OLHAVA PROPERTY
PROJECT INFORMATION

MASTER PLAN

Chapter:

1) Introduction and Administration
2) Master Land Use Plan
3) Drainage and Utilities
4) Environmental Resources
5) Traffic / Circulation Plan
6) Development Phasing and Master Plan Amendment Procedures
7) Fiscal Impact Analysis
8) Project Conformance with Poulsbo Comprehensive Plan
9) SEPA Checklist
10) Master Plan Attachments and Resources

MASTER PLAN / EIS APPROVAL (Including Conditions)

FINAL ENVIRONMENTAL IMPACT STATEMENT

an integrated master plan

for

The Olhava Property

Poulsbo, Washington

Presented by:

Olhava Associates L.P.

July, 1995

an integrated master plan

for

The Olhava Property

Poulsbo, Washington

Introduction and Administration Chapter

INTRODUCTION AND ADMINISTRATION
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OLHAVA PROPERTY

1.0 OLHAVA PROPERTY: MASTER PLAN OVERLAY

The Olhava Property is designated as a Master Plan Overlay parcel by the *City of Poulsbo Comprehensive Plan.* Master Plan Overlays are one tool used by the City for implementation of the Comprehensive Plan. Master Plan properties are those lands of 20 acres or more which can most benefit from a coordinated planning effort. The Master Plan allows for the development of mixed use projects, which effectively integrate all land uses to be developed on the property into a cohesive unit. Master Plans provide the City, property owners and developers with site-specific guidelines, consistent with the Comprehensive Plan, for the ultimate buildout of the property. Since the Master Plan can be considered a "Mini Comprehensive Plan" for a property or properties, amendment of the Comprehensive Plan should not be necessary when a Master Plan is adopted, if it is found to be consistent with the Comprehensive Plan. The Master Plan is an integrated document which is processed through the Planning Commission and City Council, and which, when approved, defines the development of the property, and is consistent with the base designation on the land use map.

The City's Zoning Ordinance includes a Chapter describing the required components of a Master Plan (Section II, Pages 89-92). The purpose of this Chapter is to establish uniform procedures for the content, adoption and implementation of Master Plans for the coordination of future development within the City consistent with the Comprehensive Plan. Pre-Submittal and Application procedures for Master Plans include:

Application Procedures

1. An application and fee are required to file a formal Master Plan application. A pre-application conference with the Planning Department Director is required prior to filing of the formal Master Plan application.

2. Prior to the preparation of a Master Plan and Environmental Impact Statement, if required, the applicant shall hold a public scoping meeting to identify potential community impacts and concerns about the project. Public notice of the scoping meeting to identify potential community impacts and concerns about the project required. Noticing procedures shall be defined by the Director at the pre-application conference, pursuant to the Notice and Hearings section of the Zoning Ordinance.

3. An application for approval of a Master Plan shall be filed with the Planning Department. The Planning Director shall review the application and notify the applicant in writing whether the application is complete. If the application is determined not to be complete, the notice shall specify what additional information is required to complete the application. The applicant shall submit any additional information necessary to complete the application.

4. A completed environmental checklist and any other information required to complete the City's environmental threshold determination shall be submitted with the application. It is the intent of this Chapter that, to the maximum extent possible, comprehensive project level environmental review will be performed at this stage so that subsequent applications for development permits within the Master Plan which conform to the approved Master Plan, including any environmental mitigation conditions imposed during the Plan approval process, will be within the scope of the Plan environmental review.

The Zoning Ordinance requires Master Plan applications to include text and diagrams which contain all of the provisions outlined below, unless otherwise stipulated by the Director in writing after the pre-application conference. If the Director wishes to issue such a written request for additional information, it shall be prepared, dated and mailed no later than 10 working days after the date of the pre-application conference.

Master Plans shall consist of one integrated document, including text, maps and diagrams which contain the following elements:

Master Plan Content

1. An Introduction and Administration Chapter defining goals, objectives, policies, scopes and intent of the Master Plan, and a complete and detailed project description. This section shall also include provisions for Administration Review, if any, Planning Commission and City Council Review of future phases or permits of the Master Plan development process. The procedures for amendment of the Master Plan shall also be included in this section.

2. A Land Use Chapter and Land Use Plan which includes:

   a. Location and type of land use (residential, commercial, institutional, etc.), including gross acreage for each land use in each planning area.

   b. Residential density by planning area and overall for the site, using the definition specified in the Zoning Ordinance.

   c. Development standards for all land uses.

   d. Areas where any development standards of the Zoning Ordinance will not be met.

   e. Adjacent land uses and streets.

   f. Public areas, parks and/or open space.

3. A Drainage and Utility Chapter and Drainage and Utility Plan which includes:

   a. A conceptual grading plan showing topographical contours at five foot intervals, preliminary cut and fill calculations and locations for all manufactured slopes and engineering pads.

   b. A conceptual drainage plan, including on and off site drainage and erosion control facilities. This plan shall also include preliminary calculations of storm water to be generated on the project site, and size and retention or detention facilities.

   c. Preliminary location of utilities, including water, sanitary sewer, storm sewer, power, natural gas and telephone.

   d. Conceptual surface water management plan.

4. An Environmental Resources and Hazards Chapter and Map which locates all critical and sensitive areas, including but not limited to wetlands, biological habitat, slopes and unstable soils and demonstrates appropriate setbacks, de-watering plans for slopes and other mitigation.

   If it is determined, through the SEPA process of the Municipal Code, that an Environmental Impact Statement is required for the Master Plan, that document may, at the applicant's discretion, be integrated into the Master Plan in this section.

5. A Circulation Chapter and Circulation Plan which includes:

   a. All arterial, collector and principal local streets.

   b. Development standards for all streets.

   c. Location of all trails, sidewalks and other non-vehicular transportation routes (pedestrian, bicycle, equestrian, etc.)

   d. Development standards for all non-vehicular transportation routes.

   e. Preliminary location of all bus stops or other rapid transit facility.

   f. Location and description of all intersection improvements for arterial and collector roadways.

6. A Project Phasing Chapter and Map which clearly demonstrate the order each planning area shall be developed, and how needs for public utilities, capital facilities and transportation facilities will be met as development occurs. It is required that each Master Plan provide implementation tools to assure concurrency of development with utility and capital facility availability.

7. A Design Guidelines Chapter which includes:

   a. Design narrative which explains the overall vision or theme of the project and preferred, permitted and prohibited styles of construction for each land use. Design standards that include exterior finishes, roof types, building articulation, landscaping requirements and signage guidelines for commercial or industrial planning areas.

   b. This chapter shall use illustrations, graphics and drawings to demonstrate design intent, architectural concepts, building massing and scale.

   This section may also include, at the applicants discretion, Zoning Ordinance materials for the proposed Master Plan area. This Zoning Ordinance should be particularly considered if variations from the City's Zoning standards included in this Article are to be included.

8. A Conformance Chapter which textually describes conformance of the Master Plan with all goals and policies of the City's Comprehensive Plan.

The Zoning Ordinance states an intention to encourage the proposal of innovative and flexible Master Plans which are tailored to the conditions and surroundings of the affected property. Accordingly, a Master Plan may include standards for height, density, parking, landscaping, streets, walkways and other components of development which differ from established City standards. The City Council may approve such alternative standards upon a determination that, compared to the normally applicable standards, the alternative standards specified in the proposed Master Plan will better serve to further one or more goals and objectives of the Comprehensive Plan. The burden of demonstrating the relative advantage of the alternate standards is upon the applicant. Alternative standards set forth in the Approved Master Plan supersede City development standards that would otherwise apply. In the event a standard is not specifically identified in an approved Master Plan, the standard allowed in the Zoning Ordinance shall apply.

Upon receipt of a complete Master Plan application, and following Planning Department review, hearings shall be set before the Commission and City Council. Notice of hearings shall be given pursuant to the requirements specified by the Hearings and Appeals procedures. The Commission shall review the Master Plan and shall make a written recommendation on whether to approve, approve in modified form or disapprove, based upon the findings described below. Commission action recommending Master Plan approval, approval in modified form, or denial shall be considered by the City Council following Commission action. Upon receipt of the Commission's recommendation, the City Council may approve, approve with modifications, or disapprove the proposed Master Plan based upon findings described below. Prior to City Council action, all land within the scope of the Master Plan shall be annexed to the City.

Findings/Conditions for Master Plan Approval

Findings are listed in the Zoning Ordinance as a guideline for adoption of Master Plans. A Master Plan may be adopted only if all of the following findings are made:

1. The proposed plan is consistent with the Comprehensive Plan;

2. The proposed plan would not be detrimental to the public interest, health, safety, or welfare of the city;

3. The subject property is physically suitable for the requested land use designation(s) and the anticipated land use development(s);

4. The proposed plan shall ensure development of desirable character which will be compatible with existing and proposed development in the surrounding neighborhood; and,

5. The proposed plan will contribute to a balance of land uses so that residents may work and shop in the community in which they live.

The Zoning Ordinance finally specifies in the Master Plan content Chapter, that no public works project, plat map, or other land use entitlement may be approved, adopted or amended within an area covered by a Master Plan, unless found consistent with the adopted Master Plan.

1.1 MITIGATION REQUIREMENTS FOR OLHAVA PROPERTY ANNEXATION

The Olhava Property was annexed to the City of Poulsbo, effective April 11, 1994. By this action, the Olhava Property meets the annexation prerequisite for Master Plan action stated by the Zoning Ordinance. Conditions for annexation are listed by *Proposed Mitigation for Olhava Annexation*, prepared by the Planning Department. SEPA was issued for this matter on September 22, 1993 (Planning Case File # 05-26-93-1). Therefore, in addition to the Zoning Ordinance requirements for Master Plans, mitigation aspects for annexation must be satisfied by the Olhava Property Integrated Master Plan. These mitigation aspects include:

Mitigation Requirements for Master Plan Approval

1. An Environmental Analysis shall be required for the entire site as part of the submittal of a future Master Plan; to include, but not limited to:

   a. Traffic: A review of future traffic corridors and the probable impact on the city, county, and state transportation system.

   b. Sewer: The analysis of the future needs of the site with respect to the extension of a sewer line across SR 3, and the down line impact on the existing sewer system.

   c. Storm Water: A drainage basin analysis of the site for storm water management and erosion control, including a wetland function and value assessment.

   d. Water: A preparation of a water utility demand plan.

   e. Cost: An economic review of cost and adequacy of governmental services to the site.

   f. Survey: The preparation of a hazard waste survey of the site.

   g. Soils: The development of a geo-technical and environmental sensitive area analysis of the site.

2. All future site development shall be subject to complete SEPA analysis.

1.2 INTENT OF THE OLHAVA PROPERTY INTEGRATED MASTER PLAN

The intent of the Olhava Property Integrated Master Plan includes several dimensions. Generally, the Olhava Master Plan is intended to communicate the Olhava Associates vision for future site development while specifying how this presented vision is consistent with all elements of the Comprehensive Plan and all other requirements for Master Plan approval.

Further, the Olhava Master Plan must integrate implementation tools to ensure that future development phases will remain consistent with the Comprehensive Plan and other requirements specified by the approved Master Plan. The Olhava Master Plan lists the following objectives for meeting these intents, including:

1.2.1 Master Plan Scope

1. Describe and illustrate the Olhava Master Plans vision for development;

2. Provide sufficient response to each of the content requirements for Master Plans specified by the City of Poulsbo Zoning Ordinance (See Section 1.0, pages 1-4);

3. Provide sufficient response to each of the listed SEPA mitigation requirements for Olhava Property annexation, specified September 22, 1993 (See Section 1.1, page 5);

4. Describe implementation tools for use by future phases which will ensure that the Olhava Master Plan remains consistent with all elements of the Comprehensive Plan and all elements of the approved Master Plan. (See Chapters 2 and 8).

1.3 SCOPE OF THE OLHAVA PROPERTY MASTER PLAN: A DESIGN PROCESS

The Olhava Master Plan scope consists of a design process described by this section. A design process is a tool used for developing a master plan best suited for a physical property and the surrounding existing or proposed land uses. This process is designed to illustrate the Olhava Associates preferred development program and Master Plan consistency with goal and policy requirements of the Comprehensive Plan. The design process consists of the following sequence of events for the Olhava Property:

1. Complete a Boundary and Topographic Survey (Completed by Bush, Road & Hitchings, Inc., April, 1993);

2. Complete an Environmental Assessment Survey (Completed by Wiltermood Associates, 1991, and Jones & Stokes Associates, Inc., July, 1994);

3. Complete a Geotechnical and Hazardous Area Survey (Completed by Harza Northwest, Inc., July, 1994);

4. Complete an Existing Drainage Inventory (American Engineering Corporation, Inc., June-August, 1994);

5. Complete an Existing and Proposed Infrastructure Analysis (American Engineering Corporation, Inc., June-August, 1994);

6. Complete an Existing Site and Adjacent Site Review (Kent Berryman & Associates, May-June, 1994);

7. Review Olhava Property Document File (Kent Berryman & Associates, May-June, 1994);

8. Determine Olhava Associates Development Vision (Interviews, Kent Berryman & Associates, May-June, 1994);

9. Review City of Poulsbo Draft Comprehensive Plan and Implementation Ordinances (Kent Berryman & Associates, May-July, 1994);

10. Conduct an Environmental Assessment for the Nike Facility (Level I and Level II Analysis by ERM-Northwest, Inc., September, 1992);

11. Prepare Draft Master Plan Illustration (Kent Berryman & Associates, July, 1994);

12. Review Draft Master Plan Illustration/WSDOT Review (Kent Berryman & Associates, July, 1994 with Jones & Stokes Associates, American Engineering Corporation, Inc., Harza Northwest, Inc., Gibson Traffic Consultants, Inc.);

13. First Revised Draft Master Plan Illustration (Kent Berryman & Associates, August, 1994);

14. Review First Revised Draft Master Plan Illustration with Olhava Associates (Kent Berryman & Associate, August, 1994);

15. Second Revised Draft Master Plan Illustration (Kent Berryman & Associates, September, 1994);

16. Conduct Traffic Impact Analysis for Second Revised Draft Master Plan/WSDOT Review (Gibson Traffic Consultants, Inc., September, 1994);

17. Third Revised Draft Master Plan with Cost Estimates (Kent Berryman & Associates, American Engineering Corporation, October, 1994)

18. Prepare Grading, Drainage, Traffic and Utility Plans for Third Revised Draft Master Plan /WSDOT Review (American Engineering Corporation, Inc., Gibson Traffic Consultants, Inc., October-November, 1994);

19. Review Third Revised Draft Master Plan for Comprehensive Plan Consistency, adjusting or listing requested variations from Zoning Ordinance (Kent Berryman & Associates, November, 1994);

20. Prepare Fourth Revised Draft Master Plan (Kent Berryman & Associates, December, 1994);

21. Prepare Master Plan text, documenting Olhava Master Plan design process and Master Plan consistency with Comprehensive Plan goals and policies, conformance with Zoning Ordinance requirements and SEPA Mitigation Requirements for Annexation (December-March, 1995)

22. Submit Olhava Property Integrated Master Plan as Pre-Application (July, 1995);

23. Receive Planning Department comments, adjust as required (Current);

24. Submit Final Application for Olhava Property Integrated Master Plan.

25. Planning Commission and City Council Actions.

1.4 OLHAVA PROPERTY DESCRIPTION

1.4.1 General Property Description

The Olhava Property is a 215 acre parcel located within the northwestern Poulsbo city limits. The property is separated into two parcels by State Highway 3. Current access is via Finn Hill Road, Terasse Drive, Parnell Place NW and Viking Avenue (See Vicinity Map- Figure A, page 9). The northern parcel consists of 174 acres, containing a 21 acre decommissioned U.S. Army Nike facility. The remaining 41 acres is located south of State Highway 3.

The Olhava Property as a whole may be described as unimproved. The site has been logged within the past 5 years; tree cover is reduced as a result of this logging activity, remaining trees are predominantly mixed-evergreen. A decommissioned Nike facility (southwest corner of north parcel) consists of several small outbuildings, some paved roads and several reinforced concrete structures. The Olhava Associates have coordinated remediation measures with the U.S. Army to remove asbestos containing materials used in building construction, transformer oils and approximately 40 cubic yards of surface soils having trace diesel elements (See ERM Northwest, Inc., report attached). Remediation will be completed prior to any development activity within the immediate site vicinity of the Nike site. Immediately upon receiving notice that remediation is complete, all existing buildings of this site will be demolished.

1.4.2 Existing Adjacent Land Use

According to the *Comprehensive Plan Land Use Map* the Olhava Property boundaries define the northern and northwestern City Limits for areas west of State Highway 3. With the exception of light-industrial and warehouse development immediately south of the northern 174 acre parcel, other surrounding land use is principally residential. These homes are located within subdivisions or larger properties under individual ownership.

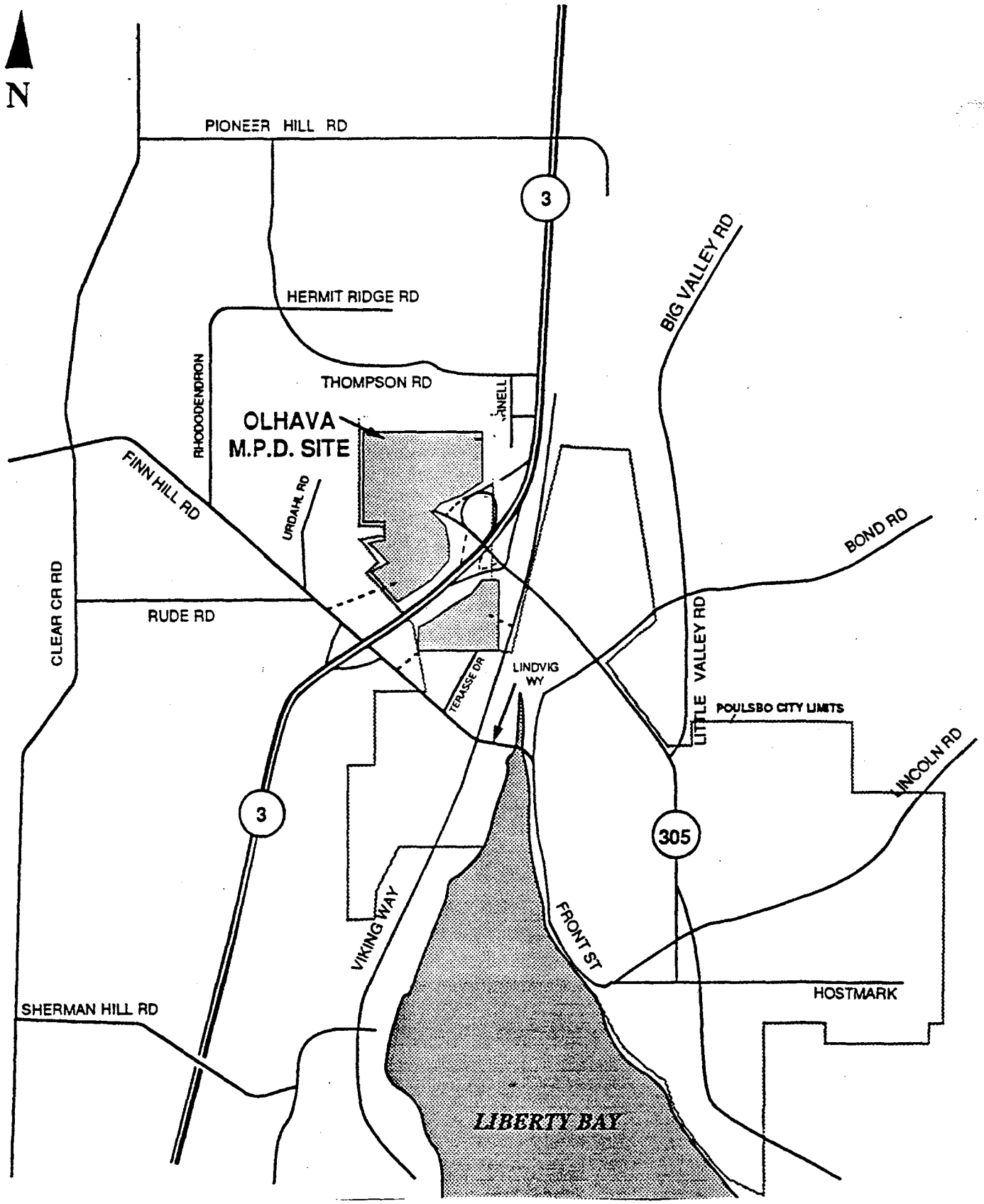
1.4.3 Comprehensive Plan for Adjacent Land Use

The *Comprehensive Plan Land Use Map* designates planned zoning revisions for properties adjacent to the Olhava Property. (See Attached Comprehensive Plan Land Use Map, page 10)

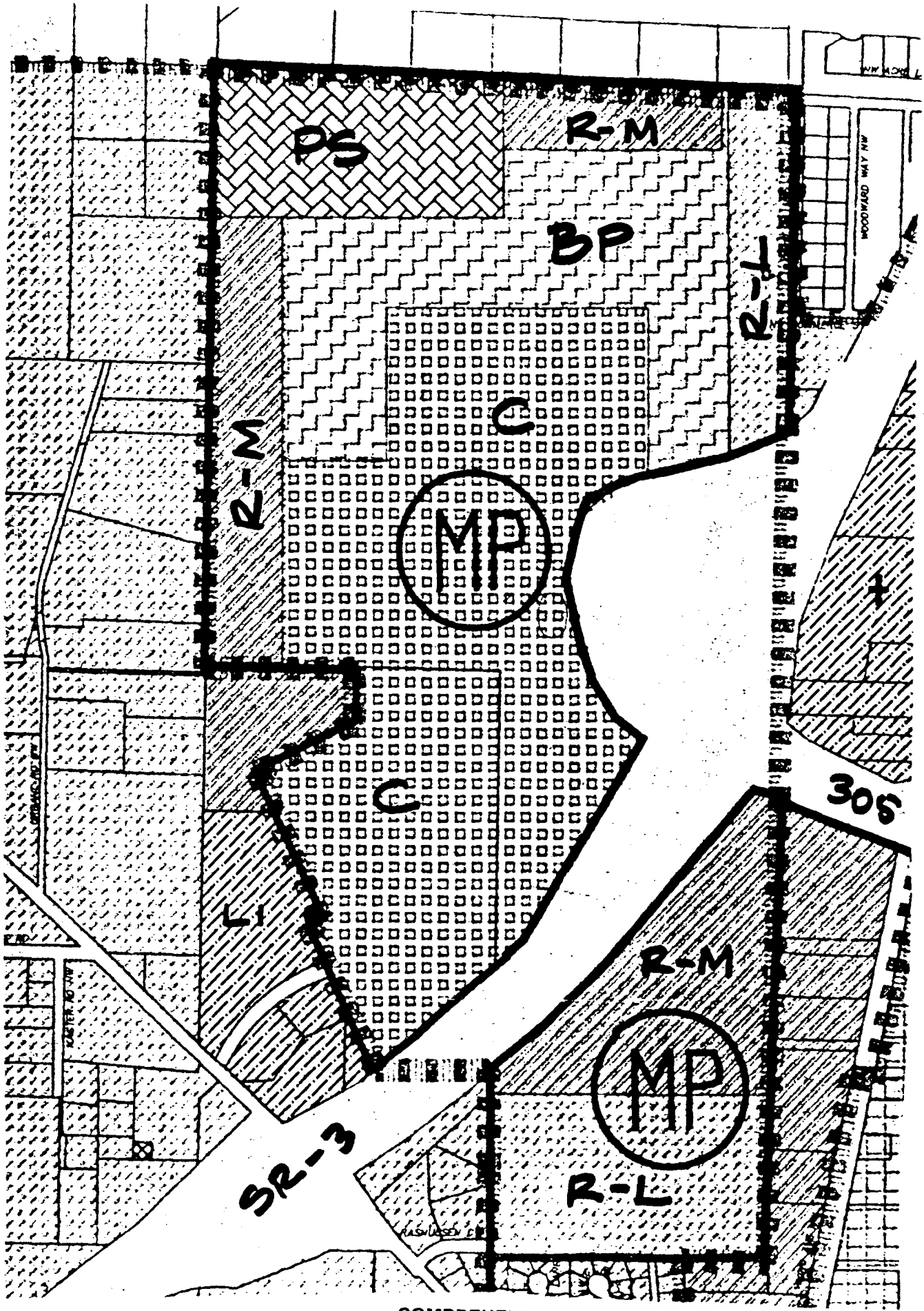
North- Adjacent properties north of the Olhava Property currently include 2.5 acre home sites. Because these properties are not within the Planned Urban Growth Area of the Poulsbo Comprehensive Plan, the City has no current plans to affect planned zoning revisions.

West- Adjacent properties west of the Olhava Property are planned to include low-density residential, medium-density residential and light industrial land use.

South- Adjacent properties south of the Olhava Property include currently developed low-density residential and planned zoning for medium-density residential land use.



Olhava Property Vicinity Map
Poulsbo, Washington



COMPREHENSIVE PLAN LAND USE MAP

East- Adjacent properties east of the Olhava property include a developed residential area northeast of the property and property east of the southern 41 acre Olhava parcel. The northeast property is not located within the Planning Urban Growth Area and therefore has not been planned by the Comprehensive Plan. Comprehensive Plan zoning designation for the later area includes medium-density residential between the Olhava Property and Viking Avenue.

Natural Systems

The *Natural Systems Element* of the Comprehensive Plan encompasses aspects of the natural environment. Geologic considerations include soils, seismic hazards, slopes and erosion. Hydrologic considerations include ground water, water quality, flooding and drainage. Biological considerations include flora, fauna and habitat conservation areas. The City's natural resource considerations include agriculture, forestry, mineral, shoreline, fisheries, and aquaculture.

The following sections describe existing site conditions for the Olhava Property and the relationship of these conditions to the Natural Systems Elements.

Natural Systems/Geological Considerations

1.4.4 Site Description: Soils (See *Preliminary Geotechnical Engineering Investigation for the Olhava Development, L.P., Highway 3 and Finn Hill Road, Poulsbo, Washington*; Harza Northwest, Inc., August 1994, attached to this document as supporting technical material)

Site soils are generally described to consist of variably thin layers of sand, silty sand, silty to clayey sand, and sandy silt. The upper 1.5 to 5 feet of surface soils consist of loose to dense silty sand. Below depths of 8 feet soils generally become very dense olive gray silty sand.

1.4.5 Site Description: Seismic Hazards

The Comprehensive Plan describes Seismic Hazard areas as areas subject to severe risk of damage as a result of earthquake induced groundshaking, slope failure, settlement, soil liquefaction or surface faulting. Exhibit VI-4 of the Comprehensive Plan (Areas of 40% or Greater Slope and Liquefaction Areas) illustrates a slight potential for liquefaction near the southwest corner of the Olhava Property's northern 174 acre parcel. However, geotechnical test borings (B-1, B-2 and B-3) and laboratory analysis (Harza Northwest, Inc., August, 1994) determined these "soils are not susceptible to liquefaction." This report further states that soils are generally clean, loose, saturated, uniformly graded, fine-grained sand that lie within 50 feet of the ground surface. The soils encountered in the exploratory borings, below the loose surficial soils, generally consist of dense to very dense silty sand and sand or hard silt. Therefore, there is no likelihood that the soils underlying the site will liquefy under earthquake loading.

1.4.6 Site Description: Existing Topography

The site may be generally characterized as following a north-south ridge with southeastward slopes. According to the topographic and boundary survey (Bush, Roed & Hitchings, Inc., 1993) slopes gradients for the property generally range between 6-10 percent (e.g., 6-10 ft. vertical gain or loss in 100 lineal feet of measure). There are several isolated areas where slopes approach minimum gradients of 0-4 percent and maximums of 20-25 percent.

Exhibit VI-4 (*Areas of 40% or Greater Slope and Liquefaction Areas*) of the Comprehensive Plan does not identify *Steep Slope Hazards* for the Olhava Property. This is confirmed through slope inventories made from the referenced topographic and boundary survey. The Olhava Property slopes, when applying Comprehensive Plan relative category definitions, are below intermediate gradients.

1.4.7 Site Description: Erosion (See *Preliminary Geotechnical Engineering Investigation for the Olhava Development, L.P., Highway 3 and Finn Hill Road, Poulsbo, Washington*; Harza Northwest, Inc., August, 1994, attached to this document as supporting technical material)

No significant erosion is presently occurring at the Olhava Property due to the presence of established native ground cover, understory and overstory vegetation. Some erosion has impacted the northeastern property corner; this has resulted from prior construction activity north of the Olhava Property where clearing and imported fill has altered the natural drainage velocities and soil permeability. The result has impacted two isolated Category 3 wetlands (0.06 and 0.08 acres each) beyond their original dimensions flagged by Wiltermood Associates (1991). Original grading permits were issued for this construction activity with conditions that detention devices would be constructed as mitigation for these created drainage conditions. Kitsap County and the adjacent northern property owner are currently resolving this matter.

Erosion control during site development will require the construction of on-site detention ponds, check dams, placement of silt fences and straw bales. Manufactured slopes will be reseeded immediately. Surface runoff will be directed into catchment basins and infiltration basins for removal of silt prior to downstream discharge.

Natural Systems/Hydrological Considerations

1.4.8 Site Description: Groundwater (See *Preliminary Geotechnical Engineering Investigation for the Olhava Development, L.P., Highway 3 and Finn Hill Road, Poulsbo, Washington*; Harza Northwest, Inc., August, 1994, attached to this document as supporting technical material)

Groundwater was encountered at the time of drilling at depths varying between fifteen (15) and twenty (20) feet below existing grades. This water is likely to be perched. No groundwater was encountered in the deeper borings. All borings were backfilled immediately after drilling, thereby suggesting that these borings may not have been left open for a sufficient period of time to establish equilibrium groundwater conditions. Fluctuations in the groundwater level could occur due to changes in seasons, variations in rainfall, and other factors.

1.4.9 Site Description: Water Quality/Wetland Impact and Surface Drainage

There are no existing water bodies or streams within the Olhava Property boundaries. Water quality focus has therefore been directed towards surface drainage and wetlands.

Existing wetlands include; one (1) Category 2 site, consisting of 0.81 acres, and; four (4) Category 3 sites, with relative areas of 0.08, 0.08, 0.12 and 0.06 acres. The larger Category 2 site is located within the proposed Olympic College Site (See Chapter 2, Section 2.4.10, Planning Area 10). Hence, the remaining Class 3 wetlands included with the Olhava Property are each isolated and total 0.34 acres.

Pre-development and post-development drainage areas are identified, calculated and designed in Chapter 3. Postdevelopment stormwater flows exiting the site are designed to be 50 percent of the pre-development 2-year, 24-hour flow, while maintaining the pre-development 10-year, 24-hour and 100-year, 24-hour stormwater flows. Stormwater flows for pre-development conditions at the Olhava Property were established using the *Santa Barbara Urban Hydrograph (SBUH) Method as outlined in the Stormwater Management Manual for the Puget Sound Basin, Washington State Department of Ecology, February, 1992.* Chapter Three also describes the Olhava Property methodology for preserving water quality. The system collects stormwater according to the grading and storm sewer plan, discharging collected roof water to "feed" wetlands and retaining other stormwater according to volumes and rates specified above.

1.4.10 Site Description: Flooding

The Olhava Property ranges in elevation from 125-375 feet above mean sea level. There is no danger of flood plain obtrusion to the property. Because the property is located upon a ridge, contributing storm water influence is minimal. Hence, the only significant flooding sources could be post-development drainage. The Olhava Property Master Plan provides conceptual grading and drainage plans according to the requirements of the Zoning Ordinance requirements for Master Plans (See Chapter 3, Figure 3A and Figure 3D and descriptions). Final grading and drainage plans will meet all applicable State laws or City of Poulsbo Department of Public Works regulations governing pre-development and post-development discharge requirements.

Natural Systems/Biological Considerations

1.4.11 Site Description: Flora

None of the Sensitive Plan Species identified by the Comprehensive Plan (Table VI-1) are known to occur on the Olhava Property.

The Olhava Property is characteristic of lowland forest in the Puget Sound region. Franklin and Dryness (1973) classify the vegetation in this area as the Western Hemlock Zone, the most common vegetation zone in western Washington. Because the site has been logged within the past 70 years, it is best described as an early to mid-succession stage forest. The majority of the project area is dominated by coniferous forest in various stages of age classes depending on past logging activities. Small scrub-scrub wetlands and one forested wetland are also located within the upland forest area in the northern 174 acre parcel. Disturbed vegetation areas are associated with the decommissioned Nike facility and access roads and staging areas in the forest that were cleared for selective logging in 1988. Vegetation communities are illustrated in Chapter 4, Figure 4A, page 3.

Tree cover consists of coniferous forest specimens of douglas fir, western red cedar, western hemlock and scattered areas of western white pine that form a mosaic of open and closed canopy as a result of past logging. The northern 174 acre parcel contains douglas fir and western hemlock more commonly than western red cedar; these are typically 6-14 inches diameter breast height (dbh). Larger western red cedar ranging in size from 6-36 inches dbh are primarily located in the upland fringes of the small, isolated wetlands.

The southern 41 acre parcel contains western red cedar and mountain hemlock more commonly than douglas fir. Trees are typically 10-20 inches dbh although larger western red cedar up to 30 inches dbh are present near the south property boundary. Deciduous trees are present but uncommon.

Seedlings and saplings of red alder are present in open areas where the overstory of thinned conifers has enhanced their establishment. Mountain ash and Pacific madrone are uncommon and scattered in the northern parcel. Several big-leaf maple trees are present in the southern 41 acre parcel.

Understory vegetation ranges from dense cover of shrubs to more open areas of herbaceous vegetation growing among downed timber. Common understrory shrubs include red alderberry, rhododendron, salal, huckleberry, Oregon grape, and California dewberry. Herbaceous vegetation growing in the understory includes swordfern, bracken fern, fireweed, bentgrass, and other grasses.

A data search for threatened, endangered or sensitive plant species conducted by the *Washington Natural Heritage Program (WNHP), Department of Natural Resources* determined that no threatened, endangered or sensitive plant species were known to occur on the Olhava Property. No plant species recognized by the WNHP as threatened, endangered or sensitive were observed at the Olhava Property during field assessment (Jones & Stokes Associates, Field Assessment, July, 1994).

1.4.12 Site Description: Fauna

Audobon Society faunal species of local importance, identified by the Comprehensive Plan, may occur on the Olhava Property. Coyote may occur in the northern parcel. Because there is limited habitat to support the occurrence of pileated woodpecker and the northwestern salamander, however the presence of these species is expected to be minimal.

Some evidence of mammals was observed during field assessments (Jones & Stokes Associates, Field Assessment, July, 1994). Mountain beaver burrows were found throughout the Olhava Property and two Douglas squirrels were observed. Although little evidence of deer use was detected, deer may occur on the northern parcel since this area is bordered to the west and partly to the north by forest land and low density development, respectively (Whitmer et al. 1985). Coyote typically occur in habitats similar to the northern parcel of the Olhava Property.

Other mammals, commonly occurring in similar habitats in western Washington, include raccoon, long-tailed weasel, porcupine, opossum, deer mouse, Townsend mole and several species of shrews (Brown 1985; Chapman and Feldhammer 1982). Bats may also occur at the Olhava Property, especially big brown bats (Humphry 1982).

Large mammals such as deer are less likely to occur on the southern 41 acre parcel because it is surrounded on all sides by major roads.

Observed birds include black-capped chickadee, American robin, rufous-sided towhee, red-breasted nuthatch, American crow, common bushtits and Steller's jay. Cavity nesters such as pileated woodpecker, northern flicker and downy woodpecker may occupy snags (dead upright trees) on the Olhava Property. Populations of cavity nesters is probably low since few large snags (those greater than 20 inches dbh) were observed.

No waterfowl or wading birds were observed or are expected to occur on the Olhava Property due to lack of wetlands or streams that would provide the necessary habitat.

Hawks and owls likely occur on the Olhava Property, although none were observed during field assessments. Habitat appears suitable for support of red-tailed and sharp-shinned hawks and great-horned owls.

No amphibians or reptiles were observed during field assessments. Based upon species matrices outlined in Brown (1985), and distribution maps in Nussbaum et al. (1983), herptiles which may occur at the Olhava Property include common garter snake, western toad, Pacific tree frog. ensatina and northwestern salamander. Amphibian populations are likely limited due to the lack of streams and large areas of wetland.

A search of the *Washington Department of Fish and Wildlife Priority Habitats and Species Data System* (1994) revealed no occurrences of threatened, endangered or sensitive species in the site vicinity. Additionally, no evidence of threatened or endangered wildlife was observed at the Olhava Property during field assessments.

1.4.13 Site Description: Habitat Conservation Areas

The Comprehensive Plan specifies that the classification, designation and regulation of fish and wildlife habitat conservation areas is intended to preclude development which is incompatible with these areas. The intent of fish and wildlife conservation under GMA is "...to maintain species in suitable habitats within their natural geographic distribution to prevent the creation of isolated subpopulations. This does not mean maintaining all individuals of all species at all times.." (WAC 365-190-0870(5)).

According to the Priority Habitats Illustration, Exhibit VI-7, of the Comprehensive Plan, no priority habitats are present on the Olhava Property or in the immediate site vicinity.

Wetlands are present on the Olhava Property but number less than a total of 0.34 acres. These are isolated and are categorized as Class 3 wetland types of scrub-scrub variety. Of the four wetlands identified, one 0.06 acre wetland is planned to be eliminated with 2:1 mitigation measures planned for nearby wetland sites. The remaining three wetlands will be enriched and protected by development buffers incorporated by administrative procedures and associated development guidelines for future phases (See Chapter 2, Section 2.5, and Chapter 3, Figures 3A/3D and associated descriptions).

Natural Systems/City's Natural Resource Considerations

1.4.14 Site Description: Agriculture

The Comprehensive Plan defines agricultural lands as those devoted to long term commercial production of a variety of farm products, Christmas trees, and livestock farms. The State code also requires lands of local importance as needing to be identified. Prime agricultural soils are located in the Urban Growth Area north of the City, in the general area of Dogfish Creek, and on the eastern boundary of the City. Within the Poulsbo Urban Growth Area, the United States Department of Agriculture Soil Conservation Service (SCS) lists three soil types which would be used for the "prime" farmland classification. These soil types are: Kitsap Silt Loam, Norma Fine Sandy Loam, and Shalcar Muck.

Due to the absence of these three identified soil types, the eastern solar orientation of the site and slope gradients of the Olhava Property, use of this property for purposes other than agriculture should not adversely impact agricultural land inventory for the City of Poulsbo.

1.4.15 Site Description: Forestry

The Comprehensive Plan defines productive forest lands as those useful for growing trees for commercial purposes, with long term significance to the area. These lands are also generally defined as being on large (20 acres or more) parcels.

The Comprehensive Plan further states that due to urban or semi-urban land use conflicts, ownership patterns and parcel sizes, no significant forest lands occur either in the City limits or within the Urban Growth Area. Forest resources do occur in the unincorporated areas north of the City, and on Tribal reservation lands.

1.4.16 Site Description: Mineral Resources

The State defines mineral resource lands as those which contain commercial deposits of gravel, sand and metallic substances.

No known mineral deposits, oil, gas or industrial minerals occur in Kitsap County or are known to occur in the Olhava Property. Sand and gravel deposits do occur within the Urban Growth Area but are not known to occur at the project site.

1.4.17 Site Description: Shorelines

No shorelines, open water bodies or creeks occur on or within the immediate site vicinity of the Olhava Property.

1.4.18 Site Description: Aquaculture and Fisheries

The Comprehensive Plan describes Dogfish Creek as home to Steelhead trout, Coho, Chum and Chinook Salmon. The fisheries of Dogfish Creek are managed by the Washington State Department of Fisheries and the Suquamish Indian Tribe. In addition, a private group, Trout Unlimited, supports the fishery.

The *Comprehensive Surface Water Management Plan* of the Comprehensive Plan includes a comprehensive analysis of the balance which must be achieved to realize drainage goals, while maintaining natural resources. The Plan concludes that the resource in Dogfish Creek is of sufficient quality to be preserved and enhanced if possible.

The Olhava Property is not considered an upland shoreline development due to its location and absence of shorelines. However, as a response to drainage issues which might be considered as impacts to fisheries, the Olhava Property Master Plan is designed to provide water quality treatment and abatement for surface water discharge while enhancing existing site wetlands. A complete and detailed description of this design and achievement in meeting standards of the *Stormwater Management Manual for the Puget Sound Basin* is included in Chapter 3.

1.5 ZONING DISTRICTS OF THE OLHAVA PROPERTY MASTER PLAN OVERLAY

The purpose of this section and subsequent sections of this chapter is to describe and illustrate the Olhava Associates site development vision for the Olhava Property. The process used in presenting this vision is outlined in *Section 1.3, Scope of the Olhava Property Master Plan: A Design Process*. Intense review of the property has been conducted to establish a basis for the Master Plans consistency with all review procedures and goals and policies of the Comprehensive Plan.

1.5.1 Zoning District Suitability

Zoning Districts for the Olhava Property are designated by the Comprehensive Plan *Land Use Map* (See page 10). These districts were examined by the Olhava Associates from geographic, marketing, traffic, construction feasibility and other perspectives. Conclusions were favorable for creating an integrated master plan environment. Site planning analysis provided additional support to the conclusion that Zoning Districts are appropriately located, providing high potential for establishing an integrated community. Additionally, it was determined that Zoning Districts provide ample opportunity for the Master Plan to successfully meet each of the goals and policies of the Comprehensive Plan.

The Olhava Property Master Plan Overlay, designated by the Comprehensive Plan, includes the following adopted Zoning Districts and relative acreage's:

Zoning District	Acreage
• Commercial	83
• Business Park	40
• Public Schools	20
• Medium-Density Residential	43
• Low-Density Residential	29
Total	215

1.6 PROJECT DESCRIPTION

The *Master Plan Scope* (Sections 1.2-1.3) outlines requirements for Master Plan content and procedures followed by the Olhava Master Plan for meeting these requirements. The purpose of this section is to describe and illustrate the first scope element which is the Olhava Master Plans vision for development. Specific technical description and illustrations support this project description and are presented in subsequent chapters.

1.6.1 Master Plan Program: Overview

The Olhava Property Master Plan is an integrated mixed-use development consisting of 215 acres, phase-planned for a 10-year buildout. The Master Plan presents a unique opportunity for integrating a spectrum of compatible Zoning Districts into a property well situated for multiple-use development.

The Olhava Property is divided by State Highway 3 into a northern 174 acre parcel and a southern 41 acre parcel. Current Zoning for both parcels provides the Olhava Property with the following land uses and relative areas:

TABLE 1.1 LAND USE MAP AREA STATISTICS- CURRENT ZONING

Northern 174 Acre Parcel

Zoning District	Acreage
• Commercial	83
• Business Park	40
• Public Schools	20
• Medium-Density Residential	23
• Low-Density Residential	08
Total	174

Southern 41 Acre Parcel

• Medium-Density Residential	20
• Low-Density Residential	21
Total	41
Grand Total	215

1.6.2 Site Access

The property includes five pre-development vehicular access points. The northern parcel is accessible via Finn Hill Road at one southern location (100 ft. ROW), and Pamell Place NW which parallels the northeast boundary of this parcel (50 ft. ROW). The southern 41 acre parcel is accessible via Finn Hill Road at one southwest location(50 ft. ROW), one southern access via Terasse Drive (30 ft. ROW), and one access via Viking Way (60 ft. ROW).

Post-development vehicular access has been designed to include lane improvements to the access locations listed above and will also include designed interchange improvements where State Highway 3 intersects State Route 305. Terasse Drive has been planned as secondary and/or emergency access point for the southern parcel.

Primary access to the southern parcel has been designed via Viking Way. Finn Hill is designed to provide secondary access to the southern parcel.

Designed interchange improvements include revisions to the SR 3 off-ramp with signalization, additional on-ramps, left-turn lanes, additional lanes and associated underpass widening, and connection with the designed frontage road.

The frontage road is designed to provide safe and efficient access to each area of the Olhava Property. This road has been designed as a 4-5 lane collector from Finn Hill Road to the planned intersection of SR-3 and SR-305 with left turn lanes, transit, and bicycle lanes. This segment would provide an alternative route to Finn Hill Road thereby reducing traffic volumes to Viking Way.

The second segment of the frontage road is designed to provide safe and efficient access to the northwestern site area, including the public school site and other uses of this site vicinity. The public school site is currently being planned for the Olympic College branch campus. Transit lanes, bus stops, and bicycle routes are planned for this segment which includes a looped boulevard system for convenient transit returns to SR-3/SR-305.

The third-segment frontage road is designed to provide safe and efficient access to the northeastern site area. This segment is planned as a two-lane minor collector due to traffic analysis and minimal traffic volume projections. The connection of this frontage road segment to Parnell Place NW is intended to provide safe and efficient SR-3/SR-305 access; Parnell Place NW and Thompson Road are currently accessed from SR-3/SR-305 via left and right turn lanes without signalization.

1.6.3 Highway/Frontage Road Improvements:

The planned interchange and frontage road improvements involve significant expense and shared benefits to State and local entities, including the Olhava Associates. Because of the shared benefit aspect and regional significance of the Olhava Master Plan, these improvement costs are currently being viewed on a Project Share basis by various State and local entities with interlocal and agency agreements to follow.

Project Share participants are expected to include Washington State Department of Transportation (WSDOT), Kitsap County, Olympic College, the City of Poulsbo, Olhava Associates, and other planned local developments receiving benefit from the planned highway and frontage road improvements.

Other off-site traffic mitigation and associated Project Share contributions by the Olhava Associates are discussed and illustrated in Chapter 5, *Traffic/Circulation Plan Element*.

1.6.4 General Land Use Goals

The Olhava Master Plan integrates the following land use goals:

GOAL 1 To provide a mix of functionally integrated land uses which meet general social and economic needs through compatible and harmonious land use and zoning designations.

GOAL 2 To maintain a well-rounded community of desirable neighborhoods, a strong employment base and a variety of community facilities.

GOAL 3 To provide logical development phasing and appropriate development standards which will ensure fluid transitions among land uses while protecting the general health, safety and welfare of the community residents and patrons.

GOAL 4 To provide a full range of high-quality commercial and business uses that meet the community's needs and take full advantage of all development opportunities.

GOAL 5 To provide high-quality residential settings and linkage to all business,- commercial, educational and recreational facilities.

GOAL 6 To provide bicycle, pedestrian and transit linkage for all land uses.

GOAL 7 To designate open and recreational spaces.

1.6.5 Land Use Plan Intent

A master site plan illustration (e.g., Land Use Plan) is included to best communicate the Olhava Master Plan intent. This illustration provides Olhava Associates "development vision" for preferred arrangements, relative future building sites sizes, densities, traffic circulation, etc. Due to this property's extended development timeframe, future tenant site information-otherwise necessary for Site Plan Review- is not available. Accordingly, the Land Use Plan and associated development standards provide basis for subsequent design and site plan review.

The Land Use Plan is detailed in Chapter 2, *Land Use Element*. Generally, City of Poulsbo Implementation Regulations have been applied to this plan. Exceptions are noted in the Development Standards, Section 2B, Chapter 2. The Land Use Plan provides basis for estimating project statistics, Park and Open Space requirements, traffic impact analysis, grading and drainage plans, water plans, capital facility plans, infrastructure requirements and other required descriptions and illustrations.

1.6.6 Northern 174 Acre Parcel: Land Use Description

The northern Olhava Property parcel (174 acres) is designed to contain the following land uses and associated development elements:

TABLE 1.2 LAND USE DESCRIPTION/NORTHERN 174 ACRE PARCEL

LAND USE	ACRES	UNITS
• Commercial	83	840,000 SF
• Business Park	40	325,000 SF
• Medium-Density (Plan Area 2)	15	160 units
• Medium-Density (Plan Area 8)	8	100 units
• Low-Density Residential (Community Park)	8	n/a
• Public School/Olympic College	20	50,000 SF
Total	174	

Note: Medium-Density Residential Planning Area 2 (as located in Figure B, Chapter 2, page 8) will include a 50 foot perimeter buffer along the north property line linking this use to Olympic College and the Community Park. Medium-Density Planning Area 9 will also include a 50 foot perimeter buffer, located along the west property line and linking this use to Olympic College and the Community Park. Continuous five (5) foot walking/jogging trails will be included within these buffer areas for each Medium-Density residential development. The Community Park will be dedicated as a separate tract if this is the park mitigation agreed upon by the City and Applicant.

Commercial Development

The Commercial component is designed to include three types. A primary commercial site area is represented by building types C1-C5. These building types represent approximately 470,000 square feet (SF) in a preferred arrangement of westerly building clusters around a landscaped parking area. The parking area provides approximately 3200 diagonal parking spaces which exceeds the City requirements by approximately 1345 spaces. This ratio of 6.8:1000 (e.g., car spaces per 1000 square feet of building area) exceeds the commercial industry parking norm of 5.0:1000. A commercial park site area is represented by building types C15-C22. These building types represent approximately 160,000 SF in a preferred arrangement which clusters these uses in the north-central site vicinity. The illustrated parking area would provide approximately 1100 parking spaces which exceeds the City requirements by approximately 300 spaces; these counts include higher parking requirements for restaurants and a hotel, two uses envisioned for this commercial area. Commercial pads are represented by building types C6-C14 and C23-C24. These building types represent approximately 210,000 SF in a preferred arrangement which associates this use on the east side of the primary frontage road. Illustrated parking areas are intended to provide 1100 parking spaces, essentially equal to the City requirement for this use.

Business Park Development (Planning Area- see Figure B, Chapter 2)

The Business Park component is designed to include a preferred building arrangement which would allow placement of parking areas in a central core fashion. These building types are represented as B1-B25 on the Land Use Plan. Standard road and parking configurations of this plan illustrate 1400 parking spaces, exceeding the required 1/250 GFA (Gross Floor Area) by approximately 100 spaces. Because Olympic College and frontage road traffic would traverse the business park, design intent includes building placement as a visual screening device from pedestrian/vehicular routes to auto parking clusters.

One Class 3 wetland (0.12 acre) is contained by the business park near sites B24 and B25. By a development standard requiring a 50 foot setback and surface water detention, this wetland will be enhanced to provide an amenity for the business park.

Medium-Density Residential Development (Planning Area 9-see Figure B, Chaper 2)

This residential component is designed to include 160 dwelling units within a 15 acre area zoned for this use. Preferred arrangements for these dwelling units include vertical clusters and a ground-floor unit with townhomes above. In a response to *Park and Open Space* requirements of the Comprehensive Plan, a 50 foot perimeter buffer is planned along the west and south boundaries of this parcel. This buffer will include a five (5) foot jogging/walking trail which provides access to the Olympic College campus site. Access to the Community Park from this parcel is designed via the Olympic College site and the similar buffer and trail system planned for the Medium-Density Residential (Planning Area 8) parcel on the north boundary of the Olhava Property.

Due to the moderate terrain planned for this parcel, a preferred arrangement would include a central open space providing distance buffers among units. This central orientation would direct living spaces away from eastern oriented commercial. Extraneous covered parking structures are anticipated to create courtyard entrances while providing additional buffering devices from these dwelling units to commercial uses.

As a cumulative response to the Park and Open Space requirements of the Comprehensive Plan, a neighborhood park space is planned for this residential parcel. A 2.0 acre park parcel has been designated for the south vicinity of this residential development. This park site will incorporate the use of a stormwater detention facility (e.g., pond), designed to always hold water in treatment capacity. The naturally shaped pond will provide sufficient side slopes and depth to ensure safety, treatment and sedimentation abatement. The remaining park area will provide room for a sport court, community center or open space amenities per Standards of Chapter 2, Section 2.5.

Transit accommodations are planned for this residential area via the proposed Silverdale Express Route. Two bus stops are planned for this residential area. This routing and bus stop information was integrated with the Olhava Master Plan following coordination with Kitsap Transit.

Sidewalks will provide residents non-motorized access to commercial, business, community park and Olympic College uses of the Olhava Master Plan. See Chapter 5, Section 5.4.

Medium-Density Residential Development "B" (Planning Area 8, Chapter 2)

This residential component is designed to include 100 dwelling units within an 8 acre area zoned for this use. Preferred arrangements for these dwelling units include vertical clusters and a split-level configuration. The illustrated arrangement includes a lower-level unit with townhomes above. In response to *Park and Open Space* requirements of the Comprehensive Plan, a 50 foot perimeter buffer is planned along the north boundary of this parcel. This buffer will include a five (5) foot jogging/walking trail which provides access to the Olympic College campus site and the adjacent Community Park.

Due to this parcel's sloping topography a preferred arrangement would include terracing of these dwelling units. Covered parking structures are anticipated to provide privacy buffers and courtyard entrances to these dwelling units.

Transit accommodations are planned for this residential area via the proposed Silverdale Express Route. One bus stop is planned for this residential area. This routing and bus stop information was integrated with the Olhava Master Plan following coordination with Kitsap Transit.

Sidewalks will provide residents non-motorized access to commercial, business, community park and Olympic College uses of the Olhava Master Plan.

Low-Density Residential (Planning Area 1, Chapter 2)

While the Zoning Ordinance Land Use Map includes an 8 acre area for low-density residential use for the northern 174 acre parcel, the Olhava Master Plan has determined that this area should be utilized as a Community Park site to meets its park and open space mitigation requirement. According to the Zoning Ordinance, Parks and Opens Space are an allowed use for low-density residential zoning. Therefore, rezoning of this parcel should not be required for this adjustment.

Community Park (Planning Area 6, Chapter 2)

An eight (8) acre Community Park site is planned for the northeast sector of the northern 174 acre parcel. The width of this parcel averages approximately 220 feet which is sufficient dimension for baseball, soccer and football. The length is approximately 1400 feet which provides sufficient dimension to have several fields, parking and other community facilities.

The adjacent frontage road is planned to provide safe and efficient park access. Reduced traffic volumes of this frontage road segment is appropriate for the park's active and passive recreation elements. This road is planned to traverse the park site en route to Pamell Place NW. The park area north of the frontage road is planned for passive uses and enjoyment of two protected and enhanced wetland sites (0.06 and 0.08 acres).

Adjacent sidewalks and bicycle lanes will provide non-motorized access to commercial, business, community park and Olympic College uses of the Olhava Master Plan.

Integrated Master Plan for the

Olhava Property

Poulsbo, Washington

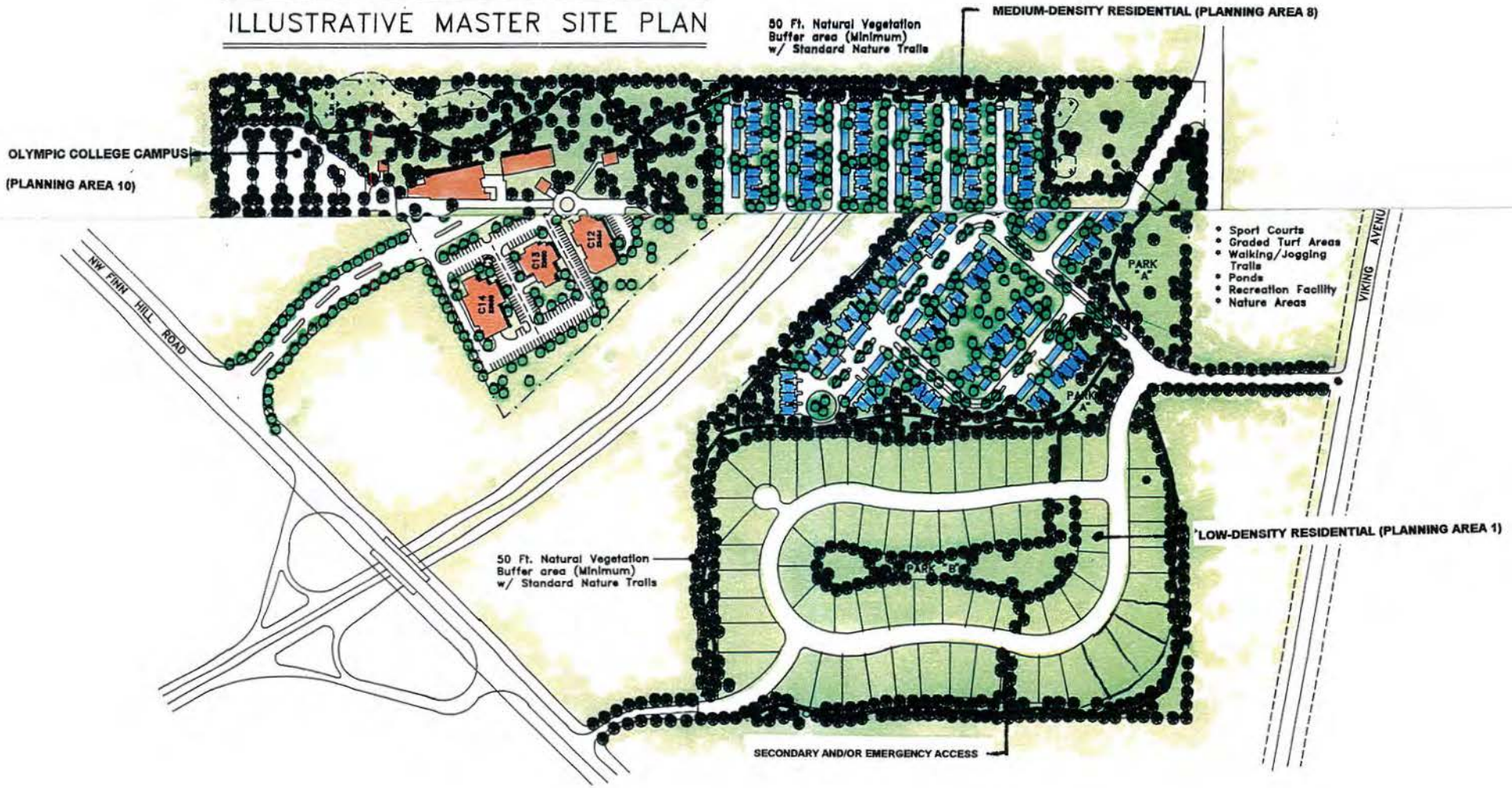
0 100 250 450

50 150 350

north

FIGURE A

ILLUSTRATIVE MASTER SITE PLAN



Public Schools/Olympic College Site (Planning Area 10, Chapter 2)

During the Fall of 1993 the Olhava Associates agreed to donate a 20 acre parcel of the Olhava Property to the Olympic College Board of Trustees for use in constructing an Olympic College branch campus. The parcel donation is conditioned upon Master Plan approval by the City of Poulsbo. This parcel is located in the northwest corner of the Olhava Property; planned access to this parcel is via the second segment frontage road.

The Olympic College includes two phases. The first phase is planned for the western 10 acres of this parcel and will include a two-level structure with approximately 30,000 SF. This phase will accommodate 900 full-time equivalent students (e.g., approximately 1800 part-time). Subsequent phases will include approximately 20,000 additional SF with capacity for other free-standing structures in the future.

Planned OC site features include day care facilities, an outdoor amphitheater, a perimeter jogging/walking trail and environmental education stations.

Transit accommodations are planned for this land use via the proposed Silverdale Express Route and the Local Express Route. Bus stops are planned with a transit turnaround at the campus administration building. Frontage road planning, transit routing and bus stop information was integrated with the Olhava Master Plan following coordination with Kitsap Transit.

Sidewalks and bicycle lanes will provide the campus with alternatives for non-motorized access to commercial, business, residential and community park uses of the Olhava Master Plan.

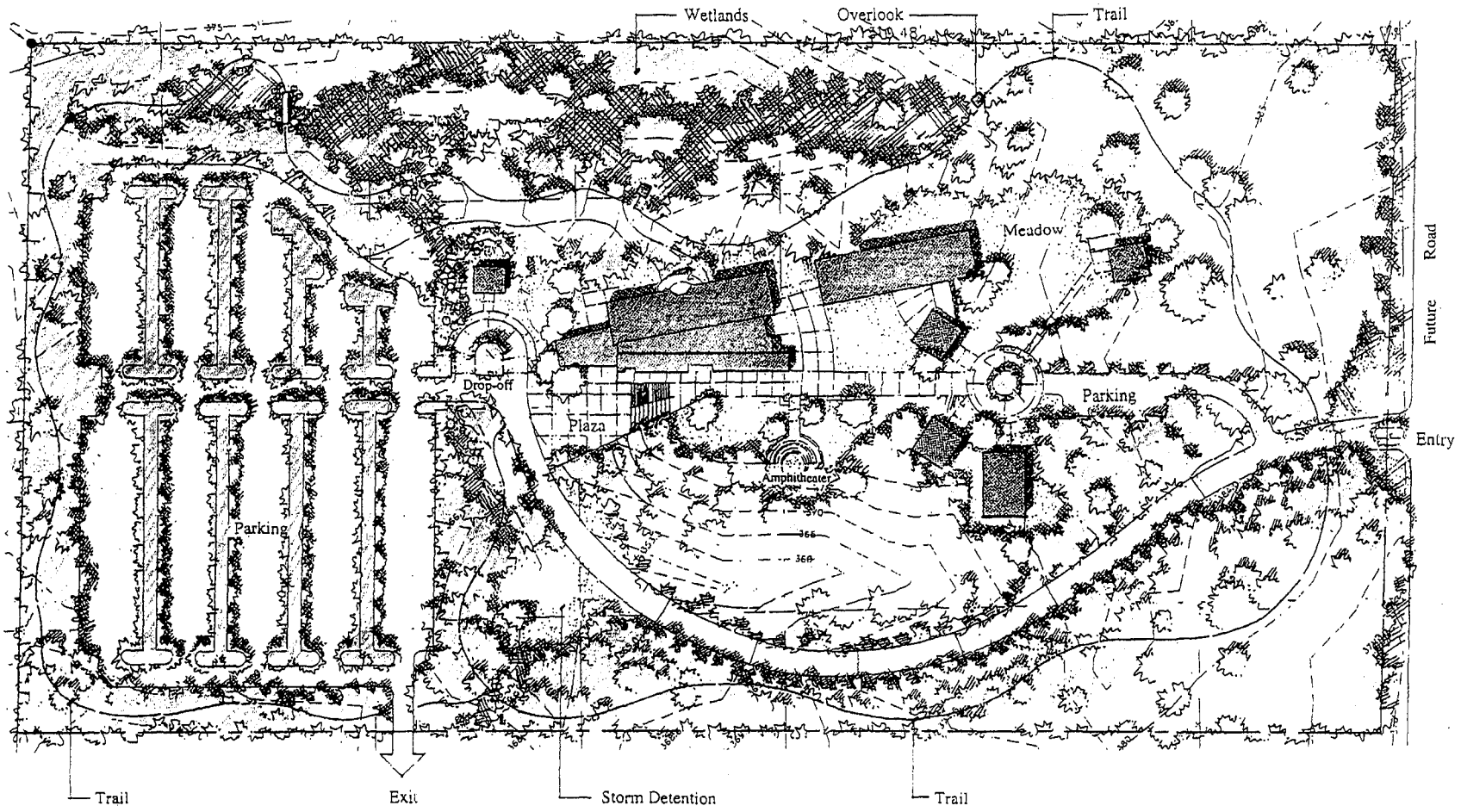
1.6.7 Southern 41 Acre Parcel: Land Use Description

The southern Olhava Property parcel (41 acres) is designed to contain the following land uses and associated development elements.

TABLE 1.3 LAND USE DESCRIPTION SOUTHERN 41 ACRE PARCEL

Land Use	Acreage	Units
• Medium-Density Residential (Planning Area 2)	18.5	160
• Low-Density Residential (Planning Area 1)	22.5	70
Total	41	230

Note: The Medium-Density Residential area will contain a 50 foot perimeter buffer which includes a five (5) foot walking/jogging trail. This parcel will also contain a 3.0 acre neighborhood park site. The Low-Density Residential area will contain the same perimeter buffer as above and will contain a 2.0 acre neighborhood park site.



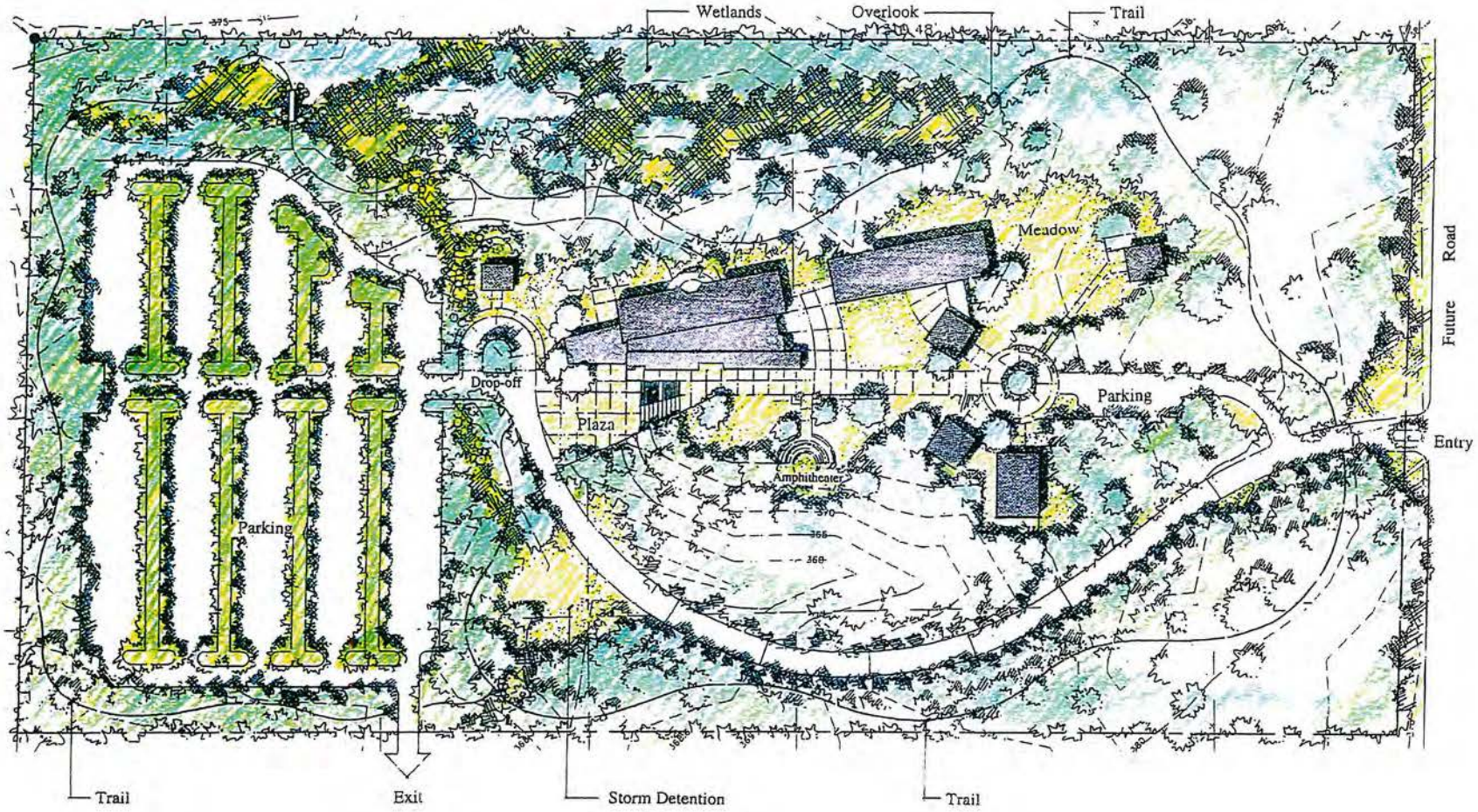
Olympic College/ Poulsbo Campus
Recommended Conceptual Design

Campus Plan

North

0 50 100 200

Scale 1"=50'



Olympic College/ Poulsbo Campus
Recommended Conceptual Design

Campus Plan

North

0 50 100 200

Scale 1"=50'

Medium-Density Residential (Planning Area 9, Chapter 2)

This residential component is designed to include 160 dwelling units within an 18.5 acre area zoned for this use. Preferred arrangements of these dwelling units include vertical clusters and a split-level configuration. The illustrated arrangement includes a lower-level unit with townhomes above. In response to *Park and Open Space* requirements of the Comprehensive Plan, a 50 foot perimeter buffer is planned along all sides of this parcel. This buffer will include a five (5) foot walking/jogging trail which provides access to the planned neighborhood park area; a neighborhood park area of 2.0 acres is planned in conjunction with a 2.0 acre neighborhood park area of the adjoining low-density residential parcel.

Transit accommodations are planned for this land use via the proposed Silverdale Express Route. Two bus stops are planned for this residential area. This routing and bus stop information was integrated with the Olhava Master Plan following coordination with Kitsap Transit.

Sidewalks and bicycle lanes are designed to provide this parcel linkage with non-motorized access alternatives to commercial, business, community park and Olympic College uses of the Olhava Master Plan.

Low-Density Residential (Planning Area 1, Chapter 2)

This residential component is planned to include 70 detached single-family residential home sites within a 22.5 acre parcel zoned for this use. Preferred arrangement for these home sites include a loop road system with primary access to Viking Way; this access is planned in a shared capacity with the medium-density parcel described above. In response to *Park and Open Space* requirements of the Comprehensive Plan, the illustrated arrangement includes a centralized 2.0 acre neighborhood park location site to which internal lots would be oriented.

Transit accommodations are planned for this parcel via the proposed Silverdale Express Route. Two bus stops are planned. This routing and bus stop information was integrated with the Olhava Master Plan following coordination with Kitsap Transit.

Sidewalks and bicycle lane access to this parcel will provide residents the opportunity for non-motorized access to commercial, business, Olympic College, and the community park uses of the Olhava Master Plan.

1.7 PARK AND OPEN SPACE MITIGATION

The Olhava Master Plan includes recreation facilities as mitigation for *Park and Open Space* requirements of the Comprehensive Plan. The Park Area Standard (Zoning Ordinance) requires that 12.75 acres of developed park land for each 1000 persons residing within the City be devoted to park and recreational purposes. The Comprehensive Plan does not have park land requirements for non-residential land uses. The Olhava Master Plan is planned to include 70 single-family home sites and 420 medium-density dwelling units. Using the current *Park and Open Space Plan* multiplier of 2.38, the population total resident population for these residential uses would equal 1142 persons. Applying the 12.75 acre/1000 requirement, a total resident-based park area of 14.9 acres is required by these standards. The Comprehensive Plan *Park and Open Space* element does not address park land requirements for employee populations. Based upon sewer flow projections and water requirements, the Olhava Master Plan estimates this employee population to be approximately 2350 persons. Even though the Comprehensive Plan does not specify a formula for calculating park site mitigation for employee populations, this master plan proposes employee population park site mitigation as 25% to that of residential populations. Even though it is possible that a significant number of employees will reside within the master plan area for which resident park mitigation is already provided, this voluntary assumption would require an additional 7.5 acre park land requirement. Based upon this, the proposed total park land requirement for the Olhava Master Plan is 22.5 acres.

The Olhava Master Plan meets the park land requirement for residential uses and suggested employee population by providing the following recreational opportunities and land dedications:

TABLE 1.4- PROPOSED PARK MITIGATION

Park Mitigation Site/Area	Acres
• Community Park Site	8.0
• Neighborhood Park (Plan Area 1)	2.0
• Neighborhood Park (Plan Area 2)	2.0
• Neighborhood Park (Plan Area 9)	2.0
• 50 ft. perimeter buffers w/trails (7160 lf)	8.0
• Bicycle Lanes (6530 lf x 10')	1.5
Total	23.5

Note: The Community Park Site is the only park mitigation site proposed for dedication to the City of Poulsbo. Proposed pre-dedication improvements for the Community Park Site include clearing, rough grading, surface drainage and hyrdroseeding. Soil amendments, turf establishment, irrigation and underground drainage for sport fields or other improvements, including subsequent park maintenance are the post-dedication responsibility of the City once the park has been designed at the City's or Park Board's direction.. Other park mitigation sites are proposed as developer-coordinated and maintained through homeowner associations.

1.8 PURPOSE OF THIS SECTION

The first part of this section describes development phasing intentions for the Olhava property, phasing which is planned to occur over a ten-year period. This planning represents the Olhava Associates' vision for facilitating the delivery of the various land use types of the master plan in logical order. Adequacy of governmental services (e.g. concurrency of the master plan with the City of Poulsbo Comprehensive Plan) are quantified in the *Development Phasing Matrix* (page 3, Chapter 6); a detailed description of fiscal impacts is presented by Chapter 7 (*Fiscal Impact Analysis for the Olhava Master Plan*).

Like the Master Plan illustration, the presented phasing plan represents the Olhava Associates best current portrayal for future development. However, market fluctuations and individual tenant requirements will assuredly alter the presented master plan and phasing plans to some degree. Therefore, an amendment procedure, similar to the adopted Zoning Ordinance Amendment process, is outlined in the second part of this section. This amendment process is proposed for the Olhava Master Plan when building areas or unit counts exceed 15% of the Master Plan quantities presented herein, or, for situations where an individual tenant requires significant deviations from the approved Master Plan development standards.

1.8.1 DEVELOPMENT PHASING

The Olhava Property is planned to be developed over a ten-year period. While the Master Plan represents significant development for a variety of land uses, it is important to realize that impacts to the Poulsbo infrastructure will not immediately occur. These impacts have been quantified and represented within the phase they are expected to occur (*Development Phasing Matrix*). As described in Chapter 7, the net fiscal impact to Poulsbo will be favorable.

The following phase plan describes general construction improvements for the Olhava Property. Site construction will normally occur during fair weather seasons (Spring, Summer, Fall). Building construction will normally occur throughout the year. The first phase (Phase "a") must begin during the Spring of 1996 in order for Olympic College to maintain its construction program and, therefore, its requirements to the State of Washington funding programs.

Phase "a" (1996-1997) (See General Phasing Plan, next page)

This phase is planned to include construction of the frontage road from Finn Hill to the Olympic College site (Streets "A" and "C"), utility construction and general site preparation for building construction of Phase "b". New SR3/SR305 alignments and connections to this frontage road are currently being designed and submitted with an Access Report to WSDOT; if State design review and funding mechanisms are timely, this work could also be a part of this initial phase. Site work and utility construction for residential components of the southern 41 acre parcel will be conducted during this phase as well.

- **frontage road segment from Finn Hill Road to Olympic College site**
- **SR3/SR305 Interchange modifications (if practical at this time)**
- **utility infrastructure extension from Finn Hill Road to Viking Way via SR305**
- **complete any remaining Nike Facility remediation work**
- **Phase "b" site preparation**

Phase "d" (1999-2000)

This phase is planned to include constructing an additional 20% of the primary shopping center (approximately 94,000 sf), 100% of medium-density Planning Area 8 (approximately 100 dwelling units), an additional 20% of the business park (approximately 65,000sf) and 15% of the secondary commercial sites (approximately 56,000 sf). Warranted highway and other offsite traffic/utility mitigation will be completed (see *Development Phasing Matrix*, previous page) along with general site preparation for Phase "e".

- **warranted traffic and/or utility mitigation**
- **construct additional 20% primary shopping center (65% of total)**
- **construct 100% of medium-density (Planning Area 8)(approximately 100 dwelling units**
- **construct additional 20% business park (approximately 65,000 sf, 35% of total)**
- **construct 15% secondary commercial (approximately 56,000sf, 15% of total)**
- **Phase "e" general site preparation**

Phase "e" (2000-2001)

This phase is planned to include an additional 25% of the business park (approximately 81,000 sf), the remainder of the primary shopping center construction (approximately 165,000 sf) and 25% of the secondary commercial sites (approximately 93,000 sf). Warranted highway improvements and other off-site traffic/utility mitigation and general site preparation for Phase "f" are planned to occur during this construction phase season.

- **warranted traffic and/or utility mitigation**
- **construct remaining primary commercial center (approximately 165,000 sf, 100% of total)**
- **construct additional 25% business park (approximately 81,000 sf, 60% of total)**
- **construct additional 25% secondary commercial (approximately 93,000 sf, 40% of total)**
- **Phase "f" general site preparation**

Phase "f" (2001-2002)

This phase is planned to include the construction of Planning Area 9 medium-density residential dwellings (approximately 160 units) and any remaining warranted traffic and/or utility mitigation. A neighborhood park site will be developed within Planning Area 9.

- **complete any remaining warranted traffic/utility mitigation**
- **construct medium-density dwellings of Planning Area 9 (approximately 160 dwelling units)**
- **develop neighborhood park site within Planning Area 9**

Phase "g" (2003-2005+)

This phase is planned to include the completion of all land uses not previously developed. The balance of land uses might include secondary commercial (approximately 222,000 sf) and the remaining office park space (approximately 130,000 sf).

1.8 PURPOSE OF THIS SECTION

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This phase is planned to include construction of the frontage road from Finn Hill to the Olympic College site (Streets "A" and "C"), utility construction and general site preparation for building construction of Phase "b". New SR3/SR305 alignments and connections to this frontage road are currently being designed and submitted with an Access Report to WSDOT; if State design review and funding mechanisms are timely, this work could also be a part of this initial phase. Site work and utility construction for residential components of the southern 41 acre parcel will be conducted during this phase as well.

- **frontage road segment from Finn Hill Road to Olympic College site**
- **SR3/SR305 Interchange modifications (if practical at this time)**
- **utility infrastructure extension from Finn Hill Road to Viking Way via SR305**
- **complete any remaining Nike Facility remediation work**
- **Phase "b" site preparation**

Olhava Property

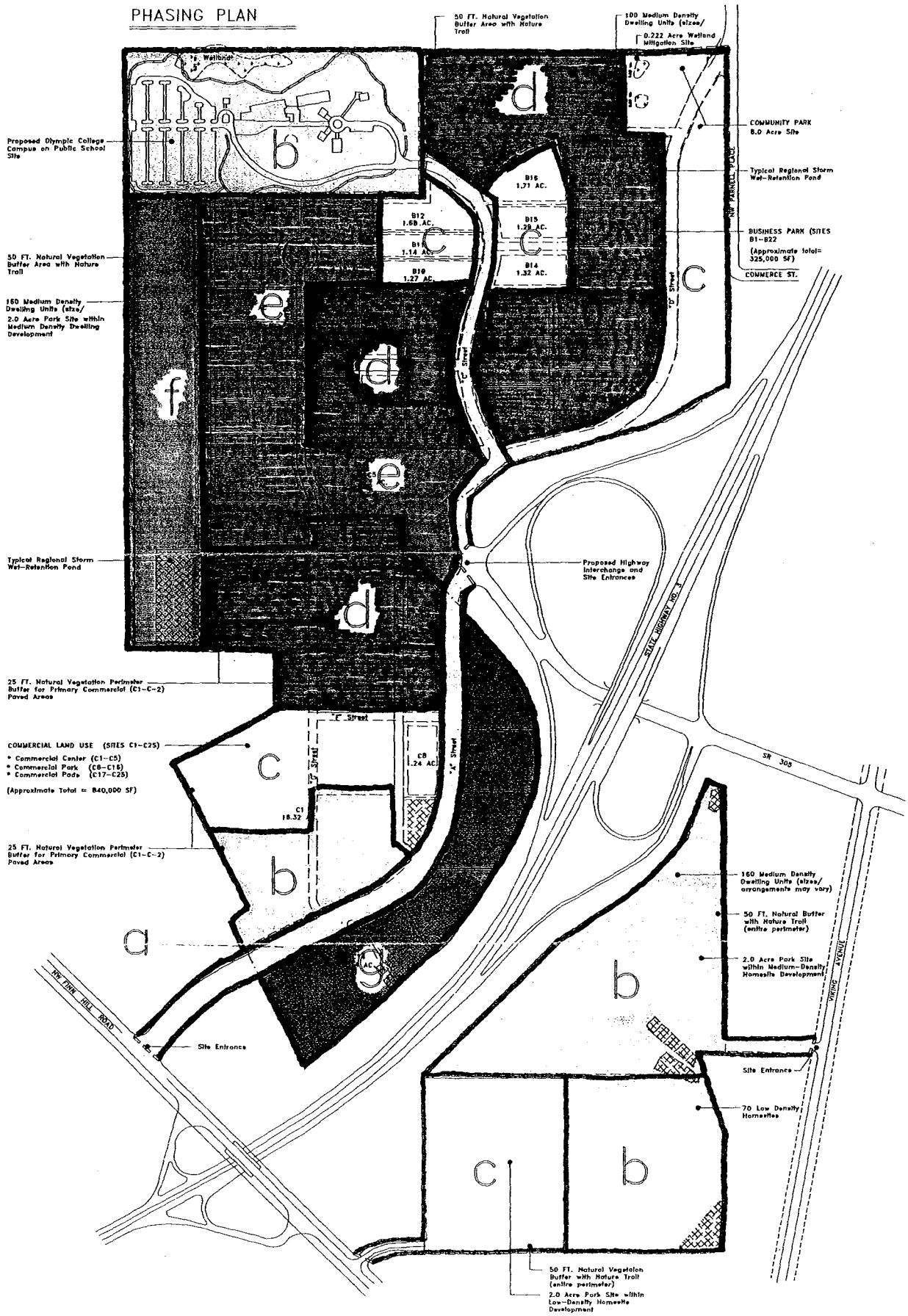
Poulsbo, Washington

50 150 350

Developer: OLHAVA ASSOCIATES, L.P. (206) 775-6000
Design: KENT BERRYMAN & ASSOC. (360) 697-5535

Revision: September, 1995

PHASING PLAN



1.8.2 PROPOSED AMENDMENT PROCESS

The Olhava Master Plan has two components which could be subject to change in the future: (1) the infrastructure of roads, utilities and other services, and (2) the location, size and use of the various structures to be developed in the project.

The infrastructure design is not likely to change significantly, although it is possible. Any amendment to the infrastructure would be proposed at the time specific plans for a phase of the project are submitted to the City for review and approval. Any change that is likely to increase the loading on utilities, roads or other public services above the capacity levels for those facilities which were assumed in the original Master Plan approval shall be considered to be potentially substantial. In the event of such a proposed change, the developer shall submit such studies or plans regarding the impact of the change on the capacity of the City's public facilities as is necessary for the Director of the Planning Department to determine whether the proposed change may require improvements to City facilities in order to provide adequate public services to the project. If the Director determines that such improvements may be required, the phase plan shall be submitted to the Planning Commission and City Council for review and approval as set forth below.

Changes in size, layout and use of the individual structures in the Master Plan are more likely as the project develops and responds to market conditions. So long as the total square footage, height and general layout of the various structures is relatively similar to the Master Plan, these changes are not significant. The Director shall review each phase plan to determine whether any substantial changes have been proposed. For purposes of such review, a phase plan will be considered to have changed substantially if specific plans for a particular phase propose a deviation of more than 15% in the square footage, height or other dimensions of the structures shown in the Master Plan for that phase and the phases which are already developed. If that comparison indicates that the anticipated traffic counts for the project as it is actually developing exceed those assumed in the Master Plan by more than 15%, the proposed phase plan shall be submitted to the Planning Commission and City Council for review and approval as set forth below to determine whether changes to the traffic mitigation plan for the project are required.

Relocation of proposed uses within the site which do not create a change to the overall density or impact of the project shall not be considered to be substantial.

Site Plan Review by Planning Department:

When the Planning Department determines that a phase plan does not contain a substantial change from the approved Master Plan, the site plan review will be conducted by the Department. Following approval of the site plan by the Director, conventional building permit applications will be required for each individual structure in the phase.

Site Plan Review by Planning Commission and City Council

When the Director determines that a phase plan proposes a substantial change to the approved Master Plan, the site plan shall be submitted to the Planning Commission and the City Council for review and approval pursuant to the standard Hearings and Appeals requirements of the City of Poulsbo. At the conclusion of such process, the City Council, if it approves the proposed changes to the Master Plan, shall adopt an ordinance amending the Master Plan.

1.9 DEVELOPMENT STANDARDS

The Olhava Master Plan has been planned to conform with the goals and objectives of the Comprehensive Plan by providing functional land use integration in an urban environment of stable and desirable character.

With the exceptions of maximum allowable building heights and maximum continuous roof planes, all other development standards and permitted uses contained in the *City of Poulsbo Implementation Regulations* (as adopted December, 1994) are proposed as binding development standards for the Olhava Master Plan.

1.9.1 Variation Request: Maximum Allowable Building Heights

This section describes specific building height standards for the Olhava Master Plan and provides explanations for why these standards should deviate from current Zoning Ordinance standards. The following table illustrates Zoning Ordinance allowed building heights in comparison to the heights proposed by the Olhava Master Plan.

TABLE 1.5 OLHAVA MASTER PLAN BUILDING HEIGHT STANDARDS

LAND USE	ALLOWED	PROPOSED
• COMMERCIAL	30'	50'
• BUSINESS	30'	50'
• PUBLIC SCHOOL	30'	50'
• LOW-DENSITY RESIDENTIAL	30'	30'
• MEDIUM-DENSITY RESIDENTIAL	30'	50'

Proposed building heights are requested due to prevailing site conditions, engineering and marketing requirements, and current Zoning Ordinance definitions for building height determination.

Sloping topography in some areas of the Olhava Property presents an opportunity for "stepping" foundations versus regrading of a slope to form a level building pad. Foundation stepping would be a preferred method for preserving natural vegetation; reconditioning a site to provide a level building pad might otherwise eliminate this vegetation through extensive grading. Minimizing site grading will also reduce erosion and associated sedimentation. In some areas of the commercial and business zoning districts, foundation stepping will allow for lower level covered parking, service areas and storage. Stepping foundations would also reduce the requirement for rockeries and retaining walls; reduction of rockeries and retaining walls is suggested to provide a safe and visually appealing development.

With this direction towards working "with" topography and the described benefits, Zoning Ordinance building height descriptions would prescribe a measure from an elevation 10 feet higher than the lowest grade when the sidewalk or ground surface within a 5-foot horizontal distance of the upper-level exterior wall is more than 10 feet above lowest grade. To allow for lower level units with a maximum 10-foot volume ceiling, a 2-foot floor separation and an upper level townhouse unit with 6:12+ pitched roofs (which is characteristic of northwest architecture) a total building height might approach 45-50 feet. Therefore, a 50-foot height restriction is proposed for all medium density residential zoning districts of the Olhava Property. For commercial and business park zoning districts which typically include buildings of greater spans, floor truss depth and increased roof pitch height is expected to increase this building height requirement to 50 feet. These building height variations are requested to provide building architects with appropriate latitude when designing pleasing building and roof forms for the Olhava Property.

Engineering requirements for lengthened spans of larger commercial, business park, and Olympic College structures are anticipated. These spans require increased depth in floor truss systems to provide an opportunity for open, column-free interiors. Roof pitch elevations for lengthened spans also contribute to the requested height increases.

Other engineering requirements include suitable ceiling heights for commercial, business and Olympic College structures. Volume ceilings enable efficient air exchange in HVAC systems for larger buildings. Sizable plenums are associated with these systems, which necessitates increase to building heights for these larger structures. Lighting, fire protection and security systems echo this requirement.

Generally recognized marketing requirements underscore requested building height adjustments. Architects should be given full ability to invite patrons into quality environments of appropriate scale and dimension; therefore, height standards should allow appropriate building scales for a site of this size. Longer spanning buildings should have compatible wall and roof forms; large, single-level commercial buildings typically exceed 30 feet to heights of 45-55 feet. Heights less than this would associate a "warehouse" appearance to the larger commercial buildings of the Olhava Master Plan. Similar marketing considerations include appropriate ceiling height for display and first impression interior scale aspects.

1.9.2 Variation Request: Maximum Continuous Roof Planes

The Zoning Ordinance (Section II, Roofs: 8.A, page II-37) requires that rooflines at the top of the structure should not run in continuous plane for more than 50 feet without offsetting or jogging the roof plan. While this standard is anticipated to be sufficient for most Olhava Property land uses, this standard would not seem to be appropriate for central primary shopping center structures. Building mass and scale for building sites C1-C5 are envisioned to be significantly larger than other site structures; these sites are planned for primary tenants whose presence tends to attract other site tenants. Typically these primary tenants require larger sites and larger structures. Other structures of the Commercial Zone may include threatres for example, which would require substantially longer continuous roof planes.

Due to the relatively large scale of primary shopping center and the potential for other commercial sites to exceed the 50 foot standard set by the Zoning Ordinance, the Olhava Master Plan requires an adjustment in these standards to include a maximum continuous roof plane distance of 250 feet for this area of the plan. Other business and residential uses will utilize 50 feet as a development standard for maximum continuous roof planes. Where longer roof planes are introduced to the development, architects will be required to not present this roof plane to highly visible traffic corridors.

1.10 ADMINISTRATION REVIEW PROCEDURES

The Olhava Master Plan follows application procedures specified by the Comprehensive Plan and Zoning Ordinance (Section 1.0.1, Application Procedures). Master Plan content requirements, including annexation mitigation requirements, are included with the *Olhava Property Integrated Master Plan* document which includes this introductory chapter.

Specific Master Plan requirements have been identified by this chapter. The Master Plan intent (Section 1.2) includes vision illustration, content sufficiency and implementation descriptions. Section 1.4 describes the Master Plans interrelationship with prevailing site conditions (and *Natural Systems Element*). Sections 1.6 and 1.7 describe the project and provide specific site mitigation requirements/responsibilities for the Master Plan; examples include buffer dimension, park mitigation, bicycle and pedestrian linkage, etc. Phasing plans (Section 1.7) include specific plans for future development and anticipated phasing schedules.

Development standards (Section 1.8) include reference to currently adopted Zoning Ordinance requirements and two requested variations.

Implementation tools and procedures are required for Master Plan adoption. The Olhava Master Plan describes various mitigation specifics and design standards for future phase development, which, for the most part, include current zoning regulations (December, 1994). These criteria collectively form the foundation for subsequent site plan review.

The Olhava Master Plan includes comprehensive engineering review. This analysis has involved traffic, grading, drainage, environmental, utility and other design parameters. This analysis has yielded quantity estimates and other advanced engineering information which provides substantial development understanding for the Olhava Master Plan Illustration. An expanded SEPA checklist is included (Chapter 9) to answer specific environmental impacts of the Master Plan. This Master Plan illustration summarizes the Olhava Associates vision for development. Associated descriptions and mitigation plans provide the best functional understanding available at this pre-development juncture of the Olhava Master Plan.

The Olhava Master Plan illustrates a practical approach for site development, the best method for providing a vision which should not substantially change with future phase development (See 1.3, *Scope of the Olhava Property Master Plan: A Design Process*, page 6). Preliminary traffic, grading, drainage and utility design are designed to produce the least site disturbance. Drainage design, for example, has been incorporated as a regional concept served by a system of roadside detention ponds. Because traffic and grading design has been optimized, the regional concept for drainage design is not expected to substantially change, regardless of individual site plan adjustments for actual building sizes or shapes, etc.

The Olhava Master Plan illustration has provided a base map for engineering analysis described above. Because the Master Plan includes a ten-year development period, individual site tenants with specific building shapes and other site plan criteria are not available at this pre-development juncture. Hence, building shapes and sizes are illustrated for the sole purpose of providing perspective for potential square footage's, parking requirements, grading, drainage, and environmental design. The illustration is not intended as a site plan or binding site plan exhibit.

1.10.1 Proposed Implementation Policy

The Olhava Master Plan implementation policy proposes a conventional Site Plan Review process. Individual phases will be designed to comply with the design standards and design intent specified by the adopted Master Plan, consistent with the Comprehensive Plan. Phase design will be submitted as a pre-application to the City of Poulsbo Planning Department together with all available individual site and building plans of the phase.

A. Olhava Associates Design Review Committee

The Olhava Master Plan includes a design review committee requirement. The purpose of this committee is to guide subsequent phase pre-applications and filings and to best assure consistency of these submissions with all intents and policies of the adopted Master Plan. This committee shall consist of three members which shall each serve a two year term.

This committee shall initially consist of: Mark Zenger, Olhava Associates, L.P., General Partner, Scott Shanks, AIA Architect, and Kent Berryman, ASLA Landscape Architect.

B. Pre-Application Conference

The Olhava Design Review Committee will hold a pre-application conference with the Planning Department prior to submitting any development plans for future phases. The Olhava Master Plan phase and available specific site plans will be introduced to the Department representative(s) during this conference. Pre-application submissions will include a preliminary site plan that conforms with the adopted Master Plan. The Department representative(s) shall inform the Committee in writing of any preliminary site plan deficiencies as they apply to the adopted Master Plan, and examine possible alternatives or modifications relating to the proposed project.

C. Filing

Application for permits, permit modifications, amendments and other matters shall be filed with the Department on a City application form, together with all fees, plans, and maps. The Department shall review the submitted materials in accordance with applicable state and local requirements.

D. Phase Application

Minimum requirements for a phase application shall include:

1. The name, address and telephone number of the applicant;

2. A site vicinity map defining the specific phase area of the Master Plan;

3. A Legal description of the phase;

4. Five (5) copies of a site plan drawn to a scale of not less than 1"=50'-0", including;

    a. The total site area and areas of each individual lot, tract, or other division of land contemplated by the phase plan;

    b. The location, identification and dimensions of all property lines, streets, alleys and easements, together with an indication of the condition of all public rights-of-way and verification of the right to utilize easements proposed;

    c. The location of all existing and proposed structures, including but not limited to buildings, fences, culverts, bridges, roads and streets;

    d. A grading, drainage and erosion control plan with one-foot contour lines for the phase to be developed;

    e. The location and design of all preservation measures for fill and cuts (e.g., retaining walls, rockeries, and plantings);

f. Plans of proposed water distribution systems, storm sewers, sewerage systems including location, together with easement descriptions for those utilities proposed to be dedicated to the City for public use;

g. A layout of proposed streets and alleys, buffer zones, and parcels proposed to be dedicated or reserved for public or community school, park, playground or other uses;

h. The location of all fire hydrants;

i. Minimum building setback lines; and

j. All covenants regarding joint use of parking, utilities and joint responsibility for maintenance and repair facilities needed to ensure that subsequent division of the property will not substantially alter site plan intent.

5. A landscape plan which conforms to the Landscape Requirements of the Zoning Ordinance (December, 1994).

6. A description of warranted off-site traffic and utility mitigation and plans for either bonding these improvements or payment of project share costs.

7. A written project summary which summarizes specific site data and describes the phases concurrency with all policies of the adopted Master Plan.

E. Process for Approval of Phases

An adopted Master Plan provides foundation for subsequent phase plan review. It is anticipated that, following City approval of the Master Plan, a development agreement would be executed pursuant to RCW 36.70A (ESHB 1724, Section 501-506). That agreement would establish a process for review of subsequent phases of the Olhava project.

OLHAVA PROPERTY INTEGRATED MASTER PLAN

CHAPTER TWO

MASTER LAND USE PLAN

CHAPTER TWO
MASTER LAND USE PLAN
OLHAVA PROPERTY INTEGRATED MASTER PLAN

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CHAPTER TWO- MASTER LAND USE PLAN

2.1 Planning Objectives

The Olhava Master Plan has been prepared utilizing detailed and comprehensive planning strategies. A team of urban land planners, civil engineers, environmental resource specialists, geotechnical, traffic engineering consultants, architects, landscape architects and economists were assembled to undertake this Master Plan. The team collectively developed a comprehensive development program for the Olhava Property's 215 acre mixed-use plan. In creating the plan, issues such as the City of Poulsbo's Comprehensive Plan goals and policies, environmental sensitivity and land use compatibility were carefully examined, as well as engineering and economic feasibility and market acceptance. In developing the land use plan, all of these objectives were synthesized into environmental constraints and market demand through a design team effort which evolved into a comprehensive, viable plan. The Olhava Master Plan:

1. Considers topographic, geologic, hydraulic and environmental opportunities and constraints to create a plan that generally conforms to the character of the land by utilizing basic existing landform as much as possible.

2. Anticipates Poulsbo's growing market needs and public demand for creating a wide variety of commercial and business opportunities in one suitable and central location.

3. Provides direct and convenient access to residential neighborhoods, commercial, business, public schools and recreational land uses, through a safe and efficient circulation network which includes pedestrian trails and bikeways.

4. Provides quality commercial centers to serve the project and surrounding area conveniently.

5. Promotes a strong sense of community identity by linking open space and recreational facilities to each planning area of the Master Plan.

6. Integrates transit circulation and access to each planning area.

2.2 Land Use Description

When completed, the Olhava Master Plan development will be a full service, balanced community composed of a high quality mix of residential, business, commercial and public education land uses.

Residential uses, with densities ranging from five dwelling units to the acre to 14 dwelling units to the acre, will be constructed in compliance with the site design guidelines that are consistent with the City of Poulsbo Zoning Ordinance. The residential uses will meet a market need for housing within a full service urban environment; traditional vehicular dependency will be reduced by this association. Each residential land use is sensitively placed relative to existing topography and adjoining environments. Upon completion, a maximum of 490 dwelling units will be constructed at the Olhava Property. In order to create a full service, balanced community, the project will also provide its residents and visitors with an Olympic College campus, business centers, commercial centers and recreational areas.

Integrated Master Plan for the

Olhava Property

Poulsbo, Washington

0 100 250 450

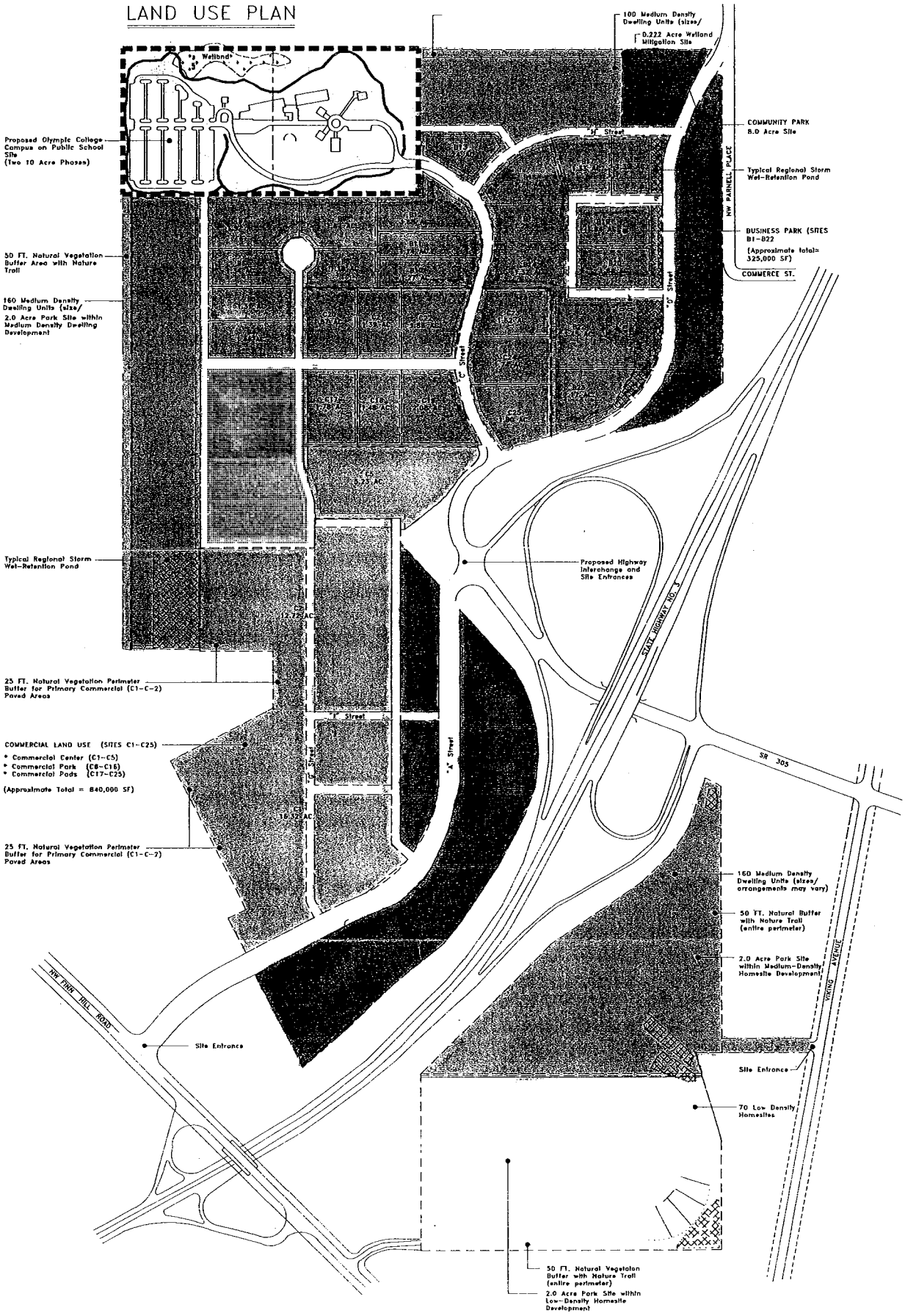
50 150 350

NORTH

Developer: OLHAVA ASSOCIATES, L.P. (206) 775-6000
Design : KENT BERRYMAN & ASSOC. (206) 698-5959

Revision: March 30, 1995

LAND USE PLAN



Integrated Master Plan for the

Olhava Property

Poulsbo, Washington

0 100 250 450

50 150 350

north

Developer: OLHAVA ASSOCIATES, L.P. (206) 775-6000
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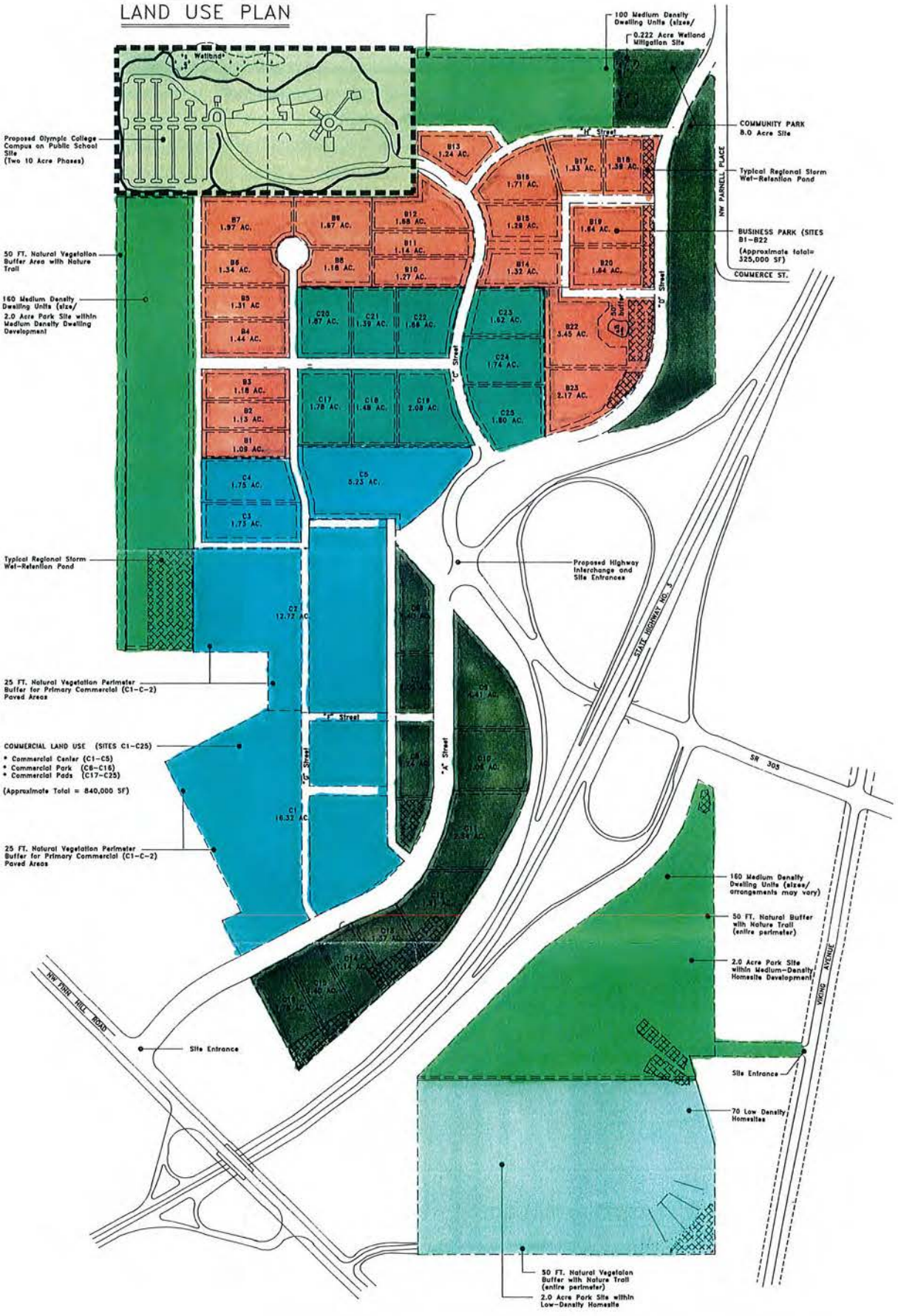
LAND USE PLAN



Specific information for each residential planning area is provided in Section 2.A and design guideline specifics are provided in Section 2.B.

2.2.1 Residential Developments

Residential products will include two types: Single-family detached and multi-family condominiums/townhomes/apartments.

Single-family (e.g., low-density residential) will include approximately 70 homes within 22.5 acres of the Olhava Property's southern 41 acre parcel. The net density for this development will be approximately four dwelling units per acre. This parcel is annotated as Planning Area 1, Section 2.A.

Multi-family dwellings will be dispersed throughout the development in three areas. These parcels are annotated as Planning Areas 1, 8 and 9 and are described in Section 2.A. Respective densities for these planning areas include 9 (160 dwellings/18.5 acres), 11 (160 dwellings/15 acres) and 12.5 (100 dwellings/8 acres) dwelling units per acre.

2.2.2 General Commercial Development

Commercial development will include approximately 840,000 square feet (SF) of enclosed space within 83 gross acres (note: Road right-of-ways will occupy approximately 9 acres in this zone). The proposed uses will be primarily centered within the south half of the northern 174 acre parcel.

1. Primary Commercial - Will consist of approximately 38 net acres. Larger anchor tenants will be sited within this commercial zone, annotated as planning area 4 in Section 2.A. Nearly 56% of the commercial square footage will be sited within this planning area (approximately 470,000 SF).

2. Commercial Pads - Will consist of approximately 20 net acres. Retail, hotel, fast-food restaurants and service tenants will be sited within this commercial zone, annotated as planning area 3 in Section 2.A. Topography east of the frontage road provides opportunity for split-level structures which could allow covered parking, service areas and/or inventory storage. Nearly 25% of the commercial square footage will be sited within this planning area (approximately 210,000 SF).

3. Commercial Park - Will consist of approximately 16 net acres. This commercial cluster will enable convenient access to a shopping core. This core provides transition from other commercial uses to a more campus-like business park setting. Quality sit-down restaurants, specialty shopping are among anticipated uses for this commercial zone, annotated as planning area 7 in Section 2.A. Nearly 19% of the commercial square footage will be sited within this planning area (approximately 160,000 SF).

Each of these commercial zones will have individual parking areas which meet standards described in Section 2.B. The primary commercial parking area will be centrally located to provide overflow capacity to the other surrounding commercial uses.

2.2.3 Park and Open Space

The Olhava Property will offer various open space amenities for the enjoyment of residents and visitors. Overall, the Olhava Master Plan provides 23.5 acres of park and open space land.

1. Community Park - An eight acre community park site will provide sufficient dimension for active recreation such as baseball, soccer and hardsurface sports. This land use is annotated as planning area 6 in Section 2.A.

2. Neighborhood Parks - Two of the multi-family planning areas (planning areas 2 and 9) will each include a two acre open space and amenity program for respective resident use. These open spaces programs are described in Section 2.A. Multi-family planning area 8 is sited to adjoin the proposed community park site and will include trail systems for access to this park. The single-family planning area (planning area 1) will also include a two acre open space for respective resident use.

3. Perimeter Buffers/Nature Trails - Nearly 1 1/3 miles of perimeter buffer (50 ft.) will be utilized for nature trail placement. Perimeter buffers will occupy approximately eight acres of the total site area. This trail system will provide residents with pedestrian linkage to all facilities of the Olhava Property while also providing recreational enjoyment.

4. Bikeways - Nearly 1 1/4 miles of bicycle lanes will be constructed within the Olhava Property, providing recreation and vehicular alternatives to residents and visitors. This system will occupy approximately 1.5 acres of the total site area and is described in the Circulation Plan Element, Chapter 5.

2.2.4 Business Park Development

A Business Park is planned for a portion of the Olhava Property. This land is allowed for the north section of the northern 174 acre parcel. The business park circumvents the commercial core, thereby providing appropriate land use transitions from commercial to residential districts and the Olympic College campus site. The business park will include approximately 325,000 SF within 34 net acres (note: approximately 6 acres of public right-of-way will occupy this land use zone). Planning standards for this land use (See Planning Area 5, Section 2.4.5) include the centralized clustering of parking areas, particularly for office building lots fronting the primary frontage road (Streets "C" and "D").

2.2.5 Public School Development (See Planning Area 10, Section 2.4.10)

An Olympic College campus is planned for a twenty acre parcel of the Olhava Property. The first 10 acre campus phase will include approximately 30,000 SF and a two-level structure. This phase anticipates providing facility for 900 FTE (full time equivalent students) or roughly 1800 part time students. The second 10 acre campus phase will include an additional 20,000 SF. Site amenities for the college are planned, including day care facilities, an outdoor amphitheater and a perimeter jogging/walking trail and nature education programs. The trail system will be connected to the Olhava Property perimeter trail system.

2.2.6 Transportation

Transportation corridors and right-of-ways are a land use of the Olhava Master Plan. Approximately 15 acres of the Olhava Property, previously donated for State Highway right-of-way use, is now designed for intersection improvements for SR 3/SR 305 and site access. Other transportation corridors for the Master Plan include:

1. Major Road Intersections - provide site access via Viking Way, Parnell Place NW, Finn Hill Road and the planned intersection revisions for SR 3/SR 305.

2. Frontage Road Right-of-Way - provide safe and efficient vehicular, transit, pedestrian and bikeway site access. Depending upon traffic volume forecasts, frontage road right-of-way widths will vary from 36-100 feet. The frontage road will incorporate all site bikeways and will provide linkage from Finn Hill Road to SR 3/SR 305 to Parnell Place NW. This primary collector road is described in Chapter 5, Circulation Plan Element.

3. Secondary Road Right-of-Way - Secondary roads will provide safe and efficient pedestrian and vehicular access to the primary frontage road described above. Right-of-ways for these roads vary from 36-50 feet and are described in Chapter 5, Circulation Plan Element.

4. Parking Areas - Parking spaces will be provided according to the associated land use parking requirements specified in Section 2.B. These areas will be landscaped and buffered according to landscape requirements also specified in Section 2.B.

5. Transit Systems - Kitsap Transit will provide local and Silverdale Express routing through the Olhava Property. Systems have been preliminary designed to provide bus stops and a circular route which will enable safe and efficient means for Kitsap Transit to loop transit from the development via the planned SR 3/SR 305 access.

6. Bikeways/Multi-purpose Trails - Bikeways will be provided along the primary frontage road in transit lanes and dedicated bike lanes. Multi-purpose trails will be constructed within perimeter buffers; these trails will provide residents linkage to the community park site. Pedestrian access along right-of-ways will include 5-8 ft. sidewalks, depending upon land use zones and anticipated use.

2.3 MASTER LAND USE PLAN DEVELOPMENT STANDARDS

In order to ensure the orderly and sensitive development of land uses previously introduced, special techniques or mitigation have been planned for each planning area. These specific standards, discussed in detail in Section 2.A, will assist in accommodating the proposed development and provide adequate transitions to surrounding environments.

In addition to these specific techniques, project-wide development standards also have been prepared which compliment the unique conditions for each planning area. These general standards include:

(General Master Land Use Plan Development Standards- continued)

1. The total Master Plan shall be developed with a maximum of 420 dwelling units on 64 acres, as illustrated on the Master Land Use Plan, Figure 2. Other permitted general uses will include commercial, business park, public schools, open space and circulation as delineated on the Master Land Use Plan and in the individual planning area development standards, Section 2.A.

2. Uses and development standards will be in accordance with the City of Poulsbo Ordinances and will be defined by Master Land Use Plan objectives, future detailed site plans and potential conditional use permits as appropriate.

3. Standards relating to architecture, landscaping, signage, parking and other related design elements will conform to the City of Poulsbo Ordinances unless otherwise defined by Olhava Associates developers agreement with the City of Poulsbo.

4. The development of the property shall be in accordance with the requirements of all applicable City of Poulsbo Ordinances, subsequent developer agreements and state laws and shall conform substantially with the adopted Master Plan as filed in the office of the City of Poulsbo Planning Department.

5. In the event that any regulation, condition, program, or portion of the adopted Master Plan is held invalid or unconstitutional by a Washington or Federal Court of competent jurisdiction, such portions shall be deemed separate, distinct, and independent provisions, and the invalidity of such provisions shall not affect the validity of the remaining provision thereof.

2.4 SECTION 2.A—PLANNING AREA DEVELOPMENT GUIDELINES

The Olhava Master Plan development guidelines are established at three levels: *Master Land Use Plan Development Standards* (2.3 above), *Design Guidelines* (Section 2.B), and *Planning Area Land Use and Development Standards* which are the subject of this section.

The Olhava Master Plan and site has been divided into ten (10) planning areas. These planning areas are not representative of project phasing; phasing will be discussed in Chapter 6. Planning areas are grouped according to current zoning for the property, including:

Planning Area	Land Use Description	Net Acreage
01	Low-Density Residential	23
02	Medium-Density Residential	18
03	Commercial Pads	20
04	Primary Commercial	38
05	Business Park	34
06	Low-Density Residential (Community Park)	08
07	Commercial Park	16
08	Medium Density Residential	08
09	Medium Density Residential	15
10	Public School/Olympic College	20

Each planning area is keyed by a *Planning Area Key* map on the following page. These planning areas follow current zoning for the property and are not expected to vary. In addition to zoning aspects, each planning area was planned to integrate sensitivity to the physical characteristics, integrity of land use and relationship to the major circulation system. Although development may follow illustrative and master land use plan graphic representations to a substantial degree, the actual site design will be determined during final engineering review and site plan preparations for individual sites.

Overall land use patterns are the result of a comprehensive site analysis by a team of engineering professionals (See 1.3, Scope of the Olhava Property Master Plan: A Design Process). This process enabled viable projections for site densities and building/parking areas. This information was later used to calculate the various support systems and relative mitigation timing necessary to make the project conform to the City of Poulsbo capital facilities element of the Comprehensive Plan.

General Note: The following land use plan illustrations are based upon *preliminary* site data and anticipated development programs. When the term "approximately" is used to describe anticipated building sizes, these estimates represent the clearest vision possible at the time of pre-application, based upon *preliminary* site analysis and engineering data. Accordingly, actual building square footage's may vary from the approximate sizes, shapes and descriptions presented herein.

Integrated Master Plan for the

Olhava Property

Poulsbo, Washington

north

FIGURE B

PLANNING AREA KEY

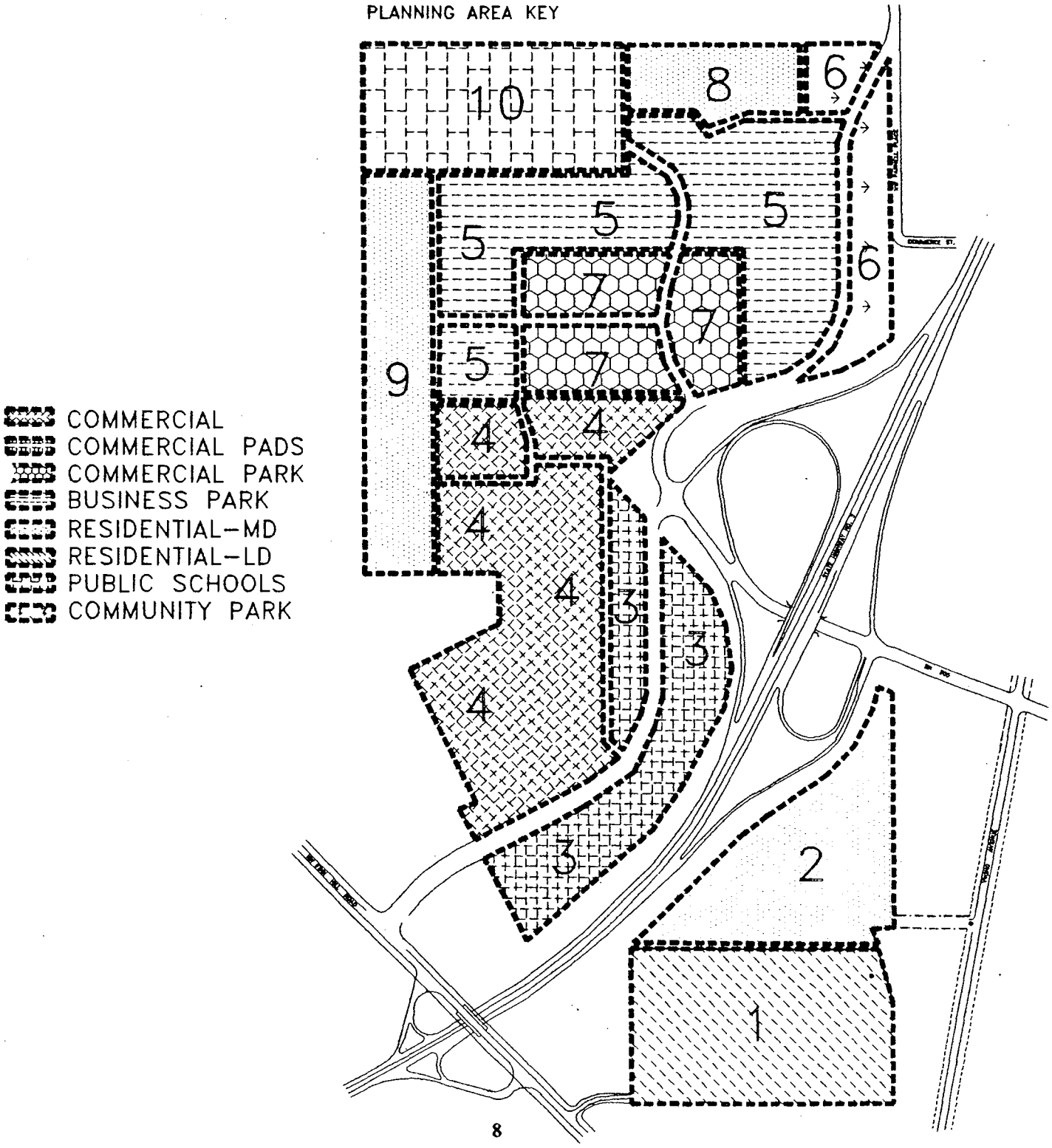
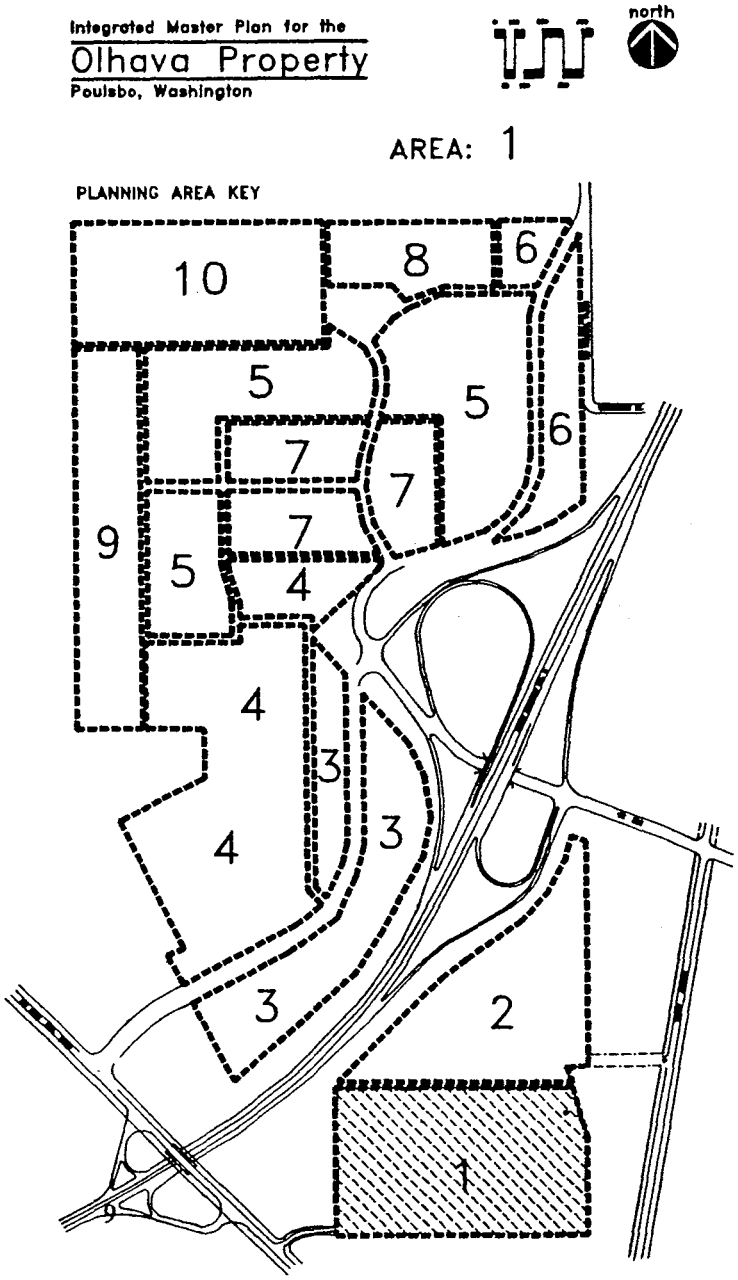


FIGURE 1
PLANNING AREA: 1
LAND USE: LOW-DENSITY RESIDENTIAL
DESCRIPTION: 70 SINGLE FAMILY RESIDENCES ON 22.5 ACRES



2.4.1 OLHAVA MASTER PLAN PLANNING AREA 1

A. Planning Area Description

As illustrated in Figure 1 above this planning area will provide for the development of 70 homesites on approximately 22.5 acres. The area is currently zoned to allow 5 dwelling units per acre, however when right-of-ways, perimeter buffers, storm detention and open space allowances are made, the resultant density will not exceed 4 dwelling units per acre. A typical housing product might best be compared with the adjacent *Finn Hill Terase* development and lot sizes which shall not be less than 7,500 SF.

B. Land Use and Development Standards

1. Primary access to Planning Area 1 should be provided from the acquired 60 foot right-of-way which connects this parcel and planning area 2 to Viking Way. See Figure 1A for a suggested entrance scheme and one method for providing traffic circulation within this planning area.

2. Secondary access should be permitted via the 60 foot right-of-way which connects this parcel to Finn Hill Road.

3. An limited secondary access should be planned via an existing 30 foot right-of-way which connects this parcel to *Finn Hill Terase*, an adjacent single-family development. All access measures approved by the City of Poulsbo shall be provided.

4. Internal right-of-ways should be planned to include the Neighborhood Collector section, and a 50 foot width. See Typical Section Neighborhood Collector, Figure 5E, Chapter 5, Circulation Plan Element.

5. A wet detention pond is included in the southeast corner and within the common areas of planning areas 1 and 2. These detention ponds are part of a regional site drainage system. No development will be allowed in these detention areas (See Chapter 3, Utilities and Grading).

6. A meandering trail system is proposed within a 50 foot perimeter buffer for all sides of this parcel. The area common to planning areas 1 and 2 will share a 50 foot (total width) perimeter buffer. Planning area 1 incorporates this system along all perimeters; the system continues to planning area 2.

7. Where perimeter buffer areas are disturbed, native ground covers, understory and overstory trees shall be transplanted from homesite development sites to maintain a natural buffer.

8. A common street tree planting scheme shall be established for this planning area, in accordance with Section 2.B of this chapter.

9. A two (2) acre park or open space shall be provided within the planning area which is suitable for active recreation. Recreation uses may include hardsurface court sports such as basketball or pickleball. Open space recreation shall include a minimum 50% of this area.

10. A landscaped entrance shall follow requirements of Section 2.B of this Chapter.

11. Introductory signage shall be provided at both primary and secondary entrances. Signs shall conform to City of Poulsbo sign ordinance standards and shall reflect the architectural character of the planning area.

12. Street lighting shall be provided and shall conform to the City of Poulsbo Subdivision Ordinance.

13. Site grading shall be performed according to the City of Poulsbo Clearing & Grading Ordinance. Wherever practicable, native trees and vegetation shall be preserved.

14. Finished street and driveway gradients shall not exceed 8 percent and 5 percent slopes, respectively.

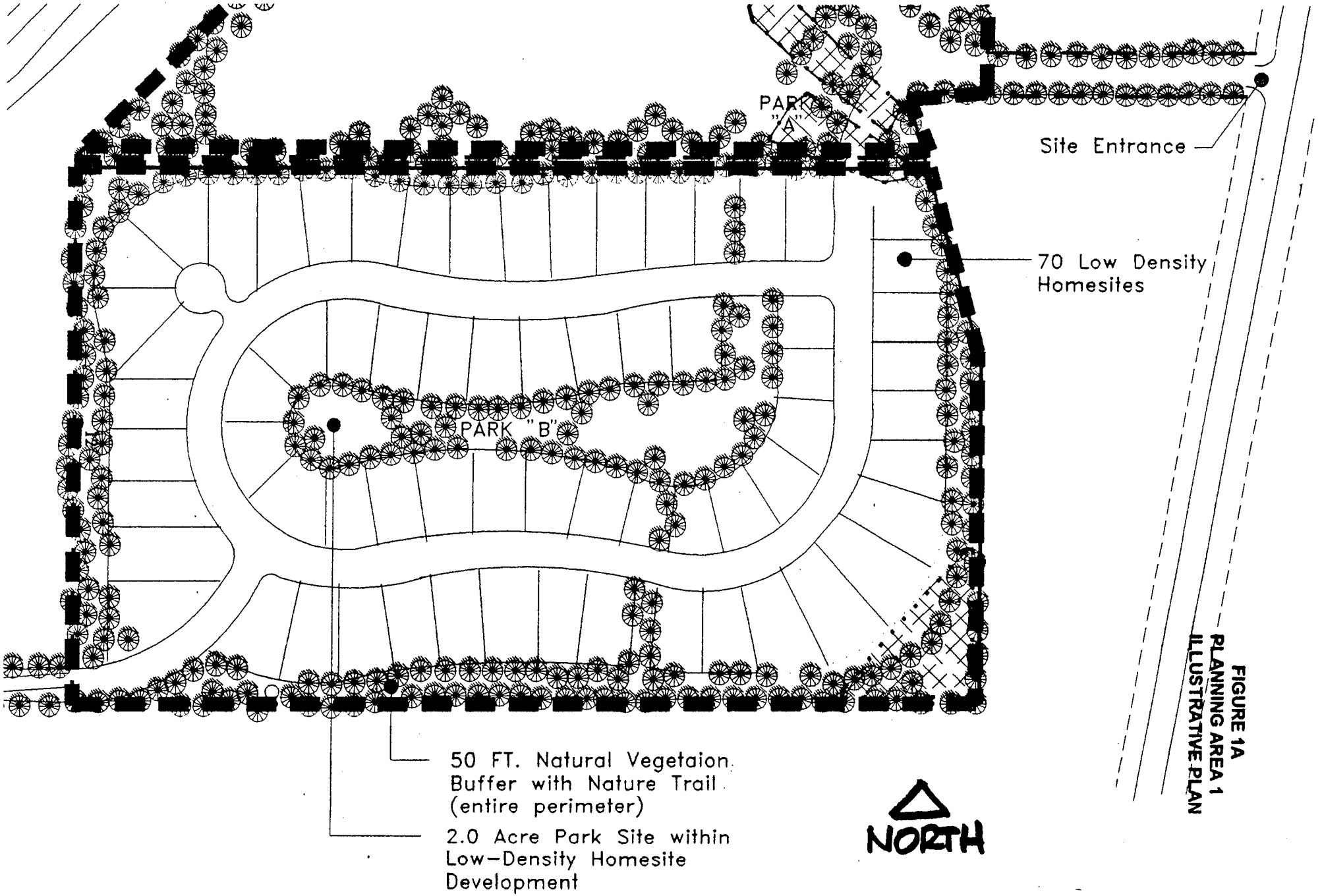
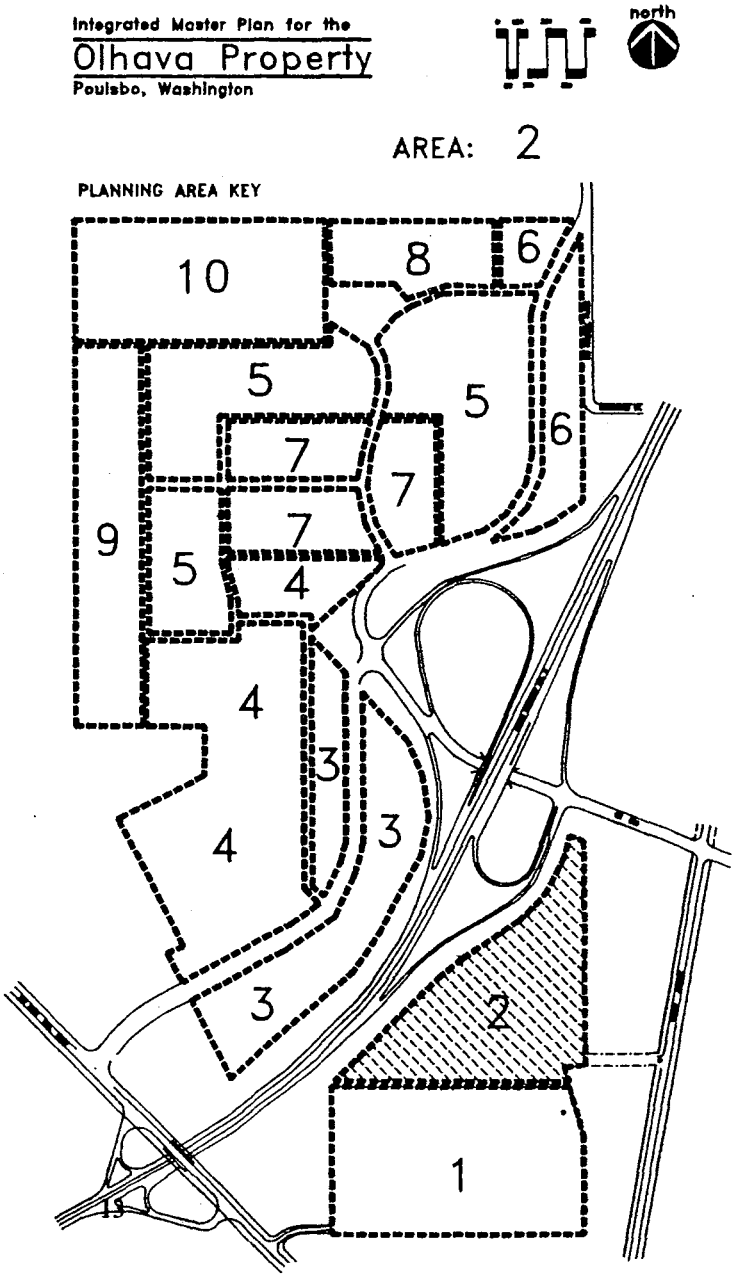


FIGURE 1A
PLANNING AREA 1
ILLUSTRATIVE PLAN

FIGURE 2
PLANNING AREA: 2
LAND USE: MEDIUM-DENSITY RESIDENTIAL
DESCRIPTION: 160 MEDIUM-DENSITY DWELLING UNITS ON 18.5 ACRES



2.4.2 OLHAVA MASTER PLAN PLANNING AREA 2

A. Planning Area Description

As illustrated in Figure 2 above this planning area will provide the development of 160 medium-density dwelling units on approximately 18.5 acres. The area is currently zoned to allow 10 dwelling units per acre, however when right-of-ways, perimeter buffers, storm detention and open space provisions are included, the proposed density for this area will not exceed 9 dwellings per gross acre. A typical housing product for this planning area might include condominiums, townhomes, or apartments, consistent with the Comprehensive Plan's objective of providing a range of housing types throughout the City.

B. Land Use and Development Standards

1. Primary access to Planning Area 2 should be provided from the acquired 60 foot right-of-way which connects this parcel and planning area 1 to Viking Way. See Figures 2A and 2B for a suggested entrance scheme and one method for providing traffic circulation within this planning area.

2. Secondary access should be provided via the 60 foot right-of-way which connects this planning area and planning area 1 to Finn Hill Road. A limited secondary and/or emergency access should be provided via Terase Drive. All access measures approved by the City of Poulsbo shall be provided.

3. Internal right-of-ways should be planned to include the Neighborhood Collector section, and a 50 foot width. See Typical Section Neighborhood Collector, Figure 5E, Chapter 5, Circulation Plan Element.

4. Site entrance drive shall serve as a principal vehicular access rather than as parking drive, with parking somewhat separated from the entrance drive. Drives should be located a sufficient distance from intersections to minimize conflicting traffic patterns and to assure adequate sight lines and stopping distances.

5. Dwelling units should be clustered whenever possible to provide functional open space separation between units. Clustered unit design should be developed in a manner that integrates automobile circulation, storage and access to each unit.

6. There should be no more than an average of 10 spaces of uninterrupted parking, whether in garages, carports, or open parking areas. Each average of 10 spaces of parking should be separated from additional spaces by a landscaped area not less than 6 feet wide.

7. Kitsap Transit should be coordinated with to provide safe and efficient placement of bus stops, shelters and commuter facilities within the project.

8. Planning development and grading strategies shall reflect the desire to minimize site disturbances and to enhance open space. Development planning shall follow site contours to the greatest extent practical and shall recognize/plan accordingly with existing drainage patterns and the Master Plan regional drainage design (See Chapter 3, Conceptual Grading Plan and Conceptual Post-Development Drainage Plan).

9. Wet detention ponds are proposed for the southeast area of planning area 2 in an area common to planning area 1. These detention ponds are part of a regional site drainage system. No development will be allowed in these detention areas (See Chapter 3, Utilities and Grading).

10. A meandering trail system is proposed within a 50 foot perimeter buffer for all sides of this planning area. The area common to planning areas 1 and 2 will share a 50 foot (total width) perimeter buffer. Planning area 2 incorporates this system along all perimeters; the system continues to planning area 1.

11. Where perimeter buffer areas are disturbed, native ground covers, understory and overstory vegetation shall be transplanted from homesite development areas to maintain a natural buffer.

12. A common street tree planting scheme shall be established for this planning area, in accordance with Section 2.B of this Chapter.

13. A two (2) acre park or open space shall be provided within the planning area which is suitable for active recreation. Children's play areas should be visible from the units. Recreation uses may include hardsurface court sports such as basketball or pickleball. Open space recreation shall include a minimum 50% of this area.

14. Introductory signage shall be provided at both primary and secondary entrances.

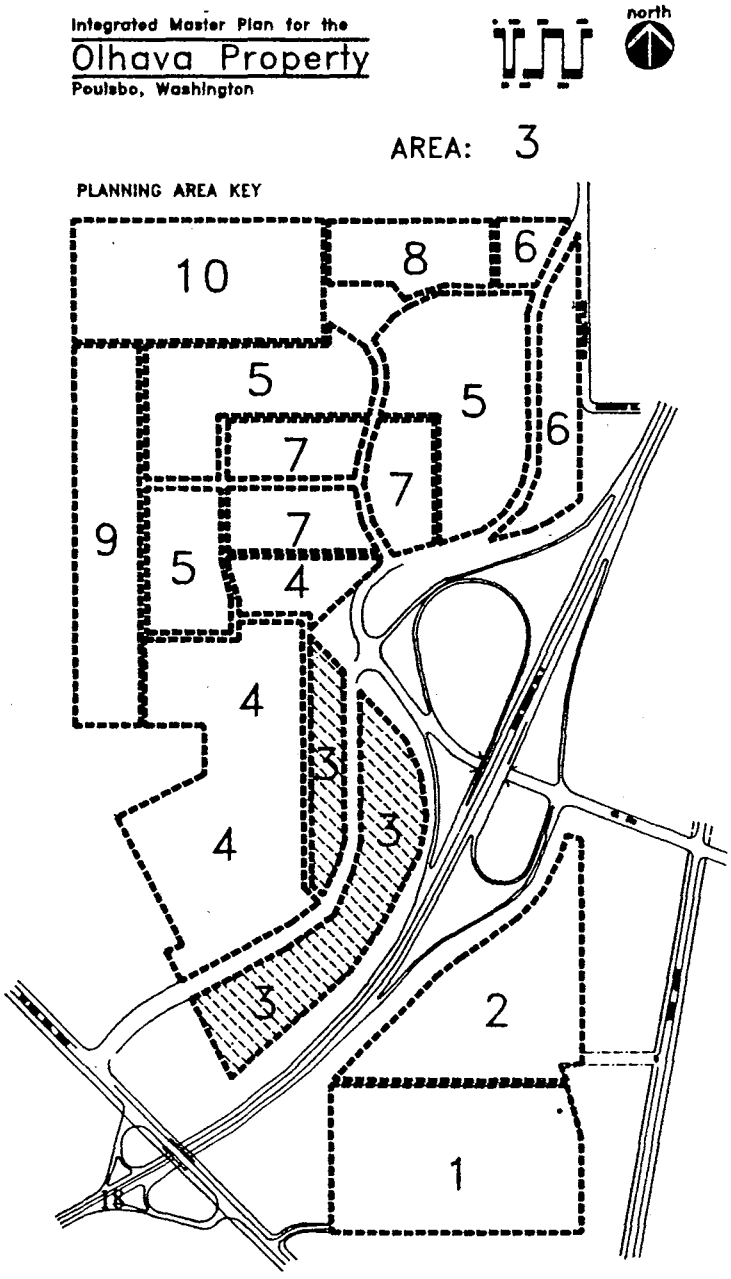
15. Finished street and driveway gradients shall not exceed 8 percent and 5 percent slopes, respectively, without the prior approval of City of Poulsob Department of Public Works.

The following illustrations (Figures 2A and 2B) depict planning area 2. Figure 2B is an illustrative plan that shows a vision for unit placement and circulation. Note: This illustrated land use plan is conceptual only, final lot arrangements will follow specific site plan and engineering assessment.

FIGURE 2A
PLANNING AREA 2
< NORTH

FIGURE 2B
PLANNING AREA 2
ILLUSTRATIVE PLAN
< NORTH

FIGURE 3
PLANNING AREA: 3
LAND USE: COMMERCIAL (COMMERCIAL PADS)
DESCRIPTION: APPROXIMATELY 210,000 SF OF COMMERCIAL SPACE ON 20 NET ACRES



2.4.3 OLHAVA MASTER PLAN PLANNING AREA 3

A. Planning Area Description

As illustrated in Figure 3 above this planning area will provide the development of approximately 210,000 SF of enclosed commercial space on 20 net acres. The area is part of a larger commercially zoned area consistent with the Comprehensive Plan Zoning Map.

B. Land Use and Development Standards

1. Primary access to Planning Area 3 should be provided by the primary frontage road, Street "A", and via Street "F" and its corresponding Business/Commercial collector Street "G" that adjoins this planning areas western boundary.

2. Street "A" will have a 100 foot right-of-way width for 5 traffic lanes, 2 bicycle lanes and an 8 foot sidewalk width. Curb-to-curb width will be 68 feet.

3. Street "F" will have a 60 foot right-of-way width for 4 traffic lanes and a 5 foot sidewalk width. Street "G" will have a 36 foot right-of-way width for 2 traffic lanes and a 5 foot sidewalk width.

4. Kitsap Transit should be coordinated with to provide safe and efficient placement of bus stops, shelters and commuter facilities within the planning area.

5. One access drive may be permitted for each street frontage.

6. Structures should be sited in a manner that will compliment the adjacent structures. Sites should be developed in a coordinated manner to provide order and diversity and avoid a cluttered development appearance.

7. Whenever possible, new structures should be clustered. When clustering is impractical, a visual link between separate structures should be established.

8. Structures and on-site circulation should be located to minimize pedestrian/vehicle conflicts where possible. Link structures to the public sidewalk where possible with textured paving, concrete, landscaping or other methods.

9. Freestanding, singular commercial structures should be oriented with their major entry toward the street where access is provided, as well as having their major facade parallel to the primary street frontage.

10. Loading facilities should be discouraged at the front of structures where it is difficult to adequately screen them from view. Such facilities are more appropriate at the rear of the site when possible, where special screening may not be required.

11. Open space areas should be clustered into larger, predominant landscape areas.

12. Separate vehicular and pedestrian circulation should be provided. Pedestrian linkages between commercial uses should be emphasized, including distinct pedestrian access.

13. Parking aisles should be separated from vehicle circulation routes whenever possible.

14. Common driveways which provide vehicular access to more than one site are encouraged.

15. Angled parking is preferred over 90 degree parking.

16. Parking areas should be separated from structures by either a raised concrete walkway or landscaped strip, preferably both. Situations where parking spaces directly abut the structures should be avoided.

17. Shared parking between adjacent business and/or developments is highly encouraged whenever possible.

18. Where parking areas are connected, interior circulation should allow for a similar direction of travel and parking bays in all areas to reduce conflicts at points of intersection.

19. Parking access points, whether located on front or side streets, should be located far enough from street intersections so that stacking is minimized. The number of access points should be limited to the minimum amount necessary to provide adequate and safe circulation.

20. Parking areas should be designed in a manner which links the structures to the street sidewalk system as an extension of the pedestrian environment.

21. A combination of walls, berms, and landscape material is highly recommended to screen parking areas from the public right-of-way. Whenever possible, parking areas should be internally clustered with buildings acting as a visual screened from primary roadways.

The following land use plan section illustrates a conceptual lot arrangement for planning area 3. Commercial Pad lots C6-C16 include potential lot boundaries with building setback envelopes. Cross-hatched areas are wet detention ponds as part of the regional drainage design for the property. Building setbacks are described in Section 2.B for commercial districts. Note: This illustrated land use plan is conceptual only, final lot arrangements will follow specific site plan and engineering assessment.

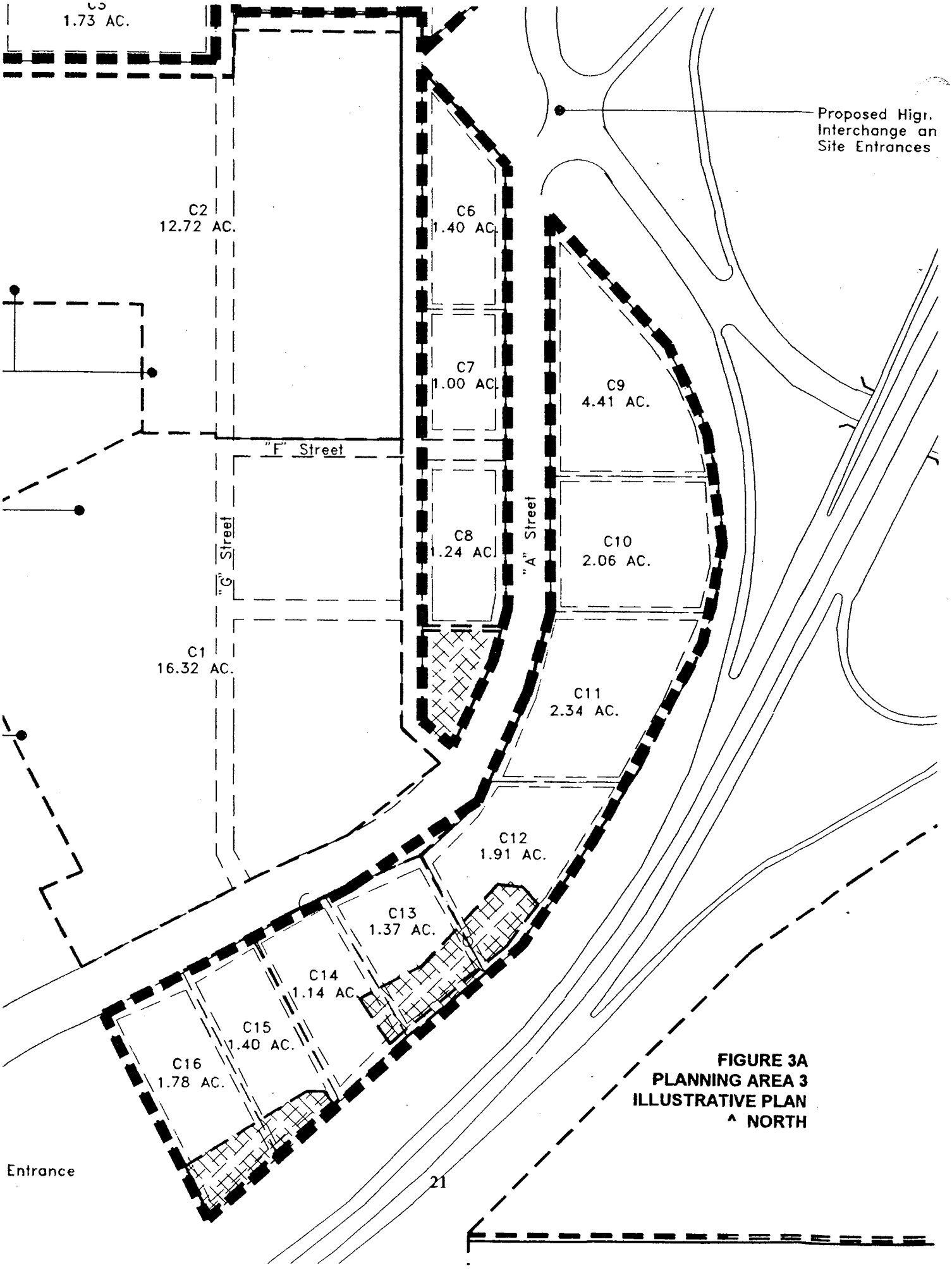
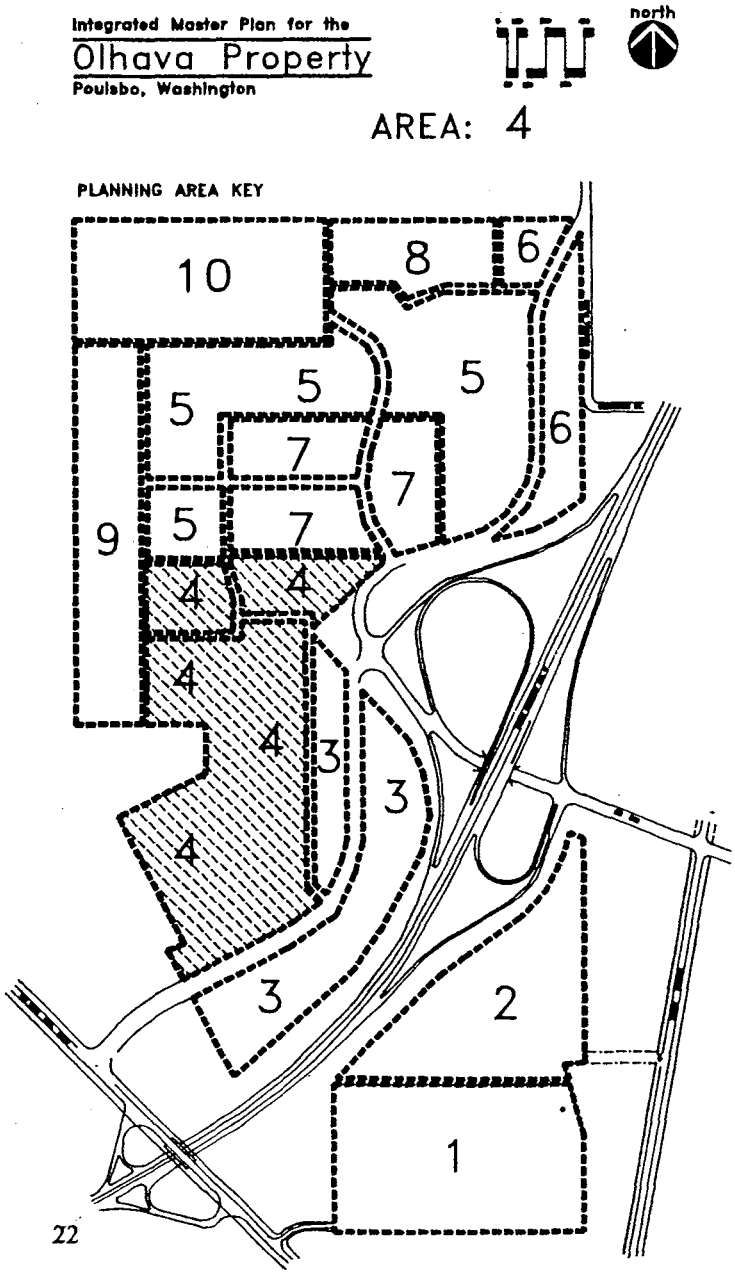


FIGURE 3A
PLANNING AREA 3
ILLUSTRATIVE PLAN
^ NORTH

FIGURE 4
PLANNING AREA: 4
LAND USE: COMMERCIAL (PRIMARY COMMERCIAL CENTER)
DESCRIPTION: APPROXIMATELY 470,000 SF OF COMMERCIAL SPACE ON 38 NET ACRES



2.4.4 OLHAVA MASTER PLAN PLANNING AREA 4

A. Planning Area Description

As illustrated in Figure 4 above this planning area will provide the development of approximately 470,000 SF of enclosed commercial space on 38 net acres. The area is part of a commercial node that is consistent with the Comprehensive Plan Zoning Map.

B. Land Use and Development Standards

1. Primary access to Planning Area 4 should be provided by the primary frontage road, Street "A", and via Streets "F" and "G". Collector Street "G" adjoins the eastern perimeter of this planning area with primary frontage road "A" Street access via "F".

2. Street "A" will have a 100 foot right-of-way width for 5 traffic lanes, 2 bicycle lanes and an 8 foot sidewalk width. Curb-to-curb width will be 68 feet.

3. Street "F" will have a 60 foot right-of-way width for 4 traffic lanes and a 5 foot sidewalk width. Street "G" will have a 36 foot right-of-way width for 2 traffic lanes and a 5 foot sidewalk width.

4. Kitsap Transit should be coordinated with during final site plan preparation to provide safe and efficient placement of bus stops, shelters and commuter facilities within this planning area.

5. Structures should be sited in a manner that will compliment adjacent structures. Sites should be developed in a coordinated and mutually beneficial manner to provide order and diversity.

6. Whenever possible, new structures should be clustered.

7. Structures and on-site circulation should be located to minimize pedestrian/vehicle conflicts where possible. Link structures to the public sidewalk where possible with textured paving, landscaping, trellises or other methods.

8. Freestanding, singular structures should be oriented with their major entry toward the primary street entrance, as well as having their major facade parallel to the primary street frontage.

9. Loading facilities should not be located at the front of structures where it is difficult to adequately screen them from view. Such facilities are more appropriate at the rear of the site where special screening may not be required.

10. Open spaces should be clustered into larger, predominant landscape areas.

11. Common driveways which provide vehicular access to more than one site are encouraged.

12. Where parking areas are connected, interior circulation should allow for a similar direction of travel and parking bays in all areas to reduce conflicts at points of intersection. Parking drive lanes should be oriented perpendicular to major storefront entrances.

13. Parking access points, whether located on front or side streets, should be located far enough from street intersections so that stacking is minimized. The number of access points should be limited to the minimum amount necessary to provide adequate and safe circulation.

14. Parking areas should be designed in a manner that links the structures to the street sidewalk system as an extension of the pedestrian environment.

15. A combination of walls, berms, and landscape material is highly recommended to screen parking areas from the public right-of-way. Whenever possible, parking areas should be design coordinated with surrounding site planning to utilize street frontage building placement as buffering devices to the central clustered parking area.

The following land use plan section (Figure 4A) illustrates a conceptual lot arrangement for planning area 4. Primary commercial lots C1-C5 include potential lot boundaries with building setback envelopes. Cross-hatched areas symbolize wet detention ponds which are part of a regional drainage design for the Olhava Property. Building setbacks and height restrictions are described in Section 2.B for commercial districts. Note: This illustrated land use plan is conceptual only, final lot arrangements will follow specific site plan and engineering assessment.

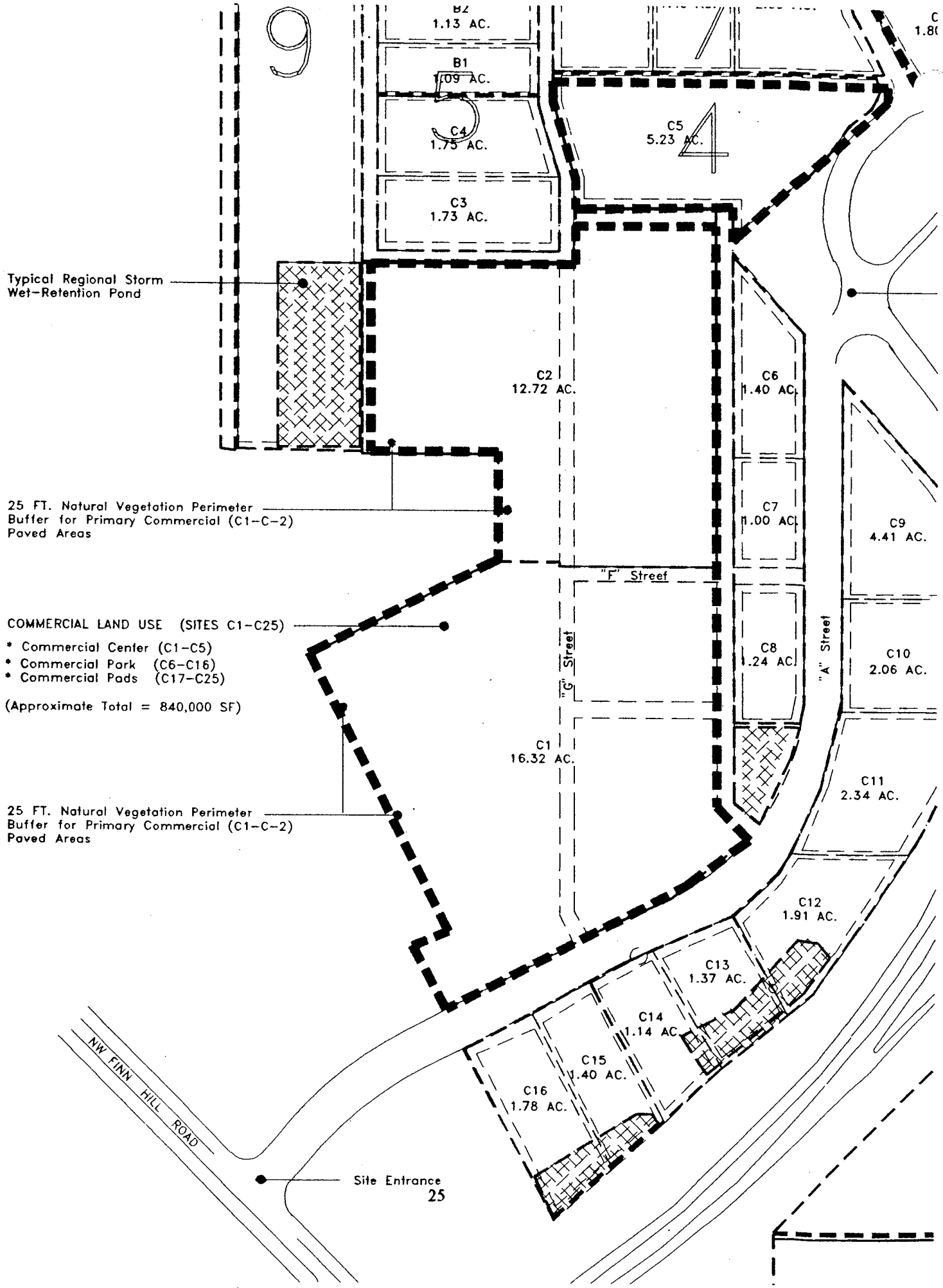
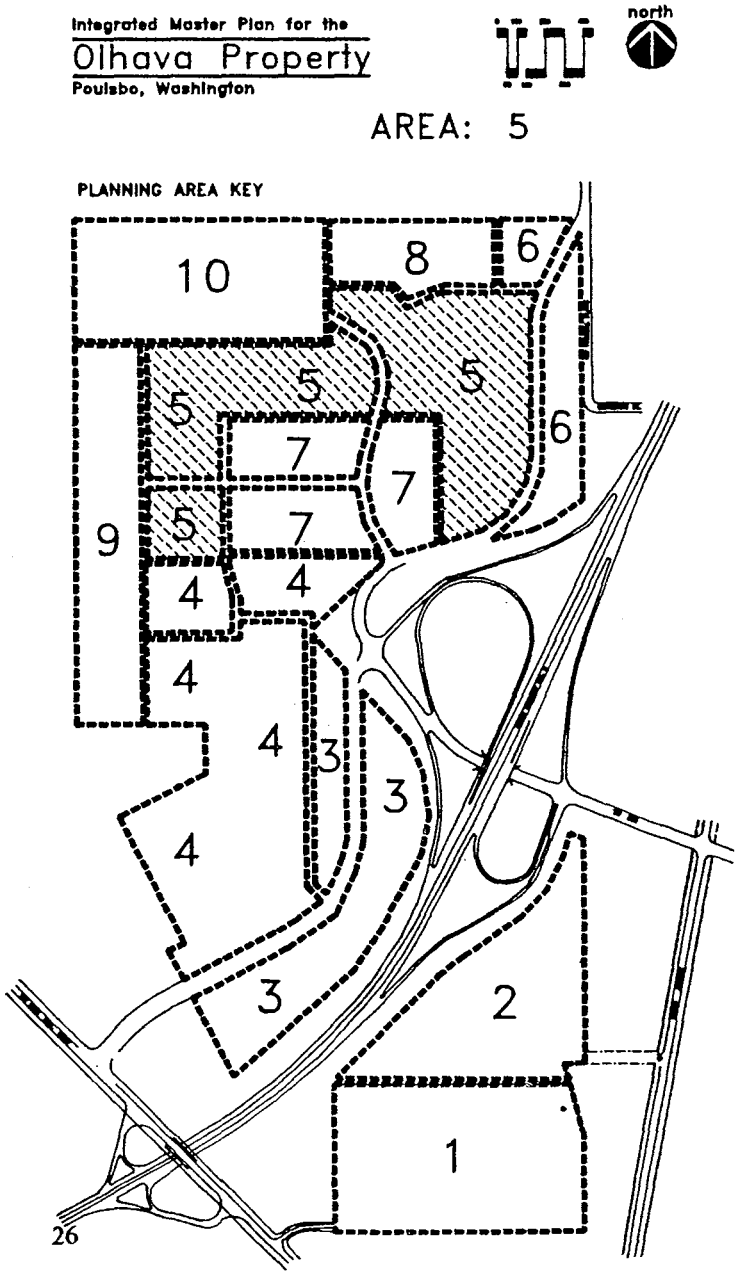

B2
1.13 AC.
B1
1.09 AC.
C4
1.75 AC.
C3
1.73 AC.
C5
5.23 AC.
Typical Regional Storm
Wet-Retention Pond
C2
12.72 AC.
C6
1.40 AC.
C7
1.00 AC.
C9
4.41 AC.
25 FT. Natural Vegetation Perimeter
Buffer for Primary Commercial (C1-C-2)
Paved Areas
"F" Street
COMMERCIAL LAND USE (SITES C1-C25)
* Commercial Center (C1-C5)
* Commercial Park (C6-C16)
* Commercial Pads (C17-C25)
(Approximate Total = 840,000 SF)
"G" Street
C8
1.24 AC.
"A" Street
C10
2.06 AC.
C1
16.32 AC.
C11
2.34 AC.
25 FT. Natural Vegetation Perimeter
Buffer for Primary Commercial (C1-C-2)
Paved Areas
C12
1.91 AC.
C13
1.37 AC.
C14
1.14 AC.
C15
1.40 AC.
C16
1.78 AC.
NW FINN HILL ROAD
Site Entrance
25

FIGURE 5
PLANNING AREA: 5
LAND USE: BUSINESS PARK
DESCRIPTION: APPROXIMATELY 325,000 SF OF OFFICE PARK SPACE ON 34 NET ACRES



2.4.5 OLHAVA MASTER PLAN PLANNING AREA 5

A. Planning Area Description

As illustrated in Figure 5 above this planning area will provide the development of approximately 325,000 SF of enclosed business park space on 34 net acres. This planning area use is consistent with zoning designations by the Comprehensive Plan Land Use Map.

B. Land Use and Development Standards

1. Primary access to Planning Area 5 should be provided by the primary frontage road, Streets "B", "C" and "D". Secondary collector "E" provides access to this planning area from "C" Street.

2. Street "B" will include a 100 foot right-of-way width for 5 traffic lanes, 2 bicycle lanes and an 8 foot sidewalk width. Curb-to-curb width for this street section will be 68 feet.

3. Street "C" will include a 100 foot right-of-way at the point of beginning, tapering to a 36 foot right-of-way from the signalized "E" Street intersection to the Olympic College campus. Traffic lanes will be 4-5 and 2 lanes, respectively. Two bicycle lanes and a 5 foot sidewalk will be included in this street section.

4. Street "D" will include a 60 foot right-of-way for 2-3 traffic lanes, a 5 foot sidewalk width and 2 bicycle lanes. Curb-to-curb dimension will be 48 feet.

5. Kitsap Transit should be coordinated with during final site plan preparation to review preliminary routing and bus stop sufficiency and to provide safe and efficient placement of bus stops, shelters and commuter facilities within this planning area.

6. Structures should be sited in a manner that will compliment adjacent structures. Sites should be developed in a coordinated and mutually beneficial manner to provide order and diversity.

7. Whenever possible, new structures should be clustered with centralized parking cores. Buildings should be placed to function as visual buffers to centralized parking cores to minimize visual impact of these parking areas to primary traffic routes and adjacent land uses.

8. Freestanding, singular structures (especially those utilizing two or more lots) should be oriented with their major entry toward the primary street entrance, as well as having their major facade parallel to the primary street frontage.

9. Loading facilities should be discouraged at the front of structures where it is difficult to adequately screen them from view. Such facilities should be located at the rear of the site when possible, where special screening may not be required.

10. Open spaces should be clustered into larger, predominant landscape areas.

11. Common driveways which provide vehicular access to more than one site are encouraged.

12. Where parking areas are connected, interior circulation should allow for a similar direction of travel and parking bays in all areas to reduce conflicts at points of intersection. Parking drive lanes should be oriented perpendicular to major business entrances.

13. Parking areas should be designed in a manner that links the structures to the street sidewalk system as an extension of the pedestrian environment.

14. A combination of walls, berms, and landscape material is highly recommended to screen parking areas from the public right-of-way.

The following land use plan section (Figure 5A) illustrates a conceptual lot arrangement for planning area 5. Business Park lots B1-B23 include potential lot boundaries with building setback envelopes. Cross-hatched areas symbolize wet detention ponds which are part of a regional drainage design for the Olhava Property. Building setbacks, height restrictions and other development standards are outlined in Section 2.B. Note: This illustrated land use plan is conceptual only, final lot arrangements will follow specific site plan and engineering assessment.

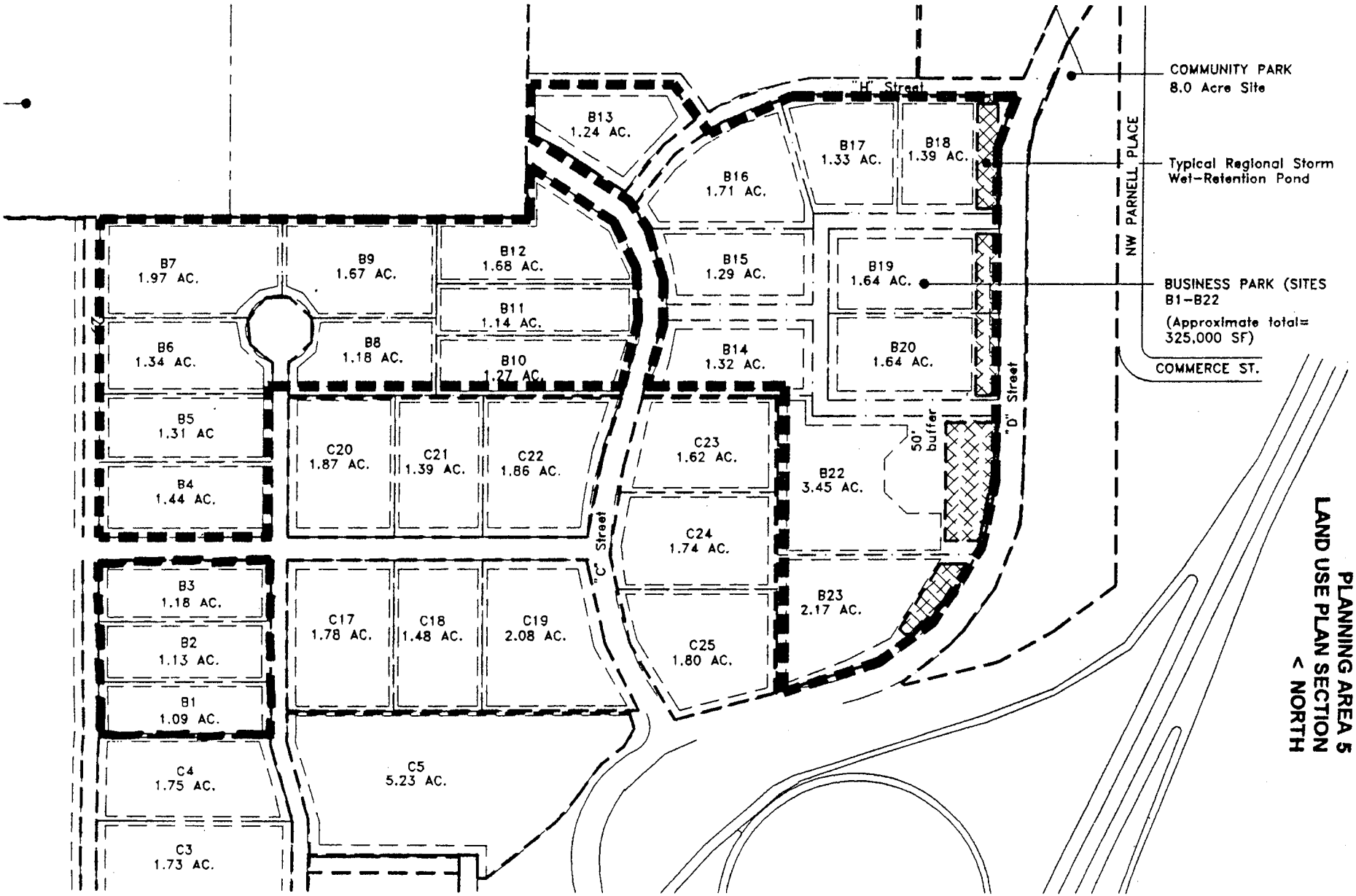
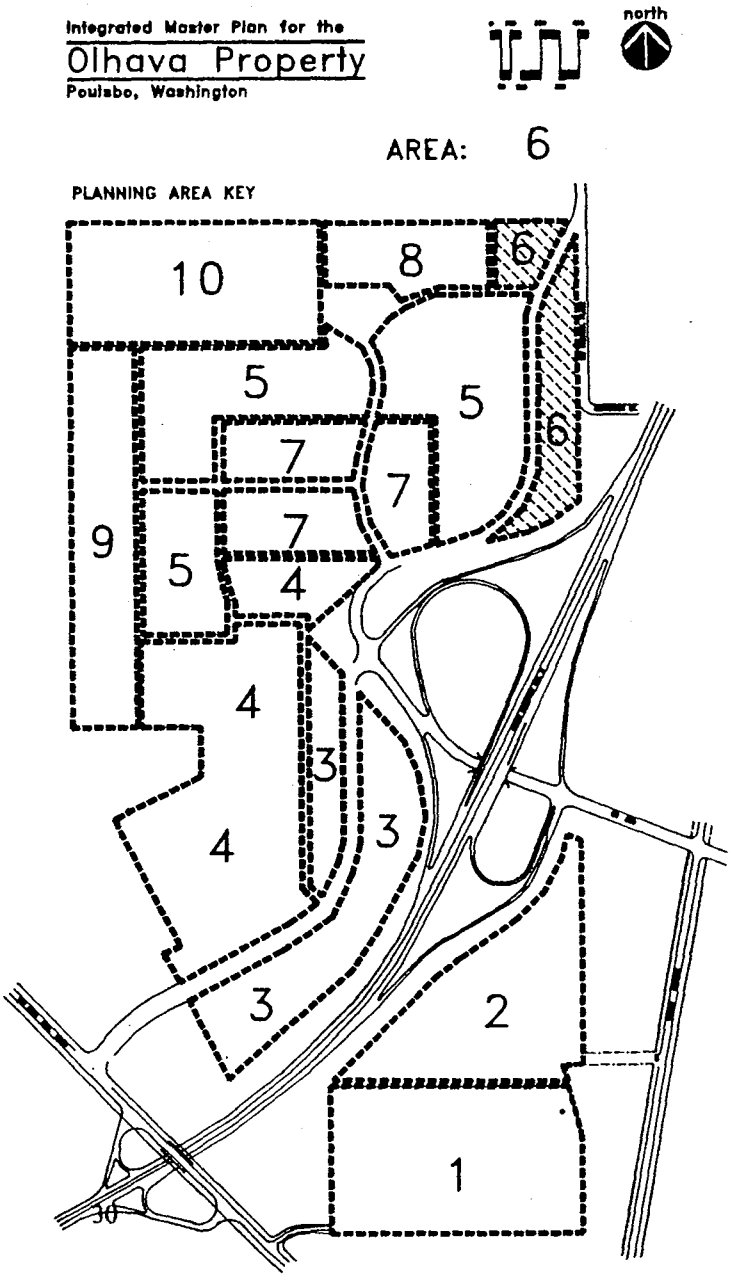


FIGURE 5A
PLANNING AREA 5
LAND USE PLAN SECTION
< NORTH

FIGURE 6
PLANNING AREA: 6
LAND USE: COMMUNITY PARK (PARKS AND OPEN SPACE)
DESCRIPTION: APPROXIMATELY 8 ACRES DESIGNATED FOR COMMUNITY PARK USE



2.4.6 OLHAVA MASTER PLAN PLANNING AREA 6

A. Planning Area Description

As illustrated and described in Figure 6A above this planning area will provide land for the development of a community park within an eight (8) acre area. This planning area is currently zoned for low-density residential, parks and open space are a permitted use under this designation.

B. Land Use and Development Standards

1. Primary access to Planning Area 6 should be provided by the primary frontage road, Street "D". This roadway is planned to include a 60 foot right-of-way for 2-3 lanes, a 5 foot sidewalk width and 2 bicycle lanes. Curb-to-curb dimension will be 48 feet.

2. Parking areas should be planned for linkage to sidewalk and trail system access.

3. Parking areas should be sited in a manner which provides safe and efficient access to park facilities and in a manner which does not adversely impact adjacent land uses.

4. Site drainage should be planned to be directed to wet detention ponds that are part of a regional drainage system for the Olhava Property. Site discharge for this planning area will be to ponds that are located on the west side of Street "D" (See Planning Area 5 and Chapter 3, *Utilities and Grading*).

5. Perimeter buffers should be preserved whenever possible.

6. A 0.222 acre wetland mitigation site is located within the northwest site area. Buffers and clearing practices for this area are described in Chapter 3, *Utilities and Grading*. Wetland descriptions are described in Chapter 4, *Environmental Resources*.

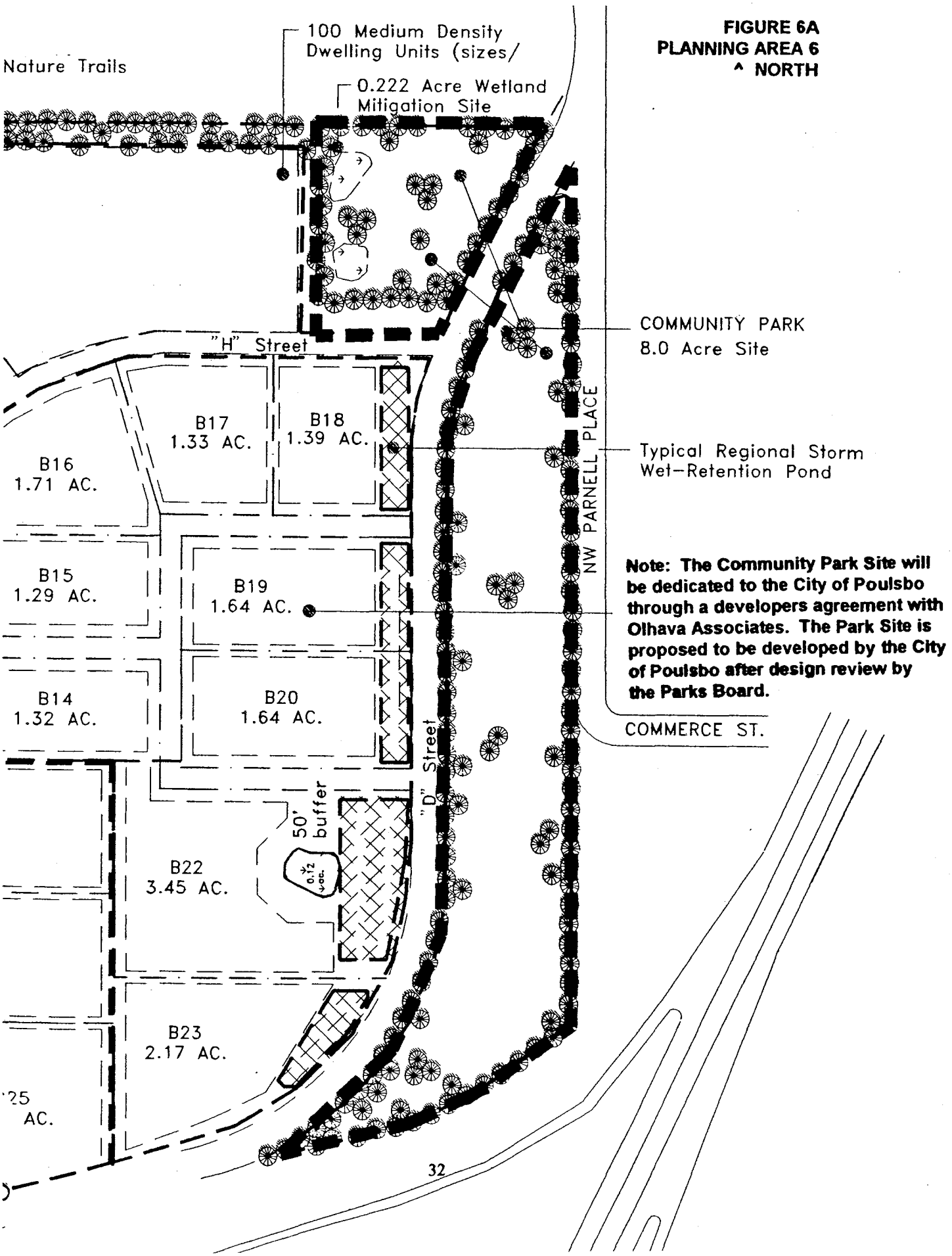
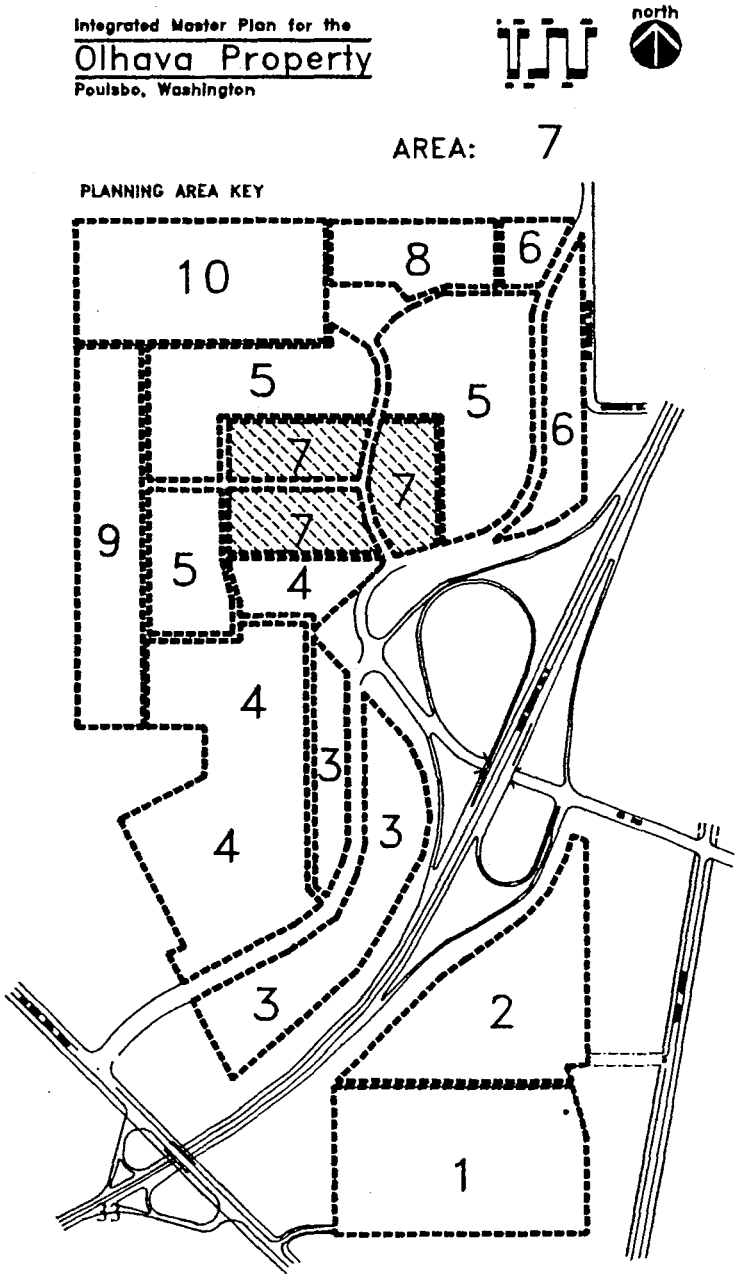


FIGURE 6A
PLANNING AREA 6
^ NORTH

Note: The Community Park Site will be dedicated to the City of Poulsbo through a developers agreement with Olhava Associates. The Park Site is proposed to be developed by the City of Poulsbo after design review by the Parks Board.

FIGURE 7A
PLANNING AREA: 7
LAND USE: COMMERCIAL PARK (COMMERCIAL)
DESCRIPTION: APPROXIMATELY 160,000 SF OF COMMERCIAL PARK SPACE ON 16 NET ACRES.



2.4.7 OLHAVA MASTER PLAN PLANNING AREA 7

A. Planning Area Description

As illustrated and noted by Figure 7A above this planning area will provide the development of approximately 160,000 SF of enclosed commercial park space on 16 net acres. Note: Approximately 4 acres of road right-of-way is incorporated by this planning area zone; gross acreage for the planning area is 20 acres.

B. Land Use and Development Standards

1. Primary access to Planning Area 7 should be provided by the primary frontage road, Street "C". Secondary access should be provided by the collector street "E".

2. Street "C" will include a 100 foot right-of-way at the point of beginning, tapering to a 36 foot right-of-way from the signalized "E" Street intersection to the Olympic College campus site. Traffic lanes will be 4-5 and 2 lanes, respectively. Two bicycle lanes and a 5 foot sidewalk will be included with this street section.

3. Street "E" will include a 60 foot right-of-way for 3 traffic lanes and a 5 foot sidewalk width.

4. Kitsap Transit should be coordinated with during site plan preparation to review preliminary routing and bus stop sufficiency and to provide safe and efficient placement of bus stops, shelters and commuter facilities within this planning area.

5. Structures should be sited in a manner that will compliment adjacent structures. Sites should be developed in a coordinated and mutually beneficial manner to provide order and diversity.

6. Whenever possible, new structures should be clustered.

7. Structures and on-site circulation should be located to minimize pedestrian/vehicle conflicts where possible. Link structures to the public sidewalks where possible with textured paving, landscaping, concrete or other such methods.

8. Freestranding, singular structures should be oriented with their major entry toward the primary street entrance, as well as having their major facade parallel to the primary street frontage.

9. Loading facilities should be discouraged at the front of structures where it is difficult to adequately screen them from view. Such facilities should be located at the rear of the structure when possible, where special screening may not be required.

10. Open spaces should be clustered into larger, predominant landscape areas.

11. Common driveways which provide vehicular access to more than one site are encouraged.

13. Parking access points, whether located on front or side streets, should be located far enough from street intersections so that stacking is minimized. The number of access points should be limited to provide adequate and safe circulation.

14. Parking areas should be designed in a manner that links the structures to the street sidewalk system as an extension of the pedestrian environment.

15. A combination of walls, berms, and landscape material is highly recommended to screen parking areas from the public right-of-way. Whenever possible, parking areas should be design coordinated with surrounding site planning to utilize street frontage building placement as buffering devices to centralized parking area clusters.

The following land use plan section (Figure 7A) illustrates a conceptual lot arrangement for planning area 7. Business park lots C17-C25 include potential lot boundaries with building setback envelopes. Site drainage for this area is planned to include a system of open ditches, pipe and catch basins for diversion and conveyance to the regional drainage system. Building setbacks, heights and other design standards are listed and described in Section 2.B. Note: This illustrated land use plan is conceptual only, final lot arrangements will follow specific site plan and engineering assessment.

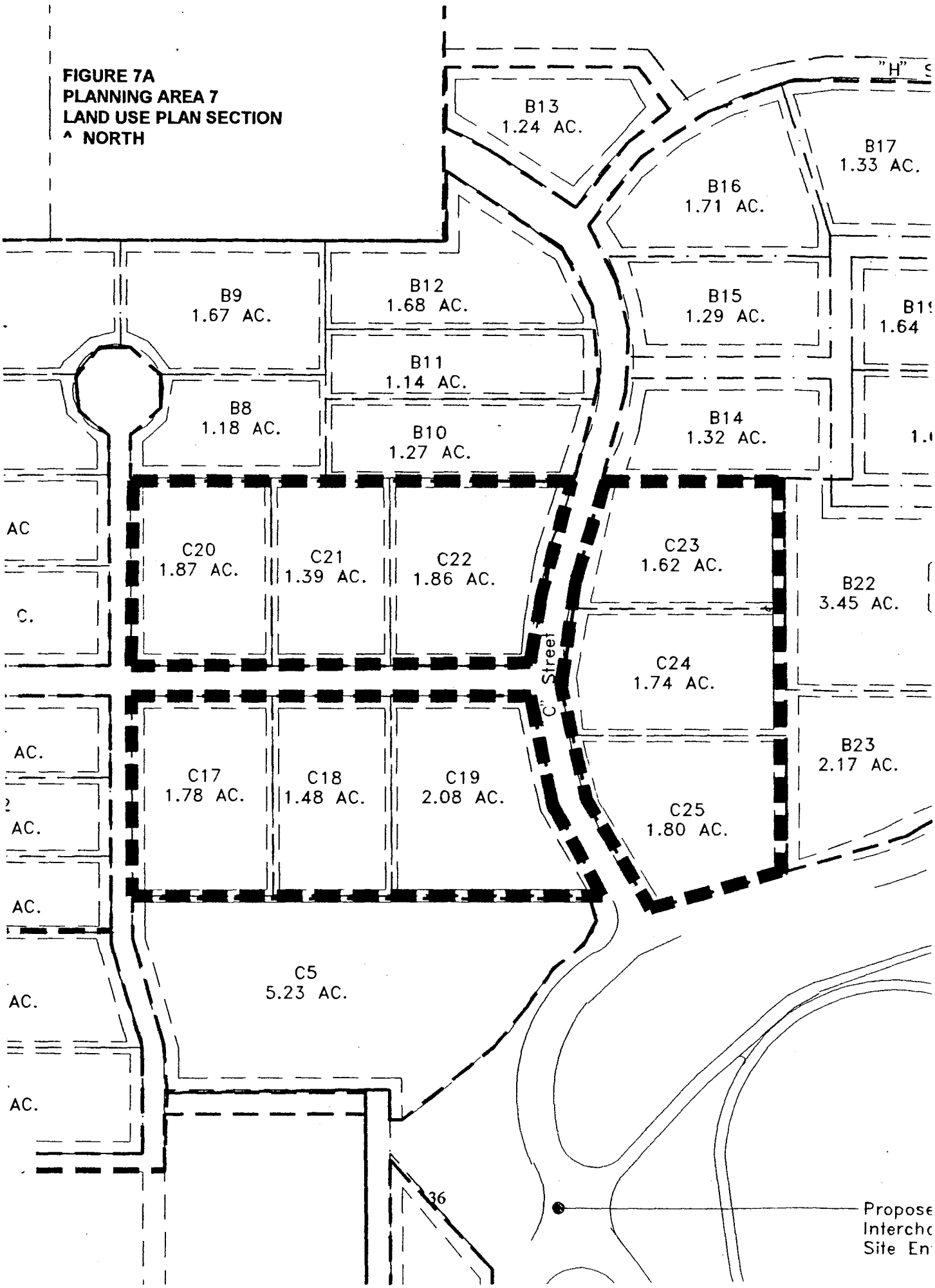
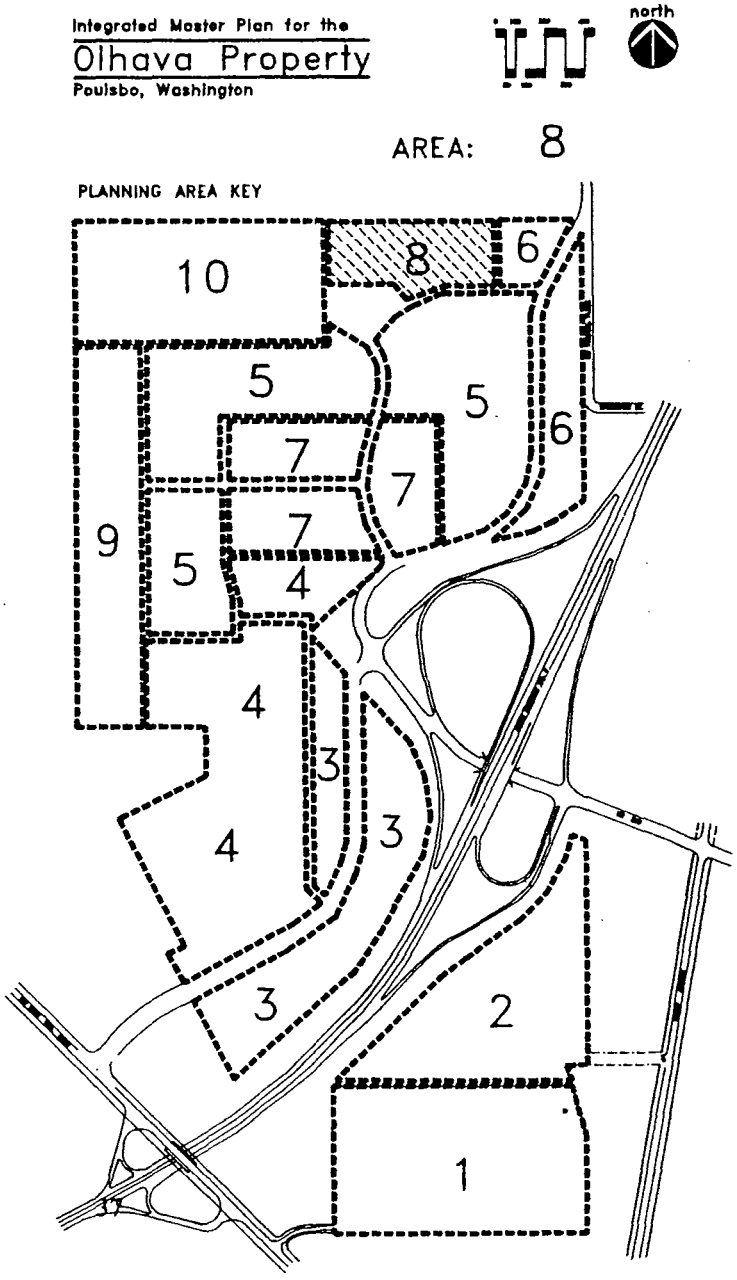


FIGURE 7A
PLANNING AREA 7
LAND USE PLAN SECTION
^ NORTH
B13
1.24 AC.
B16
1.71 AC.
B17
1.33 AC.
B9
1.67 AC.
B12
1.68 AC.
B15
1.29 AC.
B11
1.14 AC.
B8
1.18 AC.
B10
1.27 AC.
B14
1.32 AC.
C20
1.87 AC.
C21
1.39 AC.
C22
1.86 AC.
C23
1.62 AC.
B22
3.45 AC.
C Street
C24
1.74 AC.
C17
1.78 AC.
C18
1.48 AC.
C19
2.08 AC.
B23
2.17 AC.
C25
1.80 AC.
C5
5.23 AC.
AC.
36
Propose
Interch
Site En

FIGURE 8A
PLANNING AREA: 8
LAND USE: MEDIUM-DENSITY RESIDENTIAL
DESCRIPTION: 100 MEDIUM-DENSITY DWELLING UNITS ON 8 NET ACRES



2.4.8 OLHAVA MASTER PLAN PLANNING AREA 8

A. Planning Area Description

As illustrated in Figure 8A above this planning area will provide the development of 100 medium-density dwelling units on approximately 8 net acres. Two acres of this medium-density zoned property is planned for addition to the adjoining 8 acre community park. Thus, when this acreage is included, a gross density of 10 units per acre is in keeping with allowed densities for this parcel. When other right-of-ways and perimeter buffers are included, the proposed net density for this area will not exceed 12.5 dwellings per acre. A typical housing product for this area would include condominiums, townhomes or apartments, consistent with the Comprehensive Plan's objective of providing a range of housing types throughout the City.

B. Land Use and Development Standards

1. Primary access to Planning Area 8 should be provided from the adjacent "H" street. "H" Street right-of-way width is planned as 36 feet for 2 traffic lanes and a 5 foot sidewalk section.

2. Individual access spurs are planned to be private drives, maintained by a common homeowners association. Whenever possible these spurs should be located a sufficient distance from intersections to minimize conflicting traffic patterns and to assure adequate sight lines and stopping distances.

3. Dwelling units should be clustered whenever possible to provide functional open space separation between units. Clustered unit design should be developed in a manner that integrates automobile circulation, storage and access to each unit.

4. There should be no more than an average of 10 spaces of uninterrupted parking, whether in garages, carports, or open parking areas. Each average of 10 spaces of parking should be separated from additional spaces by a landscaped area not less than 6 feet wide.

5. Kitsap Transit should be coordinated with during site plan development to ensure safe and efficient placement of bus stops, shelters and commuter facilities within this project area.

6. Planning development and grading strategies should reflect the desire to minimize site disturbances and to enhance open space. Development planning should follow site contours to the greatest extent practical and shall recognize/plan accordingly with existing drainage patterns and the Master Plan regional drainage design (See Chapter 4, Conceptual Grading Plan and Conceptual Post-Development Drainage Plan).

7. Development may not occur within 50 feet of the wetlands and mitigation areas that are located adjacent to the eastern planning area boundary.

8. A meandering trail system is proposed within a 50 foot perimeter buffer for the north boundary of the planning area. This natural vegetation buffer follows the Olhava Property's north boundary. The buffers and trails would be owned and maintained by a common homeowner's association.

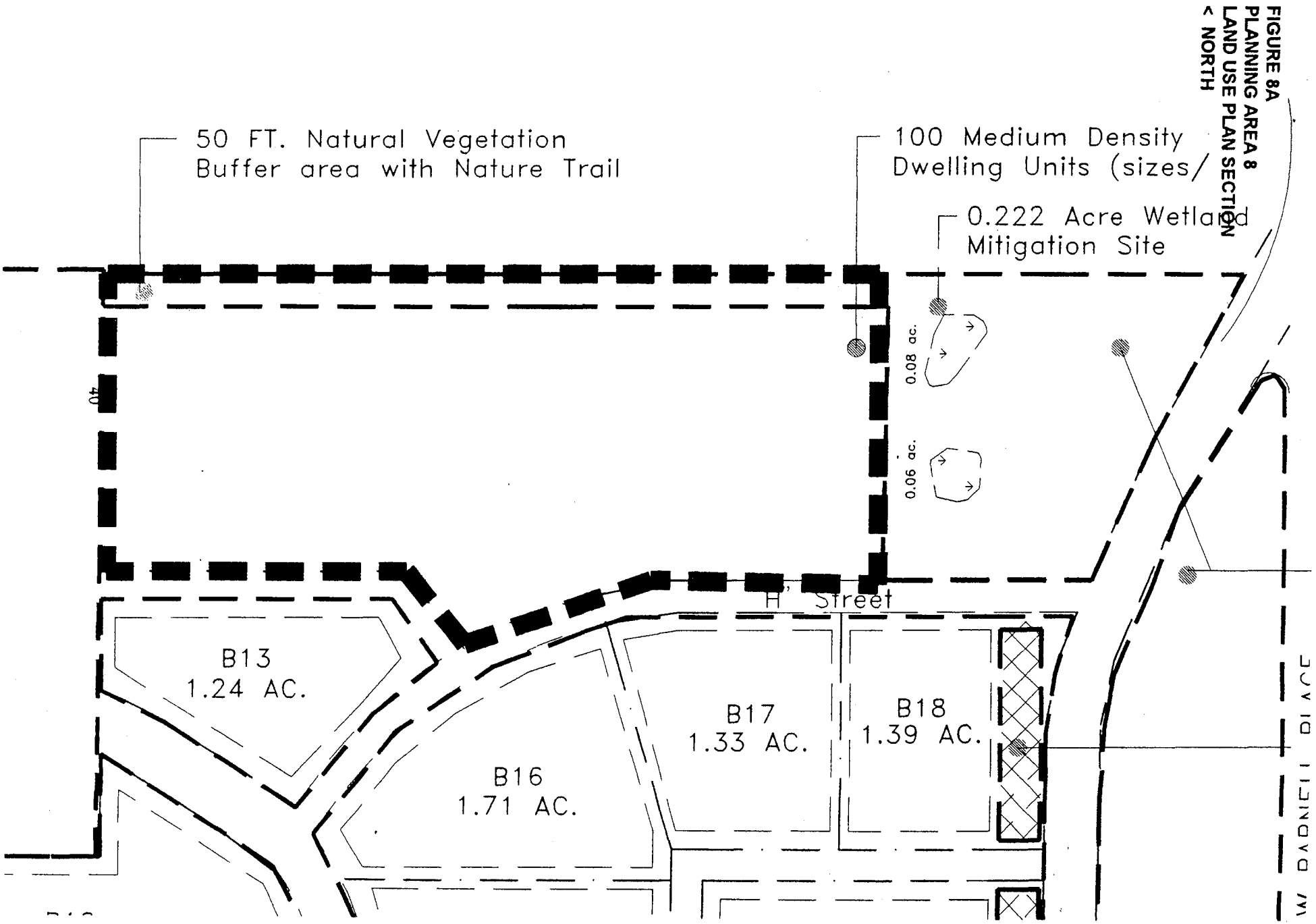
10. Where perimeter buffer areas are disturbed, native ground covers, understory and overstory vegetation will be transplanted from homesite development areas to maintain this natural buffer zone.

11. A common street tree planting scheme will be established for this planning area, in accordance with Section 2.B guidelines of this Chapter.

12. Finished street and driveway gradients should not exceed 8 percent and 5 percent slopes, respectively, without the prior approval of the City of Poulsbo Department of Public Works.

13. Height restrictions, setbacks, landscaping and building articulation standards will follow descriptions established in Section 2.B of this Chapter.

The following illustrations (Figures 8A and 8B) depict land use and illustrative site planning for this planning area. Figure 8B illustrates a preliminary vision for unit placement and circulation and is not therefore intended to show specific site plan conditions for this planning area. Note: This illustrated land use plan is conceptual only, final lot arrangements will follow specific site plan and engineering assessment.


50 FT. Natural Vegetation
Buffer area with Nature Trail
100 Medium Density
Dwelling Units (sizes/
0.222 Acre Wetland
Mitigation Site
0.08 ac.
0.06 ac.
H' Street
B13
1.24 AC.
B16
1.71 AC.
B17
1.33 AC.
B18
1.39 AC.
W DANIELS BLVD
FIGURE 8A
PLANNING AREA 8
LAND USE PLAN SECTION
< NORTH

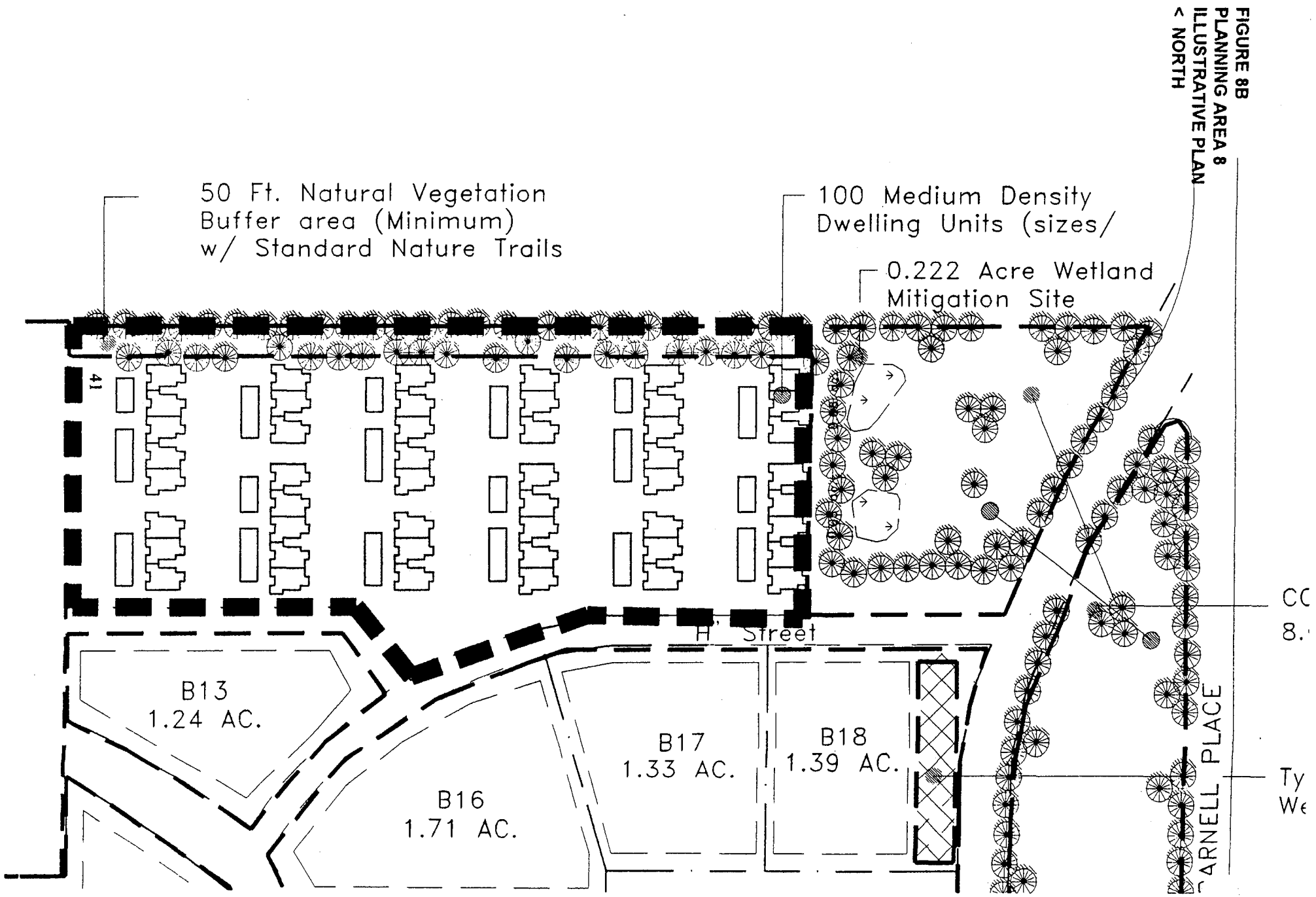
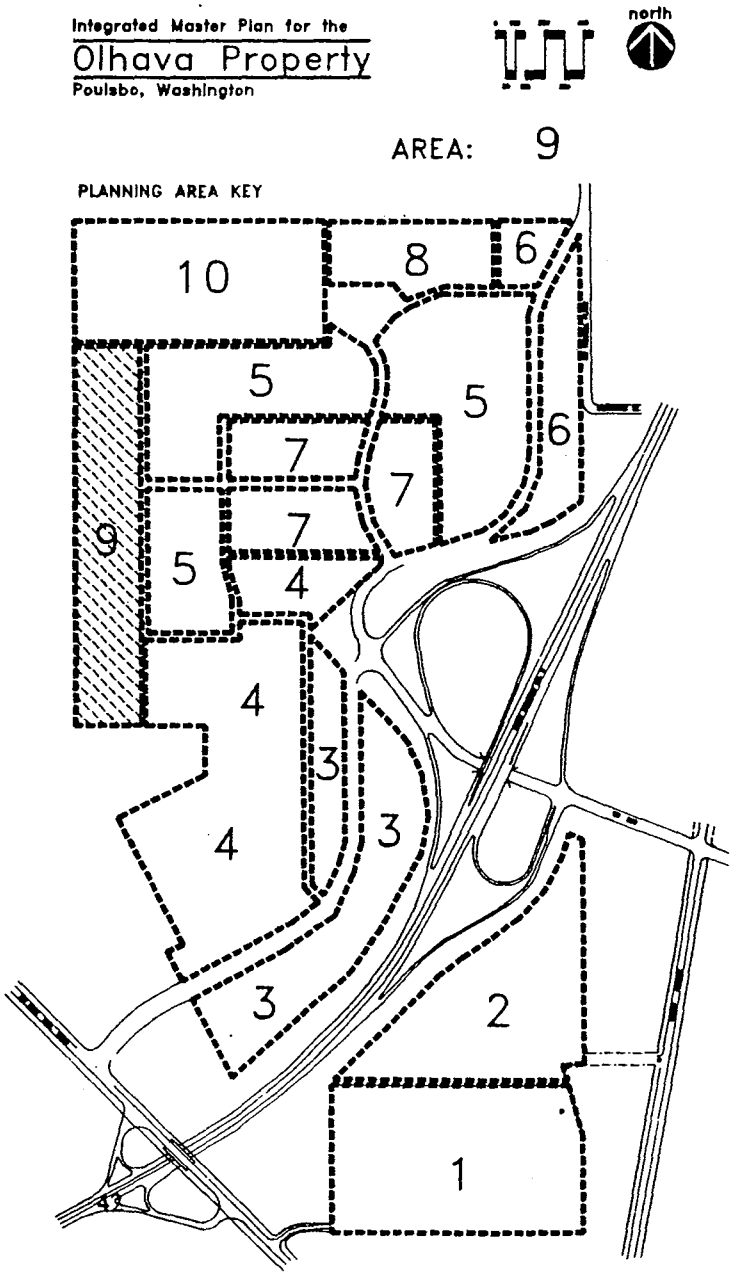


FIGURE 8B
PLANNING AREA 8
ILLUSTRATIVE PLAN

FIGURE 9
PLANNING AREA: 9
LAND USE: MEDIUM-DENSITY RESIDENTIAL
DESCRIPTION: 160 MEDIUM-DWELLING UNITS ON 15 NET ACRES



2.4.9 OLHAVA MASTER PLAN PLANNING AREA 9

A. Planning Area Description

As illustrated in Figure 9 above this planning area will provide the development of 160 medium-dwelling units on approximately 15 net acres. The area is currently zoned to allow 10 dwelling units per gross acre, however, when right-of-ways, neighborhood park area and storm water retention are introduced the proposed net density is 10.7 dwellings per acre. Typical housing products would include condominiums, townhomes or apartments, consistent with the Comprehensive Plan's objective of providing a range of housing types throughout the City.

B. Land Use and Development Standards

1. Primary access to Planning Area 9 should be provided by two secondary collector streets each having 50 foot right-of-ways for 3 traffic lanes and 5 foot sidewalk widths.

2. Dwelling units should be oriented towards a central open space that provides appropriate distance separation between opposing units. Dwelling units should be clustered whenever possible to provide functional open space separation between units. Clustered unit design should be developed in a manner that integrates automobile circulation, storage and access to each unit.

3. There should be no more than an average of 10 spaces of uninterrupted parking, whether in garages, carports, or open parking areas. Each average of 10 spaces of parking should be separated from additional spaces by a landscaped area not less than 6 feet wide.

4. Kitsap Transit should be coordinated with during site plan development to ensure safe and efficient placement of bus stops, shelters and commuter facilities within this project area.

5. Planning development and grading strategies should reflect the desire to minimize site disturbances and to enhance open space. Development planning should follow site contours when possible and shall recognize/plan accordingly with existing drainage patterns and the Master Plan regional drainage design (See Chapter 3, Conceptual Grading Plan and Conceptual Post-Development Drainage Plan).

6. This planning area includes a wet detention pond that is part of the Olhava Property regional drainage plan. The wet detention pond should be naturally shaped to provide an amenity feature for a neighborhood park that is planned for this area.

7. This planning area will include a two (2) acre neighborhood park site. This park site will incorporate the wet detention ponds described in item 6 above.

8. There are no wetlands within this planning area.

9. A meandering trail system is proposed within a 50 foot perimeter buffer along the west boundary of this planning area. This natural vegetation buffer follows the Olhava Property's west boundary. The park site, buffers and trails would be owner and maintained by a common homeowner's association.

10. Where perimeter buffers are disturbed, native ground covers, understory and overstory vegetation will be transplanted from homesite development areas to maintain this natural buffer zone.

11. A common street tree planting scheme would be established for this planning area, in accordance with Section 2.B guidelines of this Chapter.

12. Finished street and driveway gradients should not exceed 8 percent and 5 percent slopes, respectively, without the prior approval of the City of Poulsbo Department of Public Works.

13. Garages and Carports should be placed to allow one parking space separation between these structures and the access roadway system. Garages and Carports should not directly abut access roadway systems. Garage, Carport or other parking should be efficiently placed to provide safe and adequate sight distances to all nearby intersections.

14. Height restrictions, setbacks, landscaping, signage and building articulation standards will follow descriptions established in Section 2.B of this Chapter.

The following sketch (Figures 9A) illustrates a site planning vision for incorporating Land Use and Development Standards for this planning area. Note: This illustrated land use plan is conceptual only, final lot arrangements will follow specific site plan and engineering assessment.

FIGURE 9A
PLANNING AREA 9
ILLUSTRATIVE SITE PLAN
^ NORTH

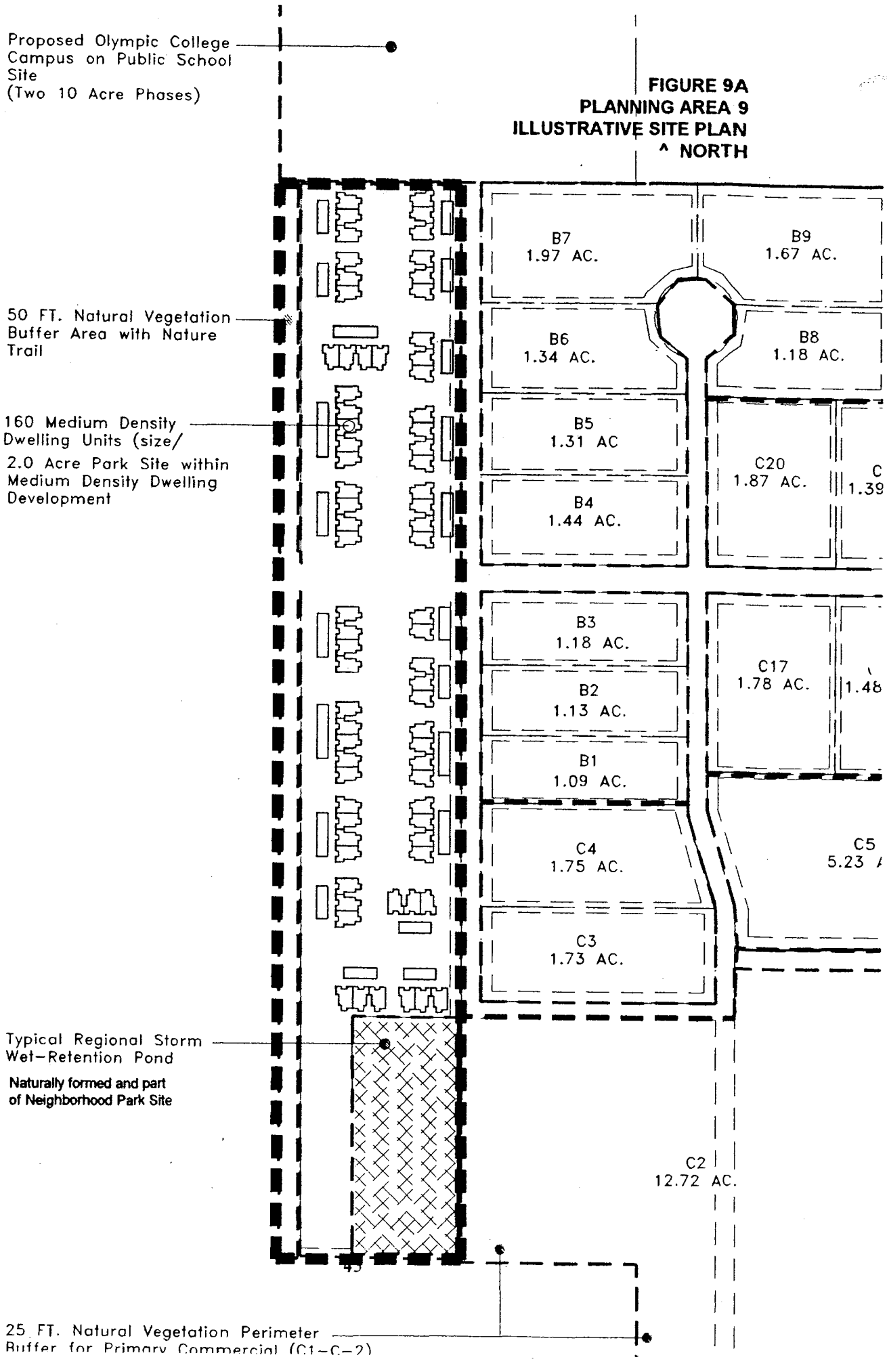
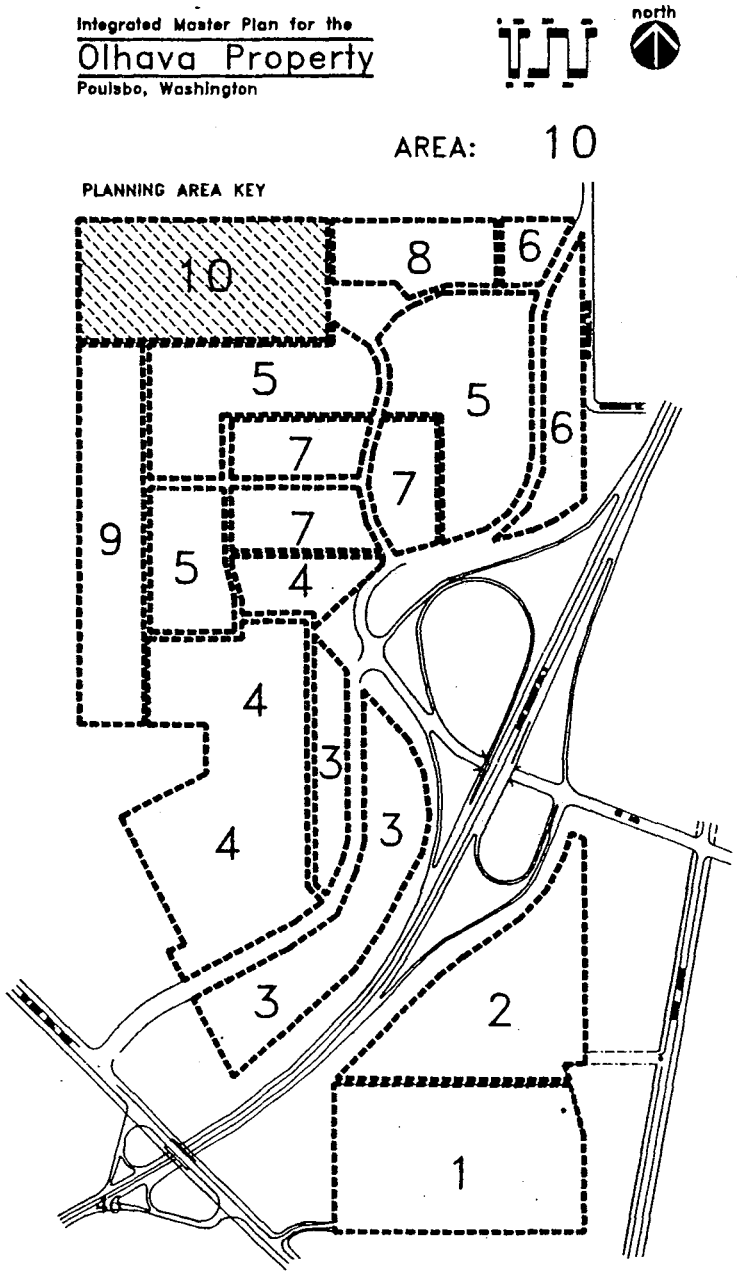


FIGURE 10
PLANNING AREA: 10
LAND USE: PUBLIC SCHOOLS
DESCRIPTION: OLYMPIC COLLEGE CAMPUS ON 20 ACRES



2.4.10 OLHAVA MASTER PLAN PLANNING AREA 10

A. Planning Area Description

As illustrated and noted by Figure 10 above this planning area will provide the development of the Olympic College campus within a 20 acre site. The site will include two phases. The first phase will include approximately 30,000 SF. The second phase will include an additional 20,000 SF. Amenities will include a multi-purpose trail system and an outdoor amphitheater.

B. Land Use and Development Standards

1. Primary access to Planning Area 10 should be provided by the primary frontage road, Street "C". This street section will initially include a 100 foot right-of-way at the point of beginning, tapering to a 36 foot right-of-way from the signalized "E" Street intersection to the Olympic College site. Traffic lanes will be 4-5 and 2 lanes, respectively. Two bicycle lanes and a 5 foot sidewalk will be included with this street section.

2. Kitsap Transit should be coordinated with during site plan preparation to review preliminary routing and bus stop sufficiency and to provide safe and efficient placement of bus stops, shelters and commuter facilities within this planning area.

3. Structures should be sited in a manner that will compliment adjacent structures. Sites should be developed in a coordinated and mutually beneficial manner to provide order and diversity.

4. Whenever possible, new structures should be clustered.

5. Structures and on-site circulation should be located to minimize pedestrian/vehicle conflicts where possible. Link structures to the public sidewalks where possible with textured paving, landscaping trellises or similar methods.

6. Freestanding, singular structures should be oriented with their major entry toward the primary street entrance, as well as having their major facade parallel to the primary street frontage.

7. Loading facilities should be discouraged at the front of structures where it is difficult to adequately screen them from view. Such facilities should be located at the rear of the structure when possible, where special screening may not be required.

8. Open spaces should be clustered into larger, predominant landscape areas.

9. Parking areas should allow for a similar direction of travel and parking bays should reduce conflicts at points of intersection.

10. Parking areas should be designed in a manner that links the structures to the street sidewalk system as an extension of the pedestrian environment.

11. A combination of walls, berms and landscape material is highly recommended to screen parking areas from the public right-of-way. Whenever possible, parking areas should be design coordinated with surrounding site planning.

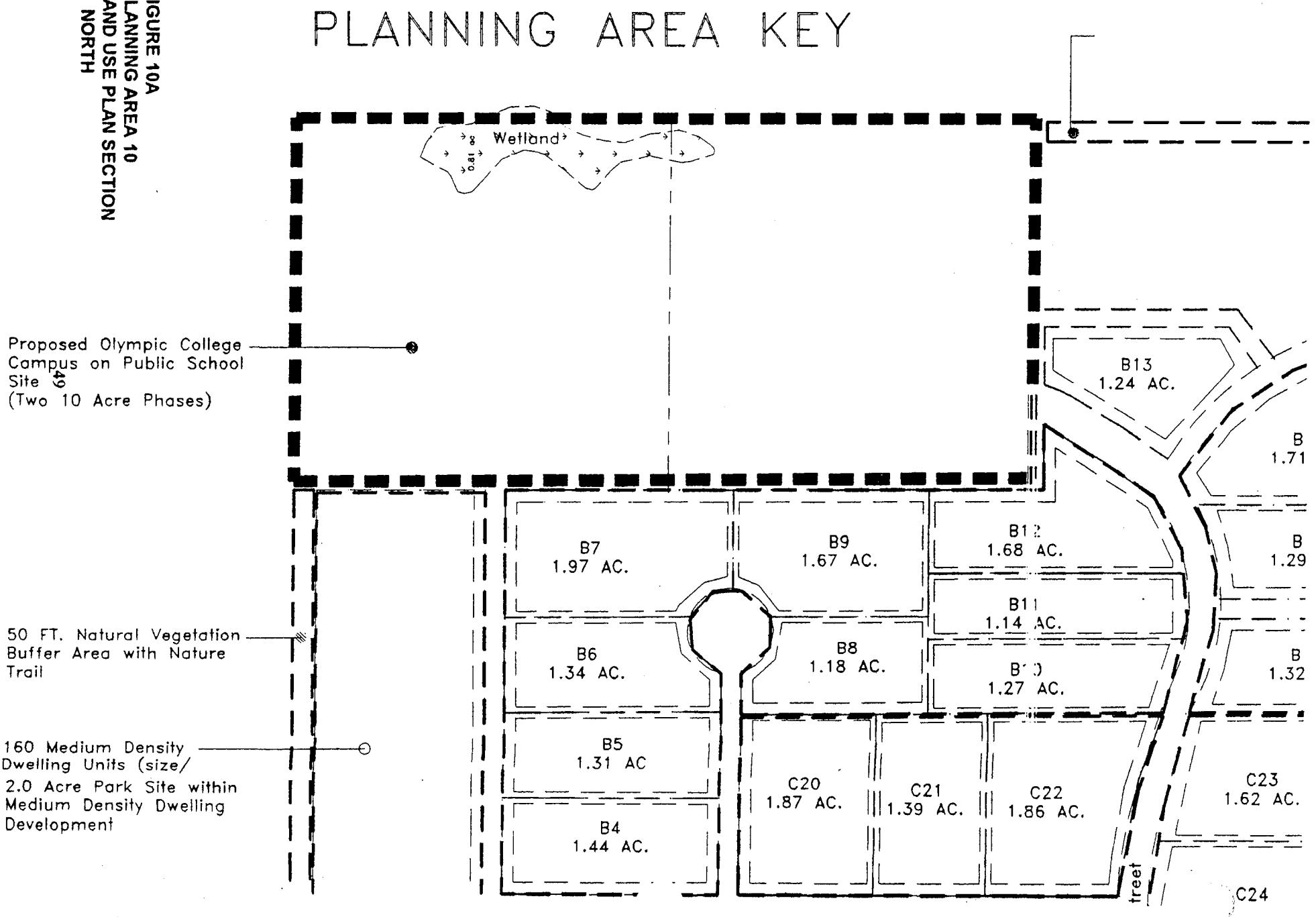
12. Trail systems should be coordinated with the planning of adjacent trail systems to provide public access and a unifying trail system that allows each Olhava Property planning area's access to the community park site.

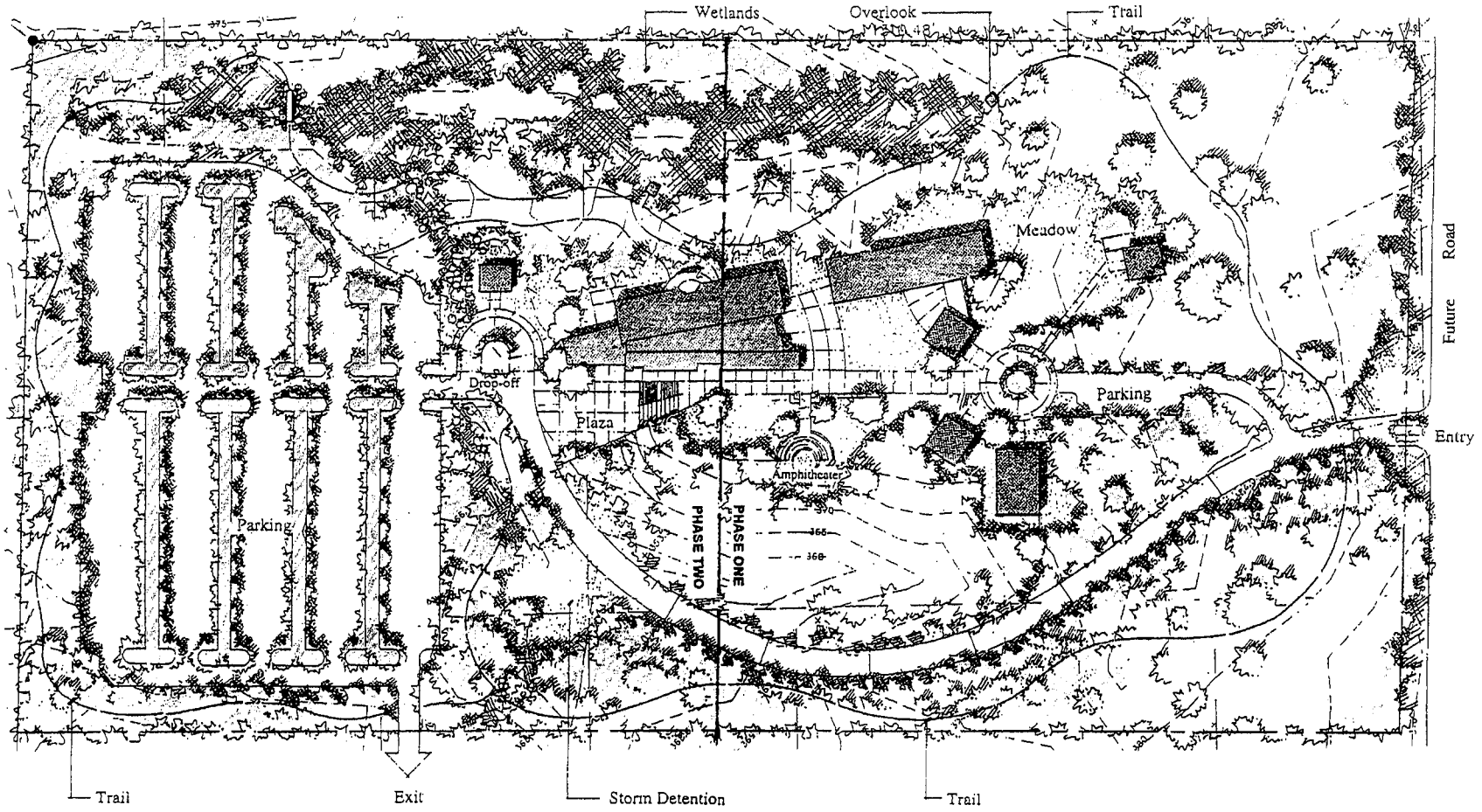
13. Height restrictions, setbacks, landscaping and building articulation standards should follow descriptions established in Section 2.B of this Chapter.

14. The 0.81 acre wetland contained within this planning area is established as a Category 2 wetland. A development setback (e.g. buffer) should not be less than 100 feet from this wetland's boundary.

The following illustrations (Figure 10A and 10B) depict land use and illustrative site planning for this planning area. Figure 10B illustrates a preferred Campus Plan and how this plan might address each of the Land Use and Development Standards for planning area 10. Note: This illustrated land use plan is conceptual only, final lot arrangements will follow specific site plan and engineering assessment.

FIGURE 10A
PLANNING AREA 10
LAND USE PLAN SECTION
< NORTH





Olympic College/ Poulsbo Campus
Recommended Conceptual Design

Campus Plan

North

0 50 100 200

Scale 1"=50'

FIGURE 10B
OLYMPIC COLLEGE ILLUSTRATIVE PLAN

2.5 DEVELOPMENT STANDARDS

This section lists and defines development standards that will apply to the Olhava Master Plan. The first section describes general standards that will unify the Olhava Property through common landscape, signage and lighting standards. The second section describes permitted uses and specific development standards for each land use.

2.5.1 LANDSCAPE DESIGN GUIDELINES

The guidelines presented herein are not intended to discourage creative design or individuality. Rather, they are intended to assist in providing the continuity and desired image that will make the Olhava Property a unique and special community. General landscape design and implementation goals include:

1. Establishment and enhance part of the aesthetic appearance of development in all planning areas by providing standards relating to quality, quantity and functional aspects of landscaping and landscape screening;

2. Increase compatibility between residential and abutting commercial and business park land uses;

3. Minimize heat and glare by effective use of tree canopies;

4. Protect health, safety and welfare by minimizing the impact of all forms by physical and visual pollution, controlling soil erosion, screening incompatible views, preserving the integrity of neighborhoods, and enhancing pedestrian and vehicular traffic and safety;

5. Encourage energy conservation;

6. Encourage the preservation and retention of existing, native vegetation and landscapes.

7. Encourage compatibility with adjacent planting and surrounding natural environments, and should reinforce and enhance the individual architectural and design of each site.

2.5.2 LANDSCAPE STANDARDS

The following standards apply to all landscape architecture and implementation programs:

1. Landscape architecture and implementation should emphasize the use of native plant material and irrigation systems that economically optimize water use.;

2. Landscape design should be prepared by a Washington State registered Landscape Architect. Plans should include:

a. List of Plants (Common Names and Botanical)
b. Size and Container Type
c. Location
d. Type and Location of Vegetation to be Preserved and Clearing Limits
e. Irrigation Plan and location of Backflow Prevention Devices
f. Hardscape Plan
g. Special Features and Details
h. Specifications

3. Landscape implementation should ensure the following installation requirements:

a. Landscape areas should have plant material selected and planting methods used that are suitable for the soil and site conditions. Sizes of the plant material should provide:

Trees- 20 percent, 2 1/2" calliper (dbh), 65 percent, 1 1/2" calliper (dbh). Specimen trees should include 15 percent of the site area.

Shrubs- 80 percent, 5 gallon, 20 percent 1 gallon.

Groundcovers- 100 percent coverage within 3 years of planting.

b. Trees should be long-lived, clean, require little maintenance, able to withstand strong winds, pest resistant, and require minimum pruning.

c. Trees and shrubs should be planted so that they will not interfere with service lines or traffic safety.

d. Trees planted near public curbs should have root structures that will not cause significant damage to sidewalks, curbs, gutters and other public improvements.

4. Turf areas should have mowing strips or be maintained in a trimmed border appearance.

5. Planting along major arterials should provide a filtered view to adjacent structures of the development.

6. Appropriate shrubbery and creeping vines should be provided along all walls and fences adjoining public right-of-ways.

7. Land uses other than low-density residential should incorporate automatic and timed sprinkler irrigation systems that optimize water use.

8. Spacing Standards:

   a. a minimum of 25 feet from the property corner at a street intersection to the center of the first tree or large shrub.

   b. a minimum of 15 feet between tree centers and large shrubs to light standards.

   c. a minimum of 15 feet between tree centers or large shrubs and fire hydrants.

   d. a minimum of 10 feet between tree centers or large shrubs and driveway edges.

9. Screening Requirements/Types A,B and C. One of the following screening types may be utilized in landscape buffering situations when appropriate.

   TYPE "A" SCREEN- A screen that is opaque from the ground to a height of at least 6 feet, with intermittent visual obstructions from the opaque portion to a height of at least 15 feet. An opaque screen is intended to exclude all visual contact between uses and to create a strong impression of spatial separation. The opaque screen may be composed of a wall, fence, or densely planted vegetation. Compliance of planted vegetative screens are judged on the basis of the average mature height and foliage density. The opaque portion of the screen should be evergreen. At maturity, the portion of intermittent visual obstructions should not contain any completely unobstructed openings more than 10 feet wide.

   TYPE "B" SCREEN- A screen that is opaque from the ground to height of 3 feet, with intermittent visual obstruction from above the opaque portion to a height of at least 15 feet. This screen is intended to partially block visual contact between uses and to create a strong separation of spaces. The semi-opaque screen may be composed of a wall, fence, landscaped earth berm, or planted vegetation. At maturity, the portion of intermittent visual obstructions should not contain any completely unobstructed openings more than 15 feet wide.

   TYPE "C" SCREEN- A screen composed of intermittent visual obstructions from the ground to a height of at least 15 feet. This screen is intended to create the impression of a separation of spaces without necessarily eliminating visual contact between the spaces. It may be composed of a wall, fence, landscaped earth berm, planted vegetation or existing vegetation. This screen type may contain deciduous plant material.

10. Earth berms should be suitably designed for appropriate maintenance practices.

11. Street tree designs should be unified by common groupings of similar tree types. Spacing should be reflective of design traffic speeds. Spacing should be triangular and interesting to right-of-way users. Understory should include ground covers which provide homogeneous color massing and clusters of similar shrubs and understory trees.

12. A maintenance schedule should accompany each landscape design to ensure attractive appearance for all landscaped areas of the Olhava Property.

2.5.3 LANDSCAPE PLANT MATERIAL PALETTE

A. Evergreen Trees

Incense Cedar	Calocedrus decurrens
Deodar Cedar	Cedrus deodora
Nootka Cypress	Chamaecyparis nootkatensis
Hinoki False Cypress	Chamaecyparis obtussa
Leyland Jolie Cypress	Cupressocyparis leylandii
Hollywood Juniper	Juniperus chinensis 'Torulosa'
Shore Pine	Pinus contorta
Douglas Fir	Pseudotsuga menziessii
American Arborvitae	Thuja occidentalis
Western Red Cedar	Thuja plicata

B. Deciduous Trees

Vine Maple	Acer circinatum
Red Maple	Acer rubrum 'Red Sunset'
Japanese Maple	Acer palmatum
Katsura Tree	Cercidiphyllum japonicum
Hawthorn	Crataegus Species
American Sweetgum	Liquidambar styraciflua
Flowering Crabapple	Malus species
Flowering Cherry	Prunus species
Armstrong Maple	Acer rubrum 'Armstrong'
European Hornbean	Carpinus betula 'Fastigiata'
Japanes Snowdrop Tree	Styrax japonicus
Crimson King Maple	Acer Platanoides 'Crimson King'
Norway Maple	Acer Platanoides
Silver Maple	Acer saccharinum

C. Evergreen Shrubs

Azalea	Azalea species
Madrone	Arbutus menziesii
Camellia	Camellia species
Escallonia	Escallonia fradesii
Salal	Gaultheria shallon
Japanese Holly	Ilex crenata convexa
Oregon Grape	Mahonia aquifolium
Pacific Wax Myrtle	Myrica californica
Photinia	Photinia fraserii
English Laurel	Prunus laurocerasus 'Otto Luyken'
Portugal Laurel	Prunus lusitanica
Rhododendron	Rhododendron species
Evergreen Huckleberry	Vaccinium ovatum

D. Deciduous Shrubs

Red Twig Dogwood	Cornus stolonifera
Burning Bush	Euonymous alatus 'Compacta'
Forsythia	Forsythia species
Ocean Spray	Holodiscus discolor
Magnolia	Magnolia species
Sword Fern	Polystichum munitum
Potentilla	Potentilla fruticosa
Pink Winter Current	Ribes sanguineum
Common snowberry	Symphocarpis alba

E. Groundcovers

Carpet Bugle	Ajuga reptans
Bearberry	Arctostaphylos uva ursi
Scotch Heather	Calluna species
Bearberry Cotoneaster	Cotoneaster dammeri
Heath	Erica species
Euonymous	Euonymous fortunei
Vinca Major	Vinca
English Ivy	Hedera helix
St. Johnswort	Hypericum calycinum

F. Perennials

False Spirea	Astilbe species
Daylily	Hemerocalis species
Hosta	Hosta species
Marigold	Marigold species
Peony	Peony species

2.5.3 LIGHTING STANDARDS

The level of on-site lighting as well as lighting fixtures shall comply with all applicable requirements and policies of the City of Poulsbo at the time of Master Plan adoption. Energy conservation, safety and security should be emphasized when designing any lighting system.

1. All primary streets should be adequately illuminated to provide for the safety and comfort of vehicular and pedestrian movement.

2. Landscape lighting may be used for accentuating the following conditions: Shrub masses, focal elements and trees (up-lights) if properly camouflaged from view and placed at ground level without attaching to plant materials.

3. Lighting should be designed and located in a manner which is compatible with scenic values and other public interests throughout the development and lighting fixtures should be complimentary to architectural concepts.

4. Lighting should minimize atmospheric light pollution.

5. General lighting should not cast any glare onto adjacent lots and streets in such a manner as to decrease the ambiance of adjacent areas or the safety of pedestrian and vehicular movement.

6. Pedestrian lighting should provide area illumination for entry ways, courtyards and other such areas.

2.5.4 LOW-DENSITY RESIDENTIAL GUIDELINES

A. Permitted Uses

- Affordable Housing
- Accessory Structures (Small Storage Buildings Only)
- Single Family Dwellings
- Park and Open Space
- Nature Trails (Perimeter)

B. Non-Permitted Uses

- Bed & Breakfast
- Day Care Center
- Day Care Homes/Adult Care Homes/Halfway Houses, etc.
- Manufactured Housing
- Accessory Dwelling Units
- Kennels, Home Occupations, Guest Houses, Antennae/Satellite Dish
- RV/Boat Parking

C. Development Standards

- Average Single Family Lot Area- (1): 7,500 SF
- Minimum Lot Width at Building Line: 60 feet
- Minimum Lot Width at Street Line: 25 feet
- Minimum Lot Depth: 90 feet
- Minimum Front Setback to Habitable Area: *25 feet*
- Minimum Front Setback to Garage Area: *20 feet*
- Minimum Rear Setback: 20 feet
- Minimum Side Setback: Total of 15 Combined, not less than 5 each side.
- Maximum Lot Coverage: *50%*
- Maximum Building Height: 30 feet- (2)

(1) Maximum net lot area after subdividing and granting of public right-of-way.
(2) Height definition by City of Poulsbo Zoning Ordinance (December, 1994).

D. Articulation

- articulation of wall planes (encouraged)
- projections of recesses to provide shadow and depth (encouraged)
- simple forms (encouraged)
- combinations of one and two level forms conveying sense of human scale (encouraged)
- rear and side elevation articulation (required)
- floor plan reversal and mixed roof variations (required)
- tucking of upper level rooms into roof planes (encouraged)
- 5:12 angle or greater pitched gable or hip roofs (required)
- combining one-level and two-level texture elements (encouraged)
- creative jogs in ridge lines (encouraged)
- varying plate heights and ridge heights (encouraged)
- natural building materials (required)
- complementary accent materials and colors (encouraged)
- Northwest architectural style (required)
- staggered garage door setbacks (encouraged)
- decks (encouraged)
- simple, clean bold projections of stairways (encouraged)
- simple, architecturally formed chimney chases (required)
- accent planting areas (encouraged)
- mailboxes placed in groups not larger than four to a group with compatible architectural form to residential design (required)
- any recreation buildings to be compatible with predominant architectural theme (required)
- antennae within interior space (required)
- maximum fence height when used: 6 feet (required)
- side-entry garages (encouraged)
- compatible color scheme (required)

2.5.5 MEDIUM-DENSITY RESIDENTIAL GUIDELINES

A. Permitted Uses

- Affordable Housing
- Accessory Storage Buildings (Within Garages, Carports, etc.)
- Townhome, Condominium or Apartment Buildings
- Park and Open Space
- Recreation Amenity Centers
- Nature Trails (Perimeter)

B. Non-Permitted Uses

- Manufactured Housing
- Accessory Dwelling Units
- Kennels, Home Occupations, Guest Houses, Antennae/Satellite Dish, Group/Halfways Homes, Transient (less than 7 day) Housing
- RV/Boat Storage

C. Dimension Standards

- Minimum Front Setback to Any Structure (1): 25 feet
- Minimum Rear Setback to Any Zoning Line: 20 feet
- Minimum Side Setback to Any Zoning Line: Combined Total of 15 feet, not less than 5 per side
- Maximum Lot Coverage: 50%
- Maximum Building Height: *40 feet*
- Minimum Enclosed Storage per Unit: 150 cubic feet, adjacent to units
- Minimum Deck/Patio Area per Unit: *120 SF*
- Maximum Fence Height: 6 feet
- Minimum Single-Level Structure Distance to Paved Access: 150 feet
- Minimum Multi-Level Structure Distance to Paved Access: 50 feet
- Maximum Distance, Parking Space to Entrance Door: 150 feet

(1) - Garages, Carports will allow parking space between covered parking and curb
(2) - Height definition by City of Poulsbo Zoning Ordinance (December, 1994).

D. Articulation

- articulation of wall planes (encouraged)
- projections or recesses to provide depth and shadow (encouraged)
- simple forms (encouraged)
- combinations of single and two-level forms conveying sense of human scale (encouraged)
- rear and side elevation articulation (required)
- floor plan reversal and building unit variations (e.g., 3-4-5-plex, etc.) (required)
- tucking of upper level rooms into roof planes (encouraged)
- 5:12 angle or greater pitched gable or hip roofs (required)
- creative jogs in ridge lines (encouraged)

D. (Articulation, continued)

- varying plate heights and ridge heights (encouraged)
- natural appearing building materials (encouraged)
- complementary accent materials and colors (encouraged)
- Northwest architectural style (required)
- staggered garage door setbacks (encouraged)
- decks/patios (required)
- simple, clean bold projections of stairways (encouraged)
- combined fireplace chases in simple, architectural forms (required)
- fireplace chases near ridges to reduce high exposures (encouraged)
- accent planting areas (encouraged)
- mailbox in central clusters (required)
- recreation building compatible with other structure design (required)
- antennae within interior space (required)
- compatible exterior color standards (required)

E. Amenity Requirements

Planning areas 2 and 9 are described to include 160 medium-density dwelling units and both planning areas will include a 2 acre park and open space area. The developer for these planning areas may include a minimum of three of the following amenities within the park and open space area:

- swimming pool
- spa
- clubhouse
- tot lot with play equipment
- picnic shelter/barbecue
- court game facilities such as tennis, basketball, or racquetball
- improved softball or baseball fields
- day care facilities

Planning area 8 is described to include 100 units. Because planning area 8 is immediately adjacent to the community park site no specific amenity requirements are proposed for this planning area.

2.5.6 COMMERCIAL PADS GUIDELINES

A. Permitted Uses

All Retail Trade Uses, including but not limited to:

- Antique Stores
- Apparel & Accessory Stores
- Art Galleries
- Book Stores
- Building materials, hardware, garden supply stores
- Camera, Computer and Electronics Stores
- Convenience Stores
- Department and Drug Stores
- Dry Cleaning & Laundry
- Equipment leasing
- Feed Stores
- Film Processing, retail
- Florist
- Food Stores
- Furniture Stores
- General Merchandise Stores
- Gift/Novelty/Souvenirs
- Hobby/Games/Toy Stores
- Indoor Retail Concession Mall
- Liquor Stores (by Conditional Use Permit)
- Luggage Stores
- Medical equipment rent/lease
- Mini Malls
- News Stands
- Optical Sales
- Optical Laboratory
- Sporting Goods Store
- Stationary and Office Supplies
- Warehouse Stores and Wholesald Sales
- Video tape Rentals
- Watch, jewelry, clock sales & repair

Recreation, Entertainment and Eating and Drinking Places

- Bar or Lounge as part of restaurant
- Bar or Lounge (stand alone) (by Conditional Use Permit)
- Indoor Batting Cages
- Botanical & Zoological Gardens (by Conditional Use Permit)
- Bowling Alley
- Clubs
- Commercial Recreation Areas
- Motel/Hotel/Conference Centers

Recreation, Entertainment and Eating/Drinking Places (permitted uses continued)

- Dance Clubs/Discotheques (by Conditional Use Permit)
- Dance Studios & Schools
- Indoor Shooting Ranges
- Mobile Food and/or beverage carts
- Movie Theaters
- Park (by Conditional Use Permit)
- Restaurant
- Restaurant, Drive Through
- Skating Rinks
- Trail System
- Video Game Arcade

Vehicular Sales and Service

- Automobile paint shops (by Conditional Use Permit)
- Automotive repair shops (by Conditional Use Permit)
- Automobile sales
- Car Wash
- Gasoline Service Stations (by Conditional Use Permit)
- Passenger car rental & leasing
- RV, Utility Trailer Rental
- Truck Rentals
- Truck Stops (by Conditional Use Permit)
- Quick Lube/Oil Change Stations

Lodging and Residential

- Bed and Breakfast
- Hotels/Motels/Inns
- Rooming & Boarding Houses

Professional, Finance, Insurance & Real Estate

- Accounting Offices
- Architectural Offices
- Attorneys/Legal Services
- Banks/Savings & Loans
- Engineering Offices
- Other Professional Offices
- Security & Commodity Brokers
- Insurance Agents, Brokers & Services
- Real Estate Sales Offices
- Theatrical Producers

(Permitted Commercial uses, continued)

Services

- Business & Secretarial Services
- Day Care Center
- Funeral Parlors (Crematorium by Conditional Use Permit)
- Laundromats
- Mini Day Care Center
- Printing Shop
- Recycling Drop Facility

Health Services

- Alcohol & drug treatment (outpatient/inpatient by Conditional Use Permit)
- Animal Hospital/Kennel
- Blood Bank
- Medical/Dental Clinic
- Senior Congregate Care Facility
- Convalescent Center
- Hospital
- Research Facilities/Laboratories
- Veterinary Office

Educational and Religious Institutions

- Churches
- Museums
- Schools

Construction

- Building Construction, general
- Construction equipment rentals
- Construction trailers

Public Administration

- Library, Public or Private
- Local, County, State or Federal Offices
- Parks, Public
- Police & Fire Stations

(Permitted Commercial uses, continued)

Other Permitted Uses

- Essential Public Facilities
- Mini Storage
- Public Parking Lots
- Utility Facilities
- Utility Offices

B. Non-Permitted Uses

- Adult Entertainment Facility
- Stables, Commercial or Private
- Mobile Home sales
- Campgrounds
- Recreational Vehicle Parks

C. Dimension Standards

- Minimum Front Setback (right-of-way to structure): 25 feet
- Minimum Rear Setback (lot/boundary line to structure): 10 feet
- Minimum Side Setback (lot/boundary line to structure): 10 feet
- Maximum Lot Coverage (structures/parking): *75%*
- Maximum Building Height (1): *50 feet*

D. General Commercial Development Standards

1. All indoor uses shall be conducted within a completely enclosed structure. Limited outside uses (e.g., patio dining areas and nursery sales limited to plants and trees) shall be approved during Site Plan Review.

2. There shall be no visible storage of motor vehicles (except display area for sale or rent of same), trailers, airplanes, boats, recreational vehicles, or their composite parts; loose rubbish, garbage, junk, or other receptacles; tents; equipment; or building materials in any portion of a lot. During Site Plan Review for any new commercial use, properly screened outdoor storage shall be reviewed and included in the conditions of approval if it meets the requirements of the City of Poulsbo Zoning Ordinance. No storage shall occur on any vacant parcel. Building materials for use on the same premises may be stored on the parcel during the time that a valid building permit is in effect for construction.

3. Every parcel with an occupiable structure shall have a trash receptacle on the premises. The trash receptacle shall comply with adopted City standards and be of sufficient size to accommodate the trash generated by the use. The receptacle(s) shall be screened from public view on at least 3 sides by an opaque wall 6 feet in height and on the fourth side by an opaque gate not less than 5 feet in height.

4. All roof-mounted air conditioning or heating equipment shall not be visible from any abutting lot or any abutting public street or right-of-way.

5. Elevations of all buildings shall be architecturally treated to ensure compatibility with neighboring buildings.

6. Outdoor Paging Systems shall be prohibited.

7. Alcoholic Beverage Sales, Automobile Sales, Convenience Stores, Drive-Through Restaurants, Mini-Malls, Mini Storage and Fuel Service Station uses shall comply with the City of Poulsbo Zoning Ordinance Specific Standards (adopted December, 1994).

E. Articulation

- Wall articulation- insets, canopies, wing walls, trellises (required, except Planning Area 4)
- Multi-planed, pitched roofs (except for primary shopping center) (required)
- Roof overhangs, arcades (required)
- Articulated mass and bulk (required)
- Landscape and hardscape elements (required)
- Prominent access driveways (required)
- Landscaped parking areas (required)
- Comprehensive sign program (required)
- Angled Parking (encouraged)
- Creative jogs in ridge/mansard roof lines (required)
- varying plate heights (encouraged)
- Northwest architectural style (required)
- Antennae within interior building spaces/Satellite Dish screening (required)
- Fence height maximum (when necessary): 6 feet
- Consistent, earth-toned color scheme (required)

2.5.7 BUSINESS PARK GUIDELINES

A. Permitted Uses

- General offices
- Deli's/Ancillary restaurants/cafeterias
- Newsstands
- Day Care Center
- Printing Shops
- Office Supply stores
- Alcohol & drug treatment (inpatient and outpatient by Conditional Use Permit)
- Medical/Dental Clinic
- Research Facilities/Laboratories (by Conditional Use Permit)
- Public Parking lots
- Utility offices
- Local, County, State or Federal Offices
- Parks and Open Space
- Electronic and Computer sales
- Passenger car rental & leasing
- Automobile sales
- Real Estate Sales offices
- Business & Secretarial Services
- Mini-Storage
- Post Offices
- Police and Fire Stations
- Multi-Family Residential (by Conditional Use Permit)
- Hospital (by Conditional Use Permit)
- Churches (by Conditional Use Permit)
- Schools (by Conditional Use Permit)

B. Non-Permitted Uses

- Residential uses (other than specified above)
- Outdoor Storage
- Retail sales (other than specified above)
- Wholesale sales (other than specified above)
- Agricultural and Mining operations
- Heavy Manufacturing
- Heavy Industry

C. Dimension Standards

- Minimum Front Setback (right-of-way to structure): 25 feet
- Minimum Rear Setback (lot/boundary line to structure): 10 feet
- Minimum Side Setback (lot/boundary line to structure): 10 feet
- Maximum Lot Coverage: *75%*
- Maximum Building Height: *50 feet*

D. General Business Park Development Standards

1. All indoor uses shall be conducted within a completely enclosed structure.
2. There shall be no visible storage of motor vehicles (except display area for sale or rent of same), trailers, airplanes, boats, recreational vehicles, or their composite parts. No storage shall occur on any vacant parcel. Building materials for use on the same premises may be stored on the parcel during the time that a valid building permit is in effect for construction.
3. All roof-mounted air conditioning equipment shall not be visible from any abutting lot or any public right-of-way or street.
4. Outdoor Paging Systems shall be prohibited.
5. Elevations of all buildings shall be architecturally treated to ensure compatibility with neighboring buildings.
6. Automobile Sales, Automobile Dismantling and Mini Storage uses shall conform with City of Poulsbo Zoning Ordinance provisions (as adopted December, 1994).

E. Articulation

- Building and Parking setback variety (encouraged)
- Building setbacks compatible with building scale (encouraged)
- Multiple parking lots with landscape separation (required)
- Wall articulation- insets, canopies, wing walls, trellises (required)
- Multi-planed, pitched roofs (required)
- Roof overhangs, arcades (required)
- Hardscape, pedestrian scale entrances (required)
- Regular or traditional window rhythm (required)
- Articulated mass and bulk (required)
- Landscape and Hardscape elements (required)
- Comprehensive sign program (required)
- Angled Parking (encouraged)
- Creative jogs in ridge/mansard roof lines (required)
- Varying plate heights (encouraged)
- Northwest architectural style (required)
- Antennae within interior building spaces/Satellite Dish screening (required)
- Fence height maximum (when necessary): 6 feet, wood.
- Compatible color scheme (required)
- Horizontal siding, shingle siding, variety (encouraged)
- Centralized mail stations (required)
- Screened individual building trash receptacles (required)
- Parking requirements per City of Poulsbo Zoning Ordinance (December, 1994)

2.5.8 PARKS AND RECREATION GUIDELINES

A. Dimension Standards/Bicycle Lanes

- Minimum Bicycle Path Width/Two Way: 8 feet
- Minimum Bicycle Path Width/One Way: 5 feet
- Bicycle Path Construction Material: Asphaltic Concrete with painted stripe defining lane(s)
- Minimum Bicycle Shoulder Width: 2 feet
- Minimum Vertical Clearance: 10 feet
- Maximum Cross Slope: 2%

B. Dimension Standards/Walking and Jogging Trails in Perimeter Buffer Areas

- Minimum Path Width/Two Way: 5 feet
- Minimum Path Width/One Way: 3 feet
- Construction Material: Firm all-weather & unobstructed
- Minimum Shoulder Width: 2 feet
- Minimum Vertical Clearance: 8 feet
- Maximum Cross Slope: 6%

2.5.9 PUBLIC SCHOOL DISTRICT

A. Permitted Uses

- Schools
- Athletic or Sports Fields
- Parks, Public
- Caretaker's Residence
- Day Care Center
- Library, Public or Private
- Public Parking Lots

B. Dimension Standards

- Front Setback (right-of-way to structures): 25 feet
- Rear Setback (right-of-way or boundary to structures): 10 feet
- Side Setback (right-of-way or boundary to structures): 10 feet
- Maximum Lot Coverage: 50%
- Maximum Structure Height: 45 feet

C. Articulation

- wall articulation- insets, canopies, wing walls (encouraged)
- multi-planed, pitched roofs (encouraged)
- roof overhangs, arcades (encouraged)

Articulation, continued

- Articulated mass and bulk (encouraged)
- Significant landscape and hardscape elements, native vegetation preserved (encouraged)
- Prominent access driveways (encouraged)
- Landscaped parking areas (encouraged)
- Comprehensive sign program (encouraged)

trail sts

OLHAVA PROPERTY INTEGRATED MASTER PLAN

CHAPTER THREE

DRAINAGE AND UTILITIES

CHAPTER THREE
DRAINAGE AND UTILITIES
OLHAVA PROPERTY INTEGRATED MASTER PLAN

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CHAPTER THREE- DRAINAGE AND UTILITY CHAPTER

3.0 INTRODUCTION TO THIS CHAPTER

This chapter describes existing site conditions and proposed site improvements reflective of planned grading, drainage and utility infrastructure. Extensive Geotechnical drilling and laboratory testing was conducted to provide a team of Civil Engineers information required for professional design. A team of Traffic Engineers and Planners then integrated their site design input with the Civil Engineers to form a base map site plan. This plan is presented herein as the *Illustrative Master Plan.*

3.1 Conceptual Grading Plan

The Olhava Property Conceptual Grading Plan represents multi-disciplined team input (Figure 3A, page 2).

Geotechnical analysis included site investigation and subsurface borings and laboratory testing; this information is critical in determining methods for slope stabilization, foundation suitability, road base preparation, drainage design, etc. A copy of this Geotechnical report is attached as part of the Master Plan.

Wetland and biological habitat issues were similarly investigated. Mitigation aspects, wetland buffers, water quality, and drainage strategies were considered in the presented grading plan. A detailed environmental assessment is presented in Chapter Four, *Environment Resources and Hazards* and Chapter 9, *SEPA Checklist.*

Traffic analysis has been incorporated with the grading plan. Roadway widths, site distances and horizontal alignment, etc., each are import aspects of a grading plan. Elements of this report are provided in Chapter Five. A detailed traffic impact analysis and Level of Service Calculations (LOS) are attached as part of the Master Plan.

The *Illustrative Master Plan* provided the foundation for the design team study and became the base from which the grading and associated other plans were developed. To best understand grading quantities and methods, the illustrative plan assumed building shapes and sizes. Traffic and parking requirements were then drawn from these building shapes and sizes. As stated throughout the Master Plan, these shapes and sizes are not intended to be representative of actual development, rather, these simply were used to guide the required analysis.

Existing topography was developed through aerial photographic methods and ground control surveying. A boundary survey was completed for the Olhava Property by Adams and Goldsworthy.

Proposed finished contours for the site include grading for all building pad sites. Stripping is estimated to a depth of 6 inches. Stripping volumes will substantially depend upon the suitability of specific site material for conditioning and reuse as topsoil throughout the site.

GRADING PLAN

FIGURE 3A
CONCEPTUAL GRADING PLAN

ULTIMATE DEVELOPMENT
3.1 CONCEPTUAL GRA

For safety and visual purposes, the use of manufactured slopes has been preferred over rockeries or retaining walls. Manufactured slopes are generally confined to the proposed interchange area, but in all areas of their use, these slopes will not exceed 2:1 without supplemental geotechnical testing.

Wetland impacts and mitigation are illustrated by the grading plan. Wetland "F" will be eliminated by cut and fill. Mitigation for this impact will occur on-site at a 2:1 ratio as shown. Wetland "B" will be eliminated indirectly by loss of the supporting drainage basin and will also be mitigated on-site at a 2:1 ratio. Stormwater controls will not include the use of wetlands except for the use of roof drainage water to maintain current flow levels in cases where the existing contributing basin is reduced or removed. Mitigation for wetlands "B" and "F" will occur adjacent and between wetlands "C" and "D". Additionally, 50 foot buffers is required for wetlands "A", "C" and "D" and the mitigation site; a 100 foot buffer is required for wetland "E" at the Olympic College site.

Site grading will include erosion and sediment control measures, consisting of silt fencing, temporary ditches, and sedimentation ponds; these ponds will be located at future storm water detention/treatment pond sites. Building pad sites will be stabilized and revegetated immediately upon completion of each phase's grading.

Preliminary estimates for earthwork quantities include approximately 650,000 cubic yards. This figure includes an earthwork balance of cut and fill with suitable compaction estimates, based upon geotechnical sampling and testing. Cut and fill estimates are available as computer runs at 1"=100' scale with 50' grid intervals.

3.2 DRAINAGE DESIGN/PRE-DEVELOPMENT DRAINAGE ANALYSIS

The stormwater flows for pre-development conditions at the Olhava Property were established using the Santa Barbara Urban Hydrograph (SBUH) Method as outlined in the "Stormwater Management Manual for the Puget Sound Basin", Washington State Department of Ecology, February, 1992. Regulations require that the post-development stormwater flows existing the site shall be limited to 50 percent of the pre-development 2-year, 24-hour flow, while maintaining the pre-development 10-year, 24-hour and 100-year, 24-hour stormwater flows.

This analysis determines the peak flow rates at these three design storms under existing conditions. The precipitation events for these three conditions are:

2-year, 24-hour storm	3.4"
10-year, 24-hour storm	4.5"
100-year, 24-hour storm	6.5"

A. Existing Conditions

Geotechnical information regarding drainage is reported in "*Preliminary Geotechnical Engineering Investigation for Olhava Development, L.P., Highway 3 and Finn Hill Road, Poulsbo, Washington,*" Harza Northwest, Inc., August, 1994. (See attachment to Master Plan).

This investigation characterizes the surface soils, to a depth of 5 feet, to be mainly loose to dense silty sand. In the hydrological evaluations presented by this report, the Olhava Property soil is assigned Hydrologic Soil Group B.

It is estimated that the site has the runoff characteristics of young, second growth or brush wood or forest land, giving a curve number (CN) of 72 for a hydrologic soil Group B.

The site contains some paved areas. For this general Master Plan level of analysis, this paved area has been ignored to provide conservative estimates and detention volumes. A more comprehensive analysis will be performed and submitted with Site Plan reviews.

A north/south oriented ridge essentially divides the site into east and west drainage basins. Several drainage channels further subdivide the site into smaller drainage basins. The constructed SR-3 roadway distinctly separates the Olhava Property into two separate hydrologic areas, the northemmost 174 acre parcel and the southern 41 acres. This analysis separates the site into 12 drainage areas, each having a particular point of site discharge.

The following presents a brief description for each drainage area, including respective existing flow conditions and determinations therefore.

3.2.1 Pre-development Drainage Area 1

This drainage area covers most of the west portion of the northern Olhava Property parcel. It is characterized by a trough running to the south, exiting the site at the southwest corner of the site. A relatively deep wetland area is located at the north side of Drainage Area A. This wetland area is fed from off-site northern runoff. It is unclear which direction this wetland discharges when filled, if filling ever occurs. This wetland has been excluded from this analysis. Any stormwater controls associated with this wetland will require installation as part of development north of the Olhava Property, an area which is currently under Kitsap County jurisdiction.

The following are the hydrological characteristics of Drainage Area 1:

Estimated Area	51.6 acres
Estimated Time of Concentration	132 minutes
Estimated Peak Flows:	
2-year, 24-hour	3.54 cfs
10-year, 24-hour	6.46 cfs
100-year, 24-hour	14.02 cfs

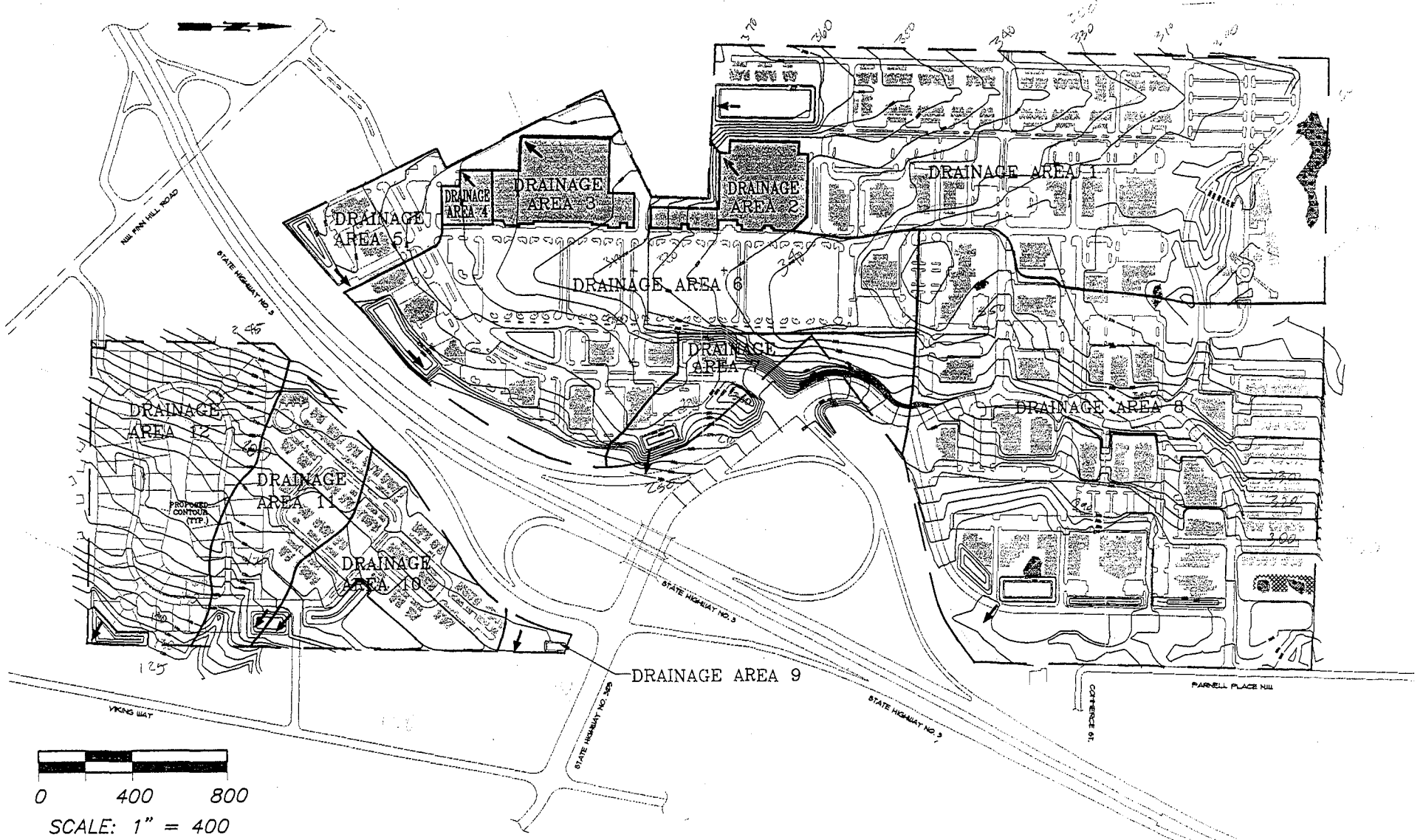


EXHIBIT B – PROPOSED (POST-DEVELOPMENT) DRAINAGE AREAS

GRADING PLAN
OLHAVA MASTER SITE PLAN

3.2.2 Pre-Development Drainage Area 2

This relatively small area is located south of Drainage Area 1 and is created by a small trough running in a southwesterly direction. The following are Drainage Area 2 hydrological characteristics:

Estimated Area	4.8 acres
Estimated Time of Concentration	73.5 minutes
Estimated Peak Flows:	
2-year, 24-hour	0.39 cfs
10-year, 24-hour	0.81 cfs
100-year, 24-hour	1.78 cfs

3.2.3 Pre-Development Drainage Area 3

This relatively small drainage area is located south of Drainage Area 2 and is created by two small troughs; one runs in a southwesterly direction and the other in a northwesterly direction, meeting at the property line. The following are Drainage Area 3 hydrological characteristics:

Estimated Area	11.5 acres
Estimated Time of Concentration	74.3 minutes
Estimated Peak Flows:	
2-year, 24-hour	0.93 cfs
10-year, 24-hour	1.94 cfs
100-year, 24-hour	4.25 cfs

3.2.4 Pre-Development Drainage Area 4

This relatively small drainage area is located south of Drainage Area 3. Drainage Area 4 does not appear to have a defined outlet from the Olhava Property. However, runoff from Drainage Area 4 will eventually discharge to the drainage ditch on the north side of the decommissioned Nike access road and join the runoff from Drainage Areas 1-3 through a culvert crossing the decommissioned Nike site access road; this, in turn, discharges to a culvert which crosses Finn Hill Road. The following are Drainage Area 4 hydrological characteristics:

Estimated Area	19.9 acres
Estimated Time of Concentration	74.3 minutes
Estimated Peak Flows:	
2-year, 24-hour	1.61 cfs
10-year, 24-hour	3.35 cfs
100-year, 24-hour	7.35 cfs

3.2.5 Pre-Development Drainage Area 5

Drainage Area 5 is located at the southernmost region of the northern 174 acre parcel, immediately west of SR 3. This area drains in a southerly direction to a ditch along the west side of SR 3; the ditch eventually turns in a southwesterly direction. The following are Drainage Area 5 hydrological characteristics:

Estimated Area	4.6 acres
Estimated Time of Concentration	150.9 minutes
Estimated Peak Flow:	
2-year, 24-hour	0.31 cfs
10-year, 24-hour	0.55 cfs
100-year, 24-hour	1.16 cfs

3.2.6 Pre-Development Drainage Area 6

This area includes the southeast portion of the northern 174 acre parcel. SR 3 Construction hydrologically divided the Olhava Property into two areas. Drainage Area 6 now drains to the drainage ditch on the west side of SR 3. This drainage ditch discharges to an inlet in the west corner of Drainage Area 6. This inlet eventually discharges to a culvert which crosses SR 3 to what appears as a sedimentation/retention basin on the east side of SR 3. This sedimentation basin discharges through a culvert via a soil stockpile and eventually to a ditch along the west side of the northbound off-ramp from SR 3. The flow then follows culverts and ditches along SR 305 and the old State Highway 3. The following are Drainage Area 6 hydrological characteristics:

Estimated Area	18.7 acres
Estimated Time of Concentration	71.6 minutes
Estimated Peak Flows:	
2-year, 24-hour	1.61 cfs
10-year, 24-hour	3.35 cfs
100-year, 24-hour	7.25 cfs

3.2.7 Pre-Development Drainage Area 7

This drainage area occupies the middle portion of the east side of the Olhava Property's northern 174 acre parcel. Runoff from this area flows to the drainage ditch on the west side of the southbound off-ramp from SR 3, to an inlet crossing below the SR 3 bridge. This inlet discharges through a culvert to drainage ditches along SR 305. The following are Drainage Area 7 hydrological characteristics:

Estimated Area	16.4 acres
Estimated Time of Concentration	96.4 minutes
Estimated Peak Flows:	
2-year, 24-hour	1.18 cfs
10-year, 24-hour	2.43 cfs
100-year, 24-hour	5.26 cfs

3.2.8 Pre-Development Drainage Area 8

This area constitutes the northerly portion of the northern 174 acre Olhava parcel. A recently cleared and graded area north of the Olhava Property also drains to Drainage Area 8. The owner of this property, in cooperation with the Kitsap County Department of Public Works Drainage Division, has agreed to install detention facilities. For the purpose of this analysis, this area is considered to have the original characteristics as the Olhava Property.

Drainage Area 8 discharges via small concentrated flows to a roadside drainage ditch on the west and north side of the SR 3 southbound off-ramp. This ditch discharges to a retention basin and inlet to a culvert crossing SR 3. The area between the Olhava Property and SR 3 is also included in this drainage area. The following are the hydrological characteristics of Drainage Area 8, including the runoff entering the Olhava Property from the contributing northern drainage basin:

Estimated Area	105.0 acres
Estimated Time of Concentration	182.3 minutes
Estimated Peak Flows:	
2-year, 24-hour	6.7 cfs
10-year, 24-hour	12.0 cfs
100-year, 24-hour	23.9 cfs

3.2.9 Pre-Development Drainage Area 9

This very small drainage area is the northernmost area of the southern 41 acre parcel, situated east of SR 3. It is designated as a separated drainage area due to a steep trough, which divides this area. The runoff from Drainage Area 9 eventually reaches the drainage ditch on the west side of the old State Highway 3. The following are Drainage Area 9 hydrological characteristics:

Estimated Area	0.65 acres
Estimated Time of Concentration	24.3 minutes
Estimated Peak Flows:	
2-year, 24-hour	0.09 cfs
10-year, 24-hour	0.19 cfs
100-year, 24-hour	0.41 cfs

3.2.10 Pre-Development Drainage Area 10

Drainage Area 10 occupies the northern one third of the southern 41 acre Olhava parcel, excluding drainage area 9. A deep gully is located at the south end of Drainage Area 10. Most runoff from Drainage Area 10 probably reaches this deep gully, possibly off-site. This drainage area drains to the drainage ditch on the west side of old State Highway 3. The following are Drainage Area 10 hydrological characteristics:

Estimated Area	12.0 acres
Estimated Time of Concentration	69.8 minutes
Estimated Peak Flows:	
2-year, 24-hour	0.09 cfs
10-year, 24-hour	2.09 cfs
100-year, 24-hour	4.59 cfs

3.2.11 Pre-Development Drainage Area 11

Drainage Area 11 occupies the middle one third of the southern 41 acre parcel, situated east of SR 3. This area is characterized by a deep gully draining to the drainage ditch on the west side of the old State Highway 3. The following are Drainage Area 11 hydrological characteristics:

Estimated Area	11.4 acres
Estimated Time of Concentration	58.7 minutes
Estimated Peak Flows:	
2-year, 24-hour	1.02 cfs
10-year, 24-hour	2.18 cfs
100-year, 24-hour	4.79 cfs

3.2.12 Pre-Development Drainage Area 12

This drainage area occupies the southerly one third of the southern 41 acre parcel. The area does not appear to have a distinct point of discharge. Runoff appears to reach the drainage ditch on the west side of old State Highway 3. Flows for this drainage area are calculated as if the point of discharge is located at the southeast corner of the site. The following are drainage area 12 hydrological characteristics:

Estimated Area	17.9 acres
Estimated Time of Concentration	62.0 minutes
Estimated Peak Flows:	
2-year, 24-hour	1.57 cfs
10-year, 24-hour	3.32 cfs
100-year, 24-hour	7.31 cfs

3.3 POST-DEVELOPMENT DRAINAGE ANALYSIS

The Olhava master drainage plan will consist of a regional system for stormwater control. This drainage system is illustrated by Figure 3C on the following page. The system will be divided into 12 drainage areas with identical discharge points to those in pre-development drainage basins. Due to the proposed conceptual grading plan, the post-development drainage areas will slightly vary from pre-development conditions. The difference in resultant discharges are compensated for by retention devices described by this section.

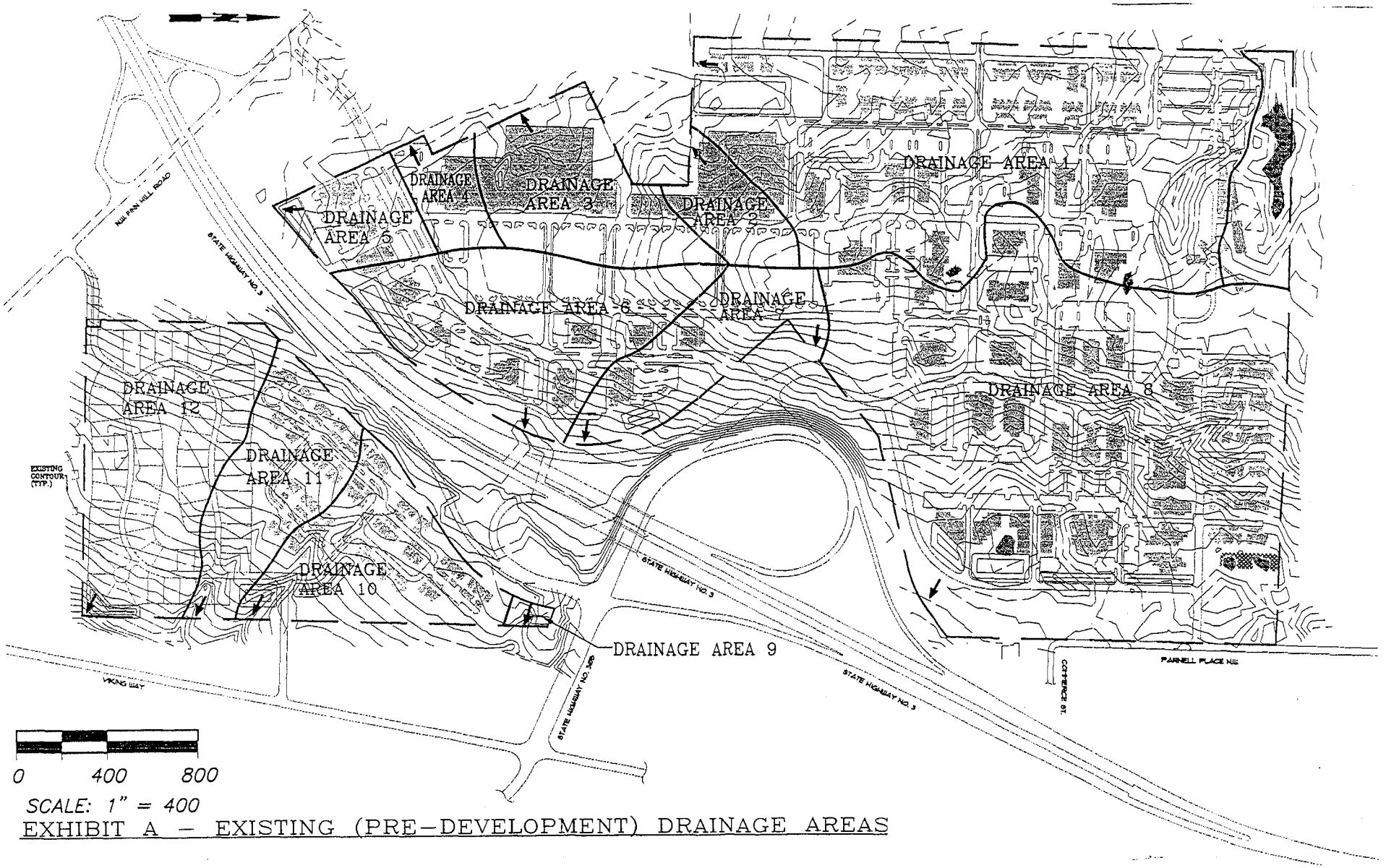


EXHIBIT A – EXISTING (PRE-DEVELOPMENT) DRAINAGE AREAS

GRADING PLAN
OLHAVA MASTER SITE PLAN

The total volume resulting from the "6-month, 24-hour" storm event has been designated as treatment volume. Additionally, the greater of the following three volumes are designed as storage (e.g., detention) volume:

A. The portion of the post-development outflow hydrograph resulting from the 2-year, 24-hour storm exceeding 50 percent of the peak pre-development discharge, determined by 10-minute intervals, resulting from the 2-year, 24-hour storm event.

B. The portion of the post-development hydrograph resulting from the 10-year, 24-hour storm exceeding the peak pre-development discharge, determined by 10-minute intervals, resulting from the 10-year, 24-hour storm event.

C. The portion of the post-development hydrograph resulting from the 100-year, 24-hour storm exceeding the peak pre-development discharge, determined by 10-minute intervals, resulting from the 100-year, 24-hour storm.

In all cases, the hydrographs resulting from the 2-year, 24-hour storm will govern the storage volume required. However, the storage volumes resulting from each storm listed above are presented in this analysis. The treatment/storage ponds shown on the *Drainage Plan* are shown to scale, based upon a liquid depth of 7 feet for the total treatment/storage volume.

The post-development conditions result in two surface conditions: Impervious areas, such as paved roads, streets, sidewalks, parking areas, roofs, etc., and; pervious areas, assumed to consist of landscaped areas and lawns with grass cover of approximately 75 percent of the site area. Impervious areas have been assigned a curve number (CN) of 98, pervious areas have been assigned a CN of 80.

The following presents a brief description of each of the 12 post-development drainage areas and the respective hydrological characteristics.

3.3.1 Post-Development Drainage Area 1

This drainage area includes much of the west side of the Olhava Property development including a major portion of the Olympic College site. As for pre-development conditions, the northern wetlands have been excluded from this analysis because they will not be directly impacted by the Olhava Property development. The following are Drainage Area 1 post-development hydrological characteristics:

Estimated Total Area	48.2 acres
Estimated Impervious Area	27.0 acres
Estimated Pervious Area	21.2 acres
Estimated Time of Concentration	31.5 minutes
Estimated Storage Volume	246,000 cf

Post-Development hydrological characteristics (continued)

Estimated Storage Volumes:	
2-year, 24-hour	282,000 cf
10-year, 24-hour	156,000 cf
100-year, 24-hour	146,000 cf
Total Estimated Treatment/Storage	528,000 cf

Note: Precise storage/treatment pond configuration and storm drain pipe sizing will be determined during final design development.

3.3.2 Post-Development Drainage Area 2

This area consists of roof drainage from the northernmost large commercial structure at the southwest side of the site. Recognizing that roof drainage is generally considered relatively clean stormwater, it is proposed that no treatment volume is required for this drainage area. Paved areas north, west, and south of this potential commercial structure will drain to Drainage Area 1, while paved areas east will be part of Drainage Area 6. The following are the post-development hydrological characteristics for Drainage Area 2:

Estimated Total Area (100% Impervious)	2.98 acres
Estimated Time of Concentration	8.0 minutes
Estimated Storage Volumes:	
2-year, 24-hour	18,200 cf
10-year, 24-hour	6,700 cf
100-year, 24-hour	5,200 cf

It is proposed that a storage volume of 18,200 cf be provided by an underground 108-inch diameter, 300 lineal foot (lf) pipe, or other underground structure of equal volume, as shown on the *Drainage Plan.*

3.3.3 Post-Development Drainage Area 3

This drainage area consists of the majority of remaining roof drainage for the suggested commercial structures at the southwest area of the Olhava Property development. Previously noted roof stormwater treatment assumptions also apply to this drainage area. Paved areas surrounding these structures will drain to either Drainage Area 5 or 6. The following are the post-development hydrological characteristics of Drainage Area 3:

Estimated Total Area (100% Impervious)	4.72 acres
Estimated Time of Concentration	8 minutes
Estimated Storage Volumes:	
2-year, 24-hour	19,000 cf
10-year, 24-hour	5,600 cf
100-year, 24-hour	4,200 cf

It is proposed that a storage volume of 19,000 cf be provided by 300 lf of 96-inch diameter underground storage tanks as shown on the *Drainage Plan*. This volume may be reduced following detailed evaluation of the impervious areas at the existing decommissioned Nike facility site and subsequent final design.

3.3.4 Post-Development Drainage Area 4

This drainage area consists of the roof drainage for the remaining large commercial structures of the southwestern commercial site area; previous treatment assumptions apply to this drainage area. The paved areas surrounding these buildings will flow to either Drainage Area 5 or 6. The following are post-development hydrological characteristics for Drainage Area 4:

Estimated Total Area (100% Impervious)	1.22 acres
Estimated Time of Concentration	7.0 minutes
Estimated Storage Volumes:	
2-year, 24-hour	4,700 cf
10-year, 24-hour	1,700 cf
100-year, 24-hour	1,400 cf

It is proposed that a storage volume of 4,700 cf be provided by 120 lf of 84-inch underground storage tanks, as shown by the *Drainage Plan*. This volume may be reduced, pending detailed analysis of the decommissioned Nike facility site and subsequent final drainage design.

3.3.5 Post-Development Drainage Area 5

This drainage area is located at the southernmost area of the northern 174 acre parcel; it will contain most of the paved parking areas west of the proposed commercial buildings in Drainage Areas 3 and 4. The following are post-development hydrological characteristics of Drainage Area 5:

Estimated Total Area	7.15 acres
Estimated Impervious Area	5.42 acres
Estimated Pervious Area	1.73 acres
Estimated Time of Concentration	11.8 minutes
Estimated Treatment Volume	43,100 cf

Estimated Storage Volumes:	
2-year, 24-hour	58,800 cf
10-year, 24-hour	53,900 cf
100-year, 24-hour	56,800 cf
Total Estimated Treatment/Storage Volume	101,900 cf

The proposed location for a 101,900 cf storage/treatment pond is shown on the *Drainage Plan*. This volume may be reduced, subject to final evaluation for the decommissioned Nike facility and final design.

3.3.6 Post-Development Drainage Area 6

This drainage area includes all of the proposed large parking areas at the southern end of the site, including all of the paved areas of the east side of the proposed large commercial structures on the southwest corner of the site. The following are the post-development hydrological characteristics for Drainage Area 6:

Estimated Total Area	36.0 acres
Estimated Impervious Area	26.0 acres
Estimated Pervious Area	10.0 acres
Estimated Time of Concentration	20.6 minutes
Estimated Treatment Volume	211,000 cf
Estimated Storage Volumes:	
2-year, 24-hour	286,000 cf
10-year, 24-hour	219,000 cf
100-year, 24-hour	212,000 cf
Total Estimated Treatment/Storage Volume	497,000 cf

It is proposed that this volume be divided between treatment and storage ponds at several locations, as shown on the *Drainage Plan*. The required storage volume may be reduced, pending final design and subsequent evaluation of the decommissioned Nike facility site.

3.3.7 Post-Development Drainage Area 7

This drainage area includes the areas surrounding the major intersection at the east side of the Olhava Property, located west of SR 3.

Estimated Total Area	9.8 acres
Estimated Impervious Area	2.3 acres
Estimated Pervious Area	7.5 acres
Estimated Time of Concentration	17 minutes
Estimated Treatment Volume	35,200 cf

Estimated Storage Volumes:	
2-year, 24-hour	26,400 cf
10-year, 24-hour	8,300 cf
100-year, 24-hour	8,900 cf
Total Estimated Treatment/Storage Volume	61,600 cf

3.3.8 Post-Development Drainage Area 8

This drainage area includes the northeast corner of the Olhava Property development and approximately 31 acres north of the Olhava Property, discussed in the existing conditions section of Chapter 1. Fifty percent of the peak 2-year, 24-hour flow and 100 percent of the peak 10-year, 24-hour flows, originating in the off-site area have been added to the 2-year, 10-year and 100-year, 24-hour flows from Drainage Area 8, respectively. This is done to compare pre-development and post-development flows from Drainage Area 8. It is assumed that the owner of the area north of Drainage Area 8 will execute his cooperated agreement with Kitsap County Department of Public Works Drainage Division to install retention and treatment facilities, according to the "Stormwater Management Manual for the Puget Sound Basin" to match existing conditions, prior to clearing and grading of this drainage area. The following are post-development hydrological characteristics of Drainage Area 8:

Estimated Total Area	68.5 acres
Estimated Impervious Area	35.7 acres
Estimated Pervious Area	32.8 acres
Estimated Time of Concentration	28.5 minutes
Estimated Treatment Volume	338,000 cf
Estimated Storage Volumes:	
2-year, 24-hour	411,000 cf
10-year, 24-hour	297,000 cf
100-year, 24-hour	370,000 cf
Total Estimated Treatment/Storage Volume	749,000 cf

The proposed locations for a series of ponds providing this volume, interconnected by ditches and culverts, are shown on the *Drainage Plan*. Precise pond configurations will be determined during subsequent final design and engineering.

3.3.9 Post-Development Drainage Area 9

The post-development hydrological characteristics for this small drainage area, located at the northern tip of the Olhava Property development and east of SR 3 include:

Estimated Total Area	0.65 acres
Estimated Impervious Area	0.06 acres
Estimated Pervious Area	0.59 acres
Estimated Time of Concentration	13.5 minutes
Estimated Treatment Volume	1,900 cf
Estimated Storage Volumes:	
2-year, 24-hour	1,100 cf
10-year, 24-hour	300 cf
100-year, 24-hour	370 cf
Total Estimated Treatment/Storage Volume	3,000 cf

The location of a pond providing the treatment and storage volume for this drainage area is shown on the *Drainage Plan.*

3.3.10 Post-Development Drainage Area 10

This area involves the northern 1/3 of the southern 41 acre Olhava parcel. The following are the post-development hydrological characteristics of Drainage Area 10:

Estimated Total Area	12.0 acres
Estimated Impervious Area	5.47 acres
Estimated Pervious Area	6.53 acres
Estimated Time of Concentration	10.3 minutes
Estimated Treatment Volume	53,500 cf
Estimated Storage Volumes:	
2-year, 24-hour	59,200 cf
10-year, 24-hour	23,100 cf
100-year, 24-hour	24,300 cf
Total Estimated Treatment/Storage Volume	112,700 cf

Proposed treatment and storage volumes will be provided by a series of ponds, interconnected by ditches and culverts as shown on the *Drainage Plan.* These ponds will be located in the deep gully at the south end of Drainage Area 10. Final pond configurations will be defined during subsequent final design and engineering.

3.3.11 Post-Development Drainage Area 11

This drainage area occupies the middle 1/3 of the southern 41 acre Olhava parcel. The following are the post-development hydrological characteristics for Drainage Area 11:

Estimated Total Area	13.9 acres
Estimated Impervious Area	5.62 acres
Estimated Pervious Area	8.62 acres
Estimated Time of Concentration	14.0 minutes
Estimated Treatment Volume	60,900 cf
Estimated Storage Volumes:	
2-year, 24-hour	69,800 cf
10-year, 24-hour	29,500 cf
100-year, 24-hour	30,000 cf
Total Estimated Treatment/Storage Volume	130,000 cf

This volume is proposed to be provided by ponds, located as shown on the *Drainage Plan*. Final pond configurations will be defined during subsequent final design.

3.3.12 Post-Development Drainage Area 12

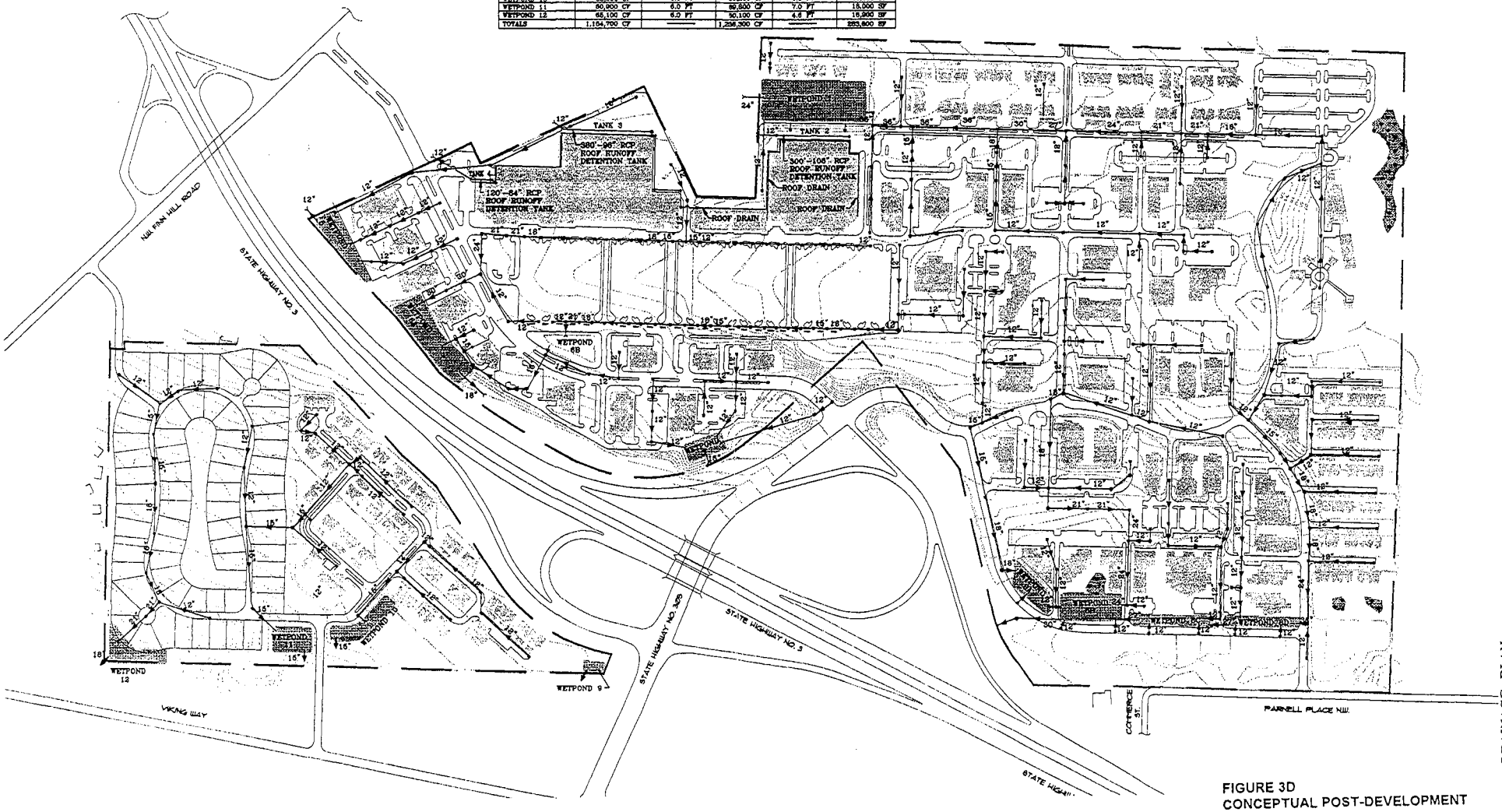
This drainage area occupies the south 1/3 of the southern 41 acre Olhava development parcel. The following are post-development hydrological characteristics for Drainage Area 12:

Estimated Total Area	15.1 acres
Estimated Impervious Area	5.89 acres
Estimated Pervious Area	9.21 acres
Estimated Time of Concentration	10.8 minutes
Estimated Treatment Volume	65,100 cf
Estimated Storage Volumes:	
2-year, 24-hour	50,100 cf
10-year, 24-hour	19,300 cf
100-year, 24-hour	20,800 cf
Total Estimated Treatment/Storage Volume	115,200 cf

DRAINAGE AND UTILI
OLHAVA INTEGRATE : PLAN
3.3 POST-DEVELOPM NAGE ANALYSIS

GRAPHIC SCALE
200 0 200 400 800
1 INCH = 400 FT.

SYSTEM	TREATMENT VOL.	TREATMENT DEPTH	STORAG.	ORAGE DEPTH	SURFACE AREA
WETPOND 1	246,000 CF	6.0 FT	262,000 CF	7.0 FT	54,000 SF
TANK 2	0	0	18,000 CF	N/A	N/A
TANK 3	0	0	15,000 CF	N/A	N/A
TANK 4	0	0	4,700 CF	N/A	N/A
WETPOND 5	43,100 CF	6.0 FT	56,800 CF	8.0 FT	33,000 SF
WETPONDS 6A,6B	211,000 CF	6.0 FT	298,000 CF	8.2 FT	67,500 SF
WETPOND 7	36,200 CF	6.0 FT	36,400 CF	4.5 FT	18,000 SF
WETPONDS 8A, 8B, 8C, 8D	338,000 CF	6.0 FT	411,000 CF	7.2 FT	73,900 SF
WETPOND 9	1,900 CF	4.0 FT	1,100 CF	2.3 FT	900 SF
WETPOND 10	53,500 CF	6.0 FT	59,200 CF	6.3 FT	18,100 SF
WETPOND 11	80,900 CF	6.0 FT	86,800 CF	7.0 FT	18,000 SF
WETPOND 12	65,100 CF	6.0 FT	90,100 CF	4.8 FT	18,200 SF
TOTALS	1,154,700 CF		1,256,300 CF		283,600 SF



DRAINAGE PLAN
OLHAVA MASTER SITE PLAN

FIGURE 3D
CONCEPTUAL POST-DEVELOPMENT
DRAINAGE PLAN

3.4 CONCEPTUAL STORMWATER DRAINAGE PLAN

The preceding *Drainage Plan* meets the stormwater requirements of section 3.2, "Pre-Development Drainage Analysis" by providing post-development flows exiting the site which are 50 percent of the pre-development 2-year, 24-hour flow, while maintaining the pre-development 10-year, 24-hour and 100-year, 24-hour stormwater flows.

3.5 CONCEPTUAL WATER SUPPLY PLAN

Water supply will be provided to the Olhava Property development via two P.U.D. sources. These sources will require execution of an intertie agreement between the P.U.D. and the City of Poulsbo. A development agreement between the City of Poulsbo and Olhava Associates will be developed and executed to facilitate this intertie and other agreements.

The proposed Olhava Property development water supply system is illustrated by Figures 3E and 3F, *Offsite Water Plan* and *Water Plan*, respectively. Water will be supplied from three locations. Two connections will be made to the newly constructed 12-inch Kitsap County P.U.D. line, located at Finn Hill Road. One connection will be made at a 12-inch tee at the decommissioned Nike facility, the other will be made at the southwest corner of the southern 41 acre Olhava parcel. The third connection will be made at a 14-inch Kitsap County P.U.D. line at the corner of Thompson Road and Rhododendron Road. This connection will be made with a 14-inch water line running from the Olhava development's primary northeast access road to Parnell Place. This is approximately 7,000 lf of new water line beyond the Olhava Property limits.

The following assumptions were used to determine future water demands for the Olhava Property development.

A. Domestic, Commercial and Institutional Demand

A value of 160 gallons per day per capita (gpd) has been used for annual daily domestic water damand. This figure is 60 percent higher than the annual average daily flow for domestic wastewater flow. Thus, total annual average water demand for domestic, commercial and institutional uses at the Olhave site is taken as 160 percent of the total average wastewater flow.

This represents a water demand of 265,000 gpd for the northern 174 acre parcel and 102,200 gpd for the southern 41 acre parcel. Total demand would therefore approximate 367,200 gpd once the site is fully developed in an anticipated 10 year period. This demand is presumed to include lawn and landscape irrigation supply. The peak day water demand is assumed to be 165 percent of the annual average water demand, which would total approximately 605,800 gallons per day (420 gallons per minute). The peak hour water demand is assumed to be 200 percent of the annual average water demand, or approximately 734,400 gpd (510 gallons per minute).

B. Fire Flows

To estimate fire flow requirements for the Olhava development, several assumptions were made. First, the large structures will be constructed as Type I-FR or Type II-FR fire resistant construction as defined in the current Uniform Building Code. Secondly, the largest structure will contain no more than 100,000 SF of undivided floor space.

The current *City of Poulsbo Developers Guide Construction Standards and Specifications* (Page II-2, paragraph C1) bases required fire flow on the "Insurance Services Office" publication which estimates required fire flow accordingly:

Fire Flow $(Q) = (18)(C)(A)^{0.5}$

(A)= Area of Largest Building= 100,000 SF

(C)= 0.6 for fire resistant construction

$(Q) = (18)(0.6)(100{,}000)^{0.5}$ = **3,415 GPM**

The City of Poulsbo Developers Guide Construction Standards and Specifications also specifies a minimum fire hydrant spacing of 300 feet (Page II-1, Paragraph B) for non-residential development and up to 600 feet in single family or single story duplex developments. No duration of fire flow is specified in these standards. The City of Poulsbo also requires Fire District/Fire Marshall approval of fire flow, fire storage and hydrant spacing.

Kitsap County Fire District #18 will serve the Olhava site. District #18 bases fire flow, storage and hydrant spacing on requirements set forth in the 1994 Uniform Fire Code as verified by Kitsap County Fire Inspector Jerry Cooper. Utilizing Tables A-III-A-1 and A-III-B-1 of the 1994 Uniform Fire Code the following requirements have been applied to water system designs and the Olhava property development:

Required Fire Flow	=	3,500 GPM @ 20 PSI- 3 Hour Flow Duration
Required Fire Storage Volume	=	630,000 Gallons
Maximum Hydrant Spacing	=	350 Feet (Average)

Since slightly different results are produced using the City's standards and the Fire District's standards, the most restrictive results have been planned for. The final results include:

Required Fire Flow	=	3,500 GPM @ 20 PSI- 3 Hour Flow Duration
Required Fire Storage Volume	=	630,000 Gallons
Maximum Hydrant Spacing	=	300 Feet (Average)

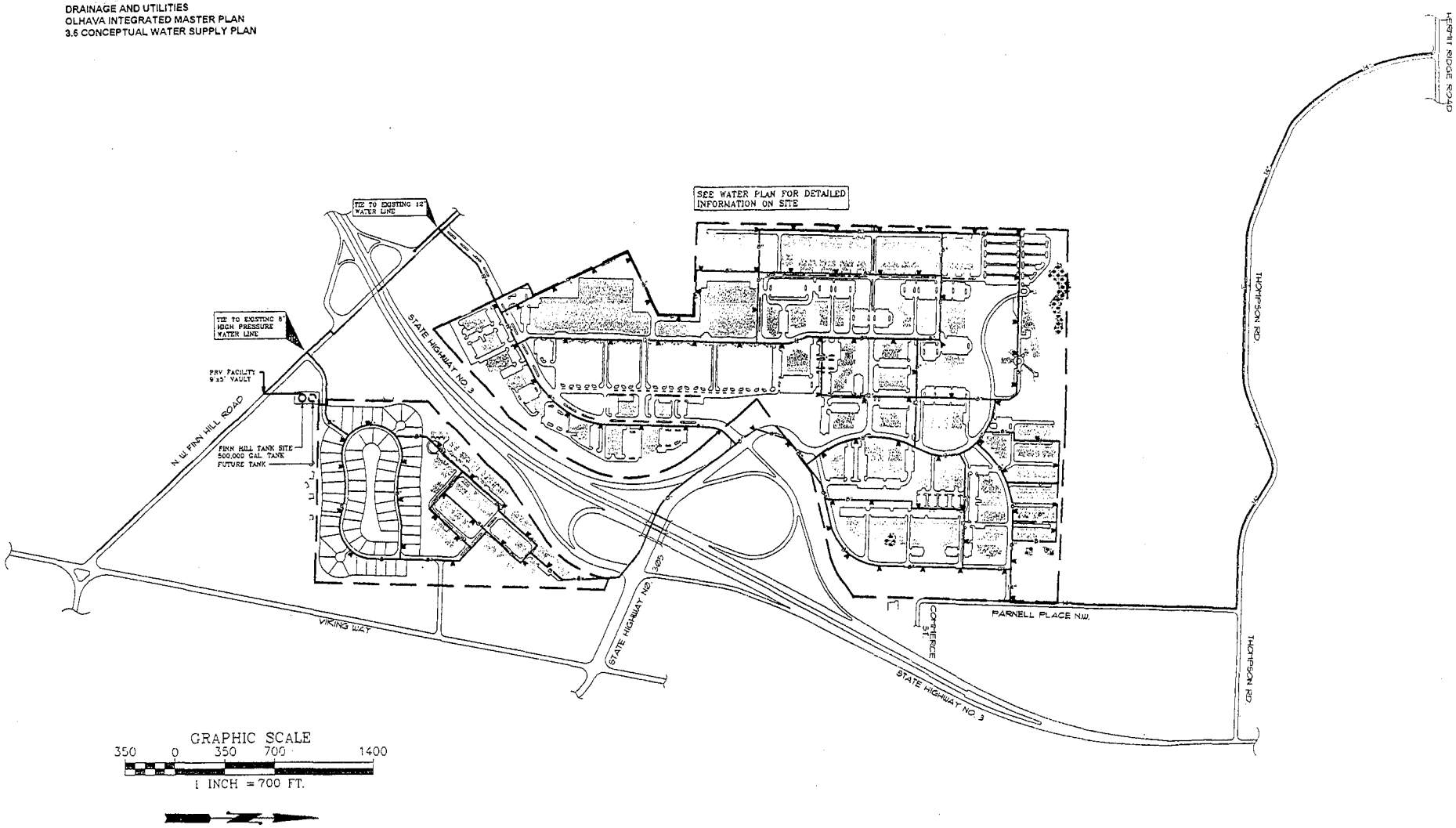
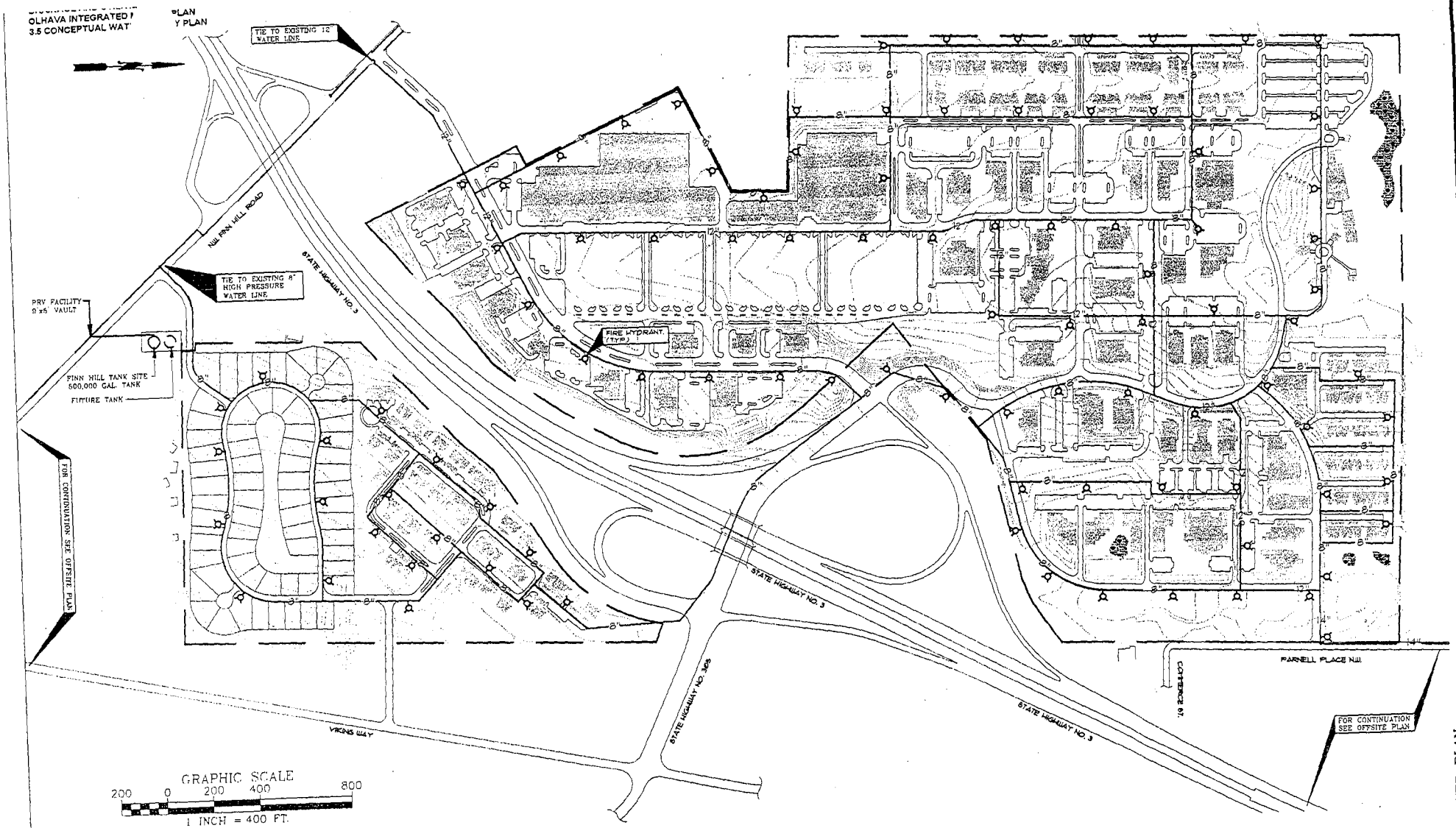


FIGURE 3E
OFFSITE WATER PLAN

OFFSITE WATER PLAN
OLHAVA MASTER SITE PLAN



WATER PLAN

OLHAVA MASTER SITE PLAN

FIGURE 3F
WATER SUPPLY PLAN

3.6 SANITARY SEWER PLAN

Based upon the illustrative plans dwelling and square footage projections a sanitary sewer system plan has been developed. This plan enables calculation for anticipated sanitary sewer capacities and peak flows. The plan also provides a basis for determining phase requirements as these relate to the City of Poulsbo capital facilities plan and the estimated ten year buildout for the Olhava development.

The following section describes projected sewer capacities for the Olhava Property by examining each of the two parcels uses.

3.6.1 Northern 174 Acre Parcel Sewer Requirements

This parcel will primarily consist of 8-inch diameter gravity flow sewers. Two pump stations will be required.

One pump station will serve the northeastern area of the parcel. This pump will have a 120 gpm capacity discharging through a 4-inch diameter force main. This would generally be classified as a small installation. The other pump station will have an approximate capacity of 200 gpm, also discharging through a 4-inch diameter force main. The following assumptions were used to determine wastewater flow requirements for each of the associated land uses of the Master Plan.

A. Medium-Density Dwellings

Dwelling Unit Quantity:	260
Assumed Residents per Unit:	2.5
Total Population:	650

Annual Average Flow @ 100 gallons per capita day (gpcd): 65,000 gpd

B. Business Park

Assume this is primarily office space with occupancy of 250 SF per user
Total Projected Area: 310,000 SF
Total Population: 1,242 users
Annual Average Flow @ 15 gpd per user: 18,630 gpd

C. Shopping Center

Wastewater flow based upon parking space quantity plus flow per employee
Quantity of parking spaces: 1,200
Annual Average Flow @ 1.1 gpd per parking space: 1,320 gpd
Assume 300 employees @ 1.1 gpd per employee: 3,300 gpd

D. General Office

Assume 250 sf per employee
Total Building Area: 91,175 sf
Total Employees: 365
Annual Average Flow @ 15 gpd: 5,475 gpd

E. Specialty Retail:

Assume two (2) toilet rooms per 10,000 sf of Building Space
Total Building Area: 176,875 sf
Total Toilet Rooms: 36
Annual Average Flow @ 528 gpd per toilet room: 19,008 gpd

F. Banking

Assume similarity to one (1) store with two (2) toilet rooms
Annual Average Flow @ 528 gpd per toilet room: 1,056 gpd

G. Hotel

Wastewater Flow Based upon Number of Guests plus Flow per Employee
Total Rooms: 75
Guest Population @ 2 Guests per Room: 150
Annual Average Flow @ 50 gpd per guest: 7,500 gpd
Employee Population: Assumed 25
Annual Average Flow @ 11 gpd per Employee: 275 gpd

Total Annual Average Flow: 7,775 gpd

H. Fast Food Restaurant

Wastewater Flow Based upon Meals Served
Assumed 2,000 Meal Servings per Day
Annual Average Flow @ 2.1 gpd per Meal: 4,200 gpd

I. High Turnover (Sit-Down) Restaurant

Wastewater Flow Based upon Meals Served
Assume 1,000 Meal Servings per Day
Annual Average Flow @ 2.6 gpd per Meal: 2,600 gpd

J. Quality Sit-Down Restaurant

Assume 500 Meal Servings per Day
Annual Average Flow @ 4.0 gpd per Meal: 2,000 gpd

K. Olympic College

Student Population: 900 Full Time Equivalent Students
Faculty/Staff Population (assumed at 80% of Student Population): 720
Total Population: 1,620
Annual Average Flow @ 2.1 gpd per Person: 34,020 gpd

TOTAL AVERAGE DAILY FLOW (NORTH 174 ACRE PARCEL): 164,384 GPD

Note: Unit Flows were obtained from EPA publication "Design of On-Site Wastewater Treatment Systems."

Assuming a peaking factor of 2.5 and 4% infiltration, the peak hour wastewater flow from the northern 174 acre parcel will be approximately 427,400 gallons gpd, or 296 gallons per minute. This flow can be accommodated by an 8-inch diameter pipe, gravity oriented, with a minimum slop of 4 percent.

Wastewater from this parcel is designed to be conveyed by a gravity sewer line transmitted along SR 305 to Viking Avenue and Finn Hill Road. During Olhava Associates engineering feasibility investigations (American Engineering, June, 1994), the City of Poulsbo Engineer advised that the existing sewer system at this location has sufficient capacity to accommodate the additional flow from this parcel and that the lift station (Lindvig Lift Station) is scheduled to be upgraded. The Olhava Associates will contribute fair share funds for the cost of upgrading the Lindvig Pump Station.

3.6.2 South 41 Acre Parcel Sewer Requirements

The sanitary sewer system for this parcel will also consist of 8-inch diameter gravity sewers. One pump station will be required at this parcel's southeast corner. This pump station will be a relatively small installation, with an approximate capacity of 100 gpm discharging through a 4-inch force main. The following assumptions were used for establishing wastewater flows from this parcel of the Olhava Property development:

A. Medium-Density Dwellings

Dwelling Unit Quantity: 160
Assumed Residents per Unit: 2.5
Total Population: 400
Annual Average Flow @ 100 gpd: 40,000 gpd

B. Single-Family Residences

Number of Dwellings: 70
Assumed Residents per Dwelling: 3.5
Total Population: 245
Annual Average Flow @ 100 gpcd: 24,500 gpd

TOTAL AVERAGE DAILY FLOW (THIS PARCEL): 64, 500 GPD

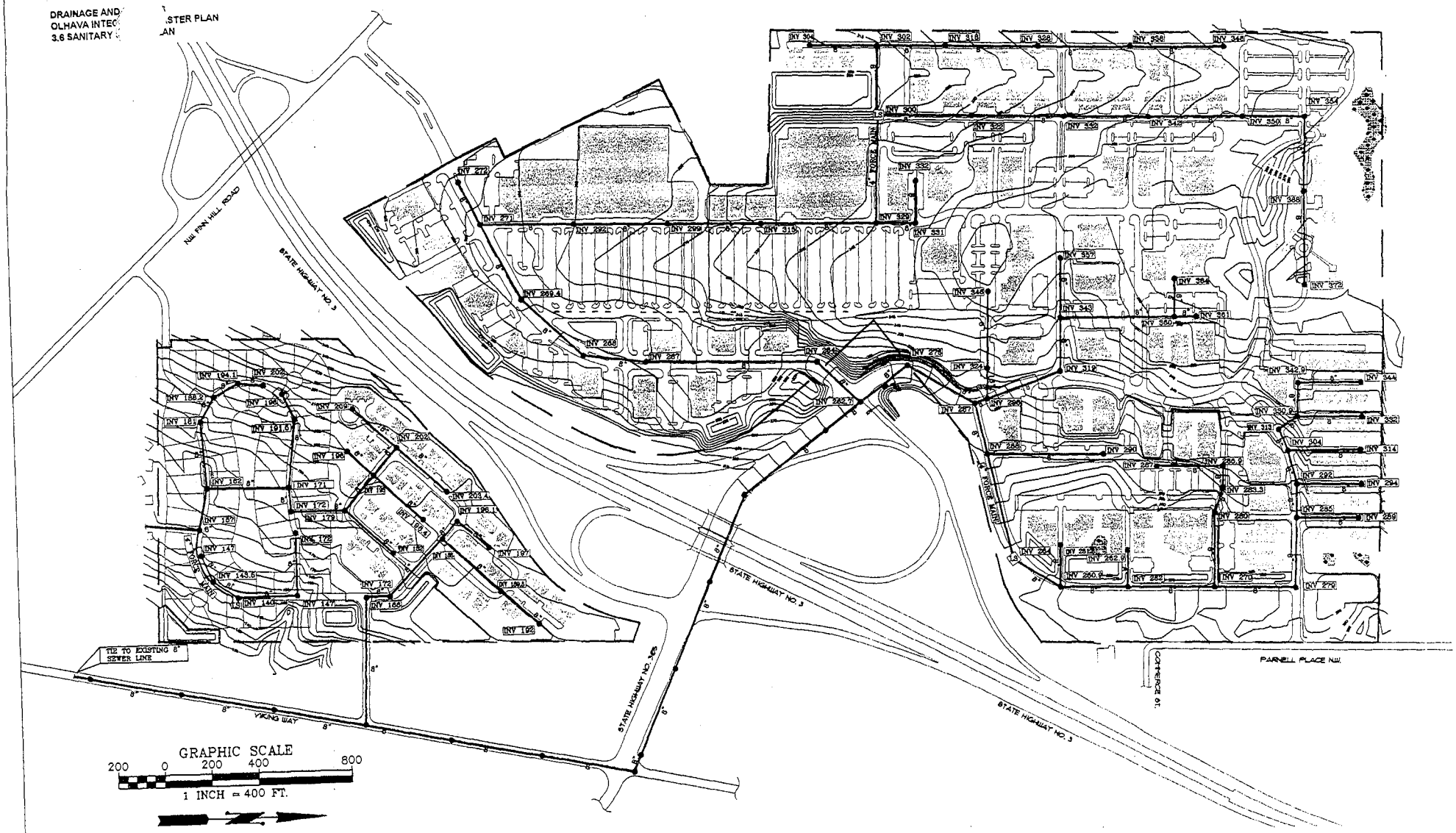
Again, a peaking factor of 2.5 and an infiltration rate of 4% is applied. This results in a peak hour flow of 167,700 gallons per day, or 104 gallons per minute. This flow is easily accommodated by an 8-inch diameter gravity pipe. Discharge will be via an 8-inch diameter gravity sewer at Finn Hill Terrace, a residential development located between this parcel and Finn Hill Road. This sanitary sewer will then discharge to an 8-inch gravity sewer at Finn Hill Road and continue to Viking Avenue. From this intersection the sewer line is 10-inch diameter and runs easterly along Lindvig Way to the pump station at the intersection of Lindvig Way and Bond Road.

Total Estimated peak sewage flow from the entire Olhava site is 400 gallons per minute upon ultimate buildout. All Olhava development sewerage will flow to the Lindvig Pump Station. The Lindvig Pup Station is currently considered to be operating over capacity by the City of Poulsbo when current flow conditions are evaluated. Engineering Design for the Pump Station's remodel is currently being performed.

After leaving the Lindvig Pump Station, sewage is pumped along the east side of Liberty Bay and contributes flow to the Yacht Club Pump Station. This later pump station has been identified as being near designed pumping capacity yet not even close to operational capacity.

After leaving the Yacht Club Pump Station, sewage is pumped to Kitsap County Sewage Facilities at Lemolo which measure and then transport flow via (2) 12-inch inverted siphons beneath Liberty Bay to Keyport. The sewage flow is then pumped from Kitsap County Pump Station No. 16 to the Central Kitsap Wastewater Treatment Plan.

The following *Sanitary Sewer Plan, Figure 3G*, illustrates a comprehensive sanitary sewer system design for the Olhava Property development.



SANITARY SEWER PLAN

OLHAVA MASTER SITE PLAN

FIGURE 3G
COMPREHENSIVE SANITARY
SEWER PLAN

OLHAVA PROPERTY INTEGRATED MASTER PLAN

CHAPTER FOUR

ENVIRONMENTAL RESOURCES

CHAPTER FOUR
ENVIRONMENTAL RESOURCES
OLHAVA PROPERTY INTEGRATED MASTER PLAN

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CHAPTER FOUR- ENVIRONMENTAL RESOURCES

4.0 BIOLOGICAL RESOURCES

This Chapter describes the existing biological resources of the Olhava Property. Resource descriptions include:

- Vegetation
- Wetlands
- Wildlife
- Decommissioned Nike Facility site evaluation

The description is based upon a review of existing literature, interpretation of an 1993, 1"=500' scale aerial photograph, and a field assessment conducted on September 1, 1994, by Jones & Stokes Associates' biologists. A vegetation community map was developed by overlaying the site map and aerial photograph. Vegetation type areas were measured from the community map using a digital planimeter.

Additional information sources included data searches for records of sensitive wildlife species and priority habitats through the Washington Department of Fish and Wildlife Nongame Program and threatened, endangered or sensitive plants through the Washington Department of Natural Resources Natural Heritage program.

4.1 VEGETATION INVENTORY

The Olhava Property is characteristic of lowland forest in the Puget Sound region. Franklin and Dyrness (1973) classify the vegetation in this area as the Western Hemlock Zone, the most extensive vegetation zone in western Washington. Because the site has been logged within the past 70 years, it is best described as an early to mid-successional stage forest (Franklin and Dyrness 1973).

A major portion of the Olhava Property is dominated by coniferous forest in various stages of age classes, depending upon past logging activity. Small scrub-scrub wetlands and one forested wetland are also located within the upland forested area, the later located within the designated Olympic College campus site. Disturbed vegetated areas are associated with the decommissioned Nike facility and access roads and staging areas in the forest that were cleared for selective logging in July, 1991.

A. Coniferous Forests

Coniferous forest covers approximately 192 of the site total 215 acres, roughly 89 percent. These are dominated by douglas fir, western red cedar, western hemlock, and scattered areas of western white pine that form a mosaic of open and closed canopies as a result of the past logging.

In the northern 174 acre Olhava parcel, douglas fir and western hemlock are more common than western red cedar and are typically 6-14 inches diameter breast height (dbh), with some trees up to 20 inches dbh. Larger western red cedar ranging in size from 6-36 inches dbh are common in the upland fringe surrounding the wetlands.

In the southern 41 acre Olhava parcel, western red cedar and mountain hemlock are more common than douglas fir. Trees are typically 10-20 inches dbh although larger western red cedar up to 30 inches dbh are present near the south property boundary. Several white pine were also observed in this parcel.

Deciduous trees are present but uncommon in the coniferous forest. Seedlings and saplings of red alder are present in open areas where the overstory of thinned conifers has enhanced their establishment. Mountain ash and Pacific madrone are uncommon and scattered in the northern parcel. Several big-leaf maple trees are present in the southern parcel.

Understory vegetation ranges from dense cover of shrubs to more open areas of herbaceous vegetation growing amongst downed timber. Common understory shrubs include red elderberry, rhododendron, salal, huckleberry, Oregon grape, and California dewberry. Herbaceous vegetation growing in the understory includes swordfern, bracken fern, fireweed, bentgrass, and other grasses.

B. Disturbed Area

A total of approximately 22 of the 215 acre Olhava Property is considered disturbed; this area includes the decommissioned Nike facility site (17 acres) and cleared forest (5 acres).

Vegetation at the Nike site is dominated by herbaceous and shrub vegetation common in ruderal (disturbed) areas. Fireweed, bentgrass, and other grasses are common herbaceous plants, along with invasive, weedy shrub species such as Himilayan blackberry and Scot's broom that are common to disturbed areas. Douglas fir trees are also present and scattered throughout the Nike site.

Cleared areas in the forest include areas of downed timber and bare soil associated with access roads and logging staging areas (See Inventory Map, page 3). Vegetated portions of the cleared areas are dominated by grasses and forbs including fireweed and bentgrass. California dewberry, Himalayan blackberry, huckleberry, and salal are shrub species also present.

C. Threatened, Endangered or Sensitive Plant Species

A data search for threatened, endangered or sensitive plant species, as conducted by the Washington Natural Heritage Program (WNHP), Department of Natural Resources determined that no threatened, endangered or sensitive plant species were known to occur on the Olhava Property. No species recognized by the WNHP as threatened, endangered or sensitive were observed at the Olhava Property during field assessment.

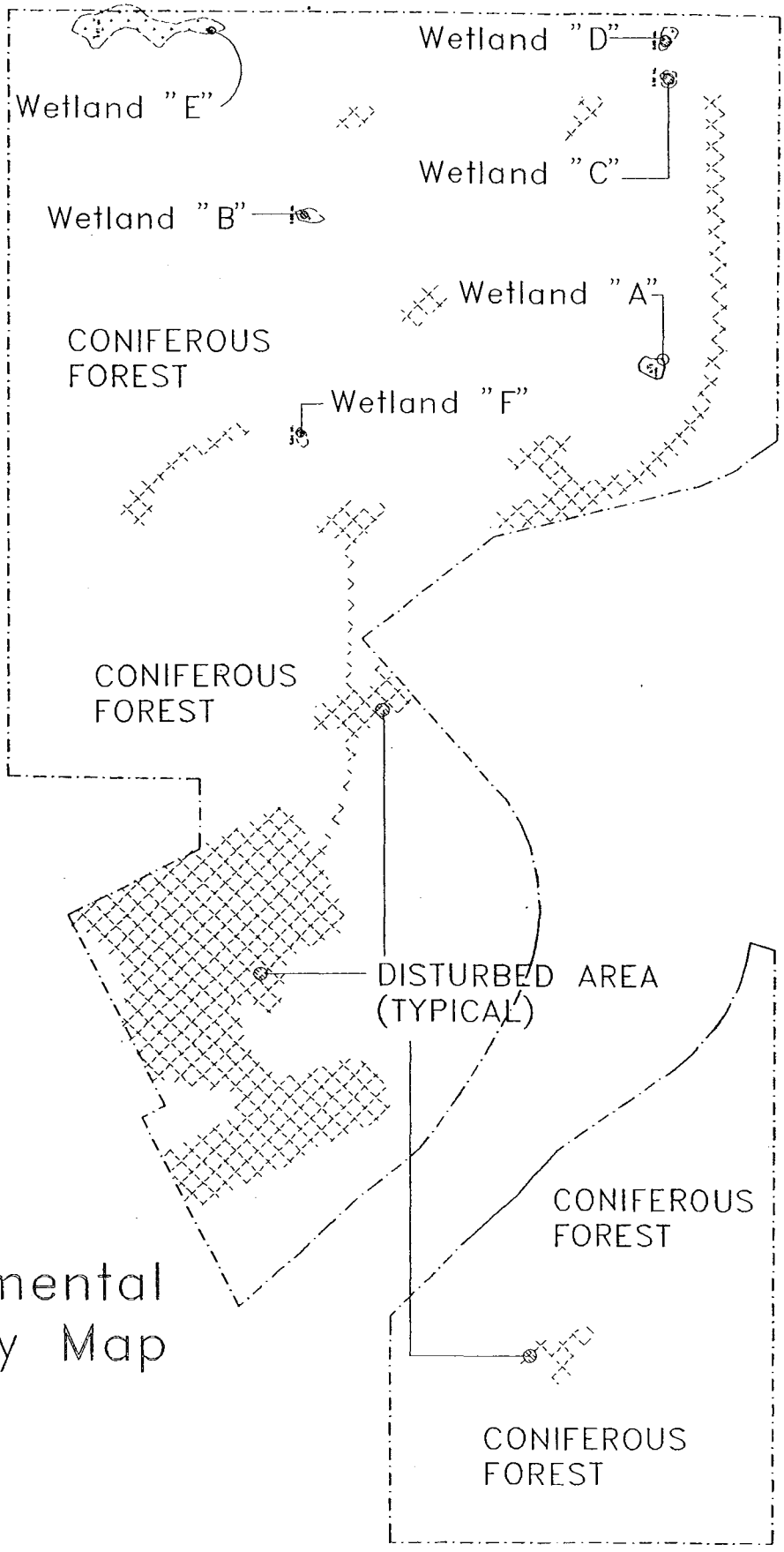

FIGURE 4A

Environmental Inventory Map

4.2 WETLANDS INVENTORY

This section describes wetland resources based on a wetland delineation report prepared by Wiltermood Associates (1991) and the September 1, 1994 field assessment conducted by Jones & Stokes Associates. Copies of the Wiltermood Associates report are attached as part of this Master Plan.

The Wiltermood report identified five palustrine scrub-scrub wetlands and one forested wetland for a combined wetland area of 1.2 acres. All wetlands are located on the northern 174 acre parcel. These wetlands were visited by Jones & Stokes Associates during the September 1, 1994 field assessment. Based upon this visit, one small (0.04 acre) scrub-scrub wetland (identified as Wetland "F" by Wiltermood Associates and by this document) was determined not to exhibit the necessary soils, hydrology and vegetation characteristics to be considered a wetland. A supplemental data form was prepared by Jones & Stokes and is available upon request.

Individually, the four remaining scrub-scrub wetlands (Wetlands "A", "B", "C" and "D") are small in size (0.06-0.13 acres) and, based on the Washington Department of Ecology's wetland categories are considered Category 3 wetlands. The forested wetland (Wetland "E"), located within the Olympic College site, is the largest wetland (0.82 acres) and the more diverse wetland of the Olhava Property. Based upon the Washington Department of Ecology's wetland categories (1993), Wetland "E" is considered a Category 2 wetland because of the forested element. Dominant shrubs in the wetlands are red alder, willows, salmonberry, western crabapple and douglas' spirea. Herbaceous wetland vegetation is sparse, although sedge species and lady fern were observed in some of the wetlands. Western red cedar was present in the upland fringes of the forested wetland "E".

The wetlands appear to be isolated, seasonal wetlands dependent on localized watershed runoff and direct precipitation for their water source. All wetlands provide some degree of storage for runoff from the surrounding watershed, with wetlands "A", "B" and "E" providing the greatest storage value. Wetland "D" has been impacted by runoff and silt contributions from an offsite fill site (See Pre-Development Drainage Area 8, Chapter 3, page 8); conditions are currently being restored to original dimensions under agreement with this adjacent property owner and Kitsap County Department of Public Works Drainage Division.

4.3 WILDLIFE INVENTORY

The Olhava Property is habitat for a variety of mammals, bird species and herptiles (reptiles and amphibians) typically found in a mid-successional stage lowland forest in the Puget Sound Region. Wildlife use of the site is based largely on interpretation of existing habitat (as related to vegetative types) and review of literature pertaining to wildlife use of similar forest habitats in western Washington. Unless otherwise cited, habitat associations of wildlife species were based on habitat matrices outlined in Brown (1985). Many wildlife species use a variety of vegetation types the Olhava Property, but most are associated with the coniferous forest.

A. Mammals

Some evidence of mammals was observed during the field assessment. Mountain beaver burrows were found throughout both parcels of the Olhava Property and two Douglas squirrels were observed. Although little evidence of deer use was detected during the field assessment, deer may occur on the northern parcel since this area is bordered to the west and partly to the north by low density development and forest land (Whitmer et al. 1985). Coyote typically occur in habitats similar to the northern 174 acre Olhava parcel.

Other mammals, commonly occurring in similar habitats in western Washington include raccoon, long-tailed weasel, porcupine, opossum, deer mouse, Townsend mole and several species of shrews (Brown 1985; Chapman and Feldhammer 1982). Bats may also occur at the Olhava Property, especially big brown bats (Humphrey 1982). Large mammals such as deer are less likely to occur on the southern 41 acre parcel because this parcel is surrounded by major roads.

B. Birds

Birds observed during the field assessment included black-capped chickadee, American robin, rufous-sided towhee, red-breasted nuthatch, American crow, common bushtits, and Steller's jay. Cavity nesters such as pileated woodpecker, northern flicker and downy woodpecker may occupy snags (dead upright trees) of the Olhava Property. Populations of cavity nesters on the site is probably low since few large snags (those greater than 20 inches dbh) were observed during the site field reconnaissance.

No waterfowl or wading birds were observed or are expected to occur on the project site because of the lack of wetlands or streams that would provide the necessary habitat.

Hawks and owls likely occur on the property, although none were observed during the field assessment. Habitat appears suitable for support of red-tailed and sharp-shinned hawks and great-horned owls.

C. Heptiles

No amphibians or reptiles were observed during the field assessment. Based upon species matrices outlined in Brown (1985) and distribution maps in Nussbaum et al. (1983), herptiles which may occur at the Olhava Property include common garter snake, western toad, Pacific tree frog, ensatina and Northwestern salamander. Amphibian populations are likely limited due to the lack of streams and large areas of wetland.

D. Sensitive Wildlife and Priority Habitats

A search of the Washington Department of Fish and Wildlife Priority Habitats and Species Data System (1994) revealed no occurrences of threatened, endangered or sensitive species in the site vicinity. Additionally, no evidence of threatened or endangered wildlife was observed at the Olhava Property during the field assessment. Previously described wetlands represent the only priority habitat of the Olhava Property.

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- **Humphrey, S.R. 1982.** *Bats (Vespertilicniolea and Molossidae).* Pages 52-70 in J.A. Chapman and G.A. Geldhammer (eds.), *Wild Mammals of North America: Biology, Management, and Economics.* John Hopkins University Press. Baltimore, MD.

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OLHAVA PROPERTY INTEGRATED MASTER PLAN

CHAPTER FIVE

TRAFFIC/CIRCULATION PLAN

CHAPTER FIVE
TRAFFIC/CIRCULATION PLAN ELEMENT
OLHAVA INTEGRATED MASTER PLAN

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CHAPTER SIX----------DEVELOPMENT PHASING
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CHAPTER FIVE- TRAFFIC/CIRCULATION PLAN ELEMENT

5.0 OVERVIEW

This traffic circulation chapter identifies the existing and local street system impacted by the Olhava Property development, as well as the proposed frontage road, new SR 3 ramps/revisions and new internal streets to be constructed to provide adequate site access and internal circulation between the proposed retail, business/office, residential and Olympic College uses. A proposal for phased payment of traffic mitigation to match the timing of development, including freeway improvements, is included in Chapter 7. The circulation element of the Olhava Master Plan also discusses existing trails, sidewalks and other non-motorized transportation routes for pedestrian, bicycle and equestrian travel in the project vicinity, along with proposed on-site amenities for non-vehicular travel to/from and within the proposed Olhava community. Various public transit routes have been identified by Kitsap Transit within the proposed Master Plan development, to provide local bus service to downtown Poulsbo and *Express Service* to Silverdale employment and commercial centers. Internal street sections have been developed per City of Poulsbo standards to accommodate projected traffic flows from the Olhava development at full build-out at an acceptable service level. Finally, this circulation chapter addresses the traffic lane, channelization and signalization requirements to accommodate the Olhava developments site traffic at an adequate service level for both on-site and off-site transportation systems. The traffic impact analysis report (Gibson Traffic Consultants, November 4, 1994) is attached to the Master Plan as a supplement to this Master Plan.

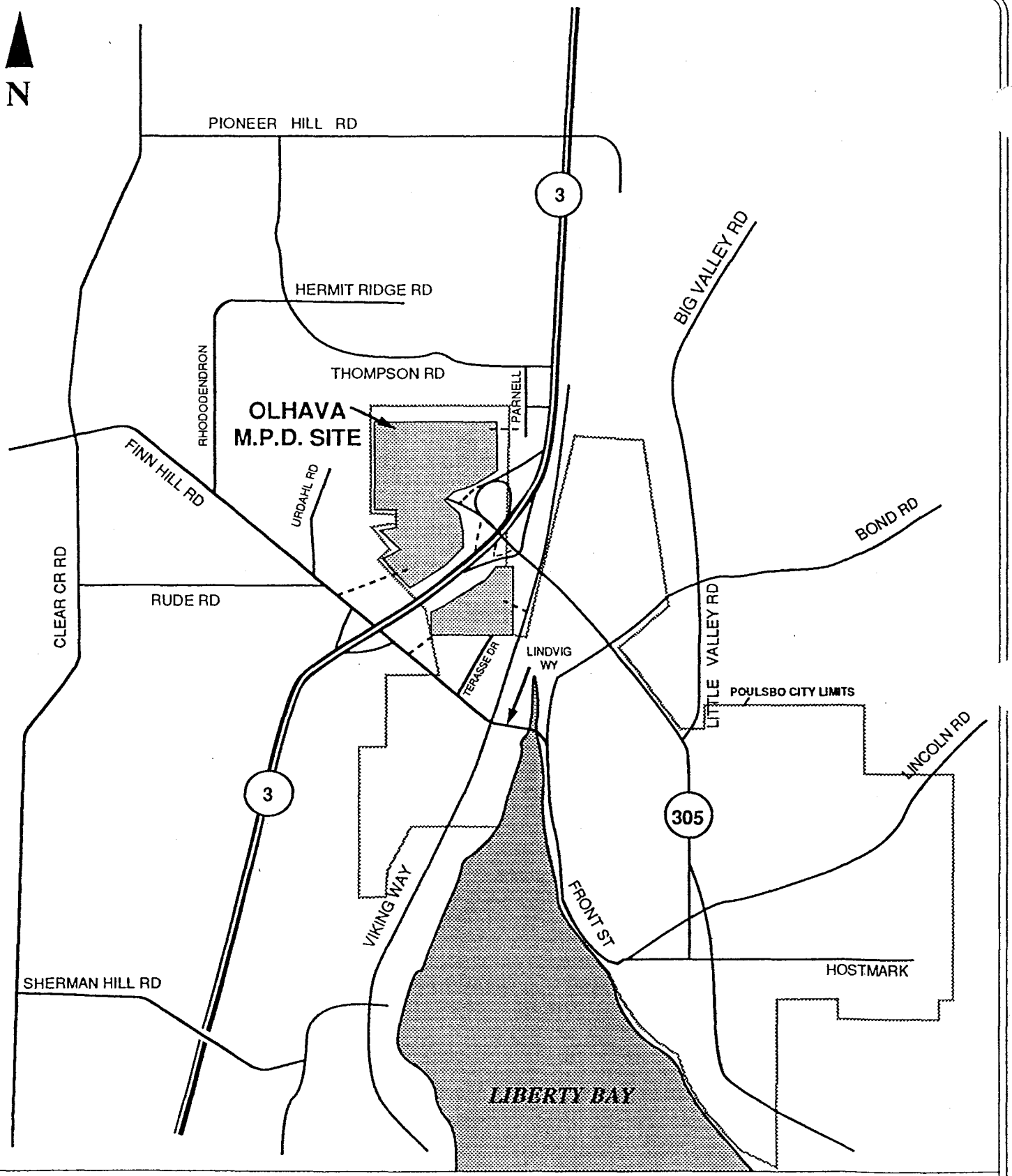
5.1 PROPOSED MASTER PLAN DEVELOPMENT AND ACCESS

The Olhava Property development is primarily located on the west side of SR 3 between Thompson Road and Finn Hill Road (See Vicinity Map next page). The project also includes a southern 41 acre parcel, located east of SR 3 between SR 305 and Finn Hill Road.

The residential development of the Olhava Property would occur in four areas (See Chapter 2, Planning Areas 1,2, 8 and 9). Planning areas 1 and 2 will occur within the south parcel, providing 70 single-family and 160 medium-density dwellings, respectively. Planning areas 8 and 9 will occur in the north parcel, providing 100 and 160 medium-density dwellings each.

The "employment" portion of the Olhava Property, located in the northern 174 acre parcel, will include approximately 840,000 sf of commercial space and 325,000 sf in office space area. For the purpose of this traffic analysis, the commercial space is assumed to include a primary shopping center (470,000 sf), specialty retail (177,000 sf), banks (14,500 sf), hotel (75 rooms), fast food restaurants (15,000 sf), high turnover sit-down restaurants (25,400 sf), quality sit-down restaurants (15,000 sf) and other general commercial uses (100,000 sf). Other permitted commercial uses, including cinemas, may occur without significant alteration to the traffic data presented.

Olympic College is planning a branch campus site within the Olhava Property. First phase plans include provisions for 900 full-time equivalent students. This site (Planning Areas 10, Chapter 2) is a 20 acre parcel located in the northwest property corner.



GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY

OLHAVA PROPERTY

POULSBO, WA

FIGURE 5A

PROJECT VICINITY

Access to the primary northern 174 acre parcel of the Olhava Property development would be provided via three central access connections: 1) extension of SR 305 west from the SR 3 interchange; 2) new frontage road west of SR 3 and north of Finn Hill Road; and, 3) north to Thompson Road via Parnell Place. Internal circulation roads will connect parking areas for proposed retail and business uses to each residential area and the proposed college campus. The existing SR 3 southbound off-ramp at SR 305 would connect to the proposed westerly extension of SR 305 to for the north and east legs of the "primary" site access intersection for the development. The south leg of the primary intersection would extend south through the Olhava site via the new frontage road to Finn Hill Road, while the west leg would extend northwesterly to the proposed college campus and vicinity.

5.2 ROADWAY CIRCULATION SYSTEM

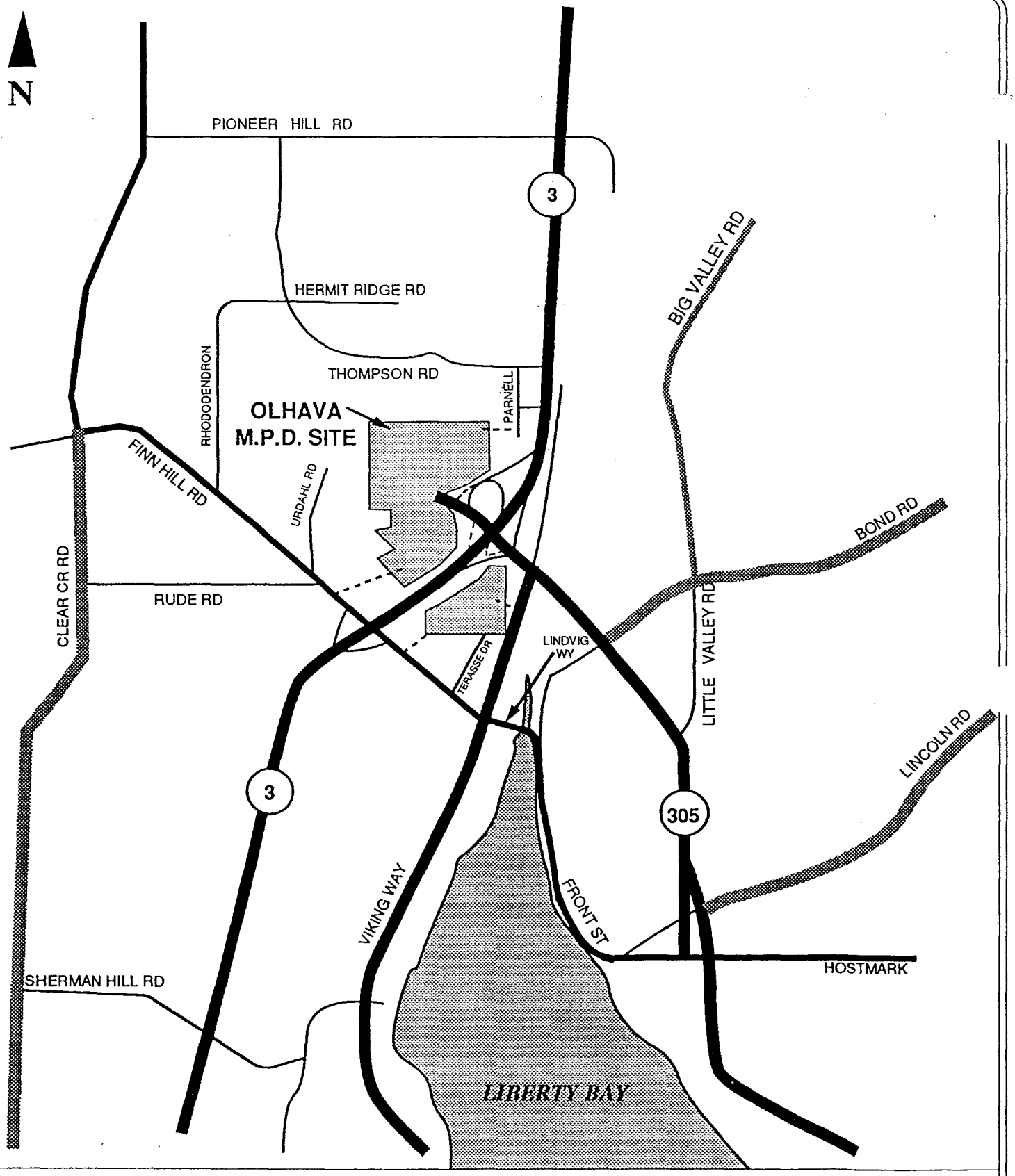
A. Arterial/Street System

The existing arterial/street system in the project vicinity, as classified in the *Kitsap County Draft Transportation Plan* (February 1994), is shown in Figure 5B. SR 3, SR 305, Finn Hill Road, Bond Road, Viking Way and Front Street are the primary routes which would provide access to the Olhava development.

SR 3 is an urban principal arterial, which connects US-101 at Shelton with Bremerton and SR 104 at Port Gamble. In the Poulsbo area, SR 3 has recently been reconstructed and widened to a four-lane facility at the SR 305 interchange with left-turn channelization provided at remaining at-grade intersections with Thompson Road and Pioneer Hill Road. A new half-diamond interchange (ramps to/from south) and overcrossing structure were completed at Finn Hill Road during the fall of 1994. SR 3 is posted for 55 miles per hour (mph) and carries approximately 19,800 vehicles per day (vpd) between Finn Hill Road and SR 305.

SR 305 is also an urban principal arterial which connects the Winslow ferry terminal on Bainbridge Island to SR 3 in the Poulsbo area. SR 305 is typically a two/three lane facility with left-turn channelization provided at major intersections in the study area such as Hostmark Street, Lincoln Road, Bond Road and Viking Way. (Note: All four intersections are currently signalized.) The posted speed on SR 305 ranges from 55 mph outside Poulsbo city limits to 35 mph within the Poulsbo business district. SR 305 carries approximately 17,900 vpd south of Bond Road and 21,300 south of Hostmark Street within the City of Poulsbo.

Finn Hill Road is a two-lane collector arterial with left-turn channelization provided at the intersections with Viking Way/Lindvig Way and the SR 3 southbound on-ramp. Finn Hill Road connects Lindvig Way and Viking Way to Clear Creek Road on the west side of SR 3. The posted speed limit is 25 mph east of SR 3 and 35 mph west of SR 3. Finn Hill Road carries approximately 4,400 vpd and 8,400 vpd to the west and east of SR 3, respectively.



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TRAFFIC IMPACT STUDY

OLHAVA PROPERTY

POULSBO, WA

LEGEND

- PRINCIPAL ARTERIAL
- MINOR ARTERIAL
- COLLECTOR ARTERIAL
- MINOR COLLECTOR
- LOCAL ROADWAYS

FIGURE 5B

ARTERIAL FUNCTIONAL CLASSIFICATION SYSTEM

Bond Road (aka SR 307) is a two-lane minor arterial with left-turn channelization provided at SR 305 and Little Valley Road intersections. Bond Road connects SR 104 and the Kingston/Streibels Corner area of north Kitsap County to the City of Poulsbo. Bond Road is posted for 35 mph within Poulsbo city limits and carries approximately 12,000 vpd between SR 305 and Little Valley Road.

Viking Way is a two/three land principal arterial which runs parallel/east of SR 3 and connects SR 305 to SR 308, where it becomes Silverdale Way and continues south to Silverdale and Bremerton. SR 308 provides a primary connection to Bangor and Keyport naval bases. Viking Way is posted for 35 mph and carries approximately 22,800 and 9,100 vpd south and north of Finn Hill Road, respectively.

Front Street is a two-lane urban collector street, per City of Poulsbo Comprehensive Plan (June 1994), and provides primary access to Poulsbo's central business district. Front Street connects Hostmark Street To Lindvig Way at Bond Road along the eastern shoreline of Liberty Bay. It is posted for 25 mph and carries approximately 15,500 vpd south of Bond Road.

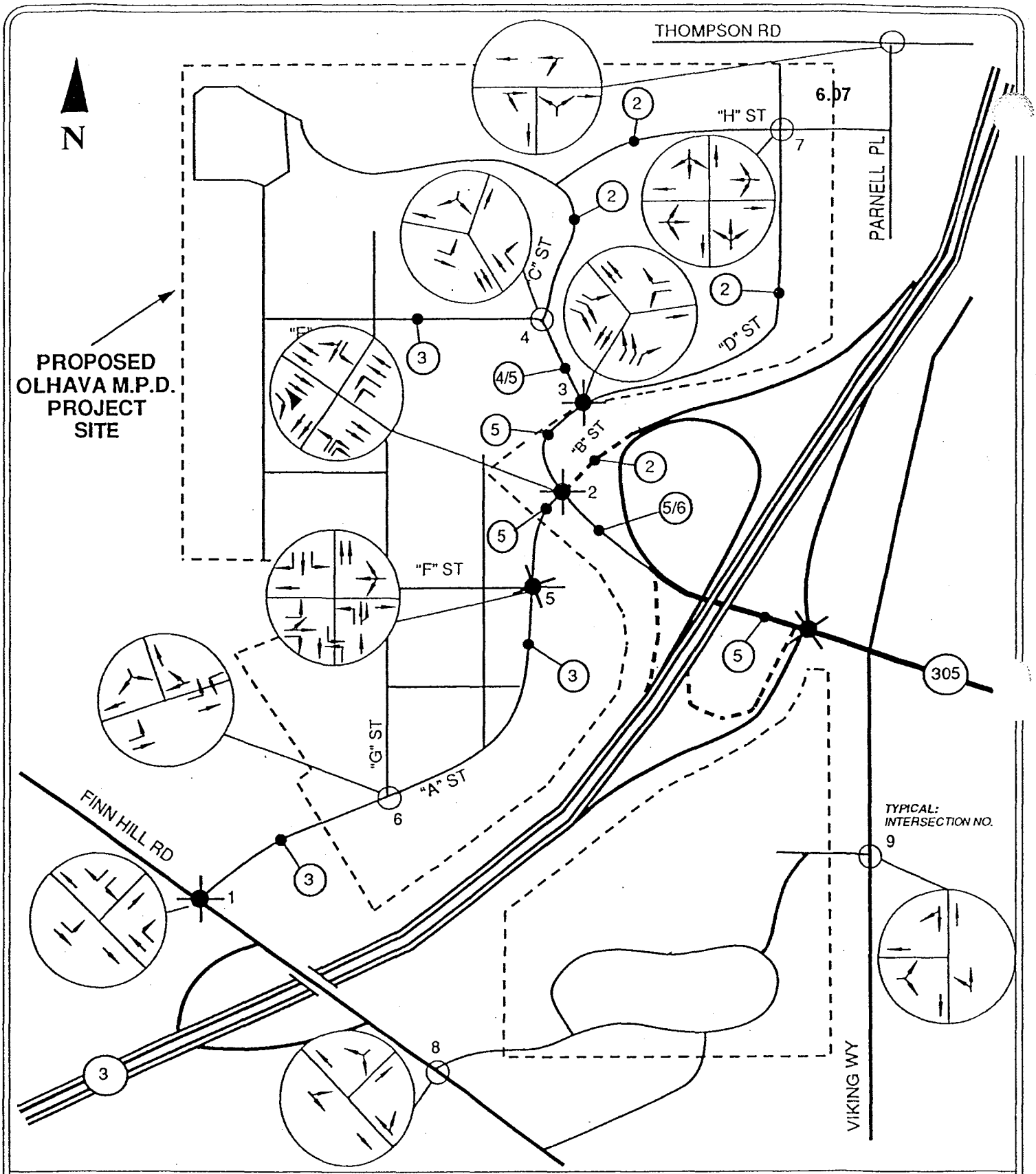
Lincoln Road is a two-lane minor arterial which connects the Indianola and south Kingston areas of north Kitsap County via Miller Bay Road to downtown Poulsbo. Lincoln Road is posted for 35 mph and carries approximately 5,100 vpd east of SR 305.

Traffic signals in the vicinity of the proposed Olhava Property development are presently operating at the intersections of SR 305 with Hostmark Street, Lincoln Road, Bond Road, Viking Way, and the intersection of Viking Way/Finn Hill Road.

B. On-Site Internal Street System

The proposed on-site street system, with traffic lanes and channelization required for efficient traffic flows and internal circulation at full buildout of the Olhava development, are shown in Figure 5C. The proposed extension of SR 305 to the Olhava development would require a 6-lane roadway section to accommodate two through lanes and two left-tum lanes westbound and two through lanes eastbound, with the potential of a third eastbound "drop" lane for the proposed SR 3 southbound on-ramp. The Olhava project's frontage road is designated as "A" Street south of SR 305 and as "B" Street to the north. The A/B Street frontage road would be designated as an arterial, with 5-lane street sections required at the SR 305 junction (between "D" and "F" Streets) to accommodate projected 2004 traffic volumes for full build-out of the mixed-use Olhava development. Between Finn Hill Road and "F" Street, the primary access to the shopping center area, "A" Street would be narrowed to a three-lane section with one travel lane in each direction plus a center left-turn lane to accommodate turning traffic to/from various commercial driveways.

The northern portion of the frontage road west of SR 3 includes "B" and "D" Streets. The "B" Street intersection with "D" Street would be designed to accommodate through traffic toward the Olympic College campus and the adjacent business park. "D" Street would access the northeast community park and connect north to Parnell Place and Thompson Road via "H" Street.



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TRAFFIC IMPACT STUDY

OLHAVA PROPERTY

POULSBO, WA

LEGEND

(4/5) TOTAL LANES REQUIRED FOR NEW STREET SECTION

TRAFFIC SIGNAL NEEDED

FIGURE 5C

PROPOSED INTERNAL CHANNELIZATION & SIGNAL/ LANE REQUIREMENTS

"D" Street would be stop-controlled at the "B" Street intersection and require a two-lane street section since projected volumes are low to moderate (4,300 adt). "C" Street would be constructed as a two lane section from "B" Street to the main entrance to the college campus. Inbound college students would be routed onto "E" Street west towards the main student parking area and Planning area 9. "E" Street would require a three-lane roadway section to accommodate projected traffic (13,800 adt) and left-turn to/from retail and restaurant uses planned along this through route. "D" Street and "E" Street would be designated as collector streets while other streets would be constructed as local access roadways.

5.3 NON-MOTORIZED TRANSPORTATION SYSTEM

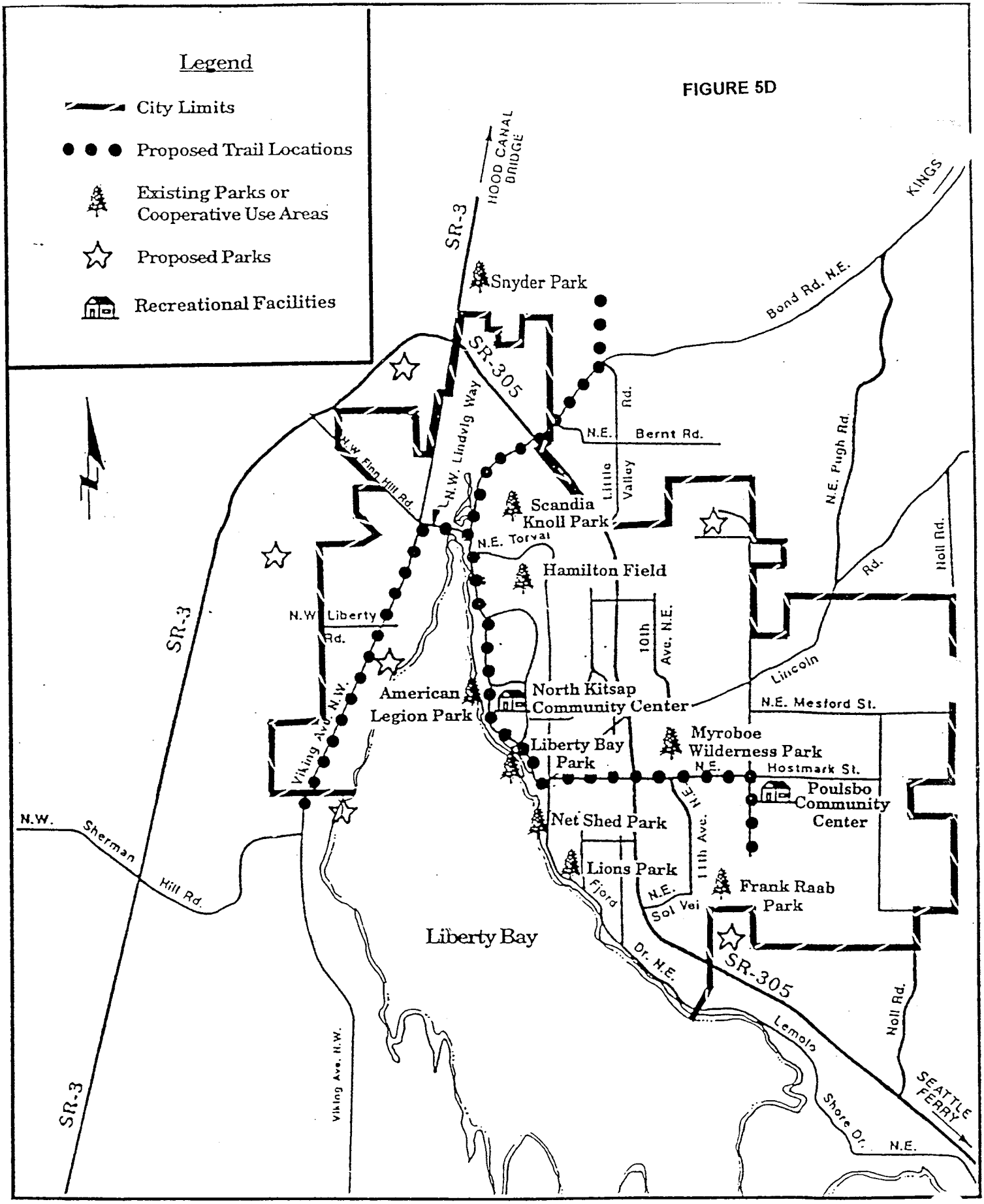
A. Existing Pedestrian and Bicycle Facilities

Pedestrian and bicycle traffic on the arterial system adjacent to the planned Olhava development currently utilize paved shoulders for the most part. Finn Hill Road has 4-5 foot paved shoulders on both sides of the roadway from the proposed southern access (formerly Nike facility access) to the Finn Hill Terasse residential development east of SR 3. Between the Terasse development and Viking Way (where secondary access to Planning Areas 1 and 2 is planned for improvements), Finn Hill Road has an urban street section with 5-foot sidewalks on both sides. The new Finn Hill Road/SR 3 overpass includes 5-foot paved shoulders on each side of the two-lane road section which will allow pedestrian/bicycle linkage. West of the proposed frontage road access, no sidewalks or paved shoulders are provided on Finn Hill Road except at the intersection with Rhododendron Lane where paved shoulders are provided. Non-motorized traffic presently shares the roadway with vehicular traffic on Parnell Place, which connects to Thompson Road and would provide a secondary access to the Olhava development for local residents to the north. Thompson Road has 2-3 foot paved shoulders on both sides for non-motorized travel. Between SR 305 and Finn Hill Road, Viking Way has 3-4 foot paved shoulders on both sides of the arterial which could be used for pedestrian and bicycle travel to/from Planning Areas 1 and 2. SR 305 has standard 8-foot State highway paved shoulders on both sides of the highway for pedestrian and bicycle travel. SR 305 and SR 3 are currently designated as Class 3 bicycle routes in the City of Poulsbo Comprehensive Plan (June 1994). Low traffic volumes upon County roads in the study area provide relatively safe non-motorized travel with low accident rates.

B. Proposed Non-Vehicular Transportation Routes

The Poulsbo Comprehensive Plan identifies Viking Way, Lindvig Way, Front Street, Hostmark Street and Bond Road as proposed trail routes as part of the City's *Park and Open Space Plan*. Potential non-vehicular transportation users of the City's proposed trail system include pedestrian, bicycle and equestrian movement. Future construction of specific trail segments need to conform to the City's current design standards for each potential user group. Per the City's Six-Year Transportation Improvement Program (TIP), sidewalk improvements are already programmed for the following arterials adjacent to the Olhava development: Finn Hill Road from Terasse Drive to the west city limits; Viking Way from Finn Hill Road to SR 305, and; Bond Road from Lindvig Way to SR 305.

FIGURE 5D



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EXISTING AND PROPOSED RECREATIONAL FACILITIES

The Olhava Property development proposes to augment these non-motorized facilities by providing internal pedestrian/bicycle paths and linkage to adjacent off-site facilities. A Class 2 bikeway will be constructed along the proposed frontage road from Finn Hill Road to Parnell Place. The access road (Street "H") between medium-density dwellings (Planning Area 8) and the business park (Planning area 5) would also provide pedestrian/bicycle facilities for users destined to/from Thompson Road via Parnell Place. Bicycle land and sidewalk facilities on the frontage road ("A" and "B" Streets) would connect to the SR 305 extension and provide pedestrian/bicycle access to downtown Poulsbo and Bainbridge Island. A trail loop facility for pedestrian/bicycle and possibly equestrian uses is also proposed for the southern parcel's residential uses (Planning Areas 1 and 2). The proposed trail loop would be located along the perimeter of the proposed single-family homes and connect to Finn Hill Road and ultimately west to the frontage road and the northern 174 acre parcel of the Olhava development, west of SR 3. A pedestrian/bicycle trail is also proposed within the Olympic College campus, which would be located along the north and west sides of the campus. Trail linkage will be provided to the campus network from Planning Areas 8 and 9 which, in turn, provide linkage to the community park site (See Planning Area 6).

5.4 DEVELOPMENT STANDARDS FOR INTERNAL STREET SYSTEM

Design of all streets and intersections for the Olhava Property development will comply with the latest revisions to the *City of Poulsbo Developer's Guide, Construction Standards and Specifications (1990 Addition), WSDOT Design Manual, AASHTO Policy on Geometric Design of Highways and Streets, and the Manual on Uniform Traffic Control Devices-MUTCD 1988 Edition.* Pedestrian and bicycle facilities will comply with Section 1020 of the *WSDOT Design Manual and ADA Requirements for Handicapped Access.*

A. Roadway Sections

The proposed streets will be designed in accordance with the City of Poulsbo Typical Sections (See Circulation Plan enlargements, next page) for residential and commercial streets. Street sections will typically include traffic lanes, left-turn channelization, parking lanes in some cases, curb, gutter, sidewalks and a landscaped area. Public right-of-way will meet minimum widths stipulated in the Standards, but may need to be increased depending on widening requirements for additional traffic lanes, left/right-turn channelization and bicycle/transit lane recommendations.

Project traffic volumes for the design year 2005 were used to determine lane configuration, channelization and traffic signal requirements at intersections. Minor modifications to the Poulsbo standards will be needed to accommodate future traffic volumes. These modifications may include additional traffic lanes and separate bicycle lanes. Special widening for bus stops is also anticipated along designated public transit routes where projected traffic volumes are higher.

The following illustration (*Circulation Plan)* delineates typical roadway crossections, traffic channelization, non-motorized routes, and Olhava project access.

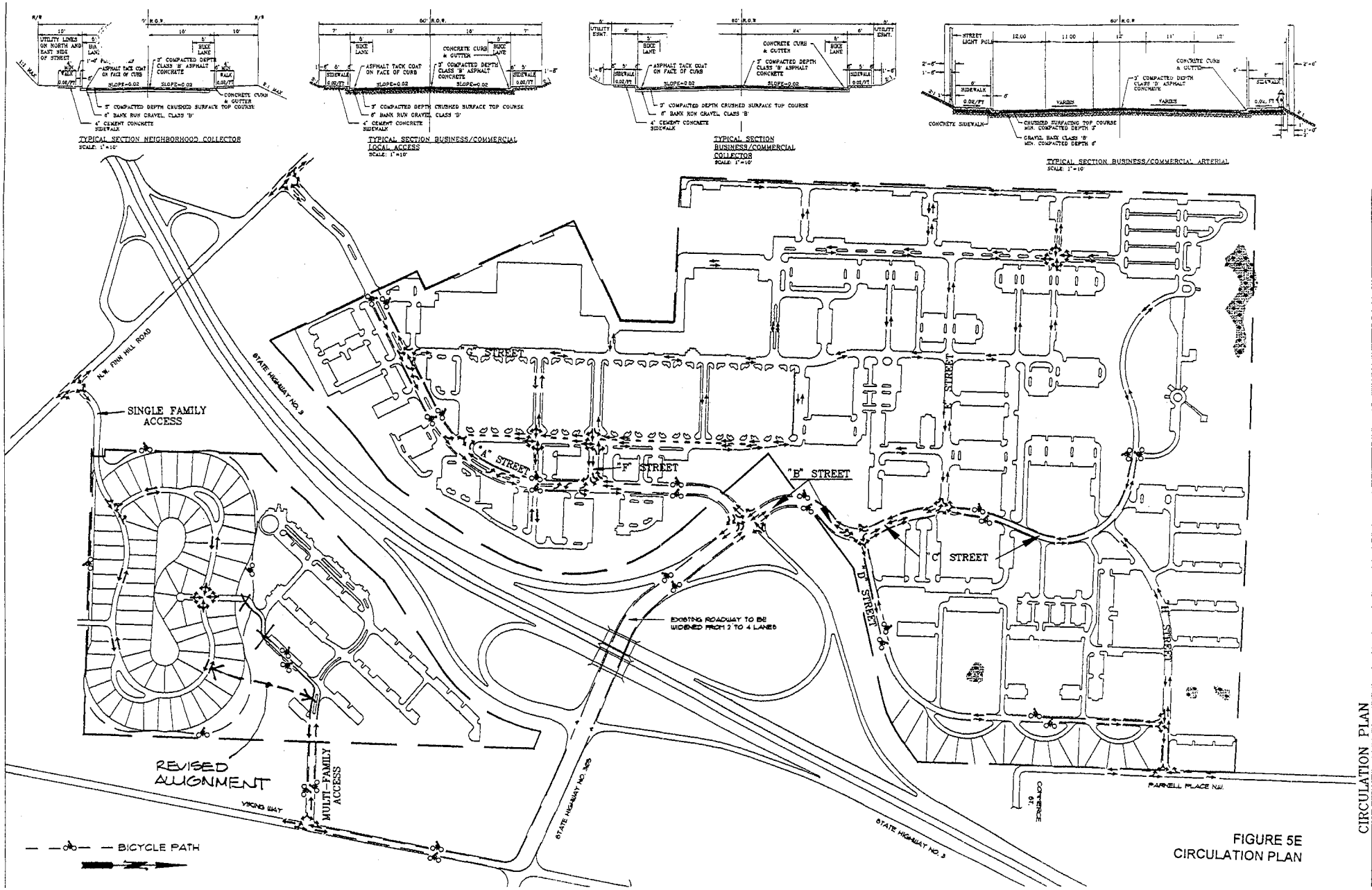


FIGURE 5E
CIRCULATION PLAN

CIRCULATION PLAN
OLHAVA MASTER SITE PLAN

Final designs will also include sidewalks and associated landscape architecture. Some raised landscape islands will be encouraged when left turn lanes are not necessary of required.

B. Proposed Street Sections

Street	Lanes	Right-of-Way	Curb Width	Bike Lanes	Sidewalk
A	5	100'	68'	2	8'
A	3	72'	48'	2	5'
B	5	100'	68'	2	8'
B	4	100'	58'	2	8'
C	4	100'	48'	2	5'
D	2	60'	48'	0	5'
E	3	60'	48'	0	5'
F	4	60'	48'	0	5'
G	2	50'	36'	0	5'
H	2	50'	36'	0	5'
OTHER COMMERCIAL			36' w/2 traffic lanes		5'
RESIDENTIAL		40'	24'	0	5'
RESIDENTIAL		50'	30'	2	5'

SR 305 from Viking Way to the project site will be widened to provide two travel lanes in both directions, right-turn "drop" lane at ramps plus duel left-turn lanes at "A" Street (frontage road). The widened SR 305 section will be designed in accordance with WSDOT standards and will include a sidewalk on one side of the street. Retaining walls will be required below both sides of the SR 3 overpass structure. Proposed SR 3 southbound and northbound on-ramps will also be constructed to typical ramp sections, per WSDOT standards. Construction of these access facilities will require WSDOT approval.

C. Public Intersections

There is one minor access intersection currently accessing the Olhava site west of SR 3 and one minor intersection accessing the proposed residential areas of the south 41 acre parcel. These intersections are located on Finn Hill Road and are substandard for projected traffic conditions with the Olhava development. There are three additional access intersections proposed for the Olhava project. A number of newly constructed internal intersections will be provided (see Figure 5C), connecting the proposed network of new commercial and residential streets.

Intersections located within the jurisdiction of the City of Poulsbo will be constructed or modified in accordance with the City Design Standards. Each intersection will include minimum geometric standards per AASHTO with 35-foot turning radii for curb returns. Each intersection will include curb ramps and wheelchair landings in accordance with ADA requirements.

Highway ramp intersections at SR 3/SR 305 and other SR 305 intersections will be constructed to the minimum standards of the WSDOT, pursuant to permits to be obtained from WSDOT.

D. Traffic Control Improvements and Requirements

To provide efficient and safe travel of planned traffic volumes, certain traffic operational controls are necessary. Control devices such as traffic signals, signing and striping, illumination and work zone traffic control are used when warranted. Designs for these improvements will follow current standards and guidelines.

The following intersections will require signalization with the Olhava Property development (refer to Figure 5C):

1. SR 3 northbound ramps at SR 305
2. SR 305 terminus with "A" and "B" Streets
3. "A" Street at "F" Street
4. "A" Street at Finn Hill Road
5. "B" Street at "D" Street

Illumination will be provided at all project intersections and internal streets in accordance with the City of Poulsbo design standards. Lighting for proposed SR 3 interchange ramps will follow current WSDOT guidelines.

All utilities for the project site will be located underground. Water, sanitary sewers and storm drainage will be located within the street right-of-ways, while electric power, telephone and television cables will be located in easements immediately outside public right-of-ways within suitable easements.

5.5 DEVELOPMENT STANDARDS FOR NON-MOTORIZED FACILITIES

A. Pedestrian Facilities

Pedestrian facilities for the Olhava developments commercial district are comprised of sidewalks, crosswalks, handicap-access ramps and pedestrian actuations at signalized intersections. Sidewalk design will be in accordance with the City of Poulsbo standards, with 8-foot wide sections on both sides for commercial arterial streets and 5-foot sections for business/commercial collector and local access streets. Residential streets and community arterials will have 5-foot sidewalks on both sides.

Planning Areas 1, 2, 8 and 9 (single-family and medium-density residential developments) will include a multi-purpose trail located within a 50-foot perimeter buffer area. These trails will be 5-feet wide and surfaced with an all-weather material (see Section 2.5.8 Development Standards).

A pedestrian sidewalk will be incorporated on the south side of the proposed SR 305 widening at the SR 3 interchange. Sidewalk design along designated State routes will be in accordance with Section 1020 of the WSDOT Design Manual, pursuant to permits to be obtained from WSDOT.

Streets A-D will each include two bicycle lanes which provide frontage road and loop-access to the Olympic College campus. This on-site arrangement provides linkage from Finn Hill Road to Parnell Place. Continued bicycle lanes within SR 305 to Viking Avenue then south to the 41 acre parcel provides linkage for this parcel. This linkage is augmented by the extension from Planning Area 1's secondary Rasmussen Court access to the "A" Street entrance, forming a complete bicycle circuit for the Olhava development.

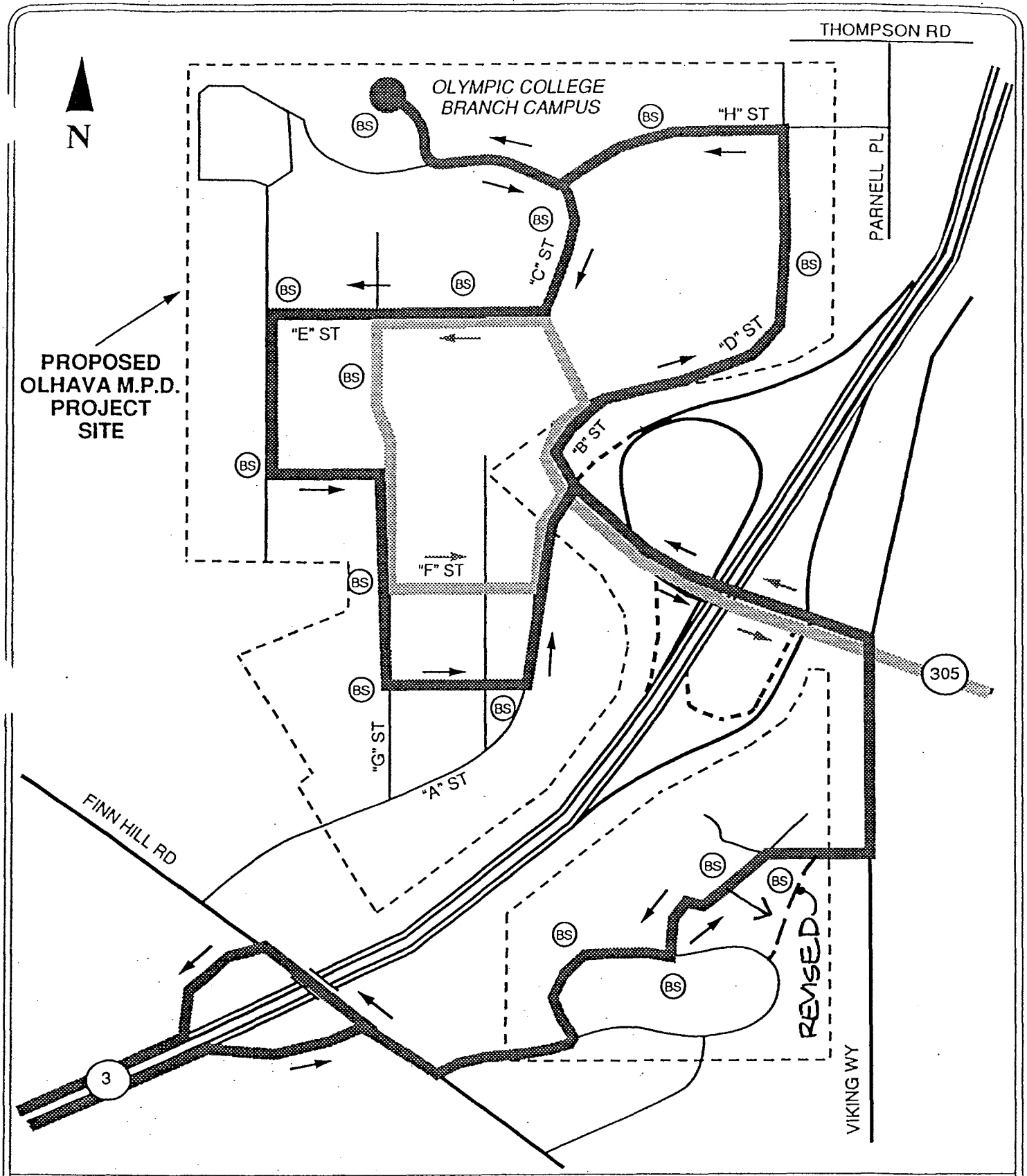
5.6 PUBLIC TRANSIT SERVICE & FACILITIES

A. Existing Services, Routes & Facilities

Public transit service in the vicinity of the Olhava project site is currently provided by Kitsap Transit, which provides fixed-route transit buses, demand-responsive paratransit vehicles, carpool vans, and employee/driver vehicles within its service fleet. Park-n-Ride lots in the project vicinity are located at Poulsbo Junction (Lindvig Way/Viking Way) and Poulsbo Nazarene Church (SR 305/Old SR 3- Viking Way). Existing fixed-transit routes serving the project vicinity include Routes 32, 33, 42 and 90. Arterial routes adjacent to the proposed Olhava development served by Kitsap Transit include: Viking Way, SR 3, SR 305, Lindvig Way, Bond Road, and Front Street. Transit service is presently provided from Poulsbo to Silverdale, Bremerton and Port Orchard areas south of the project site; Bainbridge Island to the east; as well as Hansville and Kingston areas to the north.

B. Proposed On-Site Transit Service & Stops

Based on preliminary discussions with Kitsap Transit, public transit routes/services would be provided to the proposed Olhava development. As shown on Figure 5F on the following page, two primary bus routes would be provided which would serve all land uses and Planning Areas of the Olhava Master Plan development. These include: 1) *Local Route* to Poulsbo via SR 305 and Front Street, with a one-way circulation loop around the shopping center and retail buildings but would also serve the business park and college campus, and; 2) *Express Route* to Silverdale via SR 3 south, with larger one-way circulation loop connecting to retail uses as well and the residential areas and a special turnaround at the Olympic College campus. Potential bus stop locations have been identified by Kitsap Transit, as illustrated by 5F. Bus stops would be provided by widening proposed bicycle lanes (from 5 to 8 feet) where located on primary internal roadways ("A", "B", "C" and "D" Streets), or by constructing standard bus pullouts on secondary roadways without bicycle lanes ("E", "F", "G" and "H" Streets); these specific design solutions will be coordinated with Kitsap Transit, based on transit timing, headways, and projected patron utilization for the planned local and express bus routes.



GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY

OLHAVA PROPERTY

POULSBO, WA

LEGEND

LOCAL POULSBO ROUTE

SILVERDALE EXPRESS ROUTE

(BS) POTENTIAL BUS STOP LOCATIONS

FIGURE 5F

PROPOSED ON-SITE TRANSIT ROUTES

5.7 PROPOSED TRAFFIC MITIGATION IMPROVEMENTS

A. Off-Site Intersection Improvements

This section describes recommended signal/channelization improvements at various off-site intersections which will be impacted by the Olhava development. Fair share contributions are calculated based upon existing traffic counts and projected traffic volumes which would result from the Olhava development and its estimated 10-year buildout program. The resulting increase in traffic volumes, directly relating to the projected uses of the Olhava Property, becomes the fair share value suggested as mitigation costs to developers of the Olhava Property. Recommended off-site mitigation improvements needed by 2005 (horizon for full build-out) and the Olhava developments proportionate shares are summarized in Figure 5H.

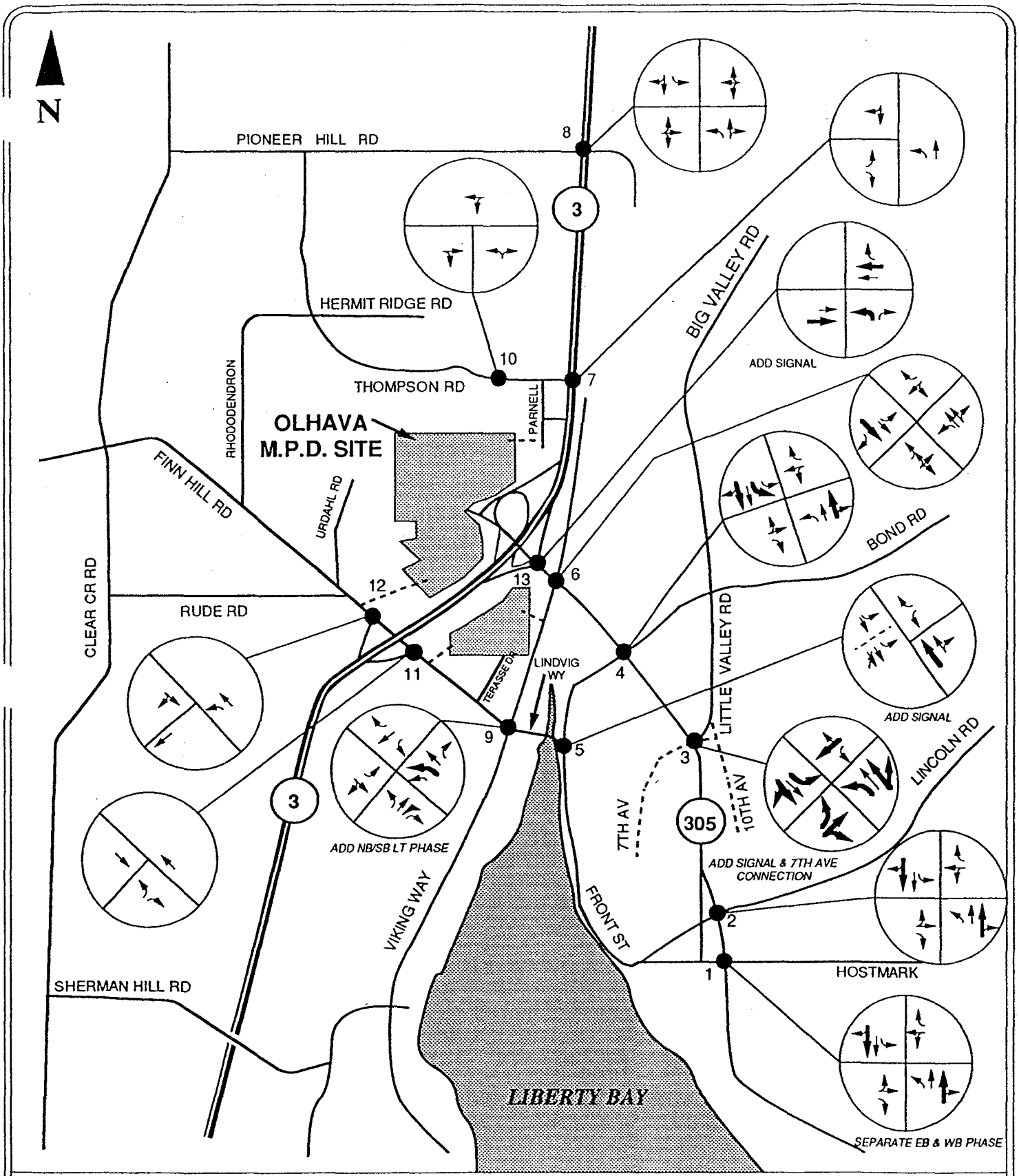
1. SR 305 @ Hostmark Street- Addition of second northbound and southbound through-lanes on SR 305 with separate eastbound and westbound signal phasing. The City of Poulsbo has a programmed improvement which includes this intersection for widening of SR 305; therefore, a proportionate share would be contributed by the Olhava Property owners to this programmed improvement. (Project Share = 19.1%).

2. SR 305 @ Lincoln Road- Widening of SR 305 to provide second northbound and southbound through-lanes on SR 305. Since these intersection improvements are also a part of Poulsbo's programmed SR 305 improvement, a proportionate share of the costs would be contributed by the developer to the improvement project. (Project Share = 22.5%).

3. SR 305 @ Little Valley Road- In addition to the City of Poulsbo/Hattaland programmed improvements, the addition of a second northbound and southbound through-lane on SR 305 would be required to improve the traffic flow at this location resulting from the Olhava development. (Project Share = 21.6%).

4. SR 305 @ Bond Road- Rechannelization of this intersection has been identified by WSDOT as an improvement project without the proposed Olhava project, therefore, a proportionate contribution of the WSDOT ultimate improvement project is recommended. Although channelization plans have not yet been identified, widening is recommended for second northbound and southbound through-lanes on SR 305 and the addition of a second southbound left-turn.

5. Lindvig Way @ Bond Road- The City of Poulsbo has programmed signalization of the Lindvig/Bond Intersection. To Improve projected peak conditions with/without the Olhava project, protected/permissive signal phasing for the eastbound left-turn movement is recommended. A further recommendation is the restriping of the center turn lane as a second westbound through-lane and converting the inside eastbound through-lane to the left-turn lane as direct mitigation of the Olhava development impacts. (Project Share = 11.1%).



GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY

OLHAVA PROPERTY

POULSBO, WA

LEGEND

- EXISTING LANES/CHANNELIZATION
- PROPOSED /NEW LANES
- OFF-SITE STUDY LOCATIONS

FIGURE 5G

FUTURE OFF-SITE CHANNELIZATION AND LANE REQUIREMENTS

6. SR 305 @ Viking Avenue- It is recommended that SR 305 be widened to provide a second eastbound through-lane on SR 305; this would improve 2005 peak conditions to acceptable service levels with the proposed Olhava development. (Project Share = 39.9%).

7. SR 3 @ Thompson Road- Left-turn channelization is currently provided at this intersection on both SR 3 and Thompson Road approaches. Since projected peak conditions for the year 2005 would not degrade with the proposed Olhava development, mitigation is not required.

8. SR 3 @ Pioneer Hill Road- Left-turn channelization is presently provided on the SR 3 approaches at this intersection. Projected 2005 peak conditions would not degrade with the Olhava development at full occupancy, and no mitigation is required.

9. Viking Way @ Finn Hill Road- The addition of a second left-turn lane for the westbound Lindvig Way approach and revision of the signal phasing to include a protected northbound and southbound left-turn phase are recommended to improve 2005 peak conditions to an acceptable service level with the Olhava project. Since the City of Poulsbo currently lists this intersection as a programmed improvement location, a proportionate share of construction costs would be contributed by the Olhava developers as mitigation of direct impacts at this location. (Project Share = 7.7%).

10. Thompson Road @ Parnell Place- The projected 2005 service level at this intersection would be desirable with or without the proposed Olhava development. Therefore, no mitigation is required.

11. SR 3 NB Off-Ramp @ Finn Hill Road- The recently reconstructed SR 3 northbound (NB) off-ramp to Finn Hill Road would be impacted by the Olhava development but would operate at an acceptable service level in 2005 at full buildout. No mitigation is required at this location.

12. SR 3 SB On-Ramp @ Finn Hill Road- This new SR 3 on-ramp from Finn Hill Road would be used by a significant percentage of the Olhava developments traffic but would still operate at acceptable service levels in 2005 at full buildout. No mitigation is required at this ramp location.

13. SR 305 @ SR 3 NB On/Off Ramps- Addition of second eastbound and westbound through lanes and new eastbound right-turn lane on SR 305 plus installation of a traffic signal are required to accommodate projected traffic volumes with the Olhava development. The SR 3 northbound off-ramp would need to be widened to accommodate an extended left-turn lane and planned NB loop on-ramp constructed to accommodate peak traffic generated by the Olhava development. (Project Share = 48.4%).

14. SR 305 Widening between SR 3 NB/SB Ramps- The section of SR 305 between SR 3 NB and SB ramp junctions would require widening to include an additional through-lane in each direction with shoulder improvements and on-ramp drop lanes. Retaining walls would be required as part of the roadway widening below SR 3 to maintain support of the SR 3 NB/SB bridge structures. (Project Share = 71.8%).

15. SR 3/SR 305 Interchange Improvements- Various other ramp improvements would be required at the SR 3/SR 305 interchange, including: 1) construction of the SR 3 south-bound off-ramp extension into the project site (Project Share = 53.6%); 2) construct new SR 3 southbound on-ramp from SR 305 (Project Share = 100%); and, 3) construct new SR 3 northbound loop on-ramp (Project Share = 100%). Note: The new NB and SB on-ramps are planned for construction by WSDOT as part of Stage 3 construction for the SR 3/SR 305 interchange (see additional details in next section).

FIGURE 5H

Off-Site Mitigation Requirements and Project Shares

No.	Location	Improvement Project	Project Share
1	SR-305 @ Hostmark Street	Add second NB/SB through lane on SR-305; also Poulsbo TIP project	19.1%
2	SR-305 @ Lincoln Road	Add second NB/SB through lane on SR-305; also Poulsbo TIP project	22.5%
3	SR-305 @ Little Valley Road	Add second NB/SB through lane on SR-305; connect 7th and 10th Avenue NE; also Poulsbo/Hattaland project	21.6%
4	SR-305 @ Bond Road	Add second NB/SB through lane on SR-305 and second SB left-turn lane; also Poulsbo TIP project	31.0%
5	Lindvig Way @ Bond Road	Signalization by City; restripe center turn lane for WB through lane; convert EB inside lane to EB left-turn lane	11.1%
6	SR-305 @ Viking Way	Add second EB through lane on SR-305	39.9%
7	SR-3 @ Thompson Road	No mitigation required	
8	SR-3 @ Pioneer Hill Road	No mitigation required	
9	Viking Way @ Finn Hill Road	Add second WB left-turn lane; provide left-turn phasing for NB/SB approaches; also Poulsbo TIP project	7.7%
10	Thompson Road @ Parnell Place	No mitigation required	
11	SR-3 NB Off-Ramp @ Finn Hill Road	No mitigation required	
12	SR-3 SB On-Ramp @ Finn Hill Road	No mitigation required	
13A	SR-305 @ SR-3 NB On/Off Ramp	Add second EB/WB through lane on SR-305 and install traffic signal	48.4%
13B	SR-3/SR-305 Interchange	Widen the NB off-ramp to extend the left-turn lane	7.5%
14	SR-3/SR-305 Interchange	Widen SR-305 to provide second EB/WB through lanes between SR-3 NB and SB off-ramps and drop lanes for new ramps	71.8%
15A	SR-3/SR-305 Interchange	Realign and extend SR-3 SB off-ramp to Olhava site; WSDOT Stage 2 project	53.6%
15B	SR-3/SR-305 Interchange	Construct new SR-3 SB on-ramp; WSDOT Stage 3 project	100.0%
15C	SR-3/SR-305 Interchange	Construct new SR-3 NB loop on-ramp; WSDOT Stage 3 project	100.0%

B. Recommended Improvements at SR 3/SR 305 Interchange

WSDOT has completed conceptual design layouts for a new southbound on-ramp (south side) and northbound on-ramp at the SR 3/SR 305 interchange. These future ramp improvements, along with widening of SR 305 to provide right-turn drop lanes to both ramps and replacement/widening of the SR 3 NB bridge structure to accommodate the new ramps, are scheduled for Stage 3 construction for the SR 3/SR 305 interchange improvements. The new southbound and northbound ramps would complete WSDOT's reconstruction of the SR 3 interchanges with SR 305 and Finn Hill Road and, in conjunction with the new frontage road through the Olhava project, would provide efficient traffic flow (loop ramps without left-turns required) and full access movements for State highway, local resident, and future Olhava development traffic.

The additional southbound on-ramp is needed with the Olhava development, since without the ramp all exiting site traffic to SR 3 south (Silverdale, Bangor, Bremerton, SR 16, etc.) would have to use the newly opened southbound ramp at Finn Hill Road. Without the second SB on-ramp at SR 305, average peak-hour delays would nearly double (10.2 to 18.5 seconds) at the Finn Hill/"A" Street intersection with substantial westbound traffic and queuing on the front road/"A" Street (745 vph projected for critical left-turn movement). Without the new northbound loop on-ramp to SR 3 north, exiting site traffic would either have to travel via Parnell Place to Thompson Road or make a left-tum onto the existing northbound on-ramp (from SR 305 westbound). The north routing through a residential neighborhood would significantly impact travel safety conditions plus Thompson Road and its junction with SR 3 would require substantial roadway and traffic control improvements. Allowing a left-turn movement with a significant peak volume (255 vph) at the northbound ramp junction is not recommended for traffic flow and safety reasons, due to the very high traffic volumes projected for SR 305 at the SR 3 interchange with or without the Olhava development. Moreover, peak LOS conditions would degrade to LOS "E" in 2005 with full build-out and to LOS "F" in 2014 at the NB ramp junction if the new loop on-ramp is not constructed with the Olhava project.

Based on the results of the SR 3 ramp/merge analysis and peak LOS analysis of critical access intersections with and without the proposed new SR 3 southbound and northbound (loop) on-ramps- as discussed in the *Olhava MPD Traffic Impact Analysis Report, Gibson Traffic Consultants* (attached as part of Olhava Master Plan) - it is recommended that both ramps be constructed when warranted as construction commences for first phase buildings.

C. Proposed Traffic Control/Channelization @ On-Site Intersections

The following traffic control and channelization improvements are recommended at internal/on-site intersections at the Olhava development. The proposed channelization/signal improvements are based on projected 2005 peak volumes and level of service conditions at full buildout and are summarized on Figure 5C, page 6 of this Chapter.

Proposed Traffic Control/Channelization @ On-Site Intersections (continued)

1. Finn Hill Road @ "A" Street- it is recommended that this intersection be signalized with westbound right and eastbound left-turn lanes to obtain safe and efficient traffic flow conditions. Note: Multi-way stop control may be appropriate and adequate for the first development phases.

2. "B" Street (SR 305 extension) @ "A" Street (frontage road)- this is the primary access intersection for the Olhava development. A new traffic signal is proposed at this location, with the following lane and channelization requirements: Left-turn lane and through-right lane for the southbound SR 3 off-ramp approach; two left-turn lanes and two through-lanes for the westbound approach; two through lanes and a right-turn lane for the eastbound approach; and, a single left-turn lane and two right-turn lanes for the northbound approach.

3. "B" Street @ "D" Street- this internal intersection is located just north of the primary intersection and serves the Olympic College, business park, retail uses (including hotel, bank, and high-turnover sit-down restaurants), and the two medium-density residential developments. Signalization is also recommended at this location for safe and efficient traffic flow. This intersection would include: two through lanes and a right-turn lane to "D" Street on the northbound "B" approach; separate left and right-turn lanes on the westbound approach from "D" Street; and, a left-turn lane and two through-lanes on the southbound "B" approach. Note: This intersection could be constructed for initial phases as a stop-controlled intersection ("D" Street traffic stopped).

4. "B" Street @ "C"/"E" Street- "C" Street would access the Olympic College main entrance (visitors) and Planning Area 8 (medium-density development). "E" Street would carry much higher traffic volumes since it would serve Planning Area 9 (medium-density development), Olympic College student parking, business park, and specialty retail uses. Consequently, this intersection would be designed with the primary/through movement between "B" Street and "E" Street to the west. Proposed channelization includes: Separate left-turn lane and single through-lane for the eastbound approach to "E" Street; a single shared lane on "C" Street southbound approach; and, separate through and right-turn lanes for the northbound "C" Street approach.

5. "A" Street @ "F" Street- This intersection is located south of the primary access intersection along "A" Street and serves as the internal junction for vehicles destined for the shopping center or office/specialty retail uses located between the frontage road and SR 3. The recommended channelization at this location includes: Separate right, through, and left-turn lanes for the southbound approach on "A" Street; an exclusive left-turn lane, a left-through option land and a right-turn lane for the eastbound approach on "F" Street; a separate left-turn pocket and two through lanes for the northbound approach on "A" Street; and a single shared lane for all movements from the westbound "F" approach. Due to the high volume of traffic projected for this internal intersection, unsignalized control (stop sign or multi-way stop) would result in unacceptable peak conditions. Therefore, signalization is recommended for this location which would improve peak operating conditions to an acceptable level and provide safe and efficient traffic flow.

6. "A" Street @ "G" Street- this intersection is located at the south end of the project site and provides the main access to the shopping center from Finn Hill Road access. A center turn lane on "A" Street provides left-turn channelization with single shared lanes for all other approaches. This location should operate at acceptable peak conditions for full buildout of the Olhava development with stop sign control for "G" Street.

7. "D" Street @ "H" Street- this intersection is located at the NE corner of the proposed Olhava development and would serve traffic utilizing the Thompson Road/Parnell Place access to the north. Single lane approaches for all four legs of this intersection would be sufficient for this location, with desirable peak conditions projected with full buildout of the mixed-use Olhava development in 2005.

8. Finn Hill Road @ Single-Family Access (e.g. Rasmussen Court)- Access to the proposed Planning Areas 1 and 2 would be provided at this new access onto Finn Hill Road. A single-lane shared approach to Finn Hill Road is adequate and the projected 2005 service level would be desirable. This intersection would also provide secondary access to residents located in the adjacent multi-family area (Planning Area 2) of the Olhava development.

9. Viking Way @ Medium-Density (Planning Area 2) access- access to this area would be provided by this new intersection onto Viking Way. No channelization improvements on Viking Way are required and a single shared lane approach on the access driveway would provide acceptable peak conditions. Residents of the adjacent sing-family development (Planning Area 1) would share this access to Viking Way.

OLHAVA PROPERTY INTEGRATED MASTER PLAN

CHAPTER SIX

DEVELOPMENT PHASING
AND
MASTER PLAN AMENDMENT PROCEDURES

6.0 PURPOSE OF THIS SECTION

The first part of this section describes development phasing intentions for the Olhava property, phasing which is planned to occur over a ten-year period. This planning represents the Olhava Associates' vision for facilitating the delivery of the various land use types of the master plan in logical order. Adequacy of governmental services (e.g. concurrency of the master plan with the City of Poulsbo Comprehensive Plan) are quantified in the *Development Phasing Matrix* (page 3); a detailed description of fiscal impacts is presented by Chapter 7 (*Fiscal Impact Analysis for the Olhava Master Plan*).

Like the Master Plan illustration, the presented phasing plan represents the Olhava Associates best current portrayal for future development. However, market fluctuations and individual tenant requirements will assuredly alter the presented master plan and phasing plans to some degree. Therefore, an amendment procedure, similar to the adopted Zoning Ordinance Amendment process, is outlined in the second part of this section. This amendment process is proposed for the Olhava Master Plan when building areas or unit counts exceed 15% of the Master Plan quantities presented herein, or, for situations where an individual tenant requires significant deviations from the approved Master Plan development standards.

6.1 DEVELOPMENT PHASING

The Olhava Property is planned to be developed over a ten-year period. While the Master Plan represents significant development for a variety of land uses, it is important to realize that impacts to the Poulsbo infrastructure will not immediately occur. These impacts have been quantified and represented within the phase they are expected to occur (*Development Phasing Matrix*). As described in Chapter 7, the net fiscal impact to Poulsbo will be favorable.

The following phase plan describes general construction improvements for the Olhava Property. Site construction will normally occur during fair weather seasons (Spring, Summer, Fall). Building construction will normally occur throughout the year. The first phase (Phase "a") must begin during the Spring of 1996 in order for Olympic College to maintain its construction program and, therefore, its requirements to the State of Washington funding programs.

Phase "a" (1996-1997) (See General Phasing Plan, next page)

This phase is planned to include construction of the frontage road from Finn Hill to the Olympic College site (Streets "A" and "C"), utility construction and general site preparation for building construction of Phase "b". New SR3/SR305 alignments and connections to this frontage road are currently being designed and submitted with an Access Report to WSDOT; if State design review and funding mechanisms are timely, this work could also be a part of this initial phase. Site work and utility construction for residential components of the southern 41 acre parcel will be conducted during this phase as well.

- **frontage road segment from Finn Hill Road to Olympic College site**
- **SR3/SR305 Interchange modifications (if practical at this time)**
- **utility infrastructure extension from Finn Hill Road to Viking Way via SR305**
- **complete any remaining Nike Facility remediation work**
- **Phase "b" site preparation**

Integrated Master Plan for the
Olhava Property
Poulsbo, Washington

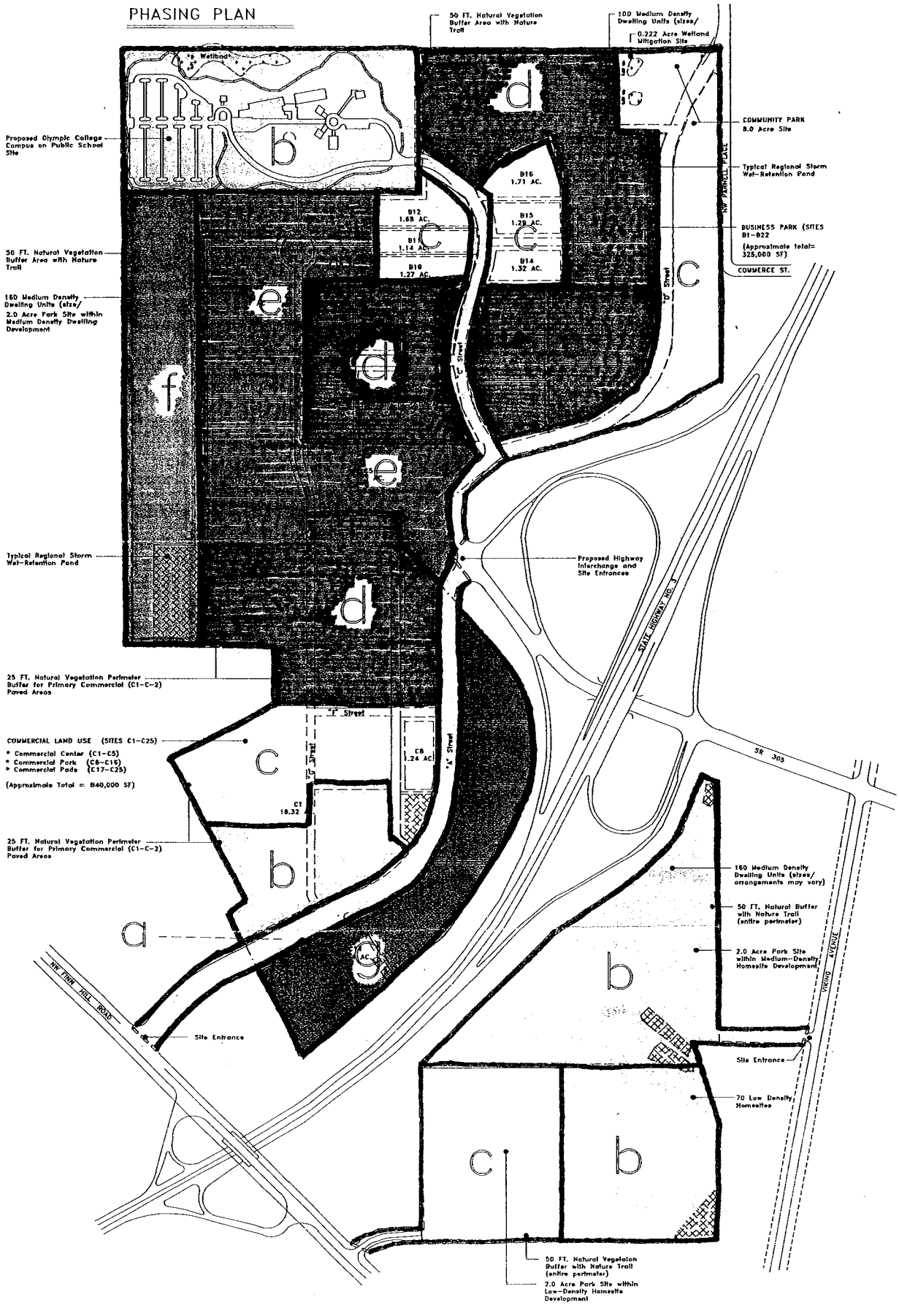
0 100 250 450
50 150 350

north

Developer: OLHAVA ASSOCIATES, L.P. (206) 775-6000
Design: KENT BERRYMAN & ASSOC. (360) 697-5535

Revision: September, 1995

PHASING PLAN



Phase "b" (1997-1998)

This phase is planned to include constructing 20% of the north parcel's primary shopping center (approximately 94,000 SF), 100% of the south parcel's medium-density dwelling units (approximately 160 dwelling units) and 50% of the low-density residential homesites (approximately 35 dwelling units). The south parcel's Viking Way access road will be constructed with this phase and utility infrastructure will be connected to Viking Way. Warranted highway improvements and other off-site traffic/utility mitigation will be completed during this phase. Phase "c" site preparation (e.g. clearing, grading, etc.) is planned to begin during this construction phase season. Road base or paving to the Olympic College site will occur, and construction is scheduled to begin for the first phase buildings of the Olympic College.

- **SR3/SR305 Interchange connection to Frontage Road Streets "A" and "C" if not completed in Phase "a"**
- **Olympic College first phase buildings begin construction**
- **warranted off-site traffic and/or utility mitigation**
- **construct 20% of primary shopping center (approximately 94,000 sf)**
- **construct south parcel Viking Way access road and utility connections**
- **construct 100% of medium-density dwelling units, south parcel, and neighborhood park (approximately 160 dwelling units)**
- **construct 50% of low-density homesites, south parcel, and neighborhood park (approximately 35 dwelling units)**
- **Phase "c" general site preparation**

Phase "c" (1998-1999)

This phase is planned to develop the remaining 50% of the south parcel's low-density residential homesites (approximately 35 dwelling units). The north parcel's development is planned to include construction of an additional 25% of the primary shopping center (approximately 117,000 sf), 15% of the business park (approximately 49,000 sf) and the first phase buildings of Olympic College are scheduled for completion during the fall of 1989. The frontage road's third segment (SR3/SR305 to Parnell Place NW) is planned for this phase. Warranted highway improvements and other off-site traffic mitigation and/or utility mitigation demands are noted by the *Development Phasing Matrix*, next page. Infrastructure will be available to the Community Park site during this phase's construction season.

- **frontage road segment from SR3/SR305 Intersection to Parnell Place NW**
- **utility infrastructure extension from SR3/SR305 Intersection to Parnell Place NW**
- **complete Olympic College first phase buildings (fall '98)**
- **warranted SR3/SR305 Interchange/Highway improvements**
- **warranted off-site traffic and/or utility mitigation**
- **construct an additional 25% of primary shopping center (45% of total)**
- **infrastructure available to community park site**
- **Phase "d" general site preparation**

INTEGRATED MASTER PLAN

OLHAVA PROPERTY

DEVELOPMENT PHASING MATRIX

SEPT. 1995

PHASE	YEAR	WATER (1) DEMAND AVE GPD / PEAK GPM	SEWER (2) DEMAND AVE GPD / PEAK GPM	STORM DETENTION	TRAFFIC (3)	ADDITITIONAL CITY PERSONNEL			SINGLE FAMILY (units)	MULTI FAMILY (units)	PRIME COMMERCIAL (sf)	SECOND COMMERCIAL (sf)	BUSINESS PARK (sf)	OLYMPIC COLLEGE (sf)	COMMUNITY PARK (acres)	NEIGHBOR. PARKS (acres)	BIKE LANES (lf)	PERIMETER TRAILS (lf)	REMARKS
							FIRE	POLICE											
a	1996 1997	0 / 0	0 / 0	PONDS 5, 6A, 7	(4,7,8)		0	0	0	0	0	0	0	0	0	0	0	0	FRONTAGE ROADS/CLEARING/ GRADING FOR STREETS "A" & "C" UTILITY/STORM DRAINAGE CONSTRUCTION FOR PHASE B, SEWER TRUNK LINE TO LINDVIG LIFT STATION
b	1997 1998	88,560 / 123	59,328 / 103	PONDS 1, 6B,8A–D, 9–12 TANKS 1–4	(5,6,9,10)		0	0	35	160	94,000	0	0	START 35,000	0	2	4800 STREETS A & C	3100 SO. PARCEL	FRONTAGE ROAD/CLEARING/GRADING FOR STREET "D" UTILITY/STORM DRAINAGE CONSTRUCTION FOR PHASE C SO. PARCEL BUFFER/TRAIL CONSTRUCTED
c	1998 1999	86,500 / 120	56,230 / 97	COLLECTION SYSTEM	(11–14)		+1	+1	35	0	117,000	0	49,000	FINISH FALL '93	8	2	1730 STREETS D & H	1900 SO. PARCEL	COMMUNITY PARK SITE PREPARATION CONSTRUCT PRIMARY COMMERCIAL + 2ND SF RESIDENTIAL AREA. SITE PREP FOR PHASE D NEIGHBORHOOD PARK/MED DENSITY
d	1999 2000	60,640 / 84	39,400 / 68	COLLECTION SYSTEM	(15–18)		0	0	0	100	94,000	56,000	65,000	0	0	0	0	900 NO. PARCEL MED DENSITY	COMMERCIAL, BUSINESS PARK, MED. DENSITY DEVELOPMENT SITE PREP FOR PHASE E
e	2000 2001	32,540 / 45	21,154 / 37	UPGRADE WSDOT POND FACILITIES	(19–23)		0	+1	0	0	165,000	93,000	81,000	0	0	0	0	0	PRIME COMMERCIAL, BUSINESS PARK, SECONDARY COMMERCIAL DEVELOPMENT SITE PREP FOR PHASE F
f	2001 2002	65,520 / 91	35,710 / 62	COLLECTION SYSTEM	(24–25)		0	0	0	160	0	0	0	0	0	2	2	1260 NO. PARCEL MED DENSITY	MED. DENSITY RESIDENTIAL DEVELOPMENT CONSTRUCT NEIGHBORHOOD PARK & BUFFER/TRAIL SITE PREP FOR PHASE G
g	2003 2005	33,840 / 47	19,008 / 33	COLLECTION SYSTEM	—		+1	+1	0	0	0	222,000	130,000	0	0	0	0	0	IN–FILL CONSTRUCTION OF ALL SECONDARY COMMERCIAL AND BUSINESS PARK USES NOT PREVIOUSLY DEVELOPED COMPLETE PROJECT
	10 YEARS	367,600 / 510	230,800 / 400				1.9	2.65	70	360	470,000	371,000	325,000	35,000+	8	6	6530	7160	

(1)– AVERAGE GALLONS PER DAY/PEAK GALLONS PER MINUTUS PHASE OR PRE–DEVELOPMENT CONDITION
(2)– AVERAGE GALLONS PER DAY/PEAK GALLONS PER MINUTE INCREASE FROM PREVIOUS PHASE OR PRE–DEVELOPMENT CONDITION INCLUDING INFLOW/INFILTRATION ALLOWANCES
(3)– FROM TRAFFIC IMPACT ANALYSIS AND ACCESS REPORT PREPARED BY GIBSON TRAFFIC CONSULTANTS
(4)– CONSTRUCT FRONTAGE RDAD FROM FINN HILL ROAD TO OLYMPIC COLLEGE VIA SR3/SR305 INTERCHANGE
(5)– REALIGHN SR3 SOUTHBOUND OFF–RAMP WITH "A" STREET FOR A 'T' INTERSECTION
(6)– 3–WAY STOP INSTALLED AT SR305/SB OFF–RAMP INTERSECTION + STOP SIGN ON "A" STREET APPROACH TO FINN HILL INTERSECTION
(7)– CONSTRUCT FRONTAGE ROAD "C" TO OLYMPIC COLLEGE SITE
(8)– CONSTRUCT VIKING WAY ACCESS ROAD TO SOUTHERN PARCEL
(9)– RESTRIPE SR3 NORTHBOUND OFF–RAMP AT SR305 FOR SEPARAGE LEFT AND RIGHT–TURN LANES
(10)– RESTRIPE SR305 WEST OF THE NB RAMPS FOR 3–LANE SECTIDN W/ CENTER LEFT TURN EB AT SR3 NB ON–RAMP AND WB AT "A" STREET/SB OFF–RAMP
(11)– CONSTRUCT FRONTAGE ROAD "C" TO PARNELL PLACE NW
(12)– INSTALL SIGNAL + CHANNELIZATION IMPROVEMENTS AT SR305/"A" STREET/SR3 SB OFF–RAMP INTERSECTION
(13)– CHANNELIZATION IMPROVEMENTS AT FINN HILL/"A" STREET INTERSECTION
(14)– CONSTRUCT SB RIGHT–TURN LANE ON "A" STREET AT "F" STREET + INSTALL MULTI–WAY STOP CONTROL AT THIS INTERNAL INTERSECTION
(15)– INSTALL TRAFFIC SIGNAL AT SR305/SR3 NB RAMP INTERSECTION W/ SEPARAGE PHASING FOR EB LEFT–TURN MOVEMENT
(16)– WIDEN NORTH FRONTAGE ROAD "A" STREET TO 3–LANE SECTION FROM FINN HILL ROAD TD SR305 JUNCTION, W/ CENTER TWO–WAY LEFT–TURN LANE PROVIDED
(17)– INSTALL TRAFFIC SIGNAL AT FINN HILL/"A" STREET
(18)– WIDEN FINN HILL ROAD FOR EB RIGHT–TURN LANE AT SR3/SR305 SB ON–RAMP INTERSECTION
(19)– CONSTRUCT NEW SR3 SB ON–RAMP AT SR305 W/EB RIGHT–TURN LANE TO SR305 WEST OF RAMP JUNCTION

(20)– WIDEN SR305 BETWEEN SR3 RAMPS TO PROVIDE 2 THRU LANES BOTH DIRECTIONS
(21)– WIDEN SR305 AT "A" STREET/SR3 SB OFF–RAMP FOR SECOND WB LEFT–TURN LANE
(22)– INSTALL TRAFFIC SIGNALS AT "A" AND "F" STREETS + "B" AND "C"/"D" STREETS
(23)– WIDEN FRONTAGE ROAD "A" STREET (5 LANE) TO "F" STREET; WIDEN "B"/"C" STREETS TO 3 LANES FROM SR305 TO "E", WIDEN "E" TO 3 LANE SECTION
(24)– WIDEN "B" AND "C" BETWEEN "B" AND "E" TO 5 LANES W/ EB RIGHT–TURN LANE ON "B" APPROACH TO SR305/"A" INTERSECTION
(25)– WIDEN SR305 APPROACH AT "A" STEET TO PROVIDE SECOND WB THROUGH LANE

Phase "d" (1999-2000)

This phase is planned to include constructing an additional 20% of the primary shopping center (approximately 94,000 sf), 100% of medium-density Planning Area 8 (approximately 100 dwelling units), an additional 20% of the business park (approximately 65,000sf) and 15% of the secondary commercial sites (approximately 56,000 sf). Warranted highway and other offsite traffic/utility mitigation will be completed (see *Development Phasing Matrix*, previous page) along with general site preparation for Phase "e".

- **warranted traffic and/or utility mitigation**
- **construct additional 20% primary shopping center (65% of total)**
- **construct 100% of medium-density (Planning Area 8)(approximately 100 dwelling units**
- **construct additional 20% business park (approximately 65,000 sf, 35% of total)**
- **construct 15% secondary commercial (approximately 56,000sf, 15% of total)**
- **Phase "e" general site preparation**

Phase "e" (2000-2001)

This phase is planned to include an additional 25% of the business park (approximately 81,000 sf), the remainder of the primary shopping center construction (approximately 165,000 sf) and 25% of the secondary commercial sites (approximately 93,000 sf). Warranted highway improvements and other off-site traffic/utility mitigation and general site preparation for Phase "f" are planned to occur during this construction phase season.

- **warranted traffic and/or utility mitigation**
- **construct remaining primary commercial center (approximately 165,000 sf, 100% of total)**
- **construct additional 25% business park (approximately 81,000 sf, 60% of total)**
- **construct additional 25% secondary commercial (approximately 93,000 sf, 40% of total)**
- **Phase "f" general site preparation**

Phase "f" (2001-2002)

This phase is planned to include the construction of Planning Area 9 medium-density residential dwellings (approximately 160 units) and any remaining warranted traffic and/or utility mitigation. A neighborhood park site will be developed within Planning Area 9.

- **complete any remaining warranted traffic/utility mitigation**
- **construct medium-density dwellings of Planning Area 9 (approximately 160 dwelling units)**
- **develop neighborhood park site within Planning Area 9**

Phase "g" (2003-2005+)

This phase is planned to include the completion of all land uses not previously developed. The balance of land uses might include secondary commercial (approximately 222,000 sf) and the remaining office park space (approximately 130,000 sf).

6.2 PROPOSED AMENDMENT PROCESS

The Olhava Master Plan has two components which could be subject to change in the future: (1) the infrastructure of roads, utilities and other services, and (2) the location, size and use of the various structures to be developed in the project.

The infrastructure design is not likely to change significantly, although it is possible. Any amendment to the infrastructure would be proposed at the time specific plans for a phase of the project are submitted to the City for review and approval. Any change that is likely to increase the loading on utilities, roads or other public services above the capacity levels for those facilities which were assumed in the original Master Plan approval shall be considered to be potentially substantial. In the event of such a proposed change, the developer shall submit such studies or plans regarding the impact of the change on the capacity of the City's public facilities as is necessary for the Director of the Planning Department to determine whether the proposed change may require improvements to City facilities in order to provide adequate public services to the project. If the Director determines that such improvements may be required, the phase plan shall be submitted to the Planning Commission and City Council for review and approval as set forth below.

Changes in size, layout and use of the individual structures in the Master Plan are more likely as the project develops and responds to market conditions. So long as the total square footage, height and general layout of the various structures is relatively similar to the Master Plan, these changes are not significant. The Director shall review each phase plan to determine whether any substantial changes have been proposed. For purposes of such review, a phase plan will be considered to have changed substantially if specific plans for a particular phase propose a deviation of more than 15% in the square footage, height or other dimensions of the structures shown in the Master Plan for that phase and the phases which are already developed. If that comparison indicates that the anticipated traffic counts for the project as it is actually developing exceed those assumed in the Master Plan by more than 15%, the proposed phase plan shall be submitted to the Planning Commission and City Council for review and approval as set forth below to determine whether changes to the traffic mitigation plan for the project are required.

Relocation of proposed uses within the site which do not create a change to the overall density or impact of the project shall not be considered to be substantial.

Site Plan Review by Planning Department:

When the Planning Department determines that a phase plan does not contain a substantial change from the approved Master Plan, the site plan review will be conducted by the Department. Following approval of the site plan by the Director, conventional building permit applications will be required for each individual structure in the phase.

Site Plan Review by Planning Commission and City Council

When the Director determines that a phase plan proposes a substantial change to the approved Master Plan, the site plan shall be submitted to the Planning Commission and the City Council for review and approval pursuant to the standard Hearings and Appeals requirements of the City of Poulsbo. At the conclusion of such process, the City Council, if it approves the proposed changes to the Master Plan, shall adopt an ordinance amending the Master Plan.

OLHAVA PROPERTY INTEGRATED MASTER PLAN

CHAPTER SEVEN

FISCAL IMPACT ANALYSIS

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I. Introduction

A. Introduction

This Fiscal Impact Analysis has been prepared for Olhava Associates, L.P., at the request of the City of Poulsbo. This report is intended to serve both as an integrated chapter in the *Master Plan for the Olhava Property*, and as a free-standing document for information and review by the City and other interested parties.

The purpose of this document is to provide the City of Poulsbo with independent analysis of the potential fiscal impacts of the Olhava Master Plan project, the costs of these impacts, and the benefits to be derived from the project by the City. In order to achieve the stated objective, this study first analyses demographic trends on both a regional and local level, and establishes a potential "mix" of users for the project area. This process establishes the assumptions used in the cost/revenue analysis in Section IV of the document. A summary of the findings of this report is provided in Section V.

In order to provide the most conservative analysis, only direct project benefits have been analysed. No additions in State revenues, sales and use tax from the business park component of the project, or business license revenues are assumed.

The Study has been developed based on extensive consultation with representatives and consultants for the Master Plan document, including KBA, American Engineering Corporation and Gibson Traffic Consultants; and with City staff, including the Mayor's office, Finance Department, Planning Department and Public Works Department.

Data sources and contacts have included the Washington State Department of Revenue, Office of Financial Management, Puget Sound Regional Council, Kitsap County Economic Development Council, Kitsap County Regional Council, various Chambers of Commerce, Urban Decision Systems, the Urban Land Institute, the U. S. Bureau of the Census, and other federal sources.

B. Project Description

The project area consists of 215± acres located in the northwestern corner of the City of Poulsbo, in northern Kitsap County. The project area is bisected by the intersection of State Route 3 (SR 3) and State Route 305 (SR 305), with 174± acres located north of SR 3, and 41± acres located south of SR 305. The project area was annexed into the City of Poulsbo in 1994.

The proposed Master Plan calls for a mixed use development, to include single and multiple family dwellings, retail and office commercial, business park uses, and educational uses. The southerly 41± acres are planned for low density, single family residences (20.5± acres) and multi-family units (20.5 acres) only. All commercial and business park uses are to be located on the northerly 174± acres. The acreage and maximum square footage or number of units for each land use classification is provided in Table I-1 below, broken down into the proposed project phases.

Table I-1
Master Plan Acreage Calculations

Land Use	Phase Year	Acreage	Units or S.F.
Low Density Residential	1997-98	10.25	35
	1998-99	10.25	35
Subtotal		**20.5**	**70**
Medium Density Residential	1997-98	18.50	160
	1999-2000	8.00	100
	2002-03	15.00	160
Subtotal		**41.50**	**420**
Commercial, Primary	1997-98	9.25	94,000
	1998-99	11.75	117,000
	1999-2000	9.25	94,000
	2000-02	16.25	165,000
Subtotal		**46.50**	**470,000**
Commercial, Secondary	1999-2000	5.50	56,000
	2000-02	9.25	93,000
	2003-05	21.75	220,000
Subtotal		**36.50**	**369,000**
Business Park	1998-99	6.00	49,000
	1999-2000	8.00	65,000
	2000-02	10.00	81,000
	2003-05	16.00	130,000
Subtotal		**40.00**	**325,000**
Public School	1998-99	10.00	30,000
	1999-2000	10.00	20,000
Subtotal		**20.00**	**50,000**
Total		**215.00**	**1,215,000 s.f. & 490 d.u.**

Although conceptual, the Master Plan provides a generalized site plan which includes potential building sites. These sites provide a wide variety of configurations, pad and building sizes, and generally include shared or common parking areas.

The Master Plan divides the Commercial land use component into two distinct categories, and calls for a Primary Commercial area consisting of at least two major anchor tenants requiring approximately 135,000 square feet of space each, with adjacent spaces ranging from 12,000 to 60,000 square feet each. This component is located in the southwestern portion of the northerly parcel. The Secondary Commercial component of the Plan is further divided into a Commercial Park, consisting of free-standing commercial uses located in the center of the northerly parcel; and a Commercial pad area located in the southeastern corner of the northerly parcel. The buildings in the Commercial pad area are envisioned to accommodate restaurants and hotels, and other uses requiring highway visibility. Taken together, the project area will provide the equivalent of regional shopping center opportunities, as defined by the Urban Land Institute.

Business Park sites within the Master Plan range in size from 10,000 to 25,000 square feet, and are primarily located in the northeastern portion of the project area. The Educational land use is located in the northwesterly corner of the proposed project, and is being planned for a satellite campus for Olympic College.

The Low Density Residential component of the Master Plan is entirely located in the southern half of the southerly parcel. Medium Density multi-family residential sites are located in the northern half of the southerly parcel, and along the western and northern boundaries of the northerly parcel.

The Olympic College campus site, under separate ownership, calls for a total of 50,000 square feet of instruction, administrative and ancillary space to be developed over a two year period. The College is planned to open in 1999 with 30,000 square feet of space, a capacity for 900 students and an estimated staff of 720[1].

1 *Olhava Property Master Plan,* May, 1995.

II. Historic and Existing Demographic Trends

A. Introduction

This section provides the baseline for this study by providing regional and local demographic information. The primary area to be studied includes the North Kitsap area and the City of Poulsbo. Secondary market areas include eastern Jefferson County, the City of Bainbridge Island, and the unincorporated communities of Kingston, Hansville, Suquamish and Silverdale. This area, represented in Exhibit II-1, Regional Location Map, is referred to throughout this report as the North Kitsap Trade Area.

B. Regional Trends

Population

The population of Kitsap County has increased significantly in the last 15 years, rising from 147,152 in 1980 to 189,731 in 1990, an increase of 28.94%. The County's population is further estimated to have increased to 213,200 in 1994, a 12.37% increase over 1990[2]. Within the North Kitsap Trade Area, population is estimated to have increased from 100,058 in 1990 to 122,395 in 1995, a 22.3% increase, significantly higher than the County as a whole[3].

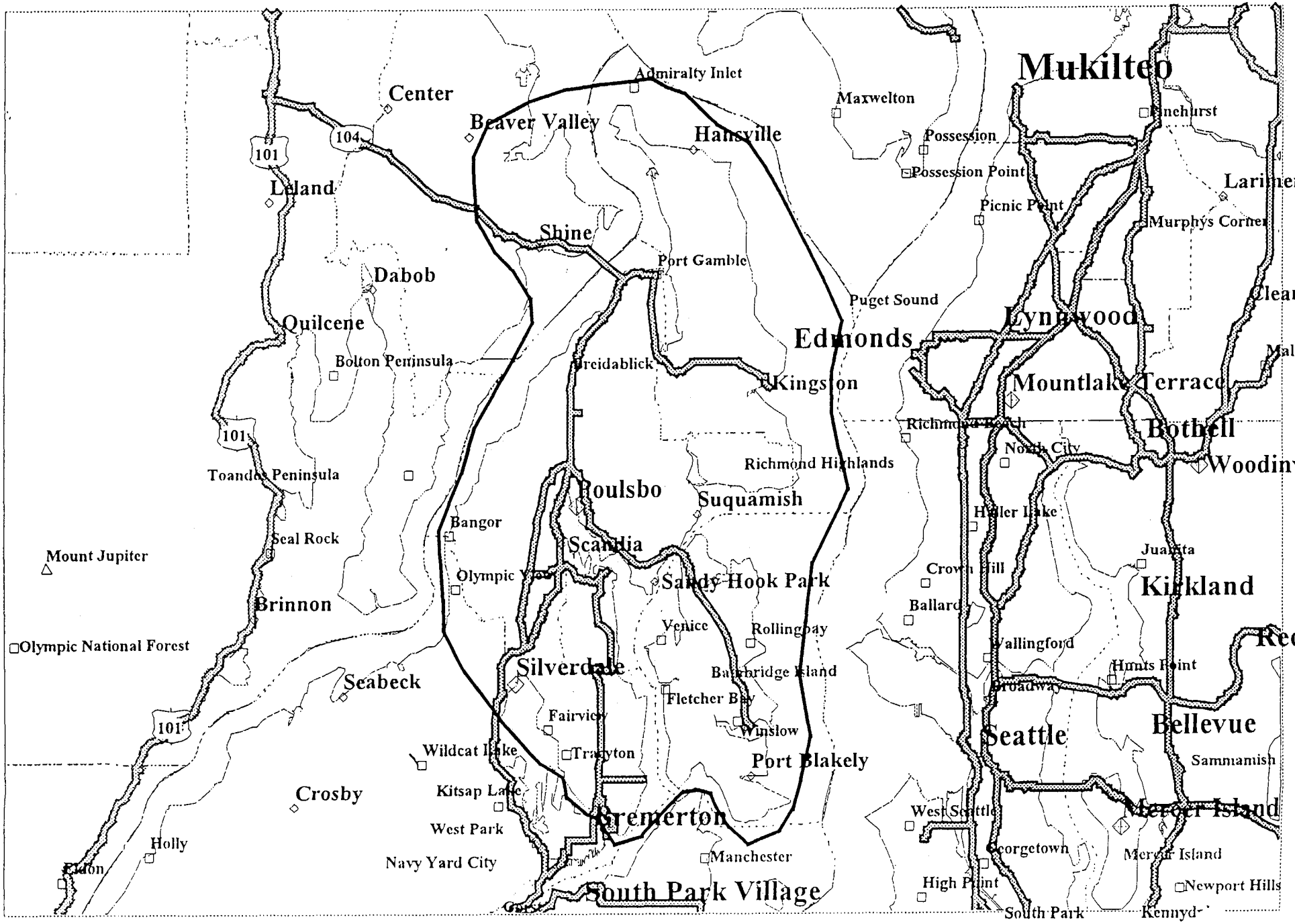
The County and Trade Area are expected to continue to show strong growth, with County population estimated at 225,931 in 2000, and 277,728 in 2010. The Trade Area is expected to grow to 143,718 in 2000, 163,184 in 2005 and 179,095 in 2010[4].

2 *1994 Population Trend for Washington State.* Office of Financial Management, September, 1994.

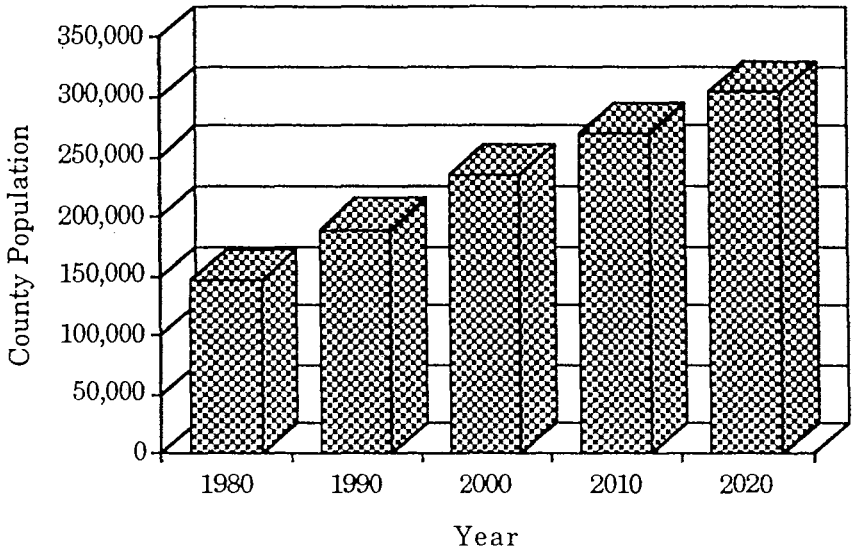
3 *Area Profile: 1990, North Kitsap Trade Area and Income 1995-2000-2005*, Urban Decision Systems, Inc., May, 1995.

4 2000 and 2005 estimates by Urban Decision Systems. 2010 estimates by Terra Nova Planning & Research, Inc.

North Kitsap Trade Area



Graph II-1
Population Trends/Projections in
Kitsap County from 1980 through 2020



Source: Puget Sound Regional Council, March 1995.

Household Income

The Median Household Income in the County was $32,043 in 1989 and $33,425 in 1990. The State of Washington Median Household Income in 1990 was $33,942, $517 above that of Kitsap County.

Employment

Federal governmental employment has traditionally been the most significant employer in the County, due primarily to the military installations located there. The 1990 Census shows that 49.2% of all those employed at that time were in government jobs. This influence is still felt today, as illustrated in the the tope 10 employers listed in the Table below.

Table II-1
Kitsap County: Largest Civilian Employers, 1994

Name	# of Employees
Puget Sound Naval Shipyard	10,500
Naval Undersea Warfare Center, Keyport	2,792
Naval Submarine Base, Bangor	2,581
Harrison Memorial Hospital	1,277
State Government (DSHS, WSP, DOT, etc.)	1,237
Kitsap County	1,224
South Kitsap School District	1,088
Central Kitsap School District	800
Johnson Controls World Service	800
North Kitsap School District	800

Source: Kitsap County Economic Development Council, July 1994

Employment History

The number of employed persons, which numbered 74,500 in 1990, has grown at an annual rate of 4% since that time, resulting in an estimated employed population of over 90,000 in 1995. The greatest growth in employment has occurred in the service and retail sectors. New businesses in the County have reflected this trend, with 38% of new businesses being in the service sector, 32% in the retail sector, and 15% in the construction trades[5]. Table II-2, below, describes the historic employment trends by sector.

Table II-2
Employment History by Sector

Sector	1970	1980	1990	1970-80 % Increase	1980-90 % Increase
Manufacturing	740	1,600	1,900	116	18.75
Mining & Misc.	150	240	500	60	108
Construction	830	2,440	3,200	194	31.1
Transport &Utilities	950	1,280	1,700	34.7	32.8
Whole. & Retail Trade	4,770	7,910	13,700	65.8	73.2
Finance, Ins. & R.E.	760	1,720	2,300	126	33.7
Services	2,970	8,020	13,400	170	67.1
Government	17,920	22,830	28,400	27.4	24.4
Total	**29,090**	**46,040**	**65,100**		

Source: Employment Security Department

5 Kitsap County, 1994.

Employment Forecasts

With continued population, the County is also expected to grow significantly in employment in the next twenty years. Table II-3 provides estimates of expected employment, by sector for non-agricultural employment.

Table II-3
Employment Forecasts by Sector

Sector	1990	2000	2010	2015	2020
Manufacturing	1,900	3,891	7,368	9,018	10,901
Mining & Misc.	500	648	798	886	984
Construction	3,200	3,490	3,742	3,875	4,012
Transport &Utilities	1,700	1,992	2,262	2,411	2,569
Whole. & Retail Trade	13,700	17,248	20,738	22,740	24,935
Finance, Ins. & R.E.	2,300	2,741	3,156	3,387	3,634
Services	13,400	19,457	26,250	30,490	35,415
Government	28,400	28,347	27,788	27,394	26,563
Total	**65,100**	**77,814**	**92,102**	**100,201**	**109,013**

Source: Employment Security Department, Real Estate Economics

Military Personnel

Although the military continues to experience downsizing, through the *Base Closure and Realignment Commission (BRAC)* recommendations made in 1993, and to be made again in 1995, none of Kitsap County's facilities appear to be likely to be affected. Base closures and consolidation may cause an influx of personnel, as relocations occur throughout the Navy.

Military personnel rotate frequently through Kitsap County, causing greater than average fluctuations in residential vacancies and turnovers, and employment turnover. The Table below illustrates the military personnel stationed at regional facilities.

Table II-4
Kitsap County: Military Personnel, 1993

Name	# of Military Personnel
Puget Sound Naval Shipyard	10,100*
Naval Undersea Warfare Center, Keyport	268
Naval Submarine Base, Bangor	5,632
Naval Hospital, Bremerton	595
Naval Supply Center	28

*Varies considerably, based on number and type of ships in overhaul. 4,500 of the personnel shown in this total are assigned to ships in overhaul.
Source: Economic Development Council of Kitsap County, February, 1993.

In addition to the personnel listed above, a total of 7,175 personnel are scheduled to arrive in Kitsap County in 1995 and 1996, including the 3,100 crew of the USS Abraham Lincoln and their families (1995) and the 3,000 crew of the Carl Visson (1996). Both ships will be homeported to either Bremerton or Everett.

When both civilian and uniformed personnel are combined, they comprise over 15% of total resident employment in the County. This percentage has remained steady since the opening of facilities at Bangor, with military employment representing between 13 and 16 percent of County resident employment over the period.

Retail Sales

Retail sales in the County have grown at an extremely strong rate, even through recessionary times. From 1980 to 1990. retail sales rose from $528,279,347.00 to $1,329,900,000.00, a 151% increase. Annually, retail sales rose an average of 9.8% during this period, with particularly large increases occurring in 1982, 1989 and 1990. Table II-5 illustrates retail sales increases.

Table II-5
Kitsap County
Taxable Sales,
Selected Years, 1980-1994

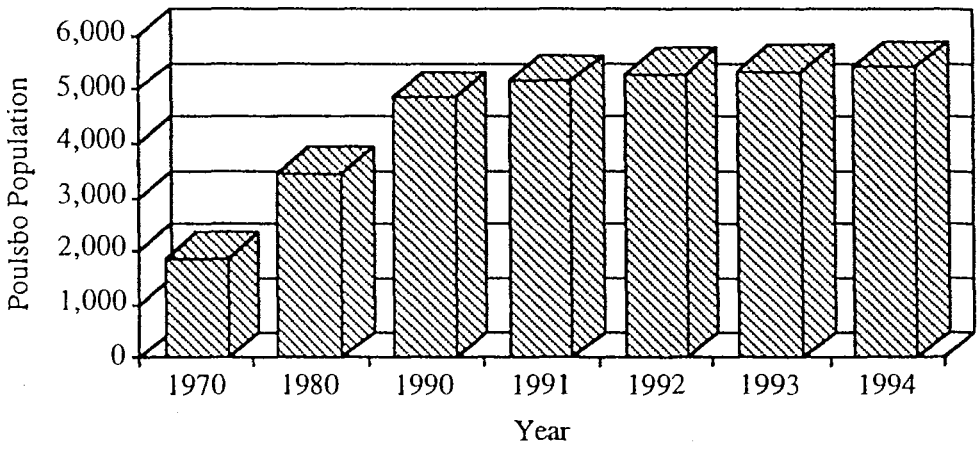
Year	Total
1980	$528,279,000
1982	636,833,000
1989	1,138,368,000
1990	1,329,900,000
1991	1,439,071,000
1992	1,551,859,000
1993	1,658,976,000
1994*	1,773,445,000

*Estimate. Source: Department of Revenue

C. Historic Trends in Poulsbo

During the past decade, Poulsbo has experienced rapid population growth, as illustrated in the following graph. From 1985 through 1994, the City had grown by 43%, from a population of 3,789 to 5,415.

Graph II-2
Population Trends for the City of Poulsbo
from 1980 through 1994



The population for the City of Poulsbo is projected to increase to 7,244 persons by the year 2000 and to 10,723 by 2010, more than doubling the current population[6].

The City's population includes a proportion of older persons higher than the national average. The City also has a higher concentration of very young persons, demonstrating a larger family size than the average. The City's overall average age is therefore slightly lower (33.3) than the national average (34.0). The Table below illustrates the population's age breakdowns.

Table II-6
Poulsbo 1990 Population by Age Group

Age	Persons	Percent
Under 18 Years	1,176	24.3%
18 to 29 Years	759	15.7%
30 to 64 Years	1,447	29.8%
65 to 75 Years	950	19.6%
75 Years & Older	516	10.6%
Total:	**4,848**	**100%**

Household Size

Poulsbo's average household size of 2.3 in 1990, was only slightly lower than that of Kitsap County, at 2.6 persons per household. Although 62.9% of the households in the City contain from two to four individuals, the 30.2% of households comprised of a single occupant is significantly higher than the national average. The high number of single person households can be attributed to a combination of senior citizens and military personnel.

Household Income

The median household income for the City in 1990 was $25,819.00, significantly lower than the County and national rates of $33,425.00 and $33,942, respectively. In 1992, the estimated median family income for the City of Poulsbo was $34,451.00. The estimated median family income for the County for the same year was $38,324.00[7].

Housing Unit Trends

From 1980 to 1990, population in the City of Poulsbo grew by 40%, the number of households grew by 45%, and the total number of housing units grew by 45%. The most recent unit count, completed in 1992, shows a total of 2,359 housing units, of which 1,227 or 56% are single family homes. The following table gives a breakdown of past and existing housing units, as well as future projections.

6 Office of Financial Management, State of Washington.

7 Urban Decision Systems, 1995 and U. S. Bureau of the Census, 1990.

Table II-7
Poulsbo Housing Unit Trends

Type:	One Unit	Two or More Units	MH/Trailer	Total
1990	1,059	848	240	2,147
1992	1,202	870	258	2,333
1993	1,227	874	258	2,359
2000	1,503	1,142	361	3,006
2010	2,105	1,599	595	4,209
2020	2,947	2,180	766	5,893

Source: 1993 Population Trends for Washington State, September 1993 from the Office of Financial Management. Projections by Terra Nova Planning and Research, Inc., September 1993.

The most active segment of the residential development market has recently been in single family homes, with almost 200 units built between 1990 and 1993. The Table further illustrates that a total of 878 additional single family units are required by the year 2010, and an additional 725 multi-family or apartment units will be required by that same year.

The City's housing stock is primarily renter occupied, (49.2%), and overall has a vacancy rate of 3.6%[8]. Significantly, a vacancy rate of 5%, to allow for uninhabitable units, units requiring maintenance, or available for sale, is considered average. Finally, apartment vacancy rates in Poulsbo have historically been lower than the average, ranging from 0.53% in April of 1990 to 1.74% in March of 1993. The City, therefore, can be considered to have a shortage of housing units, particularly apartment units.

Employment

As with the balance of the County, the City's employment base is influenced significantly by military employment, both directly and indirectly. The relative stability at the Puget Sound Naval Shipyard, Keyport and Bangor facilities, however, have afforded the City some stability.

8 Ibid.

Table II-8
City of Poulsbo Largest Employers, 1995

Employer	# of Employees
North Kitsap School District	850
Martha & Mary Lutheran Services	280
Poulsbo RV	225
GSA	200
Electronic Data Systems	175
Courtesy Auto-RV Group	150
Alliant Techsystems	135
Suquamish Tribe	132
Poulsbo Market Place	128
City of Poulsbo	88

Source: Greater Poulsbo Chamber of Commerce, March 1995

The City's employment stood at a total of 2,789 jobs in 1990, and is expected to grow strongly over the next 20 years, reaching 3,858 jobs in the year 2000, and 5,504 jobs in 2010[9]. For comparison, the City had 2308 employed residents in 1990, or 61.5% of the population over 16 years of age. At that time, the unemployment rate was 5.9%. The Table below lists employment by industry for the City at the time of the last Census.

9 *Household, Population and Employment Estimates,* Puget Sound Regional Council, March 15, 1995.

Table II-9
City of Poulsbo Employment by Industry, 1990

Industry	# of Employees
Agriculture, forestry & fisheries	48
Mining	0
Construction	166
Manufacturing, nondurable goods	73
Manufacturing, durable goods	189
Transportation	67
Communications & other public utilities	8
Wholesale trade	28
Retail trade	388
Finance, insurance & real estate	130
Business & repair services	22
Personal services	70
Entertainment & recreation services	13
Health services	104
Educational services	184
Other professional & related services	281
Public Administration	277
Total	**2,048**

Source: U. S. Bureau of the Census, 1990

Employment is expected to grow at a steady rate in the next ten years, resulting in the following projections.

Table II-10
City of Poulsbo Employment by Industry, 1995-2000-2005

Industry	1995	2000	2005
Agriculture, forestry & fisheries	49	56	63
Mining	0	0	0
Construction	195	227	258
Manufacturing, nondurable goods	78	65	67
Manufacturing, durable goods	257	293	318
Transportation	78	92	106
Communications & other public utilities	15	17	19
Wholesale trade	36	46	55
Retail trade	435	523	606
Finance, insurance & real estate	194	231	264
Business & repair services	30	44	59
Personal services	71	87	102
Entertainment & recreation services	17	22	27
Health services	151	198	245
Educational services	210	246	286
Other professional & related services	340	435	527
Public Administration	331	381	427
Total	**2,487**	**2,963**	**3,429**

Source: *Labor Force Trends: 1995-2000-2005,* Urban Decision Systems, May, 1995

Taxable Sales

There were 2,073 taxable sales generators in the City in 1992. From 1986 to 1989, the number of taxable sales generators increased by 22%. From 1989 to 1992 the number of generators increased by over 40%.

Taxable sales in the City have increased proportionately since 1986, with a continued increase through the recession beginning in 1991. The number of firms, from retail trade to contract construction, have continually increased, illustrating the steady growth of the area.

Table II-11
City of Poulsbo
Taxable Retail Sales 1986-1994

Year	Total
1986	64,234,000
1987	70,919,000
1988	75,324,000
1989	85,523,000
1990	106,043,000
1991	117,216,000
1992	135,311,000
1993	163,685,000
1994	183,710,000

Source: City of Poulsbo, State Department of Revenue.

Of these sales, the City receives 1.00%, producing the single largest source of revenue for the City's General Fund. The City's share of sales tax is illustrated below (any variations from Table II-11, above are due to rounding).

Table II-12
City Sales Tax Revenue, 1989-1994

Year	Total
1989	739,919
1990	895,412
1991	1,032,191
1992	1,156,660
1993	1,399,259
1994	1,570,440

Source: City of Poulsbo

III. Olhava Master Plan Market Potential

A. Introduction

The Olhava Master Plan proposes the construction of 839,000± square feet of commercial space, 325,000± square feet of of Business Park, and 490 residential units, to be developed over a ten year period. This section utilizes existing commercial retail, office and business park/industrial conditions and anticipated growth rates to characterize the potential uses and absorption on the Olhava Master Plan property. In order to determine the market potential for the proposed project, per capita expenditures have been estimated, and translated into potential total retail sales. These potential retail sales are then compared to current expenditures, to derive a market potential for commercial development.

Commercial Component

The development site for the proposed project lends itself well to the typical commercial development found in western Washington, and Kitsap County. The Master Plan allows for sufficient square footage of commercial space to construct a traditional regional mall, but does not call for this type of development. The Master Plan allows for development similar to that found in Silverdale, with a large Community Shopping Center surrounded by ancillary facilities. For purposes of this study, the following standards for commercial shopping centers have been utilized.

Table III-1
Characteristics of Shopping Centers

Center Type	Lead Tenant	Typ. GLA (SF)	Range of GLA (SF)	Min. Site (Acres)	Min. Pop.
Neighborhood Center	Supermarket	50,000	30,000-100,000	3-10	3,000-40,000
Community Center	Junior Dept. Store Large Variety, Discount or Department Store	150,000	100,000-300,000	10-30	40,000-150,000
Super Community Center	Large Specialty, Promotional or Discount Dept. store	286,000	250,000-450,000	n/a	n/a
Regional Center	One or More Full-line Department Store(s)	400,000	300,000-900,000	10-60	150,000 or more
Super Regional	Three or More Full-line Department Stores	800,000	500,000-1.5 million+	15-100+	300,000 or more

Source: *Shopping Center Development Handbook,* Urban Land Institute.

With a total commercial square footage of 839,000 square feet on 83 acres, the project can be expected to develop as a combination of the above-listed center types, in addition to a number of free-standing retail pads. For purposes of this study, it has been assumed that the project would develop as a super community center of approximately 450,000 square feet, with 3 to 5 restaurant pads, a movie theatre, bowling alley, 75 room motel, and 200,000 square feet in free-standing retail. Section III-B of this document will compare retail potential for the market area with the sales projections outlined below.

Trends in Super Community Shopping Centers

Current trends show that the consumer's first choice in anchors for a commercial center is the discount department store (57.6%)[10]. The ten most preferred anchors are illustrated below.

10 *Land Use Digest,* Volume 28, Number 3, Urban Land Institute, March 1995.

Table III-2
Anchor Tenants Most Preferred by Consumers

Anchor Type	Percent
Discount Department Store	57.6
Supermarket	50.0
Superstore	27.5
Drugstore/Pharmacy	23.5
Cinema	20.4
Home Improvement Warehouse	18.1
Warehouse/Membership Club	16.7
Variety Store	15.7
Restaurant (other than cafeteria)	11.3
Hardware	9.9

The Urban Land Institute has gathered considerable data on the composition of shopping centers throughout the country. The Table below shows the typical composition of super community shopping centers.

Table III-3
Tenant Composition of Super Community Shopping Centers

Tenant Type	% of Total GLA*
General Merchandise	32.0
Food	9.9
Food Service	6.3
Clothing & Accessories	8.6
Women's Wear	3.8
Children's Wear	0.7
Men's Wear	0.9
Family Wear	2.1
Shoes	2.2
Home Furnishings	4.1
Home appliances/music	3.6
Building Materials/hardware	2.4
Automotive	0.9
Hobby/Special Interest	5.2
Gifts/Specialty	3.0
Jewelry	0.8
Liquor	0.3
Drugs	4.6
Other retail	3.6
Personal services	3.7
Recreation/Community	6.0
Financial	1.5
Offices (other than financial)	1.4

Source: *Dollars & Cents of Super Community Shopping Centers, 1993*, Urban Land Institute. *GLA: Gross Leasable Area

If these percentages are applied to the proposed project with a total shopping center area of 450,000 square feet, the following distribution results. Included in this Table is the median sales per square foot, and the total potential sales, by category, at the proposed project site. The table also includes potential sizes, sales per square foot and annual sales for other components of the proposed commercial component, leading to a total potential annual sales for the project area.

Table III-4
Tenant Composition of Project Commercial Area (1995 Dollars)

Tenant Type	Project Square Footage	Median Sales/SF ($)	Project Annual Sales Potential ($)
General Merchandise	144,000	132.18	19,033,920
Food	44,550	328.66	14,641,803
Food Service	28,350	219.50	6,222,825
Clothing & Accessories	38,700	137.53	5,322,411
Shoes	9,900	130.55	1,292,445
Home Furnishings	18,450	92.30	1,702,935
Home appliances/music	16,200	168.05	2,722,410
Building Materials/hardware	10,800	139.16	1,502,928
Automotive	4,050	94.48	382,644
Hobby/Special Interest	23,400	136.79	3,200,886
Gifts/Specialty	13,500	157.07	2,120,445
Jewelry	3,600	290.26	1,044,936
Liquor	1,350	n/a	
Drugs	20,700	212.77	4,404,339
Other retail	16,200	131.99	2,138,238
Personal services	16,650	135.08	2,249,082
Recreation/Community	27,000	72.83	1,966,410
Financial	6,750	n/a	
Offices (other than financial)	6,300	n/a	
Total Annual Sales Potential: Shopping Center			**$69,948,657**
Movie Theatre	18,892	70.09	1,324,140
Restaurants	13,865	219.50	3,043,367
Restaurants, Fast Food	8,000	347.30	2,778,400
Free Standing/Other Retail			
Variety Stores	74,700	112.26	8,385,822
Showroom/Catalog Store	50,000	212.55	10,627,500
Records and Tapes	2,455	290.01	711,975
Service Stations	4,100	349.55	1,433,155
Book Superstore	14,000	155.55	2,177,700
Pet Superstore	10,000	166.03	1,660,300
Discount Apparel	35,000	140.24	4,908,400
Toys	12,000	126.09	1,513,080
Arts & Crafts	10,185	133.46	1,359,290
Computer/Software	5,000	573.14	2,865,700
Other retail/independents	35,000	152.83	5,349,050
Total Free Standing/Other Retail			**$40,991,972**
Motel (@ 70% occupancy)	75 rooms	55.00	1,051,875
Total Project Sales Potential			**$119,138,411**

Source: *Dollars & Cents of Super Community Shopping Centers, 1993*, Urban Land Institute. Terra Nova Planning & Research.

Business Park Component

The Business Park component is planned to support 325,000 square feet of space. Initial configurations in these planning areas range from 10,000 to 28,700 square feet. The Business Park component of the Master Plan is assumed to develop as a mix of light industrial and corporate office space. The Business Park designated lands in the project area are the only such designated within the City of Poulsbo's Urban Growth Area.

Residential Component

The proposed Master Plan will allow up to 490 residential dwelling units, of which 70 are planned to be single family homes, and 420 are planned for multi-family, or medium density residential. The potential market for these units is analysed below. The City's Comprehensive Plan and Zoning Ordinance allow for the development of single family units on medium density lands, with a potential density of approximately 7 units per acre. The analysis below includes review of the potential for small lot single family residential development on all or part of the medium density designated lands in the Master Plan.

College Component

This study does not examine the feasibility of the College site, a 20 acre parcel located at the northwestern boundary of the project area. This study assumes that the feasibility of the project has been analysed by the State, and that the projections for employment and student population are realistic. Those populations are used in this study in identifying market potential for other components of the project.

B. Local Market Potential

Commercial Potential

Consumer goods sales in the City can be measured based on current sales, per capita income, and expected growth rates. Based on these factors, Table III-5, below provides an estimate of consumer goods sales for the City of Poulsbo in five year increments.

Table III-5
Local Annual Merchandise Sales Potential, 1995-2000-2005

Merchandise Type	1995 Sales ($Mill)	1995 Per Capita	2000 Sales ($Mill)	2000 Per Capita	2005 Sales ($Mill)	2005 Per Capita
Grocery	7.15	$1,213.50	8.8	$1,277.39	10.8	$1,388.23
Alcohol	0.6	$101.88	0.79	$115.02	1.04	$133.38
Food & Alcohol Away From Home	4.6	$780.27	6.0	$869.59	7.82	$1,002.94
Tobacco Products	0.6	$101.63	0.78	$113.39	1.01	$129.54
Other Grocery	1.23	$208.52	1.55	$226.10	1.95	$250.10
Personal Care	1.44	$244.35	1.79	$259.96	2.22	$284.72
Men's Apparel	0.71	$120.76	0.98	$142.78	1.35	$173.14
Boy's Apparel	0.14	$22.96	0.17	$25.99	0.21	$26.93
Women's Apparel	1.26	$211.93	1.70	$248.45	2.30	$294.99
Girl's Apparel	0.19	$30.98	0.27	$38.36	0.38	$48.74
Infant's Apparel	0.18	$29.43	0.23	$33.19	0.29	$37.19
Clothing Repair/Laundry	0.46	$77.56	0.59	$84.74	0.76	$97.47
Footwear	0.40	$68.26	0.54	$78.45	0.73	$93.63
Textiles	0.34	$57.40	0.44	$63.19	0.57	$73.11
Appliances	0.44	$77.66	0.60	$86.39	0.82	$105.17
TV/VCR/Stereo	0.51	$86.38	0.69	$99.49	0.93	$119.28
CDs/Tapes/Videotapes	0.24	$41.56	0.32	$47.36	0.43	$55.15
Furniture	1.06	$181.42	1.37	$200.67	1.77	$227.01
Carpeting	0.16	$27.88	0.22	$31.26	0.30	$38.48
Computers	0.12	$20.54	0.17	$25.36	0.24	$30.78
Misc. Home Equip.	0.35	$58.84	0.48	$70.45	0.66	$84.65
China & Cookware	0.11	$17.62	0.14	$19.88	0.18	$23.09
Jewelry	0.52	$91.75	0.70	$102.02	0.95	$121.84
Toys & Hobbies	0.33	$55.82	0.44	$63.18	0.59	$75.67
Optical	0.15	$25.77	0.19	$27.34	0.24	$30.78
Rec. Equipment	0.30	$50.34	0.42	$59.87	0.59	$75.67
Photography	0.21	$35.00	0.27	$39.46	0.35	$44.89
Auto Supply & Repair	3.84	$651.15	4.22	$611.05	4.64	$595.10
Pet Supplies & Services	0.26	$43.26	0.33	$48.86	0.42	$53.87
Reading Materials	0.52	$89.05	0.65	$94.74	0.81	$103.89
Plants & Garden Supply	0.33	$56.31	0.43	$62.03	0.56	$71.82
Total Potential	**$28.75**	**$4,879.78**	**$36.27**	**$5,266.01**	**$45.91**	**$5,891.25**

Source: *Merchandise Potential: Detail (Annual)*, Urban Decision Systems, May, 1995.

Of the City's total taxable sales, approximately 54% is currently in retail sales of consumer goods, the balance representing construction, automobile sales, wholesale trade and various service industries. Given this percentage, therefore, it can be estimated that the

City's consumer goods sales of $99,020,000.00 were contributed to by more than City residents, whose sales potential equaled $28,750,000.00. These statistics indicate that retail sales generated within the City are 3.4 times higher than what the local population can support. Extended into the future, the City can then be expected to generate sales in consumer goods in excess of $156,094,000.00 by the year 2005. This provides possibly the clearest indication that the Poulsbo market is a regional center of commerce for the north Kitsap area, and that commercial activity will be guided by regional trends, not only those of the local market.

C. Regional Market Potential

In order to determine the regional potential for the North Kitsap area (including the City of Poulsbo), the retail potential for the area was tabulated, based on County population estimates for the current year, and for 2012. The total consumer goods potential for the area is represented in Table III-6, below. As shown, the total potential for the area exceeds $263,000,000.00, indicating that approximately 38% of total sales potential for the area is retained in the Poulsbo area currently. The high retail loss is theorized to occur for several reasons, including commercial nodes at Kingston, Bainbridge Island and other North Kitsap communities. The single largest loss, however, can be expected to occur because of the regional shopping center and associated facilities located in the unincorporated community of Silverdale.

The retail potential for consumer goods in the North Kitsap area is expected to grow to more than $495,000,000.00 by the year 2012. An interim estimate for the year 2005 is theorized at $370,000,000.00. The City currently generates approximately $99,000,000.00 in consumer goods sales, and the project will have the capacity of generating $119,000,000.00 in consumer goods sales, resulting in a total of $218,000,000.00 in potential retail sales in 1995 dollars. If inflation is factored, the project plus current potential for Poulsbo will total $286,000,000.00. Current conditions plus the proposed project will therefore result in an unallocated market potential of $84,000,000.00 for the North Kitsap area.

Table III-6
North Kitsap Sales Potential

Year	1995		2012	
Population	**53,800**		**76,126**	
	Per Capita	**Aggregate ($000)**	**Per Capita**	**Aggregate ($000)**
Grocery Stores	$1,213.50	$65,286.30	$1,509.06	$114,878.70
Alcohol	$101.88	$5,481.14	$154.72	$11,778.21
Food & Alcohol Away from Home	$780.27	$41,978.53	$1,153.38	$87,802.21
Tobacco	$101.63	$5,467.69	$148.91	$11,335.92
Other Grocery	$208.52	$11,218.38	$143.71	$10,940.07
Personal Care	$244.35	$13,146.03	$311.77	$23,733.80
Men's Apparel	$120.76	$6,496.89	$210.02	$15,987.98
Boy's Apparel	$22.96	$1,235.25	$28.90	$2,200.04
Women's Apparel	$211.93	$11,401.83	$350.15	$26,655.52
Girl's Apparel	$30.98	$1,666.72	$71.20	$5,420.17
Infant's Apparel	$29.43	$1,583.33	$41.69	$3,173.69
Clothing Repair/ Laundry	$77.56	$4,172.73	$112.09	$8,532.96
Footwear	$68.26	$3,672.39	$111.70	$8,503.27
Textiles	$57.40	$3,088.12	$84.59	$6,439.50
Appliances	$77.66	$4,647.24	$127.99	$9,743.37
TV/VCR/Stereo	$86.38	$4,647.24	$143.02	$10,887.54
CDs/Tapes/Videotapes	$41.56	$2,235.93	$64.20	$4,887.29
Furniture	$181.42	$9,760.40	$256.75	$19,545.35
Carpeting	$27.88	$1,499.94	$47.37	$3,606.09
Computers	$20.54	$1,105.05	$37.37	$2,844.83
Misc. Home Equip.	$58.84	$3,165.59	$101.75	$7,745.82
China & Cookware	$17.62	$947.96	$26.81	$2,040.94
Jewelry	$91.75	$4,936.15	$145.48	$11,074.81
Toys & Hobbies	$55.82	$3,003.12	$90.65	$6,900.82
Optical	$25.77	$1,386.43	$34.66	$2,638.53
Recreational Equip.	$50.34	$2,708.29	$90.65	$6,900.82
Photography	$35.00	$1,883.00	$51.09	$3,889.28
Auto Supply & Repair	$651.15	$35,031.87	$605.10	$46,063.84
Pet Supplies & Services	$43.26	$2,327.39	$59.42	$4,523.41
Reading Materials	$89.05	$4,790.89	$113.97	$8,676.08
Plants & Garden Supply	$56.31	$3,029.48	$83.17	$6,331.40
Total Potential		**$263,001.30**		**$495,682.27**

D. Olhava Master Plan Market Potential

Commercial Conditions and Market Potential

The City of Poulsbo has traditionally been the neighborhood and community commercial center for the North Kitsap area. The development of a regional shopping center in the unincorporated community of Silverdale has drawn some retail potential away from the City. The amount of commercial retail space in the City, however, is still higher than would normally be associated with a community of this size. Of particular note is the low level of vacancy in commercial space. Office space vacancies, on the other hand, are more elevated than in other areas of the county. Table III-7 lists commercial retail and office vacancies and lease rates for Poulsbo and other areas of Kitsap County.

As the Table illustrates, retail space in Poulsbo, under current conditions, has a very low vacancy rate. Current projects under construction will not significantly increase possible vacant space, since they are being built for specific users (Hattaland/Market Foods, North Sound Bank).

Commercial office space, on the other hand, shows significant vacancies within the City, caused primarily by the opening of the Navy/federal building, which consolidated offices in other buildings in the City. A complete analysis of the need for business park space is included under Business Park Conditions and Market Potential, below.

Table III-7
1995 Office and Retail Space in Kitsap County

Area	Space Available Total	Space Available Vacant	Vacancy (%)	Lease Rates (Full Service)
		Office Space		
Bainbridge Island	109,600	5,083	4.64	$13.20-$26.60
Bremerton	609,930	33,966	5.6	$7.69-$20.00
Port Orchard	84,564	2,645	3.13	$9.57-$18.00
Silverdale	223,431	26,668	11.94	$12.00-$22.20
Poulsbo	**231,704**	**28,905**	**12.47**	**$7.10-$21.00**
		Retail Space		
Bainbridge Island	120,038	1,939	1.62	$10.00-$14.00
Bremerton	1,215,659	87,001	7.15	$3.00-$15.00
Port Orchard	868,448	35,796	4.12	$5.00-$17.50
Silverdale	1,179,772	20,129	1.71	$7.28-$17.85
Poulsbo	**129,718**	**4,000**	**3.08**	**$6.00-$14.00**

Source: Bradley Scott, Inc., from the *Trends Report*, Spring 1995, Vol. VI.

Local Commercial Impacts

The City's Comprehensive Plan shows that there are currently 399.67 acres of commercially designated lands within the City and Urban Growth Area[11], of which 116.77 acres is shown as vacant, including 88 acres located in the proposed master plan project area, resulting in 28.77 net acres of vacant commercial lands.

Since the drafting of the Comprehensive Plan, the City has approved, and construction is or shortly will be under way, for the construction for the Market Place/Hataland project, the Navy/Federal building adjacent to the Poulsbo Village shopping center, the Mind and Boxlight corporate offices, the North Sound Bank building, and other small projects. These buildings or projects have reduced the commercial lands inventory to approximately 11 acres. At optimal conditions, this acreage could generate up to 200,000 square feet of commercial space.

The vacant lands not in the Olhava Master Plan occur primarily along SR-305, in and around the Poulsbo Village project and lands surrounding the fire station, and at the northwest corner of Jensen Way and Iversen, in the Poulsbo Place Master Plan area. It can be expected that the SR-305 lands will build out as a mix of free-standing retail and office commercial buildings, given the size of the remaining parcels and the adjacencies to Boxlight and Mind on the east, and the Poulsbo Village shopping center on the west. No plans have been submitted for the Poulsbo Place Master Plan, project proponents have discussed plans in the media for conference/convention center facilities and a civic center complex on the project area. This type of development would not be significantly impacted by the retail commercial development being considered on the Olhava Master Plan. If plans change, the project could yield approximately half of the available commercial lands and square footage currently designated for such use. Should all available commercial lands develop as retail commercial, it has the potential to generate approximately $30,000,000.00 in retail sales. The North Kitsap area, after deducting existing sales and potential sales at the proposed project, and adjusting for inflation, has a remaining market potential of $84,000,000.00 (see Section III-C, Regional Market Potential, above). The area, therefore, will still have potential for an additional $54,000,000.00 in consumer goods sales.

There are two other commercial nodes in the City of Poulsbo currently: the downtown core, and the Viking Avenue area. Viking Avenue's commercial lands are primarily built out, with limited in-fill lots remaining. The area is the center for recreational vehicle and automobile sales for the City, generating an average of 20% of its total retail sales. In the market mix developed for this study, no automobile or recreational vehicle sales were forecast for the proposed project area. It is possible that the proximity to Viking Avenue

11 *City of Poulsbo Comprehensive Plan,* Adopted June 13, 1994.

may generate interest for new automobile or recreational dealership(s) on the proposed project, or that existing dealerships could move to the proposed project. Given the proximity of the Bremerton auto center, and the current size of dealerships, it is unlikely that the market will support significant additional dealerships in the immediate future.

The City is currently undertaking a Master Planning effort for the Viking Avenue area. Historic and on-going concerns regarding traffic, safety and aesthetics have caused concern among land and business owners in the area. If the Master Plan is successful in creating a safer and more appealing area, the potential impact of dealerships relocating to the proposed project area will be lessened, particularly if business owners and the City invest significant time and money in the project.

If dealerships were to relocate to the project area, the market potential for other consumer goods, as discussed extensively above, would require another location for development, and could be expected to consider the Viking Avenue area, particularly considering its proximity to the proposed project.

Regional Market Impacts

With population growth expected to continue in the North Kitsap Trade Area (see Exhibit II-1 Regional Location Map), the area will require additional services and retail opportunities. At the time of project buildout, the area is expected to have a total population of 163,184, which will have a per capita income of $24,556.00. This income can be estimated to be expended in consumer goods according to the breakdowns in the following Table.

Table III-8
Trade Area Retail Sales Potential

Year	1995		2000		2005	
Population	**122,395**		**143,718**		**163,184**	
	Per Capita	**Aggregate ($000)**	**Per Capita**	**Aggregate ($000)**	**Per Capita**	**Aggregate ($000)**
Grocery Stores	$1,213.50	$148,526.33	$1,277.39	$183,583.94	$1,388.23	$226,536.92
Alcohol	$101.88	$12,469.60	$115.02	$16,530.44	$133.38	$21,765.48
Food & Alcohol Away from Home	$780.27	$95,501.15	$869.59	$124,975.74	$1,002.94	$21,204.13
Tobacco	$101.63	$12,439.00	$113.39	$16,296.18	$129.94	$21,204.13
Other Grocery	$208.52	$25,521.81	$226.10	$37,360.93	$250.10	$40,812.32
Personal Care	$244.35	$29,907.22	$259.96	$37,360.93	$284.72	$46,461.75
Men's Apparel	$120.76	$14,780.42	$142.78	$20,520.06	$173.14	$28,253.68
Boy's Apparel	$22.96	$2,810.19	$25.99	$3,735.23	$26.93	$4,394.55
Women's Apparel	$211.93	$25,939.17	$248.45	$35,706.74	$294.99	$48,137.65
Girl's Apparel	$30.98	$3,791.80	$38.36	$5,513.02	$48.74	$7,953.59
Infant's Apparel	$29.43	$3,602.08	$33.19	$4,770.00	$37.19	$6,068.81
Clothing Repair/Laundry	$77.56	$9,492.96	$84.74	$12,178.66	$97.47	$15,905.54
Footwear	$68.26	$8,354.68	$78.45	$11,274.68	$93.63	$15,278.92
Textiles	$57.40	$7,025.47	$63.19	$9,081.54	$73.11	$11,930.38
Appliances	$77.66	$10,572.48	$86.39	$12,415.80	$105.17	$17,16
TV/VCR/Stereo	$86.38	$10,572.48	$99.49	$14,298.50	$119.28	$19,464
CDs/Tapes/Videotapes	$41.56	$5,086.74	$47.36	$6,806.48	$55.15	$8,999.60
Furniture	$181.42	$22,204.90	$200.67	$28,839.89	$227.01	$37,044.40
Carpeting	$27.88	$3,412.37	$31.26	$4,492.62	$38.48	$6,279.32
Computers	$20.54	$2,513.99	$25.36	$3,644.69	$30.78	$5,022.80
Misc. Home Equipment	$58.84	$7,201.72	$70.45	$10,124.93	$84.65	$13,813.53
China & Cookware	$17.62	$2,156.60	$19.88	$2,857.11	$23.09	$3,767.92
Jewelry	$91.75	$11,229.74	$102.02	$14,662.11	$121.84	$19,882.34
Toys & Hobbies	$55.82	$6,832.09	$63.18	$9,080.10	$75.67	$12,348.13
Optical	$25.77	$3,154.12	$27.34	$3,929.25	$30.78	$5,022.80
Recreational Equipment	$50.34	$6,161.36	$59.87	$8,604.40	$75.67	$12,348.13
Photography	$35.00	$4,283.83	$39.46	$5,671.11	$44.89	$7,325.33
Auto Supply & Repair	$651.15	$79,697.50	$611.05	$87,818.88	$595.10	$97,110.80
Pet Supplies & Services	$43.26	$5,294.81	$48.86	$7,022.06	$53.87	$8,790.72
Reading Materials	$89.05	$10,899.27	$94.74	$13,615.84	$103.89	$16,953.19
Plants & Garden Supply	$56.31	$6,892.06	$62.03	$8,914.83	$71.82	$11,719.87
Total Market Potential		**$598,327.96**		**$761,686.72**		**$818,963.38**

At the time of project buildout in 2005 the proposed project has the potential to generate $119,000,000.00 in retail sales, or 14.5% of the total market potential for the region. Although the project will have an impact on retail sales generated from the North Kitsap area in Silverdale, the continued growth in Central Kitsap, and the market-driven diversity in product lines likely to occur in each area, will continue to provide market growth for the

Silverdale area. The region shows a potential to increase sales of consumer goods by $221 million, from $598 million to $819 million, 54% of which could be absorbed by the proposed project. Since the projections are conservative, and do not include all sectors of sales tax generating revenues, only consumer goods, the actual growth rates for both the local and regional markets are likely to be considerably higher than anticipated in this study.

Business Park Conditions and Market Potential

Extensive analysis has been undertaken by the Economic Development Council of Kitsap County (EDCKC) on the availability of industrial lands within the County. The latest study, entitled *Industrial Land Market Analysis, Kitsap County, Washington* and completed in July of 1994, provides considerable data, which is summarized below.

Throughout the County, a total of 2,534.1 acres of industrial land divided into 46 sites were considered. Of this acreage, 2,028.77 acres is currently vacant and/or available. The study further breaks down the acreage by type of potential development, in four categories: Business Park, Warehousing & Distribution, Light Industrial, and Heavy Industrial. Table III-9 below provides a breakdown of available acreage by category.

Table III-9
Vacant Industrial Lands by Classification

Classification	Acreage
Light Industrial	1,915.63
Business Park	56.67
Warehousing	56.47
Heavy Industrial	0.00
Total	**2,028.77**

Source: *Industrial Land Market Analysis, Kitsap County, Washington*

Under the Business Park classification, 40 of the 56.67 acres currently available are on the Olhava Master Plan property. The study considers the site "one of few industrial properties in Kitsap County immediately accessible via a freeway interchange...this site will provide one of the prime industrial sites in Kitsap County..."

The following Table estimates employment distribution in Kitsap County for persons employed in "industrial" buildings, including manufacturing, light industrial and business park settings.

Table III-10
Industrial Employment Share

Employment Type	1990	2000	2010	2015	2020
Manufacturing	1,805	3,696	7,000	8,567	10,356
Mining & Misc.	75	97	120	133	148
Construction	480	524	561	581	602
Transportation & Utilities	510	598	679	723	771
Wholesale & Retail Trade	3,425	4,312	5,185	5,685	6,234
Finance, Insurance & Real Estate	230	274	316	339	363
Services	2,680	3,891	5,250	6,098	7,083
Government	1,420	1,417	1,389	1,370	1,328
Total	**10,625**	**14,809**	**20,499**	**23,496**	**26,885**

Source: *Industrial Land Market Analysis, Kitsap County, Washington*, July 1994

In order to accommodate these jobs, the study further estimates that 3,062 acres of land must be available for construction of industrial buildings (including a market reserve multiplier of 2.5, to preclude over-inflation of market rates), as demonstrated below.

Table III-11
Acres of Industrial Land

Employment Type	1990	2000	2010	2015	2020
Manufacturing	270	552	1,046	1,280	1,547
Mining & Misc.	11	15	18	20	22
Construction	72	78	84	87	90
Transportation & Utilities	76	89	101	108	115
Wholesale & Retail Trade	512	644	774	849	931
Finance, Insurance & Real Estate	34	41	47	51	54
Services	400	581	784	911	1,058
Government	212	212	208	205	198
Total	**1,587**	**2,212**	**3,062**	**3,510**	**4,016**

Source: *Industrial Land Market Analysis, Kitsap County, Washington*, July 1994

Of this 3,062 acres, 25% or 765.5 acres, is recommended to be zoned for Business Park use. The study further estimates that only 12.3% of the total required industrial lands were vacant at that time. Since the drafting of the report, the County and cities have adopted their Comprehensive Plans, and have together designated 3,600 acres of land for various

industrial uses. No further analysis has been undertaken to determine the suitability or net buildable area for these lands, but it appears that the County has sufficient supply of industrial lands through the year 2015 at this time.

Given the expected market growth, sites which are serviced and which provide access to major transportation corridors will be most desirable. The 40 acres proposed on the Olhava Master Plan property, therefore, should be absorbed into the market need within a ten year time frame. Recent approvals of projects such as Mind and Boxlight represent an important potential market for the North Kitsap area. If developed with the amenities proposed, the subject property will provide the campus atmosphere, support services and access to employee bases required for the development of business park facilities.

Residential Conditions and Market Potential

Unlike the commercial and business park components of the proposed Master Plan, the residential component is the only one which can be considered to rely solely on local economic conditions. Regional growth will result in localized growth in Poulsbo, as discussed extensively in previous sections of this report. The City's growth projections estimate a population of over 10,000 by the year 2010 (based on Office of Financial Management estimates), with a corresponding need in residential units. Estimates for additional housing units were made as part of the City's Comprehensive Planning process. These estimates show that an additional 2,378 housing units will be needed in Poulsbo by the year 2010. If the estimates made by Kitsap County are considered, the City will grow to over 15,000 by the year 2010[12].

Based on historic trends, the following units can expect to be built in each housing category:

Table III-12
Future Housing Needs, City of Poulsbo

Housing Type	Year	New Units
One Unit	2000	276
	2010	602
Two or More Units	2000	268
	2010	457
Mobilehome or Trailer	2000	103
	2010	234
Total New Units -- 2010		**1,940**

12 *City of Poulsbo Comprehensive Plan,* Adopted June 13, 1994.

It can be expected that the City's supply will fall short of demand by 438 units, using Office of Financial Management projections. If the City grows at the rate projected by Kitsap County, the shortfall in necessary housing units based on current construction rates will exceed 2,400.

Historically, the City's housing stock has been approximately 50% single family residential, 38% multi-family, and 12% mobilehome units. Assuming that housing trends will continue in these percentages, the shortfalls for housing units will be:

Table III-13
2010 Housing Unit Deficit

Housing Type	2010 OFM Pop.	2010 County Pop.
One Unit	219	1,204
Two or More Units	166	914
Mobilehome or Trailer	53	289
Total Deficit	**438**	**2,407**

Significantly, recent applications made to the City have not included multi-family residences, but have concentrated on single family tracts. In addition, apartment vacancy rates in the City are below 5%, a rate considered necessary to account for remodeling, turnover and unoccupiable units. Finally, the construction of the Olympic College campus will create a demand for both staff and student housing in the area. Although community colleges tend not to have the student housing demands associated with 4-year facilities, it is likely that both students and staff will require housing in proximity to the facility. It is therefore possible that the multi-family demand for units will be higher than projected, based on current conditions. Should this occur, the Olhava project's 420 units of multi-family residential should find an immediate need, particularly since construction of the majority of units is not phased to occur prior to the year 2000. Market forces will dictate whether the need in multi-family units will tend to townhouse or apartment complexes, either of which can be accommodated on the subject property.

The single family component of the project, comprised of only 70 units, is phased for construction between 1997 and the year 2000. Vacancy rates for single family units are approximately 1% lower than the 5% base rate considered for all markets to account for sales, turnover and unoccupiable units. The supply of single family housing, therefore, is not currently meeting the demand for such housing. Also a factor in absorption rates for this component of the plan will be the Olympic College staff population. Given current trends and shortfalls, the small number of units planned on the project site should be absorbed into the market at the time of construction, assuming competitive pricing.

IV. Cost/Benefit Analysis

A. Introduction

This section describes in detail current and anticipated costs and revenues for both the City of Poulsbo and the proposed project. Once analysed, this data forms the basis for the cost/revenue analysis which concludes this section.

Since the Master Plan is conceptual in nature, actual costs and revenues generated by the project will differ from those enumerated below. The assumptions made in this study, however, are conservative, and should provide a benchmark for analysis.

B. City Revenue Sources

1. Sales and Use Tax Revenues

By far the largest portion of the City's revenue from tax sources comes from Sales and Use tax. The City collects 1% for retail sales within its boundaries. Generally, sales and use tax represent 50% of the City's general fund revenues on an annual basis.

Two large segments of sales and use tax for the City come from the automobile and construction sectors of the economy. The automobile sector is somewhat more stable than construction, but on average the two sectors represent 20% and 9% of the City's taxable sales annually.

2. Property Tax Revenues

The second largest segment of the City's annual general fund tax revenues occur in property taxes. The City estimates only existing construction in its annual budgets, taking the conservative approach by not adding a factor for new construction every year. This approach provides the City with a potentially large cushion, since new construction can generate a considerable revenue annually. Property taxes currently represent 23% of the City's general fund tax revenues.

3. Utility Taxes

All utilities provided within the City, including electric, natural gas, cable television, telephone, solid waste, water, sewer and storm drainage, pay a tax to the City, based on usage or billings. The City has reduced the tax payable by City-owned utilities (water, sewer and storm drainage) in recent years, in order to allow for the build-up of reserves in those departments. Overall, utility taxes represent 21.2% of the City's tax revenue.

C. Project Generated Revenues

The proposed project will generate revenues for state, county and local government from a number of sources, most notably property taxes and sales and use tax. Section III of this report identified the market potential for the proposed project, and the potential mix of uses on the property. Further analysis was conducted, resulting in potential sales per square foot for each type of use. These estimates have been used to develop the sales and use tax generation provided below.

The project proponent, which has considerable experience in development in western Washington and Kitsap County, provided estimates of approximate value of improvements on the proposed property. These estimates, detailed below, provide the basis for the property tax generated by the proposed project.

1. Sales Tax Revenues

The project will generate sales tax revenue from both the commercial and, to a lesser degree, the business park component. Since levels of sales tax are at best extremely speculative for the business park, and in order to provide a conservative analysis, no revenues will be included in this study.

Prior to full occupancy of the project, the construction of all facets of the proposed Master Plan will generate sales tax for the City. Using the construction valuation costs shown in Table IV-5, below, the following can be expected in sales tax revenues during construction of the project (Olympic College is not included in the projections shown below).

Table IV-1
Sales Tax Generated by Construction (1995 Dollars)

Project Component	Phase					
	1997/98	1998/99	1999/00	2000/02	2002/03	2003/05
Primary Commercial	76,000	95,000	76,000	133,000		
Secondary Commercial			48,000	80,000		192,000
Business Park		29,000	38,000	48,000		75,000
Multi-Family	100,000		98,000		62,000	
Single Family	50,000	50,000				
Total	**226,000**	**174,000**	**260,000**	**261,000**	**62,000**	**267,000**

Source: Terra Nova Planning & Research, Inc.

The sales tax generation shown above has been further analysed to incorporate a 4% annual increase, as has been estimated in the costs shown in Section IV-D, below.

Table IV-2
Sales Tax Generated by Construction Adjusted for Inflation

1998	1999	2000	2002	2003	2005
$235,040	$203,555	$316,330	$343,458	$84,851	$395,225

Source: Terra Nova Planning & Research, Inc.

Since these revenues are directly related to construction activities, they are temporary, and will not continue past project buildout. They will provide additional income to the City during construction, however, to offset some costs associated with administration of the project during this period.

Retail Sales Tax

In order to estimate sales tax revenue from the commercial component, the square footage constructed in each phase has been converted into a percentage of the project total. This percentage is then applied to the sales tax generation, and annual rates result, as illustrated below.

Table IV-3
Cumulative Sales Tax Generated (1995 Dollars)

1998	1999	2000	2002	2003	2005
$133,435	$299,514	$512,533	$878,883	$878,883	$1,191,264

Source: Terra Nova Planning & Research, Inc.

The sales tax revenues illustrated above are in 1995 dollars. In order to provide an accurate comparison to the costs shown in Section IV-D below, these numbers have been adjusted at the same rate as the cost factors, or 4% increase annually.

Table IV-4
Cumulative Sales Tax Generated Adjusted for Inflation

1998	1999	2000	2002	2003	2005
$150,096	$350,389	$623,575	$1,156,550	$1,202,812	$1,763,362

Source: Terra Nova Planning & Research, Inc.

2. Property Tax Revenues

The proposed project includes a total of 839,000 square feet of commercial space, 325,000 of office and light industrial space, and 490 dwelling units. The value of improvements has been estimated for constructed phases, and does not include on and off site capital facility improvements, or value of the Olympic College facility. All calculations have been completed using 1995 dollars.

Table IV-5
Estimated Value of Construction ($000)

Project Component	Phase					
	1997/98	1998/99	1999/00	2000/02	2002/03	2003/05
Primary Commercial	7,600	9,500	7,600	13,300		
Secondary Commercial			4,800	8,000		19,200
Business Park		2,900	3,800	4,800		7,500
Multi-Family	10,000		9,800		6,200	
Single Family	5,000	5,000				
Total	**22,600**	**17,400**	**26,000**	**26,100**	**6,200**	**26,700**

Source: First Western Development

Based on Table IV-5, the following estimates can be made of property tax revenues to the City, on a phase basis. All estimates provided below are at the 1995 local tax rate, which has not been increased in two years. It is expected that the City will elect to utilize its 106% annual increase allowance in the future, but no definite policy has been set by the City. For purposes of the Table below, and to provide a conservative estimate, an annual increase of 4% in property value has been estimated, with no increase in the tax rate.

Table IV-6
Annual Property Tax Revenue from Project

Project Component	Phase 1997/98	1998/99	1999/00	2000/02	2002/03	2003/05
Primary Commercial	$21,287	$27,674	$23,025	$43,580		
Secondary Commercial			$14,542	$26,212		$70,768
Business Park		$8,449	$11,511	$15,727		$27,644
Multi-Family	$28,010		$29,688		$21,128	
Single Family	$14,004	$14,564				
Annual Property Tax from Project	**$63,301**	**$50,687**	**$78,766**	**$85,519**	**$21,128**	**$98,412**

Total Annual Property Tax Generation at Buildout: $460,727*

Source: Terra Nova Planning & Research, Inc. *2005 dollars

At buildout, therefore, constructed facilities on the project are expected to generate $460,727.00 in property taxes for the City. In addition, the property itself will generate property tax. Current value of the property is $1,239,210.00[13], without improvements. Although the value of the land will rise with infrastructure improvements and entitlements, the estimates of value below have been calculated for land only, based on the same assumptions as were utilized for the structures, resulting in the following revenue for the City. Altogether, the project will generate $465,295.00 in property taxes for the City in 2005.

Table IV-7
Annual Property Tax Revenue for Land

Project Component	Phase 1998	1999	2000	2002	2003	2005
Annual Property Tax for Land	**$3,471**	**$3610**	**$3,754**	**$4,060**	**$4,223**	**$4,568**

Source: Terra Nova Planning & Research, Inc. *2005 dollars

13 1995 Tax Statement.

3. Other Revenues

The Master Plan allocates usage for the project for water and sanitary sewer. Section IV-D.3., Capital Facilities, below outlines the total usage and potential revenue to the City's Water and Sewer Department from the project. In addition, the City receives a utility tax from the Department, calculated at 8% of usage fees (the tax is currently being reduced by 1% by the City to allow the water and sewer departments to build reserves). The project will generate $48,034.00 in utility tax once complete, in 1995 dollars. If the tax rate is returned to 9%, the City will receive $54,038 annually in utility taxes, in 1995 dollars. Adjusted for inflation, the City will receive $63,209.00 annually at 8% in 2005 dollars, and $71,110.00 annually at 9% in 2005 dollars.

During the construction period, the project will also generate fees to the City in relation to building permits and plan checking. The fees charged for building permits vary greatly, and are based on a number of factors, including interior improvements, types of facilities, plumbing and electrical. For purposes of this study, an average cost per $1,000.00 valuation has been developed based on building permit activity at the City in the last two years, to estimate the potential for building permit fees.

The single family residences planned for the project are estimated to be valued at $142,000.00 per unit. At an average of $12.00 per $1,000.00 valuation, each unit would generate $1,704.00 in building permit fees. The multi-family residential is estimated at a value of $62,500.00 per unit, resulting in an average building permit fee of $750.00 per unit. For commercial and office structures, an average of $6.00 per $1,000.00 valuation was estimated. The table below shows the total building fees generated by type of use, and by phase year.

Table IV-8
Building Permit Fees

Project Component	Phase 1997/98	1998/99	1999/00	2000/02	2002/03	2003/05
Primary Commercial	$45,600	$57,000	$45,600	$79,800		
Secondary Commercial			$28,800	$48,000		$115,200
Business Park		$17,400	$22,800	$28,800		$45,000
Multi-Family	$120,000		$75,000		$120,000	
Single Family	$59,640	$59,640				
Building Permit Fees from Project	**$225,240**	**$134,040**	**$172,200**	**$156,600**	**$120,000**	**$160,200**
Total Building Permit Fees: $968,280*						

Source: Terra Nova Planning & Research, Inc. *1995 dollars

D. Costs

1. Administration

It is possible to estimate what costs are associated with general fund expenditures on a per capita basis for the residential population. To calculate this figure, the general fund expenditure total of $4,508,493.00 has been adjusted by deducting salaries and benefits for fire and police department staff, yielding a net general fund expenditure of $2,758,820.00. The impacts of the project on fire and police department staff are calculated separately below.

On a per capita basis, the general administrative functions of general fund government cost $509.48 currently. These costs include administrative staff, supplies and services, but do not include capital outlays or special projects. The cost of providing government has been rising at an average of 10% annually in the last several years. Revenues have not significantly increased over the same time period, while expenses have grown. It can therefore be conservatively expected that the cost of government will continue to grow at a rate close to 10% annually.

The Master Plan calls for the addition of 1,166 persons to the City's population base at buildout. This population could potentially generate a cost to government of $594,054.00, in 1995 dollars. If the phasing plan is considered, and a 10% annual increase in costs is calculated, the project could add the following to administrative costs:

Table IV-9
Project Generated General Fund Costs

Year	Total Units	Total Pop.	Per Capita Cost	Total Cost
1998	195	464	$678	$314,592
1999	230	547	$746	$408,062
2000	330	785	$821	$644,485
2003	490	1,166	$1,092	$1,273,272
2005	490	1,166	$1,321	$1,540,286

Source: Terra Nova Planning & Research, Inc.

The total annual administrative costs shown above are very conservative, and do not take into account economies of scale on increasing efforts to control government costs. They do, however, provide a benchmark which can be used to balance the commercial and industrial uses on the proposed property, which will also require administrative services, but whose level of use cannot be easily quantified. If it is assumed that the primary administrative service to be used by commercial and industrial users is for business licenses and similar annual administration, the fees collected for these activities will reimburse the City for the tasks involved.

Public Safety: Police Department

The areas which are more difficult to gauge occur in public safety. The City's general fund includes the police and fire departments. Police services are currently, and are mandated to continue in the Comprehensive Plan, at a level of service of 2.27 officers per 1,000 population[14]. Based on this level of service, and the projected buildout population of 1,166 persons residing on the proposed project, the police department will require an additional 2.65 personnel to meet the level of service mandated. In 1993, it cost the City $39,500.00 per officer to maintain the police force (salary, benefits and equipment). Based on this cost, with an annual increase of 4%, the project will generate a need for $167,586.00 to maintain 2.65 full time personnel equivalents.

The provision of police and fire services to residential versus other types of land uses has not been catalogued at the City. Current conditions indicate that residential calls make up 55% of the police department's response to crimes against property, with calls to commercial addresses making up 45% of the property crimes in the City. It is not possible to estimate similar percentages for crimes against persons[15].

14 *City of Poulsbo Comprehensive Plan,* Adopted June 13, 1994

15 Telecom, Chief of Police Dorn, July, 1995.

Public Safety: Fire Department

The fire department is responsible for both fire and emergency medical care within the City and larger District 18. The current agreement between District 18 and the City results in the City paying for personnel to staff the fire station, and for its equipment located at the station. The City has a complement of 18 paid fire fighters and emergency medical personnel covering a service area population of approximately 18,250, or an average of 1.01 personnel per thousand population. The City does not currently have a level of service for fire personnel, nor has a definite level of service been recommended in the recently drafted Master Plan. A study recently completed by Municipal Research & Service Center of Washington[16] recommends that in order to provide adequate response times, fire stations be located within 1.5 to 2 miles of commercial and residential areas, respectively. The City's fire station is located 1.7 miles from the proposed project area.

The study further polled fire stations throughout the United States to determine staffing levels. In service areas of 10,000 to 24,999 persons, an average of 1.47 personnel per 1,000 population was recommended. In service areas of 25,000 to 49,999 population, a ratio of 1.65 personnel per 1,000 population was recommended. At project buildout, the District boundary will likely have exceeded 25,000 population, so that a ratio of 1.65 personnel per 1,000 would be recommended. Based on this ratio, and a project population of 1,166 persons, the proposed Olhava project will require the addition of 1.9 full time equivalent personnel to the fire department. According to the 1995 budget, it currently costs the City an average of $31,560.00 to maintain each professional at the station. Based on this cost, with an annual inflation increase of 4%, the project will generate a need for $88,761.00 annually at buildout to maintain 1.9 full time personnel equivalents at the fire department.

In order to maintain the City's current fire insurance rating, the Washington State Survey and Rating Bureau requires that three engine companies be available to respond to commercial fires in the City. The City's station currently houses two engine companies, while the third is housed at the Clear Creek station, and is not manned by professional fire fighters[17]. The proposed project's impacts on the fire department is likely to result in the need to either man the Clear Creek station, or locate a third engine company at the City's station. The personnel for that engine company has been allocated in the discussion above. Additional equipment needs, however, have not. The City maintains equipment reserves for fire fighting equipment, and will continue to build these reserves. Current reserves total $85,050, with an influx from the general fund in 1995 of $40,000.00. Should these general fund contributions continue annually, the City will have $445,000.00 available at project buildout for fire fighting equipment. It is likely that at completion of the project, the

16 *Level of Service Standards, Measures for Maintaining the Quality of Community Life.* Municipal Research & Services Center of Washington, September, 1994.

17 Telecom, Fire Chief Shields, July, 1995.

City will require an additional engine, and associated equipment, at an approximate cost of $225,000.00. Such cost should be borne as a general fund expense, and should be calculated into the City's budget in the next ten years.

Total Administrative Costs

When general administration, police and fire department costs are added, the project at buildout will generate administrative costs of $1,796,633.00, in 2005 dollars.

2. Circulation Improvements

The Master Plan identifies a number of off-site traffic improvements required for the City and region's street system in order to implement the project within the Comprehensive Plan's mandated levels of service. These improvements, included in the traffic study, are listed in Table IV-10, below. Also added to the Table are percentage shares for each affected agency, and the project proponent, for each improvement.

Table IV-10
Off-Site Mitigation Requirements and Proportionate Shares[18]

Location/Improvement	City % Share	County % Share	WSDOT % Share	Project % Share
SR-305 @ Hostmark/NB/SB thru lane	44.2	0.00	36.7	19.1
SR-305 @ Lincoln/NB/SB thru lane	34.5	0.00	58.2	22.5
SR-305 @ Little Valley/NB/SB through lane, connect 7th & 10th	20.2	0.00	58.2	21.6
SR-305 @ Bond/NB/SB through lane, SB left turn lane	39.6	0.00	29.4	31.0
Lindvig @ Bond/Signalize by City; restriping and lane configuration	88.9	0.00	0.00	11.1
SR-305 @ Viking/EB through lane	16.8	0.00	43.3	39.9
Viking @ Finn Hill/WB left turn lane, signal phasing for NB/SB approaches	92.3	0.00	0.00	7.7
SR-305 @ SR-3 NB on/off ramp/ EB/WB through lane & signalize	0.00	0.00	51.6	48.4
SR-3/305 Interchange/Widen NB off-ramp	0.00	0.00	92.5	7.5
Sr-3/SR-305 Interchange/Second EB/WB through lanes	0.00	0.00	28.2	71.8
SR-3/SR-305 Interchange/Realign SB off-ramp to site	0.00	0.00	46.4	53.6
SR-3/SR-305 Interchange/New SB on-ramp	0.00	0.00	0.00	100.00
SR-3/SR-305 Interchange/Sr-3 NB loop on-ramp	0.00	0.00	0.00	100.0

Source: Gibson Traffic Consultants

Cost estimates for the required improvements were prepared by American Engineering Corporation, and were distributed based on the fair share percentage, resulting in Table IV-11, below. To further analyse costs, Table IV-11 breaks down the percentage share for improvements already identified in existing Transportation Improvement Programs for each affected agency. The source of funds is also identified and footnoted as appropriate.

18 Proportionate shares for Olhava project, local agencies and WSDOT are based on projected 2004 p.m. peak hour volumes at each intersection.

Table IV-11
Off-Site Mitigation Requirements and Proportionate Shares

Location/Improvement	City $ Share	County $ Share	WSDOT $ Share	Project $ Share
SR-305 @ Hostmark/NB/SB thru lane	64,311[19]	0.00	53,399	27,790
SR-305 @ Lincoln/NB/SB thru lane	50,198	0.00	84,681	32,737
SR-305 @ Little Valley/NB/SB through lane, connect 7th & 10th	104,307	0.00	300,527	111,536
SR-305 @ Bond/NB/SB through lane, SB left turn lane	48,783[20]	0.00	36,218	38,189
Lindvig @ Bond/Signalize by City; restriping and lane configuration	185,179[21]	0.00	0.00	23,121
SR-305 @ Viking/EB through lane	7,333[22]	0.00	18,900	17,416
Viking @ Finn Hill/WB left turn lane, signal phasing NB/SB approaches	130,743[23]	0.00	0.00	4,116
SR-305 @ SR-3 NB on/off ramp/ EB/WB through lane & signalize	0.00	0.00	150,827	141,473
SR-3/305 Interchange/Widen NB off-ramp	0.00	0.00	40,376	3,274
Sr-3/SR-305 Interchange/Second EB/WB through lanes/retaining wall	0.00	0.00	82,739	210,661
SR-3/SR-305 Interchange/Realign SB off-ramp to site	0.00	0.00	36,006	41,594
SR-3/SR-305 Interchange/SB on-ramp	0.00	0.00	0.00	465,600
SR-3/SR-305 Interchange/Sr-3 NB loop on-ramp	0.00	0.00	0.00	407,400
Total	**$590,854**	**$0.00**	**$803,673**	**$1,524,907**

Source: American Engineering Corp. and Terra Nova Planning & Research, Inc.

19 Allocated in City's Six Year Transportation Improvement Program, for implementation 1994.

20 Allocated in City's Six Year Transportation Improvement Program, for implementation 1994.

21 Allocated in City's Six Year Transportation Improvement Program, for implementation 1995.

22 Allocated in City's Six Year Transportation Improvement Program, for implementation 1995/97.

23 Allocated in City's Six Year Transportation Improvement Program, for implementation 1998.

Table IV-12
Mitigation Contribution to Programmed and Planned Improvement Projects

Location/Improvement	City % Share	WSDOT % Share	Other[24] % Share	Project % Share
SR-305: Lincoln to Hostmark	3.4[25]	0.00	75.0	21.6
SR-305 @ Little Valley intersection	20.2[26]	58.2	0.00	21.6
Lindvig @ Bond Road intersection	88.9[25]	0.00	0.00	11.1
SR-305 @ Viking/EB through lane	16.8	0.00	43.3	39.9
Viking:Finn Hill to SR-305, curb, gutter, sidewalk, channelization	34.7[27]	0.00	42.0	23.3
Lincoln: SR-305 to city limits, curb, gutter, sidewalk, drainage	4.5[24]	0.00	75.0	20.5
Finn Hill: Terasse to city limits, curb, gutter, sidewalk, drainage	85.1[25]	0.00	0.00	14.9
Finn Hill: Viking intersection	92.3[25]	0.00	0.00	7.7
Finn Hill Frontage Road to city limits	20.0[28]	20.00	40.00	20.0
Bond: SR-305-SR-104	6.0[29]	0.00	38.0	36.0
SR-305 & Bond intersection	39.6[25]	29.4	0.00	31.0
Widen SR-3 NB off-ramp @ R-305	0.00	92.5[25]	0.00	7.5
Realign & extend SR-3 SB off-ramp @ SR-305	0.00	46.4[25]	0.00	53.6
SR-3/SR-305: Construct SR-3 SB on-ramp	0.00	0.00	0.00	100.0
SR-3/SR-305: Construct SR-3 NB loop on-ramp	0.00	0.00	0.00	100.0
SR-305 @ Viking: add EB thru lane	16.8[25]	43.3	0.00	39.9
SR-3: SR-308 to SR-305: thru lane in both directions	0.00	100.00[25]	0.00	0.00

Source: Gibson Traffic Consultants

Notes, Table IV-12

25 Combination of some or all of the following funding sources: RAP, CAPP, TIA, UATA, Other and WSDOT.

26 Assumed 25% local share, with Olhava project contribution towards the local share based on 6-year TIP funding splits. Note: 20% local share for Lincoln Road project.

27 Based directly on proportionate shares of peak traffic volumes, as no existing funding/splits identified.

28 Assumed 58% local share, with Olhava project contribution towards the local share based on 6-year TIP funding split.

29 TIB funding has been applied for, with proposed 20% share contributions from City of Poulsbo, Kitsap County, WSDOT, Olympic College and Olhava Partnership.

30 City and County/WSDOT shares based on length of improvements within each jurisdiction.

The City's share of improvements is derived by calculated two items: the deficiencies currently in the system which cannot be assigned to future development, and the impacts of future development other than the Olhava Master Plan project. The City should be able, through its traffic impact fee, recoup the expenditures associated with future development, since the fee was developed based on a recent traffic study which analysed growth in the City at rates comparable to those forecast in the Comprehensive Plan.

A number of sources of funds are available to the City to fund street improvements, including revenues from state fuel tax programs, excise tax, and existing reserves. The City has $390,000 in unallocated funds available in the 1995 budget. In addition, a number of state and federal public works funding sources may be possible for these projects. Since 5 of the 7 improvement projects have been included in the City's TIP, and have had funding assigned or projected, the City currently will be responsible for an additional $154,505 in costs for mitigation projects to support the proposed Master Plan. The City would appear to currently have, or be able to acquire, the necessary funding to complete the improvements.

3. Capital Facilities

The City's capital facilities: water, sanitary sewer and storm sewer, are self-funded branches of local government. Each of the services is discussed below.

Domestic Water

The project proponent will construct all on-site facilities, and will extend service to the property along Parnell Place and Thompson Road. The project will generate a need for 357,000 gallons per day (gpd) for domestic water demand[30].

Current capacity within the City's system is 2,664,000 gallons per day, with average daily usage of 804,093 gallons per day. The City expects the addition of one well at Big Valley with a capacity of 864,000 gallons per day, bringing daily capacity to 3,528,000 gallons per day.

Agreement between Public Utility District #1 (PUD 1) and the City have been reached to provide an intertie agreement for the provision of water from existing sources at levels sufficient for both daily use and fire flow[31].

30 *Master Plan for the Olhava Project*, January 1995

31 Telecom, Kent Berryman, May 1995.

Revenues

The residential component of the proposed project is estimated to utilize 78,400 gallons per day (160 gallons per day per unit). Utilities are billed on a monthly basis, based on 100 cubic foot usage plus a base fee. On a monthly basis, it is estimated that the 642 cubic feet of water will be consumed per unit, for a monthly fee of $19.32 per unit, or $9,467.00 for the total 490 units. Annually, the residential component will generate $113,604.00 for the Water Department.

The balance of the proposed project will utilize 278,600 gallons per day, or 37,246 cubic feet per day. It is impossible at this time to determine how many separate users will be represented in this project. An average of $1.13 per 100 cubic feet was used to estimate revenue, with an addition of 200 units base rate. On a monthly basis, the commercial, business park and institutional components of the project will generate $15,526.00, or $186,312.00 annually.

Altogether, therefore, the project will generate $299,916.00 to the water department, in 1995 dollars. With the addition of an inflation factor of 4%, water department revenues will equal $443,949.00 in 2005.

Storm Drainage

The proposed property currently is unimproved, and drains into the City's surface water drainage system unrestricted. The proposed Master Plan document includes plans to detain and treat all surface water runoff on-site. The site was divided into 12 drainage areas for the purposes of analysis. Detention is proposed through a system of ponds and underground tanks. The system is proposed to have a storage capacity of 1,286,000 cubic feet, resulting in a 50% reduction in off-site flows. The reduction of flows from the site after construction will result in a lowering of the current impacts on the drainage system for the City. Payment made to the utility for drainage should continue to provide the City with a self-supporting capital facility.

Revenues

The City charges a per unit flat fee for storm drainage. It is estimated that the project will generate approximately $41,400.00 annually to the City in storm drainage fees in 1995 dollars. With a 4% inflation factor, the project will generate annual storm drainage fees of $61,282.00 at buildout.

Sanitary Sewer

The City currently participates in a regional sanitary sewer system, with a plant located at Brownsville and operated by Kitsap County. In recent months, it has become clear that the City has reached or exceeded its share of treatment capacity at the plant, as has the County. In addition, the City's system of pipes is in need of repair. Preliminary discussions and

public comment made by both County and City officials indicated that the City's share of the plant is to be increased to 13,000,000 gallons per day (gpd), at an approximate project cost of $25,000,000.00[32]. Historically, the City's flows to the plant have not significantly exceeded its fair share. It can therefore be assumed that the bulk of the cost for the improvements required will be borne by new development in the City. Since no definite plans have been developed, the discussion which follows is conceptual only. Exact levels of participation must be negotiated between the City, County and project proponent at a later date.

Based on calculations provided in the Master Plan by American Engineering Corp., the project will generate an annual average flow of 223,300 gpd. At current estimates, the expansion of the treatment and extension of lines to carry a maximum flow of 13,000,000 gpd will cost $1.923 per gallon. If this is the case, the project's fair share of the proposed improvements will be $429,405.90. Since no plans are in place to fund the project, it is unclear as to whether a cash contribution, participation in an LID or similar project, or other means will be implemented by the City. The project will, however, be required to negotiate its level and type of participation with the City.

Revenues

User fees for sanitary sewer are calculated based on a base fee plus 75% of the dollar amount of water consumption. At current rates, the project will generate $25,042.00 per month in sewer fees, or $300,504.00 annually, in 1995 dollars. With the addition of a 4% inflation factor, sanitary sewer fees will total $444,819.00 annually in 2005.

Costs

The 1995 budget for the Water and Sewer Department reflects expenditures of $1,538,499.00 (including personnel, benefits, equipment and supplies, sewage treatment fees, and taxes). On a per pumped gallon basis (804,093 average daily pumpage), the departments cost $1.91 per gallon to maintain annually. The proposed project will generate a need for 357,000 gallons per day, resulting in an annual project cost of $681,870.00 for maintenance of the water and sewer department, in 1995 dollars. With an annual inflation factor of 4%, the project would add maintenance costs of $1,009,334.00 in 2005. Given the economies of scale associated with participating in an established system, these cost estimates are considered extremely conservative.

32 Telecom, Mayor Mitchusson, City of Poulsbo, June, 1995.

E. Cost/Benefit Analysis

1. Project Buildout Cost/Benefit Analysis

At project buildout, the City will experience a positive cash flow from the proposed project, although overall expenses will be considerably increased. The following Table lists project associated costs to be incurred by the City at project buildout in 2005, project generated revenues, and the resulting excess for the City.

Table IV-13
Buildout Cost Revenue Analysis (adjusted for inflation)

Item	City Cost ($)	City Revenue ($)
General Administration	1,540,286	
Police Department	167,586	
Fire Department	88,761	
Water and Sewer Department	1,009,334	
Subtotal	**2,805,967**	
Sales Tax Revenues		1,763,362
Property Tax Revenues		465,295
Water Department Fees		443,949
Sanitary Sewer Fees		444,819
Storm Drainage Fees		61,282
Water and Sewer Utility Taxes (at 8%)		63,209
Subtotal		**3,241,916**
Resulting annual positive cash flow: $435,949.00		

Source: Terra Nova Planning & Research, Inc.

These costs do not include economics of scale, other reductions, or the costs associated with the expansion of the sewage treatment plant, fire fighting equipment or costs for roadway improvements detailed in Section IV-D.2., above, Circulation Improvements. It is expected that these costs will be absorbed by a combination of bonds, assessments, and contributions from the City's capital improvement funds and utility reserves.

2. Phased Cost/Benefit Analysis

Based on general fund administrative duties, the costs and revenues of the proposed project were analysed based on the Master Plan's phasing plan. Administrative costs only were included, since the utilities are, and are anticipated to continue to be self-supported.

Table IV-14
Phased Cost/Revenue Analysis (adjusted for inflation)

Item	Phase 1998	1999	2000	2002	2003	2005
Costs:						
Administration	314,592	408,062	644,485	779,505	1,273,272	1,540,286
Police Department:						
Additional Staff	48,058[33]	49,980	103,958[34]	112,442	154,943[35]	167,586
Fire Department:						
Additional Staff	35,501[36]	36,921	38,398	41,531	82,065[37]	88,762
Subtotal Costs	**398,151**	**494,963**	**786,841**	**933,478**	**1,510,280**	**1,796,634**
Revenues:						
Building Permit Fees	225,240	134,040	172,200	156,600	120,000	160,200
Property Tax	66,772	120,130	203,701	305,842	339,204	465,295
Construct. Sales Tax	235,040	203,555	316,330	343,458	84,851	395,225
Retail Sales Tax	150,096	350,389	623,575	1,156,550	1,202,812	1,763,362
Total Revenues During Phasing	**677,148**	**808,114**	**1,315,806**	**1,962,450**	**1,746,867**	**2,784,082**
Cash Flow	**278,997**	**313,151**	**528,965**	**1,028,972**	**236,587**	**987,448**

Source: Terra Nova Planning & Research, Inc.

The benefits seen during project phasing, when the project will be paying for building permits and construction materials and services sales tax, will be short term. The additional funds are likely to help the City fund additional inspection services for the engineering and building department if required, build reserves for the purchase of fire fighting equipment, police department equipment, and general capital outlays.

33 One new personnel.
34 Second new personnel.
35 Final 0.65 personnel.
36 One new personnel.
37 Final 0.9 personnel.

OLHAVA PROPERTY INTEGRATED MASTER PLAN

CHAPTER EIGHT

PROJECT CONFORMANCE
WITH POULSBO COMPREHENSIVE PLAN

CHAPTER EIGHT
CONFORMANCE WITH THE CITY OF POULSBO COMPREHENSIVE PLAN

OLHAVA PROPERTY INTEGRATED MASTER PLAN

8.0 CONFORMANCE WITH COMPREHENSIVE PLAN

The purpose of this chapter is to textually describe conformance of the Olhava Master Plan with all goals and policies of the City's Comprehensive Plan. Development proposals, whether initiated by private developers or the City, must be evaluated to determine consistency with the Comprehensive Plan goals and policies.

In conjunction with the development of the Poulsbo Comprehensive Plan, the City also completed an Environmental Impact Statement (EIS), pursuant to the State Environmental Policy Act (SEPA). The EIS examined the impacts and required mitigation at the programmatic level for development through the year 2010, as discussed in the various elements of the Plan. The EIS is intended to be used as a base for site specific environmental review, and is not necessarily meant to preclude such review. Individual project proposals may be required to examine specific issues which were not adequately addressed in the EIS or the Comprehensive Plan or other environmental documents.

The following sections describe the Olhava Master Plans consistency with each applicable goal and policy of the Comprehensive Plan.

8.1 LAND USE ELEMENT

8.1.1 General Land Use Goals

- **Goal 1**: *To provide a mix of functionally integrated land uses which meet general social and economic needs through compatible and harmonious land use and zoning designation.*

  The Olhava Property has received zoning approval (December, 1994) for Commercial, Business Park, Public Schools, and Medium and Low-Density Residential use. This land use mix provides opportunity for citizens to shop, work, attend school or reside within the development, thereby reducing dependency on automobile transportation. Social needs for the community will be provided by education and employment opportunities and parks and open space for recreation; other commercial recreational opportunities may arise as the commercial land use is developed. Economic needs for the community are addressed by the inclusion of commercial and business park development, which should attract commerce to the Poulsbo community. Master planning for the Olhava Property zoning districts verifies that these zoning districts are compatible and harmonious both within the Master Plan and with adjacent zoning prescribed by the Comprehensive Plan.

- **Goal 2:** *To maintain a well-rounded community of desirable neighborhoods, a strong employment base and a variety of community facilities.*

  The zoning districts described above provide foundation for a well-rounded community. Residential neighborhoods will include medium-density and low-density dwelling units. Each of these neighborhoods include park and open space plans which introduce park area, walking/jogging trails, bicycle lanes and perimeter buffers. Each residential area is provided linkage to a centrally located community park. Development standards for these uses follow those described by the current Zoning Ordinance (December, 1994). Commercial, public school and business park land uses provide significant opportunity for employment. The quantity of commercial and business land use area suggests opportunity for a wide variety of community facilities.

- **Goal 3:** *An orderly, logical growth pattern which enhances and maintains the City's unique character, natural setting and small town atmosphere, while incorporating the anticipated population in the next 20 years.*

  TheOlhava Property development is planned to occur during a ten-year period. Project phasing is logically planned to provide initial infrastructure development and construction of residential and primary shopping components. Subsequent phasing is orderly, based upon the Olhava Associates estimates for area marketing conditions and development experience for similar projects. The property is uniquely sited to allow safe and efficient highway access. The property's consolidation of various land uses in one site area will reduce vehicular dependency and reduce the urban sprawl which would occur if these same land uses were otherwise located in separate locations. By this same reasoning, small town atmosphere and natural setting should be conserved. The Olhava Property provides residential, commercial, vocational, business and recreational opportunities for population increases expected to occur in the next 10-20 years.

8.1.2 Residential Land Use Goals

- **Goal 1:** *To preserve and enhance the predominantly low-density, high quality residential character of the City.*

  The Olhava Property will include its own section of low-density residential home sites. Inclusion of park and open space amenities provide walking, jogging, bicycling and other recreational opportunities provides high-quality character for this residential section. Clustering of commercial, business, medium-density residential and public school land uses in one master plan area should reduce vehicular dependency and reduce the urban sprawl. Reduction of urban sprawl should assist the City in preserving its image for high-quality residential character.

- **Goal 2:** *To provide sufficient land designated to allow the development of all types of residential development.*

  The Olhava Property includes 22.5 acres of low-density residential and 43 acres of medium-density residential property. These parcels provide approximately 70 low-density residential homesites and 420 medium-density dwelling units. Residential components of the Olhava Master Plan comprise approximately 19 percent of the total gross site area.

8.1.3 Commercial Land Use Goals

- **Goal 1:** *The Commercial land use designation shall assure adequate lands for a full range of uses that meet the community's needs which take full advantage of all development opportunities.*

  The Olhava Master Plan provides approximately 83 acres of commercial land which is planned to include approximately 840,000 square feet (SF) of commercial uses. Due to the significant size of this component a wide range of commercial and business uses would occur.

All commercial uses permitted by the Zoning Ordinance will be allowed by the Olhava Master Plan. Commercial sites have been established within the Master Plan to take full advantage of the property. Optimum placement of commercial sites has involved sensitive adaptation to existing site conditions, safe and efficient traffic access, and compliance with Zoning Ordinance development standards. Other considerations have included drainage management, open space requirements, and the protection of public health, safety and welfare.

8.1.4 Open Space and Conservation Goals

- **Goal 1:** *To conserve, manage, and designate open space areas in order to protect environmental resources and threatened species, guard against environmental hazards, provide enhanced recreational opportunities, and create an aesthetic character for the City.*

  Sections 1.4.4-1.4.18 (Chapter 1, pages 11-16) include site descriptions relating to the Natural Systems Element of the Comprehensive Plan and how the Olhava Property will protect the environmental resources and threatened species. Generally, the site is not occupied by any endangered or threatened species due to lack of biological habitat which otherwise might support these species. Remediation work for the Nike facility is concluding; this work has included removal of diesel contaminated soil (approximately 40 cubic yards), asbestos contained construction materials and transformer oil. The Olhava Property will include recreational opportunities by its inclusion of park and open spaces, trail systems, bicycle lanes and a community park site (Section 1.7, *Park and Open Space Mitigation*, Chapter 1, page 29). These additional park and open space elements should contribute to the City's aesthetic character.

- **Goal 2:** *To preserve the City's rural atmosphere by maintaining natural, scenic resources such as hillsides, ridgelines, and naturally occurring waterways.*

  The Olhava Property's consolidation of various land uses in one site area should reduce vehicular dependency and reduce urban sprawl which could occur if these same land uses were otherwise located in separate locations. Reducing urban sprawl should assist the City in maintaining its natural and scenic resources. The Olhava Master Plan provides perimeter buffers for the entire property. The property is physically situated below an upper ridgeline. There are no naturally occurring waterways within or adjacent to the Olhava Property.

8.1.5 Public Schools Land Use Goal

- **Goal 1:** *To provide the area's residents with a varied and complete educational experience at all levels of education.*

  The Olhava Master Plan includes a 20 acre site which has been donated to Olympic College. for construction of a branch campus. This site has been integrated with the Master Plan and will provide secondary educational opportunity not currently available to Poulsbo. The site will be provided transit access via Kitsap Transit's routing and bus stop plan (Section 1.6.6, Public Schools/Olympic College Site, Chapter 1, pages 25-26). Hence, this land use will assist the City in meeting its goal for providing area residents with a varied and complete educational experience at all levels. It is anticipated that public school mitigation fees will be identified and agreed to for those portions of the project which generate the need for additional school capacity (i.e., the residential phases).

8.2 GENERAL LAND USE POLICIES

- **Policy 1:** *The City of Poulsbo shall adopt and maintain a Land Use Map which shows the general location and extent of the uses of land for, but not limited to, residential, commercial, industrial, mixed use, parks and open space. In addition, the City shall implement a Zoning Code to guide and regulate development consistent with the Comprehensive Plan.*

  The Olhava Master Plan has been planned according to Land Use Map zoning district uses, which include: Commercial (C), Residential (R-L, R-M), Business Park (BP), and Public Schools (PS). This Master Plan is designated as a Master Plan Overlay district which contains mixed-use development types. Provisions for park and open space mitigation is described in Section 1.7, *Park and Open Space Mitigation*, Chapter 1, page 29, and by *Table 1.4, Proposed Park Mitigation,* page 29. The Olhava Master Plan has adopted development standards of the Zoning Ordinance (December, 1994) as its guide for future development and consistency with the Comprehensive Plan. Two requested variations from these standards are described in Section 1.9.2, Chapter 1, page 33, *Variation Request: Allowable Building Heights* and Section 1.9.2, *Variation Request: Maximum Continuous Roof Plane*, Chapter 1, page 35.

- **Policy 2:** *All applicable land use policies and standards contained in the Comprehensive Plan shall be used to determine Comprehensive Plan consistency for development proposals.*

  Each goal and policy of the Comprehensive Plan is addressed by this Chapter and related references to other Chapters. Standards contained in the Comprehensive Plan include Zoning Ordinance development standards and procedures for Master Plan content. These standards have been applied to the Olhava Master Plan through application procedures, development standards, and associated Master Plan content.

- **Policy 3:** *The City of Poulsbo shall assure that properly filed development applications shall be processed in a timely manner.*

  Not applicable to this project at this time.

- **Policy 4:** *In-fill development shall be encouraged within the corporate boundaries of the City, and expansion of urban boundaries shall be logically phased and guided by sound planning principals.*

  The Olhava Property was annexed to the City on April 11, 1994. The Olhava Master Plan represents in-fill development due to this annexation and suitable zoning for mixed-use development.

- **Policy 5:** *The City shall preserve the community's unique qualities by developing in a logical manner, avoiding leap-frog development, and preserving rural areas outside the Urban Growth Boundary.*

The Olhava Master Plan provides logical growth pattern via mixed-use development within the Urban Growth Boundary of the Comprehensive Plan. The property is located near the developed urban area of Poulsbo and has appropriate highway access.

- **Policy 6:** *The City of Poulsbo shall require that all development proposals provide all services, as required in the Capital Facilities Element and the Public Utilities Element within the mandate of the Growth Management Act.*

  Chapter 6 of the Olhava Master Plan includes descriptions for services provided for the Olhava Property and project share plans for Olhava Master Plan mitigation. This includes descriptions of the Master Plan relationship to the *Capital Facilities Element* and the *Public Utilities Element* of the Comprehensive Plan. (Chapter 6, *Fiscal Impact Study*, Terra Nova Planning & Research, May, 1995).

- **Policy 7:** *The City should identify the needed improvements in each area proposed for annexation, and require those improvements through conditions of approval. Needed improvements should be looked at in terms of current City standards for streets, access, parking, water, sewer and storm drainage, sidewalks, underground wiring, curbs and lighting, park and recreation facilities.*

  A SEPA determination was issued for the Olhava Property annexation on September 22, 1993. Conditions for annexation are described in Section 1.1, Mitigation Requirements for Olhava Property Annexation, Chapter 1, page 5. City standards have been incorporated by the Olhava Master Plan, with exceptions noted in Sections 1.9.1 and 1.9.2 of Chapter 1. A complete development description of grading, drainage and utility design is included with Chapter 2, Drainage and Utilities. Traffic design and mitigation are described with Chapter 4, Traffic Circulation Plan Element.

- **Policy 8:** *The City shall assure that amendments to the Comprehensive Plan are carried out in a manner consistent with State law.*

  Olhava Associates will make application to the City for all required Comprehensive Plan amendments, consistent with Washington law.

- **Policy 9:** *All development shall consider the natural setting of the City, and shall be required to preserve its natural assets, including viewsheds, sensitive and critical areas, and open spaces.*

  The Olhava Property's consolidation of various land uses in one site area should reduce vehicular dependency and reduce urban sprawl which could occur if these same land uses were otherwise located in separate locations. Reducing urban sprawl should assist the City in maintaining its natural assets. There are no sensitive or critical areas or view sheds located within the Olhava Property due to the location of the project: This is confirmed by associated delineations of the Comprehensive Plan. Open spaces and parks are established for the Olhava Property through conditions specified by the Olhava Master Plan (Section 1.7, *Park and Open Space Mitigation*, Chapter 1, Page 29.)

- **Goal 10:** *In order to encourage a jobs/housing balance, the City shall provide for residential development in commercial designations, under certain circumstances. The standards and requirements shall be determined in the Zoning Ordinance.*

  The Olhava Master Plan illustrates approximately 70 low-density residential homesites and 420 medium-density dwellings in specifically zoned areas within close proximity to commercial and business park uses of the property. These residential uses are provided pedestrian/bicycle linkage via trails, sidewalks and bicycle lanes. On-site bus routing and stops also provide mass transit linkage from these residential sites to commercial and business uses of the property. Development standards for residential uses have included those of the current Zoning Ordinance, with exceptions noted in Chapter 1, Sections 1.9.1 and 1.9.2.

- **Policy 11:** *The City should carefully consider the need for Concomitant Zoning Agreements in the futures. The City does not intend to invalidate its obligations under existing agreements, but these should be reviewed on an individual basis for timeliness, applicability and consistency with the Comprehensive Plan.*

  A development agreement adopted pursuant to RCW 36.70A.__ (ESHB 1724, Sections 501-506) will be used to establish general conditions of approval for the Master Plan and processes for review and approval of project phases.

8.3 RESIDENTIAL POLICIES

- **Policy 1:** *Areas of existing residential development and surrounding vacant lands shall be planned in a manner which preserves the character and assures a consistent and compatible residential land use pattern.*

  Residential components of the Olhava Master Plan have been designed to include open space and park elements, nature trails for walking and jogging, bicycle lanes and pedestrian/bicycle access to a community park site. Development standards of the Olhava Master Plan encourage unit clustering and open space creation associated with this technique. Each of these residential components have been located within zoning districts of the Land Use Map (Comprehensive Plan) and Zoning Ordinance, which allow for these uses and densities.

- **Policy 2:** *The City shall periodically review residential land use designations to assure that related Comprehensive Plan goals are met.*

  Not applicable to this project at this time.

- **Policy 3:** *The City shall consistently apply the development review process to all projects, to assure that subdivision and development plans are compatible with existing residential neighborhoods.*

  Section 1.10.1, Chapter 1, *Proposed Implementation Policy*, describes a review and approval process for the Olhava Master Plan. An adopted Olhava Master Plan would provide this review process be attached to subsequent development phases for the expected 10-year duration of the project.

- **Policy 4:** *The City shall encourage appropriate infill development on subdivided lands located adjacent to existing residential areas to maximize the efficient utilization of land and infrastructure.*

  The Olhava Master Plan contains one low-density residential land use and three areas of medium-density residential land use. Initial residential phase development is planned to include 50% of the low-density residential and the (adjacent) first area of medium-density residential dwellings. Infrastructure is available to this first residential phase: Warranted mitigation would accompany this phase and future phase infrastructure requirements. Other medium-density residential areas will be developed during later phases as accompanying infrastructure and warranted mitigation provides suitable traffic and utility improvements. (Section 1.8, *Olhava Project Phasing*, Chapter 1, page 30, and Chapter 6, *Fiscal Impact Study,* Terra Nova Planning & Research, 1995). Each planned residential component is adjacent to existing residential developments with varied density. Adjacent land uses are described by Section 1.4.2, *Existing Adjacent Land Use*, Chapter 1, page 8.

- **Policy 5:** *The City of Poulsbo shall maintain maps showing all available and projected infrastructure, to promote in-fill in residential areas and orderly development of vacant lands throughout the Urban Growth Area.*

  Infrastructure planning is described in Chapter 2, *Drainage and Utility Chapter*, and Chapter 4, *Traffic Circulation Plan Element*. Capital facility planning for warranted mitigation is described in Chapter 6, *Fiscal Impact Study*.

- **Policy 6:** *The City shall enhance the character of commercial areas by integrating higher density residential uses adjacent to these areas.*

  The Olhava Master Plan land uses are consistent with those delineated by the Land Use Map of the Comprehensive Plan. Higher density residential components include three areas of medium-density residential use, each within walking or bicycling range. Residential areas of the Olhava Master Plan are provided pedestrian/bicycle linkage to commercial areas via a system of trails, sidewalks and bicycle lanes.

- **Policy 7:** *The City of Poulsbo shall ensure that residential areas preserve the small town character of the community.*

  One low-density residential area is situated within the Olhava Master Plan. The Master Plan attaches park and open space requirements designed to preserve the small town character of this community. Medium-density residential areas are envisioned to provide a particular market function, buffer the commercial area, and will reduce urban sprawl, thereby providing some measure for preserving the small town character of the community.

- **Policy 8:** *Low-income/affordable housing shall not be located within one area of the community, but shall be dispersed where feasible, appropriate, and compatible with surrounding land uses.*

Low-income/affordable housing has been described by the Comprehensive Plan as being sufficient in quantity. "...the City clearly has more than its County wide proportion of affordable housing." The Olhava Master Plan does not specifically identify any areas for affordable housing nor does it preclude the use of any area for affordable housing. The inclusion of several areas of medium-density residential use provides the opportunity for dwelling unit rentals and the low-density residential component includes relatively small lot sizes which could be used for affordable housing.

- **Policy 9:** *The City shall establish procedures for granting of a density bonus (not to exceed 25% in excess of allowable density) to a housing developer who agrees to provide housing for persons and families of low income on all residential designated lands.*

  Should any residential area of the Olhava Master Plan be developed by a housing developer planning to provide housing for persons and families of low income, site plan review for the parcel would follow established procedures for granting of a density bonus which would not exceed 25% in excess of allowable density.

- **Policy 10:** *The City shall encourage the development of varied housing types through innovative design, including clustering, neo-traditional site planning, and density transfers, where appropriate. A density transfer shall not exceed 25% more than the maximum allowable density for the buildable acreage in the applicable land use designation, or 25% of the total number of units which could be constructed on the non-buildable land, whichever is less. A property owner or developer may apply for either a density transfer or a density bonus, but may not receive both. this policy shall be considered for review by the City Council every year.*

  The Land Use Plan for the Olhava Master Plan illustrates design intent for clustering residential homesites, orientation towards perimeter buffers, park and open space integration, and quality site planning techniques associated with cluster design. If during site specific site plan review areas are determined to be non-buildable land or density transfers are appropriate, the property owner or developer may apply for either a density transfer or a density bonus, according to the policy stated above.

- **Policy 11:** *Development standards for residential land uses shall include setbacks, bulk and height limitations, and other requirements which provide adequate visibility and preserve the scenic viewsheds from adjoining properties and public right-of-ways.*

  Olhava Master Plan development standards include those adopted by the Zoning Ordinance (December, 1995) with the exceptions noted in Sections 1.9.1 and 1.9.2, Chapter 1.

5.4 COMMERCIAL POLICIES

- **Policy 1:** *Sufficient lands shall be designated to provide a full range of commercial services to the community and surrounding areas.*

8.4 COMMERCIAL POLICIES

- **Policy 1:** *Sufficient lands shall be designated to provide a full range of commercial services to the community and surrounding areas.*

  Eighty-three (83) acres of the Olhava Master Plan are designated for commercial use. This area is envisioned to provide approximately 840,000 SF of commercial space which, when fully developed, should provide a full range of commercial services to the community and surrounding areas.

- **Policy 2:** *The City of Poulsbo shall provide a mix of commercial, office, and residential uses which are compatible with each other and surrounding areas.*

  The Olhava Master Plan provides a mix of commercial, office and residential uses. Each of these uses has been functionally integrated by development standards and park and open space mitigation plans. Pedestrian sidewalks and trails, transit routing, and bicycle lanes of the Olhava Master Plan provide non-vehicular alternatives to the community. Each of these uses is consistent with the Comprehensive Plan's Land Use Map both for the property and to adjacent uses planned by the Comprehensive Plan.

- **Policy 3:** *The City shall develop guidelines for the Downtown Core area to ensure compatible development and redevelopment of this important commercial area.*

  Does not apply to this project.

- **Policy 4:** *The City shall develop a strategic plan for promoting commercial development and tourism for the City of Poulsbo, in conformance with the Economic Development Element.*

  The Olhava Master Plan provides opportunity for commercial development and tourism services (e.g., hotel, conference centers, restaurants) for the City of Poulsbo. The project would also provide tax revenues to the City of Poulsbo and employment opportunities for its citizens, which is consistent with the Economic Development Element for providing future infrastructure required by other commercial development and tourism.

- **Policy 5:** *The City shall work with property owners and tenants in the Viking Avenue corridor to maximize the potential of this important commercial neighborhood.*

  This policy does not seem to be related to the project.

- **Policy 6:** *Due to the sensitive nature of marinas and similar water-oriented land uses, the City shall develop standards in its Zoning Ordinance for such uses, and shall ensure that all permits and regulations are reviewed and enforced.*

  The Olhava Master Plan does not include the use of marinas or water-oriented land uses.

- **Policy 7:** *The Commercially designated parcels located on the east side of 10th Avenue, between Little Valley Road and Lincoln Drive, shall be required to preserve trees located along their eastern property lines as a buffer from adjacent existing single family neighborhoods. The depth of the buffer shall be determined through site plan review, at the time of project development.*

  Does not apply to this project.

- **Policy 8:** *Development standards for commercial land uses shall include setbacks, bulk and height limitations, and other requirements which provide adequate visibility and preserve the scenic viewsheds from adjoining properties and public right-of-ways.*

  Olhava Master Plan development standards include the incorporation of the current (December, 1994) Zoning Ordinance which governs setbacks, bulk and height limitations and other requirements. Exceptions to these standards are listed and described by Sections 1.9.1 and 1.9.2, regarding height and continuous roof planes.

8.5 PUBLIC SCHOOL POLICIES

- **Policy 1:** *The city shall carefully consider the location of existing school facilities when evaluating all development proposals, in order to protect this sensitive land use.*

  No existing school facilities are located within the immediate site vicinity, however Vinland Elementary School is located west of the property via Finn Hill Road.

- **Policy 2:** *The City shall cooperate with the School District and the Community College in securing State and other financing for their facilities, in order to encourage the development of varied educational opportunities within the City.*

  The Olhava Associates have coordinated with the City when seeking to secure State and other financing for the Olympic College campus, located within the Olhava Property. The Olhava Associates has been a participant and will continue to be a participant in activities relating to financing and other facilities for the Olympic College campus.

- **Policy 3:** *The City shall initiate Comprehensive Plan amendments, if necessary and allowed by law, if a public school facility is constructed under another designation, as provided for in this Element, to change the land use designation to Public Schools for that property.*

  Does not apply to this project.

- **Policy 4:** *Development standards for public school land uses shall include setbacks, bulk and height limitations, and other requirements which provide adequate visibility and preserve the scenic viewsheds from adjoining properties and public right-of-ways.*

  The Olympic College will submit individual Zoning Ordinance variations as required, during site plan review. The Olhava Master Plan requests height and continuous roof plane variations. These requirements are described by Sections 1.9.1 and 1.9.2, Chapter 1, pages 33-34.

5.5 OVERLAY POLICIES

- **Policy 1:** *The City of Poulsbo shall develop a Master Planning Ordinance to govern the development of areas designated Master Plan on the Land Use Map. Master Plan properties shall be no less than 20 acres in size. Master Plans shall also be required of any development proposal of more than 20 acres which proposes a mix of land uses.*

  The Olhava Master Plan has specifically followed the Zoning Ordinance requirements for Master Plan Overlays, the current designation for the Olhava Property (Section 1.0, Chapter 1, pages 1-4). Other mitigation requirements for annexation have been listed by Section 1.1, page 5. Components required by these two elements are described throughout the Olhava Master Plan document.

- **Policy 2:** *The City shall direct and fund a Master Plan for the Viking Avenue corridor, with the cooperation of the land owners and tenants within the Plan boundary, as delineated on the Land Use Map, in order to better guide the development and redevelopment of this significant area of the City. Development in the area shall not be precluded prior to the adoption of the Master Plan, but rather shall be incorporated into the adopted Plan.*

  Does not apply to this project.

- **Policy 3:** *The City shall cooperate with land owners and tenants in the Downtown Core and shall, within its Zoning Ordinance, develop special design standards, including permitted land uses, design review and other requirements for the Downtown Core, as delineated on the Land Use Map.*

  Does not apply to this project.

- **Policy 4:** *The City shall, to the extent permissible by law, prohibit development on areas with a Conservation overlay, including lands containing slopes of 40% or greater, wetlands, critical areas and potentially hazardous areas.*

  The Olhava Property is not included by a Conservation overlay and does not have slopes exceeding 40%. Several small and isolated wetlands do exist within the Olhava Property. Section 1.4.9 describes the minimal development impact to these wetlands. There are no critical areas within the Olhava Property, as defined by the Comprehensive Plan. Description of the Nike facility remediation work is included with Section 1.4.1, *General Property Description*, Chapter 1, page 8. Grading and Drainage Plans of Chapter 2 provide additional information relating to slopes and wetland impacts.

- **Policy 5:** *Development proposals with floating Park designations shall be evaluated to determine whether the park facility shall be constructed within that development. The development of the parks shall be in conformance with the requirements of the Open Space and Parks Plan.*

Due to the scope and size of the Olhava Property, the Olhava Master Plan received a request from the City to include on-site park mitigation. A park mitigation plan is described for the Master Plan in Section 1.7, *Park and Open Space Mitigation*, Chapter 1, page 29. This mitigation is listed by *Table 1.4, Proposed Park Mitigation*, same page.

8.6 TRANSPORTATION ELEMENT

- **Goal 1:** *To implement a transportation network that provides efficient, safe and economical alternatives for the movement of people, vehicles, and goods through facilities that meet the current demands and projected needs of the City.*

  The Olhava Master Plan incorporates the transportation planning services provided by Gibson Traffic Consultants, Inc. Transportation planning for on-site and off-site requirements include the safe, efficient and economical alternatives for the movement of people, vehicles, and goods through facilities that meet current and projected needs of the City. A complete traffic circulation plan element, including non-motorized facilities, is included by Chapter 4, Traffic Circulation Plan Element, and an attached Level of Service Calculation report generated by GTC. Warranted traffic mitigation plans for the Olhava Master Plan are described by Chapter 6, Fiscal Impact Study.

- **Policy 1:** *The City shall require that all new development maintain peak hour Level of Service E on all critical roadways described in this Element. Residential roadways, and those not critically impacted by development as outlined in the Land Use Element shall be required to maintain a Level of Service C. Any development which degrades an intersection or roadway to a LOS below E shall be required to mitigate these impacts at its expense, pursuant to the requirements of the Growth Management Act.*

  All required Service Levels have been planned by the Olhava Master Plan. Associated mitigation and project share calculations are described by Chapter 4, *Traffic Circulation Plan Element*, an attached Level of Service Calculation report, an attached *Traffic Impact Analysis*, and Chapter 7, *Fiscal Impact Study*.

- **Policy 2:** *The City shall review its six year capital improvement program annually, ensuring a plan which reflects the most recently available information regarding traffic conditions of the City, and shall maintain all roadways at a LOS of E or better.*

  Referenced reports and Chapters for Policy 1 above will provide planning information to the City relating to the capital improvement program.

- **Policy 3:** *The City shall continue to implement a Traffic Impact Mitigation Fee for all new development to assist in financing the fair share of that development's impact on the City-wide transportation system. The impact fee shall be recommended in the Traffic Study performed by Bell-Walker Engineers (1992), or the best information available at the time of the Comprehensive Plan adoption.*

Traffic Impact Mitigation is described by Chapter 4, *Traffic Circulation Plan Element*. Other reports described in response to Policy 1 above provide foundation for traffic impact mitigation. Warranted mitigation fees are described by Chapter 7, *Fiscal Impact Study*.

- **Policy 4:** *All development occurring adjacent to a proposed arterial or collector roadway as depicted on the Comprehensive Plan Circulation Plan Map shall be required to construct its fair share of this roadway as part of the project's initial improvements, to ensure that the Circulation Plan develops in an orderly and comprehensive fashion.*

  Project share calculations for the Olhava project will pay or constitute fair share payment of all warranted road construction costs. See Chapter 5, *Traffic Circulation Plan Element*.

- **Policy 5:** *All new collector and arterial roadways constructed in the City shall meet the standards adopted by the City.*

  Chapter 5 provides detailed description for all proposed roadways. All arterial roadways will be constructed to adopted City Standards (see Section 5.4).

- **Policy 6:** *All new streets shall be constructed to include sidewalks, flat-faced curb and gutter and street lights.*

  Chapter 5 provides detailed description for all proposed streets, including right-of-ways, sidewalk widths and curb width dimensions. Refer to Chapter 5, Section 5.4.A.

- **Policy 7:** *The City shall encourage the construction of roadways along property lines, and discourage the use of cul-de-sacs wherever possible.*

  Because of the creation of perimeter buffers for park and open spaces and other visual relief elements, street systems within the Olhava Property development will be internal and not along property lines. One cul-de-sac is proposed within the business park (Planning Area 5) because it was desirable to elliminate business traffic through the Olympic College campus site.

- **Policy 8:** *The City shall coordinate with the Washington State Department of Transportation, Kitsap County, and other responsible agencies in regional transportation planning activities to proactively monitor and provide direction in the development of the City's two state highways, State Routes 305 and 3.*

  During the Olhava Property Master Plan procurement, all aspects relating to SR 3/SR 305 interchange improvements were carefully coordinated with WSDOT, Kitsap County, and the City of Poulsbo. On-going coordination will be required as design development for interchange improvements precede initial development for the Olhava Property. See Chapter 5, Sections 5.6 and 5.7.B.

- **Policy 10:** *The City shall undertake a location study for the proposed bypass to SR 305, to ensure that areas where right-of-way should be reserved are identified prior to development of this mostly vacant area.*

  The Olhava project is not located in the area of the SR305 bypass. The Olhava Property frontage road will provide relief for SR 305 access. Finn Hill Road and Thompson Road traffic currently access SR 305 via Viking Way and SR 3, respectively. The proposed frontage road will enable traffic to access SR 305 by traffic controls and other actuations, providing safe and efficient traffic flows to SR 305 by providing alternative routes to secondary streets currently used for this purpose. Refer to Chapter 5, Section 5.7.A.

- **Policy 11:** *The Mayor shall appoint a Committee to consider all other alternatives available to the Bypass, including alternative roadways, bridges in the Lemolo and/or Bainbridge areas, and alternative transportation methods, including transit.*

  Transit routing and bus stops are planned for the Olhava Property development. Refer to Chapter 5, Section 5.6, 5.6.A and 5.6.B

- **Policy 12:** *The City shall coordinate with State, County and Regional transportation agencies to develop priorities for enhancing safety and efficiency for State Route 305, and shall ensure that the planned improvements shall be consistent with the City's Circulation Plan Map.*

  All aspects of the City's Circulation Plan Map are identified by Chapter 5, including intersection and lane improvements. Additionally, State, County and Regional transportation priorities are identified and part of proposed mitigation planning for the traffic element of the Olhava Master Plan. Refer to Chapter 5, Section 5.7 for specific mitigation proposals and Project Share determinations which are based upon traffic impact analysis for the Olhava Property development.

- **Policy 13:** *In order to improve the jobs/housing balance in the City, jobs and housing shall be encouraged to be developed near each other to produce shorter work commutes. Some of these methods include the encouragement of mixed-use development, the adoption or maintenance of a home occupation ordinance, and the encouragement of major employers to evaluate telecommuting, either home-based or at local centers, for at least part-time options for employees.*

  The Olhava Property Master Plan provides significant opportunity for jobs/housing balance by its mixed-use development components. Approximately 420 dwelling units are planned within the development which also includes commercial and business park space. Transit services, pedestrian trails, sidewalks, and bicycle lanes will provide alternative transportation methods to residents of the community. These same transportation systems will also provide off-site visitors and employees with alternative transportation methods. Major employers of the Olhava Property will be encouraged to evaluate telecommuting, home occupations will be allowed (under specific provisions of adopted homeowners constructive covenants and restrictions ordinance).

- **Policy 14:** *The City shall encourage the use of high occupancy vehicle modes of transportation; and to shift trips out of current peak periods. The continued encouragement of park and ride lots shall be considered in all new development proposals.*

  The Olhava Property's adjacent location to SR 3/SR 305 will permit traffic to access the site directly from these State Highways. Park and Ride lots are not specifically identified within the Olhava Master Plan; however, the Olhava design team has made recommendations to Kitsap Transit to explore acquisition of the SR 3 on-ramp "island" for use as a regional park and ride site. Future plans might include an overpass structure linking the Olhava Property development and its transit routes to this park and ride site.

- **Policy 15:** *The City shall establish a working group to work with the downtown merchants association in improving circulation and parking in this critical area.*

  Non applicable to the Olhava Property Master Plan.

- **Policy 16:** *The City shall review the circulation patterns in the downtown area every five years, and consider alternatives, including the potential of making the area a pedestrian-only zone, or limiting downtown roadways to on-way streets.*

  Non applicable to the Olhava Property Master Plan.

- **Policy 17:** *The City shall consider the planned improvements to Viking Avenue at Lindvig as a top priority, and shall implement said improvements at the earliest opportunity, in order to alleviate the dangerous conditions at this intersection.*

  The Olhava Master Plan traffic/circulation plan element (Chapter 5) suggests and recommends improvements to this intersection as part of traffic mitigation and project fare share cost calculations. See Chapter 5, Section 5.7 for additional information relating to this intersections improvement recommendations.

- **Policy 18:** *The City shall encourage and develop continuous and convenient bicycle routes to places of employment, shopping centers, schools, and other high activity areas with potential for increased bicycle use.*

  The Olhava Master Plan describes bicycle routing throughout the development which provides on-site and off-site linkage to a variety of commercial, business, park and open space, Olympic College campus site, and residential uses. Linkage to other areas of the city is provided via bicycle lanes within SR 305, Viking Avenue and Finn Hill Road. A bicycle circuit is provided by the Olhava Master Plan and is augmented by pedestrian trail systems.

- **Policy 19:** *The City Engineer shall maintain an inventory of City streets, showing the level of improvements, paved width, ultimate right-of-way and capacity, which shall be updated on an annual basis.*

  Chapter 5 describes proposed right-of-way standards for the Olhava development. See Section 5.4.

- **Policy 20:** *The City shall ensure that new development provides covered and protected bicycle racks for commercial, industrial and multi-family residential projects.*

  Development standards provide covered and protected bicycle rack requirements for the commercial and multi-family residential land uses of the Olhava Property development. See Chapter 2, Sections 2.2.1 and 2.2.2 for descriptions.

- **Policy 21:** *In order to facilitate alternative transportation, including public transit, bicycling and walking, the city shall encourage and consider innovative development techniques, including clustering and neo-traditional site planning.*

  The Olhava Master Plan is a mixed-use development consisting of individually clustered land uses. The Illustrative Master Plan indicates grouped structures and dwellings to promote predominant open space and landscaped areas. All areas of the Master Plan are linked for pedestrian and bicycle travel. See Chapter 2 for comprehensive description and Chapter 5, Section 5.3 for specific descriptions relating to pedestrian and bicycle travel provisions. Section 5.6.B of Chapter 5 for transit service provisions and access to all areas of the Olhava development.

- **Policy 22:** *The City shall encourage Kitsap Transit to meet all ferry arrivals and departures as soon as possible, in order to encourage transit ridership, and shall support its efforts to improve service whenever possible.*

  Not applicable to the Olhava Master Plan.

- **Policy 23:** *The City shall work with Kitsap Transit to provide better public information regarding routes and services at City Hall. This may include a bulletin board with public access, and/or bus schedules available at City Hall.*

  Not applicable to the Olhava Master Plan.

- **Policy 24:** *The City shall work with Kitsap Transit to relocate the bus stop located at the Christ Memorial Church park-and-ride lot to the southwestern portion of the site or other suitable location.*

  Not applicable to the Olhava Master Plan.

- **Policy 25:** *The City shall coordinate with Kitsap Transit to locate a transit center in the City.*

  Not applicable to the Olhava Master Plan.

- **Policy 26:** *The City shall submit new development proposals to Kitsap Transit for review and comment, in order to facilitate bus stop location early in the development process.*

  The Olhava Master Plan has coordinated with Kitsap Transit for preliminary bus routing and stops within the proposed development. See Chapter 5, Section 5.6.B for specific information.

- **Policy 27:** *The City shall work with the Department of Transportation to provide High Occupancy Vehicle lanes on State Highway 305 and 3.*

  During engineering development for SR 305/SR 3 interchange improvements the Olhava Property traffic engineering will coordinate with the City of Poulsbo and WSDOT for High Occupancy Vehicle lane configurations. Other coordination with the City and WSDOT have prevailed for proposed lane configurations which will allow safe and efficient transportation access and delivery from SR 305/SR 3.

- **Policy 28:** *The City shall encourage the development of footpaths within all new development whenever possible. Careful consideration of all development proposals shall include the connection of pedestrian access to community focal points, including schools, shopping and public transit.*

  References are made throughout the Olhava Master Plan to pedestrian foot paths which will provide linkage to all land uses, including Olympic College, shopping, the business park and each residential planning area. These pedestrian foot paths include sidewalk networks and designated nature trails that will be located within perimeter buffer areas. The community park site will be fully accessible to all land uses by foot paths and bicycle lanes.

- **Policy 29:** *The City shall coordinate with Kitsap Transit to develop programs and strategies to achieve a reduction in residents' dependence upon private automobile.*

  The Olhava Master Plans association of residential with business and commercial uses will provide close proximity for pedestrian and bicycle alternative transportation modes that will reduce residents' dependence upon private automobile. Kitsap Transit routing and stopping will allow convenient access to all proposed land uses of the Olhava Property.

- **Policy 30:** *The city shall review the proposed location (above or below ground) and routes of all utilities.*

  All development phases will include site plan review, building plan review and associated utility design. These will be reviewed by the City of Poulsbo and the appropriate departments. As built drawings will follow development and will be provided to the City as a record.

- **Policy 31:** *The City will require that all future utility lines be located underground and within the road right-of-way whenever possible. Undergrounding of utilities will occur in accordance with local, regional and state rules, regulations and tariffs.*

  Chapter 3 describes the Olhava developments utilities as being undergrounded within road right-of-ways or in dedicated easements. Utilities will occur in accordance with local, regional and state rules, regulations and tariffs.

- **Policy 32:** *The City will clearly identify with signs the roadways that provide access to all the City's park and recreational facilities, and all important public facilities, including but not limited to libraries, hospitals, police and fire stations, and civic centers.*

  The Olhava development will comply with the Sign Ordinance for all on-site directional signage to any important public facilities which may occur within the project.

- **Policy 33:** *The City shall work with the Port Authority to consider the moving of the Boat Launch to a more accessible location.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 34:** *The City shall review the potential for a passenger ferry fleet located in Poulsbo every year.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 35:** *All new development shall be required to provide for all of its parking needs on-site. On-street parking shall not be included as part of the calculation for the provision of adequate parking. The requirements for parking and all land uses, as well as the standards for parking lot improvements, shall be included in the City of Poulsbo Zoning Ordinance.*

  The Olhava Illustrative Master Plan and all ancillary traffic and other engineering has followed City of Poulsbo Zoning Ordinance criteria for quantity and dimension of all parking areas. In most cases, these parking criteria have been exceeded to provide sufficient parking as demanded by typical commercial developments.

- **Policy 36:** *The City shall include landscaping and street trees within public roadway parkways whenever possible in the construction of new streets, and improvement of existing streets.*

  Chapter 2 describes landscape standards (see Section 2.5.2) and street tree planting requirements for each planning area of the Olhava Property development (Sections 2.4.1-2.4.10). These plantings will be within public roadway corridors and right-of-ways where appropriate.

- **Policy 37:** *The City should consider the addition of street lighting, hanging flower baskets and thematic banners, in a similar style as those currently installed in the Downtown Core, when making improvement to existing and new right-of-ways in any commercial area. This option should particularly be considered in the development of the Viking Avenue Master Plan.*

  Lighting will be provided for safe illumination of all streets and parking areas (See Chapter 2, 2.5.3). Other thematic articulation will be considered for new streets and commercial areas and weighed for appropriateness to building scale and mass.

- **Policy 38:** *The City shall encourage multimodal transportation whenever possible.*

  The Olhava development is planned to include pedestrian, bicycle, transit and auto modes.

8.7 HOUSING ELEMENT POLICIES

- **Policy 1:** *The City shall retain its present character of a primarily single-family, residential community with moderate population density.*

  The Olhava Master Plan plans development for 70 single-family and 420 medium-density residential dwellings within a mixed-use development containing business, commercial and public school uses. These residential developments include site planning standards which will preserve the present community character which distinguishes Poulsbo.

- **Policy 2:** *The City shall ensure, through the City's Municipal Code, that the quality of dwelling units in existing neighborhoods is preserved and maintained when infill development and/or rehabilitation of existing homes occurs.*

  This policy may apply from the perspective of adjacent neighborhoods. For this element, the Olhava Master Plan proposes suitable perimeter buffers, open space, trails and a community park site which will be available to adjacent neighborhoods.

- **Policy 3:** *In low density residential areas, accessory units are allowed provided they meet all standards of the designation and zone. The accessory unit must be similar to the single family residence it is an accessory to by using similar construction materials, roof lines, and colors. No more than one accessory unit per lot is allowed. The unit may be attached or detached.*

  Accessory units are permitted within Planning Area 1, the only low-density residential area of the Olhava Master Plan. Accessory unit development standards comply with this policy and are described in Chapter 2, Section 2.4.1.

- **Policy 4:** *"Motor Homes" and recreational vehicles shall not qualify as a residence or as an accessory unit.*

  This policy does not appear to be relevant to the Olhava Master Plan.

- **Policy 5:** *In proposed residential developments the City shall encourage on-site centralized vehicle storage for boats, recreational vehicles, motor homes, etc.*

  Site topography constraints and general site appearance expectations for the Olhava development will discourage or prohibit the centralized on-site location of recreational vehicle storage. This use, regardless of the amount of screening and necessary earthwork to create level pads, is incompatible with other planned uses of the Olhava Property. Therefore, other off-site areas must be sought by residents owning vehicles requiring storage.

- **Policy 6:** *A City building official shall inspect the installation of all manufactured homes prior to the issuance of a certificate of occupancy to ensure that all requirements of the City of Poulsbo have been met, including but not limited to, a safe anchoring system and compatible design features to surrounding homes.*

  Manufactured homes are not permitted within the Olhava Property development.

- **Policy 7:** *If a manufactured home is replaced by another manufactured home, a new certificate of occupancy shall be required for the installation of a manufactured home.*

  Manufactured homes are not permitted within the Olhava Property development.

- **Policy 8:** *Group homes, emergency shelters, convalescent care facilities, etc., must meet all Federal, State, County, and local health and safety requirements.*

  None of these uses are anticipated for the Olhava Property development, but should convalescent care facilities be incorporated within one or more of the medium-density residential areas or within other areas allowing this use, all Federal, State, County, and local health and safety requirements will be complied with.

- **Policy 9:** *The City shall develop a program for the rehabilitation of sub-standard residential units using available subsidies for lower income residents.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 10:** *The City shall endeavor to develop a regulatory scheme under which the City and private property owners shall provide relocation assistance to low and moderate household income residents, when dwelling units are eliminated by redevelopment, to the extent permitted by law.*

  This policy does not apply to the Olhava Master Plan as there are no existing dwelling units within the proposed development.

- **Policy 11:** *The City shall provide residential lands that are adequate to meet its growth objectives.*

  The Olhava Master Plan provides for the development of 70 low-density single family residences and 420 medium-density dwelling units, per existing zoning.

- **Policy 12:** *The City shall provide land use and zoning designations in the Comprehensive Plan and Zoning maps, respectively, that allow for and encourage a diversity of housing types and densities, and are consistent with the existing low and moderate densities, high quality, small town character of the City.*

  The Olhava Master Plan provides for the development of residential zoning districts as specified by the Comprehensive Plan and Zoning Maps. (See Planning Areas 1, 2, 8 and 9 of Chapter 2).

- **Policy 13:** *The City shall encourage development of housing types to meet the housing needs of all income groups within the community, regardless of the householder's race, religion, sex, marital status, ancestry, national origin, color, physical, mental or sensory handicap.*

  Development and sales/rentals for all residential developments will follow equal rights practices and applicable Federal, State, and local laws and regulations providing equal and fair housing practices for the Olhava Property development.

- **Policy 14:** *All new dwelling units shall be secured to withstand a seismic event.*

  Geotechnical testing has been completed and is part of the Olhava Master Plan (See Chapter 10, Master Plan Attachments and Resources). Dwelling units and other structures of the Olhava development will be designed to comply with UBC Seismic Zones and other applicable structural engineering standards as required.

- **Policy 15:** *The City shall strive to maintain its County wide proportion of existing and future affordable housing projects to all persons constituting a low to moderate income household, by including appropriate mechanisms (i.e. resale restrictions, applicant screenings, etc.) in the conditions of approval of new affordable housing projects.*

  The Comprehensive Plan verifies that the City of Poulsbo currently contains more than its proportion of existing affordable housing projects. Affordable housing is not precluded nor discouraged as a housing use for the Olhava project.

- **Policy 16:** *The City shall encourage the development of median and above median income housing types in order to improve upon its existing deficit within the County wide proportion of these housing products.*

  The Olhava Master Plan thoughtfully places a mix of residential uses within a quality environment offering park and open spaces, convenience access to a multitude of commercial and business uses and the proposed Olympic College campus. It would seem that such amenities and convenient access will provide basis for median and above median income housing products.

- **Policy 17:** *The City shall establish procedures for granting of a density bonus (not to exceed 25% in excess of allowable density) to a housing developer who agrees to provide housing for persons and families of low income on residentially designated lands.*

  In the event that housing developers do agree to provide housing for persons and families of low income, the Olhava Master plan will apply allowed density bonus to other residential planning areas on a case by case basis, coordinated with the City of Poulsbo Planning Department and consistent with the Olhava Master Plan and Comprehensive Plan.

- **Policy 18:** *The City shall encourage the development of varied housing types through innovative design, including clustering, neo-traditional site planning, and density transfers, where appropriate. A density transfer shall not exceed twenty-five percent (25%) more than the maximum allowable density for the buildable acreage in the applicable land use designation, or twenty-five percent (25%) of the total number of units which could be constructed on the non-buildable land, whichever is less. A property owner or developer may apply for either a density transfer or a density bonus, but may not receive both. This policy shall be reviewed by the City Council every year.*

  Residential development standards are described in Chapter 2 by Sections 2.1, 2.2.1, 2.3, each planning area description (2.4.1-2.4.10) and Section 2.5. These standards ensure innovative design to each planning area of the Olhava Master Plan. Where density transfers or density bonuses become viable or necessary, individual applications will be made to the City of Poulsbo for review.

- **Policy 19:** *The City shall encourage the development of senior housing through an appropriate zoning mechanism that accommodates the needs of the elderly population, with an emphasis on accessibility and the needs of those with low to moderate housing incomes.*

  Senior housing is a permitted use within medium density and business park land use areas. Should senior housing be proposed within these planning areas, accessibility and provisions for low to moderate housing incomes would be addressed by specific plans and dwelling unit designs.

- **Policy 20:** *Residential development occurring on land adjoining agriculture, forestry or aquaculture uses should recognize the "prior existing rights" of such lands, and should address the following and similar protective measures: (continues in Comp Plan)*

  None of the residential developments of the Olhava Master plan adjoin existing agriculture, forestry or aquaculture uses.

- **Policy 21:** *The City shall develop standards for affordable housing projects in order to reduce construction costs while maintaining compatibility with the City's small town high quality image.*

  If affordable housing dwelling units are constructed within the Olhava project, these will be reviewed on a case-by-case basis as part of City approvals.

- **Policy 22:** *The City shall promote and preserve existing mobile home parks for their value as low and moderate income housing opportunities.*

  Mobile Home parks are not a part of the Olhava Master Plan nor are any such units being removed.

- **Policy 23:** *The City shall discourage leapfrog development and encourage infill development.*

  The Olhava Master Plan is consistent with zoning and Comprehensive Plan land use designations.

- **GOAL 1-** *Preserve the City's rural areas by maintaining natural, scenic resources such as hillsides, ridgelines, and naturally occurring waterways through the designation of open space while providing the people of Poulsbo with a full range of quality parks and park facilities adequate to meet all present and future needs of the community.*

  This goal is addressed in Section 8.1.4 of this Chapter.

- **GOAL 2-** *Provide an ecologically sound and aesthetic character for the City that provides enhanced recreational opportunities for all residents while conserving open space areas in order to protect environmental resources.*

  This goal is also addressed in Section 8.1.4 of this Chapter.

- **GOAL 3-** *Promote a pedestrian-oriented environment which reduces dependency on motor vehicles while establishing a community system of bicycle and pedestrian trails with access to Liberty Bay and linkage to recreation areas, schools, and open spaces within the Urban Growth Area.*

  The Olhava Master Plan consistently describes pedestrian and bicycle provisions to all areas of the Olhava Property, including park and open space areas. Off-site access to adjacent pedestrian and bicycle systems provides this Master Plan with linkage to Liberty Bay and other recreation areas and schools. Similarly, access from the surrounding community is availed by this linkage. See Chapter 1, Section 1.7, for specific park mitigation descriptions. Chapter 5, Section 5.3, describes and illustrates non-motorized facility planning for the Olhava Property development.

- **Policy 1:** *The City shall coordinate the establishment of an Adopt-A-Trail and Adopt-A-Park, or comparable programs, as a means of allowing volunteer groups and individuals to aid in maintenance and development. Maintenance should be negotiated through Homeowner's Associations and City-owned properties.*

  Olhava Property developers will assist the City in this endeavor to coordinate and establish these recreational adoption programs. Developer agreements for park maintenance is proposed to include negotiated Homeowner's Association agreements with the City of Poulsbo whenever practicable.

- **Policy 2:** *The City shall develop a signage program for all City buildings, parks, and trails, which focus on the Scandinavian theme for directional and monument signage. This signage program shall become the standard in the development of new facilities, or the replacement of existing ones.*

  Signage for the Olhava development will be visually appropriate and compatible with the scale and mass of buildings and roadways. Sign standards will follow the sign ordinance standards by the City of Poulsbo. Sign details will be provided for each new building and street, trail, park, etc., as part of the standard Site Plan Review.

- **Policy 3:** *The City shall identify and map lands suitable for preservation of passive and active open space facilities to be added to the already identified existing areas of this type.*

  A community park site is planned for the Olhava Master Plan. See Chapter 2, Planning Area 6, Section 2.4.6 and community park descriptions throughout the Olhava Master Plan.

- **Policy 4:** *The City shall update annually maps and information on the various types of open space lands and facilities.*

  When the community park site is surveyed, boundary map copies will be furnished to the City of Poulsbo for inventory.

- **Policy 5:** *The City shall maintain an accurate and regularly updated map and information base on sensitive plant and animal species, natural areas, wetlands, shorelines, and scenic vistas occurring in open space areas of the Comprehensive Plan City Limits and Urban Growth Areas.*

  Biological resources are described in Chapter 4. These descriptions and base map delineations for wetlands are included with this Master Plan and are available to the City for inventory purposes.

- **Policy 6:** *Every two years, assessment and identification of appropriate areas of the community for preservation as public, passive, and active open space considered for future inclusion into the City's Parks and Open Space Plan.*

  This policy does not appear to be relevant to the Olhava Master Plan.

- **Policy 7:** *A Zoning Ordinance shall be adopted that encourages the provision of parks and recreation and recreation through flexible development standards.*

  The Olhava Master Plan parks and open space standards reflect those incorporated with the Zoning Ordinance development standards for parks and open space. Specific standards are included in Chapter 2 for each planning area containing a park and open space element.

- **Policy 8:** *The City shall adopt a comprehensive grading ordinance that will protect and conserve open space and natural resources.*

  Chapter 3, Section 3.1 illustrates and describes the conceptual grading plan for the Olhava Property development.

- **Policy 9:** *The City shall institute a strong property acquisition program in order to preserve, protect, and acquire additional natural and developed open space areas for open space, parks, recreational uses, trails and pathways to provide beautiful and aesthetically pleasing park facilities prior to growth and change within the community.*

  The Olhava Master Plan proposes park and open space lands, as described in Section 1.7, Chapter 1.

- **Policy 10:** *The City shall attempt to purchase the Nelson property, located near the head of Liberty Bay, also known as 317 N.W. Lindvig Way.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 11:** *The City shall consider the properties adjacent to Net Shed Park for purchase should they ever become available.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 12:** *The City shall consider the purchase of the Edmond property at the head of the Bay on Bond Road opposite Liberty Bay Apartments should it become available.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 13:** *Any publicly owned lands should be examined for their potential recreational or open space use before their disposal.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 14:** *Innovative utilization of public land for parks and other recreational facilities should be encouraged.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 15:** *The City should attempt to preserve the community's unique qualities through the concentration of new development and the provision for open space, protecting the surrounding rural areas.*

  The Olhava Property will consist of a concentration of commercial, business, public school and residential development areas. These areas include common access to community park and open space facilities which have been integrated with the overall Master Plan. This concentration in itself will protect development of adjacent rural areas.

- **Policy 16:** *Playgrounds or recreational areas, as appropriate, should be required for all new residential developments of ten units or more. The space provided for recreation shall be deducted from the overall park impact fee for the project. The maintenance of these facilities shall be provided for through the establishment of Conditions, Covenants and Restrictions or similar mechanisms, which shall include the provisions for dedication of the facilities to the City, if the organization should wish to do so in the future. These areas may be provided in any one of the following ways:*

  a) The developer provides for common ownership of an improved playground or recreational area within the development; or,

  b) The developer dedicates an improved playground or recreational area within the development.

Park and Open Space mitigation plans are described in Chapters 1 and 2. Neighborhood parks/open spaces and associated recreation facilities for residential planning areas will be developed and maintained by Homeowner's Association conditions, covenants and restrictions. The community park site will be dedicated to the City and is proposed to be maintained as a City park for recreational purposes.

- **Policy 17:** *The City shall protect the rural "character" of the areas outside the City by preserving existing undeveloped land and existing rural land uses in the Poulsbo Urban Growth Area whenever possible.*

  This policy is addressed by responses to Section 8.1.2 of this Chapter.

- **Policy 18:** *The City shall develop and implement regulations that ensure the provision of a natural buffer between existing and future development.*

  Each planning area of the Olhava Master Plan includes provisions for a minimum 50 foot natural vegetation perimeter buffer. Disturbed areas of this buffer will be surcharged with native vegetation removed from development activity. See Chapter 2.2.3 (3) for related buffer information.

- **Policy 19:** *The City shall establish its own Parks and Recreation Department or alternatively establish a Metropolitan Park District which will deal with immediate issues of park maintenance, the acquisition of land for Poulsbo area parks, and the attendance of needs specifically encountered by the residents of the designated urban grown area. The City Council shall appoint a committee to recommend the best alternative for the City's parks.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 20:** *The City shall encourage cooperative use of recreational facilities with the North Kitsap School District.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 21:** *Planning for providing a balanced mix of park and recreation facilities within the Poulsbo Urban Growth Area should be coordinated with the City, County, Community Recreation Center, Kitsap County Parks and Fairs, North Kitsap School District and any other park districts serving the Poulsbo area.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 22:** *The City shall further the education of the public on an on-going basis about the importance and support of Poulsbo's parks.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 23:** *The City shall continue to encourage citizen input at all stages of parks planning and incorporate the wishes of the people as a basis for developing park and recreation systems and programs.*

  The Olhava Property developers will dedicate the community park site to the City in a semi-improved condition, suitable for passive recreation. The Property developers will participate in community park design programming discussions with the Poulsbo citizenry.

- **Policy 24:** *Neighborhood interests should be considered in the process of designing neighborhood parks.*

  Neighborhood parks within the Olhava Property development will be designed and developed by the developers of these parcels. Neighborhood park design programs will be tailored to the individual needs and requirements of the housing type, densities and arrangements.

- **Policy 25:** *The City shall give recognition to all residential areas as development occurs including urban centers and other heavily populated areas which have the greatest need of public park and recreational space at this time. (Poulsbo north of downtown and the Poulsbo Junction area.)*

  This policy does not apply to the Olhava Master Plan.

- **Policy 26:** *The City shall require that parkland facilities are provided at a minimum rate of 12.75 acres/1,000 population, in the form of 8 acres/1000 population as community parks; 2 acres/1,000 population as neighborhood/urban parks; 2 acres/1,000 population as natural parks; and 0.75 acres/1,000 population as mini parks. The City should also strive to provide 1.5 miles of pedestrian and/or bicycle trails per 1,000 population.*

  Specific park and open space mitigation requirements have been designed for the Olhava Master Plan which exceed the park requirements stated by this policy. See Chapter 1, Section 1.7.

- **Policy 27:** *Playfields should be within walking distance of residential areas except in instances where the natural service area is elongated due to natural or man-made barriers.*

  All park facilities of the Olhava Master Plan are contained either within the residential planning areas or within immediate walking and bicycling distance of all residential planning areas. Systems for both non-motorized are planned by the Olhava Master Plan.

- **Policy 28:** *Community or neighborhood parks and recreation facilities should be as centrally located as possible within their service area and within walking distance of the population they serve.*

  Community and neighborhood parks are centrally located within each service area and within walking and bicycling distance of all residential planning areas. See Illustrative Master Plan.

- **Policy 29:** *The City of Poulsbo shall preserve, protect, and acquire additional natural and developed open space areas to provide beautiful and aesthetically pleasing park facilities prior to growth and change within the community. Lands that do not seem useful for intense development may be prime for open space development.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 30:** *Strips of open land such as slide or swampy areas, scenic routes, trunk utility lines and hiking or nature trails, should be retained between residential and adjacent non-residential development.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 31:** *The City shall create a multi-user park system which meets basic human needs, is efficient and harmonious, ecologically sound, and can balance cost and revenues over time.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 32:** *Multiple uses (playfields and other recreational facilities) of open space land should be encouraged provided that the uses are compatible and adequate area is provided for each specific function.*

  Park and Open space provisions of the Olhava Master Plan appear to be compatible and of adequate area to provide full uses for community recreation.

- **Policy 33:** *When a park facility cannot be provided in conjunction with a playground, the playground should contain a small park-like area for uses by all age groups.*

  Should this condition arise within the Olhava Master Plan development the playground will contain a small park-like area for uses by all age groups.

- **Policy 34:** *Special efforts should be made to ensure recreational access for the elderly, handicapped and others with special needs in accordance with the American Disabilities Act.*

  All park and open space facilities will be designed and developed in accordance with ADA standards whenever possible. Where topographic constraints require stairs en lieu of ADA ramps to preserve native vegetation, these conditions will be conveyed to the City of Poulsbo upon Site Plan Review.

- **Policy 35:** *Park development or re-development plans should place a high priority on creating facilities which are energy efficient, vandal resistant, and require minimal maintenance.*

  This policy will be applied to all park and open space design and maintenance programs of the Olhava Master Plan.

- **Policy 36:** *Local groups and service organizations should be encouraged to assist and participate in the development, re-development, and maintenance of City parks and recreation facilities.*

  To whatever extent possible, the Olhava Property developers will assist the City in this endeavor.

- **Policies 37-45 Pertaining to Liberty Bay Parks**

  This policy does not apply to the Olhava Master Plan.

- **Policy 46:** *The City shall incorporate a multi-user trail system for pedestrians and bicyclists to provide a safe route between important community features such as parks, open space, recreational facilities, scenic vistas, residential areas, shopping areas, schools, public transportation links.*

  This policy is addressed by this Section (8.8) response to Goal 3, page 23.

- **Policy 47:** *Coordination between the City, the Port District, Department of Transportation, the North Kitsap School District and the community will be necessary to identify and develop a network pedestrian and bike paths.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 48:** *The City shall establish trail standards using Exhibits V-2 through V-5 as a guide for future trail construction.*

  Trail standards are applied to the Olhava Master Plan parks and recreation guidelines, as stated in Chapter 2, Section 2.5.8.

- **Policy 49:** *Educational programs encouraging the use of pedestrian trails, as well as other alternative modes of transportation, should be developed and implemented in schools and parks to educate residents in the importance of alternative methods of transportation and its effect upon the environment.*

  The Olhava Property developers will participate with the City of Poulsbo in the development of educational programs within site park areas.

- **Policy 50:** *Provision of vehicular and pedestrian access to open space areas shall be studied and appropriate roads and trails developed to provide access and linkage of vehicle access roads to open space area. Secondary or emergency access routes shall be encouraged by the City to be used for pedestrian or bicycle access within the trail system.*

  Vehicular, pedestrian and bicycle access to all park and open space areas of the Olhava Master Plan has been described by Chapters 1-5.

- **Policy 51:** *Bicycle trails should be provided along public thoroughfares and neighborhood streets with the separation of trails from automobile traffic by drainage ditches, painted lines, or some other form of barrier.*

  Development standards that accomplish this policy are described in Chapter 5, Section 5.5.

- **Policy 52:** *Larger parks and recreation facilities should be easily accessible to areas they are intended to serve, with a system of walkways developed to interconnect various part of the City.*

  The larger community park of the Olhava Property is easily accessible via the frontage road, interconnected trail systems within open space corridors (acting as buffers), bicycle lanes and sidewalk networks. These systems continue offsite along Viking Avenue and Finn Hill Road, providing linkage of these systems to various parts of the City.

- **Policy 53:** *Where funds permit, bicycle and/or foot paths shall be added, in both directions whenever possible, to all major roads in the watershed as part of regular road maintenance, or whenever roads are widened.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 54:** *The city shall encourage the development of trails within existing properties whenever necessary.*

  Trails systems will be developed within the Olhava Master Plan development.

- **Policy 55:** *The City shall encourage the development of a trail to access the shopping area along Highway 305 from Caldart, north of Lincoln (near the fire station).*

  This policy does not apply to the Olhava Master Plan.

- **Policy 56:** *The City shall encourage developers to construct trails or sidewalks (based upon land use designation) in all plats, short plats, development proposals, and road and street development.*

  Trails will be integrated with the Olhava development in accordance with previously described development standards (Chapter 5, Sections 5.3 and 5.5).

- **Policy 57:** *Public trail systems should be expanded using new development when possible.*

  Trails will be integrated with the Olhava development in accordance with previously described development standards (Chapter 5, Sections 5.3 and 5.5).

- **Policy 58:** *The City shall, with the approval of the local utilities and other agencies, use drainageways and utility easements where necessary to develop a multi-use trail system and wildlife corridor while providing the public an alternative transportation link to parks and open space areas.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 59:** *Preservation of natural amenities along hiking or nature trails should be encouraged, minimizing improvements such as hard surfacing.*

  Trail system standards include all-weather surfacing for trails located within natural areas. Whenever necessary, hard surfaces will be applied to reduce washouts and minimize other maintenance requirements. See Chapter 2, Section 2.5.8.

- **Policy 60:** *Floodplains or drainage easements shall be developed into trails or open space areas whenever possible.*

  Regional wetpond locations will be shaped into naturally formed pond amenities as part of the trail system design sequence. These pond areas are located and described in Chapter 3. Visual enlargements of these wetponds are included with Planning Area Section figures for each respective area including such features.

- **Policy 61:** *Stream corridors should be used as trail systems wherever possible, provided appropriate environmental protection can be accomplished.*

  No streams accompany the Olhava Property. Therefore this policy does not apply to the Olhava Master Plan.

- **Policies 62-65/Open Space Financing:**

  These policies pertain to internal City financing agendas and are therefore not relevant to the Olhava Master Plan.

- **Policy 66:** *The City should make special efforts to acquire and protect sites which have value for wildlife or watershed conservation, scientific or educational purposes, or other significant natural amenities.*

  Chapter 4 describes the environmental resources for the Olhava Property and its limited natural wildlife value due to the minimal occurrence of suitable habitat.

- **Policy 67:** *Publicly owned tidelands, tax defaulted tidelands, surplus federal tidelands and other available tidelands, or shoreline areas with a a high potential for recreation, should be obtained for public use through a lease or purchase in compliance with Native American Harvesting Treaties, when applicable.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 68:** *The City shall develop and enforce strict speed limits to protect users and wildlife in and near open space areas.*

  This policy will be applied to the Olhava development.

- **Policy 69:** *The City shall condition development to ensure that streams, lakes, and wetlands are developed only in such a manner that the integrity of wildlife habitats and water quality are preserved or enhanced and that other potential problems are mitigated.*

  Chapter 3 fully describes pre-development and post-development planning for a regional drainage system. Water quality design is incorporated with all aspects of the regional drainage system for the Olhava development with presumptions as noted by this analysis.

- **Policy 70:** *The City shall require that all properties adjacent to streams complete a biological impact report recommending setbacks while identifying wetlands and riparian areas.*

  The Olhava property contains no streams nor fees downstream to streams. Therefore, this policy does not apply to the Olhava Master Plan.

- **Policy 71:** *Wetlands should be preserved as open space and adjacent lands should only be used for recreational or other low impact use. An ongoing land use system should be provided to ensure the preservation of lands.*

  This policy has been integrated with the Olhava Property master grading and drainage concepts. Two incremental wetlands are included with the community park site and provide mitigation for other impacted wetlands. Wetlands are described in detail by Chapters 3 and 4.

- **Policy 72:** *The City shall utilize density transfers and other techniques to encourage that the streamway along Dogfish Creek be left in a natural condition to aid its function as a migration route for fish, transport stormwater runoff, and open space for the public.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 73:** *Suitable open space adjacent to streams and waterways shall be reserved to partially meet the potential recreation demand while at the same time safeguarding the natural drainage areas within the City.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 74:** *The City shall encourage strategies to protect natural buffers. Open spaces, agricultural and forestry practices should be utilized between neighborhoods and communities.*

  Perimeter buffers and parks and open space provisions are described in Chapter 1 and Section 1.7 of this chapter.

- **Policy 75:** *The City shall provide tax and/or other incentive plans to influence the retention of present agricultural and forest land use for conservation easements.*

  As described in the existing site conditions pertaining to the Natural Systems Element of the Comprehensive Plan, the Olhava Property does not demonstrate agricultural or forest land characteristics and would not therefore require conservation easements. See Chapter 1, Section 1.4.14 and 1.4.15.

- **Policy 76:** *The City shall cooperate with County and other conservation groups to encourage conservation of productive forest lands, agricultural lands, and shellfish rich areas while discouraging incompatible uses.*

  As described in the existing site conditions pertaining to the Natural Systems Element of the Comprehensive Plan, the Olhava Property does not demonstrate productive forest, agricultural or shellfish value. See Chapter 1, Sections 1.4.14, 1.4.15 and 1.4.18 for these descriptions.

- **Policy 77:** *The City shall maintain and enhance natural resource-based industries, including timber, agriculture, and fishery industries through the designation of open spaces.*

  The response to this policy is the same as the response to Policy 76 above.

- **Policy 78:** *The City of Poulsbo shall mitigate development to ensure that land not suited for intensive development because of ecological, soil and/or topographic conditions should be protected as open space and identified hazard zones (floodways, seismic areas, falling rock zones) shall be incorporated into the land use map.*

  As described in Chapter 1's existing site conditions pertaining to the Natural Systems Element of the Comprehensive Plan, the Olhava Property lacks development constraints and is therefore suitable for the intensive development. See Chapter 1, Section 1.4.

- **Policy 79:** *Floodplains shall not be developed or used except in conditions which will not be injurious to life or property in time of flooding, such as passive trail or park development.*

  Chapter 1, Section 1.4.10 describes the Olhava Property as being out of flood plain danger.

- **Policy 80:** *A maximum lot coverage for impervious surfaces shall be established to minimize runoff, protect aquifers, and make mandatory the retention of natural cover while preserving open space.*

  Chapter 3 fully describes pre-development and post-development planning for a regional drainage system. Water quality and natural vegetation preservation are incorporated with all aspects of the regional drainage system for the Olhava development with presumptions as noted by this analysis. This chapter describes erosion control methods and other applicable aquifer protection measures relating to this policy.

GEOLOGIC POLICIES

- **Policy 1:** *The City shall map all significant geological hazards. These hazardous areas are to include: areas of 30% slope or greater, landslide areas, erosion areas, and liquefaction zones. Any development proposals within these areas will require a more detailed identification, mapping and assessment of these geologic hazards.*

  Chapter 1 describes the Olhava Property as not exhibiting any characteristics of a geological hazardous area nor have any been identified by the Comprehensive Plan for the Olhava Property.

- **Policy 2:** *All development proposals within geologic hazardous areas, must prepare a detailed soils and geotechnical study which includes a detailed slope analysis.*

  A full geotechnical analysis was prepared for the Olhava Property which further substantiated the lack of geologic hazards for development of the Olhava Property.

- **Policy 3:** *The City of Poulsbo shall develop and enact ordinances for the evaluation and abatement of structural hazards for deficiencies in existing and new structures which could result in structural failure and the endangerment of public safety in the event of an earthquake.*

  Structures within the Olhava development will be designed to comply with UBC Seismic Zones for the region and shall comply with all Federal, State, and Local agency requirements pertaining to safe construction practices and earthquake events.

- **Policy 4:** *To protect the City's scenic and aesthetic character, as well as its natural resources, it will develop and implement standards of development and ordinances promoting, protecting and enhancing slopes, hillsides, ridgelines and shorelines in the Urban Growth Area.*

  A conceptual grading plan is included with Chapter 3 (Section 3.1 and illustration, page 2). Grading practices are illustrated by this grading plan which comply with the clearing and grading ordinance adopted by the City of Poulsbo.

HYDROLOGY POLICIES

- **Policy 1:** *The City, Public Utility District and Kitsap County will be responsible for coordinating water quality planning in multi-jurisdictional watersheds and for other environmental planning activities as agreed to by all affected and interested jurisdictions.*

  Grading, drainage, and water quality planning is integrated with the Olhava Master Plan in a regional concept. This analysis is available for coordination with other agencies.

- **Policy 2:** *All developments traversed by a water course such as a drainage way, stream or developments that contain a wetland shall prohibit all kept animals by fence or other barrier a distance of at least 40 feet from the water course or wetlands. Whatever barrier is utilized it must not prohibit wildlife from the water course or wetlands.*

  Drainage ways will include reverse swales to protect water quality from adjacent development impacts. Within these drainage ways, native vegetation will be preserved of sufficient height to discourage household pets from their use. This should allow natural wildlife to use drainage courses and wetlands.

- **Policy 4:** *To assure that all the area's water resources are protected and water related hazards (i.e., flooding and erosion) are minimized, the City has developed a Draft Comprehensive Surface Water Management Plan and a Storm Water Control Ordinance. All land use proposals shall conform to the development standards contained within these documents.*

  Chapter 3 fully describes pre-development and post-development planning for regional storm water drainage systems and the methods used for this planning. These Department of Ecology and Puget Sound methods are proposed as being substantially similar or exceeding of the requirements of the Draft Comprehensive Surface Water Management Plan and Storm Water Control Ordinance. Therefore, the Olhava Master Plan requests City review of these methods during review of specific drainage and erosion control plans for the Olhava development.

- **Policy 5:** *The City of Poulsbo shall develop and maintain an Emergency Preparedness Program. The City shall coordinate with Kitsap County and other pertinent agencies in the development of this program.*

  The Olhava Property developers will coordinate with the City of Poulsbo in this policy endeavor.

- **Policy 6:** *All development proposals will be accompanied by a detailed hydrology study and drainage plan in conformance to the Storm Water Control Ordinance.*

  See response to Policy 4 above.

- **Policy 7:** *Regarding drainage easements along natural drainageways.*

  No wetlands are contained within natural drainage corridors. Natural drainage corridors will be provided a 20 foot minimum setback to any development areas of the Olhava Master Plan.

- **Policy 8:** *Those areas with limitations due to surface flooding, geologic instability or soil settling problems should be restricted from intense development. A detailed soil survey shall be conducted in order to determine what special design features would be necessary for development to occur.*

  See response to Geologic Policy 2.

- **Policy 9:** *Regarding physical capabilities for handling proposed development types.*

  The conceptual grading and drainage plans accommodate all land uses and restrictions for grading and drainage as prescribed by the City Development Standards. See Chapter 3 for preliminary engineering design as shown by the Illustrative Master Plan and Master Land Use Plans.

- **Policy 10:** *Impervious cover should be held to a minimum to reduce flooding, erosion or excessive storm runoff.*

  Impervious cover has been preliminarily designed to accommodate parking and other related impervious land uses for Olhava Property land uses. Strict Department of Ecology and Puget Sound drainage methods have been applied to development standards which will minimize the potential for flooding, erosion or excessive storm runoff as required by law.

- **Policy 11:** *Each new development or land modification should be responsible for storm water runoff from its site. Parking lot or outdoor work area runoff should be free of contaminants before leaving the property and entering the City storm drainage system. Minimizing overall storm water runoff and on-site detention of storm water shall conform to the Storm Water Control Ordinance standards.*

  See response to Policy 4, page 35.

- **Policy 12:** *Land fill and grading should not interfere with the drainage of adjacent land.*

  Preliminary grading and drainage plans for the Olhava development follow natural drainage flow channels and apply methods described by Policy 4 response. See Chapter 3.

- **Policy 13:** *All development proposals within areas of potential flooding or inundation must provide at least one all-weather access road in the event of a 100 year storm.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 14:** *Where appropriate, the construction of curbs and gutters shall be promoted as an important means of controlling local storm waters.*

  Curbs and gutters are standard development standards for the Olhava development by inclusion of Poulsbo development standards within the Olhava Master Plan.

- **Policy 15:** *Whenever possible the design of storm drainage facilities shall not detract from the visual or aesthetic qualities of the area and shall be earthen or naturalized type facility.*

  Wet detention ponds will be naturally shaped and incorporated within park and open space areas. These ponds will be sized to eliminate fencing requirements while protecting the health, safety and welfare of the community. See Chapter 3.

- **Policy 16:** *The City of Poulsbo shall establish nonpoint pollution controls which apply to critical areas such as sensitive, shellfish rich shorelines and wetlands.*

  Water quality for the Olhava development will follow this policy as illustrated and described by Chapter 3.

- **Policy 17:** *The City of Poulsbo shall consider the compatibility of proposed upland uses with those allowed in each adjacent shoreline area.*

  The Olhava Property Master Plan is consistent with land uses approved by the Comprehensive Plan and Zoning Ordinance.

BIOLOGICAL RESOURCE POLICIES

- **Policy 1:** *Site development practices which reduce erosion, promote immediate revegetation and reduce the amount of sediment leaving a construction site should be adopted to protect drainage ways, and fish and shellfish resources.*

  Each of these protective measures have been incorporated into the Olhava Master Plan through development standards and grading practices outlined in Chapter 3.

- **Policy 2:** *Shoreline development must meet the requirements of the City's shoreline management program.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 3:** *Encourage the enhancement of identified salmon spawning streams by retaining natural vegetation to the outer edge of riparian habitats.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 4:** *Construction around streams should employ appropriate measures to minimize erosion and subsequent siltation problems.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 5:** *All riparian corridors shall be developed in a manner that maintains the integrity of wildlife habitats and insures that water quality is preserved or enhanced and that other potential problems are mitigated.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 6:** *In accordance with Federal and State regulations, the City will adopt a No Net Loss goal, define regulated wetland, provide a method for delineating wetlands, provide standards for buffer zones, and provide a method for categorizing wetlands.*

  A full biological resources investigation and delineation for wetlands has been completed for the Olhava Property and is described by Chapter 4. Wetlands were classified and appropriate DOE buffers applied to development standards and grading plans for the Olhava Master Plan. Water quality, water supply to wetlands, and wetland mitigation for all impacted wetlands of the Olhava Property are described in Chapter 3.

- **Policy 7:** *All development proposals on vacant lands shall be reviewed and evaluated to assure minimal impacts on existing habitat and wildlife.*

  Chapter 4 and related elements of the Olhava Master Plan pertaining to biological resource preservation are included for City review and evaluation.

- **Policy 8:** *City staff shall consider requiring development proposals inside the City's Urban Growth Area provide an on-site biological report to insure adequate buffering and protection of sensitive habitat, wildlife areas, wilderness lands and shorelands.*

  See prior response to Policy 7.

- **Policy 9:** *The City shall encourage and cooperate in establishing multiple use corridors that use drainageways and utility easements as wildlife corridors while providing the public a linkage system between open space areas and the community.*

  As described in Chapter 4, the Olhava Property is situated and surrounded on most sides by major roadways, making wildlife corridors impractical for this property.

- **Policy 10:** *The City shall maintain an accurate and regularly updated map and information base on sensitive plan and animal species occurring in the City's Comprehensive Plan Area.*

  Biological inventories and descriptions of Chapter 4 are available to the City for inventory mapping.

- **Policy 11:** *Natural vegetation (particularly large trees) shall be preserved along streams, highways and in parking lot landscaping where practical. Where natural vegetation has been disturbed, replacement of trees shall be employed.*

  See Chapter 1, Section 1.7 for park and open space provisions of natural buffer areas and Chapter 2, Section 2.5 for landscape development standards relating to tree replacement when it is not practical to retain large trees. Most of the large trees within the Olhava Property were removed during parcel logging, prior to 1992.

- **Policy 12:** *Use of herbicides should be discouraged near streams and in curlverts near areas that drain directly into such streams.*

  There are no adjacent streams to the Olhava Property; however, use of herbicides in lieu of frequent cultivation and maintenance will be discouraged.

- **Policy 13:** *The City of Poulsbo shall carefully locate all uses and activities using proper site planning, setbacks and buffers, construction timing and practices, bank stabilization, bio-engineering and use of erosion drainage control methods during and after construction for both marine and upland shoreline development.*

  This policy does not apply to the Olhava Master Plan.

- **Policy 14:** *The City shall compile a data base from all available sources which identify biological resource areas to keep on file in the Planning Department.*

  See response to Policy 10 above.

NATURAL RESOURCES POLICIES

- **Policies 1-9:** Responses to these policies are provided by Chapter 1's specific descriptions to natural resources and natural systems.

ECONOMIC DEVELOPMENT POLICIES

- **Policies 1-21:** These policies are addressed by Chapter 7 and the fiscal impact study which accompanies the Olhava Master Plan.

OLHAVA PROPERTY INTEGRATED MASTER PLAN

CHAPTER NINE

SEPA CHECKLIST

OLHAVA PROJECT- ENVIRONMENTAL CHECKLIST

A. BACKGROUND

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

   Olhava Master Plan Development

2. *Name of applicant:*

   Olhava Associates L.P.

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

   Mark O. Zenger
   Olhava Associates
   P.O. Box 1449
   Edmonds, WA 98020
   (206) 775-6000
   FAX 775-2775

   C. Kent Berryman (Project Manager)
   Kent Berryman & Associates
   18777 9th Avenue, Suite 5
   Poulsbo, WA 98370
   (360) 697-5535
   FAX 697-5535

   Robert D. Johns
   REED McCLURE
   3600 Columbia Center
   701 Fifth Avenue
   Seattle, WA 98104-7081
   (206) 386-7016
   FAX 223-0152

4. *Date Checklist prepared:*

   June, 1995

5. *Agency requesting checklist:*

   City of Poulsbo
   Planning Department
   P.O. Box 98
   Poulsbo, WA 98370
   (206) 779-3006

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

   See Chapter 6, Development Phasing.

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

   As noted under item 6, the project will be constructed in phases over an estimated 10-year period, beginning in 1996. A 20-acre parcel in the northwest corner of the northern 174 acre parcel of the Olhava development will be donated to Olympic College for construction of a branch campus. Construction of the branch campus is tentatively scheduled for 1997 with an expected opening in 1999. It is possible that the branch campus could open earlier if sufficient demand for the facility or private construction funds became available.

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

   See referenced material, Chapter 10.

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

   None that Olhava Associates are aware of.

10. *List any governmental approvals or permits that will be needed for your proposal:*

    * **Plumbing and Electrical Permits**
    * **Individual Building Permits**
    * **Utility Construction Permits**
    * **Grading Permits**
    * **National Pollution Discharge Elimination System Permit**
    * **Demolition Permits**
    * **WSDOT Permits**

11. *Give a brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional information on project description.)*

    See Chapter 1 for a complete project introduction and description.

12. *Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range if known. If the 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 application related to this checklist.*

    See Chapter 1, Section 1.4.3 Vicinity map. Chapter 3, Figure 3A provides a topographic map and associated grading plans for the project. The property legal description (Bush, Roed & Hitchins) includes the following:

Northern Parcel. **The east half of the northwest quarter, the west half of the northeast quarter and west half of the southeast quarter, Section 10, Township 26 North, Range 1 East, W.M., in Kitsap County, Washington; Except that portion condemned for State Highway purposes by Kitsap County Superior Court Cause no. 79-2-D09328.**

Southern Parcel. **A parcel of land in the east half of the southwest quarter of Section 10, Township 26 North, Range 1 East, W.M., in Kitsap County, Washington, lying northwesterly of the Finn Hill County Road.**

B. ENVIRONMENTAL ELEMENTS

1. *Earth*

   a. *General description of the site (underline):* Flat, rolling, hilly, steep slopes, mountainous, other:

      See Chapter 1, Section 1.4.6, Existing Topography.

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

      See Chapter 1, Section 1.4.6, Existing Topography.

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

      See Chapter 1, Section 1.4.4, Soils Description.

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

      None that Olhava Associates are aware of. See Chapter 1, Section 1.4.5, Seismic Hazards Description.

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

      See Chapter 3, Section 3.1 for a complete description of development grading practices.

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

      All clearing and grading will be performed in accordance with an erosion/ sedimentation control plan to be prepared and submitted to the City of Poulsbo Department of Public Works for review and approvals. A notice of intent to comply with the State NPDES regulations will be filed with the Department of Ecology by the grading Contractor prior to any grading work.

      Erosion will be controlled during grading with silt fencing and sedimentation ponds in the location of future storm water detention or treatment ponds. Building pad sites will be stabilized and revegetated upon grading completion.

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

Based upon preliminary drainage estimates provided in the Technical Information Report (American Engineering Corporation 1994), approximately 56% of the site will be covered with impervious surfaces after project construction.

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.*

General emissions and dust from heavy equipment and wood smoke from clearing slash burns during construction are anticipated. After construction, auto emmissions not presently occuring at the site would follow. However, trip reductions and trip diversions would occur when the mixed-use relationship planned within this development is compared to otherwise separating these land uses in different site locations. Refer to Chapter 5 for Traffic Circulation details relating to trip generations.

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

The site is situated adjacent to the SR 3/SR 305 intersection, Finn Hill Road, Viking Avenue and Parnell Place NW. Vehicle emmissions from these highways and roadways contribute vehicle emmissions to the site.

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

To the extent possible, the use of mass transit will be encouraged to reduce the number of vehicular trips to/from the site. The mixed-use development provides residents and visitors with the opportunity of reduced vehicle dependency. Bicycle and pedestrian trails also provide residents and visitors with the opportunity of reduced vehicle dependency through a network of lanes and paths which connect to similar off-site systems. The development will divert vehicle trips which would otherwise travel south on SR 3. These diversions and other noted master plan elements will reduce potential emmission quantities when comparing this mixed-use development to traditional development alternatives.

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.

Reference Sections 1.4.9, 1.4.11 and 1.4.17, Chapter 1 and a full biological inventory and description, Chapter 4. The project site contains several wetlands originally delineated by Wiltermood Associates (1991). The wetlands were verified by Jones & Stokes in a September 1, 1994 field reconnaissance. These wetlands are identified and located in Chapter 4, Figure 4A. The Wiltermood report identified five palustrine scrub-scrub wetlands and one forested wetland totaling 1.2 acres (0.6% of the total site area) of the project site.

All of the wetlands are located in the north portion of the northern 174 acre parcel.

Based on the September 1994 field visit by Jones & Stokes Associates, one small (0.04 acre) scrub-scrub wetland (identified as Wetland F by Wiltermood Associates) was determined to not exhibit the necessary soils, hydrology and vegetation characteristics to be considered a wetland. Jones & Stokes (1994) prepared an amendment to the Wiltermood Report reflecting this change.

Individually the four remaining scrub-scrub wetlands (Wetlands A, B, C, and D) are small in size (0.06 - 0.13 acre) ("Inventory Map", Figure 4A, Chapter 4), and based upon the Washington Department of Ecology's wetland categories are considered Category 3 wetlands. These wetlant types occur more frequently, are generally smaller, less diverse, and more isolated than Category 1 or 2 wetlands. Category 3 wetlands require a moderate level of protection.

The forested wetland (Wetland "E"), located in the northwest corner of the northern 174 acre parcel (Olympic College site), is the largest (0.82 acre) and most diverse wetland on the site. Based on the Washington Department of Ecology's wetland categories (1993), Wetland "E" is considered a Category 2 wetland because of its forested element.

Dominant shrub vegetation in the wetlands are willows, salmonberry, western crabapple, and Douglas' spirea. Herbaceous wetland vegetation is sparse, although sedge species and lady fern were observed in some of the wetlands. Western red cedar was present in the upland fringes of the forested wetland.

The wetlands appear to be isolated, seasonal wetlands dependent on localized watershed runoff and direct precipitation for their water source. All wetlands provide some degree of storage for runoff from the surrounding watershed, with wetlands A, B and E providing the greatest storage value. Wetland D has been impacted by runoff and silt contributions from an offsite fill site.

There are no streams or ponds within the proposed development.

(2) Will the project require any work over, in, or adjacent to (within 200 feet) of the described waters? If yes, please describe and attach available plans.

Construction of commercial and residential uses will be within 200 feet of Wetlands A through E. A 50 foot buffer will be established for all Category 3 wetlands and a 100 foot buffer will be established for the Category 2 wetland and the Olympic College campus site.

(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.

According to the Technical Information Report (American Engineering Corporation 1994), Wetland B (0.072 acre) will be eliminated indirectly by loss of the supporting drainage basin. Mitigation for Wetland B will occur adjacent and between Wetlands C and D at a 2:1 ratio. Buffers will be established at 50 feet for Wetlands A, C, and D and at 100 feet for Wetland E. Reference Chapter 3, Figure 3A.

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

No. Surface water will be collected in wet retention ponds for treatment prior to discharging at the same pre-development points.

(5) 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. Surface water will be collected in wet retention ponds for treatment prior to discharging at the same pre-development points. Discharge volumes are described in Chapter 3, Section 3.3 (all parts).

b. *Ground*

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

No ground water will be withdrawn from the site, the existing well will be capped. Water will not be discharged to ground water other than through normal percolation in landscaped areas of the development.

(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.

Waste material will be transmitted from the site via sanitary transmission lines to a sewer treatment plant. No waste material will be discharged into the ground.

c. *Water Runoff including storm water:*

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

Runoff from the site will originate from paved areas, roofs, and other impervious features and, at a lesser degree, from landscaped areas including lawns and similar pervious areas. The project site consists of 12 drainage areas as described in the Technical Information Report (American Engineering Corporation 1994). In total, there will be approximately 1.3 million cubic feet of storage provided by the storm detention system. This system includes a piped conveyance of storm water through inlets and catch basins to a series of detention tanks and wetponds constructed around the site (see drainage map included in the Technical Information Report).

<u>Northern 174 Acre Parcel</u>. In this parcel, nine wetponds will be constructed, generally along the east and west perimeter of the site. Wetpond 1 (storage volume = 282,000 cubic feet) will be located on the west side of the parcel, west of the major commercial stores. Wetpond 5 (storage volume = 58,800 cubic feet) will be located in the southeast corner of this parcel. Wetponds 6A and 6B (storage volume = 286,000 cubic feet) will be located on the eastern side of the south-central portion of this parcel.

Wetpond 7 (storage volume = 26,400 cubic feet) will be located south of the State Route 3/State Route 305 interchange). Wetponds 8A through 8D (storage volume = 411,000 cubic feet) will be located north of the State Route 3/State Route 305 interchange.

In addition to the nine wetponds, three detention tanks will be installed for collection of roof runoff. The detention tanks will be located west of the major commercial facilities in the southwest area of this parcel. The combined storage volume of the detention tanks will be 41,900 cubic feet.

Southern 41 Acre Parcel. In the southern parcel, five wetponds will be constructed. Wetpond 9 (storage volume = 1,100 cubic feet) will be located in the northeast corner, south of the State Route 3/State Route 305 interchange. Wetpond 10A and 10B (storage volume = 59,200 cubic feet) will be located in the center of the parcel. Wetpond 11 (storage volume = 69,800 cubic feet), will also be located in the central portion of the site. Wetpond 12 (storage volume = 50,100 cubic feet) will be located in the southeast corner of the site.

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

No. Waste material will be transmitted from the site via sanitary transmission lines to a sewer treatment plant. Surface water will be collected in wet retention ponds for treatment prior to discharging at the same pre-development points.

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

Wetponds and detention tanks will provide detention and treatment for surface water runoff. Surface water will be collected for treatment prior to discharging at the same pre-development points.

4. Plants

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

__X__ deciduous tree: alder, maple, aspen, other:
__X__ evergreen tree: fir, cedar, pine, other (hemlock)
__X__ shrubs
____ grass
____ pasture
____ crop or grain
__X__ wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other:
____ water plants: water lily, eelgrass, milfoil, other
____ other types of vegetation

The project site is characteristic of lowland forest in the Puget Sound region. Franklin and Dryness (1973) classify the vegetation in this area as the Western Hemlock Zone, the most extensive vegetation zone in western Washington. Because the site has been logged within the past 70 years, it is best described as an early to mid-successional stage forest (Franklin and Dryness 1973).

b. *What kind and amount of vegetation will be removed or altered?*

Development of the project will remove additional trees and vegetation as the project develops over an estimated 10-year period. To the extent possible, vegetation and trees will be retained as part of site development and landscape program. As stated by the Technical Information Report (American Engineering Corporation 1994) approximately 56 percent of the site vegetation will be replaced with impervious surfaces. These impervious surfaces will also require ancillary grading to adjacent slopes which could further remove site vegetation and grading for storm water retention ponds. Site clearing could remove as much as 75 percent of the vegetation and trees when removal of small tree stands are included; small stands will be removed to prevent blow-down safety hazards.

c. *List threatened or endangered species known to be on or near the site.*

A data search for threatened, endangered, or sensitive plant species conducted by the Washington Natural Heritage Program (WNHP), Department of Natural Resources determined that no threatened, endangered or sensitive plant species were known to occur on the project site. No species recognized by the WNHP as threatened, endangered, or sensitive were observed during the site field assessments.

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

Predominant use of native plant material will provide the basis for revegetation and an accompanying site landscape program, discussed in Chapter 2, Section 2.5.1 and 2.5.2. Existing tree stands will be preserved when possible through use of small rockeries in cut areas and tree wells in fill areas; these tree protection devices will not encroach native tree canopy spread or root systems.

Native vegetation and ground covers in preserved tree stand areas will be retained in the natural state with some routine maintenance enhancements. Native trees will be reintroduced through street tree planting schemes with native trees, understory trees, and ground cover placement. Native vegetation will receive sufficient water to become established through a proposed drip irrigation system.

5. *Animals*

a. *Circle (mark) any birds and animals which have been observed on or near the site or are known to be on or near the site:*

birds: hawks, herons, eagles, songbirds, other:
mammals: deer, bear, elk, mountain beaver, other:
fish: bass, salmon, trout, herring, shellfish, other:

The project site is habitat for a variety of mammals, birds, and herptiles (reptiles and amphibians) typically found in a mid-successional lowland forest in the Puget Sound region. Wildlife use of the site is based largely on interpretation of existing habitat (as related to vegetative types) and review of literature pertaining to wildlife use of similar forest habitats in western Washington. Unless otherwise cited, habitat associations of wildlife species are based on habitat matrices outlined in Brown (1985).

d. *Proposed measures to preserve or enhance wildlife, if any:*

Direct impacts to wetlands and riparian habitats will be avoided. Buffers to these areas will be left as native growth for the benefit of wildlife. Streetside landscaping will utilize native species to further minimize wildlife impacts.

6. *Energy and Natural Resources*

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

Energy needs will be met with electricity and natural gas, both available to the project site. Some homes may use wood stoves as a supplemental heating source.

b. *Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.*

No.

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

All homes and commercial facilities will be constructed to meet the most current building requirements for energy conservation as stated by the Uniform Building Code.

7. Environmental Health

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

The proposed project includes a decommissioned Nike missile facility, formerly operated and maintained by the U.S. Army. Remediation and clean-up measures have occured to remove underground diesel fuel storage tanks and to remove approximately 40 cubic yards of petroleum contaminated soils. Additionally, transformers are being removed which contain PCB contaminants. Stuctures of this site include materials containing asbestos. A program is currently being coordinated with the U.S. Army Corps of Engineers for remediation of these soils and arrested contaminants; this program will follow specific procedures described by appropriate permits. Once all hazardous wastes have been remediated, demolition of the Nike facility will follow.

As for the proposed development, little or no risk of fire or explosion will occur as a result of this proposal. Slash burns will follow requirements specified by the City of Poulsbo Public Works Department or other governing body.

(1) Describe special emergency services that might be required.

Emergency services as needed for Olympic College laboratory facilities and for future uses in the commercial, business, and residential zones.

(2) Proposed measures to reduce or control environmental health hazards, if any:

None required, other than meeting environmental health codes and building to meet existing construction standards for safety (OSHA).

b. Noise

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

No noise other than traffic along State Route 3 and Finn Hill Road presently exist in the area.

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

Short-term. Noise would be created by construction equipment (e.g., excavation, clearing, grading, etc.). Construction noise would generally be limited to daytime hours.

Long-term. Increased noise due to automobile traffic to and from the site will occur. Typical noise associated with residential and commercial development of the types proposed for the project will occur.

(3) Proposed measures to reduce or control noise impacts, if any:

Road cuts from the lower elevations of the northern parcel to the business and commercial zones will serve to reduce noise along the primary frontage road through the project site. Landscape features such as buffers and rockeries and vegetation will also serve as mitigating features, to some extent, for vehicular traffic noise.

8. Land and Shoreline Use

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

The site is currently undeveloped and has been logged within the last 70 years (1991). A decommissioned Nike air defense missile base is located in the southwest corner of the northern 174 acre parcel of the site.

Adjacent properties to the northern 174 acre parcel include light manufacturing to the south, undeveloped and large area residential to the west, cleared fields used for residential acreage to the north, the State Route 3 right-of-way to the east with the exception of higher intensity single-family development in the northeast corner of this parcel which abutts Parnell Place.

Adjacent properties to the southern 41 acre parcel include single-family development of low-density character to the south, the State Route 3 right-of-way to the west and north, and generally undeveloped residential use to the east.

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

The site has been previously logged for marketable timber.

c. *Describe any stuctures on the site.*

Buildings and roads associated with the 22 acre decommissioned Nike facility, pending 1995 demolition of these structures. Other structures include subsurface missile launch bays which will either be domolished or filled, based upon engineering recommendations, after remediation work is completed.

d. *Will any structures be domolished? If so, what?*

Following remediation work removing asbestos containing materials from existing Nike facilities these and other associated structures described in (c) above will be filled or demolished and crushed for suitable fill placement.

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

At the time of annexation for the site to the City of Poulsbo (April 11, 1994), zoning classifications for the site included a mix of Single Family Residential (R-1) and Business Light Industrial (BLI). The current designation for the project site by the City of Pousbo Comprehensive Plan (1994) and the Poulsbo Zoning Ordinance (1994) is Master Plan Overlay (MP), including mixed-use zoning for Commercial, Business Park, Low-Density Residential, Medium-Density Residential, and Public Schools.

f. *What is the current comprehensive plan designation of the site?* **15**

The current designation for the project site by the Poulbo Comprehensive Plan (1994) is Master Plan Overlay (MP), including mixed-use zoning for Commercial, Business Park, Low-Density Residential, Medium-Density Residential, and Public Schools.

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

Not applicable.

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

No.

i. *Approximately how many people will reside or work in the completed project?*

Utilizing the project build-out populations specified by the Techinical Information Report (American Engineering Corporation 1994) and associated sewer requirement projections, the following populations are anticipated for the completed project which is envisioned to encompass 10 years for development: Low-density, single-family residents (323 persons); medium-density, multi-family residents (900 persons); commercial employees (575 persons); business park employees/tenants (365 persons); Olympic College students, faculty (1,620 persons).

Approximately 3,783 people are estimated to reside or work in the project when completed following an estimated 10-year build-out program.

j. *Approximately how many people would the completed project displace?*

None.

k. *Proposed mitigation to avoid or reduce displacement impacts, if any:*

Not applicable.

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

The project master site plan precisely follows zoning classifications expressed and planned for by the City of Poulsbo and the City of Pousbo Comprehensive Plan and the Master Plan Overlay specified by the City of Poulsbo Comprehensive Plan and the City of Poulsbo Zoning Ordinance. The proposed project will adhere to all guidelines, policies, goals, and objectives specified by the City of Poulsbo Zoning Ordinance and the City of Poulsbo Comprehensive plan, as also stated and illustrated by the Olhava Property Master Plan.

9. *Housing*

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

The proposed development will include two types of residential uses, classified by proposed densities and zoning designations of the Poulsbo Comprensive Plan. These include: 1) Single-family residences (70 dwelling units) , and; 2) Medium-Density (e.g., apartments, condominiums, townhomes, etc.) residences (420 dwelling units).

An estimated total of 490 dwelling units are included with the proposed development. Affordability for these dwelling units could generally be characterized as middle-income housing.

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

No residential units will be eliminated due to this project.

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

None.

10. *Aesthetics*

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

A variation has been requested from the normal Pousbo Development Guidelines to permit building heights not to exceed 50 feet, for commercial, business park, medium-density dwellings and the Olympic College campus buildings. A complete description of building exteriors is included in Chapter 2, Sections 2.4.__ and 2.5.__.

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

The project will alter immediate vicinity views from adjacent property and from State Route 3 and State Route 305. No views will be obstructed as a result of the proposed project.

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

The proposed development will essentially modify an undeveloped site to a semi-urban and residential community. To the extent possible, native stands of tree clusters and associated vegetation will be retained and preserved, particularly when blow-down of remaining tree stands is not a safety hazard. To revegetate after clearing and establishment of storm water retention ponds, native plant material will be used in replanting programs of landscape designs to follow. Ultimately, professional landscape architectural design will ensure a reduced aesthetic impact through the creation of common plaza areas, bicycle and pedestrian trails, and site integration through street tree planting schemes and site specific landscape architecture.

Architectural reviews will ensure compatibility and development consistency in form, scale, texture, etc. Architectural constraints will ensure compatibility with site planning elements including signage and sensitive parking area placement to promote a visually pleasing and unified development character for the proposed project.

11. *Light and Glare*

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

The proposed project may present window glare during morning hours due to the site's general eastern orientation. During evening hours, some headlight glare may emit from vehicles on the project side. Also during evening hours, light sources from parking areas may produce some low-level glaring.

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?*

Auto light and glare from SR3/SR305 traffic.

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

Street lighting and commercial parking area security lights are proposed to have "cutoff optics", or blinders, that would focus lighting patterns to the area of the site where light is needed, preventing light from shining to adjacent properties. To some extent, residential lighting would be screened by trees retained and proposed by the landscape architecture of the project.

12. *Recreation*

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

The Comprehensive Plan designates a "Floating Park" location west of SR 3 in the general vicinity of Finn Hill Road. Bicycle trails are planned or currently located on primary roadways immediately adjacent to the project site (Finn Hill Road, SR 305, SR 3).

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:*

Recreational opportunities provided by the project include a network of non-motorized transportation systems (i.e., bicycle/pedestrian trails), a community park site and several neighborhood parks. Each of these recreational amenities will be linked via bicycle and pedestrian trails. These non-motorized transportation systems are delineated in Chapter 5, Figure 5E, and described in Section 5.3.

The Olympic College campus site plan has been integrated with the Olhava Master Plan to provide pedestrian/bicycle linkage of this campus with the surrounding Olhava development.

13. *Historic and Cultural Preservation*

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

No known cultural resources on or next to the site.

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.

14. *Transportation*

a. *Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any:*

A complete traffic description is provided in Chapter 5.

The proposed site is primarily located on the west side of State Route 3 between Thompson Road and Finn Hill Road. The site also includes a southern 41 acre parcel located east of State Route 3 between State Route 305and Finn Hill Road (See Figure 5A, Chapter 5).

Access to the primary northern 174 acre parcel of the proposed development would be via three points (See Figure 5C, Chapter 5): (1) extension of State Route 305 west from State Route 3 interchange; (2) a new frontage road west of State Route 3 continuing south to Finn Hill Road and, (3) a new frontage road west of State Route 3 north to Thompson Hill Road via Parnell Place NW. Internal circulation roads would connect parking areas for retail and business to residential developments and the Olympic College campus.

The existing State Route 3 southbound off-ramp at State Route 305 would connect to the proposed westerly extension of State Route 305 to form the north and east legs of the "primary" site access intersection for the project. The south leg of the primary intersection would extend south through the site via the new frontage road to Finn Hill Road, while the west leg would extend northwesterly to the proposed college campus vicinity ("C" Street, Figure 5C, Chapter 5).

Access to the southern 41 acre parcel would be provided by way of Finn Hill Road for the single-family lots and onto Viking Way via a separate and interconnected access road also serving the multi-family housing units.

b. *Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?*

Public transit service in the vicinity of the proposed site is currently provided by Kitsap Transit, which provides fixed-route transit buses, demand-responsive paratransit vehicles, carpool vans, and worker/driver vehicles within its service fleet. Park-n-Ride lots are located at Poulsbo Junction (Lindvig Way/Viking Way) and at the Poulsbo Nazarene Church (State Route 305/Viking Way).

c. *How many parking spaces would the completed project have? How many would the project elliminate?*

***Preliminary master site plan* design provides the Business Park and Commercial areas with total parking spaces of 1,323 and 4,768, respectively. Additionally, parking for multi-family housing units would include approximately two spaces per unit, or 780 spaces. The Olympic College preliminary plan illustrates approximately 250 spaces. Hence, the anticipated parking space total for the proposed development would be approximately 7,121.**

d. *Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).*

Chapter 5, Figure 5C illustrates the internal roadways, lane channelization, and signal requirements for the proposed site.

The extension of State Route 305 onto the proposed site would require a 5 to 6 lane roadway section to accommodate two through lanes and two left-turn lanes for the westbound approach and two eastbound through lanes, with the potential of a third eastbound lane designated for the State Route 3 southbound on-ramp. The frontage road (designated as "A" Street south of State Route 305 and "B" Street north of State Route 305 on Figure 5C) would require five lane roadway sections to accommodate the projected 2005 traffic volumes for full build-out of the Olhava mixed-use development. South of "F" Street (a primary access road to the shopping center area), "A" Street would only require a three lane roadway section. The northern portion of the frontage road west of State Route 3 includes "B" Street and "D" Street as shown on Figure 5C. "D" Street forms a T-intersection with "B" Street and only requires a two-lane roadway section since future volumes projected in this portion of the site are moderate. "B" Street continues northwest towards the proposed Olympic College campus where it intersects "C" Street. "C" Street would be a two lane section that provides the main entrance driveway to the branch campus.

"B" Street would turn west onto "E" Street towards the northwest residential development. "E" Street would require a three lane roadway section to safely accommodate left-turn traffic to/from planned commercial establishments along this route.

e. *Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.*

No.

f. *How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.*

The proposed project would include approximately 490 residential units and the following approximate building areas by use: 325,000 square feet (SF) of business park space; 470,000 SF of commercial shopping center space; 370,000 SF of secondary retail space for specialty shops, banks, restaurants, hotel, etc. The project would also include dedication of property at the northwest corner of the northern 174 acre parcel of the site to Olympic College for development of the Poulsbo branch campus. This campus would accommodate approximately 900 full-time equivalent students with ancillary faculty and staff.

The Olhava Master Plan Traffic Impact Analysis (See attachments, Chapter 10) determined that the proposed development would generate a gross total of 50,885 vehicle trips on an average weekday (AWDT) with 5,230 trips occuring during the critical weekday P.M. peak hour (4-6 P.M.). During the P.M. peak, an estimated 51% of the trips would be inbound (2,661) and 49% outbound (2,569). Weekend trips were also counted and showed a net reduction over AWDT trips. This supplemental count is attached in Chapter 10.

Based on assumed trip reduction factors described in the Traffic Impact Analysis Report, the gross trip generation total of the proposed project impacting the adjacent arterial system would decrease by approximately 29% overall. The resulting net "new" traffic generated by the development would total 36,090 daily trips, of which 3,708 trips would occur during the P.M. peak hour. The net new daily and peak hour traffic volumes are summarized Table 3 of the Traffic Impact Analysis Report.

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

Transportation impacts would be mitigated by the design of on-site roadways and intersections to operate in accordance with local and State development standards. Off-site impacts would be mitigated by recommending improvements at critical intersections wher project-related traffic would degrade levels of service. Special mitigation measures proposed for the project are summarized below and discussed in detail in the Traffic Impact Analysis previously noted above.

On-Site/Internal Intersections. Channelization needs at internal site intersections were determined based on projected peak-hour turning volumes at full build-out of the site in the year 2005. See Figure 5 of the Traffic Impact Analysis for specific intersection locations.

(1) Finn Hill Road at "A" Street - Signalization and improved channelization at this intersection would provide safe and efficient traffic flow and result in level of service (LOS) B at this location.

(2) "B" Street (State Route 305 extension) at "A" Street (frontage road) - This is the primary access intersection for the project. A new traffic signal is proposed at this location, with the following land and channelization requirements: a.) a left-turn lane and through-right lane for the southbound State Route 3 off-ramp approach; b.) two left-turn and through lanes for the westbound approach; c.) two through lanes and a right-turn lane for the eastbound approach; d.) a single left-turn and two right-turn lanes for the northbound approach. This configuration would result in LOS C operations for 2005 peak conditions at this intersection.

(3) "B" Street at "C"/"D" Street - This intersection is located north of the primary intersection and would serve the Olympic College, business park, retail uses, and residential land uses. This intersection would include: a.) two through lanes from "B" Street to "C" Street and a right-turn lane to "D" Street on the northbound approach; b.) separate left and right-turn lanes on the westbound approach from "F" Street; c.) a left-turn and two through lanes on the southbound approach from "C" Street. With signalization, the resultant service grade is LOS A at this intersection.

(4) *"C" Street at "E" Street* - This intersection would provide access to the Olympic College main entrance and the northeast (NE) multi-family residential development. Proposed channelization includes: a.) a separate left-turn lane and single through-lane for the eastbound approach on "E" Street; b.) a single shared lane on "C" Street southbound approach; c.) separate through and right-turn lanes for the northbound "C" Street approach. The resultant level of service with stop sign control for the southbound "C" Street traffic is LOS C.

(5) "A" Street at "F" Street - This intersection is located south of the primary access intersection along "A" Street and serves as the internal junction for vehicles destined for the commercial center, located between the frontage road and State Route 3. Recommended channelization at this location includes: a.) separate right, through, and left-turn lanes for the southbound approach on "A" Street; b.) an exclusive left-turn lane, a left-through option lane and a right-turn lane for the eastbound approach on "F" Street; c.) a separate left-turn pocket and two through lanes for the northbound approach on "A" Street, and; d.) a single shared lane for all movements from the westbound "A" Street approach. Signalization at this location would improve the peak level of service to LOS B.

(6) "A" Street at "G" Street - This intersection is located at the south end of the project site and provides the main access to the shopping center from the Finn Hill Road access point. A center turn lane on "A" Street would provide left-turn channelization with single shared lanes for all other approaches. This location would operate at LOS B with stop sign control for "G" Street.

(7) "D" Street at "H" Street - This interchange is located at the northeast corner of the project site and would serve traffic utilizing the Thompson Road/Parnell Place access of the northest corner of the site. Single lane approaches for all four legs of this intersection would be sufficient and would operate at LOS A conditions at full build-out of the project.

(8) Finn Hill Road at Single-Family Access - Access to the southern parcel's single-family housing development located between State Route 3 and Viking Way would be provided at this new access onto Finn Hill Road. A single-lane shared approach to Finn Hill Road would provide LOS A at full build-out of the project.

(9) Viking Way at Multi-Family Access - Access to the southern parcel's multi-family development would be provided by this new intersection onto Viking Way. The internal roads for this development and the single-family development previously noted would both be served by this access in a primary or secondary capacity. A single shared lane approach on the access driveway would result in LOS C during peak conditions.

Pedestrian and bicycle access within the site would be provided by the construction of sidewalks and a designated bikeway along the proposed frontage road from Finn Hill Road to Parnell Place. The access road planned between the NE multi-family residential units and the business park would also provide a pedestrian and bicycle facility for users destined to/from Thompson Road via Parnell Place. The frontage road facilities would also connect to the State Route 305 extension to provide pedestrian and bicycle access to Poulsbo and Bainbridge Island. A trail loop facility for pedestrian/bicycle use is also proposed in the conceptual layout of the southeast residential development. The trail loop facility located along the perimeter of the proposed single-family dwelling units (southern parcel) would connect to the primary northern parcel west of State Route 3. A pedestrian and bicycle trail is also proposed within the Olympic College branch campus; this trail is planned to be generally located in the campus perimeter, similar to the southern single-family development.

Off-Site Intersections. Suggested off-site improvement to the City of Poulsbo include the following (See Traffic Impact Analysis for full discussion/description).

(1) State Route 305 at Hostmark Steet - This intersection would operate at service level LOS F by the year 2005 with or without the proposed project. The addition of second northbound and southbound through-lanes on State Route 305 plus separate eastbound and westbound signal phasing would improve the P.M. peak hour operations of this intersection from LOS F to LOS D with the project. The City of Poulsbo has a programmed improvement which includes this intersection for widening on State Route 305; therefore, a proportionate share would be contributed to the programmed improvement.

(2) State Route 305 at Lincoln Road - P.M. peak hour conditions at this intersection would degrade from LOS D to LOS F with the proposed project. As with the Hostmark Street intersection described above, widening State Route 305 to provide second northbound and southbound through-lanes would improve 2005 peak conditions at this intersection to acceptable LOS C with the project.

(3) State Route 305 at Little Valley Road - The addition of traffic volumes generated by the proposed project would deteriorate intersection operations to LOS F. Therefore, the addition of second northbound and southbound through lanes on State Route 305 would be required to improve the traffic flow at this location. With the new State Route 305 through lanes, projected 2005 peak conditions would improve to LOS B.

(4) State Route 305 at Bond Road - This intersection is projected to operate at LOS F with or without the proposed project in the year 2005. Suggested improvements to the City of Poulsbo to improve the peak conditions from LOS F to acceptable LOS D include: a.) addition of second northbound and southbound through lanes on State Route 305 plus a second southbound left-turn lane on State Route 305.

(5) Lindvig Way at Bond Road - This intersection would degrade to LOS F with the proposed project. Conversion of the existing center turn lane to a second westbound through lane and converting the inside eastbound through lane to a left-turn lane is suggested as mitigation for this intersection. These revisions would improve peak intersection operations from LOS F to LOS B.

(6) State Route 305 at Viking Way - The State Route 305/Viking Way intersection would degrade from LOS C to LOS F with project-generated traffic. A suggested second eastbound through-lane on State Route 305 would improve the peak level of service from LOS F to LOS C in 2004 with the proposed development at full build-out.

(7) Viking Way at Finn Hill Road - This intersection is projected to operate at LOS E under 2005 baseline scenarios. The additon of traffic volumes generated by the proposed development would degrade the intersection operations to LOS F in 2005. The suggested addition of a second left-turn lane on the westbound Lindvig Way approach and revised traffic signal phasing would improve 2005 peak conditions to LOS D with the project.

(8) State Route 305 at State Route 3 Northbound On/Off-Ramps - The projected 2005 volumes at this intersection suggest the following improvements to the City of Poulsbo: a.) addition of second eastbound and westbound through lanes on State Route 305; b.) new eastbound right-turn lane; c.) installation of a traffic signal. With these improvements, the intersection would operate at LOS B with the proposed project. In addition to signalized and widening on State Route 305, the State Route 3 northbound off-ramp is suggested to be widened to accommodate an extended left-turn lane and the planned northbound loop on-ramp constructed to accommodate peak traffic generated by the project.

The proposed project would require additonal channelization improvements at the Finn Hill Road and State Route 305 access locations. Left-turn and right-turn channelization improvements are warranted and recommended at the south access to Finn Hill road, while channelization improvements on State Route 305 would be required to accommodate the projected peak volumes at the State Route 3 southbound on-ramp and northbound loop on-ramp.

15. *Public Services*

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

Because of the increased land use base this project presents, there will be a commensurate increased demand for the services listed by this question. Anticipated service demands are described in Chapter 7, Fiscal Impact Analysis.

b. *Proposed measures to reduce or control direct impacts on public services, if any.*

None proposed other than revenues produced by the proposed development and taxes paid to the City of Poulsbo.

16. *Utilities*

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

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

Natural Gas- Cascade Natural Gas
Electricity - Puget Sound Power and Light Company
Telephone - United Telephone Northwest
Water - Kitsap County Public Utility District
Sanitary Sewer - City of Poulsbo Public Works, Sewer Department

Water for the project is supplied from three locations. Two connections will be made to the Kitsap County PUD lines at Finn Hill Road. One connection will be made at a 12-inch tee at the old Nike missile site access road and one connection will be made at an 8-inch high-pressure main at the southwest corner of the portion of the Olhava site located east of State Route 3. The third connection will be made at a 14-inch Kitsap County PUD line at the corner of Thompson Road and Rhododendron Road.

This connection will be made with an off-site 14-inch waterline running from the northeast access road to the Olhava site then north, parallel to State Route 3 to Thompson Road, then west along Thompson Road to the intersection with Rhododendron Road to connection with the 14-inch PUD waterline (approximately 7000 lineal feet).

The total annual average water demand for domestic, commercial, and institutional uses at the Olhava site is estimated to be 256,000 gallons per day for the northern site parcel and 101,000 gallons per day for the southern parcel, for a total of 357,000 gallons per day (GPD). This demand would include landscape irrigation.

The peak day water demand is estimated to be a total of 589,000 GPD (409 gallons per minute- GPM). The peak hour water demand is estimated to be 892,000 GPD or 620 GPM.

During modeling of the water system prior to final design, flows for fire protection are typically added to the peak day water demand. Fire flows are estimated at about 3,900 GPM.

The total water demand for hydraulic analysis of the network is thus 3,900 GPM plus the peak day demand of 409 GPM for a total of 4,309 GPM. This demand can be accommodated by a 12-inch water line running through the site, adjacent to the large commercial structures at the southwest corner of the site's northern parcel. The remaining pipe network will be 8-inch diameter because the fire flow will be considerably less for the other buildings of the Olhava site.

Sewerage to the proposed site would be provided by two systems east and west of State Route 3. The sewer system west of State Route 3 consists mainly of 8-inch gravity sewers. Two pump stations would be required to operate this system. One pump station would serve the northern parcel of the site and would have a capacity of approximately 120 gallons per minute, discharging through a 4-inch main. A second pump station would serve the multi-family residential and public school sites. This pump station would have a capacity of approximately 200 GPM and discharge a 4-inch diameter force main.

It is estimated that the northern site parcel will generate an annual average sewage flow of approximately 160,000 GPD. The peak hour flow is estimated at 480,000 GPD or 333 GPM.

Preliminary design suggests that wastewater from the northern parcel would be conveyed by an 8-inch diameter gravity sewer along State Highway 305 to Viking Avenue and then south along Viking Avenue and tying into the existing system near the intersection of Viking Avenue and Finn Hill Road.

During the engineering feasibility phase of design development (June, 1994), City engineer Milt Ludington suggested that the existing sewer on Viking Avenue currently has adequate capacity to accomodate the additional flow from the northern parcel. However, it will be prudent to establish future wastewater flows in the service area of this sewer to determine if this sewer needs to be upgraded at some future date. This modelling would be coordinated with the City of Poulsbo and the Olhava Associates engineering consultant.

In subsequent discussions with City engineer Milt Ludington, the Lindvig Way pump station is already scheduled to be upgraded. The upgraded pump station should have adequate capacity to accommodate the wastewater flows from the entire Olhava development.

The sewer system east of State Route 3 also consists primarily of 8-inch gravity sewers. One pump station is required, proposed for the southeast corner of this parcel. This pump station will be a relatively small installation, with a capacity of approximately 100 GPM discharging through a 4-inch force main.

It is estimated that the area east of State Route 3 will generate an annual average flow of approximately 63,300 GPD. The peak hour flow is estimated at 253,200 GPD or 176 GPM. This parcel is designed to discharge to an 8-inch diameter gravity sewer at Finn Hill Terasse, a residential development between the Olhava site and Finn Hill Road. This sewer in turn discharges to an 8-inch diameter gravity sewer at Finn Hill Road, running southeasterly to the intersection with Viking Avenue. From this intersection the sewer is 10-inch diameter and runs easterly along Lindvig Way to the pump station at the intersection of Lindvig Way and Bond Road.

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: _____

Mark O. Zenger, Olhava Associates L.P.

Date Submitted: _____

July 1, 1995

OLHAVA PROPERTY INTEGRATED MASTER PLAN

CHAPTER TEN

MASTER PLAN ATTACHMENTS AND RESOURCES

ATTACHED REFERENCE MATERIAL TO THE OLHAVA MASTER PLAN

1. *Traffic Impact Analysis-Olhava Master Plan.* Gibson Traffic Consultants, Inc. December 5, 1994.

2. *Level of Service Calculations- Olhava Master Plan.* Gibson Traffic Consultants, Inc. December 5, 1994.

3. *Preliminary Geotechnical Engineering Investigation for Olhava Development, L.P., Highway 3 and Finn Hill Road, Poulsbo, Washington.* Harza Northwest, Inc. August, 1994.

4. *Weekday vs. Weekend Trip Generation- Olhava Master Plan Development.* Gibson Traffic Consultants, Inc. May, 1995.

5. *Phase I Environmental Site Assessment, 48 Acre Site, Poulsbo, Washington.* ERM-Northwest, Inc. September 9, 1992.

6. *Transformer Oil Sampling Report.* ERM-Northwest, Inc. November 1, 1992.

7. *Phase I & II Environmental Assessment, Nike Site.* ERM-Northwest, Inc. September 23, 1992.

8. *USA COE UST Removal.* ERM-Northwest, Inc. January 8, 1992.

9. *Wetland Delineation Report for 195 Acre Parcel, Finn Hill, Poulsbo, Kitsap County, Washington.* Wiltermood Associates, 1991.

10. *Olhava Master Plan Technical Information Report, Poulsbo, Washington.* American Engineering Corporation, November, 1994.

11. *Olhava Master Plan Fiscal Impact Analysis, Poulsbo, Washington.* Terra Nova Planning & Research, Inc., July, 1995.

Olhava Project Design Team

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Note: Please direct inquiries to project manager Kent Berryman at the address or phone number listed above.

5C (a) per Hearing letter dated 10-23-98

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BEFORE THE POULSBO CITY COUNCIL

IN THE MATTER OF THE OLHAVA MASTER PLAN - APPEALS OF FEIS ADEQUACY BY THE SUQUAMISH TRIBE, WINMAR COMPANY, INC, AND GROW SMART!, AND MASTER PLAN DETERMINATION	)	CITY FILE NO. MP 96-01 FINDINGS, CONCLUSIONS, AND DECISION

I. FINDINGS

A. PROCEDURAL FINDINGS

1. On October 2, 1995, the City received an application for approval of a master plan for the property commonly known as the Olhava property. The applicant was Olhava Associates, L.P.

2. A Mitigated Determination of Non-Significance (MDNS) was issued on the original application on December 20, 1995. The MDNS was appealed by the Suquamish Tribe and an adjacent property owner.

3. Pursuant to Poulsbo Municipal Code (PMC) 16.04.250, the Poulsbo City Council heard the appeals. On March 20, 1996, the City Council overturned the MDNS and determined that an environmental impact statement should be prepared on the following environmental issues: traffic, storm water runoff, wildlife, police protection, fire protection, noise and light, and sewer capacity.

4. Subsequent to the Council's decision on the MDNS appeal, the October 2, 1995 application was withdrawn. A new and modified application was submitted on April 3, 1996.

5. The April 3, 1996 application was determined to be complete and a notice of application was issued on May 10, 1996.

6. On April 24, 1996, a Determination of Significance was issued for the resubmitted application. The notice of the DS included two scoping meetings, which were held as scheduled

on May 7 and May 21, 1996. In addition, the City accepted written comments on scoping at the City Planning Department until May 28, 1996.

7. Based upon a review and consideration of public comments received during the scoping process, the City's SEPA Responsible Official added the following issues to the scope of the environmental impact statement: ground water movement/quantity/quality, commercial land need/economic analysis, water supply, air quality, and land use/aesthetics.

8. A Draft Environmental Impact Statement (DEIS) was issued on January 28, 1997. The DEIS consisted of a 134 page document, together with two volumes of technical appendices. The comment period was originally scheduled to end on February 27, 1997, but was extended to March 14, 1997 at the request of the State Department of Transportation.

9. The City received 94 comments on the DEIS from agencies, the Suquamish Tribe, and members of the public. The Final Environmental Impact Statement (FEIS) was issued on May 27, 1997. A complete set of comment letters and responses was issued as Appendices A and B to the FEIS.

10. On June 6, 1997, the City received three appeals concerning the adequacy of the FEIS:

a) A letter from Randy Hatch, Fisheries Director of the Suquamish Tribe;

b) A letter from Donald E. Marcy of Cairncross & Hemplemann, attorneys for Winmar Company, Inc.; and

c) A letter from CarolAnn Stockton and Brad Walker, President and Vice President of Grow Smart!

Each letter was accompanied by a check for $300.00, representing the appeal and consultant deposit fee required by City ordinance.

11. The Poulsbo Planning Commission held two public meetings (not public hearings) on the Master Plan application on March 24 and March 31, 1997. As the result of the meeting, on June 3, 1997 the Planning Commission recommended approval of the Master Plan application, subject to conditions.

12. On June 23, 1997, the City Planning Department mailed a notice of public hearing on the Master Plan and SEPA Appeals to (a) the applicant and the applicant's representative, (b) owners of property within 300 feet of the Olhava property, (c) agencies with jurisdiction, (d) the SEPA appellants, Grow Smart!, the Suquamish Tribe, and Winmar Company, Inc., and (e) any other people that the Planning Department determined were affected by the proposal or who had requested notice of the hearing in writing.

13. On June 21, 1997, notice of the hearing was published in the City's Official Newspaper, *The Kitsap Herald*.

14. On June 23, 1997, notice of the hearing was posted on the Olhava property.

15. All notices set the public hearing on the Master Plan application and the SEPA Appeals for July 8, 1997 at 7:00 p.m. at Vinland Elementary School in the City of Poulsbo, Washington.

16. On July 8, 1997, the public hearing on the Master Plan application and the SEPA appeals was commenced. Thereafter, the hearing was continued from time to time until public testimony was completed on March 25, 1998.

17. Prior to the commencement of the hearing, four appearance of fairness challenges were raised: Mayor Mitchusson and Council members Winters and Rudolph were challenged by Grow Smart! and Council member Munroe was challenged by Olhava Associates. Mayor Mitchusson stepped down prior to commencement of the hearing and Council member Winters stepped down after making disclosures. Council members Munroe and Rudolph decided not to step down. No challenges were raised concerning Council members Diehl, McGinty, Bruce, or Walgren (Aitchison after her marriage during the pendency of this matter). The hearing commenced with Council members Bruce, Aitchison, McGinty, Diehl, Munroe, and Rudolph.

18. The hearing was conducted as a single simultaneous hearing on the SEPA appeals as to the adequacy of the FEIS and on the Master Plan application. Within this single simultaneous hearing, however, the City Council took all testimony concerning the SEPA Appeals first and then took testimony on the Master Plan application.

19. All testimony taken on the SEPA appeals as to adequacy of the FEIS was taken under oath. Testimony on the Master Plan application was not required to be under oath. An audiotape was kept of all proceedings, including deliberations of the City Council.

20. In all, the City Council took testimony on the SEPA Appeals and the Master Plan at 28 meetings lasting between one and three hours. A total of 215 exhibits and over 70 hours of testimony were presented and considered.

21. Effective January 1, 1998, Council members Diehl and Winters were replaced by Council members Lord and Stern, who were elected in November, 1997. After appearance of fairness disclosures, no challenges were raised concerning Council members Lord and Stern. Council members Lord and Stern were present at many of the hearing dates prior to their election and had listened to audiotapes and viewed exhibits from those proceedings they were unable to attend.

22. After completing the public testimony on March 25, 1998, the City Council deliberated on March 26 and April 2, 1998. On March 26, 1998, the City Council determined that the FEIS was adequate. On April 2, 1998, the Council determined to approve the Master Plan, subject to conditions.

B. GENERAL FINDINGS REGARDING THE OLHAVA PROPERTY AND MASTER PLAN PROPOSAL

23. The Olhava property is located in the northwest corner of the City and is separated into two parcels by State Highway 3. The parcels are legally described as follows:

Northern Parcel: The east half of the northwest quarter, the west half of the northeast quarter, and the west half of the southeast quarter, Section 10, Township 26 North, Range 1 East, W.M., in Kitsap County, Washington, Except that portion condemned for State Highway purposes by Kitsap County Superior Court Cause No. 79-2-D09328.

Southern Parcel: A parcel of land in the east half of the southwest quarter of Section 10, Township 26 North, Range 1 East, W.M., in Kitsap County, Washington, lying northeast of Finn Hill County Road.

24. The Olhava property is approximately 215 acres in size. The northern parcel consists of approximately 174 acres. The southern parcel consists of approximately 41 acres.

25. The property is largely unimproved. A decommissioned former U.S. Army Nike site, located in the southwest corner of the north parcel, consists of several small outbuildings, some paved roads, and several reinforced concrete structures within 21 acres. The remainder of the site has been logged within the past 5 years and the remaining trees are predominantly mixed-evergreen.

26. The Olhava property was annexed to the City of Poulsbo by Ordinance 94-04, passed by the City Council on January 12, 1994 and effective April 6, 1994. Unincorporated Kitsap County abuts the Olhava property on the north, east, and west, and the remainder of the City abuts the Olhava property on the south.

27. The City's Comprehensive Plan, which was adopted by Ordinance 94-14, passed by the City Council on June 13, 1994 and effective June 27, 1994, designates the entire property as subject to a Master Plan Overlay, requiring the approval of a master plan prior to any development. The Comprehensive Plan also establishes the following land use designations for the property:

Designation	Acreage	Location
Commercial	83	Central and southern portions of northern parcel
Business Park	40	North-central portion of northern parcel
Public Schools	20	Northwest corner of northern parcel

Medium Density Residential	43	Along the western and northern borders of the northern parcel and in the northern half of the southern parcel
Low Density Residential	29	Along the eastern border of the northern parcel and in the southern half of the southern parcel

28. The Comprehensive Plan designations of properties surrounding the Olhava property are as follows:

North: Rural-Medium under Kitsap County's Comprehensive Plan

South: Low Density Residential under City's Comprehensive Plan

East: Urban Low Density Residential, Urban Medium Density Residential, Light Industrial under Kitsap County's Comprehensive Plan

West: Highway Commercial, Light Industrial, Urban Low Density Residential under Kitsap County's Comprehensive Plan

29. The most recent zoning established for the Olhava property was adopted as part of Poulsbo Ordinance 94-25, passed by the City Council on December 28, 1994 and effective January 9, 1995. Under this ordinance, the Olhava property carries a Master Plan Overlay designation and is divided between the following zoning districts which correspond to the locations of the Comprehensive Plan designations: Commercial (C), Business Park (BP), Public Schools (PS), Medium Density Residential (R-M), and Low Density Residential (R-L).

30. Existing uses in the vicinity of the site are: to the north, vacant and large lot residential; to the south, single family residential; to the east, Highway 3/305 interchange, vacant, large lot residential and Viking Avenue; and to the west, vacant and large lot rural residential.

31. The Master Plan proposes development of a maximum of 70 single family dwelling units on the portion zoned R-L, a maximum of 420 multiple family dwelling units on the portion zoned R-M, a maximum of 840,000 square feet of commercial floor space on the portion zoned C, a maximum of 350,000 square feet of business park floor space on the portion zoned BP, and a branch campus of Olympic Community College on the portion zoned PS.

32. The Master Plan proposes development in seven phases over an anticipated buildout period of ten years. The seven phases, referred to as Phases "a" - "g", are generally described as follows:

A. Phase "a" consists of a frontage road extending northward from N.W. Finn Hill Road south of the northern parcel to the proposed Olympic College site in the northwest corner of the northern parcel, utility construction, commencement of general site preparation for Phase "b," completion of any necessary remediation work for the Nike site, and possible modification of the SR 3/SR 305 interchange.

B. Phase "b" consists of commencement of the first phase of building construction on the Olympic College site, completion of interchange modifications, construction of 20% of the northern parcel's commercial floor space (approximately 94,000 square feet), construction of 100% of the southern parcel's medium density dwelling units (approximately 160), construction of 50% of the southern parcel's low density residential dwelling units (approximately 35), commencement of general site preparation for Phase "c," and certain utility, park and road construction.

C. Phase "c" consists of construction of the remaining 50% of the southern parcel's low density residential units (approximately 35), an additional 25% of the primary shopping center (approximately 117,000 square feet), 15% of the business park (approximately 49,000 square feet), completion of the first phase buildings of Olympic College, the third segment of the frontage road, certain off-site traffic and utility infrastructure, infrastructure for the Community Park site, and general site preparation for Phase "d".

D. Phase "d" consists of constructing an additional 20% of the primary shopping center (approximately 94,000 square feet), 100% of the medium density Planning Area 8 (approximately 100 dwelling units), an additional 20% of the business park (approximately 65,000 square feet), 15% of the secondary commercial sites (approximately 56,000 square feet), certain off-site traffic and utility improvements, and general site preparation for Phase "e".

E. Phase "e" consists of constructing an additional 25% of the business park (approximately 81,000 square feet), the remainder of the primary shopping center (approximately 165,000 square feet), 25 % of the secondary commercial sites (approximately 93,000 square feet), certain off-site traffic and utility improvements, and general site preparation for Phase "f".

F. Phase "f" consists of construction of Planning Area 9 medium-density residential dwellings (approximately 160 units) and any remaining traffic and/or utility improvements, together with a neighborhood park site within Planning Area 9.

G. Phase "g" consists of the completion of all land uses not previously developed, which may include secondary commercial (approximately 22,000 square feet) and the remaining office park space (approximately 130,000 square feet).

The phases are described in more detail in Chapter 6 of the Master Plan.

C. FINDINGS REGARDING EIS ADEQUACY APPEALS

FINDINGS REGARDING ALTERNATIVES

33. The appeals filed by the Suquamish Tribe and Grow Smart! challenged the adequacy of the alternatives analysis in the FEIS. Two arguments were made by both the Tribe and Grow Smart!: (1) that none of the alternatives meet the definition of "reasonable alternative" found in SEPA, in that none of the alternatives has lesser environmental impacts at a lesser cost than the proposal; and (2) that the range of alternatives was insufficient to do more than support the preferred alternative.

34. Grow Smart! also argued that the alternatives did not meet the requirements of SEPA because they serve only to justify the project.

35. In addition, Grow Smart! asserted that alternative sites for the project should have been considered, because the Olhava Master Plan is a public project. Grow Smart! argued that the proposal to donate twenty acres of the Olhava property to Olympic College rendered the project public. Grow Smart! also argued that because the same consultant, Terra Nova Planning and Research, Inc., prepared the EISs for the Olhava Master Plan, the City's Comprehensive Plan, and the City's zoning ordinance, the Olhava Master Plan is somehow inextricably intertwined with the City's interests and is therefore a public project.

36. During the scoping process for the EIS, the Responsible Official determined that the EIS would include the following alternatives:

A. The applicant's proposal;

B. A "no action" alternative, which at that time assumed that the site would develop under current zoning without a master plan governing the entire site;

C. An alternative which would be less intensive than the applicant's proposal and would have less environmental impact while retaining the present zoning; and

D. An alternative which would be more intense than the applicant's proposal and have greater environmental impacts while retaining the present zoning.

37. In response to comments on the DEIS, a fifth alternative was added: a "no action" alternative which assumed that no development would occur on the site. The FEIS was issued with five alternatives, labelled and described as follows:

Alternative One. Alternative One assumes the implementation of the Master Plan as proposed. As described in the foregoing findings, this alternative would include 840,000 square feet of commercial floor space, 325,000 square feet of business park floor space, 490 residential units, and a 50,000 square foot Olympic College Campus site.

Alternative Two. Alternative Two assumes that the property would be sold in pieces and developed in conformance with the Comprehensive Plan and Zoning Ordinance. Under this alternative, the approximately 215 acre property would be divided along land use designation boundaries and developed as six separate master plans (the two medium density and one low density sites in the northern acreage would be combined into one 30 acre master plan) by six unassociated private parties. This alternative assumes a total of 332 multi-family residences, 143 single family residences, 100,000 square feet of Olympic College Campus, 905,000 square feet of commercial space, and 435,000 square feet of business park. Originally called the "no action" alternative in the DEIS, this alternative was relabelled as the "multiple master plans" alternative in the FEIS.

Alternative Three. This alternative assumes that the total number of dwelling units in the residential component would be reduced to the minimum net density in each designation, based on the Comprehensive Plan, for a total of 64 single family residences and 257 multi-family residences, or 321 total residential units. The balance of the land in the residential areas, 15.5 acres, is assumed to be developed for park uses. This alternative also assumes the commercial development is reduced to 500,000 square feet and that the business park development is reduced to 150,000 square feet. The Olympic College site is assumed to total 50,000 square feet, the minimum possible for a functional campus.

Alternative Four. This alternative assumes that the total number of dwelling units in the residential component would be increased by the allowable density bonus or transfer provisions of the Comprehensive Plan, resulting in a total of 525 multi-family units, and 88 single family units. In addition, the community park planned for the northeastern portion of the property would be developed as its designation of low density residential allows, resulting in 50 single family dwelling units on 8 acres. The total number of residential units under this alternative is 663. The commercial space is assumed to increase to 1,100,000 square feet and the business park space is assumed to be 435,000 square feet with a light industrial focus. The Olympic College is assumed at 100,000 square feet.

Alternative Five. This alternative assumes that no construction will occur on the proposed property and that the land will remain vacant. This is the no action alternative added in response to comments on the DEIS.

38. The impacts of all five alternatives are summarized in the chart entitled, "Impacts and Ranking of Alternatives," set forth on pages II-5 through II-8 of the FEIS.

39. Alternative Two would have greater overall environmental impacts than the proposed project. Specifically, Alternative Two would have greater environmental impacts

on plant and animal habitat, fish and wildlife migration routes, surface water and runoff absorption, groundwater recharge, public water supplies, aesthetics, commercial vacancy rates, fire services, police services, drainage facilities, sanitary sewer facilities, traffic, noise, light, and glare.

40. Alternative Four would also have greater overall environmental impacts than the proposal. The impacts of Alternative Four would be the same as those of the proposal with respect to loss of species, air quality, noise, and light and glare. The higher density associated with Alternative Four would result in greater impacts from that alternative in every other area of environmental concern within the scope of the EIS.

41. Alternative Five, the no action alternative, would either have no impact on the environment or much less impact than the proposal.

42. Testimony at the hearing focussed on Alternative Three. Alternative Three would have less environmental impacts than the proposed Olhava Master Plan would have on plant and animal habitat, domestic water demand, aesthetics, police services, drainage, sewage flows, traffic, noise, light and glare. The FEIS issued in May, 1997 states, however, in Table III-32 on page III-67, that Alternative Three would result in an annual negative cash flow to the City of $31,118.00. Cash flow in the FEIS is used to describe the difference between the revenues generated by the development from property taxes, sales taxes, and utility fees, and the cost of providing public services, such as police, fire, utility, and general governmental services. The negative cash flow was stated to be due to the reduction in tax revenues that would result from less intensive development, versus the high cost of administrative services.

43. Grow Smart! and the Suquamish Tribe argued that this negative cash flow takes Alternative Three out of the definition of reasonable alternative found in SEPA. The argument was that a reasonable alternative is one which achieves the proposal's objectives at a lesser environmental cost and that the negative cash flow showed that the environmental cost of Alternative Three was actually greater than the proposal.

44. During the hearing, corrected cash flow numbers were provided for Alternatives Three and Four. The City's EIS consultant, Nicole Criste of Terra Nova Planning and Research, advised that an error was made in estimating the water and sewer service fees that would be generated by Alternatives Three and Four and that this error resulted in an erroneous cash flow figure for those alternatives. The corrected figures, set forth on page 18 of Exhibit 110, show an annual positive cash flow from Alternative Three of $366,215.

45. Alternative Three will have a positive cash flow, not a negative cash flow as set forth in the FEIS. The fiscal impact of Alternative Three will therefore be less than Alternative One - The Proposed Master Plan. Taken as a whole and with the corrected information, Alternative Three has less environmental cost and would result in a decreased level of environmental degradation than would the proposed Olhava Master Plan.

46. The Olhava Master Plan proposes that the twenty acres of land in the northwestern corner of the site designated PS - Public Schools be developed as a branch campus of Olympic

College. The applicants have agreed to donate the entire twenty acre parcel to Olympic College if the Master Plan is approved. The land remains owned by the applicants at this time and will only be dedicated if the Master Plan is approved. The Olympic College is not a signatory to the Master Plan application.

47. Terra Nova Planning and Research, Inc. did prepare the EIS on the Olhava Master Plan, the City's Comprehensive Plan, and the City's Zoning Ordinance. In each case, Terra Nova was hired by the City as a consultant to provide expertise. On the Olhava Master Plan EIS, the applicants were required to pay for Terra Nova's services.

FINDINGS REGARDING EIS ERRORS

48. The FEIS issued in May, 1997 contained errors in the cash flow analysis for Alternatives Three and Four. In reviewing the FEIS cash flow analysis in preparation for her testimony in the appeal hearing, Ms. Criste discovered that water and sewer revenues from these two alternatives were underestimated, thus resulting in a negative cash flow being shown for Alternative Three in Table III-32 and resulting in a negative cash flow being shown for Alternative Four in Table III-33.

49. The correct water and sewer revenue figures were provided in Exhibit 110 to the hearing. The corrected information showed that Alternative Three would have a positive cash flow to the City of $366,215 annually, as opposed to the negative cash flow of $31,118 shown in Table III-32 in the FEIS. The corrected information showed that Alternative Four would have a positive cash flow to the City of $945,236 annually, as opposed to negative cash flow of $128,808 annually shown in Table III-33 of the FEIS.

50. The corrections showed that Alternatives Three and Four have less environmental impacts than are described in the FEIS.

51. Neither Grow Smart! nor the Suquamish Tribe offered any evidence to show that the corrected information was wrong. Instead, they argued simply that the fact that the FEIS was incorrect rendered it inadequate, showed a lack of credibility on the part of the FEIS consultant, and made the entire FEIS and all subsequent corrections suspect.

FINDINGS REGARDING HISTORIC AND CULTURAL RESOURCES

52. In a letter dated July 8, 1997 summarizing its appeal (Exhibit 31), the Suquamish Tribe requested that a cultural resources survey be done on the Olhava property. In a subsequent letter dated October 8, 1997 (Exhibit 104), the Suquamish Tribe indicated that its request for a cultural resources survey was "not necessarily the basis of this appeal." Grow Smart! argued that the lack of a cultural resources survey demonstrated the inadequacy of the FEIS.

53. Neither Grow Smart! nor the Suquamish Tribe presented any evidence that historic or cultural resources were located on the Olhava Master Plan property or that the Olhava Master Plan would have a probable, significant, adverse impact on any such resources. When asked

whether she had any information on the presence of cultural resources on the site, the Tribe's representative, Phyllis Meyers, replied that the information was confidential. Whatever that information might have been, it was not presented in the hearing.

FINDINGS REGARDING DRAINAGE AND EROSION CONTROL

54. The Suquamish Tribe expressed concerns about the ability of the infiltration system to remove pollutants from storm water and how the same might affect the traditional fishing grounds of the Tribe. The Tribe suggested that a lesser density alternative should have been studied as a means of protecting aquatic resources.

55. Grow Smart! also expressed concerns about the drainage and erosion control measures proposed by the Master Plan. Grow Smart!'s concern was that erosion and drainage flow and overflow from the property could cause downstream damage if the measures set forth in the drainage plan and imposed by the City either did not work or were not enforced. Grow Smart! also expressed concern that pollutants and sediments from the drainage could adversely affect water quality in Dogfish Creek and Liberty Bay.

56. The northern 174 acre parcel contains a natural ridge running north and south splitting the storm drainage flow into two major drainage basins - the Johnson Creek basin and the Dogfish Creek basin. The west half of the site drains south toward the north fork of Johnson Creek. The remaining acres drain east and flow under SR 3, mixing with the runoff from the southern 41 acre parcel and draining into Dogfish Creek. Dogfish Creek flows through Big Valley to the north and discharges near the inlet of Liberty Bay, southeast of the Olhava property. The north fork of Johnson Creek flows south from the project area to Liberty Bay. Both Dogfish and Johnson Creeks interact with a number of wetland areas, many riparian corridors, and Liberty Bay.

57. Currently, most of the drainage from the Olhava property is naturally infiltrated on site. There are three seepage points where water exits the site, but there are no significant drainage channels on the site itself.

58. The Master Plan and the FEIS divide the Olhava property into nine drainage subareas for both pre-development and post-development drainage analysis. The proposal is to infiltrate all of the drainage from these nine drainage areas. Surface water runoff from impervious surfaces will be routed to a series of sedimentation ponds, where sediments and pollutants will settle out. Water will then travel from the sedimentation ponds to infiltration/detention ponds, which will be used to infiltrate the water back into the soils. Infiltration will be used to the maximum extent feasible, but the ponds will also be designed to be detention ponds for any water not infiltrated. The infiltration ponds are required to be sized to accommodate the 100 year/7 day storm, but will actually be designed to accommodate twice that much water. An overflow system will also be designed to accommodate any flows exceeding this limit. The overflow will pass through grass-lined swales and then into natural and manmade drainage courses off-site.

59. Wetlands on the site will not be used as infiltration, sedimentation, or detention ponds. Flows will be maintained to existing Wetlands A, C, D, and E by the groundwater passing through the infiltration system. Flows to Wetland B will be interrupted, but this wetland is proposed to be replaced at a 2:1 ratio on site by expansion of Wetlands C and D.

60. The infiltration system will be required conform to or be in excess of the specifications set forth in the following regulations:

- The Liberty Bay/Miller Bay Watershed Plan
- The Federal Clean Water Act, particularly Sections 401 and 404
- State Water Quality Standards
- DOE Storm Water Management Manual for the Puget Sound Basin
- State Hydraulics Code
- Kitsap County Storm Water Design Manual
- City of Poulsbo Drainage Ordinances
- City of Poulsbo Sensitive Areas Ordinance
- Other applicable portions of the Poulsbo Municipal Code

In addition, the system will be required to meet the approval of the City Engineer.

61. Grow Smart! and the Suquamish Tribe questioned the feasibility of infiltration on the site, arguing that this is relatively new technology and that there can be no assurances that it will work properly or be maintained adequately.

62. Infiltration has been used in Washington for a number of years and is now the preferred method of drainage disposal found in the DOE Storm Water Manual, providing that it is feasible and can be accomplished on site. Infiltration has been successfully used on other developments in the Puget Sound Region and the applicant's storm water engineers have experience in the design and implementation of infiltration systems.

63. Infiltration appears to be feasible on the Olhava property based upon soils and drainage analysis conducted by the applicant's engineers. A feasibility analysis at the Master Plan level consists of analyzing the soils in order to determine whether they will allow infiltration under the drainage design concepts assumed. The feasibility analysis conducted on the Olhava site concludes that the soils will allow infiltration of the anticipated amount of storm water at a rate which will make the size of the proposed ponds adequate.

64. In the event that further investigation of the soils and percolation tests conducted during the design of the infiltration system determine that the infiltration rate of the soil will be less than anticipated, the infiltration ponds may be required to be larger than currently proposed. Sufficient land exists on the site for this purpose.

65. Grow Smart! questioned the soils investigation of the site based upon the number of test borings and the use of the term "silty sand" in the FEIS to describe the soil types.

66. The applicant's soils engineer testified as to his opinion that the test borings were sufficient to do the type of feasibility analysis require at this stage of drainage planning. Additional test borings will be done when a more detailed drainage design is underway. Grow Smart! offered no expert testimony to dispute this opinion.

67. With respect to "silty sand," there was evidence submitted that the term silty sand is used to describe certain classes of soils. Regardless of whether the precise term is correct, Grow Smart! did not present any evidence to show the relevance of the use of the term to the adequacy of the FEIS.

68. With respect to pollutants, several methods are proposed to ensure that storm water is purified prior to leaving the site. The first method is point source control, i.e., control at the source of the anticipated pollution, which is anticipated to be implemented through building permits for the various proposed uses.

69. The drainage system itself will have several built in safeguards and methods for dealing with pollutants. Pollutants will first be settled out in catch basins, the first point of drainage collection. The stormwater will then be routed through an oil/water separator, a device which separates the lighter particles of pollutants in the water from the heavier materials. The storm water will then go into sedimentation basins, which slow the water so that about 80% of the particulate matter left will settle out. The sedimentation basins are lined and impervious to prevent leaching of materials into the soil. Water exiting the sedimentation basins will be cleaned through this process.

70. Grow Smart! questioned the ability of the City staff to enforce temporary erosion control measures on the project. Temporary erosion control during construction will be handled through immediate construction of temporary drainage systems at the outset of grading in any phase, as well as by standard erosion control techniques imposed and enforced by the City. An erosion control plan will be required to be approved the City Engineer prior to construction and the applicants will be required to implement the plan during construction. The City Engineer assured the Council that the staff will enforce all erosion control measures necessary to prevent downstream damage.

71. Neither the Suquamish Tribe nor Grow Smart! submitted any technical evaluations or engineering data to support their claims that the drainage impacts of the Olhava Master Plan were not adequately disclosed, discussed, or substantiated in the FEIS, or that the proposed drainage system would be unable to collect, clean and dispose of storm water in the manner analyzed in the FEIS.

FINDINGS REGARDING KITSAP COUNTY POPULATION GROWTH ASSUMPTIONS

72. Grow Smart! and Winmar questioned the population growth assumptions used in the FEIS. Winmar's argument was that the population growth forecast for Kitsap County was overstated, resulting in the FEIS overstating the retail sales demand to support the Olhava project. Grow Smart!'s argument was also that the population growth forecast was overstated,

affecting the analysis of everything in the FEIS from traffic, to schools, to sewer and water and rendering that analysis inaccurate.

73. The FEIS assumes a population growth rate for both Kitsap County and the City of Poulsbo of approximately 4% per year. This growth rate was derived by Urban Decision Systems, Inc., an EIS subconsultant, from U.S. Census Bureau data and data provided by the State Office of Financial Management (OFM), and which shows an increase in the City's population of 43% between 1980 and 1990. The FEIS also assumes that Kitsap County's population will continue to show strong growth, based upon U.S. Census Bureau and OFM data showing a population increase of 28.94% in the County between 1980 and 1990 and an increase of 12.37% between 1990 and 1994. The FEIS projected that County population would grow to 225,931 persons by the year 2000 and 277,728 persons by year 2010.

74. The data used for the Commercial Need and Economic Analysis was the best available in July, 1995 when that was prepared. Both Winmar and Grow Smart! questioned this data and the projected population growth rate, because the data is now at least four years old. Winmar and Grow Smart! contended that had 1995 and later data been used, the growth rate would have averaged out to a lesser number.

75. The population growth assumptions in the FEIS are supported by OFM data prepared since 1995 and admitted at the hearing as Exhibit 86. The FEIS assumed a Kitsap County population of 225,931 by the year 2000 based upon the historical data compiled by OFM prior to completion of the Commercial Need and Economic Analysis in 1995. The updated data as of April 1, 1997, shows that the 1997 population of Kitsap County was already estimated at 229,400 as of that date, 3,469 persons higher than projected in the FEIS and its Technical Appendices.

FINDINGS REGARDING ECONOMIC IMPACTS

76. Winmar and Grow Smart! contended that development of the Olhava Master Plan would have severe economic impacts on existing businesses in downtown Poulsbo and in Silverdale and that the FEIS inadequately addresses this issue. Winmar and Grow Smart! also argued that the analysis contained in the FEIS overstates the potential retail sales available for absorption by the Olhava commercial areas, thereby leading to an overstatement of anticipated tax revenues generated by the project and that will be used to offset the project's impacts on services.

77. The FEIS contains a Commercial Need and Economic Analysis, which was added as a optional element at the direction of the Responsible Official. The section of the FEIS devoted to this issue is found at pages III-45 through III-69 and provides an analysis of the potential for market growth in the sale of consumer goods in North Kitsap County and in the City of Poulsbo over the anticipated buildout of the project. The FEIS also analyzes the potential impacts of economic competition fostered by the Olhava commercial areas on downtown Poulsbo, the Viking Avenue area, and a geographic area referred to as the North Kitsap Trade Area, which includes portions of Silverdale. Finally, the FEIS sets forth estimated

property tax, sales tax, and permit fee income that is anticipated to flow to the City from the project at buildout.

78. The FEIS concludes that the potential impact to the downtown Poulsbo retail core from the economic competition fostered by the Olhava commercial development will be insignificant because the types of businesses which are currently located in and which will locate in the downtown area in the future are significantly different in character from those likely to consider a large commercial center such as is proposed for Olhava.

79. The FEIS concludes that the potential impact to the Viking Avenue commercial area in the City from the economic competition fostered by the Olhava commercial development will be insignificant because the Viking Avenue area is primarily devoted to automobile and recreational vehicle sales, a land use which is not anticipated to occur in the commercial areas of the Olhava Master Plan. The FEIS also concludes that even if such sales were to locate in the Olhava commercial development, the City's plans to improve pedestrian and vehicular movement on Viking Avenue will make the area more attractive to the types of businesses that are currently anticipated for the Olhava property and which would necessarily be displaced by any location of automobile or recreational vehicle dealerships.

80. The FEIS concludes that the anticipated population growth in the North Kitsap Trade Area and in Kitsap County as a whole will generate an expanded market potential for the Trade Area which will, in turn, allow the commercial development in the Olhava Master Plan to be absorbed and to generate the property tax, sales tax, and permit fee income anticipated. The FEIS also concludes that the continued growth in Central Kitsap County, and the market-driven diversity in product lines likely to occur in the North Kitsap Trade Area vs. the Central Kitsap Trade Area will offset any impacts to the Silverdale commercial area from the economic competition of the Olhava Master Plan commercial development.

81. Winmar's economic consultant, Walter Hobson, gave his opinion that the FEIS analysis was inadequate. Mr. Hobson's conclusions were essentially that:

a) The population and employment growth rates used for the North Kitsap Trade Area in the FEIS are inaccurate, thereby overstating the retail sales potential in the area;

b) The methodology used by the FEIS to estimate retails sales capture by the commercial development in the Olhava Master Plan was flawed, resulting in an underestimation of the impacts of the proposed commercial area both to other commercial areas in Poulsbo, and to commercial uses in Silverdale. Mr. Hobson contended that a residual market analysis should have been done in order to determine the need for the Olhava commercial uses and the impact they would have on other commercial areas;

c) The boundaries of the North Kitsap Trade Area used by the FEIS to estimate the total market from which the proposed Olhava commercial development would draw are overstated, resulting in an overestimation of retail sales available for

capture by the Olhava development and downtown Poulsbo and an underestimation of impacts on other commercial areas from sales capture by the Olhava Master Plan commercial development; and

d) The impacts on the Silverdale and downtown Poulsbo commercial areas could be so severe as to cause economic blight.

82. As noted above in previous findings, the population growth numbers and rates used in the FEIS consistent with OFM data.

83. Winmar did not offer any specific employment growth numbers to support its contention that employment growth is overstated in the FEIS.

84. Mr. Hobson did not conduct any residual market analysis of his own and therefore did not testify as to what the specific results of what such an analysis would show. A residual market analysis measures the quantity of retail sales demand which is currently being adequately served by existing businesses. The portion of the demand which is not being adequately served is the "residual market" which is then available for capture by businesses entering the market.

85. Mr. Hobson gave his opinion that economic blight could result in downtown Poulsbo and Silverdale if development of the Olhava Master Plan commercial areas occurs. Economic blight is a condition in which the normal turnover of vacancies that occur in business areas is replaced by permanent shut down of businesses and a spiraling increase in vacancies. Economic blight can result in significant aesthetic impacts, as well as significant impacts on police, fire, and general governmental services. Mr. Hobson gave his opinion that as much as 65% of existing businesses in the North Kitsap Trade Area could fail if the Olhava Master Plan commercial areas were built out.

86. Mr. Hobson did not, however, conduct any independent studies or produce any report that showed economic blight in downtown Poulsbo or Silverdale would be the likely result of the Olhava Project. Mr. Hobson offered no specific facts or analysis to support his opinion that 65% of the businesses might fail. Mr. Hobson did not present any evidence as to any increased vacancy rates that would occur in downtown Poulsbo or Silverdale as the result of Olhava and made no attempt to quantify the impacts on aesthetics, police, fire, or general governmental services that might result.

87. During rebuttal testimony, Mr. Hobson provided a chart which he asserted showed that the Olhava project will result in a decreased sale potential in the Silverdale area of $80,000,000 per year, a decrease which Mr. Hobson indicated could cause economic blight.

88. The chart contained three errors: (1) it compared sales potential at Olhava from the entire North Kitsap Trade Area with sales potential at Silverdale and downtown Poulsbo from only a portion of the North Kitsap Trade Area, thereby overstating Olhava's impacts; (2) it assumed that the buildout of the Olhava Master Plan would occur by 2005, which is incorrect given the fact that development won't likely begin until 1999; and (3) it failed to recognize that Silverdale draws its sales potential not only from the North Kitsap Trade Area, but also from

Central and South Kitsap, thereby understating the potential in sales growth available for Silverdale.

89. Mr. Hobson did not conduct any independent studies to identify the precise boundaries of the smaller North Kitsap Trade Area that he said existed. Although he gave his opinion that no sales would occur in Olhava or in downtown Poulsbo from the area near Silverdale and North Bremerton, Mr. Hobson did not provide factual support for that opinion.

FINDINGS REGARDING SCHOOL IMPACTS

90. The impact of the Olhava Master Plan on schools was not a subject which was scoped for inclusion in the FEIS. Grow Smart! argued that this was error and that the FEIS was therefore inadequate.

91. The North Kitsap School District commented on the DEIS (Comment Letter No. 11), requesting that the applicant be required to pay school impact fees as each phase of the Master Plan is developed and as determined by the developer and the North Kitsap School District. North Kitsap School District did not request any additional mitigation beyond the impact fees.

92. The staff's proposed Condition 76 addresses the school impact fees issue and provides that the applicant must work out such fees for each development phase with the North Kitsap School District and pay the same prior to issuance of permits for that phase. The applicant has agreed to this condition.

93. Mr. John Polizzi, a member of Grow Smart!, testified that in his opinion the North Kitsap School District's impact fees are insufficient to alleviate the actual impacts of the additional students that would be generated by the Olhava Master Plan project. Mr. Polizzi gave his opinion that the number of students generated by the project would require one-third of an elementary school, one-sixth of a junior high, and one-tenth of a high school. Mr. Polizzi also asserted that other non-construction impacts should be considered and noted that school impact fees in other areas, such as Kent, were higher than those of the North Kitsap School District.

94. Mr. Polizzi did not consider the sales tax and property tax revenues that would be generated by development of the Olhava Master Plan in determining whether the school impacts would be mitigated. The Olhava Master Plan project is estimated to generate sales and property taxes for K-12 public schools of approximately $2,580,000 at buildout. This estimate does not include the generation of any sales tax revenue from the portion of the Olhava property zoned business park, a classification which allows some uses that could generate sales tax.

95. Grow Smart! did not present any evidence that the project would have a significant impact on schools that would not be mitigated by a combination of the sales taxes, property taxes, and impact fees.

FINDINGS REGARDING PUBLIC TRANSIT

96. Grow Smart! asserted that Kitsap Transit's concerns about impacts of the Olhava Master Plan on public transit are not adequately addressed in the FEIS.

97. Section 5.6 of the proposed Master Plan proposes two primary bus routes through the site in order to serve all of the land uses. These routes are shown on Figure 5F in the Master Plan and consist of both a local route to Poulsbo via SR 305 and an express route to Silverdale via SR 3. Potential bus stops are also shown on Figure 5F and would be provided either by widening proposed bicycle lanes from 5 to 8 feet to accommodate buses, or by constructing standard bus pullouts.

98. The DEIS issued on January 28, 1997 acknowledged that there will be transit impacts from the Master Plan proposal and that the Traffic Study prepared by the applicant's expert, Gibson Traffic Consultants, and contained in Appendix I of the Technical Appendices to the DEIS recommends additional transit improvements. In addition, the DEIS recommended the following transit-related conditions on p. III-116 and 117:

- The project proponent shall develop two transit route plans with Kitsap Transit which allow for bus stops and associated shelters throughout the project to both the City of Poulsbo and Silverdale. The bus stops shall be centrally located and provided with shelters whenever possible. The plans shall include a transit turnaround at Olympic College. These plans shall be finalized prior to the completion of phase "b," and shall be implemented throughout the project as phase development occurs.

- In compliance with the City of Poulsbo Comprehensive Plan, the project proponent shall work with Kitsap Transit to determine whether a park-and-ride lot should be located within the proposed project site. Should a need analysis determine that a lot should be located within the proposed project, its development shall be linked to the development of the adjacent phase.

- All individual project proposals shall be reviewed for conformance with the City's Commute Trip Reduction Ordinance (Section 18.53.010 et seq.). All affected employers (generally employers with 100 or more employees) shall implement the measures in the Ordinance.

With these conditions, the DEIS concluded that the impacts of the proposal on public transit would be mitigated.

99. Kitsap Transit submitted a written comment on the DEIS which is included as comment letter 56 in the Appendix B to the FEIS. The letter suggested that either parking be reduced or a transportation management program (TMP) be required to ensure that the amount of parking available does not discourage transit use. Kitsap Transit also suggested that the project proponents be required to contribute their fair share of the cost of developing additional park-and-ride spaces.

100. The FEIS responds to the first comment by Kitsap Transit by indicating that the City's CTR Ordinance will be applied and will require TMPs for major employers. The FEIS responds to the second comment by stating that the FEIS contains such a requirement. The FEIS incorporates the same proposed mitigation conditions set forth in the DEIS on park-and-ride lots.

101. Grow Smart! asserted that the CTR ordinance would be insufficient to mitigate transit impacts because it requires measures to be taken only by major employers, which is defined as an employer with 100 or more employees. Grow Smart! requested that all businesses on the site be required to submit a CTR plan or a TMP. Grow Smart! also expressed concern about the lack of an analysis of the need for park-and-ride lots and spaces created by this project.

102. The FEIS proposes that the applicant be required to work with Kitsap Transit in order to determine whether a park-and-ride lot should be located on the Olhava Master Plan property. In addition, the applicant and City staff have proposed that the applicant pay its fair share of acquiring and constructing park-and-ride spaces resulting from demand created from the Olhava project.

103. Grow Smart! did not present any evidence that the FEIS fails to disclose, discuss, and substantiate the Olhava Master Plan's probable, significant, adverse environmental impact on public transit. Grow Smart!'s concerns were directed toward the mitigation measures to be imposed and are more properly dealt with in the discussion of transit mitigation measures below.

FINDINGS REGARDING PHASED ENVIRONMENTAL REVIEW

104. The SEPA Responsible Official has determined that phased environmental review is appropriate for the Olhava Master Plan and subsequent development applications. Grow Smart! challenged the use of phased environmental review, asserting that all environmental impacts of the proposal should be addressed at the present time.

105. The master plan process set forth in Chapter 18.32 of the Poulsbo Municipal Code anticipates that portions of a master plan may be conceptual in nature, specifically grading and utility plans. The master plan is not required to provide the kind of detail that is required of more definitive development applications, such as subdivision applications, applications for site plan approval, and applications for building permits.

106. Master plan approval does not, in and of itself, authorize development of the Olhava property. Before development can occur, the property owners will be required to undertake the following actions:

a) Individual phases will be required to receive approval through the site plan review process.

b) In addition to site plan review, development in any individual phase may require additional permits, such as building and grading permits, preliminary and final

plat approvals, planned unit development approvals, conditional use permits, variances, and other permits.

These actions will require the applicants to provide significantly more detail concerning the development of the site in order to receive the required approvals.

107. The SEPA Responsible Official has determined that phased environmental review will allow the City to address any additional environmental impacts that become apparent as more detail is provided. In addition, the Responsible Official has determined that phased environmental review will allow the City to take into account changed conditions within and outside the City of Poulsbo over the proposed 10 year buildout of the Olhava Master Plan and to fashion revised mitigation measures.

108. Grow Smart! presented no evidence that phased environmental review would not would not be effective in addressing the environmental impacts of the Olhava Master Plan.

FINDINGS REGARDING FISH AND WILDLIFE

109. The project site is the habitat of many varieties of mammals, birds, reptiles, and amphibians, typically found in a lowland coniferous forest in the Puget Sound Region.

110. In order to determine the types of wildlife and wildlife habitat present on the site, a biological resources study was conducted. No evidence of threatened, endangered, or sensitive wildlife species was observed during field assessments conducted for this study.

111. Grow Smart! questioned the validity of the biological resources study, asserting that there should have been a four seasons wildlife survey and asserting that there were sensitive or endangered species on site.

112. On the first assertion, Grow Smart! stated that the Department of Ecology had requested a four seasons survey and that the FEIS was inadequate because it was not done.

113. DOE's comment letter on the DEIS (Letter No. 55) does not request a four seasons survey, but questions whether one was done or would be done as the result of a recommendation by other parties during the hearing on the MDNS. The FEIS responds to this comment by indicating the results of the biological resources survey done on the site. The FEIS goes on to state that past development of the site and the construction of SR-3 has degraded habitat in the past, rendering a four seasons survey unwarranted.

114. Grow Smart! offered no evidence to support the need for a four seasons wildlife survey other than a reference to the DOE letter and Grow Smart!'s suggestion that further information was needed. No evidence was provided that a four seasons wildlife survey would, in fact, disclose more information than the field assessment and report summarized in the FEIS.

115. On Grow Smart!'s second assertion about threatened or endangered species, Grow Smart! offered no evidence that any such species was located on site. Grow Smart! showed

slides of various animals and birds, including the pileated woodpecker, which inhabit the Puget Sound region. None of these pictures were taken on the Olhava property. Grow Smart! also submitted a list of wildlife which had been observed by Grow Smart! members on the site. Grow Smart! also submitted, as Exhibit 129, the State Department of Wildlife's recommendations for management of pileated woodpecker habitat. None of the documents or testimony offered actual evidence of the pileated woodpecker or of any other threatened or endangered species on the Olhava property.

116. Grow Smart! asserted that the inevitable destruction of wildlife habitat on the site due to grading and development was not adequately addressed in the FEIS.

117. The FEIS recognizes the impact of the project on wildlife habitat. As the FEIS states on page III-7:

> The loss of open space and wildlife habitat is an unavoidable impact of development. Although site disturbance under each of the proposed development-related alternatives would vary, the overall disturbance of the site will cause the fragmentation of habitat regardless of the level of development. Alternative Five, No Construction, would represent the only alternative which would not have an impact on habitat.

Loss of open space and wildlife habitat is recognized as an unavoidable adverse environmental impact of the Olhava development.

118. In recognition of these overall impacts on wildlife habitat, the FEIS proposes a number of mitigation measures on pages III-8 and III-10 through III-12. Even with these mitigation measures, the FEIS recognizes some unavoidable loss of habitat.

119. Wetlands were identified in the FEIS as the only priority wildlife habitat on the Olhava property. The Olhava property contains five documented wetlands, labelled Wetland A - E in the FEIS. A sixth potential wetland, labelled F, was determined not to have the necessary soils, hydrology, and vegetation characteristics to be considered a wetland based upon a field study.

120. Wetlands A and B are 0.122 and 0.080 acres in size, respectively, and are rated moderate-high for biological support. Wetlands C and D are 0.055 and 0.064 acres in size, respectively, and are rated low for biological support. Wetland E is 0.776 acres in size, and is rated moderate-high for biological support. Because Wetland F was not considered a true wetland, this .04 acre potential wetland was not given a biological rating in the FEIS.

121. The Master Plan proposes to preserve the wetland habitat on the site through the use of buffers and enhancement. Wetland B will be eliminated indirectly as the result of its supporting drainage basin being eliminated through development. Wetland B will be replaced on site at a 2:1 ratio. Portions of Wetland F will be eliminated, and will be replaced by adding to Wetlands C and D at a 2:1 ratio, even though Wetland F is not considered to be a true

wetland. The current amount of wetlands on the Olhava property is about 1.137 acres and this will be increased to about 1.257 acres after development. Wetlands A, C, and D will be protected by fifty foot buffers and Wetland E will be protected by a 100 foot buffer. It is anticipated that water levels in the wetlands will remain approximately the same.

122. Grow Smart! presented no specific evidence on loss of wildlife habitat that was not considered in the FEIS. Grow Smart!'s testimony presented only generalized concerns about habitat loss.

FINDINGS REGARDING UNIQUE PLANT SPECIES

123. In its discussion of vegetation occurring on the Olhava property, the FEIS states on page III-2 that "mountain hemlock" is "common" on the southeastern 41 acres.

124. Grow Smart! member Judy Guttormsen testified that mountain hemlock is not found at elevations of less than 4,500 feet above sea level and that if it is found on the Olhava site, it is very rare and must be preserved.

125. Mountain hemlock is not actually found on the Olhava property. In a letter attached to Exhibit 110, Johnathan H. Ives of Jones & Stokes Associates, Inc., the firm that conducted the biological resources study for the EIS, advised that the reference to mountain hemlock was a typographical error and that no such species was observed on the site. Western hemlock is the dominant species on the site and is a common species in this region.

FINDINGS REGARDING DOMESTIC WATER SUPPLIES

126. Grow Smart! questioned whether there would be sufficient water available to serve the Olhava Master Plan.

127. The City of Poulsbo is the purveyor of domestic water service within the Poulsbo City limits. Because of topography and infrastructure factors, water for the Olhava Master Plan development will have to be provided by the City from water purchased from the Kitsap Public Utility District (PUD). The current Interlocal Agreement between the City of Poulsbo and the Kitsap PUD provides for the City to purchase up to 500 gallons per minute (gpm) to serve City customers.

128. The water that can be purchased from the Kitsap PUD is not solely dedicated to the Olhava property, however, and may be needed to serve other customers in this portion of the City or any urban growth area adjacent to this portion of the City. As a result, the City and the PUD have proposed to amend the Interlocal Agreement to increase the amount of water available for the City to purchase to 1,000 gpm. The PUD does not currently have sufficient water available to provide 1,000 gpm, however, and is attempting to acquire additional water rights to do so.

129. The Master Plan development is anticipated to require 378 gpm by the end of phase "e." Even with other anticipated development and demand, Kitsap PUD will be able to

supply sufficient water to the City for that phase. Kitsap PUD may be unable to supply water for any future phases, however, unless additional water rights are acquired and the Interlocal Agreement amended. The FEIS recognizes this problem and recommends as mitigation that no development past phase "e" be allowed until Kitsap PUD secures additional water rights and an Amended Interlocal Agreement is entered into.

130. Grow Smart! also questioned whether the drainage system and development of the Olhava property would affect private wells in the vicinity of the proposed project. The FEIS acknowledges that all of the development alternatives could cause draw-down of groundwater and that the effectiveness of the infiltration system will have a direct impact on the recharge of groundwater sources. In addition, the applicant's soils expert gave his opinion that if the infiltration system operates properly, there should be no affect on private wells in the vicinity, although that could not be guaranteed. The FEIS does not propose any specific mitigation measures regarding private wells.

131. Grow Smart! also presented a paper prepared by James Nardo on the subject of how cutting trees reduces the interception of fog, which is one source of water supply. Grow Smart! argued that the FEIS was inadequate because of its failure to take into account the loss of fog interception and the increase in evaporation that would occur by cutting of the trees.

132. Fog interception and evaporation were taken into account in the calculation of ground water recharge impacts in the FEIS.

FINDINGS REGARDING TRAFFIC

133. Grow Smart! raised general concerns regarding the amount of traffic that the project would generate and generally asserted that the FEIS did not adequately address increased traffic volumes and that traffic forecasts in the FEIS were inaccurate. Grow Smart! asserted that other access points should have been studied and that allowing access from the Olhava property to County roads would impact the quality of life of surrounding residents. Grow Smart! did not, however, submit any information which proved any inaccuracy of the traffic analysis used in the FEIS or the amount of the traffic which the analysis determined would be present on any particular street or intersection. Grow Smart! did not present any traffic studies or analysis of its own.

134. Grow Smart! questioned the inclusion of a right-of-way for E Street, a proposed collector road extending west through the northern parcel to the parcel's western boundary. Grow Smart! asserted that the FEIS was inadequate because this roadway is not on any City approved plan and the traffic to the west on E Street is not analyzed.

135. The proposed E Street right-of-way is an item that the City Engineer required to be shown on the Master Plan and dedicated to the City for possible future use should that become necessary for circulation purposes. The right-of-way is not proposed for development at the present time, however, and no development of the right-of-way would be likely to occur until right-of-way for an extension of E Street to connect with some other transportation corridor.

136. Grow Smart! asserted that the project's traffic impacts to Finn Hill Road have not been adequately considered. The FEIS discusses the impacts to Finn Hill Road on pages III-103, III-104, III-107, III-110, III-112, III-113, III-117, and III-118, and in Table III-47. Grow Smart! did not present any technical analysis to dispute the analysis in the FEIS.

137. Grow Smart! argued that access to Terasse Drive should be limited to emergency vehicles and that this was not adequately considered in the FEIS. The FEIS shows anticipated traffic volumes on Terasse Drive on Exhibit III-14 on page III-95. No evidence was presented to show that the project traffic would create a probable, significant, adverse impact on Terasse Drive necessitating traffic to be limited to emergency vehicles.

FINDINGS REGARDING BUFFERS

138. Grow Smart! questioned the utility of the proposed buffers to mitigate aesthetic impacts and impacts from light, glare, and noise generated by the Olhava Master Plan development. Grow Smart! asserted that the FEIS was inadequate because significant impacts from light, glare, noise, and aesthetics would remain after the buffers were installed.

139. The City's adopted standards require a 25-foot wide vegetative buffer on all property lines between dissimilar land uses. The Master Plan proposes to double the size of this buffer to 50 feet:

- along the entire perimeter of the southern 41 acre parcel, except at access points;
- along the northern property line of the northern parcel from Parnell Place to the northwestern property corner;
- along the western property line of the northerly parcel to the southern end of the medium density residential planning area.

In addition, the Master Plan proposes to retain a 25 foot vegetative buffer along the western property line in the commercial areas, to provide an approximately 350 foot wide community park along the northern boundary of the northeast corner of the northern parcel, and to provide an approximately 200 foot wide community park along the eastern boundary of the northeast corner of the northern parcel.

140. The FEIS analyzes the effectiveness of these buffers for mitigating aesthetic impacts and concludes that 50 feet will be sufficient in those areas where the same is proposed. The FEIS concludes, however, that the 25 foot buffer proposed along the boundaries of the commercial areas is insufficient. The proposed commercial area is adjacent to land designated for medium density residential use. The FEIS concludes that the proposed 25 foot buffer may be insufficient to screen the commercial buildings from the adjacent residential properties. The FEIS recommends that the buffer in this area be increased to 50 feet in width.

141. The proposed buffers are intended to utilize existing trees and natural vegetation to the extent possible. No grading is anticipated in the buffer areas themselves except at access points for roads and utilities and where necessary to achieve acceptable slopes without

construction of significant retaining walls, and the natural vegetation is to be augmented with the planting of additional trees and understory vegetation.

142. The Planning Commission has also recommended that the buffer along the western boundary where the multi-family portion of the Olhava Master Plan abuts rural development in unincorporated Kitsap County be increased to 100 feet in width as opposed the 50 feet proposed in the Master Plan.

143. Grow Smart! did not present any graphics or other evidence to show that buffers or any specific width would or would not be sufficient to mitigate aesthetic, light, glare, and noise impacts of the proposal or that the impacts which are intended to be mitigated by the proposed buffers are not analyzed in the FEIS.

FINDINGS REGARDING RESPONSES TO COMMENTS

144. Grow Smart! argued that the FEIS is inadequate because it uses the phrase "comment noted" to respond to some of the comment letters. Grow Smart! asserted that the use of this phrase rather than a more elaborate response violated WAC 197-11-560 requiring responses to comments on a DEIS. Grow Smart! pointed to examples where "comment noted" was used to respond to their comments, as well as comments made by Kitsap County Department of Public Works, the Suquamish Tribe, and DOE.

145. The phrase "comment noted" is one which is commonly used in FEISs when responding to comments which are considered nonsubstantive or unsubstantiated. The consultant who prepared the FEIS considered many of Grow Smart!'s comments to fall within this category.

146. Of 47 responses to the Kitsap County Public Works Department's comments, only one response is "comment noted." Of 15 responses to the Suquamish Tribe comments, only one response is "comment noted." Of 18 responses to DOE's comments, only two are "comment noted." Of 31 responses to Grow Smart!'s comment letter, 12 are "comment noted" with no further elaboration, 8 are "comment noted" with further elaboration, and 8 do not use the phrase "comment noted."

FINDINGS REGARDING CRIMINAL ACTIVITY

147. Grow Smart! asserted that the commercial portion of the Olhava Master Plan would result in an increase in criminal activity and thereby create an impact on police services that was not adequately addressed in the FEIS.

148. The FEIS addresses the impacts of the Olhava Master Plan on police services on pages III-72 and III-73. The FEIS acknowledges that the City will be required to supply an additional 2.65 persons to meet the level of service established for the City police department by the City's Comprehensive Plan. The FEIS states that increased revenues from property taxes should be sufficient to accommodate growth in the police force.

149. Grow Smart! presented no specific evidence as to any actual increase in criminal activity or as to how any claimed increase might impact police services. Grow Smart! did not present any evidence that the increased property tax revenues from the Master Plan would be insufficient to offset the cost of the necessary increase in police personnel.

MISCELLANEOUS SEPA FINDINGS

150. Numerous other minor factual and legal issues were raised during the course of the SEPA appeal hearing. All substantial and substantive issues have been dealt with above.

D. FINDINGS REGARDING MASTER PLAN

FINDINGS REGARDING CONTENT OF MASTER PLAN APPLICATION

151. The Master Plan document consists of ten chapters as follows:

A. Chapter 1 entitled "Introduction and Administration Chapter," and which introduces the master plan and sets forth proposed procedures for adoption and amendment of the Master Plan;

B. Chapter 2 entitled "Master Land Use Plan," and which sets forth planning objectives, land use descriptions, and planning area development guidelines;

C. Chapter 3 entitled "Drainage and Utilities," and which sets forth pre- and post-development drainage conditions, and conceptual plans for sewer, water, and storm water facilities;

D. Chapter 4 entitled "Environmental Resources," and which details the wetland, wildlife, and vegetation inventories for the Olhava property;

E. Chapter 5 entitled "Traffic/Circulation Plan," and which summarizes traffic impacts, circulation systems, and mitigation requirements for the proposed master Plan;

F. Chapter 6 entitled "Development Phasing and Master Plan Amendment Procedures," and which details the seven phases of the development over the ten year buildout, with procedures for amending the Master Plan should the same become necessary;

G. Chapter 7 entitled "Fiscal Impact Analysis," and which provides the results of a cost/benefit and market potential analysis;

H. Chapter 8 entitled "Project Conformance," which sets forth the applicant's analysis of the conformance of the project to the Poulsbo Comprehensive Plan;

I. Chapter 9 entitled "SEPA Checklist," and containing a copy of the environmental checklist submitted for the proposed Master Plan, and

J. Chapter 10 entitled "Master Plan Attachments and Resources," and which lists references for the information contained in the Master Plan.

FINDINGS REGARDING MASTER PLAN CRITERIA FOR APPROVAL - LAND USE

152. The Master Plan proposes land uses, intensities, and densities which are consistent with the zoning categories established for the property by the Poulsbo Zoning Map.

153. Residential land uses will range in density from five to a maximum of ten units per acre. The type of housing will be both single family detached and multiple family townhomes and apartments. A maximum of 490 dwelling units is proposed. The total gross acreage proposed for each residential area is sufficient to support the total number of proposed units for that area.

154. Commercial development will include approximately 840,000 square feet of enclosed space within 83 gross acres. Commercial uses will be primarily centered within the south half of the northern 174 acre parcel and will be divided among three areas: approximately 470,000 square feet of primary commercial space, including large anchor tenants, will be sited on 38 net acres located along the western property line and north of the main access road; approximately 210,000 square feet of commercial pads for retail, hotel, fast food and service tenants will be sited on 20 net acres located between Highway 3 and the primary commercial area to the west; and approximately 160,000 square feet of commercial park including quality sit-down restaurants and specialty shopping on 16 net acres located in the center of the northern parcel between the primary commercial area to the south and the business park land to the north.

155. Business park development will include approximately 325,000 square feet of enclosed space within 34 net acres. The business park will be located around the commercial core and is intended to provide a transition in land use from commercial to residential lands and the Olympic College Campus.

156. A branch campus for the Olympic Community College is proposed for the 20 acre parcel located at the northwest corner of the Olhava Property. The first 10 acre campus phase will include approximately 30,000 square feet of enclosed space within a two-story structure. This structure is anticipated to house 900 full time equivalent students (or approximately 1,800 part time students). The second 10 acre phase will include an additional 20,000 square feet of enclosed space.

157. An eight acre community park is proposed to be dedicated to the City in the northeastern corner of the property, and three neighborhood parks are proposed to be developed and maintained through covenants, conditions and restrictions (CC&Rs). A trail of over 7,000 feet in length is proposed to be located within perimeter buffers, and an improved bicycle path system for 6,530 feet is also proposed to be so located.

158. During the hearing, Linda Berry-Maraist, an architect, testified that in her opinion the land uses and layout proposed in the Master Plan would not fit on the Olhava property. Staff and the applicant disagreed with Ms. Berry-Maraist, pointing out that even if the contention were true, the Master Plan is conceptual and that development of individual phases could be downsized to fit on the site or denied if subsequent detailed designs revealed that the anticipated development would not fit.

159. The Master Plan is proposed to meet all applicable development standards in the Poulsbo Municipal Code, including all zoning, critical areas and grading ordinances. Initially, the application sought relief from zoning standards for building height and continuous roof plane. Subsequently, the applicant withdrew these proposals, although reference is still made to height and continuous roof line deviations in certain portions of the Master Plan.

160. The Master Plan contains detailed use lists for each type of land use proposed. In general, the Master Plan is more restrictive than the Poulsbo Zoning Ordinance in terms of the uses permitted, especially in residential areas where no conditional uses are provided for.

161. The Master Plan also includes general standards which are intended to unify the Master Plan through common landscape, signage, and lighting standards, as well as through the lists of permissible land uses and the detailed standards for each such use.

FINDINGS REGARDING MASTER PLAN CRITERIA FOR APPROVAL - SURROUNDING USES

162. The existing and proposed land uses surrounding the Olhava Property are detailed in previous findings. Very low density rural development is located to the west of the property abutting the area proposed for medium density residential development in the Master Plan. The Master Plan proposes a 50 foot wide buffer as a means of providing a transition and protecting the rural land uses from the visual, aesthetic, light, noise, and glare impacts associated with the medium density residential.

163. A 100 foot buffer as proposed by the Planning Commission, or some other method of buffering enhancements would provide a better transition and better protection for the rural areas. Such a buffer would enhance the compatibility of the medium density land uses in the Master Plan with the low density rural development to the west.

FINDINGS REGARDING MASTER PLAN CRITERIA FOR APPROVAL - CONSISTENCY WITH COMPREHENSIVE PLAN

164. The proposed configuration of land uses in the Olhava Master Plan conforms with the location and configuration of land use designations set forth on the Comprehensive Plan Land Use Map.

165. The Conformance Chapter of the Master Plan contains a detailed analysis of the conformity of the Master Plan with the goals and policies of the Comprehensive Plan.

166. During the hearing, CarolAnn Stockton contended that the Master Plan was not consistent with the Comprehensive Plan because the Olhava Property was not shown on the maps set forth in the Comprehensive Plan relating to drainage, water, sewer, and roads. Ms. Stockton also contended that the Master Plan was inconsistent with the Comprehensive Plan because infrastructure which is necessary to serve the Olhava Master Plan is not shown on the Comprehensive Plan maps.

167. Although the Olhava property is not shown on some of the Comprehensive Plan maps, the Comprehensive Plan shows the property on the Land Use Map and contains numerous references to the property. For example, the property is mentioned in the text concerning Master Plans on p. I-6 of the Comprehensive Plan, is analyzed as part of the Traffic Analysis Zones on page III-3 of the Comprehensive Plan, is shown as having wetland areas by the Sensitive Areas Map incorporated in the Comprehensive Plan, and the Drainage Basin and Aquifer Boundaries Maps. The Olhava property is also specifically discussed on pages III-36, III-115, and III-117 of the Draft EIS for the Comprehensive Plan, indicating that the environmental analysis behind the Poulsbo Comprehensive Plan considered the Olhava Property.

FINDINGS REGARDING MASTER PLAN APPROVAL CRITERIA
- DESIGN STANDARDS

168. Chapter Two of the Olhava Master Plan contains a detailed set of required and encouraged design standards and site development standards.

FINDINGS REGARDING MASTER PLAN APPROVAL CRITERIA
- ALTERNATIVE STANDARDS

169. With the withdrawal of the applicant's initial request to deviate from the building height and continuous roof plane requirements of the Poulsbo Zoning Ordinance, no alternative design standards are proposed for the Master Plan. The Master Plan proposes to meet all standards and requirements of the City's zoning, building, critical areas, and grading regulations.

FINDINGS REGARDING MASTER PLAN APPROVAL CRITERIA
- VEHICULAR AND PEDESTRIAN CIRCULATION PLANS

170. Chapter Five of the proposed Master Plan is the proposed vehicular and pedestrian circulation plan for the project. Primary external access to the Olhava property will be from SR 3, SR 305, Finn Hill Road, and Viking Avenue. The on-site internal street system will consist of the extension of SR 305 into the project, a frontage road serving the commercial and business area in the northern parcel, and local access streets serving the college campus and residential areas.

171. Extensive traffic modelling and studies were prepared by the applicant's traffic consultant in conjunction with the EIS for the Master Plan, and are set forth in the Technical Appendices to the Draft EIS. Specific mitigation measures, including proportionate shares and contributions to a number of external intersection and transportation corridor improvements were recommended by the applicant's consultants in order to mitigate the probable, significant,

adverse impacts on those intersections and transportation corridors. The proportionate shares of the specific intersection and corridor improvements based upon the anticipated trips to be generated by the project development are described in detail in the FEIS on pages III-112 and III-113.

172. Design of all streets, intersections, sidewalks, and bicycle facilities are proposed to meet City standards or the standards of those agencies with jurisdiction over the particular improvements, i.e., WSDOT of Kitsap County for certain off-site improvements outside City limits. The Master Plan contains roadway section diagrams for each type of street within the Master Plan property.

173. The Master Plan proposes to augment pedestrian, bicycle, and equestrian trail routes by providing internal pedestrian/bicycle paths and linkages to adjacent off-site facilities.

174. The Comprehensive Plan Transportation Map identifies a collector roadway along the north and northeastern property lines of this site. The traffic analysis conducted for the Master Plan and the testimony of the City staff during the hearing indicate that this collector roadway is not needed to serve the Olhava development.

FINDINGS REGARDING MASTER PLAN APPROVAL CRITERIA - UTILITIES AND DRAINAGE

175. The drainage and utility plans contained in the Master Plan are conceptual in nature and more detail will be provided during subsequent design in connection with the development phases. As more detailed design occurs, the effects of water mounding, groundwater recharge, and the draw down of groundwater which supplies private wells in the vicinity of the vicinity of the Olhava Master Plan could be identified and addressed.

176. Water mounding could result from the implementation of the drainage system proposed for the Olhava property. Groundwater could rise up to one foot above existing levels during peak flows from the Olhava drainage system. This water mounding could have an adverse effect on downstream properties by more heavily saturating their soils and making them wetter overall during peak weather periods.

177. The drainage system will affect groundwater recharge and the draw down of groundwater in the vicinity of the Olhava Master Plan property. Numerous private wells drawing from both shallow and deep aquifers exist in the vicinity of the Olhava site. The water sources from which these some of these wells draw could be down gradient from the Olhava property and could be affected by alterations of subsurface groundwater patterns associated with the infiltration system proposed to address the Olhava drainage. No identification or study of down gradient wells has been conducted for the drainage plans at the Master Plan level of detail. Such identification and study could be conducted as part of the phased development and environmental review of the Olhava project as the drainage system design becomes more refined.

178. In order to obtain adequate water to serve the Olhava Master Plan development, the City will have to purchase water from the Kitsap PUD. The existing interlocal agreement

between the two agencies is anticipated to provide sufficient water for development of the Olhava Master Plan through Phase "e." Unless additional water rights are secured by the Kitsap PUD and unless an amended interlocal agreement is entered into by which Kitsap PUD will provide additional water to the City, water may not be available to serve the Olhava Master Plan beyond Phase "e."

FINDINGS REGARDING MASTER PLAN APPROVAL CRITERIA - BINDING SITE PLANS AND SUBDIVISIONS

179. No binding site plan or subdivision applications are proposed for processing with the Olhava Master Plan at this time.

FINDINGS REGARDING MASTER PLAN APPROVAL CRITERIA - SEPA CONDITIONS

180. The original staff report to the Planning Commission and City Council (Exhibit 144) proposed 97 conditions, 76 of which were taken from the mitigation measures identified and suggested in the FEIS for the Olhava Master Plan.

181. Many of the conditions have been negotiated and agreed to by the applicant, the City Staff, and other agencies most affected by the conditions. Requests were made during the hearing to change some of the conditions, however, and some conditions remained in contention throughout the hearing.

Tree Survey

182. Condition 13 in the staff report (Exhibit 144) proposed that a tree survey be completed by the applicant with each application for site plan review and/or preliminary plat. This mitigation measure related to unique plant species is generally recommended by the FEIS on page III-11, although not in the same words as the condition.

166. The applicant requested that Condition 13 be modified to eliminate the requirement for a tree survey in areas proposed for roadways, building footprints, and cuts and fills greater than one foot above or below grade. The applicant contended that since trees could not be preserved in these areas, there was no need to survey them for preservation.

183. Staff responded by suggesting a modification of Condition 13 to eliminate the requirement for tree surveys in roadway areas, but to keep the requirement for building footprints areas and areas of cut and fill.

184. A tree survey could be a useful tool for determining whether there are unique species of trees located on the site, whether the same are in roadway areas, or within proposed building footprints or cuts and fills. If unique species of trees are identified, then roadways could be redesigned to the extent possible to preserve those unique species. If tree species in building footprint areas and on cuts and fills are not unique, site design could still be sensitive to and minimize removal of significant trees.

Critical Areas

185. Proposed Condition 14 in Exhibit 144 specifies that the applicant will be required to comply with the City's Critical Areas Ordinances in effect at the time of site plan or preliminary plat approval. This condition is identified as a mitigation measure on page III-11 of the FEIS. The applicant requested that the requirement for meeting critical areas ordinances be deleted to recognize development rights vested by the Master Plan.

Erosion and Sedimentation Control

186. Condition 17(b) in Exhibit 144 requires that setbacks, critical areas and their buffers, trees, and drainage course be clearly marked to protect those areas from development. This mitigation measure is suggested on page III-24 of the FEIS to protect against sedimentation and erosion control impacts during construction. The condition as proposed does not specify the means that will be used to protect these areas.

187. Condition 17(h) as proposed in Exhibit 144 requires that no more than 150 feet of trench be open to facility underground utility construction at any one time. This mitigation measure is referred to on p. III-24 of the FEIS, although the FEIS suggest that a 500 foot limit is appropriate. The applicant proposed to substitute the 500 foot requirement in the FEIS for the 150 foot limitation suggested by staff, arguing that the inflexibility of this condition would render utility construction inefficient and more costly. Staff responded by suggesting that the condition be clarified as set forth in Exhibit 207 and 212, in order to meet WSDOT/APWA standards, which require that the maximum length of the excavation be 150 feet unless approved by the public agency's engineer.

Windbreaks

188. Staff and the applicant agreed during the hearing that proposed Condition 28 should be modified to read as set forth in Exhibit 212. Condition 28 is intended as a mitigation measure for air quality impacts and is specifically referenced on p. III-38 of the FEIS.

Buffer Widths

189. Condition 31 as set forth in Exhibit 144 requires a 100 foot buffer on the west side Planning Area 9, the medium density residential area, as it abuts the existing low density rural uses to the west. The FEIS recognizes the need for an effective buffer in order to protect the existing low density residential uses from the visual, aesthetic, light, glare, and noise impacts associated with the medium density area in the Master Plan. The applicant proposed to delete references to the 100 foot buffer in favor of a requirement that the applicant submit a buffer enhancement plan to provide an effective visual screen. Staff responded with a request that the Condition 31 be modified to require the 100 foot buffer unless an alternative buffer enhancement is approved by the City.

190. Condition 33 in Exhibit 144 proposes a 50 foot buffer along the western boundary of the primary commercial area. This buffer is suggested as a mitigation measure on p. III-45

of the FEIS. The applicant proposed to delete this buffer, pointing out that it requires screening between the primary commercial area and the business park property, similar uses that should not require a buffer.

191. In response to the applicant's request, the staff proposed to clarify proposed Condition 33 in order to only require buffering on the west side of the primary commercial area where it abuts land used for residential purposes.

Fire Impacts

192. The Olhava Master Plan will have a significant adverse impact on the provision of fire service at acceptable levels. The FEIS documents the impacts of the project using nationally and locally recognized standards which use a 1.5 mile radius from a fire station and/or a five minute response time as a measure of fire service adequacy. The FEIS concludes that if the 1.5 mile radius standard is used, the City would have to provide service from the City's Clear Creek Station (Station 74) in order to serve any portion of the Olhava property. The Clear Creek Station currently houses one engine, and is unmanned by paid fire fighters. If the Clear Creek Station could be used to provide service, all of the northern 174 acre portion of the Olhava property could be served using the 1.5 mile radius standard, but only a small portion of the southern 41 acre parcel (where single and multi-family residential uses are located) can be served. The remainder of the southern parcel cannot be served by any City fire station in a manner which meets the 1.5 mile radius standard.

193. The FEIS also concludes that, using the five minute response time standard, only the southern 41 acre parcel can be served by the City's main fire station, which is the only manned station that could respond. The northerly 174 acre parcel is not within a five minute response time from any City fire station. Manning the Clear Creek Station is the only possible method of meeting the five minute response standard on the northerly 174 acres using existing fire station facilities.

194. The FEIS proposes that the fire service impacts of the Olhava Master Plan be mitigated by requiring the applicant to fund a needs assessment in order to determine whether the Clear Creek Station can be expanded and manned with a full time engine company in order to ensure fire service to the Olhava property can meet standards. The FEIS concludes that the development should pay a fair share of the costs of manning the Clear Creek Station if it can be so manned. The FEIS further proposes that if the needs assessment shows that the Clear Creek Station cannot be so manned, that the study evaluate alternatives for fire impact mitigation and that the development pay a fair share of the cost of any alternative that is implemented. Condition 37 in Exhibit 144 incorporates this recommended mitigation into a development approval condition for the project.

195. The applicant objects to the condition and proposed that it be deleted. The applicant's argument is that tax revenues for the project will pay for the necessary personnel to man the Clear Creek Station if that is what is required.

196. According to the testimony of representatives of the Poulsbo Fire Department and the Kitsap County Fire Protection District 18 Commissioners, Condition 37 may be too limiting in that it assumes that the manning of the Clear Creek Station is the preferable means of providing fire service to the Olhava property and vicinity. The Fire Department and the District requested that the condition be modified to allow more flexibility in the results of the needs assessment.

Traffic and Transit-Related Conditions

197. Conditions 48-53 proposed in Exhibit 144 condition the project upon the completion or contribution of funding for a number of traffic improvements. The improvements, and the applicant's need to construct them or contribute funds toward their construction is extensively analyzed in the traffic reports and analysis contained in the Technical Appendices to the FEIS. Each improvement to which the applicant is required to contribute under Conditions 48-53 is directly impacted by the traffic generated by the Olhava Master Plan and the applicant is required to contribute a proportionate share of the cost of these improvements based upon the number of trips added to the roadway by the Olhava Master Plan as they relate to the total trips on the roadway. The proposed conditions are SEPA mitigation measures directly taken from the FEIS.

198. The applicant proposed to revise the proposed conditions 48-53. The major thrust of the request was to delete projects or contributions to projects which are or may be fully funded from other sources. Staff recommended no changes in the conditions 48-53.

199. Proposed Condition 54 in Ex. 144 required the applicant to obtain final design approval for the SR 3 access break prior to any grading of the site. The applicant requested that this condition be deleted, as WSDOT has already approved the general plan for the access break and requiring final design approval prior to any grading will delay immediate construction of the Olympic College, which is dependent upon the grading for construction access. The applicant also pointed out that the initial site grading will not use the SR 3 access break. Staff agreed that clarification of the condition was necessary to recognize that internal site grading could occur prior to final access break design approval, but urged Council to retain the requirement that final design of the access break be approved prior to grading in the WSDOT right-of-way.

200. Proposed Conditions 55, 56, and 82 were the subject of considerable give and take during the hearing and considerable negotiations between staff, the applicant, and Kitsap Transit. Staff's final proposal for these conditions is set forth in Ex. 212. The original conditions were based upon mitigation measures for transit related impacts specified on p. III-117 and III-118 of the FEIS. Kitsap Transit proposed additional modifications in Ex. 214, with more specifics on the number of park-and-ride spaces that could be reserved within the parking areas proposed for the Master Plan.

201. Proposed Condition 93 in Exhibits 211 and 212 would require the applicant to dedicate right-of-way for a collector roadway across the northern and northeastern boundary of the Olhava Master Plan property, pursuant to Transportation Policy 4 in the Comprehensive

Plan. The collector is not required to serve the Olhava development or to mitigate any traffic impact of the Olhava development.

Building and Engineering Conditions

202. City staff proposed a number of technical building and engineering conditions to be Conditions 85 - 92 and as shown on Exhibits 211 and 212. These conditions were agreed to by staff and the applicant.

Drainage and Groundwater

203. Kent Olsen, an owner of property southeast of the Olhava site and located between Viking Avenue and Liberty Bay, testified, with the assistance and support of a drainage engineer, that his property receives drainage from the SR 3/SR 305 interchange area by way of a series of channels, ditches, and culverts. Mr. Olsen asserted that his property has become considerably wetter in recent years due to an increase in this drainage and that several wetlands had been created on his property and that owned by Eileen Hansen as the result of that drainage.

204. Mr. Olsen and his engineer did not dispute the adequacy of the drainage analysis done in the Olhava Master Plan FEIS, but argued that the concentration and infiltration of drainage on the Olhava site as the result of the drainage plan would result in increased ground and surface water on the Hansen and Olsen properties.

205. Mr. Olsen proposed a series of conditions for the Master Plan approval and which are set forth on Exhibit 157. These conditions generally seek a net increase of zero in ground and surface water flowing to downstream properties and the result of the Olhava development, the posting of a $2,000,000 bond to protect against downstream owners receiving any such water, the forced purchase of easements from downstream owners, and the filling of the wetlands on the Hansen and Olsen properties.

Parks

206. The Parks and Recreation Director requested that a condition be added to clearly require dedication of the eight (8) acre community park to the City and to define improvements to be made to the park property by the applicant prior to dedication. The applicant did not object to this added condition.

Limiting Commercial Uses

207. Winmar submitted a letter requesting that the commercial uses on the site be limited to a range of between 250,000 square feet and 350,000 square feet. Winmar's request was based upon its argument concerning adequacy of the FEIS and the ability of the North Kitsap Trade Area to absorb the commercial space in Olhava. Winmar provided no further testimony on this subject in the Master Plan hearing.

FINDINGS REGARDING COMMUNITY OPPOSITION

208. The overwhelming majority of citizens who spoke at the hearings or who submitted letters for the record were opposed to the Olhava Master Plan.

II. CONCLUSIONS

A. PROCEDURAL CONCLUSIONS

1. The City Council has jurisdiction over this matter. PMC 16.04.250 provides that SEPA appeals, including appeals related to the adequacy of an FEIS, are to be heard by the City Council. PMC 18.32.090 provides that the City Council shall approve, approve with modifications, or disapprove all master plan applications.

2. The three EIS adequacy appeals were timely filed. PMC 16.04.250(B) requires all such appeals to be filed within ten calendar days from the date of the decision appealed from. The FEIS was issued on May 27, 1997 and the appeals were received on June 6, 1997, the tenth day after issuance. The appeals were accompanied by the appropriate appeal fees.

3. All notices of the hearing on the EIS adequacy appeals and the Master Plan Application were properly given.

4. The hearing on the EIS adequacy appeals and the master plan application was held as a single simultaneous hearing as required by RCW 43.21C.075(3)(b). Although testimony was taken on the EIS adequacy issues first, no decision was made on any issue until all testimony was taken both on EIS adequacy and the master plan.

5. The hearing met the requirements of RCW 43.21C.075(c) in having all testimony on EIS adequacy under oath, providing for a taped transcript, and providing for the adoption of these findings and conclusions.

B. CONCLUSIONS REGARDING EIS ADEQUACY

GENERAL CONCLUSIONS REGARDING STANDARDS FOR EIS REVIEW

6. The adequacy of an EIS is to be judged by what the courts have termed "the rule of reason." Under this rule, an EIS is adequate if the environmental effects, reasonable alternative, and potential mitigation measures for the proposal are reasonably disclosed, discussed, and substantiated with supporting opinions and data. An EIS need not address every remote and speculative consequence of an action; only probable, significant, adverse environmental consequences must be addressed.

7. In every SEPA appeal, the procedural determination of the City's SEPA Responsible Official is entitled to "substantial weight." The Council is required to give substantial weight to the Responsible Official's determination that the FEIS is adequate.

CONCLUSIONS REGARDING FEIS ALTERNATIVES ANALYSIS

8. SEPA defines a reasonable alternative as one which could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation.

9. Alternative Three in the FEIS meets the definition of reasonable alternative set forth in SEPA. Alternative Three describes and analyzes a project which would represent almost half of the intensity of the proposed Master Plan. With the corrected information on Water and Sewer Fees analysis and the correction to Table III-32 made in Exhibit 110, Alternative Three has been shown to have lower environmental costs and to result a decreased level of environmental degradation than Alternative One - the Proposed Master Plan.

10. The range of alternatives contained in the FEIS meets the "rule of reason" applied by the courts to assess the adequacy of alternatives analysis in the EIS. Under the rule of reason, the range of alternatives is adequate if it provides the City Council with a reasoned choice. The alternatives in the FEIS provide a sufficient range from which reasoned choices can be made. Alternative Five - the No Action Alternative, and Alternative Three - Less Intense Development, both have less environmental impacts than does Alternative One - the Proposed Project. Alternative Two - Multiple Master Plans, and Alternative Four - More Intense Project, both have greater environmental impacts than does Alternative One-the Proposed Project. The proposed project is thus a mid-point alternative, which lies within a broader range of alternatives described as Alternatives One through Five. This range of alternatives allows the Council to see a complete range of impacts and is sufficient to allow the Council to make reasoned choices regarding the impacts of the proposal. The alternatives analysis is adequate under the rule of reason.

11. The fact that the alternatives analysis is adequate under the rule of reason disposes of Grow Smart's argument that the alternatives analysis serves merely to justify the project. The range of alternatives is sufficient for the Council to understand the impacts of the Olhava proposal and to make reasoned choices. That is all that is required.

12. Alternative sites were not required to be evaluated in the FEIS. Under WAC 197-11-440, an EIS is required to evaluate alternative sites only when it is a public project that is being proposed. Where a proposal is for a private project on a specific site, only the no action alternative and other reasonable alternatives for achieving the applicant's objective on the same site need to the considered. Although the Olympic College Campus is proposed for the northwestern portion of the site, the Olhava Master Plan is a private project under WAC 197-11-780 because it is "primarily initiated or sponsored by an entity other than an agency," i.e., by Olhava Associates, L.P.

13. The private proposal definition found in WAC 197-11-780 also negates Grow Smart!'s argument that the Olhava Master Plan is a public project because the same consultant who did the EIS on the Olhava Master Plan also prepared the City's Comprehensive Plan and Zoning Ordinance, and the EIS on the latter two documents. The Olhava Master Plan is

primarily sponsored by the Olhava Associates, L.P., a private party. It is therefore a private project regardless of who prepared the EIS.

14. Grow Smart!'s argument that the project is a public project under WAC 197-11-928 is without merit. That regulation provides that where public and private interests are too intertwined to determine the primary sponsor, the project shall be considered public. The primary sponsor here is Olhava Associates, and the mere fact that the College is included or that the project fits the land uses in a Comprehensive Plan and Zoning Ordinance prepared for the City by the same consultant who prepared the EIS does not change the primarily private sponsorship. There is no inextricable intertwining that would require this project to be treated as a public project for purposes of the alternatives analysis.

15. For the reasons described above, the Suquamish Tribe and Grow Smart! failed to meet their burden of proving that the alternatives analysis in the FEIS was inadequate.

CONCLUSIONS REGARDING FEIS ERRORS

16. An EIS is not required to be a perfect document and the fact that errors may exist does not necessarily mean that the FEIS is inadequate. The Council was not misled by the errors in the cash flow analysis with respect to Alternatives Three and Four. Had the incorrect information concerning the water and sewer revenues resulted in the FEIS underestimating the impacts of these alternatives, the errors in cash flow calculation might have resulted in a material lack of disclosure. Since the corrected information showed that the FEIS had overestimated the impacts, the errors were not material and did not mislead the Council in any way.

CONCLUSIONS REGARDING HISTORIC AND CULTURAL RESOURCES

17. Historic and cultural preservation is an element of the environment under WAC 197-11-444. Where a project would have a probable, significant, adverse impact on historic and cultural preservation, it should be addressed in an EIS.

18. To the extent that their EIS adequacy appeals were based upon the lack of a historic or cultural resources survey, the Suquamish Tribe and Grow Smart! failed to meet their burden of proving the FEIS inadequate. Grow Smart! and the Suquamish Tribe presented no evidence that any historic or cultural resources are located on the Olhava property and the FEIS does not indicate the presence of any such resources. Absent such evidence, there is no basis for finding that a probable, significant, adverse, environmental impact exists that was not analyzed in the FEIS.

CONCLUSIONS REGARDING DRAINAGE AND EROSION CONTROL IMPACTS

19. The Master Plan Chapter of the Poulsbo Municipal Code, Chapter 18.32, requires a conceptual drainage plan for the site. The drainage plan provided with the Olhava Master Plan is thus not a final design, nor is it required to be. Additional analysis of both on and off-site impacts will be conducted as part of the further design review process and as part of the phased environmental review for this project.

20. The Suquamish Tribe and Grow Smart! failed to meet their burden of showing that the Olhava Master Plan would have a probable, significant, adverse drainage impact which was not reasonably disclosed, discussed, and substantiated in the FEIS. Infiltration appears to be a feasible method of drainage collection and disposal on the property and, if the infiltration system is designed, constructed, and maintained properly, will provide adequate means of ensuring that storm water is cleansed of pollutants. No evidence was presented in order to show that infiltration was not feasible or that the system as proposed and as proposed to be conditioned would leave an unmitigated adverse environmental impact on Dogfish Creek, Johnson Creek, or Liberty Bay that was not analyzed in the FEIS.

21. Grow Smart! failed in its burden of showing that temporary erosion control measures proposed in the FEIS and the Master Plan would be ineffective or would result in an unmitigated adverse impact that was not reasonably discussed, disclosed, and substantiated in the FEIS. Temporary erosion control will be required during construction and is critical to maintaining water quality downstream, but Grow Smart! failed to show that such controls could not be accomplished or enforced.

22. The FEIS reasonably discloses, discusses, and substantiates the drainage impacts of the Olhava Master Plan and is therefore adequate in this respect.

CONCLUSIONS REGARDING KITSAP COUNTY POPULATION GROWTH ASSUMPTIONS

23. Winmar and Grow Smart! failed to meet their burden of proving that the Kitsap County population growth assumptions used to conduct the Commercial Need and Economic Analysis contained in the FEIS were incorrect. The population growth assumptions are supported by the historical data summarized in Technical Appendix H to the DEIS and by the April 1, 1997 population estimates provided by OFM and admitted as Exhibit 86. Winmar and Grow Smart! failed to prove that this data was inaccurate or was used improperly.

24. The population growth assumptions in the FEIS do not render it inadequate.

CONCLUSIONS REGARDING ECONOMIC IMPACTS

25. SEPA provides that economic competition, in and of itself, is not a subject that is required to be evaluated in an EIS. To the extent that economic competition would result in a probable, significant, adverse impact on one of the elements of the environment recognized by SEPA, however, it may be considered. Such an impact could be shown in one of two ways: (1) a significant adverse impact could occur if the economic competition would result in decreased project revenues, thereby affecting the degree to which tax revenues from the project will mitigate the project's impacts on police, fire, and other governmental services; or (2) a significant adverse impact could occur if the economic competition fostered by the project would result in business closures or economic blight in areas which compete with the project, thereby impacting such things as aesthetics and the need for police, fire, and other governmental services in those areas.

26. Winmar failed to meet its burden of proving that the economic competition fostered by the Olhava Master Plan project would result in either of the above-referenced impacts. Although Winmar's economic consultant gave his opinion that the market would not absorb the Olhava project or provide the sales revenue for the project that would support the necessary services, Winmar did not conduct any independent study or present any independent analysis to support this contention. Winmar specifically did not conduct the residual market analysis its consultant contended would demonstrate the lack of demand for the shopping opportunities presented by Olhava. Winmar's contention that the North Kitsap Trade Area was drawn too broadly, thereby overestimating sales potential that could be taken up by Olhava was unsupported by any independent study or analysis which specified what the actual Trade Area should be. Finally, Winmar did not present any independent analysis or study which showed the extent to which project tax revenues would be overstated, or how such an overstatement would impact any of the environmental elements which the Council is allowed to consider under SEPA. Without such an independent analysis, the Council cannot conclude that the analysis in the FEIS is flawed as to the sales projections for the Olhava project or that the FEIS fails to reasonably disclose, discuss, and substantiate the environmental effects of the proposal.

27. Winmar also failed to meet its burden of proving that the economic competition fostered by Olhava would impact Silverdale, downtown Poulsbo, or any other retail center to the extent necessary to cause economic blight or to have a probable, significant, adverse impact on any of the elements of the environment in those geographic areas. Winmar did no independent studies or independent analysis which concluded that the Olhava project would cause economic blight in these areas or have any significant impact on aesthetics, police, fire, or other governmental services, or any other element of the environment that the Council can consider. Winmar's consultant did not conduct any residual market analysis which would show this impact, and no showing was made that a residual market analysis would be helpful in this regard because such an analysis only measures current market conditions, and not the type of projected market conditions that must be used to analyze a project such as Olhava, which is built out over time. Winmar's consultant did not identify specific boundaries for the smaller North Kitsap Trade Area which he contended would result in less potential sales than the FEIS assumes to be available to support the Olhava project, downtown Poulsbo, and Silverdale. Without such analysis, the Council cannot conclude that the FEIS analysis concerning impacts on downtown Poulsbo or Silverdale is flawed or that the FEIS does not reasonably disclose, discuss, and substantiate the environmental effects of the Olhava Master Plan.

CONCLUSIONS REGARDING SCHOOL IMPACTS

28. The EIS was properly scoped to exclude school impacts. The North Kitsap School District, an agency with expertise regarding schools, determined that the project would not have any significant school impacts if impact fees are paid. In addition, the record reflects that $2,580,000 per year will be generated from property taxes and sales taxes from the Olhava Master Plan Development for school purposes. SEPA requires the City to take such taxes into account when determining the impacts of a proposal. Since the applicant has agreed to pay the North Kitsap School District's impact fees and the project permit is proposed to be so conditioned, the impact fees and the taxes generated support the conclusion that the project will not have a probable, significant, adverse impact on schools.

29. Grow Smart! failed in its burden of showing any probable, significant, adverse impact on schools that should have been addressed in the FEIS. Grow Smart! presented concerns, but no actual, tangible evidence that there were unmitigated impacts.

CONCLUSIONS REGARDING PUBLIC TRANSIT IMPACTS

30. The FEIS and its Technical Appendices reasonably disclose, discuss, and substantiate the impacts of the Olhava Master Plan on public transit. The FEIS and the traffic study in Appendix I of the Technical Appendices acknowledge that as part of the transportation impacts of the Master Plan, transit routes, stops, and park-and-ride lots or spaces, will be impacted and require mitigation.

31. Grow Smart! failed to meet its burden of showing that the analysis contained in the FEIS was inadequate to disclose, discuss, and substantiate the transit-related impacts of the Olhava Master Plan. Grow Smart!'s argument went more to the adequacy of the proposed mitigation than the adequacy of the FEIS analysis and is therefore more properly dealt with as part of the Master Plan conditions.

CONCLUSIONS REGARDING PHASED ENVIRONMENTAL REVIEW

32. Phased review is intended to allow a government agency to study only those environmental issues which are ripe for decision in the early stages of a project, while reserving the right to further study the environmental impacts of the project when they become more apparent in later stages involving more detail. SEPA authorizes the use of phased review when the sequence is from an environmental document on a specific proposal at an early stage to a subsequent environmental document at a later stage.

33. Phased environmental review is appropriate in the case of the Olhava Master Plan for two reasons. First, the Master Plan provides an overall concept for the development of the site which is subject to refinement at later stages. In order to actually develop the site, the project proponents may will be required to submit site plan applications for each phase of development and subdivision applications and building and grading permits for development within each phase. These latter applications will provide much more detail concerning the project and its design than the Master Plan does. The sequence for phased review is therefore from the Master Plan EIS at this early stage to subsequent environmental checklists and other environmental documents at the more detailed subdivision, building permit, and grading permit stages.

34. The second reason why phased review is appropriate is the anticipated ten year buildout of the project. Given this projected timeline, it is impractical to determine, on an abstract basis, such things as the rate at which the project will develop, the growth of the tax base which will support the needed public services, the evolution of technologies that could be used to mitigate the impacts of the proposal, and the changes in background conditions that could occur over the lifetime of the development. The FEIS identifies the potential impacts and provides a framework for further environmental review. Phased review is therefore a sufficient method of dealing with the environmental review of this project.

35. Grow Smart! failed to provide any evidence that phased environmental review would not be appropriate for evaluating the impacts of this proposal.

CONCLUSIONS REGARDING FISH AND WILDLIFE IMPACTS

36. Grow Smart! failed to prove the need for a four seasons wildlife survey. No evidence was presented to show that such a survey would disclose the presence of any fish or wildlife species not considered in the FEIS. Grow Smart! failed to prove that a four seasons survey would provide any more information than what the FEIS contains from the biological resources study and field assessment that was done. The fact that a four seasons survey was not conducted does not render the FEIS inadequate.

37. Grow Smart! failed to prove that any threatened, endangered, or sensitive wildlife species are present on the Olhava property. While the pileated woodpecker does inhabit the Puget Sound region, there was no evidence presented that pileated woodpeckers inhabit or have actually been observed on the Olhava property. The FEIS was not required to address impacts on the pileated woodpecker or any other species not present on the site in order to be adequate.

38. Grow Smart! failed to prove that the loss of wildlife habitat on site was not reasonably disclosed, discussed, and substantiated by the FEIS. The FEIS recognizes that there will be an inevitable loss of wildlife habitat as the result of development of the Master Plan and the FEIS recommends mitigation measures which address preservation of open space and preservation and enhancement of wetlands, which are the only priority habitats on the property.

39. The discussion, disclosure, and documentation of fish and wildlife impacts in the FEIS is reasonable and adequate. The FEIS is therefore adequate on fish and wildlife habitat impacts.

CONCLUSIONS REGARDING UNIQUE PLANT SPECIES IMPACTS

40. Grow Smart! failed to prove that the Olhava Master Plan will have any probable, significant, adverse impact on sensitive plant species. The mountain hemlock noted in the FEIS is not actually present on the site and its inclusion in the FEIS was a typographical error. Western hemlock was the dominant species found on site and western hemlock is not a rare species.

41. The FEIS is adequate as to its disclosure, discussion, and substantiation of impacts to plant species.

CONCLUSIONS REGARDING IMPACTS ON DOMESTIC WATER SUPPLIES

42. Grow Smart! failed to prove that the FEIS fails to reasonably disclose, discuss, and substantiate the impacts of the proposed Master Plan on domestic water supplies. The FEIS clearly recognizes the potential lack of water availability for any development past phase "e" unless additional water rights are acquired by Kitsap PUD and an amended interlocal agreement is entered into to provide the City with the additional water necessary to serve the remainder of

the Master Plan proposal and other anticipated development. The FEIS also recognizes and recommends as mitigation that no development of the Olhava Master Plan beyond phase "e" be allowed until the additional water rights are acquired and the interlocal agreement is amended.

43. Grow Smart! also failed to prove that the effect of the proposal on private domestic wells in the vicinity of the proposal was inadequately disclosed, discussed, and substantiated at this stage of the development process. The FEIS does disclose and discuss the fact that groundwater recharge and draw down of groundwater will be affected as the result of the Master Plan development. If further study is needed, it can and should be required as a condition of Master Plan approval and considered in any phased environmental review of development associated with the Master Plan.

44. The FEIS reasonably discloses, discusses, and substantiates the environmental effects of the proposed Master Plan on domestic water supplies. The FEIS is adequate on the domestic water supply impacts.

CONCLUSIONS REGARDING TRAFFIC IMPACTS

45. Grow Smart! failed to meet its burden of proving that the Olhava Master Plan will have either a probable, significant, adverse traffic impact that was not analyzed in the FEIS, or that the FEIS fails to reasonably disclose, discuss, or substantiate the traffic impacts of the Olhava Master Plan.

46. Extensive analysis of transportation impacts and the need for transportation facilities in order to serve the Olhava property is contained in Appendix I to the Technical Appendices of the Draft EIS and in the FEIS itself. While Grow Smart! questioned the accuracy of the studies and the sufficiency of the proposed mitigation, Grow Smart! presented no technical studies or evidence of its own to demonstrate that the traffic analysis in the FEIS and the Appendices to the DEIS was flawed. Grow Smart! likewise did not present any analysis which showed that the FEIS inadequately addressed impacts to Finn Hill Road or Terasse Drive. Without such evidence, Grow Smart! failed to prove the inadequacy of the FEIS.

47. The FEIS reasonably discloses, discusses and substantiates the traffic impacts of the proposal. The FEIS is adequate in this respect.

CONCLUSIONS REGARDING RESPONSES TO COMMENTS

48. WAC 197-11-560 provides that comments may be responded to by (a) modifying alternatives, (b) developing and evaluating additional alternatives, (c) supplementing, improving or modifying the analysis, (d) making factual corrections, or (e) explaining why no response is warranted. Comments can be responded to individually, as a group, cross-referenced to other responses or changes in the FEIS, or by any other reasonable means. The adequacy of responses to comments must be judged by the same rule of reason that applies to all adequacy questions regarding an FEIS.

49. The responses to comments in the FEIS are adequate. "Comment noted" is a response that is commonly used to respond to comments which are nonsubstantive or unsubstantiated. Moreover, most if not all of those subjects for which "comment noted" is used as a response are dealt with in detail in the FEIS or in responses to other comments. Under the rule of reason, the responses as a whole adequately respond to all substantive issues.

CONCLUSIONS REGARDING CRIMINAL ACTIVITY

50. Grow Smart! failed in its burden of proving that criminal activity would increase as a result of the Master Plan to a level where there would be a probable, significant, adverse impact on police services that would not be mitigated by tax revenues.

51. Grow Smart!'s testimony on increased criminal activity was simply a generalized concern that such activity would occur. Generalized concerns about criminal activity do not provide a basis for determining that the FEIS is inadequate. Without specific evidence that the project will generate criminal activity in excess of that inherent in any commercial development, or that such activity will have a probable, significant, adverse impact on police services, there is no basis to find that the FEIS is inadequate.

52. The FEIS reasonably discloses, discusses and substantiates with supporting opinions and data its conclusions as to the impacts of the Olhava Master Plan on police services. The FEIS analysis of impacts on police services is adequate.

GENERAL CONCLUSIONS ON EIS ADEQUACY APPEALS

53. For the reasons set forth above, the environmental consequences of the Olhava Master Plan are reasonably disclosed, discussed, and substantiated with supporting opinions and data. The appellants have failed to prove that the FEIS is inadequate for any of the reasons set forth above or for any other reason. The FEIS should be determined to be adequate and the appeals filed by the Suquamish Tribe, Winmar, and Grow Smart! should be denied.

C. CONCLUSIONS REGARDING THE MASTER PLAN APPLICATION

CONCLUSIONS REGARDING CONTENT OF MASTER PLAN - INTRODUCTION AND ADMINISTRATION

54. PMC 18.32.040 specifies the required contents of a master plan application. The first of the required elements, as provided in PMC 18.32.040(1) is an introduction and administration chapter which defines the goals, objectives, policies, scope, and intent of the master plan and a complete and detailed project description. The section is also to contain provisions for administrative review, and planning commission and council review of future phases and permits, as well as procedures for master plan amendment.

55. Chapter One of the proposed Master Plan meets the requirements of PMC 18.32.040(1). The goals, objectives, policies, scope, and intent of the Master Plan are described

and a detailed project description is provided. The administrative review process is set out, as well as the process for planning commission and council review.

56. The procedures for amendment of the master plan are also set forth. The language in those procedures set forth on page 33 of Chapter One is ambiguous, however, concerning the ability of the project proponent to exceed the total commercial and business park square footage and the total number of dwelling units set forth in the master plan without a formal master plan amendment, i.e., with administrative approval.

57. The language in the third paragraph of Section 1.8.2 on page 33 of the Master Plan can be read two ways. On the one hand, the language can be read to allow administrative approval of a 15% deviation between the amount of development proposed in each phase and the amount of development actually constructed, as long as the total development proposed by the master plan is not exceeded. On the other hand, the language can be read to allow administrative approval of development which exceed that proposed by the Master Plan as long as that excess is not more than 15%.

58. The Master Plan proposes a total of 840,000 square feet of commercial space, 350,000 square feet of business park floor space, 70 single family dwelling units, 420 multiple family dwelling units, and a branch campus of Olympic College. All of the environmental analysis related to the project has been done using these figures as the maximum development that would be allowed on the site. To allow for administrative deviation from these total figures is not appropriate and would not allow for sufficient input from the planning commission, city council, and public for such a major departure from what is proposed. The third paragraph of Section 1.8.2 should be re-written to require a formal master plan amendment for any development which exceeds the overall levels proposed in the Master Plan.

59. Some deviation within the phases is appropriate to recognize that market factors may justify constructing more or less of what is proposed in any phase, or that other factors may require a shift of some buildings on the site. The 15% administrative approval allowance is too great, however, and would not allow for proper planning commission, city council and public input. The third paragraph of Section 1.8.2 should re-written to provide for administrative approval of a 10% deviation in the size of any phase, rather than a 15% deviation.

60. Revising the amendment process to limit administrative amendments to those which propose to deviate by 10% or less in any individual phase will not significantly impact the project because the applicants will still be entitled to build the total commercial space, business park space, and number of dwelling units they propose. The only change will be in the process by which major deviations from the proposal will be processed.

61. The third paragraph of Section 1.8.2 of the Master Plan should be re-written to read as follows:

> Changes in the size, layout and use of the individual structures in the Master Plan are more likely as the project develops and responds to market conditions. Minor deviations in square footage of any building or within any phase, building height,

and general layout of structures may occur with the administrative approval of the Planning Department. Where deviations are more than minor and substantial changes are proposed, formal amendment of the Master Plan as required in PMC Chapter 18.32 shall be required. The Director shall review each phase plan as presented in order to determine whether significant changes have been proposed. For purposes of this chapter, a significant change is one which:

- proposes a deviation in the total square footage, height or dimensions of structures, or total number of dwelling units within any particular phase of more than 10%; or

- will result in an increase in traffic counts for any particular phase of more than 10% above those assumed in the Master Plan for that phase; or

- proposes any deviation which requires a variance from applicable development standards; or

- proposes any deviation which will cause the total square footage, total number of dwelling units, or traffic counts for the Master Plan as a whole to exceed those totals for the entire Master Plan assumed in the Plan.

Changes which are not considered significant shall be considered minor.

CONCLUSIONS REGARDING CONTENT OF MASTER PLAN - LAND USE

62. PMC 18.32.040(2) requires the second chapter of the Master Plan to contain provisions regarding land use, including (a) the location and type of land use with gross acreage for each land use in each planning area; (b) residential densities by planning area and for the entire site; (c) development standards; (d) any areas where the City's development standards won't be met; (e) adjacent land uses; and (f) public areas, parks, and open space.

63. Chapter Two of the proposed Olhava Master Plan meets the requirements of PMC 18.32.040(2). A master land use plan is provided on page 2 of Chapter Two showing the location, type, and gross acreage for each land use proposed for the site. Residential densities are shown on the master land use plan and described in the text. Public areas, parks and open spaces are also shown on the master land use plan and described in the text. Development standards are set forth in Sections 2.3, 2.4, and 2.5. There are no areas where the City's development standards will not be met. Adjacent land uses and streets are described and shown on the maps and through the text.

CONCLUSIONS REGARDING CONTENT OF MASTER PLAN - DRAINAGE AND UTILITIES

64. PMC 18.32.040(3) requires the Master plan to have a drainage and utility chapter consisting of a conceptual grading plan, a conceptual drainage plan, the preliminary location of water, sewer, and other utilities, and a conceptual surface water management plan.

65. Chapter Three of the proposed Olhava Master Plan meets these requirements. A conceptual grading plan is shown in Figure 3A on page 2 of Chapter Three and described in the text of Section 3.1. A conceptual drainage plan is shown on Figure 3D and backup analysis of pre- and post-development drainage is set forth in Sections 3.2 and 3.3 of Chapter Three. On-site and off-site utility locations are shown on the conceptual water and sewer plans in Figures 3E, 3F, and 3G and described in the accompanying text.

CONCLUSIONS REGARDING CONTENT OF MASTER PLAN - ENVIRONMENTAL RESOURCES AND HAZARDS

66. PMC 18.32.040(4) requires the Master Plan to have an environmental resources and hazards chapter which locates all critical and sensitive areas and which demonstrates appropriate setbacks, dewatering plans of slopes, and mitigation methods.

67. Chapter Four of the proposed Olhava Master Plan meets this requirement. Chapter Four inventories vegetation, wildlife, and wetlands found on the site and incorporates detailed analysis of these items in various reports attached to or referenced in the Chapter. In addition, the EIS and a Site Investigation Study and Site Investigation Report by the United States Environmental Protection Agency (EPA) supplement this chapter with additional environmental information.

CONCLUSIONS REGARDING CONTENT OF MASTER PLAN - CIRCULATION

68. PMC 18.32.040(5) requires that the Master Plan contain a circulation chapter and circulation plan showing (a) all arterial, collector, and principal local streets; (b) development standards for all streets, (c) location of all trails, sidewalks and other non-vehicular transportation routes; (d) development standards for all non-vehicular transportation routes; (e) preliminary location of all bus stops or other rapid transit facilities; and (f) location and description of all intersection improvements for arterials and collector roadways.

69. Chapter Five of the proposed Master Plan meets the requirements of PMC 18.32.040(5). All arterial, collector, and principal local streets are shown and discussed in Section 5.2. Development standards for those streets are set forth in Section 5.4. The location of all non-vehicular transportation routes is set forth in Section 5.3 and development standards for those routes are described in Section 5.5. Transit stops, transit service, and other transit-related facilities are described in Section 5.6. Intersection improvements and standards are set forth in Sections 5.2 and 5.7.

CONCLUSIONS REGARDING CONTENT OF MASTER PLAN - PHASING

70. PMC 18.32.040(6) requires the Master Plan to contain a project phasing chapter which demonstrates how each planning area will be developed and how required infrastructure needs will be met as development occurs. Master plans are also required to provide implementation tools to ensure concurrency.

71. Chapter Six of the Olhava Master Plan meets the requirements of PMC 18.32.040(6). The project is divided into seven phases, which are described in detail in Section 6.1. Concurrency for all transportation, storm sewer, and sanitary sewer infrastructure is assured through the construction and timing of improvements as set forth in the Development Phasing Matrix on page 4 of Chapter 6.

72. With respect to water demand, the Master Plan meets the requirements of PMC 18.32.040(6) as far as construction of infrastructure to provide water to the site is concerned. However, the FEIS indicates that water is not anticipated to be available for phases "f" and "g" unless and until Kitsap PUD acquires additional water rights and enters into an amended interlocal agreement with the City to provide more water than the 500 gpm that the current interlocal agreement requires. The Master Plan should be conditioned so that no development of phases "f" or "g" can occur unless and until the water supply is available to ensure concurrency.

CONCLUSIONS REGARDING CONTENT OF MASTER PLAN - DESIGN GUIDELINES

73. PMC 18.32.040(7) requires the Master Plan to contain a design guidelines chapter which consists of design narrative and illustrations.

74. Chapter Two, and particularly Section 2.5, of the Olhava Master Plan contains design guidelines for the development of the Olhava property. Design concepts are expressed and site layout and standards are articulated. Chapter Two does not contain illustrations or graphics which depict the architectural concepts expressed, but the concepts, when coupled with the Master Plan layout shown in Chapter One relating to land use are sufficiently detailed to enable the City Council to determine the quality of the design and to ensure that the design quality is maintained in subsequent development. The Master Plan meets the intent of PMC 18.32.040(7) without the need for further illustrations or graphics.

CONCLUSIONS REGARDING CONTENT OF MASTER PLAN - CONFORMANCE

75. PMC 18.32.040(8) requires a conformance chapter which textually describes conformance of the Master Plan with all goals and policies of the Comprehensive Plan. Chapter Eight of the Master Plan meets this requirement. That Chapter sets forth various goals and policies contained in the Comprehensive Plan and describes how the Master Plan conforms to these goals and policies.

76. All elements of a Master Plan required by PMC 18.32.040 are present in the proposed Olhava Master Plan. The Master Plan conforms to the requirements of PMC 18.32.040.

CONCLUSIONS REGARDING MASTER PLAN CRITERIA FOR APPROVAL - COMPATIBLE LAND USES

77. PMC 18.32.090 sets forth the criteria for approval of a Master Plan. The Olhava Master Plan may be approved only if all of the criteria are met. Subsection (1) of PMC 18.32.090 requires the City Council to determine whether the proposed land uses (including mixed use areas) are compatible.

78. The proposed land uses in the Master Plan are consistent with the land use categories established by the City's Comprehensive Plan and Zoning Ordinance. The mix of uses and the location of the same on the site were determined to be compatible in the adoption of the Comprehensive Plan and Zoning Ordinance and remain generally compatible in the absence of a Comprehensive Plan or Zoning Code amendment.

79. The proposed land uses within the two parcels comprising the Master Plan property are generally compatible. The southern parcel is limited to residential uses with the single family homes buffered with a 50 foot wide vegetated space from the multi-family areas to the north. In addition, the entire perimeter of both single-family and multi-family areas in the southern parcel is proposed to be buffered. With the buffering, the proposed land uses in the southern parcel are compatible.

80. The most intensive uses are proposed to be located on the northern parcel. The Primary Commercial area is located at the south end of the northern parcel and is situated between Highway 3 on the east and existing business development on the west. Immediately adjacent to the Primary Commercial area is the Secondary Commercial and Business Park areas to the north. These areas transition to the medium density residential and College Campus areas to the north and west. The Community Park that is proposed on the eastern perimeter of the northern parcel provides buffering from adjacent properties and between land uses.

81. The provision of unified general standards for landscaping, signage, and lighting, as well as the restrictions on uses proposed in the use lists and the specific development standards for each listed use will further ensure compatibility of the land uses proposed.

82. In the event that, as further detailed design work is done in connection with the phased development, it is determined that the Master Plan proposal does not fit on the property as proposed, that issue may be dealt with as part of approval of the phase in order to ensure compatibility of land uses. The issue does not require a definitive resolution at the Master Plan approval stage of development.

83. Withdrawal of the applicant's initial request to deviate from the height and continuous roof plane requirements will also ensure compatibility of land uses within the site. Because references may still exist in the Master Plan to such deviations in height and roof line, however, a condition should be imposed to recognize the withdrawal and current proposal. The condition should read as follows:

"Any reference to 40 and 50 foot tall structures in the Master Plan, and any reference to deviations from the City's continuous roof plane standards, are erroneous. All structures shall meet the height and continuous roof plane requirements of the Poulsbo Zoning Code regardless of any contrary reference in the Master Plan, unless a variance is granted according to the variance process established by the Poulsbo Zoning Code or unless a Master Plan amendment is approved according to the process established for initial adoption of a master plan in PMC Chapter 18.32."

84. With the proposed buffering and mix of land uses internal to the site and with the withdrawal of the request to deviate from the height and continuous roof plane requirements, the land uses within the Olhava Master Plan are compatible.

CONCLUSIONS REGARDING MASTER PLAN APPROVAL CRITERIA - SURROUNDING USES

85. PMC 18.32.090(2) requires that a master plan not be detrimental to surrounding existing and planned uses.

86. Given the conceptual nature of the Master Plan, the Council concludes that the proposed land uses are generally compatible with and won't be detrimental to surrounding existing and planned uses. Master Plans are conceptual in nature under the Poulsbo Code and are further refined through the approval of detailed subdivision, site plan, phase plan, and development permit reviews. Subsequent phased review of the Olhava Master Plan project will involve more detailed project descriptions which may lead to additional approval conditions to ensure compatibility.

87. The perimeter buffering and the general arrangement of land uses will help to provide compatibility with existing and planned land uses in surrounding areas. However, the fifty foot vegetative buffer proposed by the Master Plan on the north and west property lines between the medium density residential areas and adjacent properties characterized by rural homesites is insufficient to provide an appropriate transition between the existing rural homesites to the west of the Olhava property and the up to 10 units per acre of multi-family units that may be built under the medium density zoning. Additional buffering as recommended by the Planning Commission is necessary on the western boundary of the medium density residential area on the west property line in order to ensure compatibility and provide an appropriate density transition between the rural densities to the west and the medium density residential within the Olhava property. With the one hundred foot buffer in this area proposed by the Planning Commission, the medium density residential uses on the Olhava property will be compatible with existing land uses to the west.

88. Additional study is necessary to determine whether private domestic wells may be impacted by the proposed development of the Olhava property with its effects on groundwater recharge and the draw-down of groundwater. This is a compatibility issue, as well as a utility and SEPA issue and is dealt with in more detail below. In order for the land uses in the Master

Plan to not be detrimental to existing and planned uses, care must be taken not to impact water quality or quantity in existing private domestic wells.

89. With the one hundred foot buffer described above and the conditions related to further study of impacts on domestic wells set forth below, the land uses in the proposed Master Plan will not be detrimental to surrounding existing and planned uses and PMC 18.32.090(2) is met.

CONCLUSIONS REGARDING MASTER PLAN APPROVAL CRITERIA - CONSISTENCY WITH COMPREHENSIVE PLAN

90. PMC 18.32.090(3) requires the City Council to determine that the Master Plan is consistent with the Comprehensive Plan (as amended, if a comprehensive plan amendment is proposed concurrently with the plan) before the Master Plan may be approved. No Comprehensive Plan amendment is proposed with the Olhava Master Plan.

91. The proposed configuration of land uses in the Olhava Master Plan conform precisely to the land use designations set forth in the Comprehensive Plan. The Comprehensive Plan calls for the Olhava Property to be developed with the mix of uses, intensity of commercial and business park development, public schools and parks, and residential densities that are proposed. The Comprehensive Plan specifically calls for this property to be developed with a master plan. The analysis of the goals and policies set forth in the Conformance Chapter of the Master Plan demonstrates that the Master Plan land uses are consistent with the Comprehensive Plan.

92. The proposed land uses in the Master Plan are consistent with the Comprehensive Plan and the requirements of PMC 18.32.090(3) are met.

CONCLUSIONS REGARDING MASTER PLAN APPROVAL CRITERIA - DESIGN STANDARDS

93. PMC 18.32.090(4) requires that the design standards and site development standards in the Master Plan will promote high quality development and site design which will enhance the area within and surrounding the Master Plan.

94. The proposed Olhava Master Plan is designed to meet all site development standards of the Poulsbo Zoning Ordinance. In addition, the Master Plan contains a narrative (in Chapter 2) which sets forth a comprehensive list of required and encouraged design standards. A design review committee is proposed to oversee compliance with the design intent of the Master Plan during project development.

95. If the project is built according to the design standards described in the Master Plan, the project will constitute high quality development and will enhance the area within and surrounding the Master Plan. PMC 18.32.090(4) is met by the proposal.

CONCLUSIONS REGARDING MASTER PLAN APPROVAL CRITERIA - ALTERNATIVE STANDARDS

96. PMC 18.32.090(5) requires that any alternative development standards be justified. The Olhava Master Plan does not propose any standards which are alternative to those set forth in Poulsbo's ordinances. This requirement is therefore not applicable to the Olhava Master Plan.

CONCLUSIONS REGARDING MASTER PLAN APPROVAL CRITERIA - VEHICULAR AND PEDESTRIAN CIRCULATION PLANS

97. PMC 18.32.090(6) requires that the Master Plan's vehicular and pedestrian circulation plans provide for streets and walking areas which are needed to serve the proposed development and which are consistent with adopted City circulation plans.

98. With the adoption of the conditions of approval and SEPA mitigation attached to these Findings and Conclusions, PMC 18.32.090(6) is met. The project site is afforded excellent access by way of the Highway 3/Highway 305 interchange and a new direct access to Viking Avenue. The Master Plan proposes an internal circulation system which is consistent with the City Transportation Map. Walking trails and bike paths are proposed consistent with the Comprehensive Plan Park and Recreation Policies 46, 51, 54, 56, and 57.

99. Transportation improvements needed for the project have been identified in the traffic studies appended to the FEIS, in the body of the FEIS itself, and in the Master Plan Development Phasing Matrix. These improvements have been coordinated with and agreed to by the City staff, Kitsap County Traffic Division, Washington State Department of Transportation, and Kitsap Transit. All improvements required by the FEIS and the Development Phasing Matrix are essential for the Olhava Master Plan Development in order to provide streets and walking areas necessary to provide acceptable levels of service. With the adoption of the conditions of approval and SEPA mitigation measures attached to these Findings and Conclusions, infrastructure needs attributable to the Master Plan will be met.

100. Transportation Policy 4 in the Poulsbo Comprehensive Plan requires that all development occurring adjacent to a proposed arterial or collector roadway depicted on the Comprehensive Plan Circulation Map must construct its fair share of the roadway as part of the project's initial improvements. The testimony at the hearing demonstrated that the Olhava Master does not contribute to the need for the proposed collector across the northern and northeastern boundary of the site and that there is therefore no nexus between the need for the road and the Master Plan. In the absence of such a nexus, the fair share of the roadway construction that should be borne by this development is zero. Proposed condition 93 in Exhibit 212 should be deleted.

CONCLUSIONS REGARDING MASTER PLAN APPROVAL CRITERIA - UTILITIES AND DRAINAGE

101. PMC 18.32.090(7) requires that the utility plans contained within the Master Plan provide for adequate sanitary sewers, water, power, gas, cable television, telephone and drainage for the proposed development.

102. With adoption of the conditions of approval and SEPA mitigation conditions attached to these Findings and Conclusions, the Olhava Master Plan meets PMC 18.32.090(7). Subsequent phased environmental and project review will require more detailed plans for these utilities and may point out the need for additional conditions, but given that a Master Plan is only required to provide utility plans of a conceptual nature, the plans contained within the Master Plan indicate adequate service if the Master Plan is conditioned as proposed.

103. Conditioning the Master Plan so that no development of phases "f" and "g" may occur until additional water rights are secured by Kitsap PUD and an amended interlocal agreement to provide that water to Poulsbo are entered into is critical to the adequacy of utilities for the proposed development. Without the additional water, phases "f" and "g" cannot be served adequately. With the conditioning of the development of phases "f" and "g" on the availability of such water, the water plan provides for adequate service.

104. The sewer infrastructure improvements set out as mitigation measures in the FEIS, in the Development Phasing Matrix, and in the conditions of approval and SEPA mitigation measures attached to these Findings and Conclusions are also critical to the provision of adequate sanitary sewer service to the site. With the conditions of approval and SEPA mitigation measures, the sewer plan is adequate to serve the development.

105. Because the drainage system plans are conceptual and have been supported by feasibility tests, the drainage system plans, when coupled with the attached conditions of approval and SEPA mitigation measures are sufficient to show adequate service to the proposed development. Care must be taken, however, that providing adequate drainage service to the Olhava Master Plan property does not impact private domestic wells in the vicinity of the Olhava property through impacts on groundwater recharge and draw-down of groundwater. With the conditions set forth in the SEPA mitigation section below, such drainage can be monitored for such impacts and any impacts mitigated.

CONCLUSIONS REGARDING MASTER PLAN CRITERIA FOR APPROVAL - BINDING SITE PLANS AND SUBDIVISIONS

106. PMC 18.32.090(8) provides that if a binding site plan and/or subdivision is proposed concurrently with the Master Plan application, the City Council must find that the criteria applicable to those development approvals must be met in order to approve the Master Plan. There are no binding site plan or subdivision applications proposed for the Olhava property concurrent with this Master Plan, although such applications are contemplated in the future. Since no such applications are currently pending, PMC 18.32.090(8) is inapplicable.

CONCLUSIONS REGARDING MASTER PLAN CRITERIA FOR APPROVAL - SEPA CONDITIONS

107. PMC 18.32.090(9) requires that the City Council must determine that all conditions and/or other mitigation requirements established as part of the environmental review process will be met before any Master Plan may be approved.

108. By and large, the conditions of approval and SEPA mitigations proposed by the City staff in Exhibits 144, 207, 211, and 212 follow the recommended mitigation measures in the FEIS and are adequate to mitigate the impacts of the Olhava Master Plan proposal. The mitigation measures suggested in those exhibits are related to specific adverse environmental impacts which are clearly identified in the FEIS for the Olhava Master Plan and cited on the attached conditions of approval and SEPA mitigations. The mitigation measures are reasonable and capable of being accomplished and are supported by the City's adopted SEPA policies, which are also cited on the attached.

109. During the hearing, however, several requests were made to change some of the proposed conditions and to add conditions which must be addressed here.

Tree Survey

110. Condition 13 in the staff report (Exhibit 144) should be modified. Staff's proposal in Exhibit 212 to provide that tree surveys are not required for areas which will be cleared for roads and highway access areas is appropriate, except where there may be evidence that such trees fall within the definitions of threatened, endangered, or sensitive plant species. Where trees fall within these categories, they can and should be preserved to the extent possible. Where trees do not fall within these categories, it is not necessary to preserve them in areas where roadways or highway access areas are being constructed. Although the FEIS does not note the presence of any threatened, endangered, or sensitive species of tree, the FEIS does not indicate that every tree along every proposed road or highway access area was examined. Condition 13 should therefore be modified to require identification of threatened, endangered, or sensitive species in roads and highway areas, but not to require a survey where no such species exist.

111. Condition 13 should not be modified as requested by the applicant in Exhibit 196 in order to delete the requirement for tree surveys within building footprint areas or areas that will be cut or filled more than one foot above or below grade. Because the Master Plan is conceptual, tree surveys can and should be done in areas that may be used for building footprints or for the cuts and fills greater than one foot above or below grade. Preservation of trees is an important City goal and is required by PMC 18.21.050 and 18.22.050 in residential and commercial site design and supported by SEPA policies detailed in the Conditions of Approval. The purpose of the tree survey is to help locate building footprints and cuts and fills at the detailed project design stage in order to preserve trees. Deleting the requirement for tree surveys in these areas would not further the preservation purpose for which such surveys are required.

Critical Areas

112. Condition 14 should not be modified as requested by the applicant in order to delete the requirement to comply with the City's critical areas ordinances in effect at the time of site plan or preliminary plat application. The applicants' contention that the Master Plan vests them against all future regulatory changes is not clearly the case under existing law.

Erosion and Sedimentation Control

113. Condition 17(b) should be modified to require not only that critical areas and their buffers, trees, and drainage courses be clearly marked, but also that they be protected in some manner that meets the City's approval. Condition 17(b) should be modified to add the following as the second sentence: "Critical areas and their buffers, trees to be retained, and natural drainage courses shall be protected from construction by fencing or other positive means as determined by the City Engineer."

114. Condition 17(b) should also be modified to include the language that is currently in Condition 17(k). This will ensure that temporary, construction-related sedimentation control shall be in place along with the protective measures specified above, at the time clearing and grading commences. By moving the language in Condition 17(k) to Condition 17(b), Condition 17(k) may be eliminated.

115. Condition 17(h) should be clarified to read as requested by staff in Exhibit 212. The 150 foot trench length should be maintained to be consistent with WSDOT/APWA standards for utility construction, and not modified as requested by the applicant in Exhibit 196. The statement that the length is to be 150 feet "unless approved by the City Engineer" gives sufficient leeway for approval of additional trenching should unusual conditions warrant.

Windbreaks

116. Condition 28 is intended as an air quality measure as suggested in the FEIS on page III-38. Condition 28 should be amended as proposed by staff and agreed to by the applicant in Exhibit 212. As modified, the condition will provide the necessary mitigation.

Buffer Width

117. The provisions regarding the 100 foot buffer proposed in Condition 31 should be modified as suggested by staff in Exhibits 207 and 212 and not as suggested by the applicant in Exhibit 196. The Planning Commission recommended the 100 foot buffer in order to protect the existing low density residential area immediately to the west of the project's western boundary as that area abuts the medium residential density area in the Master Plan. Such protection is needed, although, as staff and the applicant suggest, some flexibility in site design should be allowed if an alternative means of ensuring compatibility can be determined. Staff's proposed modification in Exhibit 212 provides the necessary protection through the 100 foot buffer while allowing for the desired flexibility. The modification proposed by the applicant eliminates the 100 foot buffer in favor of a more discretionary buffer enhancement plan.

118. The provision regarding the 50 foot buffer proposed in Condition 33 should be modified as suggested by staff in Exhibits 207 and 212 and not as requested by the applicant in Exhibit 196. As written in Exhibit 144, the condition would have required buffering between similar uses, something which does not seem to be appropriate. The portion of the Olhava property adjacent to, and west of, the primary commercial area and which is designated for medium density residential development should be buffered from the primary commercial area. The FEIS recognizes this need for buffering in the discussion of aesthetic impacts on pages III-39 through III-45. Staff's proposed modification clarifies the language of Condition 33 sufficiently to recognize that buffering is not necessary between similar uses, but is necessary to mitigate a significant aesthetic impact on the medium density residential area from the primary commercial area. The 50 foot buffer is suggested by the FEIS as the necessary width to provide this mitigation.

Fire Impacts

119. The FEIS clearly documents the impacts of the project on fire protection services and concludes that service cannot be provided to the entire site under either the five minute response time or 1.5 mile radius standards used nationally to measure service adequacy. The FEIS suggests the possible manning of the Clear Creek Station (Station 74) as the method of mitigating the impacts and proposes a needs assessment funded by the applicant to determine whether that can be accomplished.

120. Condition 37 as proposed by the staff in Exhibit 144 incorporates the recommendations contained in the FEIS. Because Condition 37 is required to mitigate a direct impact of the Olhava Master Plan development, it should not be eliminated as requested by the applicant.

121. Based upon the testimony received at the hearing, Condition 37 should be modified. According to that testimony manning Station 74 may not be the most appropriate means of providing fire protection service meeting the national standards to the Olhava Master Plan property and to the remainder of the City. Moreover, the impact of manning Station 74 must be considered in the broader context of the impact on Kitsap County Fire Protection District No. 18, to which the City provides fire service. For this reason, Condition 37 should be revised in order to avoid limiting the conclusion of the needs assessment to whether the City can effectively man Station 74.

122. Condition 37 should be modified to read as follows:

> "Prior to any development approval associated with Phase "a," the applicant shall fund a needs assessment to be conducted by or under the oversight of the City in order to determine the best means of providing fire and emergency services to the Olhava property and vicinity in order to mitigate the fire service and response time impacts of the proposal. The needs assessment shall include an evaluation of providing service from the City's main fire station (Station 71) and whether the Clear Creek Station (Station 74) can or should be manned in a reasonable manner with a full-time engine company as a means of ensuring mitigation of the fire

impacts of the project. If the study determines that the Clear Creek Station can be so manned and will provide the best means of ensuring adequate fire protection to the Olhava property and vicinity, then the Station must be manned prior to occupancy of any structures in the northerly 174 acres of the Olhava property. If the study concludes that the Clear Creek Station cannot be so manned or is not the best means of ensuring fire protection to the Olhava property and vicinity, then the study shall evaluate alternative mitigation measures, including but not limited to the potential for a new fire station, in order to ensure that the impacts of the Olhava Master Plan Project on fire and emergency services are adequately mitigated and development permits for the remaining phases of the Master Plan Project may be properly conditioned."

123. The flexibility provided in this modified condition will enable the City to condition the phases and development approvals for Olhava appropriately in order to ensure adequate fire protection is provided to the Master Plan development.

Traffic and Transit-Related Conditions

124. Conditions 48 - 53 should remain essentially as proposed by the staff in Exhibit 144, with the modifications shown in Exhibit 212. Conditions 48-53 should not be modified as requested by the applicant in Exhibit 196 in order to delete any contributions to or construction of any transportation improvements. The traffic impacts of the Olhava Master Plan development are well-documented in the FEIS and in the traffic analysis conducted by the applicant's transportation engineer, Terry Gibson and set forth in the technical appendices to the DEIS. Each of the transportation improvements that the applicant seeks relief from are necessary to serve the Olhava Master Plan development and the Olhava Master Plan contributes significant traffic and uses up a significant amount of the capacity to be provided by these improvements. The projects are being constructed to serve the Olhava Master Plan property and the analysis in the FEIS and the technical appendices clearly establishes the nexus between these improvements and the impacts of the Olhava Master Plan proposal. The mitigation measures are related to specific transportation mitigation impacts clearly identified in the FEIS and the technical appendices to the DEIS.

125. The applicant's contention that they should not be required to contribute to the cost of improvements which have received funding from other sources is without merit. Regardless of the funding source for the improvements, the impacts of the Olhava Master Plan development and the nexus between the need for those improvements and the traffic generated by the Olhava Master Plan is well-documented by the applicant's own traffic studies.

126. The proposed Conditions 48 - 53 require the applicant to pay no more than its fair, proportionate share of the transportation improvements delineated in those conditions. The fair proportionate share is the result of considerable analysis by the applicant's own transportation engineer, as well as considerable work by the City Engineer and representatives of Kitsap County and WSDOT, the other affected agencies in whose jurisdictions the transportation improvements lie. The mitigation measures proposed in Conditions 48 - 53

require the applicant to mitigate transportation impacts only to the extent attributable to the identified impacts of the Olhava Master Plan proposal.

127. The proposed mitigation measures are based upon the City's adopted SEPA policies in PMC 16.04.240, and particularly those enumerated in the attached Conditions of Approval immediately prior to discussion of the Traffic, Circulation and Transit Related Conditions.

128. The mitigation measures are reasonable and capable of being accomplished. The applicant is required to pay only its proportionate share of those improvements it objects to and that share is reasonable. No argument was made that the funding requirements could not be satisfied or were economically infeasible for the level of development proposed. The conditions should remain as proposed in the FEIS and the staff report admitted as Exhibit 144.

129. Condition 54 should be modified to read as suggested by the staff in Exhibit 207. The wording as originally proposed in Exhibit 144 could mean a delay in the construction of the Olympic Community College while WSDOT formally approves the design for the access break that it has already approved generally. The proposed wording in Exhibit 207 in order to limit the requirement to grading permits in the WSDOT right-of-way is appropriate.

130. Proposed Conditions 55, 56 and 82 should read as recommended by staff in Exhibit 212. The ability to provide for the specific requests by Kitsap Transit set forth in Exhibit 214 is not precluded by the proposed language of conditions 56 and 82 in Exhibit 212 and that language provides the flexibility necessary to address Kitsap Transit's concerns.

131. Proposed Condition 93 in Exhibits 211 and 212 should be deleted. Although Transportation Policy 4 in the City's Comprehensive Plan requires that development adjacent to planned collector roadways must dedicate and construct its fair share of the collector, there is no nexus between the impacts of this proposal and the need for the collector roadway shown on the Transportation Plan along the northern and northeastern boundary of the Olhava property. Without such a nexus, the City cannot require dedication or construction of the collector by this applicant and the proposed condition should be deleted.

Building and Engineering Conditions of Approval

132. Except as specifically modified pursuant to other conclusions set forth herein, the Building and Engineering Department Conditions of Approval set forth as proposed conditions 85 - 92 in Exhibit 212 should be imposed. These conditions are standard technical conditions of approval and specific conditions related to the Olhava Master Plan. The Fire Department and Public Works Department conditions of approval, proposed Conditions 91 through 97 in Exhibit 144 should be renumbered to accommodate the revised Building and Engineering Department conditions as set forth on the attached.

133. Proposed Condition 90 should read as agreed to by the applicant and the staff in Exhibit 212. The interlocal agreement for water service will have to be between the City of Poulsbo and Kitsap PUD and not between the applicant and the PUD. The applicant will be

required to obtain and pay for water service to the Olhava property from the City and should be required to assist the City in obtaining the interlocal agreement amendment.

Drainage and Groundwater

134. The conditions suggested by Kent Olsen (Exhibit 157) should not be added to the Master Plan approval at this time. The drainage plan proposed by the applicant as part of the Master Plan is conceptual in nature and additional analysis would be required to support any of the additional specific conditions proposed in the first three bullet paragraphs of Exhibit 157. The current level of detail in the drainage plan and as presented in the testimony of Mr. Olsen's drainage consultant is insufficient to establish that the specific conditions requested in the first three bulleted paragraphs are necessary or feasible.

135. With respect to the fourth bulleted paragraph on Exhibit 157, the City cannot require that easements be purchased from the Hansen/Olsen property owners based upon the level of analysis presented. The evidence presented does not support a determination that the Hansen/Olsen properties groundwater or surface water problems have been created by existing drainage leaving the Olhava property or will be exacerbated by future drainage leaving the Olhava property. Further analysis would have to be required before any such linkage could be made.

136. With regard to the fifth bulleted paragraph, the City cannot, in the context of a Master Plan application, approve filling of wetlands on downstream properties which already exist and which have allegedly been created by drainage associated with roadway and utility construction which is not part of Olhava. There is no nexus between the Olhava Master Plan development and pre-existing conditions on the Hansen/Olsen properties. Such filling can only be allowed, if at all, through separate applications for the Hansen/Olsen properties.

137. Regardless of the merits of the specific conditions proposed by Mr. Olsen, it is apparent that further downstream analysis of drainage impacts is required before the drainage system can be finally designed and implemented. In addition, analysis is needed as to the effects of groundwater mounding and the potential impact of the drainage system on the groundwater recharge and groundwater draw-down that could affect existing domestic water wells that are down gradient from the Olhava property. Proposed Conditions 87 and 88 in Exhibit 211 could provide the required analysis in order to determine what on-site and off-site measures should be required.

138. Conditions 87 and 88 should be modified to read as follows, however, in order to ensure that drainage improvements are constructed at an appropriate time and mitigate the project's impacts:

> "87. Construction plans for the following shall be reviewed and approved by the City Engineer and Public Works Superintendent prior to issuance of a clearing, grading, or building permit: (a) storm drainage and street improvements; (b) sanitary sewer; (c) water; and (d) interim and permanent on-site erosion control systems. An interim and permanent storm drainage conveyance and enhancement

system shall be designed and installed for the whole site, subject to approval of the City Engineer. Any off-site drainage improvements required to serve this project shall be required as determined necessary by the City Engineer and shall be installed by the developer at the developer's expense. A latecomer's agreement shall be a possibility for the developer as determined by the City through the appropriate process for latecomer's agreements. Restrictions of flow from the site shall be considered as an option for mitigation of off-site drainage impacts. Prior to final plat approval, final project construction approval, and/or issuance of any occupancy permit, all required permanent improvements must be installed to City standards, and if applicable, appropriate easements and/or right-of-way shall be dedicated and appropriate maintenance bonds posted."

"88. During phased review, the City Engineer shall require the applicant to provide further analysis of the proposed drainage design in order to comply with the City's requirements and to protect downstream properties and the surrounding area. As part of the analysis and drainage design process, the applicant shall study the effects of water mounding and propose or make specific recommendations for mitigation of such effects. As part of the analysis and design process, the applicant will also identify wells which are down gradient from the Olhava Property and which may be affected by the development. The applicant shall devise a monitoring plan to be presented to the City Engineer for approval in order to monitor the wells prior to construction, during construction, and after construction in order to ensure that water quality and quantity are not degraded. The City Engineer will then hire an independent consultant or consultants to review and comment on the adequacy of the analysis and the proposed drainage design, mitigation measures, and monitoring plan. In addition, during phased review, the City Engineer may hire an independent consultant or consultants to review and comment on any or all other utility or other infrastructure plans (sanitary sewer, water, roads/streets) proposed by the applicant. The City Engineer shall require that the applicant make a cash deposit or deposits which will be used to pay for the independent review(s). If any additional funds are required for these reviews, the applicant shall immediately deposit the required amount.

Parks

139. A condition should be added to specifically ensure improvement and dedication of the proposed eight acre community park as part of the proposal. The condition should be added at the end of the conditions of approval and should read as follows:

"The project proponent shall improve and dedicate the eight (8) acre park in the northeast corner of the project site to the City. These improvements shall include clearing, grubbing, and grading for preliminary site drainage subject to the review and approval of the City Engineer. The project proponent shall also hydroseed grass areas within the park subject to the review and approval of the Public Works Superintendent and the Parks and Recreation Director."

Limiting Commercial Uses

140. For the same reasons as set forth in the denial of Winmar's appeal of the FEIS, the requested limitation on uses proposed in Exhibit 145 is not supported by the evidence and must be denied.

CONCLUSIONS REGARDING COMMUNITY OPPOSITION

141. While the opposition of the community may be given substantial weight in environmental and development approval determinations, that opposition is insufficient to justify a denial of the Olhava Master Plan or a finding that the Olhava Master Plan FEIS is inadequate. Whatever the individual feelings of the City Council members, the City Council must abide by its ordinances and is bound to approve any development application which meets those ordinances and as to which the environmental impacts can and will be mitigated.

142. With the conditions set forth on the attached Conditions of Approval and SEPA Mitigations, the Olhava Master Plan application meets the requirements set out in the Poulsbo Comprehensive Plan and Zoning Code. With those conditions, all probable, significant, adverse environmental impacts of the proposed Master Plan will be mitigated. Thus, whether or not the community is opposed to the Olhava Master Plan, the Council must approve the Master Plan and deny the FEIS appeals.

III. DECISION

Based upon the foregoing Findings and Conclusions, the City Council hereby makes the following decisions:

1. The Final Environmental Impact Statement for the Olhava Master Plan is adequate under the rule of reason and the appeals filed by Grow Smart!, the Suquamish Tribe, and Winmar Company, Inc. are hereby denied.

2. The Olhava Master Plan, City Planning File No. MP 96-01, is hereby approved, subject to the modified Conditions of Approval and SEPA Mitigations attached to this decision and incorporated herein by this reference as if set forth in full.

ADOPTED THIS 3rd day of June, 1998.

POULSBO CITY COUNCIL

DJ Bruce

DEPUTY MAYOR DONNA JEAN BRUCE

ATTEST AUTHENTICATED:

Karol Jones

CITY CLERK KAROL JONES

APPROVED AS TO FORM:

CITY ATTORNEY JAMES E. HANEY

SEPA MITIGATION:

A. Natural Environment

Plant and Animal Habitats

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-1 through III-12 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goal 3 and Open Space and Conservation Goals 1 and 2 of the Land Use Element; Open Space Policy 7 in the Land Use Element; Goals 1, 2, and 3 of the Natural Systems Element and Hydrology Policies 2 and 7, Biological Resource Policies 3, 5, 6, 7, 9, and 11, Natural Resource Policies 3, 4, and 7, Goals 1 and 2 of the Park and Open Space Element and Park and Open Space Policies 69-74 of the Poulsbo Comprehensive Plan; PMC Chapter 16.04 and codes and standards adopted therein; and Sections 16.04.210 and 16.04.240; PMC Chapter 16.20; PMC 18.32.040; PMC 18.32.090; PMC Chapter 18.55; RCW 43.21C.010; RCW 43.21C.020.

1. The wetlands are identified by the Wiltermood Associates wetland delineation report dated February 22, 1991. Wetland "F" is not considered a true wetland and shall be eliminated. The equivalent area shall be added to wetlands "C" and "D" at a ratio of 2:1.

2. Wetland "B" will be eliminated indirectly by loss of its supporting drainage basin and will be replaced on the Olhava site at a ratio of 2:1.

3. Wetlands "A", "C" and "D" shall have 50 feet wide buffers. Wetland "E" shall have a 100 feet wide buffer.

4. Street-side landscaping shall utilize native species to further mitigate impacts to wildlife habitat.

5. A forest practices permit shall be required for the harvest of timber associated with the project.

6. As stated in Section 404 of the Clean Water Act a Section 404 permit shall be required for the following development activities:

> a. The addition of material, including deposition of dredged material or excavated soils, or excavation in wetland areas. These activities can include filling, grading, mechanized land clearing, ditching, channelization, and other excavation activities that destroy or degrade waters such as streams or wetlands.

b. The placement of piling when such placement has or will have the effect of a discharge of fill material in the waters of streams or wetlands.

7. Existing tree stands shall be preserved whenever possible, as determined by the City Forester or other applicable official, through the use of small rockeries in cut areas and tree wells in fill areas. The City Forester shall determine that these tree protection devices will not encroach native tree canopy spread or root systems.

8. Native vegetation and ground covers in preserved tree stand areas shall be retained in their natural state with some routine maintenance enhancements. Native trees, as required by the City Forester, shall be reintroduced through street tree planting schemes with native trees, understory trees, and ground cover placement.

9. Native vegetation placed during post construction phasing shall be sufficiently irrigated to become established through proposed drip irrigation system.

Unique Species

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-8 through III-10 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goal 3 and Open Space and Conservation Goals 1 and 2 of the Land Use Element; Open Space Policy 7 in the Land Use Element; Goals 1, 2, and 3 of the Natural Systems Element and Hydrology Policies 2 and 7, Biological Resource Policies 3, 5, 6, 7, 9, and 11, Natural Resource Policies 3, 4, and 7, Goals 1 and 2 of the Park and Open Space Element and Park and Open Space Policies 69-74 of the Poulsbo Comprehensive Plan; PMC Chapter 16.04 and codes and standards adopted therein; and Sections 16.04.210 and 16.04.240; PMC Chapter 16.20; PMC 18.21.050; PMC 18.22.050; PMC 18.32.040; PMC 18.32.090; PMC Chapter 18.55, and Section 18.55.070; RCW 43.21C.010; RCW 43.21C.020.

10. Each subsequent application for permits submitted to the City Planning Department for review and approval shall be subject to the requirements of the City's Critical Area Ordinance in effect at the time of that application.

11. Landscaping plans for any portion of the proposed project shall include indigenous species.

12. Greenbelt, landscaped parkways and other public or quasi-public areas shall be planted with indigenous plant species.

13. Each subsequent application for site plan review and/or preliminary plat shall require a tree survey, subject to the review of the City Forester, to identify which trees are to be preserved. Tree surveys do not need to be done in areas which will be cleared for roads and highway access areas(except where sensitive, endangered, or threatened species of trees are actually found), but will be required for the remainder of the property, including but not limited to areas where

building footprints are to be located and areas which will be cut or filled more than one foot above or below grade. The cost of this review shall be paid for by the project proponent.

Fish and Wildlife Migration Routes

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-8 through III-10 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goal 3 and Open Space and Conservation Goals 1 and 2 of the Land Use Element; Open Space Policy 7 in the Land Use Element; Goals 1, 2, and 3 of the Natural Systems Element and Hydrology Policies 2 and 7, Biological Resource Policies 3, 5, 6, 7, 9, and 11, Natural Resource Policies 3, 4, and 7, Goals 1 and 2 of the Park and Open Space Element and Park and Open Space Policies 69-74 of the Poulsbo Comprehensive Plan; PMC Chapter 16.04 and codes and standards adopted therein; and Sections 16.04.210 and 16.04.240; PMC Chapter 16.20; PMC 18.32.040; PMC 18.32.090; PMC Chapter 18.55, and Section 18.55.070; RCW 43.21C.010; RCW 43.21C.020.

14. Critical areas shall be bordered by setbacks and natural buffers as required by the City's Critical Area Ordinance in effect at the time of site plan/preliminary plat application.

15. Sensitive areas, including the final wetland remediation, shall be designated on the official maps of the City. These areas shall be protected in order to serve as migratory lands or feeding grounds.

Surface Water and Runoff Absorption

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-11 and III-12 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are Goals 1, 2, and 3 of the Natural Systems Element and Hydrology Policies 4, 6, 7, 9, 10, 11, 12, 15, and 16, Biological Resource Policies 1, 4, 5, and 6, and 11, Natural Resource Policies 3, 4, and 7, Goals 1 and 2 of the Park and Open Space Element and Park and Open Space Policies 69-74, the Capital Facilities Element Goal, and Capital Facilities Policies 3, 4, 6, 7, 11, and 20 of the Poulsbo Comprehensive Plan; PMC Chapter 15.35; PMC Chapter 12.02 and standards adopted therein; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC Chapter 16.20; PMC 18.32.040; PMC 18.32.090; PMC Chapter 18.55, and Section 18.55.070; RCW 43.21C.010; RCW 43.21C.020.

16. Surface water management facilities shall be in conformance with or in excess of the following:

a. State Department of Ecology Storm Water Management Manual for the Puget Sound Basin;

b. Kitsap County Stormwater Design Manual;

c. Liberty Bay/Miller Bay Watershed Action Plan;

d. Federal Clean Water Act, sections 401 404;

e. State Water Quality Standards;

f. State Hydraulics Code;

g. City of Poulsbo Municipal Code.

h. City of Poulsbo drainage ordinance.

17. Erosion and sedimentation control shall consist of:

a. Sediment trapping through the use of sediment ponds, fences and traps as well as soil stabilization using vegetation planting, plastic covering, and an early application of gravel as a base on areas to be paved. All exposed areas shall be stabilized and revegetated immediately upon the completion of grading.

b. Setbacks, critical areas and their buffers, trees, and drainage courses shall be clearly marked to protect those areas from development. Critical areas and their buffers, trees to be retained, and natural drainage courses shall be protected from construction by fencing or other positive means as determined by the City Engineer. All temporary, construction-related sedimentation control and erosion mitigation measures shall be in place prior to clearing and grading activities.

c. Adjacent properties shall be protected from sedimentation during construction activities. This will be done through the installation of perimeter controls such as barriers, filters, dikes, or sediment basins.

d. Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion by using roughened soil surfaces as opposed to smooth surface on slopes. Interceptors shall be constructed at the top of long steep slopes which have significant drainage areas above the slope. Diversions or terraces may also be used to reduce slope length. Concentrated stormwater will not be allowed to flow down cut or fill slopes unless contained within adequate channel or pipe slope drain.

e. All temporary on-site conveyance channels shall be designed, constructed and stabilized to prevent erosion from the expected velocity of flow from a 2-year, 24-hour frequency storm for the developed condition. Stabilization and revegetation, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches, shall be provided at the outlets of all conveyance systems.

g. All storm drain inlets made operable during construction shall be protected so that stormwater runoff shall not enter the system without first being filtered or otherwise treated to remove sediment.

h. For underground utility construction, the length of trench excavation in advance of pipe laying shall be kept to a minimum and in no case shall exceed 150 feet unless approved by the City Engineer; excavated material shall be placed on the uphill side of trenches subject to the approval of the City Engineer; and trench dewatering devices shall discharge into a sediment trap or sediment pond.

i. Wherever construction vehicle access routes intersect paved roads, provisions must be made to minimize the transport of sediment onto the paved road. If sediment is transported onto a paved road surface, the roads shall be cleaned thoroughly at the end of each day. Sediment shall be removed from roads by shoveling or sweeping and be transported to a controlled sediment disposal area. Street washing shall occur after sedimentation is removed in this manner if deemed necessary by the City Engineer.

j. All temporary and permanent erosion and sediment control mitigation measures shall be maintained and repaired, as required by the City Engineer, to assure continued performance of their intended function.

k. All temporary erosion and sedimentation control mitigation measures shall be removed within 30 days after final site stabilization is achieved or after the temporary measures are no longer needed, whichever is later.

l. All pollutants other than sediment that occur on-site during construction shall be handled and disposed of in a manner that does not cause contamination of stormwater.

m. Herbicide spraying near streams and in culverts near areas that drain into such streams shall be prohibited.

n. A wetland mitigation plan shall be approved by the City before construction.

o. The City Engineer shall determine other means to prevent erosion which may include on-site catch basins or siltation basins, and energy absorbing devices. If required, these devices shall be in place prior to grading permit issuance.

p. No groundcover or trees shall be removed which are within 25 feet of the annual high water mark of creeks, streams, and other shoreline areas or within 15 feet of the top of the bank.

q. Mechanical equipment shall not operate within 25 feet of the annual high water mark of creeks, streams, and other shoreline areas or within 15 feet of the top of the bank.

Groundwater

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-26 through III-30 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goal 3 and General Land Use Policies 2 and 6 in the Land Use Element; Goals 1, 2, and 3 of the Natural Systems Element and Hydrology Policies 4, 6, 9, 11, 12, 15, and 16, Natural Resource Policy 3, the Capital Facilities Element Goal, and Capital Facilities Policies 3, 7, 11, 26, 28, 31, 34, 35, and 40 of the Poulsbo Comprehensive Plan; PMC Chapter 15.35; PMC Chapter 12.02 and standards adopted therein; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC 18.32.040; PMC 18.32.090; RCW 43.21C.010; RCW 43.21C.020.

18. All construction equipment used on the project site shall be maintained in proper working order. Any and all fluid leaks from said vehicles shall be cleaned up and the vehicles repaired immediately.

19. No private wells, including irrigation, shall be allowed on any portion of the subject property. All domestic, commercial, industrial and public school uses shall connect to the City's water system.

20. All uses and structures requiring sanitary sewage disposal shall be connected to the City's sanitary sewage system. No septic or other private system shall be permitted.

Public water supplies

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-30 through III-32 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goal 3 and General Land Use Policies 2 and 6 in the Land Use Element; the Capital Facilities Element Goal, and Capital Facilities Policies 3, 6, 7, 11, 35, 37, and 40 of the Poulsbo Comprehensive Plan; PMC Chapter 15.35; PMC Chapter 12.02 and standards adopted therein; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC 18.32.040; PMC 18.32.090; RCW 43.21C.010; RCW 43.21C.020.

21. Multi-family, commercial and business park as well as the Olympic College structures shall be constructed with automatic sprinkler systems as reviewed and approved by the Poulsbo Fire Department.

22. Prior to the initiation of any combustible construction in phase "b", the project proponent shall construct a water tank with sufficient storage capacity to meet the standards and requirements of the City and Kitsap PUD, to provide the equivalent of 2,000 gpm fire flow for a three hour duration in excess of the domestic demand.

23. Prior to the initiation of phase "f" or its equivalent, Kitsap PUD will have secured additional water rights to allow it to enter into an Amended Interlocal Agreement with the City of Poulsbo. No additional development shall be allowed without the implementation of this mitigation measure.

24. Prior to the initiation of phase "f" or its equivalent, the City and Kitsap PUD will have entered into an Amended Interlocal Agreement to provide 1,000 gpm. No additional development shall be allowed without the implementation of this mitigation measure.

Air Quality

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-33 through III-38 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are PMC Chapter 15.35; PMC Chapter 12.02 and standards adopted therein; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC 18.32.040; PMC 18.32.090; RCW 43.21C.010; RCW 43.21C.020.

NOTE: Condition 30 is both an air quality and transportation measure and is identified and supported by those impacts and policies set forth under Transportation below.

25. Vegetative ground cover shall be restored as soon as construction activities have been completed per phase.

26. Trucks that haul dirt, sand or soil off site shall be covered or shall maintain at least 24 inches of free board.

27. Construction sites shall be adequately watered by the developer to reduce fugitive dust.

28. The developer shall plant tree windbreaks utilizing non-invasive species, or preserve natural buffers on the windward perimeter of construction projects, where feasible as determined by the City.

29. The developer shall insure that construction equipment is properly tuned and maintained.

30. All individual project proposals shall be reviewed for conformance with the City's Commute Trip Reduction Ordinance. All affected employers shall implement the required commute trip reduction measures of the ordinance.

B. The Built Environment
Aesthetics

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-38 through III-45 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goals 1 and 3, Residential Land Use Goal 1, Open Space and Conservation Goals 1 and 2, General Land Use Policies 5 and 9, Residential Policies 1, 3, 6, and 7, and Open Space Policies 4 and 7 in the Land Use Element; Goal 1 of the Park and Open Space Element and Park and Open Space Policies 15, 30, and 74 of the Poulsbo Comprehensive Plan; PMC Chapter 15.35; PMC Chapter 12.02 and standards adopted therein; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC 18.32.040; PMC 18.32.090; PMC Chapter 18.55; RCW 43.21C.010; RCW 43.21C.020.

31. All 50 feet wide buffer areas around the perimeter of the proposed project shall be planted primarily with evergreen trees which meet the minimum requirements of the City of Poulsbo Zoning Ordinance: minimum 6 feet in height at time of planting. In the case of the west property line, where there is Medium Density residential, the buffer shall be a minimum of 100 feet wide, unless the City approves an alternative buffer enhancement program of plantings, berms, fences, walls or a combination of such measures to maintain compatibility of structures and use areas with adjacent residential developments and planned land uses.

32. For the commercial land uses which occur immediately adjacent to the State Route 3 right-of-way along the southeastern boundary of the northerly acreage, no building shall be sited closer than 75 feet from the property line.

33. Along the southern boundary of the multiple family area on the west side of the northerly parcel (Planning area 9) and the western boundary of the primary commercial area (Planning area 4), which abuts land planned for residential use, a minimum 50 feet wide vegetative buffer shall be planted primarily with evergreen trees which meet the City of Poulsbo's requirements for a minimum of 6 feet high at time of planting.

34. Should the conceptual grading plan be altered significantly in any portion of the proposed project, visual impact analysis of the affected area shall be conducted by a qualified expert, to be selected by the City at the expense of the applicant, as part of individual site plan reviews for specific projects.

35. In conformance with the intent of the City of Poulsbo Comprehensive Plan, the applicant shall develop design guidelines, to be approved by the City, for street furniture, signage, and public areas which reflect the Scandinavian theme. These design guidelines shall be implemented with each Phase Plan of the project.

Commercial Need and Economic Analysis

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-45 through III-69 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goals 1, 2, and 3, the Commercial Land Use Goal, General Land Use Policies 5 and 6, Commercial Policies 1 and 2 in the Land Use Element; Economic

Development Goals 1 and 2 and Economic Development Policies 1, 6, 7, 8, and 18; the Capital Facilities Element Goal and Capital Facilities Policies 3, 6, and 11 of the Poulsbo Comprehensive Plan; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC 18.32.040; PMC 18.32.090; RCW 43.21C.010; RCW 43.21C.020.

36. The City and project proponents shall make every effort to develop the project within the phasing plan proposed in the Master Plan, in order to help the City balance costs and revenues. Should the phasing plan be altered substantially from that contained in the Master Plan, the project proponent shall submit economic analysis demonstrating whether the altered phasing plan will have an impact on the cost/revenue balance shown in the Master Plan EIS.

Fire and Emergency Services

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-45 through III-69 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are the Capital Facilities Element Goal and Capital Facilities Policies 3, 6, 7, 11, 35, 37, and 58-61 of the Poulsbo Comprehensive Plan; PMC Chapter 15.35; PMC Chapter 12.02 and standards adopted therein; PMC Chapter 15.04; PMC Chapter 15.12; PMC Chapter 15.14; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC 18.32.040; PMC 18.32.090; RCW 43.21C.010; RCW 43.21C.020.

37. Prior to any development approval associated with Phase "a", the applicant shall fund a needs assessment to be conducted by or under the oversight of the City in order to determine the best means of providing fire and emergency services to the Olhava property and vicinity in order to mitigate the fire service and response time impacts of the proposal. The needs assessment shall include an evaluation of providing service from the City's main fire station (Station 71) and whether the Clear Creek Station (Station 74) can or should be manned in a reasonable manner with a full-time engine company as a means of ensuring mitigation of the fire impacts of the project. If the study determines that the Clear Creek Station can be so manned and will provide the best means of ensuring adequate fire protection to the Olhava property and vicinity, then the Station must be manned prior to occupancy of any structures in the northerly 174 acres of the Olhava property. If the study concludes that the Clear Creek Station cannot be so manned or is not the best means of ensuring fire protection to the Olhava property and vicinity, then the study shall evaluate alternative mitigation measures, including but not limited to the potential for a new fire station, in order to ensure that the impacts of the Olhava Master Plan Project on fire and emergency services are adequately mitigated and development permits for the remaining phases of the Master Plan Project may be properly conditioned.

38. The project proponent shall provide required fire flows and storage, and shall provide plans for same to Kitsap PUD for review and approval prior to the start of construction on phase b. Kitsap PUD's storage facility shall be sufficient to meet the project's needs. Additions and modifications to the booster pump, if required by Kitsap PUD, shall be at the project proponent's expense.

39. All structures in the Olympic College, multi-family, commercial, and business park districts shall be constructed to include automatic fire suppression/sprinkler systems, in conformance with the Uniform Fire Code. Plans for all fire suppression/sprinkler systems shall be submitted to the Fire Department and City Building Department for review and approval prior to issuance of building permits.

40. In the event that a variance to height limit is requested for any structure in excess of 30 feet, the Poulsbo Fire Department shall determine applicability of Ordinance 84-22 on a case-by-case basis. In the event all, or portions of Ordinance 84-22 are evoked by the Fire Department, the purchase price and specifications of the required equipment shall be negotiated between the project proponent, the City, Fire District 18 and any other project proponent whose approvals include variances in excess of 30 feet.

Capital Facilities-Drainage

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-73 through III-86 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are Hydrology Policies 4, 6, 9, 11, 12, 15, and 16, Natural Resource Policy 3, the Capital Facilities Element Goal, and Capital Facilities Policies 3, 4, 6, 7, 11, and 20 of the Poulsbo Comprehensive Plan; PMC Chapter 15.35; PMC Chapter 12.02 and standards adopted therein; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC Chapter 16.20; PMC 18.32.040; PMC 18.32.090; RCW 43.21C.010; RCW 43.21C.020.

41. All temporary and permanent erosion and sediment control mitigation measures shall be maintained and repaired as needed to assure continued performance of their intended function. The applicant shall be responsible for maintenance of all constructed drainage facilities for at least two "wet" seasons, after the completion of each phase, after which the City, upon inspection, may accept maintenance responsibility. The City is not obligated to accept maintenance responsibility.

42. When a substantial development proposal within the Olhava Master Plan area is considered for approval, the City shall identify and require the construction of all capital facilities needed to meet the build-out requirements of the applicable phase, in order to avoid the under-sizing and reconstruction of facilities at a later time.

43. Improvements required may include, but are not limited to, improvements necessary to maintain the integrity of drainage ways such as check dams, silt fences, straw bales, soil stabilization through revegetation, plastic covering, and an early application of gravel as a base on areas to be paved.

44. During phased review, the City Engineer shall require further analysis of the proposed drainage design, as appropriate, in order to ensure that adequate measures are in place to protect downstream properties and the surrounding area. Consultant fees for the additional review

and analysis shall be paid in advance by the project proponent.

Capital Facilities- Sanitary Sewage

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-86 through III-93 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goals 1 and 3 and General Land Use Policy 6 in the Land Use Element, the Capital Facilities Element Goal, and Capital Facilities Policies 3, 4, 5, 6, 7, 11, 26, 27, 28 and 31 of the Poulsbo Comprehensive Plan; PMC Chapter 12.02 and standards adopted therein; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC 18.32.040; PMC 18.32.090; RCW 43.21C.010; RCW 43.21C.020.

45. Other than phase "a", no phase of the Olhava Master Plan shall be granted building permits unless construction of the required improvements in the City's and County's conveyance systems and at the wastewater treatment plant are underway. No occupancy permits shall be issued until said improvements are complete, accepted by the appropriate jurisdiction and in operation.

46. The City's proposed capital improvement program (CIP), contained in the updated City Comprehensive Sewer Plan, if approved and implemented, will create additional capacity within the City's wastewater conveyance system to ensure adequate capacity for the Olhava Master Plan project or any alternative approved by the City. The County's proposed CIP, when implemented, will create additional capacity within key conveyance facilities and the central treatment plant to ensure adequate capacity for all phases of the Olhava Master Plan project or any alternative approved by the City. Should the City's or County's proposed CIP not be approved or be delayed, key components of the system would have insufficient capacity to accommodate the initial development of the project (phase "b"). Mitigation could include delaying the project until those improvements are completed, or early implementation by the developer at their expense, with reimbursement through the implementation of a latecomers' agreement, or utilize other financing mechanisms which may be available.

47. No structure within the proposed project will be permitted to install a private sanitation system. All structures shall be connected to the City's sewer system.

Traffic, Circulation and Transit

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-93 through III-118 of the FEIS and Technical Appendices to DEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goals 1 and 3 and General Land Use Policies 5, 6, and 7 in the Land Use Element, the Transportation Element Goal and Transportation Policies 1, 3, 4, 5, 8, 9, 12, 17, 21, 26, and 27, the Capital Facilities Element Goal, and Capital Facilities Policies 3, 4, 5, 6, 7, and 50-53 of the Poulsbo Comprehensive Plan; PMC Chapter 10.20; PMC Chapter 12.02

and standards adopted therein; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC 18.32.040; PMC 18.32.090; RCW 43.21C.010; RCW 43.21C.020.

48. The Olhava Master Plan shall contribute a proportionate share of all projects identified in the EIS (Table III-47) and any other mitigation measures proposed by Gibson Traffic Consultants in their traffic study and subsequent amendments, as well as mitigation required by the Washington State Department of Transportation in their September 6 and October 15, 1996 letters.

49. All improvements required by WSDOT to provide access to the proposed project from the SR-3/SR-305 interchange shall be completed during phases "a" and "b". Construction of the interchange in phase "b" shall have commenced prior to the issuance of building permits. No occupancy permits shall be issued until the improvements are complete and accepted by WSDOT.

50. Prior to the issuance of a grading permit for phase "a", the project proponent shall provide the City Engineer, for review and approval, with a comprehensive schedule of on-site roadway improvements, by phase. The City Engineer will then determine which off-site traffic improvements will be required by phase and the project share of the improvements costs (EIS, Table III-47). Building permits shall not be issued until all improvements required for that phase have been completed, bonded or are under construction, or the appropriate mitigation fee has been paid. If a building permit has been issued while required road improvements are still under construction, no occupancy permits shall be issued until the improvements have been completed or otherwise determined sufficient by the City Engineer.

51. The first application for development approval within any phase shall trigger a review of needed traffic improvements, both on-site and off-site, for the entire phase. The project proponent shall be required to construct the improvements on-site and to deposit the fair share dollar amount for the entire improvement if off-site. The City shall retain the authority to require the developer to construct off-site improvements.

52. After the development of phase "b", each subsequent phase application shall be accompanied by a phase-specific traffic and circulation report which clearly demonstrates that the uses proposed within the phase shall not exceed any of the assumptions made in the original traffic report's established impacts. The traffic and circulation report shall be reviewed and approved by the Planning Director and City Engineer, and submitted to the approving body as part of the project review process. Should the warranted improvements include improvements to County roadways, the applicant shall also be required to receive approval from the Kitsap County Department of Public Works.

53. Should any phase plan traffic and circulation report show that the original assumptions will be exceeded by more than 10%, either for that phase or cumulatively, a new traffic study encompassing all unbuilt phases shall be prepared, and new mitigation measures (both on and off-site) prepared to mitigate any additional impacts.

54. Prior to the issuance of any grading permit, within WSDOT right-of-way, the project proponent shall receive final design approval from the Olympic Service Center of the Washington State Department of Transportation for the access break from SR-3 to the proposed project.

55. The project proponent shall develop transit route plans with Kitsap Transit which allow for bus stops and associated shelters throughout the project, and link the project to appropriate destinations as ridership demand dictates. The plans shall include a transit turnaround at Olympic College as previously negotiated with the College. The plans shall be finalized prior to the completion of phase "b" and shall determine general route areas and guidelines for actual route locations in future phase planning. Implementation of the routes and stop locations shall be associated with actual building development and shall be dependent on funds available and ridership demand for those routes as determined by Kitsap Transit.

56. The project proponent shall pay its fair share of the cost of acquiring and constructing park-and-ride spaces resulting from demand created by the Olhava project. Kitsap Transit in consultation with the City shall determine new park-and-ride demand and location needed resulting from each phase of the Olhava project consistent with the City Zoning Ordinance.

57. All individual project proposals shall be reviewed for conformance with the City's Commute Trip Reduction Ordinance. All affected employers (generally employers with 100 or more employees) shall implement the required measures of the Ordinance.

58. No individual project within the Olhava Master Plan shall be designed to obstruct or otherwise impede the trail and buffer system depicted in the Master Plan document. The trail system within the vegetative buffers shall be developed as each planning area develops and shall be constructed to the standards provided in the City of Poulsbo Zoning Ordinance.

59. Class II bike lanes shall be provided along the entire length of the frontage road, from Finn Hill to Parnell Place (Street "A" and "D"). Class III bike lanes shall be provided on the entry drive, main access to multi-family residential and major loop road in the single family residential developments in the southerly acreage.

Noise

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-118 through III-120 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goals 1 and 3 and General Land Use Policy 5 in the Land Use Element of the Poulsbo Comprehensive Plan; PMC Chapter 12.02 and standards adopted therein; PMC Chapter 15.32; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC Chapter 16.16; PMC 18.32.040; PMC 18.32.090; RCW 43.21C.010; RCW 43.21C.020.

60. All construction activity shall be undertaken between the hours specified in the City of Poulsbo Municipal Code, as amended, except in the case of an emergency, in which case the hours of operation shall be determined by the City Engineer.

61. All construction equipment shall be fitted with well maintained functional mufflers.

62. To the greatest extent possible, earth moving and hauling routes shall be located away from adjacent residential properties. Said routes shall be approved by the City Engineer prior to the issuance of grading permits.

63. As part of phased review, the Planning Director shall determine whether special noise attenuation measures are required. This determination may involve consulting the expertise of a specialist to be paid for by the applicant. These measures, including berms and walls if necessary, shall be required in order to ensure compliance with maximum permissible noise standards established by the City and State of Washington.

64. Any use proposed on the project site which the City determines would represent an on-going significant noise source shall be required to perform on-site noise monitoring and noise modeling prior to the review and approval of the specific use.

65. Should any sensitive receptor be proposed for the project site adjacent to the SR-3 right-of-way, the applicant shall be required to perform on-site noise monitoring and noise modeling prior to the review and approval of the specific use.

66. During construction, the provisions of WAC 173-60-060 shall apply.

Light and Glare

Impacts Identified: The impacts which require the mitigation measures set forth in this Section are identified on pages III-120 through III-123 of the FEIS.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goals 1 and 3 and General Land Use Policy 5 in the Land Use Element of the Poulsbo Comprehensive Plan; PMC Chapter 12.02 and standards adopted therein; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC 18.32.040; PMC 18.32.090; RCW 43.21C.010; RCW 43.21C.020.

67. To prevent glare, all exterior lighting shall be shielded to illuminate only the area directly under it.

68. Light posts located in parking lots shall not be taller than surrounding structures, and in no case shall light posts exceed 30 feet in height. Lighting affixed to the outside of structures shall not be located above 30 feet from the surrounding grade.

69. Other than signage and other surfaces installed by public agencies (including the City and the Department of Transportation) reflective surfaces shall not be permitted adjacent to project or off-site roadways.

70. Lighting systems designed for safety and security shall meet the requirements of the Energy Code.

71. All primary streets should be adequately illuminated to provide for the safety and comfort of vehicular and pedestrian movement.

72. Metal halide lighting shall be used in areas prone to glare, since metal halide lighting minimizes spillage to adjoining properties.

73. To prevent glare, light fixture intensities above 75 degrees from the light post or within 15 degrees of horizontal shall be restricted.

74. The alignment of light fixtures shall be positioned in a consistent and recognizable pattern creating unobstructed views which reinforce the direction of circulation patterns, and clearly mark the locations of intersections.

75. To create a safer environment, limiting possible crime occurrences, intersection, bus stops, steps, service and employee areas, enclosed corridors and alleyways shall be illuminated appropriately.

Schools

Impacts Identified: The Responsible Official determined that the project would not have a probable, significant, adverse impact on schools if the following agreed upon condition was met.

SEPA Policies: The SEPA policies which support the mitigation measures set forth in this Section are General Land Use Goals 1 and 3, General Land Use Policy 5, and Public School Policy 1 in the Land Use Element, the Capital Facility Element Goal and Capital Facilities Policies 16 and 17 of the Poulsbo Comprehensive Plan; PMC Chapter 16.04; and Sections 16.04.210 and 16.04.240; PMC 18.32.040; PMC 18.32.090; RCW 43.21C.010; RCW 43.21C.020.

76. The project proponent shall work with the North Kitsap School District to reach agreement on impact mitigation fees. The impact fees shall be paid prior to the issuance of building permits.

CONDITIONS OF APPROVAL:
Planning Department

77. Phase review and approval will require the provision of adequate on-site Recreational Vehicle storage pursuant to City standards unless the CC&Rs prohibit the storage of RV's within the development.

78. The low density residential area shall meet or exceed all development standards including 25 foot front yard setback for garages and 20 foot front yard setback for habitable area.

79. Site plans for subsequent phased review shall show pedestrian walkways and proposed bus stops and passenger shelter locations in addition to other required items.

80. Shared parking shall be encouraged for all commercial and business park developments.

81. The Master Plan shall include a pedestrian walkway connecting the area near buildings B7 and B9 at the north end of "G" Street to the access road to the Olympic College campus.

82. Notwithstanding the requirements in #56 above, applicants for site plan review for commercial development shall coordinate with Kitsap Transit to identify appropriate excess parking spaces, if any, which could be reserved for a "Park and Ride" facility. Should further development of the project require the use of the excess parking spaces in order to meet City standards, Kitsap Transit will relocate the facility.

83. Day care homes shall not be prohibited pursuant to state law and all other use constrictions shall be compatible with Federal Housing Act and its amendments.

84. All phase/project review shall be conducted consistent with the provisions of "Type II" permit under Title 19 of the PMC. However, a phase plan will be considered to have changed substantially if specific plans for a particular phase propose a deviation of more than 15% in the square footage, height or other dimensions of the structures shown in the Master Plan for that phase and the phases which are already developed. If that comparison indicates that the anticipated traffic counts for the project as it is actually developing exceed those assumed in the Master Plan by more than 15%, the proposed phase plan shall be submitted to the Planning Commission and City Council for review and approval. This review shall be conducted consistent with the provisions of "Type III" permit under Title 19 of the PMC.

Building and Engineering Department

Grading

85. The grading permit may be restricted as to the limits of any particular site or phase that can be cleared and graded at any one time or during any construction season. Clearing and grading for building sites will be allowed only in connection with building permits for that particular site unless other factors require grading at that location to be accomplished in advance.

ALL UTILITIES Water, Sanitary Sewer, Streets, Storm Sewer (drainage)

86. Land use permit approval shall not waive any requirements of the applicant to provide the City with adequate construction plans for approval and to obtain the appropriate permits. Some of the utilities will also require permits and approvals from the County and/or the State. The applicant is responsible for obtaining all permits and approvals from the County and/or the State;

however, all submittals to the County and/or the State shall be coordinated through the City Engineer.

87. Construction plans for the following shall be reviewed and approved by the City Engineer and Public Works Superintendent prior to issuance of a clearing, grading, or building permit: (a) storm drainage and street improvements; (b) sanitary sewer; (c) water; and (d) interim and permanent on-site erosion control systems. An interim and permanent storm drainage conveyance and enhancement system shall be designed and installed for the whole site, subject to approval of the City Engineer. Any off-site drainage improvements required to serve this project shall be required as determined necessary by the City Engineer and shall be installed by the developer at the developer's expense. A latecomer's agreement shall be a possibility for the developer as determined by the City through the appropriate process for latecomer's agreements. Restrictions of flow from the site shall be considered as an option for mitigation of off-site drainage impacts. Prior to final plat approval, final project construction approval, and/or issuance of any occupancy permit, all required permanent improvements must be installed to City standards, and if applicable, appropriate easements and/or right-of-way shall be dedicated and appropriate maintenance bonds posted.

88. During phased review, the City Engineer shall require the applicant to provide further analysis of the proposed drainage design in order to comply with the City's requirements and to protect downstream properties and the surrounding area. As part of the analysis and drainage design process, the applicant shall study the effects of water mounding and propose or make specific recommendations for mitigation of such effects. As part of the analysis and design process, the applicant will also identify wells which are down gradient from the Olhava Property and which may be affected by the development. The applicant shall devise a monitoring plan to be presented to the City Engineer for approval in order to monitor the wells prior to construction, during construction, and after construction in order to ensure that water quality and quantity are not degraded. The City Engineer will then hire an independent consultant or consultants to review and comment on the adequacy of the analysis and the proposed drainage design, mitigation measures, and monitoring plan. In addition, during phased review, the City Engineer may hire an independent consultant or consultants to review and comment on any or all other utility or other infrastructure plans (sanitary sewer, water, roads/streets) proposed by the applicant. The City Engineer shall require that the applicant make a cash deposit or deposits which will be used to pay for the independent review(s). If any additional funds are required for these reviews, the applicant shall immediately deposit the required amount.

89. The review process required above, and all subsequent construction inspection expenses, shall be paid for at the developer's expense consistent with the Land Use Fee Schedule in effect at the time of construction. In addition, if the City Engineer determines that the magnitude or complexity of the project requires full or part-time on-site inspection in addition to the inspection by City staff, he may contract with a duly qualified inspector or hire additional personnel to provide inspection, testing, or other professional services for the City in connection with the construction. All costs of such services incurred by the City shall be paid by the developer pursuant to Section 3.12 of the Poulsbo Municipal Code which requires payment of a deposit, in advance, for those services.

WATER

90. The City of Poulsbo shall enter into an interlocal agreement between the City and Kitsap Public Utility District #1 for water provision. The applicant shall assist the City in this endeavor.

STREETS

91. Sidewalks shall be installed by the project proponent on Rasmussen Court subject to the review and approval of Kitsap County prior to occupancy permits issuance for phase "B" within the southern parcel of the site.

92. Streets A-D will each include two bicycle lanes constructed by the applicant pursuant to City requirements.

Fire Department:

93. All fire lanes shall be a minimum width of 20 feet.

94. All suppression systems and hydrant locations are subject to approval of the City of Poulsbo Fire Prevention Bureau.

95. Additional information for the purpose of determining fire flow including building footprints, floor area, building materials, sprinkler systems, proposed uses, etc. shall be submitted to the City of Poulsbo Fire Prevention Bureau prior to approval of any utility plans submitted for building permit approval.

Public Works Department:

96. All water line construction, connections and renovation will be in accordance with City standards and as approved by the City Engineer and/or the City Public Works Superintendent.

97. Construction of the sanitary sewer system within the development boundaries will be completed in accordance with City standards and as approved by the City Engineer and/or the City Public Works Superintendent.

98. An interim and permanent storm drainage conveyance and enhancement system shall be designed and installed for the entire site subject to the approval of the City Engineer and/or the City Public Works Superintendent.

99. The project Signage Plan shall be in conformance with the Manual of Traffic Control Devices.

Parks Department

100. The project proponent shall improve and dedicate the eight (8) acre park in the northeast corner of the project site to the City. These improvements shall include clearing, grubbing, and grading for preliminary site drainage subject to the review and approval of the City Engineer. The project proponent shall also hydroseed grass areas within the park subject to the review and approval of the Public Works Superintendent and the Parks and Recreation Director.

Other Conditions:

101. Any reference to 40 and 50 foot tall structures in the Master Plan, and any reference to deviations from the City's continuous roof plane standards, are erroneous. All structures shall meet the height and continuous roof plane requirements of the Poulsbo Zoning Code regardless of any contrary reference in the Master Plan, unless a variance is granted according to the variance process established by the Poulsbo Zoning Code or unless a Master Plan amendment is approved according to the process established for initial adoption of a master plan in PMC Chapter 18.32.

Police Department:

No additional conditions.

FINAL

ENVIRONMENTAL IMPACT STATEMENT

FOR THE

OLHAVA MASTER PLAN

May 27, 1997

Prepared for:
City of Poulsbo
19050 Jensen Way
Poulsbo, WA 98370

Prepared by:
Terra Nova Planning & Research, Inc.
1111 Third Avenue, Suite 2500
Seattle, WA 98101

City of Poulsbo

May 27, 1997

Attached is the Final Environmental Impact Statement (FEIS) for the Olhava Master Plan. The proposed action includes 490 single family and multiple family dwelling units; 840,000 square feet of commercial floor space; 325,000 square feet of business park floor space; and 50,000 square feet of floor space for a branch campus for Olympic Community College.

The Olhava Master Plan site is 215 acres in size, and is located in the northwest corner of the City of Poulsbo, at the SR 3/SR 305 interchange.

Consistent with the provisions of the State Environmental Policy Act (SEPA), the FEIS has been prepared after considering comments received on the Draft Environmental Impact Statement (DEIS) which was issued on January 28, 1997. The DEIS was available to the public on January 28 and comments were accepted until March 14. Copies of all comment letters which were timely received and responses to those comments are available for inspection and are appended to this FEIS.

Included among the changes reflected in the FEIS as a result of consideration of comments are: a fifth alternative, which will serve as the No Action alternative, has been added to the other three alternatives to the proposed project as required by SEPA; the storm drainage sections of the document have been modified to clarify that the infiltration system proposed is conceptual and will undergo more rigorous review of detailed engineering plans at phase/project review along with the requirement of a back-up system to protect downstream properties; the traffic sections have been updated with traffic counts and cost figures and improvements have been clarified in order to meet State and Kitsap County concerns; the intent of the City to conduct phased environmental review as provided for by SEPA has been clarified; and, the need for a subsequent fire services impact analysis has been identified.

MAYOR
Y CLERK
NCE/PURCHASING
0050 Jensen Way NE
Post Office Box 98
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Poulsbo 779-3901
Brem. 479-8441
Seattle 223-5259
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BUILDING/ENGINEERING
Poulsbo 779-5111
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PLANNING DEPARTMENT
Poulsbo 779-3006
Fax 779-5112

MUNICIPAL COURT
Poulsbo 779-9846

FIRE DEPARTMENT
911 NE Liberty Road
Poulsbo, WA 98370
Poulsbo 779-3997
Silverdale 692-3718
Fax 779-4697

POLICE DEPARTMENT
367 NE Hostmark Street
Post Office Box 98
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Poulsbo 779-3113
Silverdale 692-9771
Seattle 622-7613
Fax 779-4433

PUBLIC WORKS DEPT
710 NE Lincoln Rd
Post Office Box 2275
Poulsbo, WA 98370-2275
Poulsbo 779-4078
Fax 779-6384

The other three alternatives to the proposed action considered in this FEIS are: (1) a less intensive alternative which includes 321 single family and multiple family dwelling units, 500,000 square feet of commercial floor space, 150,000 square feet of business park floor space and 50,000 square feet of floor space for a branch campus for Olympic Community College; (2) a more intensive alternative which includes 663 single family and multiple family dwelling units, 1,100,000 square feet of commercial floor space, 435,000 square feet of business park floor space and 100,000 square feet for a branch campus for Olympic Community College; and (3) an alternative of developing the site by separate, multiple master plans.

Among the key issues addressed in the FEIS are impacts to wildlife, storm water runoff, ground water, public water supplies, air quality, aesthetics, commercial need and economic analysis, police protection, fire protection, sewage, traffic, noise and light. The City of Poulsbo, in coming to a decision on this proposal, will determine whether impacts projected for this proposal will be adequately mitigated as it is proposed or whether further mitigation will be required through additional mitigative measures.

The City of Poulsbo appreciates the cooperation and efforts of all those public agencies and private citizens who have taken the time to read the DEIS and offer comments. The City will continue to review the environmental implications of all subsequent decisions and actions on the project and we invite interested persons to participate, in the manner provided for, in these future deliberations.

Sincerely,

Glenn W. Gross
Planning Director

Olhava Master Plan

Final Environmental Impact Statement

Fact Sheet

Title: Olhava Master Plan Final Environmental Impact Statement

Description of Proposal The project area consists of 215± acres located in the north western corner of the City of Poulsbo, in northern Kitsap County. The project area is bisected by the intersection of State Route 3 (SR 3) and State Route 305 (SR 305), with 174± acres located north of SR-3, and 41± acres located south of SR-305. The project area was annexed into the City of Poulsbo in 1994. The Master Plan proposes a mixed use development. In the northerly 174 acre parcel, uses are to include medium density multiple family dwellings (23 acres), retail and office commercial (83 acres), business park uses (40 acres), and a public school/Olympic College site (20 acres). The southerly 41± acres are planned for low density single family residences (20.5± acres) and medium density multi-family units (20.5 acres). The Master Plan proposes 14 acres acres of neighborhood and community parks, 8 acres of buffer/trail areas, and 1.5 acres of bicycle lanes, distributed throughout the project. The maximum density for each use is as follows: 70 single family residences, 420 multiple family residences, 840,000 square feet of commercial, 325,000 square feet of business park, and 50,000 square foot branch campus of Olympic College.

This EIS also includes analysis of four project alternatives:

Multiple Master Plans
Higher Intensity Alternative
Lower Intensity Alternative
No Construction Alternative

EIS Required: The Lead Agency has determined, pursuant to WAC 197-11-360, that this proposal may have a significant adverse impact on the environment, and that an Environmental Impact Statement shall be prepared.

Proponent:
Olhava Associates
P. O. Box 1449
Edmonds, WA 98020
Contact: Mark Zenger

Owner's Representative:
Kent Berryman
KBA
4391 N.W. Hosman Circle
Silverdale, WA 98383

Implementation Date: The Master Plan proposes phased development, beginning in 1996-97. Due to the time required for the preparation of this EIS and the City hearing process to follow, it is presently expected that implementation of the Master Plan would not begin until 1997-98, thereby extending the planned completion of the project to the year 2006.

Lead Agency: City of Poulsbo Planning Department
19050 Jensen Way, P.O. Box 98
Poulsbo, Washington 98370

Responsible Official: Glenn Gross, Director

Contact: Glenn Gross, Director

Licenses: The Master Plan will be developed in phases. Each phase will be reviewed for consistency with the approved Master Plan. Depending on the type of construction and uses proposed in any particular phase, one or more of the following types of permits or approvals may be required: Site Plan Review, Preliminary and Final Plan Approval, Conditional Use Permits, Planned Unit Development Permits, Variances,Technical Staff Review, and Temporary Use Permits. Each subsequent proposal shall be reviewed individually, and determination made as to required permits at the time of application. Individual construction projects will also require building permits, and in some cases grading permits.

Principal Author: Terra Nova Planning & Research, Inc.

Principal Contributors: Dina M. Lee, Planner
Nicole Sauviat Criste, Principal

Special Studies Used: Special studies were were prepared in conjunction with the drafting of the Master Plan document, and used in this Environmental Impact Statement. In addition, unrelated but pertinent regional studies were used in this analysis. The following documents relate specifically to this project and are incorporated into this EIS by reference in the separately bound Appendices:

- Wetlands Delineation Report for 195 Acre Parcel, Finn Hill, Poulsbo, Kitsap County, Wiltermood Associates, 1991.
- Biological Resources Assessment, Jones & Stokes Associates, 1994.
- Preliminary Geotechnical Engineering Investigation for Olhava Development, Harza Northwest, Inc., 1994.
- Proposed Water Supply System Preliminary Hydraulic Model Report, American Engineering Corporation, 1995.
- Infiltration Testing Report for Olhava Development, American Engineering Corporation, 1996.
- Technical Information Report (Drainage), American Engineering Corporation, 1996.
- Fiscal Impact Analysis, Terra Nova Planning & Research, Inc., 1995.
- Traffic Impact Analysis, Gibson Traffic Consultants, December 1994.
- Access Report, SR-3/SR-305 Interchange Revisions and Olhava MPD Frontage Road, Gibson Traffic Consultants, October 1995.
- Olhava Mitigation Proportionate Share Update (with/without Iversen Connection, Gibson Traffic Consultants, November 1995.
- Olhava M.P.D.; Responses to WSDOT Comments, Gibson Traffic Consultants, December 1995.
- Olhava M.P.D. Project at SR3/SR/305 Interchange (Poulsbo) Supplemental Traffic Analysis per WSDOT Review Comments, Gibson Traffic Consultants, January 1996.

- Responses to WSDOT Comments on 2nd Olhava Traffic Analysis & Access Report, Gibson Traffic Consultants, March 1996.
- Supplemental Traffic Analysis per WSDOT Comments at April 15th Meeting, Gibson Traffic Consultants, May, 1996.

All documents are provided in the separately bound Appendices of this document.

The following documents are more general in nature, but do contain pertinent information related to the Olhava project, its impacts and mitigation of these impacts:

- Investigation of the Impacts on Dogfish Creek from the Use of the City of Poulsbo's Pugh Road Well, Robinson & Noble, November 1992.
- City of Poulsbo Comprehensive Plan, adopted 1994.
- Final Environmental Impact Statement for the City of Poulsbo Comprehensive Plan, June 1, 1994.
- City of Poulsbo Zoning Ordinance, adopted 1994.
- Hydrogeologic Analysis of the Bangor Aquifer Systems, Kitsap County, Washington, Robinson & Noble, January 1995.
- Kitsap County Initial Basin Assessment, Washington State Department of Ecology et. al., October 1995.
- Stormwater Management Manual for the Puget Sound Basin, Washington State Department of Ecology, 1992.
- City of Poulsbo Draft Comprehensive Surface Water Management Plan, 1993.
- Technical Memoranda Nos. 1, 2, 3, 4 & 7 for the Comprehensive Sewer Plan, Parametrix, Inc., 1996/1997.
- Technical Memorandum dated September 23, 1996, Parametrix, Inc.

Date of Issue for Final EIS: May 27, 1997

Subsequent SEPA This is a phased environmental review under WAC 197-11-060(5), because the exact size, location and use of individual projects in the Master Plan is not known at this time. Following adoption of the Master Plan, individual project proposals may require a SEPA threshold determination, as provided under WAC 197-11-330.

In addition, individual project proposals which exceed the impacts studied in this document may require further SEPA review.

Date Final Action Planned: The Poulsbo Planning Commission will review the FEIS and proposed master plan and make a recommendation to the Poulsbo City Council on June 3rd, 1997. The Poulsbo City Council will conduct public hearing(s) on the FEIS and proposed Master Plan beginning on June 28, 1997 at 9.00 a.m. This hearing may be continued to July 8, 1997 if required.

Location of Special Studies: Special Studies are available as separate bound Appendices.

Review Copies: Review copies of the EIS are available at these locations:

Poulsbo Public Library
700 N. E. Lincoln
Poulsbo, Washington 98370

City of Poulsbo Planning Department
19050 Jensen Way, P.O. Box 98
Poulsbo, Washington 98370

Cost: $20.00

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I. SUMMARY

A. The Proposed Master Plan

The project area consists of 215± acres located in the northwestern corner of the City of Poulsbo, in northern Kitsap County. The project area is bisected by the intersection of State Route 3 (SR 3) and State Route 305 (SR 305), with 174± acres located north of SR 3, and 41± acres located south of SR 305. The project area was annexed into the City of Poulsbo in 1994.

Pursuant to the requirements of the City of Poulsbo Comprehensive Plan and Zoning Ordinance, the Master Plan is intended as a first step in the implementation of existing zoning for the property. Through the adoption of the Comprehensive Plan and Zoning Ordinance in 1994, the parcel was zoned for a combination of residential, commercial and business park uses (See Zoning Map, Exhibit I-1). The Comprehensive Plan requires that before the approval of any individual project on the property, a Master Plan, showing the intended development patterns and providing for coordinated development of roads, utilities and capital facilities be approved. An application for approval of a Master Plan is currently pending, and is the subject of this EIS.

Land Use

The proposed Master Plan calls for a mixed use development, to include single and multiple family dwellings, retail and office commercial, business park uses, and educational uses. The southerly 41± acres are planned for low density, single family residences (20.5± acres) and multi-family units (20.5 acres) only. All commercial, business park and public school uses are to be located on the northerly 174± acres. The acreage and maximum square footage or number of units for each land use classification is provided in Table I-1 below, broken down into the proposed project phases.

Table I-1
Master Plan Acreage Calculations

Land Use	Phase Year	Acreage	Units or S.F.
Low Density Residential	1997-98	10.25[1]	35
	1998-99	10.25[1]	35
Subtotal		**20.5**	**70**
Medium Density Residential	1997-98	20.50[1]	160
	1999-2000	8.00	100
	2002-03	15.00	160
Subtotal		**43.50**	**420**
Commercial, Primary	1997-98	9.25	94,000
	1998-99	11.75	117,000
	1999-2000	9.25	94,000
	2000-02	16.25	165,000
Subtotal		**46.50**	**470,000**
Commercial, Secondary	1999-2000	5.50	56,000
	2000-02	9.25	93,000
	2003-05	21.75	220,000
Subtotal		**36.50**	**369,000**
Business Park	1998-99	6.00	49,000
	1999-2000	8.00	65,000
	2000-02	10.00	81,000
	2003-05	16.00	130,000
Subtotal		**40.00**	**325,000**
Public School	1998-99	20.00	38,000
	1999-2000	0.00	20,000
Community Park		8.0	--
Subtotal		**28.00**	**58,000**
Total		**215.00**	**1,215,000 s.f. & 490 d.u.**

[1]Located on southerly acreage of proposed project.

Although conceptual, the Master Plan provides a generalized site plan which includes potential building sites. These sites provide a wide variety of configurations, pad and building sizes, and generally include shared or common parking areas.

The Master Plan divides the Commercial land use component into two distinct categories, and calls for a Primary Commercial area consisting of at least two major anchor tenants , with adjacent buildings ranging from approximately 12,000 to 60,000 square feet each. This component is located in the southwestern portion of the northerly parcel. The Secondary Commercial component of the Plan is further divided into a Commercial Park, consisting of free-standing commercial uses located in the center of the northerly parcel; and a Commercial pad area located in the southeastern corner of the northerly parcel. The buildings in the Commercial pad area are envisioned to accommodate restaurants, retail and hotels, and other uses requiring highway visibility.

Business Park sites within the Master Plan range in size from approximately 10,000 to 25,000 square feet, and are primarily located in the northeastern portion of the project area. The Public School land use is located in the northwesterly corner of the proposed project, and is currently planned for a satellite campus for Olympic College.

The Low Density Residential component of the Master Plan is entirely located in the southern half of the southerly parcel. Medium Density multi-family residential sites are located in the northern half of the southerly parcel, and along the western and northern boundaries of the northerly parcel.

The Olympic College campus site plan calls for a total of approximately 50,000 square feet of instruction, administrative and ancillary space to be developed over a two year period. The College plans to open in 2000 with 38,000 square feet of space, a capacity for 900 students and an estimated staff of 45[1].

The proposed project is consistent with the City of Poulsbo Comprehensive Plan, Land Use Map, Zoning Ordinance and Zoning Map.

Issues of Concern

The following briefly describes the issues of concern for this EIS, including land use, circulation, drainage facilities, water and sanitary sewer plans. These areas of concern are also fully addressed in Section III of this EIS.

Biological Resources

There are no threatened, endangered, or sensitive plant or animal species known to exist on the Olhava parcel [According to the Washington Department of Fish and Wildlife Priority Habitats and Species Data System (1994)]. The Comprehensive Plan has not designated any priority habitats for wildlife within the Olhava property or in the immediate site vicinity. Additionally, no evidence of threatened or endangered wildlife was observed on the project site during site field assessments conducted by Wiltermood & Associates and Jones & Stokes Associates. Wetlands are considered the only priority habitat within the Olhava Master Plan Area. A total of five wetlands, and one potential wetland were found to occur on site. One of the wetlands will be filled as a result of the proposed project, but shall be replaced according to standards established by the City, the Department of Ecology and applicable federal standards and legislation.

A complete description of project impacts on wetlands and mitigation is included in Section III-1-A of this document. Biological resource and wetlands investigations performed for the Master Plan are included in the separately bound appendix to this EIS as Appendix A and B, respectively.

---

[1] Miller/Hull Partnership, March 6, 1997

Drainage
The project site is divided in a north-south direction by a ridge which causes the site to be divided into two drainage basins. Smaller channels, and the occurrence of SR-3, further divide the site into a total of 9 drainage subbasins, which have been analysed individually in the Master Plan document and accompanying engineering studies. On and off site drainage improvement plans were designed to conform to or exceeds the standards of the Department of Ecology. The project has been engineered to retain and infiltrate the runoff from the 100 year, 7 day storm event. This design exceeds the standards set forth in the Department of Ecology's Stormwater Management Manual for the Puget Sound Basin, which requires detention of and a flow reduction of 50% exiting from a site during a 2 year, 24 hour storm, and flows during the 10 year and 100 year storm events equaling existing conditions.

It is important to note that the discussion contained in this document is based on a conceptual drainage plan only. The design and implementation of the surface water management plan will be undertaken using standards and requirements of the City and state, and will be reviewed and approved by the City Engineer prior to development of the proposed project.

A complete description of project impacts and mitigation is included in Section III-2-E of this document. Engineering and geotechnical analysis performed for the Master Plan are included in the separately bound appendix to this EIS as Appendix C and D, respectively.

Domestic Water
The proposed Master Plan will receive domestic water service through an inter-tie agreement between the City of Poulsbo and Kitsap Public Utility District (Kitsap PUD). Estimates of buildout water demand are for a total of 256,000 gallons per day (gpd) for the northerly parcel, and 101,000 gpd for the southerly parcel. Peak hourly demand at build-out of the project is estimated to be 510 gallons per minute (gpm). Project engineering further estimates fire flows for the project site at 2,000 gpm, for a 3 hour duration, based on the assumption that all multi-family, commercial and business park structures will include self-contained fire suppression systems. Kitsap PUD has water rights to serve the first five phases of the proposed Master Plan, but does not currently have water rights to serve the entire buildout water demand at the proposed project site. Kitsap PUD is in the process of applying for the necessary additional water rights to service the entire project buildout and other development within the service area of the City and Kitsap PUD. The intertie agreement between the City and Kitsap PUD will require Department of Ecology approval. An additional 360,000 gallons of storage is also planned as part of the fire suppression system.

A complete description of project impacts and mitigation is included in Section III-1-F of this document. Engineering analysis performed for the Master Plan is included in the separately bound appendix to this EIS as Appendix E.

Air Quality
The City of Poulsbo, and the proposed project site are not located in a federally regulated non-attainment area. The proposed project will impact air quality both from construction emissions, which are temporary, and from vehicle emissions generated by the project, which will be permanent. Air quality analysis was completed for this project, using federal Environmental Protection Agency methodology, as modified for the Puget Sound air basin.

A complete description of project impacts and mitigation is included in Section III-1-G of this document. Analysis performed for the Master Plan is included in the separately bound appendix to this EIS as Appendix F.

Aesthetics
The proposed project will generate a number of structures on previously wooded and undeveloped lands. The site is generally located at a higher elevation than lands to the east and south. The project occurs at

approximately the same elevation as lands to the north and west. A visual impact analysis has been undertaken, and is included in Section III-2-A of this EIS. Five areas of the proposed project were studied. In addition, the impacts of structures of up to 50 feet in height, to be located on the Olympic College site, are analysed.

Commercial Need and Economic Analysis
This section of the EIS addresses two issues of concern. First, whether the market area for the proposed project has sufficient potential for growth to support the proposed project. In order for the project to be successful, growth in the North Kitsap County must be high enough, and in a short enough period to create a substantial need for goods and services. Secondly, the proposed project will generate both costs and revenues for the City of Poulsbo. The analysis includes a buildout and phased cost/benefit analysis, to determine whether the proposed project will have a significant adverse impact on the City's ability to provide services.

A complete description of project impacts and mitigation is included in Section III-2-B of this document. Analysis performed for the Master Plan is included in the separately bound appendix to this EIS as Appendix G.

Fire and Police Protection
The provision of emergency service to the site is essential. The Comprehensive Plan establishes a standard for police protection of 2.27 officers per 1,000 population (current condition). No level of service standard has been adopted by either the City or the Fire District for fire and emergency medical assistance. The proposed project will generate a total of 1,166 residents, in addition to the considerable commercial and business park square footage. Also at issue when the EIS scoping process occurred is the potential height of buildings, and the adequacy of existing fire department equipment to reach the upper stories of structures greater than 30 feet in height. At the time of scoping for this EIS, the Master Plan included a request for a height limit of 50 feet for structures in the multi-family, commercial and business park components of the project. Since that time, the applicant has withdrawn this request. It is therefore assumed in this document that all structures within the project are to be 30 feet in height or less.

Sanitary Sewerage
The project is planned to connect to the City of Poulsbo's existing sanitary sewerage system. Engineering estimates prepared as part of the Master Plan estimate a project build-out peak flow of 400 gpm, or an annualized average flow at buildout of 164,384 gpd and 64,500 gpd for the northern and southern parcels, respectively. Off-site connections to the project's system will be made in accordance with the requirements of the City's recently completed analysis of future sanitary sewer needs and construction requirements. The City's sewer system is currently at capacity, and a number of improvements will be required to accommodate the proposed project.

A complete description of project impacts and mitigation is included in Section III-2-E-b of this document. Engineering analysis performed for the Master Plan is included in the separately bound appendix to this EIS as Appendix H.

Circulation
The Master Plan proposes six principal circulation access points:

1. Primary access to the northerly acreage is to occur with the construction of an intersection in the Washington Department of Transportation right-of-way on the west side of the SR-3/SR-305 interchange.

2. Secondary access to the northerly acreage is to be taken via Street "A," off Finn Hill Road, north of the SR-3 overpass.

3. Primary access to the southerly acreage is proposed from Viking Avenue, creating a new access point for both the single and multi-family residential components.

4. A secondary access point to the southerly acreage is proposed from Finn Hill Road, via Terasse Drive.

5. A secondary access point to the southerly acreage is proposed from Finn Hill Road, via Rassmussen Court.

6. A secondary access point from Thompson Road via Parnell Place.

The project and its impact on local and regional circulation systems have been analysed by licensed traffic engineers retained by the applicant and by the City of Poulsbo. In addition, personnel from the Washington Department of Transportation, the Kitsap County Department of Public Works, and the City of Poulsbo City Engineer have reviewed the materials. At buildout, the project will impact critical intersections and road segments within and outside the City of Poulsbo. An extensive list of required improvements has been prepared by the project traffic engineer. In addition, the project proponent has secured access rights and configuration approval from the State Department of Transportation for the intersection planned for the SR-3/SR-305 interchange, subject to final engineering design review.

The full description of traffic and circulation impacts and mitigations is included in Section III-2-F. The traffic analysis is included in the separately bound appendix to this EIS, as Appendix I.

Noise

Two types of noise impacts will result from the proposed project. The proposed project will generate increased ambient noise levels from vehicles, residents and other sources on the project site. Secondly, the residential land uses, and the Olympic College portion of the site can be impacted from on and off site noise sources, including the noise generated, and to be generated from SR-3. Construction noise generated at the site will have short-term, temporary impacts. The buildout of the site will have long term impacts on the site.

Light and Glare

The proposed project site is not currently developed, and does not therefore generate any light or glare. The commercial and business park uses on the project site have the greatest potential to increase light and glare on and near the proposed project. The residential components of the project will, to a lesser extent, also generate light and glare. The potential impact of increased light and glare both on the sensitive uses on the proposed project and on adjacent properties is analysed in Section III-2-H of this EIS.

Consistency with Adopted Documents

The proposed document is consistent with the City's adopted Comprehensive Plan and Zoning Ordinance. The Master Plan proposes to adhere to all standards of the City's adopted Comprehensive Plan and Zoning Ordinance, including parking and landscaping requirements. At the time of scoping for this EIS, the project proponent proposed two variances from City standards: an increase in allowable height to 50 feet in the multi-family, commercial and business park components of the Plan, and an increase in the maximum roof plane from 50 linear feet to 150 linear feet. These requests have since been withdrawn. At the time of issue of this EIS, therefore, the applicant does not propose to vary from the City's standards.

B. The Purpose of the EIS

The City of Poulsbo issued a determination of Significance for the Master Plan on April 24, 1996. The scoping period which followed included two public scoping meetings, on May 7 and May 21, 1996. A final scope determination was issued by the City's SEPA official on June 4, 1996. The final scope identified the following issues of concern for further study in this Environmental Impact Statement:

1. Traffic
2. Storm Water Runoff
3. Wildlife
4. Police Protection
5. Fire Protection
6. Noise and Light
7. Sewer Capacity
8. Ground Water Movement/Quantity/Quality
9. Commercial Land Need/Economic Analysis
10. Water Supply
11. Air Quality
12. Land Use/Aesthetics

In addition, the final scoping document established the following alternatives to be studied in the EIS:

1. The Applicant's Proposal
2. Multiple Master Plans
3. Proposal consistent with the City comprehensive plan and zoning ordinance and which will have less development than the proposal.
4. Proposal consistent with the City comprehensive plan and zoning ordinance and which will have more intense development than the proposal.
5. No Construction

This EIS has been developed to analyse the impacts of the applicant's proposed Master Plan and the alternatives, and provide reasonable mitigation measures to reduce the impacts of the proposal and the proposed alternatives. In addition, the EIS must identify significant adverse impacts which cannot be mitigated. Section III of this document first reviews existing conditions, then presents project impacts, and finally lists mitigation measures required.

The alternatives developed for this EIS are designed to meet the goals, policies and standards established in the City of Poulsbo Comprehensive Plan, adopted June, 1994, as amended, and the Zoning Ordinance, adopted December, 1994, as amended. The alternatives presented cannot be in conflict with either the Comprehensive Plan, Zoning Ordinance or their associated maps, since they would be neither realistic or reasonable comparisons to the project proposal. Complete descriptions of each alternative are provided in Section II of this document.

Phased Review

The City of Poulsbo is using phased environmental review under WAC 197-11-060(5) to consider and mitigate the environmental effects of this proposal. Phased review allows an agency to focus on environmental issues which are ripe for analysis and decision at an early stage of a project and defer consideration of issues which are not yet ready for such analysis and decision until later phases of the specific project when more detailed information will be available. Under the phased review of this project,

this EIS has been prepared to address those environmental issues which are ready for review and decision at the Master Plan stage, while providing for further environmental review and analysis at each subsequent phase of the development.

The preparation of this EIS will not preclude further environmental review of individual projects within the Master Plan area under SEPA in the future. SEPA specifically provides for phased review of project proposals, particularly when the project is starting with a general approval process to be followed by site specific proposals. The site plan applications for each phase of the project will ordinarily be accompanied by an environmental checklist, which will be reviewed by City staff to determine whether the activities proposed in the phase are substantially consistent with the Master Plan. If the uses and structures in a particular phase are substantially consistent with the Master Plan and this EIS and if the SEPA Responsible Official determines that the environmental impacts from the particular phase remain adequately covered by this EIS in light of all of the facts and circumstances existing at the time an approval for the particular phase is applied for, no further environmental review of that phase will be required. If uses and/or structures in a particular phase are not substantially consistent with the Master Plan and this EIS, or if the facts and circumstances existing at the time an approval for the particular phase is applied for indicate a need for additional environmental analysis, additional environmental review may be required. Such review may consist of an expanded environmental checklist, or if required by WAC 197-11-620 or 197-11-625, an addendum to this EIS or a supplemental EIS.

It is understood that the following actions will follow the approval of the Master Plan, if granted by the Poulsbo City Council:

- Individual phases will be processed through a Site Plan Review process. If the development in the phase is not consistent with the approved Master Plan, the site plan would require modification of the Master Plan, including review by either the Planning Commission or City Council, whichever is required by City ordinances in effect at that time.

- In addition to site plan review, development in any individual phase may require additional permits, such as building and grading permits, preliminary and final plat approvals, planned unit development approvals, conditional use permits, variances and other permits. Such permits and approvals would be reviewed concurrently to the extent possible, although differing permit processes for some types of permits may require separate processing (for example, plat approvals require public hearings and a final decision by the City Council, while building permits are approved administratively, usually after the planning process has been completed).

Phased environmental review will address any subsequent changes in environmental impacts or necessary mitigation measures identified in this EIS. To the extent possible,based on the information available at this writing, this EIS identifies all significant adverse environmental impacts and measures necessary to mitigate them. However, the City of Poulsbo may discover further environmental impacts in later phases of this project. Also changing conditions in the City of Poulsbo may alter the environmental impacts of the proposal, thereby necessitating a change in proposed mitigation measures. Further environmental review in subsequent development phases of this project will address these changes in impacts and mitigations. Consequently, proposed mitigation measures identified in this EIS will be subject to modification until they are formally required as part of the conditions of approval for Master Plan development. These conditions of approval may be incorporated into approval of the Master Plan itself, or subsequent phases such as subdivision and site plan review.

It is important to recognize that the City of Poulsbo will not subsidize the developer's share of costs of the mitigation measures identified by this EIS or any subsequent environmental review. The project proponents will pay their fair share of all mitigation identified in the environmental review of this project.

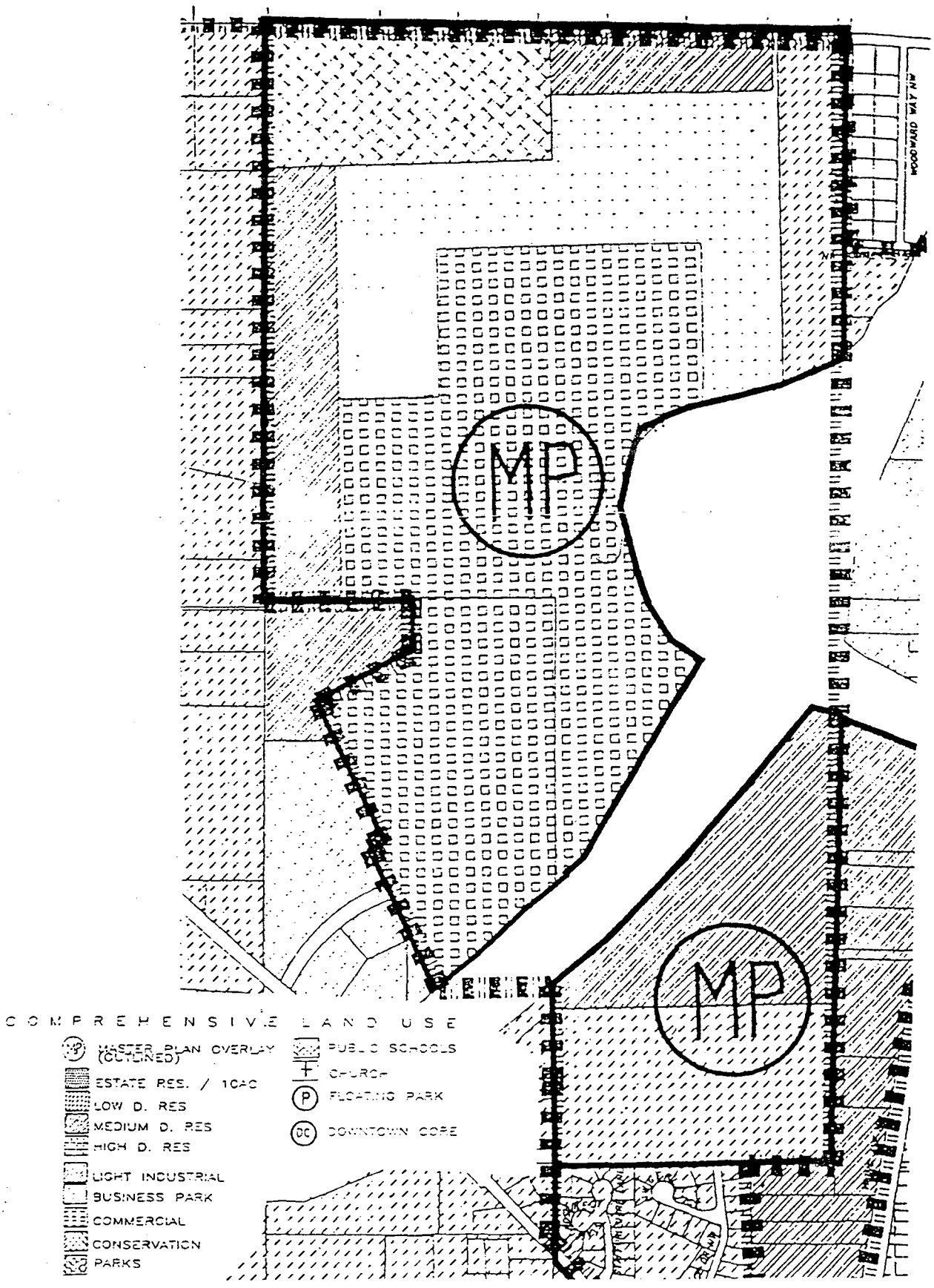
Nothing in this EIS shall be construed as shifting this financial burden to the City of Poulsbo or its citizens. The City of Poulsbo Comprehensive Plan contains numerous policies requiring developers to pay their fair share of development costs, and the City of Poulsbo has made a practice of implementing these policies to the fullest extent of the law. Similarly, nothing in the EIS should be construed as suggesting that the City of Poulsbo will construct required capital improvements in time to meet the Master Plan development schedule. As is discussed in later sections of this EIS, development shall not proceed for Master Plan construction in which capital facilities have not yet been completed. Should this create delays in the development of the Master Plan, the project proponent may completely fund the required improvement and enter into a reimbursement arrangement with the City, or utilize other financing mechanisms which may be available. These reimbursement arrangements could include a latecomers' agreement(s) or developer's agreement(s), in which developer fair share contributions or other subsequently acquired funding is transferred to the Master Plan applicants.

The readers of this EIS should also be aware that the mitigation measures identified in the EIS are only proposals. The City Council is not mandated to adopt these measures, and may adopt other mitigation measures in response to the information provided by environmental review if authorized to do so by pertinent State Environmental Policy Act policies.

C. Unavoidable Impacts

The development of the project area will result in some unavoidable impacts, regardless of the type of project constructed. The Growth Management Act mandates that as a designated Urban Growth Area, the City accommodate its share of expected population growth, as well as residential and commercial land uses. It would therefore be impossible to meet the requirements of the Act and not have growth occur within the City in general, and at the project site in particular. The development of this project or any other within the City's Urban Growth Area will result in adverse impacts, including an increase in:

- Demand for public services;
- Demand for public and private utilities;
- Need for construction and maintenance of public infrastructure;
- Potential traffic congestion and resulting demand for transportation system improvements;
- Emission to the air;
- Increased noise levels;
- Demand on public fiscal resources;
- Loss of open space and wildlife habitat;
- Lessening of wildlife population;
- Increased light and glare.



TERRA NOVA®
Planning & Research, Inc.

Zoning Map

Exhibit

I-1

II. ALTERNATIVES

A. The Five Alternative Scenarios

The City of Poulsbo's SEPA official required five alternatives to be analysed in this EIS. The following Table provides a summary of the assumptions made for each alternative. Textual descriptions follow.

Table II-1
EIS Alternatives
Development Assumptions

Alternative	Single Family Units	Multi-Family Units	Commercial sq. ft.	Bus. Park sq. ft.	College sq. ft.
One/Proposed MP	70	420	840,000	325,000	50,000
Two/Multiple MPs	143	332	905,000	435,000	100,000
Three/Less Intense	64	257	500,000	150,000	50,000
Four/More Intense	88	525	1,100,000	435,000	100,000
Five/No Construction	0	0	0	0	0

a. Alternative One-The Proposed Master Plan

This alternative assumes the implementation of the Master Plan as proposed. As described in Section I of this document, the alternative would include 840,000 square feet of commercial, 325,000 square feet of business park, 490 residential units, and a 50,000 square foot Olympic College Campus site.

For the various components of this alternative, assumptions have been made regarding the mix of potential uses, as follows:

Retail	70% of square footage
Restaurant and Recreational	20% of square footage
Service	10% of square footage
Business Park/Office	80% of square footage
Business Park/Warehouse	20% of square footage
Multi-Family Residences	420
Single Family Residences	70
College/Students	900 FTE*

*Full Time Equivalents

Alternative One conforms to the City's Comprehensive Plan and Zoning Ordinance.

b. Alternative Two-Multiple Master Plans

The Multiple Master Plan alternative assumes that the property would be sold in pieces, and developed in conformance with the Comprehensive Plan and Zoning Ordinance. To meet these requirements, each of the small parcels would require a Master Plan.

This alternative assumes that the 215± acre property were divided along land use designation boundaries, and developed as a total of 6 Master Plans (the two Medium Density and one Low Density sites in the northerly acreage would be combined into one 30 acre Master Plan), owned and developed by un-associated private parties. Since un-associated individuals would be more likely to maximize densities on each small parcel, this alternative assumes a total of 332 multi-family and 143 single family residences would be constructed, and 100,000 square feet would be built on the Olympic College site. The Commercial land use designation would develop a total of 905,000 square feet (25% building coverage), while the Business Park would support 435,000 square feet (25% building coverage). No organized phasing plan is assumed.

For the various components of this alternative, assumptions have consistently been made regarding the mix of potential uses, as follows:

Retail	70% of square footage
Restaurant and Recreational	20% of square footage
Service	10% of square footage
Business Park/Office	70% of square footage
Business Park/Warehouse	20% of square footage
Business Park/Light Industrial	10% of square footage
Multi-Family Residences	332
Single Family Residences	143
College/Students	1,800 FTE*

*Full Time Equivalents

The proposed alternative conforms to the City's Comprehensive Plan and Zoning Ordinance.

c. Alternative Three-Less Intense Development

This alternative assumes that the total number of dwelling units in the residential component would be reduced to the minimum net density in each designation, based on the Comprehensive Plan, for a total of 64 single family residences, and 257 multi-family residences, or 321 total residential units. The balance of the land in the residential areas, 15.5 acres, is assumed to be developed for park uses. In the Commercial land use category, building area is reduced to 500,000 square feet. In the Business Park category, the building area is reduced to 150,000 square feet. The Olympic College site is assumed to total 50,000 square feet, the minimum possible for a functional campus.

For the various components of this alternative, assumptions have consistently been made regarding the mix of potential uses, as follows:

Retail	60% of square footage
Restaurant and Recreational	20% of square footage
Service	20% of square footage
Business Park/Office	50% of square footage
Business Park/Warehouse	30% of square footage
Business Park/Light Industrial	20% of square footage

Multi-Family Residences	257
Single Family Residences	64
College/Students	900 FTE*

*Full Time Equivalents

The proposed alternative conforms to the City's Comprehensive Plan and Zoning Ordinance.

d. Alternative Four-More Intense Development

This alternative assumes that the total number of dwelling units in the residential component would be increased by the allowable density bonus or transfer provisions of the Comprehensive Plan, resulting in a total of 525 multi-family units, and 88 single family units. In addition, the community park planned for the northeastern portion of the property would be developed as its designated low density residential, resulting in an additional 50 single family units on 8 acres. Altogether, the residential component of the project would consist of 663 residential units. In the Commercial land use category, building area is increased to 1,100,000 square feet (30% building coverage). In the Business Park category, the building area is assumed to total 435,000 square feet (25% building coverage), with a much higher light industrial focus. The Olympic College site is assumed at 100,000 square feet (11% building coverage).

For the various components of this alternative, assumptions have consistently been made regarding the mix of potential uses, as follows:

Retail	80% of square footage
Restaurant and Recreational	10% of square footage
Service	10% of square footage
Business Park/Office	20% of square footage
Business Park/Warehouse	15% of square footage
Business Park/Light Industrial	65% of square footage
Multi-Family Residences	525
Single Family Residences	138
College/Students	1,800 FTE*

*Full Time Equivalents

The proposed alternative conforms to the City's Comprehensive Plan and Zoning Ordinance.

d. Alternative Five-No Construction

This alternative assumes that no construction would occur on the proposed property, and it would continue as vacant land. This alternative has been included as a No Action alternative. No mix of use analysis is needed for this alternative.

This alternative may not conform to the goals and policies of the Comprehensive Plan, as discussed in Section III of this document.

B. Delayed Implementation

SEPA requires that the EIS consider the "benefits and disadvantages of reserving for some future time the implementation of the proposal..."[1] The development of the site, with densities similar to the project proposal, is planned in the Comprehensive Plan. Delay of the proposed project or any of the alternatives would represent delay of the potential impacts of any alternatives. Conversely, delay of the implementation of the proposal or any alternative would be contrary to the requirements of the Growth Management Act (GMA) and the City's adopted Comprehensive Plan. As an Urban Growth Area, the City has adopted goals and policies which mandate the urbanization of sufficient lands to accommodate at least 10,723 persons by the year 2010[2]. The GMA and Comprehensive Plan require that development occur in a compact urban core. The proposed project lies within City limits, immediately adjacent to existing urban development. Other portions of the City's Urban Growth Area, which occur at greater distances away from the urban core, could be developed to accommodate growth. This activity, however, would conflict with the goals and policies of both the GMA and the Comprehensive Plan, by encouraging "leapfrog" or discontiguous development. Alternative Five - No Construction, may therefore not be consistent with the City's Comprehensive Plan. Land use analysis performed for the Plan showed that lands within City limits at the time (the annexation of the proposed project site was completed immediately after adoption of the document, and the land is considered in the analysis of Comprehensive Plan land uses) were not sufficient to accommodate the number of units required for the City to meet its growth objectives. As such, Alternative Five does not provide for the meeting of these objectives either.

Finally, the proposed project and the first four alternatives are assumed to be constructed over a period of approximately 10 years. Furthermore, the actual development of the site will be governed by market forces -- that is to say that development will not occur unless a market exists for the facilities, whether they be residential, commercial or business park uses. The buildout of the site is not anticipated until 2006-2007. The project will therefore assist the City in meeting its GMA and Comprehensive Plan growth objectives.

As development progresses, the project proponent will be required to make off-site improvements which will mitigate the impacts of the project throughout the community, and will enable growth to occur throughout the City.

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1 WAC 197-11-440(5)(c)(vii)

2 City of Poulsbo Comprehensive Plan, Land Use Element, 1994.

Alternative One Proposed Project	Alternative Two Multiple Master Plans	Alternative Three Less Intense Project	Alternative Four More Intense Project	Alternative Five No Construction
Plant & Animal Habitat Lower impact after Alternative Three: buffering requirements provide habitat and potential corridor areas.	**Plant & Animal Habitat** Greater impact: disjointed development coupled with higher densities.	**Plant & Animal Habitat** Lower impact: reduced residential densities of 34%, 40% less commercial, 54% less business park square footage than Alt. One. Greater potential for habitat preservation, less fragmentation.	**Plant & Animal Habitat** Greater potential impact: increases in density of 31% in commercial, 34% in business park, 25% in residential. Greater potential for habitat loss.	**Plant & Animal Habitat** No impact.
Unique Species No unique species have been identified at the site. Loss of species equal with all development-related alternatives.	**Unique Species** No unique species have been identified at the site. Loss of species equal with all development-related alternatives.	**Unique Species** No unique species have been identified at the site. Loss of species equal with all development-related alternatives.	**Unique Species** No unique species have been identified at the site. Loss of species equal with all development-related alternatives.	**Unique Species** No Impact.
Fish & Wildlife Migration Routes All development-related alternatives eliminate foraging areas for migratory birds. Storm water control, required under all alternatives, should limit potential impacts to Dogfish Creek.	**Fish & Wildlife Migration Routes** All development-related alternatives eliminate foraging areas for migratory birds. Disjointed development under this Alternative could cause impact to Dogfish Creek.	**Fish & Wildlife Migration Routes** All development-related alternatives eliminate foraging areas for migratory birds. Storm water control, required under all alternatives, should limit potential impacts to Dogfish Creek.	**Fish & Wildlife Migration Routes** All development-related alternatives eliminate foraging areas for migratory birds. Storm water control, required under all alternatives, should limit potential impacts to Dogfish Creek.	**Fish & Wildlife Migration Routes** No Impact.
Surface Water & Runoff Absorption All development-related alternatives are required to construct retention and infiltration facilities to meet DOE standards. Impacts should be equal, except potentially for Alternative Two, where disjointed development could result in cumulative impacts.	**Surface Water & Runoff Absorption** All development-related alternatives are required to construct retention and infiltration facilities to meet DOE standards. Impacts should be equal, except potentially for Alternative Two, where disjointed development could result in cumulative impacts.	**Surface Water & Runoff Absorption** All development-related alternatives are required to construct retention and infiltration facilities to meet DOE standards. Impacts should be equal, except potentially for Alternative Two, where disjointed development could result in cumulative impacts.	**Surface Water & Runoff Absorption** All development-related alternatives are required to construct retention and infiltration facilities to meet DOE standards. Impacts should be equal, except potentially for Alternative Two, where disjointed development could result in cumulative impacts.	**Surface Water & Runoff Absorption** Continuation of current conditions. No further impact.

Alternative One Proposed Project	Alternative Two Multiple Master Plans	Alternative Three Less Intense Project	Alternative Four More Intense Project	Alternative Five No Construction
Groundwater Impacts of all development-related alternatives are similar. All alternatives will cause draw-down and also recharge groundwater.	**Groundwater** Impacts of all development-related alternatives are similar. All alternatives will cause draw-down and also recharge groundwater. Discontinuous development and higher density will increase impacts.	**Groundwater** Impacts of all development-related alternatives are similar. All alternatives will cause draw-down and also recharge groundwater.	**Groundwater** Impacts of all development-related alternatives are similar. All alternatives will cause draw-down and also recharge groundwater. Higher density will increase impact.	**Groundwater** No Impact.
Public Water Supplies Lesser impact to domestic water requirements, moderate density. Fire suppression requirement lowers potential impact to meet fire flow requirements.	**Public Water Supplies** Greater impact in domestic water requirements due to higher density. Higher potential impact to meet fire flow requirements.	**Public Water Supplies** Lesser impact to domestic water needed to supply project. Higher potential impact to meet fire flow requirements.	**Public Water Supplies** Greater impact in domestic water requirements due to higher density. Higher potential impact to meet fire flow requirements.	**Public Water Supplies** No impact to domestic water. Potential impact to fire flow due to lack of infrastructure in area under brush or forest fire conditions.
Air Quality All development-related alternatives increase air emissions. Impacts of construction emissions (dust and pollutants) will be very similar.	**Air Quality** All development-related alternatives increase air emissions. Impacts of construction emissions (dust and pollutants) will be very similar.	**Air Quality** All development-related alternatives increase air emissions. Impacts of construction emissions (dust and pollutants) will be very similar.	**Air Quality** All development-related alternatives increase air emissions. Impacts of construction emissions (dust and pollutants) will be very similar.	**Air Quality** No Impact.
Aesthetics Any construction will impact the currently undeveloped site. Impacts can be mitigated through expansion of vegetative buffers in some areas. Overall, impact limited; all structures planned to conform to existing City codes.	**Aesthetics** Higher density development will have greater viewshed impact due to bulk of structures, both on-site and off-site.	**Aesthetics** Reduced visual impact due to lower density. More favorable alternative due to increased landscaping and vegetative buffer potential.	**Aesthetics** Most significant impact on aesthetics due to density and resulting bulk of structures. Greatest impact to loss of landscaping and vegetative cover. Additional height likely to accommodate density.	**Aesthetics** No Impact.

Impacts and Rankings of Alternatives

Alternative One Proposed Project

Commercial Need
Project and related undeveloped commercial land in City combined could absorb all commercial need through year 2012 for North Kitsap market area. Project results in positive cash flow to City of $404,649 annually.

Fire Services
Lowest overall potential impact due to requirement for automatic sprinklers in all non-single family structures. All development-related alternatives have similar impacts as regards service area, and would require additional fire station at Clear Creek.

Police Services
All development-related alternatives impact the need for police services. Lower impact with this alternative when density and residential units are considered.

Capital Facilities, Drainage
Moderate level of impact: centralized development provides for cost-effective infrastructure construction. All alternatives meet DOE standards regardless of size.

Alternative Two Multiple Master Plans

Commercial Need
Higher density results in greater positive cash flow to the City: $856,547 annually. Size of project combined with vacant commercial land in the City would result in over-saturation of the market before 2012. Potential for higher vacancy greater.

Fire Services
All development-related alternatives have similar impacts as regards service area, and would require additional fire station at Clear Creek.Potential higher impact due to lack of automatic sprinklers in all non-single family structures.

Police Services
All development-related alternatives impact the need for police services. Higher impact with this alternative when density and residential units are considered.

Capital Facilities, Drainage
Highest potential impact due to costs associated with improvements, and potential burden to multiple developers. Discontinuous development could also have greater impact.

Alternative Three Less Intense Project

Commercial Need
Lower density is more favorable alternative in terms of regional market saturation. Alternative results in negative cash flow to City of $31,118 annually, which is a significant negative impact to City.

Fire Services
All development-related alternatives have similar impacts as regards service area, and would require additional fire station at Clear Creek.Potential higher impact due to lack of automatic sprinklers in all non-single family structures.

Police Services
All development-related alternatives impact the need for police services. Lowest impact with this alternative when density and residential units are considered.

Capital Facilities, Drainage
Lower impact due to greater potential area for infiltration. Potential greater impact due to costs associated with improvements and burden to developer.

Alternative Four More Intense Project

Commercial Need
Costs associated with higher density result in significant negative impact on City: project would cost City $128,808 annually. Size of project combined with vacant commercial land in the City result in over-saturation of market before 2012. Potential for higher vacancy greater.

Fire Services
All development-related alternatives have similar impacts as regards service area, and would require additional fire station at Clear Creek.Potential higher impact due to lack of automatic sprinklers in all non-single family structures.

Police Services
All development-related alternatives impact the need for police services. Highest impact with this alternative when density and residential units are considered.

Capital Facilities, Drainage
Most complex drainage system required. Higher potential impact due to lack of infiltration area.

Alternative Five No Construction

Commercial Need
No impact in terms of cost. Potential highest impact in terms of revenues to City, particularly in sales and property tax.

Fire Services
Potential impact to fire flow due to lack of infrastructure in area under brush or forest fire conditions.

Police Services
No impact beyond current conditions.

Capital Facilities, Drainage
No impact over current conditions. Unrestricted flows, if any, could impact downstream property owners.

Alternative One Proposed Project	Alternative Two Multiple Master Plans	Alternative Three Less Intense Project	Alternative Four More Intense Project	Alternative Five No Construction
Capital Facilities, Sanitary Sewage All development-related alternatives result in significant impact to sewer system without mitigation. Coordinated development of Master Plan will result in beneficial impact to City in construction of required improvements off-site prior to project construction.	**Capital Facilities, Sanitary Sewage** Higher potential impact due to discontinuous development. Financial burden may not be possible for several small developers. Impact on flows slightly higher than other alternatives.	**Capital Facilities, Sanitary Sewage** Lower impact on flows, but may be higher impact as regards ability for less intense project to finance such extensive off-site improvements and recoup same from lower density project.	**Capital Facilities, Sanitary Sewage** Higher impact on flows, but somewhat lower impact on developer's ability to recoup costs associated with off-site improvements, due to higher density allowable on project.	**Capital Facilities, Sanitary Sewage** No additional impact. Potential impact to implementation of City-wide improvements, leading to long term impact to City's sewer costs for existing residents.
Traffic & Circulation Trip Generation: 37,159 AWDT resulting impact is high, but can be mitigated. Coordinated project more likely to absorb high on and off site infrastructure costs.	**Traffic & Circulation** Trip Generation: 60,724 AWDT resulting impact is high, and probably cannot be mitigated. Discontinuous project less likely to absorb higher on and off site infrastructure costs.	**Traffic & Circulation** Trip Generation: 22,769 AWDT resulting impact is lower,and can be mitigated. Coordinated project more likely to absorb high on and off site infrastructure costs. Lower density may not warrant high infrastructure expense.	**Traffic & Circulation** Trip Generation: 50,205 AWDT resulting impact is high, and may not be mitigated. Coordinated project more likely to absorb high on and off site infrastructure costs. Higher density will also make costs easier to absorb.	**Traffic & Circulation** Trip Generation: 0 No impact to circulation system. Potential impact to City in terms of source of funding for needed improvements on currently impacted roadways.
Noise All development-related alternatives will have similar impacts on ambient noise levels in the area. Noise levels on and off site can be mitigated.	**Noise** Potential for higher impact both on and off site due to higher density. Noise impacts on and off site can be mitigated.	**Noise** Potential lower impact due to density. Noise impacts on and off site can be mitigated.	**Noise** Potential for higher impact both on and off site due to higher density. Noise impacts on and off site can be mitigated.	**Noise** No Impact.
Light & Glare All development-related alternatives add to ambient light levels in the area. Impacts of light and glare can be mitigated.	**Light & Glare** Higher impact due to bulk and density. Impacts to light and glare can be mitigated.	**Light & Glare** Lower potential impact due to lower density and greater potential for landscaping and vegetative buffers. Impacts can be mitigated.	**Light & Glare** Higher impact due to bulk and density. Impacts to light and glare can be mitigated.	**Light & Glare** No Impact.

III. AFFECTED ENVIRONMENT, SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Introduction

The Olhava property is a 215 acre parcel located within the northwestern Poulsbo City limits in Kitsap County. The property is divided into two parcels by State Route 3. Current access is via Finn Hill Road, Terasse Drive, Parnell Place NW and Viking Avenue. The northern parcel is larger, at 174 acres and contains a 21 acre decommissioned U.S. Army facility (Nike Facility). The parcel south of State Route 3 is located east of Finn Hill Road and contains the remaining 41 acres. This parcel was logged about 50 years ago, selectively thinned in the early 1990's, and has remained unused since then.

Development of the Olhava property under the Master Plan proposed by the applicant (Alternative One) includes plans for:

Northern 174 Acre Parcel:

- 840,000 square feet of commercial retail (approx. 83 acres)
- 325,000 square feet of business park facilities (approx. 40 acres)
- 260 medium-density units - in two separate phases (approx. 23 acres)
- a community park (approx. 8.0 acres)
- Olympic College - a public school (approx. 20 acres)

Southern 41 Acre Parcel:

- 160 medium density residential units (approx. 18.5 acres)
- 70 low density residential units (approx. 20.5 acres)
- park site (approx. 2.0 acres)

1. The Natural Environment

A. Plant and Animal Habitats

1. Existing Conditions

The Olhava Master Plan Area contains a diversity of plant, fish and wildlife species and habitat types. This diversity is typical of the topography and vegetation found in the area. The Olhava property includes several small wetlands and coastal forests typical of the estuarine and marine environment of the Puget Sound. Natural water sources located in the vicinity of the Olhava Master Plan Area include Dogfish Creek and its southern fork, which cut through Big Valley to the north and drains into Liberty Bay, Johnson Creek and its northern fork, and a number of wetlands. (See Exhibit III-1)

The City of Poulsbo Comprehensive Plan specifies that the classification, designation, and regulation of fish and wildlife habitat conservation areas is intended to prevent development which is incompatible with these areas. The intent of fish and wildlife conservation under the Growth Management Act is "...to maintain species in suitable habitats within their natural geographic distribution to prevent the creation of isolated subpopulations. This does not mean maintaining all individuals of all species at all times..."[1]

There are no threatened, endangered, or sensitive plant or animal species known to exist on the Olhava parcel [According to the Washington Department of Fish and Wildlife Priority Habitats and Species Data System (1994)]. Because of this, the Comprehensive Plan for the City of Poulsbo has not designated any non-wetland priority habitats for wildlife within the Olhava property or in the immediate site vicinity. Additionally, no evidence of threatened or endangered wildlife was observed on the project site during site field assessments. Wetlands are the only priority habitat within the Olhava Master Plan Area.

[1] WAC 365-190-0870(5).

Wildlife

The project site is the habitat of many varieties of mammals, birds, and herptiles (reptiles and amphibians) typically found in a lowland coniferous forest in the Puget Sound Region.

Mammals

During the field assessment, evidence of mammals was observed. Mountain beaver burrows were found throughout both the northwest and southeast parcels and two Douglas squirrels were observed. Although little evidence of deer use was detected during field assessment, deer may occur on the northwestern parcel since this portion is bordered to the west and partly to the north by low-density development and forest land[2]. Coyote typically occur in habitats similar to the northwest portion of the project site.

Other mammals commonly occurring in similar habitats in western Washington include raccoon, long-tailed weasel, porcupine, opossum, deer mouse, Townsend mole and several species of shrews[3]. Bats may also occur on the site, especially big brown bats[4]. Large mammals, such as deer, are less likely to occur in the southeast parcel of the site because it is surrounded on all sides by major roadways.

Birds

Birds observed during the field assessment include black-capped chickadee, American robin, rufous-sided towhee, red-breasted nuthatch, American crow, common bushtits, and Stellar's jay. Cavity nesters such as pileated woodpecker, northern flicker, and downy woodpecker, which typically occupy snags (dead upright trees), are probably uncommon on site since few large snags occur. No waterfowl or wading birds were observed, and would not be expected to occur on the project site because of the lack of open water wetlands and streams that would provide the necessary habitat.

Hawks and owls have been seen on site previously, however, none were observed during the site field assessment. Habitat appears suitable to support red-tailed and sharp-shinned hawks and great-horned owls.

Herptiles

No amphibians or reptiles were observed during the site assessment. Based on species matrices within Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington,[5] and distribution maps[6], herptiles that may occur at the site include the common garter snake, western toad, Pacific tree frog, ensatina, and Northwestern salamander. Amphibian populations are limited due to the lack of streams, large areas of wetland, and open water.

Vegetation

The project site is characteristic of lowland forest in the Puget Sound region. The vegetation in this area is classified as the Western Hemlock Zone, the most extensive vegetation zone in western Washington. Because the site has been logged in the past and is considered a second growth forest[7].

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2 Witmer, G.W., Wisdom, M., Harshman, E.P.,Anderson, R.J.,Carey, C.,Kuttel, M.P.,Luman, I.D., Rochell, J.A., Scharpf, R.W., Smithey, D., Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington Part 1- Deer and Elk, U.S. Forest Service, Portland, OR, Pg. 231-258, 1985.

3 Brown, E.R., Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington, Parts 1 and 2, U.S. Forest Service, Portland Oregon, 1985.

4 Humphrey, S.R., Bats (Vespertilicniolea and Molossidae), John Hopkins University Press, Baltimore, MD, Pg. 52-70, 1982.

5 Ibid.

6 Nussbaum, R.A., E.D. Brodie, Jr., and R.M. Storm, Amphibians and Reptiles of the Pacific Northwest, University of Idaho Press, Moscow, ID., 1983.

7 Franklin, J.F., and Dyrness, C.T., Natural Vegetation of Oregon and Washington, U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station, Portland,OR, 1973.

The majority of the project area is dominated by coniferous forest in various stages of growth, depending on past logging activities. Four small scrub-shrub wetlands and one forested wetland are also located within the upland forested area in the northern portion of the project area. Disturbed vegetation in the area is a result of the Nike facility once owned by the U.S. Army. Access roads and staging areas in the forest were cleared for selective logging in 1988.

Coniferous forests cover 191.6 acres (89%) of the project site and are dominated by douglas fir, western red cedar, and western hemlock as well as scattered western white pine. The northern 174 acre parcel contains douglas fir and western hemlock more commonly than western red cedar. These trees are typically 6 to 14 inches in diameter breast height (dbh) with some trees up to 20 inches dbh. Larger western red cedar ranging in size from 6 to 36 dbh are common in the upland areas surrounding the wetlands. In the southeastern 41 acre portion of the parcel, western red cedar and mountain hemlock are more common than douglas fir. Trees are typically 10 to 20 inches dbh although larger western red cedar up to 30 inches dbh are present near the south property boundary. Several white pine were also observed in this parcel. Deciduous trees are present, but not common in the coniferous forest. Seedlings and saplings of red alder are present in open areas where the overstory of thinned conifers have enhanced their establishment. Mountain ash and Pacific madrone are not common, but scattered in the north of the project site. In the south end of the project area several big-leaf maple trees are present.

Understory vegetation ranges from dense cover of shrubs to more open areas of herbaceous vegetation growing amongst downed timber. Common understory shrubs include red elderberry, rhododendron, salal, huckleberry, Oregon grape, and California dewberry. Herbaceous vegetation growing in the understory include swordfern, bracken fern, fireweed, bentgrass, and other grasses.

Threatened or endangered species previously observed within the the City of Poulsbo's Urban Growth Area include bog clubmoss, western yellow oxalis, Alaska alkaligrass, chain-fern, pink sand verbena, and fringed pinesap. None of these plant species occur within the Olhava property[8].

A total of approximately 27 of the 215 acre Olhava property is considered disturbed due to the decommissioned Nike facility site (22 acres) and cleared forest (5 acres). Vegetation at the Nike site is dominated by the types of vegetation common in disturbed sites. Fireweed, bentgrass, and other grasses are common herbaceous plants, along with weeds such as Himalayan blackberry and Scot's broom. Douglas fir trees are also present and scattered in the Nike facility portion of the property.

Cleared areas in the forest include areas of downed timber and bare soil associated with access roads and logging staging areas. Vegetated portions of the cleared areas reflect the same species of vegetation as described for other cleared areas.

8 Jones & Stokes Associates, Biological Resource Assessment, 1994

Wetland Areas

Table III-1
Olhava Master Plan Wetland Inventory

Area	Acreage
1. Wetland A	**0.122 acres**

Location: 400 ft. SW of Commerce Rd., Drainage Area 8
Surrounding Vegetation: Scrub-shrub wetland types with the dominant vegetation consisting of willow, red alder, hardhack spirea, and sedge. The uplands are dominated by salal, and evergreen blackberry with understory vegetation of oregon grape and sword fern.

2. Wetland B	**0.080 acres**

Location: Along an old north-south logging road, Drainage Area 1.
Surrounding Vegetation: Scrub-shrub wetland types with the dominant vegetation consisting of willow, red alder, hardhack spirea, and sedge. The uplands are dominated by salal, and evergreen blackberry with understory vegetation of oregon grape and sword fern.

3. Wetland C	**0.055 acres**

Location: Near NE property corner, Drainage Area 8.
Surrounding Vegetation: Scrub-shrub wetland types with the dominant vegetation consisting of willow, red alder, western red cedar, hardhack spirea, sedge and chickweed. The uplands dominated by western hemlock, douglas fir, salal, and evergreen blackberry with understory vegetation of oregon grape and sword fern.

4. Wetland D	**0.064 acres**

Location: Near NE property corner, Drainage Area 8.
Surrounding Vegetation: Scrub-shrub wetland types with the dominant vegetation consisting of willow, red alder, western red cedar, hardhack spirea, sedge and chickweed. The uplands dominated by western hemlock, douglas fir, salal, and evergreen blackberry with understory vegetation of oregon grape and sword fern.

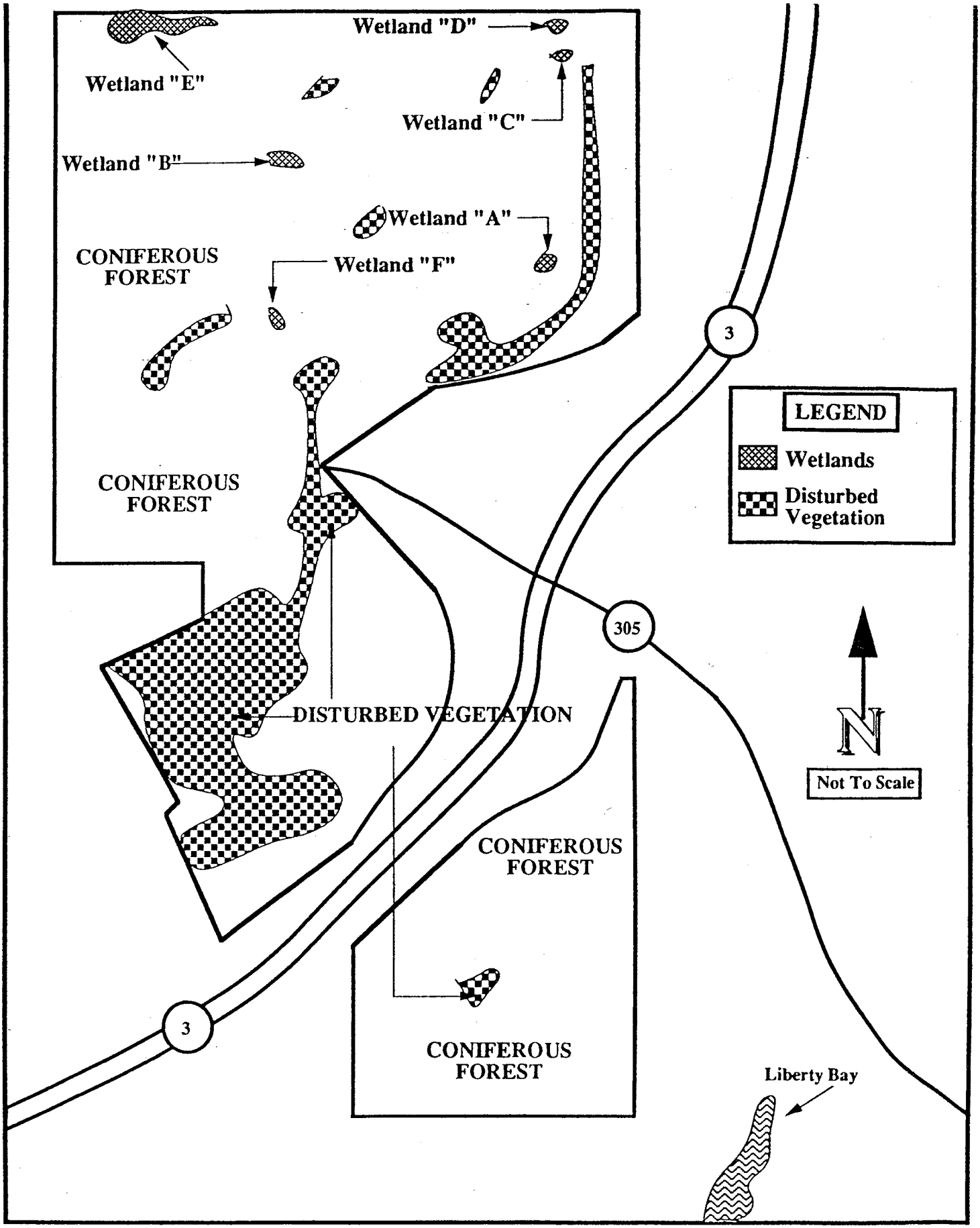
5. Wetland E	**0.776 acres**

Location: NW corner of property, Drainage Area 1.
Surrounding Vegetation: Largest of the wetlands in size due to areas prone to open water and shrubland. The dominant vegetation of this wetland consists of western red cedar, red alder, willow, hardhack spirea, and sedge. The uplands dominated by salal and evergreen huckleberry with understory vegetation of oregon grape and sword fern.

6. Wetland F (Potential)	**0.04 acres**

There is a sixth potential wetland area called Wetland F, discussed in the wetland report developed for the Olhava Master Plan.[9] During the wetland analysis process, this potential wetland area of approximately .04 acres failed to exhibit the necessary soils, hydrology, and vegetation characteristics needed for it to be defined as a wetland. Jones and Stokes, the author of the Biology Section of the Olhava Master Plan document, submitted a supplemental form which reflects the reasons why this potential wetland was eliminated.

9 Wiltermood Associates, "Wetlands Delineation Report", Wiltermood Associates, Port Orchard, WA, 1991.



TERRA NOVA®
Planning & Research, Inc.

Surface Water Analysis Map

Exhibit III-1

2. Impacts

Wildlife
Local species could become harder to find even in open space areas. Wildlife in the area is likely to migrate to nearby habitat as development on the project site occurs. A long term reduction in the population of most species is likely, as available habitat and territorial boundaries shrink.

Vegetation
Development of the project will remove trees and vegetation as commercial pods and residential units are developed. Vegetation and trees will be retained as part of the Olhava project's site development and and landscaping program, as often as possible. Approximately 56% of the site vegetation will be replaced with impervious surfaces.[10] These impervious surfaces will also require ancillary grading to adjacent slopes which will remove additional site vegetation, as will grading for stormwater retention ponds. Site clearing, including the removal of small tree stands to eliminate blow-down hazards, is estimated to remove as much as 85% of the vegetation and trees from the site, some of which will be replaced by project landscaping and vegetative buffers.

Dogfish Creek and Johnson Creek
Both Dogfish Creek and Johnson Creek interact with a number of nearby wetland areas and riparian areas. Some wetlands in the area either feed into or are fed by the two creeks, which ultimately drain into Liberty Bay. No surface flow from the wetlands on the project site interact with either Dogfish Creek or Johnson Creek. It is possible that there is some subsurface flow between the wetlands and the two creeks, although this impact is not measurable. The wetlands on the project site will either be preserved or replaced at a 2:1 ratio. Should any subsurface flow occur under current conditions, it will continue after project development and buildout.

The "Infiltration Testing Report" conducted in April of 1996, concluded that the soils within the Master Plan area are silty sand, confirming the Technical Information Report's conclusions that most, if not all rainfall is infiltrated into permeable soils on site. Therefore, very little, if any water leaves the site in the form of surface water runoff to Johnson Creek and/or Dogfish Creek. Also, most of the old drainage channels on the site are choked with debris and organic soils. This indicates that very little flow has been developed in these gullies over the past several years. Based on the downstream analysis performed within that report, there was no current indication of excessive sedimentation, violations of water quality standards from runoff, or spills and discharges of priority pollutants.

Johnson Creek and Dogfish Creek are not currently impacted by the Olhava property. However, as development occurs impervious surfaces will increase, creating a potential for increased runoff. In order to mitigate these potential impacts, the applicant has proposed to install a surface water retention system which uses infiltration ponds and presettling sedimentation basins, installed in accordance with the standards of the Department of Ecology's Stormwater Management Manual for the Puget Sound Basin, as well as the Kitsap County Stormwater Design Manual, published by the Kitsap County Department of Public Works, Stormwater Division. The presettling sedimentation basins will remove sediment and other pollutants from the storm water prior to discharge into the infiltration ponds. The infiltration ponds will, in turn, allow the storm water to percolate into the ground in the same manner as rain water currently percolates into the soils at the site.

The developer has proposed a system which will encourage infiltration of water into the ground to the maximum extent feasible. However, in order to protect downstream properties and drainage basins, provisions will be required for detention and controlled release of any runoff that is not infiltrated. Other contingency measures may be required by the City consistent with adopted engineering standards.

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10 American Engineering Corporation, Technical Information Report-Olhava Development, Redmond, WA, May, 21, 1996.

Concerns have been expressed that the proposed project will affect the flow rates of both Dogfish Creek and Johnson Creek. As stated on page 3 in the Technical Information Report:

> "The downstream analysis and on-site drainage investigation performed for Johnson Creek and Dogfish Creek indicates that [currently] there is little if any runoff leaving the site."

Johnson Creek and Dogfish Creek will remain unaffected by surface water runoff from the Olhava site.

Alternatives
The loss of open space and wildlife habitat is an unavoidable impact of development. Although site disturbance under each of the proposed development-related alternatives would vary, the overall disturbance of the site will cause the fragmentation of habitat regardless of the level of development. Alternative Five, No Construction, would represent the only alternative which would not have an impact on habitat.

Alternatives Two and Four, Multiple Master Plans and More Intense Development, will result in greater impacts to the site. In the case of Alternative Two, the disjointed development of smaller parcels has greater potential for site disturbance than a coordinated plan. In the case of Alternative Four, the commercial and industrial components represent increases in intensity of 31% and 34%, respectively, while residential units would be increased 25% over the proposed Master Plan. Since the City has strict height limitations, the increases in square footage would necessarily occur through the development of more of the acreage of the property, resulting in greater site disturbance and loss of habitat.

Alternative Three, which represents a reduction of 34% in residential densities, 40% in commercial square footage and 54% in business park square footage, would have greater potential for habitat preservation than any other development-related alternative. Depending on site design and distribution, larger areas of the project site could be preserved as open space. It is also possible that habitat fragmentation would be reduced, again depending on project design. However, grading of large portions of the site would still be required to complete the construction of roads and building sites, limiting the potential for habitat preservation.

3. Mitigation Measures

Habitats for some animals can be preserved through thoughtful construction practices, site development which preserves or replaces natural vegetation, and landscaping with native species. These techniques will be implemented through requirements by the City for native landscaping.

Sensitive plant and animal habitat have been given their own sensitive land overlay designation within the City of Poulsbo. These areas are shown on the City of Poulsbo's Critical Areas Map, and are prohibited or restricted from development. Although no such areas currently occur on the site, any changes in federal listing for species which have been observed is likely to require the preparation of additional studies and mitigation during review of individual project proposals. Developers of any portion of the site shall be subject to environmental regulations in place at the time of application for individual projects.

Proposed Mitigation In The Master Plan

Wetlands
Although potential Wetland F does not exhibit the necessary soils, hydrology and vegetation characteristics needed to be considered a true wetland, the applicant proposes to add an equivalent area to Wetlands C and D, at a ratio of 2:1 or 2 additional square feet for every square foot of potential wetland eliminated. Wetland B will be eliminated indirectly by loss of its supporting drainage basin and will be replaced on the Olhava site at a ratio of 2:1.

The Master Plan proposes that fifty foot buffers will be established for wetlands A, C, and D and the mitigation site. A 100 foot buffer will be established for Wetland E at the Olympic College site. The areas of designated wetlands on this 215 acre parcel will total 1.257± acres after completion of the replacement wetlands. The wetland remediation plan shall be approved by the City's consulting biologist prior to approval of any grading or other construction permit on any portion of the northerly acreage, as required by the City's Critical Areas Ordinance.

The southeastern portion of the Olhava site (Drainage Area 9), includes plans for a 5 foot deep infiltration pond in the southeast corner. The 450 x 40 foot pond will infiltrate runoff at a rate of 6.2 min./inch and will hold a peak volume of 121,700 cubic feet. This infiltration pond will mitigate storm water impacts by infiltrating peak storm flows while raising the groundwater level less than one foot. Since the wetland's permeability and discharge rates are well established, the added groundwater flows will pass through the wetlands at a comparable rate to present inflows of water. The Technical Information Report has concluded that the added groundwater will have a minimal observable effect on the established wetlands off-site, because of the presently established discharge conditions, which are not likely to allow for an increase in storage of surface water on site.

Additional Proposed Mitigation

- Street-side landscaping will utilize native species to further mitigate impacts to wildlife habitat.
- A forest practices permit shall be required for the harvest of timber associated with this project.
- As stated in Section 404 of the Clean Water Act a Section 404 permit shall be required for the following development activities:
  - The addition of material, including deposition of dredged material or excavated soils, or excavation in wetland areas. These activities can include filling, grading, mechanized land clearing, ditching, channelization, and other excavation activities that destroy or degrade waters such as streams or wetlands.
  - The placement of piling when such placement has or will have the effect of a discharge of fill material in the waters of streams or wetlands."
- Existing tree stands will be preserved wherever possible through the use of small rockeries in cut areas and tree wells in fill areas. These tree protection devices will not encroach native tree canopy spread or root systems.
- Native vegetation and groundcovers in preserved tree stand areas will be retained in their natural state with some routine maintenance enhancements. Native trees will be reintroduced through street tree planting schemes with native trees, understory trees, and groundcover placement.
- Native vegetation placed during post construction phasing will be sufficiently irrigated to become established through a proposed drip irrigation system.
- To ensure preservation of wetlands and adjacent buffers, these areas should only be used for passive parks.

B. Unique Species

1. Existing Conditions

Plants

Douglas fir, western hemlock, western red cedar, red alder, and bigleaf maple are the common native tree species of the region, with douglas fir as the most dominant. Red alder is the most common species on disturbed portions of the site. Still other significant tree species are western white pine, lodge pole pine, and Pacific madrona. Common understory species within the Olhava Master Plan Area are salal, vine maple, and salmonberry. Ground cover density depends on location, but includes sword fern, skunk cabbage, grasses, rushes, Scot's broom, and bracken fern. Threatened or endangered species observed

within the the City of Poulsbo's Urban Growth Area include bog clubmoss, western yellow oxalis, Alaska alkaligrass, chain-fern, pink sand verbena, and fringed pinesap. None of these plant species reside within the Olhava property.

Animals

Animal species within the woodland forests of Kitsap County can at times include black-tailed deer, bobcat, coyotes, mountain beaver, black bears, raccoons, squirrels, and several bird species. Other species of local importance in Kitsap County according to the Audubon Society include the marten, fisher, and river otter. Within the Olhava Master Plan Area such species as mountain beaver, Douglas squirrels, deer, and coyote have been observed. Other mammals commonly occurring in similar habitats in western Washington include the long-tailed weasel, porcupine, opossum, deer mouse, Townsend mole and several species of shrews[11]. Bats may also occur on the site, especially big brown bats[12].

Fish

Fish species located in the Poulsbo Urban Growth Area include, but are not limited to, coho, chum, and chinook salmon, surf smelt, Pacific sand lance, herring and native trout. Amphibian species of local importance in Kitsap County according to the Audubon Society include the northwestern salamander, long-toed salamander, Pacific Grant's salamander, and Van Dyke's salamander. The Olhava area is near the north fork of Johnson Creek. The fish species mentioned may occur within this area. Amphibian species could reside in the north fork of Johnson Creek or in the several wetland areas located on the Olhava property, although none were observed during site investigations.

Birds

Bird species of local importance in Kitsap County according to the Audubon Society include the double crested cormorant, great blue heron, barn owl, western bluebird, brant, bufflehead, and harlequin duck. The great blue heron, has a rookery located within the City of Poulsbo's Urban Growth Area, however no evidence of blue heron nesting is evident within the Olhava Master Plan Area.

Other significant bird species observed in Kitsap County include the osprey, northern goshawk, pileated woodpecker, and purple martin, which are State candidates for endangered or threatened species.

Shellfish

The Washington State Department of Health is the managing agency for commercial shellfish harvesting in waters of the state. The Department of Health maintains four classifications for commercial shellfish waters:

1) Approved
2) Conditionally Approved
3) Restricted
4) Prohibited

Nonpoint pollutants[13] collect on impervious surfaces and are washed along roadways into drainage pipes and natural waterways. All current drainage in the Olhava Master Plan Area, as is typical in Poulsbo, have an ultimate destination of Liberty Bay. Evidence of fecal coliform in the Bay has caused a ban on shellfish operations along Liberty Bay's shores. Liberty Bay had maintained a commercial shellfish operation until recently, when a portion of the Bay was classified as "Prohibited" to shellfish farming. In 1993, another

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11 Brown, E.R., Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington, Parts 1 and 2, U.S. Forest Service, Portland Oregon, 1985.

12 Humphrey, S.R., Bats (Vespertilicniolea and Molossidae), John Hopkins University Press, Baltimore, MD, Pg. 52-70, 1982.

13 Nonpoint pollutants include: oil and grease from street surfaces, nutrients from over-fertilized lawns and gardens, and bacteriological contaminants from agricultural land wastes.

portion of the Bay was classified as "Restricted". Shellfish species within Liberty Bay include native little neck clams, Japanese little neck clams, Pacific oysters, and butter clams. The majority of shellfish that have been harvested for commercial purposes include oysters and clams.

2. Impacts

Plants

The development of the Olhava Master Plan Area will reduce the habitat of native species. Increased fragmentation and isolation of habitat areas will occur and will be greater under alternatives with higher densities. Sensitive habitat areas such as wetlands have been designated for protection in the Olhava Master Plan. Areas which are not presently developed and which are not designated as environmentally sensitive also provide habitat that will be destroyed when development occurs. A decrease in vegetation and trees also increases the potential for stormwater runoff and erosion, however impacts to this will be mitigated by the proposed surface water management improvements described previously.

Animals

A reduction in the number of large and small animal species will occur due to grading and development, which inevitably cause habitat loss. Increased fragmentation and isolation of habitat areas will also occur and will be greater under alternatives with higher densities. Areas which are not presently developed and which are not designated as environmentally sensitive provide habitat that will be destroyed when development occurs. Future development under all development-related alternatives will impact and possibly eliminate existing or potential wildlife corridors within the Olhava Master Plan Area. The wetland and perimeter vegetative buffers proposed in the Master Plan will somewhat mitigate the impact by providing habitat.

Wildlife habitat areas will be disturbed by human intervention and the clearing of vegetation and trees. This will occur in any development-related alternative.

Shellfish

With the drainage recommendations made in the Surface Water/Runoff Absorption Section and the Capital Facilities Drainage Section of this EIS, no impacts to shellfish are expected. All stormwater runoff created by new impervious surfaces built during development of the property are planned to be infiltrated back into the soil.

Alternatives

There are no threatened, endangered, or sensitive plant or animal species known to exist on the Olhava parcel.The loss of open space and wildlife habitat is an unavoidable impact that will affect all development-related alternatives. Alternative Five, No Construction, would represent the only alternative which would not have an impact on unique species.

3. Mitigation Measures

Plants

Natural vegetation preservation (particularly large trees) will be encouraged throughout the proposed project. In addition, sensitive area policies and regulations have been established and enforced by the City's Comprehensive Plan, Zoning and Building Codes. The use of native species shall be encouraged in all landscaping plans.

Where natural vegetation has been disturbed, replacement or relocation of trees shall be employed. The City Forester or other appropriate review authority shall review and approve any replacement or relocation plans.

Animals

If any area within the Olhava Master Plan Area is considered, at this time or in the future, to be a sensitive area, it will be designated as a conservation area in the Comprehensive Plan Maps of the City. These lands

will be considered undevelopable open space lands, retaining the original vegetation of the region. Developers of any portion of the project site will be required to comply with such regulations in force at the time of such development.

Additional Mitigation Measures

- Each subsequent application for permits submitted to the City Planning Department for review and approval shall be subject to the requirements of the City's Critical Areas Ordinance in effect at the time of application, if applicable.
- Whenever possible, landscaping plans for any portion of the proposed project shall include indigenous species
- Greenbelts, landscaped parkways and other public or quasi-public areas shall be planted with indigenous plant species whenever possible.
- Each phase shall require a tree survey in order to identify which trees are to be preserved.

C. Fish and Wildlife Migration Routes

1. Existing Conditions

According to the Department of Ecology, neither Poulsbo or the Olhava Master Plan area are located in a wildlife migration route. However, bird species may use its estuaries as a stopover during their winter migration. Migrating bird species could include various species of diving ducks, dabbling ducks, geese, swans, alcids, loons, grebes, gulls, shorebirds, and cormorants.

Fish species, particularly salmon, use Dogfish Creek as their migration spawning stream. Fish species within Poulsbo's Urban Growth Area, and the City of Poulsbo include: salmon (coho, chum, chinook), native steelhead trout, herring, surf smelt, Pacific sand lance, western brook lamprey, shorthead sculpin, torrent sculpin, and shellfish. Fisheries are located along Dogfish Creek and are managed by the Washington State Department of Fisheries and the Suquamish Indian Tribe. A private group, Trout Unlimited, supports the fishery.

2. Impacts

All development-related alternatives will increase development. Impacts to animal migratory patterns include the possible halting or alteration of migratory patterns with a decrease in suitable nesting or migration areas. With increased development, small animal habitat is decreased. Small animals constitute food for many species of birds and wildlife.

With the urbanization of an area, unmitigated storm flows can cause the erosion of stream banks. The eroded material settles in streams and receiving waters, such as Liberty Bay. This sedimentation of stream channels can reduce gravel spawning beds necessary for fish habitat and migratory spawning areas. It can also pollute surface water habitats through contaminated sediments. There seems to be concern that surface water drainage might impact fisheries along Dogfish Creek. In response to this and other drainage related concerns the Olhava Master Plan has developed a Drainage Plan consisting of nine drainage areas in which retention/detention basins with adjoining sedimentation basins will be used to control and cleanse stormwater runoff prior to infiltration. The drainage system for the Olhava Master Plan Area has been designed to provide water quality treatment and abatement for surface water discharge while enhancing existing wetlands.

The developer has proposed a system which will encourage infiltration of water into the ground to the maximum extent feasible. However, in order to protect downstream properties and drainage basins, provisions will be required for detention and controlled release of any runoff that is not infiltrated. Other contingency measures may be required by the City consistent with adopted engineering standards.

Alternatives
All development-related alternatives will increase development. Impacts to animal migratory patterns include the possible halting or alteration of migratory patterns with a decrease in suitable nesting or migration areas. As discussed in the previous section, all development-related alternatives will have an impact on wildlife. The impact on fish in Dogfish Creek, is expected to be minimal under any alternative, since storm water flows are being controlled on the site, and extensive infiltration techniques will be employed on the site. Since the storm water system will be designed to meet or exceed the standards established by the Department of Ecology, as well as the Kitsap County Stormwater Design Manual, published by the Kitsap County Department of Public Works, Stormwater Division, all alternatives are expected to have minimal impacts on the area's streams. The only potential exception could be Alternative Two, Multiple Master Plans, due to the potential for disjointed development. Should a coordinated drainage system not be implemented, the impacts of storm water flows on off-site areas could increase.

Finally, all development-related alternatives will reduce potential foraging areas for migratory birds, through the clearing of land for development. This impact can, however, be mitigated with the incorporation of native vegetation in landscaping plans, and the preservation of tree stands wherever possible.

Alternative Five, No Construction, would represent the only alternative which would not have an impact on migratory patterns.

3. Mitigation Measures

- Natural water sources will be bordered by setbacks and natural buffers to reduce human interaction.
- Sensitive areas, including the final wetland remediation, will be designated on Comprehensive Plan Maps, restricting those designated areas that could serve as migratory lands or feeding grounds from development.

D. Surface Water and Runoff Absorption

1. Existing Conditions

The 215 acre Olhava site contains two major parcels of land divided by State Route 3. The north 174 acre parcel contains a natural ridge running north and south splitting the storm drainage flow into two major drainage basins- Johnson Creek Basin and Dogfish Creek Basin. The west half of the site drains south towards the north fork of Johnson Creek. The remaining acres drain east and flow under State Route 3, mixing with the runoff from the lower 41 acres and draining into Dogfish Creek (See Exhibit III-2, Stormwater Flow Analysis Map). Dogfish Creek flows through Big Valley to the north and discharges near the inlet of Liberty Bay, southeast of the Olhava property. The north fork of Johnson Creek flows south from the project area. These creeks ultimately interact with a number of identified wetland areas (evolving from Dogfish Creek), many corridors, and Liberty Bay.

The topography of the site varies, and can be characterized as following a north-south ridge, with southeast trending slopes. The slopes on the property are generally between 6 and 10 percent, with isolated areas of 20 to 25 percent slope. The project site is generally located at a higher elevation than lands to the south and east, as the natural topography slopes to Liberty Bay.

Both the slope of the surface upon which precipitation falls and the smoothness of the surface affect the amount of precipitation that infiltrates the soil. More rain tends to run off a steep slope than a level plain, so less moisture infiltrates into the soil on a steep slope. On uneven surfaces, runoff may be detained in pools for longer periods of time, allowing greater infiltration to occur. Revegetation of native plant species on slopes and other surfaces with a tendency towards runoff will enhance infiltration into the soil.

The Olhava Master Plan Area has a variety of wetland communities. The five delineated wetlands on the parcel are all located north of State Route 3. Both the Wetlands Delineation Report written by Wiltermood Associates and the Technical Information Report-Olhava Development, written by the American Engineering Corporation have designated these areas as Wetlands A through E (Please see Exhibit III-1-Surface Water Analysis Map). There is a sixth potential wetland area discussed within these reports as Wetland F. This potential wetland area of approximately 0.04 acres was considered to be a wetland in early reports, however, it failed to exhibit the necessary soils, hydrology, and vegetation characteristics needed for it to be defined as a wetland. Jones and Stokes, the author of the Biology Section of the Olhava Master Plan document, submitted a supplemental form which identifies the reasons why this potential wetland was eliminated. Although Wetland F is not considered a wetland according to applicable Federal definitions, mitigation of the loss of this area will still occur.

The site is currently undeveloped with only minimal impervious surfaces. The northern 174 acre parcel, northwest of State Route 3 is mostly forested, containing a small portion of impervious surfaces within the decommissioned Nike facility. The remaining lower 41 acres is forested and is located on the east side of State Route 3.

The proposed development is divided into nine separate storm drainage areas. Four of the drainage areas (Drainage Areas 1-4 on Exhibit III-2) eventually drain into Johnson Creek, while the other five (Drainage Areas 5-9 on Exhibit III-2) drain into Dogfish Creek. The end result is drainage by both creeks into Liberty Bay.

Surface water in the City is typically collected in a system of pipes, ditches and retention basins. The Storm Sewer Division of the Public Works Department of the City of Poulsbo currently maintains approximately 15 miles of enclosed storm sewer pipes within the City's system, several miles of open ditch drainage, six oil separators, and over 1,200 retention basins and detention systems. This department is also in charge of the installation and maintenance of catch basins and storm drains.

Development of the Master Plan, or any development-related alternative, includes requirements to mitigate drainage impacts caused by the development of the site. In May of 1996, a Technical Information Report was developed evaluating the Olhava Development and its impacts on surface water drainage[14]. No surface runoff in excess of volumes occurring in the natural undeveloped state of the site is allowed following development. This project bases its design on recommendations and requirements contained in the 1992 Stormwater Management Manual for the Puget Sound Basin published by the Washington State Department of Ecology. It addresses eleven minimum requirements. These minimum requirements include:

- Erosion and Sedimentation Control
- Preservation of Natural Drainage Systems
- Source Control of Pollution
- Runoff Treatment Best Management Practices (BMP's)
- Streambank Erosion Control
- Wetlands
- Water Quality Sensitive Areas
- Off-Site Analysis and Mitigation
- Basin Planning
- Operation and Maintenance
- Financial Liability

Along with field observations, calculations, and information presented in the Integrated Master Plan for the Olhava Property, the Technical Information Report identifies the effects the development of the Olhava property would have on the City of Poulsbo's natural surface water drainage system as well as its surface

[14] Ibid.

water drainage capital facility network. All of the minimum requirements mentioned above and the mitigation measures necessary to enforce them are discussed in various water-related sections of this EIS.

Wetlands

According to the Federal Interagency Committee for Wetland Delineation (FICWD), and the 1987 Army Corps of Engineers' Manual of Wetland Delineation[15], three requirements must be met before an area can be identified as a wetland. There must be evidence of hydrophytic vegetation, hydric soils, and wetland hydrology (seasonal soil saturation). Five areas within the Olhava property constitute a wetland with these characteristics. Designated wetlands on this 215 acre parcel are considered to total about 1.137 acres. After mitigation, that total will increase to 1.257 acres.

Biological support is considered the ability of a wetland to have sufficient water constantly available to cover the area. Wetlands also provide areas for hunting and food gathering for many species of small birds and mammals, and larger types of wildlife. Wetlands A and B provide an abundance of cover but may not provide much water during the summer months. They are rated as Moderate-High for biological support[16]. Wetlands C and D are small in size and do not provide sufficient cover and water during the summer months. They are rated Low for biological support. Wetland E is larger in size and provides the sufficient cover necessary for wildlife, especially around the edges and within the scrub-shrub areas. The depth of this wetland indicates that it contains enough water to sustain itself through the dry summer months. Open water is also available for waterfowl. Wetland E rates at Moderate-High for biological support. The following table exhibits how the five wetland areas rate for surface water quality and storage.

15 All wetland delineations must be performed in accordance with the 1987 Army Corps of Engineers' Manual.

16 The ratings system is one created by Wiltermood Associates and is based on their experience in wetlands research.

Table III-2
Olhava Master Plan Wetland Summary

Area	Flood and Storm Water Storage Rating	Groundwater Discharge And Recharge Rating	Water Regime
1. Wetland A 0.122 acres	High	Moderate-High	Seasonally flooded; No apparent outlet
Location: 400 ft. SW of Commerce Rd., Drainage Area 8			
2. Wetland B 0.080 acres	High	Moderate-High	Seasonally flooded; No apparent outlet
Location: Along an old north-south logging road, Drainage Area 1.			
3. Wetland C 0.055 acres	Low	Low	Seasonally flooded; No apparent outlet
Location: Near NE property corner, Drainage Area 8.			
4. Wetland D 0.064 acres	Low	Low	Seasonally flooded; No apparent outlet
Location: Near NE property corner, Drainage Area 8.			
5. Wetland E 0.776 acres	High	Moderate -High	Permanently flooded; Outlet to the SW
Location: NW corner of property, Drainage Area 1.			

2. Impacts

Two issues are of particular concern: the increase in runoff caused by new construction (impervious surfaces) can cause erosion and adversely affect the capacity of the drainage system; and untreated runoff from impervious surfaces can transport pollutants such as oils and chemicals. If unmitigated, stormwater is carried into streams and rivers, causing flooding, bank erosion, and sedimentation as well as damage and hazards to adjoining properties.

It is important to note that the discussion contained in this document is based on a conceptual drainage plan only. The design and implementation of the surface water management plan will be undertaken using standards and requirements of the City and state, and will be reviewed and approved by the City Engineer prior to development of the proposed project.

Construction of the Olhava development is likely to modify the runoff and infiltration characteristics of the site. The development of any development-related alternative will also have a potential impact on the hazards of erosion and drainage system capacity. The Olhava Master Plan Area will be built out with impervious surfaces ranging from parking lots to structures generating runoff. The project proposes to adhere to the standards of the City's zoning ordinance relating to maximum building lot coverage. The Zoning Ordinance restricts the maximum percentage of any residential site that may be covered by buildings, parking lots, and other impervious surfaces. Landscaping and natural buffers are considering permeable surfaces. Based on this assumption, the following maximums in impervious surfaces have been calculated:

Table III-3
Maximum Building Lot Coverage Calculations

Development Type	Total Acreage	Maximum Coverage	Minimum Permeable Areas
Low Density Residential	20.5	40%	12.3 AC
Medium Density Residential	41.5	50%	20.75 AC
Olympic College	20	33%*	13.44 AC
Community Park	8	None	8 AC

*The zoning ordinance calls for a maximum building lot coverage of 50%, however, the final College site plan shows maximum building lot coverage at 33%.

In commercial and business park zones, the Zoning Ordinance restricts building lot coverage to a maximum of fifty percent. In addition, requirements for perimeter landscaping, setbacks, parking lot landscaping and visual relief buffers generally result in at least fifteen to twenty percent of the site being pervious. When the site includes environmentally sensitive areas, a greater percentage of the site is pervious due to the requirements of the Critical Areas Ordinance.

Nine Drainage Areas

This section provides a listing of the nine drainage areas (see Exhibit III-2)[17], after development, which are analyzed in more detail in Section III-2-E, Capital Facilities: Drainage. Since infiltration will be used to mitigate stormwater runoff created by construction of the Olhava property, the developed on-site drainage will include its own infiltration pond systems. The infiltration ponds will be designed to allow three feet of separation between the high ground water table and the bottom of the ponds for maximum filtration. Prior to entry to the infiltration system, all water will pass through a sedimentation bay designed for pre-treatment and sedimentation removal, unless runoff consists of roof drainage exclusively, in which case no sedimentation removal is necessary. Roof runoff is relatively clean and does not require pre-treatment.

Pre-development and post-development drainage basin analyses were performed by American Engineering Corporation, and summarized in their report entitled Technical Information Report for the Olhava Development. Pre-development stormwater runoff analyses were done using calculations for a 100 yr./24 hr. storm design, the preferred storm design used by the Department of Ecology. Due to requirements within the State of Washington Department of Ecology's "Stormwater Management Manual for the Puget Sound Basin" [SWMM], calculations for post-development were done using a 100 yr./7-day design storm scenario.

Drainage Area 1 - This drainage area covers much of the western portion of the Olhava property and includes the 20 acre Olympic College site. It is characterized by a trough running to the south which exits the site at the southwest corner. Wetland E is located here on the northern portion of the site. The wetlands are fed off-site from the north. (Please see Section III-2-E, Capital Facilities: Drainage for specific design measurements of stormwater control facilities.)

Drainage Area 2 - This drainage area is relatively small and is located to the south of Drainage Area 1. It is created by a small trough which runs in a southwesterly direction. The slope of the area carries runoff to the trough which discharges water from Drainage Area 1.

[17] The twelve drainage areas shown in the Master Plan have been consolidated into nine drainage areas after construction, because of the consolidation of discharges into combined drainages.

Drainage Area 3 - Drainage Area 3 is also small and is created by two small troughs that meet at the property line - one running southwest and the other running northwest. The slope of this area also carries runoff to the trough which discharges water from Drainage Area 1.

Drainage Area 4 - Located south of Drainage Area 3, this area does not appear to have an outlet from the Olhava site. If runoff from this area were to leave the site, it would discharge into a drainage ditch on the north side of the abandoned Nike site access road, eventually joining the runoff from Drainage Areas 1, 2, and 3 through a culvert which crosses the abandoned Nike site access road and then discharges into a culvert crossing NW Finn Hill Road.

Drainage Area 5 - This area is south of Drainage Area 4 at the southern tip of the Olhava site, west of State Route 3. It drains similarly to Drainage Area 4 along the west side of State Route 3, which in turn drains in a southwesterly direction.

Drainage Area 6 - Drainage Area 6 is located east of of Drainage Areas 3, 4, and 5. Since the construction of State Route 3, any runoff leaving the site from this area would drain to the drainage ditch on the west side of State Route 3 which discharges to an inlet in the western corner of Drainage Area 6. The inlet discharges to a Department of Transportation sedimentation/retention basin across State Route 3 on the east. From this sedimentation/retention basin, runoff discharges through a series of culverts along State Route 305 to another Department of Transportation sedimentation pond. Drainage ditches eventually transport runoff across State Route 305 to the south, where it meets Dogfish Creek and is ultimately discharged into Liberty Bay.

Drainage Area 7 - This drainage area is located on the middle portion of the east side of the Olhava property. Any runoff from this area would flow to the drainage ditch west of State Route 3 where it then would be transported to an inlet under the State Route bridge over State Route 305. The runoff then would travel through a culvert to drainage ditches along State Route 305.

Drainage Area 8 - This drainage area is located in the northeastern part of the Olhava site. Three small wetlands (Wetlands A, C, and D) are located within this drainage area and are fed primarily by groundwater seepage resulting from rainfall. A portion of the groundwater generated within this drainage is from the three wetlands located to the eastern edge of the site. Any runoff from this drainage area would travel to a drainage ditch on the west and north side of the State Route 3 southbound off-ramp which in turn would discharge to a retention basin and inlet to a culvert across State Route 3.

Drainage Area 9 - This area includes the entire south portion of the Olhava property south of State Route 3. Located to the south of the property line are two deep gullies which collect most of the runoff and send it out the southeast corner of the property. Any runoff would travel through drainage ditches under Viking Way to the east to its final destination at Liberty Bay.

Post-Development Drainage

The proposed project's surface water management system will be designed to meet the City's requirements, using state of the art principals for surface water management. A typical surface water management system is depicted in Exhibit III-1A. The City of Poulsbo has adopted the most up to date standards available for use in the design, construction and maintenance of stormwater facilities. These include the Stormwater Management Manual for the Puget Sound Basin, published by the Washington State Department of Ecology, as well as the Kitsap County Stormwater Design Manual, published by the Kitsap County Department of Public Works, Stormwater Division. The developer has proposed a system which will encourage infiltration of water into the ground to the maximum extent feasible. However, in order to protect downstream properties and drainage basins, provisions will be required for detention and controlled release of any runoff that is not infiltrated. Other contingency measures may be required by the City consistent with adopted engineering standards.

Infiltration capacity for the Olhava property has been calculated at a volume of approximately 1.9 million cubic feet (about 14,212,000 gallons) of runoff. This amount of storm water would be produced by a 100 year 7 day storm totalling 9.5 inches of rain over a seven day period. The total land surface area required to infiltrate this volume of storm water generated from this 7-day cycle will be available within the series of retention basins planned for development within the drainage areas of the Olhava property[18].

The Need for Sedimentation Removal

Pollution due to runoff from impervious surfaces is generally the greatest threat to surface water areas such as wetlands and streams. Impervious areas are typically man-made surfaces with very little vegetation to collect runoff or moisture. Increased oils, as well as animal wastes (which can contain fecal coliform), and other nonpoint pollutants[19, 20] collect on impervious surfaces and are washed along roadways into drainage pipes and natural waterways by surface water. Human intervention and agricultural animal wastes degrade water quality with contaminants, requiring sedimentation treatment of the resulting runoff.

Erosion

No significant signs of erosion are apparent on the Olhava property. This is due mainly to the presence of established natural groundcover, understory, and overstory vegetation. Some erosion, caused by off-site filling of a wetland which occurred during the construction of SR-3 improvements, has impacted the northeastern corner of the site. Previously constructed areas to the north of the Olhava property, where clearing and imported fill were used, have altered natural drainage absorption rates as well as soil permeability. The impacts to the Olhava property have been that two wetlands on the property have been artificially increased in size beyond their original dimensions reported in 1991. The applicant is currently working with Kitsap County to restore the natural drainage pattern in this area.

Erosion Control

Significant sediment deposition has historically occurred in the lower reaches of the south fork of Dogfish Creek due to erosion of the natural landscape. Sedimentation of surface water systems due to erosion degrades receiving water quality and impacts aquatic habitats. With the urbanization and development of an area, storm flows typically increase, increasing the erosion of stream banks, if erosion control is not built into the project. The eroded material settles in streams and receiving waters. This sedimentation of stream channels can reduce gravel spawning beds necessary for fish habitat and migratory spawning areas. Pollutants often found in stormwater, including metals, nutrients, bacteria, and petroleum products, can accumulate in sediments deposited near the outfalls from storm drainage systems. With additional impervious surfaces being developed within the Olhava Master Plan Area, if unmitigated, additional stormwater runoff would also be generated carrying sediments and therefore pollutants to Dogfish Creek, Johnson Creek, and Liberty Bay. The proposed project's planned improvements mitigate this potential impact to a level of insignificance.

Although all development-related alternatives will increase impervious surfaces, the alternatives with more development activity will have more impervious surfaces built therefore increasing the amount of surface water that would be retained and infiltrated through the storm water system.

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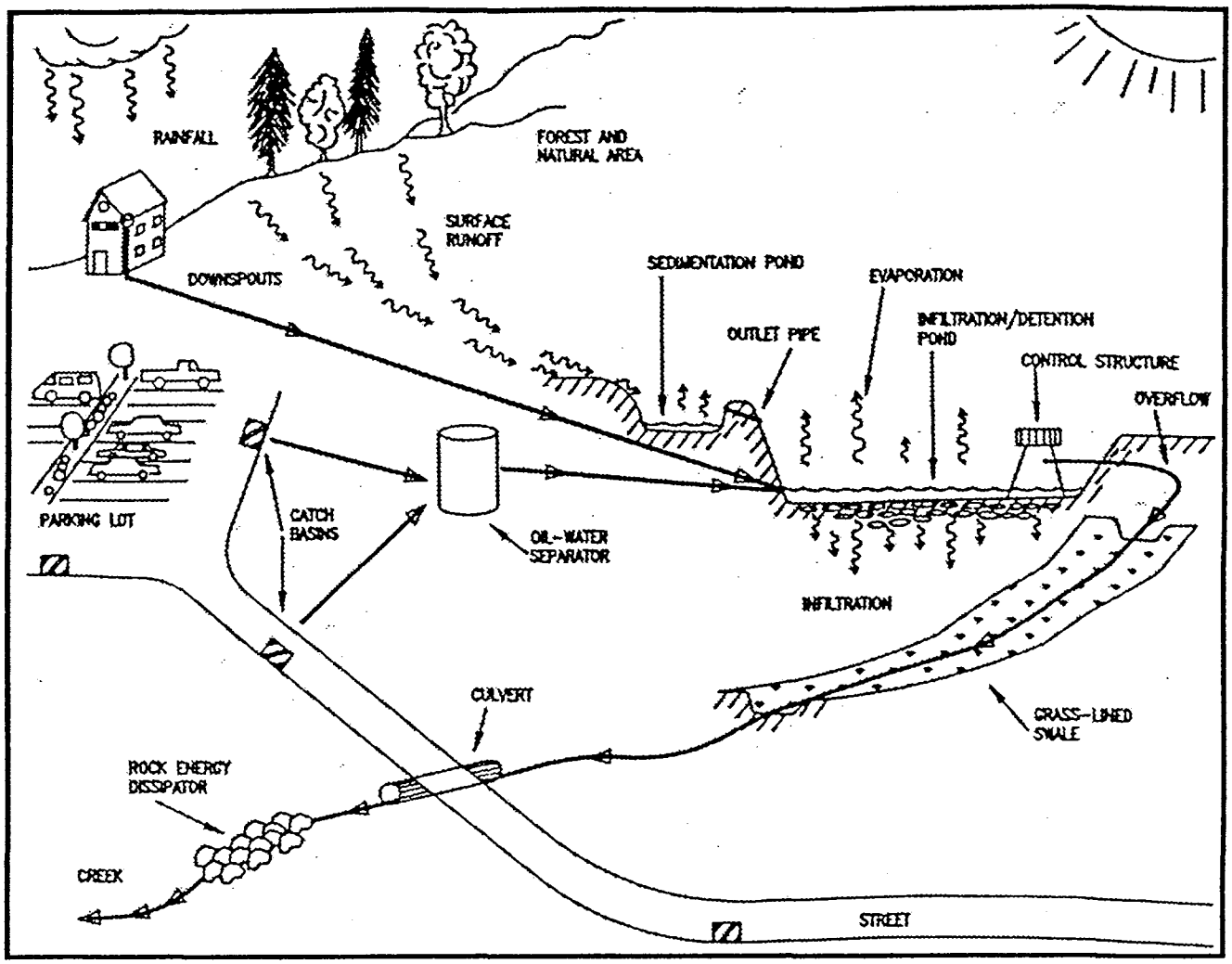
18 American Engineering Corporation, Drainage Study for the Olhava Development, Redmond, WA, April 2, 1996, Page 8.

19 Nonpoint pollutants include: oil and grease from street surfaces, nutrients from over-fertilized lawns and gardens, and bacteriological contaminants from agricultural land wastes.

20 According to the National Wetland Inventory (USF&WS, 1988).



These definitions are from the Stormwater Management Manual for the Puget Sound Basin.

Catch Basin - a chamber or well, usually built at the curb line of a street, for the admission of surface water to a sewer or subdrain, having at its base a sediment sump designed to retain.

Control Structure - a conduit system designed to regulate the discharge flow to predetermined design quantity.

Culvert - pipe or concrete box structure which drains open channels, swales or ditches under a roadway or embankment. Typically with no manholes or catch basins along its length.

Detention - the release of stormwater runoff from the site at a slower rate than it is collected by the stormwater facility system, the difference being held in temporary storage.

Energy Dissipator - any means by which the total energy of flowing water is reduced. In stormwater design, they are usually mechanisms that reduce velocity prior to, or a, discharge from an outfall in order to prevent erosion. They include rock splash pads, drop manholes, concrete stilling basins or baffles, and check dams.

Infiltration - means the downward movement of water from the surface to the subsoil.

Outlet - point of water disposal from a stream, river, lake, tidewater, or artificial drain.

Overflow - a pipeline or conduit device, together with an outlet pipe, that provides for the discharge of portions of combined sewer flows into receiving waters or other points of disposal.

Sedimentation - the depositing or formation of sediment.

Swale - A shallow drainage conveyance with relatively gentle side slopes, generally with flow depths less than one foot.

TERRA NOVA®
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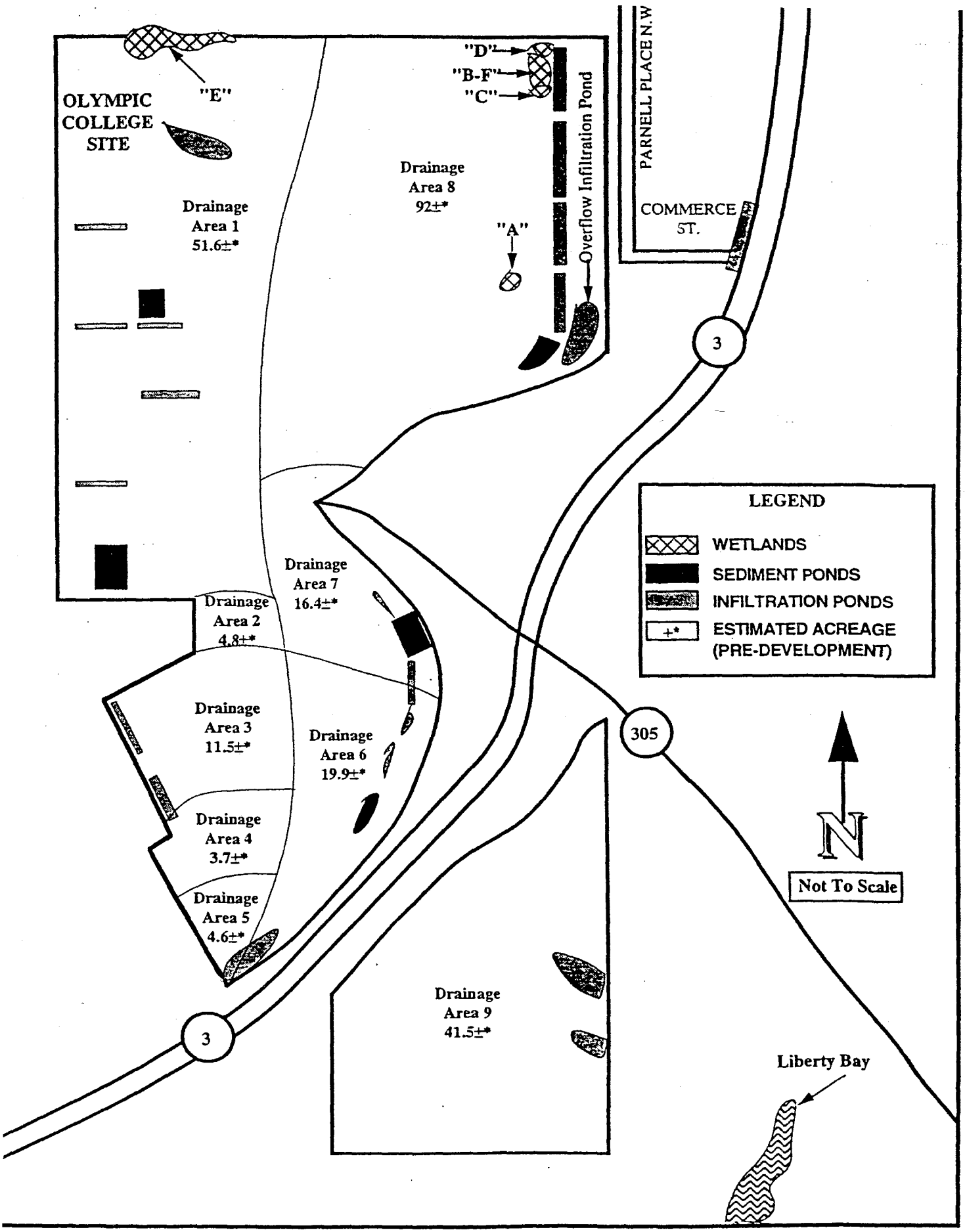
Typical Surface Water Management System

Exhibit

III-1A



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Stormwater Flow Mitigation Measures Analyses Map

Exhibit

III-2

Source Control of Pollution
During the development of the Olhava property the major potential pollution source present within stormwater runoff will be aggregate fine soil created during grading operations. It is also possible that some oil or fuel might become present in small quantities due to leaks that can occur in the heavy equipment used during grading. These impacts will be temporary and limited to the duration of project construction. Following development, potential pollution sources will be in small quantities of oil and other lubricants from vehicles, and fertilizers used in landscaping.

Wetlands
Clearing and imported fill have altered natural drainage absorption rates as well as soil permeability in previously developed areas to the north of the Olhava Master Plan area. The impacts to the Olhava property have been that two wetlands on the property have artificially increased in size beyond original dimensions reported in 1991. The project proponent is currently working with Kitsap County to restore the natural drainage pattern to this area.

Wetland B will be eliminated indirectly by the loss of its supporting drainage basin through development of the Olhava property, but will be mitigated through the enlargement of wetlands C and D. The area to be eliminated in wetland B will be replaced at a 2:1 ratio in wetlands C and D.

Effects of Infiltration
Lowland landowners who have wetlands east of the Olhava property have expressed concerns about the potential increase in seepage, expanded wetlands, and the possible loss of developable property (the drainage areas affected would be Drainage Areas 8 and 9). A culvert feeding the wetlands appears to be fanning the wetland outward from the culvert.

A line of retention ponds in Drainage Area 8 will stretch along the north-south perimeter near the far eastern property line.The total infiltration volume required for this area will be as follows:

Infiltration Rate-	10.0 min./inch
Pond Length-	1300 ft.
Pond Width-	15 ft.
Pond Depth-	6 ft.
Total Volume Required-	185,820 cf[21]
	or 1,389,933.6 gal.

In Drainage Area 9 there are two deep gullies located to the south of the property line which collect the runoff and send it out the southeast corner of the property. The current stormwater runoff before construction travels through drainage ditches under Viking Way to the east until its final destination is Liberty Bay.

An infiltration pond will be constructed on the southeast corner of Drainage Area 9 to eliminate excess stormwater runoff.

Infiltration Rate-	6.2 min./inch
Pond Length-	450 ft.
Pond Width-	40 ft.
Pond Depth-	5 ft.
Total Volume Required-	121,700 cf
	or 910,316 gal.

Infiltration capacity for the Olhava property has been calculated at a volume of approximately 1.9 million cubic feet (about 14,212,000 gallons) of runoff. This amount of runoff would be produced by a 100 year

[21] cf= cubic feet

7 day storm totalling 9.5 inches of rain over the seven day period. The total land surface area required to infiltrate runoff generated from this 7-day cycle will be available within the series of retention basins planned for development within the drainage areas of the Olhava property[22].

Upon development of the site, the existing nine drainage areas and their detention pond system will continue to provide a drainage path for the runoff generated. Each detention pond will have a sedimentation bay designed to provide pre-treatment and sedimentation removal prior to discharging into the infiltration pond where all runoff will be eliminated on the surface through percolation into the soil. Runoff from roof drainage does not require sedimentation removal; straight infiltration will be performed in areas creating only roof drainage. Little or no surface water runoff leaves the project site currently, because on-site soils infiltrate rainfall. After development, all runoff will be diverted into a series of retention basins and infiltration ponds. The improvements proposed for the project site will eliminate any potential off-site impact from surface water runoff[23].

Dogfish Creek and Johnson Creek

Both Johnson Creek and Dogfish Creek impact a number of identified wetland areas (evolving from Dogfish Creek), riparian corridors, and Liberty Bay. A report entitled "Infiltration Testing Report", concluded that the soils within the project area are silty sand, confirming the Technical Information Report's conclusions that most rainfall is infiltrated into permeable soils on site[24]. Therefore, very little water leaves the site in the form of surface water runoff which could be added to either Johnson Creek or Dogfish Creek. Also, most of the old drainage channels on the site are choked with debris and organic soils. This indicates that very little flow has occurred in these gullies over the past several years. Based on the downstream analysis performed within that report, there was no current indication of excessive sedimentation, violations of water quality standards from runoff leaving the site, or spills and discharges of priority pollutants.

Although Johnson Creek and Dogfish Creek are not currently impacted by the Olhava property, as development occurs impervious surfaces will increase. This will present a need for mitigation of the runoff into these surface water areas, as required by the Department of Ecology. The project proposes to use infiltration ponds with presettling sedimentation basins to maintain water quality for the discharge of any runoff from the developed site. This measure ensures that sediments which could act as pollutants will be filtered out of stormwater runoff before any runoff were to leave the site and continue into Dogfish Creek or Johnson Creek.

In Drainage Area 1, to prevent stormwater runoff and its sediments from flowing south through a series of culverts eventually merging into Johnson Creek, a 98,000 cubic foot infiltration pond (approximately 733,040 gallons) with a sedimentation basin has been proposed. This 6 foot deep pond will infiltrate runoff at 6.2 min./inch and will have dimensions measuring 700 by 15 feet. A moderate rate of infiltration is considered to be between 3.2 to 15.2 minutes per inch. For this site, an infiltration rate of 6.2 will be accomplished by minimizing sedimentation. Infiltration rates for this pond will be maintained at a 6.2 minutes per one inch interval.

Adjoining Drainage Area 6 and 8, a series of infiltration ponds with presettling sedimentation basins will help to control and filter out stormwater runoff and its sediments. Drainage Area 6 will consist of several separate infiltration ponds totalling 159,000 cubic feet (or approximately 1,189,320 gallons) for the runoff of paved areas. They will infiltrate at a rate of 6.4 min./inch. For Drainage Area 8, a line of retention ponds will stretch along the north-south perimeter of the site near the far eastern property line to help

22 American Engineering Corporation, Drainage Study for the Olhava Development, Redmond, WA, April 2, 1996, Page 8.

23 American Engineering Corporation, Technical Information Report-Olhava Development, Redmond, WA, May, 21, 1996.

24 American Engineering Corp., Infiltration Testing Report for Olhava Development. April 1996.

control runoff from residential areas to nearby wetlands. The total infiltration volume required for this area will be 185,820 cubic feet (approximately 1,389,933.6 gallons) with an infiltration rate of 10.0 min./inch.

Installation of Retention Basins

Retention basins are important in order to control the amount of drainage dispersed into other areas in times of very heavy stormwater runoff. A number of detention/retention basins will be developed within the project area; some already exist around the perimeter of the Olhava area, previously built by the Department of Transportation. There are currently four Department of Transportation retention ponds located to the east of the Olhava Master Plan area.

A cleared and graded area north of the Olhava site drains into an area where three wetlands are located. Erosion control during site development will be accomplished by the installation of check dams, silt fences and straw bales. Slopes that have been cut will be replanted with native vegetation upon completion of grading. As with other types of runoff from the site, surface water from areas sensitive to erosion will be directed into retention and infiltration basins for the removal of silt before continuing downstream.

Alternatives

The differences between the four development-related alternatives revolve predominantly around land use types and the total amount of impervious surfaces involved with each development plan. Typically business parks and commercial activities require the largest amount of pavement coverage for large loading zones, driveways, and parking facilities. Business parks can contain warehouses creating large impervious roof surfaces. Commercial areas also consist of large amounts of pavement coverage. Since residential areas consist of more landscaping and natural buffers than commercial and business parks, they are smaller contributors to impervious surface development. The Olympic College facility, containing parking lots, several buildings, and naturally buffered trails and landscaping contains the lowest percentage of impervious areas in the project area.

As described, Alternative Four would have the largest amount of commercial, business park, and multi-family residential units. The only type of development within the higher density alternative not having the greatest impact of the four is single family residential development.

Alternative Two has the highest potential for the construction of single family units, as well as the greatest amount of square footage proposed for business park development.

The proposed project consists of an extensive phasing plan that the Alternative Two might not include. The disjointed development possible under this alternative has the greatest potential to impact off-site erosion and increased flows. Although any development on the project site will be required to construct facilities to meet or exceed the DOE standards, the development of smaller, independent drainage systems, which will not necessarily be constructed in a coordinated manner, create the greatest potential for impacts.

The lower density alternative would have the least potential for the development of impervious surfaces, and reflects a higher potential for natural infiltration. This alternative will, however, be subject to the same standards regarding DOE regulations for drainage, and will require the development of an extensive drainage program, similar to that proposed for the proposed project. The infiltration ponds might be somewhat reduced in size, due to the increased potential of infiltration from pervious surfaces throughout this alternative.

Although each of the four development-related alternatives would have differing amounts of impervious surfaces, none would represent a significant impact on surface water runoff, since all surface water would continue to be infiltrated on-site. Alternative Five would represent a continuation of current conditions, which also appear to cause water to be infiltrated. The clogging of existing natural drainages is evidence of a lack of surface water runoff.

3. Mitigation Measures

Proposed Mitigation in the Master Plan

Basin Planning
With regards to Basin Planning, the Olhava Master Plan proposes surface water management facilities in conformance with or in excess of the requirements set forth in the:

1. Liberty Bay/Miller Bay Watershed Plan
2. Federal Clean Water Act-Section 401
3. Federal Clean Water Act- Section 404
4. State Water Quality Standards
5. State Department of Ecology Storm Water Management Manual for the Puget Sound Basin
6. State Hydraulics Code
7. City of Poulsbo Municipal Code
8. City of Poulsbo Drainage Ordinances
9. City of Poulsbo Sensitive Areas Ordinance

The City of Poulsbo shall review and approve the Technical Information Report compiled by American Engineering Corporation and this Environmental Impact Statement's detailed surface water information prior to site development. The project will be reviewed and approved based on conformance with these documents as well as the Washington State Department of Ecology's Stormwater Management Manual for the Puget Sound Basin [SWMM], and the Kitsap County Stormwater Design Manual, published by the Kitsap County Department of Public Works, Stormwater Division.

Preservation of Natural Drainage Areas
As development occurs impervious surfaces will increase. This will present a need for mitigation of the runoff in these surface water areas. The project proposes to use infiltration ponds with presettling sedimentation basins to maintain water quality for the discharge of storm water from the developed site to groundwater.

In addition, based on the downstream analysis conducted for the Technical Information Report on the Olhava property for Dogfish Creek and Johnson Creek, if there were any runoff leaving the site it would be intercepted by the newly constructed Washington State Department of Transportation (WSDOT) storm drainage improvements which were added because of new construction on the State Route 3 and State Route 305 interchange. With the lack of problems noted and the proposed mitigation through the use of infiltration ponds to store and infiltrate all storm water, as well as the Department of Transportation's drainage improvements, the development will not have an impact on downstream water quality and quantity[25]. (All infiltration ponds will be designed in accordance with specifications set forth in the Washington State Department of Ecology's Stormwater Management Manual for the Puget Sound Basin [SWMM], as well as the Kitsap County Stormwater Design Manual, published by the Kitsap County Department of Public Works, Stormwater Division).

Runoff Treatment Best Management Practices (BMP's)
The most effective mitigation to alleviate storm and surface water runoff will be accomplished through the use of infiltration ponds and the revegetation of native species. Presettling basins will also be used to remove sediment and pollutants prior to infiltration. The presettling basins will be designed to allow a separation of three feet between the high groundwater table and the bottom of the basin. The infiltration ponds will be sized to infiltrate all runoff generated from the developed site for a 100 year, 7 day storm event in accordance with specifications set forth in the Washington State Department of Ecology's

[25] Ibid., Page 11.

Stormwater Management Manual for the Puget Sound Basin [SWMM], as well as the Kitsap County Stormwater Design Manual, published by the Kitsap County Department of Public Works, Stormwater Division). This will provide for maximum filtration.

Streambank Erosion Control
Erosion control during site development will require the construction of on-site detention ponds, check dams, silt fences and straw bales. Slopes that have been cut will be reseeded upon completion of grading. As with other types of runoff from the site, surface water from areas sensitive to erosion will be directed into catchment basins for the removal of silt before infiltration.

Storm water runoff from any site, including the project site, is required by the Washington State Department of Ecology to be detained and released at 50% of the pre-developed 2-year/24-hour design storm as well as the 100-year/24-hour design storm. The Olhava project will meet and exceed these requirements.

Sedimentation and Erosion Control
During construction and development a number of erosion and sedimentation control techniques will be used. The Olhava Project's erosion control and sedimentation control will be divided into phases consisting of:

- Sediment trapping through the use of sediment ponds, fences and traps as well as soil stabilization using vegetation planting, plastic covering, and an early application of gravel as a base on areas to be paved. All exposed areas shall be stabilized and revegetated immediately upon the completion of grading.
- Setbacks, critical areas and their buffers, trees, and drainage courses will be clearly marked to protect those areas from development.
- Adjacent properties will be protected from sedimentation during construction activities. This will be done through the installation of perimeter controls such as barriers, filters, dikes, or sediment basins, as necessary.
- Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion by using roughened soil surfaces as opposed to smooth surfaces on slopes. Interceptors shall be constructed at the top of long steep slopes which have significant drainage areas above the slope. Diversions or terraces may also be used to reduce slope length. Concentrated stormwater will not be allowed to flow down cut or fill slopes unless contained within an adequate channel or pipe slope drain.
- All temporary on-site conveyance channels shall be designed, constructed and stabilized to prevent erosion from the expected velocity of flow from a 2-year, 24-hour frequency storm for the developed condition. Stabilization and revegetation, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches, shall be provided at the outlets of all conveyance systems.
- All storm drain inlets made operable during construction shall be protected so that stormwater runoff shall not enter the system without first being filtered or otherwise treated to remove sediment.
- For underground utility construction, no more than 500 feet of trench shall be opened at one time, where feasible; excavated material shall be placed on the uphill side of trenches, when consistent with safety and space considerations; and trench dewatering devices shall discharge into a sediment trap or sediment pond.
- Wherever construction vehicle access routes intersect paved roads, provisions must be made to minimize the transport of sediment onto the paved road. If sediment is transported onto a paved road surface, the roads shall be cleaned thoroughly at the end of each day. Sediment shall be removed from roads by shoveling or sweeping and be transported to a controlled sediment disposal area. Street washing will occur after sediment is removed in this manner, if necessary.
- All temporary and permanent erosion and sediment control mitigation measures shall be maintained and repaired as needed to assure continued performance of their intended function. Maintenance of all completed drainage facilities is the responsibility of the City of Poulsbo. Maintenance requirements for each facility can be found in the Puget Sound Stormwater Management Manual.

All of the temporary, construction-related sedimentation control and erosion mitigation measures must be in place prior to land disturbance and grading activities. All temporary erosion and sedimentation control mitigation measures shall be removed within 30 days after final site stabilization is achieved or after the temporary measures are no longer needed, whichever is later.

Source Control of Pollution
For impervious surface runoff, continued maintenance of the drainage system will be required to decrease seepage through cracks in culverts, mitigate runoff, and help to alleviate the possibility of surface water pollution entering Liberty Bay. All pollutants other than sediment that occur on-site during construction shall be handled and disposed of in a manner that does not cause contamination of stormwater.

Water Quality Sensitive Areas
The storm water control system for the Olhava project was designed based on the requirements of the Department of Ecology's Stormwater Management Manual for the Puget Sound Basin. The Manual identifies several more stringent storm water control standards which may be applied in special circumstances or in cases where potential sensitive areas are located within an area that is to be developed. The City Engineer has reviewed the Master Plan and associated engineering reports, and has determined that none of these special situations exist. Therefore, none of the optional standards listed in the Manual are applicable.

Wetlands
Although Wetland F failed to exhibit the necessary soils, hydrology and vegetation characteristics needed to be considered a true wetland, the applicant proposes to provide a replacement wetland for this area, by adding to Wetlands C and D on the Olhava site at a ratio of 2:1 or 2 additional square feet for every square foot of potential Wetland F which is eliminated. Wetland B will be eliminated indirectly by loss of its supporting drainage basin and will also need to be replaced on the Olhava site at a 2:1 ratio. Fifty foot buffers will also be established for wetlands A, C, and D and the mitigation site, according to the Master Plan. A 100 foot buffer will be established for Wetland E at the Olympic College site. The areas of designated wetlands on this 215 acre parcel are estimated to currently total about 1.137 acres. After mitigation, this total will increase to about 1.257 acres.

The southeastern portion of the Olhava site (Drainage Area 9), which is currently a concern to downstream lowland property owners, includes plans for a 5 foot deep infiltration pond in the southeast corner. The 450 x 40 foot pond will infiltrate runoff at a rate of 6.2 min./inch and will hold a total volume of 121,700 cubic feet (approximately 910,316 gallons). This infiltration pond should alleviate much of the concern by infiltrating peak seven-day storm flows while raising the groundwater level less than one foot. Since the wetland's permeability and discharge rates are well established, the added groundwater flows will pass through downstream wetlands at a comparable rate to present inflows of water. The Technical Information Report has concluded that the added groundwater will have a minimal observable effect on the established wetlands because of presently established discharge conditions which are not likely to allow an increase in storage of surface water on site.

Dogfish Creek and Johnson Creek
Stormwater that leaves any site, including the Olhava property, is required by the Department of Ecology to be detained and released at 50% of the pre-developed two year/twenty-four hour design storm as well as the one-hundred year/twenty-four hour design storm. The Olhava project will meet and exceed these requirements.

Additional Mitigation Measures
Additional mitigation measures to protect drainage courses within the Olhava Master Plan include:

- Herbicide spraying near streams and in culverts near areas that drain directly into such streams shall be prohibited.
- As required by the Critical Areas Ordinance, a wetlands mitigation plan shall be approved by the City before construction.

Those mitigation measures required within the City of Poulsbo's Municipal Code include:

- In addition to those devices proposed by the Olhava project, on-site catch basins or siltation basins, as well as energy absorbing devices, may be required as a means to prevent erosion while providing for groundwater recharge. All such devices, if required, shall be submitted for review and approval by the City Engineer prior to issuance of grading permits.
- Maximum building lot coverage by impervious surfaces shall not exceed the standards contained in the Municipal Code.
- No groundcover or trees which are within 25 feet of the annual high water mark of creeks, streams, and other shoreline areas or within 15 feet of the top of the bank of the same should be removed, nor should any mechanical equipment operate in such areas except for the development of public parks and trail systems, provided that conditions deemed by the City to constitute a public nuisance shall be removed.
- No person shall do any grading, fill, or stockpiling, without first having obtained a grading permit from the City Engineer. A permit is necessary for grading in each of these circumstances:
  1) Within a regulated wetland or required wetland buffer in accordance with the provisions set forth in the Critical Areas Ordinance of the Poulsbo Municipal Code;
  2) Within 50 feet of the top of a bank of any watercourse with a year round flow;
  3) On slopes of 30% or steeper gradient. For grades below 30% grading standards set forth within the Poulsbo Municipal Code should be followed.

E. Groundwater

1. Existing Conditions

The City of Poulsbo occurs adjacent to two major aquifers: the Poulsbo and Bangor aquifers. The former is the primary source of water for the City of Poulsbo Water Department, which generally supplies water to the portions of the City east of Liberty Bay. The Bangor and Edgewater aquifers, on the other hand, generally provide sources of water for the Kitsap Public Utility District (Kitsap PUD), which will service the proposed project and other areas of the City located west of Liberty Bay. This section of this EIS focuses particularly on the impacts to the groundwater supply from this project. Specific discussion regarding public water supply is included in Section F., Public Water Supply.

Soils

The surface soils of the Poulsbo area belong to the Vashon Till and associated soils immediately below, to a depth of up to 250 feet in some areas. These soils generally do not yield groundwater supplies, and few wells occur in them. Below the Vashon deposits is a drift deposit of Possession Drift, generally occurring at mean sea level up to an elevation of 50 feet above sea level. Domestic wells occur in this soil type. A glacial deposit of sand gravel and till occurs below this layer which has be correlated to the Double Bluff drift. The Double Bluff drift has been the greatest water bearing deposit in this area, and most wells occur here, at an elevation of 50 feet above sea level and below (the bottom of this unit has not been delineated)[26].

In addition to public water purveyors, a number of private wells occur in the area of the proposed project. Generally, private wells occur at a depth of about 90 feet, tapping into layers of the Possession Drift. Wells which have been and are proposed to be drilled by Kitsap PUD to meet the public water supply

[26] Robinson & Noble, Inc, Investigation of the Impacts on Dogfish Creek from the Use of the City of Poulsbo's Pugh Road Well. November 20, 1992.

needs of their service area are drilled to a depth of 500 to 600 feet, in order to reach the water rich soils of the Double Bluff association. In the Edgewater aquifer, which also supplies the Vinland water system which Kitsap PUD will utilize for the proposed project, Kitsap PUD's well depth is less than 200 feet.

Poulsbo Subarea and Poulsbo Aquifer

The Poulsbo Aquifer occurs at an elevation of 225 to 50 feet above mean sea level, and has an areal extent of about 5 square miles[27]. The Kitsap County Ground Water Management Plan (1991) identifies the Poulsbo Aquifer as a concern because of its high permeability and potential for contamination. At this time, the Dogfish Creek Basin is not a concern, but could be in the future if pollutants and contaminants are allowed to increase without mitigation.

Based on currently available data, it has been estimated that existing water right claims and permits in the Poulsbo subarea represent 20% of total inflow into the subarea. That is to say that 20% of the water that currently inflows is drawn out annually. It has further been estimated that a total of 20,973 acre feet is infiltrated into the subarea on an annual basis, and that water right allocations currently permit the removal of 2,708 acre feet per year, and water right claims total 1,433 acre feet per year[28]. From 1967 to 1990, the aquifer showed a 10 foot decline in water level. Since 1990, the water level has remained stable.

Dogfish Creek

The west fork of Dogfish Creek occurs at an elevation of approximately 100 feet above sea level, in the Vashon Till and Vashon lacustrine deposits, above the Double Bluff soils layer. The east fork of Dogfish Creek occurs within the Vashon Lacustrine layer, also above the Double Bluff unit[29]. Groundwater entering Dogfish Creek comes from soil units which are located above the Double Bluff unit, and no evidence exists that Dogfish Creek comes into contact with the Double Bluff unit. Furthermore, the majority of Dogfish Creeks's flow increase occurs from the confluence of the East and West Forks to the mouth of the Creek. In this area, the Creek runs over a relatively impermeable soil unit, the Vashon lacustrine. It has therefore been deduced that the majority of the water gained in the Creek is coming from those layers which are above the Vashon lacustrine, including Vashon Till, and Vashon Advance Outwash[30].

Finally, the flow of Dogfish Creek has been shown highest in the winter months, and lowest in the summer months. The mean monthly discharge in the creek ranges from 37.4 cubic feet per second (cfs) to to 2.48 cfs, over a discontinuous period of almost 25 years. The average mean summer discharge has been calculated at 3.34 cfs. Further analysis shows that over the 25 years when records have been kept, the years in which rainfall has been higher than average have also reflected higher than average flow rates in the creek. The average summer flow rate can be estimated to be the average daily amount of water originating in baseflow, while the peaks in the Creek's flow are the result of rainfall[31].

In order to preserve the Creek, no further water rights will be granted by the Department of Ecology to preserve natural habitat and water quality.

Bangor Subarea and Bangor Aquifer System

The Bangor Subarea includes the Island Lake, Silverdale and Keyport Aquifers, as well as the Bangor Aquifer System. Studies commissioned by Kitsap PUD in 1995 indicate that the Bangor aquifer "consists

27 Washington State Department of Ecology et. al., Kitsap County Initial Basin Assessment (Draft). October 1995.

28 Ibid.

29 Robinson & Noble, Inc, Investigation of the Impacts on Dogfish Creek from the Use of the City of Poulsbo's Pugh Road Well. November 20, 1992.

30 Ibid.

31 Washington State Department of Ecology et. al., Kitsap County Initial Basin Assessment (Draft). October 1995.

of three interrelated aquifers: the semi-perched, the sea level, and the deep."[32] The aquifer system occurs at elevations ranging from 100 feet above sea level to 300 feet below sea level, in the Double Bluff drift.

Based on currently available data, it has been estimated that existing water right claims and permits in the Bangor subarea represent 24% of total inflow into the subarea. That is to say that 24% of the water that currently inflows is drawn out annually. It has further been estimated that a total of 46,060 acre feet is infiltrated into the subarea on an annual basis, and that water right allocations represent the removal of 9,039 acre feet per year, and water right claims total 1,797 acre feet per year[33]. The water level in the Bangor Aquifer Systems was stable from 1981 to 1993. From 1993 to 1995, the water level has declined 2 to 5 feet, due solely to reductions in rainfall[34]. Finally, existing information on the aquifer system indicates that additional water is available, and could be used for future appropriations.

Port Gamble Subarea and Edgewater Aquifer
The Port Gamble Subarea encompasses 19 square miles along Hood Canal, and includes two identified aquifers, the Edgewater and Port Gamble aquifers. The Vinland water system, which will be utilized to supply the project site, is dependent on water from the Edgewater aquifer.

Based on currently available data, it has been estimated that existing water right claims and permits in the Port Gamble subarea represent 10% of total inflow into the subarea. That is to say that 10% of the water that currently inflows is drawn out annually. It has further been estimated that a total of 22,614 acre feet is infiltrated into the subarea on an annual basis, and that water right allocations represent the removal of 1,440 acre feet per year, and water right claims total 913 acre feet per year[35]. The water level in the Edgewater aquifer has declined 5 to 10 feet since late 1990[36]. Finally, existing information on the aquifer indicates that it has limited potential for additional supply.

Water Bearing Soils on the Project Site
Soil borings made on the project site determined that surface soils are composed primarily of Puyallup Sand or Colvos Sand. Below the surface layer, Kitsap Formation shale and fine sediments were found at a depth of 100 feet or less. The Kitsap Formation does not display high rates of percolation, and serves as an aquitard to the soils which occur below it. A shallow aquifer occurs under the proposed project and adjacent properties, at a depth of 50 to 90 feet below the surface. This water bearing soil is consistent with the regional analysis discussed above, and represents the most common source of water for private domestic wells in the area.

Threats to Groundwater
Groundwater is threatened by landfills, automobile fluids, agricultural and household uses of pesticides, and fertilizers, urban runoff, industrial practices, the impacts of over-pumping, and septic tank systems. Once a groundwater source has been contaminated, it is difficult and sometimes impossible to restore. Without mitigation, surface water from a developed site which is allowed to percolate into the water table can cause contamination.

2. Impacts

Urbanization increases the amount of impervious surfaces and, without mitigation, reduces the amount of stormwater infiltrated into the earth. This reduces the amount of water reaching groundwater aquifers

32 Ibid.
33 Ibid.
34 Ibid.
35 Ibid.
36 Kitsap PUD monitoring data.

which may be used for potable water. Rainfall infiltrated to groundwater aquifers may also feed streams and wetlands. When impervious surfaces are increased, normal stream flows fed by groundwater may be reduced.

Water Quality

The project's impacts on groundwater quality, if any, will be caused by small amounts of chemicals and petroleum products which can leak from vehicles and machinery. These materials are then washed away by rain water, and can be absorbed by the soil if not mitigated.

The Master Plan does not include the implementation of specific uses which may have a greater impact on groundwater quality. Such uses, primarily potential commercial and industrial uses which utilize or produce chemicals, will require additional SEPA review and specific mitigation, should they be proposed on the project site, under the phased review process allowed by SEPA and described in Section I-B of this EIS.

Section III-1-D, Surface Water and Runoff Absorption, extensively discusses the system of infiltration ponds and siltation basins planned for the proposed project. The system is to be designed to meet or exceed the DOE and Kitsap County standards for the design of surface drainage systems, including the decontamination of soils. The system includes siltation ponds designed to remove sediments and pollutants prior to infiltration of the water into the soil. The infiltration basins will provide three feet of separation from the bottom of the ponds to any high water table. The implementation of the surface drainage system will reduce the impacts of the proposed project on groundwater quality to an insignificant level.

Finally, the project will be connected, as is required in the City's Comprehensive Plan, to the City's sanitary sewer system. There will therefore be no threat to water quality from septic systems on site, as they will not occur.

Draw-down and Groundwater Recharge

Based on DOE standards, the project is also required to infiltrate all stormwater runoff for up to the 100 year storm event. Soil borings performed on-site indicate that the soil is predominantly silty sand, which has high permeability and is well suited for infiltration[37]. During a seven day storm, it is estimated that 6 to 7 inches of rain water would generate 24.5 acre feet of water on site, of which 19.2 acre feet per day would be infiltrated. Poulsbo is subject to an average of 37 inches of rain annually. On the project site, this represents 662.92 gross acre feet of water which can be infiltrated in a one year period. When evapotranspiration and plant up-take are deducted from this total, it can be estimated that a total of 563.48 acre feet annually could be recharged into the soil under and surrounding the site. Conversely, the proposed project will require 1.093 acre feet of water per day, or 398.85 acre feet annually, at buildout[38]. Based on these estimates, the project could infiltrate up to 164.63 acre feet of water annually more than will be removed from the groundwater table.

Impacts on Dogfish Creek

Available data from on-site analysis and regional studies indicate that any interaction between groundwater and Dogfish Creek occurs in areas located above the groundwater sources for this project. The water sources used by Kitsap PUD, which occur at much greater depth, will not impact the water available to Dogfish Creek. Off-site private wells, which are dug to a far lesser depth, may have a significant impact. Since the proposed project will connect to the City's water system, no private wells will occur, and no impact is expected (also see Section III-D, Surface Water and Runoff Absorption, and Section III-F, Public Water Supplies).

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37 American Engineering Corp. and Richard Bielefeld, Geologist. Infiltration Testing Report for Olhava Development. April, 1996.

38 Kent Berryman & Associates, An Integrated Master Plan For the Olhava Property. May, 1995.

Alternatives
All the proposed development-related alternatives will have similar impacts on groundwater. The standards to which the proposed project's drainage system has been designed will apply to any Master Plan created for the project site. In all cases, similar pollution and infiltration control devices would be required. The Multiple Master Plan alternative has somewhat greater potential to impact on the site, since discontinuous development could cause inconsistencies in the drainage control system, and result in inadequate sediment and infiltration control.

All development-related alternatives will result in extraction and recharge of the aquifer, varying only slightly in quantity from one alternative to the other. The More Intense Development and Multiple Master Plan alternatives have the greatest potential to create an imbalance in the draw-down and recharge, since it could be expected that more development would occur on the site, and the need would be greater than the site's ability to infiltrate the soils and recharge the groundwater supply.

Alternative Five, No Construction, represents a continuation of current conditions. It can therefore be assumed that the naturally occurring recharge would continue. No drawdown would be required of this alternative, since no development would occur.

3. Mitigation Measures

- All drainage structures on the project site shall be constructed to meet or exceed the requirements of the Department of Ecology and Kitsap County, in force at the time that grading permits are submitted.
- All construction equipment used on the project site shall be maintained in proper working order. Any and all fluid leaks from said vehicles shall be cleaned up and the vehicles repaired immediately.
- No private wells shall be allowed on any portion of the subject property. All domestic, commercial, industrial and public school uses shall connect to the City's water system. No private wells shall be permitted for irrigation.
- All uses and structures requiring sanitary sewage disposal shall be connected to the City's sanitary sewage system. No septic tanks or other private system shall be permitted.

F. Public Water Supplies

1. Existing Conditions

The City of Poulsbo provides domestic water service for the majority of the City located east of Liberty Bay. The proposed Master Plan project and surrounding lands either in the City or in its Urban Growth boundary are and will be serviced by the City, through an Interlocal Agreement with Kitsap Public Utility District (Kitsap PUD). The City and Kitsap PUD have an Interlocal Agreement, and have and will continue to cooperate in the provision of water to projects in the area. The current Interlocal Agreement allows for 500 gallons per minute (gpm) to be provided by Kitsap PUD for purchase by the City. The City currently has only 6 water service locations utilizing water from the existing Agreement.

The Kitsap PUD, as of the end of 1995, has an average daily usage of 159,526 gallons per day. The Peak Day usage in 1995 was 464,000 gpd. Kitsap PUD currently has a total water right for 656,520 gpd, and is in the process of securing additional water rights. No completion date to secure those rights is known at this time.

In addition to public water purveyors, a number of private wells occur in the area of the proposed project. Generally, these wells occur at a depth of about 90 feet, tapping into layers of soil known as Possession Drift (please see Current Conditions, Section E, Groundwater Supplies). Wells which are proposed to be drilled by Kitsap PUD to meet the public water supply needs of their service area are drilled to a depth of 500 to 600 feet, in order to reach the Double Bluff association.

2. Impacts

In phases, the proposed project will require up to 510 gpm of domestic water, and 2,000 gpm for a three hour duration to meet fire flow requirements. The Table below lists the phased water need for the proposed project.

Table III-4
Phased Water Need

Phase	Year	Water Supply Required	Cumulative Total
"a"	1997	None/Infrastructure Only	0
"b"	1998	123 gpm Fire flow: 2,000 gpm/3 hr. Fire Storage: 360,000 gallons	123 gpm
"c"	1999	123 gpm	246 gpm
"d"	2000	88 gpm	334 gpm
"e"	2001	44 gpm	378 gpm
"f"	2002	88 gpm	466 gpm
"g"	2003	44 gpm	510 gpm

Source: American Engineering Corp., June 11, 1996

Domestic Water
The existing Interlocal Agreement between the City and Kitsap PUD provides for 500 gpm of water to be available to be purchased by the City. This water supply is not, however, solely dedicated to the proposed project or any alternative. The City can also use this water supply for individual metering requests or other needs in this portion of the City or Urban Growth Area, and currently services 6 locations with water provided by Kitsap PUD. As development occurs, therefore, concurrent with the development of the proposed project, additional water will be required to service both the proposed project and other development in the area. As a result, an amendment has been proposed to the Agreement, which would provide for 1,000 gpm for domestic water and 2,000 gpm for fire flow requirements, subject to the availability of water rights. Kitsap PUD does not currently have sufficient water rights to provide the required 1,000 gpm to the City. Efforts are currently under way to secure additional water rights, but no completion date has been established. Kitsap PUD does have sufficient water rights, however, to supply the currently contracted 500 gpm to the City.

As can be seen in Table III-4, above, the proposed project will require 378 gpm by the end of phase "e". Even with accelerated growth in development, particularly residential development, surrounding the proposed project, Kitsap PUD will be able to supply water through that phase of the project under the current agreement. At the completion of phase "e," or its equivalent, however, Kitsap PUD will not be able to supply sufficient domestic water to the proposed project or surrounding development under current conditions. Without mitigation in the form of an amended agreement (and the securing of additional water rights by Kitsap PUD), there will be a significant impact to public water supplies in the year 2001, or the end of phase "e," whichever is later.

Fire Flow
The project engineer has determined that to provide adequate fire flows for the project, 2,000 gpm of water must be supplied for a period of three hours. This assumption is based on the inclusion of automatic sprinkler systems in all multi-family, commercial and business park structures. The current intertie agreement cannot meet this requirement. In order to provide sufficient fire flow, a total of 360,000 gallons

in excess of domestic demand must be available. This capacity can be provided by the construction of a tank. With mitigation, the project's impacts on fire flow will be reduced to an insignificant level.

Alternatives
All development-related alternatives will require similar domestic water supplies, although each of the alternatives' requirements would vary slightly. It can be expected that Alternatives Two and Four would result in an increased need for domestic water, due to the increased dwelling units proposed under these alternatives. Alternative Three would require less domestic water than any of the other alternatives, and would therefore have a reduced impact on public water supplies. For domestic water, it is expected that the current intertie agreement would be sufficient for Alternative Three and any concurrent development during project phasing (the fire flow requirement, however, would still not be met, see below).The current conditions would create a significant adverse impact on water supply in all cases without mitigation.

The option included in the proposed project of installing automatic sprinkler systems in all multi-family, commercial and business park structures is not a requirement of the City of Poulsbo Fire Department. It cannot be assumed, therefore, that all development-related alternatives would implement this option. Should commercial and industrial structures under 10,000 square feet not be provided with automatic sprinklers, the fire flow requirements would increase to a level and duration required in Appendix III-A of the 1994 edition of the Uniform Fire Code, which varies depending on the type of construction and square footage of the buildings.

If fire flows in excess of 2,000 gpm were necessary, Alternatives Two, Three and Four could have a significantly greater impact on water supply. At a minimum, the storage requirement would be increased to 630,000 gallons, if the fire flow were not available from the intertie agreement. This additional storage would increase the cost of infrastructure for any project proponent. In addition, under the Multiple Master Plan alternative, discontinuous development could cause inconsistencies in the development of infrastructure, resulting in insufficient storage or fire flow capacity, thus limiting the type of construction and square footage of the structures which could be allowed on the project site.

Alternative Five would represent no impact to public water supply, since no development would occur. As is the case with current conditions, an impact to fire flow may exist in the case of a brush or forest fire, insofar as current storage and fire flow within existing systems in the project area may not be sufficient should such an event occur.

3. Mitigation Measures

- All multi-family, commercial and business park structures shall be constructed with automatic sprinkler systems to be reviewed and approved by the Poulsbo Fire Department.
- Prior to the initiation of any combustible construction in phase "b" the project proponent will construct a water tank with sufficient storage capacity to meet the standards and requirements of the City and Kitsap PUD, to provide the equivalent of 2,000 gpm fire flow for a three hour duration in excess of the domestic demand at the project site. Any existing fire flow available through the current agreement shall be deducted from the total storage requirement. The location of the storage facility shall be agreed upon by the project proponent, and Kitsap PUD.
- Prior to the initiation of phase "f" or its equivalent, Kitsap PUD will have secured additional water rights to allow it to enter into an Amended Interlocal Agreement with the City of Poulsbo. No additional development shall be allowed without the implementation of this mitigation measure.
- Prior to the initiation of phase "f" or its equivalent, the City and Kitsap PUD will have entered into an Amended Interlocal Agreement to provide 1,000 gpm. No additional development shall be allowed without the implementation of this mitigation measure.

G. Air Quality

1. Existing Conditions

The Puget Sound Air Pollution Control Agency is responsible for establishing criteria by which air quality is measured. Air quality in the City of Poulsbo is monitored by a station located in Meadowdale, 7252 Blackbird Drive NE, and another station established in August of 1993 located in Lions Park, 6th Avenue NE and Fjord Drive, Poulsbo. The Meadowdale station is located south of Poulsbo and the Lions Park station is located less than two miles from the project site.

Poulsbo's weather is best described as a maritime climate with mild, wet winters, and cool, dry summers. Winds play a major role in shaping the climate of Poulsbo and the Puget Sound Region. The prevailing wind pattern is from the south to southwest and imports a major percentage of the air pollutants measured in Puget Sound, especially PM_{10}.

The air quality of a location is based upon the type and amount of pollutants being emitted and dispersed. The major categories, primary and secondary pollutants, are those which are a direct consequence of energy production and utilization, and those which undergo chemical changes after being emitted, respectively. Smog is a secondary pollutant produced by photochemical reaction involving primary emissions. Primary sources and their pollutants are a direct consequence of the combustion of petroleum and other fuels resulting in the production of oxides of carbon, sulphur and nitrogen, a variety of reactive hydrocarbons and suspended particulates. Dust and other particulate matter are also pollutants of concern in the region.

Clean air is a critical element in the quality of life for Poulsbo and the region. Automobile emissions make up the major contributor of air pollution in Poulsbo's Urban Growth Area, however, Poulsbo also has evidence of elevated PM_{10}. Motor vehicles, residential wood stoves and fireplaces, agricultural and other outdoor burning, and a variety of small emission sources called nonpoint sources are emerging as the predominant sources of ambient air pollution in the State. Only PM_{10} (particulate matter of 10 microns or smaller) has been monitored in the Poulsbo area station. Other pollutants measured in the Puget Sound monitoring stations include carbon monoxide, ozone, nitrogen dioxide and sulfur dioxide.

Total Suspended Particulates & PM_{10}

Total suspended particulates (TSP) is the name given to the solid matter suspended in the atmosphere. This complicated mixture of natural and man made materials includes soil particles, biological materials, sulfates, nitrates, organic (or carbon containing) compounds, and lead. It is also called fugitive dust when associated with land disturbance and wind dispersal. Particles less than ten microns (PM_{10}) and especially those less than 2.5 microns, penetrate deep into the lungs, constituting the greatest health risk.

Fugitive dust generation is associated with the disturbance, grading and development of vacant developable acreage. Fugitive dust generation is expected to occur on a short-term, site-specific basis, and will be spread out over the buildout period of the project. Therefore, the quantifying of these emissions, unlike those calculated for moving emissions and stationary sources, provides a somewhat less meaningful analysis of short-term impacts. Potential gross fugitive dust impacts can be calculated and specific measures implemented to mitigate impacts to insignificant levels, as discussed below.

Table III-5
Quarterly PM_{10} Values[39]
[In micrograms per cubic meter($\mu g/m^3$)]
Poulsbo, 1994

Monitoring Station	Number of Values	Quarterly Arithmetic Averages 1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Year Arith. Mean
Lions Park Monitoring Station	61	16.1	12.2	13.1	19.5	15.2

The Federal PM_{10} standard is 150 $\mu g/m^3$ while the "impaired air quality" trigger is 75 $\mu g/m^3$ by State law. Poulsbo, and the Puget Sound Region, are in compliance with the State and Federal standards. Overall in 1993 and 1994, the Puget Sound region did not exceed Federal standards for carbon monoxide, ozone, sulfur dioxide, lead or PM_{10}. With the exception of PM_{10}, no data on these pollutants is available for Poulsbo specifically.

The first full year of monitoring for PM_{10} in Poulsbo is for 1994[40], which indicates that of the sixteen similarly situated monitoring stations, Poulsbo had the lowest annual arithmetic average PM_{10} levels. Of these same sixteen stations, Poulsbo also had the lowest maximum daily PM_{10} concentrations in 1994, substantially less than one-half that of the next lowest levels measured in Meadowdale. In 1994, Poulsbo PM_{10} levels never exceeded a daily value of equal or greater than 75 micrograms per cubic meter, and neither did the Meadowdale station. Comparing two separate analyses of PM_{10} data collected at the Poulsbo station, the annual arithmetic mean concentration of PM_{10} ranged from 14.6 to 15.2 micrograms per cubic meter in 1994[41].

2. Impacts

The proposed Olhava mixed-use development project is expected to impact local air quality in several ways. Primary impacts are expected to result from grading and excavation activities and the de-stabilization of the soil surface and enhancing its susceptibility to wind erosion. Impacts from the importing or exporting of soils is expected to be minimal, with a balance between cut and fill being anticipated. The other potential primary source of impacts is vehicular emissions from internal combustion engines associated with the operation of heavy trucks and graders and other construction equipment. Post-development impacts are expected to result from vehicular traffic generated by the development (mobile emission sources) and from the use of electricity and natural gas (stationary emissions). Emissions expected from stationary sources are not considered significant and are not analysed in this report.

Fugitive Dust

The proposed project will result in the disturbance of approximately 215 acres of currently vacant and largely wooded lands during the grading and excavation phases of development. The preliminary grading plan and earthwork quantities calculations project that approximately 650,000 cubic yards will be moved about the site[42]. The following formula, and its application to the project, which will be disturbed over the course of the project's buildout, is presented below.

39 Puget Sound Air Pollution Control Agency, "1994 Air Quality Data Summary". October, 1995. Quarterly and annual averages consistently lower than any other PM_{10} monitoring site.

40 Puget Sound Air Pollution Control Agency, "1994 Air Quality Data Summary". October, 1995.

41 Ibid.

42 Kent Berryman & Associates, An Integrated Master Plan For the Olhava Property. May, 1995.

Table III-6
Calculations of Gross Fugitive Dust Potential[43]

Area Disturbed:	215± acres
Dust Generation Factor:	1.2 tons/acre/month or 110 lbs./acre/working day
Total Potential:	258 tons/month or 17,200 lbs./day

The potential fugitive dust/PM_{10} emissions associated with site disturbance and grading can also be expressed by the following formula: $E = ([0.45 \times (\{[G]^{1.5}\} / \{[H]^{1.4}\})] \times I) \times J$, where:

E = PM_{10} emissions from Dirt Pushing
G = Silt content of aggregate in percent
H = Moisture content of the surface material
I = 2.2046; a conversion factor to convert kilograms to pounds per hour
J = Hours of equipment operation

For the current case, this formula is as follows: $E = ([0.45 \times (\{[G = 15\% = 15]^{1.5}\} / \{[H = 15\% = 15]^{1.4}\})] \times I = 2.2046) \times [J = 48 \text{ hours}] = 51$ lbs./day.

Fugitive dust generation is expected to occur on a short-term, construction basis, and will be spread out over the anticipated multi-phase development of the project. The potential for wind erosion and dust generation associated with the proposed project is due in part to the occasionally strong prevailing winds and soil conditions. The formula presented in Table III-6 provides a benchmark by which the potential of the project to generate dust can be measured. Factors applied above do not consider the use of site watering or other mitigation measures at the development site, which are described below.

Construction Vehicle Emissions

Construction vehicle emissions are calculated below, utilizing methodology set forth by the U.S. EPA[44]. Heavy equipment expected to be used in the project includes scrapers, track-type tractors, motor graders, track-type loaders, heavy duty hauling trucks and miscellaneous vehicles. As with the above projections of fugitive dust potential, the table below assumes a cut/fill balance and only incidental import or export. Due to the preliminary nature of the engineering data available, a more refined analysis is not possible and actual impacts may vary to a limited degree.

43 U.S EPA "Gap Filling PM_{10} Emission Factors for Selected Open Area Dust Sources". March, 1988.

44 U.S. EPA, "Non-Road Engine and vehicle Emission Study". November, 1991 Includes NTIS PB92 - 126960, EPA 460/3-91-02, or EPA 21A - 2001.

Table III-7
Construction Vehicle Emissions[45]
(Pollutants in pounds/vehicle)*

Equipment	Carbon Monoxide	Exhaust Hydrocarbons	Nitrogen Oxides	Sulphur Oxides	Particulates
Scraper	4,208.8	949.25	12,894.37	1,555.55	1,362.96
Motor Grader	120.74	31.86	43.08	68.78	48.85
Track-type Loader	80.37	39.28	330.88	30.00	23.45
Heavy Duty Trucks	720.29	76.57	1,665.92	181.65	102.29
Roller	243.33	53.93	692.94	53.79	40.03
Water Trucks	720.29	76.57	1,665.92	181.65	102.29
Miscellaneous	540.33	122.31	1,353.26	114.10	111.46
TOTALS (Lbs.)	5,670.53	1,349.77	18,646.37	2,185.52	1,791.33

*Note: Based upon an estimated 650,000 cubic yards to be moved and miscellaneous construction vehicle movement in the course of construction of the entire project. Hauling is expected to be minimal and assumes a balance between cut and fill. Assumes 400 scraper days, 100 motor grader days, 50 loader days, 50 heavy truck days, 100 roller days, 100 water truck days and 100 miscellaneous vehicle days. Water truck calculations conservatively based on off-road truck emission figures. Actual emissions are expected to be less.

Sensitive Receptors

At the present time, there are few sensitive receptors downwind of the planned construction activities. Potentially affected scattered residential developments located to the west and north of the site could be impacted by excessive and uncontrolled emissions especially from site disturbance. No other particularly sensitive receptors such as hospitals, nursing homes or schools are expected to be potentially impacted by the proposed construction.

Calculation of Moving Emissions

Moving emissions were calculated utilizing the locally adjusted U.S. EPA Mobile5a emissions model for Calendar Year 2004[46]. Actual per mile emissions over subsequent years can be expected to be reduced as combustion technology improves and reduces vehicle emissions. Total vehicle emissions are computed based upon trip emissions and distance related running emissions, multiplied by the vehicle miles traveled.

Project-related vehicle trip data was derived from the project traffic impact analysis prepared by Gibson Traffic Consultants[47]. The project traffic impacts have been analysed on a land use basis, which provides a refined traffic generation projection. Passby trips already be on the adjoining roads have been deleted from the total trip figure for purposes of emissions calculations. An average trip length of 7.5 miles and an average travel speed of 19.6 mph were used in this calculation. Emissions are calculated for carbon monoxide, volatile organic compounds (VOC) and oxides of Nitrogen (NOX). Cold-start, stabilized and hot-start operating modes were also included in the calculations, in conformance with EPA Mobile5a standard operating mode fractions.

45 Ibid.

46 Emissions calculated using U.S. EPA Mobile5a emissions model, and also based upon assumptions used in Washington State Implementation Plan (SIP) and Maintenance Plan, per recommendations from Puget Sound Regional Council.

47 Gibson Traffic Consultants, "Traffic Impact Analysis - Olhava Master Plan Development. December, 1994.

Table III-8
Average Daily Vehicle Emissions[48]
Calendar Year 2004 (pounds/day)

Miles Traveled in one day:	286,538		
Scenarios	**CO**	**NO_x**	**VOCs**
	Emission Factors [a] (grams/mile)		
Average Winter Conditions	35.45	2.65	3.16
Average Summer Conditions	25.68	2.38	2.44
Annual Average Conditions	30.57	2.52	2.80
	Daily Emission [b] (lbs./day)		
Winter Weekday Average	22,374	1,673	1,994
Summer Weekday Average	16,208	1,502	1,540
Annual Weekday Average	19,291	1,587	1,767

(a) Emission factors for all vehicles at an average speed of 19.6 mph.
(b) Based 38,205 new trips per day on an average weekday and an average trip length of 7.5 miles.

Summary of Impacts

The two above analyses provide worst case projected emissions in pound per day from development and buildout of the planning area for development impacts and moving emissions. It should be kept in mind that the emission generation factors used in the above moving emission calculations are based on projected rates of emission extended in the year 2004. It is expected in all cases that, in the future, emitters will become more efficient as new combustion technologies come on-line and emit fewer pollutants. The impact of new technologies is difficult to anticipate; even projected future rates of emissions for vehicular traffic cannot be considered definitive.

Alternatives

All development-related alternatives will result in an increase in air emissions. It can be expected that construction emissions and fugitive dust emissions during construction activities would be similar under all development-related alternatives, since the level of infrastructure development and drainage facilities for the site would be similar regardless of the intensity of development. In the case of vehicle emissions at project buildout, Alternatives Two and Four, Multiple Master Plans and More Intense, would result in a greater impact to air quality than the proposed project, due to increased vehicle trips. Because of the reduced number of vehicle trips, Alternative Three/Less Intense, would have the least impact on air quality in the area.

Alternative Five would be the only alternative which would not represent a change from current conditions.

3. Mitigation Measures

It is safe to assume that combustion technology, particularly that associated with vehicular movement, will continue to improve, and overall reductions from improved efficiency can be expected. Nonetheless, there are several actions which can be taken to further reduce the various impacts on air quality. Listed below are mitigation measures which should be required for all components of the proposed development.

48 Parametrix, Inc., Technical Letter Report fro Mobile5a Modeling Input and Output for a "Mixed Use Commercial Project" in Poulsbo WA. Prepared by Wenyan Han, P.E. October 25, 1996.

- Grading and development permits for the project shall be reviewed and conditioned to require the provision of all available methods and technologies to assure the minimal emissions of pollutants from the proposed development. City Planning and Engineering departments shall review grading plan applications to ensure conformance with the mitigation measures set forth in the EIS and as otherwise conditioned by the City.

Project development shall also implement the following mitigation measures:

- Restore vegetative ground cover as soon as construction activities have been completed.
- Trucks that haul dirt, sand or soil off site shall be covered or shall maintain at least 24 inches of free board.
- Construction sites shall be watered to reduce fugitive dust.
- Plant tree windbreaks utilizing non-invasive species, or preserve natural buffers on the windward perimeter of construction projects, where feasible.
- Properly tune and maintain construction equipment.

To reduce construction-related traffic congestion, developers and contractors shall implement the following:

- Configure construction parking to minimize traffic interference.
- Minimize obstruction of through-traffic lanes.
- Provide a flag person to ensure safety at construction sites, as necessary.
- Schedule operations affecting roadways for off-peak traffic hours.

To minimize indirect-source emissions, developers shall also do the following:

- Implement energy conservation measures meeting minimum state and local requirements.
- Install low-polluting and high-efficiency appliances.
- Install energy-efficient street lighting.

2. THE BUILT ENVIRONMENT

A. Aesthetics

1. Existing Conditions

The project site is currently undeveloped, with the exception of a small area in the northern portion which once housed a now decommissioned Nike facility. The majority of the project area is dominated by coniferous forest in various stages of growth, depending on past logging activities. Small scrub-shrub wetlands and one forested wetland are also located within the upland forested area in the northern portion of the project area. Disturbed vegetation in the area are a result of the Nike facility. Access roads and staging areas in the forest were cleared for selective logging in 1988.

Coniferous forests cover 191.6 acres (89%) of the project site, which is dominated by douglas fir, western red cedar, and western hemlock as well as scattered western white pine. Deciduous trees are present, but not common.

The topography of the site varies, and can be characterized as following a north-south ridge, with southeast trending slopes. The slopes on the property are generally between 6 and 10 percent, with isolated areas of 20 to 25 percent slope. The project site is generally located at a higher elevation than lands to the south and east, as the natural topography slopes to Liberty Bay.

2. Impacts

The proposed Master Plan includes a maximum of 103.01 acres to be developed with structures, parking lots and roadways. The balance of the site, 111.99 acres, will be in permeable surfaces, such as landscaping, parks and natural preservation areas. Key to the viewshed analysis included in this section is the proposed natural buffer area around a portion of the proposed project. A 50 foot wide vegetative buffer is proposed as follows:

- along the entire perimeter of the southerly 41 acre parcel, except at access points;
- along the northern property line of the northerly parcel from Parnell Place to the northwestern property corner;
- along the western property line of the northerly parcel to the southern end of the medium density residential planning area.

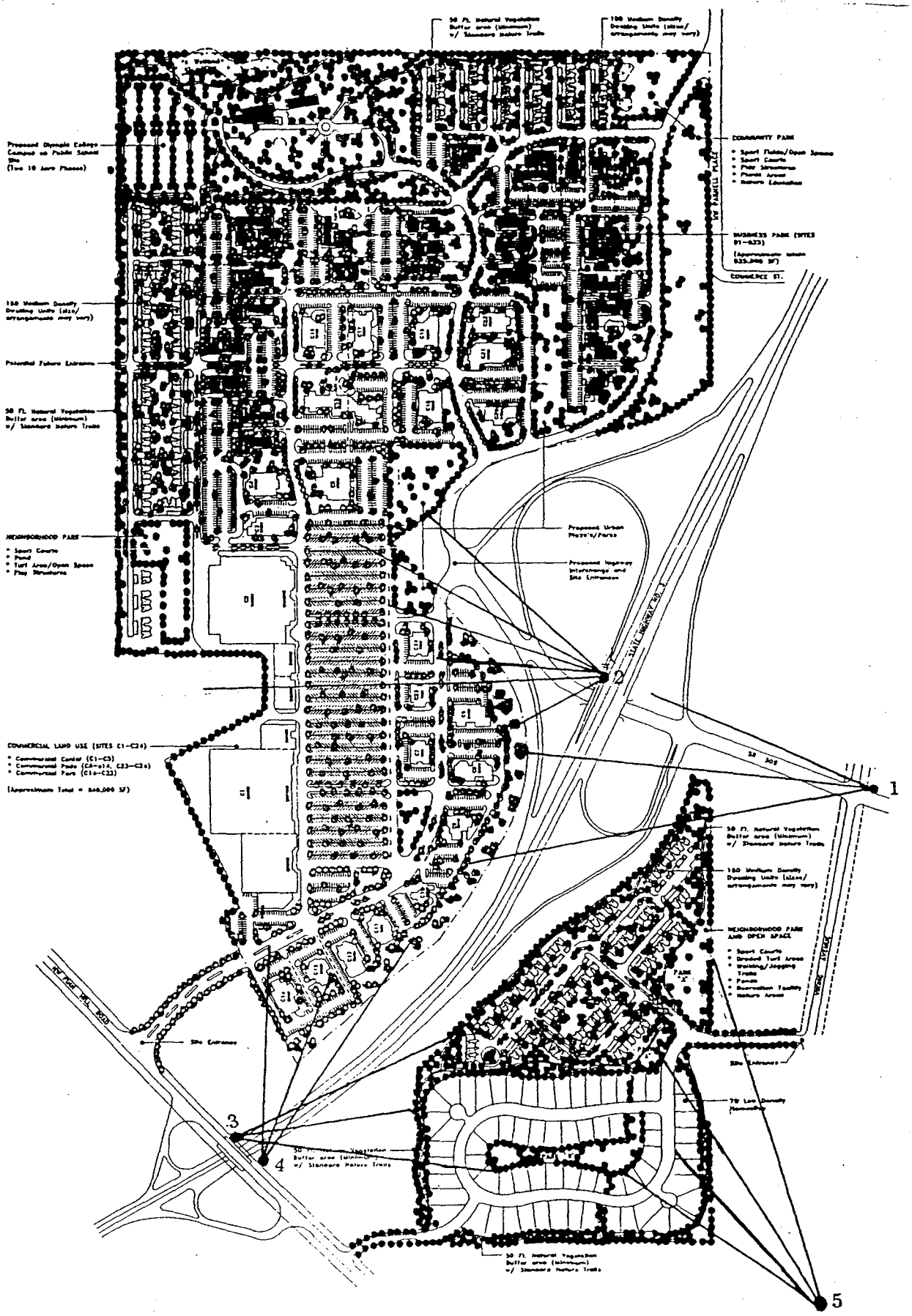
In addition, the following buffering has been integrated into the plan:

- a 25 foot vegetative buffer is proposed along the western property line in the commercial areas.
- a 350± foot wide community park at the northeastern boundary of the project extends approximately 400± feet west from Parnell Place;
- a 200± foot wide community park extends from the northeastern property corner approximately one quarter mile south along the eastern property line.

No vegetative buffers are shown along the eastern boundaries of the commercial and business park planning areas which front on State Route 3 or the interchange with State Route 305.

In order to better gauge the visual or aesthetic impacts of the proposed project on the surrounding areas, a series of photographs was taken from various points around the project (see Exhibit III-3, Photograph locations). These photographs were then compared with the proposed site plan, and conceptual elevations were developed and superimposed on the photographs. It is important to note that no views were taken from the northern or northwestern property boundary of the northern acreage, for two reasons: physical boundaries made this impossible, and the vegetative buffers, combined with the residential and school uses proposed along these boundaries, will not create a significant impact. It was also decided that an overhead view, from a crane or similar high point, would not be undertaken, since it would not supply this study with a realistic view of the project from any current or future City vantage point. The purpose of this analysis was to gauge the impacts of the project from existing and future recognizable locations, and to judge the level of impact the project will have in the area.

A location map is provided on the following page, showing the location of the photographer and the angle of view selected for the visual simulation. Exhibits III-4 through III-12 first provide the unaltered photograph, followed by the artist's interpretation of the site plan and potential impacts. The designer has taken into account: current and proposed grade, maximum building height potential, and distance and scale of the subject photographs. Each of the views is discussed in detail below:

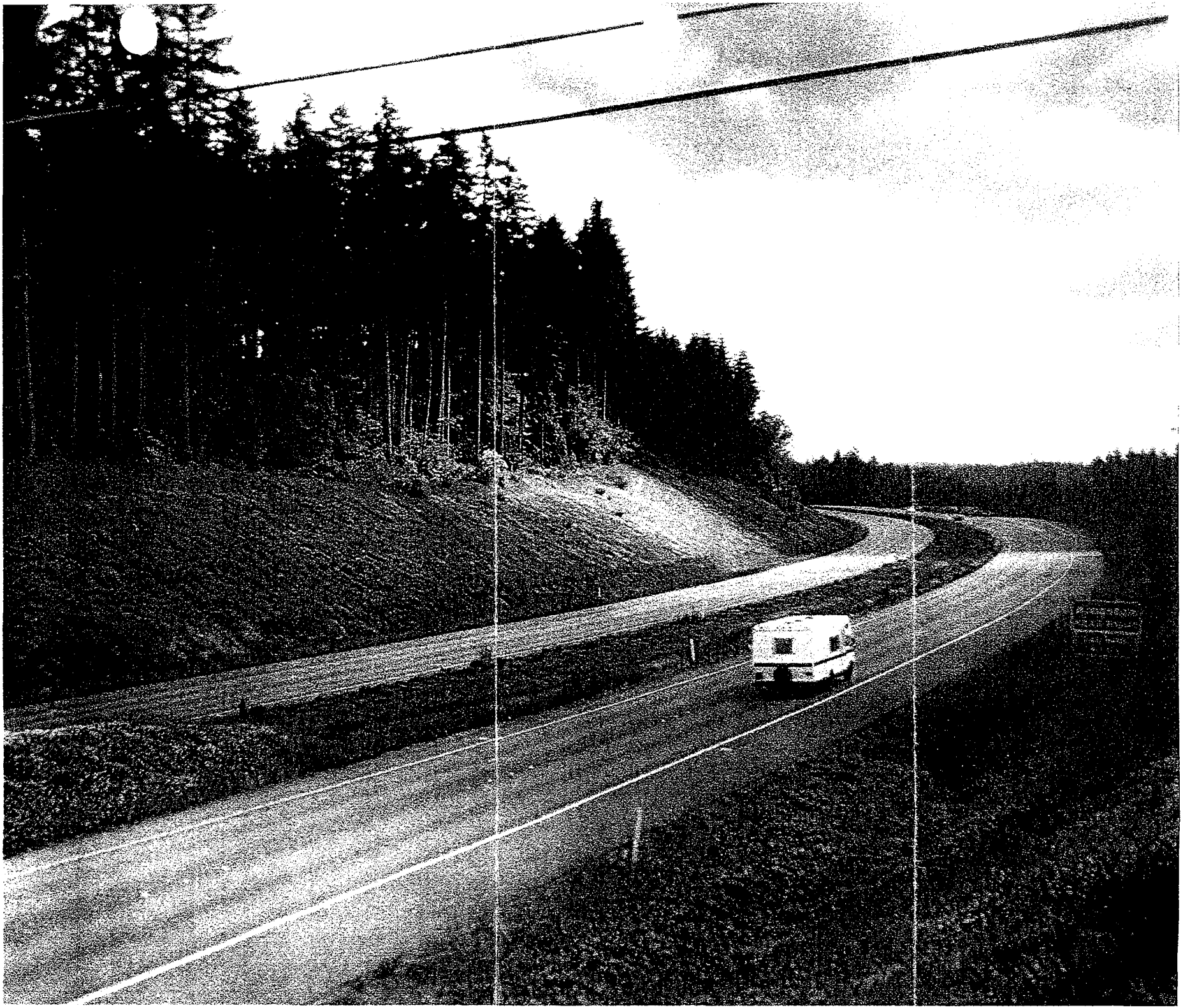


TERRA NOVA®
Planning & Research, Inc.

Photographer Location Map

Exhibit
III-3





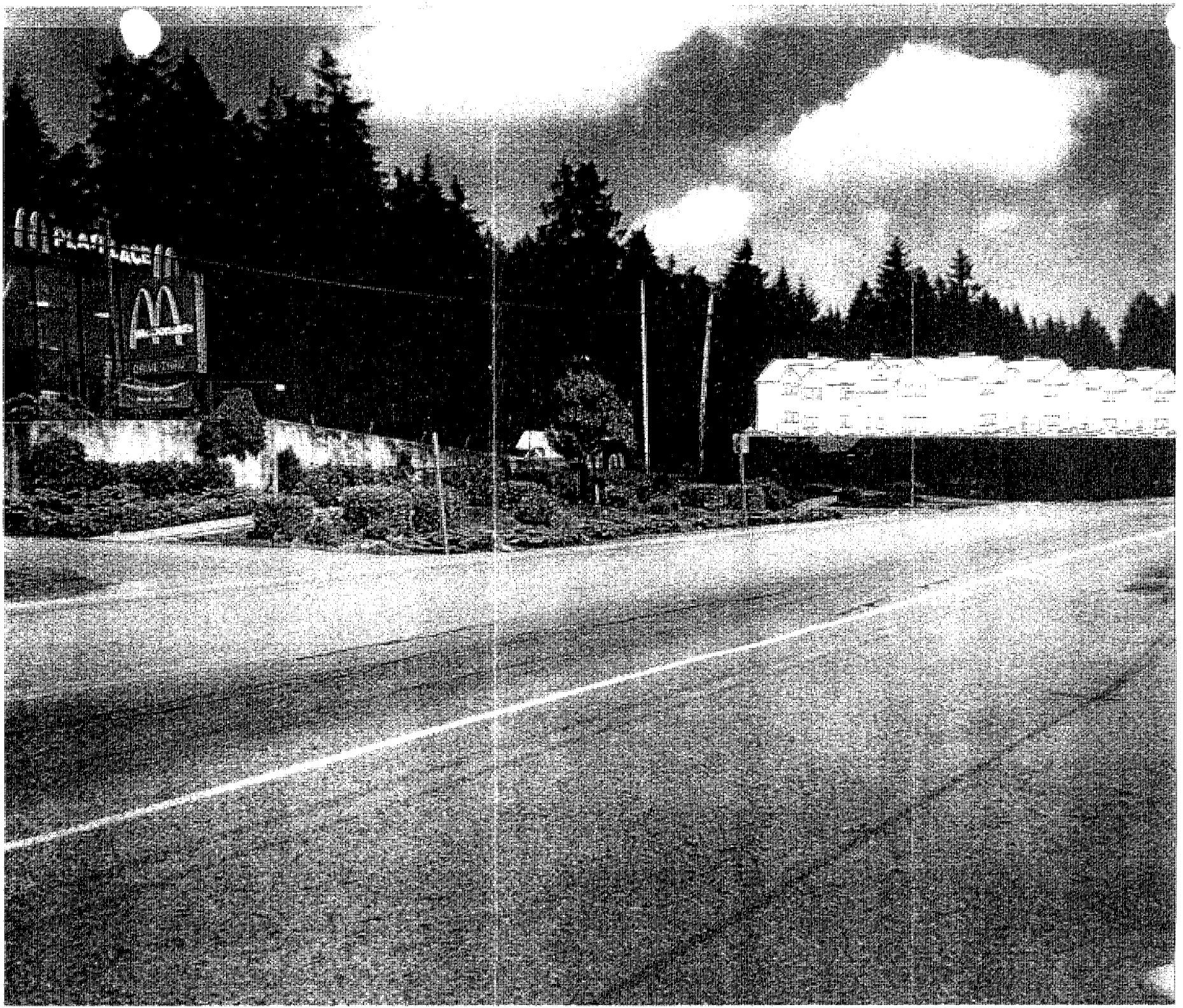


Photo Location 1
This photographic view was taken from the northeast corner of SR-305 at Viking Avenue, and represents a view of the commercial land uses as can be seen from a distance.

The un-altered photograph shows that the area is currently heavily wooded, and displays a forested setting to passing traffic. Since this portion of the project will be in commercial development, there will be no landscaping buffer in this area, and the smaller scale commercial buildings which are planned for the frontage of the project on SR-3 will be visible. Some landscaping will occur at the entrance of the project, which is represented on the viewshed analysis as a small cluster of trees over the right half of the SR-3 overpass. All existing trees are likely to be eliminated, and the viewshed will be altered considerably by the construction of the proposed project or any development-related alternative. From this distance, the buildings will appear to be relatively small, and will be interspersed with new landscaping to be installed as part of the project.

Photo Location 2
This view was taken while standing under the SR-3 bridge, on the SR-305 southbound on-ramp to SR-3. The view represents the commercial and some business park project areas, as well as the project entrance.

The un-altered photograph demonstrates the wooded nature of the site as it currently exists. From this vantage point, the loss of naturally occurring vegetation is clearly represented. Additional landscaping, to be installed with project construction, will replace some vegetation, but is expected to be, as illustrated, much more sparse than current conditions. The right side of the picture represents the entry open space shown in the project plan. Somewhat heavier landscaping is shown on this section of the plan, and is represented on the viewshed analysis. A corner of the closest potential secondary commercial structure can be seen in this area also. The grade differential from the roadway to the project site, combined with the setbacks shown on the proposed project plans, lowers the likelihood that buildings will "loom" over the roadway. Structures represented here occur approximately 75 to 100 feet set back from the top of the slope. The structures represented are equivalent to about 30 feet in height.

Photo Location 3
The photograph was taken from the Finn Hill Bridge over SR-3, standing on the northeastern corner, facing east. This photograph represents the view of the single and multi-family residential units on the southerly acreage. It is important to note that the naturally occurring vegetation on the slope adjacent to SR-3 is in the public right-of-way, and not on the proposed project.

As part of the viewshed analysis for this photograph, the assumption was made that since a trail was required within the buffer area, some thinning of existing vegetation would occur, both for construction and safety. The general trail location can be seen in the visual impact analysis. Most of what can be seen in this altered photograph is the single family residential development, with some multi-family residential occurring at the back (center) of the picture. The single family residences located in this area are about 175 feet from the existing paved roadway. The multi-family residential units are about 200 feet from the roadway, and appear above the trees primarily because a three story structure was assumed. Should these buildings be constructed as two story structures, the roofline would be only slightly visible at the tree line.

Photo Location 4
This photograph was taken on the Finn Hill bridge over SR-3, facing north, into the commercial portion of the project site. This view of the project illustrates potentially the greatest visual impact. The structures represented occur approximately 75 feet from the property line at their closest point, and illustrate 30 foot buildings. As with Photo Location 1, it has been assumed that naturally occurring vegetation will be removed, and replaced with smaller scale and more sparsely distributed landscaping. The project will be most visible from this vantage point, having the greatest impact on west-bound travelers on Finn Hill. Grade differentials at this location cannot compensate for the size of the structures, since the bridge and project grades are similar.

Photo Location 5
This view was taken from Viking Avenue, south of the project site, facing northwest into the southern acreage, toward the multi-family portion of the project. The visual simulation at this location is scaled to show the approximate size and location of two and three story apartments. The apartments are shown over the photograph, but will not be visible from the Viking Way right-of-way, as is explained below.

The visual impact analysis for this location resulted in a conclusion that no portion of the project would be visible from the roadway. The conclusion is based on the calculations that the grade and set back of the project at this location, coupled with the intervening properties, would result in a project occurring below the surrounding tree line. Since no portion of the project at this location is adjacent to Viking Avenue, the apartments, even at the three story elevation depicted in the photograph overlay, would be hidden from view (at the scale shown, the buildings represent a height of approximately 35 to 45 feet). Furthermore, within the project the apartments occur at least 150 feet set back from the eastern property line, behind both a buffer area and roadway.

Impact of Height -- Commercial Development
In the Commercial and Business Park locations, a building height of 50 feet would result in a more significant impact than those represented in visual impact analysis Location 2 and Location 4. The buildings represented in these two photos are estimated at 30 feet in height. The addition of 20 feet of building height at the eastern boundary of the northerly acreage would result in a significant increase in bulk along the SR-3 right-of-way.

The primary commercial, located at the western boundary of the south half of the 174± acre parcel is a possible location for requests for building height variances of up to 50 feet. A height of 50 feet would impact travelers and shoppers within the project, but would not add to the impact discussed under Locations 2 and 4, above.

The land immediately adjacent to this area of the proposed project is designated for medium density residential and business park in both the Comprehensive Plan and Zoning Ordinance. It must be assumed at this time that the projects which might develop on these lands in the future will adhere to existing development standards. This area of the proposed project calls for a 25 foot vegetative buffer, which may not be sufficient to screen the proposed project from adjacent residential development.

Impact of Height Variance -- Olympic College Site
The site is located at the high point of the property, in the northwestern corner. The buildings on the campus are planned to be clustered in the center of the property. As currently planned, there will be at least 175 feet between the northern property line and the edge of any structure. The intervening land is planned to be wetland preservation and wooded trails. The combination of setback and wooded terrain is expected to mitigate the potential impacts of a 50 foot building on this property.

General Viewshed Impacts to Adjacent Properties
The proposed project will require mitigation measures, as enumerated below, to lower the potential impacts to surrounding properties. Within the community of Poulsbo, the project will have limited visual impact. It is likely that across Liberty Bay, at the top of the ridge located east of Front Street, portions of the project will be visible in the distance. The project will also be visible from the SR-3 and SR-305 rights-of-way to passing motorists. The visual impact, when mitigated, however, should not be either significant or adverse in an urbanized community. The varying topography of the site, and the planned terrassing allowed for in the conceptual grading plan, will allow for maximum flexibility. As individual projects are submitted, additional study may be necessary to better determine the immediate impacts to surrounding properties.

Alternatives
The following discussion reviews each of the alternatives individually. It has been assumed that the proposed Alternatives would not involve a height variance, and that all structures would be a maximum of 30 feet in height.

Alternative Two, Multiple Master Plans, could represent a significant viewshed impact in the commercial component of the project. In order to generate the anticipated 905,000 square feet of commercial development, it is likely that either a significantly greater amount of grading would be necessary, considerably altering the property profile, and/or that large commercial structures and associated parking garages would be required. In the multi-family portions of the project, the potential for impact would be reduced somewhat, since the density would probably allow for all two story structures, and no height variance would be required. The impact of adding single family residential to the northeastern corner of the property would have little impact on surrounding properties, but would likely pose a significant impact to the new single family homes within the project, which would be located adjacent to the SR-3 right-of-way. Within the project, this alternative would have a significant visual impact, in that a greater bulk and density of structures would be evident. The site would appear, in the commercial and business park components, considerably more dense. This alternative would be less desirable than the proposed project.

Alternative Three, Less Intense, would reduce the visual impacts to some degree, particularly in the multi-family residential components. Any commercial development along the highway will require considerable alteration of the vegetative cover on the site at SR-3 and SR-305 in order for the project to be marketable. Therefore, although additional landscaping would be likely under this alternative, generalized clearing of the area would still be anticipated. Additional buffers and open space areas would be expected in the commercial and business park components, since a considerable reduction in square footage would occur. All structures could be constructed within the 30 foot height limit, while still accommodating the required parking in open parking lots. This alternative would have a lesser impact on visual resources than the proposed project.

Alternative Four, More Intense, would be expected to have the most significant impact on visual resources. The need to accommodate over 1 million square feet of commercial space would certainly require the addition of parking structures, and the site would have to be graded to accommodate much larger pads. The same condition would be likely in the business park land use area. The density identified for multi-family would also require three story structures, and possibly parking structures to accommodate on-site parking requirements. These areas would also require mass grading. The visual impacts within the project, and to the traveler on SR-3 and SR-305 would be equivalent or greater than the potential impacts of Alternative Two, Multiple Master Plans. This alternative is less desirable than the proposed project or the Less Intense alternative as regards visual impacts.

Alternative Five, No Construction, would have no impact on aesthetics in the site vicinity, since no development would occur.

3. Mitigation Measures

Urbanization, by its nature, leads to the loss of vegetation and open space viewsheds. As an unavoidable impact of development, the proposed project, or any of the development-related alternatives, can partially mitigate the impact.

- All 50 foot buffer areas around the perimeter of the proposed project shall be planted primarily with evergreen trees which meet the minimum requirements of the City Poulsbo Zoning Ordinance: 6 feet in height minimum at planting. The primary tree type in the buffer areas shall not be deciduous.
- For the commercial land uses which occur immediately adjacent to the State Route 3 right-of-way along the southeastern boundary of the northerly acreage, no building shall be sited closer than

seventy-five (75) feet from the property line.

- No structure in the commercial development which occurs on the east side of Street "A" shall exceed thirty (30) feet in height, as defined and determined in the City of Poulsbo Zoning Ordinance.
- Along the southern boundary of Planning Area 9, and the western boundary of Planning Area 4 which is adjacent to Medium Density Residential designated lands, a 50 fifty foot wide vegetative buffer shall be provided. This vegetative buffer shall be planted primarily with evergreen trees which meet the City of Poulsbo's requirements for a minimum of 6 foot high at the time of planting.
- Should the conceptual grading plan be altered significantly in any portion of the proposed project, visual impact analysis of the affected area shall be conducted, as part of individual site plan reviews for specific projects.
- In conformance with the City of Poulsbo Comprehensive Plan, the applicant shall develop design guidelines for street furniture, signage and public areas which reflects the Scandinavian theme. These design guidelines shall be implemented with each Phase Plan of the project.

B. Commercial Need and Economic Analysis

1. Existing Conditions

This section provides regional and local demographic information, as well as an analysis of commercial need in the City and North Kitsap County area. The primary area studied includes the North Kitsap area and the City of Poulsbo. Secondary market areas include eastern Jefferson County, the City of Bainbridge Island, and the unincorporated communities of Kingston, Hansville, Suquamish and Silverdale. This area is referred to throughout this section as the North Kitsap Trade Area or Trade Area. A complete discussion of this subject is contained in the Fiscal Impact Analysis for the Olhava Master Plan, prepared by Terra Nova Planning & Research, Inc. in August of 1995, and included in Appendix G of this EIS.

Population

The population of Kitsap County has increased significantly in the last 15 years, rising from 147,152 in 1980 to 189,731 in 1990, an increase of 28.94%. Within the North Kitsap Trade Area, population is estimated to have increased from 100,058 in 1990 to 122,395 in 1995, a 22.3% increase, significantly higher than the County as a whole[49]. The County and Trade Area are expected to continue to show strong growth, with County population estimated at 225,931 in 2000, and 277,728 in 2010. The Trade Area is expected to grow to 143,718 in 2000, 163,184 in 2005 and 179,095 in 2010[50].

During the past decade, Poulsbo has experienced rapid population growth. From 1985 through 1994, the City had grown by 43%, from 3,789 to 5,415. The population for the City of Poulsbo is projected to increase to 7,244 persons by the year 2000 and to 10,723 by 2010[51].

Household Income

The Median Household Income in the County was $33,425 in 1990. The State of Washington Median Household Income in 1990 was $33,942, $517 above that of Kitsap County. The median household income for the City in 1990 was $25,819.00, significantly lower than the County and state rates. In 1992, the estimated median family income for the City of Poulsbo was $34,451.00. The estimated median family income for the County for the same year was $38,324.00[52].

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49 *Area Profile: 1990, North Kitsap Trade Area and Income 1995-2000-2005*, Urban Decision Systems, Inc., May, 1995.

50 2000 and 2005 estimates by Urban Decision Systems. 2010 estimates by Terra Nova Planning & Research, Inc.

51 City of Poulsbo Comprehensive Plan, Adopted June 13, 1994.

52 Urban Decision Systems, 1995 and U. S. Bureau of the Census, 1990.

Housing Unit Trends

From 1980 to 1990, population in the City of Poulsbo grew by 40%, the number of households grew by 45%, and the total number of housing units grew by 45%. The following Table gives a breakdown of past and existing housing units, as well as future projections.

Table III-9
Poulsbo Housing Unit Trends

Type:	One Unit	Two or More Units	MH/Trailer	Total
1990	1,059	848	240	2,147
1992	1,202	870	258	2,333
1993	1,227	874	258	2,359
2000	1,503	1,142	361	3,006
2010	2,105	1,599	595	4,209
2020	2,947	2,180	766	5,893

Source: 1993 Population Trends for Washington State, September 1993 from the Office of Financial Management. Projections by Terra Nova Planning and Research, Inc., September 1993.

The Table illustrates that a total of 878 additional single family units are required by the year 2010, and an additional 725 multi-family or apartment units will be required by that same year.

Employment

Historically, the employment pattern of Kitsap County has been dominated by government employment at the federal level, reflecting the impact of military installations located in the County. This influence remains a major characteristic of the job base, as nearly half (49.2%) of the jobs in the County are government related. In 1992 the employment base of Kitsap County was as follows:

Total Civilian Jobs:	64,602
(Government Share	43.45%)
1992 New Jobs:	1,498
1992 Active Duty Military:	15,600
1992 Total Jobs (with Military)	81,700

As with the balance of the County, the City's employment base is influenced significantly by military employment, both directly and indirectly. The Table below lists the City's largest employers.

Table III-10
City of Poulsbo Largest Employers, 1995

Employer	# of Employees
North Kitsap School District	850
Martha & Mary Lutheran Services	280
Poulsbo RV	225
GSA	200
Electronic Data Systems	175
Courtesy Auto-RV Group	150
Alliant Techsystems	135
Suquamish Tribe	132
Poulsbo Market Place	128
City of Poulsbo	88

Source: Greater Poulsbo Chamber of Commerce, March 1995

The City's employment stood at a total of 2,789 jobs in 1990, and is expected to grow strongly over the next 20 years, reaching 3,858 jobs in the year 2000, and 5,504 jobs in 2010[53].

Employment Forecasts
With continued population, the County is also expected to grow significantly in employment in the next twenty years. Table III-11 provides estimates of expected employment, by sector for non-agricultural employment.

Table III-11
County Employment Forecasts by Sector

Sector	1990	2000	2010	2015	2020
Manufacturing	1,900	3,891	7,368	9,018	10,901
Mining & Misc.	500	648	798	886	984
Construction	3,200	3,490	3,742	3,875	4,012
Transport &Utilities	1,700	1,992	2,262	2,411	2,569
Whole. & Retail Trade	13,700	17,248	20,738	22,740	24,935
Finance, Ins. & R.E.	2,300	2,741	3,156	3,387	3,634
Services	13,400	19,457	26,250	30,490	35,415
Government	28,400	28,347	27,788	27,394	26,563
Total	**65,100**	**77,814**	**92,102**	**100,201**	**109,013**

Source: Employment Security Department, Real Estate Economics

Retail Sales
Retail sales in the County have grown at an extremely strong rate, even through recessionary times. From 1980 to 1990. retail sales rose from $528,279,347.00 to $1,329,900,000.00, a 151% increase. Annually, retail sales rose an average of 9.8% during this period, with particularly large increases occurring in 1982, 1989 and 1990. Table III-12 illustrates retail sales increases.

53 *Household, Population and Employment Estimates,* Puget Sound Regional Council, March 15, 1995.

Table III-12
Kitsap County Taxable Sales,
Selected Years, 1980-1994

Year	Total
1980	$528,279,000
1982	636,833,000
1989	1,138,368,000
1990	1,329,900,000
1991	1,439,071,000
1992	1,551,859,000
1993	1,658,976,000
1994*	1,773,445,000

*Estimate. Source: Department of Revenue

Taxable sales in the City have increased proportionately since 1986, with a continued increase through the recession beginning in 1991. The number of firms, from retail trade to contract construction, have continually increased, illustrating the steady growth of the area. There were 2,073 taxable sales generators in the City in 1992. From 1986 to 1989, the number of taxable sales generators increased by 22%. From 1989 to 1992 the number of generators increased by over 40%.

Table III-13
City of Poulsbo
Taxable Retail Sales 1986-1994

Year	Total ($)
1986	64,234,000
1987	70,919,000
1988	75,324,000
1989	85,523,000
1990	106,043,000
1991	117,216,000
1992	135,311,000
1993	163,685,000
1994	183,710,000

Source: City of Poulsbo, State Department of Revenue.

Of these sales, the City receives 1.00%, producing the single largest source of revenue for the City's General Fund. The City's share of sales tax is illustrated below (any variations from Table III-13, above are due to rounding).

Table III-14
City Sales Tax Revenue, 1989-1994

Year	Total ($)
1989	739,919
1990	895,412
1991	1,032,191
1992	1,156,660
1993	1,399,259
1994	1,570,440

Source: City of Poulsbo

2. Impacts

Commercial Component

The following standards for commercial shopping centers have been utilized in this analysis.

Table III-15
Characteristics of Shopping Centers (Typical)

Center Type	Lead Tenant	Typ. GLA (SF)	Range of GLA (SF)	Min. Site (Acres)	Min. Pop.
Neighborhood Center	Supermarket	50,000	30,000-100,000	3-10	3,000-40,000
Community Center	Junior Dept. Store Large Variety, Discount or Department Store	150,000	100,000-300,000	10-30	40,000-150,000
Super Community Center	Large Specialty, Promotional or Discount Dept. store	286,000	250,000-450,000	n/a	n/a
Regional Center	One or More Full-line Department Store(s)	400,000	300,000-900,000	10-60	150,000 or more
Super Regional	Three or More Full-line Department Stores	800,000	500,000-1.5 million+	15-100+	300,000 or more

Source: *Shopping Center Development Handbook,* Urban Land Institute.

With a total commercial square footage of 840,000 square feet on 83 acres, the project can be expected to develop as a combination of the above-listed center types, in addition to a number of free-standing retail pads. For purposes of this analysis, it has been assumed that the project would develop as a super community center of approximately 450,000 square feet, with 3 to 5 restaurant pads, a movie theatre, bowling alley, 75 room motel, and 200,000 square feet in free-standing retail.

Trends in Super Community Shopping Centers

Current trends show that the consumer's first choice in anchors for a commercial center is the discount department store (57.6%)[54]. The ten most preferred anchors are illustrated below.

Table III-16
Anchor Tenants Most Preferred by Consumers

Anchor Type	Percent
Discount Department Store	57.6
Supermarket	50.0
Superstore	27.5
Drugstore/Pharmacy	23.5
Cinema	20.4
Home Improvement Warehouse	18.1
Warehouse/Membership Club	16.7
Variety Store	15.7
Restaurant (other than cafeteria)	11.3
Hardware	9.9

The Table below shows the typical composition of super community shopping centers.

54 Urban Land Institute, Land Use Digest, Volume 28, Number 3, March 1995.

Table III-17
Tenant Composition of Super Community Shopping Centers (Typical)

Tenant Type	% of Total GLA*
General Merchandise	32.0
Food	9.9
Food Service	6.3
Clothing & Accessories	8.6
Women's Wear	3.8
Children's Wear	0.7
Men's Wear	0.9
Family Wear	2.1
Shoes	2.2
Home Furnishings	4.1
Home appliances/music	3.6
Building Materials/hardware	2.4
Automotive	0.9
Hobby/Special Interest	5.2
Gifts/Specialty	3.0
Jewelry	0.8
Liquor	0.3
Drugs	4.6
Other retail	3.6
Personal services	3.7
Recreation/Community	6.0
Financial	1.5
Offices (other than financial)	1.4

Source: *Dollars & Cents of Super Community Shopping Centers, 1993,* Urban Land Institute. *GLA: Gross Leasable Area

If these percentages are applied to the Proposed Project Alternative, the following distribution results.

Table III-18
Tenant Composition of Project Commercial Area (1995 Dollars)

Tenant Type	Project Square Footage	Median Sales/SF ($)	Project Annual Sales Potential ($)
General Merchandise	144,000	132.18	19,033,920
Food	44,550	328.66	14,641,803
Food Service	28,350	219.50	6,222,825
Clothing & Accessories	38,700	137.53	5,322,411
Shoes	9,900	130.55	1,292,445
Home Furnishings	18,450	92.30	1,702,935
Home appliances/music	16,200	168.05	2,722,410
Building Materials/hardware	10,800	139.16	1,502,928
Automotive	4,050	94.48	382,644
Hobby/Special Interest	23,400	136.79	3,200,886
Gifts/Specialty	13,500	157.07	2,120,445
Jewelry	3,600	290.26	1,044,936
Liquor	1,350	n/a	
Drugs	20,700	212.77	4,404,339
Other retail	16,200	131.99	2,138,238
Personal services	16,650	135.08	2,249,082
Recreation/Community	27,000	72.83	1,966,410
Financial	6,750	n/a	
Offices (other than financial)	6,300	n/a	
Total Annual Sales Potential: Shopping Center			**$69,948,657**
Movie Theatre	18,892	70.09	1,324,140
Restaurants	13,865	219.50	3,043,367
Restaurants, Fast Food	8,000	347.30	2,778,400
Free Standing/Other Retail			
Variety Stores	74,700	112.26	8,385,822
Showroom/Catalog Store	50,000	212.55	10,627,500
Records and Tapes	2,455	290.01	711,975
Service Stations	4,100	349.55	1,433,155
Book Superstore	14,000	155.55	2,177,700
Pet Superstore	10,000	166.03	1,660,300
Discount Apparel	35,000	140.24	4,908,400
Toys	12,000	126.09	1,513,080
Arts & Crafts	10,185	133.46	1,359,290
Computer/Software	5,000	573.14	2,865,700
Other retail/independents	35,000	152.83	5,349,050
Total Free Standing/Other Retail			**$40,991,972**
Motel (@ 70% occupancy)	75 rooms	55.00	1,051,875
Total Project Sales Potential			**$119,138,411**

Source: *Dollars & Cents of Super Community Shopping Centers, 1993,* Urban Land Institute. Terra Nova Planning & Research.

Market Potential

Consumer goods sales in the City can be measured based on current sales, per capita income, and expected growth rates. Based on these factors, Table III-19, below provides an estimate of consumer goods sales for the City of Poulsbo in five year increments.

Table III-19
Local Annual Merchandise Sales Potential, 1995-2000-2005

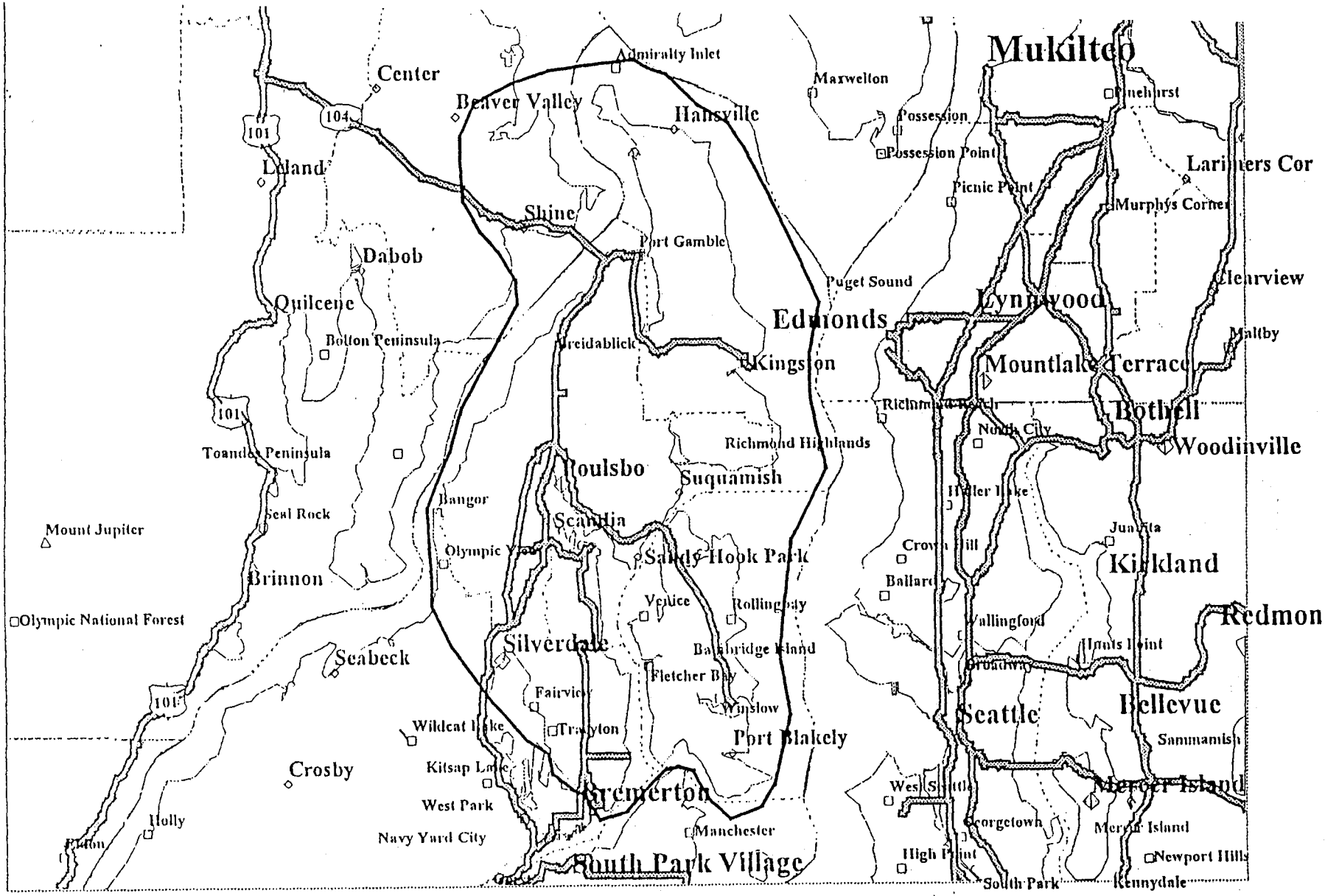
Merchandise Type	1995 Sales ($Mill)	1995 Per Capita	2000 Sales ($Mill)	2000 Per Capita	2005 Sales ($Mill)	2005 Per Capita
Grocery	7.15	$1,213.50	8.8	$1,277.39	10.8	$1,388.23
Alcohol	0.6	$101.88	0.79	$115.02	1.04	$133.38
Food & Alcohol Away From Home	4.6	$780.27	6.0	$869.59	7.82	$1,002.94
Tobacco Products	0.6	$101.63	0.78	$113.39	1.01	$129.54
Other Grocery	1.23	$208.52	1.55	$226.10	1.95	$250.10
Personal Care	1.44	$244.35	1.79	$259.96	2.22	$284.72
Men's Apparel	0.71	$120.76	0.98	$142.78	1.35	$173.14
Boy's Apparel	0.14	$22.96	0.17	$25.99	0.21	$26.93
Women's Apparel	1.26	$211.93	1.70	$248.45	2.30	$294.99
Girl's Apparel	0.19	$30.98	0.27	$38.36	0.38	$48.74
Infant's Apparel	0.18	$29.43	0.23	$33.19	0.29	$37.19
Clothing Repair/Laundry	0.46	$77.56	0.59	$84.74	0.76	$97.47
Footwear	0.40	$68.26	0.54	$78.45	0.73	$93.63
Textiles	0.34	$57.40	0.44	$63.19	0.57	$73.11
Appliances	0.44	$77.66	0.60	$86.39	0.82	$105.17
TV/VCR/Stereo	0.51	$86.38	0.69	$99.49	0.93	$119.28
CDs/Tapes/Videotapes	0.24	$41.56	0.32	$47.36	0.43	$55.15
Furniture	1.06	$181.42	1.37	$200.67	1.77	$227.01
Carpeting	0.16	$27.88	0.22	$31.26	0.30	$38.48
Computers	0.12	$20.54	0.17	$25.36	0.24	$30.78
Misc. Home Equip.	0.35	$58.84	0.48	$70.45	0.66	$84.65
China & Cookware	0.11	$17.62	0.14	$19.88	0.18	$23.09
Jewelry	0.52	$91.75	0.70	$102.02	0.95	$121.84
Toys & Hobbies	0.33	$55.82	0.44	$63.18	0.59	$75.67
Optical	0.15	$25.77	0.19	$27.34	0.24	$30.78
Rec. Equipment	0.30	$50.34	0.42	$59.87	0.59	$75.67
Photography	0.21	$35.00	0.27	$39.46	0.35	$44.89
Auto Supply & Repair	3.84	$651.15	4.22	$611.05	4.64	$595.10
Pet Supplies & Services	0.26	$43.26	0.33	$48.86	0.42	$53.87
Reading Materials	0.52	$89.05	0.65	$94.74	0.81	$103.89
Plants & Garden Supply	0.33	$56.31	0.43	$62.03	0.56	$71.82
Total Potential	**$28.75**	**$4,879.78**	**$36.27**	**$5,266.01**	**$45.91**	**$5,891.25**

Source: *Merchandise Potential: Detail (Annual),* Urban Decision Systems, May, 1995.

Of the City's total taxable sales, approximately 54% is currently in retail sales of consumer goods, the balance representing construction, automobile sales, wholesale trade and various service industries. Given this percentage, therefore, it can be estimated that the City's consumer goods sales of $99,020,000.00 were contributed to by more than City residents, whose sales potential equaled $28,750,000.00. These statistics indicate that retail sales generated within the City are 3.4 times higher than what the local population can support. Extended into the future, the City can then be expected to generate sales in consumer goods in excess of $156,094,000.00 by the year 2005.

In order to determine the regional market potential for the North Kitsap area (including the City of Poulsbo), the retail potential for the area was tabulated, based on County population estimates for the current year, and for 2012. The total consumer goods potential for the area is represented in Table III-20, below. As shown, the total potential for the area exceeds $263,000,000.00, indicating that approximately 38% of total sales potential for the area is retained in the Poulsbo area currently. The high retail loss is theorized to occur for several reasons, including commercial nodes at Kingston, Bainbridge Island and other North Kitsap communities. The single largest loss, however, can be expected to occur because of the regional shopping center and associated facilities located in the community of Silverdale.

The retail potential for consumer goods in the North Kitsap area is expected to grow to more than $495,000,000.00 by the year 2012. An interim estimate for the year 2005 is theorized at $370,000,000.00. The City currently generates approximately $99,000,000.00 in consumer goods sales, and the project will have the capacity of generating $119,000,000.00 in consumer goods sales, resulting in a total of $218,000,000.00 in potential retail sales in 1995 dollars. If inflation is factored, the project plus current potential for Poulsbo will total $286,000,000.00. Current conditions plus the proposed project will therefore result in an unallocated market potential of $84,000,000.00 for the North Kitsap area.



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North Kitsap Trade Area

Exhibit
III-13

Table III-20
North Kitsap Sales Potential

Year	1995		2012	
Population	**53,800**		**76,126**	
	Per Capita	**Aggregate ($000)**	**Per Capita**	**Aggregate ($000)**
Grocery Stores	$1,213.50	$65,286.30	$1,509.06	$114,878.70
Alcohol	$101.88	$5,481.14	$154.72	$11,778.21
Food & Alcohol Away from Home	$780.27	$41,978.53	$1,153.38	$87,802.21
Tobacco	$101.63	$5,467.69	$148.91	$11,335.92
Other Grocery	$208.52	$11,218.38	$143.71	$10,940.07
Personal Care	$244.35	$13,146.03	$311.77	$23,733.80
Men's Apparel	$120.76	$6,496.89	$210.02	$15,987.98
Boy's Apparel	$22.96	$1,235.25	$28.90	$2,200.04
Women's Apparel	$211.93	$11,401.83	$350.15	$26,655.52
Girl's Apparel	$30.98	$1,666.72	$71.20	$5,420.17
Infant's Apparel	$29.43	$1,583.33	$41.69	$3,173.69
Clothing Repair/ Laundry	$77.56	$4,172.73	$112.09	$8,532.96
Footwear	$68.26	$3,672.39	$111.70	$8,503.27
Textiles	$57.40	$3,088.12	$84.59	$6,439.50
Appliances	$77.66	$4,647.24	$127.99	$9,743.37
TV/VCR/Stereo	$86.38	$4,647.24	$143.02	$10,887.54
CDs/Tapes/Videotapes	$41.56	$2,235.93	$64.20	$4,887.29
Furniture	$181.42	$9,760.40	$256.75	$19,545.35
Carpeting	$27.88	$1,499.94	$47.37	$3,606.09
Computers	$20.54	$1,105.05	$37.37	$2,844.83
Misc. Home Equip.	$58.84	$3,165.59	$101.75	$7,745.82
China & Cookware	$17.62	$947.96	$26.81	$2,040.94
Jewelry	$91.75	$4,936.15	$145.48	$11,074.81
Toys & Hobbies	$55.82	$3,003.12	$90.65	$6,900.82
Optical	$25.77	$1,386.43	$34.66	$2,638.53
Recreational Equip.	$50.34	$2,708.29	$90.65	$6,900.82
Photography	$35.00	$1,883.00	$51.09	$3,889.28
Auto Supply & Repair	$651.15	$35,031.87	$605.10	$46,063.84
Pet Supplies & Services	$43.26	$2,327.39	$59.42	$4,523.41
Reading Materials	$89.05	$4,790.89	$113.97	$8,676.08
Plants & Garden Supply	$56.31	$3,029.48	$83.17	$6,331.40
Total Potential		**$263,001.30**		**$495,682.27**

Local Commercial Impacts

There are currently approximately 70 acres of vacant commercial lands outside of the Master Plan area and within the City[55]. The vacant lands not in the Olhava Master Plan occur primarily along SR-305, in and around the Poulsbo Village project and lands surrounding the fire station; at the northwest corner of Jensen Way and Iversen, in the Poulsbo Place Master Plan area; and along Viking Avenue, generally south of Lindvig. It can be expected that the SR-305 lands will build out as a mix of free-standing retail and office commercial buildings, given the size of the remaining parcels and the adjacencies to Boxlight on the east, and the Poulsbo Village shopping center on the west. No plans have been submitted for the Poulsbo Place Master Plan, but the project is approved for 216,000 square feet of commercial, designated for office, retail, hotel/conference center and community entertainment facilities. Should 75% of all available commercial lands develop as retail commercial, they have the potential to generate approximately $80,000,000.00 in retail sales. The North Kitsap area, after deducting existing sales and potential sales at the proposed project, and adjusting for inflation, has a remaining market potential of $84,000,000.00. The area, therefore, would absorb almost all of the North Kitsap market potential, even if the Poulsbo Place Master Plan builds out at the maximum possible commercial density. This also assumes that all the vacant acreage in the City would build out by 2012, which is unlikely.

There are two other commercial nodes in the City of Poulsbo currently: the downtown core, and the Viking Avenue area. The City's downtown core is almost solely geared to tourist commercial development, focussing on the Scandinavian theme which has been successfully implemented over the last several years. The types of businesses which currently and in the future locate in the downtown core are significantly different in character from those likely to consider a large commercial center. The potential impact to the downtown core by the proposed project, or any of the development-related alternatives, is therefore considered insignificant.

Viking Avenue's commercial lands are primarily built out, with limited in-fill lots remaining. The area is the center for recreational vehicle and automobile sales for the City, generating an average of 20% of its total retail sales. In the market mix developed for this study, no automobile or recreational vehicle sales were forecast for the proposed project area. It is possible that the proximity to Viking Avenue may generate interest for new automobile or recreational dealership(s) on the proposed project, or that existing dealerships could move to the proposed project. Given the proximity of the Bremerton auto center, and the current size of dealerships, it is unlikely that the market will support significant additional dealerships in the immediate future.

The City recently approved a Master Plan for the Viking Avenue area which provides for improved pedestrian and vehicular movement. If the implementation of the Viking Avenue Master Plan is successful in creating a safer and more appealing area, the potential impact of dealerships relocating to the proposed project area will be further reduced.

If dealerships were to relocate to the project area, the market potential for other consumer goods, as discussed extensively above, would require another location for development, and could be expected to consider the Viking Avenue area, particularly because of its proximity to the proposed project. It is therefore expected that with the proposed improvements to Viking Avenue, the potential impacts to this commercial area would be insignificant.

Regional Market Impacts

With population growth expected to continue in the North Kitsap Trade Area, the area will require additional services and retail opportunities. At the time of project buildout, the area is expected to have a total population of 163,184, with an average per capita income of $24,556.00. This income can be estimated to be expended in consumer goods according to the breakdowns in the following Table.

55 Telecom, Edie Berghoff, City of Poulsbo Planning Department, December 1996.

Table III-21
Trade Area Retail Sales Potential

Year	1995		2000		2005	
Population	**122,395**		**143,718**		**163,184**	
	Per Capita	**Aggregate ($000)**	**Per Capita**	**Aggregate ($000)**	**Per Capita**	**Aggregate ($000)**
Grocery Stores	$1,213.50	$148,526.33	$1,277.39	$183,583.94	$1,388.23	$226,536.92
Alcohol	$101.88	$12,469.60	$115.02	$16,530.44	$133.38	$21,765.48
Food & Alcohol Away from Home	$780.27	$95,501.15	$869.59	$124,975.74	$1,002.94	$21,204.13
Tobacco	$101.63	$12,439.00	$113.39	$16,296.18	$129.94	$21,204.13
Other Grocery	$208.52	$25,521.81	$226.10	$37,360.93	$250.10	$40,812.32
Personal Care	$244.35	$29,907.22	$259.96	$37,360.93	$284.72	$46,461.75
Men's Apparel	$120.76	$14,780.42	$142.78	$20,520.06	$173.14	$28,253.68
Boy's Apparel	$22.96	$2,810.19	$25.99	$3,735.23	$26.93	$4,394.55
Women's Apparel	$211.93	$25,939.17	$248.45	$35,706.74	$294.99	$48,137.65
Girl's Apparel	$30.98	$3,791.80	$38.36	$5,513.02	$48.74	$7,953.59
Infant's Apparel	$29.43	$3,602.08	$33.19	$4,770.00	$37.19	$6,068.81
Clothing Repair/Laundry	$77.56	$9,492.96	$84.74	$12,178.66	$97.47	$15,905.54
Footwear	$68.26	$8,354.68	$78.45	$11,274.68	$93.63	$15,278.92
Textiles	$57.40	$7,025.47	$63.19	$9,081.54	$73.11	$11,930.38
Appliances	$77.66	$10,572.48	$86.39	$12,415.80	$105.17	$17,162.06
TV/VCR/Stereo	$86.38	$10,572.48	$99.49	$14,298.50	$119.28	$19,464.59
CDs/Tapes/Videotapes	$41.56	$5,086.74	$47.36	$6,806.48	$55.15	$8,999.60
Furniture	$181.42	$22,204.90	$200.67	$28,839.89	$227.01	$37,044.40
Carpeting	$27.88	$3,412.37	$31.26	$4,492.62	$38.48	$6,279.32
Computers	$20.54	$2,513.99	$25.36	$3,644.69	$30.78	$5,022.80
Misc. Home Equipment	$58.84	$7,201.72	$70.45	$10,124.93	$84.65	$13,813.53
China & Cookware	$17.62	$2,156.60	$19.88	$2,857.11	$23.09	$3,767.92
Jewelry	$91.75	$11,229.74	$102.02	$14,662.11	$121.84	$19,882.34
Toys & Hobbies	$55.82	$6,832.09	$63.18	$9,080.10	$75.67	$12,348.13
Optical	$25.77	$3,154.12	$27.34	$3,929.25	$30.78	$5,022.80
Recreational Equipment	$50.34	$6,161.36	$59.87	$8,604.40	$75.67	$12,348.13
Photography	$35.00	$4,283.83	$39.46	$5,671.11	$44.89	$7,325.33
Auto Supply & Repair	$651.15	$79,697.50	$611.05	$87,818.88	$595.10	$97,110.80
Pet Supplies & Services	$43.26	$5,294.81	$48.86	$7,022.06	$53.87	$8,790.72
Reading Materials	$89.05	$10,899.27	$94.74	$13,615.84	$103.89	$16,953.19
Plants & Garden Supply	$56.31	$6,892.06	$62.03	$8,914.83	$71.82	$11,719.87
Total Market Potential		**$598,327.96**		**$761,686.72**		**$818,963.38**

At the time of project buildout, the proposed project has the potential to generate $119,000,000.00 in retail sales, or 14.5% of the total market potential for the region. Although the project will have an impact on retail sales generated from the North Kitsap area in Silverdale, the continued growth in Central Kitsap, and the market-driven diversity in product lines likely to occur in each area will continue to provide market growth for the Silverdale area. The region shows a potential to increase sales of consumer goods by $221 million, from $598 million to $819 million, 54% of which could be absorbed by the proposed project. Since the projections are conservative, and do not include all sectors of sales tax generating revenues, only consumer goods, the actual growth rates for both the local and regional markets are likely to be considerably higher than anticipated in this study.

Project Generated Revenues

The proposed project will generate revenues for state, county and local government from a number of sources, most notably property taxes and sales and use tax. Section III of this report identified the market potential for the proposed project, and the potential mix of uses on the property. Further analysis was conducted, resulting in potential sales per square foot for each type of use. These estimates have been used to develop the sales and use tax generation provided below.

The project proponent, who has considerable experience in development in western Washington and Kitsap County, provided estimates of approximate assessed value of improvements on the proposed property. These estimates, detailed below, provide the basis for the estimated property tax generated by the proposed project.

Sales Tax Revenues

The project will generate sales tax revenue from both the commercial and, to a lesser degree, the business park component. Since levels of sales tax are at best extremely speculative for the business park, and in order to provide a conservative analysis, no such revenues will be included in this study.

Prior to full occupancy of the project, the construction of all facets of the proposed Master Plan will generate sales tax for the City. Using the construction valuation costs shown in Table III-22, below, the following can be expected in sales tax revenues during construction of the project (Olympic College is not included in the projections shown below).

Table III-22
Sales Tax Generated by Construction (1995 Dollars)

Project Component	Phase					
	1997/98	1998/99	1999/00	2000/02	2002/03	2003/05
Primary Commercial	76,000	95,000	76,000	133,000		
Secondary Commercial			48,000	80,000		192,000
Business Park		29,000	38,000	48,000		75,000
Multi-Family	100,000		98,000		62,000	
Single Family	50,000	50,000				
Total	**$ 226,000**	**174,000**	**260,000**	**261,000**	**62,000**	**267,000**

Source: Terra Nova Planning & Research, Inc.

The sales tax generation shown above has been further analysed to incorporate a 4% annual increase to allow for inflation. During the construction period for the project, from 1997 through 2005, the project will generate $1,578,459.00 in sales tax altogether, when adjusted for inflation.

Table III-23
Sales Tax Generated by Construction Adjusted for Inflation

1998	1999	2000	2002	2003	2005
$235,040	$203,555	$316,330	$343,458	$84,851	$395,225

Source: Terra Nova Planning & Research, Inc.

Since these revenues are directly related to construction activities, they are temporary, and will not continue past project buildout. They will provide additional income to the City during construction, however, to offset some costs associated with administration of the project during this period.

Retail Sales Tax

In order to estimate sales tax revenue from the commercial component, the square footage constructed in each phase has been converted into a percentage of the project total. This percentage is then applied to the sales tax generation, and annual rates result, as illustrated below. The sales tax revenues have been adjusted to incorporate a 4% inflation increase annually.

Table III-24
Retail Sales Tax Generated Adjusted for Inflation

1998	1999	2000	2001	2002	2003	2004	2005
$150,096	$350,389	$623,575	$890,062	$1,156,550	$1,202,812	$1,483,087	$1,763,362

Source: Terra Nova Planning & Research, Inc.

The combined annual sales tax revenue from both construction and retail sales, adjusted for inflation, is summarized in Table III-25, below:

Table III-25
Sales Tax Revenues, Construction & Retail, Adjusted for Inflation

1998	1999	2000	2001	2002	2003	2004	2005
$385,681	$553,944	$939,905	$890,062	$1,550,008	$1,287,663	$1,483,087	$2,158,587

Source: Terra Nova Planning & Research, Inc.

After the completion of the project, sales tax revenue will stabilize at approximately $1,763,362.00 annually in 2005 dollars, assuming that the tax rates remain unchanged.

Property Tax Revenues

The proposed project includes a total of 840,000 square feet of commercial space, 325,000 of office and business park space, and 490 dwelling units. The value of improvements has been estimated for constructed phases, and does not include on and off site capital facility improvements, or value of the Olympic College facility. All calculations have been completed using 1995 dollars.

Table III-26
Estimated Value of Construction ($000)

Project Component	Phase 1997/98	1998/99	1999/00	2000/02	2002/03	2003/05
Primary Commercial	7,600	9,500	7,600	13,300		
Secondary Commercial			4,800	8,000		19,200
Business Park		2,900	3,800	4,800		7,500
Multi-Family	10,000		9,800		6,200	
Single Family	5,000	5,000				
Total	**22,600**	**17,400**	**26,000**	**26,100**	**6,200**	**26,700**

Source: First Western Investments

Based on Table III-26, the following estimates can be made of property tax revenues to the City, on a phase basis. All estimates provided below are at the 1995 local tax rate, which has not been increased in two years. It is expected that the City will elect to utilize its 106% annual increase allowance in the future, but no definite policy has been set by the City. For purposes of the Table below, and to provide a conservative estimate, an annual increase of 4% in property value has been estimated, with no increase in the tax rate. Also shown in this Table is the 2005 total property tax generated by the project, adjusted for inflation to 2005 dollars.

Table III-27
Annual Property Tax Revenue by Phase

Project Component	Phase 1997/98	1998/99	1999/00	2000/02	2002/03	2003/05
Primary Commercial	$21,287	$27,674	$23,025	$43,580		
Secondary Commercial			$14,542	$26,212		$70,768
Business Park		$8,449	$11,511	$15,727		$27,644
Multi-Family	$28,010		$29,688		$21,128	
Single Family	$14,004	$14,564				
Cumulative Annual Property Tax Total	**$63,301**	**$50,687**	**$78,766**	**$85,519**	**$21,128**	**$98,412**
Total Annual Property Tax Generated at Buildout, 2005 dollars: $460,727						

Source: Terra Nova Planning & Research, Inc.

At buildout, therefore, constructed facilities on the project are expected to generate $460,727.00 in property taxes for the City. In addition, the property itself has and will continue to generate property tax revenue. 1995 value of the property was $1,239,210.00[56], without improvements. Although the value of the land will rise with infrastructure improvements and entitlements, the estimates of value have been calculated for land only, based on the same assumptions as were utilized for the structures. Altogether, the project will generate $465,295.00 in property taxes for the City in 2005.

56 1995 Tax Statement.

Other Revenues

The Master Plan allocates usage for the project for water and sanitary sewer. In addition, the City receives a utility tax from the Department, calculated at 8% of usage fees (the tax is currently being reduced by 1% by the City to allow the water and sewer departments to build reserves). The project will generate $48,034.00 in utility tax once complete, in 1995 dollars. If the tax rate is returned to 9%, the City will receive $54,038 annually in utility taxes, in 1995 dollars. Adjusted for inflation, the City will receive $63,209.00 annually at 8% in 2005 dollars, and $71,110.00 annually at 9% in 2005 dollars.

During the construction period, the project will also generate fees to the City in relation to building permits and plan checking. The fees charged for building permits vary greatly, and are based on a number of factors, including interior improvements, types of facilities, plumbing and electrical. For purposes of this study, an average cost per $1,000.00 valuation has been developed based on building permit activity at the City in 1994-95, to estimate the potential for building permit fees.

The single family residences planned for the project are estimated to be valued at $142,000.00 per unit. At an average of $12.00 per $1,000.00 valuation, each unit would generate $1,704.00 in building permit fees. The multi-family residential is estimated at a value of $62,500.00 per unit, resulting in an average building permit fee of $750.00 per unit. For commercial and office structures, an average of $6.00 per $1,000.00 valuation was estimated. The table below shows the total building fees generated by type of use, and by phase year.

Table III-28
Building Permit Fees

Project Component	Phase 1997/98	1998/99	1999/00	2000/02	2002/03	2003/05
Primary Commercial	$45,600	$57,000	$45,600	$79,800		
Secondary Commercial			$28,800	$48,000		$115,200
Business Park		$17,400	$22,800	$28,800		$45,000
Multi-Family	$120,000		$75,000		$120,000	
Single Family	$59,640	$59,640				
Building Permit Fees from Project	**$225,240**	**$134,040**	**$172,200**	**$156,600**	**$120,000**	**$160,200**
Total Building Permit Fees: $968,280*						

Source: Terra Nova Planning & Research, Inc. *1995 dollars

Project Generated Costs

Administration

It is possible to estimate what costs are associated with general fund expenditures on a per capita basis for the residential population. To calculate this figure, the general fund expenditure total of $4,508,493.00 has been adjusted by deducting salaries and benefits for fire and police department staff, which are calculated separately, yielding a net general fund expenditure of $2,758,820.00.

On a per capita basis, the general administrative functions of general fund government cost $509.48 currently. These costs include administrative staff, supplies and services, but do not include capital outlays or special projects. The cost of providing government has been rising at an average of 10% annually in the last several years. Revenues have not significantly increased over the same time period, while expenses have grown. It can therefore be conservatively expected that the cost of government will continue to grow at a rate close to 10% annually.

The Master Plan calls for the addition of 1,166 persons to the City's population base at buildout. This population could potentially generate a cost to government of $594,054.00, in 1995 dollars. If the phasing plan is considered, and a 10% annual increase in costs is calculated, the project could add the following to administrative costs:

Table III-29
Project Generated General Fund Costs

Year	Total Units	Total Pop.	Per Capita Cost	Total Cost
1998	195	464	$678	$314,592
1999	230	547	$746	$408,062
2000	330	785	$821	$644,485
2003	490	1,166	$1,092	$1,273,272
2005	490	1,166	$1,321	$1,540,286

Source: Terra Nova Planning & Research, Inc.

The total annual administrative costs shown above are very conservative, and do not take into account economies of scale or increasing efforts to control government costs. They do, however, provide a benchmark which can be used to balance the commercial and industrial uses on the proposed property, which will also require administrative services, but whose level of use cannot be easily quantified.

Public Safety: Police Department

Police services are currently, and are mandated to continue in the Comprehensive Plan, at a level of service of 2.27 officers per 1,000 population[57]. Based on this level of service, and the projected buildout population of 1,166 persons residing on the proposed project, the police department will require an additional 2.65 personnel to meet the level of service mandated. In 1993, it cost the City $39,500.00 per officer to maintain the police force (salary, benefits and equipment). Based on this cost, with an annual increase of 4%, the project will generate a need for $167,586.00 to maintain 2.65 full time personnel equivalents.

The provision of police and fire services to residential versus other types of land uses has not been catalogued at the City. Current conditions indicate that residential calls make up 55% of the police department's response to crimes against property, with calls to commercial addresses making up 45% of the property crimes in the City. It is not possible to estimate similar percentages for crimes against persons[58].

Public Safety: Fire Department

In order to maintain the City's current fire insurance rating, the Washington State Survey and Rating Bureau requires that three engine companies be available to respond to commercial fires in the City. Station 71 currently houses two engine companies, while the third is housed at the Clear Creek station (Station 74), and is not manned by paid fire fighters[59]. The proposed project's impacts on the fire department will result in the need to man the Clear Creek station (see Section III-2-C, Fire and Emergency Services).

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57 City of Poulsbo Comprehensive Plan, Adopted June 13, 1994

58 Telecom, Chief of Police Dorn, July, 1995.

59 Telecom, Fire Chief Shields, July, 1995.

At project buildout, the District boundary will likely have exceeded 25,000 population, so that a ratio of 2.2 personnel per 1,000 would be recommended. Based on this ratio, and a project population of 1,166 persons, the proposed Olhava project will require the addition of 2.57 full time equivalent personnel to the fire department. According to the 1995 budget, it currently costs the City an average of $31,560.00 to maintain each professional at the station. Based on this cost, with an annual inflation increase of 4%, the project will generate a need for $120,061.00 annually at buildout to maintain 2.57 full time personnel equivalents at the fire department.

The City maintains equipment reserves for fire fighting equipment, and will continue to build these reserves. Current reserves total $85,050, with an influx from the general fund in 1995 of $40,000.00. Should these general fund contributions continue annually, the City will have $445,000.00 available at project buildout for fire fighting equipment. It is likely that at completion of the project, the City will require an additional engine, and associated equipment, at an approximate cost of $225,000.00. Such cost should be borne as a general fund expense, and should be calculated into the City's budget in the next ten years.

Total Administrative Costs

When general administration, police and fire department costs are added, the project at buildout will generate administrative costs of $1,827,933.00, in 2005 dollars. As discussed below, revenues associated with the proposed project are expected to exceed costs.

Capital Facilities Costs and Revenues

Domestic Water

The project proponent will construct all on-site facilities, and will extend service to the property along Parnell Place and Thompson Road. The project will generate a need for 357,000 gallons per day (gpd) for domestic water demand[60].

Revenues

The residential component of the proposed project is estimated to utilize 78,400 gallons per day. Utilities are billed on a monthly basis, based on 100 cubic foot usage plus a base fee. On a monthly basis, it is estimated that 642 cubic feet of water will be consumed per unit, for a monthly fee of $19.32 per unit, or $9,467.00 for the total 490 units. Annually, the residential component will generate $113,604.00 for the Water Department.

The balance of the proposed project will utilize 278,600 gallons per day, or 37,246 cubic feet per day. It is impossible at this time to determine how many separate users will be represented in this project. An average of $1.13 per 100 cubic feet was used to estimate revenue, with an addition of 200 units base rate. On a monthly basis, the commercial, business park and institutional components of the project will generate $15,526.00, or $186,312.00 annually. Altogether, therefore, the project will generate $299,916.00 to the water department, in 1995 dollars. With the addition of an inflation factor of 4%, water department revenues will equal $443,949.00 in 2005.

Sanitary Sewer

The City currently participates in a regional sanitary sewer system, with a plant located at Brownsville and operated by Kitsap County. Based on calculations provided in the Master Plan by American Engineering Corp., the project will generate an annual average flow of 223,300 gpd.

Revenues

User fees for sanitary sewer are calculated based on a base fee plus 75% of the dollar amount of water consumption. At current rates, the project will generate $25,042.00 per month in sewer fees, or

[60] *Master Plan for the Olhava Project*, January 1995

$300,504.00 annually, in 1995 dollars. With the addition of a 4% inflation factor, sanitary sewer fees will total $444,819.00 annually in 2005.

Costs

The 1995 budget for the Water and Sewer Department reflects expenditures of $1,538,499.00 (including personnel, benefits, equipment and supplies, sewage treatment fees, and taxes). On a per pumped gallon basis (804,093 average daily pumpage), the departments cost $1.91 per gallon to maintain annually. The proposed project will generate a need for 357,000 gallons per day, resulting in an annual project cost of $681,870.00 for maintenance of the water and sewer department, in 1995 dollars. With an annual inflation factor of 4%, the project would add maintenance costs of $1,009,334.00 in 2005. Given the economies of scale associated with participating in an established system, these cost estimates are considered extremely conservative.

Cost/Benefit Analysis

At project buildout, the City will experience a positive cash flow from the proposed project, although overall expenses will be considerably increased. The following Table lists project associated costs to be incurred by the City at project buildout in 2005, project generated revenues, and the resulting surplus.

Table III-30
Buildout Cost/Revenue Analysis (adjusted for inflation)

Item	City Cost ($)	City Revenue ($)
General Administration	1,540,286	
Police Department	167,586	
Fire Department	120,061	
Water and Sewer Department	1,009,334	
Subtotal	**2,837,267**	
Sales Tax Revenues		1,763,362
Property Tax Revenues		465,295
Water Department Fees		443,949
Sanitary Sewer Fees		444,819
Storm Drainage Fees		61,282
Water and Sewer Utility Taxes (at 8%)		63,209
Subtotal		**3,241,916**
Resulting annual positive cash flow:	**$404,649.00**	

Source: Terra Nova Planning & Research, Inc.

Alternatives

All alternatives will have an impact on the City's economy. The discussion below provides individual analysis of each alternative, including a cost/benefit Table, which can be compared to Table III-30, Buildout Cost/Benefit Analysis.

Alternative Two/Multiple Master Plans

This alternative proposes the development of the site in 6 small Master Plans, divided along land use boundary lines. This alternative would result in 905,000 square feet of commercial development, 435,000 square feet of business park space, 143 single family residential units, and 332 multi-family residential

units. As is demonstrated below, the project would generate additional revenue for the City, but would also generate additional costs. The assumptions used to develop costs and revenues are based on the description of the mix of land uses provided in Section II-A-b of this EIS.

Table III-31
Alternative Two/Multiple Master Plans
Buildout Cost/Revenue Analysis (adjusted for inflation)

Item	City Cost ($)	City Revenue ($)
General Administration	1,505,940	
Police Department	164,424	
Fire Department	116,239	
Water and Sewer Department	1,150,296	
Subtotal	**2,936,899**	
Sales Tax Revenues		1,829,098
Property Tax Revenues		747,992
Water Department Fees		551,957
Sanitary Sewer Fees		526,961
Storm Drainage Fees		61,914
Water and Sewer Utility Taxes (at 8%)		75,524
Subtotal		**3,793,446**
Resulting annual positive cash flow:	**$856,547.00**	

Source: Terra Nova Planning & Research, Inc.

This alternative, therefore, generates a higher positive cash flow to the City, in large part due to the increases in sales and property taxes.

As regards market saturation, this alternative, given the vacant commercial lands in the City, could result in an over-building in the North Kitsap market area, which would not be supported by the year 2012's population. This alternative, therefore, could result in a higher potential for vacant space in the project, which would lessen the potential revenues to the City while maintaining higher administrative costs.

Alternative Three/Less Intense
This alternative would result in 500,000 square feet of commercial development, 150,000 square feet of business park space, 64 single family residential units, and 257 multi-family residential units. The assumptions used to develop costs and revenues are based on the description of the mix of land uses provided in Section II-A-b of this EIS.

Table III-32
Alternative Three/Less Intense
Buildout Cost/Revenue Analysis (adjusted for inflation)

Item	City Cost ($)	City Revenue ($)
General Administration	1,017,170	
Police Department	98,268	
Fire Department	78,520	
Water and Sewer Department	1,002,679	
Subtotal	**2,196,637**	
Sales Tax Revenues		1,010,551
Property Tax Revenues		363,935
Water Department Fees		348,215
Sanitary Sewer Fees		334,568
Storm Drainage Fees		40,223
Water and Sewer Utility Taxes (at 8%)		68,027
Subtotal		**2,165,519**
Resulting annual negative cash flow:	**[$31,118.00]**	

Source: Terra Nova Planning & Research, Inc.

This alternative, therefore, generates a negative cash flow to the City of almost $10,000.00 annually, due to the reductions in sales and property tax collected, versus the high cost of administrative services. This alternative represents a small but not insignificant negative economic impact to the City.

This alternative, combined with the currently vacant commercial land in the City, would result in a larger potential market in the North Kitsap market area, due to the reduced square footage in the commercial portion of the project. It is therefore likely that this alternative would result in un-met need for commercial services locating elsewhere in the market area from the current time to the year 2012. This alternative also provides greater opportunity for other vacant commercial land within the City.

Alternative Four/More Intense

This alternative would result in 1,100,000 square feet of commercial development, 435,000 square feet of business park space, 138 single family residential units, and 525 multi-family residential units. As is demonstrated below, the project would generate additional revenue for the City, but would also generate additional costs. The assumptions used to develop costs and revenues are based on the description of the mix of land uses provided in Section II-A-b of this EIS.

Table III-33
Alternative Four/More Intense
Buildout Cost/Revenue Analysis (adjusted for inflation)

Item	City Cost ($)	City Revenue ($)
General Administration	2,101,975	
Police Department	203,045	
Fire Department	162,179	
Water and Sewer Department	2,176,765	
Subtotal	**4,643,964**	
Sales Tax Revenues		2,223,213
Property Tax Revenues		857,591
Water Department Fees		750,739
Sanitary Sewer Fees		713,140
Storm Drainage Fees		82,239
Water and Sewer Utility Taxes (at 8%)		145,850
Subtotal		**4,772,772**
Resulting annual negative cash flow:	**[$128,808.00]**	

Source: Terra Nova Planning & Research, Inc.

This alternative, therefore, generates an adverse and significant impact on the City's budget. The high number of residential units, and the costs associated with providing all services, is not off-set by the additional sales and property tax revenue. This alternative represents the worst negative impact to the City.

As regards market saturation, this alternative, given the vacant commercial lands in the City, could result in an over-building in the North Kitsap market area, which would not be supported by the year 2012's population. This alternative, therefore, could result in a higher potential for vacant space in the project, which would lessen the potential revenues to the City while maintaining higher administrative costs.

Alternative Five/No Construction

This alternative, resulting in no new development on the project site, would have no impact on costs to the City beyond those which currently exist. The impact to revenues and market share, however, could be considerable. No other parcels of sufficient size are located in the City to accommodate commercial and business park development. As the analysis shows, the North Kitsap Market Area has a large retail potential, due to the high rate of growth in the area. The market potential, therefore, could not be achieved within existing City limits, or without Comprehensive Plan amendments. This condition could lead to the creation of small commercial nodes in unincorporated County areas, which does not achieve the goals of the Growth Management Act.

The impact to the City from the loss of potential revenue from this alternative is considerable. Should no development take place, the City's potential for increasing tax revenue from both retail sales and property tax will not occur. There is no other substantial undeveloped commercial or business park land located within existing City limits or the Urban Growth Area. Future revenues from retail sales, therefore, are limited. As federal and State funding sources continue to dwindle, the City must be able to generate funds directly to pay for needed services, without depending on outside sources. This alternative, therefore, could have a long term negative impact on the City's financial condition.

3. Mitigations Measures

- The City and project proponent shall make every effort to develop the project within the phasing plan proposed in the Master Plan, in order to help the City balance costs and revenues. Should the phasing plan be altered substantially from that contained in the Master Plan, the project proponent shall submit economic analysis demonstrating whether the altered phasing shall have an impact on the cost/revenue balance shown in this EIS.

Since the proposed project has a positive fiscal impact to the City, no further mitigation is proposed.

C. Fire and Emergency Services

1. Existing Conditions

Fire department services have been provided in the City for the last 30 years by a cooperative arrangement of Kitsap County Fire Protection District 18 and the City. The District, a separate taxing agency, operates in a 50 square mile area, with three fire stations in addition to the station located in the City. Fire fighting equipment generally stands at five fire engines, three tenders, three medic units, and one rescue unit at the City station (Station 71). The fire department is responsible for both fire and emergency medical care within the City and larger District 18. The current agreement between District 18 and City results in the sharing of personnel costs to staff the fire station, and for the City to be responsible for its equipment located at the station. The City has a complement of 18 paid fire fighters and emergency medical personnel covering a service area population of approximately 18,250, or an average of 1.01 personnel per thousand population. All paid personnel are considered to be City employees, paid from the City's General Fund.

The District also maintains an un-manned station on Clear Creek Road, near its intersection with Finn Hill Road (Station 74). Volunteers are called as required. The volunteer system is expected to continue its role as an important component of the Department into the future. The 1995 Fire Master Plan recommends that a second full time fire company be hired and located at Station 74[61], with no proposed timeline. This recommendation has not yet been implemented.

A study recently completed by Municipal Research & Service Center of Washington[62] recommends that in order to provide adequate response times, fire stations be located within 1.5 to 2 miles of commercial and residential areas, respectively. Fire station 71 is located 1.7 miles from the proposed project area.

The Department does not maintain a response time level of service, and reviews development proposals on an individual basis. The recently completed Fire Master Plan, however, analysed response time based on two nationally recognized standards: the 1.5 mile radius identified above, and the five minute response time analysis. No final recommendation as to which, if any standard should be followed is given. Each analysis is discussed individually below.

1.5 Mile Service Radius Analysis
The 1.5 mile service radius analysis relies on a purely mathematic calculation of distance. A circle is drawn, using the fire station as its center. Based on this type of analysis, the project site is partially served to the required standard. All of the northern 174 acre parcel and a small portion of the southern 41 acre parcel fall within the service area of Station 74. The bulk of the southerly 41 acre parcel, however, is not served by this station. Using this analysis, no part of the proposed project falls within the service area of Station 71.

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61 City of Poulsbo/Kitsap County Fire District 18 Fire Protection Master Plan. June, 1995.

62 Municipal Research & Services Center of Washington, Level of Service Standards, Measures for Maintaining the Quality of Community Life. September, 1994.

Five Minute Response Time Analysis
The five minute response time analysis is based on driving time from a fire station to a given point. Using this analysis, the southerly 41 acre parcel falls within the service area of Station 71. The northerly 174 acres, however, are not within any station's five minute response time.

2. Impacts

Based on two nationally recognized standards, the proposed project falls within acceptable response times of two of the District's fire stations. Development of the proposed project will, however, impact the current staffing levels implemented by the District. In order to maintain the City's current fire insurance rating, the Washington State Survey and Rating Bureau requires that three engine companies be available to respond to commercial fires in the City. The City's station currently houses two engine companies, while the third is housed at the Clear Creek station, and is not staffed by paid fire fighters[63].

The proposed project's impacts on the fire department will result in the need to man the Clear Creek station. The personnel for that engine company has been allocated in the 1995 Fire Master Plan. The costs associated with the provision of fire personnel are borne by the City, through its General Fund.

The study completed by Municipal Research & Service Center of Washington polled fire stations throughout the United States to determine staffing levels. In service areas of 10,000 to 24,999 persons, an average of 1.47 personnel per 1,000 population was recommended. In service areas of 25,000 to 49,999 population, a ratio of 1.65 personnel per 1,000 population was typical. With the addition of emergency medical technicians for advanced life support, based on current conditions in District 18, the ratio would be increased to 2.2. At project buildout, the District boundary will have exceeded 25,000 population, so that a ratio of 2.2 personnel per 1,000 would be recommended. Based on this ratio, and a project population of 1,166 persons, the proposed Olhava project will require the addition of 2.57 full time equivalent personnel to the fire department. According to the 1995 budget, it currently costs the City an average of $31,560.00 to maintain each professional at the station. Based on this cost, with an annual inflation increase of 4%, the project will generate a need for $120,061.00 annually at buildout to maintain 2.57 full time personnel equivalents at Station 74. Section III-2-B, Commercial Need and Economic Analysis, provides a complete cost/revenue analysis for the proposed project.

Provision of Fire Flows
The proposed project will require water for fire suppression (fire flows), in addition to the demand for domestic water. The analysis completed by American Engineering Corporation for phased water and sewer needs includes analysis of fire flow requirements, as follows:

Phase a: None (infrastructure only)
Phase b: 2,000 gpm/3 hour duration. Fire Storage: 360,000 gallons
Phases c through g: No additional fire flow or storage required

Structures Over 30 Feet in Height
The City of Poulsbo Municipal Code, Ordinance 84-22, requires that structures over 30 feet in height have certain fire suppression standards and equipment in place. The Ordinance includes the following requirements:

- Installation of alarm system(s)
- Installation of automatic sprinkler systems
- Provision of a Ladder Truck and 6 high pressure respiratory units.

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63 Telecom, Fire Chief Shields, July, 1995.

The Fire Department does not currently operate with a Ladder Truck, and such equipment is not planned for in the immediate future. Should any structure of 31 or more feet be constructed on the project site, the project would have an impact on the City's ability to provide fire suppression services, if left unmitigated. The Ordinance does not specify the responsibility for the purchase of a Ladder Truck, but does state that the City shall not be obligated to purchase the equipment.

The only other project known to currently plan to construct structures over 30 feet in height is the Poulsbo Place Master Plan. Should a variance in height be requested by any specific project, it would be required to comply with the Ordinance.

Alternatives
All development-related alternatives will have similar impacts on the provision of fire and emergency services at the project site. No matter the size of the project, fire fighting services will be required, and will be subject to identical response time concerns as the proposed project.

Since the Municipal Code does not require the installation of automatic sprinkler systems in all multi-family, commercial and business park structures, it should be assumed that none of the development-related alternatives would add this requirement, as the proposed Master Plan has. Therefore, all development-related alternatives but the proposed project would have a more significant impact on the provision of fire suppression service to the site.

Alternative Five will not have an impact on the provision of fire services beyond that already existing. Under Alternative Five, as is the case with current conditions, an impact to fire flow may exist in the case of a brush or forest fire, insofar as current storage and fire flow within existing systems in the project area may not be sufficient should such an event occur.

3. Mitigation Measures

Mitigation measures for impacts to emergency services include:

- Prior to the approval of the phase plan for Phase "a," the project proponent shall fund a needs assessment conducted by the City to determine whether fire station 74 can be expended and manned in a reasonable manner with a full time engine company as a means of ensuring mitigation of the fire impacts for the proposed project. If the study concludes that the Station can be manned and can provide such mitigation, the Station must be manned prior to the occupancy of any structure within the northerly 174 acres. If the study concludes that the Station cannot be manned, the study shall evaluate alternative mitigation measures, including but not limited to the potential for a new fire station, in order to ensure that the impacts of the proposed project are adequately mitigated and development permits for the remaining phases of the project may be properly conditioned.
- The project proponent shall provide required fire flows and storage, and shall provide plans for same to Kitsap Public Utility District for review and approval prior to the start of construction on Phase b. Kitsap PUD's storage facility should be sufficient to meet the project's needs. Additions and modifications to the booster pump, if required by Kitsap PUD, shall be at the project proponent's expense.
- All structures in the Olympic College, multi-family, commercial and business park districts shall be constructed to include automatic fire suppression/sprinkler systems, in conformance with the Uniform Fire Code. Plans for all fire suppression/sprinkler systems shall be submitted to the Fire Department and City Building Department for review and approval prior to issuance of building permits.
- Prior to the issuance of occupancy permits for any structure of 31 feet or more, as prescribed in Ordinance 84-22, the requirements of this Ordinance shall be satisfied. The purchase price and structure of the required equipment shall be negotiated between the project proponent, the City, Fire District 18 and any other project proponent whose approvals include height variances in excess of 30 feet.

D. Police Services

1. Existing Conditions

The City of Poulsbo Police Department consists of 1 chief of police, 3 sergeants, 1 detective, 1 crime prevention officer and 9 patrol officers. The department also staffs two clerks and 23 reserve officers. The City currently generally operates with two officers on duty at all times. Law enforcement vehicles include fourteen cars, which are generally maintained for seven years, and which cost approximately $20,000.00 each when replacement is needed (current dollars). The department also has a boat.

The Department operates through a County-wide central facility in Bremerton for their dispatch/911 service. This facility is severely over-used, and is undergoing changes and improvements. The Police station facility used in Poulsbo includes a 6-hour detention cell. Persons arrested and jailed for greater than a six-hour period must be transferred to the jail located in Port Orchard by an on-duty officer. The Department also has a mutual aid agreement with the Kitsap County Sheriff. While the officer is transporting or responding to a mutual aid call, he or she is not available for local calls, decreasing the level of service for law enforcement within the City. County officers can also be brought into the City to supplement City officers, as required. Because of the central dispatch facility location and condition, and the location of the jail in Port Orchard, conditions in the City are not ideal.

During the past decade, Poulsbo has experienced rapid population growth. From 1985 through 1994, the City has grown by 43%, from a population of 3,789 to 5,415. The population for the City of Poulsbo is projected to increase to 7,244 persons by the year 2000 and to 10,723 by 2010, more than doubling the current population[64].

2. Impacts

Factors which can increase the need for police protection include economic conditions, population increases, and the character of a particular area. The current level of service for police protection in the City of Poulsbo exceeds the state standard. The Department, however, is operating under special circumstances.

State and national standards call for one police officer for every 1,000 persons in a community. This also assumes that the ancillary facilities for these officers are available. In 1996, the City had a ratio of 2.27± officers per 1,000 population. Police services are currently, and are mandated to continue in the Comprehensive Plan, at a level of service of 2.27 officers per 1,000 population[65]. Based on this level of service, and the projected buildout population of 1,166 persons residing on the proposed project, the police department will require an additional 2.65 personnel to meet the level of service mandated. In 1993, it cost the City $39,500.00 per officer to maintain the police force (salary, benefits and equipment). Based on this cost, with an annual increase of 4%, the project will generate a need for $167,586.00 to maintain 2.65 full time personnel equivalents at buildout. See Section III-2-B, Commercial Need and Economic Analysis, for a complete cost/revenue analysis.

The Department is in need of an outside storage facility (secure) for impound of vehicles and other materials as evidence. The current police station is fully occupied. As the City grows, so will the needs of the Department, and the current station will need to be expanded.

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64 Office of Financial Management, State of Washington.

65 City of Poulsbo Comprehensive Plan, Adopted June 13, 1994

Alternatives
All development-related alternatives will impact the Department by increasing the amount of commercial and residential calls to the project area. Based on the current City of Poulsbo level of service of 2.27 officers per 1,000 population[66], and the projected buildout population of 1,166 persons residing on the proposed project, the police department will require an additional 2.65 officers to meet the level of service mandated. Alternative Two, Multiple Master Plans, would add a buildout population of 1,140 persons requiring an additional 2.60 officers.The Less Intense Alternative Three, at a population of 770 additional residents, would need to add 1.75 officers to meet the level of service mandated. The More Intense Alternative Four would not only add 1,591 residents, it would also require an additional 3.62 additional officers to meet the current level of service.

It is uncertain how many additional commercial calls will be created due to the additional commercial and business park development square footage of each development-related alternative. It is representative to indicate, however, that the alternative with the highest combined commercial/business park acreage would impact police service calls to the greatest extent. The More Intense Alternative Four has a combined commercial/business park square footage of 1,535,000 square feet. Alternative Two would have a combined total of 1,340,000 square feet. The proposed project adds the third largest amount of commercial/business park square footage of 1,164,000. The least amount of square footage is the Less Intense Alternative Three at 650,000 square feet.

Alternative Five will not create any additional impact to police services, other than those existing under current conditions.

3. Mitigation Measures

The increased revenues from property taxes should be sufficient to accommodate growth in the police force. Tax revenues associated with future population and employment growth will provide the community with additional resources to allocate to municipal services.

E. Capital Facilities

a. Surface Water (Drainage)

1. Existing Conditions

Storm drainage facilities are imperative in Poulsbo's rainy climate. Although their primary purpose is to transport unnecessary water from one area to another, they also serve to reduce loss of land and property damage caused by drainage problems, protect the public from stormwater runoff and erosion originating on developing land, maintain water quality and minimize adverse effects of alterations in groundwater quantities, locations and flow patterns.

The Storm Sewer Department of the Public Works Department of the City of Poulsbo maintains approximately 15 miles of enclosed storm sewer pipes within the system, several miles of open ditch drainage, six oil separators, and over 1,200 catch basins and detention systems. This department is also in charge of the installation of catch basins and storm drains.Table III-34 is an inventory of all drainage facilities within the City of Poulsbo that will be affected by development within the Olhava Master Planned Area.

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66 City of Poulsbo Comprehensive Plan, Adopted June 13, 1994

Table III-34
City of Poulsbo's Drainage System Inventory Affecting the Olhava Master Plan

Area	Acres	Destination	Treatment Facilities
1. Seagull Area (Poulsbo Junction)	38	Liberty Bay	None
Description: The major land use is R-M and the existing drainage system is a combination of a Transportation Department storm drain system connected to an apartment developer system.			
2. North Fork Dogfish Creek	85	N. Dogfish Creek	None
Description: This drainage basin is located in the Bond Rd./ State Route-305 intersection area. The major portion of this area is outside of the Poulsbo City Limits.			
3. Head of the Bay Area	82	Liberty Bay	None (Upper end)
Description: This drainage area lies west of Liberty Bay and Dogfish Creek. It includes the North portion of the Junction Business Community, along State Route 3. The system consists of State Route culverts and a developer installed drainage system in the Viking Plaza Shopping Center. Drainage to the Bay is aided by small streams and open drainage ditches.			

2. Impacts

It is important to note that the discussion contained in this document is based on a conceptual drainage plan only. The design and implementation of the surface water management plan will be undertaken using standards and requirements of the City and state, and will be reviewed and approved by the City Engineer prior to development of the proposed project.

Nine Olhava Master Plan Drainage Areas and the Drainage Capital Facilities That Serve Them

The following is a listing of the nine drainage areas for both pre-development and post-development runoff analysis. The information used in this listing was compiled by American Engineering Corporation for their Technical Information Report (May 1996). The post-development on-site drainage for the Olhava property will include its own infiltration pond systems as a first priority (Please see Exhibit III-2-Stormwater Flow Analysis Map). During the final engineering design and review of each basin, the City Engineer shall determine the adequacy of the infiltration methodology. The City Engineer may determine that the infiltration pond shall be designed as a detention/infiltration pond with a control structure, overflow spillway and other design features, including downstream conveyance facilities. The infiltration basins will be designed to allow three feet of separation between the high ground water table and the bottom of the ponds for maximum filtration. Each infiltration pond will have a sedimentation bay designed for pre-treatment and sedimentation removal prior to discharging into the pond unless roof runoff is the predominant source of drainage. Runoff from roof drainage does not require sedimentation removal; straight infiltration will be performed in areas creating only roof drainage. Impervious surfaces will include such areas as paved roads, streets, sidewalks, parking lots and roofs. Pervious areas consist of landscaped areas and lawns with grass cover.

The City of Poulsbo adopted design and construction standards to be used in the review and approval of new construction and reconstruction of drainage facilities. The methodology and criteria for design of surface water facilities shall comply with the Stormwater Management Manual for the Puget Sound Basin, published by the Washington State Department of Ecology, as well as the Kitsap County Stormwater Design Manual, published by the Kitsap County Department of Public Works, Stormwater Division. In the event of conflicts between these standards, the more restrictive standard shall apply, as determined by the City Engineer.

Pre-development and post-development drainage basin analyses were performed by the American Engineering Corporation in their document entitled Technical Information Report for the Olhava Development. Pre-development stormwater runoff analyses were done using calculations for a 100 yr./24 hr. storm design, the preferred storm design used. This type of design storm measures the maximum amount of rainfall in a 24 hour period once every 100 years. Due to requirements within the State of Washington Department of Ecology's "Stormwater Management Manual for the Puget Sound Basin" [SWMM], calculations for post-development were done using a 100 yr./7-day design storm scenario. This is the most conservative type of measurement available allowing for the maximum amount of rainfall in a 7 day period once every 100 years.

Upon development of the site, a system of drainage facilities will be provided to accommodate the surface water runoff as outlined in the documents referenced above. A combination of retention and detention facilities will be used to maximize the infiltration of clean water back into the ground and protect downstream properties through the controlled release of any remaining runoff. Sedimentation ponds, grass-lined ditches and other cleansing features shall be included, as determined appropriate by the City Engineer, in order to address water quality and quantity concerns.

The following descriptions of the nine drainage areas include preliminary calculations for sizing of the drainage features. As indicated above, the concept of infiltration of stormwater into the ground shall serve as the primary goal. However, further extensive analysis will be conducted for each drainage area at subsequent phase plan review to determine if total reliance on infiltration is prudent. If the City Engineer determines that additional requirements are necessary to protect downstream properties, he shall require the addition of detention and controlled release features along with downstream conveyance improvements. These additional requirements shall be in accordance with the above reference storm water manuals.

Drainage Area 1- Pre-Development

Estimated Runoff for a 100 yr./24 hr. Storm= 5.03 cfs/2,257.46 gpm

This drainage area covers much of the western portion of the Olhava property and is characterized by a trough running to the south which exits the site at the southwest corner. Wetland E is located here on the northern portion of the site. The wetlands are fed off-site from the north.

Drainage Area 1- Post-Development

Estimated Runoff for a 100 yr./24 hr. Storm= 25.66 cfs[67]/11,516.21 gpm

Development within this part of the property includes the 20 acre Olympic College site. After development occurs, stormwater controls necessary for the wetland area will need to be installed as a part of the Olympic College project. Development of medium density dwelling units, a 2 acre park and a retention pond will also occur.

Infiltration Rate-	6.2 min./inch
Pond Length-	700 ft.
Pond Width-	15 ft.
Pond Depth-	6 ft.
Total Volume Required-	98,000 cf
	or 733,040 gal.

67 Entire volume of runoff will be infiltrated into the soil in the post-development stages.

Olympic College Area (Drainage Area 1)
This portion of the Olhava site is 19.85 acres. Approximately 8.95 acres drain toward the existing wetlands in the northern portion of the property. Clean water runoff from the main campus roof system will discharge directly into the wetlands. (Areas draining toward the wetlands will be excluded from total drainage area.)

This stormwater infiltration pond is designed specifically for the Olympic College site.

Infiltration Rate-	12.0 min./inch
Pond Length-	120 ft.
Pond Width-	34 ft.
Pond Depth-	5 ft.
Total Volume Required-	36,950 cf
	or 276,386 gal.

Drainage Area 2- Pre-Development

Estimated Runoff for a 100 yr./24 hr. Storm= 61 cfs/273.77 gpm

This drainage area is relatively small and is located to the south of Drainage Area 1. It is created by a small trough which runs in a southwesterly direction. The slope of the area carries runoff to the same trough which discharges water from Drainage Area 1.

Segment A-1 - The runoff from Drainage Areas 1 and 2 leaves the site from the southwest corner by a twelve inch concrete culvert under a gravel driveway. The culvert seems to transport runoff adequately as there is no evidence of erosion of the inlet, sediment buildup or any other drainage capacity problems.

Segment A-2 - After crossing under the driveway, the runoff continues southwest through a pasture where it flows into a ditch. Although this ditch was clogged with vegetation, there appears to be no evidence of flooding or capacity problems. The ditch seems to intercept more ground seepage than surface water runoff. The ditch flows south 1,300 feet before being intercepted by Finn Hill Road.

Drainage Area 2- Post-Development

Estimated Runoff for a 100 yr./24 hr. Storm= 2.86 cfs/1,283.57 gpm

A commercial building site occurs on this portion of the site, however, roof drainage from the building will create a substantial amount of runoff. Because roof water drainage is considered to be clean runoff, no treatment will be required for this drainage area. Paved areas on the north, west, and south sides of the building will drain to Drainage Area 1 while the paved area to the east will discharge to Drainage Area 6.

Drainage Area 3- Pre-Development

Estimated Runoff for a 100 yr./24 hr. Storm= 1.45 cfs/650.76 gpm

Drainage Area 3 is small and is created by two small troughs that meet at the property line- one running southwest and the other running northwest. The slope of this area also carries runoff to the trough which discharges water from Drainage Area 1.

Drainage Area 3- Post-Development

Estimated Runoff for a 100 yr./24 hr. Storm= 5.11 cfs/2,293.37 gpm

Large commercial buildings will be located to the southwest side of the site creating roof drainage. Since roof drainage does not require treatment, none will be provided. Paved areas will drain to both Drainage Area 5 and 6.

Infiltration Pond for Roof Drainage: Drainage Areas 2, 3, and 4
The roof runoff from Drainage Areas 2, 3, and 4 will be combined and infiltrated into a single infiltration pond on the west portion of the site. Because the runoff is roof drainage, it is clean and no sedimentation basin will be required.

Infiltration Rate-	7.0 min./inch
Pond Length-	150 ft.
Pond Width-	15 ft.
Pond Depth-	6 ft.
Total Volume Required-	25,940 cf
	or 194,031.2 gal.

Drainage Area 4- Pre-Development

Estimated Runoff for a 100 yr./24 hr. Storm= .35 cfs/157.08 gpm

Located south of Drainage Area 3, this area does not seem to have an outlet from the Olhava site. Runoff from this area, if not infiltrated, will discharge into a drainage ditch on the north side of the abandoned Nike site access road eventually joining the runoff from Drainage Areas 1, 2, and 3 through a culvert which crosses the abandoned Nike site access road and then discharges into a culvert crossing NW Finn Hill Road.

Segment A-3- When stormwater runoff from Drainage Areas 1 and 2 nears Finn Hill Road it flows east in a ditch along the road and under the driveway access to the Nike site via a 30 inch culvert. At this location the flows meet with runoff from Drainage Areas 3 and 4 from the Nike site. This combined runoff travels under Finn Hill Road via an 18 inch and 12 inch culvert just east of the driveway where it discharges into a ditch on the south side of Finn Hill Road. The culverts at this location showed no signs of flooding or erosion problems and appeared to have adequate capacity to handle runoff from on and off site areas.

Segment A-4- The runoff which discharges from the two culverts located under Finn Hill Road eventually flow southwest in a 4 foot wide flat bottom ditch with a defined stream channel bed. The channel then flows 900 feet where it crosses under State Route 3 to a new 10 foot diameter gravel lined "fish friendly" culvert. From this large culvert this runoff flows across pasture land 2,200 feet and eventually merges with the north fork of Johnson Creek and under Lluah Lane about 3/4 miles from the site. In this area there was no evidence of flooding or capacity problems with the 10 foot "fish friendly" culvert downstream. There were no indications of flooding or capacity problems within any of the ditches or streams along this segment. Normal cutting and streambank erosion was evident due to the slopes of the channel which is typical of streams with normal flows.

Drainage Area 4- Post-Development

Estimated Runoff for a 100 yr./24 hr. Storm= 1.18 cfs/529.58 gpm

Large commercial buildings will be located to the southwest side of the site creating roof drainage. Since roof drainage does not require treatment, none will be provided. Paved areas will drain to both Drainage Areas 5 and 6.

Drainage Area 5- Pre-Development

Estimated Runoff for a 100 yr./24 hr. Storm= .43 cfs/192.98 gpm

This area is south of Drainage Area 4 at the southern tip of the Olhava site, west of State Route 3. It drains similarly to Drainage Area 4 along the west side of State Route 3, which in turn drains in a southwesterly direction.

Segment B-1- Drainage from Drainage Area 5 is directed to a culvert to the east under State Route 3 where it is then discharged onto the lower 41 acre parcel of the Olhava property. There were no indications of capacity problems with either the ditch or culvert. There was also no evidence of ditch bottom scouring, sediment deposits, or flooding of the culverts or ditch.

Segment B-2- From Segment B-1 stormwater runoff, as well as runoff from the property, continues in a ravine through the southern 41 acre parcel of the property. It continues to flow to the east property line onto the adjacent property. The runoff continues to flow for a distance of 200 to 500 feet where it is then intercepted by Viking Way which runs north and south. No indication of flooding or drainage problems were apparent along this segment. The bottom of the two ravines were well vegetated showing no signs of erosion problems, sedimentation build up, or open channel flows. The ravines did show signs of seepage.

Segment B-3- The runoff intercepted by Viking Way flows south in a 2 foot wide, 2 foot deep flat bottom ditch to a sag in the road approximately 1,500 feet north of Finn Hill Road. This ditch flows into a 12 inch concrete culvert directing the runoff east under Viking Way where it is discharged onto an adjacent property on the east side. There was no indication of flooding or drainage problems along this segment. Along the steeper parts of the ditch, which are rock lined, there were no signs of erosion problems or sedimentation build up. Scouring, sediment build up or capacity problems were not apparent with the 12 inch concrete culvert.

Segment B-4- After crossing Viking Way the runoff discharges into private property within a heavily vegetated, undefined drainage channel. The flow decreases and sheets out across the property for a distance of 1,000 feet where it is then intercepted by Dogfish Creek near the inlet of Liberty Bay. A limited inspection of this segment appeared to show no indications of erosion or capacity problems, and as indicated above, the flows seem shallow and sheets out across the site.

Drainage Area 5- Post-Development
Estimated Runoff for a 100 yr./24 hr. Storm= 5.77 cfs/2,589.58 gpm

A commercial park is planned. Paved areas within Drainage Areas 3 and 4 will join runoff from this drainage basin. Drainage Area 5 will also include an infiltration pond located at the southern tip of the area.

Table III-35
Pre-Development Drainage Areas

The analysis provided in this table determines the existing flows for the three design storms to be used as reference in estimating the flows allowed to leave the site.

Drainage Area Number	Estimated Size of Area	Estimated Peak Flows (gpm*)			Important Landmarks Within This Area
		2yr/24hr	10yr/24hr	100yr/24hr	
1	51.6 acres	444.31	762.96	2,257.46	Olympic College, wetland E
2	4.8 acres	40.39	76.3	273.77	South of Drainage Area 1
3	11.5 acres	103.22	184.01	650.76	South of Drainage Area 2
4	3.7 acres	31.42	53.86	157.08	South of Drainage Area 3
5	4.6 acres	40.39	67.32	192.98	South portion of site west of SR 3
6	19.9 acres	175.03	318.65	1,126.49	SE portion of site west of SR 3
7	16.4 acres	143.62	255.82	816.82	Center of east portion west of SR 3
8	105.0 acres	893.11	1,481.04	4,254.62	NE portion of the site
9	41.5 acres	394.94	673.2	2,647.92	Entire portion of site south of SR 3
Grand Total		2266.43	3873.16	12377.9	

* gallons per minute

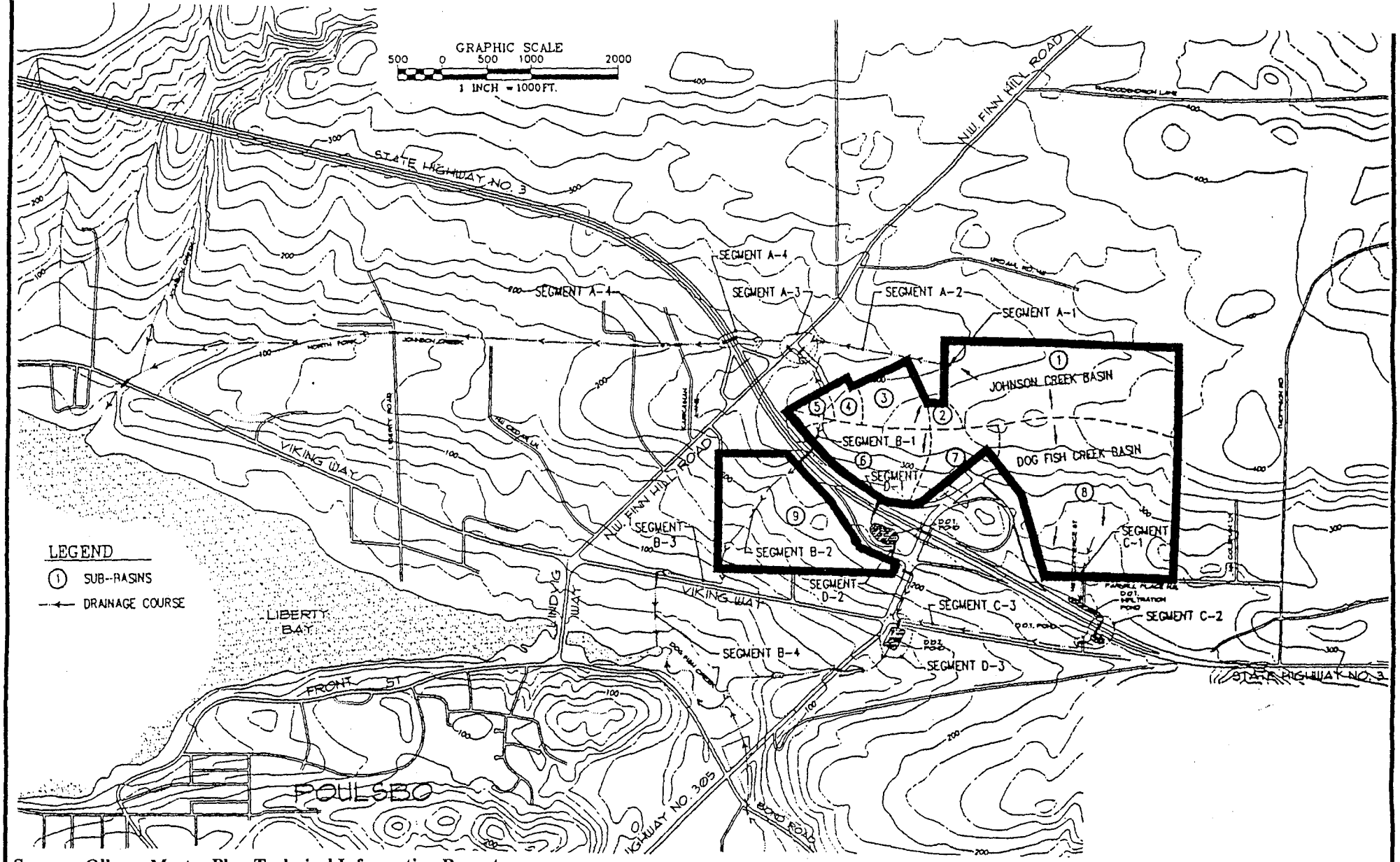
Table III-36
Post-Development Drainage Areas

The analysis provided determines the peak flow rate and total volume of runoff, assuming no infiltration, from design storm to be infiltrated from the developed site condition

Regulations require that the post-development stormwater flows exiting the site shall be limited to 50% of the pre-development 2-year, 24-hour flow, while maintaining the pre-development 10-year, 24-hour and 100-year, 24-hour stormwater flows for the post-developed conditions.

Drainage Area Number	Estimated Size of Area	Estimated Impervious Area	Estimated Pervious Area	100-yr/7-day Peak Rate Flow(gpm)	100-yr/7-day Peak Rate Vol. (ac-ft)
1	32.4 acres	18.15 acres	14.25 acres	4,483.51	20.18
2	2.98 acres	2.98 acres	0.00 acres	569.98	2.25
3	4.72 acres	4.72 acres	0.00 acres	902.09	3.56
4	1.22 acres	1.22 acres	0.00 acres	233.38	0.92
5	7.15 acres	5.42 acres	1.73 acres	1,211.76	4.88
6	36.0 acres	26.0 acres	10.0 acres	5,717.71	24.18
7	9.8 acres	2.3 acres	7.5 acres	897.6	5.59
8	68.5 acres	35.7 acres	32.8 acres	9,447.24	41.85
9	41.6 acres	17.6 acres	24.0 acres	4,847.04	24.55
Grand Total				28,310.31	127.96

* Time of concentration is the time it takes for the first drop of rainfall on the farthest corner of the site to reach the collection point.
ac-ft=acre feet
gpm=gallons per minute



Source: Olhava Master Plan Technical Information Report

TERRA NOVA®
Planning & Research, Inc.

Olhava Project / Vicinity Map
Water Flows from
Johnson Creek and Dog Fish Creek
to Liberty Bay

Exhibit

III-2A

Infiltration Pond for Drainage Area 5
The runoff from Drainage Area 5 will be infiltrated into a single infiltration pond on the southern portion of the site. Because the runoff is roof drainage, it is clean and no sedimentation basin will be required.

Infiltration Rate-	6.2 min./inch
Pond Length-	150 ft.
Pond Width-	30 ft.
Pond Depth-	4 ft.
Total Volume Required-	14,080 cf
	or 105,318.4 gal.

Drainage Area 6- Pre-Development
Estimated Runoff for a 100 yr./24 hr. Storm= 2.51 cfs/1,126.49 gpm

Drainage Area 6 is located east of of Drainage Areas 3, 4, and 5. Since the construction of State Route 3, this area drains to the drainage ditch on the west side of State Route 3 which discharges to an inlet in the western corner of Drainage Area 6. The inlet discharges to a Department of Transportation sedimentation/retention basin across State Route 3 on the east. From this sedimentation/retention basin runoff discharges through a series of culverts along State Route 305 to another Department of Transportation sedimentation pond. Drainage ditches eventually transport runoff across State Route 305 to the south where it meets Dogfish Creek and is ultimately discharged into Liberty Bay.

Segment D-1- The drainage from Drainage Areas 6 and 7, located at the southwest corner of the State Route 3 and State Route 305 interchange is intercepted and directed under State Route 3 by an 18 inch culvert into a sedimentation pond located in the island area of the north-bound off ramp. The runoff from this pond then discharges to an 18 inch culvert and is directed to an existing ditch located along the south side of State Route 305. This series of storm drain culverts, ditches, and the pond are new and were constructed as part of the WSDOT State Route 3 improvement plan. There were no indications of capacity problems within the ditches or culverts. There was also no indication of silt build up, scouring, or erosion problems in either the ditches, culverts, or pond.

Segment D-2- From the outlet of the off ramp sedimentation pond built by WSDOT, the runoff flows north along the off ramp where it crosses under State Route 305 through an 18 inch culvert. After crossing under the road the runoff flows east along State Route 305 in a 2 foot wide, rock lined flat bottom ditch a distance of 500 feet to the intersection of State Route 305 and Viking Way. At the intersection, the water is then directed under Viking Way by an 18 inch culvert discharging into another new sedimentation pond built at the northeast corner of this intersection by WSDOT. The runoff combines with the runoff from Drainage Area 8 at this location. There was no indication of capacity problems in either the ditches, culverts, or pond.

Segment D-3- From this WSDOT pond located at the northeast corner of the intersection of Viking Way NW and State Route 305, the water discharges from the pond through a control structure to a rock lined swale where it flows east onto private property then south under State Route 305 finally discharging into Dogfish Creek. There was no indication of capacity or volume problems with the pond. The flows from the pond and its control structure were minimal at the time of analysis. There was no indication of capacity, erosion, scouring, or sediment problems in the rock lined swale.

Drainage Area 6- Post-Development
Estimated Runoff for a 100 yr./24 hr. Storm= 24.77 cfs/11,116.78 gpm

This drainage area includes all of the large parking area proposed for the south end of the site, including all of the large commercial buildings on the southwest corner of the site. An infiltration pond will be located here for the runoff of paved areas.

Infiltration Pond for Drainage Area 6
The infiltration pond proposed will be separated into several locations.

Infiltration Rate-	6.4 min./inch
Pond Length-	450 ft.
Pond Width-	15 ft.
Pond Depth-	10 ft.
Total Volume Required-	159,000 cf
	or 1,189,320 gal.

Drainage Area 7- Pre-Development
Estimated Runoff for a 100 yr./24 hr. Storm= 1.82 cfs/816.82 gpm

This drainage area is located on the middle portion of the east side of the Olhava property. Runoff from this area flows to the drainage ditch west of State Route 3 where it is then transported to an inlet under the bridge over State Route 305. The runoff then travels through a culvert to drainage ditches along State Route 305.

Drainage Area 7- Post-Development
Estimated Runoff for a 100 yr./24 hr. Storm= 5.11 cfs/2,293.37 gpm

Development of this portion of the property consists mostly of primary commercial and paved areas. An infiltration pond will be located in this region.

Infiltration Rate-	6.2 min./inch
Pond Length-	100 ft.
Pond Width-	15 ft.
Pond Depth-	6 ft.
Total Volume Required-	13,783 cf
	or 103,096.9 gal.

Drainage Area 8- Pre-Development
Estimated Runoff for a 100 yr./24 hr. Storm= 9.48 cfs/4,254.62 gpm

This drainage area is located in the northeastern part of the Olhava site. Three small wetlands (Wetlands A, C, and D) are located within this drainage area and are fed primarily by groundwater seepage resulting from rainfall. An estimated 25% of the groundwater generated within this drainage area originates from surfaces within the three wetlands located to the eastern edge of the site. There is a cleared and graded area north of the Olhava site which drains within this area also. The owner of the property has recently agreed to install detention facilities. Runoff from this drainage area travels to a drainage ditch on the west and north side of the State Route 3 southbound off-ramp which in turn discharges to a retention basin and inlet to a culvert across State Route 3.

Segment C-1- The runoff from Drainage Area 8 leaves the site at the southeast corner of the property just north of the southbound on ramp to State Route 3. The runoff is intercepted by State Route 3 which directs the flow over to a large infiltration pond. At this location is a catch basin with a grate inlet located 2 feet above the depression, which serves as an overflow for any buildup of water. The 18 inch diameter culvert in this catch basin directs any overflow runoff east under the highway to another smaller pond on the east side. There was no indication of flooding or capacity problems at this location. It appears that most of the runoff is infiltrated into this pond and very little, if any, ever discharges to the grate inlet overflow.

Segment C-2- The outlet of the smaller pond is a rock spillway overflow which drains to a 12 inch culvert and directs the runoff to a shallow rock lined ditch located on the south side of Commerce Street.

The smaller pond on the east side of State Route 3 is only for sedimentation and not used for flow control. There was no indication of flooding problems, sediment buildup or capacity problems with the rock spillway and ditch. The 12 inch culvert crossing under Commerce Street has only minimal capacity, yet there was no indication of flooding, erosion, or scouring problems with the culvert.

Segment C-3- The ditch along Commerce Street directs the runoff east where it is intercepted by Viking Way. The drainage is then directed south along Viking Way to the new WSDOT pond located at the southeast corner of Viking Way and State Route 305. From here it combines with the runoff from Drainage Areas 6 and 7. The ditch located on the south side of Commerce Street as well as the ditch located along Viking Way had no indication of capacity problems or erosion problems. The ditch was rock-lined along the steeper sections and there were no problems along this segment.

Drainage Area 8- Post-Development
Estimated Runoff for a 100 yr./24 hr. Storm= 36.95 cfs/16,583.16 gpm

Commercial development and residential areas will share this large 68.5 acre drainage area. Wetland mitigation, medium density residential sites, an 8 acre community park and a large retention pond system are planned for Drainage Area 8. A line of retention ponds will stretch the north-south perimeter of the site near the far eastern property line.The total infiltration volume required for this area will be as follows:

Infiltration Rate-	10.0 min./inch
Pond Length-	1300 ft.
Pond Width-	15 ft.
Pond Depth-	6 ft.
Total Volume Required-	185,820 cf
	or 1,389,933.6 gal.

Drainage Area 9- Pre-Development
Estimated Runoff for a 100 yr./24 hr. Storm= 5.90 cfs/2,647.92 gpm

This area includes the entire south portion of the Olhava property south of State Route 3. Located to the south of the property line are two deep gullies which collect most of the runoff and send it out the southeast corner of the property. The runoff travels through drainage ditches under Viking Way to the east until its final destination in Liberty Bay.

Drainage Area 9- Post-Development
Estimated Runoff for a 100 yr./24 hr. Storm= 13.07 cfs/5,865.82 gpm

Development within this drainage area will include low density home sites, medium density dwelling units, and a 2 acre park site. An infiltration pond will be constructed on the southeast corner of the site. All residential units will be required to provide roof infiltration trenches to infiltrate the water from the roof.

Infiltration Rate-	6.2 min./inch
Pond Length-	450 ft.
Pond Width-	40 ft.
Pond Depth-	5 ft.
Total Volume Required-	121,700 cf
	or 910,316 gal.

Groundwater
The main aquifer for the region is located in the Salmon Springs (Possession Drift) Formation situated at a depth of about 200 feet below the site. This aquifer is very prolific with production volumes of over 500 gpm. Local residential water supplies are taken from a shallow aquifer at depths of about 90 feet. These water sources are expected to be maintained with the infiltration of surface runoff on-site. All runoff from

roof drains and other protected hard surfaces will be directed immediately to the subsurface while runoff from the parking areas and other exposed surfaces will be sent to sedimentation ponds, and infiltration basins being percolated to the lower strata.

Alternatives

When comparing the Multiple Master Plan Alternative and the proposed project, it is uncertain how six un-associated master plan areas would coordinate their drainage plan. Un-coordinated development could result in inadequate or unrelated facilities which do not, as a whole convey drainage in as efficient a manner. Furthermore, the cost of these facilities, when divided over several projects, may result in undue burdens on the developer, and make the projects less marketable. Concentrated development, as planned for in the proposed project, will help to consolidate service provisions for capital facilities, assuming that the facilities have sufficient capacity to accommodate growth. The Growth Management Act encourages the centralization of service providers within cities, in order to consolidate multiple small utility districts.

The Less Intense and More Intense alternatives would be required to design all surface water drainage to the standards established by the DOE and the City, as is the case with the proposed project. The less intense alternative would result in somewhat smaller systems, since more land could be available for percolation. The More Intense Alternative would result in a more complex system to control drainage, since the area to be covered by structures would be greater. It is likely that this alternative would have to balance the need for drainage control with the square footage of commercial and business park uses.

Alternative Five would represent no impact to the drainage system, over and above current conditions. Unrestricted and potentially untreated water would continue to infiltrate into the ground, as is currently the case. Impacts to downstream property owners, if any, would continue.

3. Mitigation Measures

The most effective mitigation to alleviate excess storm and surface water runoff created by development will be accomplished through the use of a retention pond system as well as soil stabilization through the use of the revegetation of native species. Upon development of the site, the existing nine drainage areas and their retention pond system will continue to provide a drainage path for the runoff generated. The infiltration ponds will be sized to infiltrate all runoff generated from the developed site for a 100 year, 7 day storm event. This will provide for maximum filtration. Through the use of infiltration ponds to infiltrate all runoff from the developed site conditions into the soil, coupled with sedimentation and retention basins, the impact of the site to the surrounding properties will be minimal[68].

The City of Poulsbo has adopted the most up to date standards available for use in the design, construction and maintenance of stormwater facilities. These include the Stormwater Management Manual for the Puget Sound Basin, published by the Washington State Department of Ecology, as well as the Kitsap County Stormwater Design Manual, published by the Kitsap County Department of Public Works, Stormwater Division.

The developer has proposed a system which will encourage infiltration of water into the ground to the maximum extent feasible. However, in order to protect downstream properties and drainage basins, provisions will be required for detention and controlled release of any runoff that is not infiltrated. Other contingency measures may be required by the City consistent with adopted engineering standards.

Proposed Mitigation In The Master Plan

Operation and Maintenance

Inadequate maintenance could cause problems within stormwater control facilities due to seepage of culverts and pipes. The Olhava Master Plan includes such mechanisms for stormwater control as ponds,

68 American Engineering Corporation, Technical Information Report-Olhava Development, Redmond, WA, May, 21, 1996, p. 24.

conveyance systems, and control structures which require regular maintenance. All temporary and permanent erosion and sediment control mitigation measures shall be maintained and repaired as needed to assure continued performance of their intended function. The applicant shall be responsible for maintenance of all constructed drainage facilities for two years, including two "wet" seasons, after the completion of each phase, after which the City, upon inspection, may accept maintenance responsibility. Otherwise, the developer will be required to enter into an agreement with the City to provide routine maintenance.

Financial Liability
Appropriate financial instruments shall be in use, as required by the City, for all projects to ensure compliance with the approved storm drainage plan and erosion and sedimentation control plan. The City will review the project's construction plans and costs during the engineering construction phase at which time it will identify the appropriate fees and bonds. This review will be performed by the City's consultant, with all costs to be paid in advance by the developer, in accordance with the City's Fee Schedule Ordinance.

Concentrated development will help to consolidate service provisions for capital facilities, assuming that the facilities have sufficient capacity to accommodate growth. The Growth Management Act encourages the centralization of service providers within cities, in order to consolidate multiple small utility districts.

Additional Mitigation Measures

Additional general mitigation measures for impacts to surface water capital facilities include:

- When a substantial development proposal within the Olhava Master Plan Area is considered for approval, the City shall identify and require the construction of all capital facilities needed to meet the build-out requirements of the applicable phase, in order to avoid the under-sizing and reconstruction of facilities.
- Improvements required may include, but are not limited to improvements necessary to maintain the integrity of drainage ways such as check dams, silt fences, straw bales, soil stabilization through revegetation, plastic covering, and an early application of gravel as a base on areas to be paved.
- During phased review, the City Engineer shall require further analysis of the proposed drainage design, as appropriate, in order to ensure that adequate measures are in place to protect downstream properties and the surrounding area.

b. Sanitary Sewage

1. Existing Conditions

The City of Poulsbo disposes of sanitary wastewater through a system of 25 miles of pipes, extending to a regional sanitary sewerage treatment plant, located in unincorporated lands in Kitsap County, at Brownsville. The regional plant processes waste water from a number of communities, including Kitsap County, Keyport and Poulsbo. In an agreement with the City, the County transports wastewater to the Central Kitsap Wastewater Treatment Plant near Brownsville through a series of pumping stations, force mains, and gravity interceptors.

The issue of the regional plant's capacity, and the City's flows to the plant, have been extensively studied, due to an anticipated short-term need for additional capacity. The City has contracted with an independent consulting firm, Parametrix, Inc., to provide current data, projections for use, and capital facility needs for the City in the future. In addition, the project proponent has had sanitary wastewater flow estimates prepared by American Engineering Corporation, as summarized in the Master Plan document and their Memorandum of September 26, 1996. This data has been the basis of the impact analysis in this EIS.

The current sanitary sewer service area for the City of Poulsbo is generally contiguous to the city limits. For planning purposes, the future service area was based on the City's Urban Growth Area (UGA).

The City's contract with the County allows for an average peak month flow of up to 950,000 or 0.95 million gallons per day (mgd). Average daily flow, as provided by the County, has been tabulated below in Table III-37.

Table III-37
Average Daily Sanitary Sewage Flow from the City of Poulsbo
1992-1995 (million gallons per day)

Year	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1992	0.71	0.83	0.60	0.68	0.57	0.36	0.58	0.30	0.39	0.29	0.31	0.39
1993	0.39	0.31	0.38	0.40	0.36	0.35	0.35	0.31	0.32	0.29	0.30	0.58
1994	0.48	0.59	0.58	0.56	0.54	0.55	0.52	0.49	0.51	0.46	0.63	1.13
1995	0.94	0.96	1.0	0.73	0.65	0.53	0.59	0.57	0.57	0.60	0.68	0.86

Source: Parametrix. Inc., Technical Memorandum No. 1, Wastewater Flow Projections, March 18, 1996.

During wet weather months (December through March), average daily flows increase significantly due to inflow and infiltration. When flows delivered to the County's system are above 0.95 mgd, the City is required to "rent" additional capacity from the County at a predetermined rate, in accordance with an interlocal agreement for sewer service. The age of the City's sewer system contributes to this high volume of infiltration/inflow. This means that water penetrates the system through cracks in pipes, from drains, and other stormwater connections, particularly during storms. It has been estimated that over 50% of the daily flow during storms can originate from infiltration and inflow, rather than from sanitary water flow.

Parametrix also prepared an evaluation of the City's wastewater infrastructure using the Hydrographics software, Version 4.85 (HYDRA), and based on the model created for the City by R. W. Beck in 1991. The model analysis determined that most existing sewer mains are of sufficient size to accommodate existing flows. However, the model and field investigations reported the following deficiencies[69]:

1. Central Interceptor and Marine Science and Lindvig Pump Stations design capacities are exceeded during the Peak Hourly Wet Weather flows.
2. Inflow and infiltration impact the pump stations at the Marine Science Center, 6th and 9th Avenues.

The evaluation of existing facilities, coupled with additional wastewater demands from future development within the UGA resulted in the preparation of a series of alternatives for expansion of the City's conveyance system. These alternatives have been reviewed by a citizens' advisory committee, which has recommended a preferred alternative. This preferred plan recommends a phased improvement of the Central Interceptor, major City pump stations and the Lemolo Crossing. The initial phase (Phase I) will increase capacity to 6.0 mgd, the capacity necessary to meet 20 year flow projections. Phase II will expand facilities to serve the ultimate buildout of the UGA. Specific project components include:

Improvement	1996 Existing	2006 Phase I	2026 Phase II
Central Interceptor	>2.4 mgd	6.0 mgd	10.0 mgd
Marine Science Pump Station	2.4 mgd	4.2 mgd	6.1 mgd
Lindvig Pump Station	0.4 mgd	1.6 mgd	4.2 mgd

69 Parametrix. Inc., Technical Memorandum No. 2, Existing System Deficiencies and Proposed Expansion Alternatives, April 15, 1996.

Please note that the average daily flow to the plant is defined as the average under normal conditions on normal days, while the peak design flow for the system is the maximum amount of effluent which the system is designed to accept at any one time.

In addition to City improvements, County facilities will also undergo expansion. Kitsap County plans to expand the Lemolo Crossing from its current 3.1 mgd design capacity to 6.0 mgd in Phase I and 10.0 mgd in Phase II. Additionally, the principal conveyance system to the Central Treatment Plan will also be expanded. The treatment plant is currently completing a Phase I improvement which will increase its design capacity from 4.8 mgd to 6.0 mgd. Phase II improvements, scheduled to be completed in the year 2000, will increase capacity from 6.0 mgd to 10.8 mgd (1.9 mgd of which is reserved for Poulsbo).

A summary of proposed conveyance system improvements and costs is outlined in Table III-38. This table presents a preliminary capital improvement program, not yet adopted by the City Council, and divides the improvements between "in-City" and "regional" improvements.

Table III-38
Proposed Capital Improvement Plan - Conveyance Improvements ($)

Description	Total Cost	1997	1998	1999	2000	2001
Local Improvements, City of Poulsbo						
Central Interceptor Bypass	1,700,000	170,000	680,000	850,000		
Marine Science Pump Station Upgrade, Phase I	870,000	87,000	348,000	435,000		
Lindvig Pump Station Upgrade, Phase I	429,000	42,900	171,600	214,500		
Lindvig Pump Station Upgrade, Phase II						
Marine Science Pump Station Upgrade, Phase II						
Marine Science Force Main Upgrade, Phase II						
Lemolo 18" Crossing						
Lemolo Pump Station Phase II						
Poulsbo Place Rehabilitation	1,900,000	1,000,000	225,000	225,000	225,000	225,000
Pump Station Rehabilitation	300,000	60,000	60,000	60,000	60,000	60,000
Subtotal	**5,199,000**	**1,359,900**	**1,484,600**	**1,784,500**	**285,000**	**285,000**
Poulsbo Share of Regional Improvements						
Upgrade Pump Station 15	1,989,000	397,600	1,591,200			
Gravity Sewer to Pump Station 16	296,000	59,600	238,400			
New Pump Station 16	1,463,000	292,600	1,170,400			
Lemolo Pump Station, Phase I	3,029,000	605,800	2,423,200			
Subtotal	**6,779,000**	**1,355,800**	**5,423,200**			
Poulsbo Share of Treatment Plant Improvements						
Plant Rehabilitation	1,564,000	1,564,000				
Plant Upgrade	6,500,000	455,000	1,040,000	2,990,000	2,015,000	
Subtotal	**8,084,000**	**2,039,000**	**1,040,000**	**2,990,000**	**2,015,000**	
Grand Total	**20,062,000**	**4,754,700**	**7,947,800**	**4,774,500**	**2,300,000**	**285,000**

Source: Parametrix. Inc., Technical Memorandum No. 7, March 10, 1997.

These costs represent both new system facilities and improvements to the existing system which currently services the City's residents. The City is not permitted to recoup the cost of repairing or replacing existing service deficiencies from new development. Therefore, the City cannot charge new development for the portion of improvements considered to be "Repair and Restore." The project proponent will be responsible for the fair share of any improvements required to add to the City's existing capacity to accommodate the proposed project.

2. Impacts

The Olhava Master Plan proposes phased development of 490 residential units, 325,000 s.f. of business park, 840,000 s.f. of commercial, and 50,000 s.f. of public school. The Master Plan includes detailed analysis by the project engineer of the anticipated flows, by land use, which the project will generate.

These calculations were prepared using the U. S. Environmental Protection Agency's document Design of On-Site Wastewater Treatment Systems[70]. These calculations resulted in an average daily flow of 164,384 gpd for the northerly parcel, and 64,500 gpd for the southerly parcel, or a total project average daily flow of 228,884 gpd at project buildout. This average daily flow equates to peak flow of 576,000 gpd.

During wet weather flow months, the City's reserved capacity in the central treatment plant (0.95 mgd) is exceeded. Without expansion of the plant and purchase of additional capacity by the City, no substantial new development can be accommodated, including the proposed project.

Significant portions of the City's existing conveyance system would be impacted by the proposed project. The City has evaluated these impacts. Its consultant prepared a technical memorandum, dated September 23, 1996 and included in the technical appendices of this EIS, outlining these impacts, which are summarized in Table III-39.

As noted in Table III-39, several components of the City's conveyance system are at or near capacity. Should the Master Plan project be developed now, these facilities could not handle the additional flows. A similar situation exists for County conveyance systems, including the Lemolo Crossing and certain downstream pump stations and force main facilities.

The improvements planned for the Poulsbo Place area are complete, and may reduce infiltration and inflow into the system, thereby reducing flow to the plant. The City plans to analyse flow prior to and after these improvements to identify the level of improvement. If these improvements have the anticipated effect, the City's flow during wet weather months may be reduced by a substantial percentage. Until such time as this analysis is complete, and it is determined if existing flow rates have been reduced, the City and County systems as they exist today cannot accommodate the proposed project.

Improvements Required to Service the Proposed Project and Alternatives

In addition to the Master Planning efforts undertaken by Parametrix, the City also contracted with the firm to specifically review the proposed project's impacts, the improvements required to service the project, and the costs associated with the improvements. The results of this investigation are contained in a Technical Memorandum dated September 23, 1996, included in the appendices of this EIS, and summarized below.

The following Table summarizes the impacts of the proposed project on the existing components of the City's sewer sewer system. The Table includes the project's phases, the equivalent residential units (ERU) in each phase and the phase at which improvements will be necessary (demoted by an "X" in the appropriate column). As previously discussed, phase "a" provides for infrastructure development only, and will not involve the construction of structures.

70 Kent Berryman and Associates. An Integrated Master Plan for the Olhava Property, May, 1995.

Table III-39
Project Wastewater Flow Impacts on Poulsbo Sewer System

Sewer Component	1996 Flow	Design Capacity	Phase when improvement required						
			a	b	c	d	e	f	g
Peak Flow	**(gpm)**	**ERUs:**	**0/0**	**103/223**	**97/216**	**68/160**	**37/81**	**62/137**	**33/73**
Finn Hill (8" main)	44	870							
N. Viking (8" main)	35	390						X	
Lindvig (10" main)	344	941							X
Lindvig PS	515	at cap.		X					
Lindvig PS to Front St.	678	1,280							
Front St. (15 & 18" mains)	1,510	2,021							
Marine Science PS	1,509	1,661			X				
Force Main:Marine Science/Central Interceptor	2,121	2,800							
Central Interceptor (18" main)	2,947	at cap.		X					

The Table above clearly shows that improvements to the system will be required immediately in order for the proposed project, or any of the alternatives, to proceed. The Technical Memorandum further estimates the cost of the improvements required. These cost estimates have been depicted, and the phase in which the improvements will be required is identified in the Table below. Please note that the amounts shown in Table III-39 are for total estimated construction cost and may not represent the project's share of these proposed improvements.

Table III-40
Cost of Necessary Improvements

Project	Phase	Total Project Cost (1996 $)
N. Viking Upgrade: 10" upgrade	f	183,000
Lindvig: 12" upgrade	g	375,000
Lindvig Pump Station Upgrade	b	429,000
Marine Science Pump Station	c	870,000
Central Interceptor	b	1,700,000

Source: Parametrix, Inc.

As is noted above, the Lindvig Pump Station and Central Interceptor upgrades will be required prior to the construction of any portion of the proposed project. No significant development can occur in the western portion of the City until the Lindvig Pump Station improvements are complete, and no significant development can occur anywhere in the City until the Central Interceptor's capacity is upgraded, since both facilities are operating at capacity. At a minimum, therefore, the proposed project will have an immediate significant impact on the City's sewage conveyance system without mitigation. Furthermore, as later phases of the project are developed, additional facilities will require upgrading.

The mitigation measures below will reduce the impacts to the sanitary sewer system.

Alternatives
The City's sewer system cannot accommodate additional development without substantial improvement. This condition results in a significant impact on the sewer system from all development-related alternatives. Although the level of sewage flow will vary with each alternative, the needed improvements are sufficiently significant that the level of variation in flows is irrelevant. Any project on the proposed site will require major improvements to the sewer system.

The Multiple Master Plan and Less Intense alternatives are less likely to be able to effectuate the necessary improvements than either the Proposed Master Plan or More Intense alternatives. The Multiple Master Plan Alternative, if developed in multiple, disjointed projects, may not generate sufficient revenues and property tax to effectively finance the improvements, especially if each of the six Master Plans were phased. The improvements required are immediate, and will not benefit from an extended development period. In the case of the Less Intense Alternative, infrastructure development and the off-site regional improvements required may be too extensive to support the development of the site.

The More Intense Alternative would have a greater impact on sewer flows, and would accelerate the need for some improvements, particularly those required after phase "b" of the proposed Master Plan. Although the financing of these improvements under this alternative should be handled as efficiently as under the proposed project, the accelerated need for improvements to meet higher flows could result in lack of capacity at the regional treatment plant, if the increase in capacity has not been completed when the development comes on line.

Alternative Five would have no additional impact on the City's sewer system. However, the development on a large scale anticipated with the proposed project or the development-related alternatives will provide the City with funds which it can utilize to improve a system which is already over-capacity. If the City does not have the ability to tie improvement costs to a substantial development, the bonding or assessment potentially required to fund the improvements may stress the City's financial structure. Additionally, analysis performed by Parametrix, Inc. shows that under a slow growth alternative, the costs for sewer service in the City would increase to $94.00 per unit, from the current $27 per unit. According to their analysis, this alternative would prove the most costly for the City's residents.

3. Mitigation Measures

- Other than Phase "a", no phase of the proposed Master Plan shall be granted building permits unless construction of the required improvements in the City's infrastructure and at the wastewater treatment plant are underway. Other than Phase "a", no phase of the proposed Master Plan shall be granted occupancy permits unless sufficient capacity exists both in the City's infrastructure and at the wastewater treatment plant.
- The City's proposed capital improvement program (CIP), contained in its proposed Comprehensive Sewer Plan, if approved and implemented, will create additional capacity within the City's wastewater conveyance system to ensure adequate capacity for the Master Plan project or any alternative.
  The County's proposed CIP, when implemented, will create additional capacity within key conveyance

facilities and the central treatment plant to ensure adequate capacity for all phases of the Master Plan project or any alternative.
Should the City's proposed CIP not be approved or be delayed, key components of the City's conveyance system (the Lindvig pump station and the central interceptor) would have insufficient capacity to accommodate the initial development of the project (phase "b"). Mitigation could include delaying the project until those improvements are completed, or early implementation by the developer at their expense, with reimbursement through the implementation of a latecomers' agreement, or utilize other financing mechanisms which may be available.

- No structure within the proposed project will be permitted to install a private sanitation system. All structures shall be connected to the City's sewer system.

Financial Responsibility
Under current City of Poulsbo regulations, new wastewater customers are responsible for building sewers necessary to directly serve their property. Costs associated with the facilities are entirely borne by the property owner. Additionally, new customers in Poulsbo pay a connection fee designed to recover the property owner's fair share of existing facilities previously constructed and paid for by the City and anticipated new sewer system facilities which are needed to serve both new and existing development. The City's current connection fee is $3,600.00 per equivalent residential unit (ERU). If the project were developed today, the connection fee would be $3,204,000.00 based on 890 ERUs, which would be applied to City and County conveyance facilities. The City will likely amend this fee upward when the Comprehensive Sewer Plan is adopted later in 1997.

The City intends to implement the first phase of its wastewater CIP over the next four to six years. The estimated total cost is over $20,062,000.00 in City and County conveyance and treatment plant improvements. Depending on the financing mechanisms used, the CIP will cost either $6,800,000.00 or $13,600,00.00, in 1996 dollars. These improvements will be financed through a variety of techniques which may include:

- Developer connection fees
- Developer direct contributions (excess of fair share to be reimbursed through latecomer agreements)
- City contributions (cash or bonds)
- State and federal grants or low interest loans

F. Traffic, Circulation and Transit

1. Existing Conditions

The development and orientation of the City's street system has also been influenced by the area's topography and other natural features, including Dogfish Creek and Liberty Bay.

Arterials generally oriented in a north-south direction within the City are Viking Avenue, SR 305 and SR 3. East-west arterials are Lincoln Street and Bond Road, which provides access to Kingston and the northeastern portion of the County. State Route 305 is also the only major roadway connecting residents of Poulsbo, northern Kitsap County, and Jefferson County to the ferry terminals located on Bainbridge Island. Heavily travelled roadways include: Viking Way and Finn Hill Rd. in western Poulsbo; Bond Rd. and Lindvig Way in northern Poulsbo; Front St., 4th Ave., Lincoln Rd., and Pugh Rd. in eastern Poulsbo; and Anderson Pkwy., Hostmark St., Fjord Dr., 6th, 9th, and 11th Avenues in southern Poulsbo.

Level of Service
Level-of-Service (LOS) describes the efficiency of the flow of traffic and is used as the primary form of measurement for traffic. LOS measurements interpret variables such as speed and travel time, freedom to maneuver, traffic interruptions, traveler comfort, convenience, and safety. Levels of service are a range of

alphabetical connotations "A" through "F", used to characterize roadway operating conditions. LOS A represents free flow conditions and LOS F indicates worst/system failure.Theoretically, the most desirable level of traffic volume on any given roadway is LOS "C," which represents an appropriate blend of traffic service and affordability. Levels of service are also represented as volume to capacity ratios, or vehicle demand divided by roadway capacity, therefore, as the ratio approaches 1.00 the roadway approaches LOS F. The Comprehensive Plan established a standard for peak hour Level of Service not to fall below "E" for all City roadways. Therefore, development, whether private or public, will be required to mitigate its impact on the City's roadways to that LOS or better.

The Table below illustrates both Level of Service and Volume to Capacity Ratio associated with each LOS.

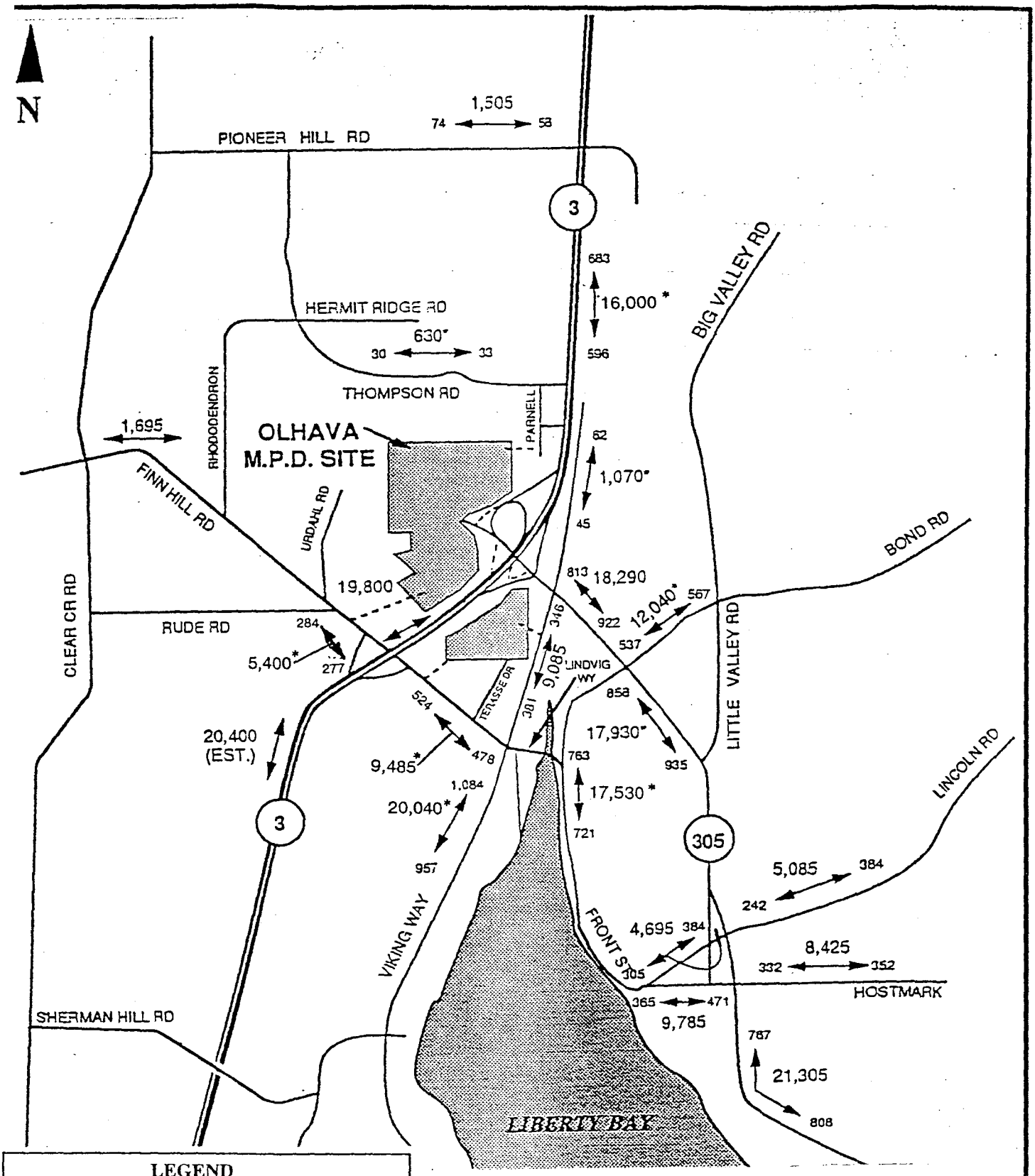
Table III-41
Definitions of Level of Service

Level of Service	Volume/Capacity Ratio	Unsignalized Intersections Expected Delay	Signalized Intersection Delay/Vehicle (seconds)
A	0.0-0.60	Little or none	Under 5 seconds
B	0.61-0.70	Short delays	5.1-15.0
C	0.71-0.80	Average delays	15.1-25.0
D	0.81-0.90	Long delays	25.1-40.0
E	0.91-1.0	Very long delays	40.1-60.0
F	over 1.0	Failure, gridlock	Over 60 seconds

Existing Traffic Volumes

Exhibit III-14 shows current Average Weekday Daily Traffic Volumes (AWDT) throughout the City. These representations show that SR-3 carries 19,800 vehicles on the average every weekday, north of Finn Hill Road. SR-305 at Bond Road carries 18,290 AWDT, and Viking Avenue, south of Finn Hill carries 20,040 AWDT.

Exhibit III-15, Project Surrounding Roadway AWDT, provides a detailed view of the existing conditions on the roadways immediately around the project, including the State Route on and off ramps.



LEGEND

PM◄——►PEAK	24 Hour Daily (Weekday) & PM Peak Hour Volumes
AWDT	AverageWeekday Daily Trips
*	April 1997 Update Volumes/or 1996 City Counts

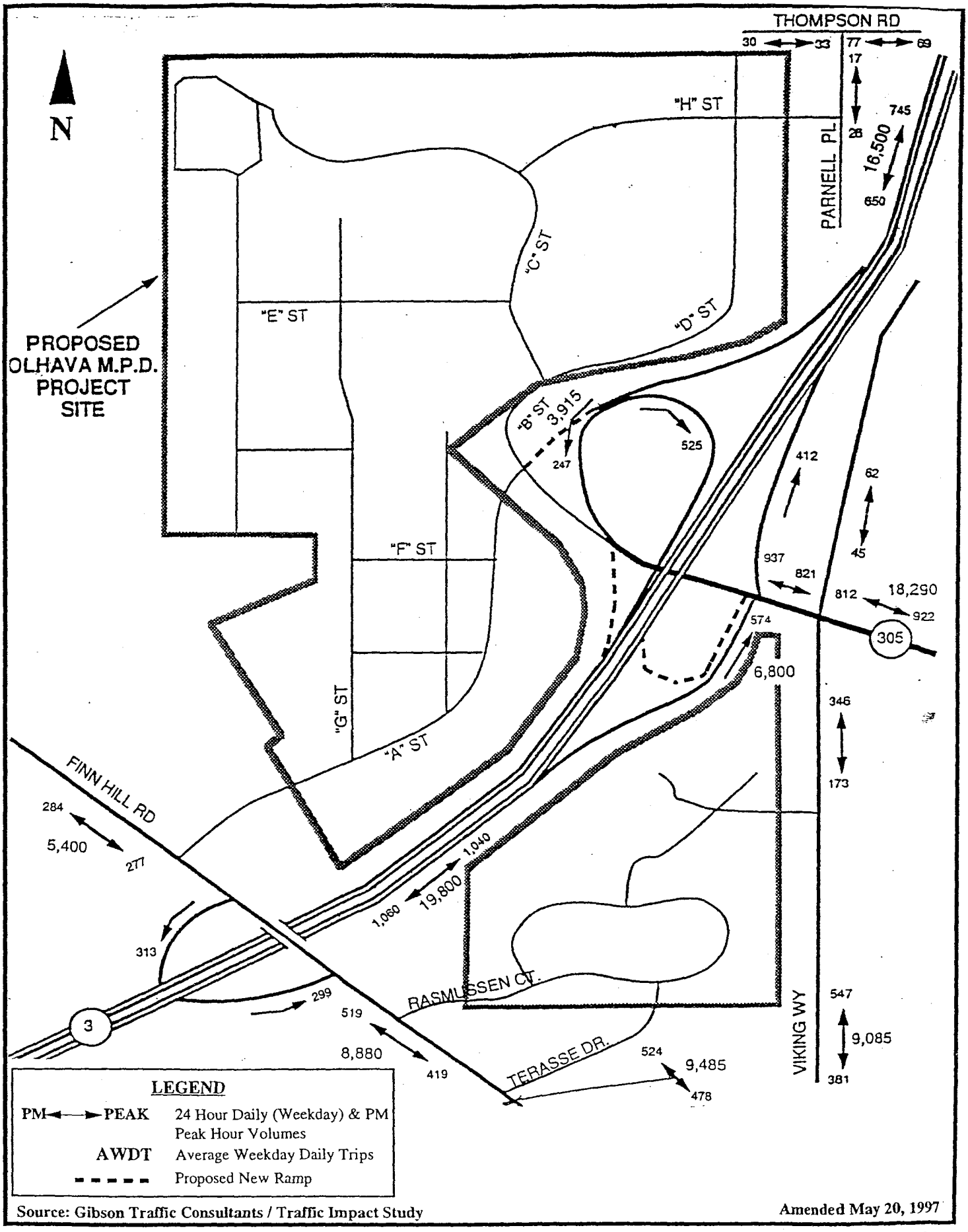
Source: Gibson Traffic Consultants / Traffic Impact Study

Amended May 20, 1997

TERRA NOVA®
Planning & Research, Inc.

1994-1997
Weekday Traffic

Exhibit
III-14



Source: Gibson Traffic Consultants / Traffic Impact Study

Amended May 20, 1997

TERRA NOVA®
Planning & Research, Inc.

Project Surrounding Roadway ADT (1994-1997)

Exhibit

III-15

AM and PM Peak Volumes

The AM and PM peak traffic periods for the City are between 7.00 and 8.00 AM and 3:30 and 4.30 PM, respectively. AM peak traffic volumes represent approximately 6 to 7 percent of the daily volume, while PM peak represents 8 to 10 percent of daily traffic volumes. Turning movement volumes were studied for key intersections in the City. Existing turning volumes of particular concern under existing conditions include:

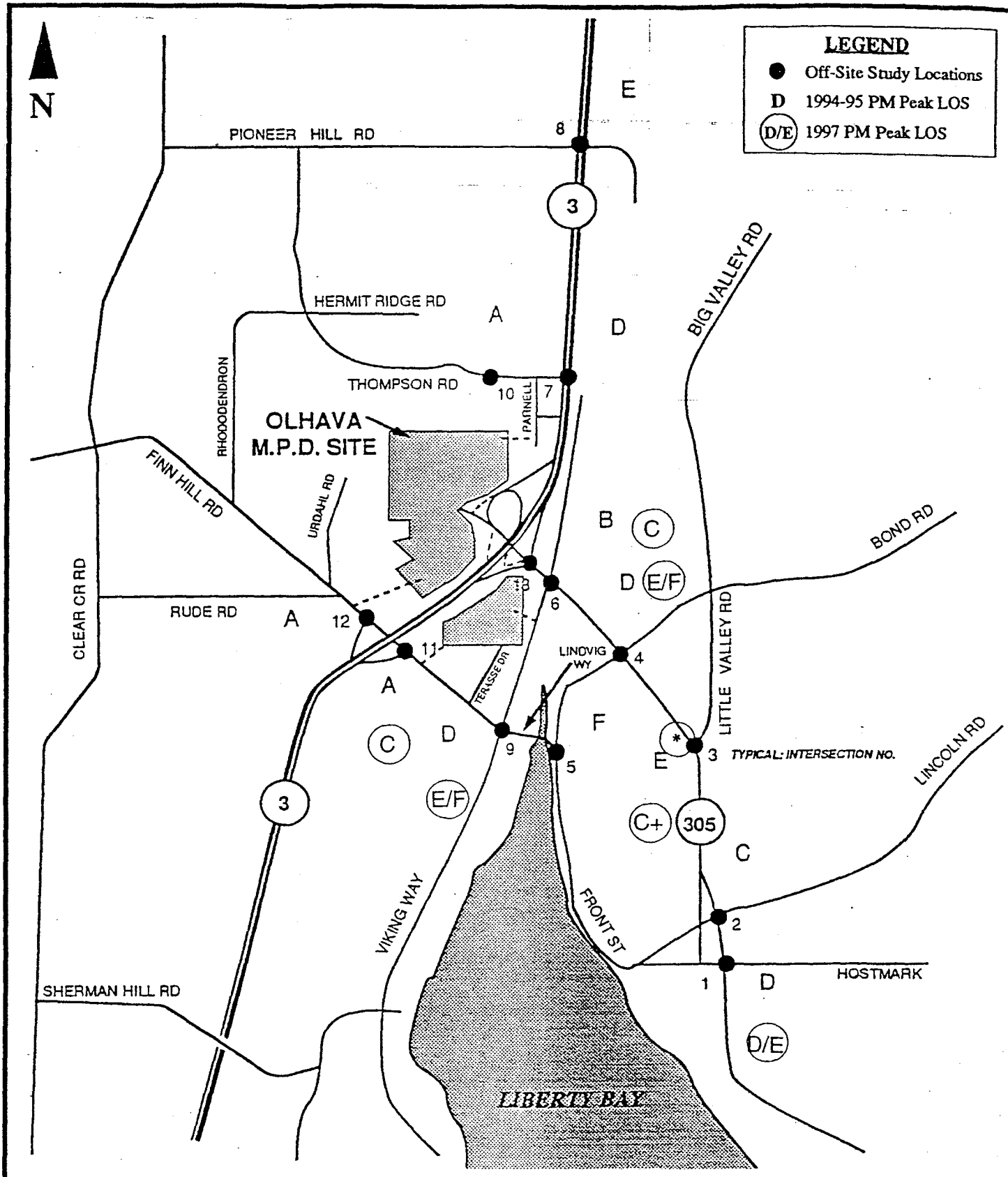
- southbound left (265 vehicles per hour [vph]), westbound right (250 vph) and eastbound right (226 vph) at SR-305/Bond Road;
- northbound right (740 vph) and westbound left (688 vph) at the Viking Way/Finn Hill intersection;
- eastbound left (545 vph) and southbound right (316 vph) at Lindvig/Bond Road.

A Level of Service analysis was conducted for critical intersections identified by the coordinating agencies. Data is depicted for all intersections for 1994. Additional information, available through the Parametrix, Inc. Corridor Study for SR-305 and check counts performed in April, 1997, were used to represent the level of service conditions shown under the 1997 column. The results of the analysis are represented in Table III-42, below. The PM peak hour, worst case was calculated, including factors for geometric characteristics and conflicting traffic movements. The intersection of Lindvig and Bond Road, which was not signalized, operated at a LOS F under 1994 conditions. The Traffic Study assumes the signalization of this intersection, which would improve overall operating conditions (see Project Impacts, below). The 1997 levels of service depicted in the Table were taken from City counts and check counts conducted by the traffic engineer in April of 1997. Exhibit III-16, Existing Level of Service, provides a graphic description of current LOS at intersections surrounding the proposed project.

Table III-42
1994 and Existing Level of Service, PM Peak Hour

Intersection	1994 LOS	1997 LOS
SR-305 at Hostmark	D	D/E
SR-305 at Lincoln	C	
SR-305 at Little Valley*	E	C+
SR-305 at Bond	D	E/F
Lindvig at Bond	F	
SR-305 at Viking	B	C
SR-3 at Pioneer Hill	E	
SR-3 at Thompson Road	D	
Viking at Finn Hill	D	E/F
Thomson at Parnell Place	A	
SR-3 northbound off ramp at Finn Hill	A	C
SR-3 southbound on ramp at Finn Hill	A	

* The SR-305/Little Valley Road intersection was signalized in 1995, and currently operates at a LOS C or better.



* Sr-305/Little Valley now operates at LOS C or better (with Signalization in Summer 1995)

Source: Gibson Traffic Consultants / Traffic Impact Study

Amended May 20, 1997

TERRA NOVA®
Planning & Research, Inc.

1994-1997
Level Of Service

Exhibit
III-16

Planned Transportation Improvements
In order to adequately assess the impacts of any project on the surrounding roadway system, plans included in the three affected jurisdictions' Transportation Improvement plans must be analysed. The following projects are currently planned, and shown by jurisdiction; anticipated project date is shown in brackets when available:

City of Poulsbo
- 7th Avenue extension and connection to SR-305/Little Valley Road (1998)
- Lindvig/Bond/Front Street intersection channelization and signalization improvements (project complete)
- Viking Avenue widening, drainage, curb, gutter, sidewalk and channelization
- Lincoln Road drainage, curb, gutter, sidewalk SR-305 to east City limits; also widening from SR-305 to 8th Avenue
- Finn Hill grading, drainage, curb, gutter, sidewalk from Viking Ave. to City limits
- SR-305 widening, turn lanes, intersection improvements, transit and HOV treatments, entire length within City limits
- Caldart Avenue, from Hostmark to City limits, widening, paving, pedestrian, drainage and intersection improvements
- 2nd Avenue extension to 7th Avenue
- 3rd Avenue improvements from Hostmark to Moe, including widening, paving, drainage, sidewalks, right-of-way and retaining walls
- 8th Avenue improvements, from Hostmark to 7th Avenue, to include widening, paving, drainage and intersection improvements
- Front Street paving, channelization, drainage and pedestrian improvements, from Torval Canyon Road to Jensen Way
- Mesford Street improvements, from Caldart to Noll Road, to include widening, paving, pedestrian, drainage and intersection improvements

Washington Department of Transportation
- Bond Road widening to 4 lanes, between SR-305 and SR-104. Includes intersection improvements at SR-104/Bond
- SR-305/Bond Intersection rechannelization
- SR-3/SR-305 Interchange ramp improvements, including access to proposed project
- SR-305 widening, turn lanes, intersection improvements, transit and HOV treatments, entire length within City limits
- SR-3 widening, SR-308 to SR-305 to four travel lanes

Kitsap County
No improvement plans.

Public Transit and Carpooling
Kitsap Transit provides for the public transit needs of Poulsbo and the surrounding area, including two entirely local routes within the City and four regional routes which connect Poulsbo with other parts of the county. Current service connects the City with Silverdale, Bremerton and Port Orchard to the south, Bainbridge Island to the east, and Hansville and Kingston to the north.

Surveys of employers County-wide indicate that 30 to 35 percent of commuters are using Kitsap Transit services and carpooling[71].

2. Impacts

The analysis in this EIS is based on a series of documents prepared by Gibson Traffic Consultants, including the following documents:

- Traffic Impact Analysis, Gibson Traffic Consultants, December 1994.
- Access Report, SR-3/SR-305 Interchange Revisions and Olhava MPD Frontage Road, Gibson Traffic Consultants, October 1995.
- Olhava Mitigation Proportionate Share Update (with/without Iverson Connection, Gibson Traffic Consultants, November 1995.
- Olhava M.P.D.; Responses to WSDOT Comments, Gibson Traffic Consultants, December 1995.
- Olhava M.P.D. Project at SR-3/SR-305 Interchange (Poulsbo) Supplemental Traffic Analysis per WSDOT Review Comments, Gibson Traffic Consultants, January 1996.
- Responses to WSDOT Comments on 2nd Olhava Traffic Analysis & Access Report, Gibson Traffic Consultants, March 1996.
- Supplemental Traffic Analysis per WSDOT Comments at April 15th Meeting, Gibson Traffic Consultants, May, 1996.

The coordination and information gathering involved close cooperation with the City of Poulsbo, the Transportation Department of Kitsap County, and the Washington State Department of Transportation.

Future Traffic Conditions

Future growth as provided for in the Poulsbo Comprehensive Plan will require the development of a number of roadways, and the widening of existing facilities to accommodate anticipated growth. Table III-43 below lists the Comprehensive Plan roadways and their designations. A Comprehensive Plan amendment currently under way upgrades Viking Avenue to an arterial for its entire length, based on recommendations in the Viking Avenue corridor study.

Table III-43
Comprehensive Plan Roadways

Arterial Roadways	
1. State Route 305	3. Finn Hill Road (from western City limits to Lindvig)
2. Viking Avenue	
Collector Roadways	
1. NW Rude Road	13. Rhododendron Lane NW
2. NW Cedar Lane (extended)	14. Brite Star Lane (extended)
3. NW Sherman Hill Road	15. NW Lindvig Way
4. Bond Road	16. Viking Avenue (from Lindvig to State Route 3)
5. Big Valley Road	17. Little Valley Road
6. Pugh Road NE	18. Front/Fjord Street
7. Jensen Way	19. Iverson Street
8. Gene's Way (extended)	20. NE Lincoln Drive
9. NE Hostmark Street	21. NE Mesford/Noll Road (east-west, extended)
10. Caldart Avenue NE	22. Languanet Lane NE
11. 1st Avenue NE	23. 4th Avenue NE
12. 7th Avenue NE	24. 10th Avenue NE

[71] Richard Hayes, Executive Director, Kitsap Transit. Personal communication with Terry Gibson.

Improvement needs for the City's circulation system include conflicts between pedestrian and vehicular traffic, signage, on-street parking, varying widths of improved streets, increased traffic congestion along SR-305 and the geometries of existing intersections along SR-305. The Comprehensive Plan includes policies regarding these concerns within its Transportation Element.

The project Traffic Study assumes a 4.0 to 5.0 percent annual growth rate for impacted City, County and State roadways. The annual growth rate projected by Parametrix, Inc. in the SR-305 Corridor Study was 3.1% to the year 2010. The projections included the proposed project. The 4% annual growth rate for the project traffic study is therefore very conservative. Traffic check counts performed on Finn Hill Road in April of 1997 indicate a 4% annual growth rate for the traffic west of Viking Way. The following Table provides representative baseline growth at key locations for the year 2004, without the proposed project.

Table III-44
Baseline 2004 AWDT for Key Roadways, Without Project

Location	AWDT
Bond Road	14,870
Finn Hill Road west of Rhododendron	7,650
Finn Hill Road east of Terasse	12,480
Thompson Road	1,100
Lincoln Road east of SR-305	7,530
Hostmark east of SR-305	12,470
Viking south of Finn Hill	28,515
Lindvig Way	35,300

Traffic Impacts With Proposed Master Plan

As part of the traffic analysis effort, Gibson Traffic Consultants made certain assumptions about traffic conditions and transportation modal splits for the proposed project, including:

- a reduction of 10 percent for residential transit usage (considerably more conservative than current Kitsap Transit data which reflects 30 to 35 percent ridership);
- 5 percent carpool/vanpool reduction for residential trips;
- a 10 percent transit/carpool reduction for the retail and business park usages; and
- a 10 percent reduction in college based trips for transit ridership;
- passby traffic[72] reductions ranging from 20 percent for hotel development to 55 percent for fast food usages;
- a 10 percent reduction for internal trips, i.e. residents of the apartments attending school and shopping within the complex, and using bicycles or pedestrian walkways to travel.

Based on these assumptions, the proposed project would generate 37,605 average weekday trips, 3,854 of which are PM peak trips. The trip generation for each land use for the project is summarized in Table III-45, below. Trip assignments were also calculated, to determine which roadways would be utilized by the automobiles traveling to and from the proposed project. The assignments primarily affect SR-3 north and south bound, SR-305 eastbound, Bond Road, Lincoln, Hostmark, Finn Hill, Viking and Clear Creek via Thompson Road for regional traffic, and Front Street in Poulsbo for local traffic.

72 Passby traffic is that which is already on the City and County roadway system, and stops either impulsively or in a planned fashion, on its way to another destination. For example, a commuter traveling from Big Valley in the morning, and stopping for cofee at the Village on the way to the Bainbridge ferry, is considered passby traffic.

Table III-45
Trip Generation Summary
Olhava Master Plan Development

Land Use	Variable	Weekday AWDT	Weekday PM Peak	Saturday PM Peak
SE Apartments (med. density)	160 Units	1,000	99	82
SE Single Family (low density)	70 Units	737	77	82
NW & NE Apartments (med.density)	260 Units	1,641	156	121
Less 25% internal, transit, & rideshare		412	40	30
subtotal		**1,230**	**116**	**91**
Community Park	8 AC.	18	2	5
Less 25% internal, transit, & rideshare		5	1	1
subtotal		**13**	**1**	**4**
Business Park	325,000 SF	4,522	474	80
Less 20% internal & transit		905	95	16
subtotal		**3,616**	**379**	**64**
Shopping Center	470,000 SF	19,129	1,808	2,378
Less 27% passby		5,164	488	642
subtotal		**13,965**	**1,320**	**1,736**
General Office (retail/office)	105,000 SF	1,509	200	39
Less 20% internal & transit		299	40	8
subtotal		**1,209**	**160**	**31**
Specialty Retail (retail/office)	105,000 SF	4,273	518	534
Less 25% passby		1,071	130	133
subtotal		**3,202**	**388**	**401**
Specialty Retail (NE site area)	77,550 SF	3,154	375	395
Less 25% passby		771	94	99
subtotal		**2,383**	**281**	**296**
Bank	14,500 SF	2,175	633	551
less 45% passby		980	285	248
subtotal		**1,195**	**348**	**303**

Table III-45 (cont'd)

Land Use	Variable	Weekday AWDT	Weekday PM Peak	Saturday PM Peak
Hotel (19,900 SF)	75 Rooms	600	58	65
less 20% passby		120	12	13
subtotal		**480**	**46**	**52**
Fast food Restaurant	7,600 SF	4,805	278	430
less 55% passby		2,645	153	236
subtotal		**2,160**	**125**	**194**
High Turnover (Sit-down)	25,450 SF	5,225	414	384
less 40% passby		2,090	166	154
subtotal		**3,135**	**248**	**230**
Quality Sit-Down Restaurant	15,000 SF	1,310	115	166
less 20% passby		260	23	33
subtotal		**1,050**	**92**	**133**
Olympic College	900 FT Students/(1800 PT Students)	2,790	216	
less 20% internal & transit		560	43	
subtotal		**2,230**	**173**	
GRAND TOTALS	GROSS TRIPS	**52,887**	**5,424**	**5,312**
	INTERNAL & TRANSIT TRIPS	**2,181**	**220**	**55**
	PASSBY TRIPS	**8,286**	**1,079**	**1,216**
	NET NEW TRIPS	**37,605**	**3,854**	**3,699**

On-Site Impacts with Off-site Connections

Exhibit III-17, Internal Circulation, provides a graphic representation of the channelization and signalization needed within the project, and at the project's connections to the off-site circulation system. The development of this exhibit is accompanied by a number of recommendations by the traffic engineer for improvements which will mitigate the impacts of the proposed project to levels of service which meet or exceed the Poulsbo Comprehensive Plan requirements, as follows (all listed LOS levels are PM peak AWDT):

Finn Hill at A Street: Install traffic signal and improve channelization as follows:

- add eastbound left turn lane and westbound right turn lane from Finn Hill to A Street.

Without recommended improvements: LOS F
With recommended improvements: LOS B

SR-305 Extension (B Street) at A Street: Install traffic signal and improve channelization as follows, resulting in a LOS C:

- 1 left turn lane, 1 through lane and 1 right turn lane for southbound SR-3 off ramp. Also provide for alignment of a second left turn lane to be constructed by others in future as need requires.
- 2 left turn lanes and 2 through lanes on SR 305
- 2 through lanes and a right turn lane on B Street
- 1 left turn lane, two through lanes and 2 right turn lanes on A Street.

B Street at D Street: Install signalization and construct:

- 2 through lanes and a right turn lane on northbound B Street
- dedicated left and right turn lanes on westbound D Street
- dedicated left turn lane and 2 through lanes on southbound B Street

Without signalization, this intersection would have a buildout LOS of F. With the recommended signalization and channelization, the LOS is improved to A.

B and C Streets at E Street, Y intersection: Recommended channelization as follows:

- dedicated left turn lane and 1 through lane for eastbound E Street
- single lane for southbound C Street
- dedicated through and right turn lanes for northbound B Street

This intersection will also require stop sign control, but no signalization to result in a LOS C condition.

A Street at F Street: Install signalization and channel traffic as follows:

- dedicated right, through and left turn lanes for southbound A Street
- dedicated left and right turn lanes and a left/through lane for eastbound F Street
- left turn pocket and 2 through lanes for northbound A Street
- Single lane for all traffic movements for westbound F Street

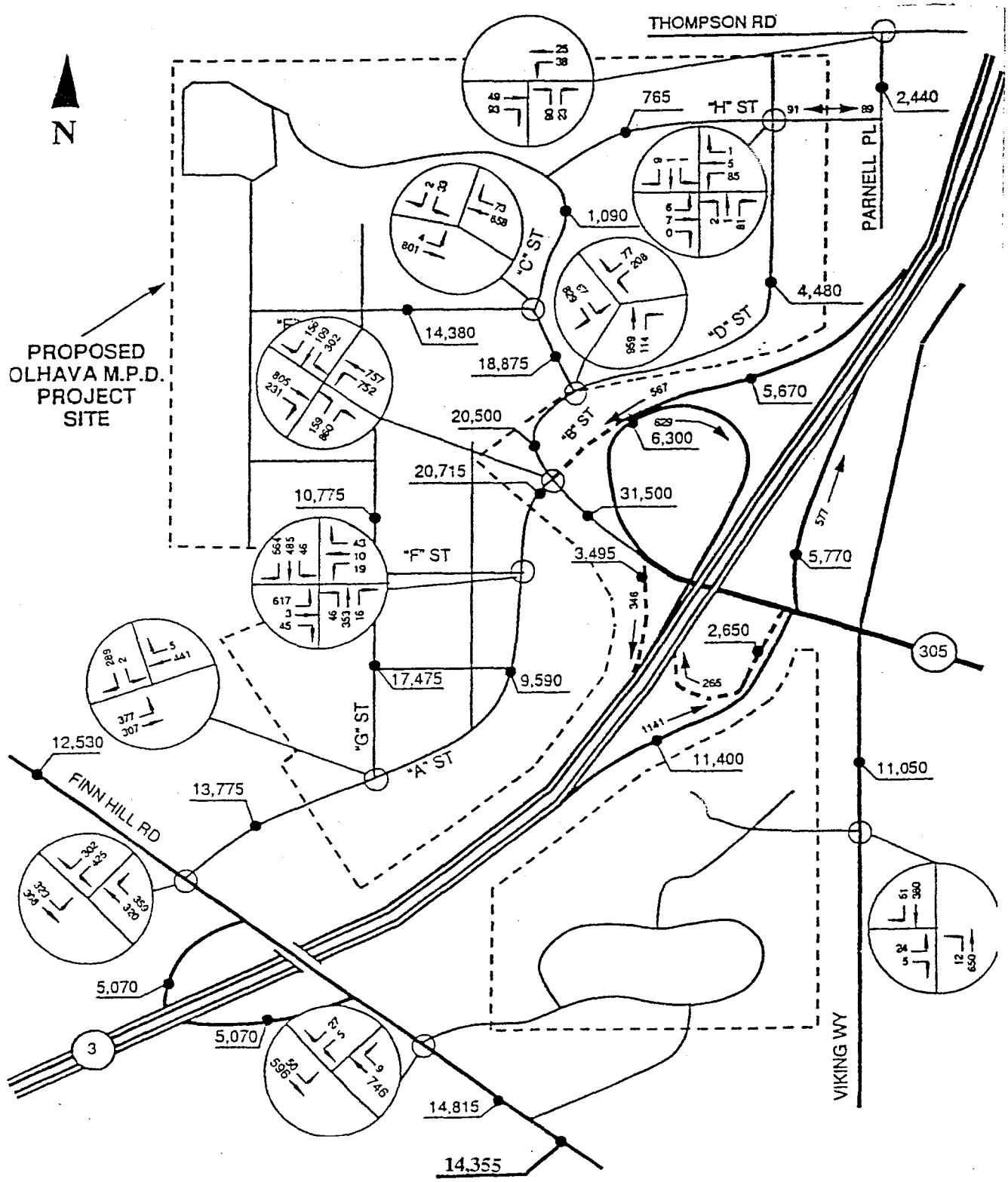
If this intersection were stop-sign controlled only, a LOS F would be expected. The recommended signalization will result in LOS B.

A Street at G Street: A left turn lane is recommended for A Street, with single travel lanes for all other approaches, and stop sign control, resulting in LOS B.

D Street at H Street: Single travel lanes in all directions and stop-sign controls will result in LOS A at buildout.

Finn Hill at Single Family access: Single lane approach to Finn Hill is required, with an expected LOS C at project buildout (based on April 1997 check counts on Finn Hill Road).

Viking at Access to southerly acreage: Dedicated left turn lane into southerly acreage.



Source: Gibson Traffic Consultants / Traffic Impact Study

Amended May 20, 1997

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Internal Circulation
Future 2004 Traffic Volumes

Exhibit
III-17

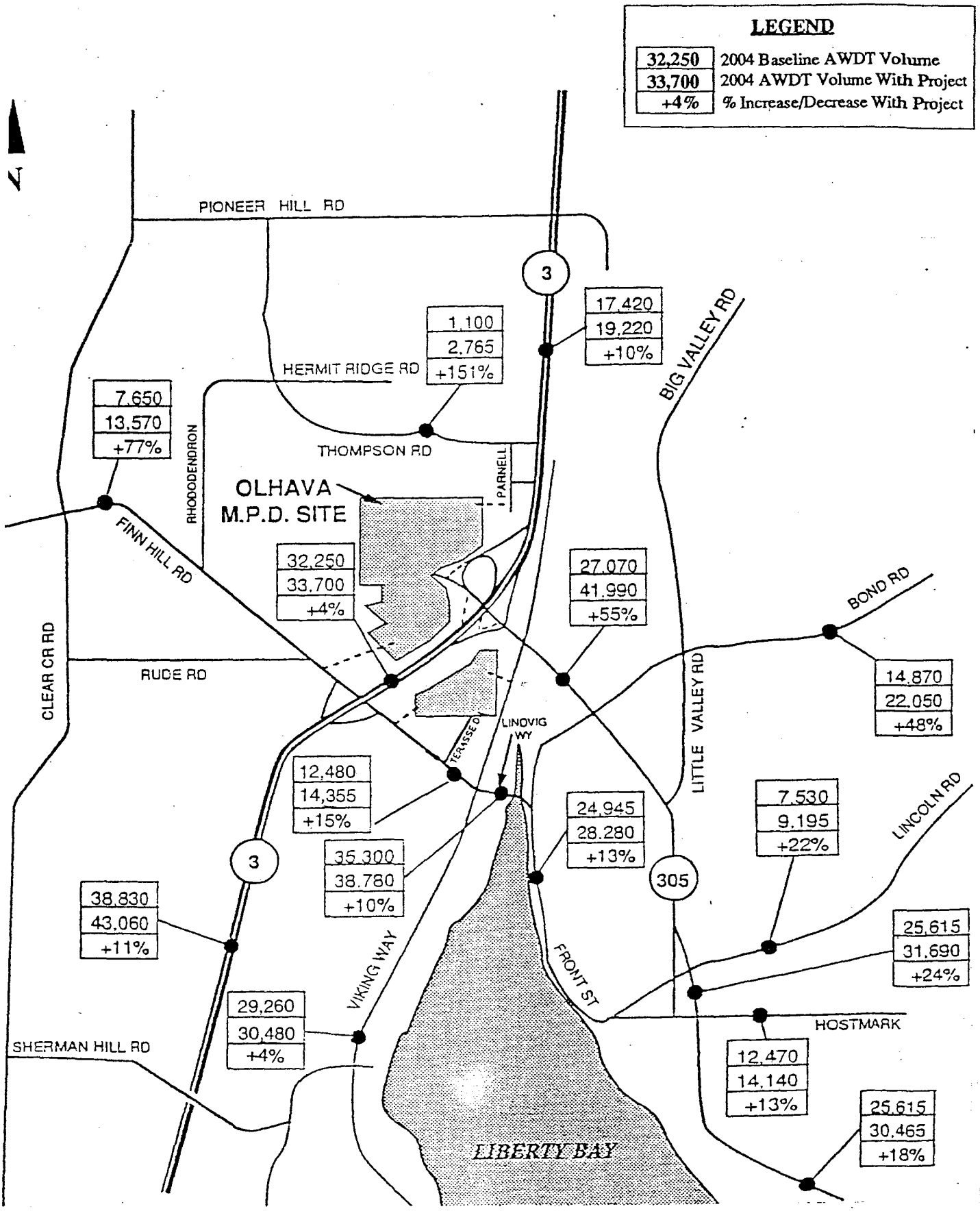
Off-Site Impacts: 2004 Traffic with Project

The addition of the proposed project to traffic models impacts PM peak critical turning movements at several off-site intersections, as depicted on Exhibit III-19.

Levels of Service were calculated for off-site critical intersections, without the project as discussed above, with the project but no improvements, and with the project and improvements. These LOS are represented in Table III-46. A textual discussion of the required off-site improvements follows.

Table III-46
2004 Future Level of Service

Intersection	2004 w/out Project AWDT	2004 w/ project no improvements.	2004 w/project, w/improvements
SR-305 at Hostmark	F	F	D
SR-305 at Lincoln	D	F	C
SR-305 at Little Valley	C	F	B
SR-305 at Bond	F	F	D
Lindvig at Bond	D	F	B
SR-305 at Viking	F	F	D
SR-3 at Pioneer Hill	E	E	E
SR-3 at Thompson Road	E	E	E
Viking at Finn Hill	E	F	D
Thompson at Parnell Place	A	A	A
SR-3 northbound off ramp at Finn Hill	C	F	D/E
SR-3 southbound on ramp at Finn Hill	A	B	B
SR-305 at SR-3 northbound on/off ramps	n/a	C	C



Source: Gibson Traffic Consultants / Traffic Impact Study

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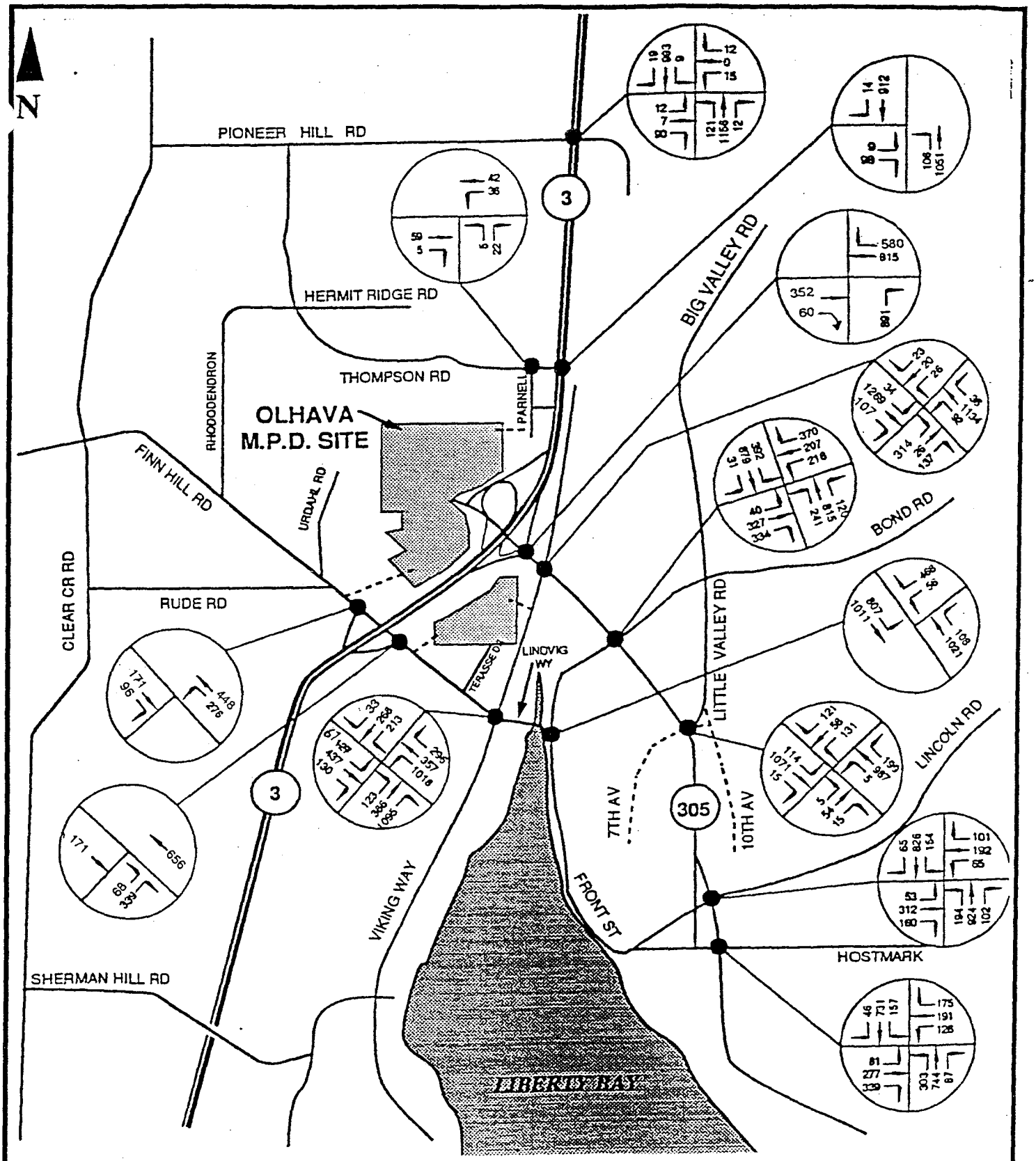
Future Daily Traffic

Exhibit III-18



Source: Gibson Traffic Consultants / Traffic Impact Study

Amended May 20, 1997

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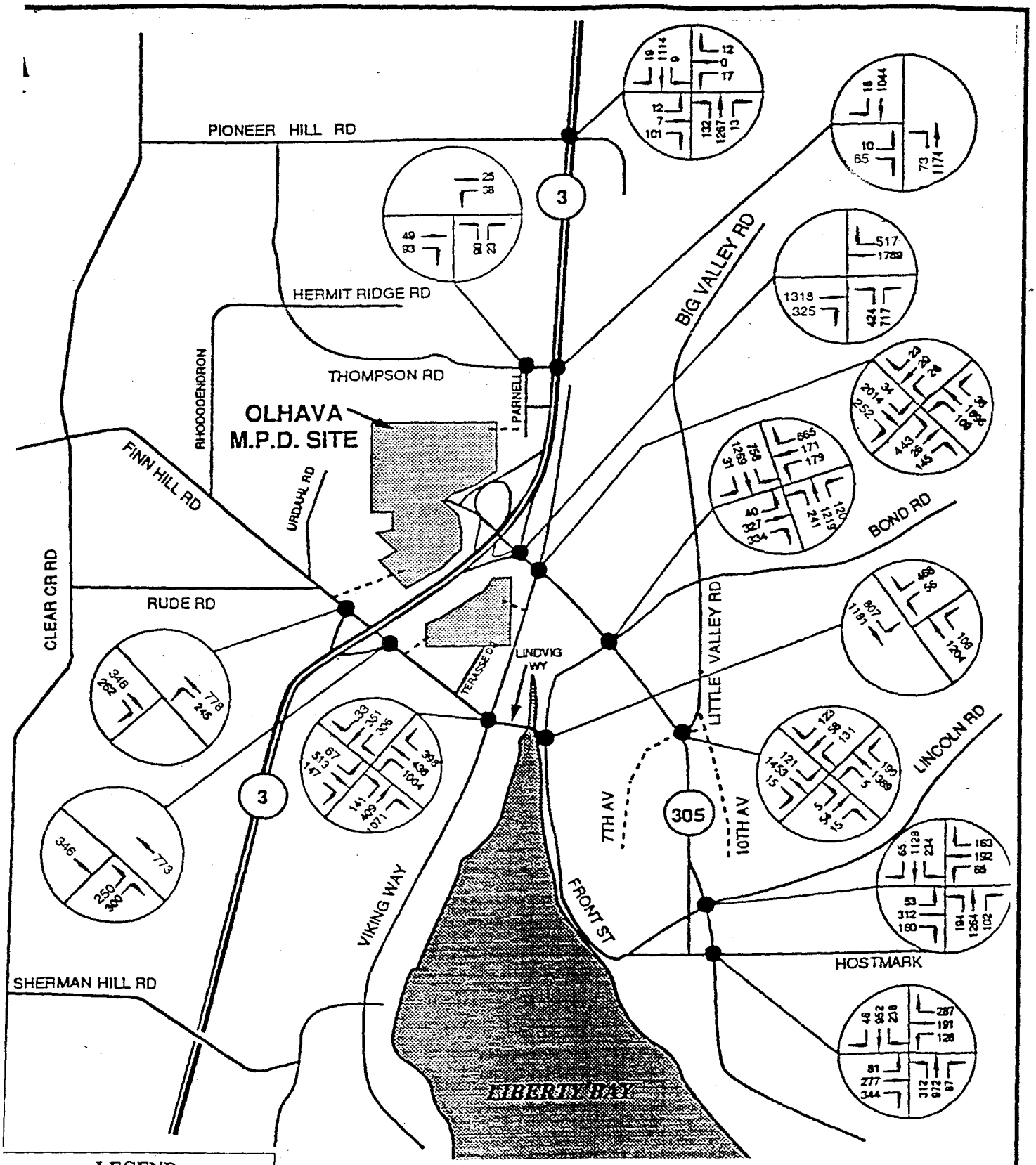
Future PM Peak Volumes
Year 2004 Baseline

Exhibit

III-19



LEGEND

- ● Off-Site Study Locations
- ←1769 PM Peak Volumes With Project At Build-Out

Source: Gibson Traffic Consultants / Traffic Impact Study

Amended May 20, 1997

TERRA NOVA®
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Future PM Peak Volumes
Year 2004 With Project

Exhibit

III-20

Off-Site Improvements

A number of off-site intersection improvements are required in order to maintain City-wide traffic at acceptable levels, once the proposed project is built out[73]. These are discussed individually below. For a complete listing of projects and the applicant's fair share costs, please see Table III-47.

Project Access from State Route 3

The project proponent, City of Poulsbo and Washington Department of Transportation (WSDOT) have reviewed and revised improvement plans which will allow the primary access point to the commercial and business park components of the project to be taken from the SR-3 right-of-way. All costs associated with this access point will be the responsibility of the proposed project. The required improvements include 4 lanes on the southbound off-ramp of SR-3. Exhibit III-21, below illustrates WSDOT's requirements, and the proposed inter-connection between SR-3, SR-305, and internal project streets "A" and "B."

WSDOT has also outlined the preliminary staging of improvements, and provided them in their letter of September 6, 1996, which can be found in Appendix I. The improvements must be completed during two construction seasons (phases "a" and "b"), in order to minimize traffic congestion and confusion to the driving public.

Additional Long Range 2014 Mitigation Measures

The supplemental analysis completed by the project traffic consultant in January of 1996 also lists an improvement which is expected to be required by the year 2014 to maintain acceptable level of service conditions. This long range improvement would be required 10 years after project buildout.

SR-3 northbound ramp at Finn Hill: 2 phase traffic signal as warranted to improve LOS to B.

Project Fair Share of Off-Site Improvement Costs

The Master Plan identifies a number of off-site traffic improvements required for the City and region's street system. These improvements, included in the traffic study, are listed in Table III-47, below. Also added to the Table are percentage shares for each improvement. In addition, the State reviewed the project to determine the costs associated with improvements to SR-305 to accommodate the anticipated increases in traffic.This review led to the State's issuing a letter on September 6, 1996, as amended on October 15, 1996, which breaks out the total improvement costs and fair share attributable to the project. The fair share determined by the State is also incorporated into the Table below. The State also determined the project share associated with improvements to SR-307 from SR-305 to SR-104. The fair share calculations are given in 1996 dollars, based on preliminary estimates only and will be adjusted to reflect inflation and project specific costs as they are developed.

The balance of the costs associated with the projects below will be borne or shared by the affected agency or jurisdiction, other projects planned now or in the future, and other agencies or jurisdictions, as appropriate and required by the Growth Management Act.

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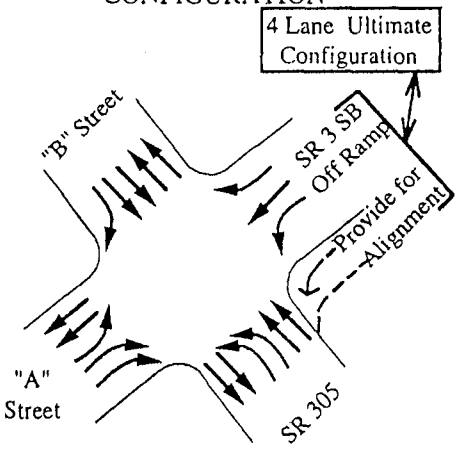
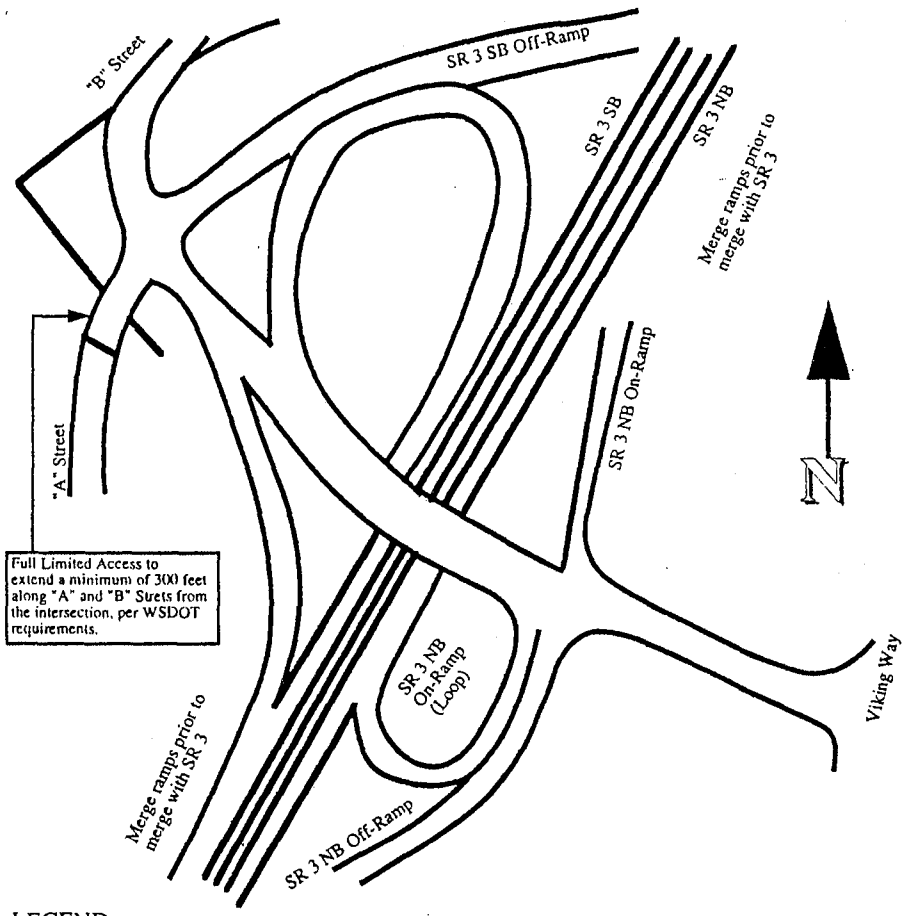
[73] Gibson Traffic Consultants, Washington Department of Transportation, City of Poulsbo.

Intersection Detail "A" Street Improvements

REQUIRED ULTIMATE CONFIGURATION



Limited Access Configuration

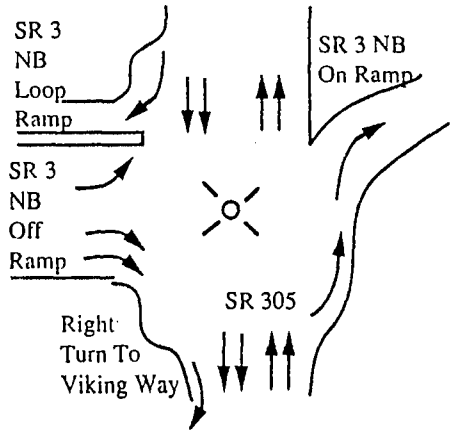


LEGEND

- 3 ← Number of Lanes as Required by WSDOT
- <2> Number of Lanes Proposed by Developer
- Existing Limited Access Boundary
- – – – Limited Access Boundary Proposed by Developer
- Limited Access Boundary Requirements for Intersections

SR 3 NB On-Ramp Terminal Improvements

REQUIRED ULTIMATE CONFIGURATION



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WSDOT Required Improvement Configurations

Exhibit III-21

Table III-47
Olhava Cost Share Summary

Location/Description of Improvements	Percent Share	Total *(1) Project Cost	Project $ Share
WSDOT Projects			
SR-305, SR-3 to south City limits - Add two new lanes to operate as peak period HOV lanes. Sidewalks & bicycle lanes included. Side street improvements as follows: •Hostmark: Provide separate left & right turn lanes on east and west bound approaches •Lincoln: Provide exclusive left &right turn lanes •Bond: Provide exclusive left &right turn lanes. 2nd southbound left turn lane on SR-305. •Viking: Add northbound right turn lane •Little Valley: Connection to 7th Ave.	33.6	10,000,000	3,360,000
SR-307, SR-305 to SR-104 - Widening & channelization	26	12,550,000	3,263,000
SR-305 at SR-3 northbound on & off ramps - Add 2nd through lane on SR-305 both directions. Add eastbound right turn lane & signal. Widen SR-3 northbound off ramp.	100	--	--
SR-305 extension (B Street) at A Street: •Install traffic signal •1 left turn lane, 1 through lane, 1 right turn lane. Provide 2nd left turn lane to be installed as future need requires by others on SR-3 southbound off ramp. •2 left turn lanes & 2 through lanes on SR-305 •2 through lanes & 1 right turn lane on B Street •1 left turn lane, 2 right turn lanes & 2 through lanes on A Street	100	--	--
SR-3 at Finn Hill - Signalize both ramp terminals and widen both ramps for turning movements. Eastbound right turn lane on Finn Hill at southbound ramp.	100	--	--
SR-3/SR-305 Interchange - Improve channelization as follows: •SR-305: Widen from Viking to B Street to provide 2 through lanes •Add right turn lane from northbound SR-305 to SR-3 northbound on ramp •Add southbound on ramp with right turn lane from southbound SR-305 to SR-3 north side of interchange •Add northbound loop ramp from SR-305 to SR-3 south side of interchange •Widen existing northbound off ramp from SR-3 to SR-305 to 2 lanes, expand to 3 (2 right turn & 1 left turn) at intersection	100	--	--
Project access from SR-3 - See Exhibit III-21 for R-3, SR-305, Streets A & B	100	--	--

--: Costs not estimated since project proponent will be responsible for total improvement cost.

Location/Description of Improvements	Percent Share	Total *(1) Project Cost	Project $ Share
City of Poulsbo Projects			
Lindvig at Bond - Install traffic signal	13	180,000	23,400
Viking at Finn Hill - Intersection improvements: add turning lanes & reconstruct signal	15	400,000	60,000
Finn Hill, SR-3 to Viking - Widen to 3 lanes, add shoulders & sidewalks	15	930,000	139,500
Lincoln, SR-305 to Laurie Vei Loop - Widen to 3 lanes, add shoulders & sidewalks	22	1,304,000	286,900
Lincoln, Laurie Vei Loop to City limits - Widen to 3 lanes, add shoulders & sidewalks	33	444,000	98,000
Viking, south City limits to Finn Hill - Widen to 5 lanes, add shoulders & sidewalks	4	1,460,000	58,400
Viking, Finn Hill to SR-305 - Widen to 3 lanes, add shoulders & sidewalks	20	740,000	148,000
Hostmark, Fjord to SR-305 - Widen to 3 lanes, add sidewalks	13	250,000	32,500
Front St., Bond to Jensen - Widen to 3 lanes, add shoulders & sidewalks	13	1,100,000	143,000
Front St. at Jensen - Channelization & traffic signal	13	350,000	45,500
Sunset, Jensen to Iverson - Widen to 3 lanes, add sidewalks; or new alignment	13	500,000	65,000
Iverson Extension, 7th to Lincoln - Widen to 3 lanes, add sidewalks; or new alignment	13	400,000	52,000
Caldart, Hostmark to Lincoln - Widen and add sidewalks	15	540,000	81,000
Kitsap County Projects			
Finn Hill at A Street - Add traffic signal, westbound right turn lane, eastbound left turn lanes Finn Hill to A Street	100	--	--
Finn Hill, SR-3 to Clear Creek - Add shoulders & turn lanes	77+	880,000	677,600

*(1): Project cost estimates are preliminary in 1996 dollars. Adjustments to be made for inflation and detailed cost estimates.
+: Percent share determined in traffic study. County and proponent to agree to share and financing upon plan submittal.
--: Costs not estimated since project proponent will be responsible for total improvement cost.

Public Transit

The Traffic/Circulation chapter of the Master Plan includes provisions for public transit on the project site. The project will incorporate two bus routes, a Local and an Express, which will service the City of Poulsbo and Silverdale, respectively. The Master Plan also includes bus stop locations throughout the project. In addition, the Traffic Study (provided in Appendix I) includes recommendations for transit improvements. The City's existing Commute Trip Reduction ordinance shall be applied to this project to encourage alternative transportation and reduce the number of trips to and from the site.

Non-Motorized Transportation

Non-motorized transportation in the City refers primarily to bicycles and pedestrian facilities. Within the proposed Master Plan, the project proponent has included a system of on and off street trails or bike lanes, to be used by both pedestrians and bicyclists. The off street trails are designed within the perimeter vegetative buffers, and will provide access from the multi-family residential to Olympic College, community park and the commercial development in the northerly acreage. On street bike lanes are included within the right-of-way of streets A through E, and from the proposed project along SR-305 to Viking Avenue. The Master Plan proposes Class II bike lanes to connect Finn Hill to Parnell Place through the proposed project, and Class III bikeways are generally discussed on other major project roadways. The system of trails provides a continuous loop from the City's existing street system through both the northerly and southerly portions of the project. Sidewalks are proposed throughout the development for pedestrian access.

Alternatives

The following discussions outline the project impacts on the traffic and circulation system for each development-related alternative. The same assumptions used in the project traffic study have been used to develop traffic counts for each development-related alternative. The primary reason for this approach is that each of the development-related alternatives represents a variation in intensity of use, rather than a significant change in use. The Master Plan proposes uses which are allowed under the underlying designations for the land. It is also therefore assumed that each of the development-related alternatives would remain within the permitted uses of the City's Comprehensive Plan and Zoning Ordinance, in order to develop the truest possible comparison.

For ease of review, the following summarizes the trip generation, discussed extensively above, for Alternative One/Proposed Master Plan:

Table III-48
Alternative One/Proposed Master Plan
Trip Generation

Land Use	Variable	AWDT	PM Total
Single Family Residential	70 units	553	58
Multi-Family Residential	420 units	1,981	191
Commercial, Retail	840,000 s.f.	28,779	3,008
Business Park	325,000 s.f.	3,616	379
College	50,000 s.f.	2,230	173
Total		**37,159**	**3,809**

Alternative Two/Multiple Master Plans

This alternative represents the division of the 215± acres into 6 independently developed Master Plans, generally developed along land use boundary lines. This alternative also assumes discontinuous development, and therefore represents the greatest possible impact for the project site, for two reasons. First, should the project site be developed as multiple projects, the likelihood that the inter-and intra-connections which are available in a single Master Plan would be constructed are lessened. It can therefore be assumed that the multiple Master Plans would not represent a cohesive circulation plan, and would therefore not distribute trips as efficiently as the other three development-related alternatives. Furthermore, multiple Master Plans would almost certainly eliminate the continuous loop available for bicycle trails in the other alternatives, and would make transit service more difficult, since a continuous route could be obstructed by barriers between projects.

Using the trip generation rates assumed in the project traffic study, the following trips can be assumed to be generated by this alternative. Because no coordination is anticipated, and physical barriers are likely under this alternative, no reduction has been taken for internal or rideshare trips.

Table III-49
Alternative Two/Multiple Master Plans
Trip Generation

Land Use	Variable	AWDT	PM Total
Single Family Residential	143 units	1,506	157
Multi-Family Residential	332 units	2,088	202
Commercial, Retail*	905,000 s.f.	45,498	4,745
Business Park	435,000 s.f.	6,052	634
College	100,000 s.f.	5,580	432
Total		**60,724**	**6,170**

*The alternative proposes the same mix of uses as the Master Plan, with an increase in square footage.

The Table above, when compared to Alternative One, represents an increase of 63% in total trips over the proposed Master Plan, and an increase of 62% in PM peak trips. The City's roadway system, therefore, would be significantly adversely affected, even if all the off-site improvements were completed as enumerated in the project traffic study. It would also be both more complex and more difficult for the improvements to be completed efficiently, since six independent parties, developing at different times, would be involved in the division of fair share responsibility for these improvements, as discussed above.

Alternative Three/Less Intense

This alternative represents the least impact on the City's traffic and circulation system. It is assumed that both transit and non-motorized transportation efforts would be efficiently implemented, since the project would be developed in a cohesive unit.

Using the trip generation rates assumed in the project traffic study, the following trips can be assumed to be generated by this alternative. The rideshare, transit and internal trip reductions have been applied, since a cohesive development is assumed.

Table III-50
Alternative Three/Less Intense
Trip Generation

Land Use	Variable	AWDT	PM Total
Single Family Residential	64 units	506	53
Multi-Family Residential	257 units	1,213	116
Commercial, Retail	500,000 s.f.	17,151	1,793
Business Park	150,000 s.f.	1,669	175
College	50,000 s.f.	2,230	173
Total		**22,769**	**2,310**

As illustrated, the alternative represents a considerably lower impact on the City's street system, since total trips are reduced 40%, and PM peak trips are reduced 39% from Alternative One/Proposed Master Plan. The City's street system cannot accommodate even the reduced volumes shown above without the assumption that access would still be available from SR-3, and a master plan of roads for the project would be required. Additionally, even with this reduced alternative, off-site improvements would still be required at SR-305 and Hostmark, SR-305 and Bond, Lindvig and Bond, and Viking and Finn Hill; furthermore, improvements might still be required at SR-305 and Little Valley, and SR-305 and Viking. Although this alternative would represent an improvement in impact, it must also be assumed that the lowering of intensity would lower the capital available to construct on and off-site improvements, and may make this alternative infeasible.

Alternative Four/More Intense
This alternative represents the greatest impact on the City's traffic and circulation system, and is very similar in impact to the Multiple Master Plan alternative. It is assumed that both transit and non-motorized transportation efforts would be efficiently implemented, since the project would be developed in a cohesive unit.

Using the trip generation rates assumed in the project traffic study, the following trips can be assumed to be generated by this alternative. The rideshare, transit and internal trip reductions have been applied, since a cohesive development is assumed.

Table III-51
Alternative Four/More Intense
Trip Generation

Land Use	Variable	AWDT	PM Total
Single Family Residential	88 units	695	73
Multi-Family Residential	525 units	2,478	239
Commercial, Retail	1,100,000 s.f.	37,732	3,944
Business Park	435,000 s.f.	4,840	507
College	100,000 s.f.	4,460	346
Total		**50,205**	**5,109**

The potential impacts associated with this alternative would represent an increase in total trips of 35%, and 34% in PM peak trips. The intensity of the project would allow for the cost-effective construction of on and off-site improvements, but additional off-site improvements may be required at critical intersections to accommodate added traffic, particularly at SR-305 and Hostmark, SR-305 and Bond, and Viking and Finn Hill. This alternative represents a greater adverse impact than the proposed project.

Alternative Five/No Construction
No additional impact to the circulation system would occur under this alternative. As is the case with other capital improvements, however, the City may not have funds available to make needed improvements to the existing system without any development occurring on the project site. Although any project will pay only its fair share of improvement costs, the potential for the construction of improvements in advance of City funds being available is eliminated under this alternative. The City's currently impacted streets would potentially continue to be so, without improvement, for a longer length of time than if development does occur on the project site.

3. Mitigation Measures

- The proposed project shall contribute their proportionate share of all projects listed in Table III-47, and any other mitigation measures proposed by Gibson Traffic Consultants in the original traffic study and subsequent amendments, as well as the mitigations required by the Washington Department of Transportation in their September 6 and October 15, 1996 letters. The developer shall pay the percentage share required based on actual engineered designs for the improvements, when those are developed. The costs listed in this document are preliminary only.
- All improvements required to provide access to the proposed project from the SR-3/SR-305 interchange shall be completed during phases "a" and "b." Construction of the interchange in phase "b" shall have commenced prior to the issuance of building permits.
- Prior to the issuance of a grading permit for phase "a," the project proponent shall provide the City Engineer, for review and approval, with a comprehensive schedule of on and off site traffic improvements, by phase. The schedule shall indicate when improvements will be made and the project share of the improvement costs (Table III-47). The schedule shall provide that the building permits shall not be issued until all improvements required for that development have been completed or are under construction. If a building permit has been issued while required road improvements are still under construction, no occupancy permits shall be issued until the improvements have been completed.
- The first application for development approval within any phase shall trigger a review of needed traffic improvements for the entire phase. The project proponent shall be required to deposit the fair share dollar amount for the entire phase with the City of Poulsbo as a Condition of Approval of any site plan approval permit for that phase. If a traffic improvement necessitates fair-share contributions from more than one phase, all fair-share contributions related to the traffic improvement shall be paid at the first phase necessitating the contribution.
- After the development of phase "b," each subsequent phase application shall be accompanied by a phase-specific traffic and circulation report which clearly demonstrates that the uses proposed within the phase shall not exceed any of the assumptions made in the original traffic study. The phase-specific traffic and circulation report shall also include a cumulative analysis which demonstrates that the cumulative impacts of the phase shall not exceed the original traffic report's established impacts. The traffic and circulation report shall be reviewed and approved by the Planning Director and the City Engineer, and submitted to the approving body as part of the project review process. Should the warranted improvements include improvements to County roadways, the applicant shall also be required to receive approval from the Kitsap County Department of Public Works.
- Should any phase plan traffic and circulation report show that the original assumptions will be exceeded by more than 10%, either for that phase or cumulatively, a new traffic study encompassing all unbuilt phases shall be prepared, and new mitigation measures (both on and off site) prepared to mitigate any additional impacts.

- Prior to the issuance of any grading permit, the project proponent shall receive final design approval from the Olympia Service Center of the Washington State Department of Transportation for the access break from SR-3 to the proposed project.
- The project proponent shall develop two transit route plans with Kitsap Transit which allow for bus stops and associated shelters throughout the project, and link the project to both the City of Poulsbo and Silverdale. The bus stops shall be centrally located and provided with shelters whenever possible. The plans shall include a transit turnaround at Olympic College. These plans shall be finalized prior to the completion of phase "b", and shall be implemented throughout the project as phase development occurs.
- In compliance with the City of Poulsbo Comprehensive Plan, the project proponent shall work with Kitsap Transit to determine whether a park-and-ride lot should be located on the project site. Should a need analysis determine that a lot should be located within the proposed project, its development shall be linked to the development of the adjacent phase.
- All individual project proposals shall be reviewed for conformance with the City's Commute Trip Reduction Ordinance (Section 18.53.010 et. seq.). All affected employers (generally employers with 100 or more employees) shall implement the required measures in the Ordinance.
- No individual project within the Master Plan shall be designed to obstruct or otherwise impede the trail and buffer system depicted in the Master Plan document. The trail system within the vegetative buffers shall be developed as each planning area develops and shall be constructed to the standards provided in the City of Poulsbo Zoning Ordinance.
- Class II bike lanes shall be provided along the entire length of the frontage road, from Finn Hill to Parnell Place (Street A and D). Class III bike lanes shall be provided on all other project arterials. In addition, Class III bike lanes shall be provided on the entry drive, main access road to multi-family residential and major loop road in the single family residential developments in the southerly acreage.

G. Noise

1. Existing Conditions

In urban areas automobiles, trucks, busses, home and business equipment, construction activity, and even crowded areas generate noise which can adversely affect the urban environment. Increasing noise also intrudes into open areas.

Traffic volumes are the primary source of noise emitters in Poulsbo. Primary noise sources in Poulsbo include heavy vehicle activities, especially along SR-305 and SR-3, emergency vehicle operations, garbage collection, and residential noise such as radios, dogs, and yard equipment.

Noise levels can affect what are considered "sensitive areas" such as residential uses, hospitals, nursing homes, schools, libraries, and some other uses considered sensitive to noise impacts. Different types of land uses also vary as to the amount of noise they emit. Industrial and commercial properties generally generate and receive more noise than residentially designated property.

The proposed project site is currently undeveloped land. Any development on the site will increase noise both on the site and potentially to adjacent properties. The proposed site is currently, and will continue to be elevated above the surrounding roadways, particularly SR-3, SR-305 and Finn Hill Road.

The State of Washington (WAC 173-60-040) has established maximum permissible noise levels. Generally, maximum permissible noise levels for residences are 55 to 60 dBA as measured at the property line. Maximum permissible noise levels for commercial land uses are generally limited to 65 dBA as measured at the property line. Maximum noise levels for some types of commercial and business park land uses have, by their nature, higher noise levels which are generally limited to 70 dBA. These standards vary according to the nature of the receiving property versus the property containing the noise source as well as according to the duration of the noise level.

2. Impacts

The impacts of noise relating to the implementation of the proposed project are two-fold. First, the project's adjacency to SR-3, and to a lesser extent SR-305, Finn Hill and Viking Avenue, will impact the project site, particularly the residential components. Secondly, the proposed project's land uses will increase the ambient noise environment in the area, both by the addition of vehicle trips and by the activities to be conducted on the site.

The northerly acreage, from Finn Hill to the northern boundary of the project are expected to have noise contours of 70 dBA at or near the property line, and 65 dBA within approximately 300 feet of the project property line[74]. The elevation of the site over the SR-3 right-of-way may reduce the noise levels somewhat. The currently unobstructed access to the property raises the noise contours, while the construction of structures on the subject property will reduce the noise levels on the site. The Olympic College campus, which can be considered a sensitive receptor, occurs at the furthest point removed from SR-3, and currently is likely to experience noise levels well below 50 dBA. The residential uses proposed for the property in this area occur at a considerable distance from existing noise sources, and should not be impacted.

Morgen

* Within the southerly acreage, noise levels of 75 to 70 dBA are expected to occur within approximately 150 feet of SR-3's paved width, with noise levels of approximately 65 to 70 dBA at the project boundary adjacent to the right-of-way, where multi-family residential development is planned. With construction, the noise levels can be expected to be reduced slightly, since the addition of setbacks, buildings and landscaping will act to buffer the site from noise.

No sensitive receptors (hospitals, nursing homes, or schools) are known to be planned for adjacency to the SR-3 right-of-way in the Master Plan. The proposed site plan illustrates an internal circulation system and structure placement which will act to shield the surrounding properties from excessive noise levels. Exterior noise level within the project can be expected to be approximately 70 dBA in the commercial area, due to its proximity to SR-3 and vehicular activity which will occur there. Exterior residential noise levels in the southerly acreage can be expected to be approximately 60 to 65 dBA, within acceptable parameters.

Noise levels to adjacent property on the western boundary of the northerly acreage may be expected to increase slightly, but should not represent a significant adverse impact. The construction of structures along the commercial area of the project at that location will buffer the adjacent properties from noise originating within the project site. Temporary noise levels in excess of the accepted standard may occur due to truck deliveries and similar activities, but will not represent a prolonged noise source.

The proposed project's traffic generation will have a limited impact on ambient noise levels, as is common with all development. Noise levels are expected to increase in the area due primarily to increases in traffic on the adjacent highways, which is expected as growth occurs both in the City and in the North Kitsap County areas. The project will not create significant increases in ambient noise levels above those already occurring near the property.

Construction Noise

Construction noise will have a short-term impact on adjacent properties through all the phases of the property. The first phase, which represents only infrastructure development, will have a lesser impact, due to its isolation and distance from surrounding properties. Other phases of the project will affect different adjacent properties at different times. Mitigation measures proposed below should mitigate the impact to adjacent properties, and limit the impact to a short-term, temporary one.

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74 Washington Department of Transportation, EIS for SR-3 - Clear Creek Road to Poulsbo Vicinity. 1978.

Alternatives
All development-related alternatives will be impacted by ambient noise levels. The Multiple Master Plans alternative, which represents an increase in the commercial and business park square footage, would result in a higher level of on-site noise generation, but also would result in a greater buffering of adjacent properties, since the building density would be increased. The Less Intense Alternative would be most greatly impacted by noise, since the lowering of building densities, which act as the best buffers against noise impacts, would result in a greater exposure to noise both on and off the site. The More Intense Alternative would be expected to have similar impacts to the Multiple Master Plans Alternative, and result in a greater impact to the noise environment.

Alternative Five represents the only alternative which would not impact the noise environment.

3. Mitigation Measures

Regulations on noise sources will reduce noise generated by industrial and commercial activities. Heavy industrial uses, which could possibly create substantial noise impacts, will not be permitted in the Master Plan.

Encouraging the use of alternate transportation, as described in Section III-2-F, Traffic and Circulation, would be the best way to reduce noise and its impacts from motor vehicles. The use of vegetation and tree buffers along major roadways can also help to reduce noise.

Additional mitigation measures include:
- All construction activity shall be undertaken between the hours specified in the City of Poulsbo Municipal Code, as amended, except in the case of an emergency, in which case the hours of operation shall be determined by the City Engineer.
- All construction equipment shall be fitted with well maintained functional mufflers.
- To the greatest extent possible, earth moving and hauling routes shall be located away from adjacent residential properties. Said routes shall be approved by the City Engineer prior to the issuance of grading permits.
- As part of phased review, the Planning Director shall determine whether special noise attenuation measures are required, including berms and walls if necessary, in order to ensure compliance with maximum permissible noise standards established by the City and the State of Washington.
- Any use proposed on the project site which would represent an on-going significant noise source shall be required to perform on-site noise monitoring and noise modeling prior to the review and approval of the specific use.
- Should any sensitive receptor be proposed for the project site adjacent to the SR-3 right-of-way, the applicant shall be required to perform on-site noise monitoring and noise modeling prior to the review and approval of the specific use.
- During construction, the provisions of WAC 173-60-050(3)(a) shall apply.

H. Light and Glare

1. Existing Conditions

Effective lighting improves the legibility of critical nodes, landmarks, and the circulation of activity zones within highly landscaped areas. It can also help to facilitate the safe movement of pedestrians and vehicles, creating a more safe and secure area, while encouraging nighttime use of typically daytime facilities. Conversely, light impacts within and outside a project can be detrimental if not properly mitigated.

Glare is illumination that tends to cause annoyance, discomfort, and sometimes a brief loss of vision. Glare can be produced by any scale of light fixture, including very small step lights. For the safety of the project and adjacent business and property owners, it is important that glare be kept to an insignificant

level. This can be done by carefully locating lamps and aligning reflectors, thus effectively eliminating intense high-angle light. Mounting height, fixture type, and lamp intensity must be carefully selected to optimize light distribution which will minimize glare.

The City of Poulsbo's Zoning Ordinance regulates lighting specifications that shall be followed in all areas of the City. Within its Development Standards Chapter it is pointed out that "Exterior lighting shall be energy-efficient and shielded or recessed so that direct glare and reflections are contained within the boundaries of the parcel, and shall be directed downward and away from adjoining properties and public rights-of-way. No lighting shall blink, flash, or be of unusually high intensity or brightness. All lighting fixtures shall be appropriate in scale, intensity, and height to the use it is serving."

The unit of intensity of a light source in a specific direction is often referred to as candlepower. One candle, or candela, directed perpendicularly to a surface one foot away generates one footcandle of light.

The proposed project area is currently vacant and undeveloped and no light sources occur.

2. Impacts

According to the SEPA Environmental Checklist for the Olhava Property, the proposed project will result in increased automobile glare during the morning hours due to the site's general eastern orientation. During the evening hours, some headlight glare will occur from vehicular traffic. Additionally, light sources from parking areas may produce some low-level flaring. Still, it has been determined that light and glare from the proposed project will not be a safety hazard or interfere with views.

Within the proposed project, light and glare will be created primarily by parking lot, landscaping and automobile lights. The project can be expected to generate a considerable amount of light, particularly in the commercial and business park nodes. The impacts of this lighting, however, will primarily occur within the project site, and can be mitigated through appropriate design. The structures within the project itself, as well as the project landscaping, will help to block lighting from adjacent properties.

Additional impacts can be created to surrounding properties, particularly from security lighting located on commercial structures along the western boundary of the northerly acreage. Additionally, the multi-family residential portions of the project, along the northern and western property lines of the northerly acreage, and in the northern half of the southerly acreage, will require parking lot illumination for public safety. The impacts of these lighting sources can be lessened through careful design and limitations on the level of illumination. The proposed project, and the mitigation measures included in this EIS, require 50 foot vegetative buffers. Mitigation is included below to further limit the impact of lighting to adjacent properties in this area.

Olympic College

The only site specific project which has undergone design on the proposed project is the Olympic College campus. The College has established its lighting plan, and proposes the following.

Exterior lighting for the facility will include parking lot lighting provided by pole mounted high intensity discharge (HID) fixtures with metal halide lamps, designed and located for staff and student safety. Metal halide lighting also helps to minimize spillage to adjoining properties. To allow for a higher degree of safety for the college, an average of two foot candle intensity will be installed. Fixtures will be located so that lighting patterns overlap, minimizing dark areas on campus.

Light Impacts from State Route 3

The greatest impact on the proposed project from off-site light sources occurs from SR-3. The site's location above the roadway, however, should mitigate the potential for light and glare on the property. In

addition, the vegetation and/or landscaping proposed on the project perimeter will help to diffuse and block lights from the roadway.

Glare
Glare can often be caused by the reflection of a light source into another surface. On the project site, the primary potential for glare will be reflection from one vehicle or the other, and from a vehicle to a structure's surface. Without mitigation, glare from structural surfaces can have a significant impact.

Any lighting on the proposed project creates an impact, since the site is currently undeveloped. As the area urbanizes, however, light sources can be expected to increase throughout the area. The new light sources will add incrementally to ambient light levels in the northwest portion of the City.

Alternatives
With increased development potential glare and increased lighting can be considered an unavoidable impact. All development-related alternatives would increase light and glare, however, the More Intense Alternative would have the greatest impacts with its contribution of 1,100,000 square feet of commercial development and 435,000 square feet of business park development.

The Multiple Master Plans Alternative would be developed by un-associated property owners who might not consider the light and glare issue with respect to the entire property area and how each development would affect the other. The Less Intense Alternative would contribute the least amount of commercial and business park development, and therefore probably the least amount of impacts due to lighting.

The proposed project is in the middle range of impact of the four development-related alternatives, adding 325,000 square feet of business park development and 840,000 square feet of commercial development-lower than both the Multiple Master Plans Alternative and the More Intense Alternative.

The Olympic College site would be developed in all four development-related alternative scenarios, contributing nighttime lighting. Both the proposed project and the Less Intense Alternative would contribute the least amount of college square footage and full-time students. At 50,000 square feet and 900 full-time students these two alternatives are proposing half the amount when compare to the Multiple Master Plans and More Intense alternatives. A lighting plan has been developed taking into consideration the types of lighting to be used and how possible glare can be eliminated.

Alternative Five would have no impact on light and glare, since no development would occur. Current conditions would continue.

3. Mitigation Measures

Proposed Mitigation In The Master Plan

Residential lighting will be screened by the trees that are retained and proposed within the landscaping phase. Street lighting and commercial parking area security lights are proposed to have "cutoff optics" or blinders, that would focus lighting patterns to the area of the site where light is needed, preventing light from shining to adjacent properties, thus eliminating much of the glare the project could create.

Additional mitigation measures include:
- To prevent glare, all exterior lighting shall be shielded to illuminate only the area directly under it.
- Light posts located in parking lots shall not be taller than surrounding structures, and in no case shall light posts exceed 30 feet in height. Lighting affixed to the outside of structures shall not be located above 30 feet from the surrounding grade.
- Other than signage and other surfaces installed by public agencies (including the City and the Department of Transportation) reflective surfaces shall not be permitted adjacent to project or off-site

roadways.

- Lighting systems designed for safety and security shall meet the requirements of the Energy Code.
- All primary streets should be adequately illuminated to provide for the safety and comfort of vehicular and pedestrian movement.
- Metal halide lighting shall be used in areas prone to glare, since metal halide lighting minimizes spillage to adjoining properties.
- To prevent glare, light fixture intensities above 75 degrees from the light post or within 15 degrees of horizontal shall be restricted.
- The alignment of light fixtures shall be positioned in a consistent and recognizable pattern creating unobscured views which reinforce the direction of circulation patterns, and clearly mark the location of intersections.
- To create a safer environment, limiting possible crime occurrences, intersections, bus stops, steps, service and employee areas, enclosed corridors and alleyways shall be illuminated appropriately.