-----|---|---------------------|---|---|---|------------------------------------|----|---|---|----------------|
| | T | L | S | R | T | L | S | R | T | L | S | R | T | L | S | R | |
| 4:15 P | 3 | 0 | 81 | 0 | 4 | 4 | 138 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 225 |
| 4:30 P | 2 | 0 | 83 | 6 | 3 | 3 | 155 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 3 | 259 |
| 4:45 P | 0 | 0 | 83 | 2 | 5 | 3 | 175 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 278 |
| 5:00 P | 4 | 0 | 83 | 4 | 4 | 3 | 182 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 2 | 302 |
| 5:15 P | 1 | 0 | 96 | 1 | 2 | 4 | 194 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 3 | 309 |
| 5:30 P | 3 | 0 | 90 | 4 | 2 | 9 | 197 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 3 | 279 |
| 5:45 P | 1 | 0 | 78 | 3 | 3 | 2 | 183 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 3 | 312 |
| 6:00 P | 3 | 0 | 86 | 1 | 3 | 5 | 211 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 2 | 0 |
| 6:15 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:30 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:45 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:00 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | |
|-------------------------------|----|---|-----|----|----|----|------|---|---|---|---|---|---|----|---|----|------|
| Total Survey | 17 | 0 | 680 | 21 | 26 | 33 | 1435 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 15 | 2230 |
| Peak Hour: 5:00 PM to 6:00 PM | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|----------|------|---|-----|---|------|----|-----|---|-----|---|---|---|------|----|---|----|------|
| Total | 8 | 0 | 350 | 9 | 10 | 20 | 785 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 10 | 1202 |
| Approach | 359 | | | | 805 | | | | 0 | | | | 38 | | | | 1202 |
| %HV | 2.2% | | | | 1.2% | | | | n/a | | | | n/a | | | | 1.5% |
| PHF | 0.93 | | | | 0.93 | | | | n/a | | | | 0.73 | | | | 0.96 |

108th Ave NE
1172

School Driveways
9, 350

5:00 PM to 6:00 PM

108th Ave NE
1165

Bicycles From:

| | N | S | E | W |
|--------------|----------|----------|----------|----------|
| INT 01 | 2 | 1 | | |
| INT 02 | | | | |
| INT 03 | | | | |
| INT 04 | | | | |
| INT 05 | | 2 | | |
| INT 06 | | 2 | | |
| INT 07 | 1 | | | |
| INT 08 | | 1 | | |
| Total | 3 | 6 | 0 | 0 |

1248 1.0 PHF Peak Hour Volume

| Check | EB | WB | PHF %HV | |
|--------------|------|------|---------|------|
| | | | PHF | %HV |
| In: 1202 | 0.73 | n/a | n/a | n/a |
| Out: 1202 | n/a | 0.93 | 1.2% | 2.2% |
| Intersection | 0.96 | 0.93 | 1.5% | 1.5% |

3 Special Notes:

- 0 Most HVs were Metro Buses
- 0 2 Hour Driveway Use
- 0 Totals 54 In 61 Out
- 2 No Dwy activity opposed the one way
- 2 IN and the one way OUT dwys.



Prepared for: **Christopher Brown & Associates**
Traffic Count Consultants, Inc.

Phone: (425) 861-8866 FAX: (425) 861-8877 E-Mail: TC2inc@aol.com

WBE/DBE

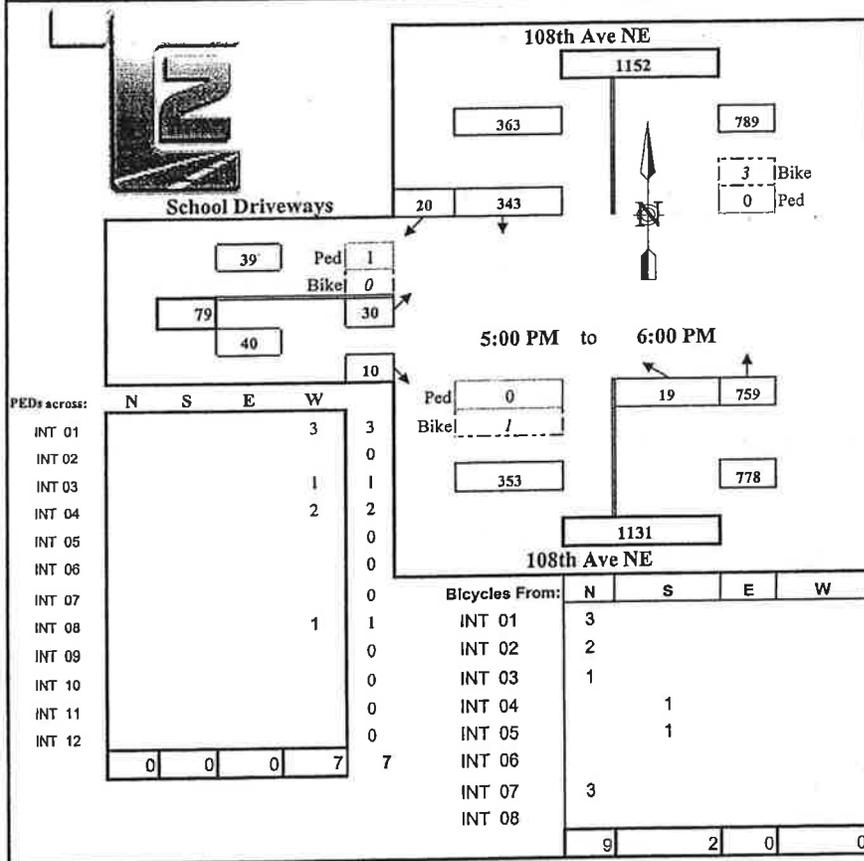
Intersection: Kirkland Children's School
 Location: Kirkland

Date of Count: Weds 8-4-10
 Checked By: JP

| Time Interval Ending at | From North on (SB) 108th Ave NE | | | | From South on (NB) 108th Ave NE | | | | From East on (WB) 0 | | | | From West on (EB) School Driveways | | | | Interval Total |
|-------------------------|---------------------------------|---|----|---|---------------------------------|---|-----|---|---------------------|---|---|---|------------------------------------|---|---|---|----------------|
| | T | L | S | R | T | L | S | R | T | L | S | R | T | L | S | R | |
| 4:15 P | 1 | 0 | 88 | 4 | 4 | 1 | 146 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 241 |
| 4:30 P | 2 | 0 | 86 | 1 | 6 | 8 | 158 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 4 | 262 |
| 4:45 P | 3 | 0 | 74 | 2 | 2 | 2 | 180 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 1 | 265 |
| 5:00 P | 3 | 0 | 82 | 1 | 3 | 1 | 163 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 251 |
| 5:15 P | 2 | 0 | 76 | 4 | 4 | 4 | 178 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 268 |
| 5:30 P | 2 | 0 | 85 | 7 | 1 | 6 | 196 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 3 | 304 |
| 5:45 P | 2 | 0 | 89 | 2 | 5 | 7 | 208 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 2 | 317 |
| 6:00 P | 2 | 0 | 93 | 7 | 2 | 2 | 177 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 4 | 292 |
| 6:15 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:30 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:45 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:00 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|-------------------------------|----|---|-----|----|----|----|------|---|---|---|---|---|---|---|----|---|----|------|
| Total Survey | 17 | 0 | 673 | 28 | 27 | 31 | 1406 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 16 | 2200 |
| Peak Hour: 5:00 PM to 6:00 PM | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | |
|----------|------|---|-----|----|------|----|-----|---|-----|---|---|---|------|---|----|---|------|------|
| Total | 8 | 0 | 343 | 20 | 12 | 19 | 759 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 10 | 1181 |
| Approach | 363 | | | | 778 | | | | 0 | | | | 40 | | | | 1181 | |
| %HV | 2.2% | | | | 1.5% | | | | n/a | | | | n/a | | | | 1.7% | |
| PHF | 0.91 | | | | 0.90 | | | | n/a | | | | 0.77 | | | | 0.93 | |



PEDs across:

| | | | | |
|--------|---|---|---|---|
| | N | S | E | W |
| INT 01 | | | 3 | 3 |
| INT 02 | | | | 0 |
| INT 03 | | | 1 | 1 |
| INT 04 | | | 2 | 2 |
| INT 05 | | | | 0 |
| INT 06 | | | | 0 |
| INT 07 | | | | 0 |
| INT 08 | | | 1 | 1 |
| INT 09 | | | | 0 |
| INT 10 | | | | 0 |
| INT 11 | | | | 0 |
| INT 12 | | | | 0 |
| | 0 | 0 | 0 | 7 |

1268 1.0 PHF Peak Hour Volume

| | | | |
|--------------|----|---------|------|
| | | PHF %HV | |
| Check | EB | 0.77 | n/a |
| | WB | n/a | n/a |
| In: 1181 | NB | 0.90 | 1.5% |
| Out: 1181 | SB | 0.91 | 2.2% |
| Intersection | | 0.93 | 1.7% |

- 3 Special Notes:
- Most HVs were Metro Buses
 - 2 Hour Driveway Use
 - Totals 59 In 62 Out
- 0 No Dwy activity opposed the one way
- 3 IN and the one way OUT dwys.
- 0



Prepared for: **Christopher Brown & Associates**
Traffic Count Consultants, Inc.

Phone: (425) 861-8866 FAX: (425) 861-8877 E-Mail: TC2inc@aol.com

WBE/DBE

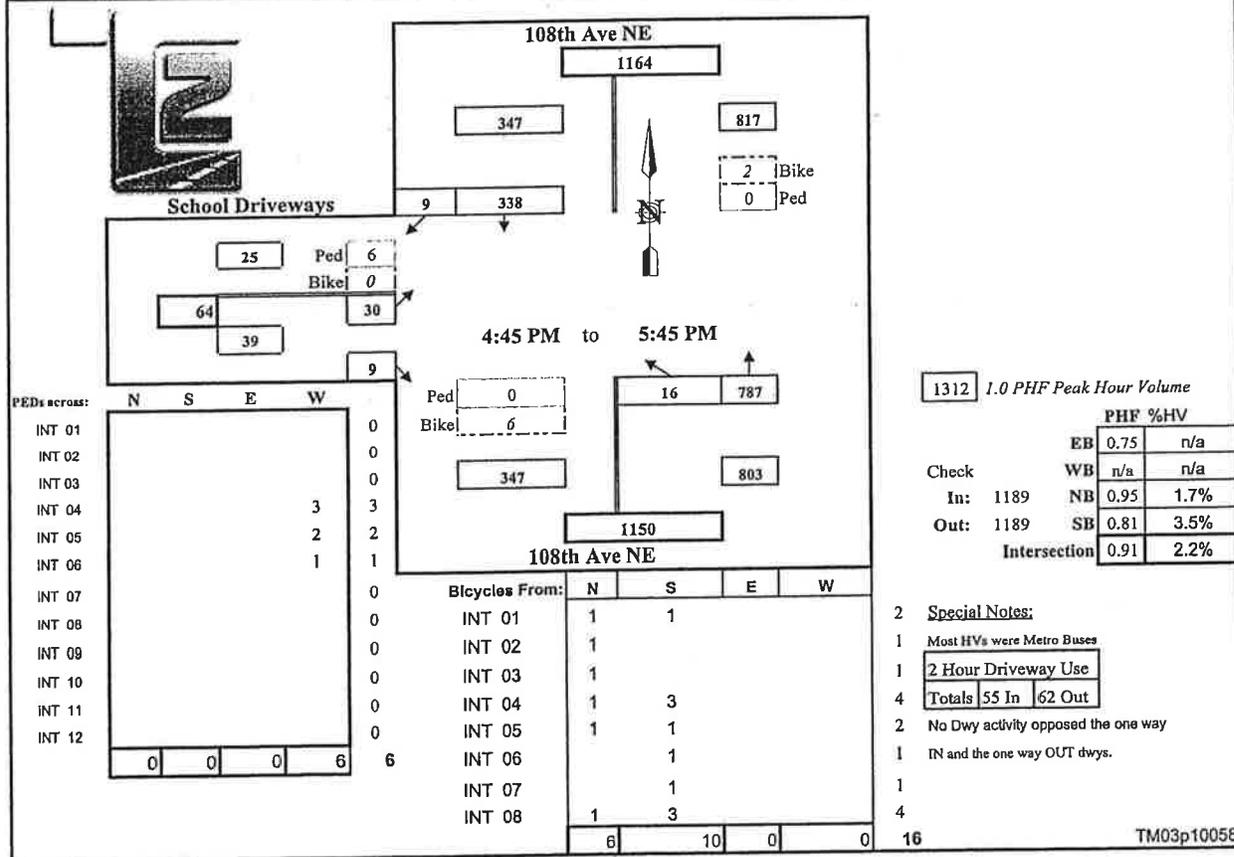
Intersection: Kirkland Children's School
 Location: Kirkland

Date of Count: Thurs 8-5-10
 Checked By: JP

| Time Interval Ending at | From North on (SB) 108th Ave NE | | | | From South on (NB) 108th Ave NE | | | | From East on (WB) 0 | | | | From West on (EB) School Driveways | | | | Interval Total |
|-------------------------|---------------------------------|---|-----|---|---------------------------------|---|-----|---|---------------------|---|---|---|------------------------------------|----|---|---|----------------|
| | T | L | S | R | T | L | S | R | T | L | S | R | T | L | S | R | |
| 4:15 P | 0 | 0 | 82 | 2 | 4 | 0 | 143 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 229 |
| 4:30 P | 3 | 0 | 97 | 4 | 5 | 6 | 186 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 296 |
| 4:45 P | 1 | 0 | 87 | 4 | 2 | 7 | 147 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 4 | 257 |
| 5:00 P | 3 | 0 | 76 | 1 | 2 | 4 | 179 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 2 | 269 |
| 5:15 P | 3 | 0 | 81 | 1 | 5 | 4 | 199 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 1 | 292 |
| 5:30 P | 5 | 0 | 103 | 4 | 3 | 4 | 207 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 3 | 328 |
| 5:45 P | 1 | 0 | 78 | 3 | 4 | 4 | 202 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 3 | 300 |
| 6:00 P | 2 | 0 | 74 | 4 | 3 | 3 | 168 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 255 |
| 6:15 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:30 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:45 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:00 P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | | | | |
|-------------------------------|----|---|-----|----|----|----|------|---|---|---|---|---|---|---|----|---|----|------|
| Total Survey | 18 | 0 | 678 | 23 | 28 | 32 | 1431 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 0 | 13 | 2226 |
| Peak Hour: 4:45 PM to 5:45 PM | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | |
|----------|------|---|-----|---|------|----|-----|---|-----|---|---|---|------|---|----|---|------|------|
| Total | 12 | 0 | 338 | 9 | 14 | 16 | 787 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 9 | 1189 |
| Approach | 347 | | | | 803 | | | | 0 | | | | 39 | | | | 1189 | |
| %HV | 3.5% | | | | 1.7% | | | | n/a | | | | n/a | | | | 2.2% | |
| PHF | 0.81 | | | | 0.95 | | | | n/a | | | | 0.75 | | | | 0.91 | |



| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|-----------------------------|------|-----------|-----------------------------------|----------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #1 AM Existing | | | |
| Agency/Co | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Existing | | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description Kirkland Children's School LOS (IS#1AMEX) | | | | | | | | |
| East/West Street: NE 53rd Street (EB) | | | | North/South Street: 108th Ave. NE | | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 1 | 349 | 0 | 0 | 680 | 3 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 1 | 379 | 0 | 0 | 739 | 3 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane -- 0 | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 5 | 0 | 18 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 5 | 0 | 19 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 1 | | | | | | 24 | |
| C (m) (vph) | 874 | | | | | | 358 | |
| v/c | 0.00 | | | | | | 0.07 | |
| 95% queue length | 0.00 | | | | | | 0.21 | |
| Control Delay | 9.1 | | | | | | 15.8 | |
| LOS | A | | | | | | C | |
| Approach Delay | -- | -- | | | | | 15.8 | |
| Approach LOS | -- | -- | | | | | C | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|----------------------------|------|-----------|------------|--|----------------|----|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #2 AM Existing | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Existing | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#2AMEX)</i> | | | | | | | | |
| East/West Street: <i>NE 53rd Street WB</i> | | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 327 | 27 | 61 | 611 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 355 | 29 | 66 | 664 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane - / | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 1 | 1 | 0 | | |
| Configuration | | | TR | L | T | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 71 | 0 | 72 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 77 | 0 | 78 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 0 | 1 | 0 | 0 | 0 | | |
| Configuration | L | | R | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | L | L | | R | | | |
| v (vph) | | 66 | 77 | | 78 | | | |
| C (m) (vph) | | 1186 | 325 | | 680 | | | |
| v/c | | 0.06 | 0.24 | | 0.11 | | | |
| 95% queue length | | 0.18 | 0.91 | | 0.39 | | | |
| Control Delay | | 8.2 | 19.5 | | 11.0 | | | |
| LOS | | A | C | | B | | | |
| Approach Delay | -- | -- | 15.2 | | | | | |
| Approach LOS | -- | -- | C | | | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|-----------------------------|------------|-----------|--|----------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #3 AM Existing | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Existing | | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#3AMEX)</i> | | | | | | | | |
| East/West Street: <i>Site Exit</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 398 | 0 | 0 | 658 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 432 | 0 | 0 | 715 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane -- 2 | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | | Westbound | | | Eastbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 14 | 0 | 14 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 15 | 0 | 15 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 0 | | | | | | 30 | |
| C (m) (vph) | 895 | | | | | | 425 | |
| v/c | 0.00 | | | | | | 0.07 | |
| 95% queue length | 0.00 | | | | | | 0.23 | |
| Control Delay | 9.0 | | | | | | 14.1 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 14.1 | |
| Approach LOS | -- | -- | | | | | B | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|----------------------------|------------|-----------|------|-----------------------------------|----------------|-----|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #4 AM Existing | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Existing | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description Kirkland Children's School LOS (IS#4AMEX) | | | | | | | | |
| East/West Street: Site Entry | | | | | North/South Street: 108th Ave. NE | | | |
| Intersection Orientation: North-South | | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 5 | 407 | 0 | 0 | 658 | 24 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 5 | 442 | 0 | 0 | 715 | 26 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane - 2 | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | | Westbound | | | Eastbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 5 | | | | | | 0 | |
| C (m) (vph) | 875 | | | | | | | |
| v/c | 0.01 | | | | | | | |
| 95% queue length | 0.02 | | | | | | | |
| Control Delay | 9.1 | | | | | | | |
| LOS | A | | | | | | | |
| Approach Delay | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|-----------------------------|------|-----------|--|----------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #5 AM Existing | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Existing | | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#5AMEX)</i> | | | | | | | | |
| East/West Street: <i>NE 55th Street</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 4 | 403 | 0 | 0 | 663 | 1 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 4 | 438 | 0 | 0 | 720 | 1 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane -- / | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 3 | 0 | 19 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 3 | 0 | 20 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 4 | | | | | | 23 | |
| C (m) (vph) | 890 | | | | | | 418 | |
| v/c | 0.00 | | | | | | 0.06 | |
| 95% queue length | 0.01 | | | | | | 0.17 | |
| Control Delay | 9.1 | | | | | | 14.1 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 14.1 | |
| Approach LOS | -- | -- | | | | | B | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|----------------------------|------|-----------|--|----------------|-----------|----|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #6 AM Existing | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Existing | | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#6AMEX)</i> | | | | | | | | |
| East/West Street: <i>Northwest University</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs) <i>0.25</i> | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 384 | 22 | 30 | 660 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 417 | 23 | 32 | 717 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane - 2 | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 1 | 1 | 0 | | |
| Configuration | | | TR | L | T | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 4 | 0 | 15 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 4 | 0 | 16 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 0 | 1 | 0 | 0 | 0 | | |
| Configuration | L | | R | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | L | L | | R | | | |
| v (vph) | | 32 | 4 | | 16 | | | |
| C (m) (vph) | | 1131 | 384 | | 631 | | | |
| v/c | | 0.03 | 0.01 | | 0.03 | | | |
| 95% queue length | | 0.09 | 0.03 | | 0.08 | | | |
| Control Delay | | 8.3 | 14.5 | | 10.9 | | | |
| LOS | | A | B | | B | | | |
| Approach Delay | -- | -- | 11.6 | | | | | |
| Approach LOS | -- | -- | B | | | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|-----------------------------------|----------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #1 PM Existing | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Existing | | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description: Kirkland Children's School LOS (IS#1PMEX) | | | | | | | | |
| East/West Street: NE 53rd Street (EB) | | | | North/South Street: 108th Ave. NE | | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 3 | 622 | 0 | 0 | 290 | 8 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 3 | 676 | 0 | 0 | 315 | 8 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 5 | 0 | 18 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 5 | 0 | 19 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 3 | | | | | | 24 | |
| C (m) (vph) | 1248 | | | | | | 537 | |
| v/c | 0.00 | | | | | | 0.04 | |
| 95% queue length | 0.01 | | | | | | 0.14 | |
| Control Delay | 7.9 | | | | | | 12.0 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 12.0 | |
| Approach LOS | -- | -- | | | | | B | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|-----------------------------------|----------------|-----------|----|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #2 PM Existing | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Existing | | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description: Kirkland Children's School LOS (IS#2PMEX) | | | | | | | | |
| East/West Street: NE 53rd Street WB | | | | North/South Street: 108th Ave. NE | | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 597 | 30 | 66 | 263 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 648 | 32 | 71 | 285 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 1 | 1 | 0 | | |
| Configuration | | | TR | L | T | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 35 | 0 | 69 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 38 | 0 | 74 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 0 | 1 | 0 | 0 | 0 | | |
| Configuration | L | | R | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | L | L | | R | | | |
| v (vph) | | 71 | 38 | | 74 | | | |
| C (m) (vph) | | 922 | 355 | | 464 | | | |
| v/c | | 0.08 | 0.11 | | 0.16 | | | |
| 95% queue length | | 0.25 | 0.36 | | 0.56 | | | |
| Control Delay | | 9.2 | 16.4 | | 14.2 | | | |
| LOS | | A | C | | B | | | |
| Approach Delay | -- | -- | 14.9 | | | | | |
| Approach LOS | -- | -- | B | | | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|------------------------|------|-----------|-----------------------------------|----------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #3 PM Existing | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Existing | | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description Kirkland Children's School LOS (IS#3PMEX) | | | | | | | | |
| East/West Street: Site Exit | | | | North/South Street: 108th Ave. NE | | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 666 | 0 | 0 | 315 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 723 | 0 | 0 | 342 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 14 | 0 | 14 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 15 | 0 | 15 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 0 | | | | | | 30 | |
| C (m) (vph) | 1228 | | | | | | 533 | |
| v/c | 0.00 | | | | | | 0.06 | |
| 95% queue length | 0.00 | | | | | | 0.18 | |
| Control Delay | 7.9 | | | | | | 12.2 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 12.2 | |
| Approach LOS | -- | -- | | | | | B | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|-----------------------------------|----------------|-----------|-----|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #4 PM Existing | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Existing | | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description: Kirkland Children's School LOS (IS#4PMEX) | | | | | | | | |
| East/West Street: Site Entry | | | | North/South Street: 108th Ave. NE | | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 17 | 675 | 0 | 0 | 315 | | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 18 | 733 | 0 | 0 | 342 | 26 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 18 | | | | | | 0 | |
| C (m) (vph) | 1202 | | | | | | | |
| v/c | 0.01 | | | | | | | |
| 95% queue length | 0.05 | | | | | | | |
| Control Delay | 8.0 | | | | | | | |
| LOS | A | | | | | | | |
| Approach Delay | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|------------------------|------|-----------|------------|--|----------------|------|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #5 PM Existing | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Existing | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description: <i>Kirkland Children's School LOS (IS#5PMEX)</i> | | | | | | | | |
| East/West Street: <i>NE 55th Street</i> | | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 17 | 658 | 0 | 0 | 324 | 3 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 18 | 715 | 0 | 0 | 352 | 3 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | | TR | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 6 | 0 | 11 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 6 | 0 | 11 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 18 | | | | | | 17 | |
| C (m) (vph) | 1215 | | | | | | 518 | |
| v/c | 0.01 | | | | | | 0.03 | |
| 95% queue length | 0.05 | | | | | | 0.10 | |
| Control Delay | 8.0 | | | | | | 12.2 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 12.2 | |
| Approach LOS | -- | -- | | | | | B | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | |
|--|------------------------|------|-----------|--|----------------|-----------|-------|
| General Information | | | | Site Information | | | |
| Analyst | MJJ | | | Intersection | #6 PM Existing | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Existing | | |
| Analysis Time Period | PM Peak | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#6PMEX)</i> | | | | | | | |
| East/West Street: <i>Northwest University</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | |
| Major Street | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | |
| | L | T | R | L | T | R | |
| Volume | 0 | 644 | 20 | 21 | 302 | 0 | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly Flow Rate, HFR | 0 | 699 | 21 | 22 | 328 | 0 | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | |
| Median Type | Two Way Left Turn Lane | | | | | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 1 | 1 | | 0 |
| Configuration | | | TR | L | T | | |
| Upstream Signal | | 0 | | | 0 | | |
| Minor Street | Westbound | | | Eastbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | |
| | L | T | R | L | T | R | |
| Volume | 25 | 0 | 40 | 0 | 0 | 0 | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly Flow Rate, HFR | 27 | 0 | 43 | 0 | 0 | 0 | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Grade (%) | 0 | | | 0 | | | |
| Flared Approach | | N | | | N | | |
| Storage | | 0 | | | 0 | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 1 | 0 | 1 | 0 | 0 | | 0 |
| Configuration | L | | R | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 12 |
| Lane Configuration | | L | L | | R | | |
| v (vph) | | 22 | 27 | | 43 | | |
| C (m) (vph) | | 891 | 425 | | 437 | | |
| v/c | | 0.02 | 0.06 | | 0.10 | | |
| 95% queue length | | 0.08 | 0.20 | | 0.33 | | |
| Control Delay | | 9.1 | 14.0 | | 14.1 | | |
| LOS | | A | B | | B | | |
| Approach Delay | -- | -- | 14.1 | | | | |
| Approach LOS | -- | -- | B | | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | |
|--|-------------------------------|------|-----------|--|------------|-----------|------|
| General Information | | | | Site Information | | | |
| Analyst | MJJ | | | Intersection | #1 AM w/o | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/o | | |
| Analysis Time Period | AM Peak | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#1AMWO)</i> | | | | | | | |
| East/West Street: <i>NE 53rd Street (EB)</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | |
| Major Street | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | |
| | L | T | R | L | T | R | |
| Volume | 1 | 381 | 0 | 0 | 703 | 3 | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly Flow Rate, HFR | 1 | 414 | 0 | 0 | 764 | 3 | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | |
| Median Type | <i>Two Way Left Turn Lane</i> | | | | | | |
| RT Channelized | | | 0 | | | 0 | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | |
| Configuration | L | T | | | | TR | |
| Upstream Signal | | 0 | | | 0 | | |
| Minor Street | Westbound | | | Eastbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | |
| | L | T | R | L | T | R | |
| Volume | 0 | 0 | 0 | 5 | 0 | 18 | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 5 | 0 | 19 | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Grade (%) | 0 | | | 0 | | | |
| Flared Approach | | N | | | N | | |
| Storage | | 0 | | | 0 | | |
| RT Channelized | | | 0 | | | 0 | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | |
| Configuration | | | | | LTR | | |
| Delay, Queue Length, and Level of Service | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 |
| Lane Configuration | L | | | | | | LTR |
| v (vph) | 1 | | | | | | 24 |
| C (m) (vph) | 856 | | | | | | 341 |
| v/c | 0.00 | | | | | | 0.07 |
| 95% queue length | 0.00 | | | | | | 0.23 |
| Control Delay | 9.2 | | | | | | 16.4 |
| LOS | A | | | | | | C |
| Approach Delay | -- | -- | | | | | 16.4 |
| Approach LOS | -- | -- | | | | | C |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|------------|--|------------|----|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #2 AM w/o | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Future w/o | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#2AMWO)</i> | | | | | | | | |
| East/West Street: <i>NE 53rd Street WB</i> | | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 327 | 59 | 103 | 611 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 355 | 64 | 111 | 664 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | | 0 | |
| Lanes | 0 | 1 | 0 | 1 | 1 | 0 | | |
| Configuration | | | TR | L | T | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 95 | 0 | 118 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 103 | 0 | 128 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 0 | 1 | 0 | 0 | 0 | | |
| Configuration | L | | R | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | L | L | | R | | | |
| v (vph) | | 111 | 103 | | 128 | | | |
| C (m) (vph) | | 1151 | 285 | | 665 | | | |
| v/c | | 0.10 | 0.36 | | 0.19 | | | |
| 95% queue length | | 0.32 | 1.59 | | 0.71 | | | |
| Control Delay | | 8.5 | 24.6 | | 11.7 | | | |
| LOS | | A | C | | B | | | |
| Approach Delay | -- | -- | 17.5 | | | | | |
| Approach LOS | -- | -- | C | | | | | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|------------------------|------|-----------|-----------------------------------|------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #3 AM w/o | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/o | | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description Kirkland Children's School LOS (IS#3AMWO) | | | | | | | | |
| East/West Street: Site Exit | | | | North/South Street: 108th Ave. NE | | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 445 | 0 | 0 | 700 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 483 | 0 | 0 | 760 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 14 | 0 | 14 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 15 | 0 | 15 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 0 | | | | | | 30 | |
| C (m) (vph) | 861 | | | | | | 400 | |
| v/c | 0.00 | | | | | | 0.08 | |
| 95% queue length | 0.00 | | | | | | 0.24 | |
| Control Delay | 9.2 | | | | | | 14.7 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 14.7 | |
| Approach LOS | -- | -- | | | | | B | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|------------------------|------|-----------|------------|-----------------------------------|------------|-----|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #4 AM w/o | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Future w/o | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description Kirkland Children's School LOS (IS#4AMWO) | | | | | | | | |
| East/West Street: Site Entry | | | | | North/South Street: 108th Ave. NE | | | |
| Intersection Orientation: North-South | | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 5 | 454 | 0 | 0 | 700 | 24 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 5 | 493 | 0 | 0 | 760 | 26 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | | 0 | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | | TR | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 5 | | | | | | 0 | |
| C (m) (vph) | 842 | | | | | | | |
| v/c | 0.01 | | | | | | | |
| 95% queue length | 0.02 | | | | | | | |
| Control Delay | 9.3 | | | | | | | |
| LOS | A | | | | | | | |
| Approach Delay | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|------------------------|------|-----------|---|------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #5 AM w/o | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/o | | | |
| Analysis Time Period | AM Peak | | | Project Description Kirkland Children's School LOS (IS#5AMWO) | | | | |
| East/West Street: NE 55th Street | | | | North/South Street: 108th Ave. NE | | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 4 | 450 | 0 | 0 | 705 | 1 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 4 | 489 | 0 | 0 | 766 | 1 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 3 | 0 | 19 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 3 | 0 | 20 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 4 | | | | | | 23 | |
| C (m) (vph) | 856 | | | | | | 393 | |
| v/c | 0.00 | | | | | | 0.06 | |
| 95% queue length | 0.01 | | | | | | 0.19 | |
| Control Delay | 9.2 | | | | | | 14.7 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 14.7 | |
| Approach LOS | -- | -- | | | | | B | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | |
|--|------------------------|------|-----------|--|------------|-----------|----|
| General Information | | | | Site Information | | | |
| Analyst | MJJ | | | Intersection | #6 AM w/o | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/o | | |
| Analysis Time Period | AM Peak | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#6AMWO)</i> | | | | | | | |
| East/West Street: <i>Northwest University</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | |
| Major Street | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | |
| | L | T | R | L | T | R | |
| Volume | 0 | 431 | 22 | 30 | 702 | 0 | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly Flow Rate, HFR | 0 | 468 | 23 | 32 | 763 | 0 | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | |
| Median Type | Two Way Left Turn Lane | | | | | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 1 | 0 | 1 | 1 | 0 | |
| Configuration | | | TR | L | T | | |
| Upstream Signal | | 0 | | | 0 | | |
| Minor Street | Westbound | | | Eastbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | |
| | L | T | R | L | T | R | |
| Volume | 4 | 0 | 15 | 0 | 0 | 0 | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly Flow Rate, HFR | 4 | 0 | 16 | 0 | 0 | 0 | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Grade (%) | 0 | | | 0 | | | |
| Flared Approach | | N | | | N | | |
| Storage | | 0 | | | 0 | | |
| RT Channelized | | | 0 | | | 0 | |
| Lanes | 1 | 0 | 1 | 0 | 0 | 0 | |
| Configuration | L | | R | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 |
| Lane Configuration | | L | L | | R | | |
| v (vph) | | 32 | 4 | | 16 | | |
| C (m) (vph) | | 1083 | 361 | | 590 | | |
| v/c | | 0.03 | 0.01 | | 0.03 | | |
| 95% queue length | | 0.09 | 0.03 | | 0.08 | | |
| Control Delay | | 8.4 | 15.1 | | 11.3 | | |
| LOS | | A | C | | B | | |
| Approach Delay | -- | -- | 12.0 | | | | |
| Approach LOS | -- | -- | B | | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|------------------------|------|-----------|---|------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #1 PM w/o | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/o | | | |
| Analysis Time Period | PM Peak | | | Project Description Kirkland Children's School LOS (IS#1PMWO) | | | | |
| East/West Street: NE 53rd Street (EB) | | | | North/South Street: 108th Ave. NE | | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 3 | 622 | 0 | 0 | 290 | 8 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 3 | 676 | 0 | 0 | 315 | 8 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 5 | 0 | 6 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 5 | 0 | 6 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 3 | | | | | | 11 | |
| C (m) (vph) | 1248 | | | | | | 411 | |
| v/c | 0.00 | | | | | | 0.03 | |
| 95% queue length | 0.01 | | | | | | 0.08 | |
| Control Delay | 7.9 | | | | | | 14.0 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 14.0 | |
| Approach LOS | -- | -- | | | | | B | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|--|------------|-----------|----|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #2 PM w/o | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/o | | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#2PMWO)</i> | | | | | | | | |
| East/West Street: <i>NE 53rd Street WB</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 597 | 30 | 66 | 263 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 648 | 32 | 71 | 285 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | | 0 | |
| Lanes | 0 | 1 | 0 | 1 | 1 | | 0 | |
| Configuration | | | TR | L | T | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 35 | 0 | 70 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 38 | 0 | 76 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | | 0 | |
| Lanes | 1 | 0 | 1 | 0 | 0 | | 0 | |
| Configuration | L | | R | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | L | L | | R | | | |
| v (vph) | | 71 | 38 | | 76 | | | |
| C (m) (vph) | | 922 | 355 | | 464 | | | |
| v/c | | 0.08 | 0.11 | | 0.16 | | | |
| 95% queue length | | 0.25 | 0.36 | | 0.58 | | | |
| Control Delay | | 9.2 | 16.4 | | 14.3 | | | |
| LOS | | A | C | | B | | | |
| Approach Delay | -- | -- | 15.0- | | | | | |
| Approach LOS | -- | -- | B | | | | | |

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Version 4.1c

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|--|------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #3 PM w/o | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/o | | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#3PMWO)</i> | | | | | | | | |
| East/West Street: <i>Site Exit</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 667 | 0 | 0 | 315 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 724 | 0 | 0 | 342 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 26 | 0 | 14 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 28 | 0 | 15 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 0 | | | | | | 43 | |
| C (m) (vph) | 1228 | | | | | | 496 | |
| v/c | 0.00 | | | | | | 0.09 | |
| 95% queue length | 0.00 | | | | | | 0.28 | |
| Control Delay | 7.9 | | | | | | 12.9 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 12.9 | |
| Approach LOS | -- | -- | | | | | B | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|------------|--|------------|-----|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #4 PM w/o | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Future w/o | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#4PMWO)</i> | | | | | | | | |
| East/West Street: <i>Site Entry</i> | | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 17 | 676 | 0 | 0 | 315 | 20 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 18 | 734 | 0 | 0 | 342 | 21 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 18 | | | | | | 0 | |
| C (m) (vph) | 1207 | | | | | | | |
| v/c | 0.01 | | | | | | | |
| 95% queue length | 0.05 | | | | | | | |
| Control Delay | 8.0 | | | | | | | |
| LOS | A | | | | | | | |
| Approach Delay | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|-----------------------------------|------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #5 PM w/o | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/o | | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description: Kirkland Children's School LOS (IS#5PMWO) | | | | | | | | |
| East/West Street: NE 55th Street | | | | North/South Street: 108th Ave. NE | | | | |
| Intersection Orientation: North-South | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 17 | 659 | 0 | 0 | 324 | 3 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 18 | 716 | 0 | 0 | 352 | 3 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 6 | 0 | 11 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 6 | 0 | 11 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 18 | | | | | | 17 | |
| C (m) (vph) | 1215 | | | | | | 518 | |
| v/c | 0.01 | | | | | | 0.03 | |
| 95% queue length | 0.05 | | | | | | 0.10 | |
| Control Delay | 8.0 | | | | | | 12.2 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 12.2 | |
| Approach LOS | -- | -- | | | | | B | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|------------------------|------|-----------|------------|-----------------------------------|------------|----|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #6 PM w/o | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Future w/o | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description Kirkland Children's School LOS (IS#6PMWO) | | | | | | | | |
| East/West Street: Northwest University | | | | | North/South Street: 108th Ave. NE | | | |
| Intersection Orientation: North-South | | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 645 | 20 | 21 | 302 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 701 | 21 | 22 | 328 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 1 | 1 | 0 | | |
| Configuration | | | TR | L | T | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 25 | 0 | 40 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 27 | 0 | 43 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 0 | 1 | 0 | 0 | 0 | | |
| Configuration | L | | R | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | L | L | | R | | | |
| v (vph) | | 22 | 27 | | 43 | | | |
| C (m) (vph) | | 889 | 424 | | 436 | | | |
| v/c | | 0.02 | 0.06 | | 0.10 | | | |
| 95% queue length | | 0.08 | 0.20 | | 0.33 | | | |
| Control Delay | | 9.2 | 14.1 | | 14.2 | | | |
| LOS | | A | B | | B | | | |
| Approach Delay | -- | -- | 14.1 | | | | | |
| Approach LOS | -- | -- | B | | | | | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|--|------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #1 AM w/p | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/p | | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#1AMWP)</i> | | | | | | | | |
| East/West Street: <i>NE 53rd Street (EB)</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 1 | 384 | 0 | 0 | 711 | 3 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 1 | 417 | 0 | 0 | 772 | 3 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 5 | 0 | 18 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 5 | 0 | 19 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 1 | | | | | | 24 | |
| C (m) (vph) | 850 | | | | | | 337 | |
| v/c | 0.00 | | | | | | 0.07 | |
| 95% queue length | 0.00 | | | | | | 0.23 | |
| Control Delay | 9.2 | | | | | | 16.5 | |
| LOS | A | | | | | | C | |
| Approach Delay | -- | -- | | | | | 16.5 | |
| Approach LOS | -- | -- | | | | | C | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|------------|------|--|------------|----|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #2 AM w/p | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Future w/p | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#2AMWP)</i> | | | | | | | | |
| East/West Street: <i>NE 53rd Street WB</i> | | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | | | Northbound | | | Southbound | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 330 | 59 | 103 | 619 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 358 | 64 | 111 | 672 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 1 | 1 | 0 | | |
| Configuration | | | TR | L | T | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | | | Westbound | | | Eastbound | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 95 | 0 | 118 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 103 | 0 | 128 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 0 | 1 | 0 | 0 | 0 | | |
| Configuration | L | | R | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | L | L | | R | | | |
| v (vph) | | 111 | 103 | | 128 | | | |
| C (m) (vph) | | 1148 | 283 | | 663 | | | |
| v/c | | 0.10 | 0.36 | | 0.19 | | | |
| 95% queue length | | 0.32 | 1.60 | | 0.71 | | | |
| Control Delay | | 8.5 | 24.8 | | 11.7 | | | |
| LOS | | A | C | | B | | | |
| Approach Delay | -- | -- | 17.6 | | | | | |
| Approach LOS | -- | -- | C | | | | | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|------------------------|------|-----------|------------|-----------------------------------|------------|------|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #3 AM w/p | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Future w/p | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description Kirkland Children's School LOS (IS#3AMWP) | | | | | | | | |
| East/West Street: Site Exit | | | | | North/South Street: 108th Ave. NE | | | |
| Intersection Orientation: North-South | | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 448 | 0 | 0 | 700 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 486 | 0 | 0 | 760 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 22 | 0 | 22 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 23 | 0 | 23 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 0 | | | | | | 46 | |
| C (m) (vph) | 861 | | | | | | 400 | |
| v/c | 0.00 | | | | | | 0.12 | |
| 95% queue length | 0.00 | | | | | | 0.39 | |
| Control Delay | 9.2 | | | | | | 15.2 | |
| LOS | A | | | | | | C | |
| Approach Delay | -- | -- | | | | | 15.2 | |
| Approach LOS | -- | -- | | | | | C | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|------------------------|------|-----------|------------|-----------------------------------|------------|-----|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #4 AM w/p | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Future w/p | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description Kirkland Children's School LOS (IS#4AMWP) | | | | | | | | |
| East/West Street: Site Entry | | | | | North/South Street: 108th Ave. NE | | | |
| Intersection Orientation: North-South | | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 8 | 462 | 0 | 0 | 700 | 40 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 8 | 502 | 0 | 0 | 760 | 43 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 8 | | | | | | 0 | |
| C (m) (vph) | 830 | | | | | | | |
| v/c | 0.01 | | | | | | | |
| 95% queue length | 0.03 | | | | | | | |
| Control Delay | 9.4 | | | | | | | |
| LOS | A | | | | | | | |
| Approach Delay | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------------|-----------|------|-----------------------------------|------------|-------|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #5 AM w/p | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Future w/p | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description: Kirkland Children's School LOS (IS#5AMWP) | | | | | | | | |
| East/West Street: NE 55th Street | | | | | North/South Street: 108th Ave. NE | | | |
| Intersection Orientation: North-South | | | | | Study Period (hrs): 0.25 | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 4 | 458 | 0 | 0 | 721 | 1 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 4 | 497 | 0 | 0 | 783 | 1 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | | Westbound | | | Eastbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 3 | 0 | 19 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 3 | 0 | 20 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 4 | | | | | | 23 | |
| C (m) (vph) | 843 | | | | | | 384 | |
| v/c | 0.00 | | | | | | 0.06 | |
| 95% queue length | 0.01 | | | | | | 0.19 | |
| Control Delay | 9.3 | | | | | | 15.0- | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 15.0- | |
| Approach LOS | -- | -- | | | | | B | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|------------|--|------------|----|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #6 AM w/p | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Future w/p | | |
| Analysis Time Period | AM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#6AMWP)</i> | | | | | | | | |
| East/West Street: <i>Northwest University</i> | | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 439 | 22 | 30 | 718 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 477 | 23 | 32 | 780 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | | 0 | |
| Lanes | 0 | 1 | 0 | 1 | 1 | 0 | | |
| Configuration | | | TR | L | T | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 4 | 0 | 15 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 4 | 0 | 16 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 0 | 1 | 0 | 0 | 0 | | |
| Configuration | L | | R | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | L | L | | R | | | |
| v (vph) | | 32 | 4 | | 16 | | | |
| C (m) (vph) | | 1075 | 354 | | 584 | | | |
| v/c | | 0.03 | 0.01 | | 0.03 | | | |
| 95% queue length | | 0.09 | 0.03 | | 0.08 | | | |
| Control Delay | | 8.5 | 15.3 | | 11.3 | | | |
| LOS | | A | C | | B | | | |
| Approach Delay | -- | -- | 12.1 | | | | | |
| Approach LOS | -- | -- | B | | | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | |
|--|-------------------------------|------|-----------|--|------------|-----------|------|
| General Information | | | | Site Information | | | |
| Analyst | MJJ | | | Intersection | #1 PM w/p | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/p | | |
| Analysis Time Period | PM Peak | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#1PMWP)</i> | | | | | | | |
| East/West Street: <i>NE 53rd Street (EB)</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | |
| Major Street | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | |
| | L | T | R | L | T | R | |
| Volume | 3 | 626 | 0 | 0 | 293 | 8 | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly Flow Rate, HFR | 3 | 680 | 0 | 0 | 318 | 8 | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | |
| Median Type | <i>Two Way Left Turn Lane</i> | | | | | | |
| RT Channelized | | | 0 | | | 0 | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | |
| Configuration | L | T | | | | TR | |
| Upstream Signal | | 0 | | | 0 | | |
| Minor Street | Westbound | | | Eastbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | |
| | L | T | R | L | T | R | |
| Volume | 0 | 0 | 0 | 5 | 0 | 6 | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 5 | 0 | 6 | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Grade (%) | 0 | | | 0 | | | |
| Flared Approach | | N | | | N | | |
| Storage | | 0 | | | 0 | | |
| RT Channelized | | | 0 | | | 0 | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | |
| Configuration | | | | | LTR | | |
| Delay, Queue Length, and Level of Service | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 |
| Lane Configuration | L | | | | | | LTR |
| v (vph) | 3 | | | | | | 11 |
| C (m) (vph) | 1245 | | | | | | 408 |
| v/c | 0.00 | | | | | | 0.03 |
| 95% queue length | 0.01 | | | | | | 0.08 |
| Control Delay | 7.9 | | | | | | 14.1 |
| LOS | A | | | | | | B |
| Approach Delay | -- | -- | | | | | 14.1 |
| Approach LOS | -- | -- | | | | | B |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|--|------------|-----------|----|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #2 PM w/p | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/p | | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#2PMWP)</i> | | | | | | | | |
| East/West Street: <i>NE 53rd Street WB</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 601 | 30 | 66 | 266 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 653 | 32 | 71 | 289 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 1 | 1 | 0 | | |
| Configuration | | | TR | L | T | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 35 | 0 | 70 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 38 | 0 | 76 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 0 | 1 | 0 | 0 | 0 | | |
| Configuration | L | | R | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | L | L | | R | | | |
| v (vph) | | 71 | 38 | | 76 | | | |
| C (m) (vph) | | 918 | 353 | | 461 | | | |
| v/c | | 0.08 | 0.11 | | 0.16 | | | |
| 95% queue length | | 0.25 | 0.36 | | 0.59 | | | |
| Control Delay | | 9.3 | 16.4 | | 14.3 | | | |
| LOS | | A | C | | B | | | |
| Approach Delay | -- | -- | 15.0+ | | | | | |
| Approach LOS | -- | -- | C | | | | | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|-------------------------------|------|-----------|------------|--|------------|------|----|
| General Information | | | | | Site Information | | | |
| Analyst | MJJ | | | | Intersection | #3 PM w/p | | |
| Agency/Co. | | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | | Analysis Year | Future w/p | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#3PMWP)</i> | | | | | | | | |
| East/West Street: <i>Site Exit</i> | | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 671 | 0 | 0 | 315 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 729 | 0 | 0 | 342 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | <i>Two Way Left Turn Lane</i> | | | | | | | |
| RT Channelized | | | 0 | | | | 0 | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | | TR | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 33 | 0 | 17 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 35 | 0 | 18 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 0 | | | | | | 53 | |
| C (m) (vph) | 1228 | | | | | | 492 | |
| v/c | 0.00 | | | | | | 0.11 | |
| 95% queue length | 0.00 | | | | | | 0.36 | |
| Control Delay | 7.9 | | | | | | 13.2 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 13.2 | |
| Approach LOS | -- | -- | | | | | B | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | |
|--|-------------------------------|------|-----------|--|------------|-----------|-----|
| General Information | | | | Site Information | | | |
| Analyst | MJJ | | | Intersection | #4 PM w/p | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/p | | |
| Analysis Time Period | PM Peak | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#4PMWP)</i> | | | | | | | |
| East/West Street: <i>Site Entry</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | |
| Vehicle Volumes and Adjustments | | | | | | | |
| Major Street | Northbound | | | Southbound | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | |
| | L | T | R | L | T | R | |
| Volume | 21 | 683 | 0 | 0 | 315 | 25 | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly Flow Rate, HFR | 22 | 742 | 0 | 0 | 342 | 27 | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | |
| Median Type | <i>Two Way Left Turn Lane</i> | | | | | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 1 | 1 | 0 | 0 | 1 | | 0 |
| Configuration | L | T | | | | | TR |
| Upstream Signal | | 0 | | | 0 | | |
| Minor Street | Westbound | | | Eastbound | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | |
| | L | T | R | L | T | R | |
| Volume | 0 | 0 | 0 | 0 | 0 | 0 | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | |
| Percent Grade (%) | 0 | | | 0 | | | |
| Flared Approach | | N | | | N | | |
| Storage | | 0 | | | 0 | | |
| RT Channelized | | | 0 | | | | 0 |
| Lanes | 0 | 0 | 0 | 0 | 1 | | 0 |
| Configuration | | | | | LTR | | |
| Delay, Queue Length, and Level of Service | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 |
| Lane Configuration | L | | | | | | LTR |
| v (vph) | 22 | | | | | | 0 |
| C (m) (vph) | 1201 | | | | | | |
| v/c | 0.02 | | | | | | |
| 95% queue length | 0.06 | | | | | | |
| Control Delay | 8.1 | | | | | | |
| LOS | A | | | | | | |
| Approach Delay | -- | -- | | | | | |
| Approach LOS | -- | -- | | | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|------------------------|------|-----------|--|------------|-----------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #5 PM w/p | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/p | | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#5PMWP)</i> | | | | | | | | |
| East/West Street: <i>NE 55th Street</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 17 | 666 | 0 | 0 | 329 | 3 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 18 | 723 | 0 | 0 | 357 | 3 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Two Way Left Turn Lane | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | L | T | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 0 | 0 | 6 | 0 | 11 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 0 | 0 | 6 | 0 | 11 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 1 | 0 | | |
| Configuration | | | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L | | | | | | LTR | |
| v (vph) | 18 | | | | | | 17 | |
| C (m) (vph) | 1210 | | | | | | 515 | |
| v/c | 0.01 | | | | | | 0.03 | |
| 95% queue length | 0.05 | | | | | | 0.10 | |
| Control Delay | 8.0 | | | | | | 12.2 | |
| LOS | A | | | | | | B | |
| Approach Delay | -- | -- | | | | | 12.2 | |
| Approach LOS | -- | -- | | | | | B | |

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| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|-------------------------------|------|-----------|--|------------|-----------|----|----|
| General Information | | | | Site Information | | | | |
| Analyst | MJJ | | | Intersection | #6 PM w/p | | | |
| Agency/Co. | | | | Jurisdiction | Kirkland | | | |
| Date Performed | 2/2/2012 | | | Analysis Year | Future w/p | | | |
| Analysis Time Period | PM Peak | | | | | | | |
| Project Description <i>Kirkland Children's School LOS (IS#6PMWP)</i> | | | | | | | | |
| East/West Street: <i>Northwest University</i> | | | | North/South Street: <i>108th Ave. NE</i> | | | | |
| Intersection Orientation: <i>North-South</i> | | | | Study Period (hrs): <i>0.25</i> | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Northbound | | | Southbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume | 0 | 652 | 20 | 21 | 307 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 0 | 708 | 21 | 22 | 333 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | <i>Two Way Left Turn Lane</i> | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 1 | 1 | 0 | | |
| Configuration | | | TR | L | T | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Westbound | | | Eastbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume | 25 | 0 | 40 | 0 | 0 | 0 | | |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | |
| Hourly Flow Rate, HFR | 27 | 0 | 43 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 1 | 0 | 1 | 0 | 0 | 0 | | |
| Configuration | L | | R | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | NB | SB | Westbound | | | Eastbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | L | L | | R | | | |
| v (vph) | | 22 | 27 | | 43 | | | |
| C (m) (vph) | | 884 | 421 | | 432 | | | |
| v/c | | 0.02 | 0.06 | | 0.10 | | | |
| 95% queue length | | 0.08 | 0.20 | | 0.33 | | | |
| Control Delay | | 9.2 | 14.1 | | 14.3 | | | |
| LOS | | A | B | | B | | | |
| Approach Delay | -- | -- | 14.2 | | | | | |
| Approach LOS | -- | -- | B | | | | | |

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Figure 5 Worksheet for Determining Intersection Proportional Share¹

Project Name Kirkland Children's School
 Major Street 108th Ave NE number of lanes* 1 >1
 Minor Street NE 53rd Street number of lanes* 1 >1

1. DAILY, PROJECT TRAFFIC VOLUME ENTERING THE INTERSECTION

$V_1 = \frac{\text{Major Street volume (total of both approaches)}}{\text{Divide by 2}} = \frac{34}{2}$

$V_2 = \frac{\text{Major Street volume (total of both approaches)}}{\text{Divide by 2}} = \frac{0}{2}$

2. DETERMINE GEOMETRIC FACTORS

If the number of lanes on the Major Street = 1, then $f_1 = 0.833, f_2 = 1.0$
 If the number of lanes on the Major Street = 2, then $f_1 = 1.0, f_2 = 1.33$
 Otherwise, f_1 and $f_2 = 1.0$

$f_1 = 0.833$ $f_2 = 1$

3. CALCULATE BASE PERCENTAGES

$P_1 = (V_1 / 10,000) \times f_1 = (34 / 10,000) \times 0.833 = 0.003$

$P_2 = (V_2 / 5,000) \times f_2 = (0 / 5,000) \times 1 = 0$

$P_3 = (V_1 / 15,000) \times f_1 = (34 / 15,000) \times 0.833 = 0.003$

$P_4 = (V_2 / 2,500) \times f_2 = (0 / 2,500) \times 1 = 0$

4. CALCULATE PROPORTIONAL SHARE**

$S_1 = (P_1 + P_2) / 2 = (0.003 + 0) / 2 = 0.001$

$S_2 = (P_3 + P_4) / 2 = (0.003 + 0) / 2 = 0.001$

Intersection proportional share = maximum of S_1 and $S_2 =$

0.001 *Not significant*

** An Excel spreadsheet is available for making the calculation. Contact the City Transportation Engineer for a copy.

*Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Tony Leavitt

From: Tony Leavitt
Sent: Wednesday, October 03, 2012 2:56 PM
To: 'Lou Bianchi/A.L.S. Sportswear'
Subject: RE: Approval Zone 12-00659

File No: Zone 12-00659

City of Kirkland

Tony Leavitt,

I am writing to express my approval for the expansion and landscape improvement for the Kirkland Children's School at 5311 108th Ave. N.E.

Thank you,

Lou Bianchi
5407 108th Ave N.E.
Kirkland, WA 98033
425-749-1398

Tony Leavitt

From: Tony Leavitt
Sent: Wednesday, October 10, 2012 3:52 PM
To: 'bethmccaslin@mail.com'
Subject: RE: Kirkland children's School

Tony,

We feel the expansion should happen at the School. We' re sorry not to be at the meeting but our out of town.

Beth and John McCaslin

Tony Leavitt

From: Tony Leavitt
Sent: Wednesday, October 03, 2012 2:55 PM
To: 'Melinda Moss'
Cc: office@kirklandschool.com
Subject: RE: ZON12-00659

Mr. Leavitt,

I am writing to voice my support for the Kirkland Children's School's (KCS) planned expansion.

I live just two blocks from the Children's School (52nd Street). As a neighbor, I know that KCS is a valued community member and is a very well-respected early childhood education center. In fact, the school is in such high demand that our son is currently on the waitlist. My son has been on the waitlist for over a year and will likely not be enrolled until next July, due to space constraints. Therefore, my husband and I are strong supporters of the school's planned expansion.

Please do not hesitate to contact me with any questions that you might have.

Thank you,
Melinda Moss

RESOLUTION R-4944

A RESOLUTION OF THE CITY OF KIRKLAND APPROVING THE ISSUANCE OF A PROCESS IIB PERMIT AS APPLIED FOR IN DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT FILE NO. ZON12-00659 BY STEVE LEE FOR KIRKLAND CHILDREN'S SCHOOL BEING WITHIN A RS 8.5 ZONE, AND SETTING FORTH CONDITIONS TO WHICH SUCH PROCESS IIB PERMIT SHALL BE SUBJECT.

WHEREAS, the Department of Planning and Community Development has received an application for a Process IIB permit, filed by Steve Lee, representing the owner of said property described in said application and located within RS 8.5 zone; and

WHEREAS, pursuant to the City of Kirkland's Concurrency Management System, KMC Title 25, a concurrency application has been submitted to the City of Kirkland, reviewed by the responsible Public Works official, the concurrency test has been passed, and a concurrency test notice issued; and

WHEREAS, pursuant to the State Environmental Policy Act, RCW 43.21C, and the Administrative Guideline and local ordinance adopted to implement it, an environmental checklist has been submitted to the City of Kirkland, reviewed by the responsible official of the City of Kirkland, and a negative determination reached; and

WHEREAS, said environmental checklist and determination have been available and accompanied the application through the entire review process; and

WHEREAS, the application has been submitted to the Hearing Examiner who held a hearing thereon at her special meeting of October 15, 2012; and

WHEREAS, the Hearing Examiner after her public hearing and consideration of the recommendations of the Department of Planning and Community Development did adopt certain Findings, Conclusions, and Recommendations and did recommend approval of the Process IIB permit subject to the specific conditions set forth in said recommendation; and

WHEREAS, the City Council, in regular meeting, did consider the environmental documents received from the responsible official, together with the recommendation of the Hearing Examiner, as well as a timely filed challenge of said recommendation.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Kirkland as follows:

Section 1. The findings, conclusion, and recommendation of the Hearing Examiner as signed by the Hearing Examiner and

filed in the Department of Planning and Community Development File No. ZON12-00659 are adopted by the Kirkland City Council as though fully set forth herein.

Section 2. The Process IIB permit shall be issued to the applicant subject to the conditions set forth in the recommendations hereinabove adopted by the City Council.

Section 3. Nothing in this resolution shall be construed as excusing the applicant from compliance with any federal, state, or local statutes, ordinance, or regulations applicable to this project, other than expressly set forth herein.

Section 4. Failure on the part of the holder of the permit to initially meet or maintain strict compliance with the standards and conditions to which the Process IIB permit is subject shall be grounds for revocation in accordance with Ordinance 3719, as amended, the Kirkland Zoning Ordinance.

Section 5. Notwithstanding any recommendation heretofore given by the Houghton Community Council, the subject matter of this resolution and the permit herein granted are, pursuant to Ordinance 2001, subject to the disapproval jurisdiction of the Houghton Community Council or the failure of said Community Council to disapprove this resolution within sixty days of the date of the passage of this resolution.

Section 6. A complete copy of this resolution, including Findings, Conclusions and Recommendations adopted by reference, shall be certified by the City Clerk who shall then forward the certified copy to the King County Department of Assessments.

Section 7. A copy of this resolution, together with the findings, conclusions, and recommendations herein adopted shall be attached to and become a part of the Process IIB permit or evidence thereof delivered to the permittee.

Passed by majority vote in open meeting of the Kirkland City Council on the _____ day of _____, 20__.

Signed in authentication thereof this _____ day of _____, 20__.

Mayor

Attest:

City Clerk