



## SEPA NOTICE

### DETERMINATION OF NONSIGNIFICANCE (DNS)

Issued with a 14 day comment and appeal period

#### **Description of proposal:**

This threshold determination analyzes the environmental impacts associated with the following action:

The proposed project is a replacement public school facility for the International Community School (“ICS”), grades 7 through 12, and the Community Elementary School (“CES”), grades 1 through 6. The subject site is 11.4 acres. The project involves site work for construction of a new school building (approximate gross floor area of 64,000 square feet) housing both the ICS and CES; and, re-location and/or re-configuration of entry and exit driveways, vehicle parking lots, bus and student drop-off areas, outdoor play area patios, a play field and a sports court, and a greenhouse. The proposed replacement school facility would allow the ICS to add a 6<sup>th</sup> grade. There would be an increase in enrollment of the ICS by 65 students (from an existing total of 380 to 445); CES enrollment would remain at 70 students.

The new school building will generally be sited to the west of the existing ICS building. Existing ICS and CES school buildings and other existing accessory school buildings will be demolished and/or re-located after the new school building is constructed and occupied. The perimeter of the site and areas disturbed during the demolition/construction phase will be landscaped with grass, trees and shrubs.

**Proponent:** Lake Washington School District No. 414

**Location of the Proposal:** The site is located at 11133 NE 65<sup>th</sup> Street, Kirkland, WA 98033.

**Lead Agency:** Lake Washington School District is the lead agency pursuant to WAC 197-11-926.

The lead agency for this proposal has determined that the proposal does not have a probable significant adverse environmental impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after a review of the completed environmental checklist and other information on the file with the lead agency. This information is available to the public upon request.

This Determination of Non-Significance (DNS) is issued under WAC 197-11-340(2). The lead agency will not act on this proposal for 14 days from the date of issuance. Comments and appeals must be submitted by 5:00 p.m., March 18, 2011. Appeals must be submitted in writing and must specify: (a) the determination being appealed; (b) the errors complained of; (c) the corrective action being sought; (d) the reasons why the determination should be changed; and (e) whether further oral or written comment or a hearing is requested. The Responsible Official will reconsider the DNS based on timely comments and appeals and may retain, modify, or, if significant adverse impacts are likely, withdraw the DNS. If the DNS is retained, it will be final after the expiration of the comments deadline.

**Responsible Official:** Dr. Chip Kimball, Superintendent

You may comment to or appeal this determination in writing by 5 pm on March 18, 2011. Address questions to: Mike Finnegan, LWSD - Deputy Program Manager, [mfinnegan@lwsd.org](mailto:mfinnegan@lwsd.org).

Date of Issuance: March 4, 2011

Date of Publication: March 4, 2011

# SEPA Checklist

## INTERNATIONAL COMMUNITY SCHOOL/COMMUNITY ELEMENTARY SCHOOL REPLACEMENT

### A. BACKGROUND

**1. Name of proposed project, if applicable:**

*International Community School/Community Elementary School Replacement Project*

**2. Name of Applicant:** *Lake Washington School District No. 414 ("LWSD")*

**3. Address and phone number of applicant and contact person:**

*15212 NE 95<sup>th</sup> Street*

*Redmond, WA 98052*

*Phone: 425-936-1101*

*Contact: Mike Finnegan, Deputy Program Manager, LWSD*

**4. Date checklist prepared:** *February 23, 2011*

**5. Agency requesting checklist:** *LWSD and City of Kirkland*

**6. Proposed timing or schedule (including phasing, if applicable):**

*Construct replacement public school facilities. The first phase of construction (construction of a new building pad and temporary access and parking) is anticipated to start in August or September 2011. Completion of the new school building is expected in early 2013. Occupancy will occur in early 2013. Once the new school is completed and ready for occupancy the old school will be demolished so that the balance of site development (new access drives, parking lots and landscaping) can be completed. All construction and landscaping should be complete by the end of 2013.*

**7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

*None at this time.*

**8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

*Traffic Trip Generation Report; Geotechnical Report; Geothermal Conductivity Test and Site Survey have been prepared for this project.*

**9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

*None at this time.*

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- 10. List any government approvals or permits that will be needed for your proposal, if known.**

*Land use, building and demolition permits; and electrical, plumbing, mechanical and fire protection permits all from the City of Kirkland. Seattle/King County Health Department approval for food handling. Washington State Department of Ecology Construction Stormwater General Permit.*

- 11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.**

*The proposed project is a replacement public school facility for the International Community School ("ICS"), grades 7 through 12, and the Community Elementary School ("CES"), grades 1 through 6. The subject site is 11.4 acres. The project involves site work for construction of a new school building (approximate gross floor area of 64,000 square feet) housing both the ICS and CES; and, re-location and/or re-configuration of entry and exit driveways, vehicle parking lots, bus and student drop-off areas, outdoor play area patios, a play field and a sports court, and a greenhouse. The proposed replacement school facility would allow the ICS to add a 6<sup>th</sup> grade. There would be an increase in enrollment of the ICS by 65 students (from an existing total of 380 to 445); CES enrollment would remain at 70 students.*

*The new school building will generally be sited to the west of the existing ICS building. Existing ICS and CES school buildings and other existing accessory school buildings will be demolished and/or re-located after the new school building is constructed and occupied. The perimeter of the site and areas disturbed during the demolition/construction phase will be landscaped with grass, trees and shrubs.*

- 12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

*The site is located at 11133 NE 65<sup>th</sup> Street, Kirkland, WA 98033. The site is bounded on the north by NE 65<sup>th</sup> Street, on the west by 111<sup>th</sup> Avenue NE, and on the south by NE 62<sup>nd</sup> Street.*

### **B. ENVIRONMENTAL ELEMENTS**

#### **1. EARTH**

- A. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other.**

*The site is located on gentle to moderate west to northwest-facing slopes. There is a relatively level bench in the central portion of the site where the existing ICS is located.*

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**B. What is the steepest slope on the site (approximate percent slope)?**

*The steepest slopes are on the eastern side of the property where portions of the slope are inclined at 50 percent (27 degrees) to 60 percent (31 degrees). The slope between the existing parking lots west of the existing ICS building is generally inclined at 35 percent (19 degrees) to 40 percent (22 degrees).*

**C. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.**

*According to the Geotechnical Report prepared for this project, which included recent soil test borings, native soils at this site generally consist of compacted silty sand with gravel. These soils are characteristic of materials deposited and overridden by glacier activity. The test borings revealed dense to very dense native glacial till. A few of the test borings encountered a near surface layer of undocumented fill extending to depths of 4.5 to 12 feet in areas near the existing parking lots and western playfield.*

**D. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

*There are no surface indications of unstable soils or slopes within the project site.*

**E. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.**

*Grading will occur across the property to provide generally level areas typical of a new school facility. Approximate cubic yard (CY) cut and fill quantities are as follows: 32,000-CY of cut (includes stripping of top soils from vegetated areas) and 20,000-CY of fill.*

*Some of the on-site soils may be re-useable for fill, especially in non-structural applications (field grading or other landscape areas) Fill soils at the building (west side and north end) will need to be structural fill imported by the contractor from an approved source. The structural fill source is not known at this time.*

**F. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

*Erosion could occur during the grading phase of the project as a result of clearing and removal of the existing vegetation and surface site elements. Typically, erosion of exposed soils will be most noticeable during periods of rainfall and may be controlled by the use of normal temporary erosion control measures, such as silt fences, hay bales, mulching, control ditches or diversion trenching, and contour furrowing. Additionally, best management practices will be implemented that have been approved by the City of Kirkland during all phases of construction. The project will comply with City of Kirkland and the Washington State Department of Ecology approved best management practices for erosion control and storm water discharge.*

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*As there will be more than 1-acre of disturbed soils during construction, the project will be required to obtain coverage under the State Department of Ecology's (WSDOE) Construction Stormwater General Permit. Coverage under this permit will require the project contractor to develop, maintain and update a Surface Water Pollution Prevention Plan. Compliance with the WSDOE permit requires regular inspection and monitoring of the erosion control measures and practices. An erosion control log book will be maintained on-site to record inspections, changes to the operation, monitoring tests (see following) and other related events. Water discharged from the site will be monitored for turbidity and pH balance. Excursions from the specified standards for turbidity and pH must be reported to WSDOE and corrective measures taken to remedy the conditions.*

**G. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

*The project site area is approximately 11.4-acres. The existing site has approximately 35% impervious coverage, including buildings, vehicle use pavements, and pedestrian oriented pavements.*

*The proposed site impervious coverage is approximately 45% including the new building, parking lots, walks and play areas.*

**H. Proposed measures to reduce or control erosion, or other impacts to the earth.**

*During construction, erosion control measures cited above in sub-section F. will be implemented as approved by the City of Kirkland and the Washington State Department of Ecology and will be in place during all appropriate phases of the project. At the conclusion of construction, all areas of the site that were disturbed during the project will be finished with building, pavement or restored landscaping.*

**I. Does the landfill or excavation involve over 100 cubic yards throughout the lifetime of the project?**

*Yes. See cut and fill estimates cited above in sub-section E.*

**2. AIR**

**A. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if know.**

*During construction, exhaust from generators and other construction equipment relating to the construction. Dust may occur during periods of dry weather when earthwork / grading activity is underway.*

**B. Are there any off-site sources of emissions or odors that may affect your proposal? If so, generally describe.**

*None known.*

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### C. Proposed measures to reduce or control emissions or other impacts to air, if any:

*During construction, water trucks or other means of providing water per City of Kirkland and the Washington State Department of Ecology standards and best practices, will be used to control dust during earthwork operations in periods of dry weather.*

### 3. WATER

#### A. Surface

1. Is there any surface water body on or in the immediate vicinity of the site (including year round and seasonal streams; saltwater, lakes, ponds, wetlands):

*There are no mapped critical or sensitive areas on the site per the City of Kirkland Sensitive Areas Map.*

If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

*Not applicable.*

2. Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. *No.*
3. Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. *Not applicable.*
4. Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *No.*
5. Does the proposal within a 100-year flood plain? If so, note location on the site plan. *No.*
6. Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. *No.*

#### B. Ground

1. Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

*Yes, this project may provide an infiltration facility as a storm water management tool. Storm water could be collected from roof and pavement areas and the surface water returned to ground water by the use of an infiltration system designed to meet City of Kirkland standards for rates, quantity and quality of water infiltrated. Quantities are unknown at this time and will be determined through the review and approval of the storm water control plan by the City of Kirkland.*

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2. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial, containing any toxic chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) is (are) expected to serve.

*Fertilizer and minimal herbicides for landscape installation and maintenance will be used on site. Other such systems as listed above are not applicable.*

### C. Water Runoff (including storm water)

1. Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

*Water Runoff from the site will consist of storm water collected from roof and pavements. The site discharges into two different City of Kirkland storm water basins, both of which flow to Lake Washington. Water from the site and surrounding streets are collected and discharged to both of these systems as follows: To the north of the site is the Moss Bay basin. Runoff to this basin travels north and then west to Lake Washington in a City-owned and operated piped, storm system. To the west of the site, is the Houghton Slope Basin, which flows west and north in a combination of City-owned piped and natural channels to discharge into Lake Washington. About 2/3<sup>rd</sup>s of the existing site discharges to the Moss Bay basin; the remaining site discharges to the Houghton Slope Basin. The redeveloped condition will continue to use both basins, with discharge to each in approximately the same percentages.*

2. Could waste materials enter ground or surface waters? If so, generally describe.

*Surface water from vehicle use areas can be contaminated with oils, antifreeze and metals. Per City of Kirkland storm water standards, the re-developed site will provide treatment to remove these contaminants from surface water before it is discharged from the site. The current site has no water quality treatment for the existing paved, vehicle use areas.*

3. Proposed measures to reduce, or control surface, ground, and runoff water impacts, if any:

*Surface water discharged from the site will meet or exceed the requirements of the 2009 King County Surface Water Design Manual, as adopted and amended by the City of Kirkland in 2010. The rates and frequencies of storm water discharged from the site will be regulated to conform to the adopted City standards. Each basin (see above) has a different flow control standard due to conditions down stream of the site. Flow rates and frequencies will likely be controlled by a combination of features on site, which may include; rain gardens, infiltration facilities, flow dispersion or underground detention facilities.*

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*Water collected from roof and sidewalk areas is considered clean per the City of Kirkland Storm Water Code, and does not require quality treatment prior to discharge from the site. Surface water from vehicle use areas must be treated to remove vehicle related contaminants (see above). Water quality treatment systems will be provided for new impervious\ vehicle use areas per the City's adopted Surface Water Design Manual. Methods used could include; rain gardens, bio-infiltration swales, and cartridge filter systems.*

### 4. PLANTS

#### A. Check or circle types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other.
- evergreen tree: fir, cedar, pine, other.
- shrubs.
- grass.
- pasture.
- crop or grain.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other.
- water plants: water lily, eelgrass, milfoil, other.
- other types of vegetation.

#### B. What kind and amount of vegetation will be removed or altered?

*The preliminary site development plan indicates that up to 31 existing trees will likely be removed and/or transplanted during the construction phase to accommodate the redeveloped site. Trees to be removed and/or transplanted include: 16 maples, 3 birch, 3 cherry, 2 oak, 2 cedar and one of each of larch, dogwood, fir, blue spruce and vine maple. Existing grassed areas and shrubs will also be removed.*

#### C. List threatened or endangered species known to be on or near the site:

*None.*

#### D. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

*Where feasible, existing vegetation in the undisturbed areas of the site will be retained. New landscaping consisting of grass, trees, and shrubs will be planted throughout the site to enhance the visual character of the site and to provide screening of buildings, parking lot and student drop-off areas. Proposed landscaping on the site will meet City of Kirkland's Zoning Code screening and landscaping requirements. A landscaping plan will be submitted at the time of building permit application for review and approval the City of Kirkland to ensure code compliance.*

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### 5. ANIMALS

- A. Circle any birds and animals that have been observed on or near the site or are known to be on or near the site:

Birds: hawk, heron, eagle, songbirds, other:

Mammals: deer, bear, elk, beaver, other: raccoon, squirrel, chipmunk, opossum

Fish: bass, salmon, trout, herring, shellfish, other: none

- B. List any threatened or endangered species known to be on or near the site. *None.*

- C. Is the site part of a migration route? If so, explain. *No.*

- D. Proposed measures to preserve or enhance wildlife, if any:

*The project will be designed to retain as many existing coniferous trees as feasible and deciduous trees and understory at the perimeter of the property.*

### 6. ENERGY AND NATURAL RESOURCES

- A. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

*A geothermal heat pump system will be used to meet the project's energy needs for heating and cooling. The project would also use electricity and natural gas for lighting, heating, and cooking.*

- B. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. *No.*

- C. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

*Ventilation will be in compliance with the Washington State ventilation and indoor air quality code, which exceeds building code requirements. Electric dimmable lighting with daylight sensors will be used to the extent required by code to adjust lighting levels to maximize use of daylighting and reduce lighting power consumption. Occupancy sensors will also be used to reduce lighting power consumption. HVAC controls to maximize efficiency will also be used, as well as the design of a high performance building envelope with high efficiency glazing will be incorporated to reduce the energy consumption of the overall building. This project will comply with Washington State Schools Protocol required by law, which is similar to LEED and includes energy conservation measures that meet or exceed State energy code requirement.*

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### 7. ENVIRONMENTAL HEALTH

- A. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

*None known at this time. A Hazardous Materials Study will be conducted prior to commencement of construction. Any hazardous materials found will be handled per local, state and federal regulations.*

1. Describe special emergency services that might be required: *None*
2. Proposed measures to reduce or control environmental health hazards, if any:

*Project (demolition of the existing structures) will be monitored during construction by a HazMat Specialist, and a safety plan will be in place to be implemented if hazardous materials are encountered.*

### B. Noise

1. What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

*Normal residential noise from surrounding residential properties and vehicular traffic from abutting residential streets: NE 65<sup>th</sup> Street, NE 62<sup>nd</sup> Street and 111<sup>th</sup> Avenue NE.*

2. What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

*Construction noise would be from excavation and construction equipment, and would take place within the hours specified in the City of Kirkland Zoning Code: 7am to 8pm Monday through Friday and 9am to 6pm on Saturday. Noise levels associated with the new school are expected to be substantially the same as noise levels generated by the existing school facilities, primarily noise from traffic to and from the site, including school buses.*

3. Proposed measures to reduce or control noise, if any:

*The Design Team includes an Acoustical Consultant who will test ambient noise levels and review project design to assure City of Kirkland noise ordinance and WA State Health Department standards for noise control will be met. Hours of construction will be limited to be in accordance with City of Kirkland.*

### C. Describe the potential use of the following:

1. Flammable liquids *Gasoline for equipment*
2. Combustible liquids *Gasoline for equipment*
3. Flammable gases *Propane for plumbers & temporary building dry in heat*

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4. Combustible or flammable fibers *None*
5. Flammable solids *Lumber*
6. Unstable materials *None*
7. Corrosives *None known*
8. Oxidizing materials *None*
9. Organic peroxides *None*
10. Nitromethane *None*
11. Ammonium nitrate *None*
12. Highly toxic material *None*
13. Poisonous gas *None*
14. Smellless powder *None*
15. Black sporting powder *None*
16. Ammunition *None*
17. Explosives *None*
18. Cryogenics *None*
19. Medical gas *None*
20. Radioactive material *None*
21. Biological material *None*
22. High piled storage (over 12' in most cases) *None*

### 8. LAND AND SHORELINE USE

#### A. What is the current use of the site and adjacent properties?

*The site is currently developed and use for a public school facility: The International Community School (grades 7 through 12) has an enrollment of 380 students and the Community Elementary School (grades 1 through 6) has an enrollment of 70 students. Adjacent properties are developed with single family residences.*

#### B. Has the site been used for agriculture? If so, describe: *No.*

#### C. Describe any structures on the site:

*Existing school structures include the ICS Building, the CES Building, two portable wood buildings, two covered play areas, and one outdoor play toy area. A short cyclone fence encloses the entire site.*

#### D. Will any structures be demolished? If so, what?

*Yes. All existing structures described above will be demolished. Demolition will be phased so that the ICS and CES can continue to operate while construction is underway. Final demolition and site work will occur after the new building can be occupied.*

#### E. What is the current zoning classification of the site?

*RS 8.5 (Single Family Residential 8,500 sq. ft. per lot) per City of Kirkland Zoning Map*

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**F. What is the current comprehensive plan designation of the site?**

*Low Density Residential per City of Kirkland Comprehensive Plan.*

**G. If applicable, what is the current shoreline master program designation of the site?**

*Not applicable.*

**H. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify:**

*No.*

**I. Approximately how many people would reside or work in the completed project?**

*Student enrollment at the ICS would be 445; student enrollment at the CES would be 70. There would be approximately 28 full and part time teachers/staff.*

**J. Approximately how many people would the completed project displace? *None.***

**K. Proposed measures to avoid or reduce displacement impacts, if any:**

*Not Applicable.*

**L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:**

*Submit plans to City of Kirkland and Houghton Community Council to ensure the proposal complies with all applicable land use codes and policies and obtain all required governmental permits and approvals.*

**M. What percentage of the building will be used for:**

1. Warehousing
2. Manufacturing
3. Office
4. Retail
5. Service (specify)
6. Other *100% Public School Use*
7. Residential

**N. What is the proposed I.B.C. construction type?**

*Construction Type II-B.*

**O. How many square feet are proposed (gross square footage including all floors, mezzanines, etc.)?**

*Approximately 64,000 sq. ft, including electrical/mechanical rooms.*

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- P. How many square feet are available for future expansion (gross square footage including all floors, mezzanines, and additions).**

*At this time, future expansion is not anticipated at this site.*

### 9. HOUSING

- A. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.** *None.*

- B. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.** *None.*

- C. Proposed measures to reduce or control housing impacts, if any:** *Not Applicable.*

### 10. AESTHETICS

- A. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

*The tallest height of any portion of the proposed structure is 21 feet above finish floor (A.F.F.) or at Elevation 337'. Exterior building materials are masonry, metal siding and glazing.*

- B. What views in the immediate vicinity would be altered or obstructed?**

*No views will be altered or obstructed. Residential properties to the east of the school site currently have a view of Lake Washington over the top of the existing one-story ICS school building. The tallest portion of the existing ICS school building is approximately 21 feet high A.F.F. which is the same height as the proposed new school building. The new school building has been sited further to the west than the existing building which is at a lower elevation than the existing ICS building. The similarly sized new school building sited at a lower elevation than the existing school building will not impair or reduce the quality of the existing views from the eastern residential properties.*

- C. Proposed measures to reduce or control aesthetic impacts, if any:**

*The project will comply with Zoning Code requirements for building height and bulk, as well as for landscaping and screening. The new school building will blend in with the existing neighborhood. Landscaping will provide relief along property boundaries to screen the building, student drop-off areas and parking lots.*

### 11. LIGHT AND GLARE

- A. What type of light or glare will the proposal produce? What time of day would it mainly occur?**

*The outdoor parking lots would be lit for security purposes during nighttime events at the school.*

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**B. Could light or glare from the finished project be a safety hazard or interfere with views?** *No*

**C. What existing off-site sources of light or glare may affect your proposal?** *None.*

**D. Proposed measures to reduce or control light and glare impacts, if any:**

*Parking and site lighting will be shielded from adjacent properties.*

### 12. RECREATION

**A. What designated and informal recreational opportunities are in the immediate vicinity?**

*The closest public park is the City of Kirkland's Terrace Park, located approximately 0.7 miles to the west of the site.*

**B. Would the proposed project displace any existing recreational uses? If so, describe.**

*No.*

**C. Proposed measures to reduce or control impacts on recreation, including recreation, including recreation opportunities to be provided by the project or applicant, if any:**

*The school facilities will be available to the community for recreational use. All public use of existing recreational facilities currently available at the site will also be available after the project is completed.*

### 13. HISTORIC AND CULTURAL PRESERVATION

**A. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe:**

*No places or objects listed on or eligible for preservation registers are known to exist at or adjacent to the project site. Source: Washington State Department of Archaeology and Historic Preservation (DAHP). 2011. Washington Information System for Architectural and Archaeological Records Database.*

**B. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.**

*None known. No landmarks or evidence of historic, archeological, scientific, or cultural importance are known to exist at or adjacent to the project site. (Source: DAHP, 2011)*

**C. Proposed measures to reduce or control impacts, if any:**

*As there are no known objects, places, artifacts, or landmarks of historic significance, no measures to reduce or control impacts are planned or anticipated. If unexpected archaeological resources are encountered during project activities, work would be*

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avoid unnecessary conflicts with resident and pedestrian activity. The CMP will identify parking locations for the construction staff. The CMP will also identify locations for school bus loading/unloading as well as parent-vehicle loading/unloading if there are periods when the existing facilities are not available. The location and access to these areas would consider walk routes to school buildings and vehicular access to the local street network.

### 15. PUBLIC SERVICES

- A. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe:

No.

- B. Proposed measures to reduce or control direct impact on public services, if any:

Not Applicable.

### 16. UTILITIES

- A. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other

- B. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

The site is currently served by all utilities indicated above. No new utilities are proposed or required for the redevelopment site.

### C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Mike Finnegan  
Mike Finnegan

Date Submitted: 3/2/11

Relationship to project:

Deputy Program Manager, Facilities Department  
Lake Washington School District

Other Principal Contributors to the preparation of this Environmental Checklist include:

Greg Borba, ESA Adolfsen  
Glenn Steiner, Magellan Architects

Tod McBryan, Heffron Transportation, Inc.  
Ken Wiersema, Coughlin Porter Lundeen, Inc



**CITY OF KIRKLAND**

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**DEPARTMENT OF PUBLIC WORKS  
MEMORANDUM**

**To:** Tony Leavitt, Planner

**From:** Thang Nguyen, Transportation Engineer

**Date:** March 29, 2011

**Subject:** International Community School Expansion (ICS)

The purpose of this memo is to inform you that the proposed International Community School expansion has passed traffic concurrency. This memo will serve as the concurrency test notice.

**Project Description**

The applicant (Lake Washington School District) renovate and expand the existing school and increase enrollment capacity of the ICS from 380 to 445 students (65 additional students) and two additional faculties. It is anticipated that the expansion will be completed in the summer of 2013. Two additional driveways are proposed to provide access onto the school parking lot from 111<sup>th</sup> Avenue NE. One existing driveway off NE 65<sup>th</sup> Street will be eliminated and one driveway will provide two direction traffic flow of the school main parking lot. The trip generation estimate for the proposed school is based on traffic counts at the school and is summarized in Table 1 below.

Table 1. Trip Generation

Time Period	Enrollment	Expanded ICS			Existing ICS			Net New Trips		
		<i>In</i>	<i>Out</i>	<i>Total</i>	<i>In</i>	<i>Out</i>	<i>Total</i>	<i>In</i>	<i>Out</i>	<i>Total</i>
Am Peak	455	223	155	378	190	133	323	<b>33</b>	<b>22</b>	<b>55</b>
Afternoon Peak	445	76	142	218	65	120	185	<b>11</b>	<b>22</b>	<b>33</b>
PM Evening Peak	515	17	9	26	16	8	24	<b>1</b>	<b>1</b>	<b>2</b>
Daily	515	645	645	1,290	560	560	1,120	<b>85</b>	<b>85</b>	<b>170</b>

The proposed project passed traffic concurrency. This memo will serve as the concurrency test notice for the proposed project. Per *Section 25.10.020 Procedures* of the KMC, this Concurrency Test Notice will expire in one year (March 29, 2012) unless a development permit and certificate of concurrency are issued or an extension is granted.

## **EXPIRATION**

The concurrency test notice shall expire and a new concurrency test application is required unless:

1. A complete SEPA checklist, traffic impact analysis and all required documentation are submitted to the City within 90 calendar days of the concurrency test notice.
2. A Certificate of Concurrency is issued or an extension is requested and granted by the Public Works Department within one year of issuance of the concurrency test notice. (A Certificate of Concurrency is issued at the same time a development permit or building permit is issued if the applicant holds a valid concurrency test notice.)
3. A Certificate of Concurrency shall expire six years from the date of issuance of the concurrency test notice unless all building permits are issued for buildings approved under the concurrency test notice.

## **APPEALS**

In accordance with Chapter 25.23 Kirkland Municipal Code (KMC), the concurrency test decision may be appealed by the applicant, agency with jurisdiction or an individual or other entity who is specifically and directly affected by the proposed development. A notice of the concurrency test decision will be provided at the same time as the SEPA notice. An appeal must be filed within fourteen (14) calendar days of issuance of a determination of non-significance (DNS) or within seven (7) calendar days of the date of publication of a determination of significance (DS) under Title 24 KMC. An appeal of the concurrency test decision is heard before the Kirkland Hearing Examiner along with any applicable SEPA appeal if there is an appeal of SEPA.

For more information, refer to the Kirkland Municipal Code, Title 25. If you have any questions, please call me at x3869.

## **Traffic Analysis**

Since the impact of the expansion is low in the PM peak and is higher during the AM and during the school afternoon peaks, the traffic analysis shall focus on the impact during those times (6:45 to 7:45 AM and 2:00 to 3:00 PM). The traffic analysis will be limited to level of service analyses the school driveways include queuing and sight distance analyses.

cc: Advantage  
File

# TRANSPORTATION ANALYSIS REPORT

## INTERNATIONAL COMMUNITY SCHOOL FACILITY REPLACEMENT PROJECT

PREPARED FOR:  
LAKE WASHINGTON SCHOOL DISTRICT

PREPARED BY:

**heffron**  
**transportation, inc.**  
6544 NE 61st Street, Seattle WA 98115  
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JUNE 3, 2011

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# 1. INTRODUCTION

This transportation impact analysis was prepared for the Lake Washington School District for the proposed facility replacement of the existing International Community School (ICS) and Community School (CES), located at 11133 NE 65<sup>th</sup> Street (tax parcel number 0825059248) in Kirkland, WA. This report documents the existing conditions in the site vicinity, presents estimates of project-related changes to local traffic and physical roadway conditions, and evaluates the anticipated impacts to the surrounding transportation system, including operations, access and circulation, and parking. Transportation concurrency and mitigation are also addressed. The elements presented in this report are based on direction provided by Thang Nguyen, Transportation Engineer at the City of Kirkland (City) Public Works Department.<sup>1</sup>

## 1.1. Project Description

The ICS – CES site is bounded by NE 65<sup>th</sup> Street to the north and 111<sup>th</sup> Avenue NE to the west. Surrounding land use primarily consists of single family homes. A vicinity map is shown on Figure 1.

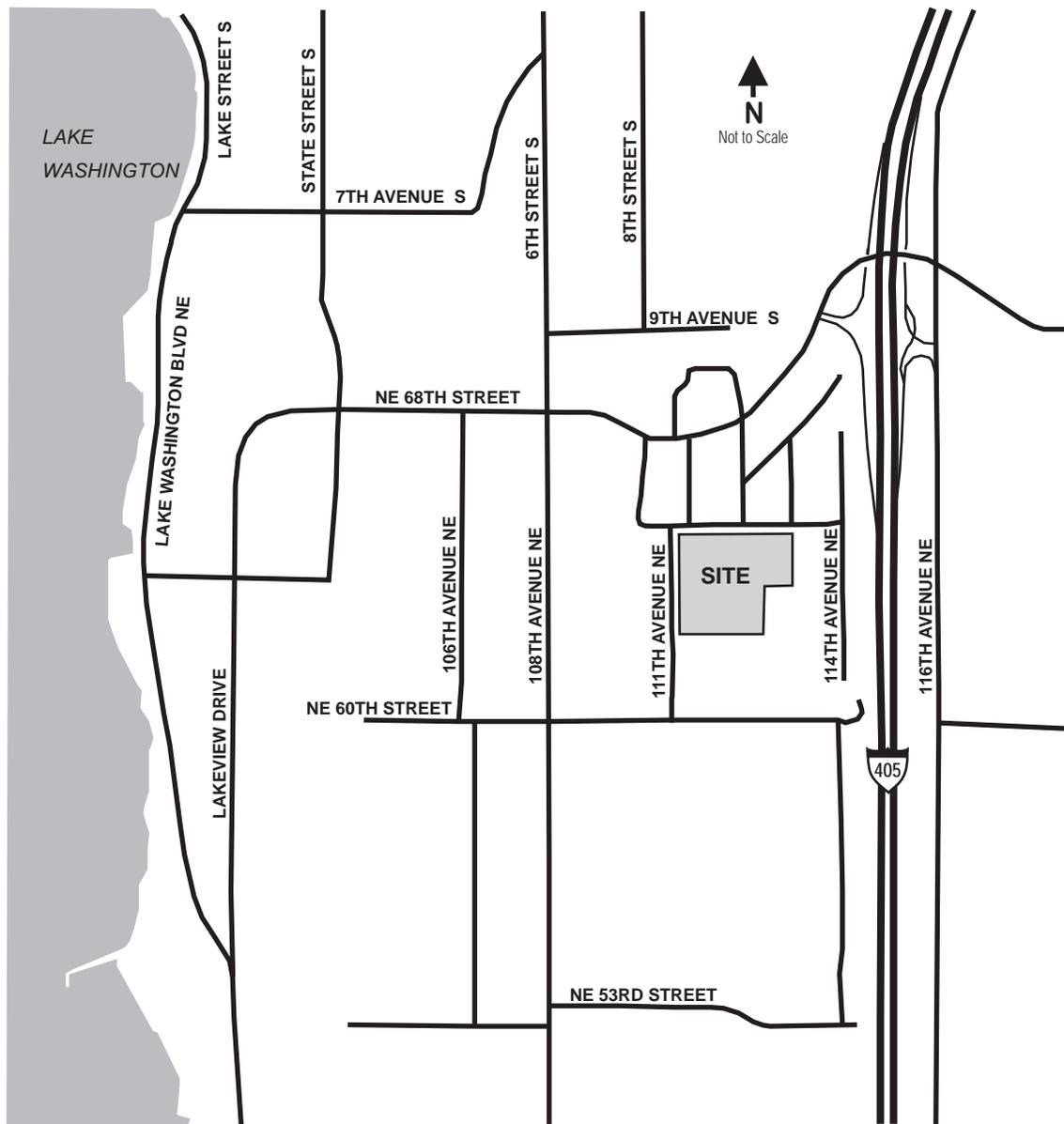
The ICS currently serves grades 7 through 12, and shares its campus with the Community Elementary School (CES) which serves grades 1 through 6. The ICS has a current enrollment of 380 students with 21 full time staff. Classes at ICS begin at 7:30 A.M. and are dismissed at 2:05 P.M. (except on Wednesdays when dismissal occurs at 11:50 A.M.). The CES has a current enrollment of 69 students with four full-time and one part-time staff. Classes at CES begin at 8:45 A.M. and are dismissed at 3:20 P.M. (except on Wednesdays when dismissal occurs at 12:10 P.M.).<sup>2</sup> Existing access to both schools is provided by an internal loop road with two one-way driveways located on NE 65<sup>th</sup> Street. Traffic on the loop road circulates one-way in a counterclockwise direction, with all vehicles entering the campus via the west driveway and exiting via the east driveway. The west driveway is located approximately 80 feet to the east of 111<sup>th</sup> Avenue NE, and the east driveway is located directly to the south of 112<sup>th</sup> Avenue NE.

With the proposed facility replacement project, new facilities would be built on the existing campus that would allow the ICS to add 6<sup>th</sup> graders. This would increase enrollment by 65 students to 445 total ICS students (CES enrollment would remain at a maximum 70 students and five staff members). Two teachers would be added at ICS for a total staff count of 23. Construction for the project is anticipated to begin in June 2012. Occupancy of the new school building is expected in September 2013 and demolition and other site work associated with the project would be completed by December 2013.

A site plan for the proposed project is shown on Figure 2. The project would reconfigure the internal road and consolidate the inbound and outbound driveways at the intersection of NE 65<sup>th</sup> Street/112<sup>th</sup> Avenue NE. The NE 65<sup>th</sup> Street driveway would serve all ICS-generated vehicles except school buses. The project would also add a circular drive on 111<sup>th</sup> Avenue NE, at which vehicles would enter the site via the south driveway and exit via the north driveway. School buses would use this driveway to drop off and pick up ICS students (ICS currently is served by two school buses in the morning and three in the afternoon; CES does not utilize school buses). The 111<sup>th</sup> Avenue NE driveway would also serve automobile traffic generated by the CES (although CES start times and dismissal times are different than ICS, so ICS buses and peak CES traffic are not expected to use the driveways simultaneously). The project would also add curb, gutter, and sidewalk along the three sides of the site (north, south, and west) that front city streets.

<sup>1</sup> Traffic analysis scoping confirmed via email, March 31, 2011.

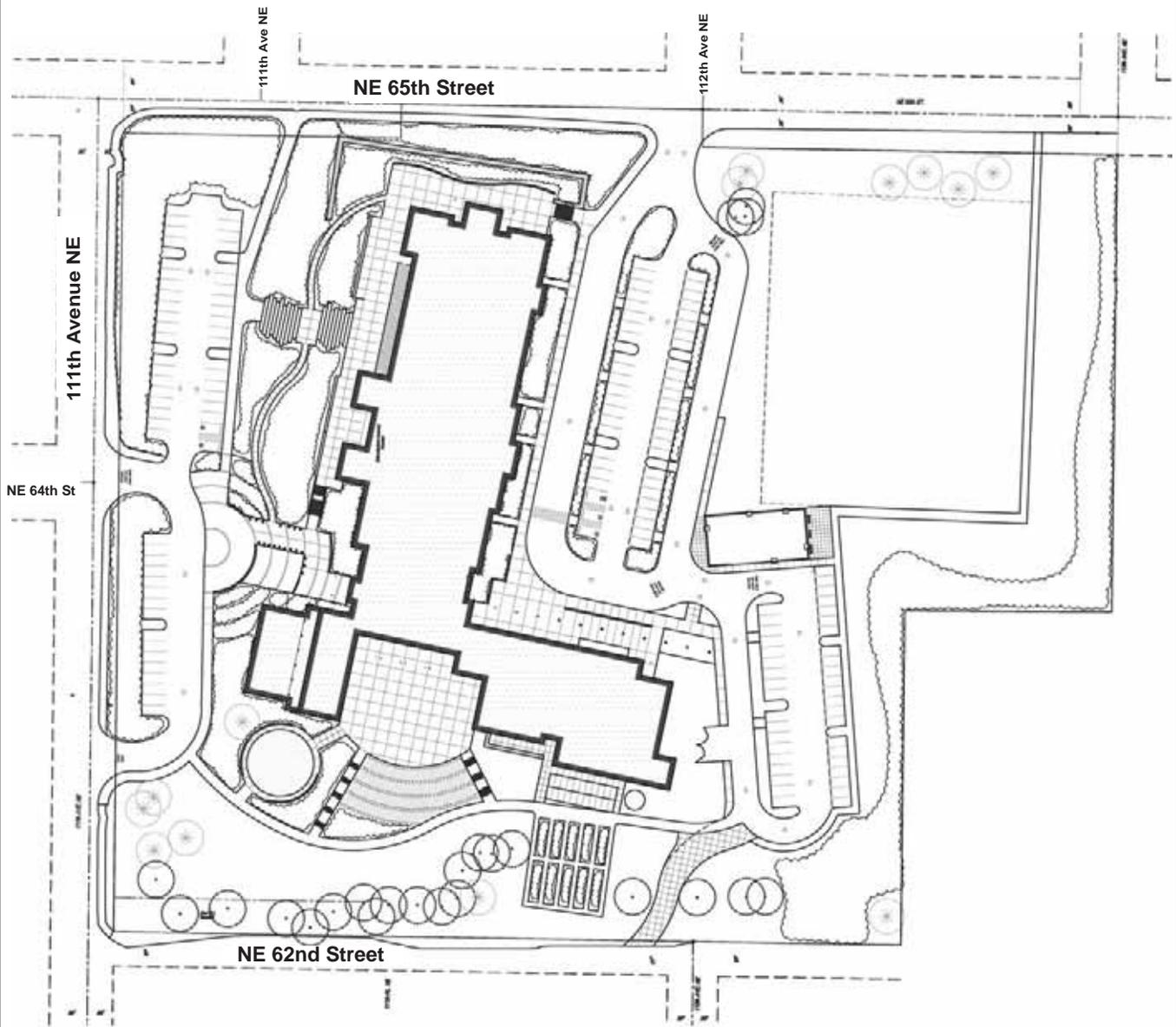
<sup>2</sup> Enrollment and staffing information provided in an email from Mike Finnegan, Lake Washington School District (LWSD), on February 22, 2011; other information obtained from the LWSD website, <http://www.lwsd.org/Schools/Pages/default.aspx>, accessed November 4, 2010.



**International Community School  
Facility Replacement Project**

Figure 1  
Vicinity Map





Source: Magellan Architects, June 2011

**International Community School  
Facility Replacement Project**

Figure 2  
Site Plan



## 1.2. Study Area and Analysis Periods

The study area for this analysis was coordinated with City of Kirkland Public Works Department staff and includes the intersections of existing and proposed site driveways with the adjacent city streets.<sup>3</sup> Trip generation analysis previously completed for this project shows that the morning peak period in the project study area corresponds to the typical commuter peak period between 7:00 and 8:00 A.M. However, the school's PM peak period occurs in the afternoon between 2:00 and 3:00 P.M., which is earlier than the typical commuter PM peak period. This analysis was documented in a *Trip Generation*<sup>4</sup> memorandum, which is included in Appendix A of this report. Based on review of this memorandum, the City directed that analysis be completed for typical weekday morning and afternoon peak hours, and that the transportation impact of special evening events also be assessed.

## 2. BACKGROUND CONDITIONS

This section describes the existing roadway network, traffic volumes, traffic operations, parking conditions, and site access and circulation in the site vicinity. It also describes how these conditions may change in the future without the proposed project. The ICS – CES facility replacement project is planned to be complete and occupied in 2013; therefore, this report analyzes forecasted 2013 conditions.

### 2.1. Roadway Network

The ICS site is located in the Houghton area of Kirkland. The following roadways serve the immediate site area.

**NE 65<sup>th</sup> Street** is an east-west local access street located along the north side of the school site. It has one travel lane in each direction, with parking allowed on the north side of the street. There is curb, gutter, and sidewalk on the north side of the street. A narrow walkway, without curb or gutter, is located on the south side along the school site. Adjacent to the school site, a speed limit of 20 miles per hour (mph) is in place during times of school activity; otherwise the speed limit is 25mph.

**111<sup>th</sup> Avenue NE** is a north-south local access street located along the west side of the school site. It is offset by approximately 140 feet on either side of NE 65<sup>th</sup> Street (the north leg is located about 140 feet east of the south leg). It has one travel lane in each direction, with parking allowed on both sides of the street. South of NE 65<sup>th</sup> Street there is curb, gutter, and sidewalk on the west side of the street. There is a no curb, gutter, or delineated walkway on the east side of the street along the school site, although there is a strip of land located adjacent to the roadway that is walkable. North of NE 65<sup>th</sup> Street, there is curb, gutter, and sidewalk on both sides of the street. Adjacent to the school site, a speed limit of 20 mph is in place during times of school activity; otherwise the speed limit is 25mph. Speed humps are present on the roadway at approximately 1-2 block intervals between NE 60<sup>th</sup> Street and NE 65<sup>th</sup> Street.

**112<sup>th</sup> Avenue NE** is a north-south local access street. This roadway has one travel lane in each direction, with parking allowed on both sides of the street. There is curb and gutter on both sides of

<sup>3</sup> Thang Ngyuen, Traffic Engineer, City of Kirkland Public Works Department, March 2011.

<sup>4</sup> Lake Washington School District – International Community School Trip Generation Summary, Heffron Transportation, March 7, 2011

the street, but sidewalk is present only on the west side. It forms a T-intersection with NE 65<sup>th</sup> Street on the north side of the school site. It has a speed limit of 25 mph.

**NE 64<sup>th</sup> Street** is an east-west local access street that serves 16 single family houses. Its east terminus forms a T-intersection with 111<sup>th</sup> Avenue NE on the west side of the school site, and its west terminus dead ends. This roadway has one travel lane in each direction, with parking allowed on both sides of the street. There is curb, gutter, and sidewalk on both sides of the street. It has a speed limit of 25 mph.

No roadway improvement projects are planned in the project study that would change the capacity or operational geometries of the study area roadways. Therefore, existing roadway configurations and traffic control were assumed to remain for the year 2013 analysis.

## 2.2. Traffic Volumes

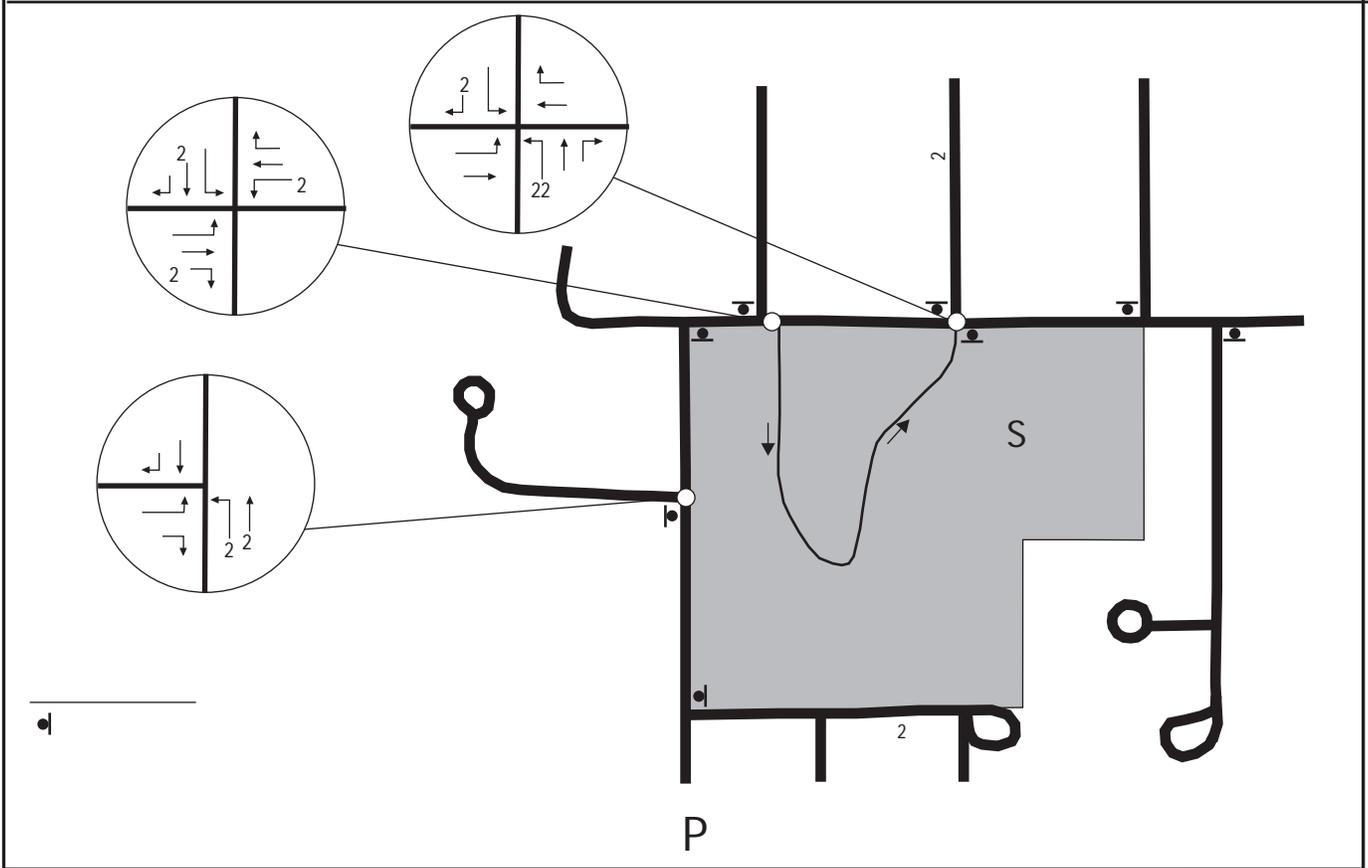
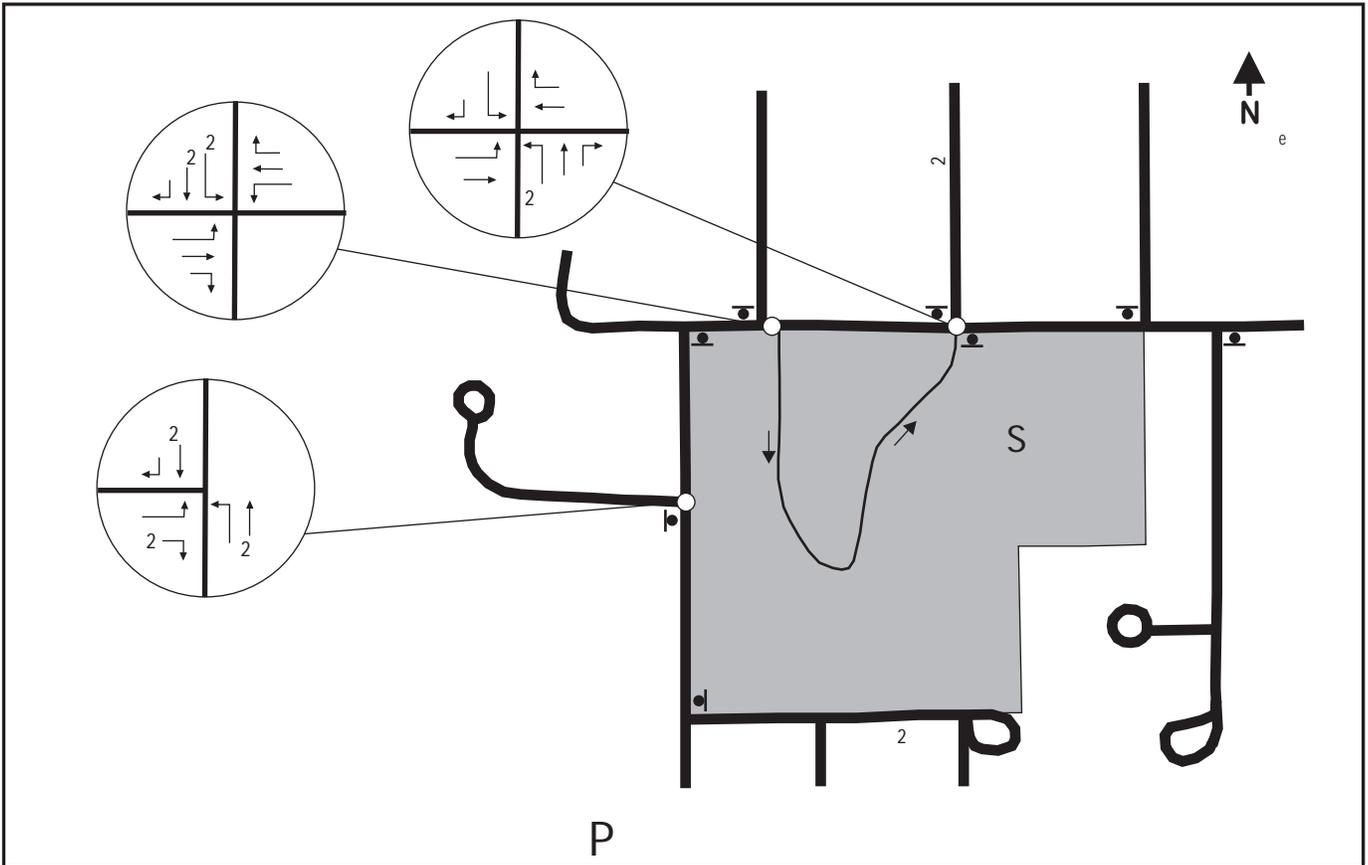
Existing traffic volumes were determined from counts performed in autumn 2010 and spring 2011 by All Traffic Data. Five-day machine counts were performed at both driveways from Tuesday, September 28, 2010 through Saturday, October 2, 2010, tabulating the total vehicles that entered and exited the campus per day by 15-minute increments. Manual turning movement counts were conducted at both driveway intersections during the peak school traffic periods on Tuesday, September 28, 2010. Additional manual turning movement counts were conducted during the morning and afternoon peak hours at the intersection of 111<sup>th</sup> Avenue NE and NE 64<sup>th</sup> Street on Tuesday, April 19, 2011. Both of these days reflected typical weekdays when school was in session. The existing morning and afternoon peak hour volumes at the study intersections are shown on

Figure 3. The ICS has two school buses that drop students off in the morning and three buses that pick students up in the afternoon. CES does not utilize any school buses.

To estimate 2013 background (without project) conditions, an average annual growth rate of 1.5% was applied to existing traffic volumes.<sup>5</sup> The projected 2013 background morning and afternoon peak hour volumes at the study intersections are shown on Figure 4.

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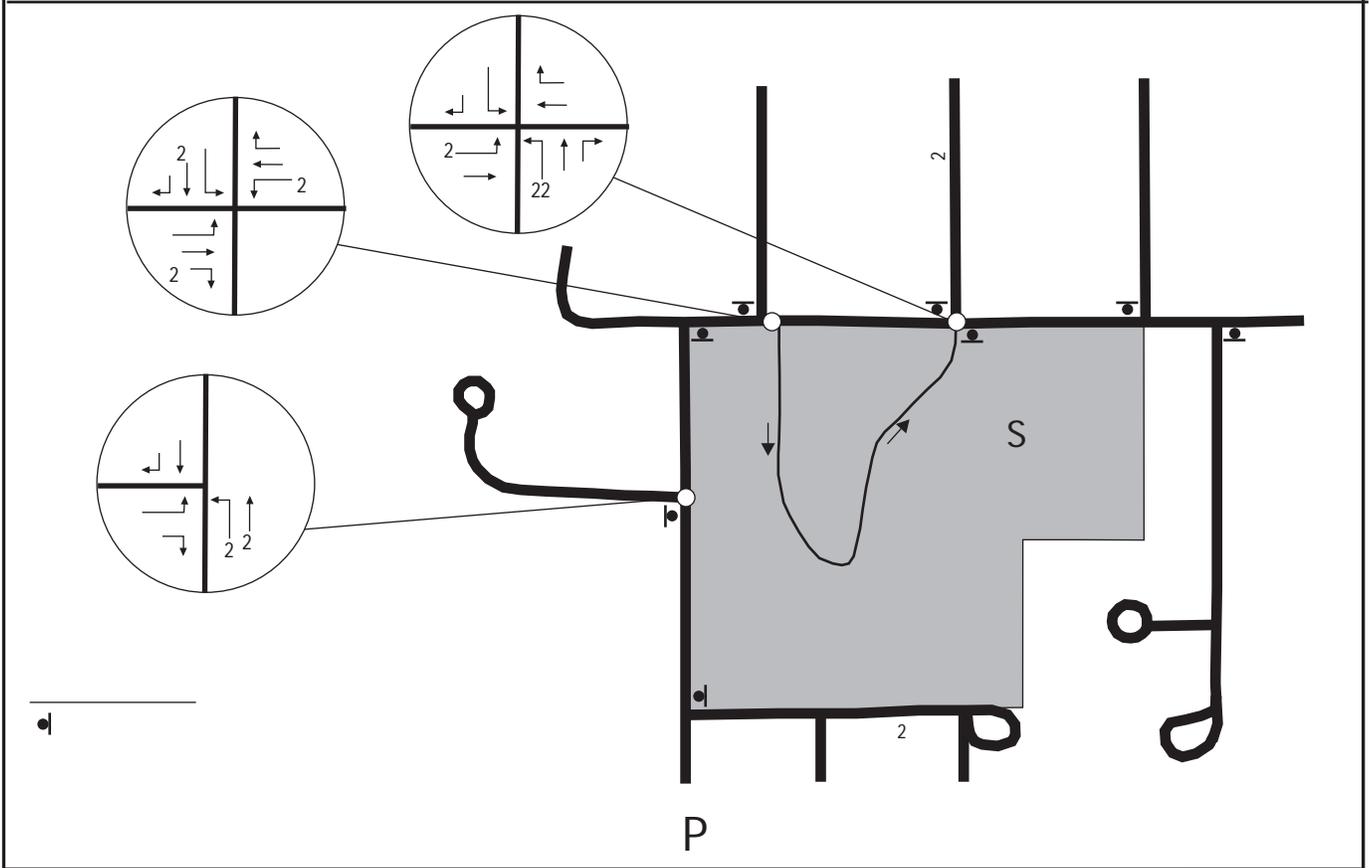
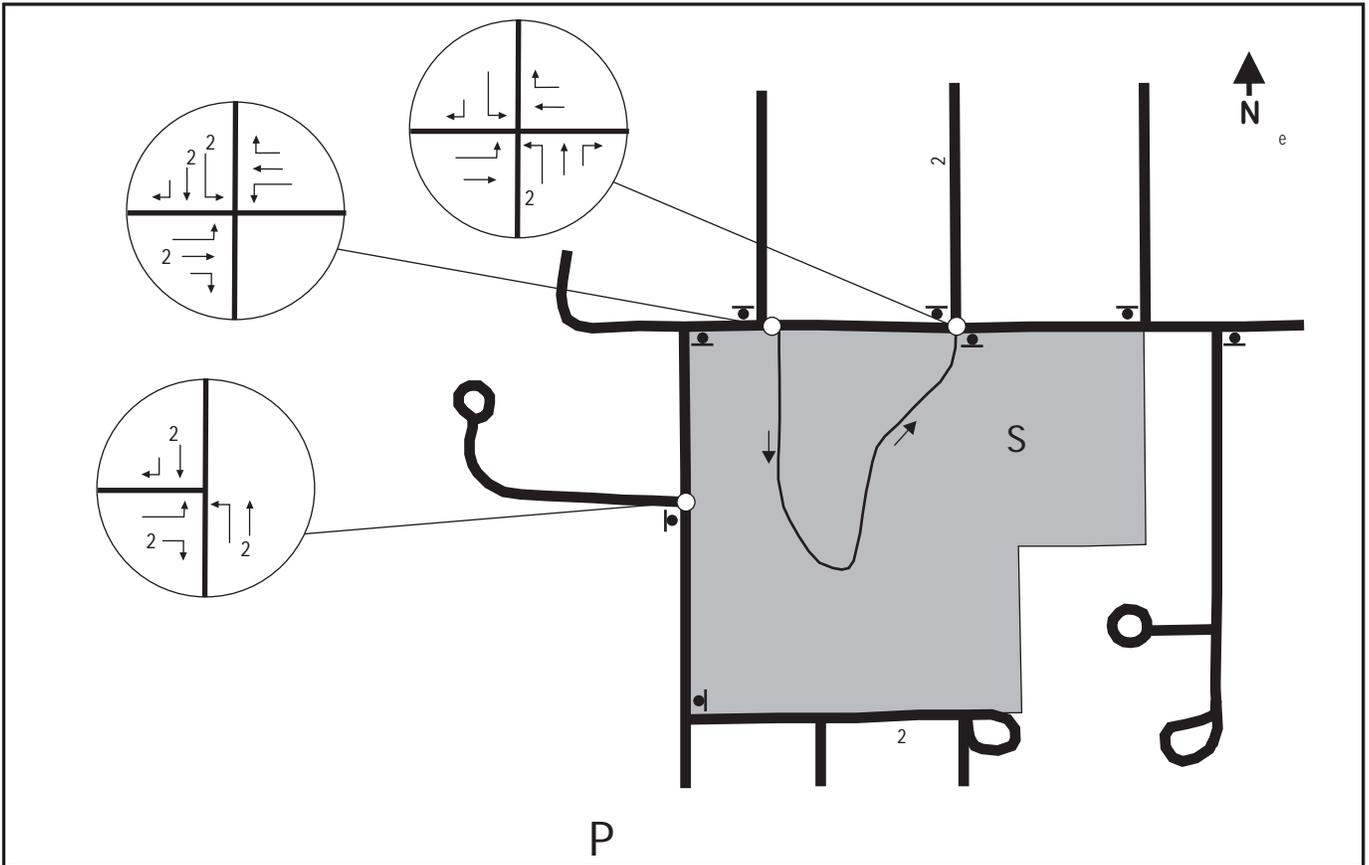
<sup>5</sup> Based on direction provided by the Thang Nguyen, City of Kirkland Public Works Department, in an email sent on May 10, 2011,



International Community School  
Facility Replacement Project

Figure  
i i g e u r r i u e

heffron  
transportation, inc.



International Community School  
 Facility Replacement Project

Figure 2  
 Illustration of  
 Proposed



### 2.3. Traffic Operations

Level of service (LOS) analyses were performed for the study area intersections during both the morning and afternoon peak hours. Level of service is a qualitative measure used to characterize traffic operating conditions. Six letter designations, “A” through “F,” are used to define level of service. LOS A is the best and represents good traffic operations with little or no delay to motorists. LOS F is the worst and indicates poor traffic operations with long delays. Appendix B presents the level of service criteria for signalized and unsignalized intersections.

Levels of service for the study area intersections were analyzed using methodologies presented in the *Highway Capacity Manual*.<sup>6</sup> All level of service calculations were performed with Trafficware’s *Synchro 7.0* analysis software. Results for unsignalized intersections were reported using the *HCM 2000* module. Intersection geometry for this analysis was verified through field observation.

Level of service was determined for existing (2010/2011) and future 2013-without-project conditions, which are summarized in Table 1. The table shows that all movements at all three study-area intersections currently operate at LOS C or better and are projected to continue operating at those levels in year 2013 without the project.

Table 1. Level of Service Summary - Existing and 2013-Without-Project Conditions

Intersection <sup>1</sup>	Morning Peak Hour				Afternoon Peak Hour			
	Existing		2013 w/o Project		Existing		2013 w/o Project	
	LOS <sup>2</sup>	Delay <sup>3</sup>	LOS	Delay	LOS	Delay	LOS	Delay
NE 65 <sup>th</sup> St/112 <sup>th</sup> Ave NE/East Driveway	B	11.5	B	11.6	A	8.7	A	8.7
Eastbound turns to 112 <sup>th</sup> Ave NE	A	5.6	A	5.7	A	4.2	A	4.4
Northbound movements from site	B	14.5	B	14.6	B	10.6	B	10.7
Southbound turns from 112 <sup>th</sup> Ave NE	A	9.6	A	9.6	A	9.0	A	9.0
NE 65 <sup>th</sup> St/111 <sup>th</sup> Ave NE/West Driveway	B	11.3	B	11.3	A	4.4	A	4.4
Eastbound turns to 111 <sup>th</sup> Ave NE	A	0.8	A	0.8	A	2.1	A	2.2
Westbound turns to school site	A	4.8	A	4.8	A	2.6	A	2.6
Southbound movements from 111 <sup>th</sup>	C	24.8	C	25.0	B	10.4	B	10.5
111 <sup>th</sup> Ave NE/NE 64 <sup>th</sup> St	A	0.5	A	0.5	A	0.6	A	0.6
Eastbound turns from NE 64 <sup>th</sup> St	A	8.7	A	8.7	A	8.8	A	8.8
Northbound left turns to NE 64 <sup>th</sup> St	A	0.3	A	0.3	A	0.5	A	0.5

Source: Heffron Transportation, Inc., May 2011.

1. All study intersections are unsignalized.
2. Level of service.
3. Average seconds of delay per vehicle.

### 2.4. Access, Circulation, and Sight Distance

Access to the school is currently provided by an internal loop road with two driveways located on NE 65<sup>th</sup> Street. The West Driveway is located approximately 80 feet to the east of 111<sup>th</sup> Avenue NE. Although they are offset, this intersection effectively operates as a four-legged intersection, with 111<sup>th</sup> Avenue NE serving as the north leg, and the school’s West Driveway serving as the south leg. The

<sup>6</sup> Transportation Research Board. 2000. Highway Capacity Manual. Special Report 209. Washington, DC.

intersection of the East Driveway with NE 65<sup>th</sup> Street also operates as a four-legged intersection, with 112<sup>th</sup> Avenue NE serving as the north leg and the school's East Driveway serving as the south leg. Both driveway intersections are two-way stop controlled on the north and south legs. Traffic on the internal loop road circulates one-way in a counterclockwise direction, with all vehicles entering the campus via the West Driveway and exiting via the East Driveway.

Under the City's sight distance guidelines<sup>7</sup> the school driveways are classified as Type E3 driveways, as they have PM peak traffic volumes between 50 and 200 vehicles. For a speed limit of 25 mph on the intersecting street, City guidelines indicate 150 feet for both minimum and desirable sight distance. The topography of the adjacent roads is such that vertical curves do not limit intersection sight distance from the existing driveways. There is no vegetation or other obstacles that impede sight distance from the existing driveways. Field measurement indicates that the existing sight distance from the east driveway (from which all outbound vehicles depart the site) is greater than 500 feet, which far exceeds the City's minimum and desirable guidelines.

## 2.5. Parking

Parking demand generated by the ICS and CES schools is served by the parking lots located on-site that contain 131 parking spaces. On-street parking also occurs periodically on streets in the project vicinity, including the streets adjacent to the site. Parking counts were conducted on Tuesday, April 19, and Thursday, April 21, 2011, which were typical weekdays with school in session. The counts were conducted at 10:00 A.M., which is typically the time when peak parking demand occurs at schools. A total of 90 parked vehicles were counted on Tuesday, and 92 parked vehicles were counted on Thursday. This translates to a peak on-site parking utilization of 70% for existing conditions, and an overall weekday parking demand rate of 0.20 vehicles per student (based upon the current total combined enrollment of 449 total ICS and CES students). An additional parking count taken on a day when ICS seniors were not in attendance totaled 64 parked vehicles, indicating that about one-third of the typical existing parking demand is comprised of seniors who drive themselves to school.

## 2.6. Non-Motorized

As described previously in *Section 2.1 Roadway Network*, curb, gutter and sidewalk is in place across the street from the school along NE 65<sup>th</sup> Street and 111<sup>th</sup> Avenue NE, but is not currently provided on the school site itself. The school site does have a narrow asphalt paved walkway along most of its length along NE 65<sup>th</sup> Street, and a grass strip along 111<sup>th</sup> Avenue NE that is walkable. Traffic calming measures in the vicinity include speed humps on 111<sup>th</sup> Avenue NE, and flashing signs with reduced speed limits of 20 mph on the streets adjacent to the school during times of school activity. ICS and CES are choice schools with students who come from all over the school district. Because they come from farther distances, most students are driven to and from school or, in the case of older students, drive themselves. Field observations performed during school egress found that some students (between 15 and 25) walk from the school to access Metro Transit routes that stop on NE 68<sup>th</sup> Street, one block north of the school site.

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<sup>7</sup> City of Kirkland, Sight Distance Procedures, 2011, accessed in May 2011.  
[http://www.kirklandwa.gov/depart/Public\\_Works/Transportation\\_\\_\\_Streets/Sight\\_Distance\\_Procedures.htm](http://www.kirklandwa.gov/depart/Public_Works/Transportation___Streets/Sight_Distance_Procedures.htm)

## 2.7. Transit

The site area is served by public bus transportation. There are bus stops located at the NE 68<sup>th</sup> Street/112<sup>th</sup> Avenue NE intersections (approximately 710 feet from the school site). These stops serve King County Metro Transit (Metro) Routes 238 and 245. Route 238 provides service between the UW Bothell campus and the Houghton area of Kirkland. It operates seven days per week with 30-minute peak period and 1-hour off-peak headways on weekdays from about 5:25 A.M. until about 10:50 P.M. Route 245 provides service between Downtown Kirkland and the Crossroads and Factoria areas of Bellevue. It operates seven days per week with 15-minute peak-period and 1-hour off-peak weekday headways from about 5:50 A.M. until about 12:50 A.M.

## 2.8. Special Events

Similar to most other public schools, ICS occasionally hosts special events for students and/or parents. Table 2 presents information about the types of special events that occur at the site, the frequency, the typical attendance, and the typical parking conditions for each. This information was provided by the school's principal.<sup>8</sup> As shown, the school typically host five or six events each year that result in attendees parking on-street on roadways surrounding the school and along nearby residential roadways. For large events, the school has an existing parking management procedure that includes communication with local neighbors, parents, and students. Attendees are instructed not to park in front of driveways and neighbors are encouraged to call the school with any problems or concerns.

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<sup>8</sup> Personal communication, ICS Principal, Cindy Duenas, May 5, 2011.

Table 2. ICS – Special Events Summary

Event / When	Frequency per year	Type / Time of Day	Typical Attendance	Parking Condition
Registration Day / One weekday typically during last week of August	1	Student registration activities / 8:00 A.M. to 2:30 or 3:00 P.M.	All students with parent(s) (currently ~380 students)	Typically fills on-site lots and uses some on-street parking during first two hours.
Curriculum night / Second week in September	1	Provides overview of course curriculum and requirements / 6:30 to 8:30 or 9:00 P.M.	Parents and students (typically about 400 attendees)	Fills on-site lot, lawn parking, and on-street parking around school, especially to the north
Taste of ICS / Saturday in the second week of December	1	Cultural event with ethnic entertainment, diverse foods, a variety of cultures.	Parents, students, interested community members (can range up to 700 or 800)	All-day set up by students and staff, contained on site; evening lots are full, parking on lawn, and on-street
Student Dances / Once per quarter	3 or 4	Student dance / evenings	150 students	Parking is contained within on-site parking lots
Art Day / Third or fourth week of January	1	Art focused sessions with volunteers all school day / Typically Friday or Monday from 7:30 AM to 2:00 PM	Students on campus plus volunteers	On-site lots are typically full with some overspill to on-street parking.
7 <sup>th</sup> Grade Parent Meetings / First week of February	1	Parent-teacher meetings / one hour 6:00 to 7:00 PM	7 <sup>th</sup> grade parents	Parking is contained within on-site parking lots.
Culminating Project Presentation / Last week of March	1	Seniors present project / occurs all day on-site during school hours (typically a Friday)	Seniors & parents	Parking is contained within on-site parking lots.
Senior Assembly / Last week of school (second or third week of June)	1	Senior assembly and BBQ / occurs during school day	Seniors and parents	Some on-street parking occurs until mid-morning when most parents leave after attending assembly
Talent Show	0 or 1	Talent show performance / evening	Parents	On-site lots are typically full with some overspill to on-street parking.

Source: Cindy Duenas, ICS Principal, May 2011.

## 3. PROJECT IMPACTS

This section of the report describes the conditions that would exist with the proposed project constructed and occupied. First, the increase in automobile trips generated by the proposed project was estimated. Then, these trips were added to the 2013-without-project traffic volumes. Finally, level of service analysis was performed to determine the proposed project's impact on traffic operations in the study area. Potential impacts to other components of the transportation network were also evaluated. The following sections describe the methodology used to determine the proposed project's impacts.

### 3.1. Roadway Network

As described previously in *Section 1.1 Project Description*, the project would reconfigure the internal circulation and consolidate the inbound and outbound driveways for the ICS and CES at the intersection of NE 65<sup>th</sup> Street/112<sup>th</sup> Avenue NE, eliminating the existing west driveway. The project would also add a circular drive on 111<sup>th</sup> Avenue NE at which vehicles would enter the site via the south driveway and exit via the north driveway. The project would also add curb, gutter, and sidewalk along the three sides of the site (north, south, and west) that front city streets.

No major modifications to the off-site road network are proposed.

### 3.2. Traffic Volumes

Completion of the ICS and CES facility replacement project would add vehicle trips to those currently generated by the site. Traffic analysis was performed using the net change in site-generated trips, which is the difference between the trips generated by the existing and the proposed school. The following describes the assumptions used to determine the change in traffic anticipated from the proposed project.

#### 3.2.1. Trip Generation

##### Trip Generation Rates

Table 3 summarizes the vehicle trip rates that were derived for this project. The vehicle trip estimates summarized in this table were developed by Heffron Transportation based on rates derived from observed counts rather than Institute of Transportation Engineers' (ITE) rates. As previously discussed, ICS and CES are choice schools with students that come from farther distances, so a greater number are driven to and from school or drive than students at typical schools reflected in the ITE rates. Thus, the derived rates applied for these estimates are considerably higher than rates provided by ITE for the morning peak, school PM peak, and daily analysis periods. For the commuter PM peak period, the derived trip generation rates are lower than the ITE rates. This is because these choice schools do not have the same level of afternoon extra-curricular activities that might contribute to the level of commuter PM peak hour traffic of more traditional schools. A technical memorandum that describes in detail the trip generation methodology is provided in Appendix A.

Table 3. International Community School/Community School – Trip Generation Rates

Analysis Period	Time Interval	Total Trip Rate <sup>1</sup>	Directional Split	
			In	Out
Morning Peak Hour	6:45–7:45 A.M.	0.85 trip / ICS Student	59%	41%
Afternoon Peak Hour	2:00–3:00 P.M.	0.49 trip / ICS Student	35%	65%
Daily	---	2.50 trip / Total Student	50%	50%

Source: Heffron Transportation, Inc., November 2010, based on counts conducted in September 2010.

1. ICS Student = Based on the student enrollment at ICS; Total Student = Based on the combined enrollment at CES and ICS.

## Project Trip Generation

Table 4 summarizes the forecasted trip generation for the proposed expanded ICS during each analysis period; existing trip generation is shown for comparison. The estimates reflect the trip generation rates summarized in Table 3 and the planned increase in school capacity to 445 students (from existing enrollment of 380 students)—a net increase in of 65 students and an increase of total campus enrollment capacity (ICS and CES combined) from 450 to about 515 students. Overall the proposal is expected to result in an increase of 170 daily trips, with 55 additional trips occurring during the morning peak hour and 33 occurring during the afternoon peak hour. The project is only expected to generate a net increase of 2 trips during the commuter PM peak hour. Therefore, City of Kirkland review staff requested that the analysis focus on the morning and afternoon peak periods; no further analysis of the commuter PM peak hour was required.

Table 4. Trip Generation Estimates

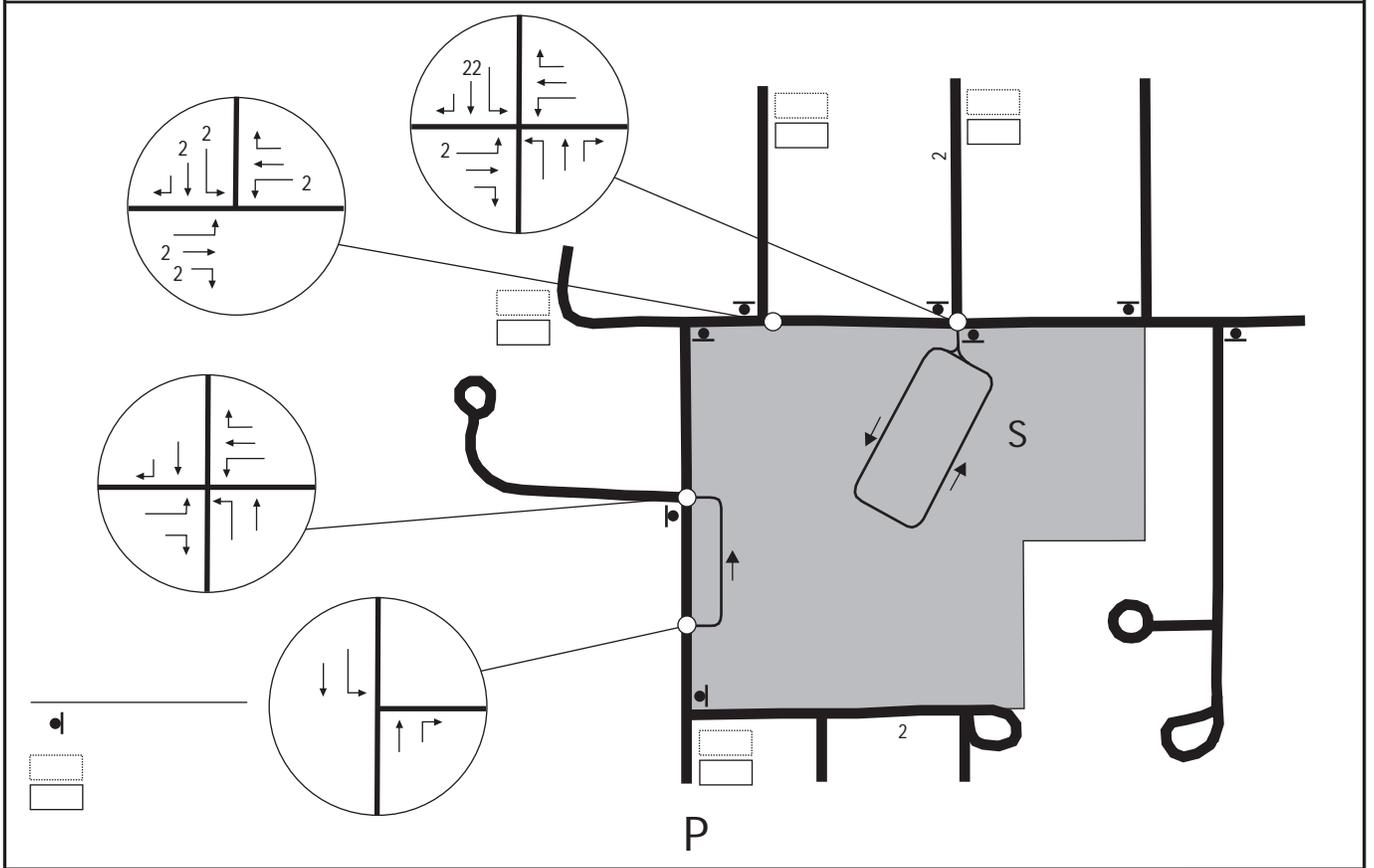
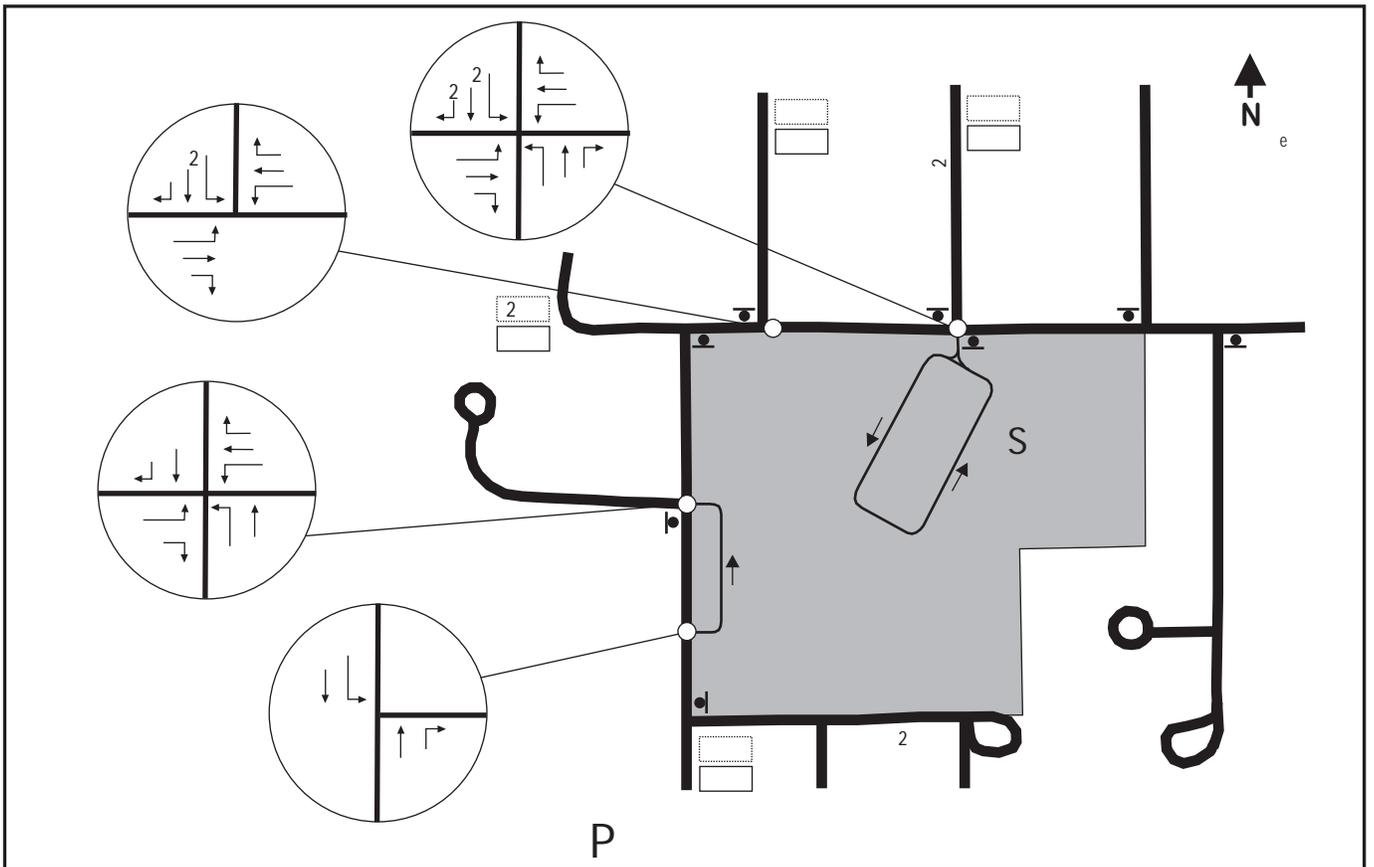
Analysis Period	Expanded Enrollment	Expanded ICS			Existing ICS			Net New Trips		
		In	Out	Total	In	Out	Total	In	Out	Total
Morning Peak Hour (6:45–7:45 A.M.)	445 ICS Students	223	155	378	190	133	323	33	22	55
Afternoon Peak Hour (2:00–3:00 P.M.)	445 ICS Students	76	142	218	65	120	185	11	22	33
Daily	515 Total Students	645	645	1,290	560	560	1,120	85	85	170

Source: Heffron Transportation, Inc., February 2011.

## Trip Distribution and Assignment

Figure 5 shows the overall trip distribution of site-generated trips and the expected net change in peak hour trips resulting from the project. The overall trip distribution to and from the site with the project is expected to be similar to the existing distribution. Project-related changes include not only the increase in trips as summarized in Table 4, but also a change in circulation patterns at the site resulting from the change in driveway configuration—with the majority of inbound and outbound trips occurring at the consolidated driveway at NE 65<sup>th</sup> Street/112<sup>th</sup> Avenue NE and the remainder occurring to and from the new driveways on 111<sup>th</sup> Avenue NE.

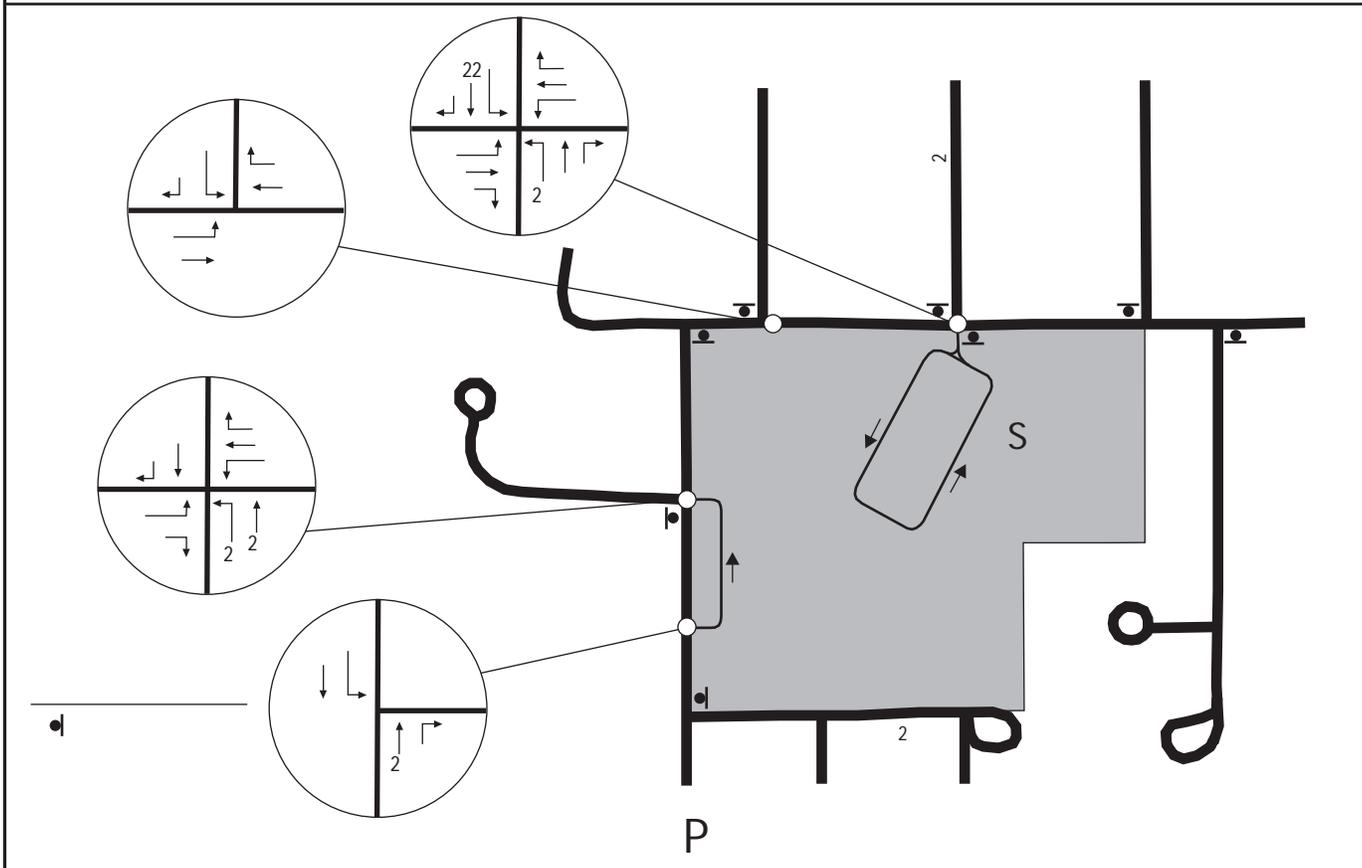
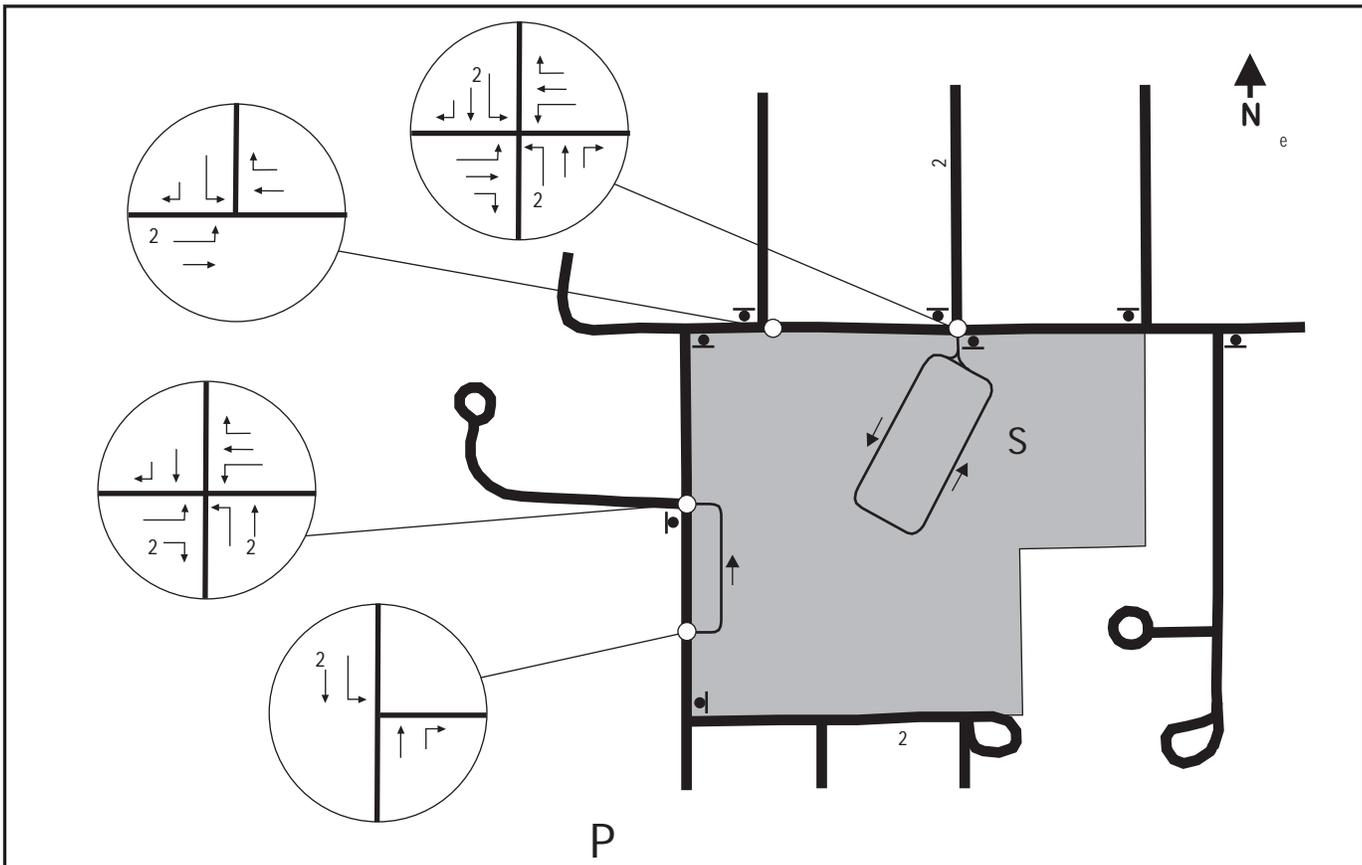
The estimated net changes in project-generated traffic were combined with the 2013-without-project traffic volumes to estimate with-project traffic volumes. The estimates for the with-project volumes during the AM and afternoon peak hours are shown on Figure 6.



International Community School  
Facility Replacement Project

Figure  
i r i u i e g e i r i  
i r e

heffron  
transportation, inc.



**International Community School  
Facility Replacement Project**

Figure  
Future 2011  
Alternative

**heffron**  
transportation, inc.

### 3.3. Traffic Operations

Levels of service for study area intersections were calculated using the 2013-with-project traffic volumes and the methodologies described earlier in this report. Table 5 shows the results of the analysis for the morning and afternoon peak hours, respectively. Levels of service for 2013-without-project conditions are shown for comparison. The table shows that the project would increase average delay at the NE 65<sup>th</sup> Street/112<sup>th</sup> Avenue NE/East Driveway intersection—due primarily to the addition of inbound vehicles that would result from reconfiguration of the driveways. However, all movements are still projected to operate at LOS C or better during both peak hours. Average delay at the NE 65<sup>th</sup> Street/111<sup>th</sup> Avenue NE intersection would decrease and level of service would improve, due primarily to the removal of the existing driveway. All movements at the new site driveway intersections on 111<sup>th</sup> Avenue NE are expected to operate at LOS A during both peak hours.

Table 5. Level of Service Summary – 2013 Without- and With-Project Conditions

Intersection <sup>1</sup>	Morning Peak Hour				Afternoon Peak Hour			
	2013 w/o Project		2013 w/ Project		2013 w/o Project		2013 w/ Project	
	LOS <sup>2</sup>	Delay <sup>3</sup>	LOS	Delay	LOS	Delay	LOS	Delay
NE 65 <sup>th</sup> St/112 <sup>th</sup> Ave NE/East Driveway	B	11.6	B	11.4	A	8.7	A	7.6
Eastbound turns to 112 <sup>th</sup> Ave NE	A	5.7	A	1.0	A	4.4	A	1.6
Northbound movements from site	B	14.6	C	19.6	B	10.7	B	11.2
Southbound turns from 112 <sup>th</sup> Ave NE	A	9.6	B	13.8	A	9.0	A	9.9
NE 65 <sup>th</sup> St/111 <sup>th</sup> Ave NE/West Driveway	B	11.3	A	7.7	A	4.4	A	3.5
Eastbound turns to 111 <sup>th</sup> Ave NE	A	0.8	A	1.5	A	2.2	A	2.1
Westbound turns to school site	A	4.8	n/a <sup>4</sup>		A	2.6	n/a <sup>4</sup>	
Southbound movements from 111 <sup>th</sup>	C	25.0	C	15.4	B	10.5	A	9.6
111 <sup>th</sup> Ave NE/NE 64 <sup>th</sup> St	A	0.5	A	1.4	A	0.6	A	1.5
Eastbound turns from NE 64 <sup>th</sup> St	A	8.7	A	8.9	A	8.8	A	9.0
Westbound turns from site	n/a <sup>5</sup>		A	8.6	n/a <sup>5</sup>		A	8.6
Northbound left turns to NE 64 <sup>th</sup> St	A	0.3	A	0.3	A	0.5	A	0.5
111 <sup>th</sup> Ave NE/South Site Access	n/a <sup>5</sup>		A	2.3	n/a <sup>5</sup>		A	0.6
Southbound left turns into site			A	3.4			A	0.8

Source: Heffron Transportation, Inc., May 2011.

1. All study intersections are unsignalized.
2. Level of service.
3. Average seconds of delay per vehicle.
4. Driveway would be eliminated under with-project conditions.
5. Driveway added with-project; it would not exist without the project.

### 3.4. Access, Circulation, and Sight Distance

As described earlier, the project would reconfigure the internal circulation and consolidate the inbound and outbound driveways at the intersection of NE 65<sup>th</sup> Street/112<sup>th</sup> Avenue NE, eliminating the existing driveway opposite 111<sup>th</sup> Avenue NE on NE 65<sup>th</sup> Street. The consolidated driveway at 112<sup>th</sup> Street NE would serve all ICS-generated vehicles except school buses. Once on-site, traffic channelization would be similar to existing conditions in that it would circulate in a counterclockwise direction. As shown in the previous section, consolidation of the driveways would increase delay for

vehicles exiting onto NE 65<sup>th</sup> Street, but all movements are still expected to operate at LOS C or better during the morning peak hour and LOS B during the afternoon peak hour. This driveway is expected to remain a Type E3 (PM peak hour volumes between 50 and 200 vehicles) under the City's sight distance procedures. The project does not include any elements that would change the topography at or near the site, or add obstacles to sight distance. Therefore, the sight distance at the NE 65<sup>th</sup> Street driveway is expected to be similar to the existing sight distance of 500+ feet, which exceeds the City's threshold of 150 feet.

At the new circular driveway on 111<sup>th</sup> Avenue NE, vehicles would also circulate in one direction, entering the site via the south driveway and exiting via the north driveway. School buses would use this driveway to drop off and pick up ICS students. The 111<sup>th</sup> Avenue NE driveway would also serve automobile traffic generated by the CES (although CES start times and dismissal times are different than ICS, so ICS buses and peak CES traffic are not expected to use the driveways simultaneously). As the majority of ICS site-generated traffic is expected to occur at the NE 65<sup>th</sup> Street driveway, the projected volumes at this driveway are low and the driveway intersections are expected to operate at LOS A during peak periods. The expected volumes on this driveway are low enough that this driveway might be considered a Type E2 driveway (PM peak hour volumes between 10 and 49) rather than Type E3; however, the City prescribes the same sight distance threshold of 150 feet minimum and desirable for both Type E2 and E3 driveways. Field measurement from the point across from NE 64<sup>th</sup> Street where the exiting driveway would be located indicates that sight distance exceeds 500 feet, which greatly exceeds the City's thresholds.

Thus, the project is not expected to have any adverse impact on site access, circulation, or sight distance at the driveways.

### 3.5. Safety

The proposed project would add a small amount of traffic to the surrounding street network, which could increase the potential for conflicts. The changes in driveway configuration would reduce the potential conflict points on NE 65<sup>th</sup> Street, where the majority of school-generated traffic occurs, but would increase the potential conflict points on 111<sup>th</sup> Avenue NE with addition of the two new driveways. Overall, traffic volumes on both streets are still relatively low and the existing traffic calming measures (speed humps on 111<sup>th</sup> Avenue NE and reduced school speed limits with flashing signs) would remain in place. In addition, the project would provide new sidewalk around the school site which would provide a safety benefit to pedestrians. Therefore, the project is not expected to have an adverse impact on vehicular or non-motorized safety.

### 3.6. Parking

Based on an overall weekday parking demand rate of 0.20 spaces per student (see *Section 2.5 Parking*) the addition of facilities to increase enrollment capacity by 65 sixth-grade students (for a total enrollment of 515 students) could increase peak parking demand from 92 vehicles to 103 vehicles. This is a conservatively high estimate based on the observed parking demand rate for the entire existing school, which reflects all employees, visitors, volunteers, and students that drive. The actual peak parking demand may be lower since the District only plans to add two teachers with this facility replacement project (some additional parents and volunteers are also possible, but no new student drivers would occur).

The District is proposing to provide a total of 145 on-site parking spaces, which would represent a net increase of 14 spaces compared to existing conditions. This level of parking supply would adequately accommodate the typical weekday peak parking demand at the school with the facility replacement

project. The additional supply would provide additional capacity for periodic fluctuations associated with the occasional on-site events. Parking demand overspill to on-street parking in the site vicinity would continue to occur during the five or six days per year when large-attendance events are held at the school (described further in section 3.9 *Special Events*).

### 3.7. Non-Motorized Facilities

The proposed project would construct curb, gutter, and sidewalk along the site frontage of NE 65<sup>th</sup> Street, 111<sup>th</sup> Avenue NE, and NE 62<sup>nd</sup> Street. These improvements would enhance the non-motorized transportation facilities in the site vicinity.

### 3.8. Transit

The addition of 65 sixth-grade students and related teachers and staff could result in a very small increase in transit rider trips. However, the increase is not expected to result in adverse impacts to transit facilities or service.

### 3.9. Special Events

The proposed addition of capacity for 65 sixth-grade students could result in slightly increased attendance for four of the special events that are held annually at ICS. Registration Day, Curriculum Night, Taste of ICS, and Art Day could all experience increases in attendance as the additional students and parents attend. However, because these events occur on only four days per year, the change in attendance would not result in significant adverse impacts to traffic or parking in the site vicinity. On these four days per year, parking demand that exceeds the on-site supply could extend further from the school along streets in the local vicinity. Traffic and parking associated with the other special events—student dances, seventh-grade parent meetings, culminating project presentations, and senior assembly—are not expected to change noticeably with the addition of sixth grade students.

It is recommended that the school continue its existing parking management efforts with communication to parents and students about courtesy when parking on-street in the neighborhood and continue its efforts to address concerns of neighbors when they arise.

### 3.10. Transportation Concurrency

The City has adopted a Concurrency Management System under Title 25 of the Kirkland City Code. Concurrency analysis considers the effects of proposed land use on the transportation system at the time of project completion, which is a legal requirement to ensure that the City has funding secured in its 6-year Capital Improvement Plan for transportation projects needed to support development planned through that time period. Under the Concurrency Management System, the City has assessed the transportation impacts of planned future land use defined in the City's *Comprehensive Plan* according to adopted level of service thresholds. For proposed new development, a Concurrency Management application must be completed, which the City reviews and determines if the new trips that would be generated by the project are within the limits that the City has covered in its concurrency program. If they are, the project is considered to "pass" the concurrency test.

A Concurrency Management application for this project was submitted to the City in March 2011, which included the Trip Generation memorandum prepared for this project and included in Appendix A of this report. The City issued notification (dated March 29, 2011), that the project had passed concurrency (attached in Appendix C).

### 3.11. Mitigation

#### 3.11.1. Road Impact Fees

The City of Kirkland has adopted a Transportation Impact Fee Program that outlines the contribution that new development must pay, based on land use type, to contribute toward citywide transportation improvement projects that have been planned to support concurrency. The City has an adopted transportation impact fee schedule that includes a rate for elementary and junior high schools. The fee rate (as of September 1, 2010) is \$485 per student. However, Kirkland Municipal Code section 27.04.040 allows developers to request an independent transportation fee calculation. In this case, the City of Kirkland’s published rate schedule was determined based on Elementary School (LU 520) rates from the 7<sup>th</sup> Edition of ITE’s *Trip Generation*, which reflected the PM peak hour of the generator. The PM peak hour of generator rates for elementary schools reflect traffic in the early afternoon, not during the commuter PM peak hour (typically one hour between 4:00 and 6:00 P.M.). Although the 7<sup>th</sup> Edition of *Trip Generation* did not include Elementary School data for the commuter PM peak hour, it was published for Middle School/Junior High School (LU 522). It is not clear why this rate was not used in the impact fee development process. Subsequently, the 8<sup>th</sup> Edition (2010) has updated data for schools and includes commuter PM peak hour rates for both Elementary Schools and Middle School/Junior High School land uses. Therefore, the Lake Washington School District requests an independent transportation fee calculation for this project.

There are two potential methods for determining an appropriate independent transportation impact fee for the proposed project—one based on the actual PM peak hour traffic generation rates determined for ICS using counts at the existing school, and one based on updated 8<sup>th</sup> Edition rates published in ITE’s *Trip Generation*. Table 6 presents estimates using both methods. However, as discussed in section 3.2.1 *Trip Generation*, ICS and CES are choice schools that do not have the same levels of extra-curricular activities associated with most schools represented in standard rates published by ITE. Therefore, it is recommended that the transportation impact fee be based on the trip rates developed specifically for this project using data from the existing ICS and CES. As shown, this would translate to a total impact fee of \$5,626.40.

Table 6. Independent Transportation Impact Fee Calculations

Method	Basic Rate	New % <sup>c</sup>	New Rate	Trip Length Adjustment <sup>d</sup>	Fee per Student <sup>e</sup>	Total Fee
ICS Rate	0.05 <sup>a</sup>	80%	0.04	2.0/3.5 = 0.57	\$86.56	\$5,626.40
ITE 8 <sup>th</sup> Ed. Rate	0.16 <sup>b</sup>	80%	0.13	2.0/3.5 = 0.57	\$277.00	\$18,005.00

Source: Heffron Transportation, Inc., May 2011.

- a. Commuter PM peak hour trip generation rate determined based on study of existing school.
- b. Published commuter PM peak hour rate for Middle School/Junior High School (LU 522), ITE, *Trip Generation*, 8<sup>th</sup> Edition, 2010.
- c. New trip percentage for elementary school/junior high school, City of Kirkland Transportation Impact Fee Update – DRAFT, *Mirai Transportation Planning & Engineering*, April 10, 2007.
- d. Trip length adjustment is the ratio of school trip length and overall City of Kirkland trip length. City of Kirkland Transportation Impact Fee Update – DRAFT, *Mirai Transportation Planning & Engineering*, April 10, 2007.
- e. Resulting fee rate per student based on current City-wide trip rate of \$3,787 per trip (effective September 1, 2010).

### **3.11.2. Frontage Improvements**

As required by the City of Kirkland, the District plans to construct curb, gutter, and sidewalk along the school frontage of NE 65<sup>th</sup> Street, 111<sup>th</sup> Avenue NE, and NE 62<sup>nd</sup> Street. These improvements will enhance the non-motorized facilities and environment for pedestrians in the site vicinity.

### **3.11.3. Event Parking Management**

It is recommended that the school continue its existing parking management efforts during special events with large attendance. These efforts include communication to parents and students about courtesy when parking on-street in the neighborhood and addressing concerns of neighbors when they arise through regular communication.

## 4. SUMMARY

With the proposed facility replacement project, a new building would be constructed on the existing campus that would allow the ICS to add 65 sixth grade students. This would increase ICS enrollment capacity from 380 to 445 students. It is anticipated that two teachers would also be added at ICS for a total staff count of 23. The project would reconfigure the existing on-site circulation network and would consolidate the inbound and outbound driveways at the intersection of NE 65<sup>th</sup> Street/112<sup>th</sup> Avenue NE. The project would also eliminate the existing driveway on NE 65<sup>th</sup> Street opposite 111<sup>th</sup> Avenue NE. Finally, the project would add two new driveways on 111<sup>th</sup> Avenue NE that would operate as a one-way circular configuration. The following summarizes the key analysis findings:

- The project is expected to result in an increase in trips (estimated at 170 daily trips, 55 morning peak hour trips, 33 afternoon peak hour trips, and 2 commuter PM peak hour trips) and also a change in circulation patterns at the site with the reconfigured driveways.
- Operations of all driveway intersections are expected continue at LOS C or better with the project. Sight distance at the existing and proposed new site access intersections is greater than 500 feet, which exceeds the City's minimum and desired thresholds of 150 feet for these types of driveways.
- The project could increase peak parking demand from 92 vehicles to 103 vehicles. The proposed on-site parking supply of 145 spaces (14 more than existing) would easily accommodate the projected peak parking demand. The City of Kirkland will make a final determination on the number of parking spaces required.
- The project could result in slightly increased attendance for four of the special events that are held annually at ICS. However, because these events occur on only four days per year, the change in attendance would not result in significant adverse impacts to traffic or parking in the site vicinity.
- The City provided notification (dated March 29, 2011) that the proposed project had passed concurrency.

The following summarizes recommended mitigation for the project:

- It is recommended that the transportation impact fee be based on the trip rates developed specifically for this project and resulting in a total impact fee of \$5,626.40.
- As required by the City of Kirkland, the District plans to construct curb, gutter, and sidewalk along the school frontage of NE 65<sup>th</sup> Street, 111<sup>th</sup> Avenue NE, and NE 62<sup>nd</sup> Street.
- It is recommended that the school continue its existing parking management efforts during special events with large attendance.

As no additional transportation impacts are expected to result from the project, no other mitigation is recommended.