AESTHETICS TECHNICAL APPENDIX

FOR

NEW WHATCOM REDEVELOPMENT PROJECT EIS

Prepared by:

Blumen Consulting Group
Primedia Group
CollinsWoerman

December 2007

AESTHETICS TECHNICAL APPENDIX

1.0 Introduction

This Aesthetics Technical Appendix provides background information in support of the New Whatcom Redevelopment Project Draft EIS Aesthetics Section (Section 3.10). Information included in this appendix includes detail on the methodology employed to determine the viewpoints to be analyzed in the Draft EIS section and to prepare the visual simulations of site redevelopment. The alternatives analyzed in this EIS include the following:

- Alternative 1 – Higher Density Alternative
- Alternative 2 – Medium Density Alternative
- Alternative 3 – Lower Density Alternative
- Alternative 4 – No Action Alternative

Consistent with the Bellingham Comprehensive Plan policies for respecting views from the community to Bellingham Bay, the San Juan Islands and hills that provide the natural backdrop to the city, a focus of the aesthetics analysis is views from public areas and key vantage points in the surrounding area, as well as views of the shoreline.

2.0 Methodology

As a first step, more than 150 photographs were taken from public areas in the vicinity of the site and onsite, representing approximately 37 separate viewpoints. These viewpoints consisted of areas available to the general public including public streets and sidewalks, parks and trails, and other publicly available spaces (including Western Washington University); the photographs taken in support of this analysis are included in Attachment 1 at the end of this technical appendix.

From this inventory, 14 of the viewpoints were selected (based on coordination between the City and Port) as the most representative views of the site to be carried forward to the Draft EIS Aesthetics section for analysis. The criteria used to determine the viewpoints to carry forward for detailed analysis in the Draft EIS included: ability to view the site redevelopment; the potential for views of site redevelopment to change the character of the view; and, similarly of the potential for site redevelopment to change the character of the view from the viewpoint to other viewpoints in the area. The 14 viewpoints deemed most representative of area views to redevelopment at the New Whatcom site, and/or with the greatest potential for changes to existing views, were carried forward. The 14 viewpoints carried forward for analysis in the Draft EIS include:

- Bellwether Park
- Broadway Street near Eldridge Avenue
- F Street and Bancroft Street
- Maritime Heritage Park (top of steps)
- Wharf along north edge of the Whatcom Waterway
- Bay Street near E Holly Street
- Parkade Parking Structure (E Holly Street/Commercial Street)
- Chestnut Street and Cornwall Avenue

- E Maple Street and Cornwall Avenue
- E Laurel Street and N State Street
- WWU Viking Union Building
- South Bay Trail
- Boulevard Street
- Boulevard Park

Simulations representing potential building heights/scale on the site were prepared for analysis in the Draft EIS relative to these 14 viewpoints (Section 3.10 of the Draft EIS). The viewpoints analyzed in the Draft EIS include views from Bellwether Park, the Lettered Streets Neighborhood, the CBD, the South Hill Neighborhood, Western Washington University, the South Bay Trail and Boulevard Park. See **Section 3.10** in Chapter 3 of this Draft EIS for the simulations illustrating building height/massing on the New Whatcom site under the EIS Alternatives. A complete set of the photographs taken in support of the aesthetics analysis is included in Attachment 1 to this technical appendix.

Building Heights and Massing

An illustration showing the maximum height envelope assumed for the Redevelopment Areas was prepared for each viewpoint. These maximum height envelopes were intended to illustrate the maximum envelope within which buildings could be developed; the extent of potential building massing consistent with the maximum height envelopes and reflecting the assumed building square footage for the alternatives was expressed through the conceptual massing simulations described below.

The specific layout of future uses, building footprints and building heights cannot be specifically defined for specific buildings at this time. However, for the purposes of conducting visual analysis, building massing assumptions were made regarding the potential level of redevelopment, location of buildings and building heights that could occur during the buildout period as a tool to address potential aesthetic impacts on a “maximum-impact/worst-case” basis. The aesthetics analysis focuses on a building massing concept representing the assumed 2026 full-buildout condition; impacts associated with the 2016 condition, or prior to buildout, would be less than that depicted.

Development of all onsite buildings to the maximum height defined for each redevelopment area (i.e. up to 100 feet in Area 1) would result in total site building square footage substantially greater than the building square footage identified for each redevelopment alternative (i.e. up to 7.5 million square feet under Alternative 1). Therefore, it is assumed that not all buildings would be developed to the maximum assumed height. However, an individual building within a given area of the site could be built to the maximum height. Hence, to provide a conservative aesthetic analysis, the maximum assumed height envelope for the various redevelopment areas is depicted for each viewpoint.

The building massing assumptions, including possible building footprints, for the EIS alternatives reflected in the visual analysis presented in Section 3.10 of this Draft EIS were derived from consideration of the following: development density (per redevelopment area); assumed development type (office, housing, institution, retail, parking and industrial); assumed maximum building heights; typical building floor plate configurations; parking options considering limited underground parking due to site constraints; potential secondary roadway systems for building access and service; and, City Planning Department (staff)

recommendations for the City's Shoreline Master Program Update. A plan view illustration of the building footprints assumed for the building massing concept is provided in **Figure 1** and a 3-dimensional view of the assumed massing concept is provided in **Figure 2**.

The aesthetics analysis focuses on the visual conditions associated with Alternative 1 (higher density alternative), with conditions associated with Alternatives 2 through 4 compared to conditions under Alternative 1.

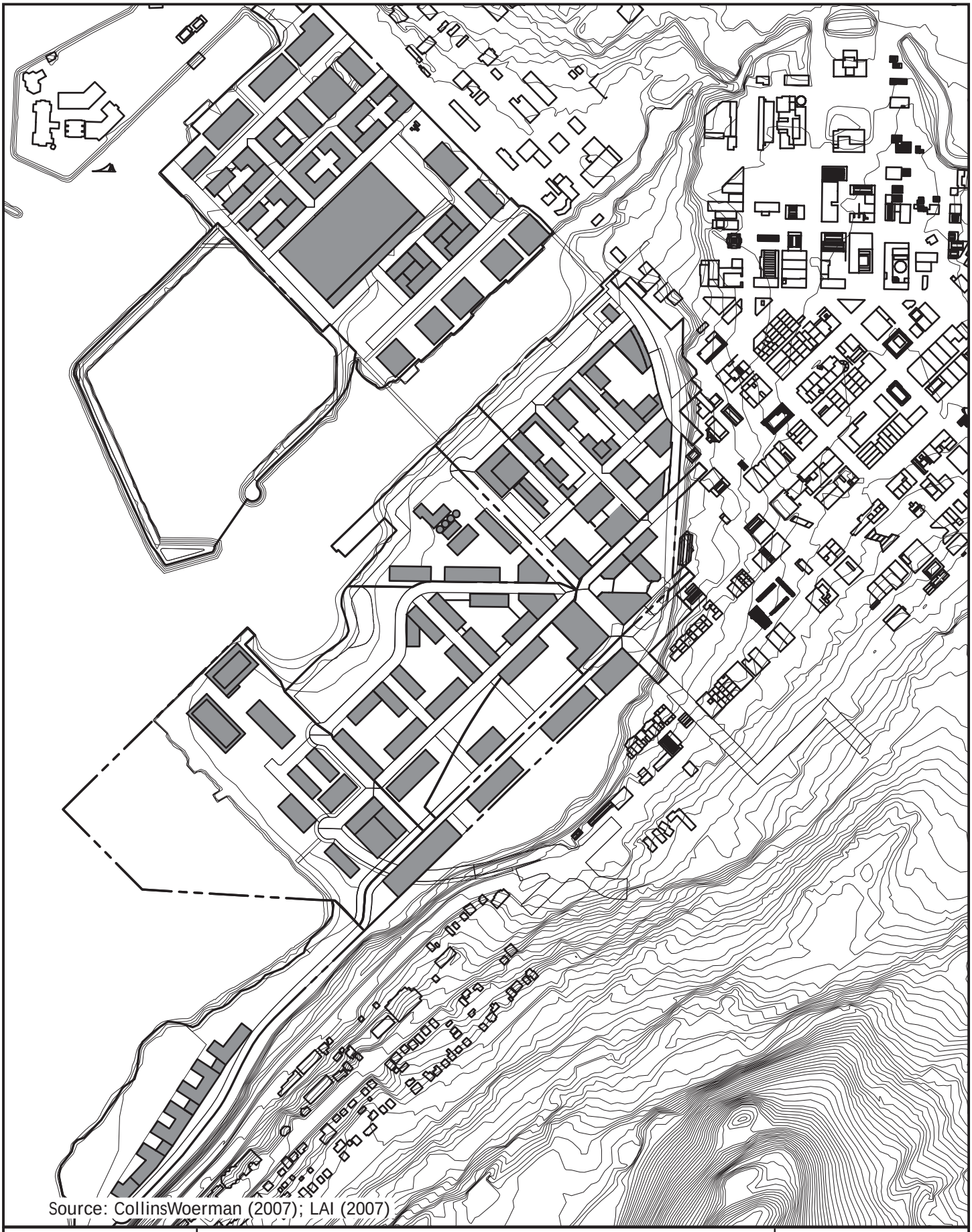
Because the assumptions regarding types of uses, density and building heights differ among the various redevelopment areas, building height and massing assumptions also differ between the redevelopment areas. The massing concept assumptions for the various redevelopment areas are summarized below.

- **Redevelopment Area 1** – This redevelopment area is assumed to include a mix of industrial, manufacturing, housing and office uses. The northern half of this redevelopment area is assumed to contain predominantly industrial and manufacturing uses which are typically reflected in large footprint buildings of relatively low height with limited parking. Taller buildings for office and residential uses are assumed for the southern portion of Redevelopment Area 1. Maximum building heights in Redevelopment Area 1 are assumed to be 100 feet under Alternative 1 and 75 feet under Alternatives 2 and 3

- **Redevelopment Areas 2 through 4** – Redevelopment Areas 2 through 4 are assumed to have the highest density on the site, as well as the corresponding largest amount of parking. These areas are assumed to consist primarily of housing, office and industrial uses, with structured parking at their base or in free standing structures. Taller buildings in these areas are assumed to have relatively smaller building footprints (reflecting potential residential use); these taller buildings are shown in combination with lower height buildings to arrive at the assumed density for these areas. As indicated earlier, tall buildings would not be developed consistently across these redevelopment areas to achieve the density assumed.

  Maximum building height assumptions for Redevelopment Areas 2 through 4 are as follows: maximum building heights in Redevelopment Area 2 would range from 200 feet under Alternative 1, 140 feet under Alternative 2 and 100 feet under Alternative 3; Redevelopment Area 3 maximum building heights would be 150 feet under Alternative 1 and 100 feet under Alternatives 2 and 3; and, Redevelopment Area 4 maximum building heights would be 100 feet under Alternative 1 and 75 feet under Alternatives 2 and 3.

- **Redevelopment Areas 5 through 10** – Redevelopment Areas 5 through 9 are assumed to have the lowest density on the site. Building envelopes assumed for these areas generally reflect a 3 to 5 story heights with structured parking incorporated into the base of buildings (surface parking would be provided in some locations). Redevelopment Area 10 is assumed to contain a medium density which likely consists primarily of housing. Building heights are maximized in this redevelopment area due to its relatively low potential for visual impact to the surrounding neighborhood given the presence of an intervening vegetated bluff. Assumed maximum building heights in Redevelopment Area 5 would range from 150 feet under Alternative 1 to 100 feet under Alternatives 2 and 3, with assumed maximum building heights in Redevelopment Areas 6 through 10 of 100 feet under Alternative 1 and 75 feet under Alternatives 2 and 3.

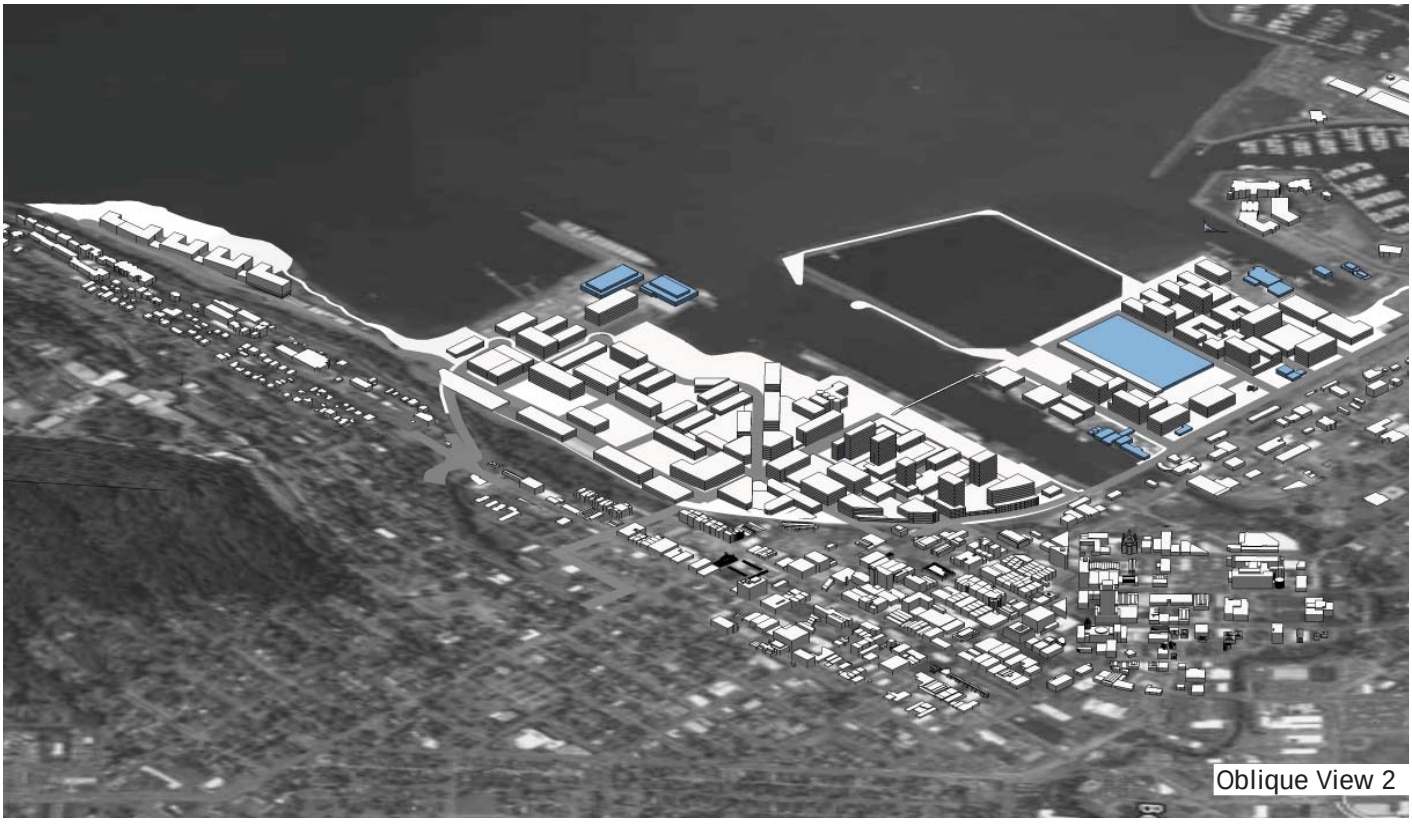


Source: CollinsWoerman (2007); LAI (2007)

BLUMEN CONSULTING GROUP, INC

Aesthetics Technical Appendix
Figure 1 - Building Footprints

New Whatcom
Redevelopment EIS



Source: CollinsWoerman (2007); LAI (2007)

BLUMEN CONSULTING GROUP, INC	Aesthetics Technical Appendix Figure 2 -Oblique Views	New Whatcom Redevelopment EIS

- **Alternate Massing Concept** – To illustrate the range of potential building development on the site to achieve the identified site density, analysis of Alternative 1 also includes simulations from a second massing concept with different building footprint assumptions. The building massing for this scenario generally reflects the concept of reducing the number of tall buildings with a greater number of medium height buildings; in addition, some of the medium height buildings in the original massing concept are shown as taller buildings in the alternative concept. Under this concept, Redevelopment Areas 2 through 5 would reflect the greatest degree of change, relative to the original concept, with a reduction in the number of taller buildings adjacent to the Whatcom Waterway. Refer to Section 3.10 of the Draft EIS for the simulations representing the alternate massing concept.

- **Building Articulation** – To reflect the potential for building articulation and upper level setbacks that could be included as development standards associated with the Master Development Plan, a simulation that depicts the original Alternative 1 massing with reduced building footprint and upper level setbacks is provided. This concept reflects taller/skinnier buildings with increased space between the structures. Refer to Section 3.10 of the Draft EIS for the simulation representing building articulation.

Photographic and Simulation Methods

Photographs of existing views of the New Whatcom site were taken on three days by the same photographer using a Sony DSC F828 digital camera. Where appropriate, some viewpoints were illustrated by multiple shots to generate the panoramic view available at that specific location; these were mapped for future reference.

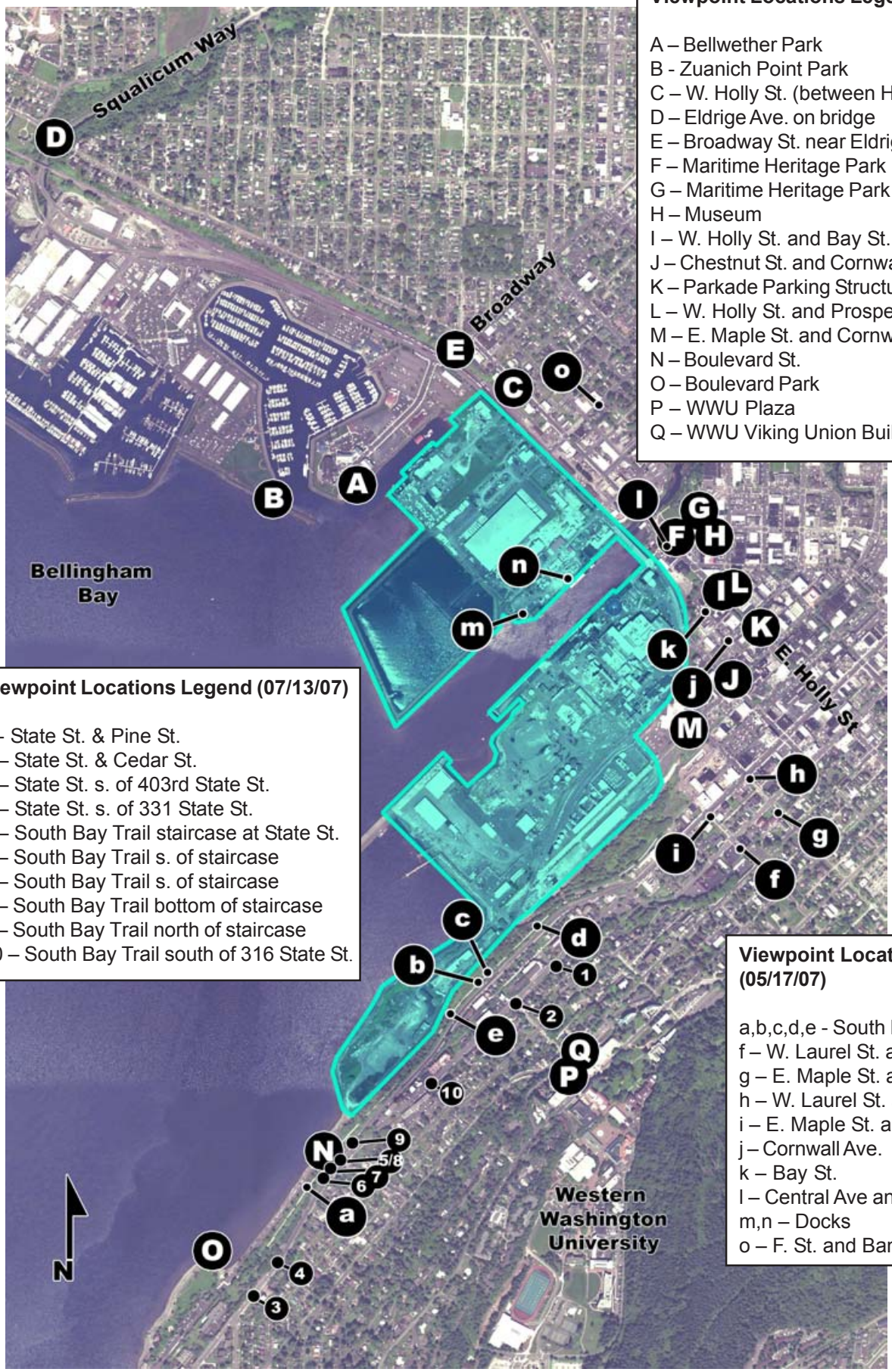
To prepare the existing photographs for generating the visual simulations of New Whatcom development, digital files were set up in Adobe Photoshop to build the potential views from the selected 14 locations. The foreground of each photograph (i.e., image between the camera and site redevelopment) was then separated from the background into different “layers”.

Based on the massing concepts described above, simulations of building heights and scale under the New Whatcom EIS Alternatives were generated for each viewpoint utilizing Autodesk #D Studio Max software.

Camera locations for each simulation were registered using a combination of field measurements and topographic GIS information, adding 6 feet for the photographer’s height. Lens types and field of view settings were matched within the software, to the type used for each location. Existing 3d models from GIS data matched the existing built conditions onsite and were used to align each camera within the software. Proportions of massing concepts were matched to the proportions of photographs taken. In cases were multiple photographs were taken to form a panorama, the multiple photographs were aligned to replicate these views. The resulting simulations, which represented the assumed building envelope, were then inserted into the prepared existing condition photographs, between the foreground and background layers along with existing buildings to remain under the redevelopment alternatives (Alternatives 1 through 3) and the No Action Alternative. The assembled images for each view for each alternative were then collaged where necessary to finalize the visual simulation.

Attachment 1

Photographs



Viewpoint Locations Legend (08/22/06)

A – Bellwether Park
B - Zuanich Point Park
C – W. Holly St. (between H and I streets)
D – Eldrige Ave. on bridge
E – Broadway St. near Eldrige Ave.
F – Maritime Heritage Park
G – Maritime Heritage Park (top of steps)
H – Museum
I – W. Holly St. and Bay St.
J – Chestnut St. and Cornwall Ave.
K – Parkade Parking Structure (Holly/Comm.)
L – W. Holly St. and Prospect
M – E. Maple St. and Cornwall Ave.
N – Boulevard St.
O – Boulevard Park
P – WWU Plaza
Q – WWU Viking Union Building

Viewpoint Locations Legend (07/13/07)

1 - State St. & Pine St.
2 – State St. & Cedar St.
3 – State St. s. of 403rd State St.
4 – State St. s. of 331 State St.
5 – South Bay Trail staircase at State St.
6 – South Bay Trail s. of staircase
7 – South Bay Trail s. of staircase
8 – South Bay Trail bottom of staircase
9 – South Bay Trail north of staircase
10 – South Bay Trail south of 316 State St.

Viewpoint Locations Legend (05/17/07)

a,b,c,d,e - South Bay Trail
f – W. Laurel St. and N. Forest St.
g – E. Maple St. and N Forest St.
h – W. Laurel St. and N. State St.
i – E. Maple St. and N. State St.
j – Cornwall Ave.
k – Bay St.
l – Central Ave and W. Holly St.
m,n – Docks
o – F. St. and Bancroft St.

VP A1 - Bellwether Park (35mm)

VP A2

VP A3

VP A4

VP A5

VP A6

VP A1-6 - Bellwether Park panorama (35mm)

VP B1 - Zuanich Point Park (35mm)

VP B2

VP B3

VP B4

VP B1-4 - Zuanich Point Park panorama (35mm)

VP B(a)1 - Zuanich Point Park (50mm)

VP B(a)2

VP B(a)3

VP B(a)3

VP B(a)4

VP B(a)5

VP B(a)1-5 - Zuanich Point Park panorama (50mm)

VP C1 - W Holly St. (between H & I St.) (35mm)

VP C2

VP C3

VP C1-3 - W Holly St. (between H & I St.) panorama (35mm)

VP D1 - Eldrige Ave. on Bridge (50mm)

VP E1 - Broadway St. near Eldridge Ave. (50mm)

VP E2

VP E1-2 - Broadway St. near Eldridge Avve. panorama (50mm)

VP E(a)1 (35mm)

VP F1 - Maritime Heritage Park (35mm)

VP F(a)1 (50mm)

VP G1 - Maritime Heritage Park (top of steps) (35mm)

VP G2

VP G3

VP G4

VP G5

VP G1-5 - Maritime Heritage Park (top of steps) panorama (35mm)

VP G(a)1 - Maritime Heritage Park (top of steps) (28mm)

VP G(a)2

VP G(a)3

VP G(a)4

VP G(a)1-4 - Maritime Heritage Park (top of steps) panorama (28mm)

VP H1 - City Hall steps (35mm)

VP H2

VP H1-2 - City Hall steps (35mm)

VP I1 - W. Holly & Bay St. (35mm)

VP I(a)1 (50mm)

VP J1 - Chestnut St. & Cornwall Ave. (35mm)

VP J2

VP J3

VP J4

VP J5

VP J6

VP J1-6 - Chestnut St. & Cornwall Ave. panorama (35mm)

VP K1 - Parkade Parking Structure (Holly/Comm.) (50mm)

VP K2

VP K3

VP K4

VP K5

VP K1-6 - Parkade Parking Structure panorama (Holly/Comm.) (50mm)

VP L1 - W. Holly St & Prospect (35mm)

VP L(a)1 - W. Holly St & Prospect (50mm)

VP M1 - E. Maple St. & Cornwall Ave. (35mm)

VP M2

VP M3

VP M4

VP M5

VP M6

VP M1-6 - E. Maple St. & Cornwall Ave panorama (35mm)

VP N1 - Boulevard St. (35mm)

VP N(a)1 (50mm)

VP N(b)1 (70mm)

VP N(c)1 (100mm)

VP O1 - Boulevard Park (50mm)

VP O(a)1 - Boulevard Park (70mm)

VP P1 - WWU Plaza (35mm)

VP P(a)1 (50mm)

VP P(b)1 (70mm)

VP P(b)2

VP P(b)1-2 - WWU Plaza panorama (70mm)

VP Q1 - WWU Viking Union Bdg (28mm)

VP Q(a)1 - WWU Viking Union Bdg (35mm)

VP Q(a)2

VP Q(a)3

VP Q(a)1-3 - WWU Viking Union Bdg panorama (35mm)

VP a 1 - South Bay Trail (28mm)

VP a 2 (50mm)

VP a 3 (100mm)

VP b 1 - South Bay Trail (28mm)

VP b 2.1 (50mm)

VP b 2.2

VP b 2.3

VP b 2.1-2.3 - South Bay Trail panorama (50mm)

VP c 1 - South Bay Trail (28mm)

VP c 2 (50mm)

VP d 1.1 South Bay Trail (28mm)

VP d 1.2

VP d 1.3

VP d 1.1-1.3 South Bay Trail panorama (28mm)

VP d 2.1 South Bay Trail (50mm)

VP d 2.2

VP d 2.3

VP d 2.4

VP d 2.5

VP d 2.1-2.5 South Bay Trail panorama (50mm)

VP e 1.1 South Bay Trail (28mm)

VP d 1.2

VP d 1.3

VP d 1.4

VP d 1.4

VP d 1.5

VP e 1.1-1.5 South Bay Trail panorama (28mm)

VP f 1 W Laurel Street/N Forest St (28mm)

VP f 2 (50mm)

VP f 3

VP g 1 E Maple St/N Forest St (28mm)

VP g 2 (50mm)

VP g 3 (100mm)

VP h 1 W Laurel Street/N State St (28mm)

VP h 2 (50mm)

VP h 3 (100mm)

VP i 1 E Maple St/N State St (28mm)

VP i 2 (50mm)

VP i 3 (100mm)

VP j 1 Cornwall Ave (28mm)

VP j 2 (50mm)

VP j 3 (100mm)

VP k 1 Bay St (28mm)

VP k 2.1 (50mm)

VP k2.2

VP k 2.3

VP k 2.1-2.3 Bay St (50mm)

VP11 Central Ave/W Holly St (28mm)

VP12 (50mm)

VP13.1 (100mm)

VP13.2

VP 13.3

VP 13.1-3.3 Central Ave/W Holly St panorama (100mm)

VP m 1 Docks (28mm)

VP m 2.1 (50mm)

VP m 2.2

VP m 2.3

VP m 2.4

VP m 2.5

VP m 2.6

VP m 2.1-2.6 Docks panorama (50mm)

VP n 1.1 Docks (50mm)

VP n 1.2

VP n 1.3

VP n 1.4

VP n 1.5

VP n 1.6

VP n 1.7

VP n 1.8

VP n 1.9

VP n 1.10

VP n 1.11

VP n 1.12

VP n 1.1-1-12 Docks panorama (50mm)

VP o 1 F Street & Bancroft St. (28mm)

VP o 2 F Street & Bancroft St. (50mm)

VP o 3.1 F Street & Bancroft St. (100mm)

VP o 3.2 (100mm)

VP o 3.1-3.2 F Street & Bancroft St. panorama (100mm)

VP 1.1 State St. & Pine St.. (50mm)

VP 1.2 State St. & Pine St.. (50mm)

VP 1.3 State St. & Pine St.. (50mm)

VP 1.1-3 State St. & Pine St..panorama (50mm)

VP 2.1 State St. & Cedar St. (28mm)

VP 2.2 State St. & Cedar St. (28mm)

VP 2.3 State St. & Cedar St. (28mm)

VP 2.1-3 State St. & Cedar St. panorama (28mm)

VP 3 State St. south of 403rd State St.(50mm)

VP 4.1 State St. south of 331 State St. (50mm)

VP 4.2 State St. south of 331 State St. (50mm)

VP 4.1-2 State St. south of 331 State St. panorama (50mm)

VP 5 South Bay Trail staircase at State St. (50mm)

VP 6 South Bay Trail south of staircase (28mm)

VP 7 South Bay Trail south of staircase (100mm)

VP 8 South Bay Trail bottom of staircase (50mm)

VP 9.1 South Bay Trail north of staircase (28mm)

VP 9.2 South Bay Trail north of staircase (28mm)

VP 9.1-2 South Bay Trail north of staircase panorama (28mm)

VP 10.1 South Bay Trail south of 316 State St. (50mm)

VP 10.2 South Bay Trail south of 316 State St. (50mm)

VP 10.1-2 South Bay Trail south of 316 State St.panorama (50mm)