



## **DEVELOPMENT STANDARDS LIST**

**File: PLAZA AT YARROW AT YARROW BAY OFFICE, ZON08-00017**

### **ZONING CODE STANDARDS**

**85.25.1 Geotechnical Report Recommendations.** The geotechnical recommendations contained in the report by Golder Associates dated May 12, 2009 shall be implemented.

**85.25.3 Geotechnical Professional On-Site.** A qualified geotechnical professional shall be present on site during land surface modification and foundation installation activities.

**90.45 Wetlands and Wetland Buffers.** No land surface modification may take place and no improvement may be located in a wetland or within the environmentally sensitive area buffers for a wetland, except as specifically provided in this Section.

**90.50 Wetland Buffer Fence.** Prior to development, the applicant shall install a six-foot high construction phase fence along the upland boundary of the wetland buffer with silt screen fabric installed per City standard. The fence shall remain upright in the approved location for the duration of development activities. Upon project completion, the applicant shall install between the upland boundary of all wetland buffers and the developed portion of the site, either 1) a permanent 3 to 4 foot tall split rail fence, or 2) permanent planting of equal barrier value.

**90.55 Monitoring and Maintenance of Wetland Buffer Modifications:** Modification of a wetland buffer will require that the applicant submit a 5-year monitoring and maintenance plan consistent with the criteria found in 95.55 and which is prepared by a qualified professional and reviewed by the City's wetland consultant. The cost of the plan and the City's review shall be borne by the applicant.

**95.50.2.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.

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

**95.40.7.b 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.

**95.45 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.

**105.18.2 Overhead Weather Protection Standards.** Overhead weather protection must be provided along any portion of the building adjacent to a pedestrian walkway or sidewalk; over the primary exterior entrance to all buildings. May be composed of awnings, marquees, canopies or building overhangs; must cover at least 5' of the width of the adjacent walkway; and must be at least 8 feet above the ground immediately below it. In design districts, translucent awnings may not be backlit; see section for the percent of property frontage or building facade.

**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.

**115.47 Service Bay Locations.** All uses, except single family dwellings and multifamily structures, must locate service bays away from pedestrian areas. If not feasible must screen from view.

**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 Rockerries 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.

**115.115.d Driveway Setbacks.** Parking areas and driveways for uses other than detached dwelling units, attached and stacked dwelling units in residential zones, or schools and day-cares with more than 12 students, may be located within required setback yards, but, except for the portion of any driveway which connects with an adjacent street, not closer than 5 feet to any property line.

**115.120 Rooftop Appurtenance Screening.** New or replacement appurtenances on existing buildings shall be surrounded by a solid screening enclosure equal in height to the appurtenance. New construction shall screen rooftop appurtenances by incorporating them in to the roof form.

**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.

**152.22.2 Public Notice Signs.** Within seven (7) calendar days after the end of the 21-day period following the City's final decision on the permit, the applicant shall remove all public notice signs.

***Prior to issuance of a grading or building permit:***

**85.25.1 Geotechnical Report Recommendations.** A written acknowledgment must be added to the face of the plans signed by the architect, engineer, and/or designer that he/she has reviewed the geotechnical recommendations and incorporated these recommendations into the plans.

**85.45 Liability.** The applicant shall enter into an agreement with the City, which runs with the property, in a form acceptable to the City Attorney, indemnifying the City for any damage resulting from development activity on the subject property which is related to the physical condition of the property (see Attachment 16).

**90.50 Wetland Buffer Fence.** Prior to development, the applicant shall install a six-foot high construction phase fence along the upland boundary of the wetland buffer with silt screen fabric installed per City standard. The fence shall remain upright in the approved location for the duration of development activities. Upon project completion, the applicant shall install between the upland boundary of all wetland buffers and the developed portion of the site, either 1) a permanent 3 to 4 foot tall split rail fence, or 2) permanent planting of equal barrier value.

**90.150 Natural Greenbelt Protective Easement.** The applicant shall submit for recording a natural greenbelt protective easement, in a form acceptable to the City Attorney, for recording with King County (see Attachment 17).

**95.35.2.b.(3)(b)i 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.

**95.35.6 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 4 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:***

**85.25.3 Geotechnical Professional On-Site.** The geotechnical engineer shall submit a final report certifying substantial compliance with the geotechnical recommendations and geotechnical related permit requirements.

**90.145 Bonds.** The City may require a bond and/or a perpetual landscape maintenance agreement to ensure compliance with any aspect of the Drainage Basins chapter or any decision or determination made under this chapter. A bond is required for maintenance and monitoring of the wetland buffer plantings.

**95.50.2.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

**95.50.2.b Tree Maintenance.** For detached dwelling units, the applicant shall submit a 5-year tree maintenance agreement to the Planning Department to maintain all pre-existing trees designated for preservation and any supplemental trees required to be planted.

**95.50.3 Maintenance of Preserved Grove.** The applicant shall provide a legal instrument acceptable to the City ensuring the preservation in perpetuity of approved groves of trees to be retained.

**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.

Date: 9/3/2009

DEVELOPMENT STANDARDS  
CASE NO.: ZON08-00017  
PCD FILE NO.: ZON08-00017

Parcels/lots must be consolidated. A Lot Consolidation and Restrictive Covenant will be provided by the City for signature by the property owner(s) and sent to King County for recording as a Notice on Title.

A geotechnical report is required to address 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 Short Plat and subsequent structures.

Building permits must comply with 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.

Kirkland current codes are the 2006 editions of the building codes.

Structure must comply with Washington State Energy Code; and the Washington State Ventilation and Indoor Air Quality Code.

Structures must be designed for seismic design category D, wind speed of 85 miles per hour and exposure B.

The applicant is cautioned to investigate the implications of the Americans with Disabilities Act on the construction of this project. For more information the applicant may contact Mr. James Raggio, Office of the General Counsel, Architectural and Transportation Barriers Compliance Board, 1111 18th Street, N.W., Suite 501, Washington, DC 20036, Ph# (800) 514-0301.

A building code summary worksheet must be submitted with the building permit application. (Copy attached and an electronic copy is available).

Building types, sizes, allowable areas, heights, separations etc. have not been reviewed. Separation and type of buildings are a concern. As built plans will be reviewed showing code compliance.

\*\*\*FIRE DEPARTMENT CONDITIONS\*\*\*

Fire department access roads are required when any portion of exterior wall of first story is located more than 150 feet from fire apparatus access.

Fire Department turnaround required for roads in excess of 150 feet in length; or through-access shall be provided.

Access roadways shall be capable of supporting 68,000 lbs. (included are all bridges and parking decks, when required to be used as access).

Additional hydrants required.

Fire sprinkler system is required throughout. Standpipes may also be required; if standpipes are determined to be required, they may be combined with the sprinkler system.

A fire alarm system is required.

A key box is required for fire department access.

Fire extinguishers required.

The fire flow requirement for this project is approximately 3,000 gpm; this is based on a building of type IIB construction and approximately 76,000 square feet. Available fire flow in the area is approximately 3,400 gpm which is adequate for development.

You can review your permit status and conditions at [www.kirklandpermits.net](http://www.kirklandpermits.net)

## PUBLIC WORKS CONDITIONS

Permit #: ZON08-00017  
Project Name: Plaza at Yarrow Bay Building Expansion  
Project Address: 10210 NE Points Drive  
Date: November 24, 2008

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@ci.kirkland.wa.us](mailto:rjammer@ci.kirkland.wa.us)

Building and Land Surface Modification (Grading) Permit Process:  
John Burkhalter, Development Engineering Supervisor  
Phone: 425-587-3853 Fax: 425-587-3807  
E-mail: [jburkhal@ci.kirkland.wa.us](mailto:jburkhal@ci.kirkland.wa.us)

### 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.ci.kirkland.wa.us](http://www.ci.kirkland.wa.us).
2. This project will be subject to Public Works Permit and Connection Fees. At the pre-application stage, the fees can only be estimated. 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.ci.kirkland.wa.us](http://www.ci.kirkland.wa.us). 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 Septic Tank Abandonment Inspection Fee
  - 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. Prior to submittal of a Building or Zoning Permit, the applicant must apply for a Concurrency Test Notice. Contact Thang Nguyen, Transportation Engineer, at 425-587-3869 for more information. A separate Concurrency Permit will be created.
4. Building Permits associated with this proposed project will be subject to the traffic impact fees per Chapter 27.04 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 be approved by Waste Management and the City.
10. The required tree plan shall include any significant tree in the public right-of-way along the property frontage.

Sanitary Sewer Conditions:

1. The existing sanitary sewer main within the public right-of-way along the front of the property is adequate to serve the entire proposed project. There is an existing sewer main that serves existing building and crosses the site where the parking garage and building will be built. This sewer main will need to be relocated and a new sewer connection will need to be provided to the new building and parking garage (parking garage floor drains shall be connected to the sewer).
2. Provide a plan and profile design for the sewer line extension
3. A 20 foot wide public sanitary sewer easement must be recorded with the property for the new on-site sewer main.
4. Access for maintenance of the sewer manholes is required. Provide a 15' wide access easement from the right-of-way to each sanitary sewer manhole.

Water System Conditions:

1. The existing water main in the public right-of-way along the front of the subject property is adequate to serve this proposed development.
2. There is an existing water main that provides on-site service to the fire hydrants and building fire systems. This water main, which crosses the site where the parking garage and building will be built, will need to be relocated. In order to maintain adequate fire flow to the on-site hydrants, it appears that the on-site water main loop will need to be maintained. If so, more study will need to be done prior to Building Permit submittal to determine the best location for the water main loop. The applicant shall contact the Public Works Department prior to Building Permit submittal to discuss the water main design.
3. Provide a water service to the new building sized per the Uniform Plumbing Code. City of Kirkland will set the water meter.
4. Provide fire hydrants per the Fire Departments requirements.
5. The available fire flow at this project location is approximately 2300 gpm.

Surface Water Conditions:

1. Provide temporary and permanent storm water control per the 1998 King County Surface Water Design Manual. Under these regulations, it appears that the site will not be required to provide new or

additional surface water detention but the project Engineer hired for this project shall verify and document this in a Technical Information Report. If a surface water detentions system is required, it shall be designed to Level II standards.

2. Water Quality: this project appears to be replacing more than 5000 square feet of new impervious area that will be used by vehicles (PGIS - pollution generating impervious surface). If so, the 1998 King County Surface Water manual requires this surface water be conveyed to an approved surface water quality treatment facility. If one is already on-site, the condition and adequacy of the system in relation to the current standards will need to be verified.

3. Provide a level one off-site (downstream) analysis.

4. If this project disturbs greater than one acre, the applicant is responsible to apply for a Construction Stormwater General Permit from Washington State Dept. of Ecology. Specific permit information can be found at the following website:

<http://www.ecy.wa.gov/programs/wq/stormwater/construction/>

Among other requirements, this permit requires the applicant to prepare a Storm Water Pollution Prevention Plan (SWPPP) and identify a Certified Erosion and Sediment Control Lead (CESCL) prior to the start of construction. The CESCL shall attend the City of Kirkland Public Works Department pre-construction meeting with a completed SWPPP.

5. Provide an erosion control plan with Building or Land Surface Modification Permit application. The plan shall be in accordance with the 1998 King County Surface Water Design Manual.

6. Construction drainage control shall be maintained by the developer and will be subject to periodic inspections. During the period from April 1 to October 31, all denuded soils must be covered within 15 days; between November 1 and March 31, all denuded soils must be covered within 12 hours. If an erosion problem already exists on the site, other cover protection and erosion control will be required.

7. All roof and driveway drainage must be tight-lined to the storm drainage system.

#### Street and Pedestrian Improvement Conditions:

1. The subject property abuts Lake Washington Blvd (an Arterial type street) and NE Points Drive (a Collector type street) Zoning Code sections 110.10 and 110.25 require the applicant to make half-street improvements in rights-of-way abutting the subject property. Section 110.30-110.50 establishes that this street must be improved with the following:

A. Remove and replace any cracked curb and gutter and any sidewalk that will remain in place.

B. It appears that the existing London Plane trees along Lake Washington Blvd. (LWB) will be removed due to construction and because these tree species are no longer allowed as a street tree due to the invasive roots (arborist report recommending the removal is required). If the trees are removed then the Public Works Department would typically require a 10 ft wide sidewalk along the west side of LWB (this is the current standard for redevelopment along the west side of LWB). In this case, the applicant has proposed, and the Public Works Department agrees, that a 5 ft sidewalk separated by a 4.5 ft. landscape strip from the back of the curb would provide a more pleasant pedestrian area. Street trees shall be planted in the landscape strip 30 ft. on-center. The Public Works Department also favors a meandering sidewalk along the property frontage and will review a proposed plan from the applicants architect and landscape architect.

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. The traffic study shall analyze the driveways to the parking garage and deck in conjunction with

the parking stalls that back out onto the main entry.

5. 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.

6. Underground all new on-site transmission lines.

CITY OF KIRKLAND  
123 FIFTH AVENUE, KIRKLAND, WASHINGTON 98033-6189  
(425) 587-3225



**DETERMINATION OF NONSIGNIFICANCE (DNS) .**

CASE #: SEP09-00014

DATE ISSUED: 8/10/2009

DESCRIPTION OF PROPOSAL \_\_\_\_\_

**New 4 story building (known as Building 5), within the Plaza at Yarrow Bay Office Complex. The proposed office building will be approximately 74,101 gross square feet and a total of 287 (107 new) parking stalls associated with the structure.**

PROPONENT:

LOCATION OF PROPOSAL \_\_\_\_\_

**LOCATED AT 10230 NE POINTS DRIVE**

**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.

This DNS is issued under 197-11-340 (2); the lead agency will not act on this proposal for 14 days from the date above. Comments must be submitted by 5:00 p.m. 8/24/2009

Responsible official:

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

8/9/09  
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., August 24, 2009 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 # SEP09-00014.

Publish in the Seattle Times (date): 8/17/09



## **MEMORANDUM**

**To:** Eric R. Shields, AICP, Planning Director

**From:** Tony Leavitt, Associate Planner

**Date:** August 6, 2009

**File:** ZON08-00017, SEP09-00014

**Subject:** **ENVIRONMENTAL DETERMINATION FOR PLAZA AT YARROW BAY BUILDING 5 PROJECT**

## **PROPOSAL**

Keith Maehlum, representing Plaza at Yarrow Bay Inc., proposes a new 4 story building (known as Building 5), within the Plaza at Yarrow Bay Office Complex located at 10230 NE Points Drive (see Enclosure 1). The proposed office building will be approximately 74,101 gross square feet and a total of 287 (107 new) parking stalls associated with the structure (see Enclosure 2). The applicant has applied for a zoning permit per Kirkland Zoning Code Section 60.22.040 that requires any new office building to be approved thru a Process IIB Review Process. In addition to the office use zoning permit application, the applicant is seeking approval of a Planned Unit Development, a wetland buffer modification, and zoning code modifications as part of this proposal. The subject property contains a Type I wetland and a Seismic Hazard Area per the City of Kirkland's Sensitive Areas Map.

## **ENVIRONMENTAL ISSUES**

I have had an opportunity to visit the site and review the environmental checklist (Enclosure 3) and the following reports:

- Updated Traffic Impact Analysis prepared by Transpo Group dated December 2008 (Enclosure 4)
- Traffic Impact Analysis Review Memo prepared by Thang Nguyen dated February 2, 2009 (Enclosure 5)
- Geotechnical Review prepared by Golder Associates dated May 12, 2009 (Enclosure 5)

Based on a review of these materials, the main environmental issues related to the development of this project are potential traffic and soil impacts.

### **Traffic Impacts**

The Public Works Department has reviewed the Traffic Impact Analysis (see Enclosure 5) and recommends approval of the project subject to the outlined conditions.

### **Soil Impacts**

The Geotechnical Review prepared by Golder Associates concludes that “the project appears feasible from a geotechnical standpoint” and recommends that additional design level geotechnical and hydrological studies after final design work completed. As part of the building permit application review process, the City has the authority to require that these additional studies be completed and that the project comply with all recommendations.

## **CONCLUSIONS AND RECOMMENDATION**

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 within the review of the zoning permit, Planned Unit Development, and wetland buffer modification applications. 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.<sup>1</sup>

Based on my review of all available information and adopted policies of the City, I am recommending that the proposal include the following mitigating measures so that a Determination of Non-significance (DNS) can be issued:

Prior to occupancy of the new building, the applicant shall submit a Transportation Management Program that complies with the requirements established for the existing buildings. The TMP shall also be recorded with King County.

## **POLICY DIRECTION**

This recommendation is based on adopted goals and policies of the City as found in the City's Comprehensive Plan. Specifically, the following elements of the 1995 Comprehensive Plan support the recommendations in the preceding section:

### **Transportation**

Policy T-5.4: Require new development to mitigate site specific transportation impacts.

Policy T-5.6: Promote transportation demand management (TDM) strategies to help achieve mode split goals. TDM may include incentives, programs or regulations to reduce the number of single-occupant vehicle trips.

Policy LU-3.5: Incorporate features in new development projects which support transit and non-motorized travel as alternatives to the single-occupant vehicle.

**SEPA ENCLOSURES**

1. Vicinity Map
2. Development Plans
3. Environmental Checklist
4. Updated Traffic Impact Analysis prepared by Transpo Group dated December 2008
5. Traffic Impact Analysis Review Memo prepared by Thang Nguyen dated February 2, 2009
6. Geotechnical Review prepared by Golder Associates dated May 12, 2009

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Review by Responsible Official:

I concur

I do not concur

Comments:

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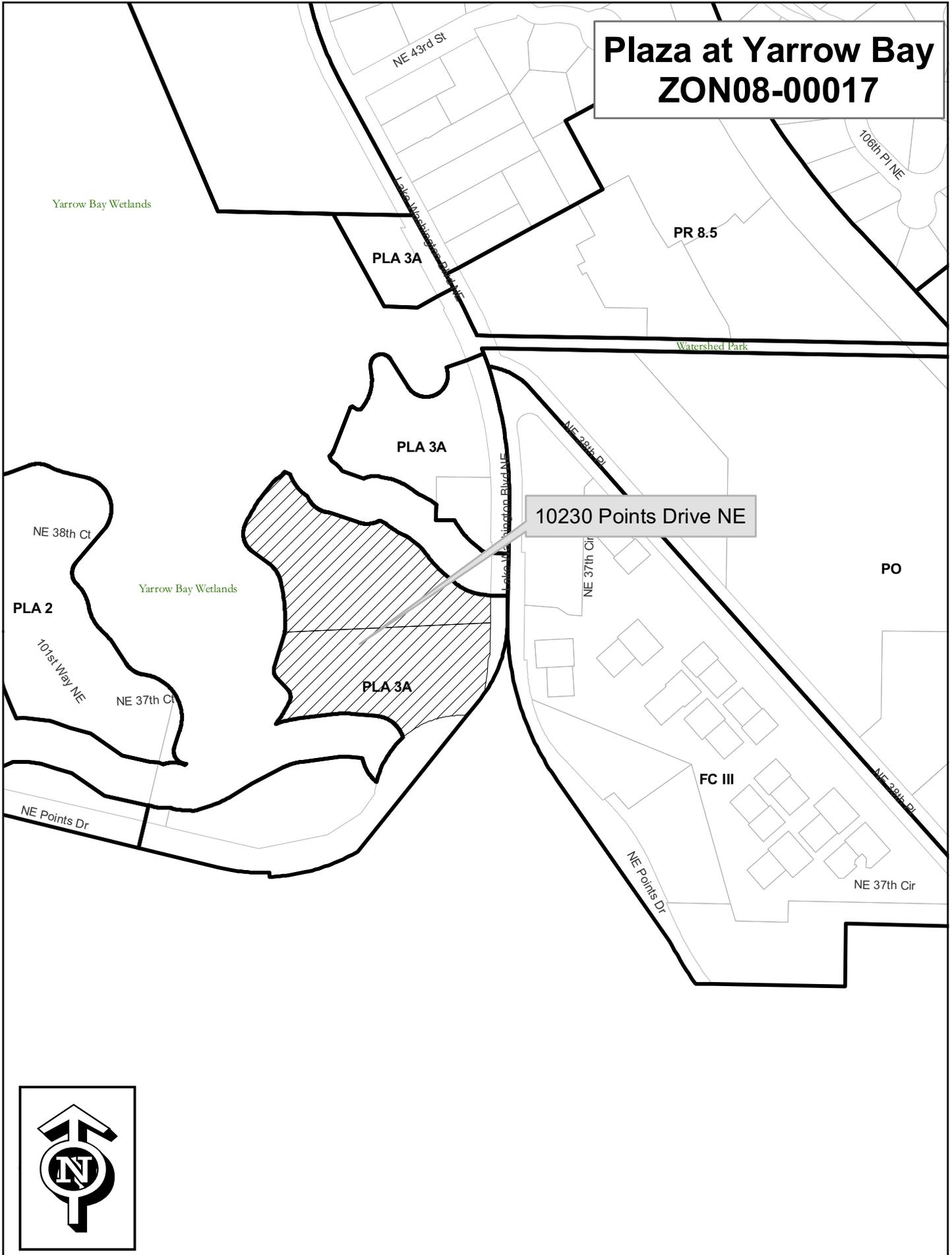
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Eric R. Shields, AICP  
Planning Director

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Date

# Plaza at Yarrow Bay ZON08-00017





SEPA Memorandum Enclosure 2

is the same as

Staff Advisory Report Attachment 3



# CITY OF KIRKLAND ENVIRONMENTAL CHECKLIST

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## Purpose of Checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the City identify impacts from your proposal, and to reduce or avoid impacts from the proposal, whenever possible

## Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Answer the questions briefly with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the City staff can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The City may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impacts.

## Use of Checklist for Non-project Proposals:

Complete this checklist for non-project proposals also, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS (Part D).

For non-project actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

### A. BACKGROUND

1. Name of proposed project, if applicable: *Plaza at Yarrow Bay - Bldg V*
2. Name of applicant: *Applicant: The Plaza at Yarrow Bay, Inc. 2025 First Ave. Ste 700, Seattle, WA 98121, Ph: 206.839.9867, Atte: Keith Maehlum*
3. Tax parcel number: *2025059162, 2025059240*

4. Address and phone number of applicant and contact person: ***Applicant & Contact: The Plaza at Yarrow Bay, Inc. 2025 First Ave. Ste 700, Seattle, WA 98121, Ph: 206.839.9867, Atte: Keith Maehlum***
5. Date checklist prepared: ***9/15/2008***
6. Agency requesting checklist: ***City of Kirkland, Planning and Community Development***
7. Proposed timing or schedule (including phasing, if applicable): ***Building Permit Application: aprox. 2010, Construction Start: aprox. 2011***
8. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal?  
***None***
9. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.  
***Geotechnical Report prepared by Golder Associates, Wetland Study by The Watershed Company, Traffic Report by Transpo Group.***
10. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.  
***There are no known pending approvals or proposals***
11. List any government approvals or permits that will be needed for your proposal, if known.  
***Zoning Permit - Process IIB  
SEPA Environmental Review  
Building Permit***
12. Give brief, complete description of your proposal, including the proposed uses, the size and scope of the project and site including dimensions and use of all proposed improvements. 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.  
***PYB-Bldg V project: propose a new 4 story Office Building of 77,440 sq. ft. & 70,070 sq. ft. of parking garage underground connected to an existing parking garage. Site and off-site improvements will include new pedestrian Plaza, parking lot, landscape and walkways.***
13. 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 Plaza at Yarrow Bay - Building V is located on the northwest corner of Lake Washington Blvd. and Points Drive in City of Kirkland, Washginton.***

*Please see legal description and neighborhood map in the enclosed package.*



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 known.

***During construction, emissions to the air would include occasional dust raised during the clearing and construction process, plus some diesel exhaust fumes from operating earth-moving vehicles and trucks.***

***After the project is completed and in use, emissions to the air would be those associated with general parking uses: exhaust from automobiles entering and leaving the site.***

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

***No***

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

***Comply with City Codes.***

***Dust emissions will be controlled by watering as required.***

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

***Yes, An existing stream on the north Conchran Springs Creek, and south side of the property Yarrow Creek.***

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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.

***Yes***

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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.

***None***

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4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

***No***

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5) Does the proposal lie within a 100-year floodplain? If so, note location on the

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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.  
**No**

- 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 the following 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) are expected to serve.  
**none**

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (include 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.  
**Surface water from impervious areas will be connected to existing project storm drainage system.**

- 2) Could waste materials enter ground or surface waters? If so, generally describe.  
**No**

Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:  
**All exposed open land resulting from grading and construction will be landscaped with appropriate ground cover planting to hold the soil and control any potential surface runoff. Comply with applicable codes.**

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:

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- b. What kind and amount of vegetation will be removed or altered?  
*An approximately of 73,062 sq. ft. landscape area will 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:  
*Landscape (previous) areas are 73,062 sq. ft. (existing), and new proposed will be 73,595 sq. ft. (final site development), See landscape plan.*

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5. ANIMALS

- a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:  
  
birds: hawk, heron, eagle, songbirds, other *Songbirds*  
mammals: deer, bear, elk, beaver, other *Beaver & Nutria near the site*  
fish: bass, salmon, trout, herring, shellfish, other
- 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:  
*None*

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6. ENERGY AND NATURAL RESOURCES



- 3) Proposed measures to reduce or control noise impacts, if any:  
***During construction, this project will comply with all noise standards established by the City of Kirkland.***

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8. LAND AND SHORELINE USE

- a. What is the current use of the site and adjacent properties?

***Site Parcels***

***Lot#1: 3 story office building with underground parking garage***

***Lot#2: 5 story office building with underground parking garage***

***Adjacent Parcels***

***South, Lot#1: 4 story office building with underground parking***

***North Lot#4: 3 story office building with underground parking***

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- b. Has the site been used for agriculture? If so, describe.

***No***

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- c. Describe any structures on the site.

***Lot#1: Office Building, parking and plaza***

***Lot#2: Office Building, parking and plaza***

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- d. Will any structures be demolished? If so, what?

***No, other than surface parking lot.***

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- e. What is the current zoning classification of the site?

***Current Zoning:***

***PLA 3A (Planned Area), Lakeview Neighborhood***

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- f. If applicable, what is the current shoreline master program designation of the site?

***None***

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

***Yes, property to the north and south has wetland and streams***

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- h. Approximately how many people would reside or work in the completed project.

***.The new building would have approximately 260 employes total.***

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- i. Approximately how many people would the completed project displace?

***None***

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

*None*

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

*Comply with the comprehensive plan and land use code*

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9. HOUSING

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

*None*

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b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

*None*

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c. Proposed measures to reduce or control housing impacts, if any:

*None*

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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 will be 55', does not include HVAC's room equipment and elevator or stair penthouse*

*The principal building materials will be concrete, masonry, pre-cast panels and metal siding.*

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b. What views in the immediate vicinity would be altered or obstructed?

*Minor impacts to views from Lake Washington Blvd. looking to the west.*

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c. Proposed measures to reduce or control aesthetic impacts, if any:

*The new building will use proportions and materials compatible with the existing buildings.*

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11. LIGHT AND GLARE

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

*During regular business hours on dark days and at night, there will be light from inside the building, low-level landscape lighting, from building signage, and*

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**vehicles entering/exiting the site, and parking lot lighting.**

- 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?  
**Light from vehicular traffic and street lights.**
- d. Proposed measures to reduce or control light and glare impacts, if any:  
**Parking lighting is designed to illuminate downwards only and cut off at the property lines.**

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12. RECREATION

- a. What designated and informal recreational opportunities are in the immediate vicinity?  
**Walking, biking, and jogging on streets adjacent to the property.**
- 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 opportunities to be provided by the project or applicant, if any:  
**None**

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13. HISTORICAL AND CULTURAL PRESERVATION

- a. Are there any places or objects listed in, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.  
**None**
- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.  
**None**
- c. Proposed measures to reduce or control impacts, if any:  
**None**

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14. TRANSPORTATION



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

\_\_\_\_\_

\_\_\_\_\_

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.

\_\_\_\_\_

\_\_\_\_\_

*Electricity: Puget Sound Energy, Natural Gas: Puget Sound Energy, Water: City of Kirkland, Refuse/Recycling: Waste management, Telephone: Verizon, Cable: Comcast, Sanitary sewer: City of Kirkland*

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: *Karl Macellum*

Tony Leavitt

Date Submitted: *9/25/08 The Plaza at Yarrow Bay, Inc.*

8/6/2009

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(Do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

\_\_\_\_\_

\_\_\_\_\_

Proposed measures to avoid or reduce such increases are:

\_\_\_\_\_

\_\_\_\_\_

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

\_\_\_\_\_

\_\_\_\_\_

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Proposed measures to protect or conserve plants, animals, fish, or marine life are:

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- 3. How would the proposal be likely to deplete energy or natural resources?

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Proposed measures to protect or conserve energy and natural resources are:

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- 4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

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Proposed measures to protect such resources or to avoid or reduce impacts are:

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- 5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

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Proposed measures to avoid or reduce shoreline and land use impacts are:

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- 6. How would the proposal be likely to increase demands on transportation or public services and utilities?

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Proposed measures to reduce or respond to such demand(s) are:

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- 7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

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## Updated Transportation Impact Analysis

# PLAZA AT YARROW BAY EXPANSION

Prepared for:  
HAL Real Estate Investments

December 2008

Prepared by:



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## Frequently Asked Questions

This section provides an executive summary of the Transportation impact analysis through a set of frequently asked questions (FAQs).

### Where is the project located?

The Plaza at Yarrow Bay complex is located to the west of the Lake Washington Boulevard near the NE Points Drive/Bellevue Way/NE Northup Way intersection. The proposed expansion would be located east of buildings 1 and 2 and over the existing parking area.

### What is the project land use and trip generation?

The proposed expansion of Plaza at Yarrow Bay would construct 77,200 square feet of office building. This expansion would generate 59 weekday AM peak hour trips and 67 weekday PM peak hour trips.

### What are the future without-project conditions in the study area?

All intersections within the study area would operate acceptably at LOS D under future without-project conditions.

### Would the project have any transportation impacts?

All study intersections would continue to operate at the same LOS without or with the proposed project. The addition of project traffic would increase average delays at each study intersection by less than one second. This falls within the range of day to day fluctuation and as such would not be noticed by the average user.

The proposed project meets City of Kirkland concurrency standard.

Increases in traffic volumes at study intersections would likely result in a proportionate increase in the probability of collisions. The proposed project would have little, if any, impact on existing non-motorized facilities or existing transit service.

The proposed parking supply would not meet Kirkland minimum parking supply requirements; however, the peak parking demand for the project would be served by the total parking supply for the Plaza at Yarrow Bay complex. A variance is recommended to allow the project to provide less than code requirements.

### What mitigation measures are recommended?

Specific off-site mitigation measures are not recommended, nor required, to reduce/offset potential site-generated traffic impacts.

### How would the site access operate?

The site access would operate acceptably during the weekday PM peak hour.

## Introduction

The purpose of this transportation impact analysis (TIA) is to identify potential traffic-related impacts associated with the proposed Plaza at Yarrow Bay Expansion office development. As necessary, mitigation measures are identified that would offset or reduce significant impacts.

### Project Description

Figure 1 illustrates the project site and the surrounding vicinity. The project would include the construction of a new four-story office building on the site of the existing Plaza at Yarrow Bay site, east of buildings 1 and 2 and over the existing parking area. Buildout of the project includes an underground parking structure and would provide a net increase of 135 parking stalls more than existing conditions. The project site is located east of Lake Washington Boulevard near the intersection with NE Points Drive/NE Northup Way.

The proposed site plan is illustrated in Figure 2. As shown, site access would be provided by the existing driveway immediately east of NE Points Drive/NE Northup Way. Buildout of the project is anticipated by the end of 2010.

### Study Scope

The City of Kirkland identifies study intersections based upon the project's trip distribution and assignment, and resulting proportionate share calculations for identifying study intersections (included in Appendix A). Due to the project's proximity to the Kirkland-Bellevue city limit, possible impacts to Bellevue intersections were also considered. Bellevue requires analysis of intersection traffic operations where intersections are impacted by more the 20 weekday PM peak hour trips.

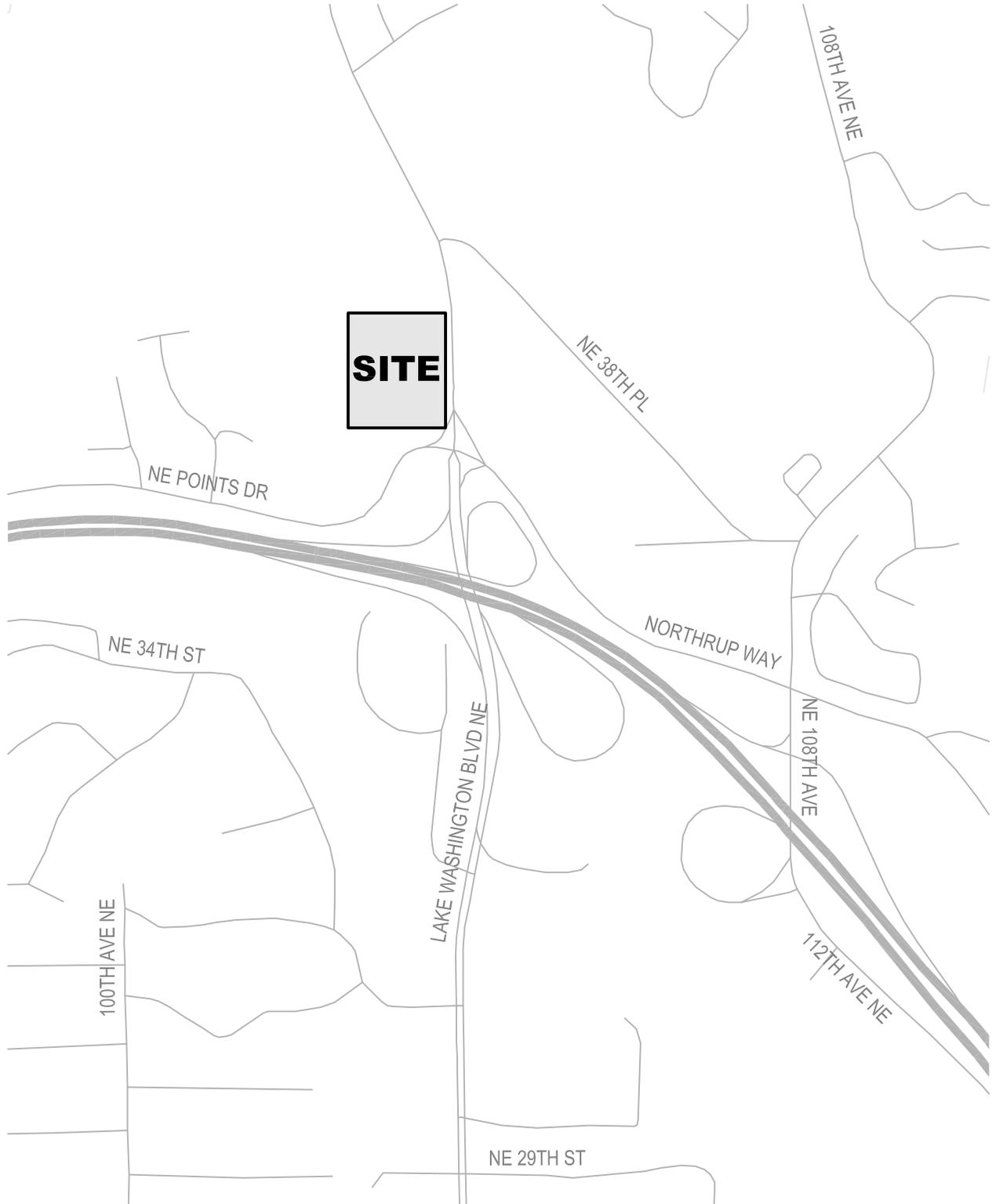
Based upon these criteria for Kirkland and Bellevue, the project trip distribution identified by the concurrency run and the estimated trip generation documented later in this report, three study intersections were identified:

1. Lake Washington Boulevard/NE Points Drive/NE Northup Way
2. NE 108th Avenue/ NE Northup Way
3. NE 108th Avenue/SR 520 WB Ramps

For Bellevue study intersections, a horizon year of 2013 is required. Therefore, future conditions were modeled based upon information from the City of Bellevue and was used for all intersections.



NOT TO SCALE



## Site Vicinity

Yarrow Bay Plaza Expansion

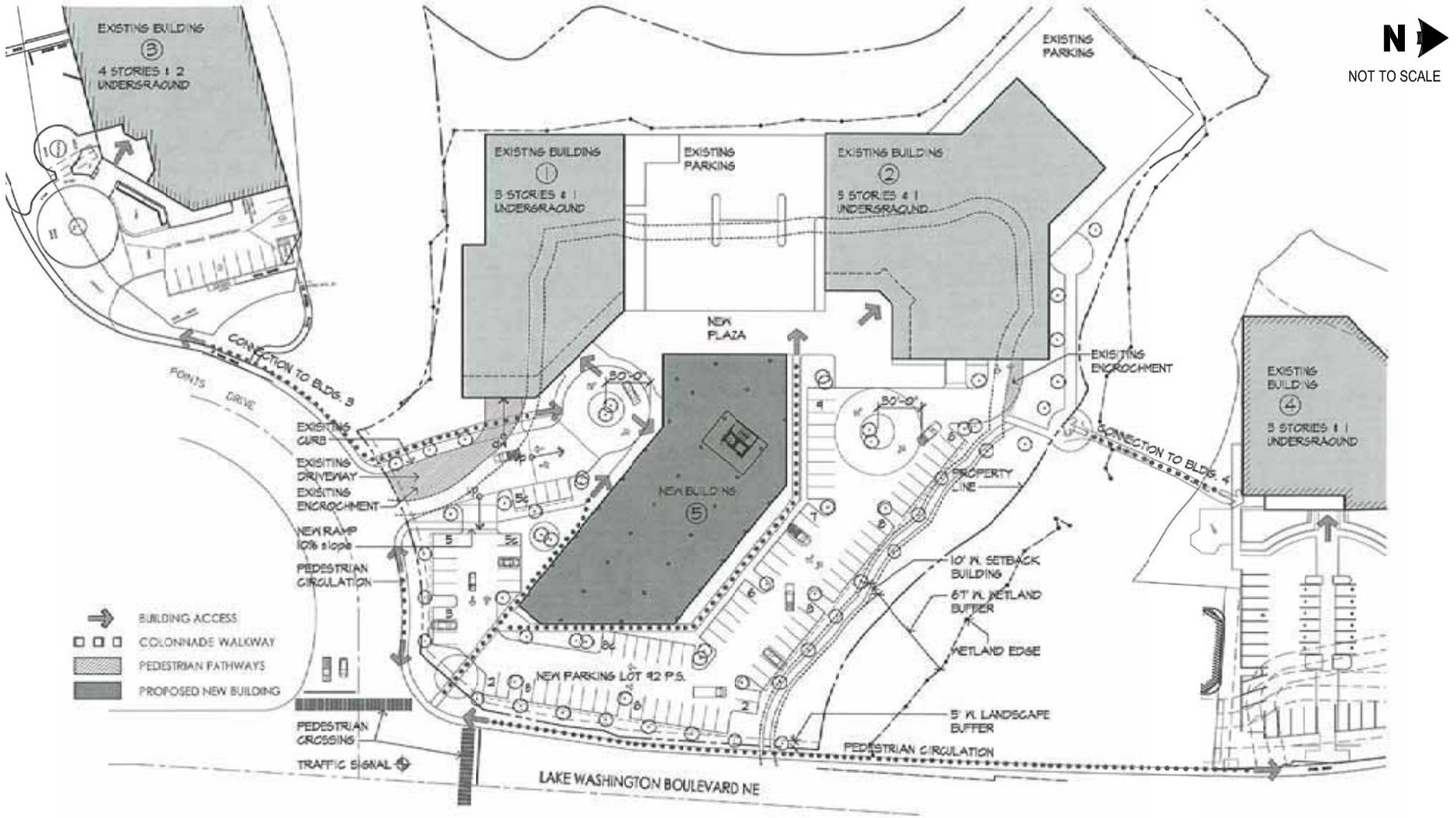
M:\07\07366 Yarrow Bay Plaza Expansion\Graphics\Graphic01 <Fig 1> melindap 09/24/08 14:06



FIGURE

1

113



# Site Plan

## Yarrow Bay Plaza Expansion

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FIGURE

2



## Existing and Future Without-Project Conditions

This section describes both existing conditions and future without-project conditions within the identified study area. Study area characteristics are provided for the roadway network, planned improvements, existing and forecasted without-project volumes, traffic operations, traffic safety, and transit and non-motorized facilities.

### Roadway Network

The existing roadway network is discussed along with planned improvements that would likely be installed before the proposed project horizon year, if any. In general, the roadway descriptions given apply to the roadways within the study area of the proposed project.

#### *Existing Inventory*

The existing roadway characteristics in the proposed project vicinity are described in detail below for relevant facilities. Roadway classification is based on roadway classification maps provided in the Kirkland and Bellevue Comprehensive Plans.

**SR 520** is a four-lane state highway with a three-person carpool lane in the westbound direction. The posted speed limit is 60 mph within the project vicinity.

**Lake Washington Boulevard NE/Bellevue Way NE** is a five-lane principal/major arterial within the project vicinity. The posted speed limit is 35 mph and sidewalks are provided along both sides of the roadway. The Kirkland Comprehensive plan identifies this road as a shared roadway with bikes.

**Northup Way** is a three-lane minor arterial within the project vicinity and a posted speed limit of 30 mph. Sidewalks exist along the northern side of the roadway. No bike lanes are provided within the project vicinity.

**NE Points Drive** is a two-lane local road with a posted speed limit of 25 mph. A sidewalk exists along the north side of the roadway within the project vicinity. No bike lanes are provided within the project vicinity.

#### *Planned Improvements*

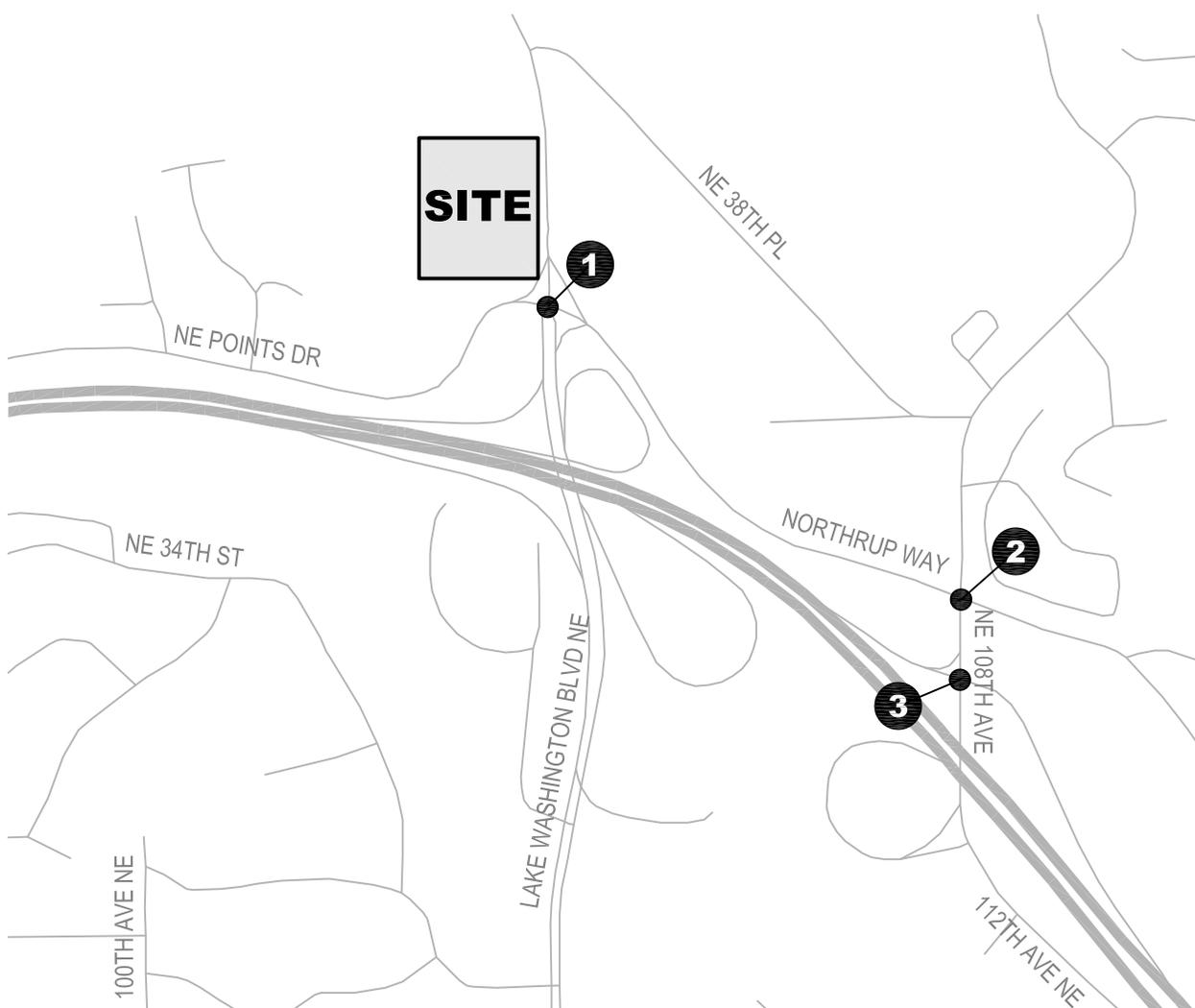
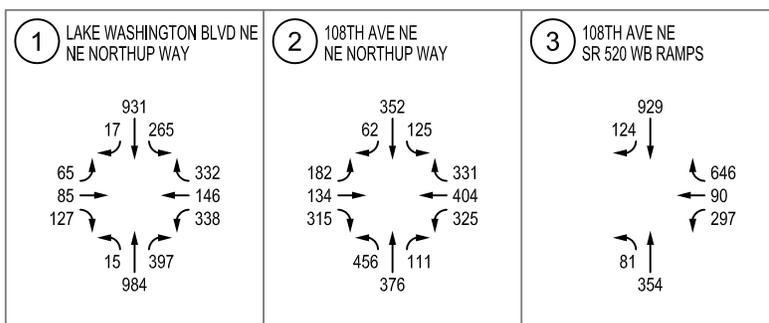
Within the study area, no roadway or intersection improvement projects were assumed for future without-project conditions.

### Traffic Volumes

Future (2013) without-project intersection volumes are shown in Figure 3. Future without-project volumes were obtained from the City of Bellevue.



NOT TO SCALE



# 2013 Without-Project Weekday PM Peak Hour Traffic Volumes

Yarrow Bay Plaza Expansion

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FIGURE

3

## Peak Hour Traffic Operations

The operational characteristics of an intersection are determined by calculating the intersection level of service (LOS). Level of service for intersection operations is described alphabetically (A through F). LOS is based on the calculated average control delay per vehicle and is typically reported for the whole intersection for signalized and all-way stop-controlled intersections, and by movement for two-way, stop-controlled intersections. . Control delay is defined as the combination of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Appendix B provides a more detailed explanation of LOS.

Consistent with the study scope identified earlier, all study intersection are located within City of Bellevue jurisdiction. Based upon City of Bellevue study requirements, peak hour LOS results were calculated at study intersections only for future conditions and are based on methodologies contained in the *Highway Capacity Manual* (Transportation Research Board, 2000). *Synchro 7.0* (Build 761). LOS results are summarized in Table 1. Detailed LOS worksheets for each intersection analysis are included in Appendix C.

**Table 1. Intersection Peak Hour LOS – Future Without-project**

Intersection	2013 Without-Project		
	LOS <sup>1</sup>	Delay <sup>2</sup>	WM <sup>3</sup> or V/C <sup>4</sup>
NE Points Dr/Bellevue Way/NE Northup Way	D	38.2	0.78
NE Northup Way/108th Ave NE	D	52.5	0.79
SR 520 WB Ramps/108th Ave NE	C	25.1	0.55

1. Level of Service (A – F) as defined by the *Highway Capacity Manual* (TRB, 2000)
2. Average delay per vehicle in seconds.
3. Volume-to-capacity ratio reported for signalized intersections.
4. Intersection approach movement; EB is eastbound, WB is westbound.

All study intersections currently operate at LOS D or better during 2030 average weekday PM peak hours. It should be noted that westbound SR 520 is typically congested during the PM peak period and the westbound on-ramp from Lake Washington Boulevard NE is metered to regulate the flow onto SR 520. Vehicular queuing from the metered ramp frequently backs up through the intersection of NE Points Drive/Bellevue Way/NE Northup Way, which increases delays and the efficiency of operations at this intersection.

## Traffic Safety

The intersections of interest were reviewed for potential traffic safety inadequacies. The most-recent five-year accident history was requested from the City of Bellevue and is shown in the Table 2.

**Table 2. Intersection Crash Summary – 2005 to 2007**

Intersection	Number of Crashes				Annual Rate	Rate per MEV <sup>1</sup>
	2005	2006	2007	Total		
NE Points Dr/Bellevue Way/NE Northup Way	3	5	4	12	4.0	0.33
NE Northup Way/108th Ave NE	5	4	6	15	5.0	0.46
SR 520 WB Ramps/108t Ave NE	0	0	0	0	0.0	0.00

1. Accident rate per Million Entering Vehicles.

By incorporating the traffic volume at the intersection, the rate of accidents per million entering vehicles (MEV) allows a uniform standard for evaluating accident history. Generally,

an accident rate greater than 1.0 to 1.5 accidents per MEV is considered higher than normal. Based on this threshold, no intersections have a higher than normal collision rate.

## **Transit and Non-Motorized Facilities**

Within the immediate project vicinity, sidewalks exist along the northern side NE Points Drive and Northup Way. Sidewalks also exist along both sides of Lake Washington Boulevard NE-Bellevue Way NE. Lake Washington Boulevard NE is identified as a shared roadway with bikes.

King County Metro operates route 230 within the project vicinity. Stops are located near the intersection of Lake Washington Boulevard and NE 38th Place. Headways between buses are approximately 15 minutes during AM and PM commuting hours, and 30 minutes during the remainder of the day.

## Project Impacts

This section of the analysis documents project-generated impacts on the surrounding roadway network and at the intersections of interest. First, peak hour traffic volumes are estimated, distributed, and assigned to adjacent roadways and intersection within the study area. Next, potential impact to traffic volumes, traffic operations, safety, non-motorized facilities, and transit are identified.

### Trip Generation

A trip generation study was conducted at three driveways that provide access to the existing buildings on-site (Buildings 1, 2, 3, and 4). Currently, Three days of data were collected for the AM and PM peak hours on August 13, and September 9 and 10, 2008. Trip generation data at the three driveways is summarized in Table 3.

**Table 3. Existing Plaza at Yarrow Bay Trip Generation Summary**

Date	Volume (In / Out)			
	Building 1 & 2	Building 3	Building 4	Total Site
<b><i>AM Peak Hour</i></b>				
Wednesday, August 13 (7:45-8:45 AM)	117 (102 / 15)	39 (37 / 2)	51 (46 / 5)	207 (185 / 22)
Tuesday, September 9 (8:00-9:00 AM)	127 (114 / 13)	56 (52 / 4)	52 (45 / 7)	235 (211 / 24)
Wednesday, September 10 (8:00-9:00 AM)	107 (95 / 12)	57 (52 / 5)	42 (37 / 5)	206 (184 / 22)
<b>3-day Average</b>				<b>216 (193 / 23)</b>
<b>AM Peak Hour Trip Rate (280,550 sf)</b>				<b>0.77 (89% in)</b>
<b><i>PM Peak Hour</i></b>				
Wednesday, August 13 (4:15-5:15 PM)	117 (15 / 102)	57 (5 / 52)	56 (22 / 34)	230 (42 / 188)
Tuesday, September 9 (5:00-6:00 PM)	128 (21 / 107)	68 (10 / 58)	61 (12 / 49)	257 (43 / 214)
Wednesday, September 10 (4:45-5:45 PM)	117 (17 / 100)	81 (15 / 66)	47 (8 / 39)	245 (40 / 205)
<b>3-day Average</b>				<b>244 (42 / 202)</b>
<b>AM Peak Hour Trip Rate (280,550 sf)</b>				<b>0.87 (17% in)</b>

As shown in Table 3, the existing Plaza at Yarrow Bay has the following trip generation rates during the weekday peak hours:

- AM Peak Hour = 0.77 trips per 1,000 sf with 89-percent inbound and 11-percent outbound
- PM Peak Hour = 0.87 trips per 1,000 sf with 17-percent inbound and 83-percent outbound

These rates account for a transportation management program (TMP) currently in place for the existing Plaza at Yarrow Bay. This TMP includes the following elements, with additional elements identified in the TMP:

- dedicated carpool/vanpool parking stalls
- a commuter information center
- transit/ferry subsidy
- promotion of 'Bike to Work Day'
- a nearby bus stop (within 0.25 miles)
- covered parking for bicycles
- carpool/vanpool subsidy or incentive
- guaranteed ride home program

The proposed expansion would also incorporate these TDM measures. Using these trip rates, Table 4 summarizes that estimated trip generation for the proposed expansion.

**Table 4. Weekday Peak Hour Trip Generation Estimate – Plaza at Yarrow Bay Expansion**

Land Use	Quantity	Rate <sup>1</sup>	Weekday Peak Hour		
			In	Out	Total
<b><u>AM Peak Hour</u></b>					
Total Existing	280,550 sf	0.77	193	23	216
Total with Expansion	357,750 sf	0.77	245	30	275
<b>AM Peak Hour Expansion Only</b>	<b>77,200 sf</b>		<b>52</b>	<b>7</b>	<b>59</b>
<b><u>PM Peak Hour</u></b>					
Total Existing	280,550 sf	0.87	42	202	244
Total with Expansion	357,750 sf	0.87	53	258	311
<b>PM Peak Hour Expansion Only</b>	<b>77,200 sf</b>		<b>11</b>	<b>56</b>	<b>67</b>

1. Trip rates are based upon rates observed at the existing Plaza at Yarrow Bay (2008).

The proposed expansion is estimate to generate 59 weekday AM peak hour trips (52 inbound and 7 outbound) and 67 weekday PM peak hour trips (11 inbound and 56 outbound).

## Trip Distribution and Assignment

Traffic associated with the Plaza at Yarrow Bay Expansion project was distributed to the surrounding roadway network based on the City’s transportation model and concurrency analysis. The results identified the following peak hour distribution:

- 15-percent of traffic to/from the north along Lake Washington Boulevard
- 5-percent of traffic to/from the north along 108th Avenue NE
- 10-percent of traffic to/from the east via Northup Way
- 15-percent of traffic to/from the south via Bellevue Way NE
- 55-percent of traffic to/from SR 520

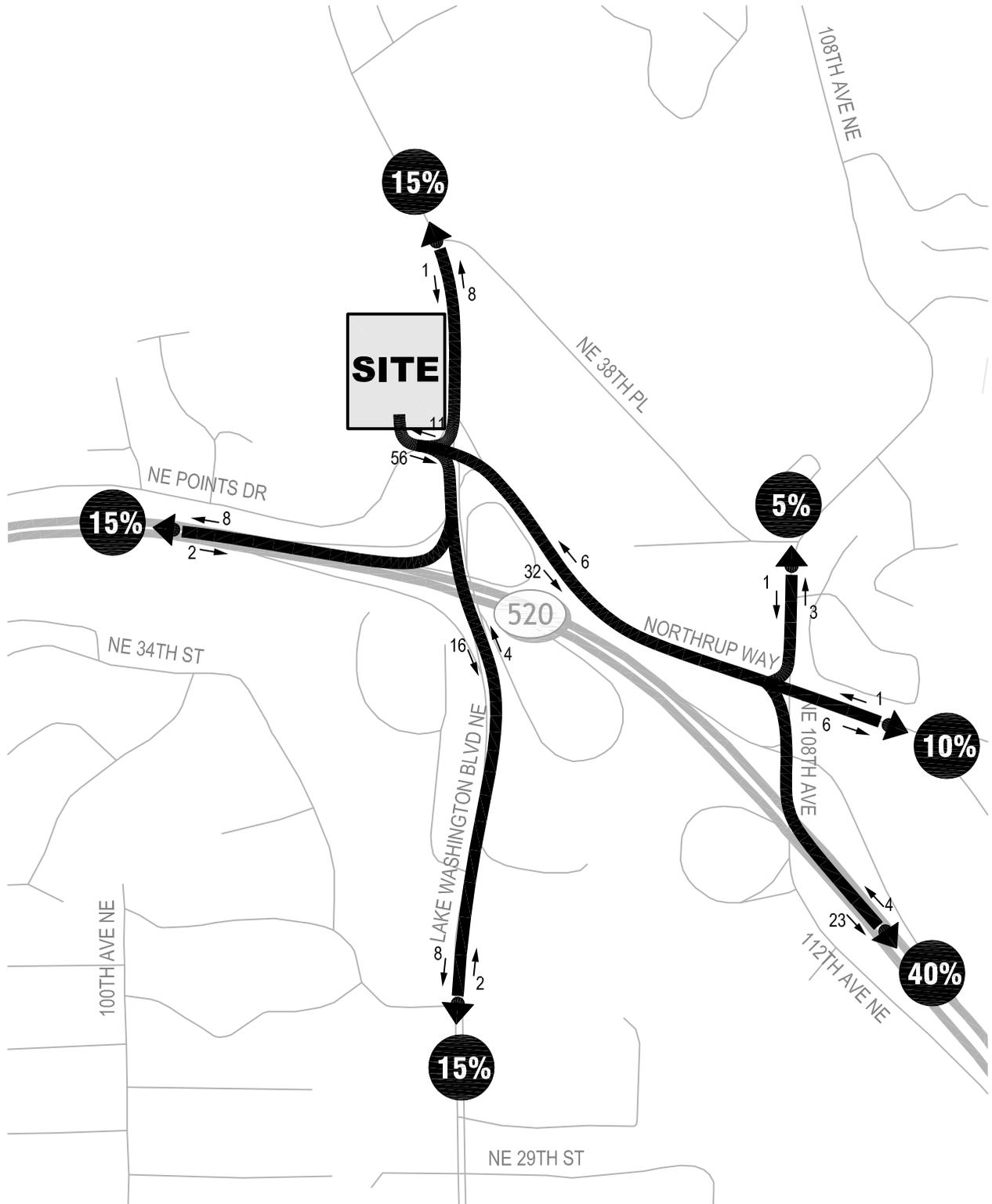
The traffic model distribution output from the concurrency analysis is provided in Appendix D.<sup>1</sup> Figure 4 shows the project distribution and assignment.

The City of Kirkland identifies study intersections based upon the project’s trip distribution and assignment, and resulting proportionate share calculations for identifying study intersections (included in Appendix A). Due to the project’s proximity to the Kirkland-Bellevue city limit, possible impacts to Bellevue intersections were also considered. Bellevue requires analysis of intersection traffic operations where intersections are impacted by more the 20 weekday PM peak hour trips.

<sup>1</sup> Note that the trip assignment values shown in the model distribution output (Appendix D) are based upon a preliminary trip generation estimate using the Institute of Transportation Engineer’s (ITE) *Trip Generation* (7th Edition) manual for General Office Building (LU #710).



NOT TO SCALE



# Weekday PM Peak Hour Trip Distribution & Trip Assignment

Yarrow Bay Plaza Expansion

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FIGURE

4

## Traffic Volume Impact

Project traffic was added to future without-project daily, AM peak hour, and PM peak hour traffic volumes at the intersections of interest. The resulting 2013 with-project traffic volumes are illustrated in Figure 5. Table 5 summarizes the project impact of volumes at study intersections during the PM peak hour.

**Table 5. 2013 Traffic Volume Impacts at Study Intersections**

Intersection	PM Peak Hour Total Entering Vehicles			Total Attributable to Project
	2013 Without-Project	2013 With-Project	Project Generated	
NE Points Dr/Bellevue Way/NE Northup Way	3,063	3,130	67	2.2%
NE Northup Way/108th Ave NE	3,679	3,717	38	1.0%
SR 520 WB Ramps/108t Ave NE	2,521	2,547	26	1.0%

In 2013, it is estimated that of the total entering PM peak hour traffic volumes at study intersections, approximately 2-percent or less would be attributable to the proposed development.

## Traffic Operations Impact

Table 6 compares future without- and with-project traffic operations for the 2010 horizon year. The signal timing parameters used in the 2010 without-project analyses were held constant for the with-project analysis. This provides a conservative analysis since the actuated traffic signal controls would adjust signal timing in response to with-project vehicle demands.

**Table 6. Intersection Peak Hour LOS – Future Without- & With-Project**

Intersection	2013 Without-Project			2013 With-Project		
	LOS <sup>1</sup>	Delay <sup>2</sup>	WM <sup>3</sup> or V/C <sup>4</sup>	LOS	Delay	WM or V/C
NE Points Dr/Bellevue Way/NE Northup Way	D	38.2	0.78	D	38.8	0.80
NE Northup Way/108th Ave NE	D	52.5	0.79	D	52.6	0.79
SR 520 WB Ramps/108t Ave NE	C	25.1	0.55	C	25.3	0.56

1. Level of Service (A – F) as defined by the *Highway Capacity Manual* (TRB, 2000)
2. Average delay per vehicle in seconds.
3. Volume-to-capacity ratio reported for signalized intersections.
4. Intersection approach movement; EB is eastbound, WB is westbound.

With addition of project traffic, all intersection would continue to operate at the same LOS as under 2013 without-project conditions. The increase in average intersection delay would be less than one second.

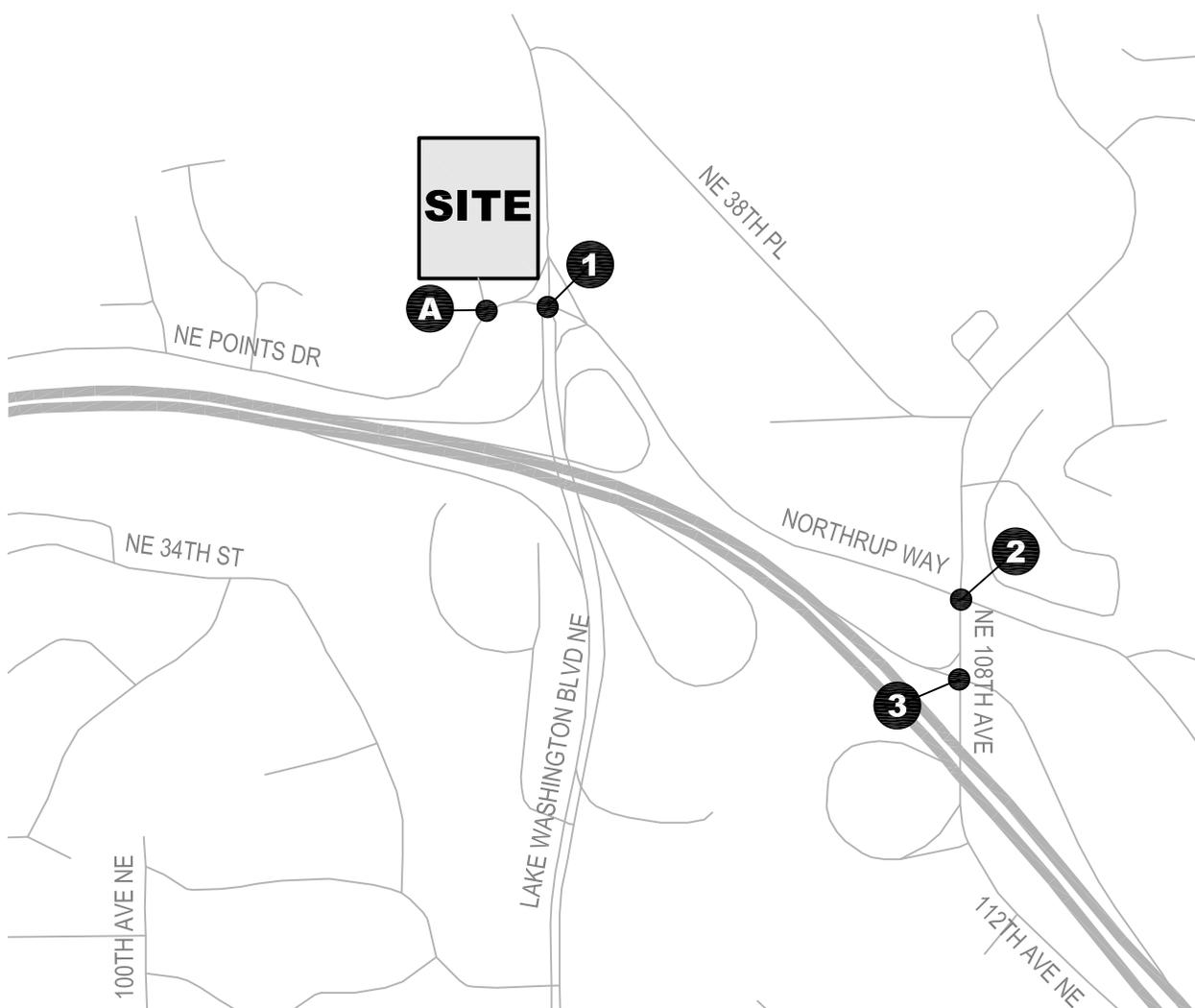
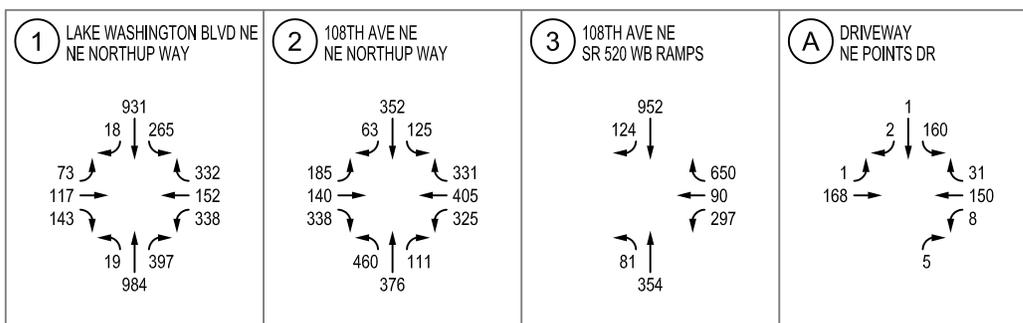
As previously mentioned, westbound SR 520 is typically congested during the PM peak period and the westbound on-ramp from Lake Washington Boulevard NE is metered to regulate the flow onto SR 520. Vehicular queuing from the metered ramp frequently backs up through the intersection of NE Points Drive/Bellevue Way/NE Northup Way, which increases delays and the efficiency of operations at this intersection. This is anticipated to continue in the future with the project and the addition of the project is not anticipated to significantly increase these delays.

## Concurrency

A transportation concurrency test was completed for this project by City of Kirkland Staff on September 5, 2008. The proposed project passed the concurrency test based on 77,000 square feet of office. Unless a development permit and certificate of concurrency or an extension is granted, this certificate of concurrency will expire in one year from the date of issuance. The concurrency test results are shown in Appendix D.



NOT TO SCALE



# 2013 With-Project Weekday PM Peak Hour Traffic Volumes

Yarrow Bay Plaza Expansion

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FIGURE

5

124

## Site Access

As show in Figure 2, access to the proposed expansion would be provided by the existing driveway located on the north side of NE Points Drive immediately west of NE Points Drive/Bellevue Way/NE Northup Way. Under 2013 with-project conditions the southbound left-turn would operate acceptably at LOS B with an average of 10.8 seconds of delay.

## Parking

This section describes parking impacts associated with the project, including an evaluation of the proposed supply compared to the anticipated demand, parking code compliance, and impacts associated with the displacement of existing parking from the site.

### *Proposed Parking Supply*

Currently, a total of 949 parking stalls are located on the project site and serve all four of the existing buildings. The proposed project would displace 180 parking stalls and replace them with 315 parking stalls within a parking structure as part of the new building. With the construction of the proposed project a total of 1,084 parking stalls would be supplied for a net increase of 135 parking stalls.

### *Parking Demand*

Parking utilization data was collected at the existing Plaza at Yarrow Bay site between 9:00 AM and 3:00 PM for three consecutive days (Tuesday December 2, 2008 through Wednesday December 4, 2008) and is provided in Appendix E. The peak average parking demand occurred at 11:00 a.m. with 469 occupied parking spaces. Currently, there is a small amount of vacant space. This equates to approximately 6-percent (15,699 sf leased but vacant and 1,885 sf not leased) which is typical occupancy rate for an office building. Based upon this and the existing supply of 949 on-site parking stalls, approximately 49-percent of the available parking is utilized with 480 parking stalls available. This observed peak demand equates to a rate of 1.67 stalls per 1,000 sf. This is a slightly lower demand than was observed in September 2008 but is within 9-percent and is consistent with data collected at other office complexes in Kirkland. This rate accounts for the transportation management plan (TMP) described previously.

As requested by the City of Kirkland staff the adjacent on-street parking was also monitored but was found to not be utilized during the three days data was collected. There are approximately 17 parking spaces on-street and if they were to be used this would represent a small portion of the total demand.

Parking demand for the proposed project was estimated using peak demand rates for the existing site. Based upon the increase of 77,200 sf with the proposed expansion, parking demand would increase by 129 parking stalls. With the proposal providing for an additional 135 parking spaces the demand would be met with just the new amount of parking being proposed. When adding the additional demand of 129 parked vehicles to the peak of 469 occupied spaces the total demand for the site would be approximately 600 parked vehicles. This represents a utilization of approximately 55 percent for the entire site with approximately 485 spaces still available. Based upon the existing parking utilization and the estimated demand of the proposed expansion, parking demand would be accommodated by the proposed parking supply and provides additional capacity should demand increase with changes in occupancy rates or specific tenants.

### *City of Kirkland Code Requirement*

The proposed project is located City of Kirkland Planning Area 3. Based on this 1 parking stall is required for each 300 sf of gross floor space. Based upon the increase in total floor area of 77,200 sf with the proposed expansion, a total of 258 new parking stalls are required. This requirement would not be met by the proposed net increase of 135 parking stalls; however, the total proposed parking supply would serve the parking demand for the project. Based upon the parking demand analysis, a variance is recommended to allow the project to provide less than the code requirement of 258 net new parking stalls.

### **Traffic Safety Impacts**

Traffic generated by the proposed project would likely result in a proportionate increase in the probability of collisions. However, it is not anticipated that the addition of project traffic would create a safety hazard or significantly increase the number of reported collisions.

### **Transit and Non-Motorized Impacts**

Transit service currently operating in the area is anticipated to accommodate any anticipated increase in ridership demand due to the proposed project. The existing transit stops and routes in the immediate area should provide adequate transit access for patrons of the project site.

## Findings and Recommendations

This transportation impact analysis summarizes the project traffic impacts of the proposed Plaza at Yarrow Bay Expansion project. The following outlines the general findings of the study.

- The proposed project is located to the west of the Lake Washington Boulevard near the NE Points Drive/Bellevue Way/NE Northup Way intersection. The proposed expansion would be located east of buildings 1 and 2 and over the existing parking area.
- The proposed expansion of Plaza at Yarrow Bay would construct 77,200 square feet of office building. This expansion would generate 59 weekday AM peak hour trips and 67 weekday PM peak hour trips.
- All intersections within the study area would operate acceptably at LOS D under future without-project conditions.
- All study intersections would continue to operate at the same LOS without or with the proposed project. The addition of project traffic would increase average delays at each study intersection by less than one second. This falls within the range of day to day fluctuation and as such would not be noticed by the average user.
- The proposed project meets City of Kirkland concurrency standard.
- Increases in traffic volumes at study intersections would likely result in a proportionate increase in the probability of collisions.
- The proposed project would have little, if any, impact on existing non-motorized facilities or existing transit service.
- The proposed parking supply would not meet Kirkland minimum parking supply requirements; however, the peak parking demand for the project would be served by the total parking supply for the Plaza at Yarrow Bay complex. A variance is requested to allow the project to provide less than code requirements.
- Specific off-site mitigation measures are not recommended, nor required, to reduce/offset potential site-generated traffic impacts.
- The site access would operate acceptably during the weekday PM peak hour.

Appendix A: Proportionate Share Impact Worksheets

## Proportional Share Impact Worksheet

*Input appropriate information in green cells*

<sup>1</sup> See "Intersection Description" worksheet for descriptions

<b>Project Name:</b>	The Plaza at Yarrow Bay		<b>Through Lanes<sup>1</sup></b>
<b>Major Street<sup>1</sup></b>	Lake Washington Blvd	# of Lanes* = 1	
<b>Minor Street<sup>1</sup></b>	Lakeview Dr	# of Lanes* = 1	

<sup>1</sup> May Change without notice, call Thang Nguyen 425-587-3869 with questions

DATE:  
9/8/2008

**Daily Project Traffic Entering the Intersection**

(Total of both approaches divided by two)  
(Total of both approaches divided by two)

	Daily Volumes	Entering Leg Volumes *	
<b>Major Street</b> Volume $V_1 =$	49	72	26
<b>Minor Street</b> Volume $V_2 =$	26.5	52	1

**Major**  
**Minor**

**\*Do not leave cell empty for zero volume**

**Determine Geometric Factors**

Number of Lanes		Geometric Factors			
Major Street	Minor Street	$f_1$	$f_2$	$f_3$	$f_4$
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

$f_1$	$f_2$	$f_3$	$f_4$
<b>0.833</b>	<b>1</b>	<b>0.833</b>	<b>1</b>

**Calculate Base Percentages**

$P_1 = V_1 / (10,000 \times f_1) =$	0.59%
$P_2 = V_2 / (5,000 \times f_2) =$	0.53%
$P_3 = V_1 / (15,000 \times f_3) =$	0.39%
$P_4 = V_2 / (2,500 \times f_4) =$	1.06%

**Calculate Proportional Share**

$S_1 = (P_1 + P_2) / 2 =$	0.56%
$S_2 = (P_3 + P_4) / 2 =$	0.73%

**Intersection Proportional Share = Maximum of S1 and S2 = 0.73%**  
**Significant Intersection? no**

1. 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.

**Computed By:** JBB  
**Company:** Transpo Group

## Proportional Share Impact Worksheet

*Input appropriate information in green cells*

<sup>1</sup> See "Intersection Description" worksheet for descriptions

<b>Project Name:</b>	The Plaza at Yarrow Bay		<b>Through Lanes<sup>1</sup></b>
<b>Major Street<sup>1</sup></b>	Lake Washington Blvd	# of Lanes* = 1	
<b>Minor Street<sup>1</sup></b>	NE 38th PI	# of Lanes* = 1	

<sup>1</sup> May Change without notice, call Thang Nguyen 425-587-3869 with questions

DATE:

9/8/2008

**Daily Project Traffic Entering the Intersection**

(Total of both approaches divided by two)

(Total of both approaches divided by two)

	Daily Volumes	Entering Leg Volumes *	
Major Street Volume $V_1 =$	81.5	85	78
Minor Street Volume $V_2 =$	1	1	1

Major

Minor

\*Do not leave cell empty for zero volume

**Determine Geometric Factors**

Number of Lanes		Geometric Factors			
Major Street	Minor Street	$f_1$	$f_2$	$f_3$	$f_4$
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

$f_1$	$f_2$	$f_3$	$f_4$
<b>0.833</b>	<b>1</b>	<b>0.833</b>	<b>1</b>

**Calculate Base Percentages**

$P_1 = V_1 / (10,000 \times f_1) =$	0.98%
$P_2 = V_2 / (5,000 \times f_2) =$	0.02%
$P_3 = V_1 / (15,000 \times f_3) =$	0.65%
$P_4 = V_2 / (2,500 \times f_4) =$	0.04%

**Calculate Proportional Share**

$S_1 = (P_1 + P_2) / 2 =$	0.50%
$S_2 = (P_3 + P_4) / 2 =$	0.35%

**Intersection Proportional Share = Maximum of S1 and S2 =** 0.50%  
**Significant Intersection?** no

1. 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.

**Computed By:** JBB  
**Company:** Transpo Group

## Proportional Share Impact Worksheet

*Input appropriate information in green cells*

<sup>1</sup> See "Intersection Description" worksheet for descriptions

<b>Project Name:</b>	The Plaza at Yarrow Bay		<b>Through Lanes<sup>1</sup></b>
<b>Major Street<sup>1</sup></b>	Lake St	# of Lanes* =	1
<b>Minor Street<sup>1</sup></b>	Kirkland Ave	# of Lanes* =	1

<sup>1</sup> May Change without notice, call Thang Nguyen 425-587-3869 with questions

DATE: 9/8/2008

	<b>Daily Volumes</b>	<b>Entering Leg Volumes *</b>		
<b>Daily Project Traffic Entering the Intersection</b> (Total of both approaches divided by two)	Major Street Volume $V_1 =$ 26	26	26	<b>Major</b>
(Total of both approaches divided by two)	Minor Street Volume $V_2 =$ 1	1	1	<b>Minor</b>

**\*Do not leave cell empty for zero volume**

**Determine Geometric Factors**

Number of Lanes		Geometric Factors			
Major Street	Minor Street	$f_1$	$f_2$	$f_3$	$f_4$
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

$f_1$	$f_2$	$f_3$	$f_4$
<b>0.833</b>	<b>1</b>	<b>0.833</b>	<b>1</b>

**Calculate Base Percentages**

$P_1 = V_1 / (10,000 \times f_1) =$  0.31%

$P_2 = V_2 / (5,000 \times f_2) =$  0.02%

$P_3 = V_1 / (15,000 \times f_3) =$  0.21%

$P_4 = V_2 / (2,500 \times f_4) =$  0.04%

**Calculate Proportional Share**

$S_1 = (P_1 + P_2) / 2 =$  0.17%

$S_2 = (P_3 + P_4) / 2 =$  0.12%

**Intersection Proportional Share = Maximum of S1 and S2 =** 0.17%  
**Significant Intersection?** no

1. 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.

**Computed By:** JBB  
**Company:** Transpo Group

## Proportional Share Impact Worksheet

*Input appropriate information in green cells*

<sup>1</sup> See "Intersection Description" worksheet for descriptions

<b>Project Name:</b>	The Plaza at Yarrow Bay		<b>Through Lanes<sup>1</sup></b>
<b>Major Street<sup>1</sup></b>	Central Way	# of Lanes* = 2	
<b>Minor Street<sup>1</sup></b>	Lake St	# of Lanes* = 1	

<sup>1</sup> May Change without notice, call Thang Nguyen 425-587-3869 with questions

DATE: 9/8/2008

**Daily Project Traffic Entering the Intersection**

(Total of both approaches divided by two)

(Total of both approaches divided by two)

	Daily Volumes	Entering Leg Volumes*	
<b>Major Street</b> Volume $V_1 =$	13.5	26	1
<b>Minor Street</b> Volume $V_2 =$	11	21	1

*Major*

*Minor*

**\*Do not leave cell empty for zero volume**

**Determine Geometric Factors**

Number of Lanes		Geometric Factors			
Major Street	Minor Street	$f_1$	$f_2$	$f_3$	$f_4$
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

$f_1$	$f_2$	$f_3$	$f_4$
1	1	1	1

**Calculate Base Percentages**

$P_1 = V_1 / (10,000 \times f_1) =$	0.14%
$P_2 = V_2 / (5,000 \times f_2) =$	0.22%
$P_3 = V_1 / (15,000 \times f_3) =$	0.09%
$P_4 = V_2 / (2,500 \times f_4) =$	0.44%

**Calculate Proportional Share**

$S_1 = (P_1 + P_2) / 2 =$	0.18%
$S_2 = (P_3 + P_4) / 2 =$	0.27%

**Intersection Proportional Share = Maximum of S1 and S2 = 0.27%**  
**Significant Intersection? no**

1. 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.

**Computed By:** JBB  
**Company:** Transpo Group

## Proportional Share Impact Worksheet

*Input appropriate information in green cells*

<sup>1</sup> See "Intersection Description" worksheet for descriptions

<b>Project Name:</b>	The Plaza at Yarrow Bay		<b>Through Lanes<sup>1</sup></b>
<b>Major Street<sup>1</sup></b>	Central Way	# of Lanes* = 2	
<b>Minor Street<sup>1</sup></b>	3rd St	# of Lanes* = 1	

<sup>1</sup> May Change without notice, call Thang Nguyen 425-587-3869 with questions

DATE:

9/8/2008

**Daily Project Traffic Entering the Intersection**

(Total of both approaches divided by two)

(Total of both approaches divided by two)

	Daily Volumes	Entering Leg Volumes *	
Major Street Volume $V_1 =$	1	1	1
Minor Street Volume $V_2 =$	13	25	1

Major

Minor

\*Do not leave cell empty for zero volume

**Determine Geometric Factors**

Number of Lanes		Geometric Factors			
Major Street	Minor Street	$f_1$	$f_2$	$f_3$	$f_4$
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

$f_1$	$f_2$	$f_3$	$f_4$
1	1	1	1

**Calculate Base Percentages**

$P_1 = V_1 / (10,000 \times f_1) =$	0.01%
$P_2 = V_2 / (5,000 \times f_2) =$	0.26%
$P_3 = V_1 / (15,000 \times f_3) =$	0.01%
$P_4 = V_2 / (2,500 \times f_4) =$	0.52%

**Calculate Proportional Share**

$S_1 = (P_1 + P_2) / 2 =$	0.14%
$S_2 = (P_3 + P_4) / 2 =$	0.26%

**Intersection Proportional Share = Maximum of S1 and S2 =** 0.26%  
**Significant Intersection?** no

1. 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.

**Computed By:** JBB  
**Company:** Transpo Group

## Proportional Share Impact Worksheet

*Input appropriate information in green cells*

<sup>1</sup> See "Intersection Description" worksheet for descriptions

<b>Project Name:</b>	The Plaza at Yarrow Bay		<b>Through Lanes<sup>1</sup></b>
<b>Major Street<sup>1</sup></b>	108th Ave NE	# of Lanes* = 1	
<b>Minor Street<sup>1</sup></b>	NE 68th St	# of Lanes* = 1	

<sup>1</sup> May Change without notice, call Thang Nguyen 425-587-3869 with questions

DATE: 9/8/2008

**Daily Project Traffic Entering the Intersection**

(Total of both approaches divided by two)  
 (Total of both approaches divided by two)

	Daily Volumes	Entering Leg Volumes *	
<b>Major Street</b> Volume $V_1 =$	13.5	26	1
<b>Minor Street</b> Volume $V_2 =$	1	1	1

**Major**  
**Minor**

**\*Do not leave cell empty for zero volume**

**Determine Geometric Factors**

Number of Lanes		Geometric Factors			
Major Street	Minor Street	$f_1$	$f_2$	$f_3$	$f_4$
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

$f_1$	$f_2$	$f_3$	$f_4$
<b>0.833</b>	<b>1</b>	<b>0.833</b>	<b>1</b>

**Calculate Base Percentages**

$P_1 = V_1 / (10,000 \times f_1) =$	0.16%
$P_2 = V_2 / (5,000 \times f_2) =$	0.02%
$P_3 = V_1 / (15,000 \times f_3) =$	0.11%
$P_4 = V_2 / (2,500 \times f_4) =$	0.04%

**Calculate Proportional Share**

$S_1 = (P_1 + P_2) / 2 =$	0.09%
$S_2 = (P_3 + P_4) / 2 =$	0.07%

**Intersection Proportional Share = Maximum of S1 and S2 =** 0.09%  
**Significant Intersection?** no

1. 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.

**Computed By:** JBB  
**Company:** Transpo Group

## Proportional Share Impact Worksheet

*Input appropriate information in green cells*

<sup>1</sup> See "Intersection Description" worksheet for descriptions

<b>Project Name:</b>	The Plaza at Yarrow Bay		<b>Through Lanes<sup>1</sup></b>
<b>Major Street<sup>1</sup></b>	3rd Ave	# of Lanes* =	1
<b>Minor Street<sup>1</sup></b>	Kirkland Ave	# of Lanes* =	1

<sup>1</sup> May Change without notice, call Thang Nguyen 425-587-3869 with questions

DATE: 9/8/2008

**Daily Project Traffic Entering the Intersection**

(Total of both approaches divided by two)  
 (Total of both approaches divided by two)

	Daily Volumes	Entering Leg Volumes *	
Major Street Volume $V_1 =$	1	1	1
Minor Street Volume $V_2 =$	25.5	25	26

Major  
Minor

\*Do not leave cell empty for zero volume

**Determine Geometric Factors**

Number of Lanes		Geometric Factors			
Major Street	Minor Street	$f_1$	$f_2$	$f_3$	$f_4$
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

$f_1$	$f_2$	$f_3$	$f_4$
<b>0.833</b>	<b>1</b>	<b>0.833</b>	<b>1</b>

**Calculate Base Percentages**

$P_1 = V_1 / (10,000 \times f_1) =$  0.01%

$P_2 = V_2 / (5,000 \times f_2) =$  0.51%

$P_3 = V_1 / (15,000 \times f_3) =$  0.01%

$P_4 = V_2 / (2,500 \times f_4) =$  1.02%

**Calculate Proportional Share**

$S_1 = (P_1 + P_2) / 2 =$  0.26%

$S_2 = (P_3 + P_4) / 2 =$  0.51%

**Intersection Proportional Share = Maximum of S1 and S2 =** 0.51%  
**Significant Intersection?** no

1. 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.

**Computed By:** JBB  
**Company:** Transpo Group

## Proportional Share Impact Worksheet

*Input appropriate information in green cells*

<sup>1</sup> See "Intersection Description" worksheet for descriptions

<b>Project Name:</b>	The Plaza at Yarrow Bay		<b>Through Lanes<sup>1</sup></b>
<b>Major Street<sup>1</sup></b>	NE 68th St	# of Lanes* =	1
<b>Minor Street<sup>1</sup></b>	State St	# of Lanes* =	1

<sup>1</sup> May Change without notice, call Thang Nguyen 425-587-3869 with questions

DATE: 9/8/2008

	Daily Volumes	Entering Leg Volumes *		
<b>Daily Project Traffic Entering the Intersection</b> (Total of both approaches divided by two)	Major Street Volume $V_1 =$ 32	38	26	<b>Major</b>
(Total of both approaches divided by two)	Minor Street Volume $V_2 =$ 13.5	26	1	<b>Minor</b>

**\*Do not leave cell empty for zero volume**

**Determine Geometric Factors**

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f <sub>1</sub>	f <sub>2</sub>	f <sub>3</sub>	f <sub>4</sub>
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f <sub>1</sub>	f <sub>2</sub>	f <sub>3</sub>	f <sub>4</sub>
<b>0.833</b>	<b>1</b>	<b>0.833</b>	<b>1</b>

**Calculate Base Percentages**

$P_1 = V_1 / (10,000 \times f_1) =$  0.38%

$P_2 = V_2 / (5,000 \times f_2) =$  0.27%

$P_3 = V_1 / (15,000 \times f_3) =$  0.26%

$P_4 = V_2 / (2,500 \times f_4) =$  0.54%

**Calculate Proportional Share**

$S_1 = (P_1 + P_2) / 2 =$  0.33%

$S_2 = (P_3 + P_4) / 2 =$  0.40%

**Intersection Proportional Share = Maximum of S1 and S2 =** 0.40%  
**Significant Intersection?** no

1. 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.

**Computed By:** JBB  
**Company:** Transpo Group



## Highway Capacity Manual, 2000

**Signalized intersection** level of service (LOS) is defined in terms of the average total vehicle delay of all movements through an intersection. Vehicle delay is a method of quantifying several intangible factors, including driver discomfort, frustration, and lost travel time. Specifically, LOS criteria are stated in terms of average delay per vehicle during a specified time period (for example, the PM peak hour). Vehicle delay is a complex measure based on many variables, including signal phasing (i.e., progression of movements through the intersection), signal cycle length, and traffic volumes with respect to intersection capacity. Table 1 shows LOS criteria for signalized intersections, as described in the *Highway Capacity Manual* (Transportation Research Board, Special Report 209, 2000).

**Table 1. Level of Service Criteria for Signalized Intersections**

Level of Service	Average Control Delay (sec/veh)	General Description (Signalized Intersections)
A	≤10	Free Flow
B	>10 - 20	Stable Flow (slight delays)
C	>20 - 35	Stable flow (acceptable delays)
D	>35 - 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 - 80	Unstable flow (intolerable delay)
F	>80	Forced flow (jammed)

Source: *Highway Capacity Manual*, Transportation Research Board, Special Report 209, 2000.

**Unsignalized intersection** LOS criteria can be further reduced into two intersection types: all-way stop-controlled and two-way stop-controlled. All-way, stop-controlled intersection LOS is expressed in terms of the average vehicle delay of all of the movements, much like that of a signalized intersection. Two-way, stop-controlled intersection LOS is defined in terms of the average vehicle delay of an individual movement(s). This is because the performance of a two-way, stop-controlled intersection is more closely reflected in terms of its individual movements, rather than its performance overall. For this reason, LOS for a two-way, stop-controlled intersection is defined in terms of its individual movements. With this in mind, total average vehicle delay (i.e., average delay of all movements) for a two-way, stop-controlled intersection should be viewed with discretion. Table 2 shows LOS criteria for unsignalized intersections (both all-way and two-way, stop-controlled).

**Table 2. Level of Service Criteria for Unsignalized Intersections**

Level of Service	Average Control Delay (sec/veh)
A	0 - 10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

Source: *Highway Capacity Manual*, Transportation Research Board, Special Report 209, 2000.



HCM Signalized Intersection Capacity Analysis  
2: NE Points Dr & Bellevue Way

Yarrow Bay Plaza Expansion  
2013 Baseline

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↗	↘	↔	↗	↘	↔	↗	↘	↔	↗	↘
Volume (vph)	65	85	127	338	146	332	15	984	397	265	931	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	13	11	12	12	11	12	15	11	11	12
Grade (%)	0%			0%			-2%			0%		
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1987	1636	1711	1863	1583	1728	3575	1759	1711	3421	1583
Fit Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1987	1636	1711	1863	1583	1728	3575	1759	1711	3421	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	68	89	134	356	154	349	16	1036	418	279	980	18
RTOR Reduction (vph)	0	0	122	0	0	253	0	0	85	0	0	3
Lane Group Flow (vph)	68	89	12	356	154	96	16	1036	333	279	980	15
Turn Type	Prot		Prot		Perm	Prot		Prot		Prot		Perm
Protected Phases	3	8	8	7	4		5	2	2	1	6	
Permitted Phases						4						6
Actuated Green, G (s)	6.0	9.3	9.3	30.2	33.5	33.5	2.6	44.8	44.8	25.3	67.5	67.5
Effective Green, g (s)	8.0	11.3	11.3	32.2	35.5	35.5	4.6	46.8	46.8	27.3	69.5	69.5
Actuated g/C Ratio	0.06	0.09	0.09	0.25	0.27	0.27	0.04	0.36	0.36	0.21	0.54	0.54
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	109	173	143	425	510	434	61	1291	635	360	1835	849
v/s Ratio Prot	0.04	c0.04	0.01	c0.21	0.08		0.01	c0.29	0.19	c0.16	0.29	
v/s Ratio Perm						0.06						0.01
v/c Ratio	0.62	0.51	0.08	0.84	0.30	0.22	0.26	0.80	0.52	0.78	0.53	0.02
Uniform Delay, d1	59.3	56.5	54.4	46.2	37.2	36.4	60.8	37.2	32.6	48.3	19.5	14.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.8	1.1	0.1	12.9	0.1	0.1	0.8	3.5	0.4	9.2	0.2	0.0
Delay (s)	67.1	57.6	54.5	59.1	37.4	36.4	61.7	40.7	33.0	57.4	19.7	14.1
Level of Service	E	E	D	E	D	D	E	D	C	E	B	B
Approach Delay (s)	58.4			46.0			38.8			27.8		
Approach LOS	E			D			D			C		
<b>Intersection Summary</b>												
HCM Average Control Delay	38.2			HCM Level of Service			D					
HCM Volume to Capacity ratio	0.78											
Actuated Cycle Length (s)	129.6			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	79.8%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
3: NE Northrup Way & 108th Ave NE

Yarrow Bay Plaza Expansion  
2013 Baseline

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↗	↘	↔	↗	↘	↔	↗	↘	↔	↗	↘
Volume (vph)	182	134	315	325	404	331	456	376	111	125	352	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	9	11	11	10	13	12	11	12	12	11
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		0.95	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.93		1.00	1.00	0.85	1.00	0.98	
Fit Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1801	1425	1711	3190		1737	1759	1531	1770	3460	
Fit Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1801	1425	1711	3190		1737	1759	1531	1770	3460	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	192	141	332	342	425	348	480	396	117	132	371	65
RTOR Reduction (vph)	0	0	64	0	98	0	0	0	57	0	11	0
Lane Group Flow (vph)	192	141	268	342	675	0	427	449	60	132	425	0
Turn Type	Prot		pt+ov	Prot			Split		pm+ov	Split		
Protected Phases	1	6	6	4	5	2	4	4	5	3	3	
Permitted Phases									4			
Actuated Green, G (s)	17.8	31.1	73.1	30.5	43.8		37.0	37.0	67.5	21.4	21.4	
Effective Green, g (s)	19.8	33.1	75.1	32.5	45.8		39.0	39.0	71.5	23.4	23.4	
Actuated g/C Ratio	0.14	0.24	0.54	0.23	0.33		0.28	0.28	0.51	0.17	0.17	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	250	426	764	397	1044		484	490	782	296	578	
v/s Ratio Prot	0.11	0.08	0.19	c0.20	c0.21		0.25	c0.26	0.02	0.07	c0.12	
v/s Ratio Perm									0.02			
v/c Ratio	0.77	0.33	0.35	0.86	0.65		0.88	0.92	0.08	0.45	0.74	
Uniform Delay, d1	57.9	44.3	18.5	51.6	40.2		48.3	48.9	17.4	52.5	55.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.96	0.96	1.50	1.00	1.00	
Incremental Delay, d2	12.0	2.1	0.1	16.6	3.1		15.5	20.1	0.0	0.4	4.2	
Delay (s)	69.9	46.4	18.6	68.2	43.3		61.9	67.2	26.2	52.9	59.5	
Level of Service	E	D	B	E	D		E	E	C	D	E	
Approach Delay (s)	39.3			50.9			60.1			58.0		
Approach LOS	D			D			E			E		
<b>Intersection Summary</b>												
HCM Average Control Delay	52.5			HCM Level of Service			D					
HCM Volume to Capacity ratio	0.79											
Actuated Cycle Length (s)	140.0			Sum of lost time (s)			9.0					
Intersection Capacity Utilization	79.4%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
4: SR 520 WB On & 108th Ave NE

Yarrow Bay Plaza Expansion  
2013 Baseline

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↔	↔	↔	↔			↕	↕
Volume (vph)	0	0	0	297	90	646	81	354	0	0	929	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.91	0.95	1.00	1.00			0.95	1.00
Frt				1.00	0.90	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1513	1504	1770	1863			3539	1583
Flt Permitted				0.95	1.00	1.00	0.22	1.00			1.00	1.00
Satd. Flow (perm)				1681	1513	1504	406	1863			3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	313	95	680	85	373	0	0	978	131
RTOR Reduction (vph)	0	0	0	0	72	280	0	0	0	0	0	37
Lane Group Flow (vph)	0	0	0	282	340	114	85	373	0	0	978	94
Turn Type				Split		Perm	pm+pt				Perm	
Protected Phases				4	4		1	6			2	
Permitted Phases						4	6					2
Actuated Green, G (s)				38.4	38.4	38.4	91.6	91.6			77.6	77.6
Effective Green, g (s)				40.4	40.4	40.4	93.6	93.6			79.6	79.6
Actuated g/C Ratio				0.29	0.29	0.29	0.67	0.67			0.57	0.57
Clearance Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Vehicle Extension (s)				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Lane Grp Cap (vph)				485	437	434	379	1246			2012	900
v/s Ratio Prot				0.17	c0.22		0.02	c0.20			c0.28	
v/s Ratio Perm						0.08	0.13					0.06
v/c Ratio				0.58	0.78	0.26	0.22	0.30			0.49	0.10
Uniform Delay, d1				42.6	45.7	38.3	19.3	9.6			18.0	13.9
Progression Factor				1.00	1.00	1.00	1.00	1.00			0.58	0.44
Incremental Delay, d2				1.1	7.8	0.1	0.1	0.6			0.7	0.2
Delay (s)				43.7	53.5	38.4	19.4	10.2			11.1	6.3
Level of Service				D	D	D	B	B			B	A
Approach Delay (s)		0.0			45.5			11.9				10.5
Approach LOS		A			D			B				B
<b>Intersection Summary</b>												
HCM Average Control Delay				25.1			HCM Level of Service					C
HCM Volume to Capacity ratio				0.55								
Actuated Cycle Length (s)				140.0			Sum of lost time (s)				6.0	
Intersection Capacity Utilization				58.7%			ICU Level of Service				B	
Analysis Period (min)				15								
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis  
5: NE Points Dr & Driveway

Yarrow Bay Plaza Expansion  
2013 Baseline

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕		↕	↕	↕
Volume (veh/h)	1	172	0	8	151	19	0	0	5	100	1	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1	181	0	8	159	20	0	0	5	105	1	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)								427				
pX, platoon unblocked												
vC, conflicting volume		179			181			282	379	91	284	369
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol		179			181			282	379	91	284	369
tC, single (s)		4.1			4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)		2.2			2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %		100			99			100	100	99	84	100
cM capacity (veh/h)		1394			1392			642	548	949	640	555
<b>Direction, Lane #</b>												
	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	92	91	88	99	5	105	3					
Volume Left	1	0	8	0	0	105	0					
Volume Right	0	0	0	20	5	0	2					
cSH	1394	1700	1392	1700	949	640	768					
Volume to Capacity	0.00	0.05	0.01	0.06	0.01	0.16	0.00					
Queue Length 95th (ft)	0	0	0	0	0	15	0					
Control Delay (s)	0.1	0.0	0.8	0.0	8.8	11.7	9.7					
Lane LOS	A		A		A	B	A					
Approach Delay (s)	0.0		0.4		8.8	11.7						
Approach LOS					A	B						
<b>Intersection Summary</b>												
Average Delay					2.9							
Intersection Capacity Utilization					29.6%			ICU Level of Service				A
Analysis Period (min)					15							

HCM Signalized Intersection Capacity Analysis  
2: NE Points Dr & Bellevue Way

Yarrow Bay Plaza Expansion  
2013 With-Project

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↗	↘	↔	↗	↘	↔	↗	↘	↔	↗	↘
Volume (vph)	73	117	143	338	152	332	19	984	397	265	931	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	13	11	12	12	11	12	15	11	11	12
Grade (%)	0%			0%			-2%			0%		
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1987	1636	1711	1863	1583	1728	3575	1759	1711	3421	1583
Fit Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1987	1636	1711	1863	1583	1728	3575	1759	1711	3421	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	77	123	151	356	160	349	20	1036	418	279	980	19
RTOR Reduction (vph)	0	0	139	0	0	260	0	0	85	0	0	3
Lane Group Flow (vph)	77	123	12	356	160	89	20	1036	333	279	980	16
Turn Type	Prot		Prot		Perm	Prot		Prot	Prot		Perm	
Protected Phases	3	8	8	7	4		5	2	2	1	6	
Permitted Phases						4						6
Actuated Green, G (s)	7.9	8.2	8.2	30.2	30.5	30.5	4.0	43.9	43.9	25.3	65.2	65.2
Effective Green, g (s)	9.9	10.2	10.2	32.2	32.5	32.5	6.0	45.9	45.9	27.3	67.2	67.2
Actuated g/C Ratio	0.08	0.08	0.08	0.25	0.25	0.25	0.05	0.36	0.36	0.21	0.53	0.53
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	137	159	131	432	475	403	81	1286	633	366	1802	834
v/s Ratio Prot	0.04	c0.06	0.01	c0.21	0.09		0.01	c0.29	0.19	c0.16	0.29	
v/s Ratio Perm						0.06						0.01
v/c Ratio	0.56	0.77	0.09	0.82	0.34	0.22	0.25	0.81	0.53	0.76	0.54	0.02
Uniform Delay, d1	56.8	57.6	54.4	45.0	38.8	37.5	58.6	36.8	32.3	47.1	20.0	14.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	18.9	0.1	11.5	0.2	0.1	0.6	3.6	0.4	8.2	0.2	0.0
Delay (s)	59.9	76.5	54.5	56.5	38.9	37.6	59.2	40.4	32.6	55.3	20.2	14.4
Level of Service	E	E	D	E	D	D	E	D	C	E	C	B
Approach Delay (s)	63.4			45.7			38.4			27.8		
Approach LOS	E			D			D			C		
<b>Intersection Summary</b>												
HCM Average Control Delay	38.8			HCM Level of Service			D					
HCM Volume to Capacity ratio	0.80											
Actuated Cycle Length (s)	127.6			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	80.1%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
3: NE Northrup Way & 108th Ave NE

Yarrow Bay Plaza Expansion  
2013 With-Project

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↗	↘	↔	↗	↘	↔	↗	↘	↔	↗	↘
Volume (vph)	185	140	338	325	405	331	460	376	111	125	352	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	9	11	11	10	13	12	11	12	12	11
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		0.95	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.93		1.00	1.00	0.85	1.00	0.98	
Fit Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1801	1425	1711	3191		1737	1759	1531	1770	3459	
Fit Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1801	1425	1711	3191		1737	1759	1531	1770	3459	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	195	147	356	342	426		348	484	396	117	371	66
RTOR Reduction (vph)	0	0	64	0	98		0	0	57	0	11	0
Lane Group Flow (vph)	195	147	292	342	676		431	449	60	132	426	0
Turn Type	Prot		pt+ov	Prot		Split		pm+ov	Split			
Protected Phases	1	6	6	4	5	2	4	4	5	3	3	
Permitted Phases									4			
Actuated Green, G (s)	17.9	31.1	73.1	30.5	43.7		37.0	37.0	67.5	21.4	21.4	
Effective Green, g (s)	19.9	33.1	75.1	32.5	45.7		39.0	39.0	71.5	23.4	23.4	
Actuated g/C Ratio	0.14	0.24	0.54	0.23	0.33		0.28	0.28	0.51	0.17	0.17	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	252	426	764	397	1042		484	490	782	296	578	
v/s Ratio Prot	0.11	0.08	0.20	c0.20	c0.21		0.25	c0.26	0.02	0.07	c0.12	
v/s Ratio Perm									0.02			
v/c Ratio	0.77	0.35	0.38	0.86	0.65		0.89	0.92	0.08	0.45	0.74	
Uniform Delay, d1	57.9	44.4	18.9	51.6	40.3		48.5	48.9	17.4	52.5	55.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.96	0.96	1.49	1.00	1.00	
Incremental Delay, d2	12.6	2.2	0.1	16.6	3.1		16.6	20.1	0.0	0.4	4.2	
Delay (s)	70.5	46.6	19.0	68.2	43.4		63.3	67.1	26.0	52.9	59.6	
Level of Service	E	D	B	E	D		E	E	C	D	E	
Approach Delay (s)	39.2			51.0			60.6			58.0		
Approach LOS	D			D			E			E		
<b>Intersection Summary</b>												
HCM Average Control Delay	52.6			HCM Level of Service			D					
HCM Volume to Capacity ratio	0.79											
Actuated Cycle Length (s)	140.0			Sum of lost time (s)			9.0					
Intersection Capacity Utilization	79.8%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
4: SR 520 WB On & 108th Ave NE

Yarrow Bay Plaza Expansion  
2013 With-Project

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↔	↔	↔	↔			↔	↔
Volume (vph)	0	0	0	297	90	650	81	354	0	0	951	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Util. Factor				0.95	0.91	0.95	1.00	1.00			0.95	1.00
Frt				1.00	0.90	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1681	1513	1504	1770	1863			3539	1583
Flt Permitted				0.95	1.00	1.00	0.21	1.00			1.00	1.00
Satd. Flow (perm)				1681	1513	1504	391	1863			3539	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	313	95	684	85	373	0	0	1001	131
RTOR Reduction (vph)	0	0	0	0	72	282	0	0	0	0	0	36
Lane Group Flow (vph)	0	0	0	282	341	115	85	373	0	0	1001	95
Turn Type				Split		Perm	pm+pt				Perm	
Protected Phases				4	4		1	6			2	
Permitted Phases						4	6					2
Actuated Green, G (s)				38.5	38.5	38.5	91.5	91.5			77.5	77.5
Effective Green, g (s)				40.5	40.5	40.5	93.5	93.5			79.5	79.5
Actuated g/C Ratio				0.29	0.29	0.29	0.67	0.67			0.57	0.57
Clearance Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Vehicle Extension (s)				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Lane Grp Cap (vph)				486	438	435	369	1244			2010	899
v/s Ratio Prot				0.17	0.23		0.02	0.20			0.28	
v/s Ratio Perm						0.08	0.14					0.06
v/c Ratio				0.58	0.78	0.26	0.23	0.30			0.50	0.11
Uniform Delay, d1				42.5	45.6	38.3	20.0	9.7			18.2	13.9
Progression Factor				1.00	1.00	1.00	1.00	1.00			0.61	0.50
Incremental Delay, d2				1.1	7.8	0.1	0.1	0.6			0.7	0.2
Delay (s)				43.6	53.4	38.4	20.1	10.3			11.8	7.1
Level of Service				D	D	D	C	B			B	A
Approach Delay (s)		0.0			45.4			12.1			11.2	
Approach LOS		A			D			B			B	
<b>Intersection Summary</b>												
HCM Average Control Delay				25.3			HCM Level of Service					C
HCM Volume to Capacity ratio				0.56								
Actuated Cycle Length (s)				140.0			Sum of lost time (s)				6.0	
Intersection Capacity Utilization				59.3%			ICU Level of Service				B	
Analysis Period (min)				15								
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis  
5: NE Points Dr & Driveway

Yarrow Bay Plaza Expansion  
2013 With-Project

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔		↔		↔	↔	↔
Volume (veh/h)	1	172	0	8	151	30	0	0	5	156	1	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1	181	0	8	159	32	0	0	5	164	1	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)								427				
pX, platoon unblocked												
vC, conflicting volume	191			181			282	391	91	289	375	95
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	191			181			282	391	91	289	375	95
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	74	100	100
cM capacity (veh/h)	1381			1392			642	540	949	634	551	943
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	92	91	88	111	5	164	3					
Volume Left	1	0	8	0	0	164	0					
Volume Right	0	0	0	32	5	0	2					
cSH	1381	1700	1392	1700	949	634	762					
Volume to Capacity	0.00	0.05	0.01	0.07	0.01	0.26	0.00					
Queue Length 95th (ft)	0	0	0	0	0	26	0					
Control Delay (s)	0.1	0.0	0.8	0.0	8.8	12.7	9.7					
Lane LOS	A		A		A	B	A					
Approach Delay (s)	0.0		0.3		8.8	12.6						
Approach LOS			A		B							
<b>Intersection Summary</b>												
Average Delay				4.0								
Intersection Capacity Utilization				33.1%			ICU Level of Service				A	
Analysis Period (min)				15								





**CITY OF KIRKLAND**

123 FIFTH AVENUE ● KIRKLAND, WASHINGTON 98033-6189 ● (425) 587-3000

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**DEPARTMENT OF PUBLIC WORKS  
MEMORANDUM**

**To:** Planning Department

**From:** Thang Nguyen, Transportation Engineer

**Date:** September 5, 2008

**Subject:** Plaza at Yarrow Bay Office Concurrency Test Notice, CON08-00002

The purpose of this memo is to inform you that the proposed redevelopment of the Plaza at Yarrow Bay Office development has passed traffic concurrency. This memo will serve as the traffic concurrency test notice.

**Project Description**

The applicant proposes to construct a new 77,000 square feet office building on the existing surface parking at the Yarrow Bay office complex located at the northwest corner of Lake Washington Blvd/Points Drive NE. The new office is estimated to generate 850 daily and 95 PM peak hour trips. The proposed development is anticipated to be built and occupied by the end of 2010.

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 (September 5, 2009) 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**

The concurrency test notice may be appealed by the public or agency with jurisdiction. The concurrency test notice is subject to an appeal until the SEPA review process is complete and the appeal deadline has passed. Concurrency appeals are heard before the Hearing Examiner along with any applicable SEPA appeal. For more information, refer to the Kirkland Municipal Code, Title 25. If you have any questions, please call me at x3869.

cc: Dan McKinney, Jr. - The Transpo Group  
file



P Plaza at Yarrow Bay		444	974	4) Transportation Concurrency Status	6) Transportation Concurrency Certificate Date:
2) Project Description: construct a 77,000 sf new office building at the east parking lot of Yarrow Bay office complex				PASS	
3) Build-out Year: 2010		factor =	1	5) Transportation Concurrency Test Date	7) Certificate of Occupancy Date
		Enter	Exit	Enter	Exit
		0	0	0	0
				Sept 3 2008	

**SUMMARY OF TRAFFIC IMPACTS**

8) Daily Trips	850	PM Peak Trips:	95	Impacted Subarea(s):	NW, NE, E, SW	TAZ:	236
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**Signalized Intersection PM Peak Traffic Impact**

Code	Intersection	Project PM Peak Turning Volumes												PM Peak Trips	Daily Trips	Sum of Critical Vol*	Vol. Capacity Ratio*
		Eastbound			Westbound			Northbound			Southbound						
		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT				
	East Driveway/Points Drive NE													0			
														0			
														0			
101	Lake Wash/NE 38th Pl							15	1			2		18			
102	Lake Wash/Lakeview Dr	1						6	7			1		15			
103	State St/NE 68th St	5	2			1							1	9			
104	108th Ave NE/NE 68th St							2	2					4			
106	Central Way/3rd St							5						5			
107	Central Way/Lake St			1				4						5			
108	Lake St/Kirkland Ave							5				1		6			
111	Kirkland Ave/3rd Ave							5				1		6			
	#N/A													0			
	#N/A													0			
	#N/A													0			
	#N/A													0			
	#N/A													0			
	#N/A													0			
	#N/A													0			

**Transportation Concurrency Test**

Subarea No	LOS Standards		LOS with Project Impacts		a <= A?	b <= B?
	A= Max. Intersection LOS	B=Average 2014 V/C	a=No. exceeding 1.4	b=Average V/C		
Southwest (1xx)	1.4	0.90	0	0.85	yes	yes
Northwest (2xx)	1.4	0.91	0	0.88	yes	yes
Northeast (3xx)	1.4	0.88	0	0.81	yes	yes
East(4xx)	1.4	1.05	0	0.85	yes	yes

**TEST RESULTS**

**Result: PASS**

\* Based on Critical Movement, Planning Method TRC #212.

1. Number of intersection exceeding Average V/C LOS Standard (2022)

1. Sixth Year Target Average V/C ratio, see step 6, part 1 of the guidelines

**City of Kirkland Traffic Concurrency Report**

Projected Volumes & Impacts For year: 2010

	Northbound			Southbound			Eastbound			Westbound		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
101	5	1316	123	63	1006	3	16	11	37	160	3	131
102	98	636	845	3	460	46	53	110	177	324	60	15
103	1	7	23	271	8	126	421	581	1	20	261	294
104	102	479	208	220	253	112	304	644	93	227	389	165
105	194	344	523	123	118	68	75	776	74	250	829	247
106	203	496	344	120	72	35	27	451	62	192	782	95
107	596	0	72	0	0	0	0	329	335	191	584	0
108	4	534	63	13	405	24	19	57	36	130	51	129
109	16	92	534	539	29	10	5	1384	1	313	1402	293
110	60	621	118	174	258	94	81	18	50	67	24	283
111	89	382	135	86	177	70	123	158	49	103	164	166
112	99	453	32	39	196	82	129	184	60	53	144	42
113	0	12	0	0	30	0	1	3	0	0	5	0
201	617	942	153	207	356	113	91	275	221	79	508	98
202	51	1064	265	369	456	43	34	69	41	364	208	931
203	347	1560	218	263	678	102	94	183	179	151	316	630
204	402	45	339	15	30	20	13	420	167	292	877	32
205	5	1648	87	16	580	4	8	1	5	49	0	19
206	25	1030	4	9	635	176	148	2	28	4	1	11
207	0	0	0	14	0	64	24	524	0	0	978	44
208	10	5	25	69	5	165	92	534	9	1019	101	85
209	42	1219	6	72	615	0	2	3	21	4	4	174
211	0	62	0	0	17	0	0	0	0	0	0	38
301	281	12	323	5	1	2	5	431	115	170	496	6
302	28	400	162	38	264	19	23	23	50	177	11	77
303	46	524	94	5	514	24	29	25	68	197	16	34
304	337	327	26	64	374	218	48	191	169	121	64	177
305	0	0	0	0	0	0	0	0	0	0	0	0
306	185	536	238	171	286	204	172	719	98	248	1158	228
307	176	273	14	658	197	26	27	252	74	239	445	358
308	118	0	110	3	4	20	20	1065	102	109	1693	11

**City of Kirkland Traffic Concurrency Report**

Projected Volumes & Impacts For year: 2010

	Northbound			Southbound			Eastbound			Westbound		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
309	131	623	0	0	388	28	56	0	211	0	0	0
310	40	176	262	373	108	122	117	604	20	184	787	573
311	547	703	209	137	360	219	205	527	227	179	619	49
312	212	275	308	419	136	135	137	782	76	253	1366	412
313	193	16	169	61	11	32	38	556	29	42	1114	118
314	1	545	197	253	452	2	2	1	1	316	0	470
315	390	591	183	231	354	193	226	764	229	201	1208	321
316	409	221	83	9	63	148	129	491	158	29	625	25
317	0	0	0	568	0	613	0	835	690	0	1314	519
318	479	0	110	0	0	2	0	1074	366	0	1389	422
319	0	0	0	0	0	0	0	611	656	583	1572	0
320	703	0	345	0	0	0	0	645	0	0	1501	0
321	0	0	0	0	0	7	4	0	0	0	0	0
322	0	0	0	0	0	0	0	5	0	0	10	0
323	0	0	0	37	0	788	704	133	0	0	50	76
324	116	636	0	1	498	12	26	0	60	0	1	1
325	14	1	10	44	4	132	68	1003	9	7	1559	35
326	77	370	203	73	144	73	54	169	57	141	387	68
327	0	0	0	0	0	0	0	597	0	0	319	0
401	87	226	40	160	121	90	140	1108	84	41	1308	363
402	174	436	68	273	11	254	379	1521	31	34	1342	328
403	239	121	53	106	43	231	232	1646	109	27	1643	78
404	43	944	76	56	508	13	13	9	24	45	14	87
405	0	0	0	3	0	1	4	1	0	0	1	8
406	110	381	163	53	224	73	159	369	63	178	510	106
407	272	530	342	15	61	176	240	492	343	268	386	26
408	58	825	14	7	478	112	332	25	60	9	24	21
409	80	75	50	73	31	96	177	1521	72	38	1521	79
410	439	361	1	0	157	558	767	1	96	1	2	4
411	0	866	209	208	640	0	0	0	9	246	0	251
412	55	37	32	19	6	26	52	1384	51	27	1623	37

**City of Kirkland Traffic Concurrency Report**

Projected Volumes & Impacts For year: 2010

	Northbound			Southbound			Eastbound			Westbound		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
413	102	461	0	0	173	112	141	0	34	0	0	0
414	0	593	79	92	110	1	0	1	0	44	1	131
415	0	0	0	0	0	0	0	0	0	0	0	0
416	115	464	31	13	202	50	48	64	74	34	184	24
417	178	1001	23	8	231	21	16	9	50	9	10	11



## Yarrow Bay Parking Data

Tuesday, December 02, 2008	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM
BUILDING 1 HNDCP	0	0	0	0	0	0
BUILDING 1 UNDERGROUND	61	77	73	76	73	71
BUILDING 1 OUTDOOR	19	22	23	26	24	24
BUILDING 2 HNDCP	0	0	0	0	0	0
BUILDING 2 UNDERGROUND	42	48	55	46	49	46
BUILDING 2 OUTDOOR	40	46	48	48	49	50
BUILDING 3 BASEMENT	7	29	34	30	34	37
BUILDING 3 MIDDLE	34	62	72	67	61	62
BUILDING 3 TOP (PLAZA)	41	53	56	54	57	52
BUILDING 3 HNDCP	1	1	1	1	1	1
BUILDING 4 HDCP	0	0	0	0	1	2
BUILDING 4 UNDERGROUND	53	64	69	60	64	71
BUILDING 4 OUTDOOR	26	30	32	29	33	35
LOT BTWN BUILDINGS 1 AND 2	8	10	10	8	9	5
NE POINTS DR	0	0	0	0	0	0

Total	332	442	473	445	455	456
3-Day Average	324	434	469	429	436	462

## Yarrow Bay Parking Data

Wednesday, December 03, 2008	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM
BUILDING 1 HNDCP	0	1	0	0	0	0
BUILDING 1 UNDERGROUND	66	79	80	63	80	81
BUILDING 1 OUTDOOR	14	21	26	27	30	30
BUILDING 2 HNDCP	0	1	1	1	1	1
BUILDING 2 UNDERGROUND	40	54	54	46	42	49
BUILDING 2 OUTDOOR	40	44	48	49	45	48
BUILDING 3 BASEMENT	14	22	28	24	33	33
BUILDING 3 MIDDLE	28	45	49	54	54	59
BUILDING 3 TOP (PLAZA)	39	46	47	43	46	50
BUILDING 3 HNDCP	1	2	1	1	1	1
BUILDING 4 HDCP	0	0	0	0	0	0
BUILDING 4 UNDERGROUND	44	62	70	65	70	69
BUILDING 4 OUTDOOR	29	39	42	37	34	34
LOT BTWN BUILDINGS 1 AND 2	7	12	12	9	9	10
NE POINTS DR	0	0	0	0	0	0

Total	322	428	458	419	445	465
3-Day Average	324	434	469	429	436	462

## Yarrow Bay Parking Data

Thursday, December 04, 2008	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM
BUILDING 1 HNDCP	0	0	0	0	0	0
BUILDING 1 UNDERGROUND	60	80	82	73	73	77
BUILDING 1 OUTDOOR	15	18	27	27	24	23
BUILDING 2 HNDCP	0	1	1	1	0	0
BUILDING 2 UNDERGROUND	40	50	51	43	39	49
BUILDING 2 OUTDOOR	34	49	48	45	47	47
BUILDING 3 BASEMENT	11	28	27	23	23	25
BUILDING 3 MIDDLE	29	52	65	58	57	59
BUILDING 3 TOP (PLAZA)	40	51	53	50	51	57
BUILDING 3 HNDCP	0	0	0	0	0	0
BUILDING 4 HDCP	0	0	0	0	0	0
BUILDING 4 UNDERGROUND	51	58	65	63	63	69
BUILDING 4 OUTDOOR	36	38	45	39	40	38
LOT BTWN BUILDINGS 1 AND 2	10	15	15	15	9	13
NE POINTS DR	0	0	0	1	1	1

Total	326	440	479	438	427	458
3-Day Average	324	434	469	429	436	462



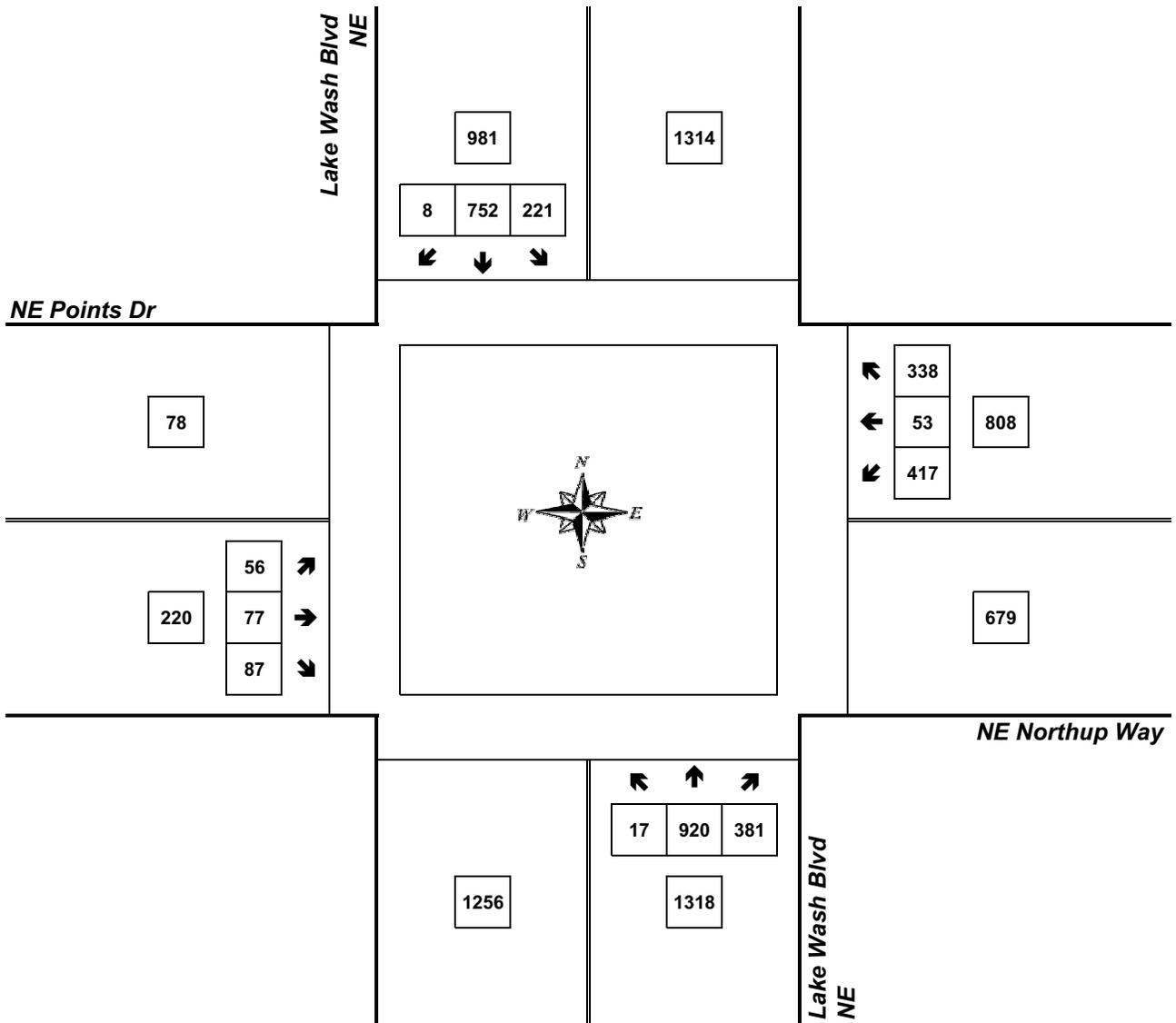
# Peak Hour Summary



Mark Skaggs  
(206) 251-0300

## Lake Wash Blvd NE & NE Northup Way

5:00 PM to 6:00 PM  
Thursday, September 18, 2008



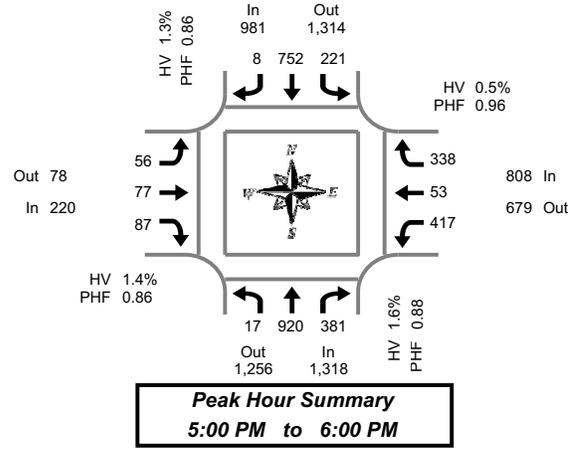
Approach	PHF	HV%	Volume
EB	0.86	1.4%	220
WB	0.96	0.5%	808
NB	0.88	1.6%	1,318
SB	0.86	1.3%	981
<b>Intersection</b>	<b>0.98</b>	<b>1.2%</b>	<b>3,327</b>

Count Period: 4:00 PM to 6:00 PM

# Total Vehicle Summary



Mark Skaggs  
(206) 251-0300



## Lake Wash Blvd NE & NE Northup Way

Thursday, September 18, 2008  
4:00 PM to 6:00 PM

### 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Lake Wash Blvd NE				Southbound Lake Wash Blvd NE				Eastbound NE Points Dr				Westbound NE Northup Way				Interval Total
	L	T	R	HV	L	T	R	HV	L	T	R	HV	L	T	R	HV	
4:00 PM	5	208	89	9	56	157	6	3	8	10	15	0	62	4	51	2	671
4:15 PM	2	202	85	9	45	158	2	7	6	16	14	0	91	9	58	1	688
4:30 PM	5	180	107	10	51	167	4	6	12	5	18	0	86	9	80	0	724
4:45 PM	3	238	79	6	52	179	2	6	7	20	15	0	94	7	68	1	764
5:00 PM	4	209	80	5	61	173	1	4	18	25	21	2	115	17	66	1	790
5:15 PM	3	224	92	6	63	219	2	4	17	16	21	0	110	15	69	1	851
5:30 PM	2	235	94	6	50	199	4	3	14	21	27	0	91	14	101	1	852
5:45 PM	8	252	115	4	47	161	1	2	7	15	18	1	101	7	102	1	834
Total Survey	32	1,748	741	55	425	1,413	22	35	89	128	149	3	750	82	595	8	6,174

### Peak Hour Summary

5:00 PM to 6:00 PM

By Approach	Northbound Lake Wash Blvd NE				Southbound Lake Wash Blvd NE				Eastbound NE Points Dr				Westbound NE Northup Way				Total
	In	Out	Total	HV	In	Out	Total	HV	In	Out	Total	HV	In	Out	Total	HV	
Volume	1,318	1,256	2,574	21	981	1,314	2,295	13	220	78	298	3	808	679	1,487	4	3,327
%HV	1.6%				1.3%				1.4%				0.5%				1.2%
PHF	0.88				0.86				0.86				0.96				0.98

By Movement	Northbound Lake Wash Blvd NE				Southbound Lake Wash Blvd NE				Eastbound NE Points Dr				Westbound NE Northup Way				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	17	920	381	1,318	221	752	8	981	56	77	87	220	417	53	338	808	3,327
PHF	0.53	0.91	0.83	0.88	0.88	0.86	0.50	0.86	0.78	0.77	0.81	0.86	0.91	0.78	0.83	0.96	0.98

### Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Lake Wash Blvd NE				Southbound Lake Wash Blvd NE				Eastbound NE Points Dr				Westbound NE Northup Way				Interval Total
	L	T	R	HV	L	T	R	HV	L	T	R	HV	L	T	R	HV	
4:00 PM	15	828	360	34	204	661	14	22	33	51	62	0	333	29	257	4	2,847
4:15 PM	14	829	351	30	209	677	9	23	43	66	68	2	386	42	272	3	2,966
4:30 PM	15	851	358	27	227	738	9	20	54	66	75	2	405	48	283	3	3,129
4:45 PM	12	906	345	23	226	770	9	17	56	82	84	2	410	53	304	4	3,257
5:00 PM	17	920	381	21	221	752	8	13	56	77	87	3	417	53	338	4	3,327

# Peak Hour Summary

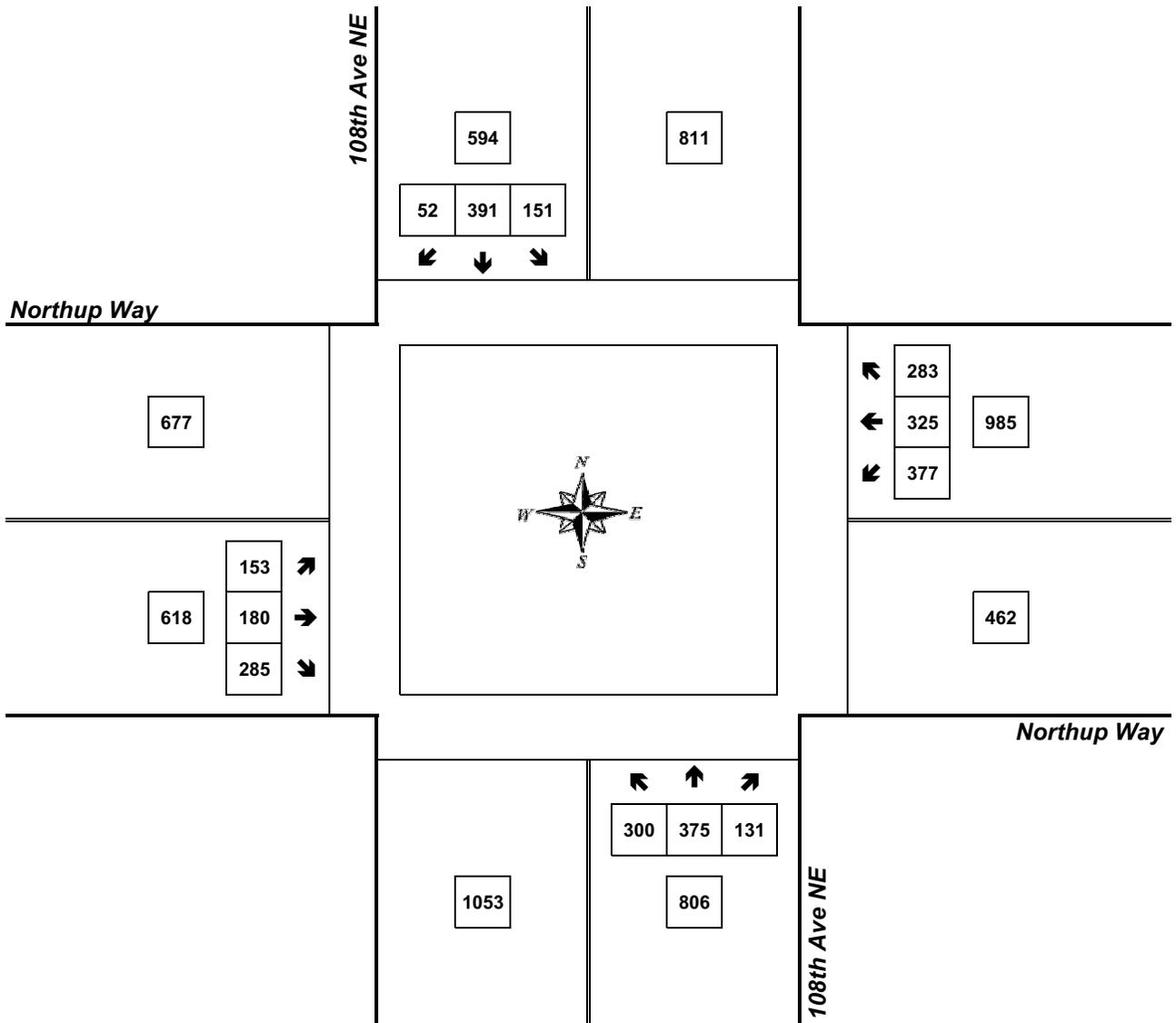


Mark Skaggs  
(206) 251-0300

## 108th Ave NE & Northup Way

4:45 PM to 5:45 PM

Monday, September 22, 2008



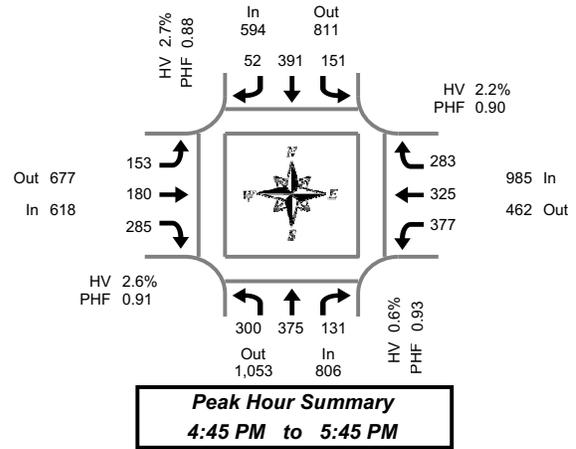
Approach	PHF	HV%	Volume
EB	0.91	2.6%	618
WB	0.90	2.2%	985
NB	0.93	0.6%	806
SB	0.88	2.7%	594
<b>Intersection</b>	<b>0.94</b>	<b>2.0%</b>	<b>3,003</b>

Count Period: 4:00 PM to 6:00 PM

# Total Vehicle Summary



Mark Skaggs  
(206) 251-0300



## 108th Ave NE & Northup Way

Monday, September 22, 2008  
4:00 PM to 6:00 PM

### 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound 108th Ave NE				Southbound 108th Ave NE				Eastbound Northup Way				Westbound Northup Way				Interval Total
	L	T	R	HV	L	T	R	HV	L	T	R	HV	L	T	R	HV	
4:00 PM	64	84	29	4	31	102	8	4	18	33	89	6	96	79	61	1	694
4:15 PM	54	79	28	1	25	87	9	4	24	40	69	5	69	64	43	3	591
4:30 PM	68	74	45	5	36	90	11	1	39	49	73	7	96	86	69	4	736
4:45 PM	72	81	40	0	32	101	14	4	33	46	71	3	95	58	64	9	707
5:00 PM	69	94	34	1	42	103	13	4	35	44	76	4	89	81	65	5	745
5:15 PM	72	100	28	1	46	108	14	5	41	48	80	4	85	96	77	4	795
5:30 PM	87	100	29	3	31	79	11	3	44	42	58	5	108	90	77	4	756
5:45 PM	77	85	32	4	29	72	14	7	26	34	66	5	61	83	52	4	631
Total Survey	563	697	265	19	272	742	94	32	260	336	582	39	699	637	508	34	5,655

### Peak Hour Summary

4:45 PM to 5:45 PM

By Approach	Northbound 108th Ave NE				Southbound 108th Ave NE				Eastbound Northup Way				Westbound Northup Way				Total
	In	Out	Total	HV	In	Out	Total	HV	In	Out	Total	HV	In	Out	Total	HV	
Volume	806	1,053	1,859	5	594	811	1,405	16	618	677	1,295	16	985	462	1,447	22	3,003
%HV	0.6%				2.7%				2.6%				2.2%				2.0%
PHF	0.93				0.88				0.91				0.90				0.94

By Movement	Northbound 108th Ave NE				Southbound 108th Ave NE				Eastbound Northup Way				Westbound Northup Way				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	300	375	131	806	151	391	52	594	153	180	285	618	377	325	283	985	3,003
PHF	0.86	0.94	0.82	0.93	0.82	0.91	0.93	0.88	0.87	0.94	0.89	0.91	0.87	0.85	0.92	0.90	0.94

### Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound 108th Ave NE				Southbound 108th Ave NE				Eastbound Northup Way				Westbound Northup Way				Interval Total
	L	T	R	HV	L	T	R	HV	L	T	R	HV	L	T	R	HV	
4:00 PM	258	318	142	10	124	380	42	13	114	168	302	21	356	287	237	17	2,728
4:15 PM	263	328	147	7	135	381	47	13	131	179	289	19	349	289	241	21	2,779
4:30 PM	281	349	147	7	156	402	52	14	148	187	300	18	365	321	275	22	2,983
4:45 PM	300	375	131	5	151	391	52	16	153	180	285	16	377	325	283	22	3,003
5:00 PM	305	379	123	9	148	362	52	19	146	168	280	18	343	350	271	17	2,927

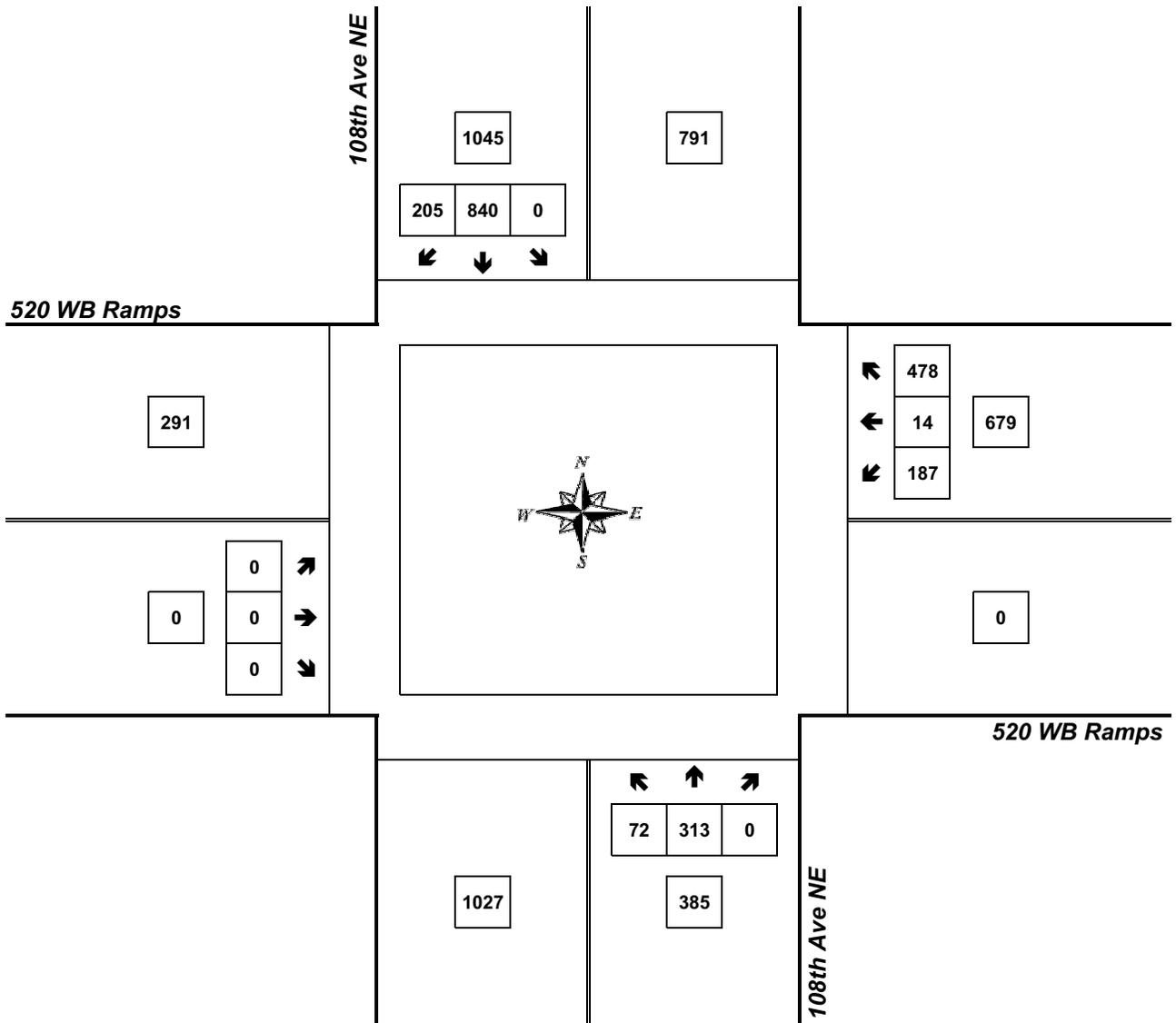
# Peak Hour Summary



Mark Skaggs  
(206) 251-0300

## 108th Ave NE & 520 WB Ramps

4:45 PM to 5:45 PM  
Monday, September 22, 2008



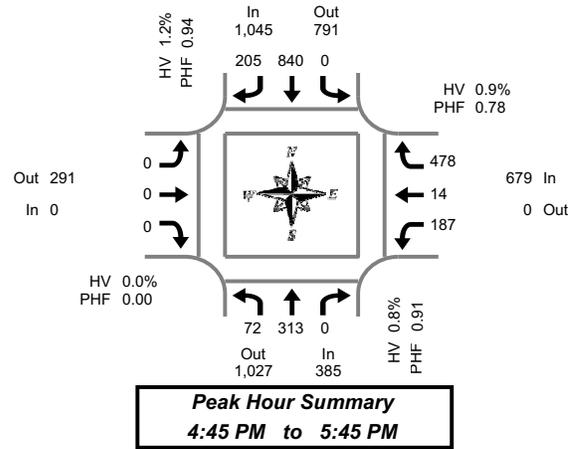
Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.78	0.9%	679
NB	0.91	0.8%	385
SB	0.94	1.2%	1,045
<b>Intersection</b>	<b>0.97</b>	<b>1.0%</b>	<b>2,109</b>

Count Period: 4:00 PM to 6:00 PM

# Total Vehicle Summary



Mark Skaggs  
(206) 251-0300



## 108th Ave NE & 520 WB Ramps

Monday, September 22, 2008  
4:00 PM to 6:00 PM

### 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound 108th Ave NE				Southbound 108th Ave NE				Eastbound 520 WB Ramps				Westbound 520 WB Ramps				Interval Total
	L	T	R	HV	L	T	R	HV	L	T	R	HV	L	T	R	HV	
4:00 PM	15	66	0	2	0	247	36	2	0	0	0	0	26	1	114	2	505
4:15 PM	14	59	0	1	0	180	44	3	0	0	0	0	33	0	100	3	430
4:30 PM	12	76	0	2	0	208	50	9	0	0	0	0	37	0	108	5	491
4:45 PM	22	74	0	0	0	203	61	4	0	0	0	0	38	1	118	1	517
5:00 PM	23	76	0	0	0	220	45	1	0	0	0	0	40	3	100	0	507
5:15 PM	22	84	0	0	0	222	55	4	0	0	0	0	41	0	120	1	544
5:30 PM	5	79	0	3	0	195	44	4	0	0	0	0	68	10	140	4	541
5:45 PM	13	61	0	1	0	170	32	4	0	0	0	0	38	0	129	2	443
Total Survey	126	575	0	9	0	1,645	367	31	0	0	0	0	321	15	929	18	3,978

### Peak Hour Summary 4:45 PM to 5:45 PM

By Approach	Northbound 108th Ave NE				Southbound 108th Ave NE				Eastbound 520 WB Ramps				Westbound 520 WB Ramps				Total
	In	Out	Total	HV	In	Out	Total	HV	In	Out	Total	HV	In	Out	Total	HV	
Volume	385	1,027	1,412	3	1,045	791	1,836	13	0	291	291	0	679	0	679	6	2,109
%HV	0.8%				1.2%				0.0%				0.9%				1.0%
PHF	0.91				0.94				0.00				0.78				0.97

By Movement	Northbound 108th Ave NE				Southbound 108th Ave NE				Eastbound 520 WB Ramps				Westbound 520 WB Ramps				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	72	313	0	385	0	840	205	1,045	0	0	0	0	187	14	478	679	2,109
PHF	0.78	0.93	0.00	0.91	0.00	0.95	0.84	0.94	0.00	0.00	0.00	0.00	0.69	0.35	0.85	0.78	0.97

### Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound 108th Ave NE				Southbound 108th Ave NE				Eastbound 520 WB Ramps				Westbound 520 WB Ramps				Interval Total
	L	T	R	HV	L	T	R	HV	L	T	R	HV	L	T	R	HV	
4:00 PM	63	275	0	5	0	838	191	18	0	0	0	0	134	2	440	11	1,943
4:15 PM	71	285	0	3	0	811	200	17	0	0	0	0	148	4	426	9	1,945
4:30 PM	79	310	0	2	0	853	211	18	0	0	0	0	156	4	446	7	2,059
4:45 PM	72	313	0	3	0	840	205	13	0	0	0	0	187	14	478	6	2,109
5:00 PM	63	300	0	4	0	807	176	13	0	0	0	0	187	13	489	7	2,035



**CITY OF KIRKLAND**

123 FIFTH AVENUE ● KIRKLAND, WASHINGTON 98033-6189 ● (425) 587-3000

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**DEPARTMENT OF PUBLIC WORKS  
MEMORANDUM**

**To:** Teresa Swan, Senior Planner

**From:** Thang Nguyen, Transportation Engineer

**Date:** February 2, 2009

**Subject:** Plaza at Yarrow Bay Office TIA Review

This memo summarizes staff review of the traffic impact analysis report and recommendation for the proposed Plaza at Yarrow Bay office development.

**Project Description**

Based on the TIA, the applicant proposes to construct a new 77,200 square feet office building (four floors) on the existing surface parking at the Yarrow Bay office complex located at the northwest corner of Lake Washington Blvd/Points Drive NE. The new building will displace 180 existing parking spaces but will add 135 net new parking stalls to the Plaza at Yarrow Bay office complex for a total of 1,084 parking stalls. The proposed building will use the existing driveway off Point Drive Northeast. The proposed development is anticipated to be built and occupied by the end of 2010.

The revised plans submitted on January 22, 2009, show a slight reduction to the proposed new building from 77,200 square feet to 74,101 square feet. The new building will displace 180 existing parking spaces in the surface and underground parking areas, but will add 107 net new parking stalls for a total of 1,056 stalls in the office complex with a total of 354,651 (280,550 sf + 74,101 sf) square feet of gross floor area.

**Trip Generation**

A trip generation study was completed for the existing office buildings at Plaza at Yarrow Bay. Based on the trip generation study, the current site has an AM and PM peak hour trip generation rates of 0.77 and 0.87 trip per 1,000 square feet of office space respectively. Using the local trip generation rate the proposed office building is estimated to generate approximately 59 AM and 67 PM peak hour trips respectively. Trip generation rate from the ITE Trip Generation Report was used to determine daily trip; using ITE's rate, the proposed project is estimated to generate approximately 850 daily trips.

**Traffic Concurrency**

ITE trip generation rates were used for the concurrency test and scoping of the traffic report. The ITE trip generation rates provide a conservative estimate of trip generation. For the concurrency test, it was estimated that the project would generate approximately 150 PM peak hour trips. 150 PM peak hour trips

were used to test traffic concurrency and the proposed project passed traffic concurrency and was granted a concurrency test notice valid until September 5, 2009. The current proposed project has a smaller building than what was analyzed in the traffic report. Since the current proposal is smaller, the trip generation would be less. Thus, the impact would be less and the result of the concurrency test is still valid.

### **APPEALS**

The concurrency test notice may be appealed by the public or agency with jurisdiction. The concurrency test notice is subject to an appeal until the SEPA review process is complete and the appeal deadline has passed. Concurrency appeals are heard before the Hearing Examiner along with any applicable SEPA appeal.

### **Trip Distribution and Assignment**

The City's traffic model provided a general PM peak hour trip assignment for the proposed project. Further adjustments were made by the traffic consultant to reflect the project driveway locations.

### **Traffic Impact**

The traffic analysis followed the City's Traffic Impact Analysis Guidelines (TIAG). The TIAG requires a Level of Service (LOS) Analysis using the Highway Capacity Manual Operational Method for intersections that have a proportionate share greater than 1%. Based on the traffic assignment presented in the traffic report, three off-site intersections and the project driveways were analyzed for traffic impact and they are:

- Points Drive NE/Northup Way/Bellevue Way
- Northup Way/NE 108<sup>th</sup> Avenue
- SR 520 Westbound Ramp/108<sup>th</sup> Avenue NE

None of the above intersections are within the City of Kirkland jurisdiction.

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 proportional share.
2. An intersection level of service is at F and the project traffic is more than 5% of the intersection proportional share.

Based on the LOS analyses, all impacted intersections analyzed are forecasted to operate at an acceptable level of service (LOS-D). Based on the mitigation criteria (as described above) within the City's TIA Guideline, specific off-site intersection improvement is not warranted.

The project driveway is calculated to operate at LOS-B, which is acceptable. There are no known conditions that would preclude project traffic from entering and exiting the driveway safely. Thus, no specific mitigation is required.

### **Parking**

Based on the TIA, currently there are 949 parking spaces at the Plaza at Yarrow Bay office complex. The proposed development would eliminate 180 surface parking spaces and replace them with 315 underground parking spaces for a net total of 1084 parking spaces. The newly revised plan would add 107 net new parking spaces for a total of 1,056 parking spaces for the entire office campus. The new parking supply provides a parking rate of approximately 1 parking stall per 336 square feet of gross building space. Based on the City of Kirkland code requirement (1 stall per 300 square feet of gross floor area), the proposed office building with 74,101 square feet gross floor area would need to provide 247 parking stalls.

Based on the revised plans submitted on January 22, 2009, the proposed development would eliminate 180 surface and underground parking spaces and replaced them with 287 parking spaces for a net total of 615 stalls for Buildings I and II. The new parking supply provides a parking rate of 1 parking stall per 355 square feet of gross building space. This is a net increase of 107 parking stalls. Based on the City of Kirkland code requirement, the proposed office building would need to provide 247 parking stalls.

The applicant is requesting for the parking modification to provide less parking than required by City's code. A parking utilization study was completed at the Plaza at Yarrow Bay office complex in accordance to City's requirements. Based on the study, 49% of the parking supply is being use by the offices. The observed peak parking demand rate is 1.69 spaces per 1,000 square feet of office. For the proposed 74,101 office building the demand would calculate to be 125 parking stalls which is 122 stalls less than the code requires. However, currently the office park demand is much less than the supply leaving approximately 480 vacant spaces. The project site is near a park and ride and transit center and is a Transportation Management Program (TMP) designated site; this combination may contribute to the lesser amount of single occupancy vehicle and in respect lessen the needs for parking. Staff agrees with the traffic analysis that the proposed parking supply can accommodate the proposed office building.

### **TMP**

The City of Kirkland requires all office building with 50,000 gross square feet or more to implement a TDM program. The TMP for the proposed building shall be similar to the current TMP at the Plaza at Yarrow Bay. At the minimum, 13 high occupancy vehicle (HOV) preferential parking spaces shall be located to the nearest access to the new building or elevator. Ten additional bike racks shall be located under cover near the building of elevator entrances. The TDM should provide a commuter information center located in a prominent location within the building that provides commuters with information on commute options and promotions. Other existing TDM programs for the existing building shall be required with the new building. The TMP shall be recorded with King County.

### **Road Impact Fees**

Per City's Ordinance 3685, Traffic Impact Fees per Impact Fee Schedule in effect January 1, 2009 is required for all developments. The fee for general office space (excluding medical office use) is \$7.40 per square foot of gross floor area. For a 74,101 square foot office building, the transportation impact fee is calculated to be \$548,347.40 ( $\$7.40 \times 74,101$  sf). Final traffic fee will be determined at time of building permit issuance.

**Staff Recommendations**

Approve the parking modification request to provide a total of 1,056 parking spaces for the Plaza at Yarrow Bay office complex which is 107 spaces more than the current supply.

Staff recommends approval of the proposed new office building in the existing office complex with the following conditions:

- Pay road impact fee
- Develop a TDM program as described in this letter and recorded with King County

If you have questions or clarification, please contact me at x3869.

cc: Dan McKinney, Jr. - The Transpo Group  
file

SEPA Memorandum Enclosure 6

is the same as

Staff Advisory Report Attachment 14



**CITY OF KIRKLAND**

123 FIFTH AVENUE ● KIRKLAND, WASHINGTON 98033-6189 ● (425) 587-3000

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**DEPARTMENT OF PUBLIC WORKS  
MEMORANDUM**

**To:** Tony Leavitt, Planner

**From:** Thang Nguyen, Transportation Engineer

**Date:** August 17, 2009

**Subject:** Plaza at Yarrow Bay Office Concurrency Test Notice Extension CON08-00002

**Project Description**

The applicant proposes to construct a new 77,000 square feet office building on the existing surface parking at the Yarrow Bay office complex located at the northwest corner of Lake Washington Blvd/Points Drive NE. The new office is estimated to generate 850 daily and 95 PM peak hour trips. The proposed development is now anticipated to be built and occupied by the end of 2011. The current concurrency test notice for the proposed development will expire on September 5, 2009.

The applicant at Plaza at Yarrow Bay is requesting a concurrency test notice extension. The applicant has indicated that they have been diligent in the process of obtaining the necessary development permits but are being delayed that is out of their control. The applicant is request additional time to complete the development application and permits.

Public Works is granting the applicant a one year extension on the Concurrency Test Notice. This letter will serve as the concurrency test notice extension. The concurrency test notice extension will expire on September 5, 2010 unless a development permit and certificate of concurrency are issued. Otherwise, the applicant will be required to submit a new concurrency test application and testing at the expiration of this concurrency test notice extension.

**APPEALS**

The concurrency test notice may be appealed by the public or agency with jurisdiction. The concurrency test notice is subject to an appeal until the SEPA review process is complete and the appeal deadline has passed. Concurrency appeals are heard before the Hearing Examiner along with any applicable SEPA appeal. For more information, refer to the Kirkland Municipal Code, Title 25. If you have any questions, please call me at x3869.

cc: Keith Maehlum, HAL Realestate  
file





October 24, 2008

AOA-3773

Teresa Swan, Senior Planner  
City of Kirkland  
123 5<sup>th</sup> Ave.  
Kirkland, WA 98033

**SUBJECT: Plaza at Yarrow Bay – Building V, Kirkland, WA  
Wetland Buffer Modification Report**

Dear Teresa:

The purpose of this report is to outline the proposed wetland buffer enhancement and subsequent monitoring that will be conducted as part of a wetland buffer reduction proposal for the subject property.

The wetland on the property was delineated on November 7, 2007 by the Watershed Company (TWC) and was determined by TWC to meet the criteria for a Type 1 wetland located in a primary basin (i.e., Yarrow Creek). Type 1 wetlands in primary basins in the City of Kirkland require standard 100-foot buffers. The wetland delineation methodology and findings are described in the January 14, 2008 Wetland Delineation Study report prepared by TWC.

Most of the existing standard buffer for the wetland in the vicinity of the proposed project consists of existing asphalt parking. The only vegetated portion of the buffer is located off-site to the north and consists of a flood protection berm that is currently being installed by the City. It is our understanding that this portion of the buffer will be planted by the City in the near future.

Under the proposed project, 5,050 s.f. of the paved parking portion of the wetland buffer in the northern portion of the site would be reduced and 14,300 s.f. of existing developed buffer would be enhanced through the removal of pavement and planting with a variety of native tree and shrub species. As required by KZC 90.60.2.a.2, in no case would the standard 100-foot buffer be reduced by more than one third at any point adjacent to any new development (**Drawings W1.1, W1.2, and W1.3**). Furthermore, no buildings would be constructed within the 10-foot structure setback from the wetland buffer.

Following installation of the buffer enhancement plan, a split-rail fence will be installed along the buffer edge along the northern portion of the site. The 15-foot Standard 1 Category C landscape buffer for this area is included within the buffer enhancement area.

In addition, 3,300 s.f. of degraded buffer in the southern portion of the site would also be enhanced with native plantings (for a total buffer enhancement area of 17,600 s.f.). Since: 1) we are planting beyond the required 15-foot Standard 1 Category C landscape buffer for this area and 2) the adjacent park property consists of a narrow strip of land, we are hereby requesting a modification of the fence requirement in this area per KZC 95.40.6.j.

## **1.0 WETLAND BUFFER MODIFICATION**

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The City of Kirkland regulates the modification of wetland buffers under Chapter 90.60.2 of its Zoning Code. This section of the code stipulates that any City-approval of a request for a modification of a wetland buffer must be based on specific criteria. A rationale for how the proposed wetland buffer reduction and enhancement would satisfy these criteria is described below.

**1. *It is consistent with Kirkland's Streams, Wetlands and Wildlife Study (The Watershed Company, 1998) and the Kirkland Sensitive Areas Regulatory Recommendations Report (Adolfson Associates, Inc., 1998).***

The proposed buffer enhancement will increase the overall function of the buffer and would be consistent with the goals of the above documents since the existing on-site buffer is primarily paved parking.

**2. *It will not adversely affect water quality.***

The proposed project will provide a net gain in water quality treatment since the total amount of functioning buffer on the site will increase with removal of the pavement and all on-site buffer areas will be planted with native vegetation. In addition, the stormwater detention and water quality treatment components of the proposed project will not allow runoff from paved surfaces to be discharged into the wetlands without treatment.

**3. *It will not adversely affect fish, wildlife, or their habitat.***

Currently the on-site wetland buffer consists of a non-functioning paved parking area. Implementation of the buffer enhancement plan will provide additional habitat. It will increase the plant species and structural diversity of the buffer while providing a currently lacking visual and physical screen to the wetland from the proposed development, thereby increasing the areas value to wildlife.

**4. *It will not have an adverse effect on drainage and/or stormwater detention capabilities.***

The existing on-site wetland buffer is paved and does not currently provide a stormwater detention function. Through implementation of the buffer

enhancement plan, the existing paved buffer will be converted to a native forested habitat thus providing an additional detention capability that does not currently exist.

- 5. *It will not lead to unstable earth conditions or create an erosion hazard.***  
Removal of the parking area currently located within the wetland buffer is subject to an erosion control plan per City of Kirkland standards (see Civil plans). Furthermore, since the proposed buffer reduction area is not located on a steep slope, and the enhanced buffer will be vegetated with native plant species, it is not anticipated that an erosion hazard will be created.
- 6. *It will not be materially detrimental to any other property or to the city as a whole.*** Since all buffer reduction and enhancement will occur on the subject property, the modification will not be materially detrimental to any other property.
- 7. *Fill material does not contain organic or inorganic material that would be detrimental to water quality or to fish, wildlife, or their habitat.***  
Through implementation of the buffer enhancement plan, the inorganic fill material associated with the paving and underlayment will be removed from the buffer area. Imported fill material will consist of native, organic topsoils to achieve pre-development grades within the buffer enhancement area and to aid in long-term sustainability of the planted vegetation.
- 8. *All exposed areas are stabilized with vegetation normally associated with native wetland buffers, as appropriate.***  
All exposed areas within the buffer will be stabilized through installation of native woody vegetation and seeding of herbaceous vegetation.
- 9. *There is no practicable or feasible alternative development proposal that results in less impact to the buffer.***  
It is our understanding that the proposed development cannot be constructed without the buffer reduction due to parking constraints associated with the re-development project. Although replacement parking is being provided in a below grade structure, the amount of parking provided cannot be reduced further and still meet the code and market requirements for office use. Furthermore, implementation of the buffer enhancement plan will increase the functions of the buffer over current conditions.

## **2.0 WETLAND BUFFER ENHANCEMENT**

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Wetland buffer enhancement will consist of the removal of existing parking and planting the area with a variety of native trees and shrubs. Strategic placement of habitat features such as down logs will also be a component of the plan. Following implementation of the wetland buffer enhancement plan, a split-rail fence would be installed along the northern buffer edge to prevent pedestrian intrusion into the planted buffer.

## **2.1 Goal, Objectives, and Performance Standards for Enhancement Area**

The primary goal of the enhancement plan is to increase the buffer functions over current conditions. To meet this goal, the following objectives and performance standards have been incorporated into the design of the plan:

### **Objective A:**

Increase the structural and plant species diversity within the enhancement area.

#### **Performance Standard:**

*Following every monitoring event for a period of at least five years, the enhancement area will contain at least 12 native plant species. In addition, there will be 100% survival of all woody planted species throughout the enhancement area at the end of the first year of planting. Following Year 1, success will be based on an 80% survival rate or areal cover of planted or recolonized native species of 15% at construction approval, 25% after Year 1, 40% after Year 2, 60% after Year 3, and 80% after Year 5.*

### **Objective B:**

Limit the amount of invasive and exotic species within the enhancement area.

#### **Performance Standard:**

*After construction and following every monitoring event for a period of at least five years, exotic and invasive plant species will be maintained at levels below 10% total cover in all planted areas. These species include, but are not limited to, Himalayan and evergreen blackberry, reed canarygrass, morning glory, Japanese knotweed, English ivy, thistle, and creeping nightshade.*

## **2.2 Construction Management**

Prior to commencement of any work in the enhancement area, the clearing limits will be staked and any existing vegetation to be saved will be clearly marked. A pre-construction meeting will be held at the site to review and discuss all aspects of the project with the landscape contractor and the owner.

A wetland consultant will supervise plan implementation during construction to ensure that objectives and specifications of the enhancement plan are met. Any necessary significant modifications to the design that occur as a result of unforeseen site conditions will be jointly approved by the City of Kirkland and the consultant prior to their implementation.

## **2.3 Monitoring Methodology**

The monitoring program will be conducted for a period of five years, with two monitoring site visits a year (in the spring and fall). An annual report would then be submitted to the City of Kirkland.

Although the entire enhancement area will be reviewed, permanent vegetation sampling plots will be established at selected locations to incorporate all of the representative plant communities. The same monitoring points will be re-visited each year with a record kept of all plant species found. Vegetation will be recorded on the basis of relative percent cover of the dominant species within the vegetative strata.

Photo-points will be established from which photographs will be taken throughout the monitoring period. These photographs will document general appearance and progress in plant community establishment in the enhancement area. Review of the photos over time will provide a visual representation of success of the enhancement plan.

## **2.4 Maintenance Plan**

Maintenance will be conducted on a routine, year round basis. Additional maintenance needs will be identified and addressed following a twice-yearly maintenance review. Contingency measures and remedial action on the site shall be implemented on an as-needed basis at the direction of the wetland consultant or the owner.

### **2.4a Weed Control**

Routine removal and control of non-native and other invasive plants (e.g., Himalayan and evergreen blackberry, Scot's broom, reed canarygrass, Japanese knotweed, English ivy, morning glory, thistle and creeping nightshade) shall be performed by manual means whenever possible. Chemical means will only be used if necessary. Undesirable and weedy exotic plant species shall be maintained at levels below 10% total cover within any given stratum at any time during the five-year monitoring period. The following outlines treatment for specific species.

#### ***Himalayan and Evergreen Blackberry Control***

Small patches (areas <3' x 3') need to be grubbed out, large areas (>3' x 3') need to be cut down. New shoots (approx. 6" in height) which reappear should be spot-sprayed with herbicide only if necessary and under the supervision of a wetland consultant.

#### ***Reed Canarygrass Control***

Areas with reed canarygrass patches 3' x 3' or smaller need to be hand-grubbed. Patches greater than 3' x 3' shall be treated with a two-step process.

1. Areas shall be weed-whacked and selectively sprayed with Round-up only in designated spray areas if absolutely necessary (non-ponded areas). Spraying shall be done at a time when a dry period of one week or more is forecasted.
2. Areas shall be staked with cuttings (see **Staking List** and **Staking Specifications** below). During April 1 through November 30, one-gallon plants (minimum height of 18") shall be used in place of cuttings.

#### ***Staking List: Options for Planting (from wet to dry)***

Wetter	Black twinberry	<i>Lonicera involucreta</i>
	Scouler willow	<i>Salix scouleriana</i>
Drier	Black cottonwood	<i>Populus trichocarpa</i>

#### ***Staking Specifications:***

Cuttings can be purchased or gathered from approved mature sources. Cuttings shall be installed at 1' O.C. spacing over the infested reed canarygrass areas and

extending 2' in each direction, unless otherwise specified. Cuttings shall be 2-year old wood, 4' length, 1/2" diameter, with all side branches removed and installed to a minimum depth of 12 inches.

#### **2.4b General Maintenance Items**

Routine maintenance of planted trees shall be performed. Measures include resetting plants to proper grades and upright positions. Tall grasses and other competitive weeds shall be weeded at the base of plants to prevent engulfment. Weed control should be performed by; hand removal, installation of weed barrier cloth with mulch rings, or selective weed-whacking. If weed-whacking is performed, great care shall be taken to prevent damage to desired native species either planted or re-colonized. Woody plants shall only be pruned at the direction of the wetland consultant or to remove pest infestations.

#### **2.5 Contingency Plan**

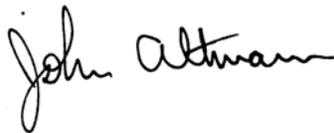
All dead plants will be replaced with the same species or an approved substitute species that meets the goal of the enhancement plan. Plant material shall meet the same specifications as originally-installed material. Replanting will not occur until after reason for failure has been identified (e.g., moisture regime, poor plant stock, disease, shade/sun conditions, wildlife damage, etc.). Replanting shall be completed under the direction of the wetland consultant, City of Kirkland, or the owner.

#### **2.6 As-Built Plan**

Following completion of construction activities, an as-built plan for the enhancement area will be provided to the City of Kirkland. The plan will identify and describe any changes in relation to the original approved plan.

If you have any questions please call me at (425) 333-4535.

Sincerely,  
ALTMANN OLIVER ASSOCIATES, LLC



John Altmann  
Ecologist

December 19, 2008

Teresa Swan  
City of Kirkland  
Planning and Community Development  
123 – 5<sup>th</sup> Avenue  
Kirkland, WA 98033

Re: **Plaza at Yarrow Bay – Buffer Modification Plan Review**  
The Watershed Company reference number: 060701. 43

Dear Teresa:

Thank you for the opportunity to review the October 24, 2008 wetland buffer modification proposal prepared by Altmann Oliver Associates, LLC (AOA). This proposal consists of a six-page letter with attached figures, and a mitigation plan in the form of three half-size sheets. I also made a site visit to review the proposed buffer planting areas on December 16, 2008.

The applicant proposes a new office building with first-floor parking in an area that is currently parking lot and associated landscaping. The new building would be situated outside of stream and wetland buffers, though one row of parking stalls is proposed within the outer portion of the wetland buffer. Compensation for the proposed buffer reduction involves removal of existing parking, driveway, and associated non-native landscaping, and restoration with native vegetation and woody debris. An additional area of lawn and invasive blackberry is also proposed for restoration southwest of the proposed building.

### **Findings**

The proposal is well presented and provides justification for how the proposal complies with the criteria for such reductions listed in Kirkland Zoning Code section 90.60.2. However, some plan changes and additional clarifications are required prior to a recommendation for approval to the planning department.

Douglas-fir and western red cedar trees are proposed within 10 feet of existing building 2. These trees attain great size when mature and may present future maintenance problems or hazards to the building. These trees should be replaced with smaller species in the immediate vicinity of the building. Additionally, all enhancement plantings should be held back by at least five feet where proposed directly adjacent to existing buildings 1 and 2 such that there is sufficient room for maintenance or repair of the structures.

A topographically low area is found approximately 80 feet south of existing building 2. This area is within the proposed buffer restoration area and is currently drained by a catch basin set into the parking lot driveway. No details are provided on the future drainage conditions for this area. If the catch basin and storm water system are to remain, it is likely the proposed large trees will pose a maintenance or damage risk to the pipe, either from root damage or from

periodic clogging. If the system is to be removed, the area will likely pond water and a wetland condition will be created. The proposed vegetation will not be suitable to the wetter conditions. Finally, the ponded area may overflow into the parking lot to the south. The best solution may be to create a small channel to carry storm water south where it could enter the storm water system via a new catch basin fitted with a "trash rack" along the northern edge of the remaining paved area.

Similarly, Sheet W1.1 shows another storm water line running from Lake Washington Boulevard west through the planted buffer and ending at an intersection of two other storm water lines just west of the proposed new building staircase. Will this line be removed, retrofitted, or decommissioned? If it must remain in the buffer, will proposed large trees cause future maintenance or damage problems?

Shallow inundation was noted along the property line adjacent to Planting Plan A, and species proposed in this vicinity are appropriate for these conditions. However, areas along the property line at the west and east ends of the planting area are much drier. These drier areas are not suitable to the proposed Sitka spruce, Oregon ash, red-osier dogwood, and black twinberry plantings.

Portions of the area covered by Planting Plan B (Sheet W1.2) are currently maintained lawn. Is the intent of this plan to eliminate lawn in this area? If so, this detail should be added with specifics on how lawn is to be eradicated. Also, proposed plant density is likely not high enough to compete with lawn grasses and other weeds and meet specified performance standards. Area-wide mulch will assist in preventing reemergence of lawn grasses.

The proposed planting area directly abuts a City of Kirkland revegetation effort associated with an emergency flood relief project on Cochran Springs Creek. Temporary, biodegradable markers are needed along the boundary such that maintenance and monitoring crews can clearly differentiate between the two projects. A row of 2X2 cedar stakes along the property line would suffice, and would likely last for the full five-year management period.

The cutting installation detail on Sheet W1.2 contains illegible text that appears to be a text formatting problem.

No bond quantity worksheet or estimate was provided for review as required in KZC 90.145.

### **Recommendations**

- 1) Specify smaller tree species or shrubs adjacent to buildings and provide a minimum of 5 feet of separation between buildings and proposed restoration plantings.
- 2) Consider a drainage channel or other proposal to manage water accumulation in the topographically low section of the restoration area.

- 3) Decommission or move the storm water line extending west from Lake Washington Boulevard within the revegetated buffer area. If it must remain, consider the need to move large trees from above the line to avoid future damage to the system.
- 4) Reevaluate suitability of wetland vegetation proposed along the property line of Planting Plan A at the east and west ends.
- 5) Clarify whether lawn will be removed in the area covered by Planting Plan A. If lawn removal is planned, consider increasing plant density or developing different performance standards for this area.
- 6) Propose cedar stakes or similar markers placed along the property line within Planting Plan A to demarcate the boundary between this and the adjacent City of Kirkland replanting area.
- 7) Reformat or otherwise clarify text accompanying detail 4 on Sheet W1.2.
- 8) Provide an itemized bond quantity estimate for review. The estimate should include all installation costs plus costs associated with monitoring and maintenance for the five-year establishment period.

The applicant should address each of the points noted above to ensure the buffer reduction proposal will be in conformance with the letter and intent of the Kirkland Zoning Code.

Please call with any questions.

Sincerely,



Hugh Mortensen, PWS  
Senior Ecologist



## Teresa Swan

---

**From:** Simone Oliver [simone@altoliver.com]  
**Sent:** Wednesday, January 28, 2009 10:09 AM  
**To:** hmortensen@watershedco.com  
**Cc:** 'Juan Garcini'; 'Keith Maehlum'; Teresa Swan; 'Jon Turcott'  
**Subject:** Plaza at Yarrow Bay - Buffer Modification - WC 060701.43 - AOA 3773

Hi Hugh,

I received your voice mail regarding the revised Buffer Enhancement Plan for the above-reference project. The report portion of this project did not change over the 10/24/08 version in response to your comments in the 12/19/08 letter to Teresa Swan. I apologize for not having provided a comment letter however, describing our responses to your comments to ease you in plan review. Following are our responses to your 8 recommendations in that letter.

1. The planting plan was revised to provide 5' of bark mulch between the building and the plantings for access. We also planted only vine maple and hazelnut (along with shrubs and groundcover) nearest the building and held the larger tree species a minimum of 20' away from the buildings.
2. The topographically low spot in the buffer will no longer be there after the enhancement plan is implemented as topsoil fill is being placed in the buffer to create a shallow slope down to the flood protection berm installed by the City to the north of the site. The existing storm system associated with this catch basin (and all others in the existing parking area) will be removed. See the revised civil plans that depict system removal and the proposed grades in the buffer. Our plan also depicts the proposed grading in the buffer and topsoil placement in the specifications.
3. The existing line through the buffer is a sanitary sewer line that will remain. We have moved the larger trees off the line and planted only vine maple, hazelnut and shrubs in the vicinity of the line.
4. We revised the planting plan to include more upland species on the east and west ends of Planting Plan A.
5. The planting plan was revised to include removal of all lawn and installation of kinnickinnik as a groundcover under the proposed dense shrub plantings within the area of Planting Plan B.
6. The specifications were revised to include survey and permanent staking of the boundary of the property line between Planting Plan A and the City's restoration project. See Part 1 – Survey / Stake / Flag Limits of Clearing and Property Line on Drawing W1.3.
7. This detail was revised.
8. The bond estimate was provided.

If you have any additional questions or need clarification on any of the plan revisions, please let me know.

Thank you Hugh,

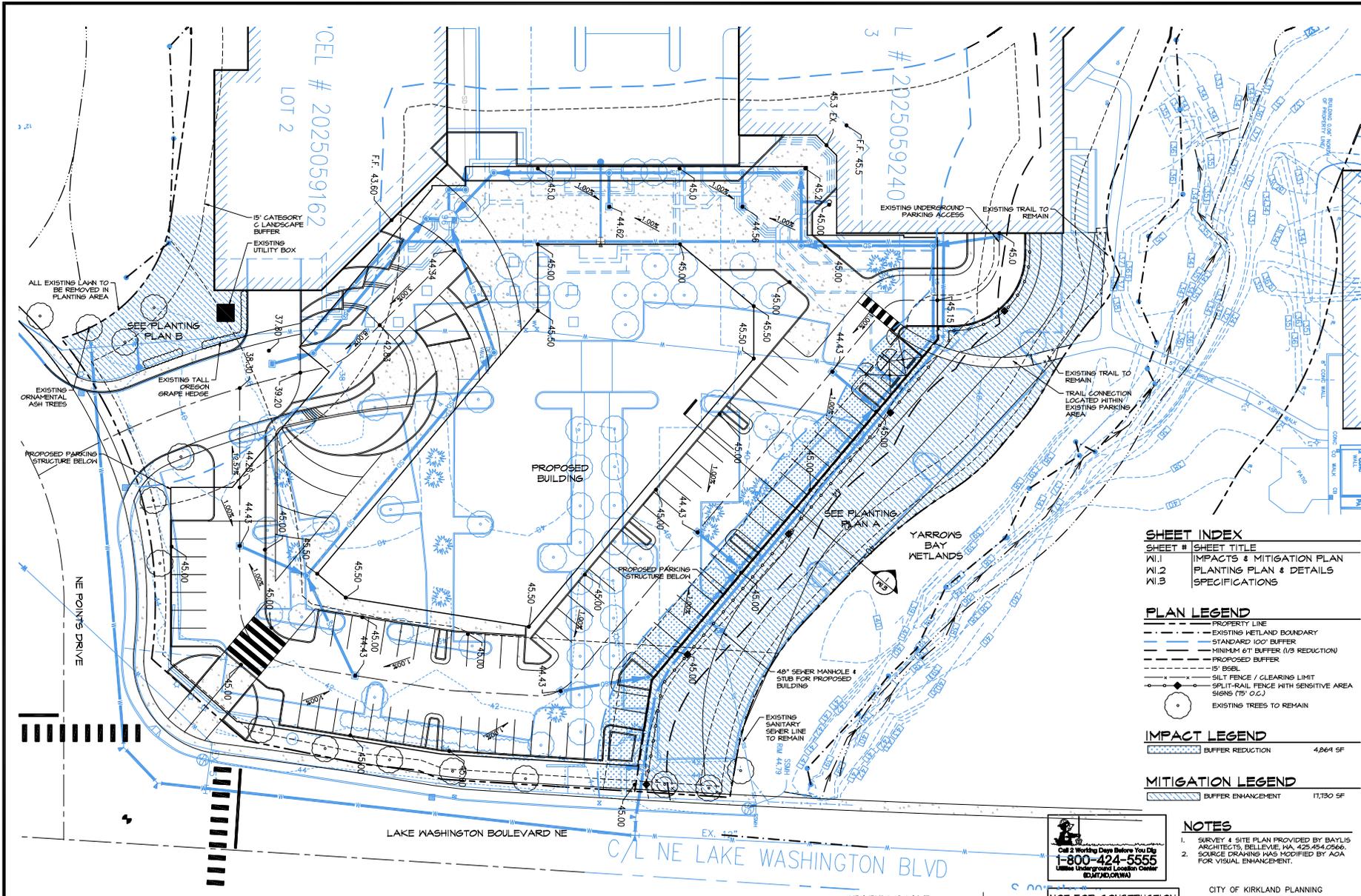
### **Simone Oliver, LA**

Altmann Oliver Associates, LLC  
PO Box 578  
Carnation, WA 98014  
425.333.4535  
[simone@altoliver.com](mailto:simone@altoliver.com)  
[www.altoliver.com](http://www.altoliver.com)



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**IMPACTS & MITIGATION PLAN**

**SHEET INDEX**

SHEET #	SHEET TITLE
MI.1	IMPACTS & MITIGATION PLAN
MI.2	PLANTING PLAN & DETAILS
MI.3	SPECIFICATIONS

**PLAN LEGEND**

	PROPERTY LINE
	EXISTING WETLAND BOUNDARY
	STANDARD 100' BUFFER
	MINIMUM 67' BUFFER (1/3 REDUCTION)
	PROPOSED BUFFER
	5' BSBL
	SILT FENCE / CLEARING LIMIT
	SILT-TRAIL FENCE WITH SENSITIVE AREA SIGNS (75' O.C.)
	EXISTING TREES TO REMAIN

**IMPACT LEGEND**

	BUFFER REDUCTION	4,864 SF
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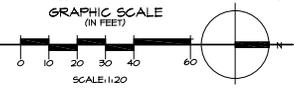
**MITIGATION LEGEND**

	BUFFER ENHANCEMENT	11,730 SF
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**NOTES**

- SURVEY 4 SITE PLAN PROVIDED BY BAYLIS ARCHITECTS, BELLEVUE, WA, 425-454-0566.
- SOURCE DRAINING HAS MODIFIED BY ADA FOR VISUAL ENHANCEMENT.

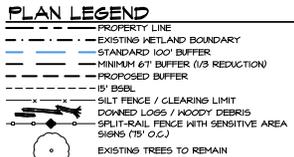
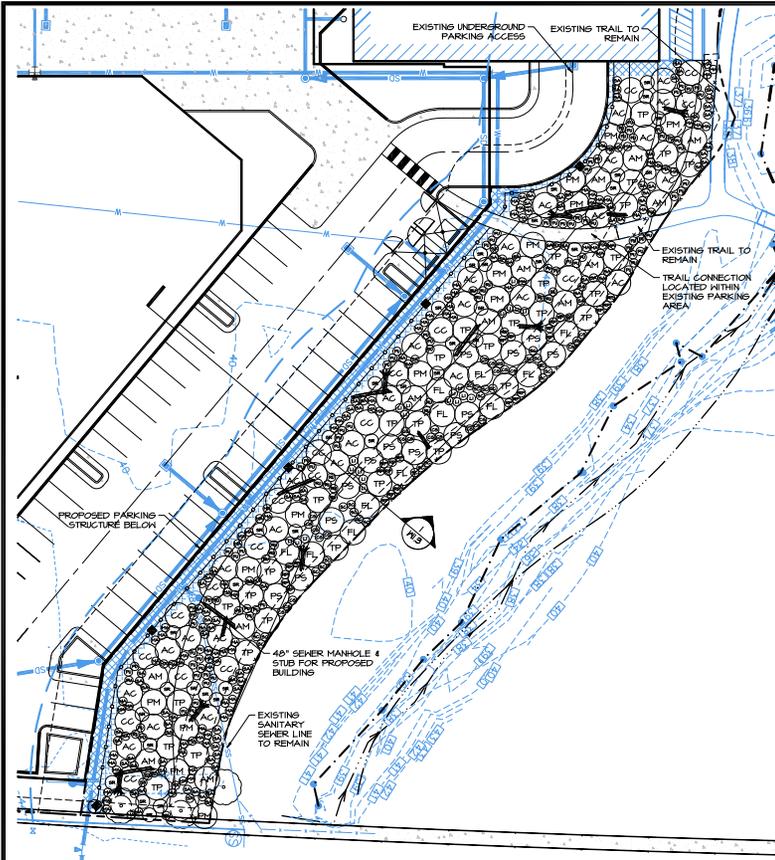
CITY OF KIRKLAND PLANNING AND DEVELOPMENT SERVICES  
 APPROVED FOR CONSTRUCTION  
 BY: \_\_\_\_\_  
 R/W PERMIT NO. \_\_\_\_\_



**NOT FOR CONSTRUCTION**  
 THESE PLANS HAVE BEEN SUBMITTED TO THE APPROPRIATE AGENCIES FOR REVIEW AND APPROVAL. UNTIL APPROVED, THESE PLANS ARE SUBJECT TO REVISION

**1-800-424-5555**  
 Utility Underground Location Center (UULOCORWA)

By	CLC/DA/SL
Date	02-20-24
Revisions	CITY COMMENTS
Date	12-30-23
Scale	AS NOTED
Project#	5174
Sheet #	MI.1



### MITIGATION PLANT SCHEDULE

TREES						
KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY	SIZE (MIN)	NOTES
AC	ACER GRCINATUM	VINE MAPLE	4' O.C.	20	2 GAL.	MULTI-STEM (3 MIN)
AM	ACER MACROPHYLLUM	BIGLEAF MAPLE	4' O.C.	13	2 GAL.	SINGLE TRUNK, WELL BRANCHED
CC	CORYLUS CORNUTA	WESTERN HAZELNUT	4' O.C.	10	2 GAL.	MULTI-STEM (3 MIN)
FL	FRAXINUS LATIFOLIA	OREGON ASH	4' O.C.	11	2 GAL.	SINGLE TRUNK, WELL BRANCHED
PS	PICEA SITCHENSIS	SITKA SPRUCE	4' O.C.	15	2 GAL.	FULL # BUSHY
PM	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	4' O.C.	14	2 GAL.	FULL # BUSHY
TP	THUJA PLICATA	WESTERN RED CEDAR	4' O.C.	31	2 GAL.	FULL # BUSHY

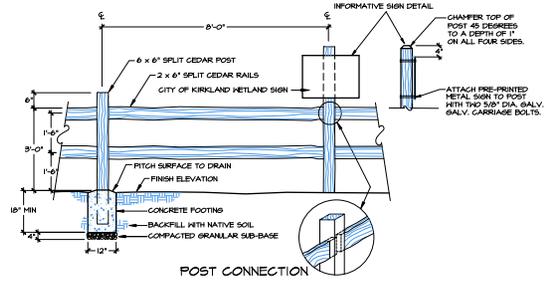
SHRUBS						
KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY	SIZE (MIN)	NOTES
OS	CORNUS SERICEA	RED-OSIER DOGWOOD	3' O.C.	26	1 GAL.	MULTI-CANE (3 MIN)
LI	LONGERA INVOLUCRATA	BLACK THIN-BERRY	3' O.C.	30	1 GAL.	MULTI-CANE (3 MIN)
MA	MAHONIA AQUIFOLIUM	TALL OREGON GRAPE	3' O.C.	135	1 GAL.	FULL # BUSHY
FL	POLYSTICHUM MUNITUM	SWORD FERN	3' O.C.	119	1 GAL.	FULL # BUSHY
RF	ROSA FISOCARPA	CLUSTERED ROSE	3' O.C.	41	1 GAL.	MULTI-CANE (3 MIN)
RU	RUEBIS SPECTABILIS	SALMONBERRY	3' O.C.	33	1 GAL.	MULTI-CANE (3 MIN)
SC	SALIX SCOULERIANA	SCOULER WILLOW	3/SYMBOL	75	4" CUTTING	1/2" DIA. MIN. BARK INTACT
SR	SAMBUCUS RACEMOSA	RED ELDBERRY	3' O.C.	51	1 GAL.	MULTI-CANE (3 MIN)
SA	SYMPLOCARPOS ALBUS	SNOWBERRY	3' O.C.	134	1 GAL.	MULTI-CANE (3 MIN)

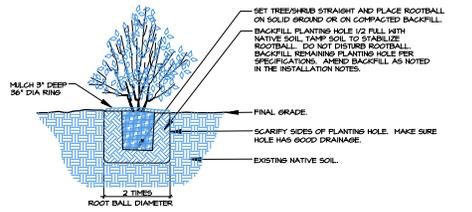
GROUND COVER						
KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY	SIZE (MIN)	NOTES
AR	ARCTOSTAPHYLOS UVA-URSI	KINKINNICK	18" O.C.	834	1 GAL.	FULL # BUSHY
SA	SALICARIA SHALLON	SALAL	24" O.C.	10	1 GAL.	FULL # BUSHY

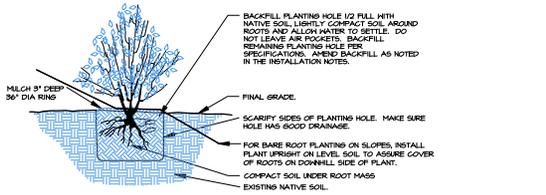
BUFFER SEED MIX			Application rate per acre
% SEED	Species	NAME	
20%	10#	TRIFOLIUM REPENS - WHITE CLOVER	HYDROSEED 50#/ac.
80%	40#	REGREEN - STERILE WHEAT GRASS HYBRID	



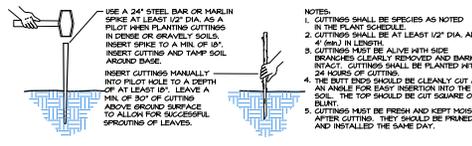
1 SPLIT-RAIL FENCE WITH SENSITIVE AREA SIGNS SCALE: NTS



2 CONTAINER TREE/SHRUB PLANTING (TYP.) SCALE: NTS



3 BARE-ROOT TREE/SHRUB PLANTING (TYP.) SCALE: NTS



4 CUTTING INSTALLATION (TYP.) SCALE: NTS

### GENERAL PLANTING INSTALLATION NOTES

- PLANT TREE 1/ OR SHRUB 1/2" HIGHER THAN DEPTH GROWN AT NURSERY.
- FOR CONTAINER TREES 1/ OR SHRUBS, SCORE FOUR SIDES OF ROOTBALL PRIOR TO PLANTING, BUTTERFLY ROOTBALL IF ROOT CIRCLING IS EVIDENT.
- WATER IMMEDIATELY AND THOROUGHLY, HEAVIER AT FIRST, 2 OR 3 TIMES PER WEEK THROUGH THE DRY SEASON, THEN LESS UNTIL ESTABLISHED.
- FERTILIZE ALL TREES AND SHRUBS WITH AN APPROVED, SLOW RELEASE FERTILIZER APPLIED AT MANUFACTURER'S SUGGESTED RATES.
- ALL PLANTING PITS SHALL BE AMENDED WITH A SOIL MOISTURE RETENTION AGENT TO ASSIST IN KEEPING THE SOIL MOIST DURING THE DRY SEASON.

**Call 2 Working Days Before You Dig**  
**1-800-424-5555**  
 Utilities Underground Location Center  
 (DUJADU) (UWA)

**NOT FOR CONSTRUCTION**  
 THESE PLANS HAVE BEEN SUBMITTED TO THE APPROPRIATE AGENCIES FOR REVIEW AND APPROVAL. UNTIL APPROVED, THESE PLANS ARE:  
**SUBJECT TO REVISION**

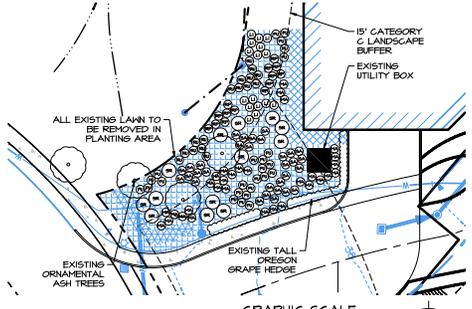
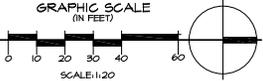
### NOTES

- SURVEY & SITE PLAN PROVIDED BY BAYLIS ARCHITECTS, BELLEVUE, WA. 425-454-0566.
- SOURCE DRAWINGS HAS MODIFIED BY AOA FOR VISUAL ENHANCEMENT.

APPROVED FOR CONSTRUCTION

By: \_\_\_\_\_  
 R/W PERMIT NO. \_\_\_\_\_

PLANTING PLAN A



PLANTING PLAN B



**Altmann Oliver Associates, LLC**  
 Environmental  
 Landmarks  
 Architects  
 1000 1st Ave. N.W.  
 Everett, WA 98201  
 Phone: 425.335.4333  
 Fax: 425.335.4334  
 Email: info@aoa-llc.com

**BUFFER ENHANCEMENT PLAN  
 PLANTING PLAN & DETAILS  
 PLAZA AT YARROW BAY - BUILDING "Y"  
 KIRKLAND, WASHINGTON**

By	Date	Scale	Project#	Sheet #
CLC/CLC/SL	01/20/20	AS NOTED	12-30-09	11/2
Revisions	CITY COMMENTS			

**SPECIFICATIONS**

**PART 1 - GENERAL SITE CONDITIONS**

**GENERAL SITE CONDITIONS**

Contractor shall give AOA a minimum of ten (10) days notice prior to intention to proceed with construction.

No construction work shall commence until there is a meeting between the client, AOA, General, Clearing and/or Earthwork Contractors, and participating Contractors and approved plans and specifications shall be reviewed to allow parties involved to understand the intent and the specific details related to the construction documents, specifications, and site constraints.

Locations of existing utilities have been established by field survey or obtained from available records and should be considered approximate only and not necessarily complete. It is the sole responsibility of the Contractor to (1) independently verify the accuracy of utility locations and (2) discover and avoid any utilities within the enhancement areas) not shown which may be affected by implementation of this plan. Such areas are to be clearly marked in the field. AOA shall resolve any conflicts with the approved plan prior to start of construction.

A copy of the approved plans may be at site whenever construction is in progress and shall remain on site until project completion.

Construction must be performed in accordance with the City of Kirkland standards, codes, permit conditions, and other applicable ordinances and policies.

The applicant is responsible for obtaining any other related or required permits prior to the start of construction.

A qualified wetland consultant shall be on site, as necessary, to monitor construction and approve minor revisions to the plan. At a minimum, the following inspections and oversight by AOA or another qualified wetland professional is needed: a. An initial pre-construction meeting with the contractor and sub-contractors, b. Immediately following survey stake placement, c. Twice during clearing operations, d. Inspect woody debris selection stockpiling and placement, e. Inspect and approve or reject delivered plant material, f. Inspect planting layout, g. Final as-built inspection and punch-list walkthrough with the contractor.

**SURVEY/STAKE/FLAG LIMITS OF CLEARING A PROPERTY LINE**  
Prior to any construction, a licensed surveyor shall survey, stake, and flag the clearing limits. 2"X2"X24" cedar stakes shall be placed 12" deep at 20' O.C. along the property line within Planting Plan A to demarcate the boundary adjacent to the City of Kirkland replanting area. AOA shall review and approve flagging/staking prior to any earthwork.

Contractor shall be responsible for avoiding disturbance to all significant trees located within the enhancement area. Contractor shall exercise care to protect from injury to trunk, roots, or branches, of any trees or shrubs that are to remain. Any living woody plant that is damaged during construction shall be treated within 24-hours of occurrence. AOA shall be notified immediately of incident. Wound sheathing treatment shall be done. Hand shaping includes, but is not limited to: evenly cutting broken branches, excised roots and damaged tree bark immediately after damage occurs. Injured plants shall be thoroughly watered and additional measures shall be taken, as appropriate, to aid in plant survival.

**EROSION CONTROL MEASURES**  
As construction progresses and seasonal conditions dictate, erosion control facilities shall be maintained and/or altered as required by AOA to ensure continued erosion/sedimentation control per the approved TESC plan prepared by the project civil engineer.

Where possible, natural ground cover vegetation shall be maintained for silt control.

Contractor shall ensure that adjacent roads are maintained and clear of soil and/or other debris at all times during construction. Contractor shall comply with City Of Kirkland codes regarding street maintenance/cleaning during construction.

**SITE CLEARING & REMEDIATION**

During clearing of street trees on site, small trees and branches not being utilized as habitat features (see below), shall be ground up into coarse wood chips for later use as mulch around planted trees and shrubs. Contractor shall determine stockpile location for ground up wood chips.

**CLEAR AND GRUB**  
Contractor shall clear all non-organic debris (asphalt, concrete, gravel, underlay, etc.) and any invasive plants (including roots) within the enhancement area with the exception of flagged existing vegetation to remain. Areas of existing vegetation. Contractor shall remove blackberry and other invasive species by hand, with minimal disturbance to the existing vegetation. Cleared and grubbed vegetation shall be exported from the site. Forsteria care must be given to ensure complete removal of tops and roots of reed canarygrass plants and any other invasive/toxic plant species. Invasive/toxic plant species to be removed and treated in the enhancement area are: Scot's broom, English Ivy, Himalayan and evergreen blackberry, reed canarygrass, purple loosestrife, hedge bindweed (morning glory), Japanese knotweed, bistle, and creeping nightshade.

AOA to designate any additional plant species to be removed/treated prior to construction.

**PLACE IMPORTED TOPSOIL**  
Upon completion of parking lot removal and grubbing of non-native vegetation, imported 3-way topsoil (Gardner Grove or equivalent) shall be placed within the enhancement area to proposed grades per the civil grading plan. AOA shall review topsoil placement prior to installation of plant material. On-site topsoil shall not be used due to the high quantity of non-native weeds within it.

**PLACE HABITAT FEATURES**  
Place habitat features upon completion of imported topsoil placement as depicted on Drawing H12. All habitat features shall be broken into pieces (as defined below) prior to placement in the enhancement area. AOA shall approve locations prior to placement.

Down logs shall consist of a stump and a minimum length of 15' of trunk with a DBH of at least 12". Street trees cleared from the parking area can be utilized as down logs if they meet the minimum size requirements. Otherwise, down logs will need to be imported.

To cutbreak down logs, first score the log at the desired length by mechanical means, snap the log at the scored location to create a natural look to the break. Twist broken ends to disguise saw cuts. Cut ends of habitat features shall have no blunt ends.

AOA shall be notified 48 hrs prior to installation of the habitat features. AOA shall review habitat features during placement and any features deemed unsatisfactory by AOA (due to damage during relocation or installation) shall be replaced with imported material at Contractor's expense.

**SOIL STABILIZATION**  
If there is a delay in construction for any reason, Contractor, unless otherwise stated in writing, shall be responsible for maintenance of erosion control measures, drainage and temporary drip irrigation during construction delay period.

**WARRANTY**  
Contractor shall ensure that construction related activities do not damage off-site features or adjacent vegetation. AOA shall be notified immediately if accidental damage occurs.

Contractor shall ensure that adjacent roads are maintained and clear of soil and/or other debris at all times during construction. Contractor shall comply with the City of Kirkland codes regarding street maintenance/cleaning during construction.

Any changes or modifications to this plan must receive prior approval from AOA.

**PART 2 - PLANTING**

**GENERAL CONDITIONS**  
In the enhancement area, the Contractor shall remove weeds or exotic invasive species (e.g., Scot's broom, English Ivy, Himalayan and evergreen blackberry) reed canarygrass, purple loosestrife, hedge bindweed (morning glory), Japanese knotweed, Canada thistle, and creeping nightshade) prior to plant installation.

Contractor shall verify that plant installation conditions are suitable within the enhancement area. Any unsatisfactory conditions shall be corrected prior to start of work. When deemed detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, significant vegetation, or obstructions, Contractor shall notify AOA prior to planting. Beginning of work constitutes acceptance of conditions as plants installed.

Plants installed in undisturbed areas shall be integrated with existing natural vegetation, and planted in a random, naturalistic pattern.

**CONTRACTOR TO VERIFY PLANT SCHEDULE WITH PLAN**  
Contractor is responsible to verify plant locations and quantities of plants on the Plant Schedule with those represented on the plan.

Actual plant quantities shown on plans are to prevail over quantities shown on the Plant Schedule in the event of a discrepancy.

**LOCATIONS TO VERIFY PLANTING AREAS**  
Contractor shall field locate, stake, and verify planting areas and configurations prior to planting. AOA shall review and approve locations prior to planting.

Proposed locations of trees and shrubs shall be staked and identified with an approved coding system or by placement of the actual plant material. For large groupings of a single species of shrub, Contractor may stake the planting boundaries. AOA shall review and approve locations of all plants and plant groupings prior to planting.

**APPROVE PLANTING LOCATIONS AND SPACING**  
Planting locations shown on planting plans are approximate, based on anticipated site conditions. Actual planting locations may vary from those shown due to final site conditions and locations of existing vegetation. Nevertheless, any variations from the planting plan will require prior approval by AOA.

Plant spacing for species listed is to be random (naturalistic), and not in a regular grid pattern. On-center spacing called out on plant list indicates an average spacing dimension. For example, when the plant calls for 36" O.C., spacing shall vary from 30"-42" O.C., with an average spacing of 36 inches.

AOA shall review planting locations and spacing prior to plant installation.

**PART 3 - PLANT MATERIAL STANDARDS**

**PLANT MATERIALS**  
AOA shall examine plant material prior to planting. Any material not meeting the required specifications shall be immediately removed from the site and replaced with like material that meets the required standards. Plant material shall meet the requirements of State and Federal laws with respect to plant disease and infestations. Inspection certificates, required by law, shall accompany each and every shipment and shall be submitted to AOA upon Contractor's receipt of plant material.

Plant materials shall be locally grown (western WA, western OR, or western BC), healthy, bushy, in vigorous growing condition, and be guaranteed true to site, name, and variety. If replacement of plant material is necessary due to construction damage or plant failure within one year of installation, the sizes, species, and quantities shall be equal to specified plants, as indicated on the plans.

Plants shall be nursery grown, well-rooted, of normal growth and habit, and free from disease or infestation. AOA reserves the right to require replacement or substitution of any plants deemed unsuitable.

Trees shall have uniform branching single straight trunks, (unless specified as multi-stemmed), and the central leader intact and undamaged. Container stock shall be fully rooted but not root-bound. Plant material with damaged root zones or broken root balls will not be accepted.

Container trees shall be nursery grown, full and bushy, and with uniform branching and a natural non-shored form. Original central leader must be healthy and undamaged.

Shrubs shall be 1 gallon container stock.

Native plant cuttings shall be grown and collected in the maritime Pacific Northwest. Cuttings shall be of one- to two-year-old wood 1/2" dia. minimum. Cuttings shall be a minimum of 4' in length with 4 lateral buds exposed above ground after planting. The top of each cutting shall be a minimum of 1" above a leaf bud, the bottom cut 2" below a bud. The basal ends of the cuttings shall be cut at a 45 degree angle and marked clearly so that the rooting end is planted in the soil. Cuttings must be kept covered and moist during storage and transport, and no cuttings shall be stored more than three days from date of cutting. Cuttings shall only be used if planting occurs between December 1st and April 1st. For planting between April 1st and December 1st, rooted cuttings or saplings shall be used.

Contractor shall submit documentation that specified plant materials have been ordered and secured. A list of supplier names, addresses, phone numbers and the storage/growing location of the materials shall be submitted to AOA within 30 days of contract award.

**SUBSTITUTIONS**  
Substitutions of specified plant species, size, or condition will be allowed only prior written approval is obtained by AOA and the City of Kirkland prior to ordering material.

Bareroot stock of equal size to specified container plantings may be substituted for container plantings when available, with the written description of plant and container type. Evergreen plant material shall be container stock.

**VERIFY NURSERY STOCK CONDITION**  
AOA shall inspect plant material at the job site, including previously tagged trees, for compliance with required standards for plant size and quality prior to planting. This includes, but is not limited to, size and condition of rootballs and root systems, presence of insect damage, injuries and defects. Trees must be unbleached and separated for inspectors. AOA reserves the right to refuse any/all plant material any time prior to final acceptance if it is determined that such material does not meet the specifications as described herein. Rejected material shall be immediately removed from project site.

**VERIFY STORAGE SITE AND METHOD**  
Plants shall be stored in a manner necessary to support their horticultural requirements. Plant material stored on-site shall be protected from weather damage, construction activity and the public.

Plant specimens shall be kept moist and shaded until the actual time of plant installation. Immediately after planting, stakes in the planting area shall be adjusted to prevent cupping stress.

**PART 4 - PLANT INSTALLATION**

**SOIL PREPARATION/AMENDMENTS**  
Prior to installation of plantings, all construction debris and any other non-native material shall be removed from the enhancement area. Trees and shrubs shall be planted as shown in details on Drawing H12. A soil moisture retention agent (polymer) shall be included in planting backfill per manufacturer's specification (see General Planting Installation Notes on Drawing H12).

Planting pits shall be backfilled with a 30/70 mixture of imported, weed-free compost and the native soil from the planting pit.

In all planting areas, Contractor shall loosely tie a 2" piece of pink flagging to the top portion of all planted vegetation to facilitate post-construction performance and maintenance review by AOA and the City of Kirkland.

**SOIL MOISTURE RETENTION AGENT**  
SoilMoist, or equivalent, shall be added to the topsoil backfill of all planting pits. The SoilMoist shall be hydrated before being added to topsoil backfill. Manufacturers recommended application rates and usage shall be followed.

**MULCH**  
A 3" layer of highmulch (see above), or imported medium course bank mulch, shall be placed within a 36" diameter of all plantings, or applied continuously throughout the mitigation area for erosion, weed control, and moisture retention.

**PART 5 - IRRIGATION SIGNS AND CLEAN UP**

**TEMPORARY DRIP IRRIGATION SYSTEM**  
Contractor shall design build an above ground temporary drip irrigation system capable of providing 1/2" of flow to each newly installed plant.

Client shall provide water and electricity for the system. Irrigation is required within the enhancement area for at least three growing seasons following planting to ensure adequate establishment of plant material.

The Maintenance Contractor shall be responsible to activate, winterize, maintain, and to continually verify adequate operation of the temporary drip irrigation system. System function (including electronic valve and controller function) shall be inspected for operation and full coverage of all planted areas during seasonal maintenance visit. The system shall be repaired immediately if found to be damaged or malfunctioning.

The system shall be activated by June 15 and winterized by October 15. If hot dry weather occurs either before or after these dates, the irrigation system shall be activated earlier in the season or remain active later into the fall. During the first year after installation, the irrigation system shall be programmed to provide 1/2" of water every three days. Irrigation rates may be increased or decreased during prolonged periods of hot, dry weather to prevent plant mortality. During the second year after installation, irrigation shall be programmed to provide 1/2" of water once a week. However, if more than 10% of plant replacement occurs, watering rates will be maintained at a rate of 1/2" of water every three days for the duration of the monitoring period.

A chart describing the location of all installed or open zones and corresponding controller numbers shall be placed inside the controller and given to the Owner's representative.

The Irrigation bid shall include a one-year warranty against defects in materials and workmanship from the date of final project acceptance. The warranty shall include system activation and winterization for the first year and immediate repair of the system if it is observed to be malfunctioning.

**INSTALL SPLIT-RAIL FENCE AND SIGNS**  
Contractor shall construct split-rail fence per Detail 1 on Drawing H12, 2' in height and on the full extent of the proposed buffer boundary as depicted on H11. AOA shall approve fence location prior to construction.

Contractor shall install City of Kirkland Native Growth Protection Area (NSPA) signs (per Detail 1 on Drawing H12) at 75' spacing along the fence.

**RESTORE EXISTING NATURAL OR LANDSCAPED AREAS**  
Existing natural or landscaped areas that are damaged during construction shall be restored to their original condition, unless improvements or modifications are specified for those areas.

**CLEANUP**  
Contractor shall be responsible for the removal of construction materials and debris on the site following installation of plant materials.

**PART 6 - FINAL ACCEPTANCE**

**PLANT WARRANTY**  
Contractor's warranty shall include replacement of plants (same size and species shown on the drawings) that prove either to be mislabeled or unsuitable as to plant material standards. Except for loss due to excessively severe climatological conditions (substantiated by 10-year recorded weather charts), installed plant materials are required to be guaranteed for one year against defects and unsatisfactory growth except for cases of neglect by Owner or abuse/damage by others. Plants replaced shall be reinstalled under plant guarantee conditions.

Any changes or modifications to this plan must receive prior approval from AOA.

**FINAL ACCEPTANCE**  
Upon completion of planting, the Contractor shall provide AOA with a set of clearly marked prints depicting the actual locations of plantings within the enhancement area. Contractor shall keep a complete set of prints at the job site during construction for the purpose of "red-lining" changes or modifications to the approved plans and shall update said information on a daily basis.

AOA shall approve planting locations. If items are to be corrected, a punch list shall be prepared by AOA and submitted to the Contractor for completion. After punch list items have been completed, AOA shall review the project for final acceptance of plan implementation.

The date of final acceptance shall constitute the beginning of the one-year plant guarantee period.

**MAINTENANCE**  
Contractor shall review landscape maintenance recommendations with a qualified wetland biologist from AOA who is familiar with the stated goals and objectives of the enhancement plan.

Contractor shall maintain trees and shrubs, as needed, for a period of one year from final acceptance, to maintain healthy growth and habitat diversity, including of light and repair tree stakes, to reset plants to proper grades and upright positions, and to correct drainage problems as required.

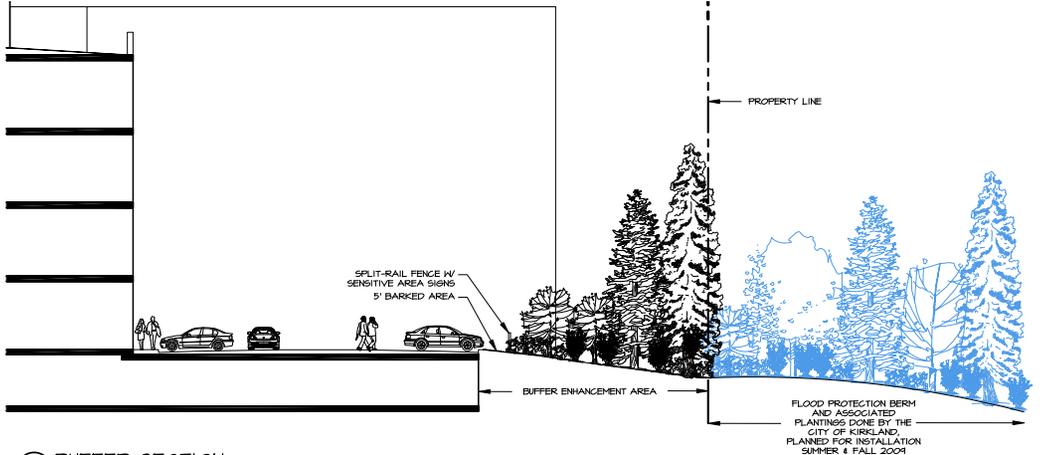
Contractor shall be responsible for watering plants immediately upon installation, and again over the entire planting area upon completion of landscape installation. Irrigation is required within the enhancement area for at least three growing seasons following planting to ensure adequate plant establishment.

Contractor shall correct erosion and drainage problems as required.

Contractor shall remove irrigation system 3-years after planting.

Upon completion of the one year maintenance, an inspection by AOA shall be conducted to confirm that the enhancement area was properly maintained. If items are to be corrected a punch list shall be prepared by and submitted to the Contractor for correction. Upon correction of the punch list items, the project shall be reviewed by AOA for final closure of plan implementation.

**PERFORMANCE MONITORING**  
Landscape Contractor shall provide an estimate for maintenance services of the enhancement area for the 5-year performance monitoring period. See the Buffer Enhancement Report prepared by AOA for maintenance specifications to be implemented during the 5-year performance monitoring period.



**1 BUFFER SECTION**  
SCALE: 1"=20'

CITY OF KIRKLAND PLANNING AND DEVELOPMENT SERVICES

APPROVED FOR CONSTRUCTION

R/W PERMIT NO. \_\_\_\_\_

**Altmann Oliver Associates, LLC**  
Environmental  
Landscape  
Architecture  
10000 1st Avenue, Suite 100  
Kirkland, WA 98033  
Phone: 425.822.1111  
Fax: 425.822.1112  
www.altmannoliver.com

**BUFFER ENHANCEMENT PLAN SPECIFICATIONS PLAZA AT YARROW BAY - BUILDING "Y" KIRKLAND, WASHINGTON**

By: CLC/DAK/SC

Date: 01/20/09

Revisions: CITY COMMENTS

Date: 12-30-09

Scale: 1"=20'

Sheet # 11.3





King County

### Critical Areas Mitigation Bond Quantity Worksheet

Project Name: Plaza at Yarrow Bay - Building "V" Date: 1/9/2009 Prepared by AOA  
 Permit Number: ZON08-00017 Applicant: Keith Maehlum  
 Location: Kirkland, Washington Phone #: 425.333.4535

PLANT MATERIALS*						
Type	Unit Price	Unit	Quantity	Description	Cost	
PLANTS: Potted, 4" diameter, medium	\$5.00	Each			\$ -	
PLANTS: Container, 1 gallon, medium soil	\$11.50	Each	1423.00		\$ 16,364.50	
PLANTS: Container, 2 gallon, medium soil	\$20.00	Each	128.00		\$ 2,560.00	
PLANTS: Container, 5 gallon, medium soil	\$36.00	Each			\$ -	
PLANTS: Seeding, by hand	\$0.50	SY			\$ -	
PLANTS: Slips (willow, red-osier)	\$2.00	Each			\$ -	
PLANTS: Stakes (willow)	\$2.00	Each	75.00		\$ 150.00	
PLANTS: Stakes (willow)	\$2.00	Each			\$ -	
					\$ -	
					\$ -	
					\$ -	
* All costs include installation					<b>TOTAL</b>	<b>\$ 19,074.50</b>

INSTALLATION COSTS ( LABOR, EQUIPMENT, & OVERHEAD)						
Type	Unit Price	Unit	Quantity	Description	Cost	
Compost, vegetable, delivered and spread	\$37.88	CY	30.00		\$ 1,136.40	
Decompacting till/hardpan, medium, to 6" depth	\$1.57	CY			\$ -	
Decompacting till/hardpan, medium, to 12" depth	\$1.57	CY			\$ -	
Hydroseeding	\$0.51	SY			\$ -	
Labor, general (landscaping)	\$40.00	HR	24.00		\$ 960.00	
Labor, general (construction)	\$40.00	HR			\$ -	
Labor: Consultant, supervising	\$55.00	HR			\$ -	
Labor: Consultant, on-site re-design	\$95.00	HR	6.00		\$ 570.00	
Rental of decompacting machinery & operator	\$70.00	HR			\$ -	
Sand, coarse builder's, delivered and spread	\$42.00	CY			\$ -	
Staking material (set per tree)	\$7.00	Each			\$ -	
Surveying, line & grade	\$250.00	HR			\$ -	
Surveying, topographical	\$250.00	HR			\$ -	
Watering, 1" of water, 50' soaker hose	\$3.62	MSF			\$ -	
Irrigation - temporary	\$3,000.00	Acre	0.40		\$ 1,200.00	
Irrigation - buried	\$4,500.00	Acre			\$ -	
Tilling topsoil, disk harrow, 20hp tractor, 4"-6" deep	\$1.02	SY			\$ -	
					\$ -	
					\$ -	
* All costs include installation					<b>TOTAL</b>	<b>\$ 3,866.40</b>

HABITAT STRUCTURES*						
ITEMS	Unit Cost	Unit	Quantity	Description	Cost	
Fascines (willow)	\$ 2.00	Each			\$ -	
Logs, (cedar), w/ root wads, 16"-24" diam., 30' long	\$1,000.00	Each			\$ -	
Logs (cedar) w/o root wads, 16"-24" diam., 30'	\$400.00	Each			\$ -	
Logs, w/o root wads, 16"-24" diam., 30' long	\$245.00	Each			\$ -	
Logs w/ root wads, 16"-24" diam., 30' long	\$460.00	Each			\$ -	
Rocks, one-man	\$60.00	Each			\$ -	
Rocks, two-man	\$120.00	Each			\$ -	
Root wads	\$163.00	Each			\$ -	
Spawning gravel, type A	\$22.00	CY			\$ -	
Weir - log	\$1,500.00	Each			\$ -	
Weir - adjustable	\$2,000.00	Each			\$ -	
Woody debris, large	\$163.00	Each	16.00		\$ 2,608.00	
Snags - anchored	\$400.00	Each			\$ -	
Snags - on site	\$50.00	Each			\$ -	
Snags - imported	\$800.00	Each			\$ -	
					\$ -	
					\$ -	
* All costs include delivery					<b>TOTAL</b>	<b>\$ 2,608.00</b>



January 30, 2009

Teresa Swan  
City of Kirkland  
Planning and Community Development  
123 – 5<sup>th</sup> Avenue  
Kirkland, WA 98033

Re: **Plaza at Yarrow Bay – Buffer Modification Plan - 2<sup>nd</sup> Review**  
The Watershed Company reference number: 060701. 43

Dear Teresa:

Thank you for the opportunity to review the January 9, 2009 revised wetland buffer modification submittal prepared by Altmann Oliver Associates, LLC (AOA). This submittal consists of a mitigation plan in the form of three half-size sheets and a bond quantity worksheet. I also received an explanatory email regarding the project from AOA on January 28, 2009.

The email clarifies that, per civil drawings not copied to me, the stormwater drain within the mitigation area will be decommissioned and the depression area in the buffer will be filled to allow positive drainage towards the stream. I also understand the sanitary sewer line within the buffer will remain and the planting plan has been adjusted accordingly. As requested, details regarding the blackberry and lawn areas in Planting Area B have been clarified and the planting plan expanded as necessary. The bond quantity estimate accurately reflects the cost to build the project. Note that Kirkland requires the posted bond to be 125% of the estimate ( $\$70,311.18 * 125\% = \$87,888.98$ ).

All other details mentioned in my December 19, 2008 letter have been adequately addressed. The proposal meets the requirements of Chapter 90.

Please call with any questions.

Sincerely,



Hugh Mortensen, PWS  
Senior Ecologist



## 60.19 User Guide.

The charts in KZC [60.22](#) contain the basic zoning regulations that apply in Planned Area 3A, including sub-zones. 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.

	<p><b>60.20 – GENERAL REGULATIONS</b></p> <p>The following regulations apply to all uses in this zone unless otherwise noted:</p>
	1. Refer to Chapter <a href="#">1</a> KZC to determine what other provision of this Code may apply to the subject property.
	2. Developments in parts of this zone may be limited by Chapter <a href="#">90</a> KZC, regarding development near streams, lakes, and wetlands.
	3. The site must be designed to concentrate development away from and to minimize impacts on the wetlands (does not apply to Detached Dwelling Unit, Attached or Stacked Dwelling Unit, Mini-School or Mini-Day-Care and Public Park uses).
	4. If the development includes portions of Planned Area 2, the applicant may propose and the City may require that part or all of the density allowed in Planned Area 2 be developed in Planned Area 3 (does not apply to Detached Dwelling Unit, Attached or Stacked Dwelling Unit, Public Utility, Government or Community Facility, and Public Park uses).
	5. The height of structures may be increased if: <ul style="list-style-type: none"> <li>a. The structure does not exceed 60 feet above average building elevation,</li> <li>b. The amount of pervious surface on the subject property in this zone significantly exceeds 50 percent, and</li> <li>c. The site is designed to the maximum extent feasible to provide views through the subject property from Lake Washington Boulevard and Bellevue Way while complying with the General Regulations.</li> </ul> <p>(Does not apply to Detached Dwelling Unit, Attached or Stacked Dwelling Unit, Public Utility, Government or Community Facility, and Public Park uses).</p>
	6. May not use lands waterward of the high waterline to determine lot size or to calculate allowable density.
	7. The required yard of a structure abutting Lake Washington Boulevard or Lake Street South must be increased two feet for each one foot that structure extends 25 feet above average building elevation.
	8. City entryway design must be provided on the subject property adjacent to Lake Washington Boulevard as follows: <ul style="list-style-type: none"> <li>a. An earthen berm, 12 feet wide and with a uniform height of three feet at the center;</li> <li>b. Lawn covering the berm;</li> <li>c. London Plane at least two inches in diameter, planted 30 feet on center along the berm.</li> </ul>
	9. Vehicular circulation on the subject property must be designed to minimize traffic impacts on Lake Washington Boulevard and at the SR-520 interchange. The city may limit access points onto Lake Washington Boulevard and Points Drive and require traffic control devices and right-of-way realignment (does not apply to Detached Dwelling Unit, Attached or Stacked Dwelling Unit, Public Utility, Government or Community Facility, and Public Park uses).
10. May also be regulated under the Shoreline Master Program, KMC Title 24.	

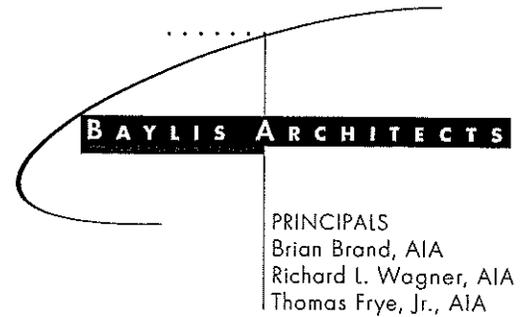
Section 60.22

Zone  
PLA3A

USE ZONE CHART

**DIRECTIONS: FIRST, read down to find use...THEN, across for REGULATIONS**

Section 60.22	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						
.040	Office Uses	Process IIB, Chapter 152 KZC.	Must be part of a development with a site area of at least 15 acres. See Special Regulation 1.	20'	5', but 2 side yards must equal at least 15'.	10'	70%	30' above average building elevation. See General Regulations.	C	D	If a Medical, Dental, or Veterinary office, then 1 per each 200 sq. ft. of gross floor area. Otherwise, one per each 300 sq. ft. of gross floor area.	<ol style="list-style-type: none"> <li>1. The minimum lot size for this use is 7,200 square feet if the subject property has frontage on Lake Washington Boulevard.</li> <li>2. The following regulations apply to veterinary offices only:                             <ol style="list-style-type: none"> <li>a. May only treat small animals on the subject property.</li> <li>b. Outside runs and other outside facilities for the animals are not permitted.</li> <li>c. Site must be designed so that noise from this use will not be audible off the subject property. A certification to this effect, signed by an Acoustical Engineer, must be submitted with the development permit application.</li> </ol> </li> <li>3. Ancillary assembly and manufacture of goods on the premises of this use are permitted only if:                             <ol style="list-style-type: none"> <li>a. The ancillary assembled or manufactured goods are subordinate and dependent on this use.</li> <li>b. The outward appearance and impacts of this use with ancillary assembly or manufacturing activities must be no different from other office uses.</li> </ol> </li> </ol>



January 20, 2009

City of Kirkland  
Planning Department  
123 Fifth Avenue  
Kirkland, WA 98027

Re: Plaza at Yarrow Bay, Building "V"  
File Number: ZON08-00017

Subject: Omitting the Fence next to the Park:  
Job Number: 07-1062

Dear Ms. Swan:

By this letter and in behalf of the property Owners, we request approval of a modification of the fencing requirement of Section 95.40(6)a, as allowed under the modification provision of Section 95.40(6)j.

In particular, this section of the code requires that a fence be installed by a property owner when the abutting property is part of the City's park system. At the Plaza at Yarrow Bay, along the northern edge of the proposed Building V, the property abuts the Cochran Springs Creek corridor, which is the property of the City and is part of the parks system.

In this particular location, we propose omitting the fencing between the existing property and adjacent corridor. We think it will be more beneficial to have open space between both properties, let the landscaped corridor expand into the adjacent proposed landscape areas, and allow the flora and fauna to intermix through the connected environs. Additionally, by deleting the fence and integrating our project with the existing corridor, solar access and landscape growth will be greatly enhanced.

We request your approval in recognition of the following criteria for granting a modification.

- 1) *The owner of the adjoining property agrees to this in writing; and*  
Based on previous conversations with city staff, the city is in agreement to this modification and approval of this request will put into writing this agreement.
- 2) *The existing topography or other characteristics of the subject property or the adjoining Property, or the distance of development from the neighboring property decreases or eliminates the need for buffering; or*

10801 Main Street  
Bellevue, WA 98004  
T 425 454 0566  
F 425 453 8013  
www.baylisarchitects.com

As is shown on the civil drawings, the topography of the subject property and that of the city property are groomed to a common level, sloping gently down to the corridor. The proposed buffer to the corridor includes a 67 ft. buffer on each side of the corridor, which will provide an abundance of space for the landscaping and the critters.

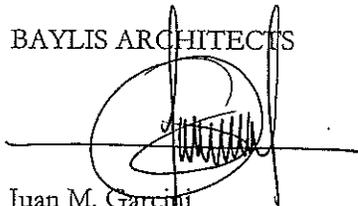
- 3) *The modification will be more beneficial to the adjoining property than the required buffer by causing less impairment of view or sunlight; or*  
By deleting the fence, the shadow of this solid man-made hulk is also deleted, allowing for far greater solar access to the combined environs.
- 4) *The Planning Official determines that it is reasonable to anticipate that the adjoining property will be redeveloped in the foreseeable future to a use that would require no, or a less intensive, buffer; or*  
The adjacent owner is the City of Kirkland, which intends on preserving the corridor in a natural environment yielding a far less intensive use.
- 5) *The location of pre-existing improvements on the adjoining site eliminates the need or benefit of the required landscape buffer.*  
The adjoining property was set aside under the approved PUD and deeded to the city years ago. Currently, the city is rehabilitating the environs for which the deletion of the fence will only make the rehabilitation more successful.

We hope you find our justification acceptable and look forward to your approval..

If you have any questions or comments, please do not hesitate to give me a call at (425) 454-0566 or e-mail me at [garcinij@baylisarchitects.com](mailto:garcinij@baylisarchitects.com).

Sincerely,

BAYLIS ARCHITECTS

A handwritten signature in black ink, appearing to read 'Juan M. Garcia', is written over a horizontal line. The signature is stylized and somewhat illegible.

Juan M. Garcia  
Project Manager

JG:ssa

cc: Keith Maehlum, HAL Properties  
Rich Wagner, Baylis Architects

## Tony Leavitt

---

**From:** Michael Cogle  
**Sent:** Tuesday, September 01, 2009 7:09 AM  
**To:** Tony Leavitt  
**Subject:** RE: Plaza at Yarrow Bay Project

Tony,

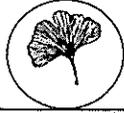
The Parks and Community Services Department is agreeable to a modification relieving the permit applicant of the responsibility to install a 6-foot fence along the common property line.

Let me know if you need anything else from us.

Michael

Michael Cogle  
Park Planning Manager  
City of Kirkland  
[mcogle@ci.kirkland.wa.us](mailto:mcogle@ci.kirkland.wa.us)  
(425) 587-3310





# Greenforest Incorporated

Consulting Arborist

1/12/2009

Keith Maehlum  
HAL Real Estate Investments Inc.  
2025 First Ave. Ste- 700  
Seattle, WA 98121

RE: Plaza at Yarrow Bay Building "V" Significant Tree Assessment

Dear Mr. Maehlum:

You contracted my services as a consulting arborist. My assignment is to inspect and assess five significant trees at the above referenced site. The purpose of this report is to establish the condition of the subject trees to satisfy City of Kirkland permit submittal requirements.

The project, known as Plaza at Yarrow Bay Building "V", is located in the northwest corner of NE Lake Washington Blvd. and NE Points Drive in the City of Kirkland, WA. The site is currently developed with one office building (three stories), and one office building (five stories) and parking lot. The new project consists of a new 74,000 sq. ft. five story office building over underground parking structure.

The subject trees stand along the north boundary of the parcel, within a wetland buffer. Three ash trees (*Fraxinus sp.*) stand within planting bulbs of an existing parking lot. Two sycamore trees (*Platanus acerifolia*) stand long or near the sidewalk of NE Lake Washington Blvd. (See attached site plan.)

I received from Juan M. Garcini of BAYLIS ARCHITECTS a site plan prepared by Karen Kiest Landscape Architects, dated 12/11/08. I discussed details about the proposed project by phone with both Mr. Garcini and Ms. Kiest. I also reviewed a Buffer Enhancement Plan prepared by AOA dated 12/20/2008. I visited the site 1/10/2009 and inspected the five trees indicated on the survey, which are the subject of this report.

## TREE INSPECTION

I visually inspected each tree from the ground and rated both tree health and structure.

A tree's structure is distinct from its health. This inspection identifies what is visible with both. Structure is the way the tree is put together or constructed, and identifying obvious defects can be helpful in determining if a tree is predisposed to failure. Health assesses disease, insect infestation and old age.

No invasive procedures were performed on any trees. The results of this inspection are based on what was visible at the time of the inspection.

The following table provides the following information for each tree:

**Tree number** as shown on site plan.

**Tree Species** Common name.

**DBH** Stem diameter in inches measured 4.5 feet from the ground.

**Dripline** Live canopy radius measured in feet.

**Structure and Health rating** ('1' indicates no visible health-related problems or structural defects, '2' indicates minor visible problems or defects that may require attention if the tree is retained, and '3' indicates significant visible problems or defects and tree removal is recommended.

**Visible defects** Obvious structural defects or diseases visible at time of inspection, which in this case includes:

**Asymmetric canopy** – the tree's canopy is affected by the canopy of nearby trees and has an asymmetric shape. Should not be retained as a stand-alone tree, but could be retained in a group.

**Suppressed** – the tree is growing inside or within the canopy of another tree. Should not be retained as a stand-alone tree, but could be retained in a group.

**Viability** a determination by the arborist whether the tree is viable for retention; and, if so, in a group or as a stand-alone tree.

Tree No. 1. Tree Inspection Results

Tree No.	Tree Species	DBH	Dripline	Structure	Health	Visible Defects	Viable Tree?
5124	Sycamore	8	20	2	1	Asymmetric canopy, suppressed.	Yes; grove
5125	Sycamore	12	30	1	1		Yes; alone
5198	Ash	6	15	1	1		Yes; alone
5199	Ash	8	20	1	1		Yes; alone
5200	Ash	9	22	1	1		Yes; alone

Potential for disturbance of the roots and branches of these trees include:

1. Demolition of the pavement and curb of the existing parking lot, and
2. Landscape installation within the tree's root zone.

Based on the survey, the limit for the wetland buffer and the 10-foot setback is outside the dripline for all five trees. Limiting construction outside the 10-foot setback will prevent soil disturbance within the dripline of the trees.

The table below lists the limits of disturbance of each tree. I recommend protective fencing be installed at these limits to prevent injury to the tree's branches and trunk.

Table No. 2. Limits of Disturbance.

Tree no.	Species	North	East	South	West
5124	Sycamore	DL	SW	DL	DL
5125	Sycamore	DL	SW	DL	DL
5198	Ash	DL	DL	DL	DL
5199	Ash	DL	DL	DL	DL
5200	Ash	DL	DL	DL	DL

(SW = sidewalk, DL = dripline as measured in field)

Special Instructions For Work In The Limits Of Disturbance And/Or Critical Root Zone.

Demolition of the existing parking lot must be done without injuring existing structural roots, and minimizing injury to the absorbing roots that grow near the soil's surface, particularly at the soil/pavement interface.

- Pavement and curb sections shall be lifted from the surface, avoiding soil disturbance and root injury that could result by scraping broken pavement and curb along the soil surface.

- Particular care must be given to avoid injuring the tree's trunk and branches during demolition.

Buffer Enhancement Plan, and Planting Plan 'A' Currently, neither plan calls out and identifies the five subject trees as being retained, protected and preserved. The planting plan calls for installation of several native plants and features within the wetland buffer, and apparently inside the dripline of the subject trees.

- Identify protected trees and measures on the planting plans
- New plants for the wetland enhancement shall be installed without injuring or severing structural roots around the subject trees.
- No digging or plant installation shall occur within a 4-foot radius of the ash tree trunks, and in a 5-foot radius from the sycamore trunks. And only groundcovers and shrubs shall be planted in the remaining outer portion of the their driplines.
- The addition of mulch or compost shall not be placed on the rootcrowns of the subject trees.
- The project arborist must approve trenching for any reason, including an irrigation system, within the dripline of the trees.
- No motorized equipment shall be used within the driplines of the subject trees during the installation of the enhancement/planting plan.

#### Location And Type Of Protection Measures For Trees.

Minimum four-foot temporary chainlink fence shall be installed at the driplines, or along the sidewalk for the sycamores, of all retained trees as described in the limits of disturbance in table 2 above. Fence shall completely encircle the retained trees and shall follow the driplines indicated in table 1 above. Install fence posts using pier block only. A City planner must approve any modifications to the fencing material and location.

No stockpiling of materials, vehicular or pedestrian traffic, material storage or use of equipment or machinery shall be allowed within the protective fencing. Fencing shall not be moved or removed unless approved by a City planner. Any work, activity or soil disturbance within the protection fencing, or critical root zone, shall be reviewed, approved and monitored by the project arborist.

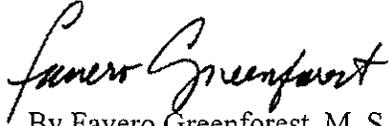
Instructions and specifications for pruning roots or branches shall be addressed individually for specific trees as a situation arises.

Fencing signage as detailed (see attached) must be posted every fifteen (15) feet along the fencing, and faced prominently on the south side of each tree.

Keith Maehlum - HAL Real Estate Investments Inc.  
RE: Plaza at Yarrow Bay Building "V" Significant Tree Assessment  
1/12/2009  
Page 5 of 6

Sincerely,

GreenForest, Inc.



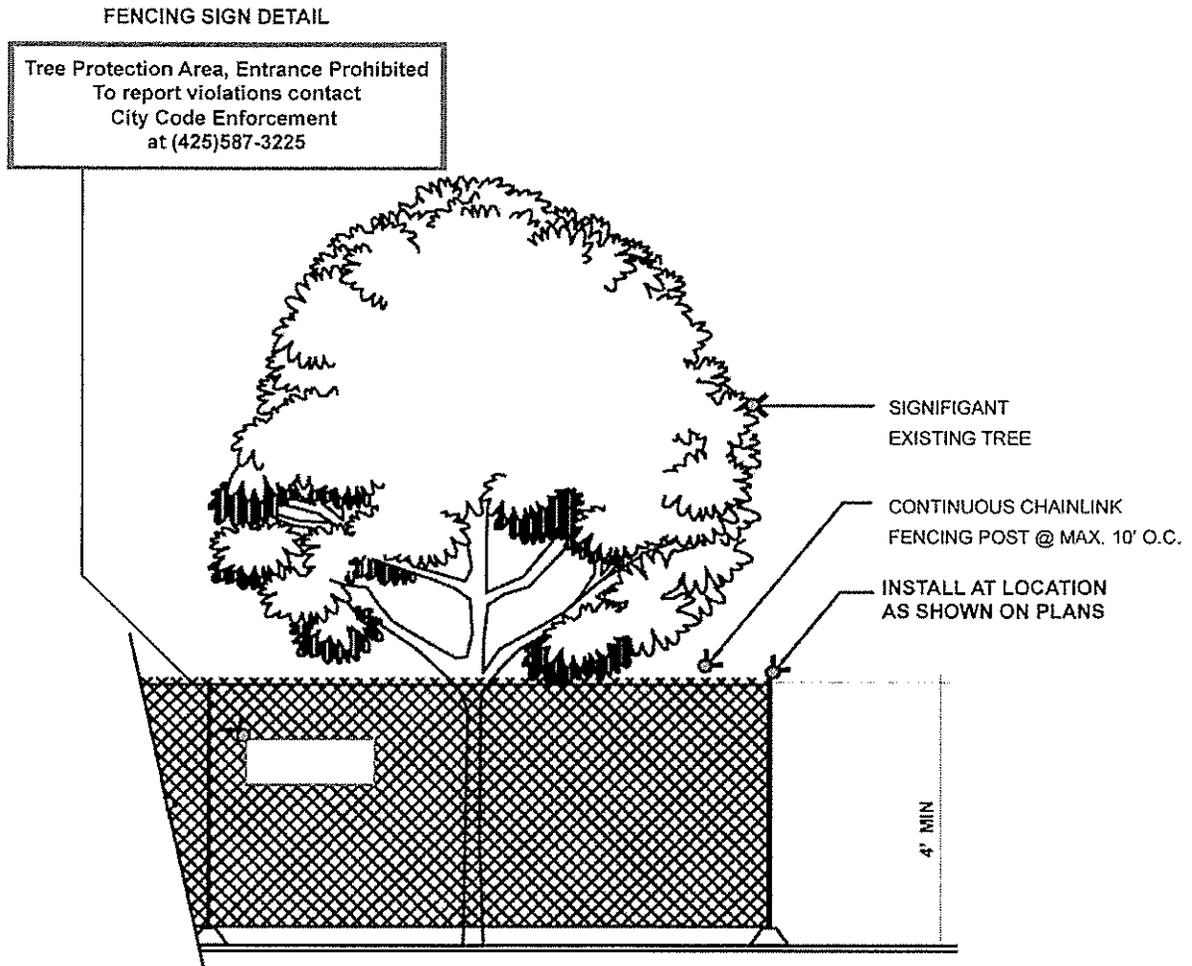
By Favero Greenforest, M. S.  
ASCA Registered Consulting Arborist #379  
ISA Certified Arborist # PN -0143A

Attachments:

1. Assumptions
  2. Protective Fencing and Signage Detail
- 

- 1) Unless stated other wise: 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 as of 1/10/09; and 2) the inspection is limited to visual examination of the subject trees without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied that problems or deficiencies of the subject tree may not arise in the future.
- 2) Construction activities can significantly affect the condition of retained trees. All retained trees should be inspected after construction is completed, and then inspected regularly as part of routine maintenance.
- 3) The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made.
- 4) Loss or alteration of any part of this report invalidates the entire report.
- 5) This report and any values/opinions expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
- 6) Ownership and use of consultant's documents, work product and deliverables shall pass to the Client only when all fees have been paid.

Attachment No. 2: Protective Fencing and Signage Detail





**Golder Associates Inc.**

18300 NE Union Hill Road, Suite 200  
Redmond, WA USA 98052-3333  
Telephone (425) 883-0777  
Fax (425) 882-5498  
www.golder.com



May 12, 2009

Our Ref.: 093-93249

The Plaza at Yarrow Bay, Inc.  
2025 First Avenue, Suite 700  
Seattle, Washington 98121

Attention: Mr. Keith Maehlum

**RE: GEOTECHNICAL REVIEW  
PLAZA AT YARROW BAY  
KIRKLAND, WASHINGTON**

Dear Mr. Maehlum:

Golder Associates, Inc. (Golder) is pleased to present the results of our geotechnical review of existing documentation related to the Plaza at Yarrow Bay project in Kirkland. Golder has been involved with the geotechnical aspects of this project since 1984 and has conducted multiple geotechnical and hydrologic studies at the site.

Based on our conversations, we understand that you are currently working through the entitlement process with the City of Kirkland. You have requested that Golder review the preliminary development plans and our previous geotechnical reports to evaluate the feasibility of the currently proposed development.

**Documents Reviewed**

Golder conducted a review of the following documents associated with the Plaza at Yarrow Bay.

- Topographic Exhibit, prepared by D.R. Strong Consulting Engineers, dated September 15, 2008;
- Conceptual Civil Plan, Plaza at Yarrow Bay Expansion, prepared by Site Development Associates, LLC., dated December 12, 2008;
- Zoning Permit Package – Process IIB, Plaza at Yarrow Bay – Building “V” (Sheets 14-19), prepared by Baylis Architects, dated December 12, 2008;
- Hydrologic and Geotechnical Site Investigations, Yarrow Village Project, Kirkland, WA, prepared by Golder Associates, dated July, 1984;

- Geotechnical Investigation, Proposed Yarrow Village Office Park, Kirkland, Washington, prepared by Golder Associates, dated September, 1985;
- Supplementary Geotechnical Investigation, Building B and Relocated Points Drive, Proposed Yarrow Village Office Park, Kirkland, Washington, prepared by Golder Associates, dated June 1986;
- Yarrow Village Phase II, Supplemental Geotechnical Study, prepared by Golder Associates, dated April 1987; and
- Geotechnical Engineering Study, Phase III of the Yarrow Bay Office Park Development, prepared by Golder Associates, dated September 1988.

### **Project Understanding**

The Plaza at Yarrow Bay currently consists of four multi-story office buildings (Plaza at Yarrow Bay, Buildings I-IV). Each building has at least one story of underground parking.

According to the conceptual plans, the proposed development is to include the construction of a four story office building with one story of underground parking. This building and associated parking garage will be located within the footprint of the current surface parking lot associated with Buildings I and II. The office building will be approximately 75,000 square feet and the underground parking garage will cover about 70,000 square feet. The proposed underground parking garage is intended to be connected to the existing parking garages associated with the adjacent buildings (Plaza at Yarrow Bay, Buildings I and II).

### **Geologic Conditions**

Golder's previous investigations included numerous geotechnical borings and test pits across the Plaza at Yarrow Bay property. Two of the geotechnical borings (B-6 and B-8) were located in the vicinity of the currently proposed development. We also excavated two test pits (TP-1 and TP-21) in this area.

Generally, the subsurface geologic conditions identified in previous boreholes and test pits can be described by three units; near surface soils, shallow soils, and deep soils. The depths at which these units exist across the site can vary. The maximum depth explored in our previous studies was 30 feet below ground surface. Additional subsurface investigations will be required in the future to more accurately delineate the contacts between units. A brief description of the soil units are presented below:

- Near surface soils: may include loose, silty sand with varying amounts of organics;
- Shallow soils: may include compact, silty sand with trace organics; and
- Deep soils (shallower than 30 feet): may include dense to very dense, sand and gravel.

### **Groundwater**

Relatively shallow groundwater is anticipated across the site. Previous studies have identified groundwater as shallow as 3.5 feet beneath ground surface in the area of the proposed development.

Temporary and/or permanent dewatering may be required for the proposed development. Future studies will be necessary in order to more clearly define the groundwater conditions beneath the site. We recommend that these studies be conducted after the overall project design been selected.

#### **Feasibility Determination**

Based on our review of the referenced documentation, the project (as currently conceived) appears feasible from a geotechnical standpoint. We recommend that additional design level geotechnical and hydrologic studies be conducted once the final site design has been selected.

We hope that this brief summary meets your immediate needs. Please feel free to contact us if we can be of service in the future.

Sincerely,

**GOLDER ASSOCIATES INC.**



Christopher S. King  
Senior Project Manager

CSK/AJW



Andrew J. Walker, P.E.  
Principal and Senior Consultant





## GEOLOGICALLY HAZARDOUS AREAS COVENANT

<p><i>File No.:</i></p> <p><i>Parcel No.:</i></p> <p><i>Project Name:</i></p> <p><i>Project Address:</i></p>
--

Declarant \_\_\_\_\_ hereby declares and agrees as follows:

1. Declarant is the owner of the real property described below and incorporated herein by reference, which is the "property" referred to herein.
2. Declarant agrees to defend, indemnify, and hold the City of Kirkland harmless from all loss, including claim made therefor, which the City may incur as a result of any landslide or seismic activity occurring on the property and for any loss including any claim made therefor resulting from soil disturbance on the "property" in connection with the construction of improvements, including but not limited to storm water retention and foundations. "Loss" as used herein means loss including claim made therefor from injury or damage incurred on or off the "property," together with reasonable expenses including attorneys fees for investigation and defense of such claim.
3. This hold harmless is a perpetual covenant running with the "property" and is binding upon the Declarant's successor and assigns.
4. The real property subject to this Agreement is situated in Kirkland, King County, Washington, and described as follows:

*(Insert legal description below:)*

DATED at Kirkland, Washington, this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.



# NATURAL GREENBELT PROTECTIVE EASEMENT

---

**Grantor:** \_\_\_\_\_, owner of the hereinafter described real property, hereby grants to

**Grantee:** The City of Kirkland, a municipal corporation.

A natural greenbelt protective easement over and across the following described real property to wit ("Easement Area"):

No tree trimming, tree topping, tree cutting, tree removal, shrub or brush-cutting or removal of native vegetation, application of pesticides, herbicides, or fertilizers; construction; clearing; or alteration activities shall occur within the Easement Area without prior written approval from the City of Kirkland. Application for such written approval to be made to the Kirkland Department of Planning and Community Development who may require inspection of the premises before issuance of the written approval and following completion of the activities. Any person conducting or authorizing such activity in violation of this paragraph or the terms of any written approval issued pursuant hereto, shall be subject to the enforcement provisions of Chapter 170, Ordinance 3719, the Kirkland Zoning Code. In such event, the Kirkland Department of Planning and Community Development may also require within the immediate vicinity of any damaged or fallen vegetation, restoration of the affected area by planting replacement trees and other vegetation as required in applicable sections of the Kirkland Zoning Code. The Department also may require that the damaged or fallen vegetation be removed.

It is the responsibility of the property owner to maintain critical areas and their buffers by removing non-native, invasive, and noxious plants in a manner that will not harm critical areas or their buffers and in accordance with Kirkland Zoning Code requirements for trees and other vegetation within critical areas and critical area buffers.

The City shall have a license to enter the Easement Area (and the property if necessary for access to the Easement Area) for the purpose of monitoring compliance with the terms of this easement.

Development outside of this Natural Greenbelt Protective Easement may be limited by codified standards, permit conditions, or movement of the critical area.

Each of the undersigned owners agree to defend, pay, and save harmless the City of Kirkland, its officers, agents, and employees from any and all claims of every nature whatsoever, real or imaginary, which may be made against the City, its officers, agents, or employees for any damage to property or injury to any person arising out of the existence of said Natural Greenbelt Protective Easement over said owner's property or the actions of the undersigned owners in carrying out the responsibilities under this agreement, including all costs and expenses, and recover attorney's fees as may be incurred by the City of Kirkland in defense thereof; excepting therefrom only such claims as may arise solely out of the negligence of the City of Kirkland, its officers, agents, or employees.

This easement is given to satisfy a condition of the development permit approved by the City of Kirkland under Kirkland File/Permit No. \_\_\_\_\_, for construction of \_\_\_\_\_ upon the following described real property:

This easement shall be binding upon the parties hereto, their successors and assigns, and shall run with the land.

DATED at Kirkland, Washington, this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

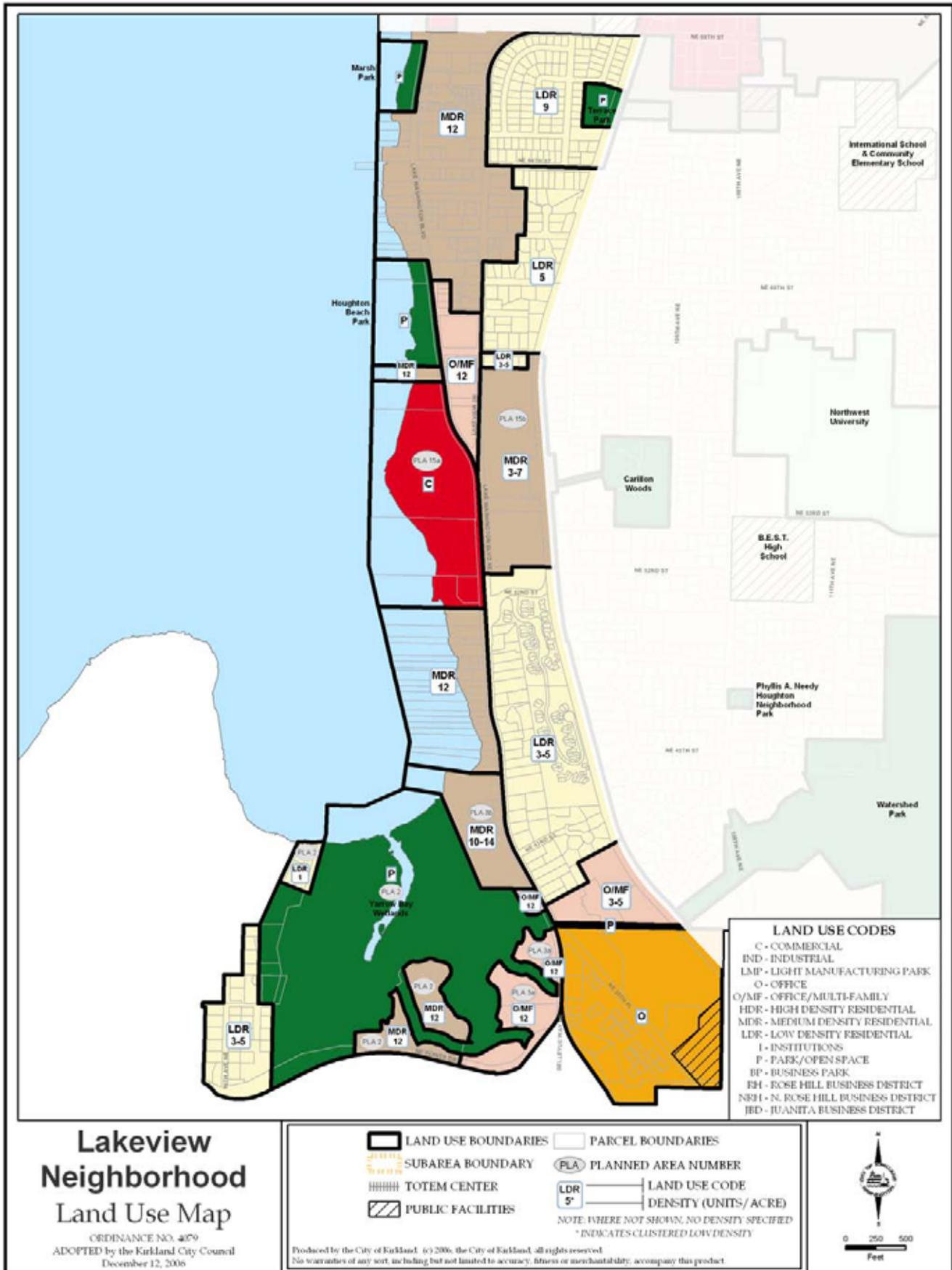


Figure L-1: Lakeview Land Use



## PLAZA AT YARROW BAY

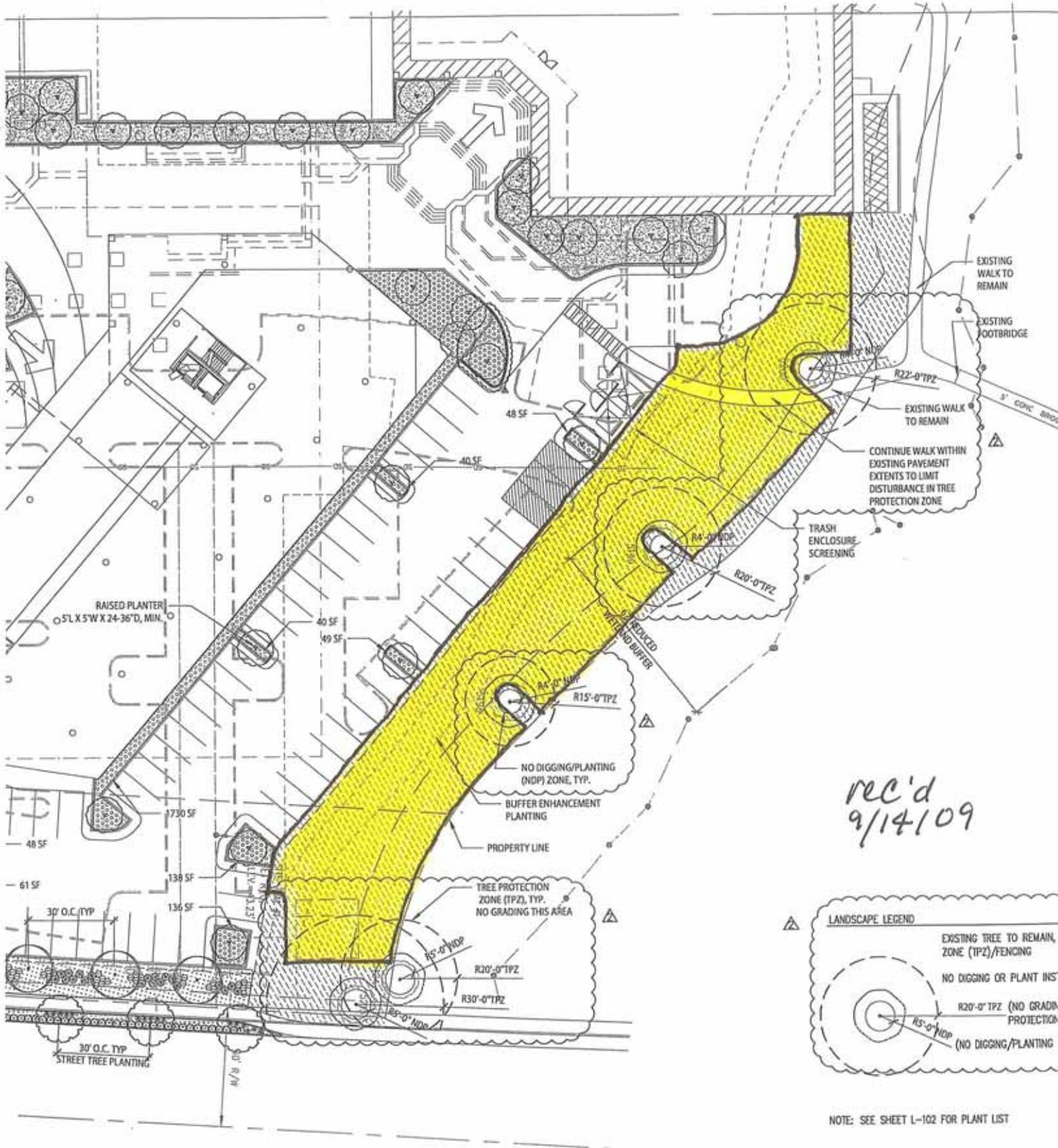
### Building 5

Inspiration for pursuing an application at this time includes:

- Reposition the campus as a pedestrian-oriented corporate office environment
  - Nearby park-n-ride lot for transit accessibility, bike access, pedestrian route
  - Adjacent services; restaurant, banking, hotel
  - Pulling sidewalk away from Lake Washington Boulevard, separated by landscaping
  - Keeps office expansion along freeway and out of neighborhoods
  - Abundant and diverse housing choices nearby
  -
- Campus is almost 100% occupancy
  - Allows us to offer the site as a potential build-to-suit for an existing tenant
  - Attractive Microsoft / Google oriented tenants
  -
- Coordination with the planned SR-520 expansion currently under design
  - Expansion will not disrupt campus plan
  -
- Original PUD approval
  - Dedicated over 66 acres to City as a Park
  -
- Linbrook Office Park PUD
  - Prior office campus approved in 2003
  - Approx. 400,000 sf
  - Building height of 70 feet
  - This project will never be built due to creation of office condominium
  -
- Environmental features
  - Expanded and enhanced wetland buffer
  - Reduced storm water runoff due to structured parking
  - Reduced impervious surface
  -

CITY OF KIRKLAND  
Hearing Examiner Exhibit  
Applicant  \_\_\_\_\_  
Department \_\_\_\_\_  
Public \_\_\_\_\_  
FILE # 20W08-00017

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**Hearing Examiner Exhibit**  
 Applicant   
 Department \_\_\_\_\_  
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 FILE # 20108-00017



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9/14/09



**CITY OF KIRKLAND**

Planning and Community Development Department  
123 Fifth Avenue, Kirkland, WA 98033 425.828.1257  
www.ci.kirkland.wa.us

**ADVISORY REPORT  
FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS**

**To:** Kirkland Hearing Examiner and Houghton Community Council  
**From:** [Signature] Jon Regala, Project Planner  
Nancy Cox For Eric R. Shields, AICP, Planning Director  
**Date:** January 22, 2003  
**File:** IIB-01-15. LINBROOK OFFICE PARK PUD  
**Hearing Date and Place:** February 3, 2003  
7:00 pm  
City Hall Council Chamber  
123 Fifth Avenue, Kirkland

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FILE # ZON08-00017

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## I. INTRODUCTION

### A. APPLICATION

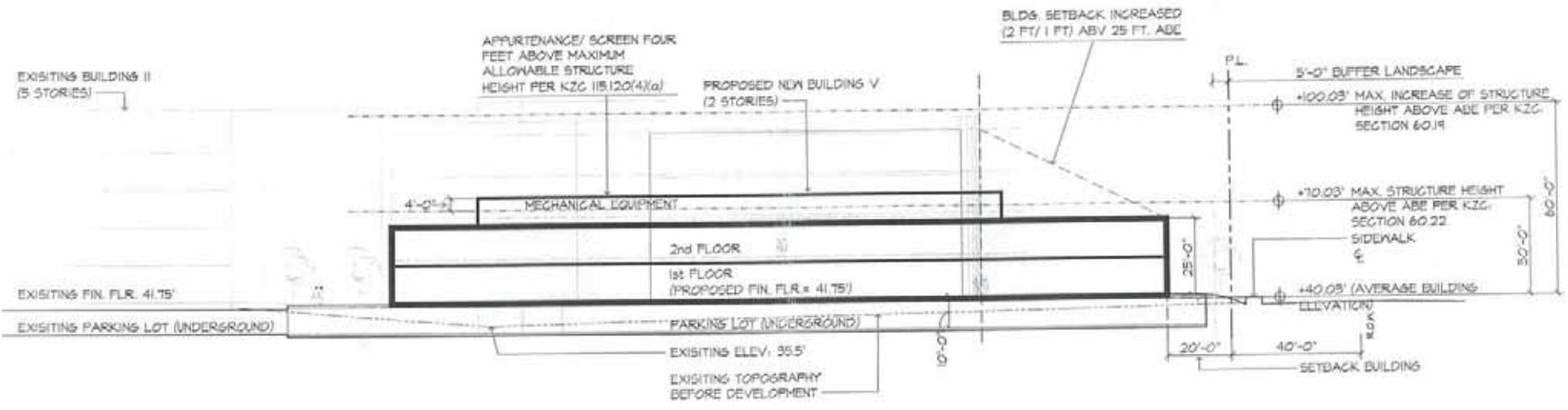
1. Applicant: Gerry Gerron, with Mulvanny G2 Architects, on behalf of Stephen Yett, property owner of the Linbrook Office Park.
2. Site Location: 10406 NE 37<sup>th</sup> Circle, Kirkland (see Attachment 1)
3. Request: The applicant is proposing two 4-story office buildings; each 198,360 square feet for a total of 396,720 square feet (see Attachment 2). The applicant is requesting the following exceptions from the Zoning Code as part of this Process IIB review.
  - a. *Increased Time*. The applicant is requesting an additional 18 months beyond the 4 year lapse of approval date. Zoning Code section 125.80, states that the City Council may, by the ordinance approving the final PUD or by the resolution or ordinance approving the preliminary PUD, extend the time limits of KZC section 152.115. See section II.F.1 for further discussion.
  - b. *Exceed 30' Height Limit*. The applicant is proposing to construct two four-story buildings (see Attachment 3). The heights of the buildings are being increased above the 30' height limit allowed by the Zoning Code. Building 1 (northwest building) is proposed with a height of 70' or 40' above the height limit. Building 2 (southeast building) is proposed with a height of 68.75' or 38.75' above the height limit. The heights are measured above an Average Building Elevation (ABE) and do not include height for rooftop appurtenances. Rooftop appurtenances are proposed at approximately 13'. Underground parking is also being proposed. This request for additional height is required to meet the Planned Unit Development (PUD) criteria. See section II.F.2 for further discussion.
  - c. *Reduce Stream Buffer Width*. The applicant is requesting to reduce the required stream buffer from Cochran Springs Creek from 75' to 50'. This request is required to be reviewed through a Process IIA and meet the criteria in KZC section 90.100 regarding stream buffer modifications. See section II.F.3 for further discussion.
4. Review Process: Process IIB, Hearing Examiner and Houghton Community Council (HCC) conduct public hearing and make recommendation; City Council makes final decision. If the City Council approves the application, then the HCC will vote to approve or disapprove it.
5. Summary of Major Issues and Recommendations: The major issues are to determine if the applicant's proposal meets the criteria for a PUD and stream buffer modification. In addition, the applicant is requesting to extend the lapse of approval date for the PUD. Staff is recommending approval of the extension to the lapse of approval date, the PUD request for additional height, and the stream buffer modification based on the recommendations outlined in section I.B below.

### B. RECOMMENDATIONS

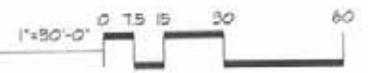
Based on Statements of Fact and Conclusions (Section II), and Attachments in this report, we recommend approval of this application subject to the following conditions:

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





SITE SECTION - LONGITUDINAL



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PLAZA AT YARROW BAY - BUILDING "V"

PROJECT NO.

PLAZA AT YARROW BAY INC

RE-SUBMITTAL 9-14-09

ZONING PERMIT PACKAGE - PROCESS IIB

CITY OF KIRKLAND

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FILE # Zon09-05017

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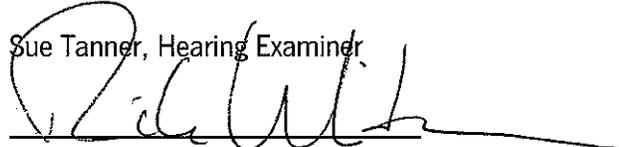
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**MEMORANDUM**

**To:** Sue Tanner, Hearing Examiner

**From:**

  
Rick Whitney, Chair, Houghton Community Council

**Date:** September 14, 2009

**Subject:** PLAZA AT YARROW BAY OFFICE BUILDING PUD AND WETLAND BUFFER MODIFICATION  
(ZON08-00017) RECOMMENDATION OF HOUGHTON COMMUNITY COUNCIL

**Recommendation to the Hearing Examiner:**

After consideration of the testimony and record presented at the public hearing on File ZON08-00017 held on September 14, 2009, the Houghton Community Council (HCC) concurs with the staff analysis and recommendation of approval, with the following additional recommendations:

**Recommendation 1**

The HCC concludes that the applicant has not provided adequate public benefits to address the adverse impacts or undesirable effects of the proposed PUD, specifically the setback reduction. In order to address the negative impacts, the applicant shall modulate the upper story of the building. In order to address this, as part of the development permit application, the applicant shall submit a building section demonstrating that no portion of the building exceeds the building setback increase (two feet for one foot) as depicted on Attachment 3, Sheet 18.

**Motion – To approve this recommendation regarding the Plaza at Yarrow Bay Office Building PUD and Wetland Buffer Modification as written. (6 yes, 0 no).**



RESOLUTION 2009-8

A RESOLUTION OF THE HOUGHTON COMMUNITY COUNCIL APPROVING ORDINANCE 4213 ADOPTED BY THE KIRKLAND CITY COUNCIL ON OCTOBER 20, 2009, RELATING TO LAND USE; APPROVING PLANNING UNIT DEVELOPMENT AND ZONING PERMITS AS APPLIED FOR BY KEITH MAEHLUM OF HAL REAL ESTATE INVESTMENTS INCORPORATED IN DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT FILE NO. ZON08-00017 AND SETTING FORTH CONDITIONS OF THE APPROVAL.

WHEREAS, the Houghton Community Council has received Kirkland City Council Ordinance 4213, approving Planned Unit Development and Zoning Permits filed by Keith Maehlum of HAL Real Estate Investments Incorporated as Department of Planning and Community Development File No. ZON08-00017 for the Plaza at Yarrow Bay Office Building; and

WHEREAS, the subject matter of Ordinance 4213, pursuant to Ordinance 2001, is subject to the disapproval jurisdiction of the Houghton Community Council and shall become effective within the Houghton Community Municipal Corporation only upon approval by the Houghton Community Council or the failure of said Community Council to disapprove Ordinance 4213 within 60 days of the date of passage; and

WHEREAS, the subject matter of Ordinance 4213 was reviewed and discussed by the Houghton Community Council at a meeting held on September 14, 2009, and at said meeting the Houghton Community Council provided recommendations on said subject matter; and

WHEREAS, the subject matter of Ordinance 4213 will serve the interests and promote the health, safety, and welfare of the Houghton Community Municipal Corporation;

NOW, THEREFORE, be it resolved that Ordinance 4213 is hereby approved and effective within the Houghton Community Municipal Corporation.

PASSED by majority vote of the Houghton Community Council in regular, open meeting this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

SIGNED IN AUTHENTICATION thereof this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

\_\_\_\_\_  
Chair, Houghton Community Council

\_\_\_\_\_  
City Clerk