

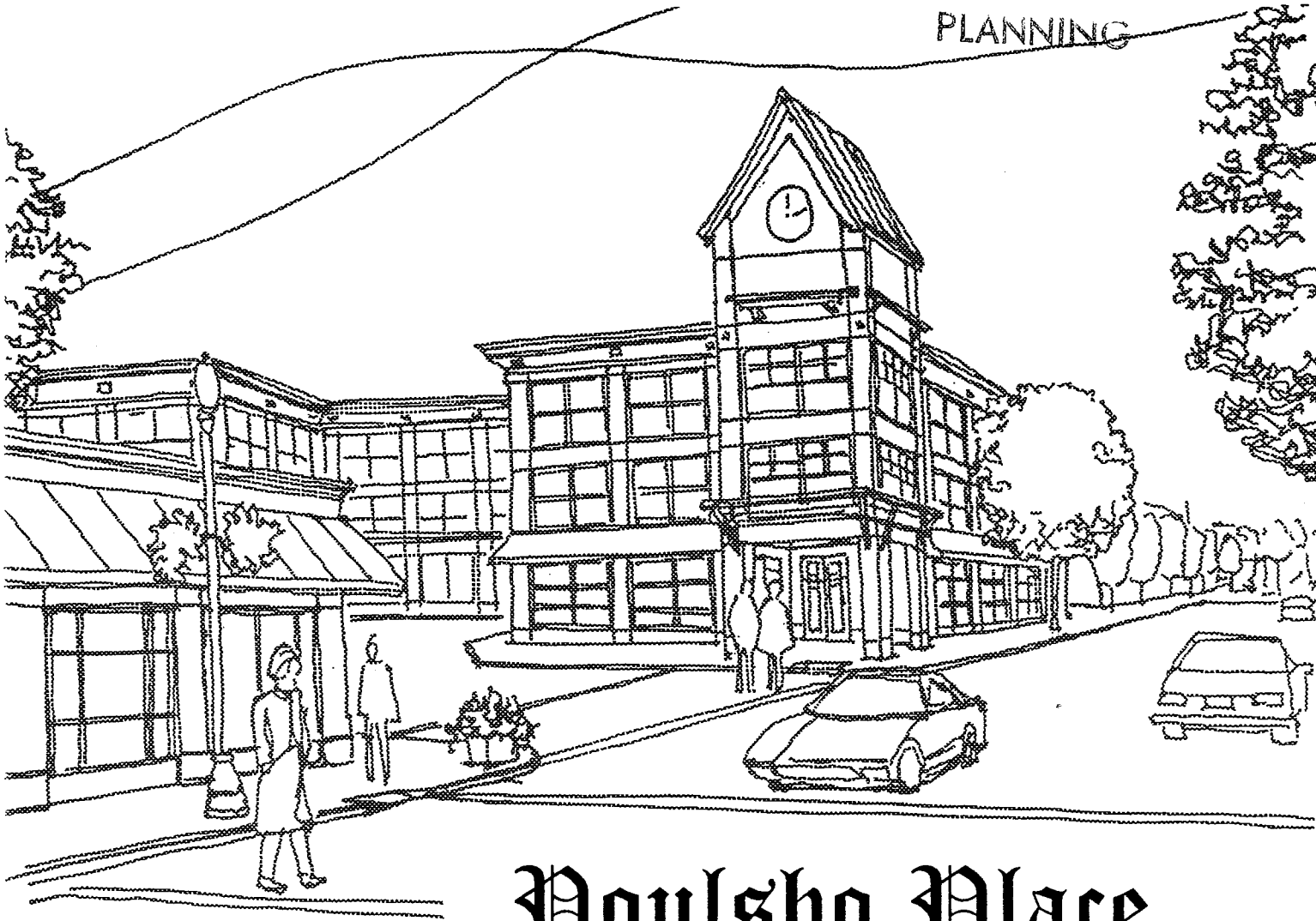
# **EXHIBIT O**

**Poulsbo Place Redevelopment Master Plan (1995)**

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PLANNING



# Poulsbo Place

**Redevelopment Master Plan Submittal**  
for a Mixed-Use Development in Downtown Poulsbo, Washington

August 21, 1995

Prepared for:  
**Poulsbo Group**

Prepared by:  
**Weisman Design Group Inc., P.S.**

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GEOTECHNICAL  
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\*Attachments under separate cover:

- A. Traffic Impact Analysis Computations
- B. Preliminary Storm Drainage Computations

## II Executive Summary

### A. Redevelopment Master Plan Project Summary

- Location: North of downtown Poulsbo along Jensen Way and Sunset Street, Poulsbo, Washington
- Site Area
  - 36.5 Gross Acres
  - 31.7 Net Acres (without R.O.W.)
- Proposed Land Uses
  - Commercial Area 10.5 Acres
  - Residential Area 15.1 Acres
  - Transitional Area 6.1 Acres
  - (Residential or Commercial)
- Residential Summary
  - 15.1 Acres @ 15 d.u./Acre 226 maximum units
  - 6.1 Acres @ 22 d.u. /Acre 134 maximum units
  - (calculations are based on the transitional area being developed as residential)
- Utilities
  - Storm Water Drainage: Three drainage basins, two flow directly to Liberty Bay and one flows into storm water system. Detention and water quality treatment is proposed.
  - Sanitary Sewer: New sanitary sewer system to connect to existing to serve new units consisting of PVC pipe is proposed.
  - Water: Existing water supply system is adequate to meet the needs of the project.
- Critical Areas
  - Limited steep slopes occur on the eastern slopes of the site. These areas will generally remain as open space.
- Recreational Components
  - Per the City of Poulsbo Zoning Code
- Road Improvements
  - Jensen Way and Sunset Street will be improved with standardized road section, on-street parking, sidewalks and planting areas
- Design Guidelines
  - Design Guidelines have been prepared for residential and commercial development. Guidelines are closely modeled on development guidelines included in the Poulsbo Zoning Code.
- Site Plan Alternate Components
  - Commercial:
    - 113,000 s.f. Office
    - 35,000 s.f. Retail
    - 48,000 s.f. Hotel/Conference Center
    - 20,000 s.f. Community Entertainment
  - Residential:
    - 294 Residential Units consisting of single units, duplex, triplex and multi-family buildings

### III Summary of Approval Process and Proposed Schedule

Event	Date
A. First Pre-Application Conference	04/27/95
B. Second Pre-Application Conference	08/03/95
C. Filing of Application	08/23/95
D. Completeness Review	09/20/95 *
E. Submittal of Required Additional Information	10/18/95
F. SEPA Threshold determination	11/02/95 *
G. Planning Commission Review - Public Hearing	01/03/96 *
H. City Council Meeting and Plan Approval	01/18/96 *

- \* Time line is approximate and is based on Timeline outlined in the August 11, 1995, letter from Glen Gross, Planning Director.

## IV Introduction to the Redevelopment Master Plan

### A. Scope and Intent

Certain to become a model for other communities, the City of Poulsbo is showing the foresight necessary to deal with the opportunities and challenges presented by the influx of new residents into the Puget Sound region. Responding to the tenets of House Bill 2929, the Growth Management Act and the Vision 20/20 Conference, the City has established an urban growth area with downtown Poulsbo at its core to encourage infill development.

The Poulsbo Place site is ideally located for infill development to help ease the housing shortage in the Poulsbo area. Located within walking distance of most business and community facilities, the project strives to achieve a pedestrian orientation with extensive pedestrian connections and amenities.

The pages that follow include a summary of the Poulsbo Place Project which is being submitted to the City of Poulsbo for both environmental review and for approval as a Redevelopment Master Plan. This document is more than a simple application. It is an integrated document which will guide the development of Poulsbo Place over time to assure that the sense of human scale and richness which is so much a part of the City of Poulsbo character is captured in the new development. This document describes the background for the project, proposed land uses, design guidelines and a possible scenario for development.

\* The Redevelopment Master Plan (R.M.P.) concept is intended to provide flexibility in the design and distribution of uses to attain a greater overall benefit than what would be achieved by a strict application of a particular zoning designation. The Plan is designed to be consistent with the goals of the Poulsbo Comprehensive Plan.

### B. Goals

1. Facilitate the redevelopment of the "Poulsbo Place Site", hereafter to be referred to as "Site", currently in need of substantial renovation and reconstruction;
2. Ensure redevelopment of the Site will produce attractive, high quality development and site improvements;
3. Ensure redevelopment will result in improvements which will enhance this Site and the adjoining residential and commercial areas
4. Ensure traffic, stormwater runoff, limitations of sewer capacity, loss of open space, loss of residential units and other impacts of redevelopment will be evaluated and mitigated on a comprehensive, planned basis.
5. Ensure redevelopment is consistent with the goals, objectives and policies of the Poulsbo Comprehensive Plan.

### C. Objectives

1. Absorb demand for housing in an in-city urban in-fill site with existing infrastructure to reduce the sprawl in undeveloped areas.
2. Create a transportation component as an integral part of a safe efficient and economical transportation system.
3. Encourage the availability of affordable housing by allowing for a variety of residential densities and housing types.
4. Encourage the preservation and restoration of existing housing stock.
5. Encourage development to complement the existing urban development in downtown Poulsbo.

6. Preserve sensitive areas.
7. Allow for incremental development in a logical and appropriate sequence.
8. Allow for flexibility in the final development product to acknowledge the realities of demographics and other market influences.
9. Protect the environment, including air and water quality, and the availability of water.
10. Ensure the infrastructure necessary to support development is in place when development is available for occupancy.

#### D. Policies

1. The development shall preserve the small-town character of Poulsbo through the use of complementary architectural style and appropriate densities.
2. The development shall integrate into the greater transportation system on both a vehicular and pedestrian level.
3. A variety of housing types and densities shall be provided, with the highest densities adjacent the commercial areas.
4. The renovation of existing units shall be considered along with new construction alternatives.
5. Any development shall comply with the City of Poulsbo Critical Areas Ordinance.
6. All infrastructure necessary for each phase shall be installed prior to occupancy of that phase.
7. Designated Open Space Lands shall be preserved in perpetuity.



## **V Project Background**

### **A. The Setting**

As Kitsap County continues to develop into a major growth area, the City of Poulsbo has recognized the need to provide a coordinated framework for guiding growth and transportation actions over the next 30 years. The City of Poulsbo is ideally located to provide a direct link to the urban core of downtown Seattle and the growth centers of Silverdale, Bangor and Keyport.

### **B. The Downtown**

Downtown Poulsbo has retained its small-town character while providing for more urban growth patterns which characterize larger cities. As the City downtown has developed, it has implemented planning policies which encourage pedestrian usage in the downtown with widened sidewalks, overhangs to provide cover from rain, detailed paving, lighting and street furniture.

### **C. The Site**

The Poulsbo Place property consists of approximately 31.7 acres. It is 2,200 feet long by 1,300 feet wide in an irregular configuration. The lowest elevation on the site is 48 on the South side of the site and it rises to an elevation of 196 on the Eastern side of the site. The land slopes to the West to provide ideal orientation for sun and panoramic views to Liberty Bay and the Olympic Mountains.

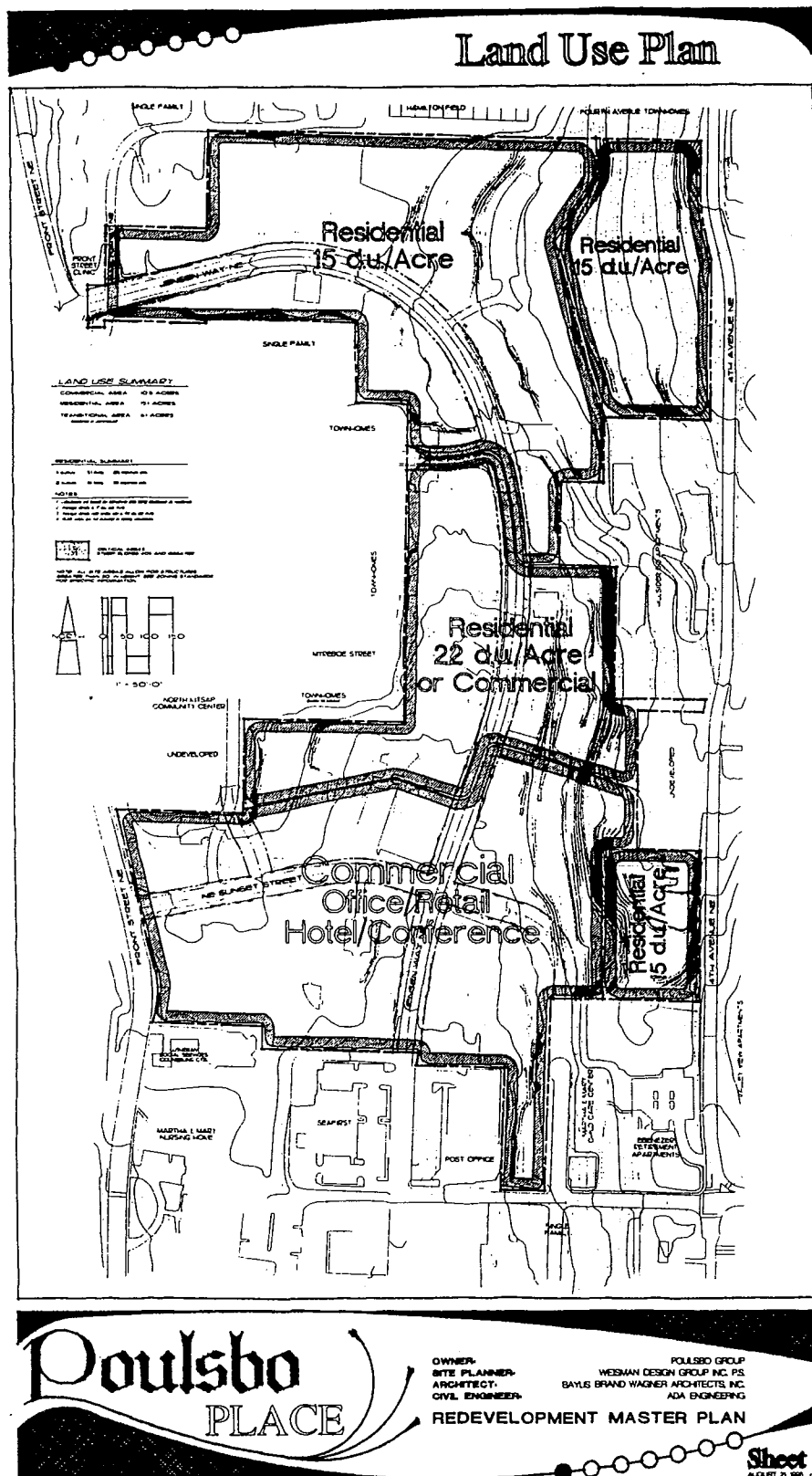
### **D. Access**

Poulsbo Place has a favorable relationship to major access points which serve as the conduit between Silverdale and downtown Seattle. The Poulsbo Place site can be accessed from two main routes, via Front Street and from downtown Poulsbo via Jensen Way.

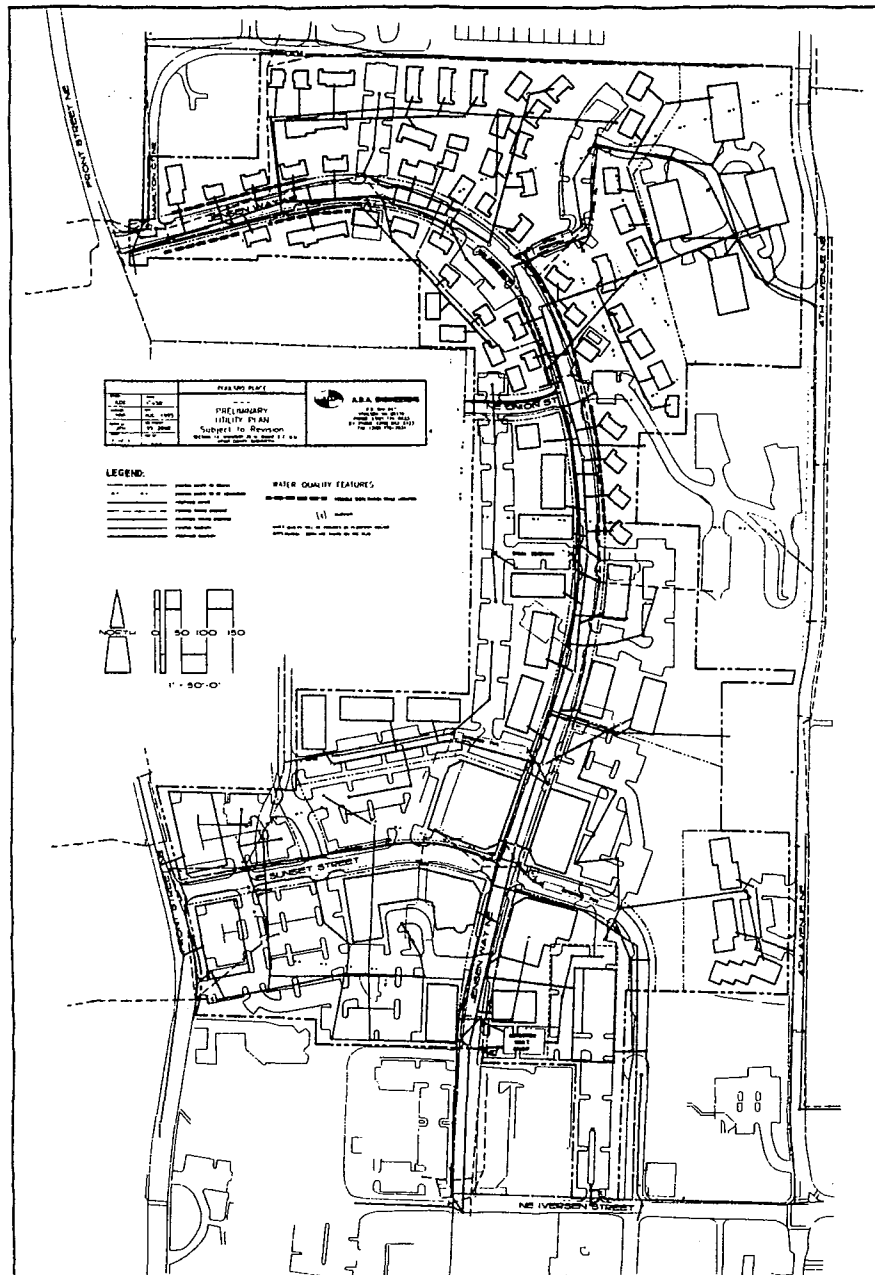
### **E. The Project**

The developers of Poulsbo Place, were actively encouraged by the City in their proposed development located along Sunset Street and Jensen Way near the heart of downtown. After initial consultation with City Officials, the project is proposed as a mixed use concept incorporating commercial and residential components on the 31.7 acre site. The site plan incorporates the commercial components in the southern portion of the site to enhance a natural relationship with the city center and incorporates the residential component to the north to transition to existing residential development. Density is highest adjacent the commercial area and transitions to a lower density to the North.

As the Redevelopment Master Plan site plan suggests, Poulsbo Place is a large and complex project. Each component of the plan was carefully thought out to contribute to the greater whole.



# Preliminary Utility Plan



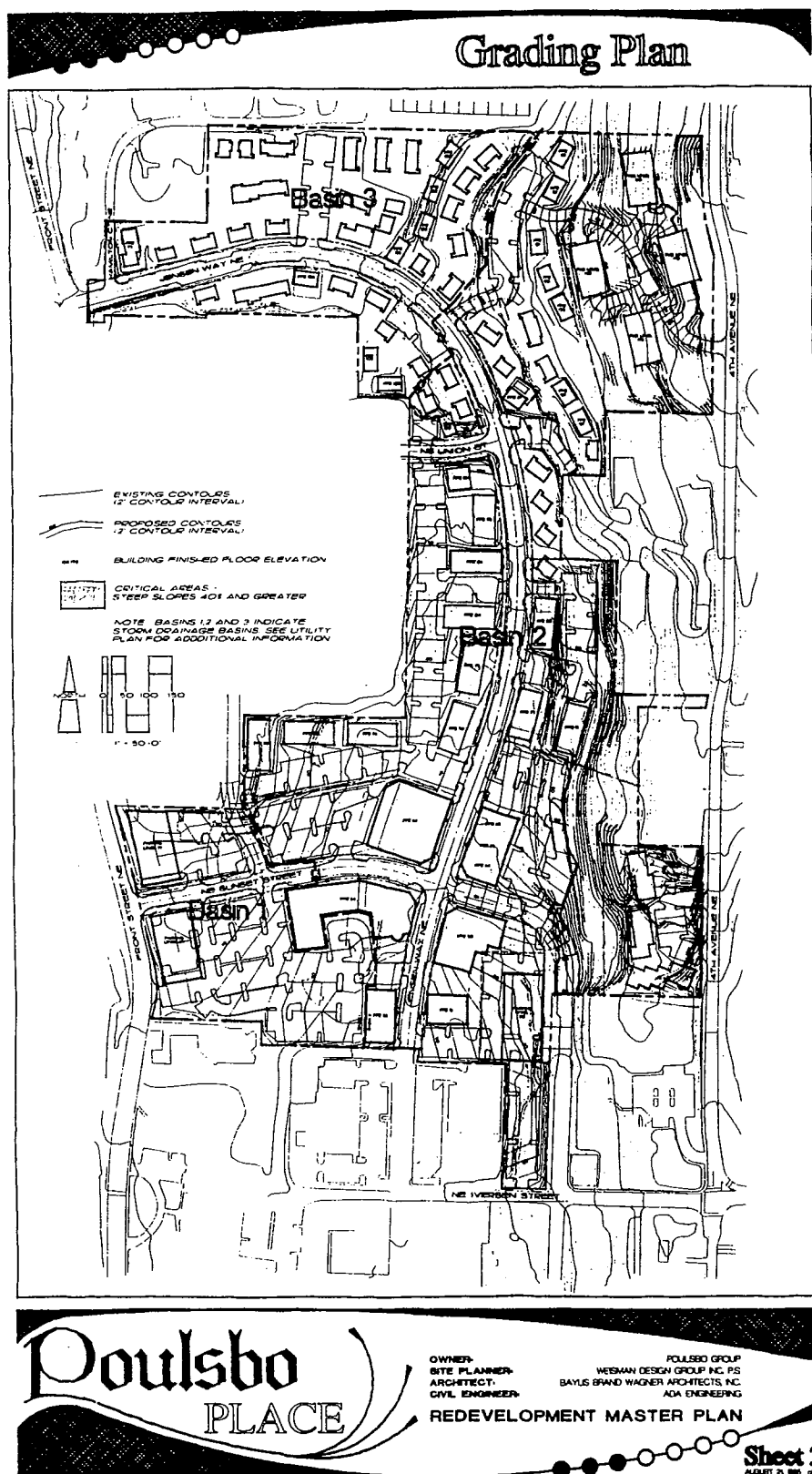
**Doulsbo**  
PLACE

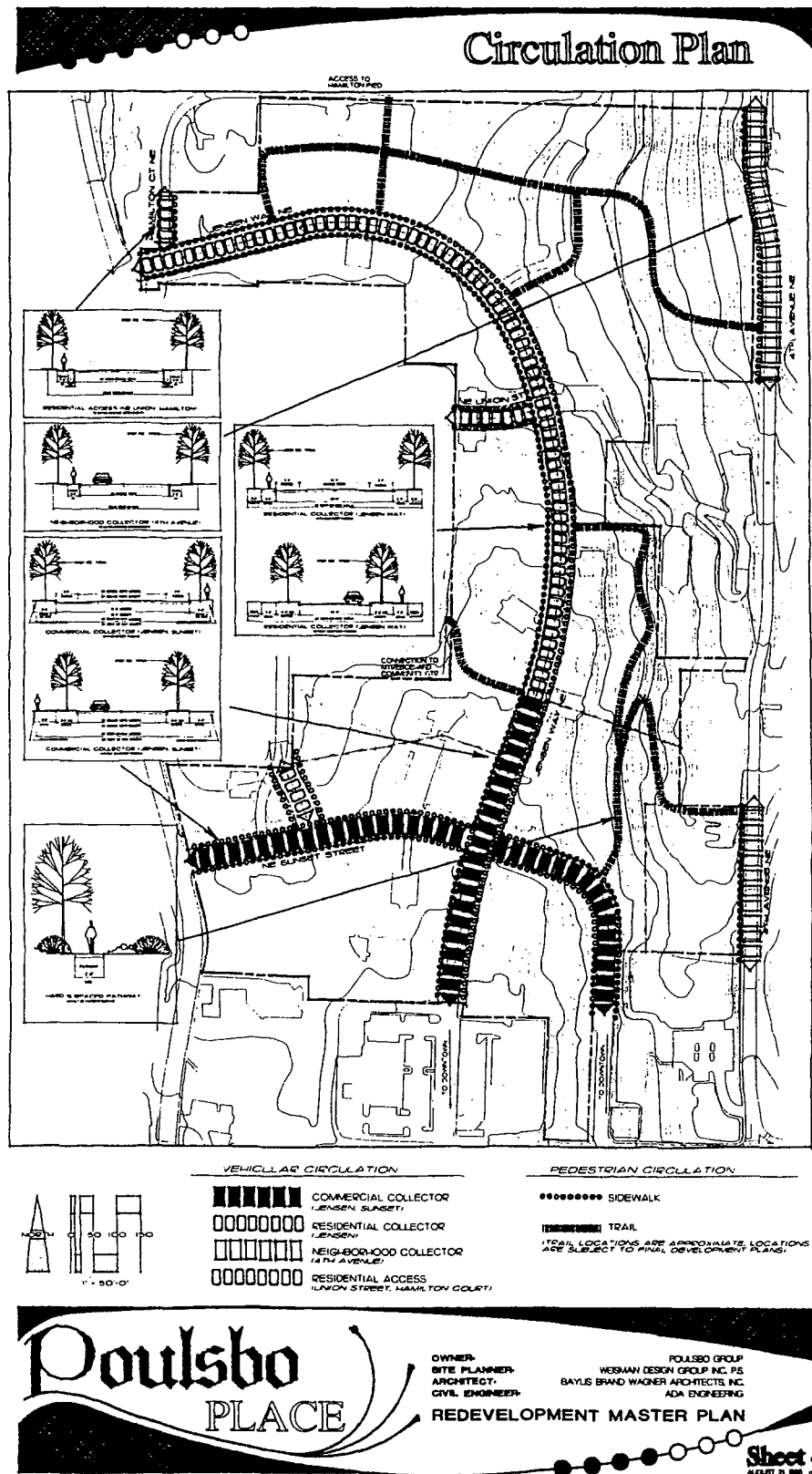
OWNER:  
SITE PLANNER:  
ARCHITECT:  
CIVIL ENGINEER:

POULSEN GROUP  
WEISMAN DESIGN GROUP INC. P.S.  
BAYLUS BRAND WAGNER ARCHITECTS, INC.  
ADA ENGINEERING

REDEVELOPMENT MASTER PLAN

**Sheet 2**





## VI Design Guidelines

In keeping with the desire to blend into the existing community the design guidelines are based on the design guidelines included in the Poulsbo Zoning Code. Specific revisions, additions and deletions are included to insure a higher standard for this unique project.

The design guidelines are intended to facilitate the development of a pedestrian oriented community with a high degree of amenity and character.

### A. General Objectives

1. To encourage high quality, unified architectural design and planning within a mixed use community plan.
2. Complement downtown Poulsbo activity and town character north to Jensen Way N.E. and N.E. Sunset Street and create a relationship between Poulsbo Place and Downtown.
3. To encourage diversity of building styles while maintaining a sense of community through implementation of a master plan and the use of common elements such as street features, canopies, siting/access relationships and landscape design amenities.
4. To allow for incremental growth within an overall Master plan.
5. Orient building and landscaping to minimize visual impact of on-grade parking.
6. Site buildings to take full advantage of views, access and open space.
7. To encourage energy conservation through energy efficient building siting, design, construction and operation.

### B. Guidelines

These Design Guidelines are based on the Downtown Core Area and Multi-Family Development Design Guidelines. The reference document is the Zoning Ordinance of the City of Poulsbo, Washington adopted December 28, 1994. Generally applicable City standards in effect on the submittal date which have not been specifically revised below shall apply to the Poulsbo Place Redevelopment Master Plan.

#### 1. Commercial Area Design Guidelines

The design guidelines for the commercial area are based on the Downtown Core District Development Standards.

**The following replaces Chapter "18.33.000 Downtown Core District":**

#### **18.33.010 Purpose**

The purpose of these design guidelines is to provide a comprehensive set of development standards to be applied to the Poulsbo Place Redevelopment Master Plan Area.

These design guidelines are established in order to achieve the following objectives for the Poulsbo Place Project:

1. Complement the existing, historic Scandinavian theme and architectural style of the Downtown Core District.
2. Generate pride and confidence in Poulsbo Place as a vital and successful part of the Poulsbo community.

3. Create an attractive environment.
4. Maintain a consistently high level of design quality.
5. Encourage pedestrian activity by protecting pedestrian circulation within the area.
6. Protect property values through quality control.
7. Enhance the tourist commercial activity generated by the quality and diversity of shopping and the character of the downtown core area.

#### **18.33.020 Applicability**

These design guidelines apply to the commercially zoned areas of the Poulsbo Place Redevelopment Master Plan Area.

The Standards contained in this section apply to all uses and structures in the commercially zoned area of the Project and are in addition to the other standards proposed in this document.

#### **18.33.030 Permitted and Conditionally Permitted Uses:**

Uses permitted or conditionally permitted within this District shall be the same as those for the underlying zoning standards as defined in this document, unless otherwise prohibited in this Section. Processing of all applications shall be in conformance with the requirements of the Poulsbo Place Redevelopment Master Plan.

#### **18.33.040 Development Standards**

##### **1. Setbacks**

A. Commercial buildings located on Jensen Way and Sunset Street shall be exempt from front yard setbacks as provided for in Commercial District and Development Standards, Chapter 18.22 of this Zoning Ordinance.

Commercial buildings on Jensen Way and Sunset Street shall be encouraged to design buildings adjacent to the front property line, to maintain the existing style of the area, except as provided in Sub-section 3 below (Courtyard/Square Provisions).

B. In all other areas of the Poulsbo Place Redevelopment Master Plan Area, the setbacks in the zoning standards included in this document shall apply.

C. Awnings, trellises, permanent building canopies, and other accessory structures which are relatively open and do not restrict pedestrian or vehicular movement may project into the right-of-way.

D. Any building located at a corner intersection shall incorporate architectural features at the ground floor which emphasize the importance of pedestrian movement. These features may include building cut-offs, walk-through covered arcades, trellis structures, and other elements which focus visual interest on the corners.

##### **2. Parking Orientation**

- A. Parking lots and structures shall be located as much as possible to the rear of buildings.

- B. Locating parking lots between the front property line and the primary building storefront/entry is specifically prohibited.
- C. Vehicular entry points to parking lots shall receive special paving accents where the drive crosses the public sidewalk.
- D. Off-street parking facilities shall be designed so that a car within a facility will not have to enter a street to move from one location to any other location within the same parking facility.
- E. Open air surface parking shall be screened with landscaping, fences, wall, or other devices from pedestrian routes and adjacent streets.
- F. Open air surface parking lots shall have both perimeter and interior landscaping. Existing significant trees shall be retained or replaced at a ratio of 3 new trees for each existing tree removed.

### **3. Courtyard/Square Provisions**

Front setbacks are allowed at the ground level on Front Street if the area is designed as a pedestrian courtyard or square. To qualify as a pedestrian square, the following minimums shall be incorporated into its design.

- A. Paving: The area to be paved shall be paved in a decorative brick or textured, colored concrete. Asphalt paving is prohibited as a primary courtyard paving material. (Paths or other accents are allowed as asphalt.) If the pedestrian square is not to be used for active retailing or restaurant use, it shall be maintained as an urban park area, with benches, waste receptacles and similar features for use by the general public.
- B. Landscaping: Landscaping is required per Chapter 18.55.
- C. Walls: An optional low wall (max. 30 inches high) may be located on the property line for restaurants or other uses utilizing the plaza for active retailing or other entertainment use.
- D. Lighting and wall treatment shall be designed to complement the scale, location and typical use of the space.

### **4. Streetscape Improvements**

Developers of new projects or rehabilitation projects with a value above 50% of the current assessed value of the property improvements are required to provide for streetscape improvements similar to those currently constructed on Front Street, to the satisfaction of the Director and the City Engineer. Such improvements shall include enhanced paving on sidewalks, parking pockets, landscaping and street lighting.

### **5. Architectural Design (General)**

- A. Storefront construction shall be a minimum of 60% transparent with a maximum of 85% transparency.
- B. Blank, opaque end walls or side walls visible from public view shall be avoided. If such walls are necessary for interior reasons, the structure wall shall receive some form of articulation or "add-on" elements such as awnings, cornice bands, etc.
- C. The facades of adjacent structures shall be considered in the design of



new projects to avoid clashes in architectural style and materials.

D. Acceptable Materials:

**Building Walls**

- clear glass (pedestrian level only), glass block
- horizontal clapboard, board and batten
- plaster (lightly troweled or sand finish)
- new or used face-brick
- cut or carved stone
- concrete
- textured concrete block
- stone tile
- ceramic tile

**Roofs**

- tile
- cedar shake or shingle
- slate or slate appearing substitutes
- board and batten
- metal - batten
- metal - standing seam
- metal - tile

**Fences/Walls/Gates**

- wood, picket, split rail or similar
- new or used face brick, cut or carved stone
- concrete or plaster with smooth or lightly textured surface
- wrought iron
- steel ornamental
- fiberglass ornamental
- vinyl ornamental
- vinyl coated metal ornamental

Or other materials found acceptable by the Planning Director

- E. Facades shall incorporate rich, vivid, accent colors to provide interest within the total palette of materials and colors on a facade. Likewise, detail recognizable by the pedestrian shall be incorporated into the building facade to help provide a relationship between the building and its community context.

**6. Canopies and Awnings**

- A. Canopies and awnings must respect the style and character of the structure on which they are located, particularly in the material and color.
- B. The highest point of a first floor canopy or its superstructure shall not be higher than the midpoint of the space between the second story window sills and the top of the first floor storefront window, awning, canopy or transom. The purpose of this requirement is to leave a comfortable space between the top of the canopy and the windows, trim, and other architectural elements.
- C. Canopies are encouraged to shelter all openings of each building from sun and rain at the bottom floor. Awnings are allowed on upper floors.

- D. The minimum height of a canopy or a sign hung from a canopy over a pedestrian walkway shall be 8 feet from the lowest point to the sidewalk.
- E. Where fabric awnings are used the material shall be 100% opaque and not greater than 50% of frontage length.

## **7. Doors and Windows**

- A. The design and location of doors and windows must conform to the architectural tradition of the historic downtown area. Use simple wood and glass doors and windows of traditional design. If aluminum, plastic or vinyl is used, it shall be simple in design with a dark anodized or baked enamel finish.
- B. Only clear glass may be used on the first floor. Tinted glass allowing a minimum of 50% light transmission will be considered only for use in second floor windows and above on an individual case by case basis. The use of reflective glass is prohibited.
- C. Storefront windows must be as large as possible while maintaining height standards for bulkheads. maximum bulkhead heights for new construction shall be 42 inches. Minimum bulkhead heights shall be 24 inches. Existing buildings are encouraged to retrofit within height range.
- D. Replacement windows must always fill the entire opening or be enhanced to match the traditional style.
- E. Security grilles, either fixed or sliding, are prohibited on the exterior of doors and windows on the fronts or sides of structures adjacent to streets. If such security systems are justified they must be placed on the interior of the building a minimum of 24 inches behind windows and doors.

## **8. Lighting**

- A. Lighting is an integral part of the Poulsbo Place design concept and a major element in creating a unique, safe, and exciting night-time ambiance. All exterior lighting shall be designed as part of the overall architectural concept. Fixtures, standards and all exposed accessories shall be harmonious with the building design, the lighting design and hardware of the public spaces, and the overall visual environment of the downtown. Obtrusive appearance of their setting should be avoided.
- B. Night lighting of buildings shall be selective and focused; overall ambient lighting of buildings is not desirable. Rather, lighting should highlight entrances, dramatize special architectural features, keynote repeated features, and use the play of light and shadow to articulate the facade. The creative use of lighting to accomplish these ends is strongly encouraged.
- C. For safety, identification and convenience, entrances of buildings and parking areas shall be well illuminated.
- D. Vestibules created by recessed entries shall be illuminated by downlights.

- E. All show window areas shall be adequately lighted employing concealed or baffled sources which will not create glare or unsafe visual conditions for pedestrians.

## 2. Residential Area Design Guidelines

The design guidelines for the residential area are based on the Multi-Family Residential Design Development Standards.

### **The following replaces**

### **Chapter "18.21.050 Development Standards, Multi-Family Residential Design":**

#### **1. Purpose**

The purpose of these design guidelines is to serve as a reference to assist the designer in implementing the goals of the Poulsbo Place Redevelopment Master Plan for high quality residential development. The guidelines complement the mandatory site development regulations contained in the Zoning Standards in this document.

Design guidelines are general and are meant to be interpreted with some flexibility in their application to specific projects. The guidelines will be utilized during the City's design review process to encourage the highest level of design quality while at the same time providing the flexibility necessary to encourage creativity on the part of the project designers.

The implementation of these guidelines is essential to affect a high quality of development for Poulsbo Place. Unless a compelling reason is demonstrated for variance to the Planning Director, these design guidelines shall be followed. The Planning Director's decision may be appealed to the Planning Commission and City Council.

#### **2. Applicability**

This section shall apply to all residential development within the Poulsbo Place Redevelopment Master Plan Area. Any addition, remodeling, relocation or construction requiring a building permit subject to review by the Director or review authority shall adhere to these guidelines where applicable.

#### **3. Multi-Family Site Planning**

Because of their higher densities and their shared amenities and services, multi-family and cluster housing tend to generate large parking areas and decreased private open space. Parking structures and open parking spaces can dominate the site and recreational open spaces may be relegated to left over areas that address setback requirements, but are not related to the residences or the people who live there.

Residential developments surrounded by high walls, parking lots, and rows of carports along public streets are examples of practices to be used only in limited and special circumstances. Un-buffered perimeter parking and drives are discouraged, since they present a poor image of the project and often function as a barrier between the project and the surrounding community.

The guidelines that follow are intended to help mitigate these and other negative impacts and to provide a pleasant residential environment within the context of higher density development.

**A. Building Articulation**

Buildings should be designed to present elevations that are varied yet coherent. Long, unbroken facades and box-like forms should be avoided. Building facades shall be broken up to give the appearance of a collection of smaller structures tied together through a unifying set of characteristics. Building function and visual interest can be enhanced through the use of balconies, porches and stoops, setbacks and projections, which help articulate individual dwelling units or collections of units, and by the pattern and rhythm of windows and doors.

**B. Clustering of Units**

Multi-family development is characterized by the clustering of groups of units within one building and under one roof. Clustering should be consistent with the overall site planning principles being applied to the site. Structures composed of a series of simple yet varied planes assure compatibility and variety in overall building form. Clustered unit design must be developed in a manner that integrates grading respectful of the existing topography, automobile circulation, emergency vehicle access and movement, storage and access to each unit.

**C. Entry Drives**

Entry drives shall serve as principal vehicular accesses into multi-family developments rather than as parking drives, with parking somewhat segregated from entry drives. Drives shall be located a sufficient distance from intersections to minimize conflicting traffic patterns and to assure adequate lines-of-sight distances.

**D. Parking Areas and Garages**

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 10 feet wide.

Individual parking garages within residential structures should be enclosed behind garage doors. Garages with parking aprons less than 20 feet in length should have automatic garage door openers and/or sectional roll-up doors.

Incorporating required parking underneath buildings shall be encouraged. Design of the under building parking shall use topography as much as possible to screen parking from view i.e. burying one side of parking level into the hillside of a sloping lot.

**E. Carports**

Where carports are utilized, they must follow the same criteria for spatial arrangement as parking areas above. Carports may be incorporated with walls or used to define public and private open space, but incorporating carports into exterior project walls adjacent to streets is strongly discouraged. The ends of each cluster of carports should be landscaped.

**F. Pedestrian Access to Parking**

Landscape bulbs should, whenever possible, align with major building entrances to provide pedestrian access to the building entrance from a parking area. Bulbs that align with entrances should be at least 10' wide and

should include a pathway as well as a vertical landscape or architectural element, for example, a trellis or a tree.

#### **G. Alternative Transportation/Transit**

All multi-family projects should incorporate pedestrian access, alternate transportation and transit facilities into the circulation system. Special attention should be placed on pedestrian access to adjacent land uses, including schools and commercial areas. Trails or walkways to these areas should be included wherever possible, and can be located outside the street right-of-way or sidewalk. Bicycle facilities shall be required as provided in Chapter 18.52, Off-Street Parking Standards.

A transit stop with a rain shelter, benches and expanded sidewalk shall be provided near the center of the residential area or in a location agreed upon with Kitsap Transit.

#### **H. Open Space**

Residents of multi-family projects should have safe and efficient access to usable open space, whether public or private, for recreation and social activities. The design and orientation of these areas should take advantage of available sunlight and should be sheltered from the noise and traffic of adjacent streets or other incompatible uses.

Required common open spaces should be conveniently located for the majority of units. Private open spaces should be contiguous to the units they serve and screened from public view. Projects should have secure open spaces and, when appropriate, children's play areas that are visible from the units.

Proposed development should be designed to preserve existing stands of trees.

#### **I. Refuse Storage/Disposal**

Refuse storage, transfer and disposal facilities shall be enclosed within six-foot high structures designed in accordance with City standards and those minimal requirements of the disposal service purveyor, and should include recycling facilities whenever possible. Locations should be conveniently accessible for trash collection and maintenance and should not block access drives during loading operations.

#### **J. Auxiliary Facilities**

Support structures within multi-family residential projects, such as laundry facilities, health spa and recreation buildings, pool cabanas and sales/lease offices, shall be consistent in architectural design and form with the rest of the complex. Temporary sales offices should also be compatible with these guidelines.

#### **K. Site Grading**

Pre-Development planning conferences/consultations shall be held between developer and City Engineer's staff prior to the preparation of development and grading plans intended for submittal to the City for approval. Planning development and grading strategies shall reflect the City's desire to minimize site disturbances and to enhance open space in all development. In areas with slope, development planning shall follow site contours to the greatest extent practical. Site grading shall also recognize existing drainage patterns,

and land forms while providing appropriate transition of architectural elements to grade. Site grading shall also provide for an uninterrupted flow of vehicular and pedestrian traffic through the development. The grading plan shall direct and provide adequate flow of surface run-off to catch basins.

### 3. Supplemental Guidelines

#### A. Signage

Signage for the Poulsbo Place project shall have a consistent theme throughout the development.

Residential buildings shall be clearly marked with addresses and unit numbers. The developer is encouraged to identify clusters of units with signage and other unique elements to assist in orientation within the multi-family development.

All signage for store fronts shall be required to be individual letters and scaled for the pedestrian. Color through the use of sculptural elements, opaque awnings, marquees, banners and other amenities shall be encouraged.

The developer shall prepare a Comprehensive Signage Plan for review and approval by the City prior to the installation of any permanent sign on the project.

#### B. Street Furniture

Street furniture shall be required on public sidewalks and public plaza areas to provide scale, interest and opportunities to rest. Development in the commercial area shall incorporate street furniture into all public spaces. Street furniture includes the following:

1. Street Tree Grates (required where trees are planted in sidewalk cut-outs)
2. Pedestrian Scale Light Fixtures
3. Benches
4. Public Signs
5. Trash Receptacles
6. Bicycle Racks
7. Bollards
8. Free Standing Planters
9. Information Kiosks

The developer shall submit plans for street furniture including information regarding type, placement, installation and maintenance to the City for review prior to installation.

#### C. Lighting

Lighting shall be carefully controlled to minimize glare and be designed to provide consistent levels of illumination. Street lighting in the commercial core shall be pedestrian scaled and shall complement the existing lighting in the downtown core.

#### D. Landscape

New landscaping shall consist of natives and other adapted species appropriate to this climate. Adaptation to the climate and environment and a range of color, flower type, size, shape, shall be

the guiding influences on plant selection. Particular emphasis shall be placed on plant materials which provide drought resistance. All plant material sizes and spacing will be in accordance with the City of Poulsbo Landscape Ordinance.

Automatic, water conserving irrigation systems shall be provided for all new landscaped areas.

All maintenance for the new landscape shall be provided by the developer.

E. Covenants, Conditions and Restrictions

Covenants, Conditions and Restrictions (CC&R's) will be created and filed on all lots in the property covered by the R.M.P and will run with the land. The CC&R's will create a Property Owners Association which will be a non-profit corporation formed for the purpose of maintaining the common elements, landscaping and other facilities proposed in the Binding Site Plan. Additionally, the CC&R's would contain reciprocal use and parking easements for the common elements and parking lots of the project allowing mutual use by owners, guests, invitees and customers of the property owners. Separate CC&R's will be developed for the residential and commercial portions of the site.

The CC&R's would contain a levy provision allowing the Property Owners Association to levy maintenance and other approved expenses against the property and the property owners in the project. This levy provision would be enforced by filing of liens against the offending property owner and by foreclosure of said liens in Superior Court.

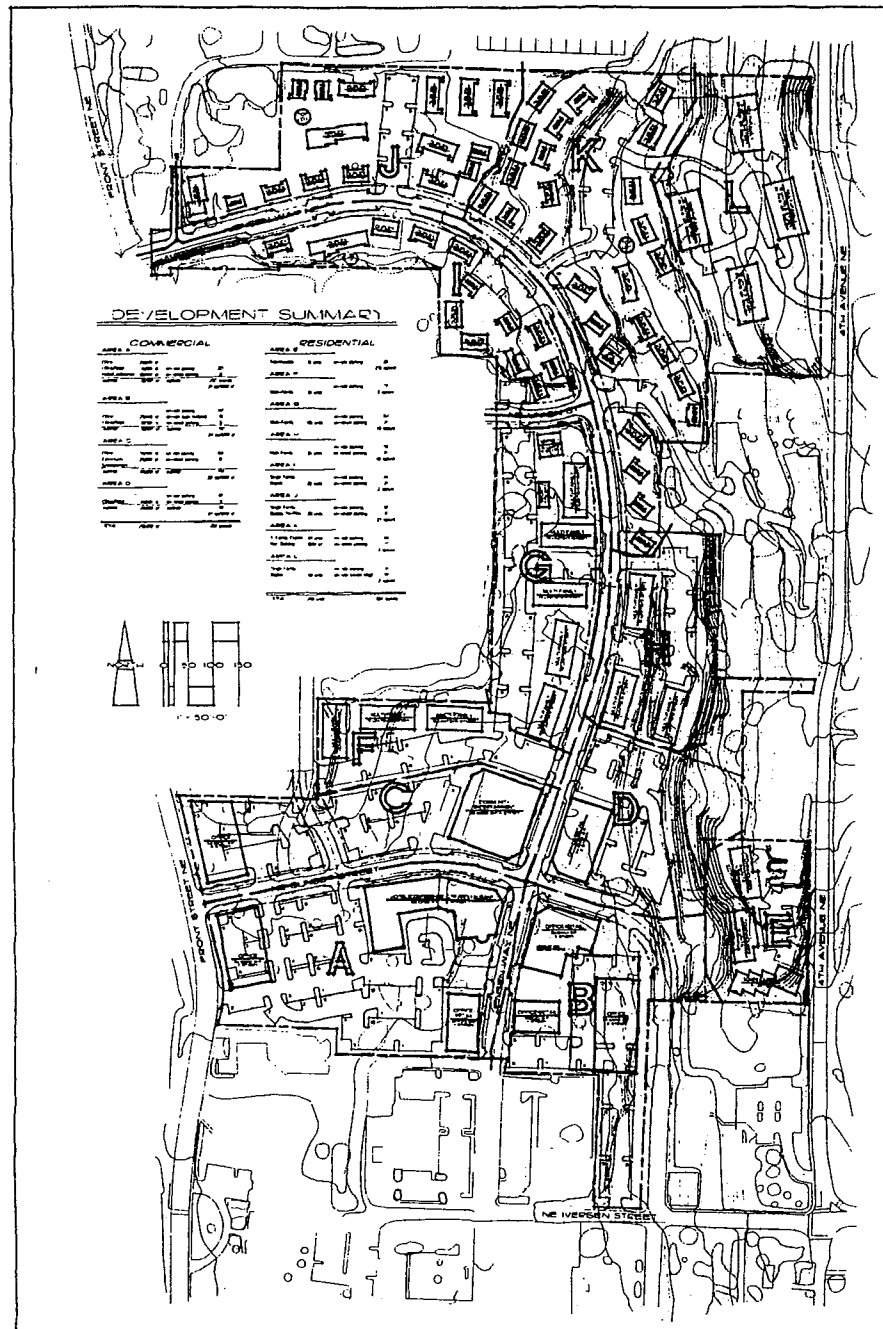
## VII. Site Plan

The Poulsbo Place Redevelopment Master Plan is a guide for development. The paragraphs above and the accompanying drawings form a framework that development will be based on. This Master Plan does not propose any specific development, but only the criteria by which any proposed development must comply. It is difficult, however, to visualize what Poulsbo Place might really look like based on Land Use Plans, Circulation Plans, Design Guidelines, etc. For this reason, a site plan has been created to illustrate how Poulsbo Place might develop given the criteria established by this Redevelopment Master Plan. A

On the following pages is a site plan, architectural character sketches and a narrative which describe one vision of Poulsbo Place.



## Site Plan Alternative



**Doulsbo**  
PLACE

OWNER:  
SITE PLANNER:  
ARCHITECT:  
CIVIL ENGINEER:

POULSBØ GROUP  
WEISMAN DESIGN GROUP INC. P.S.  
BAYLUS BRAND WAGNER ARCHITECTS, INC.  
ADA ENGINEERING

REDEVELOPMENT MASTER PLAN

**Sheet 5**  
AUGUST 21 1986 of 7

## A. Site Plan Narrative

### 1. Commercial Core

#### a. Retail - Areas A, B and D

Retail uses are ideal generators of the foot traffic that puts life into a commercial district. The pedestrian activity and street life that characterize downtown Poulsbo are the models for the atmosphere of the commercial core of Poulsbo Place. For this reason retail uses are incorporated into many of the buildings along Sunset and Jensen. The two and three story buildings East of Jensen Way incorporate retail uses on their first floors and office uses above. All retail will be accessed from street level with service at the back of the buildings whenever possible.

Buildings are immediately adjacent sidewalks to maintain the urban feel of the downtown area. Sidewalks are buffered from the street with parallel, on-street parking and street trees. Additional parking is located behind the buildings, out of sight from the main intersection of Sunset and Jensen.



### b. Office - Areas A, B, C and D

The proposed office space provides a range of square footage for small to medium size users. Office use occurs in single use stand-alone buildings along Front Street and along the Sunset Street extension. Office space above retail is proposed in the buildings east of Jensen Way

Since retail use is preferable to office use at street level in the pedestrian oriented center of the commercial core at Jensen and Sunset, the stand alone office buildings are located close to Front Street and the Sunset Street extension. These locations are less pedestrian oriented and can serve as a transition to the multi-family and service oriented commercial which occur on Sunset and Iversen.

The scale and massing of the buildings respect the existing structures nearby and the development pattern of the Redevelopment Master Plan. Parking will be screened from adjacent streets and pedestrian routes.

### c. Community Entertainment - Area C

The Community Entertainment building at the northwest corner of Jensen and Sunset is intended as a cinema, bowling alley, or other similar entertainment function requiring interior space.

The building is a one-story structure with its main entry at the corner of Jensen and Sunset. Parking for the facility is located to the West. The hours of operation for a use of this type would allow for shared parking with the office building on Front Street.

#### d. Hotel/Conference Center/Restaurant - Area A

This multi-purpose building is proposed as the feature element of the commercial development of the Poulsbo Place project.

The main entry and hotel drop-off area are located on the South side of the building to emphasize the connection to downtown. A public plaza area creates a stage for a prominent architectural feature proposed for the southeast end of the building. This architectural feature, to cover no more than 20% of the roof area, may be as much as 60' tall to enhance the project's connection to downtown and enable identification of this key intersection as a landmark in the community. In keeping with the urban pattern established in the commercial core, the building is kept close to the sidewalk with on-street parking buffering pedestrians from street traffic.



## 2. Residential Areas

### a. Multi-Family - Areas F, G, and H

The Multi-Family development proposed North of the commercial core serves as a transitional use between the commercial elements to the South and the lower density residential areas to the North and West.

Appropriately, this area allows for the highest density within the project. The buildings are set back from the sidewalks and street but their orientation is clearly related to the street to suggest an urban character to a lesser degree than the commercial core.

Parking is located behind the buildings to maintain the urban streetscape. Open spaces are also located away from the street to allow for security and privacy.



### b. View Townhomes - Area E

The view townhouse development on Fourth Avenue is physically separated from the balance of Poulsbo Place by significant elevation difference. For this reason it is treated as a discrete development with access only from 4th Avenue.

The townhouses are oriented to capture views to the South and West. Surface parking is located in a zone to the East of the townhomes. Parking is screened from Fourth Avenue by a generous landscape buffer. A plateau at the Northeast corner of the site is preserved as open space.



### c. View Multi-Family - Area L

The Multi-Family buildings located on the hillside at the northeast portion of the site are oriented to maximize views to the south and west. The buildings are staggered horizontally and vertically on the hillside to allow for the roadway connecting with Fourth Avenue and to reduce the bulk of the enclosed floor area.

The three level buildings above parking will derive their form from livable floor plans that take advantage of the views. Decks and windows are used extensively on the west and south elevations.

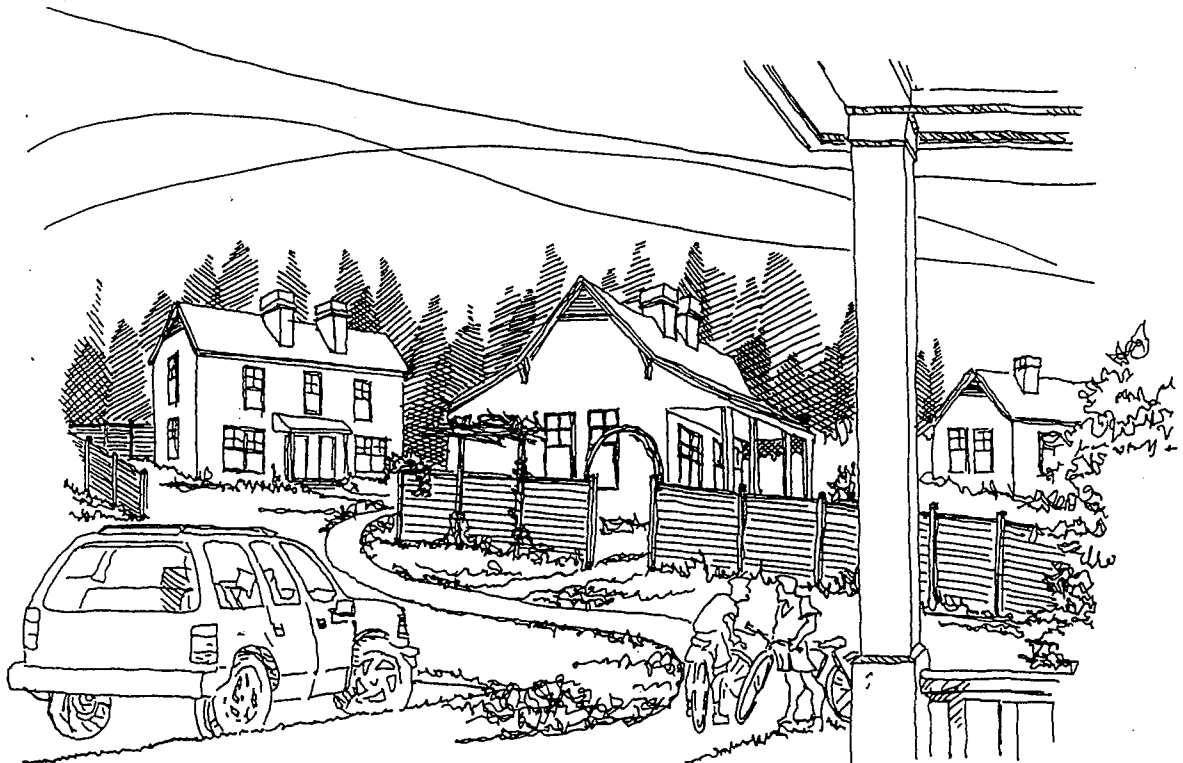
The majority of the parking is concealed underneath the buildings in a partially buried basement level. Some surface parking for guests is also provided.



#### d. Single Family / Duplex / Triplex - Areas I, J and K

The proposed development of single family homes, duplexes and triplexes serves to further transition from the commercial areas and higher density housing to the South, to the lower density single family areas North of the site.

This site plan proposes the renovation of many of these existing homes and the addition of new ones to create small clusters of homes with individual character. The addition of dormers, covered entries and other architectural features along with landscape features such as fencing, arbors and new sidewalks will enhance the character and begin to establish a new identity for this community.





### 3. Additional Site Plan Components

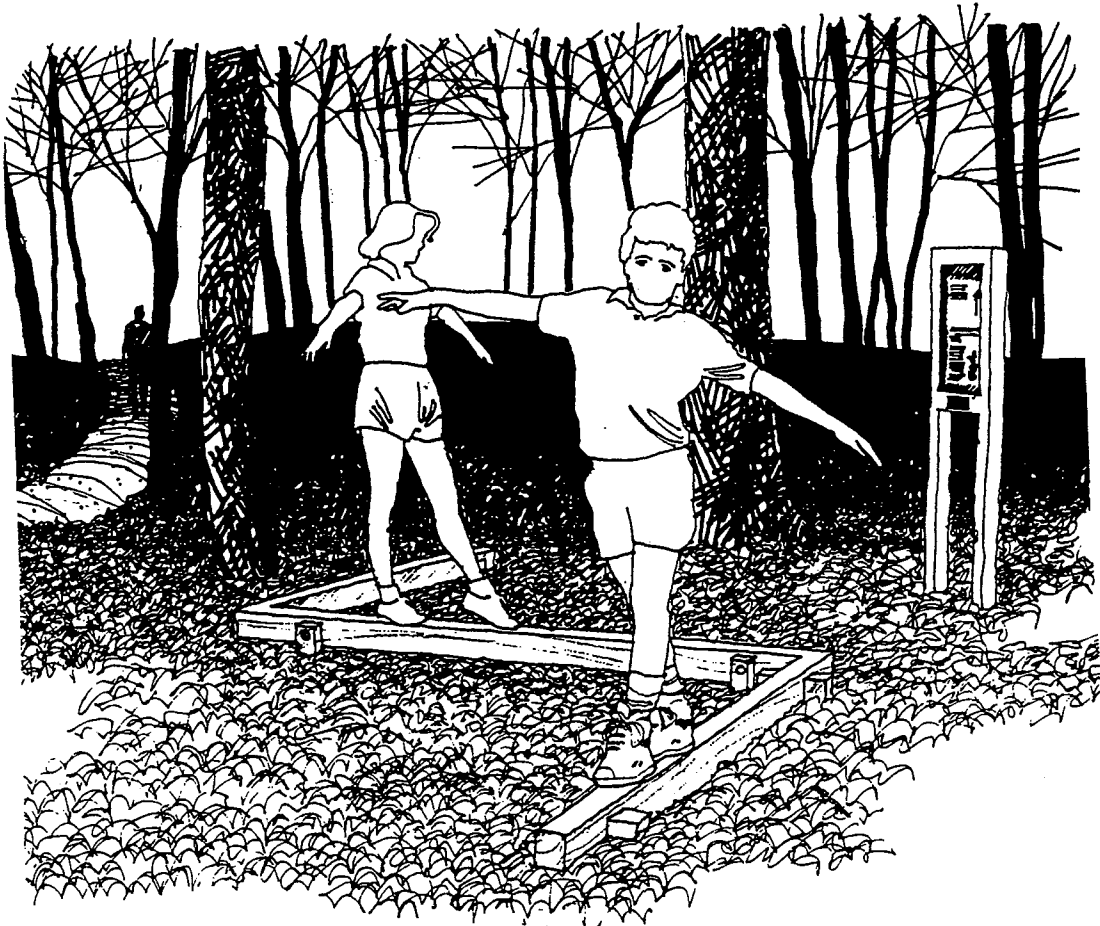
#### a. Recreation

The Redevelopment Master Plan establishes the criteria for providing recreational elements for Poulsbo Place residents based on the Poulsbo Zoning Code. The 294 units proposed require 4 recreational amenities such as a picnic shelter, swimming pool, tennis court etc.

A recreation building is located at the Northeast corner of NE Union Street, at the center of the residential development.

The proposed recreational elements are connected by a comprehensive path system to encourage walking between destinations.

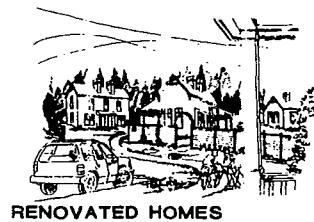
Some of the recreation functions are public in nature and may be used by the entire community. These include the paths and jogging trails and the more urban amenities in the commercial core.



## Site Sections/Architecture



**Section A**



**RENOVATED HOMES**



**VIEW MULTI-FAMILY**



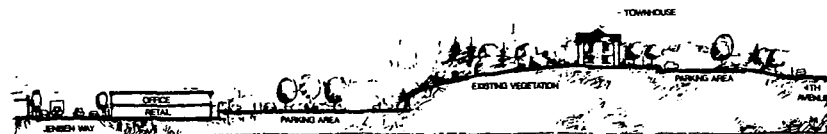
**Section B**



**COMMERCIAL CORE**



**MULTI-FAMILY**



**Section C**

**Poulsbo**  
PLACE

OWNER:  
SITE PLANNER:  
ARCHITECT:  
CIVIL ENGINEER:

POULSBO GROUP  
WESMAN DESIGN GROUP INC. PS  
BAYLUS BRAND WAGNER ARCHITECTS, INC.  
ADA ENGINEERING

**REDEVELOPMENT MASTER PLAN**

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Open space is modulated throughout the site as the character of the project varies. In the urban core, open space is used to provide a strong visual focus at the street corners and includes street furniture, street trees and strong focal elements.

Moving North along Jensen Way, open space transitions to a more informal character to reflect the change from commercial to residential uses. In the multi-family development just North of the commercial core, open space is concentrated into distinct, programmed areas to allow for more intensive use. Further to the North, in the lower density residential areas, open space is more dispersed and more closely related to the individual, ground related dwellings.

### b. Tree Preservation

Most areas of native vegetation have been removed from this previously developed site. The only area where there is a significant stand of trees is at the Northeast corner of the site in Area L. The site plan has been designed to preserve a portion of that stand as a visual focal point for people driving along Jensen Way and 4th Avenue N.E. and as an enhancement to the residential areas adjacent. Existing vegetation will also be preserved in the steep slope area in the southeast portion of the site.

The site survey and the site plan show the locations of existing stands of vegetation.

### c. Buffers, Transitions and Setbacks

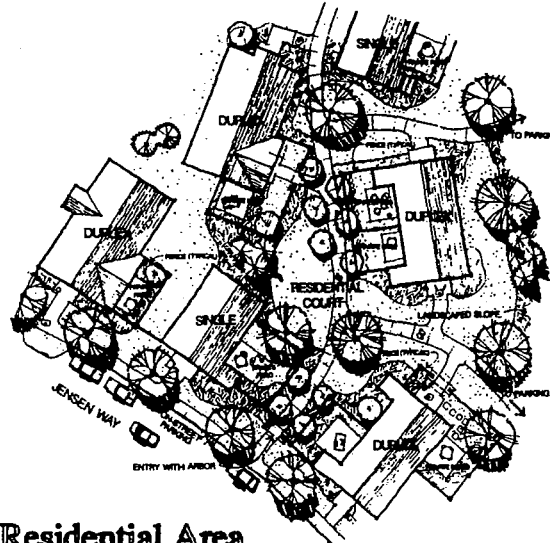
The site plan has been designed to be responsive to surrounding site conditions and edges. Although the R.M.P. ordinance does not have specific setback requirements, minimum setbacks are invoked through the landscape ordinance and parking requirements. In most cases, setbacks provided far exceed the required minimums.

### d. Architecture

The site plan represents various kinds of architectural character depending upon the use of the area. In the commercial core, the architecture is designed to provide a strong urban statement. Each building will maintain its own identity while common elements such as overhangs, canopies and glass storefronts will provide a cohesiveness to the mixed use core area. Small courtyard and plaza areas are provide to create pockets for rest and reinvigoration off the main pedestrian flow paths. Materials such as masonry, concrete, stucco and metal or wood detailing will work in conjunction with pitched and flat roof elements to define the character of the mixed use area.

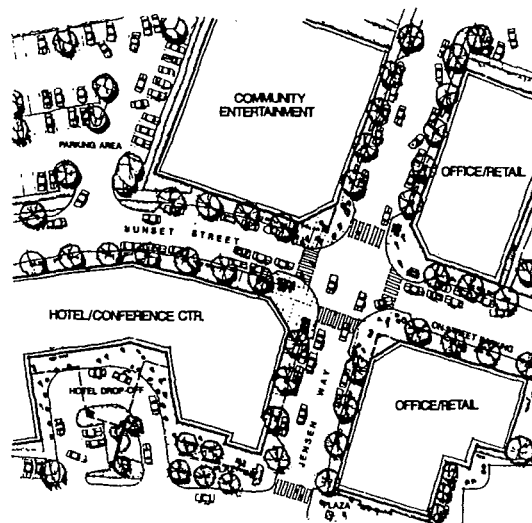
In the multifamily areas the architecture is more residential in character with sloping roofs and more prevalent wood detailing. All of the units will be designed to be responsive to the specific site conditions where they occur, with as many units as possible oriented towards views of Liberty Bay and the Olympic mountains. The view residential buildings will be characterized by the use of wood, stucco and metal. The use of varying detailing and building massing will be used to add to the diversity of the project. Where multi-family residential units are closer, floor plans will be developed to provide orientation away from other units and toward open space for better privacy. Wood siding and wood detailing will be the predominant material in these areas.

## Plan Enlargements



### Residential Area

SCALE 1"=20'



### Commercial Area

SCALE 1"=20'

**Poulsbo**  
PLACE

OWNER:  
SITE PLANNER:  
ARCHITECT:  
CIVIL ENGINEER:

POULSBO GROUP  
WESMAN DESIGN GROUP INC. P.S.  
BAYLUS BRAND WAGNER ARCHITECTS INC.  
ADA ENGINEERING

REDEVELOPMENT MASTER PLAN

**Sheet 6**  
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### c. View Multi-Family - Area L

The Multi-Family buildings located on the hillside at the northeast portion of the site are oriented to maximize views to the south and west. The buildings are staggered horizontally and vertically on the hillside to allow for the roadway connecting with Fourth Avenue and to reduce the bulk of the enclosed floor area.

The three level buildings above parking will derive their form from livable floor plans that take advantage of the views. Decks and windows are used extensively on the west and south elevations.

The majority of the parking is concealed underneath the buildings in a partially buried basement level. Some surface parking for guests is also provided.



## e. Utilities

### Storm Water Drainage

The site consists of approximately 36.5 acres, which will be separated into three basins. Basin #1 being the southwest corner, basin #2 being the eastern half, and basin #3 the northwest corner.

The runoff from basin #1 (approximately 4.5 acres) and basin #3 (approx. 6.3 acres) is to Liberty Bay and we propose to provide only water quality treatment measures with clarifiers.

Basin #2 (approx. 25.8 acres) enters the City of Poulsbo storm drainage system and may require detention as well as water quality treatment. The basin will be divided into smaller basins, each with its own detention and treatment system.

### Sanitary Sewer

The existing sanitary sewer system appears to be in bad condition, therefore a new sanitary sewer system consisting of PVC pipe will need to be installed. The sanitary sewer in the northwest corner will flow to an existing 8" line that flows from north to south on Front Street. The remainder of the parcel will flow to an existing 8" line that flows to the south down Jensen Way.

### Water

The water system appears to be in good condition. There are 8" mains on the east border and running up Jensen Way, with 6" or 8" loops around the remainder of the parcel. With the addition of some 6" and 8" loops, the water system should be adequate. Fire hydrants and fire flow for sprinkler systems will be designed as per individual building requirements.

## f. Phasing and Implementation

The site plan is divided into twelve sections with the letters A through L. Statistics on density and parking have been developed for each section and are shown on the site plan. Each section is self supporting in regard to parking requirements and density.

Please note the section letters are not intended to indicate an order of development. For more information on Project Phasing, see the Project Sequencing Plan in the Appendix.

Development and build out of Poulsbo Place will occur in an orderly fashion based on such factors as the market, approvals, absorption rates, etc. The entire project is expected to be developed in 5 to 10 years.

## g. Traffic and Roads

In recognition of the increased density of Poulsbo Place the Sunset Street and Jensen Way right of ways shown on the project are proposed to be 60 feet wide to allow for the introduction of on street parking. On-street parking has been provided within the right of way along Sunset and Jensen Way in the core area and along Jensen Way in the residential areas. One road extension is proposed on Sunset between Iversen and Jensen Way. This alternative route is in lieu of the right of way up to 4th Street which would require extensive grading of the existing slope to achieve a reasonable road grade.

All existing patterns of traffic use have been accommodated in the site plan. Some minor realignments are contemplated.

Refer to the Traffic Analysis included in the Appendix for additional information regarding traffic and parking.

#### h. Parking

The parking standards for this site plan are based on the Poulsbo Zoning Code as modified by the Redevelopment Master Plan. (See Zoning Standards.)

Some parking requirements in the core are calculated to allow for shared parking. All parking counts rely on on-street parking to meet the parking space quantities required.

The intent of this proposal is to develop binding covenants for joint use of parking facilities within portions of the project. These covenants will be formulated as part of the approvals process once the preliminary concept plan is approved by the Planning Department.

#### i. Pedestrians

Throughout the site a high degree of attention has been placed upon providing a suitable pedestrian environment. In the urban core the pedestrian environment is enhanced by pedestrian amenities such as benches, detailed paving, planters and covered areas.

In the residential areas, walkways provide the connection between recreation uses and buildings and parking and serve as continuous loop systems for passive use or jogging. The minimum width of all walkways is five feet with a transition to an eight foot minimum in the commercial core

## VIII Zoning Standards

It is the intent of the Poulsbo Place Redevelopment Master Plan to conform to the existing zoning standards with specific alternative standards proposed to allow for innovation and flexibility appropriate for the development of Poulsbo Place.

The proposed alternative standards are additions, deletions or revisions to modify the current zoning code. The reference document is the Zoning Ordinance of the City of Poulsbo, Washington adopted December 28, 1994. Generally applicable City standards which have not been specifically revised below shall apply to the Poulsbo Place Redevelopment Master Plan.

### Revisions to Chapter "18.21.000 Residential Districts":

18.21.010.D. Replace with the following:

D. R-H (High Density) District

This district is intended for the development of apartments, condominiums and townhouses at a maximum average density of 15 units per acre. Single family homes on small lots or zero lot line construction, clustering, and other similar standards are also allowed, thereby encouraging the development of affordable housing opportunities for all segments of the population.

18.21.010 Add the following:

E. R-DH (Downtown High Density) District

This district is intended for the development of apartments, condominiums and townhouses at a maximum density of 22 units per acre in close proximity of the downtown area. Single family homes on small lots or zero lot line construction, clustering, and other similar standards are also allowed, thereby encouraging the development of affordable housing opportunities for all segments of the population.

#### Table 18.21A Permitted and Conditionally Permitted Uses

Permitted and conditionally permitted uses for the R-DH Zone shall be identical to those listed for the R-H Zone.



Table 18.21B Residential Development Standards - Revise the Development Standards in the R-H column to the following.

Standard	R-H
Max. Unit/Acre	15/Acre
Min. Single Family Lot Area	3000 square feet
Lot Width (min. feet) at building line	40
Lot Width (min. feet) at street line	25
Lot Depth (min. feet)	50
Front Setback, Habitable Area	15
Front Setback, garage (min. feet)	20
Rear Setback ( min. feet)	15
Rear Setback, on alley (min. feet)	5
Side Setback	Minimum of 5 feet with a combined total of 15' unless abutting units are attached.
Street Side setback	15
Building Lot Coverage (max %)	60%
Maximum Building Height in Feet	35

Table 18.21B Residential Development Standards - Add the following column to the table:

Standard	R-DH
Max. Unit/Acre	22/Acre
Min. Single Family Lot Area	3000 square feet
Lot Width (min. feet) at building line	40
Lot Width (min. feet) at street line	25
Lot Depth (min. feet)	50
Front Setback, Habitable Area	15
Front Setback, garage (min. feet)	20
Rear Setback ( min. feet)	15
Rear Setback, on alley (min. feet)	5
Side Setback	Minimum of 5 feet with a combined total of 15 feet unless abutting units are attached.
Street Side setback	15
Building Lot Coverage (max %)	60%
Maximum Building Height in Feet	35

Table 18.21C Residential Districts Development Standards - Revise the R-H column as shown and add the R-DH column as shown:

Specific Standards	R-H	R-DH
A. Accessory Dwelling Units	+	+
B. Senior Congregate Care Facility	+	+
C. Day Care Center	+	+
D. Day Care Home	+	+
E. Density Bonus/Affordable Housing	+	+
F. Density Transfer	+	+
G. Golf Courses and Related Facilities	X	X
H. Mobile & Manufactured Housing	X	X
I. Mobile Home Park or Subdivision	X	X
J. Multiple Family Housing	+	+
K. Planned Unit Development	X	X
L. Recreational Vehicle Storage	+	+
M. Schools	+	+

#### 18.21.030 J Multi-Family Housing.

Replace the introductory paragraph, paragraph 1 and paragraph 4 with the following:

Multi family housing is permitted in the R-H and the R-DH Zoning Districts subject to Site Review, pursuant to Chapter 18.80 and 18.31 of this Zoning Ordinance, and shall meet the following standards:

1. All multi-family developments, except those located in the R-DH Zone, with 12 or more dwelling units shall provide 30% of site area for usable recreation or open space. All multi-family developments located in the R-DH Zone with 12 or more dwelling units shall provide 20% of site area for usable recreation or open space. Usable recreation or open space areas shall not include: right-of-ways; vehicle parking areas; areas adjacent to or between any structures less than 15 feet apart; setbacks; patio or private yards; or sensitive or critical areas.

4. At least one of the two required parking spaces for multi-family residential developments; shall be located within 150 feet from the dwelling unit (front or rear door) for which the parking space is provided. Parking spaces may be parallel on-street spaces or off-street spaces.

#### 18.21.030 L.1. Recreational Vehicle Storage Facilities

Replace with the following

1. Centralized storage areas shall be provided for recreational vehicles, boats, etc., at a minimum of 1 space for each 50 dwelling units. Any fractional space shall be construed as requiring 1 full storage space pursuant to Chapter 18.52 (Off-Street Parking Standards).

Refer to the Design Guidelines for revisions to Section 18.21.050: Development Standards, Multi-Family Residential Design

## Revisions to Chapter "18.33.000 Downtown Core District":

Refer to the design guidelines for revisions to this Chapter.

## Revisions to Chapter "18.51.000 General (Development Standards)":

### 18.51.030.2 Additional Structural Setback Restrictions

Replace with the following.

In addition to the standards listed in Chapter 18.84, Variances, where the maximum permitted height of a new structure exceeds the maximum height permitted in the Zoning District in which it is located, a Variance shall be granted only if:

- A. Under structure parking would be appropriate; or
- B. Topographic restrictions cause limitations on building design.

Above 35 feet, additional structural setbacks will be required at the following rate; one foot of additional setback for each two feet of height over 35 feet, or any portion thereof.

### 18.51.030.11 Height Determination

Add the following paragraph.

In addition to the exemptions listed above, a height exemption for an architectural feature in the commercially zoned area of the Poulsbo Place project is allowed for a portion of one building which accounts for no more than 20% of the total roof area of that building. Total height of this architectural feature may not exceed 60'.

### 18.51.030.15 Public Street Improvements

Replace paragraph B with the following:

- B. Whenever street improvements are required along a parcel as a condition of approval, and the off-site drainage pattern requires it, the entire street section shall be improved in accordance with the policies, procedures and standards of the Public Works Superintendent/City Engineer except for any specific alternative standards approved through the Poulsbo Place Redevelopment Master Plan.

## Revisions to Chapter "18.52.000 Off-Street Parking Standards":

18.52.040 General Regulations.  
Add the following paragraph:

10. In the Poulsbo Place Redevelopment Plan area, on-street parking may be used to meet minimum parking space requirements.

Add the following Section:

18.52.050.10. Location of Required Parking Spaces  
Replace the first sentence with the following:

All parking spaces shall be located on the same parcel as the structure or use, except for shared parking which shall comply with the requirements of Paragraph 18.52.050.10b.

18.52.050  
Add the following paragraph:

### 10b. Shared Parking

A. The Poulsbo Place Redevelopment Master Plan shall permit the shared use of parking facilities located on separate properties when businesses do not operate at the same time if:

1. A convenient pedestrian connection between the properties exists, and
2. The properties are within 1000 feet of each other.

B. Number of spaces required:

1. Non overlapping Hours of Operation:

The property owner or owners shall provide parking stalls equal to the greater of the applicable individual parking requirements.

2. Overlapping Hours of Operation:

The property owner or owners shall provide parking stalls equal to the total of the individual parking requirements. If the peak operating hours of each use occur at substantially different times of day and the following criteria are met, that total may be reduced by 20%:

- a. A vehicular connection between lots exists (this may be across a public right-of-way).
- b. A convenient pedestrian connection between the lots exists, and
- c. The availability of parking for all affected properties is indicated by directional signs.

C. Documentation Required: Prior to establishing shared parking, the property owner or owners shall file a written agreement providing for that use with the City of Poulsbo. The agreement may be revoked by the parties only if parking is provided in conformance with the Land Use Code and such parking is approved by the City of Poulsbo prior to revocation.

## **IX APPENDIX**

- A. SEPA Checklist
- B. Vicinity Map
- C. Project Sequencing Plan
- D. Statement of Condition of Public Rights of Way
- E. Typical Retaining Wall
- F. Legal Description of Property
- G. Geotechnical Study

## **APPENDIX A**

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### **SEPA Checklist**

**CITY OF POULSBO, WASHINGTON ENVIRONMENTAL CHECKLIST  
For Poulsbo Place Project  
Poulsbo, Washington**

**A. BACKGROUND**

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

Poulsbo Place: Application for approval of a Redevelopment Master Plan.

**2. Name of Applicant:**

Poulsbo Group

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

Mr. Bill Parnell  
TyCeCo Consulting & Development  
5823 NE Minder  
Poulsbo, Washington 98370

Tel: (206) 297-4775

Fax: (206) 297-7951

**4. Date Checklist prepared:**

August 21, 1995

**5. Agency requesting checklist:**

Planning Department  
City of Poulsbo  
PO Box 98  
Poulsbo, WA 98370

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

Site improvement activities would commence following approval of the required permits by the City of Poulsbo. Development is expected to occur over an approximate 5-10 year period.

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

No.

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

Traffic Impact Analysis, Poulsbo Place Development, Poulsbo, Washington, prepared by Gibson Traffic Consultants, Inc., P.S.

**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.**

No applications are pending.

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

Future Applications

- A. Demolition Permit
- B. Grading and Building Permits

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on the project description.)

Proposed action is the approval of a Redevelopment Master Plan designating approximately 10.5 acres for commercial development 15.1 acres for residential development, and 6.1 as a transitional area (residential or commercial development).

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

The approximately 36.5-acre site of the proposed Poulsbo Place Redevelopment Master Plan Area (31.7 net acres) is located approximately one-quarter mile north of downtown Poulsbo. Currently, the site is occupied by the community of Poulsbo Place, a community of single and multi-family rental units. The irregularly shaped project site is generally bordered on the south by Iversen Street; on the east by 4th Avenue NE; Hamilton Park on the north; and Front Street on the west. Jensen Way NE generally bisects the site from north to south; NE Sunset Street and NE Union Street are east-west streets with the site.

**B. ENVIRONMENTAL ELEMENTS**

**1. Earth**

- a. General description of the site (circle / underline one): Flat, rolling, hilly, steep slopes, mountainous, other \_\_\_\_\_.

- b. What is the steepest slope on the site (approximate percent slope)?

The steepest slopes, approximately 40%, are located in the northeast portion of the site, near 4th Avenue NE.

- 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.

Fourteen exploratory soil pits were excavated on-site; soils encountered were fill material, sand, and silt. Soils on-site are classified as Kitsap silt loams.

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



No apparent indications of surface or subsurface slope instability were noted during site investigations by the geotechnical consultant.

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

It is the intent of the proposal to balance cut and fill. Based on preliminary grading studies less than 100,000 cubic yards of material will be moved on-site. The lack of suitable structural fill on-site may require the import of structural fill for the construction of buildings and pavement.

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

The erosion potential for soils on-site does not exceed that of other sites with moderate slopes in the Poulsbo area. Typical erosion hazards could occur during the clearing and grading phase of the proposal while soils are exposed to surface water run-off. Exposed soils with a high silt content are especially susceptible to erosion.

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

Approximately 60% of the site including the right-of-way would be covered with roads, buildings, and other impervious surfaces.

- h. **Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

Temporary erosion and sedimentation control measures will be implemented during construction. No construction will occur on slopes over 40%. A complete storm drainage system will be installed.

**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.**

The primary impact from development of the Proposed Action are related to construction activities. During construction, dust resulting from excavation and grading would contribute to concentrations of suspended particulate matter. The construction contractors would have to comply with the Puget Sound air Pollution Control Agency's Regulation 9.15, which requires that reasonable precautions be taken to avoid dust emissions. This may include applying water or dust-binding chemicals during dry weather.

Construction would require the use of heavy trucks and smaller equipment such as generators and compressors. These engines would emit air pollutants that could slightly degrade local air quality, but emissions from traffic in the project area would be much greater than from construction equipment.

If construction traffic were to significantly reduce travel speeds or traffic flow in the project area, emissions from general traffic would increase. Construction debris would be hauled to the Kitsap County landfill at Belfair. The route would probably follow Front Street North to Lindvig Way and then west to SR 3. An increase in particulate matter would also occur along this route.

Future vehicle traffic generated by the project and units that would have fireplaces, would increase particulate matter in the vicinity. Vehicle emissions from the trips generated for the

development of the site are not considered to be significant to the overall air quality of the Poulsbo area.

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

No.

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

Emissions from construction equipment and trucks can be reduced by using relatively new, well-maintained equipment, and electrical equipment wherever possible. Avoiding prolonged periods of vehicle idling and engine-powered equipment would also reduce emissions.

Transporting materials on local streets should be controlled to minimize congestion during peak travel times. This would minimize secondary air quality impacts caused by reduced travel speeds.

Dust produced by construction should be reduced by using a number of techniques. Areas of exposed soils such as storage yards and construction roadways could be sprayed with water, oils, or chemical dust suppressants. Areas that might be exposed for prolonged periods of time should be planted with vegetation ground cover or covered with gravel. Soils carried out of the construction area by trucks could be minimized by: use of a sawdust mat as a transition zone from the construction site; wheel washing; washing or brushing truck undercarriages; and covering dusty truck loads. For soils that do escape the construction site on trucks, a weekly street cleaning program for truck routes would help minimize dust.

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 flows into.**

Liberty Bay is the closest body of water to the site. No surface water bodies are on-site.

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.**

No.

3) **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

Not applicable.

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

No.

5) **Does the proposal lie within a 100-year flood plain? If so, note location on the site plan.**

No.

**6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

No.

**b. Ground**

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

No.

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

The site would be served by municipal sewer lines and no waste material would be discharged into ground water.

**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.**

The project site is approximately 31.7 acres in size and is located along Jensen Way in the City of Poulsbo. The site currently contains 165 housing units (121 occupied) located throughout the site with relatively large expanses of lawn separating individual units. A limited number of roads and parking areas serve the interior of the site. The primary source of runoff is storm water, which generally drains west to Liberty Bay. The existing development is served by an underground storm drain system constructed in the early 1940's. There are currently no detention/retention facilities on-site. According to the Superintendent of Public Works, the storm drain system is in extremely poor condition due to its age and is not adequate to handle existing storm water flows.

The proposed development would increase the amount of impervious surface at the site and increase the quantity of storm water runoff. The existing storm drain system is currently inadequate to meet project needs and would be rebuilt. Grass-lined swales would be constructed along Jensen Way to help filter out pollutants from storm water.

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

Storm water runoff from the site would eventually enter surface waters. The current storm sewer system drains west to Liberty Bay and is inadequate to handle increased storm water flows associated with the proposed project. Runoff from parking lots, sidewalks, roadways, homes, and commercial buildings would contain oil, grease, soil, chemicals and similar substances that could eventually reach and add to pollution on Liberty Bay. Grass-lined swales or clarifiers would be constructed as part of the proposed drainage system and would help to reduce pollutants entering surface waters.

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

- The proponent will cooperate with the City to construct a dedicated storm sewer system, including any required detention/retention facilities, per City of Poulsbo engineering standards.

- Biofiltration systems or clarifiers (i.e. grass-lined swales) would be constructed.
- During construction, temporary erosion and sedimentation control measures would be implemented to reduce the impacts of storm water runoff. An erosion and sedimentation control plan would be submitted to the City of Poulsbo for approval.

#### 4. Plants

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

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

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

All of the existing shrubs, grasses, and weeds in the development area on-site will be removed during the grading phase of construction. Several acres of fir, birch, and pine trees are located on the eastern slopes of the site. Some of these trees would be preserved.

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

None identified.

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

- Street trees along the entire length of the major arterials and landscaping on portions of the parking lots within the commercial core are proposed to provide visual relief to the area.
- Views of retaining walls would be softened with the use of landscaping on both the top and bottom of the structure.
- Plants that are native to the region or adapted to local climatic conditions would primarily be used to reduce the need for watering.
- All new landscaping and irrigation systems would be installed per the requirements of the City's landscaping ordinance.
- Existing trees that would be retained on-site and their root systems would be protected with appropriate fencing during grading and construction.

#### 5. Animals

##### a. Circle or underline any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other:  
 mammals: deer, bear, elk, beaver, other: rodents  
 fish: bass, salmon, trout, herring, shellfish, other:

- b. **List any threatened or endangered species known to be on or near the site.**

None identified.

- c. **Is the site part of a migration route? If so, explain.**

No.

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

None required.

**6. Energy and Natural Resources**

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

Electricity would be used for heating, lighting, and cooking in residential units and in commercial developments; natural gas service is not currently available in the City of Poulsbo. Natural gas is, however, anticipated to be available in the City in the future. Electricity will continue to be the primary source of energy for the proposed project unless natural gas is made available.

Puget Sound Power and Light Company currently provides electricity to the site. Approximately 176 customers are served in the area and use approximately 16,000 KWHRS each per year. A 15-KV line running along Jensen Way serves the existing housing units. Transmission facilities and a 2--MVA substation are located approximately one mile from the subject property.

Depending on the size of additional electrical load, there is capacity for a limited amount of additional customers. The electrical load is growing at a rate of 5% per year and Puget Power will add or change facilities as demand requires.

- 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:**

Energy saving features will be included in the design and construction of residential and commercial developments including insulation, double glazed windows, and other measures/products that will help reduce energy demand. All new construction will be built to existing City of Poulsbo building code standards.

**7. Environmental Health**

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

Asbestos was discovered during a Phase I Environmental Audit prepared by Geotech Consultant, Inc. in the vinyl kitchen flooring of some of the existing residential units on-site. Demolition of the existing residential units would require appropriate measures to prevent

release of fibers into the air. Based on the data reviewed and information developed during the audit, the site is free from other hazardous materials or toxic substances.

**1) Describe special emergency services that might be required.**

Fire, police, and ambulance services would be required consistent with typical residential/retail/office mixed use development. No special services would be required.

**2) Proposed measures to reduce or control environmental health hazards, if any:**

All applicable state and federal regulations for the removal of asbestos-laden materials would be complied with. WAC 296-65 requires certified asbestos workers to remove the vinyl flooring of the existing structures.

**b. Noise**

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

Traffic from NE Sunset Street and NE Union Street, Jensen Way NE, Front Street, 1st Avenue NE, and 4th Avenue NE would be heard from the interior of the site. Based on the traffic projections provided as a part of this report, the levels of existing and future traffic would not significantly affect the commercial/residential/recreational operations proposed.

**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 sources of noise associated with development on the site include: construction related noise due to grading operations, demolition of structures, and construction of new building; and noise from trucks along transport routes. Construction related activities are expected to occur from 7:00 am to 7:00 pm Monday through Friday, and 8:00 am to 5:00 pm on Saturdays.

Long-term noise sources include: normal traffic noise associated with commercial operations and residential activities, seven days per week; and daily large truck deliveries. Generally, post-construction related noise are not anticipated to be significantly higher than existing conditions.

**3) Proposed measures to reduce or control noise impacts, if any:**

Generally, construction noise could be mitigated by employing a number of measures including: using properly sized and maintained mufflers, engine intake silencers, and engine enclosures; turning of equipment when not in use; and confining activities to daylight hours.

- Limiting the use of noise-producing vehicles through equipment to the hours of 8:00 am and 5:00 pm, Monday through Friday, unless special arrangements are made for exceptions.

**8. Land and Shoreline Use**

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

The project site is currently developed with 165 residential housing units (some no longer habitable) located primarily along Jensen Way NE. The eastern portion of the site, near 4th Avenue NE, is vacant and undeveloped. The site is bordered on the south by downtown Poulsbo, on the east by vacant land and multi-family housing, on the west by attached single-

family units and an elderly care facility, and on the north by vacant land and low density single-family units.

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

The site has not recently been used for agricultural purposes.

- c. **Describe any structures on the site.**

The 165 residential units on-site consist of 1940's vintage structures with surface parking lots serving clusters of 6 to 8 units. Most of the units are detached, single-family units, while approximately one-quarter are attached duplex, triplex, and fourplex units. The units are generally in poor condition and are in need of structural repairs and cosmetic improvements. All buildings on-site are one-story in height. Currently, 121 units are occupied; the balance have been abandoned, boarded-up, and / or allowed to fall into extreme disrepair.

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

The Redevelopment Master Plan allows for retention and renovation of some of the existing residences. All structures not slated for renovation will be demolished to allow for new construction.

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

Master Plan Zone.

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

The Poulsbo Comprehensive Plan land use designation is Master Plan Zone.

- 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.**

There are slopes greater than 40% on site. These are considered environmentally sensitive per the Critical Areas Ordinance.

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

By full buildout, the proposed project could generate a total population of 800 people (assuming an average household size of 2.21). Approximately 150 persons could be employed in proposed commercial uses.

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

The project proposes more housing than currently exists.

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

Some units may remain and be renovated. As existing units are demolished in phases they will be replaced by new housing.

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

The uses and activities proposed are generally compatible with existing uses in the vicinity of the project. Commercial uses are concentrated in the southern portion of the site near downtown and multi-family residential uses are located in the central and northern portion of the site.

**9. Housing**

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

Approximately 360 multi-family middle to high income units would be provided, at market rates.

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

There are currently 165 units of low income housing (based on average monthly rents) located on the project site. Currently, only 121 are occupied. The remainder have been abandoned.

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

None.

**10. Aesthetics**

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

All occupiable portions of buildings will be at or below 35 feet in height from average grade (as described in the Zoning Ordinance) except for the allowance for one architectural feature with a height of up to 60' located in the commercial core. In the mixed use and commercial portions of the site, exterior building materials will be wood, concrete, masonry, stucco, and metal. Wood will be used less in the commercial areas to distinguish between mixed use and residential areas. Residential buildings on the west-facing slopes will typically use materials such as stucco, metal, and wood detailing; buildings on the flatter portions of the site will be constructed predominantly of wood materials, finishes, and detailing.

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

Some views from neighboring properties, primarily to the east, would be altered. No views would be obstructed. The 60' architectural feature would be visible from most surrounding properties.

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

Project will be landscaped per the City of Poulsbo code.



**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 would generate light as a result of additional street lights, parking area lighting, exterior building lighting, light emanating from within the structures (particularly the commercial uses) and light from vehicle headlights entering and exiting the site. While project design has not been finalized, it is not expected that the project will include design elements that are highly reflective and produce glare. Glazing would be of a relatively low percent reflectivity, consistent with residential and most commercial uses. Localized glare could periodically occur from the angled, glazed surfaces of vehicles parked on the site. No significant light or glare impact is expected.

- b. **Could light or glare from the finished project be a safety hazard or interfere with views?**

Light or glare from the proposed project is not expected to present any safety hazard or interfere with views in the area.

- c. **What existing off-site sources of light or glare may affect your proposal?**

There are no off-site sources of light or glare that would affect this proposal.

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

- Specify glazing for the structures that is relatively low reflectivity to reduce potential glare impacts.
- Shield and direct light from parking light standards and away from adjoining land uses.

**12. Recreation**

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

Two public waterfront parks, Liberty Bay Park and American Legion Park, are located within a mile of the project. The City's Parks and Open Space Plan classifies these as community parks. The 1.5-acre Liberty Bay Park provides waterfront open space, picnic areas, and pathways adjacent to downtown. The American Legion Park, 12.88 acres in size, provides open space for picnics and passive recreation. It is immediately to the west of the project site, approximately one-quarter mile north of downtown. These two parks are connected by a wooden causeway over the water.

Scandia Knoll Park is located approximately one-and-one-half miles to the north of the site. It is 2.5 acres in size and includes open play areas and picnic facilities. The Parks Open Space Plan estimates use of this park will increase as a result of increased population growth forecast for the area north of downtown.

Hamilton Field is an athletic field immediately to the north of the project site, between the proposed multi-family units and existing single-family units. It is a private recreational facility that is used for soccer and football.

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

The Proposed Action would not displace any public or private recreational areas.

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

Recreational facilities will be provided per the Poulsbo Zoning Code Section 18.21.000J. Additional landscaping areas and design elements are proposed as part of the project's overall open space plan.

**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.

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

The housing stock is approximately 50 years old and does not contain any noteworthy architectural features. No known events occurred on-site that render the site historically or culturally significant.

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

None are required.

**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.**

The public streets serving the Poulsbo Place site include Jensen Way which will, by traversing the project site, provide immediate access to the development. Additionally, Jensen Way links the site with Iversen Street to the south and Front Street to the north. Jensen Way, with access driveways to the various land uses and their attendant parking facilities, becomes the dominant interior street for the project. In addition, NE Sunset Street in the southern quarter of the site will provide a second linkage from Jensen Way to Front Street. See Traffic Report.

- b. **Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?**

A number of transit routes serve the site or are in close proximity to the site.

- c. **How many parking spaces would the completed project have? How many would the project eliminate?**

The completed project could have approximately 1450 parking spaces. The project will relocate approximately 275 parking spaces. Some spaces will be in garages or under canopies.

- 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).**

One new street will be constructed for this project. NE Sunset Street will be extended eastward for about one city block. From this location, Sunset Way will continue south and form an intersection with Iversen Street at 3rd Avenue. This new road will add to the local circulation of the area and will be a public street. See Traffic Report for detailed discussion.

- 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 traffic report included in the Appendix provides the detailed analysis prepared by the traffic consultant.

- g. Proposed measures to reduce or control transportation impacts, if any:

The traffic report included in the Appendix proposes measures to reduce or control transportation impacts.

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.

The proposed development would result in increased demands on police, fire, school, and health services.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. Utilities

- a. Circle or underline utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, solid waste, other.

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


The City of Poulsbo would provide water, sewer, storm sewer, and solid waste disposal services to the proposed development. The developer will participate with the City to construct new water and sanitary and storm sewer systems within the development that would meet existing City engineering requirements.

It is uncertain whether new electrical facilities would be required for the proposed development.

Given existing construction and expansion plans, there would be sufficient capacity at both the transfer station and the landfill to accommodate additional solid waste loads associated with the proposed project.

C. SIGNATURE

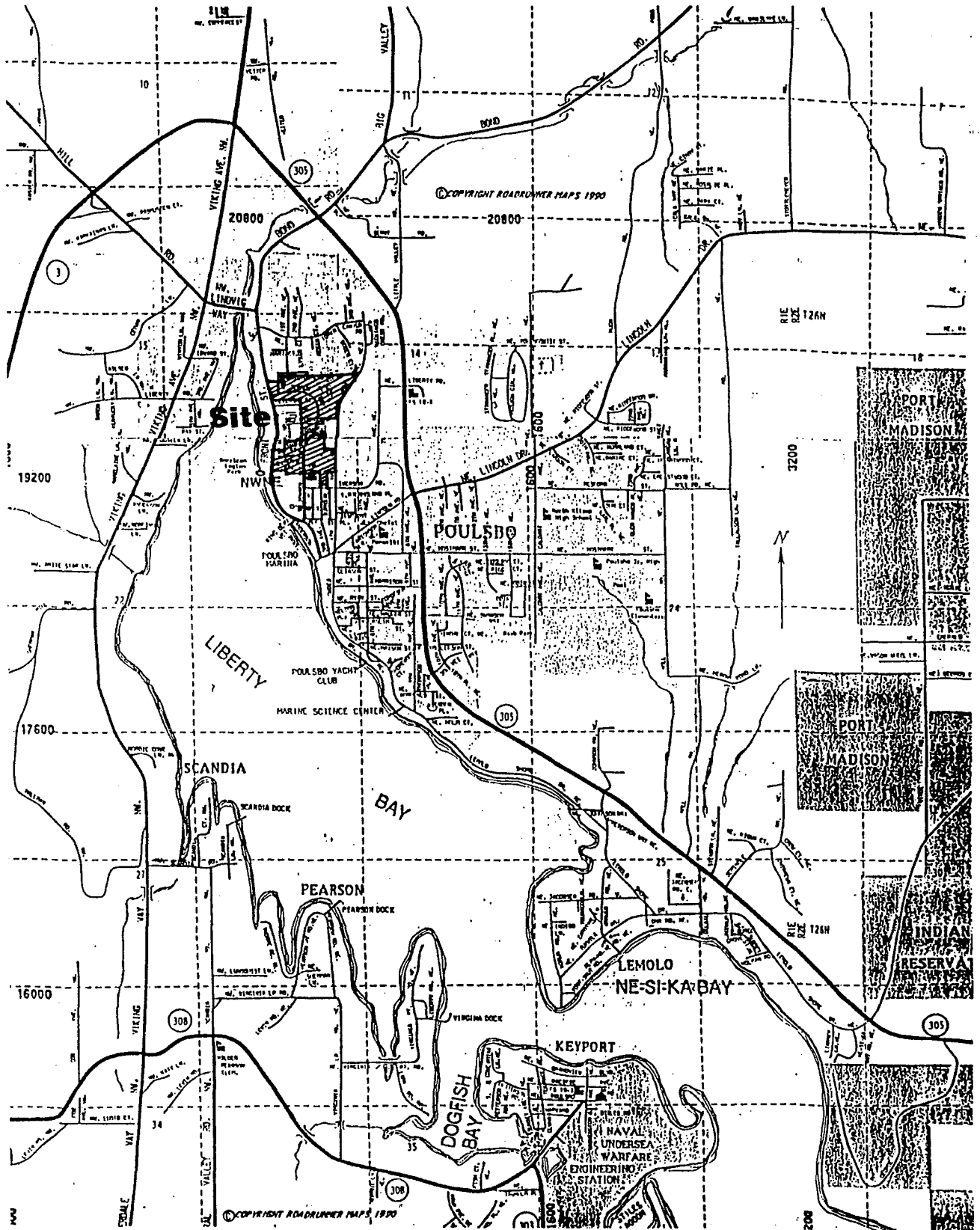
The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:  Date Submitted: 8/23/95

## **APPENDIX B**

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### **Vicinity Map**



## **APPENDIX C**

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### **Project Sequencing**

#### **1. General**

The sequence of development for Poulsbo Place is dependent on market conditions, city approvals, rate of absorption, and the availability of financing. Since the Redevelopment Master Plan does not propose a specific plan it also does not propose a specific phasing plan. In general, the expectation is the North (residential) portion of the site will be developed first, followed by the Commercial development in the Southern portion of the site. Some overlap is expected between the residential and commercial development, although it is expected build-out of the commercial areas will be in the final phases of development.

The Site Plan Alternative included with the Redevelopment Master Plan proposes a possible scenario for development based on the RMP conditions. A probable sequence for phasing of this Site Plan Alternative is outlined below to provide an example of how phasing on this site might occur. The lettered sections refer to those noted on the Site Plan Alternative.

#### **2. Sequencing Plan for Site Plan Alternative**

Initial development will be Section I and Section J in the Northwest portion of the site. Because many of the existing units in these areas are unoccupied, this initial phase of development will allow the renovation of existing unoccupied units and construction of new infill housing with minimal displacement of current residents. Public utilities for these two sections can also be provided without disruption to other areas of the site.

The initial residential development in Sections I and J will be followed by the first phase of commercial development. The first phase of commercial development will most likely be the office development along Front Street in Sections A and C. These two buildings are fairly distinct from the commercial core and can be supported as independent developments prior to the construction of the buildings and infrastructure in the commercial core.

The next phase of residential development will be Sections K and L in the Northeast portion of the site. Development of these two Sections will expand the contiguous residential development at the North end of the site while delaying redevelopment of the occupied housing to the South. This manner of phasing will make new housing available to current residents when the housing in the Southern portions of the site are redeveloped.

At this time, it is anticipated commercial development in Sections B and D will commence with the construction of the office and office/retail combinations along Jensen Way. This Phase of development will also provide some of the infrastructure necessary for the remaining residential development to North. The ratio of office to retail uses in this phase of construction will be entirely dependent on market conditions although retail uses will be strongly encouraged as the street level use in all the buildings in this phase. As a part of this phase the site for the 29,000 s.f. office building on the Sunset Street extension will be developed as parking. Construction of the office building will occur in a later phase.

Development in the "commercial core" will provide the utility connections necessary to support the next phase of residential development, Section E.

Provided the absorption rate is adequate on the already constructed residential phases, the high density multi-family housing (Sections G and H) will be the next phase to be developed. In the event, market conditions deem commercial development more favorable for this area, the option for commercial uses is provided for in the land use designation for this area.

The next phase of commercial development will be the more public uses in Sections A and C, the hotel/conference center and the community entertainment complex. Development of these two structures will complete the "commercial core" of the project and provide the signature element of the entire development.

The final phase of commercial development will be the construction of the 29,000 square foot office building along the Sunset Street extension. Construction of this building will require the elimination of the on-grade parking built for earlier phases and the introduction of structured parking. The feasibility of this final phase will be largely determined by the success of the earlier commercial phases.

The phasing sequence is planned so that construction of the utility infrastructure and can occur in a logical manner without a disproportional amount of investment in the infrastructure. As each Phase is developed, the developer will cooperate with the city to insure adequate public services are available to serve the Project. Other required mitigation measures will also be phased in a similar manner so project impacts are mitigated in proportion to actual development.

## **APPENDIX D**

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### **Statement of Condition of Public Rights of Way**



# A.D.A ENGINEERING

(ARMSTRONG, DeGROOT & ASSOCIATES)

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April 4, 1991

## EXHIBIT M.

### PUBLIC RIGHT-OF-WAY CONDITION

#### SCOPE:

This exhibit is an Engineering narrative concerning existing public right-of-way conditions. It covers the street right-of-ways lying within the Poulsbo Associates Property and/or adjacent to this property.

#### 1. Front Street NE (First Ave.)

Front Street is located along the West side of the property. This street has a 60 foot wide right-of-way and in this location there is a 40 foot wide asphalt paved street with concrete curbs, gutter and 5' sidewalk on the East side adjacent to the Poulsbo Associates property. The paved street and the sidewalk is in good condition.

#### 2. NE Sunset Street (Sunset Way)

Sunset Street is located in the Southwest portion of the property and it has a 60 foot wide right-of-way. There is a 30 foot wide concrete paved street with curbs and 4' sidewalk on both sides. The concrete pavement is in fair condition and the curbs and sidewalk are in poor condition.

#### 3. Jensen Way NE

Jensen Way runs North-South and thence on a sweeping course to an East-West direction and intersects Front Street thru the property. This street has a 30 foot wide concrete paved street with curbs and 4' sidewalk on both sides. The concrete pavement is in fair condition and the curbs and sidewalks are in poor condition with numerous failed sections.

4. 4th Avenue NE (Third Ave)

Fourth Avenue NE is located on the East side of the property. This street was originally Third Avenue. The right-of-way width varies on this street but generally it is 50 feet wide adjacent to the Poulsbo Properties Property.

The existing street is a 24 foot wide asphalt paved street with tilt up edges, in good condition. This street when finished with curbs and sidewalk is 30 feet wide with curbs, gutters and a 5 foot sidewalk. The right-of-way has been rough graded for the completed street but the work is performed as the adjacent property is developed.

5. Iversen Street

Iversen Street is an East-West street that is adjacent to a small portion of the Poulsbo Properties property on the South side. The right-of-way width varies, 35 feet to 40 feet and the desired minimum width is 40 feet.

The existing street is a 25 foot wide asphalt pavement in fair condition, with no curb, gutter and sidewalk.

6. Hamilton Court NE (Liberty Way)

Hamilton Court is a North-South and East-West Street located at the Northwest corner of the property. The North-South leg has a 16.5 foot right-of-way width and the East-West leg has a 33 foot width. This street was originally named Liberty Way.

The existing street is a 20 foot wide asphalt surface to gravel in poor to fair condition, with no curbs, gutters and sidewalks.

Public Right-of-Way Condition

7. First Avenue NE

First Avenue is a North-South Street located in the Southwest portion of the property. This new street has a 40 foot right-of-way, 24 foot wide asphalt pavement rolled concrete gutters, with a 4 foot concrete sidewalk. These surfaces are in good condition.

8. NE Union Street

Union Street is an East-West Street located in the Northern portion of the property. This new street has a 40 foot right-of-way, 24 foot wide asphalt pavement and rolled concrete gutters and 4 foot concrete sidewalks. These surfaces are in good condition.

9. 3rd Avenue NE

Third Avenue is a North-South Street located adjacent to the Southeast portion of the property. The South 260 feet more or less of this right-of-way has a 30 foot wide asphalt paved street with concrete curb and gutter. There is no sidewalks on the West side adjacent to the Poulsbo Property's property. The paved portion of the street is in good condition.

10. Proposed By-Pass

The City of Poulsbo Short Plat as recorded by Kitsap County Auditor's File No. 7904190092 shows a 60 foot wide right-of-way running in a curvilinear route from the intersection of Jensen Way and Sunset Way Southeasterly to 4th Avenue (3rd Avenue). This right-of-way has not been dedicated and/or improved.

I hereby certify that I have made a cursory analysis of these public right-of-ways and the existing conditions.



Signed,

*Herbert A. Armstrong*  
Herbert A. Armstrong, P.E.

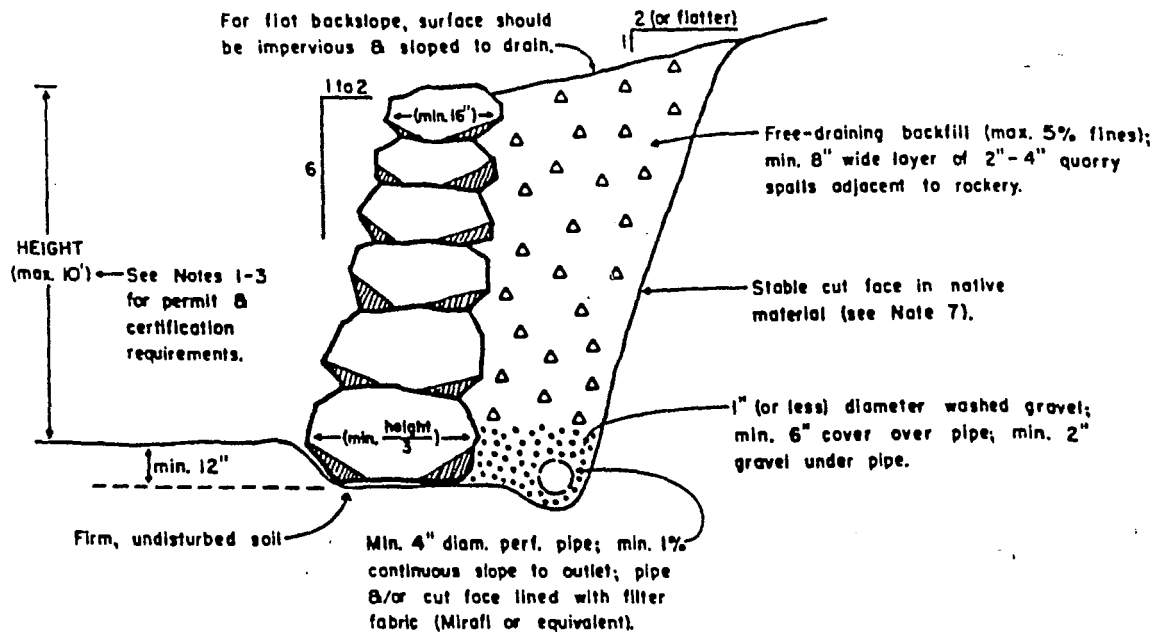
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## **APPENDIX E**

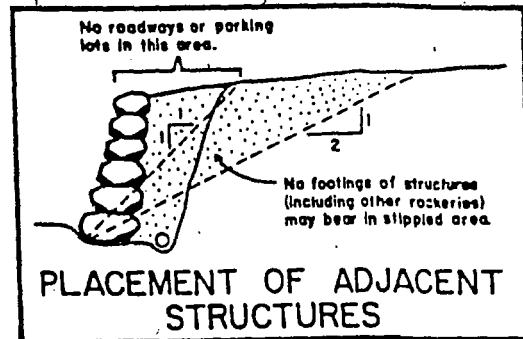
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### **Typical Retaining Wall**



#### GENERAL NOTES.

1. Rockeries 4' and over in height require a building permit.
2. For rockeries between 4' and 6' high, the installer or contractor shall provide a letter to the building inspector prior to final inspection certifying that the subgrade and drainage have been prepared in accord with these standards.
3. Rockeries 6' and over in height require engineering supervision by special inspector (UBC 306b), which at minimum shall consist of inspection and written certification of subgrade, placement of base course and drainage, and finished rockery.
4. Rock shall be sound and have minimum density of 160 pounds per cubic foot.
5. The long dimension of all rocks shall be placed perpendicular to the wall. Each rock should bear on two rocks in the tier below.



6. Improved walking surfaces above and adjacent to rockeries over 30" in height shall be protected by a guardrail conforming to UBC 1711.
7. Rockeries are erosion-control structures not retaining walls. Native material must be stable and free-standing in cut face.
8. Any deviation in design or in placement of adjacent structures must be submitted with the seal of a civil engineer currently licensed in the state of Washington.

## **APPENDIX F**

---

### **Legal Description of Property**

## A·D·A ENGINEERING

(ARMSTRONG, DeGROOT & ASSOCIATES)

ENGINEERS AND SURVEYORS

HERBERT A. ARMSTRONG  
PETER C. DeGROOT

Serving You Since 1960



P.O. BOX 847  
POULSBO, WASHINGTON 98370  
TELEPHONE 779-6633  
(371 NW LINDVIG WAY)

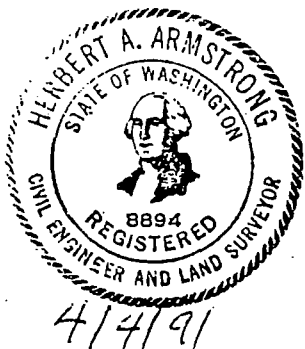
April 4, 1991

### EXHIBIT O.

#### LEGAL DESCRIPTION:

Parcels C and D of City of Poulsbo Short Plat Recorded under Auditor's File No. 7904190092, being a portion of the Southwest quarter of Section 14, Township 26 North, Range 1 East, W.M., in Kitsap County Washington.

I hereby certify that the above description was provided by the Stewart Title Company and was used as our basis for the Boundary Survey of the Poulsbo Associates Properties, Poulsbo, Washington.



Signed,

*Herbert A. Armstrong*

Herbert A. Armstrong, P.E.

## **APPENDIX G**

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### **Traffic Impact Analysis**



# TRAFFIC IMPACT ANALYSIS

## POULSBO PLACE DEVELOPMENT

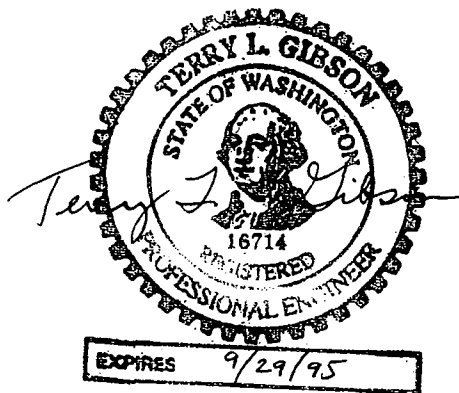
### POULSBO, WASHINGTON

#### Expanded SEPA Checklist - Transportation

Prepared for: Poulsbo Place Partners

Submitted to: City of Poulsbo  
Washington State Department of  
Transportation, Olympic Region

Prepared by: Gibson Traffic Consultants, Inc. PS



July 19, 1995

**GIBSON**  
**TRAFFIC**  
**CONSULTANTS**

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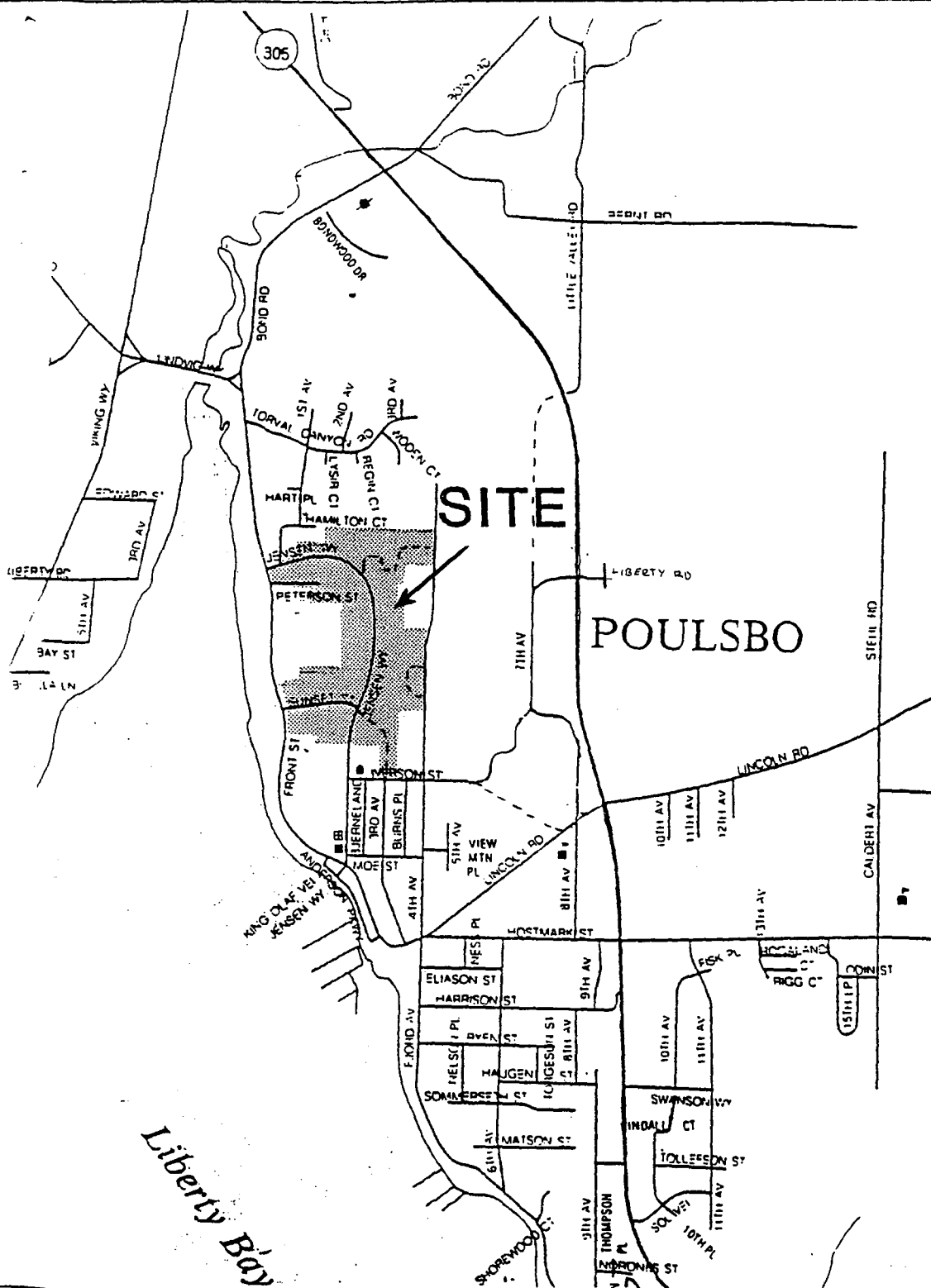
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GIBSON TRAFFIC CONSULTANTS

TRAFFIC IMPACT STUDY

POULSBO  
PLACE

POULSBO, WASHINGTON

FIGURE 1  
PROJECT VICINITY

## INTRODUCTION

### Project Background

Gibson Traffic Consultants (GTC) has been hired by the Poulsbo Place Partners to analyze the traffic impacts of the proposed Poulsbo Place Development, to be located on a 31.5-acre parcel north of Iverson Street along Jensen Way in the City of Poulsbo. The project site is presently occupied with a mixture of single-family and duplex/triplex residences (see Figure 1). The traffic impact analysis by GTC addresses existing and future traffic conditions with and without the proposed multi-use development.

The proposed Poulsbo Place development allows for up to 360 multifamily and single family units. Presently there are 121 occupied units on the site. Additionally the proposal allows for a commercial/employment area comprised of: 70-room hotel with restaurant and conference facilities; 113,000 SF of office space; 35,000 SF of retail space; and, a community entertainment facility consisting of a 4-screen movie theater. This traffic report documents the "worst case" traffic impacts of the proposed Poulsbo Place development, and the off-site transportation improvements required to mitigate the traffic impacts. Construction and full occupancy of the proposed mixed-use project is planned by the year 2004.

### Study Input and Scoping

Scoping parameters and study area boundaries for the traffic analysis were established based on input from the City of Poulsbo. Poulsbo Planning and Public Works, and WSDOT staffs also provided input on programmed or planned transportation improvement projects within the study area.

The City of Poulsbo requested analysis of the critical weekday p.m. peak period for the maximum "build-out" of the proposed development assuming the existing road network (scenario 'A'). Additionally, the City requested analysis assuming a proposed road link between Iverson Street and Lincoln Road (scenario 'B'). The study area boundaries have been established as: State Highway 305 to the north and east; Viking Way to the west; and Hostmark Street to the south. The critical off-site intersections for the peak-hour LOS analysis and traffic impact assessment include:

1. SR-305/Hostmark Street
2. SR-305/Lincoln Road
3. SR-305/Liberty Street
4. SR-305/Bond Road
5. SR-307/Bond @ Front/Lindvig
6. Front Street @ Jensen Way (south)
7. Front Street @ Sunset Street
8. Front Street @ Jensen Way (north)
9. Front Street @ Torval Canyon Road

10. Front/Hostmark Street @ Fjord/4th Ave
11. Hostmark Street @ Lincoln Road
12. 4th Avenue @ Iverson Street
13. Jensen Way @ Iverson Street
14. Lindvig Way @ Viking Way
15. 8th Avenue @ Lincoln Road
16. 7th Avenue @ Iverson/8th Avenue

### **Existing Site Uses**

The Poulsbo Place site presently has a total of 165 residential units of which 121 units (27-SFD and 94 townhouse/duplex) are presently occupied. To estimate the net/new traffic to the development site GTC has taken a reduction only for the existing occupied units.

### **Proposed Site Development and Access**

The proposed Poulsbo Place site is located directly north of the Poulsbo central business district (CBD) along both sides of Jensen Way NE. The residential development of the Poulsbo Place project would occur primarily along Jensen Way to the north of Sunset Street, with the exception of a parcel of townhouse units located east of the Jensen Way/Sunset Street intersection adjacent to 4th Avenue NE (only access via 4th Avenue). The total residential build-out (including any retained existing dwellings) would include 20 low density (single-family) homes and 340 medium density (multi-family) apartments or townhouse/condominiums units. Access to the residential area would be primarily provided via Jensen Way and Iverson Street with limited access via 4th Avenue for the residential units on the east side of the property. Note: the proposed number of residential units includes a 20% "higher density" increase over the site plan shown; thus, representing a "worst case" scenario.

The commercial area of Poulsbo Place could include several alternate development scenarios: higher proportion of office space (instead of retail); a bowling alley facility instead of a theater complex; and, elderly housing instead of apartments. The trip generation characteristics of each scenario were compared and the scenario generating the most trips was selected as the "worst case". As a "worst case" the commercial portion of the proposed Poulsbo Place project would include 113,000 SF square feet of general office space and 35,000 SF of specialty retail. Additionally, a 4-screen theater and a 70-room hotel complex (including conference center and restaurant) are proposed in the southern part of the development. The primary access roads to the commercial area would be Sunset Street, Jensen Way (south) and 3rd Avenue/Iverson Street. The future conditions analysis assumes Sunset Street is connected with 3rd Avenue to provide an access connection to the east via Iverson Street. Note: The steep topography between Sunset Street and 4th Avenue would preclude a direct east-west extension/connection between Sunset Street and 4th Avenue. Construction and full occupancy of the Poulsbo Place project is projected for the year 2004.

## Methodology

**Traffic Counts and Background Growth:** Existing and historic traffic count data for City streets and State highways, were obtained from the City of Poulsbo (Andrzej Kasiniak) and WSDOT Olympic Region staff (Hans Matthiesen). Current traffic volumes and turning movement counts were provided by the City of Poulsbo where available, and GTC or Traffic Count Consultants (TCC) completed new two-hour p.m. peak hour turning movement counts at other study intersections. The afternoon "commuter" peak period generally occurs between 4:00 and 5:00 PM, and peak-hour volumes are 9-10 percent of daily traffic per typical traffic flow characteristics.

Comparison of 1992/93 daily volumes with 1989/90 counts documented in the 1992 and 1993 WSDOT Annual Traffic Report indicates a 4 to 14 percent net traffic growth on SR-305 (over 3-4 years) between the Winslow ferry landing and Bond Road (1% to 4% annual growth factor). Additionally, year 2004 baseline traffic volumes on study area roads were interpolated from the 1990-2010 forecasts contained in the Kitsap County Draft Transportation Plan. Interpolated traffic volumes indicate annual compounding growth factors ranging from 1.5 to 2.5 percent between 1990 and 2010. Finally, the 1991 p.m. peak hour volumes from the 1991 Jensen Place traffic report (by Christopher Brown) were compared to the 1995 p.m. peak volumes obtained for this study.

Population and employment forecast data was obtained from the Kitsap County Draft Transportation Plan (KCDTP) to assist in the development of the future trip distribution and traffic assignment. According to the KCDTP 2010 forecasts, the Poulsbo area is expected to increase its population and employment by 116 and 28 percent, respectively. Note: These growth percentages would include the Poulsbo Place development. Trip distribution based on the County traffic analysis zones were determined by combining the population and employment percentages by regional access routes to develop the overall traffic assignments of project generated trips.

**Level of Service Calculations, Trip Generation and Modal Split:** Peak-hour level of service (LOS) determinations at affected intersections and proposed site entrances were made using the methodology described in the new 1985 edition of the *Highway Capacity Manual* (HCM), Transportation Research Board, Special Report 209. HCM software developed by the Federal Highway Administration (FHWA) was utilized to calculate the peak LOS for existing and future conditions. Trip generation estimates for the Poulsbo Place project were based on statistics for similar land use developments compiled in the 1991 *Trip Generation* manual (5th edition), published by the Institute of Transportation Engineers (ITE).

Assumed reductions to vehicular traffic generated for retail "passby/diverted" and internal "crossover" trips (attributable to mixed-use developments) were based on research and surveys documented in the Preface of the ITE *Trip Generation* manual and published articles in various issues of the ITE Journal publication. Modal split information on use of public transit and carpools/vanpools in Kitsap County were provided by Kitsap Transit. Transit,



vanpool and other high occupancy vehicle (HOV) rideshare programs currently make up approximately 35 percent of all Kitsap County commuters. Assumed transit and ridesharing reductions for residential, retail, employment, and college campus uses were discussed with Kitsap Transit's Executive Director (Richard Hayes). Terry Gibson, responsible for the traffic analysis and report, is a licensed professional engineer (Civil) in the State of Washington and past-President of Washington State section of ITE.

## **EXISTING CONDITIONS**

### **Road System**

The primary access routes to the project site are SR-305, Bond Road, Viking Way, Front Street, Lincoln Road, Hostmark Street, Jensen Way, and Iverson Street.

**SR-305** is an urban principal arterial which connects the ferry terminal at Winslow 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, Liberty Road, Lincoln Road, Bond Road, and Viking Way. (Note: All five 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 corridor. SR-305 carries approximately 19,700 average weekday daily trips (AWDT) south of Little Valley Road and 21,300 AWDT south of Hostmark Street within the City of Poulsbo.

**Bond Road** (a.k.a. SR-307) is classified as a two-lane collector within the City limits. Bond Road provides a connection to Poulsbo from SR-104 and the Kingston/Streibels Corner area of north Kitsap County. Bond Road is posted for 35 mph within Poulsbo city limits and carries approximately 7,980 AWDT between SR-305 and Lindvig Way.

**Viking Way** is a two/three-lane principal arterial which runs parallel and east of SR-3 and connects SR-305 to Lindvig Way, where it becomes Silverdale Way and continues south to Silverdale and Bremerton. Viking Way is posted for 35 mph and carries 20,040 AWDT south of Lindvig Way.

**Front Street** is classified as a collector and this 2-lane roadway provides primary access through 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 AWDT south of Bond Road and 9,000 AWDT south of Sunset Street where it is posted for 15 mph. It has a 60-foot ROW with a 40-foot pavement width in the site vicinity (Sunset Street). Front is striped for a 19-foot NB lane, 11-foot SB lane and a 9-foot paved shoulder with rolled curb on the west side. Along the east side of front Street, there is a 4-foot concrete sidewalk and curb and gutter sections are installed.

**Lincoln Road** is a two-lane collector street which provides a connection to downtown Poulsbo from the Indianola area of Kitsap County south of Kingston via Miller Bay Road. Lincoln Road is posted for 35 mph and carries approximately 6,220 AWDT west of SR-305.

**Hostmark Street** is a two-lane collector which connects the Poulsbo CBD to SR-305 and east Kitsap County. It is primarily posted for 25 mph but reduces to 15 mph near the Lincoln Street intersection. A sidewalk or paved shoulder is provided on at least one side along most of the street's length in the downtown area. West of SR-305, Hostmark carries 8,360 AWDT for existing conditions

**Jensen Way** is a 2-lane collector with a south to west curvature looping from Front Street/Iverson (south) back to Front Street (north). It has 32-foot pavement width with curbs, gutters and sidewalks on both sides and is posted 25 mph in the project vicinity. South of the Poulsbo Post Office (just north of the Iverson intersection), Jensen widens to a 40-foot pavement width with parking on both sides and the posted speed is reduced to 15 mph. North of Iverson, Jensen way carries 4,000 AWDT and 4,600 south of Iverson Street.

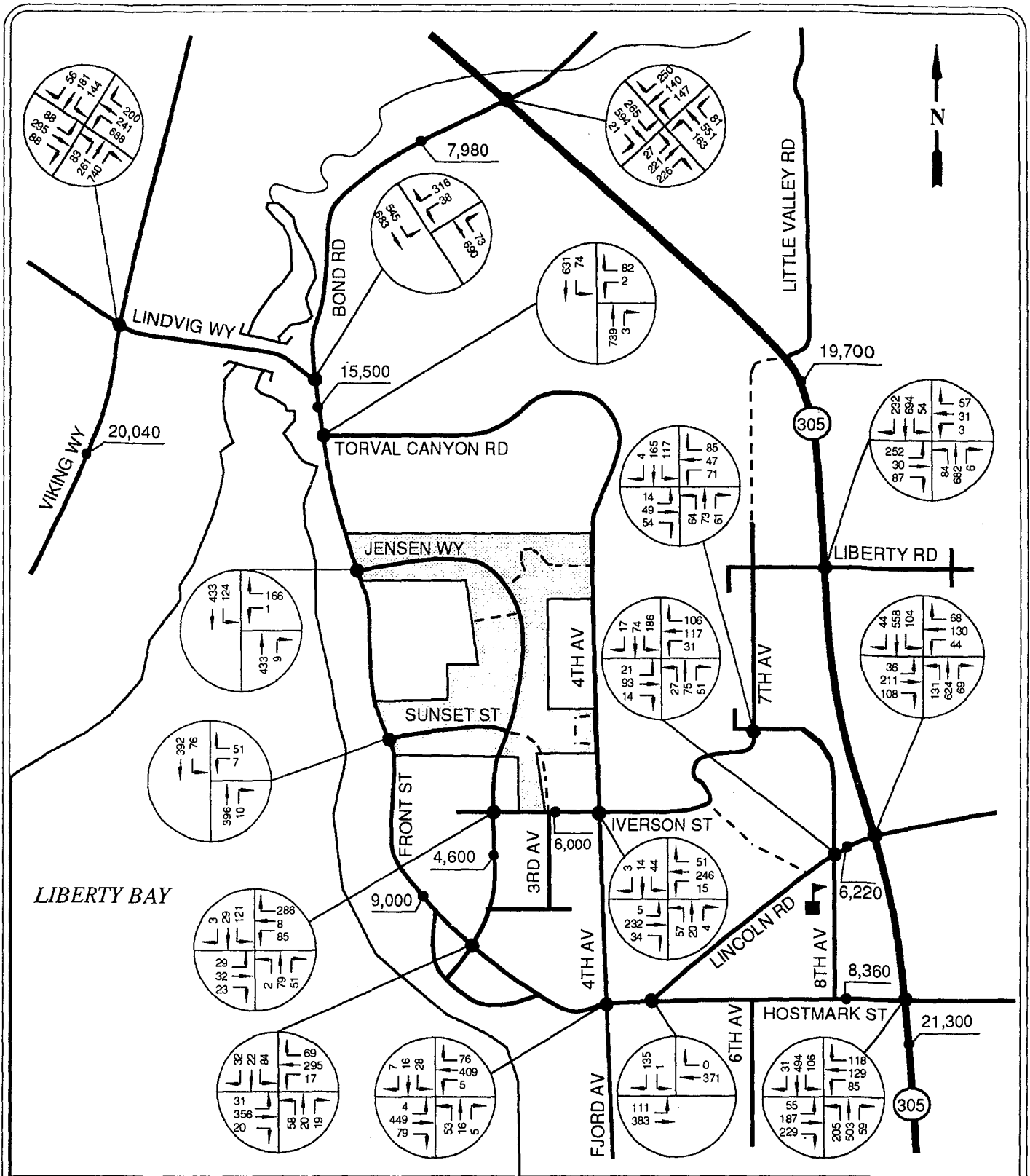
**Iverson Street** is a meandering 2/3-lane east-west collector street. A new section of Iverson has recently been completed which connects 4th Avenue with 7th and 8th Avenues. It is posted primarily for 25 mph with some segments posted for 20 mph. Most major intersections along Iverson Street are 4-way stop controlled. Adjacent to the project site, Iverson has 30-foot pavement width and a gravel walkway on the north side only. It presently carries approximately 6,000 AWDT west of 4th Avenue.

Traffic signals presently operating in the project vicinity are located at the intersections of SR-305 with Hostmark Street, Lincoln Road, Liberty Street, and Bond Road plus, the intersection of Lindvig Way/Viking Way. All-way stop control is installed at the intersections of Front Street/Jensen Way (s), 7th Avenue/Iverson, Jensen Way/Iverson. The remaining study intersections are currently stop-sign controlled for the minor approaches.

### **Levels of Service**

Periods of maximum congestion and delays at intersections occur during the morning and afternoon commuter peak-hour periods (approx. 7:00-8:00 AM and 4:00-5:00 PM at study intersections). Peak-hour traffic volumes in the study area represent 9 to 10 percent of daily volumes for the PM peak and 6 to 7 percent for the AM peak. Note: The weekday PM peak hour has been analyzed for "worst case" traffic conditions since AM peak volumes are about 78 percent of PM peak volumes. Existing PM peak turning volumes at critical access intersections are summarized in **Figure 2**.

A measure of the relative congestion levels on roads and highways can be made by comparing the levels of service (LOS) at critical intersections. Therefore, a level of service analysis was conducted for the weekday p.m. peak hour under existing conditions at the



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**TRAFFIC IMPACT STUDY**

**POULSBO  
PLACE**

**POULSBO, WASHINGTON**

**LEGEND**



PM PEAK TURNING VOLUMES



OFFSITE STUDY LOCATIONS



AVERAGE WEEKDAY  
DAILY TRAFFIC (AWDT)

**FIGURE 2  
EXISTING DAILY & PM PEAK  
TRAFFIC VOLUMES**

study intersections identified during the scoping process. In accordance with the 1985 Highway Capacity Manual, facilities are rated between LOS A and F, with LOS A being free flow and LOS F being forced flow or over capacity conditions. At signalized intersections, the level of service is calculated in terms of seconds of delay per vehicle. The LOS at stop controlled intersections is measured in terms of unused or reserve capacity available for each stop controlled movement and each left turn movement on the uncontrolled approaches. The LOS reported here is for the worst case of all the calculated movements at the intersection. Geometric characteristics and conflicting traffic movements are taken into consideration when determining LOS values. **Table 1** outlines the criteria and threshold values for determining level of service grades.

The results of the LOS analysis for the study intersections under existing conditions are summarized in **Table 2**. All of the study intersections in the project vicinity currently operate at an acceptable LOS D or better with the exception of the stop-controlled intersection of Lindvig Way/Bond Road, which currently operates at LOS F. This location operates over-capacity due to heavy through volumes on Lindvig Way/Front Street and the heavy eastbound left-turn volume from Lindvig Way to Bond Road. The Lindvig Way/Bond Road intersection is planned for signalization (see Programmed and Planned Transportation Improvements section) with Transportation Improvement Board (TIB) funding; however, since intersection LOS calculations show that signalization would not improve the LOS for all approaches, installation of a traffic signal has been delayed until further improvement options can be analyzed. Signalization of the intersection would, however, improve overall intersection conditions and average stopped delay, as discussed in the "Projected (2004) Traffic Conditions with Project" section of this report.

### **Accident Experience**

Recent accident records were obtained from the City of Poulsbo Police Department and WSDOT's Olympic Region for study area roads, highways and intersections. **Figure 3** graphically portrays the annual average accidents for road segments and critical intersections over the past three years (1991-1994). The highest accident rate at study area intersections is SR-305/Bond Road, with an accident frequency of 10.0 accidents per year for the past three years. Prevalent accident causes include: rear-end (47%); entering at angle (17%); and side-swipe, fixed object, and others (10% each). Accident analysis for City intersections indicates that Lindvig Way at the intersections of Viking Way and Bond Road have the highest accident frequency with 5.0 and 5.6 annual accidents, respectively. With the low speed limits in the City the number of injury accidents reported are below 50% at all study locations. Note: Intersections with an average less than 1 accident per year have not been shown on Figure 3.

Table 1

**LEVEL OF SERVICE (LOS) CRITERIA FOR  
SIGNALIZED, UNSIGNALIZED & MULTI-WAY STOP INTERSECTIONS**

Level of Service <sup>1</sup>	Expected Delay	<u>Signalized</u> Stopped Delay Sec./Vehicle	<u>Unsignalized</u> Reserve Capacity	<u>Multi-Way Stop</u> Stopped Delay Sec./Vehicle
A	Little/No Delay	$\leq 5.0$	$\geq 400$	$< 5.0$
B	Short Delays	5.1 to 15.0	300 - 399	5.1 - 10.0
C	Average Delays	15.1 to 25.0	200 - 299	10.1 - 20.0
D	Long Delays	25.1 to 40.0	100 - 199	20.1 - 30.0
E	Very Long Delays	40.1 to 60.0	0 - 99	30.1 - 45.0
F	*	$> 60.0$	*	$> 45.0$

\* When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection.

Source: 1985 Highway Capacity Manual and Transportation Research Board Circular 373.

<sup>1</sup> LOS A: free-flow traffic conditions, with minimal delay to stopped vehicles (no vehicle is delayed longer than one cycle at signalized intersection).

LOS B: generally stable traffic flow conditions.

LOS C: occasional back-ups may develop, but delay to vehicles is short term and still tolerable.

LOS D: during short periods of the peak hour, delays to approaching vehicles may be substantial but are tolerable during times of less demand (i.e. vehicles delayed one cycle or less at signal).

LOS E: intersections operate at or near capacity, with long queues developing on all approaches and long delays.

LOS F: jammed conditions on all approaches with excessively long delays and vehicles unable to move at times.

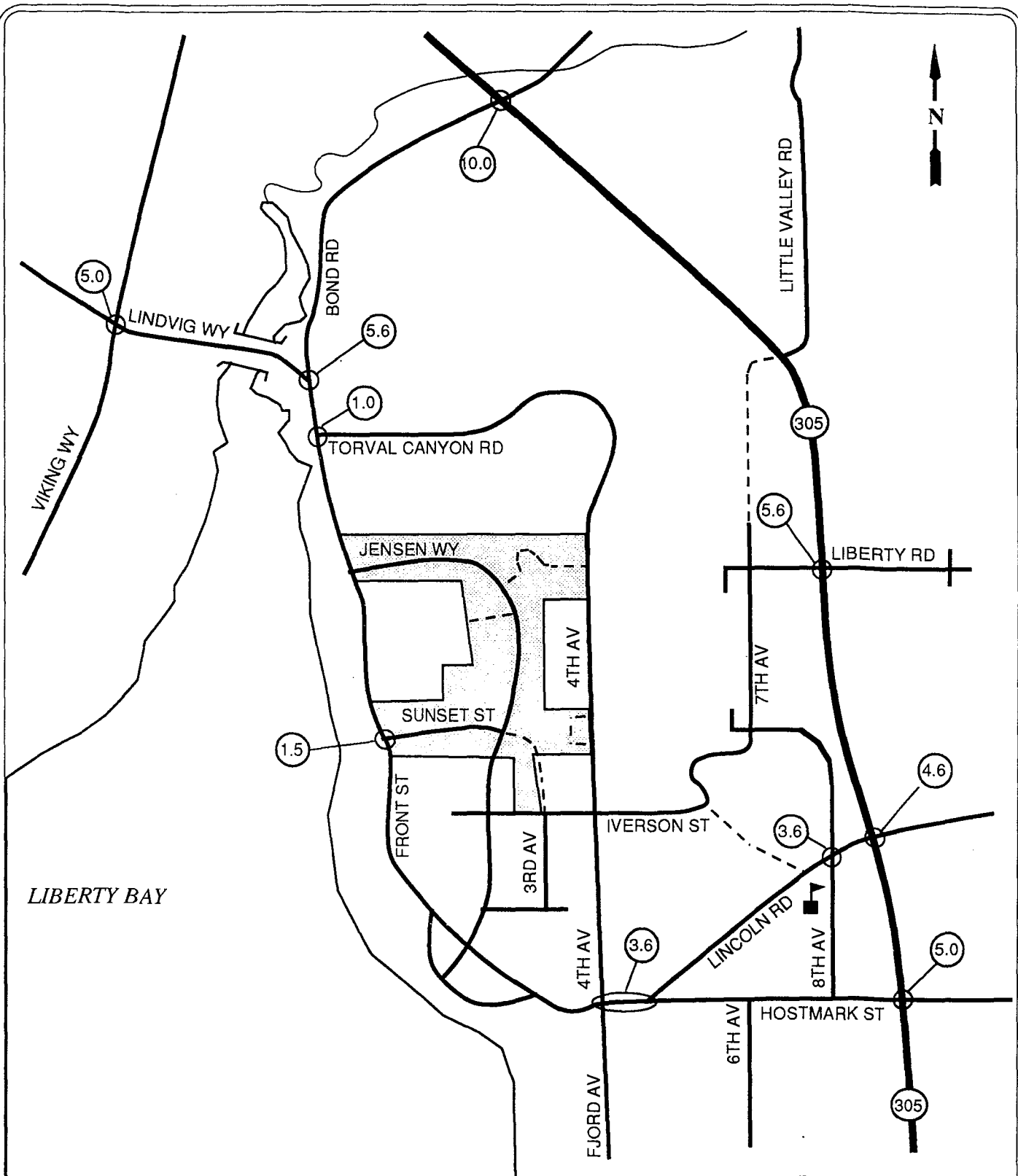
Table 2

**EXISTING LEVEL OF SERVICE  
PM PEAK HOUR**

INTERSECTION		EXISTING	
		LOS	RC <sup>1</sup> / Delay <sup>2</sup>
1	SR-305 @ Hostmark Street	D	28.7 sec
2	SR-305 @ Lincoln Road	C	17.9 sec
3	SR-305 @ Liberty Street	C	18.2 sec
4	SR-305 @ Bond Road	D	32.6 sec
5	Lindvig Way @ Bond Road	F	-38 vph
6	Front Street @ Jensen Way NE (s)	D	21.8 sec
7	Front Street @ Sunset Street	A	525 vph
8	Front Street @ Jensen Way NE (n)	A	493 vph
9	Front Street @ Torval Canyon Road	B	361 vph
10	Front/Hostmark @ Fjord/4th Avenue	D	165 vph
11	Hostmark Street @ Lincoln Road	A	606 vph
12	4th Avenue @ Iverson Street	B	9.6 sec
13	Jensen Way @ Iverson Street	C	10.4 sec
14	Lindvig Way @ Viking Way	D	30.7 sec
15	8th Avenue @ Lincoln Road	C	237 vph
16	7th Avenue/Iverson @ 8th Avenue	B	5.3 sec

<sup>1</sup> Peak hour level of service at unsignalized intersections is based on the reserve capacity (RC) in vehicles per hour for the critical stopped approach.

<sup>2</sup> Peak hour level of service at signalized and all-way stop intersections is based on the average stopped delay in seconds per vehicle for entering traffic on all approaches.



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TRAFFIC IMPACT STUDY

POULSBO  
PLACE

**LEGEND**

(5.0)

ANNUAL AVERAGE ACCIDENTS  
AT INTERSECTION (1991-1994)

**FIGURE 3  
ACCIDENT  
EXPERIENCE**

POULSBO, WASHINGTON

U  
C  
B  
O  
E  
N  
O  
O  
C  
D  
L  
E  
L  
U  
L  
L  
L  
L  
L



## **Transit Service and Pedestrian/Bicycle Facilities**

Public transit service in the vicinity of the proposed Poulsbo Place project 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 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, 41, 42, 90, and 92. Routes adjacent to the proposed Poulsbo Place site served by Kitsap Transit include: Viking Way, Iverson Street, Lincoln Street, Hostmark, Street 7th Avenue, 8th Avenue, Jensen Way and Front Street. Transit service is presently provided from Poulsbo to the Silverdale, Bremerton and Port Orchard areas south of the project site; Bainbridge Island to the east; and, Hansville and Kingston areas to the north.

Bicycle traffic on the arterial system in the project vicinity currently utilize paved shoulders for travel. Front Street has paved shoulders/bike facilities along most of the length from Jensen Way South to Torval Canyon Road. In the CBD area, speeds are posted for 15-25 mph; thus, providing adequate safety for bicycles to use the main travel lanes. The CBD roads have curb/gutter and pedestrian sidewalks on both sides. However north of Iverson and east of 3rd Avenue, sidewalks become more intermittent with paved or gravel shoulders becoming the prevalent pedestrian facility.

## **Programmed and Planned Transportation Improvements**

The City of Poulsbo and WSDOT Olympic Region have programs (funded in 6-year Transportation Improvement Program-TIP) or plans for constructing various transportation improvements within the study area as discussed below.

### City of Poulsbo Projects

#### *\* SR-305/Little Valley Road Intersection Connection to 7th Ave NE and 10th Ave NE*

The City of Poulsbo has plans for the extension of 7th Avenue NE and 10th Avenue NE on the west side and east side of SR-305, respectively. The 7th Avenue NE extension would connect to the SR-305/Little Valley Road intersection and become the new west leg of the intersection. The 10th Avenue NE extension would connect to Little Valley Road just east of SR-305 with a new east-west connection between Little Valley Road and SR-305. This improvement project would also be partially funded by the supermarket development at Hattaland shopping center. Construction of the 7th and 10th Avenue connections would help relieve traffic congestion on SR-305 between Little Valley Road and Lincoln Road.

Timing - This project would be constructed and completed as a condition of development for the Hattaland supermarket project within the next 3-4 years (by 1998).

*\* Lindvig Way/Bond Road/Front Street Intersection Improvements*

The intersection improvements planned for this location include signalization and channelization improvements. Since this intersection currently operates at LOS F, the City had determined that signalization would be required. However, signalization alone would not improve the LOS condition without rechannelization of the intersection. (Note: The mitigation improvements suggested for the Poulsbo Place project would improve the intersection service level as discussed later in this report.)

Timing - Funding for the intersection signalization has been approved and awarded to the City by the Transportation Improvement Board (TIB), and these improvements would be constructed when the ultimate design plans are prepared and finalized.

*\* Bond Road Improvements: SR-305 to Lindvig Way/Front Street*

This project is listed in the City of Poulsbo Six-Year TIP as Priority No. 1 and includes grading, asphalt overlays, curbs/gutters, sidewalks, and channelization improvements.

Timing - Construction is scheduled to begin in 1995.

*\* SR-305: Lincoln Road to Hostmark Street*

This project is described in Poulsbo's Six-Year TIP as Priority No. 2 and includes widening, curbs/gutters, sidewalks, and rechannelization at both SR-305 intersections.

Timing - Improvements are scheduled to begin in 1994-95.

*\* Viking Way NW Improvements*

The programmed improvements to Viking Way are listed as two projects in the Poulsbo Six-Year TIP and are identified as Priority Nos. 3 and 4. Both projects include widening, drainage, curb/gutter, sidewalks, and channelization improvements. Priority No. 3 includes improvements from the south city limits to Lindvig Way, while Priority No. 4 includes the Viking Way section from Lindvig Way to the north city limits. (Note: Priority No. 3 would be constructed as a joint project with Kitsap County.)

Timing - Priority No. 4 is scheduled to begin construction in 1994 and Priority No. 3 in 1995.

*\* Lincoln Road Improvements*

The Lincoln Road improvements are identified as Priority No. 5 in Poulsbo's 6-Year TIP and includes drainage/curb/gutter, and sidewalks from SR-305 to the east city limits.

Timing - Construction is scheduled to begin in 1995-1997.

*\* Finn Hill Road Improvements*

The Finn Hill Road improvements include grading, drainage, curb, gutter, and sidewalk improvements from Terasse Drive to the west city limits. This project is identified as Priority No. 7 in the Poulsbo Six-Year TIP.

Timing - Construction is scheduled to begin in 1998.

Long Term City Capacity Improvements

The City of Poulsbo's Comprehensive Plan (Terra Nova traffic study) has identified several long-term capacity and signalization projects in the site vicinity. The intersections of Front/Jensen Way (s) and the combined Front/4th Avenue-Hostmark/Lincoln intersection are proposed to be signalized. Additionally, a new roadway connecting Iverson Street and Lincoln Road has been proposed. The Poulsbo Place traffic study considers the effect of this proposed connection on the 2004 with project traffic for scenario 'B' conditions.

Kitsap County Projects

Kitsap County improvement projects are listed in the Kitsap County Draft Growth Management Act (GMA) Plan dated September 13, 1994 and provided by KJS Associates.

*\* Finn Hill Road/Viking Way Intersection Improvements*

Intersection improvements are scheduled at the subject intersection under the Kitsap County GMA Plan as Project N3. Improvements would include rechannelization of the intersection and rephasing of the existing traffic signal. Coordination with the City of Poulsbo as the lead agency is likely to determine ultimate improvements needs.

WSDOT Olympic Region Projects

*\* SR 307 (Bond Road): SR-305 to SR-104*

This improvement is identified as Kitsap County GMA Project N15 and includes widening of Bond Road to four lanes plus improvements to the SR-104/Bond Road intersection.

**FUTURE TRAFFIC CONDITIONS WITHOUT PROJECT**

In order to assess and quantify the "net" traffic impacts of the proposed Poulsbo Place project, future baseline (without project) traffic volumes were developed for the impacted arterial system. The "horizon" year of 2004 was selected for the future conditions traffic analysis since it is projected that site development would occur over a 8-9 year period, with

full occupancy/opening of the proposed residential homes, retail and commercial buildings by the year 2004. The future baseline analysis assumes that no improvements have been made to the road system.

### **Background Traffic Growth**

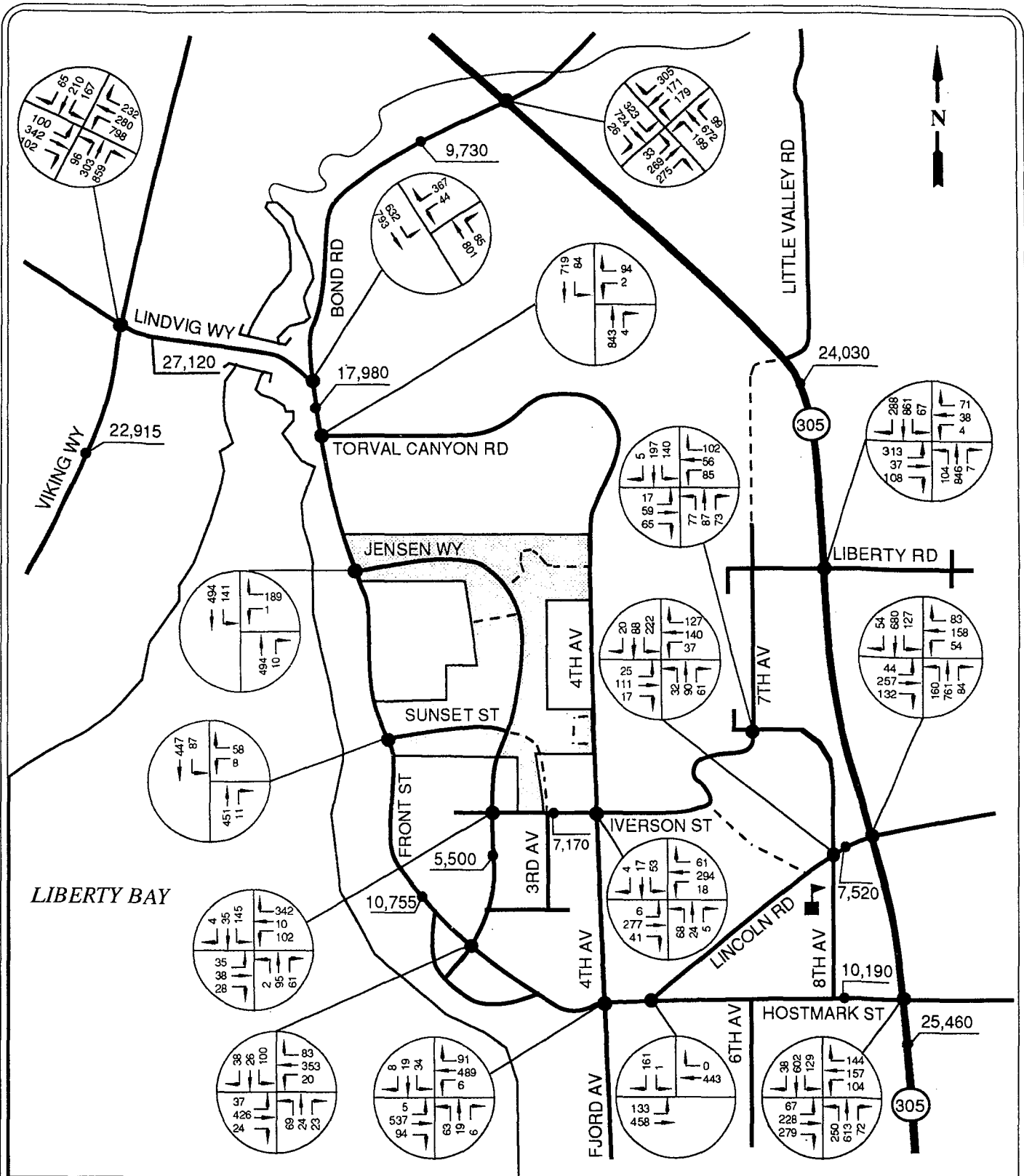
Comparison of 1992/93 daily volumes with 1989/90 counts documented in the 1992 and 1993 WSDOT Annual Traffic Report indicate that traffic growth in the study area along SR-305 has increased 7 to 13 percent or approximately 2 to 4 percent annually. Future traffic volume forecasts modeled in the Kitsap County Draft Transportation Plan for the study area street system indicate annual compounding growth factors from the year 1990 to year 2010 ranging from 1.5 to 2.5 percent. The County's transportation model accounts for projected land use development, growth, and roadway capacities in the Poulsbo area. Additionally, a comparison of 1991 to 1995 p.m. peak traffic volumes at the study intersections indicates a range of annual growth from -1.6 % to 3.4 %. The only intersections with annual growth greater than 3.4 % are the 4th Avenue/Iverson and Iverson/Jensen Way intersections related to a significant increase in traffic along Iverson with the recent connection from 4th Avenue to 7th Avenue. A significant volume of through traffic is now using Jensen Way and Iverson from Front Street (north of Sunset) to 7th Avenue.

The growth factors used to update daily and p.m. peak hour traffic volumes to year 2004 baseline conditions assume the following annual compounded growth rates: 1.5 percent for Lindvig Way and Front Street north of Sunset Street; and, 2 percent for all SR-305 and City intersections east of Front Street.

### **Baseline (2004) Traffic Volumes and Level of Service**

Without the proposed Poulsbo Place project, traffic volumes on area roads would still experience significant increases related to background growth. A 19.5-percent growth in volumes from 1995 to 2004 is attributable to the projected 5.8 percent annual population increase forecasted for the Poulsbo area. SR-305, between Little Valley Road and Liberty, is projected to carry a baseline volume of 24,030 AWDT in 2004 which represents a 22 percent increase over existing (1994) daily volumes. Thus, SR-305 would operate at 36 percent over capacity conditions (17,700 AWDT) in the year 2004 without the proposed Poulsbo Place project (operates approximately 11 percent over-capacity under existing conditions). SR-305 south of Hostmark Street would carry 25,460 AWDT without Poulsbo Place traffic in 2004 and thus operate at 44 percent over capacity conditions. Therefore, the SR-305 corridor would experience significant peak-hour congestion and capacity problems for baseline conditions without improvements by the year 2004.

The baseline traffic volumes for the year 2004 are summarized in **Figure 4**. A level of service (LOS) analysis was conducted for the p.m. peak hour at the study intersections for baseline 2004 traffic volumes. All study intersections were analyzed assuming existing



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**TRAFFIC IMPACT STUDY**

**POULSBO  
PLACE**

**POULSBO, WASHINGTON**

**LEGEND**

- PM PEAK TURNING VOLUMES WITHOUT PROJECT
- STUDY LOCATIONS
- AVERAGE WEEKDAY DAILY TRAFFIC (AWDT)

**FIGURE 4  
FUTURE VOLUMES  
YEAR 2004 BASELINE**

channelization and intersection control (scenario 'A'), except for the Lindvig Way/Bond Road intersection which assumes that a traffic signal would be installed as proposed by the City of Poulsbo (no channelization improvements were assumed). All study intersections were analyzed following the *1985 Highway Capacity Manual* methodology. The results of this analysis are summarized in Table 4 of the "Projected (2004) Traffic Volumes with Project" section of this report.

Weekday peak traffic conditions would degrade significantly at 4-5 study intersections by the year 2004 with background growth only. A review of the LOS analysis results for the 2004 baseline conditions indicate that the SR-305 intersections with Hostmark Street and Bond Road would deteriorate from LOS D to LOS F with projected background growth. The intersection of Viking Way/Lindvig Road would degrade from LOS D to LOS E and the SR-305/Lincoln Road intersection would degrade from LOS C to LOS D. In the CBD area, the intersection of 4th Avenue/Iverson would degrade to LOS F while the intersection of 4th Avenue/Front would degrade from LOS D to E (because of the proximity of the Lincoln/Hostmark intersection an even lower LOS would be experienced than that reported by the HCS software). The Lindvig Way/Bond Road intersection would improve from LOS F to LOS D with the City's proposed signalization project.

## **FUTURE CONDITIONS - TRAFFIC IMPACTS WITH PROJECT**

### **Trip Generation**

Several possible land use scenarios have been evaluated and the scenario with the highest trip generation was assumed for this analysis to simulate a "worst case" condition. For the "worst case" scenario, the 30+-acre proposal for Poulsbo Place would include 360 residential units (20 single-family and 340 multi-family), 113,000 SF square feet of general office space and 35,000 SF of specialty retail. Additionally a 4-screen theater and a 70-room hotel (including conference center and restaurant) are proposed in the southern portion of the development. In order to estimate the vehicular traffic to be generated by Poulsbo Place, it is first necessary to determine the transportation modal splits for future site patrons, employees, and residents, as well as establish the existing trips generated by the presently occupied dwellings to be removed.

**Modal Split and Transit/Ridesharing Reductions:** Kitsap County residents are frequent users of Kitsap Transit's bus service and ridesharing programs. In a discussion with Kitsap Transit's Executive Director (Richard Hayes), the current percentage of public transit/carpool (HOV) commuter traffic within the County is approximately 30 to 35 percent. This information is based on survey data compiled for employment centers and firms throughout Kitsap County. Transit and ridesharing components of this magnitude could not be assumed for the Poulsbo Place project unless an aggressive transportation management program (TMP) were to be committed via a joint effort by all future tenants. However, due to the large scale nature of the proposed retail, business, and residential community in conjunction

with the proximity to the CBD and existing park-n-ride facilities located nearby, a 15 percent transit/carpool and pedestrian/bicycle utilization factor should be a conservative and realistic assumption.

**Passby and Diverted Traffic Reductions:** Trip reductions of site-generated traffic were also assumed to account for passby and diverted traffic already traveling on the City arterial system. Passby factors used to determine the percentage of trips per land use were obtained from the ITE *Trip Generation* manual and ITE *Journal* articles, as well as customer surveys of similar retail facilities. Passby factors utilized were 25 % for specialty retail uses and 35 % for the theater complex.

**Other Site Traffic Reductions:** Other reductions to site vehicular traffic were assumed for the traffic analysis, to account for "crossover/internal" trips between the proposed retail, business/office, and residential homes. Since new residences and businesses would be located adjacent to each other with internal street and pedestrian/bicycle/bike connections, a 10 percent reduction was assumed to account for walking, biking or internal vehicular trips that would not impact the off-site road/highway system.

**Existing Occupied Dwellings:** At the present time, 121 of the existing 165 residential units are occupied (including 27 SFD). A credit for the existing occupied units has been applied to account for traffic already generated by the Poulsbo Place site.

**Daily and P.M. Peak Traffic Generated:** As Shown in **Table 3**, the proposed Poulsbo Place project would generate a gross total of 6,350 vehicular trips on an average weekday (AWDT) with 716 trips occurring during the critical weekday p.m. peak hour. After assumed reductions for passby, crossover and transit trips, the resulting net "new" traffic generated by the Poulsbo Place development is **3,505 daily trips** of which **402 trips occur during the p.m. peak hour** (182 inbound and 220 outbound). The net new daily and peak hour traffic volumes are summarized in Table 3.

### **Trip Distribution and Assignment**

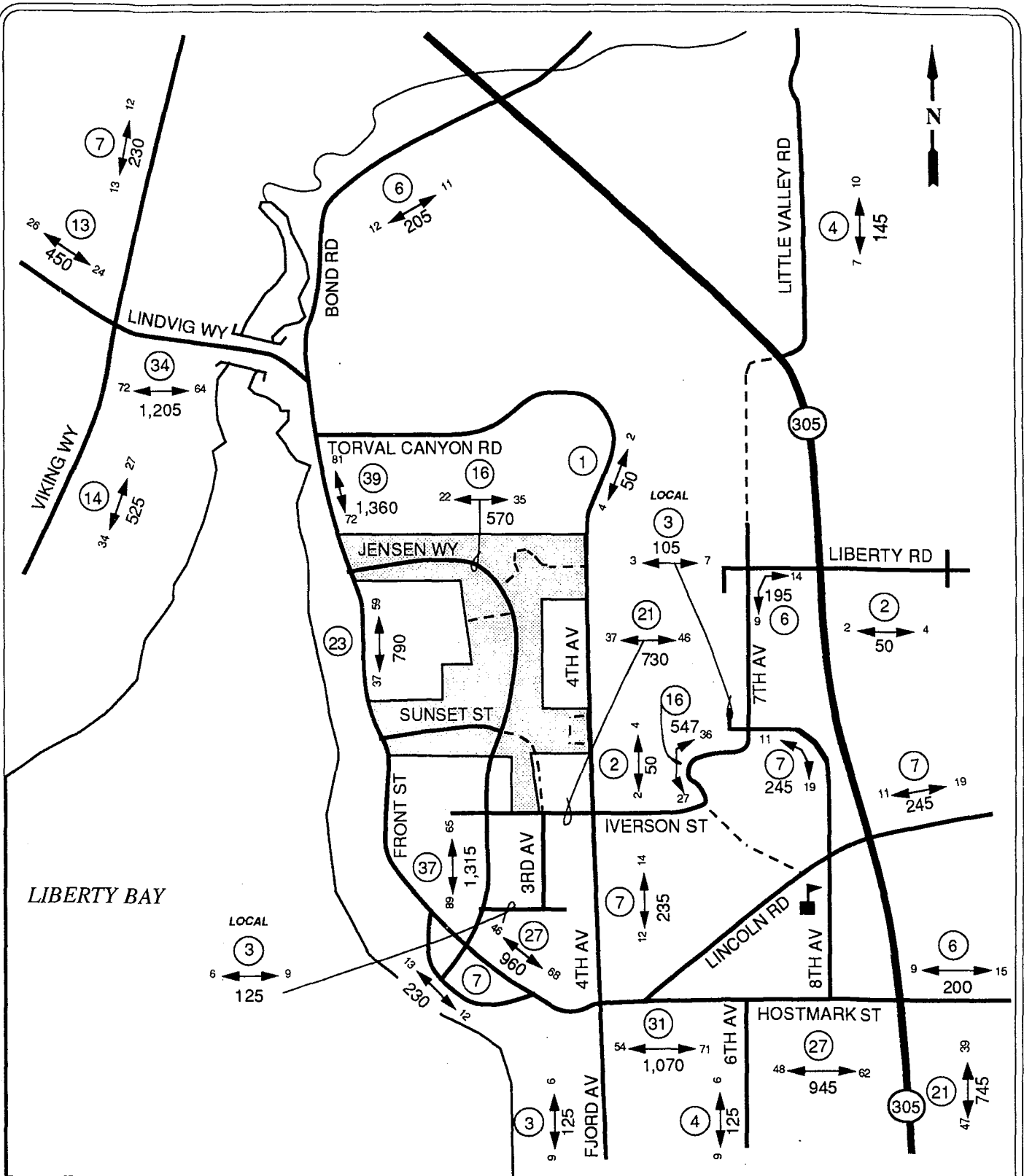
Trip distribution percentages and daily/p.m. peak site traffic assignments for new trips generated by the proposed Poulsbo Place project are summarized in **Figure 5A and 5B**. Figure 5A depicts the trip distribution for Scenario 'A'; existing road network (without the proposed Lincoln Road/Iverson connection). Figure 5B depicts the trip distribution for Scenario 'B'; with the proposed Lincoln Road/Iverson road connection.

Population and employment distribution forecasts for Kitsap County's traffic analysis zones (TAZ), shown in Kitsap County's Draft Transportation Plan (February 15, 1994) and travel time surveys provide the basis for the Poulsbo Place project traffic distributions. Trip distribution percentages were also adjusted to account for projected site traffic destined to/from areas outside of Kitsap County. Passby/diverted trip distribution were based on existing traffic flow patterns on Front and Iverson Street.

**Table 3**  
**TRIP GENERATION SUMMARY**

Land Use	Trip Type	AWDT	PM Peak Hour		
			Total	Inbound	Outbound
<b>Proposed Commercial Area Development Subtotals</b>	Total	4,060	495	209	286
	Pass-By	570	70	43	27
	Crossover	405	49	20	29
	Transit	610	74	32	42
	New	2,475	302	114	188
<b>Proposed Residential Area Development Subtotals (including existing trips)</b>	Total	2,285	221	149	72
	Pass-By	0	0	0	0
	Crossover	230	21	15	6
	Transit	340	33	22	11
	New	1,715	167	112	55
<b>- Existing Trips Subtotals (occupied residential units)</b>	Total	805	79	51	28
	Pass-By	0	0	0	0
	Crossover	0	0	0	0
	Transit	120	12	7	5
	New	685	67	44	23
<b>Net Trips Grand Totals  (Total Proposed Development - Existing Occupied Units)</b>	Total	5,540	637	307	330
	Pass-By	570	70	43	27
	Crossover	635	70	35	35
	Transit	830	95	47	48
	New	3,505	402	182	220





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PM ← PEAK  
AWDT

NET/NEW DAILY/PEAK HOUR  
SITE TRAFFIC VOLUMES

(39)

PERCENT TRIP DISTRIBUTION

**FIGURE 5A**  
**TRAFFIC DISTRIBUTION**  
**NET SITE TRIPS**  
**SCENARIO "A"**

POULSBO, WASHINGTON



## **Projected (2004) Traffic Conditions with Project**

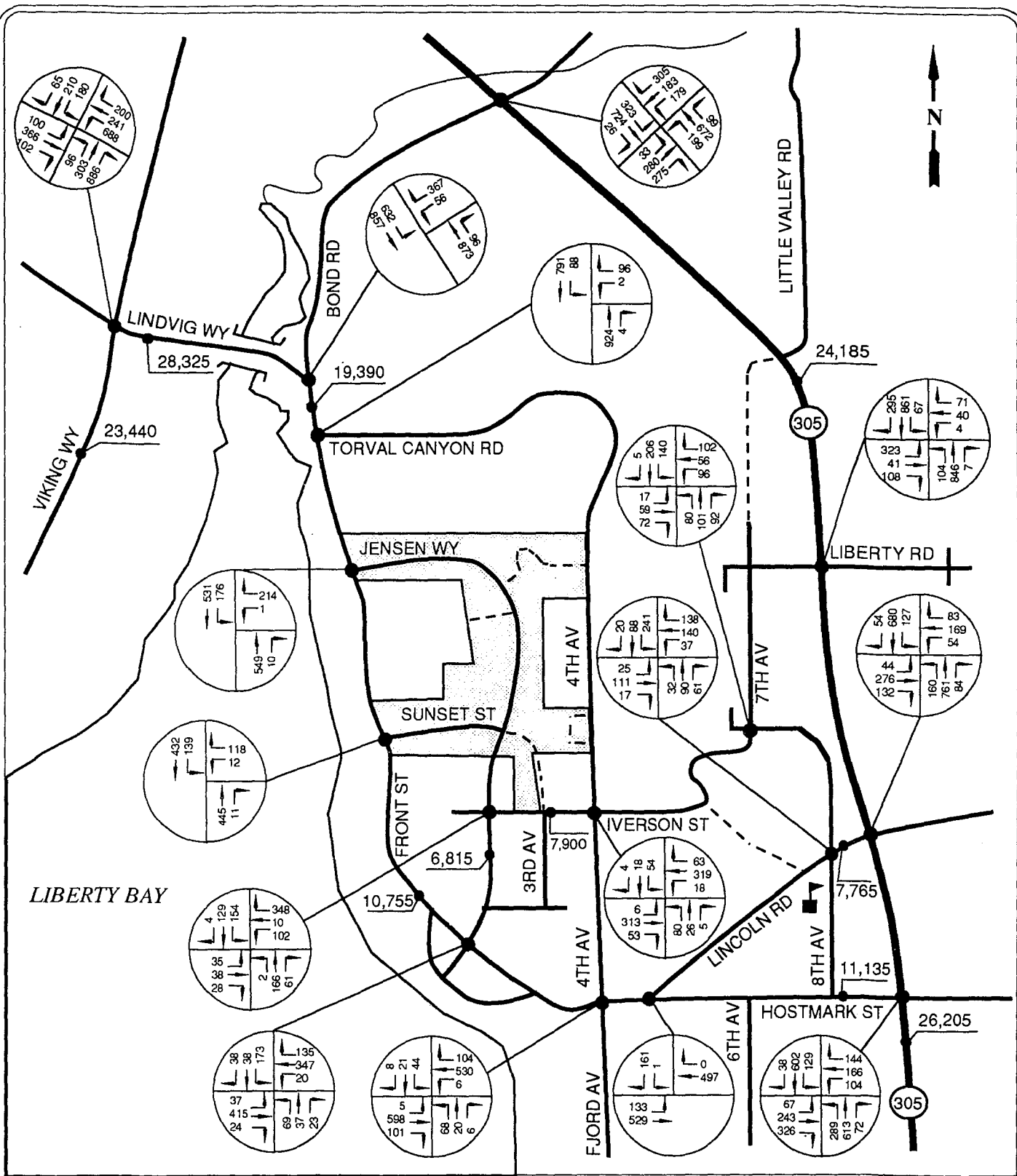
This section discusses future 2004 traffic conditions with the proposed Poulsbo Place project fully developed and occupied. The impact on arterials and study intersections during the critical weekday p.m. peak hour are addressed, as well as traffic control and channelization improvement needs.

**Projected AWDT Volumes vs. Roadway Capacity (Scenario 'A'):** With the existing road system (without the proposed Iverson-Lincoln road connection) and the proposed Poulsbo Place project fully developed, the weekday volume on SR-305 between Little Valley Road and Liberty would increase by 0.6 % percent from 24,030 to 24,185 AWDT. This daily volume is 37 % over the theoretical carrying capacity of a two-lane roadway (17,700 AWDT). The most significantly impacted section of SR-305 would be the section south of Hostmark Street where daily traffic would increase by 2.9 % (+745 AWDT) to 26,205 AWDT or 48 % over the theoretical carrying capacity. Widening to a four-lane section plus left-turn lanes (43,200 AWDT capacity) would be required to accommodate future traffic on SR-305.

The City street system would experience varying degrees of increasing daily traffic due to the Poulsbo Place project. Hostmark Street traffic volumes would increase to 11,135 AWDT (+9.3%) or 71 % of the carrying capacity (14,600 AWDT). Front Road north of Torval Canyon Road would increase by 1,410 ADT (+7.8%) to 19,390 ADT, or 3% over the carrying capacity (18,800 AWDT). Iverson Street west of 4th Avenue would increase by 730 ADT (+10%) to 7,900 AWDT.

**Peak Volumes and Level of Service at Study Intersections (Scenario 'A'):** Figure 6A summarizes year 2004 p.m. peak turning volumes at the study intersections under Scenario 'A' conditions. Table 4 compares the future 2004 p.m. peak hour conditions with the proposed Poulsbo Place project to year 2004 baseline service levels for Scenario 'A'. The only locations where the addition of project traffic (not background traffic) would degrade conditions to LOS F are the Lindvig Way/Bond Road and Lindvig Way/Viking Way intersections.

**Peak Volumes and Level of Service at Study Intersections (Scenario B):** Projected 2004 p.m. peak turning volumes at the study intersections under Scenario 'B' conditions are summarized in Figure 6B. With the proposed Iverson-Lincoln road connection (Scenario 'B'), a significant number of project trips (20%) would divert from the Poulsbo CBD to use the proposed connection to access SR-305 south and Hostmark Road east. Additionally, some existing "through" traffic using Front Street and Hostmark as a cut-through route between Lindvig Rd and SR-305 would divert to the proposed Iverson-Lincoln connection via Sunset Street. GTC estimates approximately 90 peak-hour and 900 daily existing cut-through trips would divert to Sunset Street with the proposed Iverson-Lincoln connection (Scenario 'B'). Table 5 compares the future 2004 p.m. peak hour conditions with the Poulsbo Place project for Scenarios 'A' and 'B' (only the intersections with different traffic volumes as compared to scenario A are shown).



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**LEGEND**

- PM PEAK TURNING VOLUMES WITH PROJECT
- STUDY LOCATIONS
- 11,135 AVERAGE WEEKDAY DAILY TRAFFIC (AWDT)

**FIGURE 6A**  
**FUTURE TRAFFIC VOLUMES**  
**YEAR 2004 WITH PROJECT**  
**SCENARIO "A"**

**Table 4**  
**FUTURE (2004) LEVEL OF SERVICE - SCENARIO 'A'**  
**(Without Iverson-Lincoln Connection)**

INTERSECTION		2004 BASELINE <sup>1</sup>		2004 WITH PROJECT		2004 WITH PROJECT + IMPROVEMENTS	
		LOS	RC <sup>2</sup> / Delay <sup>3</sup>	LOS	RC / Delay	LOS	RC / Delay
1	SR-305 @ Hostmark Street	F	* <sup>4</sup>	F	*	D	28.7 sec <sup>5</sup>
2	SR-305 @ Lincoln Road	D	32.4	D	33.8 sec		
3	SR-305 @ Liberty Street	C	23.4 sec	D	25.1 sec		
4	SR-305 @ Bond Road	F	62.1 sec	F	*	D	35.2 sec <sup>5</sup>
5	Lindvig Way @ Bond Road	D	36.8 sec <sup>6</sup>	F	*	B	11.0 sec <sup>7</sup>
6	Front Street @ Jensen Way NE (south)	F	*	F	*	D	25.4 sec <sup>8</sup>
7	Front Street @ Sunset Street	A	461 vph	A	410 vph		
8	Front Street @ Jensen Way NE (north)	A	425 vph	B	359 vph		
9	Front Street @ Torval Canyon Road	C	295 vph	C	260 vph		
10	Front/Hostmark @ Fjord/4th Avenue	E	88 vph	E	51 vph	C	19.6 sec <sup>9</sup>
11	Hostmark Street @ Lincoln Road	A	527 vph	A	486 vph		
12	4th Avenue @ Iverson Street	F	*	F	*	C	12.2 sec <sup>10</sup>
13	Jensen Way @ Iverson Street	C	17.6 sec	D	25.7 sec		
14	Lindvig Way @ Viking Way	E	50.4 sec	F	*	D	30.2 sec <sup>11</sup>
15	8th Avenue @ Lincoln Road	D	112 vph	E	84 vph		
16	7th Avenue/Iverson @ 8th Avenue	B	7.1 sec	B	7.5 sec		

<sup>1</sup> Includes background traffic growth as documented in the Draft Kitsap County Transportation Improvements Plan (1.5-2.5 percent annual growth factor based on existing 1990 and 2010 forecasts).

<sup>2</sup> Peak hour level of service at unsignalized intersections is based on the reserve capacity (RC) in vehicles per hour for the critical stopped approach.

<sup>3</sup> Peak hour level of service at signalized intersections is based on the average stopped delay in seconds per vehicle for entering traffic on all approaches.

<sup>4</sup> Volume to capacity ratio is greater than 1.2.

<sup>5</sup> With 2nd northbound/southbound lanes on SR-305.

<sup>6</sup> With new signal programmed by City + protective/permissive EB left-turn phasing.

<sup>7</sup> With converting center LT lane to 2nd WB through lane by converting inside EB through lane to new EB LT turn lane.

<sup>8</sup> With new 3-phase signal programmed by City (assuming separate NB/SB phasing).

<sup>9</sup> Combined intersection; 4-phase signal (EB/WB combined + EB overlap + 4th/Fjord combined + Lincoln separate phase).

<sup>10</sup> With separate NB/SB left-turn channelization.

<sup>11</sup> With 2nd WB left-turn lane (LT/LT/TH/RT) +protected LT phasing for NB/SB approaches.



**Table 5**  
**FUTURE (2004) LEVEL OF SERVICE COMPARISON**  
**SCENARIO 'A' VS. SCENARIO 'B'**  
**(With Proposed Iverson-Lincoln Road Connection)**

	INTERSECTIONS (Affected by Proposed Connection)	SCENARIO 'A' (Without Iverson-Lincoln Link)				SCENARIO 'B' (With Iverson-Lincoln Link)			
		WITH PROJECT		WITH IMPROVEMENTS		WITH PROJECT		WITH IMPROVEMENTS	
		LOS	Delay <sup>1</sup> or RC <sup>2</sup>	LOS	Delay or RC	LOS	Delay or RC	LOS	Delay or RC
1	SR-305 @ Hostmark Street	F	* <sup>3</sup>	D	28.7 sec <sup>4</sup>	F	*	D	27.0 sec <sup>4</sup>
2	SR-305 @ Lincoln Road	D	33.8 sec			D	37.7 sec		
6	Front Street @ Jensen Way NE (s)	F	*	D	25.4 sec <sup>5</sup>	F	*	C	16.5 sec <sup>5</sup>
7	Front Street @ Sunset Street	A	410 vph			A	415 vph		
10	Front/Hostmark @ Fjord/4th Avenue	E	51 vph	C	19.6 sec <sup>6</sup>	E	92 vph	C	14.0 sec <sup>6</sup>
11	Hostmark Street @ Lincoln Road	A	486 vph			A	552 vph		
12	4th Avenue @ Iverson Street -W/Scenario 'B' Impvt.	F	*	C	12.2 sec <sup>7</sup>	F	*	F C	* 12.4 sec <sup>8</sup>
13	Jensen Way @ Iverson Street	D	25.7 sec			D	23.9 sec		
15	8th Avenue @ Lincoln Road	E	84 vph			E	16 vph		
16	7th Avenue/Iverson @ 8th Avenue	B	7.5 sec			B	5.5 sec		

- <sup>1</sup> Peak hour level of service at signalized and all-way stop intersections is based on the average stopped delay in seconds per vehicle for entering traffic on all approaches.
- <sup>2</sup> Peak hour level of service at unsignalized intersections is based on the reserve capacity (RC) in vehicles per hour for the critical stopped approach.
- <sup>3</sup> Volume to capacity ratio is greater than 1.2.
- <sup>4</sup> With 2nd northbound/southbound lanes on SR-305.
- <sup>5</sup> With new 3-phase signal programmed by City (assuming separate NB/SB phasing).
- <sup>6</sup> Combined intersection; 4-phase signal (EB/WB combined + EB overlap + 4th/Fjord combined + Lincoln separate phase).
- <sup>7</sup> With separate NB/SB left-turn channelization.
- <sup>8</sup> With scenario B, a separate EB right-turn lane is required as well as proposed NB/SB left-turn channelization.

## RECOMMENDED MITIGATION

Projected 2004 p.m. peak hour conditions, potential mitigation improvements and their effect on peak-hour operations and travel safety are discussed below for each study location.

### Off-Site Intersections (Scenario 'A')

1. **SR-305 @ Hostmark Street** - This intersection would operate over-capacity (LOS F) by the year 2004 with or without the proposed Poulsbo Place project. The addition of second northbound and southbound through-lanes on SR-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 proposed project.
2. **SR-305 @ Lincoln Road** - P.M. peak hour conditions would maintain an acceptable LOS D with the Poulsbo Place project. If SR-305 was widened to provide second northbound and southbound through-lanes, 2004 peak conditions at this intersection would improve to desirable LOS B with project.
3. **SR-305 @ Liberty Street** - P.M. peak-hour conditions would degrade from LOS C to LOS D which is acceptable, per City of Poulsbo and WSDOT standards. The addition of second northbound and southbound through lanes on SR-305 would improve conditions to LOS C or better.
4. **SR-305 @ Bond Road** - This intersection is projected to operate at LOS F with or without project traffic under 2004 peak conditions. The addition of second northbound and southbound through lanes on SR-305 is needed to improve the peak conditions from LOS F to an acceptable LOS D.
5. **Lindvig Way @ Bond Road** - With the addition of the planned traffic signal and protected/permissive phasing for the eastbound left-turn movement, the intersection is projected to operate at LOS D under the 2004 baseline scenario. The intersection would degrade to LOS F with the Poulsbo Place project-generated traffic. GTC recommends converting the existing center turn lane to a second westbound through lane and converting the inside eastbound through lane to a left-turn lane. These striping revisions would improve peak intersection operations from LOS F to LOS B.
6. **Front Street @ Jensen Way (s)** - The all-way stop intersection of Front/Jensen Way (s) would operate at LOS F with or without the project traffic under 2004 conditions. The City of Poulsbo Comprehensive Plan identifies a long range strategy to signalize this intersection. With a 3-phase signal (separate NB/SB phases due to intersection off-set), intersection operations would improve to LOS D conditions in 2004 with the proposed development at full build-out.



7. **Front Street @ Sunset Street** - Due to the minor WB left-turn traffic volume, this intersection would operate at desirable LOS A conditions with the project traffic. However, a 150-foot SB left-turn storage lane is warranted with or without the project traffic. Additionally, there is presently only 200 feet of clear sight distance to the north (right) from the stopped approach (over 350 feet clear view is available to the left). Minimum required stopping distance is 165 feet, but desirable entering clear sight distance is 295 feet for a posted 25 mph roadway per AASHTO standards. The existing 40-foot paved roadway could be restriped for a SB left-turn storage lane and still provide a 5-6 foot bicycle/pedestrian paved shoulder on the west side and retain the 4-foot concrete sidewalk on the east side. The additional benefit of restriping for a SB left-turn lane is to move the SB through lane to the right (west); thus, increasing the available entering sight distance from Sunset Street. The crosswalk on the Sunset Street approach is also set back unusually far from the main roadway (Front Street). By relocating the crosswalk (pseudo stopline) 4-5 feet west and restriping the roadway for a SB left-turn lane, the entering sight distance would be improved to 340 feet and thus provide desirable entering sight distance in both directions.

8. **Front Street @ Jensen Way (n)** - The Front Street/Jensen Way (n) intersection has sight visibility and channelization deficiencies similar to the Front/Sunset Street intersection. Existing sight distance right (north) is only clear for 170 feet and future peak volumes with or without the project warrant a 200-foot SB left-turn storage lane. With a new left-turn lane and moving the Jensen Way crosswalk 4-5 feet further west (towards Front Street) as with the Front Street/Sunset Street intersection, the clear sight distance to the right can be improved to over 295 feet. However, Front Street north of Jensen Way (n) has less than 40 feet of paved roadway (including both shoulders), therefore road widening/sidewalk construction would need to be undertaken to provide an adequate SB left-turn lane and provide safe pedestrian/bicycle facilities along Front Street. An alternative solution to the sight distance issue would be the restriction of the left-turn egress movement from Jensen Way (n) as this is the only movement requiring desirable sight distance to the right (north) and 2004 WB left-turn volumes are very low (1 vph during the p.m. peak). If widening Front Street (north of Sunset) is not feasible to accommodate a SB left-turn storage lane, an alternative would be to discourage SB left-turns at this location and divert them to the Front Street/Sunset Street intersection where sufficient pavement width exists to provide a SB left-turn lane.

9. **Front Street @ Torval Canyon Road** - The projected level of service at this intersection in the year 2004 with or without the proposed Poulsbo Place project is acceptable LOS C. Therefore, no mitigation improvements are required.

10. **Front/Hostmark @ 4th/Fjord** - This intersection would operate at LOS E with or without the project under 2004 peak conditions. The HCS software cannot take into account the close proximity of the Hostmark/Lincoln intersection, and in reality this intersection would probably operate at LOS F with or without the project. The City has identified a signalization and intersection improvement project (combined with Hostmark/Lincoln intersection) in their long-range plans. With signalization of these two combined

intersections peak conditions would improve to LOS C (assumes a 4-phase signal: EB/WB combined (permitted LT's) + EB overlap phase (protected EB LT's) + 4th/Fjord combined phase + Lincoln Road separate phase)

11. **Hostmark Street @ Lincoln Road** - Due to the minor SB left-turn movement, this intersection operates at LOS A with or without the project traffic. However, as described above the long range City plan is to combine this intersection with the Hostmark/4th Avenue intersection and provide signalization. A combined signalized intersection would operate at LOS C with or without the project traffic.

12. **4th Avenue @ Iverson** - This 4-way stop intersection would degrade to LOS F conditions with or without the project traffic under 2004 conditions. Separate northbound and southbound left-turn channelization would be required to improve this intersection to LOS C conditions with the project traffic. Note: signalization would not be warranted at this location, per MUTCD guidelines.

13. **Jensen Way @ Iverson Street**- This 4-way stop intersection would degrade from LOS C to LOS D with the project traffic, which is acceptable per City standards. Therefore, no mitigation is required at this location.

14. **Viking Way @ Lindvig/Finn Hill Road** - This intersection is projected to operate at LOS E under the 2004 baseline scenario, due to heavy westbound left-turn volumes and inefficient signal phasing. The addition of traffic volumes generated by the proposed Poulsbo Place project would degrade the intersection operations to LOS F in 2004. The addition of a second left-turn lane on the westbound Lindvig Way approach and revised traffic signal phasing to include a protected northbound/southbound left-turn phase would improve 2004 peak conditions to LOS D with the project.

15. **8th Avenue/Lincoln Road** - The 8th Avenue/Lincoln intersection would degrade from LOS D to LOS E with project traffic. Per City standards LOS E is acceptable; therefore, no mitigation would be required.

16. **8th Avenue @ Iverson/7th Avenue**.- This intersection would maintain desirable LOS B conditions with or without the project under 2004 conditions. Thus, no mitigation is required.

#### **Off-Site Intersections (Scenario 'B')**

The Scenario 'B' LOS analysis indicates all CBD study intersections as well as the SR-305/Hostmark and 7th Avenue/Iverson/8th Avenue intersections would experience less delay or increased reserve capacity, but maintain the same LOS conditions and require the same mitigation as Scenario 'A'. Outside of the CBD area, the intersections along the proposed Iverson-Lincoln connection route would experience minor increases in delay or reduced reserve capacity, but maintain the same LOS conditions as Scenario 'A', with the

exception of the 4th Avenue/Iverson Street intersection. The 4th Avenue/Iverson Street intersection would require an EB right-turn lane to maintain acceptable LOS operations under Scenario 'B' conditions, in addition to the NB and SB left-turn channelization required under Scenario 'A' conditions. In summary, the only additional mitigation requirement for Scenario 'B' would be an EB right-turn lane at the 4th Avenue/Iverson intersection; all other mitigation remains the same as for Scenario 'A' "with project" conditions.

## **Traffic Circulation**

**Sunset Street-3rd Avenue Connection:** A Sunset Street-3rd Avenue-Iverson connection has been proposed because a direct connection from Sunset Street to 4th Avenue is impractical due to topographic constraints. 4th Avenue opposite Sunset Street is at a significantly greater elevation than the 4th Avenue/Iverson intersection; therefore, a direct 4th Avenue connection would require much greater road gradients than those presently existing on Iverson Road in the project vicinity. A direct 4th Avenue connection with such steep grades would increase noise and emissions from traffic as well as create potential safety problems with possible substandard vertical sight distance. Additionally, a Sunset Street-4th Avenue connection's potential to continue east as the major east-west connection to SR-305 has been precluded with the commercial development along 7th Avenue between 4th Avenue and SR-305. Therefore, due to the topological difficulties and commercial expansion along 7th Avenue, the access analysis assumes that Sunset Street is curved southeast to connect with 3rd Avenue; thus, providing a secondary connection to Iverson Street (Jensen Way being the primary connection). Without a direct 4th Avenue connection, crossover traffic and retail business would be encouraged between the proposed Poulsbo Place commercial area and the existing Poulsbo CBD. Additionally, this retail crossover traffic would primarily use commercial roads (Jensen Way-south of Iverson Street) rather than residential roads such as 4th Avenue. Additionally, this emphasis on linking the Poulsbo Place commercial area and the existing CBD would enhance the attractiveness of the CBD area as a competitive destination in comparison to other developing commercial regions within Kitsap County.

If a direct primary connection between Sunset Street and SR-305 were ever constructed, it would divert all/most of the east-west pass-through traffic from the downtown CBD area through the Poulsbo Place project. This would improve traffic conditions along Front Street and Hostmark, but would severely reduce potential customers for the downtown retail stores. Additionally, traffic presently using Viking Way, Lindvig Way and Bond Road as a east-west connection to SR-305 may be encouraged to divert through the Sunset/SR-305 link, and thereby severely deteriorating traffic conditions at several critical intersections such as Viking/Lindvig, Bond/Front and Front/Torval Canyon.

**Site Access and Internal Site Intersections:** The proposed 4th Avenue access intersections would have minor volumes and are projected to operate with good levels of service (LOS B or better). Additionally, it is assumed the intersection of Sunset/Jensen Way is converted to a 4-way stop and would operate well with the expected volumes. The 3rd Avenue/Iverson intersection would experience a significant increase in volumes along the 3rd Avenue leg

(north). Additionally, there is only 260 feet clear sight distance available to the left (east) from 3rd Avenue (290 feet is desirable entering sight distance for 25 mph, per AASHTO standards). One solution would be to convert the 3rd Avenue/Iverson intersection to all-way stop control; thus, removing the sight distance deficiency while also providing improved level of service conditions.

Jensen Way through the residential area of Poulsbo Place (from Front Street (north) south to 300 feet north of Sunset Street) is proposed for 24 foot pavement with 8 foot parking either side. This pavement width for the residential section of Jensen Way is 6-foot narrower than in the commercial area; thus, encouraging commercial bound and cut-through traffic to remain on Front Street and access the commercial area via Sunset Street. Discouraging traffic along the northern portion of Jensen Way is beneficial, as it would improve safety conditions for vehicular and pedestrian travel by reducing traffic volumes and travel speeds. Additionally, the diversion of traffic from the Front Street/Jensen Way (n) intersection to the Sunset/Front Street intersection would reduce the need for a SB left-turn lane at the Front Street/Jensen Way (n) intersection where limited pavement width, and existing power poles restrict construction widening options.

### **Parking**

The proposed streets in the Poulsbo Place commercial area would have parking on both sides and 8 foot sidewalks while the residential street would have parking with 5 foot sidewalks on both sides. The project site area does not include on-street parking on existing streets; therefore, the Poulsbo Place project parking requirement should be reduced with credit given for the on-street parking to be provided along Jensen Way and Sunset Streets. Note: An excess of parking spaces tends to encourage short trips by automobiles which has the greatest impact on the environment. All Transportation Demand Management (TDM) initiatives in urban areas emphasis the importance of reducing the parking requirement/supply to encourage pedestrian, transit/carpool and bicycle trips. With the on-street parking proposal, the location of potential transit stops will need to be coordinated with Kitsap Transit.

### **Potential Transit, Ridesharing, and TDM Improvements**

The following Transportation Demand Management (TDM) programs and measures should be initiated by the developer of the Poulsbo Place project to encourage use of transit and ridesharing programs by future residents, retail and office employees, and patrons. The use of TDM techniques to reduce site vehicular traffic and its impact on adjacent streets and signals is appropriate for large mixed-use developments, and is becoming more acceptable to local agencies as a mitigating measure which is more practical and integral to solving traffic congestion problems in growing urban or suburban areas.

\* Discuss with Kitsap Transit; bus routes or revisions and extensions to existing routes to provide regular transit service to the Poulsbo Place site. Additionally, investigate the potential of providing transit shelters to promote transit ridership.

\* Coordinate with Kitsap Transit and site tenants to participate in a transportation management program (TMP) to reduce peak hour traffic volumes/congestion, on-site parking requirements, as well as enhance and encourage ridesharing. Potential employer initiated TMP measures or options which have proven successful for other major developments include: transit benefits (information kiosks, pre-paid transit fares or subsidies), preferential parking for carpool and vanpool employees, flex-time hours, bicycle racks and non-motorized commuter facilities.

\* Designate/provide non-vehicular travel facilities for pedestrians and bicyclists that provide internal connections for pedestrians, thus, promoting non-vehicular traffic at the Poulsbo Place site.

## REFERENCES

1. "Trip Generation" manual, Institute of Transportation Engineers, 5th Edition, January 1991; February 1995 revisions/update.
2. "Highway Capacity Manual", Special Report 209, Transportation Research Board, 1985
3. "City of Poulsbo Comprehensive Plan", City of Poulsbo, adopted June 13, 1994
4. "Kitsap County Draft Transportation Plan", Kitsap County Department of Public Works/KJS Associates, Inc., February 15, 1994
5. "1992 Annual Traffic Report", Washington State Department of Transportation
6. "The Olhava Project Traffic Impact Analysis", Gibson Traffic Consultants, December, 1994
7. "WSDOT Design Manual", Washington State Department of Transportation, June 1989 Edition (with annual updates)

## **APPENDIX H**

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### **Geotechnical Study**

# GEOTECH CONSULTANTS

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(206) 747-5618  
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March 6, 1991

JN 91062

General Pacific Development Corp.  
P.O. Box 3056  
Seattle, Washington 98114

Attention: Leon Cohen

Subject: Geotechnical Engineering Study

Poulsbo, Washington

Gentlemen:

We are pleased to present this geotechnical engineering report for the Jensen Place Development to be constructed in Poulsbo, Washington. The purpose of our work was to explore site surface and subsurface conditions and to provide general earthwork recommendations and design criteria for foundations, retaining walls, and pavements. The work was authorized by your acceptance of our proposal, P-9462 dated February 14, 1991.

The subsurface conditions of the proposed development were explored with 14 test pits. Test Pits 1, 2, and 4 through 12 were excavated in the mini-warehouse and Phase 1 areas while Test Pits 3, 13 and 14 were excavated for informational purposes only in other areas of the project. The explorations generally encountered fill or loose to medium-dense, silty sands and sandy silts overlying stiff to hard silts and medium-dense to very dense sands. The proposed buildings in Phases 1a and 1b can use conventional continuous and spread footings bearing on the undisturbed, stiff to hard or medium-dense to very dense, native soils. The silty, moisture sensitive site soils will be difficult to grade during wet weather.

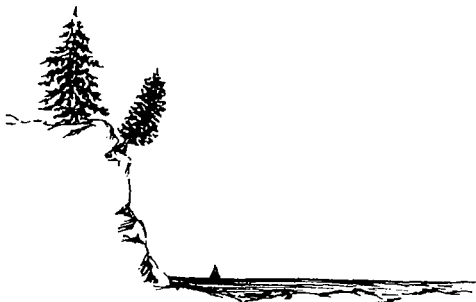
The attached report contains a discussion of the study and our recommendations. If there are any questions, or if we can be of further service, please contact us.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.

*Burton R. Holt*

Burton R. Holt  
Geotechnical Engineer





## GEOTECHNICAL ENGINEERING STUDY

### POULSBO, WASHINGTON

This report presents the findings and recommendations of our geotechnical engineering study for the site of the proposed Jensen Place Development in Poulsbo, Washington. The general location of the site is illustrated on the Vicinity Map, Plate 1.

We understand that the site will be a mixed-use development and will consist of approximately 667 residential units and a commercial area. Retail space, a theater, a restaurant, a motel, and a mini-warehouse will be included in the commercial area. We further understand that the development will be divided into five phases. This report addresses the geotechnical issues of the Phase 1 and Mini-Warehouse development. In addition, three test pits were excavated in the other development areas to provide general information for planning purposes.

The development is in the preliminary planning stage. Preliminary topographical maps, dated February 6, 1991, were provided by A.D.A. Engineering and showed the existing roads, structures, and ground contours. Site plans indicating the location of proposed buildings were not provided for this study.

### SITE CONDITIONS

#### SURFACE

The site is located north of Iverson Street between 1st Avenue and 3rd Avenue along both sides of Jensen Way Northeast in Poulsbo, Washington. The majority of the 28.95-acre site is currently developed with numerous residential structures. Portions of the site west of 3rd Avenue and just east of the existing post office are currently undeveloped.

The property is bordered on the north by residential property, on the east by 3rd Avenue, on the south by commercial property and Iverson Street, and on the west by 1st Avenue and residential property. Vegetation on the undeveloped portions

of the property consists of native grasses and weeds, scattered large trees, and areas of moderately heavy undergrowth.

The area surrounding the property generally slopes to the south and west. The elevation of the site surface varies from a high of 150 feet to a low of 40 feet. Surface water on the property drains predominantly to the southwest.

### SUBSURFACE

The subsurface conditions were explored by 14 test pits at the approximate locations shown on the Soils Exploration Plan, Plate 2. The field exploration program was based upon the proposed construction and required design criteria, site topography and access, the scope of work outlined in our proposal, and time and budget constraints.

The test pits were excavated on February 21, 1991, with a rubber-tired backhoe owned and operated by Evans Brothers Excavating. A geotechnical engineer from our staff observed the excavation process, logged the test pits, and obtained representative samples of the soils encountered. "Grab" samples of selected subsurface soils were collected from the backhoe bucket. The Test Pit Logs are attached as Plates 3 through 11.

Test Pits 1 and 2 were excavated in the mini-warehouse area. Test Pit 1 encountered approximately nine feet of fill overlying the original topsoil and medium-dense to dense silty, gravelly, sand. Test Pit 2 encountered one and one-half feet of loose silty sand and medium-dense sandy silt overlying stiff to hard silt. Test Pits 4 through 12, which were excavated in Phases 1a and 1b, generally encountered from three to six feet of loose to medium-dense silty sands and sandy silts overlying stiff to hard silts and medium-dense to very dense, silty sands and sandy silts. Test Pits 3, 13 and 14 were excavated in other areas of the project for planning purposes. Test Pit 3 encountered three feet of medium-dense, sandy silt overlying stiff silt. Test Pit 13 encountered fill to a maximum explored depth of 16 feet. Test Pit 14 encountered three and one-half feet of fill overlying dense to very dense, silty sand.

The final logs represent our interpretations of the field logs and laboratory tests. The stratification lines on the logs represent the approximate boundary between soil types at the exploration locations. In actuality, the transition between soil types may be gradual and subsurface conditions may vary between exploration locations. The relative densities and moisture descriptions indicated on the test pit logs are interpretive descriptions based on the conditions observed during excavation. The logs should be reviewed for specific subsurface information at the locations tested.

#### GROUNDWATER

Groundwater seepage was observed at depths ranging from one-half to nine feet in Test Pits 1, 2, 4, 10, 11, and 12. The test pits were left open only for a short time, therefore the seepage levels on the logs represent the location of transient water seepage and may not be the location of the static groundwater level. It should be noted that groundwater levels vary seasonally with rainfall and other factors. We anticipate that perched groundwater could be found between the near-surface weathered soils and the underlying denser soils.

### CONCLUSIONS AND RECOMMENDATIONS

#### GENERAL

As indicated in our proposal dated February 14, 1991, the majority of our test pits were excavated in the mini-warehouse, Phase 1a, and Phase 1b areas of the project. Test Pits 3, 13, and 14, located in Phases 2 through 5 were excavated for informational purposes only. Based on this limited information, it appears that the majority of the buildings to be constructed in Phases 2 through 5 can be supported on conventional foundations. However, as indicated by Test Pit 13, where approximately 16 feet of fill was encountered, there are areas where special conditions exist. Consequently, when information on the locations of the proposed buildings becomes available, additional test pits should be excavated by Geotech Consultants, Inc. in Phases 2 through 5 of the development.

It is our opinion that the project is feasible from a geotechnical engineering standpoint. The proposed buildings in Phases 1a and 1b of the development can use conventional

continuous and spread footings bearing on competent native soils.

Test Pit 1, excavated in the proposed mini-warehouse footprint, encountered approximately nine feet of loose fill. Encountered within the fill were wood debris, chunks of concrete, and other deleterious material. Conventional foundations bearing on this fill could experience significant total and differential settlements. Therefore, if conventional foundations are used to support the mini-warehouse, we recommend that the existing fill material be removed from under the building foundation and replaced with structural fill or lean concrete. Alternatively, the mini-warehouse could be supported on auger-cast piers extending through the existing fill and terminating in the underlying medium-dense to dense, silty, gravelly sand. The building floor may be constructed as a slab-on-grade provided that it is placed on a minimum of three feet of structural fill and is designed and constructed to be independent of the building foundation and walls if some of the existing fill is left in place. If all unengineered fill is removed, the slab can be constructed monolithically with the footing.

No apparent indications of surface or subsurface slope instability were noted during our field investigation. It is our opinion that if this property is developed according to our geotechnical recommendations, it should not adversely impact the existing slopes.

Due to their high silt content, the native silt soils are not acceptable as retaining wall backfill or structural fill. The upper sands, if at the optimum moisture content, can be used as structural fill. However, even these soils are fine-grained, will be difficult to compact, and will be highly sensitive to changes in moisture. Because the soils are generally unsuitable for structural fill, it would be economically advantageous to reduce the amount of fill required for the project.

It is important to design for the adequate control of surface and subsurface groundwater flows. Control measures must be in place both during and after construction of the project. Typical control measures include installation of silt fences on the downslope side of the project, detention facilities and other storm and surface water controls as designed by the project's civil engineer. We recommend that excavation and earthwork on the site be limited to the

drier summer months. Any areas disturbed by construction activities should be promptly seeded. If vegetation is not well established by the beginning of the wet season, the slopes must be covered with plastic. Water from storm, roof, and foundation drains should not be discharged onto the slopes, but should be tightlined to a storm sewer.

Geotech Consultants Inc. should be given the opportunity to review the plans and specifications as they are developed to verify that site specific geotechnical requirements are met.

#### CONVENTIONAL FOUNDATIONS

The proposed structures in Phases 1a and 1b of the development can be supported on conventional continuous and spread footings bearing on undisturbed, stiff to hard or medium-dense to very dense, native soils or on structural fill placed above these competent native soils. See the later subsection entitled GENERAL EARTHWORK AND STRUCTURAL FILL for recommendations regarding structural fill placement and compaction beneath structures. Continuous and individual spread footings should have minimum widths of twelve (12) and sixteen (16) inches, respectively, and should be bottomed at least twelve (12) inches below the lowest adjacent finish ground surface.

In the mini-warehouse area, overexcavation of the existing fill will be required below footings to expose competent native soils. Unless lean concrete is used to fill the overexcavated hole, the overexcavation must be at least as wide at the bottom as the sum of the depth of the overexcavation and the footing width. For example, an overexcavation extending two feet below the bottom of a three-foot-wide footing must be at least five feet wide at the base of the excavation.

Footings constructed on competent native soils according to the above recommendations may be designed for an allowable soil bearing pressure of two thousand (2000) pounds per square foot (psf). Footings bearing on structural fill may also be designed for a bearing pressure of two thousand (2000) psf. A one-third increase in this design bearing pressure may be used when considering short-term wind or seismic loads. For the above design criteria, it is anticipated that total post-construction settlement of footings founded on competent,

native soils or on structural fill will be about one-half inch, with differential settlements on the order of one-quarter inch.

Lateral loads due to wind or seismic forces may be resisted by friction between the foundations and the bearing soils, or by passive earth pressure acting on the vertical, embedded portions of the foundations. For the latter condition, the foundations must either be poured directly against relatively level, undisturbed soil or level structural fill must be placed around the outside of the foundation. We recommend the following design values be used for the foundation's resistance to lateral loading:

<u>Parameter</u>	<u>Design Value</u>
Coefficient of Friction	0.40
Passive Earth Pressure	300 pcf

Where:

- (1) Pcf is pounds per cubic foot
- (2) Passive earth pressure is computed using the equivalent fluid density.

If the ground in front of the foundation is loose or sloping, the passive earth pressure given above will not be appropriate. We recommend that a safety factor of at least 1.5 be used for design of the foundation's resistance to lateral loading.

#### SLABS-ON-GRADE

The building floors may be constructed as slabs-on-grade on competent native soils or structural fill placed over competent native soils. The subgrade soils must be in a firm, non-yielding condition at the time of slab construction. Any soft areas encountered should be excavated and replaced with select imported structural fill.

The mini-warehouse floor may also be constructed as a slab-on-grade on the existing fill provided it is placed on a minimum of three feet of structural fill. See the later sub-section entitled GENERAL EARTHWORK AND STRUCTURAL FILL for recommendations regarding structural fill placement and

compaction beneath structures. The floor slab should be designed to settle independently of the building foundation and walls.

All slabs-on-grade should be underlain by a capillary break layer consisting of a minimum six (6) inch thickness of free-draining granular structural fill with a gradation similar to that discussed later in PERMANENT FOUNDATION AND RETAINING WALLS. We also recommend placement of a vapor barrier under the slabs.

#### PERMANENT FOUNDATION AND RETAINING WALLS

Retaining walls backfilled on one side only should be designed to resist lateral earth pressures imposed by the soils retained by these structures. The following recommended design parameters are for walls less than twelve (12) feet in height which restrain level backfill:

<u>Parameter</u>	<u>Design Value</u>
Active Earth Pressure*	35 pcf
Passive Earth Pressure	300 pcf
Coefficient of Friction	0.40
Soil Unit Weight	130 pcf

Where:

- 1) Pcf is pounds per cubic foot
- 2) Active and passive earth pressures are computed using equivalent the fluid densities.

\* For restrained walls which cannot deflect at least 0.002 times the wall height, a uniform lateral pressure of one hundred (100) psf should be added to the active equivalent fluid pressure.

The values given above are to be used for design of permanent foundation and retaining walls only. The passive pressure given is appropriate only for the depth of level structural fill placed in front of a retaining or foundation wall. An

appropriate safety factor should be applied when designing the walls. We recommend using a factor of safety of at least 1.5 for overturning and sliding.

The above design values do not include the effects of any hydrostatic pressures behind the walls and assume that no surcharge slopes or loads will be placed above the walls. If these conditions exist, then those pressures should be added to the above lateral pressures. Also, if sloping backfill is desired behind the walls, then we will need to be given the wall dimensions and slope of the backfill in order to provide the appropriate design earth pressures.

Heavy construction equipment should not be operated behind retaining and foundation walls within a distance equal to the height of the wall, unless the walls are designed for the additional lateral pressures resulting from the equipment. Placement and compaction of retaining wall backfill should be accomplished with hand-operated equipment.

#### **Retaining Wall Backfill**

Backfill placed behind retaining or foundation walls should be free-draining structural fill containing no organics. This backfill should contain no more than five (5) percent silt or clay particles and have no particles greater than four (4) inches in diameter. The percentage of particles passing the No. 4 sieve should be between 25 and 70 percent.

The purpose of these backfill requirements is to assure that the design criteria for the retaining wall are not exceeded because of a build-up of hydrostatic pressure behind the wall. The top foot to eighteen inches of the backfill should consist of a relatively impermeable soil or topsoil, or the surface should be paved. The subsection entitled GENERAL EARTHWORK AND STRUCTURAL FILL contains recommendations regarding placement and compaction of structural fill behind retaining and foundation walls.

#### **EXCAVATIONS AND SLOPES**

In no case should excavation slopes be greater than the limits specified in local, state, and national government safety regulations. Temporary cuts up to a height of four (4) feet deep in unsaturated soils may be made vertical. For temporary



cuts having a height greater than four (4) feet, the cut should have an inclination no steeper than 1:1 (Horizontal:Vertical) from the top of the slope to the bottom of the excavation. All permanent cuts into native soils should be inclined no steeper than 2:1 (H:V). Fill slopes consisting of native soils should not exceed 3:1 (H:V). Where structural fill is compacted to 90 percent of the maximum density, a 2:1 (H:V) final slope is acceptable. It is important to note that the loose, near-surface soils encountered at this site do cave suddenly, and without warning. The contractors should be made aware of these potential hazards.

Water should not be allowed to flow uncontrolled over the top of any temporary or permanent slope. Disturbed slopes should be covered with plastic during wet weather to minimize the potential for erosion. All permanently exposed slopes should be seeded with an appropriate species of vegetation to reduce erosion and improve stability of the surficial layer of soil.

#### DRAINAGE CONSIDERATIONS

We recommend the use of footing drains at the base of all footings and backfilled earth retaining walls. These drains should be surrounded by at least six (6) inches of one-inch-minus washed rock wrapped in non-woven geotextile filter fabric (Mirafi 140N, Supac 4NP, or similar material). At the highest point, the perforated pipe invert should be at least as low as the bottom of the footing and it should be sloped for drainage. All roof and surface water drains must be kept separate from the foundation drain system. A typical drain detail is attached to this report as Plate 12.

Near-surface groundwater seepage was observed during our field explorations. Consequently, seepage into excavations on this site is possible, especially in low-lying areas. If seepage is encountered, it should be drained away from the site by use of drainage ditches, perforated pipe, French drains, or by pumping from sumps interconnected by shallow connector trenches at the bottom of the excavation.

The excavations and site should be graded so that surface water is directed off the site and away from the tops of slopes. Water should not be allowed to stand in any area where foundations, slabs, or pavements are to be constructed.

Final site grading in areas adjacent to the buildings should be sloped at least two (2) percent away from the buildings, except where the area is paved.

#### PAVEMENT AREAS

All pavement sections may be supported on at least twelve (12) inches of granular fill soils over the native soils. The subgrade must be in a stable, non-yielding condition at the time of paving. Fabric may also be needed to stabilize soft, wet or unstable areas. We recommend using Mirafi 500X, or a woven fabric with equivalent strength characteristics. In most instances where unstable subgrade conditions are encountered, twelve (12) inches of granular structural fill will stabilize the subgrade except for very soft areas where additional fill could be required. The subgrade should be evaluated by Geotech Consultants, Inc. after the site is stripped and cut to grade. Recommendations for compaction of structural fill beneath pavements are given in a later subsection entitled GENERAL EARTHWORK AND STRUCTURAL FILL.

The pavement section for lightly loaded traffic and parking areas should consist of two (2) inches of asphalt concrete (AC) over four (4) inches of crushed rock base (CRB) or three (3) inches of asphalt treated base (ATB). We recommend that heavily loaded areas be provided with three (3) inches of AC over four (4) inches of CRB or three (3) inches of ATB. The heavily loaded areas are typically main driveways and dumpster areas.

The pavement section recommendations and guidelines presented in this report are based on our experience in the area and on what has been successful in similar situations. Some maintenance and repair of limited areas can be expected. To provide for a design without the need for any repair would be uneconomical.

#### GENERAL EARTHWORK AND STRUCTURAL FILL

We recommend that the building and pavement areas be stripped and cleared of all surface vegetation, all organic matter, and other deleterious material. The stripped or removed materials should not be mixed with any materials to be used as structural fill.



Structural fill is defined as any fill placed under buildings, behind permanent retaining or foundation walls, or in other areas where the underlying soils need to support loads. Geotech Consultants, Inc. should observe site conditions during and after excavation prior to placement of any structural fill.

All structural fill should be placed in horizontal lifts with a moisture content at or near the optimum moisture content. The optimum moisture content is that which results in the greatest compacted dry density. The moisture content of fill soils is very important and must be closely controlled during the filling and compaction process.

The allowable thickness of the fill lift will depend on the material type, compaction equipment used, and the number of passes made to compact the lift. In no case should the lifts exceed twelve (12) inches in loose thickness. The following table presents recommended relative compaction for structural fill:

<u>Location of Fill Placement</u>	<u>Minimum Relative Compaction</u>
Beneath footings, slabs or walkways	95%
Behind retaining walls	90%
Beneath pavements	95% for upper 12 inches of subgrade, 90% below that level

Where: Minimum Relative Compaction is the ratio, expressed in percentages, of the compacted dry density to the maximum dry density, as determined by accordance with ASTM Test Designation D-1557-78 (Modified Proctor).

Ideally, structural fill which is to be placed in wet weather should consist of a granular soil having no more than five (5) percent silt or clay particles. The percentage of particles passing the No.200 sieve should be measured from that portion of the soil passing the three-quarter-inch sieve. Due to their high silt content, we do not recommend the use of the on-site soils as structural fill.

### **LIMITATIONS**

The analyses, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our exploration and assume that the soils encountered in the test pits are representative of the subsurface conditions of the site. If the subsurface conditions encountered during construction are significantly different from those observed in the explorations, we should be advised at once so that we can review these conditions and reconsider our recommendations where necessary. Unanticipated soil conditions are commonly encountered on construction sites and cannot be fully anticipated by merely taking soil samples in test pits. Subsurface conditions can also vary between exploration locations. Such unexpected conditions frequently require that additional expenditures be made to attain a properly constructed project. It is recommended that the owner consider providing a contingency fund to accommodate such potential extra costs and risks.

This report has been prepared for the exclusive use of General Pacific Development Corporation and their representatives for specific application to this project and site. Our recommendations and conclusions are based on the site materials observed, and selective laboratory testing and engineering analyses. The conclusions and recommendations are professional opinions derived in accordance with current standards of practice within the scope of our services and within budget and time constraints. No warranty is expressed or implied. The scope of our services does not include services related to construction safety precautions and our recommendations are not intended to direct the contractor's methods, techniques, sequences or procedures, except as specifically described in our report for consideration in design. We recommend that this report, in its entirety, be included in the project contract documents for the information of the contractor.

### **ADDITIONAL SERVICES**

It is recommended that Geotech Consultants, Inc. excavate additional test pits in Phases 2 through 5 of the development when more information on the location of the proposed buildings becomes available. We should also provide a general review of the geotechnical aspects of the final design and specifications to verify that the earthwork, retaining walls

General Pacific Development Corp.  
March 6, 1991

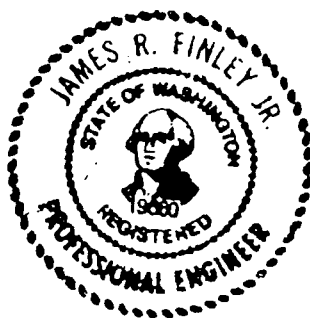
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Page 13

and foundation recommendations have been properly interpreted and implemented in the design and project specifications.

It is also recommended that Geotech Consultants, Inc. be retained to provide geotechnical consultation, testing, and observation services during construction. This is to confirm that subsurface conditions are consistent with those indicated by our exploration, to evaluate whether earthwork and foundation construction activities comply with the intent of contract plans and specifications, and to provide recommendations for design changes in the event subsurface conditions differ from those anticipated prior to the start of construction. However, our work will not include supervision or direction of the actual work of the contractor, his employees or agents. Also, job and site safety, and dimensional measurements, will be the responsibility of the contractor.

The following plates are attached and complete this report:

Plate 1	Vicinity Map
Plate 2	Soils Exploration Plan
Plates 3 - 11	Boring Logs
Plate 12	Footing Drain Detail



Respectfully submitted,

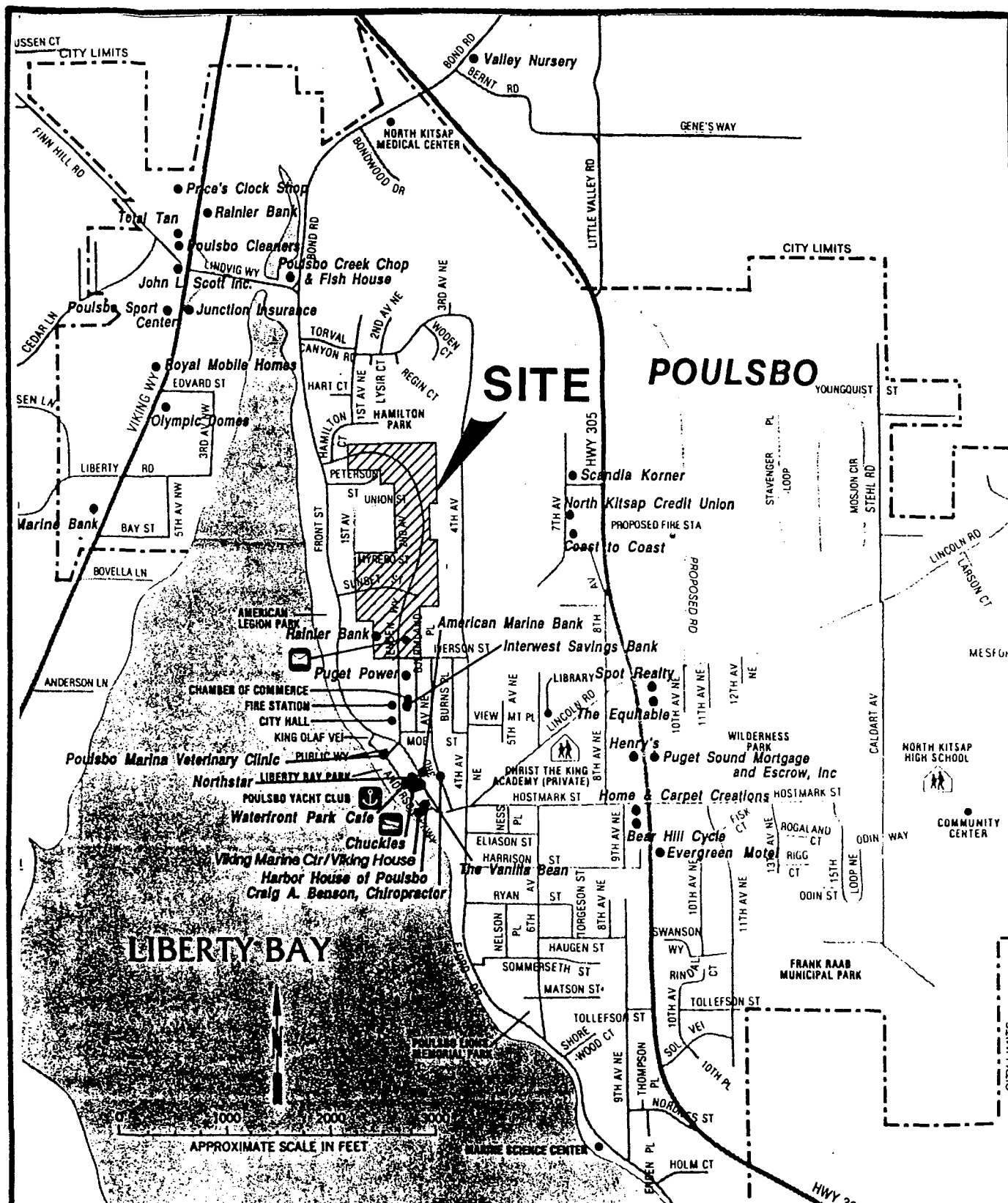
GEOTECH CONSULTANTS, INC.

*Burton R. Holt*

Burton R. Holt  
Geotechnical Engineer

*James R. Finley, Jr.*

James R. Finley, Jr. P.E.  
Principal



**GEOTECH  
CONSULTANTS**

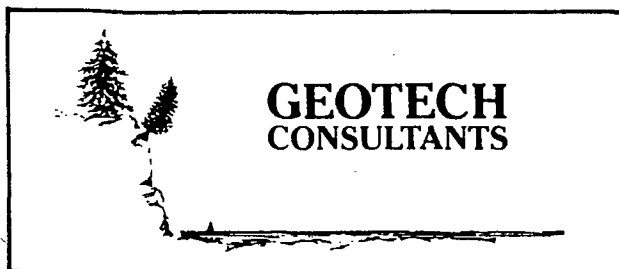
## VICINITY MAP

**POULSBO, WASHINGTON**

Job No.:	Date:	Logged By:	Plot:
91062	MAR 1991		1

**LEGEND:**


**TP-1 APPROXIMATE  
TEST PIT LOCATIONS**



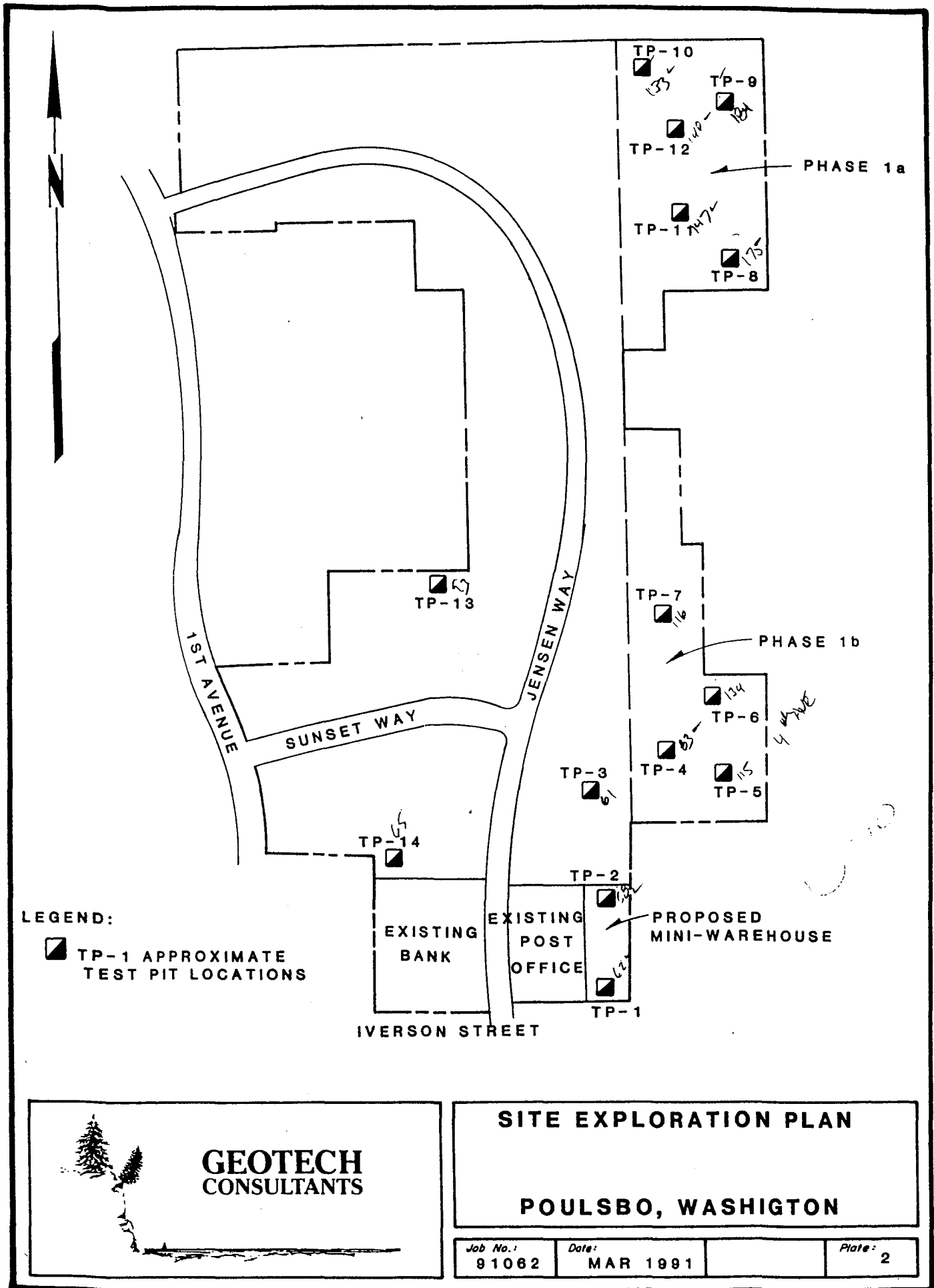
**SITE EXPLORATION PLAN**

**POULSBO, WASHIGTON**

Job No.:  
 91082

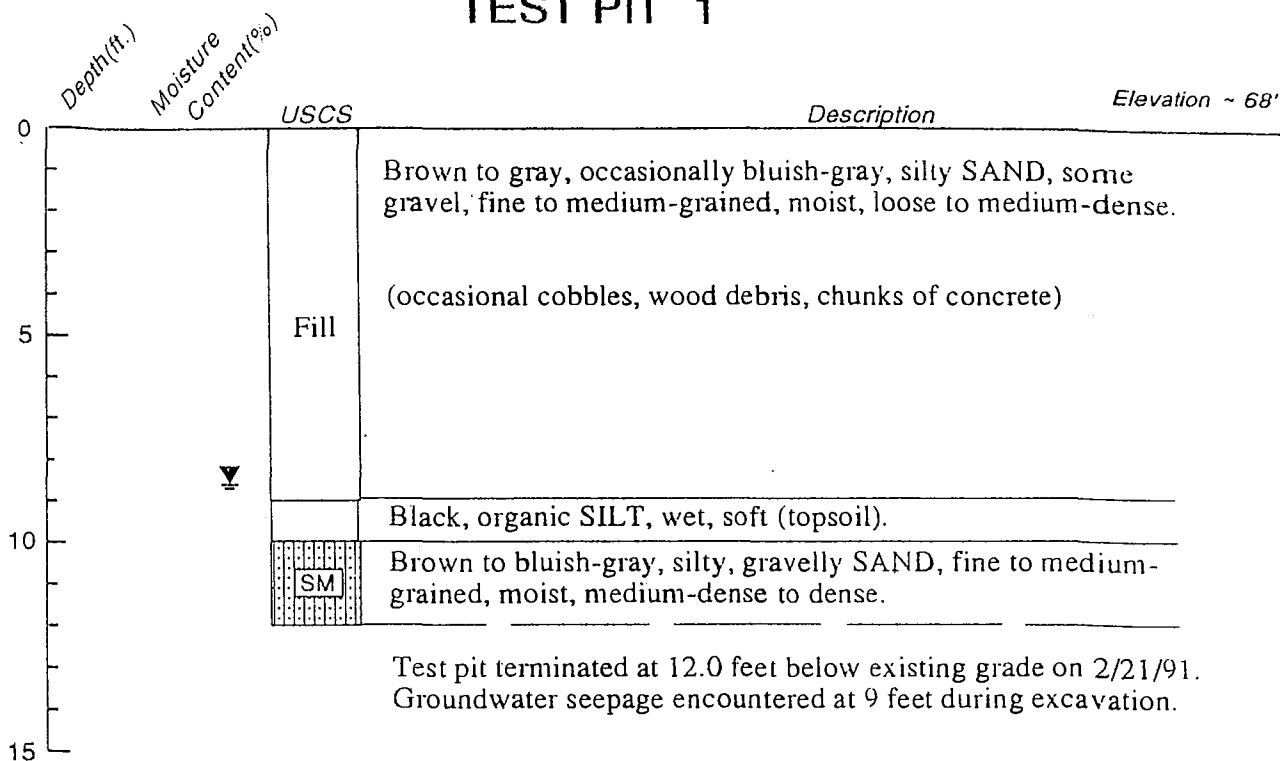
Date:  
 MAR 1991

Plate:  
 2

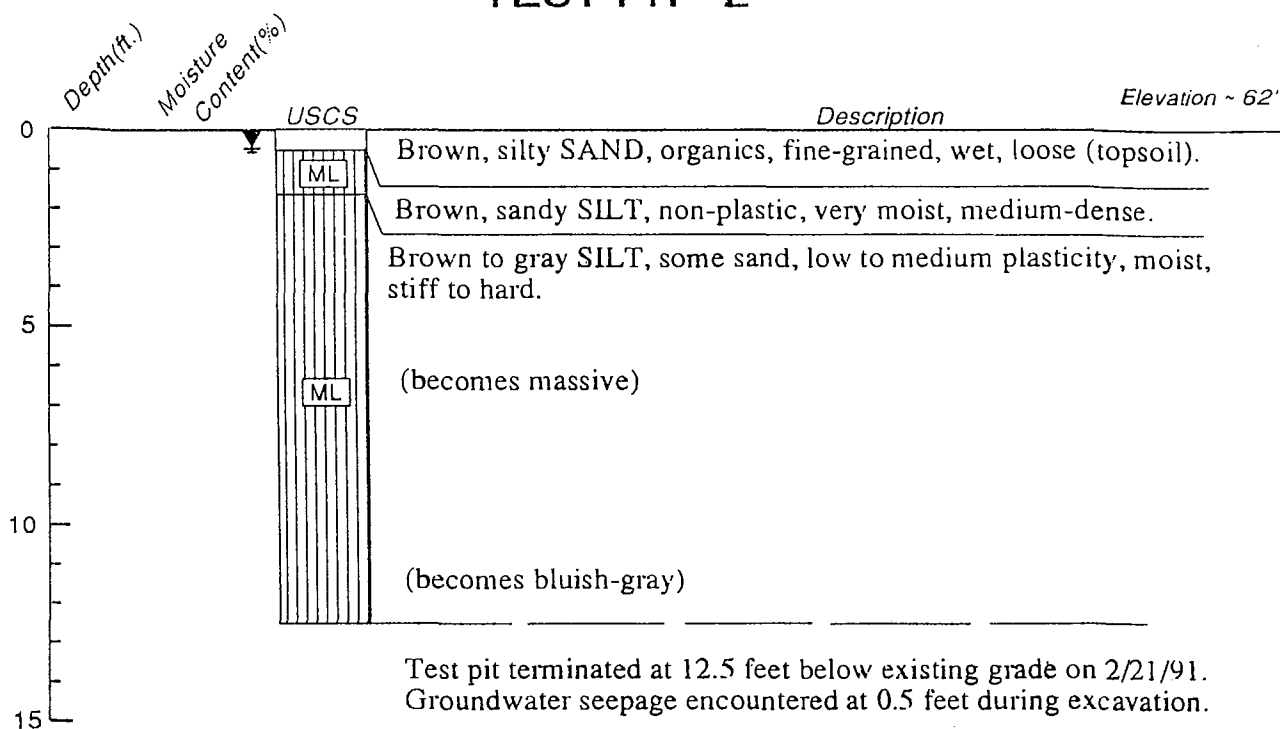




## TEST PIT 1



## TEST PIT 2



### TEST PIT LOGS

POULSBO, WASHINGTON

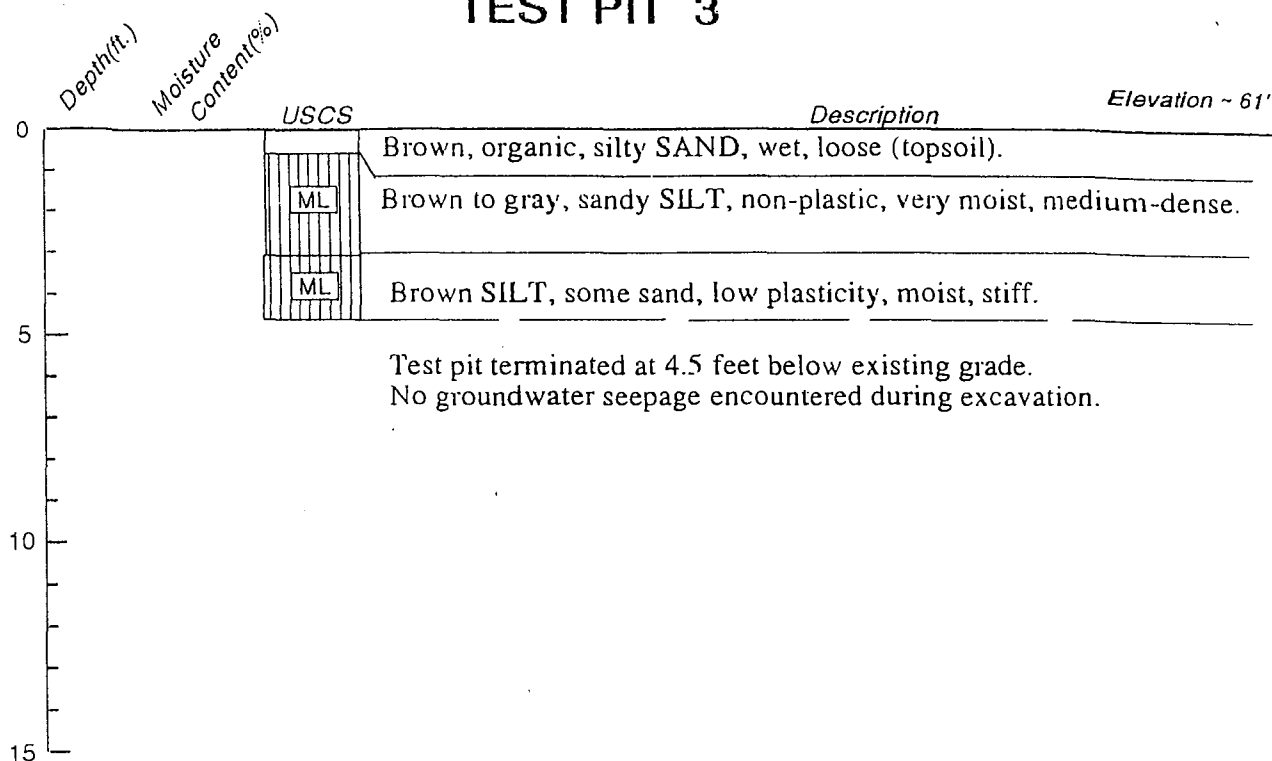
Job No:  
91062

Date:  
MAR 1991

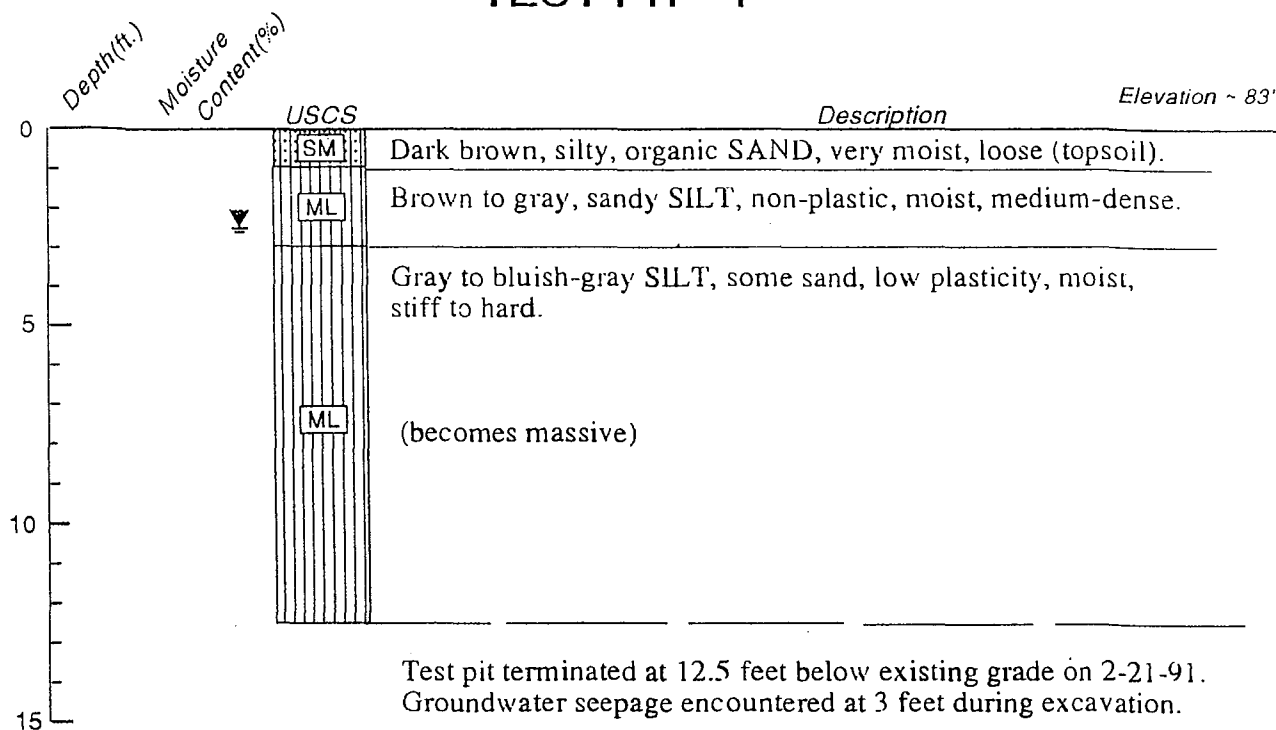
Logged by:  
BRH

Plate:  
3

## TEST PIT 3



## TEST PIT 4



### TEST PIT LOGS

POULSBO, WASHINGTON

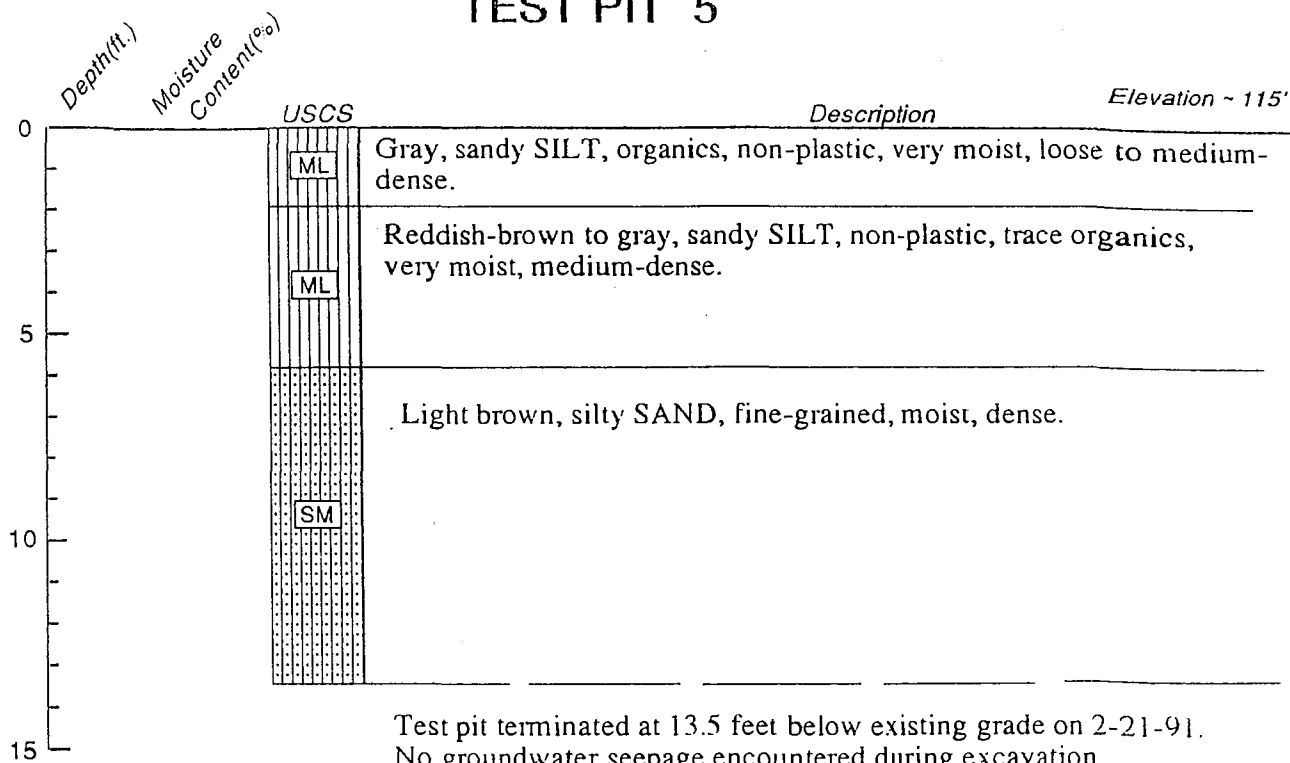
Job No:  
91062

Date:  
MAR 1991

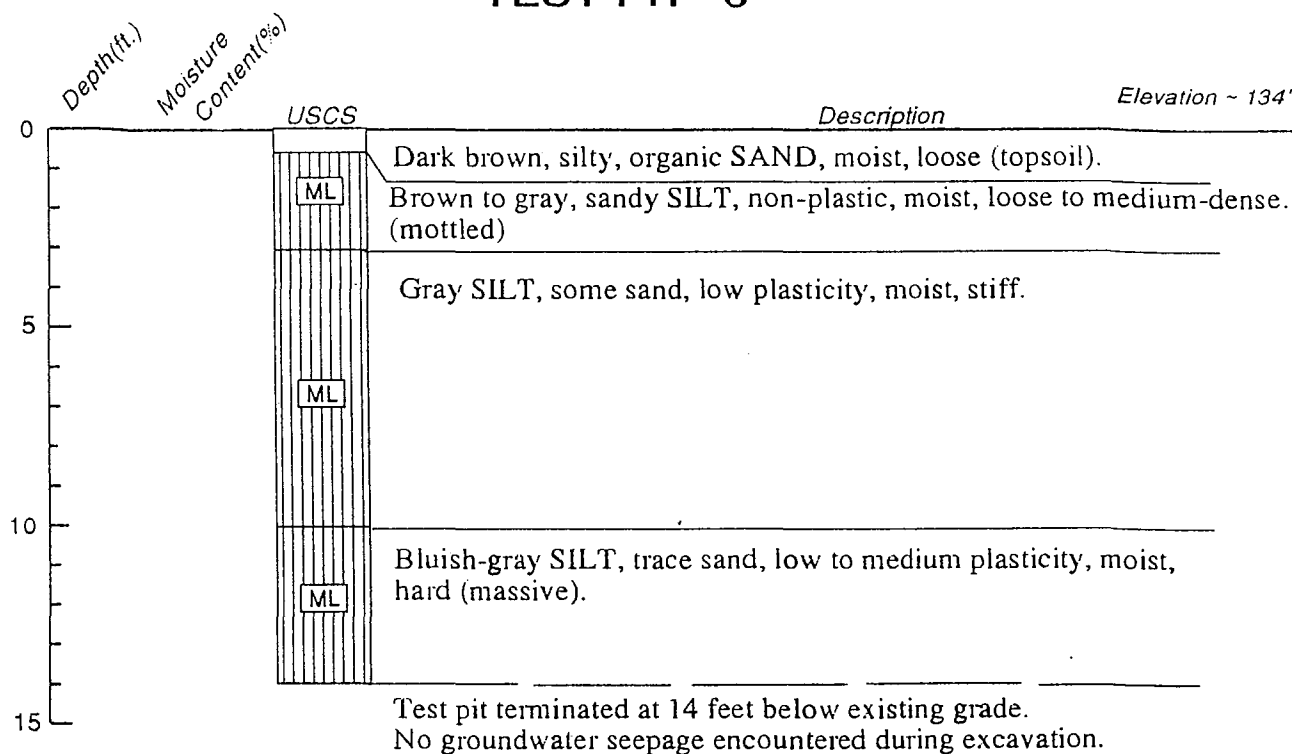
Logged by:  
BRH

Plate:  
4

## TEST PIT 5



## TEST PIT 6



### TEST PIT LOGS

POULSBORO, WASHINGTON

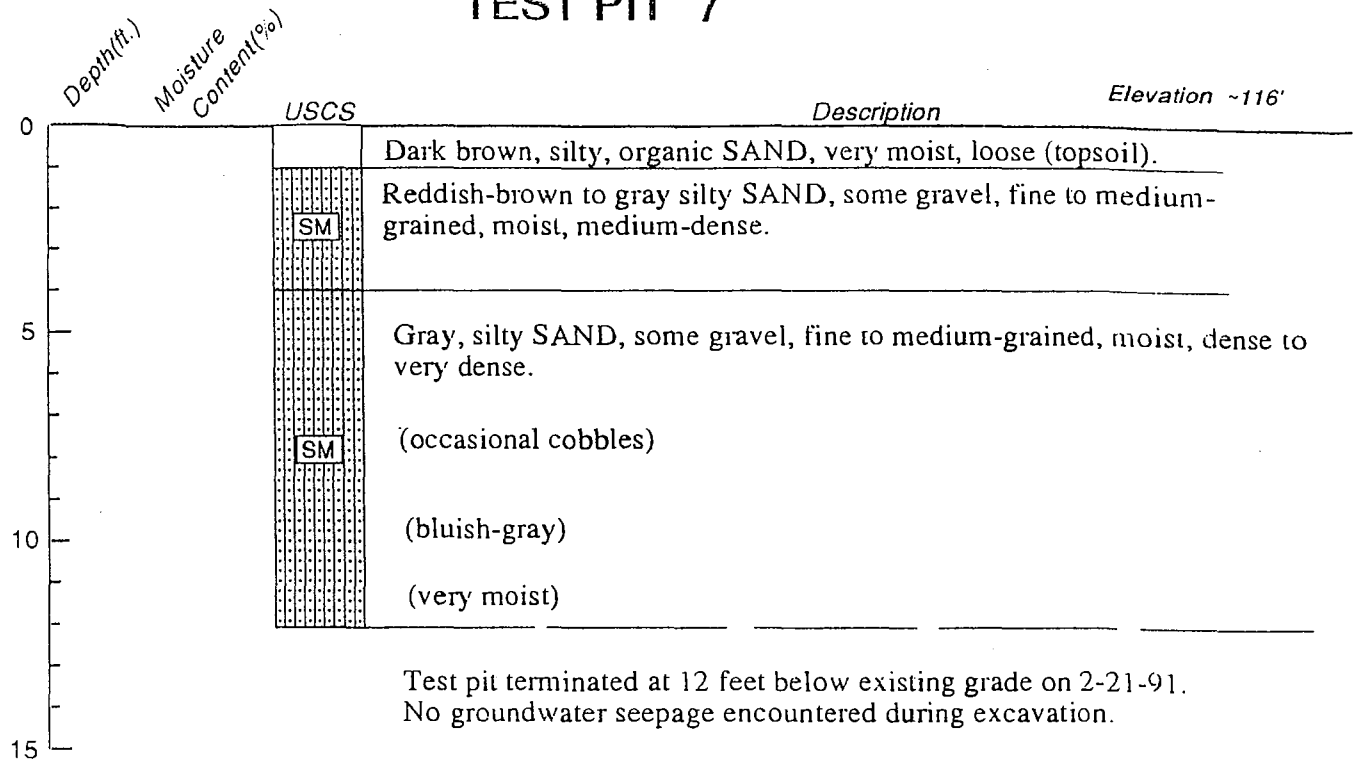
Job No:  
91062

Date:  
MAR 1991

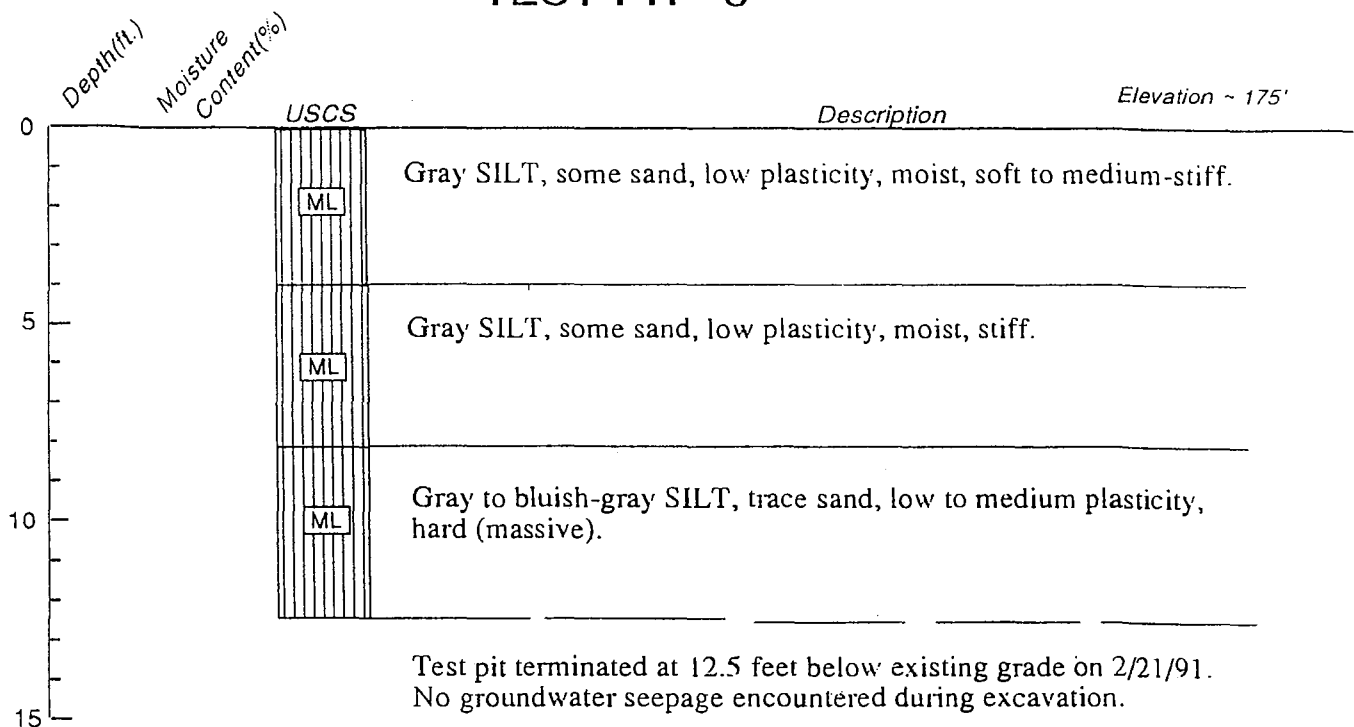
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BRH

Plate:  
5

## TEST PIT 7



## TEST PIT 8

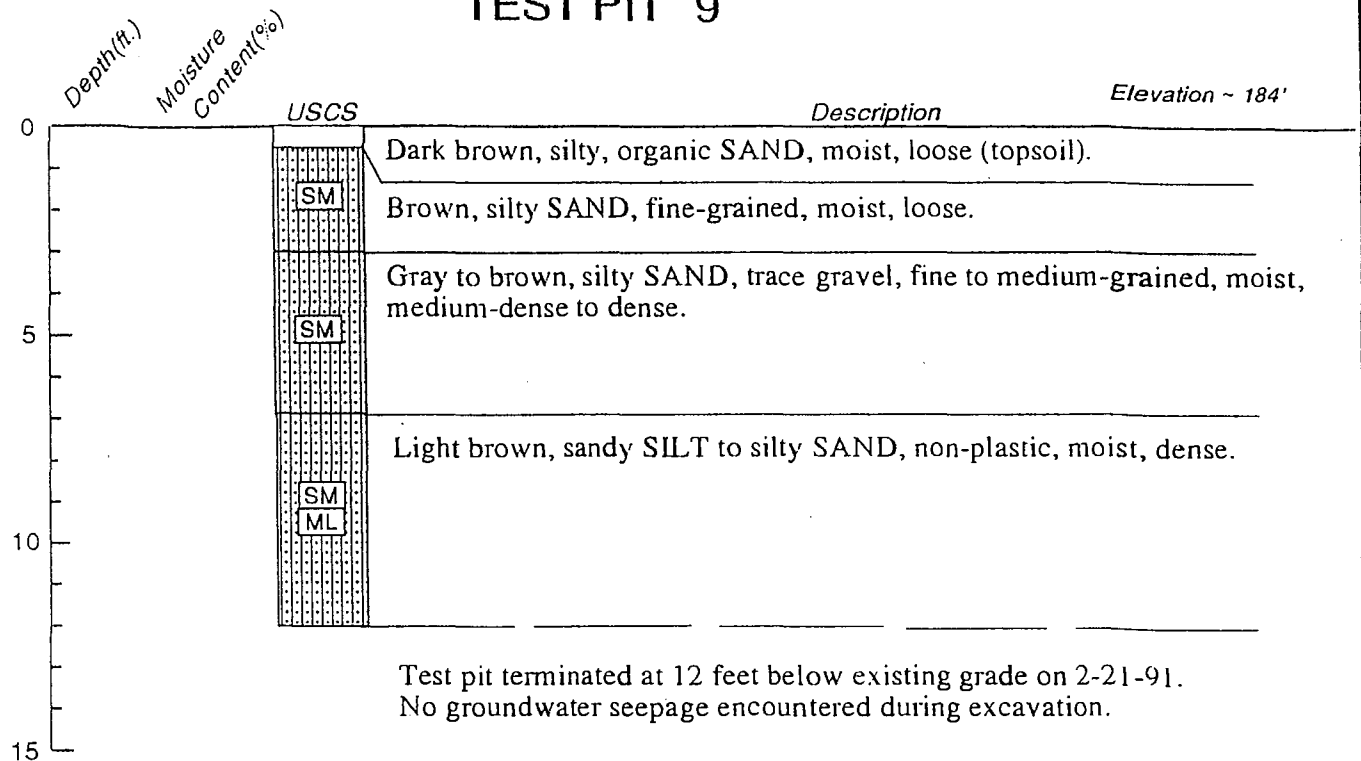


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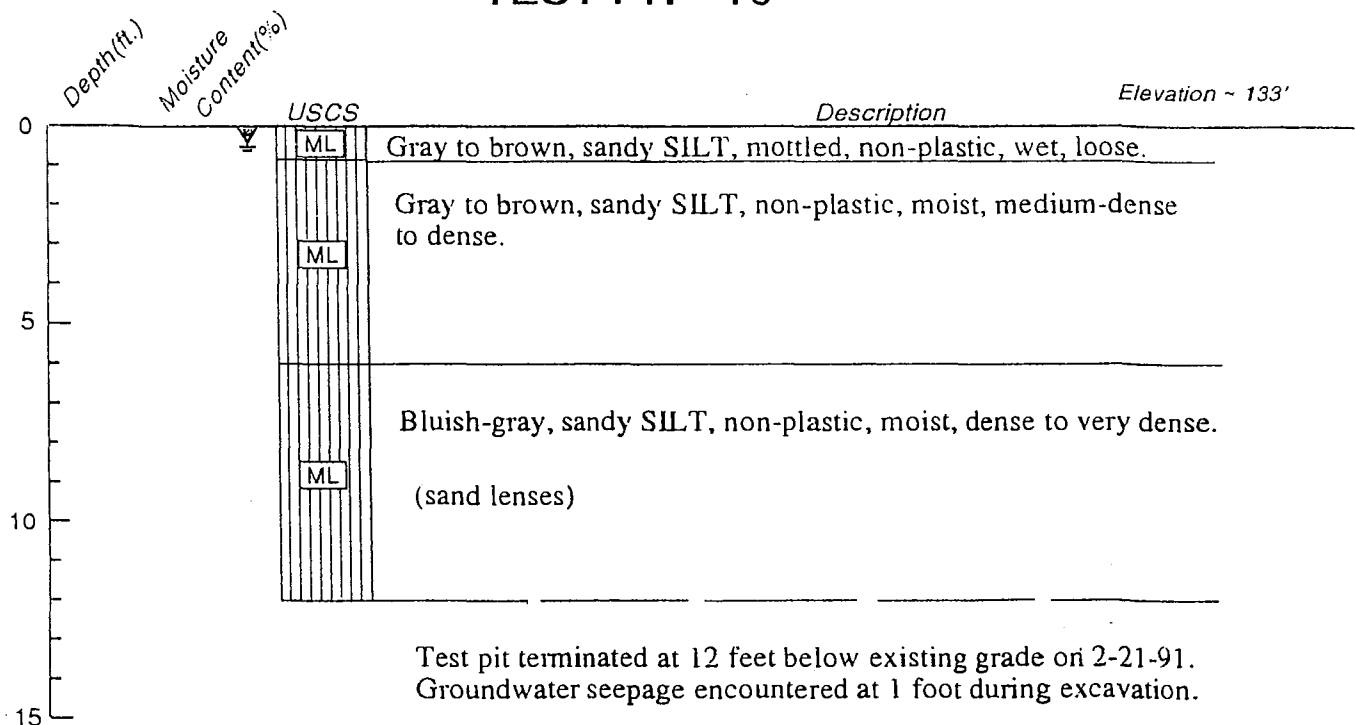
POULSBO, WASHINGTON

Job No: 91062	Date: MAR 1991	Logged by: BRH	Plate: 6
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## TEST PIT 9



## TEST PIT 10

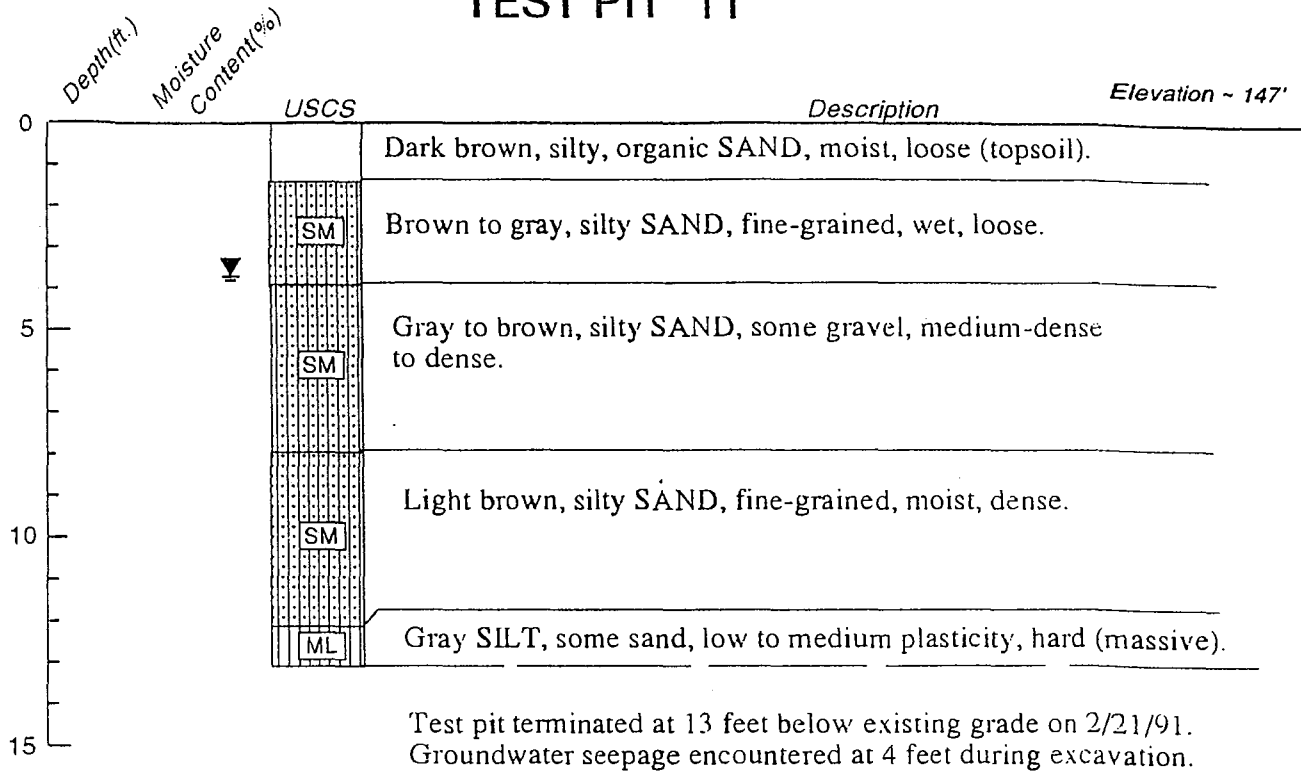


### TEST PIT LOGS

POULSBO, WASHINGTON

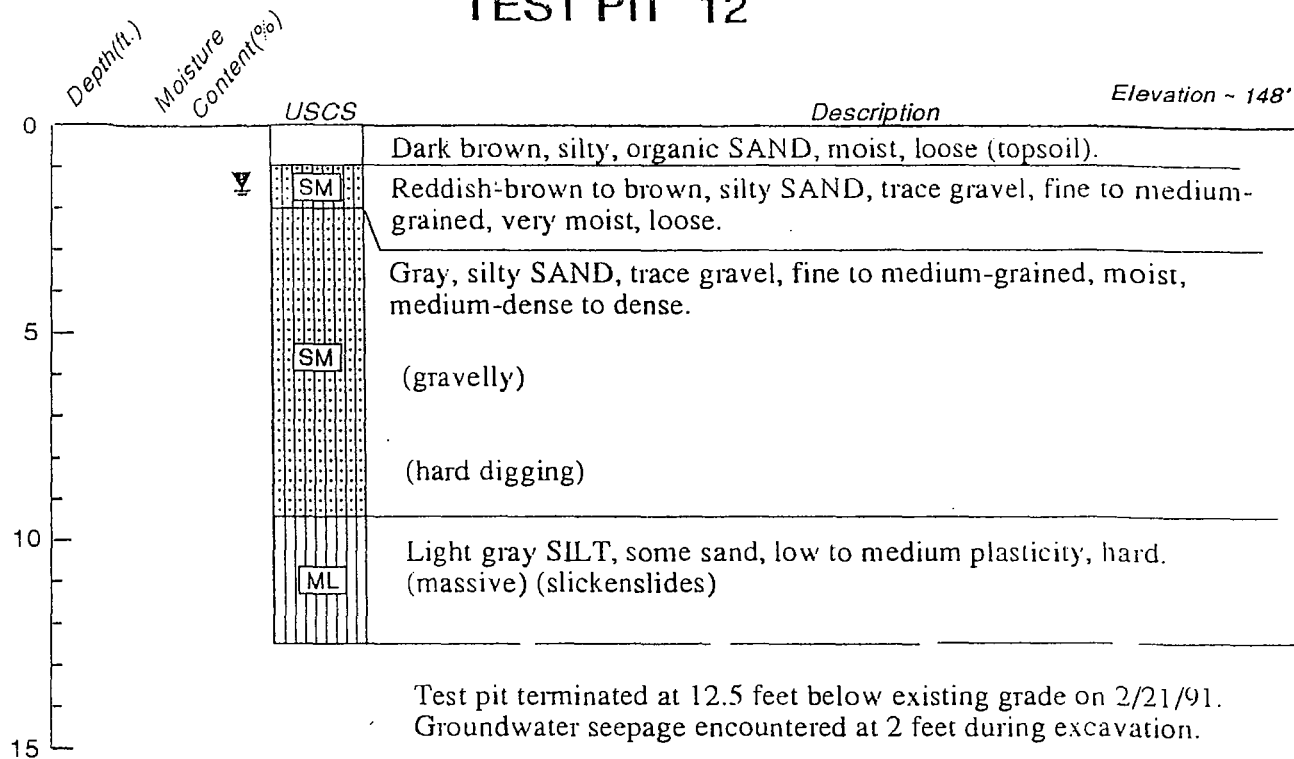
Job No: 91062	Date: MAR 1991	Logged by: BRH	Plate: 7
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# TEST PIT 11



<b>TEST PIT LOGS</b>			
<b>POULSBO, WASHINGTON</b>			
Job No: 91062	Date: MAR 1991	Logged by: BRH	Plate: 8

# TEST PIT 12



TEST PIT LOGS			
POULSBO, WASHINGTON			
Job No: 91062	Date: MAR 1991	Logged by: BRH	Plate: 9

# TEST PIT 13

Depth(ft.)	Moisture Content(%)	USCS	Description	Elevation ~ 93'
0			Brown, silty SAND, fine to medium-grained, moist to wet, loose (fill).	
5			(medium-dense)	
			(gray to blue-gray)	
10		fill	(becomes loose)	
			(caving)	
15				

Test pit terminated at 16 feet below existing grade. on 2-21-91.  
No groundwater seepage encountered during excavation.



**GEOTECH**  
CONSULTANTS, INC.

## TEST PIT LOGS

POULSBO, WASHINGTON

Job No:  
91062

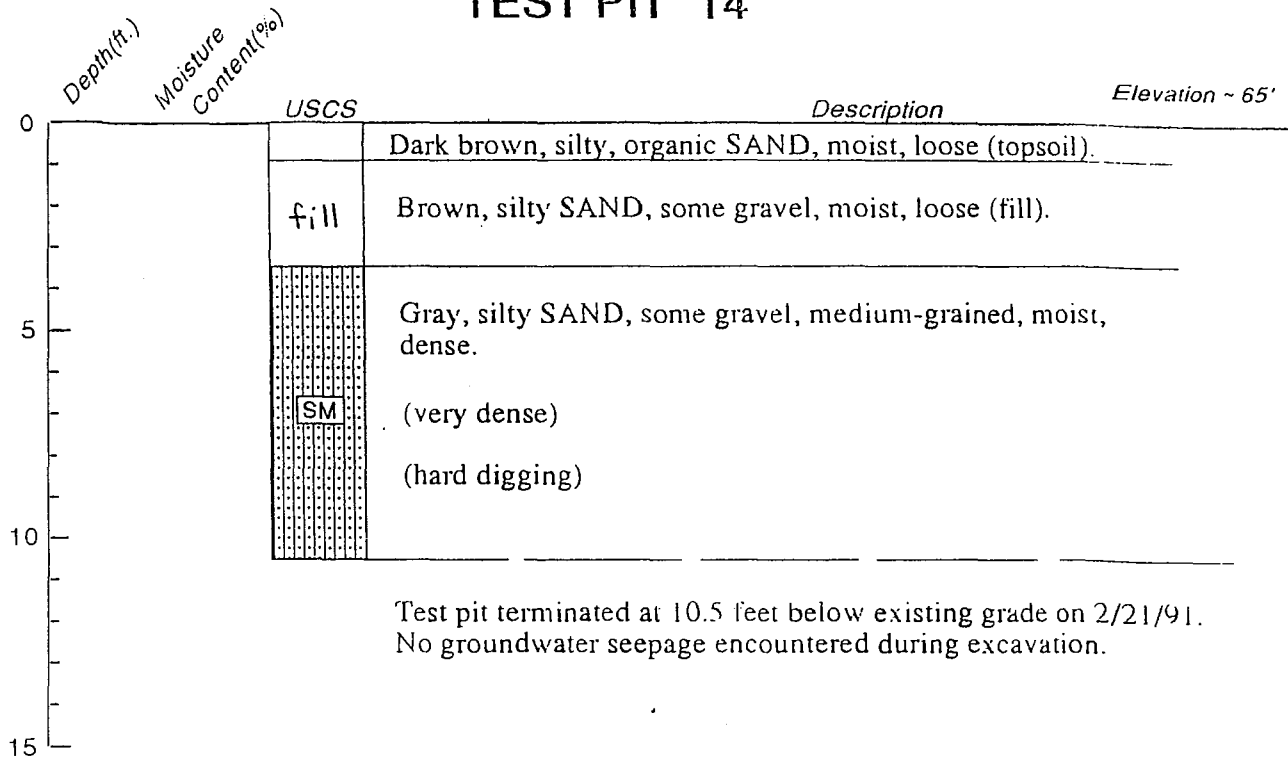
Date:  
MAR 1991

Logged by:  
BRH

Plate:  
10



# TEST PIT 14



**GEOTECH**  
CONSULTANTS, INC.

## TEST PIT LOGS

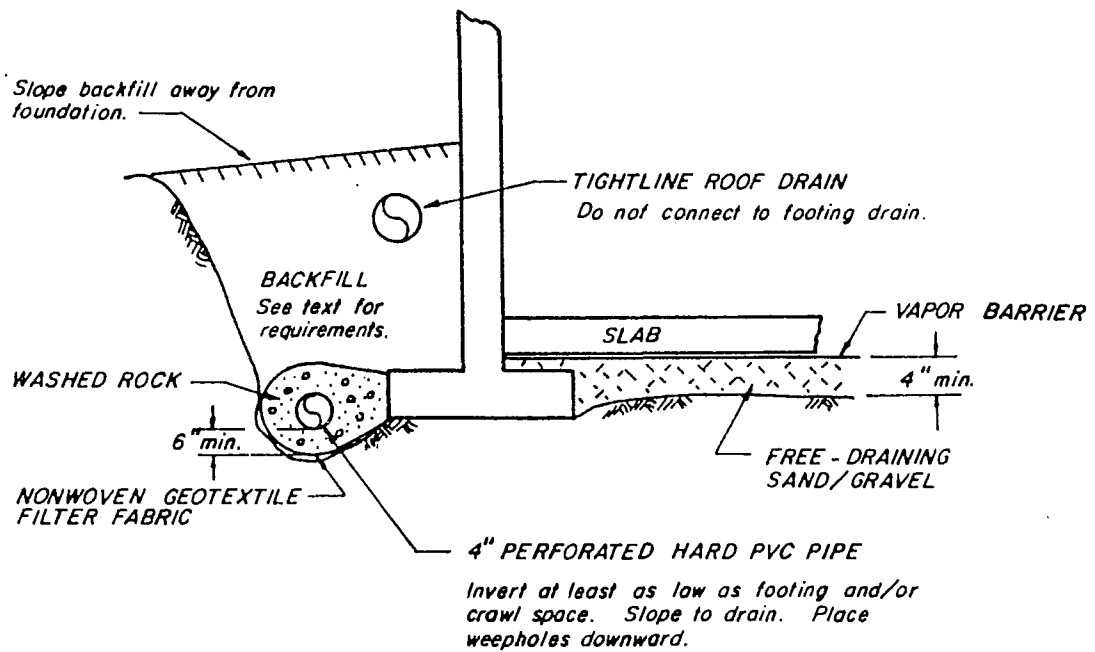
POULSBO, WASHINGTON

Job No:  
91062

Date:  
MAR 1991

Logged by:  
BRH

Plate:  
11



**GEOTECH  
CONSULTANTS**

## FOOTING DRAIN DETAIL

**POULSBO, WASHINGTON**

Job No.: 91062	Date: MAR 1991	Scale: N.T.S.	Plate: 12
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# GEOTECH CONSULTANTS

13256 N.E. 20th St. (Northup Way), Suite 16  
Bellevue, WA 98005  
(206) 747-5618  
(206) 343-7959

February 21, 1991

JN 1027

Poulsbo Associates  
P.O. Box 3056  
Seattle, Washington 98114

Attention: Leon Cohen

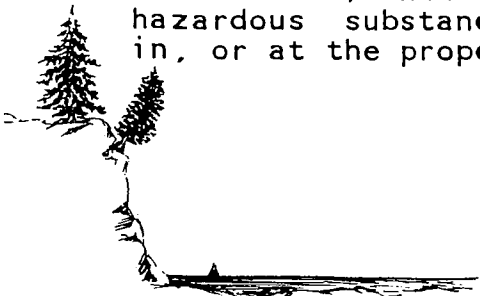
Subject: Phase 1 Environmental Audit  
33-Acre Housing Development  
Jensen Way at Northeast Sunset Street  
Poulsbo, Washington

Dear Mr. Cohen:

The Environmental Services Division of Geotech Consultants, Inc. is pleased to present this Phase 1 Environmental Audit report for the 33-acre housing development located at the intersection of Jensen Way and Northeast Sunset Street in Poulsbo, Washington. The report was prepared in accordance with the terms of our proposal dated December 14, 1990. This report summarizes our approach to the project along with results and conclusions.

## METHODOLOGY/SCOPE OF WORK

Our study approach consisted of completing a series of investigative tasks intended to satisfy the level of effort often referred to as "due diligence" by the "innocent purchaser" in the context of the Superfund Amendment and Reauthorization Act of 1986 (SARA), and nearly identical requirements set forth in sections of the Model Toxics Control Act, Chapter 75.105D.040 pertaining to standards of liability. The objective of a Phase 1 audit is to minimize potential future liability for environmental problems by demonstrating that at the time of acquisition, the owner (or holder) had no knowledge or reason to know that any hazardous substance had been released or disposed of on, in, or at the property.



To evaluate previous uses of the property in a manner consistent with good commercial and customary practice, our investigative tasks for this study included:

- Review of the chronology of ownership and site history using county assessor files, library files, state archives and aerial photography as primary resources. Here, the effort included an attempt to identify possible former industries or uses presenting some probability of generating waste which may have included dangerous or hazardous substances as defined by state and federal laws and regulations.
- Review of the EPA Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), dated November 27, 1990, and the EPA Resource Conservation and Recovery Act (RCRA) Notifiers, dated December 13, 1990, lists of sites which are potentially contaminated or which produce hazardous substances as a normal part of their commercial operation in the vicinity of the site.
- Review of the Washington Department of Ecology (WDOE) listing of underground storage tanks (USTs), dated October 30, 1990.
- A reconnaissance of the subject property including buildings to look for evidence of potential contamination in the form of soil stains, odors, vegetation stress, discarded drums, discolored water, etc.
- Preparation of a summary report which documents the audit process and findings.

## FINDINGS

### General

The subject property consists of a 33-acre parcel of land with approximately 168 residential units ranging from single-family houses to quadruplex units. Several of the buildings are currently unoccupied, while others serve as low-income housing. The site is located on a hill

overlooking Liberty Bay approximately one-quarter mile north of downtown Poulsbo, Washington. The approximate location of the site can be seen on the Vicinity Map, Plate 1, appended to this report.

### Development History and Land Use

Sources reviewed for information on site and area development and land use included the resources of the Kitsap County Assessor's Office, the Seattle Public Library, and aerial photography from several periods.

From review of aerial photographs, dated 1956, 1963, 1973, 1977, and 1985, it appears that the subject property was developed prior to 1956. In each of the five photographs reviewed, the area appeared to be occupied by 168 residential units including single and multiple family dwellings along with open grass lawns and trees. The areas to the north and east of the site appeared to be heavily wooded in each of the photos reviewed. An athletic running track configured as a quarter-mile-long oval, was noted in the central area of the lot in the four earliest photos. By the time of the 1985 print, the track had been replaced by an open field.

Based on the information developed through review of aerial photography, it appears that the site does not have a history of industry, manufacturing, chemical distillation, waste disposal or other use which might otherwise have exposed the property to toxic, hazardous or dangerous substances.

Based on information available at the Kitsap County Assessor's office and an interview with Mr. Leon Cohen, of General Pacific, we have compiled the following history of ownership:

Owner	Date of Purchase
French Creek Development Corp.	October 1988
Ronald Barton & Robert Johnson	November 1984
Arthur Jones; Glen Chinn; Billy Dick Wilson; Herbert Chin; Leonard Siebert	Unknown

### Site Reconnaissance

An environmental assessor from our firm visited the property on February 7, 1991 to review on-site conditions and land use practices in the surrounding area.

The property consists of approximately 33 acres of land situated on a hill just north of downtown Poulsbo, Washington. Development on the property consists of single-family houses, duplexes, triplexes, and quadruplexes of 1942 vintage. At the time of our visit, several of the units were unoccupied.

During our review of the property, we were able to access five of the residential units, including two single-family houses and one triplex. Interior materials in each of the units we reviewed included the following:

- Wood floors
- Plasterboard walls and ceilings
- Sheet vinyl floors in the kitchens
- Incandescent lights

Vegetation on the property includes grass lawns and fields as well as deciduous and evergreen trees. Each of the structures have wood siding exteriors built on concrete foundations with pitched composition shingle roofs. Some of the units are heated with electric baseboard heat or portable electric heaters, while others are heated with portable oil burning units. At the time of our visit, we noted 250-gallon above-ground heating oil tanks outside several of the houses. The tanks we were able to access were empty at the time of our visit. The tanks we were able to access were in fair condition. The scope of our work for this project did not include any sampling of soils or groundwater. We did not, however, observe any evidence of surficial soil contamination around any of the tanks to which we had access.

At the time of our visit, no stains, odors, or unusual vegetation conditions that might indicate the potential presence of hazardous materials were observed on the site.

Review of Possible Asbestos-Containing Material

During our reconnaissance of the site we observed building materials to assess the potential for the presence of asbestos-containing materials (ACM). Two samples of building material were collected for analysis. An analysis was conducted using polarized light microscopy (PLM) with dispersion staining. The results of the analysis are presented below:

Sample #	Material/Location	Results
1027-1	12" floor tile/Kitchen floor	None Detected
1027-2	Sheet vinyl/Kitchen floor	C - 10-15%

NOTE: C - Chrysotile Asbestos

Review of WDOE Listing of Underground Storage Tanks

Review of the WDOE Listing of Underground Storage Tanks (USTs) dated October 30, 1990, revealed one UST site within a 2000-foot radius of the subject property. The Washington State Military Department located at the corner of Jensen Way and Iverson Street had one underground storage tank which, according to the WDOE listing, has been removed. The tank, which was 40 years old, had a capacity of 1,000-5,000 gallons and was used to hold unleaded gasoline. The site is not noted on the WDOE list of leaking USTs.

Based upon our review of geologic reports and local drainage patterns for the vicinity of the site, it appears that the probable direction for movement of shallow-seated groundwater would be from the east toward the west. The UST site listed above is positioned to the south, (hydrologically cross-gradient) from the subject property. Based upon this information, had there been a leak from the Military Department site, it is our opinion that the potential for contamination reaching the subject property would be very low. For your reference, the location of the tank site is noted on the Site Vicinity Map, Plate 1:

Review of EPA Records for Potentially Hazardous Sites

Review of the EPA CERCLIS listings revealed no potentially hazardous sites within approximately one mile of the subject property which have been designated as eligible for participation in the Superfund clean-up program.

Review of the Facility Index System (FINDS) listing dated July 16, 1990, revealed several sites and/or businesses within approximately (one-half) mile of the subject property which are regularly monitored by EPA/WDOE for the use or generation of small amounts of hazardous substances as a normal part of their business activities. These include:

<u>Company</u>	<u>Regulatory Agency</u>	<u>Generator Code</u>
Honeywell Inc. 1050 Northeast Hostmark St.	HWDM State	-
John's Auto Body 3860 Northeast Iverson St.	HWDM	2
Viking Marine Center 18779 Front St.	HWDM State	1

Regulatory Agencies:

HWDM - Office of Solid Waste (RCRA listing)  
STATE - State Program Offices

Generator Codes:

- 1 - Large Quantity Generator, more than 1000 kilograms per month of hazardous material
- 2 - Small Quantity Generator, between 100 and 1000 kilograms per month

Businesses named in the FINDS listing are users or generators of potentially hazardous or toxic materials as a normal aspect of their business practices. Listed



businesses are required to closely monitor and report their use or generation of such materials to the EPA. Based on the monitoring and reporting requirements imposed by the EPA, and on the assumption that the listed user/generators exercise prudence in management of these materials to minimize liability and EPA penalties, it is our opinion that the potential for environmental impairment of the subject property from any of the listed businesses is very low.

Based on the December 27, 1990 EPA Office of Solid Waste listing with compliance/enforcement actions from October 1, 1983, those sites listed above with the Resource Conservation and Recovery Act (RCRA) are in compliance.

#### CONCLUSIONS

Based on the information developed in our review, and momentarily excluding the asbestos detected in the substrate of the sheet vinyl flooring, it appears that the subject site is free from hazardous or toxic substances, and that such substances, as defined under the RCRA-42 USC-6901, et seq., the Federal Water Pollution Control act (33 USC 1257, et seq.), the Clean Air Compensation and Liability Act (42 USC 2001, et seq.), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA: 42 USC 9601, et seq.), and the recently enacted Washington State Senate Bill 6085 (known as the State Superfund Act), have not been generated, stored, or disposed of on the property.

#### **Asbestos**

Borrowing evaluation criteria used under the Asbestos Health Emergency Response Act (AHERA, 40 CFR Part 763), the ACM detected in the sheet vinyl was in "good" condition. As it is our understanding that current plans for the property include demolition of all buildings, please note that applicable sections of the WAC 296-65 require that all projects relating to demolition where release or likely release of asbestos fibers into the air could occur be performed by "certified asbestos workers." Additional information may be obtained through Geotech Consultants, Inc., or directly from the Washington State Department of Labor and Industries, P.O. Box 207 Olympia, Washington 98504.

In the interim, it would be prudent to implement a management policy whereby all personnel working on the property are formally advised as to the presence of ACM prior to commencement of any work associated with the ACM bearing structures.

#### LIMITATIONS

This report has been prepared for the exclusive use of Poulsbo Associates and their representatives for specific application to this site. Our work for this project was conducted in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated December 14, 1990. No other warranty is expressed or implied.

The level of effort regarding identification of potential asbestos-containing materials (ACM) should be considered a reconnaissance, should not be confused with an asbestos survey, and should not be used for removal or abatement bidding purposes. In the event that the owner desires to quantify the amount of ACM, our staff of EPA-certified asbestos inspectors and management planners will be pleased to furnish a proposal for an asbestos survey.

As discussed in earlier sections of this report, the scope of work for our review of this site did not include examination, sampling or analysis of subsurface soils or groundwater on the site. The actual condition of subsurface soil or groundwater is not discernible solely on the basis of surficial evidence.

If new information is developed in future site work which may include excavations, borings, studies, etc., Geotech Consultants, Inc., must be retained to reevaluate the conclusions of this report and to provide amendments as required.

General Pacific  
February 21, 1991

JN 1027  
Page 9

We appreciate the opportunity to serve you on this interesting project and we trust that the information provided here will be of value in your planning efforts. If you have any questions or if we may be of further service, please do not hesitate to contact us.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.

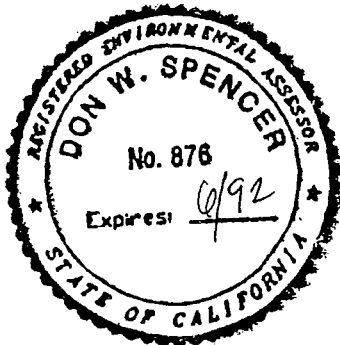
*Jennifer Wolfe by RME*  
Jennifer Wolfe  
Environmental Assessor

Certified AHERA Building Inspector  
ID # OST 0203 01/0015

*Don W. Spencer*  
Don W. Spencer, M.Sc.  
Vice President-  
Environmental Services

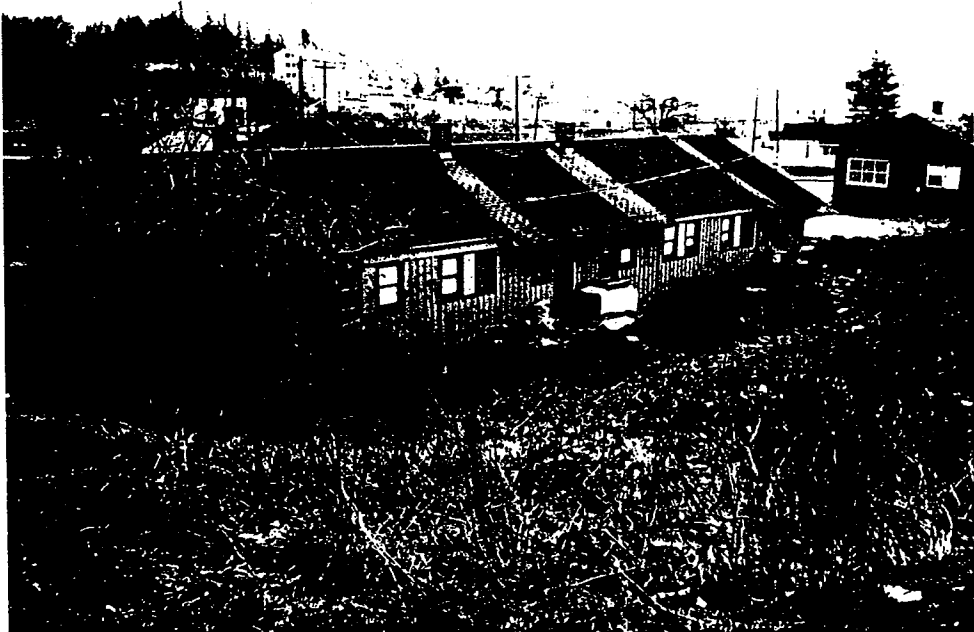
EPA-Certified Asbestos  
Inspector/Management Planner  
ID # AM 48151

Registered UST Site Assessor/  
Licensed UST Supervisor,  
Washington Department of Ecology



Attachments: Plate 1, Site Vicinity Map  
Plate 2, Site Photos

JLW/DWS:cka



**GEOTECH  
CONSULTANTS**

## SITE PHOTOS

Job No.:

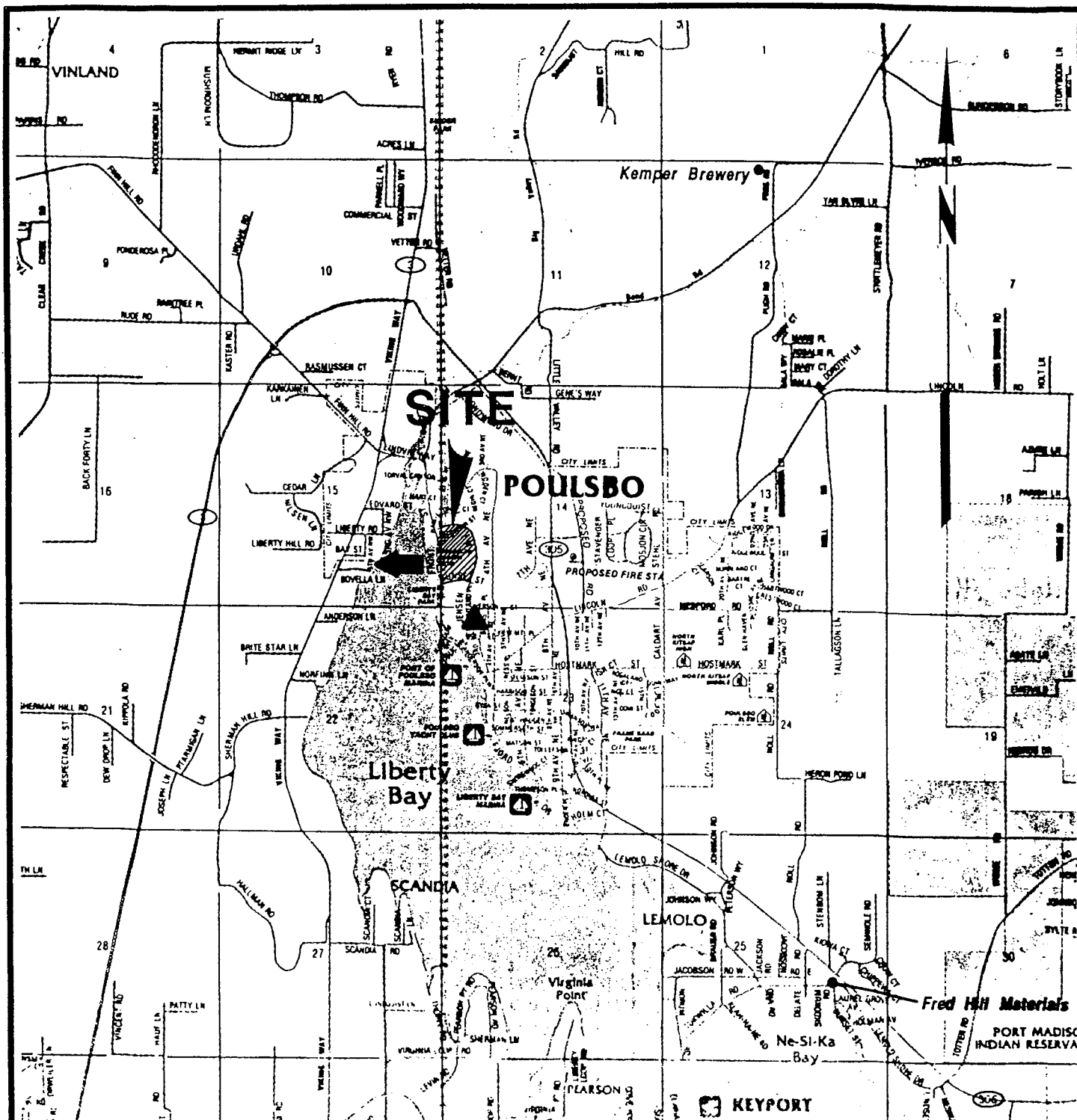
1027

Date:

FEB. 1991

Plate:

2



# LEGEND:

- ▲ Approximate Location of WDOE Listed UST Site
- ➔ Probable Direction of Shallow Groundwater Flow Near Site



## VICINITY MAP 33-ACRE HOUSING DEVELOPMENT JENSEN WAY AT N.E. SUNSET ST. POULSBO, WASHINGTON

Job No:  
1027

Date:  
FEB 1991

Plate:  
1