LEED neighborhood development assessment: the Fountain District

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LEED Neighborhood Development Assessment: The Fountain District

Leadership in Energy & Environmental Design-ND

This report represents a class project that was carried out by students of Western Washington University, Huxley College of the Environment. It has not been undertaken at the request of any persons representing local governments or private individuals, nor does it necessarily represent the opinion or position of individuals from government or the private sector.
LEED Neighborhood Development Assessment:
The Fountain District

Prepared for Environmental Studies 436 under the supervision of Troy Abel, Instructor

Huxley College of the Environment

Western Washington University

Fall 2009

Prepared by:

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Environmental Impact Assessment
Huxley College of the Environment

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Date 12-7-2009
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Title
LEED Neighborhood Development: The Fountain District

Lead Agency
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Bellingham, WA 98225

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Katie Franks

Issue Date: December 10, 2009

Public Presentation: December 2, 2009
Letter to Citizens

Huxley College of the Environment
Western Washington University
516 High Street, Bellingham WA 98225

December 1, 2009

Dear Concerned Citizen:

In accordance with the United States Green Building Council’s (USGBC) LEED for Neighborhood Design elements this document was compiled and developed for academic purposes by students in Huxley College of The Environment’s ESTU 436 at WWU. ESTU 436 is intended as a practicum of a professional process for developing and documenting a LEED ND document.

The Fountain District in Bellingham, Washington is candidate for LEED certification as the city develops its Urban Village Master Plan for the site. Through public process and input it has been determined that residents and business owners in the area are eager to shape a new vision for the Fountain District while preserving certain historical and aesthetic characteristics.

Contents of this document include credits we believe are achievable with a commitment by the city and the community to shape the development of this portion of the city guided by the framework of the LEED for Neighborhood Design.

The USGBC, the Congress for the New Urbanism (CNU), and the Natural Resources Defense Council (NRDC) have come together to develop a rating system for neighborhood planning and development based on the combined principles of smart growth, New Urbanism, and green infrastructure and building. LEED for Neighborhood Development places emphasis on the site selection, design, and construction elements that bring buildings and infrastructure together into a locality and relate the neighborhood to its landscape as well as its local and regional context.

Green neighborhood developments are beneficial to the community and the individual as well as the environment. The character of a neighborhood, including its streets, homes, workplaces, shops, and public spaces, significantly affects the quality of life.

LEED-ND is a voluntary leadership standard, and local governments should consider promoting its use by the development community or public-private partnerships.

Many of the concerns voiced by the community in the redevelopment of this neighborhood have been addressed through the LEED ND framework, and thus by adopting these principles of smart growth and utilization of green infrastructure and building, many citizens will be pleased with the future of their neighborhood.

We Look Forward to Working with You,
Abel Environmental Consulting
Site Map

Map by: Mason Fidno
Sources: WWU Database
Projection: Stateplane Washington North.
Purpose of LEED-ND

The LEED for Neighborhood Development Rating System (LEED –ND) integrates principles of smart growth, urbanism and green building into the first national system for neighborhood design. Certification under the LEED-ND program requires that the location and design of a development meet high levels of environmentally responsible and sustainable development. The four focus areas of the LEED-ND framework consists of:

Smart Location and Linkage (SLL)
Neighborhood pattern and design (NPD)
Green Construction and Technology (GCT)
Innovation and Design (ID)

The rating system serves as an incentive for better urban planning in the areas of site location, design, and construction for neighborhood development. LEED-ND standards encourage development plans that have the potential to revitalize existing urban areas by encouraging infill projects in already developed land. The infill projects have the potential to revitalize existing urban areas, reduce land consumption, reduce automobile dependence through promoting pedestrian activity, improve air quality, decrease polluted storm water runoff and build sustainable communities.

For the purpose of this project the requirements for LEED-ND have been further broken down into the Built Environment, the Natural Environment, and Social/Economic Impacts.
Executive Summary

The Fountain District of Bellingham, Washington offers the perfect location for a LEED-ND development project. In 2007 residents from the Columbia, Cornwall Park and Lettered Streets Neighborhoods launched an outreach to revamp the commercial area commonly known as the Fountain District (City of Bellingham, 2009). Since 2007 the City of Bellingham has been formulating an Urban Village master plan for the Fountain District and based on those plans we developed our site design proposal.

The Fountain District encompasses the area of Meridian Street beginning at the intersection of Illinois and running south to the intersections of Girard and Broadway, providing great connectivity throughout the district and into neighboring neighborhoods. The area is already developed therefore offering a perfect location for LEED-ND based redevelopment. The site is an ideal candidate for development to deal with the projected growth Bellingham will face in the years to come. Redevelopment will revitalize the Fountain District by providing new amenities in an urban village form, as well as increasing the overall aesthetics of the neighborhood and the overall usefulness of the area. In addition redeveloping the Fountain District will help to protect Whatcom County’s valuable farmland from sprawl by reducing land consumption.

The Fountain District provides a smart location for infill development because of its proximity to public transportation as well as jobs in the commercial core along Meridian Street. The proximity to public transportation as well as bicycle and pedestrian friendly streets offer the potential for a more walkable community. Encouraging public transportation and the use of bicycles and walking will lower resident’s dependence on motor vehicles and lower the congestion around the area as well as lower the community’s dependence on fossil fuels.

The proposed alternative development will include the addition of six new buildings as well as the renovation of three existing buildings from which the design was based on citizen input. In addition, several street improvements have been added to increase the walkability of the neighborhood including lowering the speed limit and adding crosswalks. See Appendix C for design proposals.

With the proposed design the Fountain District could potentially reach GOLD LEED Certification.

Smart Location and Linkage
Current Evaluation: 17/27 Points
Proposed Alternative: 20/27 Points

Neighborhood Pattern and Design
Current Evaluation: 8/44 Points
Proposed Alternative: 31/44 Points

Green Infrastructure and Building
Current Evaluation: 8/29
Proposed Alternative: 21/29

Innovation and Design
Current Evaluation: 0/10
Proposed Alternative: 0/10
## Evaluation Matrix

<table>
<thead>
<tr>
<th>Evaluation Category</th>
<th>Current Action</th>
<th>Alternative Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smart Location and Linkage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 credits total</td>
<td>63%</td>
<td>74%</td>
</tr>
<tr>
<td><strong>Built Environment</strong></td>
<td>33%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Natural Environment</strong></td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Social/Economic Impacts</strong></td>
<td>22%</td>
<td>26%</td>
</tr>
<tr>
<td><strong>Neighborhood Pattern &amp; Design</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44 credits total</td>
<td>18%</td>
<td>70%</td>
</tr>
<tr>
<td><strong>Built Environment</strong></td>
<td>26%</td>
<td>61%</td>
</tr>
<tr>
<td><strong>Natural Environment</strong></td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Social/Economic Impacts</strong></td>
<td>22%</td>
<td>78%</td>
</tr>
<tr>
<td><strong>Green Construction &amp; Technology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 credits total</td>
<td>28%</td>
<td>76%</td>
</tr>
<tr>
<td><strong>Built Environment</strong></td>
<td>30%</td>
<td>78%</td>
</tr>
<tr>
<td><strong>Natural Environment</strong></td>
<td>0%</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Social/Economic Impacts</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Innovation &amp; Design Process</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 credits total</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Built Environment</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Natural Environment</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Social/Economic Impacts</strong></td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total Percentage over all three sub-criteria</strong></td>
<td>33%</td>
<td>69%</td>
</tr>
</tbody>
</table>

### Certification Levels

<table>
<thead>
<tr>
<th>Certification Level</th>
<th>Current Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified: 40-49 credits (38-46%)</td>
<td>The development remains the same with no changes.</td>
</tr>
<tr>
<td>Silver: 50-59 credits (47-56%)</td>
<td>35 credits awarded (does not meet LEED certification)</td>
</tr>
<tr>
<td>Gold: 60-79 credits (57-74%)</td>
<td></td>
</tr>
<tr>
<td>Platinum: 80-106 credits (&gt;74%)</td>
<td></td>
</tr>
</tbody>
</table>

### Alternative Action

- Potential to meet 73 credits (Gold LEED certification). Through more sustainable development practices.
A. Smart Location and Linkage (SLL)-27 Points

SLL Prerequisite 1: Smart Location and Linkage (SLL) 27 Points

Required Prerequisite - Met

“A movement called Smart Growth is challenging the way we build, work, and live, and is encouraging us to look at communities not only as places to live but as vehicles to promote health and well-being” (Geller, 2003).

Purpose: The proposed development in the Fountain District will be within an existing community with public transportation infrastructure and will encourage improvement and redevelopment of the Fountain District. Locating the development in an area near public transportation will allow local residents to reduce vehicle miles traveled and support walking and bicycling. Locating the project in an area already served by public transportation, water and wastewater infrastructure, sprawl is significantly reduced and smart growth is promoted.

Current Evaluation: (Option 3)
The location of the project within the Fountain District is served by existing publicly-owned water and wastewater infrastructure. The site is served by existing transit service and at least 50% of the dwelling units and nonresidential building entrances are within ¼ mile walk distance of bus stops. Also the daily bus trips meet the minimum requirements of 60 weekday and 40 weekend trips.

<table>
<thead>
<tr>
<th>Projects with a Combination of Transit Service Types (Bus, Rail, or Ferry)</th>
<th>Weekday: Minimum Daily Trips</th>
<th>Weekend: Minimum Daily Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60</td>
<td>40</td>
</tr>
</tbody>
</table>

Calculations:
Total Weekday Daily Bus Trips: 162
Total Weekend Daily Bus Trips: 150

Alternative Action: No alternative action is required.

Stage I Submission Materials:
- A site and/or vicinity map indicating the location of existing water and wastewater infrastructure (Appendix A, Map 1).
- A site and vicinity map showing all dwelling units and relevant building entrances, transit stops, and walking routes to those stops (Appendix A, Map 2).
- Schedules or a brief narrative indicating the frequency and type of transit available (Appendix D).

**SLL Prerequisite 2: Imperiled Species and Ecological Communities Conservation**

*Required Prerequisite-Met*

*Purpose:* To conserve imperiled species and ecological communities. The area surrounding Bellingham provides habitat for numerous listed endangered species, including the Bald Eagle, and destruction of their habitat should not occur (Watson et al. 2003).

*Current Evaluation:* (Option 1)
Declaration that no species in the Fountain District are listed as threatened or endangered under the Endangered Species Act.

*Alternative Action:* No alternative action is required.

*Stage I Submission Materials:* No additional documentation necessary.

**SLL Prerequisite 3: Wetland and Water Body Conservation**

*Required Prerequisite- Met*

*Purpose:* To preserve water quality, natural hydrology, habitat and biodiversity through conservation of water bodies and wetlands. The ecological functions of wetlands generally benefit humans, and the destruction of them will decrease the area’s ability to deal with flood peaks and can potentially decrease water quality (Rogers et al. 2009).

*Current Evaluation:* (Option 1)
The Fountain District project is located on a site with no wetlands and water bodies within 50 feet and the project will comply with all local, state and federal regulations pertaining to wetland and water body conservation.

*Alternative Action:* No alternative action is required.

*Stage I Submission Materials:*
- A site and/or vicinity map demonstrating that there are no wetlands, water bodies, or land within 50 feet of these areas and no land within 100 feet of water bodies (Appendix A, Map 3).
SLL Prerequisite 4: Agricultural Land Conversion

Required Prerequisite- Met
Purpose: Locating the project in an infill site will preserve agricultural resources by protecting farmland and forest lands from development.

Current Evaluation: (Option 3)
The site is not within a state or locally designated agricultural preservation district. The site is also served by adequate local transit.

Alternative Action: No alternative action is required.

Stage I Submission Materials:

- By meeting the requirements of SLL Prerequisite 1 option 3; no additional information is needed.

SLL Prerequisite 5: Floodplain Avoidance

Required Prerequisite-Met

Purpose: The location of the project will protect life, property and will promote open space and habitat conservation. By locating the project outside of a 100-year floodplain, the result will be enhanced water quality and natural hydrological systems.

Current Evaluation: (Option 1)
The Fountain District project location is on a site that does not contain any land within the 100-year high or moderate-risk floodplain defined and mapped by the Federal Emergency Management Agency (FEMA) or state or local floodplain management.

Alternative Action: No alternative action is required.

Stage I Submission Materials:

- A site and/or vicinity map indicating that the site contains no land within the 100-year floodplain (Appendix A, Map 4)
SLL Credit 1: Preferred Locations

“The smart growth model emphasizes a land-use pattern of compact cities and suburbs surrounded by countryside that is devoted primarily to farming, forestry, and open space. Smart growth aims to create more compact development that is cheaper to service, less land consumptive, and more attractive than sprawl” (Daniels, 2001).

Purpose: By locating the proposed project within an existing city, adverse environmental harms are reduced. The project will reduce development pressure beyond the limits of the city and will conserve natural and financial resources required for construction and maintenance of infrastructure.

Current Evaluation: Points Earned (9/10)
The project is located on a previously developed infill site, earning 5 points for meeting Option 1 requirements. The project is located in an area that has 380 intersections per square mile within a 1/2 mile distance from the project boundary and earns 4 points under Option 2.

Calculations:
Intersections per square mile = 354/0.93=380

Alternative Action: Potential Points (9/10)
To earn a total of 10 points, the intersections per square mile within a ½ mile distance from the Fountain District project boundary must increase to 400 or more intersections per square mile. Achieving 400 or more intersections per square mile is not economically feasible since the street grid density in the Fountain District has already been established and will remain unchanged. Therefore, no additional points can be added to this credit through alternative actions.

Stage I Submission Materials:

- A map of the vicinity demonstrating that the project is located on an infill site (Appendix A, Map 5).
- A map of the vicinity showing the street grid density of the area within a 1 mile radius of the perimeter of the project site (Appendix A, Map 6).
- A calculation of the street grid density within a 0.5 mile radius of the perimeter of the project site (Appendix B)

SLL Credit 2: Brownfields Redevelopment

Purpose: To encourage redevelopment of environmentally contaminated sites, thereby reducing the development pressure on undeveloped sites.
Current Evaluation: Points Earned (0/2)
The Fountain District Project is not located on a site defined as a Brownfield by a local, state or federal agency and is not located in a high-priority redevelopment area.

Alternative Action:
No alternative action is required.

SLL Credit 3: Locations with Reduced Automobile Dependence

Purpose: The location of the project provides local access to alternative methods of transportation and reduces motor vehicle use.

“Besides adding to GHG emissions, driving our cars every day is responsible for much of the pollution that generates smog. In addition, the widespread use of automobiles by workers commuting to work instead of using public transit is a major factor in the traffic congestion that affects most metropolitan areas in North America and leads to high costs for building and repairing roads” (Turcotte, 2008).

Current Evaluation: Option 1
Points Earned (5/7)

The project in the Fountain District is located on a site with transit service of 162 easily accessible transit rides per weekday and 150 transit rides on weekends. The bus stops are located within ¼ mile walk distance of at least 50% of the project’s dwellings. Whatcom Transit Authority provides frequent bus service through the Fountain District by routes 15, 25x and 71x and 232.

List of Transit Stops
WTA Route 232: Elm St.
WTA Route 15: Meridian St.
WTA Route 25x: Meridian St.
WTA Route 71x: Meridian St.

<table>
<thead>
<tr>
<th>Weekday Minimum Daily Trips</th>
<th>Weekend Minimum Daily Trips</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td>76</td>
<td>50</td>
<td>2</td>
</tr>
<tr>
<td>100</td>
<td>65</td>
<td>3</td>
</tr>
<tr>
<td><strong>132</strong></td>
<td>85</td>
<td>4</td>
</tr>
<tr>
<td>180</td>
<td>130</td>
<td>5</td>
</tr>
<tr>
<td>246</td>
<td><strong>150</strong></td>
<td>6</td>
</tr>
<tr>
<td>320</td>
<td>200</td>
<td>7</td>
</tr>
</tbody>
</table>
Alternative Action: Potential Points (6/7)

To earn an additional two points, transit service must be increased to at least 320 minimum daily trips during the weekdays and 200 minimum daily trips during the weekend. First, the demand for additional bus services should be addressed by the Whatcom Transportation Authority (WTA). Next, if additional service is needed, adding 50 weekend trips and 84 weekday trips would earn the Fountain District one more point for this credit. In addition to the LEED ND requirements, the proposed project will include covered bus stops to encourage use of the transit system provided by WTA. Also by increasing the aesthetic value of the Fountain District by improving the functionality of bus stops, vehicle miles will be converted into alternative methods of transportation.

Stage I Submission Materials:

Option 1

- A site and/or vicinity map showing all relevant dwelling units and building entrances, transit stops, and walking routes to those stops (Appendix A, Map 2).
- Schedules or a brief narrative indicating the frequency and type of transit available.
- A list of transit stops that lie within the specified walk distance of 50% of the project’s dwelling units and business entrances (Appendix D).
- A calculation showing weekday and weekend minimum daily trips

Calculation of Weekday and Weekend Daily Trips:

WTA Route 232 from Bellingham Station to Cordata Station: 102 times each weekday between the hours of 6 a.m. and 10 p.m. Saturday total daily trips total 46 for Route 232. Sunday daily trips are 40.

WTA Route 15 from Bellingham Station to Cordata Station: 56 weekday trips. Saturday daily trips total 44. Sunday daily trips total 20.

WTA Route 25x: 2 weekday daily trips
WTA Route 71x: 2 weekday daily trips

Total Weekday Daily Trips: 162
Total Saturday Daily Trips: 90
Total Sunday Daily Trips: 60
Total Weekend Daily Trips: 150

SLL Credit 4: Bicycle Network

Purpose: The location of the project will promote bicycling and transportation efficiency through reduced vehicle miles traveled and supports public health by encouraging recreational physical activity. The use of automobiles is not sustainable for reasons of congestion, energy use, safety, and environmental and human health. Creating a bicycle network would address the problems
associated with conventional transportation and would provide a method for sustainable transportation (Shay, 2010).

Current Evaluation: Points Earned (1/1)
The bicycle network in the Fountain District currently includes at least 5 continuous miles of bicycle routes. The Fountain District project is within ¼ mile bicycling distance of the bicycle network. Currently, the only marked bicycle route within the Fountain District is on Broadway Street, running East to West. Elm Street is currently an unmarked bicycle route.

Alternative Action:
The project will provide adequate bicycle parking and storage based on residential and commercial building requirements. For residential buildings, the project will provide at least one secure bicycle storage space per occupant for 30 percent of planned occupancy and no less than one per unit. The development will include secure visitor bicycle racks on-site. Retail buildings will include at least one enclosed bicycle storage space per retail worker for 10 percent of the retail worker planned occupancy. In addition to the requirements, the Fountain District Redevelopment will establish shared vehicle and bicycle lanes down Meridian Street. The new marked bicycle lanes will connect with the adjacent bicycle network already established on Broadway Street.

Stage I Submission Materials:

- A site and/or vicinity map indicating that there is a bicycle network of at least five continuous miles in length within ¼ mile bicycling distance of project boundary (Appendix A, Map 7).

- A table of biking distances between each dwelling unit or business entrance and each relevant use listed in Appendix A, and a calculation of the percentage of dwelling units and business entrances that lie within the specified distance.

- If non-residential buildings or multi-unit residential buildings are included in the project, submit a calculation of the required bicycle parking spaces and storage capacity and indicate their location on the site plan (Appendix B)

SLL Credit 5: Housing and Jobs Proximity

Purpose: Encourage balanced communities with a diversity of uses and employment opportunities. Reduce energy consumption and pollution from motor vehicles by providing opportunities for shorter vehicle trips and/or use of alternative methods of transportation. Locating jobs and businesses close to residential buildings should reduce travel distances and convert vehicle trips to walking and cycling (Cervero, 2006).

Current Evaluation: Points Earned (0/3)
The Fountain District neighborhood consists of residential and commercial components down Meridian Street and Elm Street and is designated the commercial core. The majority of the surrounding area is residential with single-family homes.
Alternative Action: Potential Points (0/3)
The Fountain District Project will consist of 142 residential units that equal at least 30% of the project’s total building square footage. The geographic center is within ½ mile walk distance of a number of existing full-time jobs. To earn this credit, determination of existing-full time jobs must be completed and must be equal or greater than the 142 residential units. According to the LEED ND requirements, the project will not earn any points for this credit at the current time because the number of existing-full time jobs is less than the number of dwelling units. In addition, the Fountain District project will increase the number of full-time jobs within ½ mile walk distance of the geographic center by building additional retail and commercial space.

After the project is completed, additional businesses will enter the area or expansion of current Fountain District businesses will take place. The increase and expansion of businesses in the Fountain District will add full-time jobs to the area. The LEED ND requirements to meet this credit should include the number of full-time jobs created from the proposed project, but currently the requirements only include the number of existing-full time jobs in the credit evaluation.

Stage I Submission Materials:
- A calculation demonstrating that at least 30% of the project’s total building square footage is residential (Appendix B)
- A site and/or vicinity map showing the project geographic center is within a ½ mile walk distance of a number of existing full-time equivalent jobs equal to or greater than the number of dwelling units in the project.
- Show that requirements to earn at least one point under Option 2 of NPD Credit 4: Mixed Income Diverse Communities is satisfied. If not satisfied, choose Option 2 if project with residential component.

SLL Credit 6: Steep Slope Protection

Purpose: By locating on a site without steep slopes and preserving steep slopes in a natural state, erosion and stress on natural water systems will be minimized. Furthermore, maintaining the natural state of steep slopes will decrease the chances of potentially harmful events such as landslides and floods (Miller et al. 2009)

Current Evaluation: Option 1
Points Earned (1/1)

No portion of the project site has slopes up to 20 feet in elevation. Also the site location has no existing pre-project slopes greater than 15 percent.

Alternative Action: No alternative action is needed.
Stage I Submission Materials:

- Topographic drawings of the project site indicating slopes, any areas that are previously developed, and the areas planned for development or redevelopment (Appendix A, Map 8)

SLL Credit 7: Site Design for Habitat or Wetland/Water Body Conservation

*Purpose:* The site location and design will conserve native plants, wildlife habitat, wetlands and water bodies. Over half of the wetlands throughout the United States have been destroyed during the last two centuries, thereby making it increasingly important to preserve these areas (Driver et al. 2009).

*Current Evaluation:* Option 1
Points Earned (1/1)
The project is located on a site that does not have significant habitat and does not have land within 100 feet of such habitat. The project also fulfills the requirements of Option 1 under SLL Prerequisite 4.

*Alternative Action:* No alternative action is needed.

Stage I Submission Materials:

- A map showing Critical Area Designations (Appendix A, Map 9)
- A brief narrative summarizing the results of the efforts to determine whether significant habitat occurs on the project site.

SLL Credit 8: Restoration of Habitat or Wetlands/Water Bodies

*Purpose:* To restore native plants, wildlife habitat, wetlands, and water bodies that have been adversely affected by human activities. Native plants support existing ecosystems by providing food and shelter for wildlife, improve water quality, prevent occurrence of invasive species and use low amounts of resources (Wheeler, 1995).

*Current Evaluation:* Points Earned (0/1)
The Fountain District project is located on an infill site and restoration of pre-development native ecological communities on a site equal to or greater than 10 percent of the development footprint has not taken place. Currently, the Fountain District does not meet the above requirements to earn the credit.

*Alternative Action:* Potential Points (1/1)
The proposed project will only use native plants and must seek to restore pre-development native ecological communities on a site equal to or greater than 10 percent of the development footprint. Also to earn points, the project will work with a qualified biologist to ensure that restored areas will have habitat that includes native species assemblages and hydrology systems that occurred in
pre-development conditions. A list of native plant species to be used in the proposed project is included in Appendix B.

Stage I Submission Materials:

- List of native species (Appendix E)

SLL Credit 9: Long-term Conservation Management of Habitat or Wetlands/Water Bodies

*Purpose:* To conserve native plants, wildlife habitat, wetlands and water bodies.

*Current Evaluation:* Points Earned (0/1)
The project does not include a long-term conservation management plan at the current time.

*Alternative Action:* Potential Points (1/1)
To meet the requirements, the project must create a commitment to implement a 10-year management plan for new or existing on site native habitats, water bodies and wetlands. The project must also create a guaranteed funding source for the management plan. The Fountain District project must involve a person from a natural resource agency, a natural resource consulting firm or an academic qualified ecologist. The management plan should be consistent with habitat and water conservation objectives including procedures, estimated implementation costs and funding sources. The project will seek to earn this credit by meeting the above requirements in addition to achieving Option 2 of SLL Credit 7.

*Stage I Submission Materials:* No additional documentation necessary at this time.

*Current Evaluation Points Earned:* 17/27
*Alternative Action Potential Points:* 3/27
B. Neighborhood Pattern and Design (NPD) 44 Points

NPD Prerequisite 1: Walkable Streets
“If you design communities for automobiles, you get more automobiles. If you design them for people, you get walkable, livable communities” (Glendening, 2009).

Purpose:
Promote transportation efficiency, including reducing vehicle miles traveled. Provide a design that promotes a walkable community by providing safe, appealing, and comfortable street environments that reduce pedestrian injuries and encourage daily physical activity.

Current Evaluation:
The current proposed action, is not action. No development has been proposed for the Fountain District. Although no action has been proposed the Fountain District already reaches the requirements for NPD Prerequisite 1: Walkable Streets. Continuous sidewalks occur along all streets, the building face a public space, and no more than 20% of the street frontages face a garage opening.

Alternative Action:
The alternative action will re-develop several buildings throughout the Fountain District, as well as widen the sidewalks making the community more walkable. The building-height-to-street-width ratio, is now 1:1.

Stage 1 Submission Materials:
- A site map showing sidewalks and public spaces (Appendix A, Map 9).
- Site map of continuous sidewalks and the width of sidewalks (Appendix A, Map 10).

NPD Prerequisite 2: Compact Development
“The scarcity of land for development has necessitated the intensification of the use of available land to accommodate future needs. Mixed-use and compact developments have become attractive approaches, especially in towns and villages where services and transportation are most available.” (nahb.org)

Purpose:
Conserve land through designing the development to promote efficient transportation. Reduce public health risks by encouraging daily physical activity such as walking and bicycling.

Current Evaluation:
The project area currently while zoned mixed-use has no residential dwelling units therefore not meeting the residential dwelling unit density requirement. The current non residential density is .68.
Alternative Action:
The proposed project area is 2.4 acres with plans for 142 residential dwelling units to be added, the residential dwelling unit density will rise to 59 dwelling units per acre, meeting the requirement for residential density. The non-residential density of the redeveloped buildings will be 1.9, meeting the requirements for prerequisite two.

Stage I Submission Materials:
- Calculations for neighborhood density: 2.4 acres/142 residential dwelling units = 59 dwelling units per acre.

NPD Prerequisite 3: Connected and Open Community
Purpose:
Promote communities that are physically connected both within and beyond development projects. Encourage the design of projects in existing communities that promote transportation efficiency through multimodal transportation choices.

Current Evaluation:
The current proposed action, is no action. Even with no action the Fountain District reaches the requirements for Option two of the NPD Prerequisite 3: Connected and Open Communities, with a connectivity of the streets within ¼ mile of the project boundary has 444 intersections per square mile.

Alternative Action
The alternative project meets the requirement for Option two. The connectivity of the streets within ¼ mile of the project boundary has 444 intersections per square mile.

Stage I Submission Material: Option 2
- All of the sidewalks within the project area are open for public use, with no gates.
- Calculations for the number of intersections per square mile and map showing the connectivity of the streets (Appendix A, Map 11).

NPD Credit 1: Walkable Streets

Purpose:
To promote transportation efficiency.

Current Evaluation: points earned 3/12
The current proposed action, is no action. With no action the development earns three points. The current buildings meet the requirements for distance from property line.
Alternative Action: potential points 4/12
The alternative action meets the requirements for 9 items achieved, earning 4 points. The alternative action meets the requirements for distance from the sidewalk in addition

Stage I Submission Materials:

- See Appendix C Site Development plans

NPD Credit 2: Compact Development

Purpose:
Promote the conservation of land by encouraging compact development in existing areas. The built environment that comprises our neighborhoods, roads, buildings, food sources, and recreational facilities in which people live, work, receive an education, eat, and play change people’s behavior (Sallis and Glanz). By promoting the livability and walkability of the community residents will be encouraged to partake in increased daily physical activity and to use alternative transportation.

Current Evaluation: points earned 0/6
The currently proposed development has a residential density of 0 dwelling units per acre and a non-residential density of .68, earning zero points.

Alternative Action: potential points 5/6
The alternative action reaches a residential density of 59 dwelling units per acre and a non-residential density of 1.9, earning 5 points

Stage I Submission Materials:
- A table which includes the calculations for densities of the residential, non-residential, and mixed use buildings

<table>
<thead>
<tr>
<th></th>
<th>Residential Density</th>
<th>Non Residential Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Evaluation</td>
<td>0</td>
<td>.68</td>
</tr>
<tr>
<td>Alternative Action</td>
<td>59</td>
<td>1.9</td>
</tr>
</tbody>
</table>

NPD Credit 3: Mixed-Use Neighborhood Centers (3/4 points)

Purpose:
Promote diverse land use that is accessible at a neighborhood and regional level. Encourage daily walking, biking and transit use by providing compact development that provides multiple uses.

Current Evaluation: points earned 2/4 points
50% of the current dwelling units are within ¼ mile of 10 diverse uses, earning 2 points (Diverse use defined in Appendix B).
- Business Bank of Skagit County
• Giffords Corner Market
• Bellingham Fire Department Station #1
• WECU
• Cascade Pizza & Italian
• Asia Oriental Market
• Speak E-Zzs
• Swanson Pediatric Dental Center
• Oriental Grocery & Bakery
• Hong Kong Garden Restaurant

*Alternative Action: potential points 3/4 points*

With the addition of food store which carries produce, a community center, and several other retail centers (see Appendix C: Sketch up Buildings) 50% of the current dwelling units are within ¼ mile of 12 diverse uses, earning 3 points (Diverse use defined in Appendix B).

• Business Bank of Skagit County
• Giffords Corner Market
• Bellingham Fire Department Station #1
• WECU
• Cascade Pizza & Italian
• Asia Oriental Market
• Speak E-Zzs
• Swanson Pediatric Dental Center
• Oriental Grocery & Bakery
• Hong Kong Garden Restaurant
• Community Center – added in new proposed building
• Convenience Store/Coffee Shop – added in new proposed building

*Stage I Submission Materials:*

• Site map showing the vicinity of the project’s dwelling units and walkable routes to any of the relevant diverse uses (Appendix A, Map 12)

**NPD Credit 4: Mixed-Income Diverse Communities**

*Purpose:*
Promote social equality by allowing for a wide range of citizens from different economic levels and age groups to live within a community.

*Current Evaluation: points earned 0/7*
There are no rental units that have been officially made part of the focus area. All buildings are currently privately owned and no scheme has been made to assume affordable rental housing.
Alternative Action: potential points 6/7

In order to meet this credit, a plan would have to be adopted that established affordable housing in future development. This plan would then have to be implemented in future development within the focus area. Examples of a plan would be to incorporate at least 15 percent of the total rental units be priced at up to 50 percent of the area median income, or at least 15 percent of the total rental units be priced at up to 50 percent of the area median income and an additional 15 percent of the total rental units be priced up to 80 percent of the area median income. Meanwhile, in all three cases, these units must be maintained at levels that are affordable for at least fifteen years.

Stage 1 Submission Materials:

- See Appendix C Site Plans

NPD Credit 5: Reduced Parking Footprint

Purpose:
Reduce the environmental effects of parking facilities and design parking to increase pedestrian orientation to projects.

Current Evaluation: points earned 1/1
The proposed project does not include the addition of any new off street parking lots.

Alternative Action: potential points 1/1
The alternative action does not add any additional parking lots and actually decreases parking lot sizes by 1600 square feet allowing more vertical development. On-street public parking has been added to make up for the loss of the private parking lots which not everyone was allowed to use. In addition, all newly redeveloped non-residential and residential buildings will include secure, enclosed bicycle storage spaces.

Stage 1 Submission Materials:

- See Appendix C Site Plans

NPD Credit 6: Street Network

Purpose:
Encourage the location of projects within existing communities to conserve land, promote multimodal transportation and promote public health through increased physical activity. Promote communities that are physically well-connected to improve public health by encourage physical activities.

Current Evaluation: points earned 2/2
Internal connectivity of project area is 444, credit will be met.

**Alternative Action: potential points 2/2**
Internal connectivity of project area is 444, credit will be met.

**Stage I Submission Materials:**
- See Appendix A, Map 11.

### NPD Credit 7: Transit Facilities

**Purpose:**
Provide safe and comfortable transit facilities in order to encourage increased transit use and reduced driving.

**Current Evaluation: points earned 0/1**
Currently, all transit stops within the project boundary have signs devoted to providing information about local transit routes. The signs include information about which routes run where and at what time. The credit for Transit Facilities will not be met though because none of the transit stops within the project boundary have benches, are covered, or provide lighting.

**Alternative Action: potential points 1/1**
As part of the redevelopment new benches, partially enclosed shelters, and lighting will be provided at the bus stops. Only three stops Elm at Jefferson, Elm at Broadway, and Meridian at Illinois have covered and partially enclosed shelters. The project will add benches as well as shelters that will be lighted, covered and partially enclosed.

In order to comply with the GCT Credit 20 standards to minimize light pollution Pulse Start Metal Halide Cutoff Street Lights will be installed at the transit stops. Pulse Start streets lights are the most energy efficient and highest quality of street light in terms of light control, distribution, and color rendition according to the New York State Energy Research and Development Authority (New York State Energy Research and Development Authority).
<table>
<thead>
<tr>
<th>Transit Stop</th>
<th>Current Structure</th>
<th>Proposed Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shelter</td>
<td>Bench</td>
</tr>
<tr>
<td>Elm at Jefferson</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Elm at Broadway</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Meridan at Illinois</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Girard at J</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Meridan at Broadway</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Meridan at North</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Meridan at Maryland</td>
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<td>No</td>
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<tr>
<td>Meridan at North</td>
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<td>No</td>
</tr>
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</tr>
<tr>
<td>NW at Connecticut</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Elm at Jefferson</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Dupont at J</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Elm at Broadway</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Elm at Monroe</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Stage I Submission Materials:**

- A site plan showing location of all transit stops within the project boundaries. In addition include any kiosk, bulletin board, or signs with local transit information that will be provided as part of the project (Appendix A, Map 2).
- A brief description of any additional shelters, benches, bicycle racks and lighting that will be provided at any transit stop (see above proposed action).
- A brief description of what transit information will be posted at kiosks, bulletin boards, or signs (see above proposed action).

**NPD Credit 8: Transportation Demand Management**

**Purpose:**
Encourage public transportation in order to reduce energy consumption and pollution from motor vehicles.

**Current Evaluation: points earned 0/2**
With no action the development area does not reach the requirements for NPD Credit 8 because there is no program aimed at working to reduce weekday peak period trips, subsidized transit passes, developer sponsored transit passes, a vehicle sharing program within ¼ mile of 50% of the dwelling units, or unbundled parking. The more people who live, work and study in close proximity to public transit stations and corridors, the more likely those people will use the transit systems (San Francisco Metropolitan Transportation Commission, 2005). More transit riders equates to fewer vehicles on the road and less energy consumption, motor vehicle pollution, and congestion.
Alternative Action: potential points 2/2
The alternative project will follow the guidelines of OPTION 2 and provided subsidized transit passes for eligible residents. The subsidized permits will be provided at the following prices:

<table>
<thead>
<tr>
<th></th>
<th>Current Prices</th>
<th>Subsidized Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Monthly</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Regular</td>
<td>$25</td>
<td>$70</td>
</tr>
<tr>
<td>People w/ Approved Disability</td>
<td>$13</td>
<td>$35</td>
</tr>
</tbody>
</table>

In order to publicize the available subsidized transit passes all buses lines that run through and around the project area will have information available for all riders about the new subsidized passes. Information about the subsidized passes will also be available at all community meetings pertaining to the development of the Fountain District.

Subsidized bus passes will be available at:
- WTA Bellingham station
- WTA Cordata Station
- Bellis Fair Mall (Business office near JC Penney)
- Community Food Co-op (Downtown and Cordata Locations)
- Fairhaven Pharmacy
- Haggen Stores: Barkley, Fairhaven Market, Ferndale, Meridian and Sehome
- Lummis Employment and training Center
- Whatcom Community College Bookstore
  - [http://www.ridewta.com/node/19](http://www.ridewta.com/node/19)

Stage I Submission Materials: Option 2
- A description of the type of transit available, the regular and subsidized prices of passes, as well as the mechanism for publicizing and distributing subsidized transit passes. See Appendix A, Map 2 and proposal above.

**NPD Credit 9: Access to Civic and Public Space**

*Purpose:*
Provide safe and direct connections to local destinations and neighborhood centers for pedestrians, bicyclists, as well as drivers. Improve mental and physical health as well as social capital by providing a variety of open spaces close to work and home.

*Current Evaluation: points earned 0/1*
The proposed action will not meet the requirement.
Alternative Action: potential points 0/1
The alternative action will not meet the requirement.

Stage I Submission Materials:
- The proposed action does not meet the credit requirements, no submission material required.

NPD Credit 10: Access to Recreational Facilities

Purpose:
To provide a variety of recreational spaces close to home and work.

Current Evaluation: points earned 0/1
The proposed action will not meet the requirement.

Alternative Action: potential points 0/1
The alternative action will not meet the requirement.

Stage I Submission Materials:
- The proposed action will not meet the requirement, no submission materials required.

NPD Credit 11: Visitability and Universal Design

Purpose:
Increase the proportion of areas within the project that are usable by people of diverse abilities allowing for a wide spectrum of people regardless of age or ability.

Current Evaluation: points earned 0/1
With no development currently planned the project area will not meet the requirements of NPD Credit 11.

Alternative Action: potential points 1/1
The alternative project will meet the requirements under Option 1, by stipulating in the CC&R that all developers must meet a minimum of 20% of the universal design features described.

Stage I Submission Materials:
- The proposed project will meet the requirements under Option 1, by stipulating in the CC&R that all developers must meet a minimum of 20% of the universal design features described.
NPD Credit 12: Community Outreach and Involvement

**Purpose:**
To encourage community participation in the project design so that the people who live in the community are involved in deciding how the area should be improved.

**Current Evaluation: points earned 1/2**
The proposed action meets with the requirements of Option 1. The meetings held by the City of Bellingham provided input into the design of the project. Meetings to generate public input were held on Wednesdays from 6:00-8:00 pm at the Fountain Community Church, 2100 Broadway.

Focus Groups Workshops:
- September 12, 2009 – Fountain Plaza Placemaking Party in the Street
- September 30, 2009- Elm Street Corridor Focus Group Session
- **October 8, 2009** - Meridian Street Commercial Core & Alley Interface Focus Group

Public Input Meetings
- **Wednesday April 1, 2009** - Introduction, Character, and Boundary Identification
- **Wednesday April 15, 2009** - Public Realm: Streets, Neighborhood Connections, Public Spaces
- **Wednesday April 22, 2009** - Development Character: Uses, Design, Scale and Neighborhood Transitions
- **Wednesday May 6, 2009** - Summary of Public Input and Discussion of Alternatives

**Alternative Action: potential points 2/2**
As part of the community outreach program any developer who takes on this project will implement a charrette, interactive workshop, to discuss the community development. The workshop will be two days, open to the public, and include participation by nearby property owners.

**Stage I Submission Materials:**
- See meeting dates described above.

NPD Credit 13: Local Food Production (0/1 points)

**Purpose:**
To promote community-based and local food production in order for communities to have better access to fresh food and decrease transportation miles for food delivery.

**Current Evaluation: points earned 0/1 points**
The proposed action will not meet this requirement.
Alternative Action: potential points 0/1 points
In order to have access to community-based and local food developers may propose that a Community Supported Agriculture program (CSA) be implemented for the Fountain District. Since little land is left available for agriculture within the Fountain District, implementing a CSA is an easy way for citizens to have access to fresh, local food (Sustainable Table, 2009).

Stage I Submission Materials:

- Plan for Community Supported Agriculture Plan. The Fountain District may buy into the current CSA for Fairhaven Commons.

NPD Credit 14: Tree-Lined and Shaded Streets

Purpose:
Reduce urban heat island effects by providing tree-lined or shaded streets.

Current Evaluation: potential points 0/2 points
Currently no trees are located along sidewalks in the project area therefore no credits are made.

Alternative Action: earned points 2/2 points
The trees within the project area range in distance of 17-40 feet apart, depending on the sidewalk width. In addition, with the addition of the trees and redevelopment of the buildings at least 40% of the length of the sidewalks are shaded.

Stage I Submission Materials:

- See Appendix C: Site design.

NPD Credit 15: Neighborhood Schools

Purpose:
To promote community interaction and engagement through integrating schools into the neighborhood fabric.

Current Evaluation: points earned 1/1
There is a middle school and elementary school located within the ½ mile buffer as well as one high school within the one mile buffer. All streets within the project boundary have sidewalks.

Alternative Action: potential points 1/1
There is a middle school and elementary school located within the ½ mile buffer as well as one high school within the one mile buffer. All streets within the project boundary have sidewalks.

Stage I Submission Materials:

- A site map showing the distances from the dwelling units to the schools (Appendix A, Map 13).
C. Green Infrastructure and Building (GIB) 39 Points

**GIB Prerequisite 1: Certified Green Building**

“The built environment has a vast impact on the natural environment, human health, and the economy. By adopting green building strategies, we can maximize both economic and environmental performance. Green construction methods can be integrated into buildings at any stage, from design and construction, to renovation and deconstruction. However, the most significant benefits can be obtained if the design and construction team takes an integrated approach from the earliest stages of a building project” (EPA, 2009).

*Purpose:* Encourage the design, construction and/or retrofit of buildings that utilize green building practices.

*Current Evaluation:* There are no certified Green Buildings in the site area.

*Alternative Action:* We propose all future construction in the Fountain District Commercial Core follow the guidelines of the USGBC LEED certification system: LEED for New Construction, LEED for Existing Buildings: Operations & Maintenance, LEED for Homes, LEED for Schools, LEED for Retail: New Construction or LEED for Core and Shell (with at least 75% of the floor area certified under LEED for Commercial Interiors or LEED for Retail: Commercial Interiors).

*Stage I Submission Materials:*

- No submittals required for stage I.

**GIB Prerequisite 2: Minimum Building Energy Efficiency**

“Residential and commercial buildings account for about one-third of U.S. energy consumption, at an annual cost of $170 billion. Using commercially available, cost-effective technologies, building energy consumption could be reduced up to one-third by 2015…there is general agreement that the untapped potential for improved energy efficiency in buildings is significant. Along with saving both energy and money, wider use of efficient technologies would address multiple environmental concerns, offset the need for additional electricity generating capacity, and reduce national dependence on imported oil” (Building Energy Efficiency, 1992).

*Purpose:* Encourage the design and construction of energy efficient buildings that reduce air, water, and land pollution and adverse environmental impacts from energy production and consumption.

*Current Evaluation:* In September of 2009 the City of Bellingham was awarded $780,100 in federal funding through the Energy Efficiency and Conservation Block Grant Program (EECGB). They plan to utilize
this grant to create a Municipal Facility Energy Conservation Program as well as adopting code that is the National Green Building Standard. (COB EECB Program)

**Alternative Action:**
For LEED certification, new buildings constructed as part of the project must, on average, demonstrate a 10% improvement over ANSI/ASHRAE/IESNA Standard 90.1-2007. Buildings undergoing major renovations, as part of the project must, on average, demonstrate a 5% improvement over ANSI/ASHRAE/IESNA Standard 90.1-2007. For new one to three family, townhouse residential buildings and new multi-unit residential buildings three stories or fewer: 90% of new buildings must meet ENERGY STAR or equivalent criteria.

Also produce a compliant energy model to display efficiencies and building performance.

**Stage I Submission Materials:**
- No submittals required for stage I.

**GIB Prerequisite 3: Minimum Building Water Efficiency**

“Across the country, our growing population is putting stress on available water supplies. Between 1950 and 2000, the U.S. population nearly doubled. However, in that same period, public demand for water more than tripled! Americans now use an average of 100 gallons of water each day—enough to fill 1,600 drinking glasses! This increased demand has put additional stress on water supplies and distribution systems, threatening both human health and the environment” (EPA, 2009).

**Purpose:** Reduce impacts to natural water resources, and reduce burdens on community water supply and wastewater systems.

**Current Evaluation:**
Bellingham employs municipal water law requirements as outlined by the Washington State Legislature Engrossed Substitute House Bill 1338. This program became effective on January 22, 2007, and established certain responsibilities that water suppliers must fulfill. Fundamental elements include the following:
- Water Use Efficiency Program
- Distribution Leakage Standard
- Goal setting and Performance Reporting
- Metering Requirements

In 2003, the Washington State Building Code set forth new rules for implementation of water conserving fixtures in the Uniform Plumbing Code. The code established the maximum water use allowed for all toilets flushing to be 1.6 gallons per flush (gpf) on all new construction and remodeling of residential, commercial, and industrial facilities that contain water closets. By enacting these standards city wide, all new construction and remodels will meet this prerequisite, as long as they meet the Uniform Plumbing Code (Water Conservation Program, 2009).
Alternative Action:
Continued application of high efficiency fixtures. All new construction and redevelopment in the site area strives to utilize the best science and technology available for their water infrastructure.

Stage I Submission Materials:

- No submittals required for stage I.

GIB Prerequisite 4: Construction Activity Pollution Prevention

*Purpose:* Reduce pollution from construction activities by controlling soil erosion, waterway sedimentation and airborne dust generation.

*Current Evaluation:*
There currently is no construction or renovation planned for the site area.

*Alternative Action:*
When developers begin the construction or renovation of this site they must create and implement an Erosion and Sedimentation Control (ESC) Plan for all new construction activities associated with the project. The ESC Plan shall use practices such as phasing, seeding, grading, mulching, filter socks, stabilized site entrances, preservation of existing vegetation and other Best Management Practices (BMPs) to control erosion and sedimentation in run-off during construction from the entire project site. The BMPs should include plans to prevent soil erosion, protect stormwater systems and air pollution.

The BMPs shall be selected from those identified in the Washington State Department of Ecology Stormwater Management Manual for Western Washington.

*Stage I Submission Materials:*

- No submittals required for stage I.

GIB Credit 1: Certified Green Buildings

"We must start to think about an architecture that makes environmental sense, or someday we will indeed be forced to make our houses by hand. Architects must embrace new buildings with windows that open and close, rooms arrayed around courtyards, designed to take advantage of natural air and natural light. They should use natural materials that take less energy to make and transport to building sites. Houses with porches are ‘entertainment systems’ that build community. The green building movement needs to rethink its focus on fitting ever more energy-saving devices into increasingly goofy buildings. Architecture that instead taps into public tastes for tradition, familiarity and comfort will give us places that create their own natural preservation societies, because they are loved. Reusing old buildings is the true green architecture. Buildings designed for decades must give way to buildings designed for centuries” (Brussat, 2009).
**Purpose:** Encourage the design, construction, and retrofit of buildings that utilize green building practices.

**Current Evaluation:** Points Earned (0/5)
There are no LEED Certified Green Buildings in the Fountain District.

**Alternative Action:** Points Earned (5/5)
Incentivize developers to construct LEED certified buildings through the city and neighborhoods commitment to a policy of a sustainable future for the Fountain District. There are many buildings in the area which are good candidates for renovation as well as vacant land where new building could occur. The alternative action will require developers to offer a design in which at least 50 percent of the total project building square footage is redeveloped. Meeting this requirement would earn 5 points.

**Stage I Submission Materials:**
- No submittals required for stage I.

**GIB Credit 2: Building Energy Efficiency**

“The first green building energy and water efficiency standard is being developed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) in conjunction with the Illuminating Engineering Society of North America (IESNA) and the USGBC. This standard is set to ensure that any new development in the United States utilizes the best technology and most efficient systems” (National Association of Home Builders, 2009).

**Purpose:** Encourage the design and construction of energy efficient buildings that reduce air, water, and land pollution and adverse environmental impacts from energy production and consumption.

**Current Evaluation:** Points Earned (0/2)
The Fountain District’s buildings were constructed in a range of decades resulting in mixed levels of building efficiency. There are many buildings that could utilize upgrades to their infrastructure.

**Alternative Action:** Potential Points (2/2)
All new building strives for the greatest possible energy efficiency with its design or redevelopment. New construction will meet or exceed 26% greater efficiency than the ASHRAE and the IESNA standards. Redevelopment will meet or exceed 22% greater efficiency than the ASHRAE and IESNA standards.

**Stage I Submission Materials:**
- No submittals required for Stage I.
GIB Credit 3: Building Water Efficiency

*Purpose:* Reduce impacts to natural water resources, and reduce burdens on community water supply and wastewater systems.

*Current Evaluation:* Points Earned (1/1)
In 2003, the Washington State Building Code set forth new rules for implementation of water conserving fixtures in the Uniform Plumbing Code. The code established the maximum water use allowed for all toilets flushing to be 1.6 gallons per flush (GPF) on all new construction and remodeling of residential, commercial and industrial facilities. By enacting these standards city wide, all new construction and remodels will meet this prerequisite, as long as they meet the Uniform Plumbing Code (City of Bellingham 2009).

*Alternative Action:* Potential Points (1/1)
The redevelopment of the Fountain District will continue the application of high efficiency fixtures. All new construction and redevelopment in the site area strives to utilize the best science and technology available for water infrastructure.

*Stage I Submission Materials:*

- No submittals required for Stage I.

GIB Credit 4: Water Efficient Landscape

*Purpose:* Limit or eliminate the use of potable water, and other natural surface or subsurface water resources on project sites, for landscape irrigation.

*Current Evaluation:* Points Earned (0/1)
There are a few areas of the Fountain District that implement permeable surfaces however, this effort could be greatly improved during the redevelopment of the Fountain District.

*Alternative Action:* Potential Points (1/1)
Sidewalk renovation will incorporate bioswales along areas of high runoff. All new construction and renovation utilize bioswales at points of runoff from their property. This system is good for reducing wasted water in regards to irrigation and landscaping. By breaking up the impermeable surfaces of streets and parking lots, water gets naturally filtered and relieves drainage systems. Water consumption for outdoor landscapes will be reduced by 50 percent from a calculated mid-summer baseline.

*Stage I Submission Materials:*

- No submittals required for Stage I.
GIB Credit 5: Existing Building Reuse

*Purpose:* To extend the life cycle of existing building stock to conserve resources, reduce waste, and reduce adverse environmental impacts of new buildings related to materials manufacturing and transport.

*Current Evaluation:* Points Earned (1/1)
The Fountain District has many buildings that are ripe for renovation and update. There is no reason to bulldoze the area and start over from scratch; many of the buildings in the area have cultural significance to the neighborhood, as well as unique character that defines the Fountain District.

*Alternative Action:* Potential Points (1/1)
The redevelopment of the Fountain District will reuse existing building stock. The project will achieve reuse 50% of an existing building structure and reuse 20 percent of the total existing building stock. The project will not demolish any historic buildings or portions of buildings. Also alternation of any cultural landscapes will not occur during the redevelopment.

*Stage I Submission Materials:*
- A map of historic buildings (Appendix A, Map 14)

GIB Credit 6: Historic Preservation and Adaptive Use

*Purpose:* Encourage the preservation and adaptive use of historic buildings and cultural landscapes that represent significant embodied energy and cultural value, in a manner that preserves historic materials and character-defining features.

*Current Evaluation:* Points Earned (0/1)
There are no historic buildings designated within the project boundary, however, the site is immediately adjacent to the Eldridge National Historic District. It is extremely important to residents of the area that the cultural landscape is preserved. The City of Bellingham is currently performing a historic index of buildings in the area and will be taking action to protect and preserve buildings of significance in the area.

*Alternative Action:* Potential Points (1/1)
The community has already declared that it wishes to preserve all historic sites and the City of Bellingham is aligning with community to ensure that these cultural icons are preserved. To achieve this credit, at least one historic building or cultural landscape must be included in the project site. The redevelopment will not demolish any historic buildings or alter any cultural landscapes.

A document from the local government, the State Historic Preservation Officer, or the National Park Service stating the name and address of the property, its historic designation or status, and the date of designation. Other acceptable documents include a copy of the notice in
the Federal Register or a verifiable copy of the web page of a state or national register that demonstrates the designation.

Stage I Submission Materials:

- Map of historic buildings (Appendix A, Map 14)

**GIB Credit 7: Minimum Site Disturbance in Design and Construction**

**Purpose:** Preserve existing non-invasive tree canopy, native vegetation and pervious surfaces.

**Current Evaluation:** Points Earned (1/1)
The site exists on a previously developed area, making all new development infill. It is currently zoned for Commercial, however its adjacency to many neighborhoods makes it Commercial/Residential mixed use.

**Alternative Action:** Potential Points (1/1)
Locate 100% of the development footprint on areas that are previously developed and for which 100% of the zone of construction impact is previously developed.

Stage I Submission Materials:

- Map of infill site (Appendix A, Map 5)

**GIB Credit 8: Storm Water Management**

**Purpose:** Improve water quality and hydrologic stability, promote aquifer recharge, and reduce flooding through the emulation of undeveloped natural hydrological conditions.

**Current Evaluation:** Points Earned (2/4)
The City of Bellingham, Washington, has implemented a Stormwater Management Handbook in an effort to maintain and improve the water quality of its aquifers, streams, ponds, lakes, wetlands, and tidal waters; and maintain and protect stormwater management infrastructure.

All development/redevelopment proposed within Bellingham's jurisdiction is designed to comply with the Stormwater Management Handbook, the Technical Manual and the Master Plan. These documents are comprehensive plans for the Best Management Practices for designing and implementing a stormwater management system for the City of Bellingham (Stormwater Management Handbook, 1997).

**Alternative Action:** Potential Points (4/4)
Implement the Bellingham comprehensive stormwater management plan for the project. Utilize infiltration, evapotranspiration, and reuse that captures on-site the below-specified rainfall
volume. Developers should make a commitment to reach a certain level (at least 80%) of percent rainfall volume to be retained.

<table>
<thead>
<tr>
<th>Percentile rainfall event determining rainfall volume to be retained</th>
<th>Points earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>80%</td>
<td>1</td>
</tr>
<tr>
<td>85%</td>
<td>2</td>
</tr>
<tr>
<td>90%</td>
<td>3</td>
</tr>
<tr>
<td>95%</td>
<td>4</td>
</tr>
</tbody>
</table>

Projects that earn at least two points via the above table may earn on additional point for meeting one of the following site characteristics up to a maximum credit total of four points.

- 1 point: The project is located on a previously developed site
- 1 point: The project is designed to be transit ready by having all of the following characteristics:
  - Earn at least 2 points under NPD Credit 1: Walkable Streets
  - Earn at least 2 points under NPD Credit 2: Compact Development
  - Earn at least 2 points under NPD Credit 3: Diversity of Uses

The BMPs shall be selected from those identified in the 2005 edition of the Washington State Department of Ecology Stormwater Management Manual for Western Washington: Volume V - Runoff Treatment BMPs or locally-approved equivalent, whichever is more stringent, and must comply with all federal, state, and local regulations. The stormwater management plan must include a season specific maintenance plan for the BMPs demonstrating continuous performance of the stormwater management system. For stormwater reuse systems not on a combined stormwater and sewer system the total water reused for indoor use shall not exceed 90% of the average annual rainfall.

Stormwater BMPs (except cisterns) shall be designed to drain down within 72 hours.

**Stage I Submission Materials:**

- Map of water and wastewater infrastructure (Appendix A, Map 1)

**GIB Credit 9: Heat Island Reduction**

“Many urban and suburban areas experience elevated temperatures compared to their outlying rural surroundings; this difference in temperature is what constitutes an urban heat island. The annual mean air temperature of a city with one million or more people can be 1.8 to 5.4°F (1 to 3°C) warmer than its surroundings, and on a clear, calm night, this temperature difference can be as much as 22°F (12°C).” (Morris, 2009).

**Purpose:** Reduce heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impact on the microclimate, and human and wildlife habitat.
**Current Evaluation:** Points Earned (0/1)
The there are no deliberate mitigation measures in place to reduce Heat Island Effect in the Fountain District.

**Alternative Action:** Potential Points (1/1)
The redevelopment will include a written commitment to employ sufficient non-roof heat island reduction strategies to meet the requirements. Green Certified Buildings could utilize both non-roof and vegetated roof mitigation measures to reduce impact.

The development will provide shade from open structures, include paving materials with a Solar Reflectance Index (SRI) of at least 29, include an open grid pavement system and provide shade from tree canopy for half of the non-roof site hardscape (including roads, sidewalks, courtyards, parking lots, parking structures, and driveways).

The redevelopment will use roofing materials that have a SRI equal to or greater than 78 for low-sloped rooftops and 29 for steep-sloped rooftops for a minimum of 75% of the roof area of all new buildings.

**Stage I Submission Materials:**
- No submittals required for Stage I.

**GIB Credit 10: Solar Orientation**

Passive solar orientation places a building on the lot in such a way that the building takes full advantage of the sun's natural heat. By facing the long side of a building to the south and the short sides to the east and west, the building will capture solar heat in the winter and block solar gain in the summer. Although it is best to face the building directly into the sun, it can be oriented up to 30 degrees away from due south and lose only 5 percent of the potential savings (ESB Solar Orientation, 2009).

**Current Evaluation:** Points Earned (0/1)
The street grid and buildings are positioned to the cardinal points, with the Guide Meridian pointing directly north and side streets are either parallel or perpendicular. However the long lengths of the buildings are oriented in the North-South direction.

**Alternative Action:** Potential Points (0/1)
This credit cannot be met because the long direction of buildings are already established North to South. Any renovations or new buildings will utilize passive solar gain by designing windows and overhangs facing south.

**Stage I Submission Materials:**
- No submittals required for Stage I.
GIB Credit 11: On-site Renewable Energy Sources

*Purpose:* Encourage on-site renewable energy production to reduce the adverse environmental and economic impacts associated with fossil fuel energy production and use.

*Current Evaluation:* Points Earned (0/3)
There are currently no on-site renewable energy production resources within the Fountain District.

*Alternative Action:* Potential Points (1/3)
The redevelopment will include a written commitment to develop on-site renewable energy generation systems to meet the requirements. Developers, when designing any new or renovated green buildings will make a commitment to incorporate on-site non-polluting renewable energy generation technologies such as solar, wind, geothermal, small scale/micro hydroelectric, and biomass with production capacity of at least 5 percent of the project’s annual electrical and thermal energy cost. The redevelopment can earn a total of three points if the development met 20 percent of annual electrical and thermal energy cost through renewable energy sources.

*Stage I Submission Materials:*

- No submittals required for Stage I.

GIB Credit 12: District Heating and Cooling

*Purpose:* Encourage the development of energy-efficient neighborhoods by employing district heating and cooling strategies that reduce energy use and adverse energy-related environmental impacts.

*Current Evaluation:* Points Earned (0/2)
There is currently no district heating and cooling system in place in Bellingham.

*Alternative Action:* Potential Points (0/2)
In a Department of Energy document, there has been discussion of a district heating system utilizing rejected heat from the Intalco Aluminum Plant in Ferdale Washington. The system has the potential to provide space and water heating for 20,000 residents and commercial buildings in the city of Bellingham. If this system was to be implemented it would take advantage of an underutilized resource and be significant for sustainability in Bellingham (Olszewski, 2009).

*Stage I Submission Materials:*

- No submittals required for Stage I.
GIB Credit 13: Infrastructure Energy Efficiency

*Purpose:* Reduce adverse environmental impacts from energy used for operating public infrastructure.

*Current Evaluation:* Points Earned (0/1)
Infrastructure is dated and has not been updated with energy efficient technology.

*Alternative Action:* Potential Points (1/1)
The redevelopment will design, purchase, or work with the municipality to install all new or recycled infrastructure, including but not limited to traffic lights, street lights, and water and wastewater pumps, to achieve a 15% annual energy reduction below an estimated baseline energy use for this infrastructure. The baseline is calculated with the assumed use of lowest first-cost infrastructure items.

*Stage I Submission Materials:*

- No submittals required for Stage I.

GIB Credit 14: Wastewater Management

*Purpose:* Reduce pollution from wastewater and encourage water reuse.

*Current Action:* Points Earned (2/2)
Bellingham utilizes a Municipal Wastewater Treatment Plant that provides service to buildings in Bellingham (City of Bellingham, 2009).

*Alternative Action:* Potential Points (2/2)
Developers, if they wish to try to reach a higher level of LEED certification, could choose to utilize an onsite system for any new construction or renovation in the site area.

*Stage I Submission Materials:*

- No submittals required for Stage I.

GIB Credit 15: Recycled Content in Infrastructure

“The case for recycling is strong. The bottom line is clear. Recycling requires a trivial amount of our time. Recycling saves money and reduces pollution. Recycling creates more jobs than landfilling or incineration. And a largely ignored but very important consideration, recycling reduces our need to dump our garbage in someone else's backyard” (Morris, 1996).
Purpose: Use recycled and reclaimed materials to reduce the adverse environmental impacts of extracting and processing virgin materials.

Current Evaluation: Points Earned (0/1)
Because the Fountain District is an infill site, there is already an infrastructure grid in place.

Alternative Action: Potential Points (1/1)
We encourage and recommend the use of recycled materials whenever possible. Adaptive reuse of the buildings in the area as well as incorporation of all infrastructures that are already in place is good start, however building materials, and the street/sidewalk/building interface could greatly utilize recyclables. The site area is lucky to have the ReStore within its proximity, a valuable resource for recycled building materials.

Stage I Submission Materials:
- No submittals required for Stage I.

GIB Credit 16: Solid Waste Management Infrastructure

Purpose: Reduce the volume of waste deposited in landfills. Promote the proper disposal of hazardous wastes.

Current Evaluation: Points Earned (0/1)
There is no designated recycling and composting station or hazardous wastes drop off within the site area. There are some designated trash receptacles along Meridian, however they are sparse. Sanitation Service Company however provides service to the commercial core of the Fountain District as well as the surrounding neighborhoods with garbage, recycling, and composting collection.

Alternative Action: Potential Points (1/1)
As infill begins to occur in the site zone, the need for greater public garbage management is essential for fighting litter and promoting the sustainable lifestyle that coincides with living in a green community. A commitment by the city to provide adequate public waste management facilities in accordance with development is a simple and essential necessity.

Stage I Submission Materials:
- No submittals required for Stage I.
GIB Credit 17: Light Pollution Reduction

“Obtrusive Light, whether it keeps you awake through a bedroom window or impedes your view of the night sky, is a form of pollution and can be substantially reduced without detriment to the lighting task” (USGBC, 2009).

Purpose: Minimize light trespass from project sites, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction, and reduce adverse impacts on wildlife environments.

Current Evaluation: Points Earned (0/1)
The Fountain District is overly lit by street and building lights. Much improvement can be done in this sector. A light pollution analysis needs to be undertaken in order to classify the lighting zone.

Alternative Action: Potential Points (1/1)
Stringent light pollution mitigation is essential. In order to preserve the character of the neighborhood. By bringing the street lighting down to human scale and the implementing sustainable practices for buildings in the area, light pollution will be inherently reduced. However once the project is underway and a light pollution analysis has been conducted, other mitigation measures will be able to be identified and implemented.

Stage I Submission Materials:

- A written commitment to reduce light pollution from shared portions of the project to meet the requirements if the project is built.
Appendix A: Maps of Site Location

Appendix A. Map 1. Location of Existing Water and Wastewater Infrastructure

Legend
- Water Main
- Sewer Main
- Project Site
- Commercial Transition
- Residential Transition
- Commercial Core

Map by: Mason Fitting
Sources: WWU Database.
Projection: Stateplane Washington North.
Appendix A. Map 2. Buffer Illustrating That All Dwelling Units Within Fountain District are Less Than One Quarter Mile From a Bus Stop.

Legend
- Commercial Transition
- Residential Transition
- Commercial Core
- 1/4 mile buffer from Bus Stops
- Building
- Road
- WTA Go Lines
- WTA Bus Stops
  - No Shelter
  - Shelter

Map by: Mason Fidino
Sources: WWU Database.
Projection: Stateplane Washington North.
Appendix A. Map 3. Wetlands and Water Surrounding the Fountain District.

Legend

- 100 Foot Buffer
- Wetlands
- Commercial Transition
- Residential Transition
- Commercial Core

Map by: Mason Filipp
Sources: WMU Database
Projection: Splineplane Washington North
Appendix A. Map 4. Floodplain Avoidance

Legend
- 100 Year Floodplains
- Commercial Transition
- Residential Transition
- Commercial Core

Map by: Mason Fidino.
Source: WWU Database.
Projection: Stateplane Washington North.
Appendix A. Map 5. The Proposed Project is Located on an Infill Site.

Legend
- Proposed project site
- Structures
- Roads

Map by: Mason Pidino
Sources: WU Database.
Projection: Sisteplane Washington North.
Appendix A. Map 6. Connectivity of Fountain District.

Legend

- Intersections
- Alleys
- Roads
- Project border
- 0.5 mile buffer from edge of project boundary
- Commercial Transition
- Residential Transition
- Commercial Core

Map by: Mason Fidino
Sources: WWU Database
Projection: Stateplane Washington North
Appendix A. Map 7. Bicycle Network with more than five continuous miles surrounding the Fountain District.
Appendix A. Map 8. Topography of Fountain District and Surrounding Area.

Legend

- Sidewalk
- Project border

1 inch = 100 feet

Map by: Mason Fidino
Sources: WWU Database
Projection: Stateplane Washington North
Appendix A. Map 10. Continuous Sidewalks Along Project Boundary.

Legend

- Sidewalk
- Project border

Map by: Mason Fidino
Sources: WMU Database
Projection: Stateplane Washington North

1 inch = 100 feet

All sidewalks within Project Boundary are roughly five feet in width.
Appendix A. Map 11. Connectivity of Fountain District, Quarter Mile

Legend
- Intersection
- Alley
- Road
- Project border
- Quarter Mile Buffer

Map by: Mason Edding
Sources: WMU Database
Appendix A. Map 12. Proximity to Schools.
Appendix A. Map 13. Street Renovations.

Areas for street renovation

Legend
- Bulbed Sidewalk
- Crosswalk
- Parking Lines added
- Commercial Core
- Commercial Transition
- Residential Transition

Map by: Mason Fidino
Sources: WMU database
Projection: Stateplane Washington North
Appendix A. Map 14. Buildings Built From 1880 to 1950 in Fountain District

Legend

Buildings
Year Built
- 1880-1900
- 1900-1925
- 1925-1950
- Commercial Core
- Commercial Transition
- Residential Transition

Map by: Mason Filing
Sources: WMU database.
Projection: Stateplane Washington North
Appendix B: List of Diverse Uses

- Food Retail
- Supermarket
- Other food store with produce
- Community-Serving Retail
- Clothing store or department store selling clothes
- Convenience store
- Farmer’s market
- Hardware store
- Pharmacy
- Other retail
- Services
- Bank
- Gym/Health club/Exercise studio
- Hair care
- Laundry/dry cleaner
- Restaurant/café/diner (excluding establishments with only drive-throughs)
- Civic/Community Facilities
- Adult/senior care (licensed)
- Child care (licensed)
- Community/recreation center
- Cultural arts facility (museum, performing arts)
- Educational facility (including K-12 school, university, adult education center, vocational school,
- community college)
- Family entertainment venue (theater, sports)
- Government office where the public is served on-site
- Place of worship
- Medical clinic or office where patients are treated
- Police or/fire station
- Post office
- Public library
- Public park
- Social Service Center
Appendix C: Building Designs

The purpose of appendix c is to provide a closer look at the suggested design proposal. It provides the reasoning behind our proposal and building features for both the suggested buildup and existing structures. Each proposed building is mixed-used – retail on the ground floor, with residential units on the second and third floors.

1. Site of Copy Center – New Building Proposal

![Diagram of the site of Copy Center]

**Building Specs**

- 37’ tall
- 0’ setback
- Retail Space – 8,325 sq ft
- Residential Space – 13,650 sq ft
  - **18 750 sq ft Dwelling Units**
  - 13 1000 sq ft Dwelling Units
- Total Space – 21,975 sq ft
- Plot Size ~ 12,000 sq ft
- FSI – **1.83**

This new building takes the place of a one story, one use copy center. It is on Girard St, one of the arterials into the Fountain District from downtown. The original building was set back from the sidewalk approximately 12ft. Given the proximity to the center of our project site, decreasing the setback and increasing massing for this specific plot was essential. Picking a moderate sized building was the obvious choice for a building on the edge of the commercial core.
2. Site of *Nails off Broadway* – New Building Proposal

**Building Specs**

- 44’ tall
- 5’ setback
- Retail Space – 2,131 sq ft
- Residential Space – 3,366 sq ft
- **4 950 sq ft Dwelling Units**
  - 5 750 sq ft Dwelling Units
- Total Space – 5,945 sq ft
- Plot Size ~ 3,696 sq ft
- **FSI – 1.6**
- Existing FSI - .10

The location of this plot to the Fountain Plaza made it a desirable location to propose an innovative live-work building. The original building took up one tenth of the plot size and was only 375 sq ft, making it the perfect candidate for increased density through redevelopment. This building design creates 1,800 sq ft of new retail space and over 3,000 sq ft of residential space; perfect for small business owners. The partially gabled roof and architectural character serve as a transition from the commercial core into the adjacent neighborhood district.
3. Site of Fountain Rental – New Building Proposal

**Building Specs**

- 40 – 55’ tall
- 0’ setback
- Retail Space – 12,456sq ft
- Residential Space – 29,833sq ft
  - **21 750 sq ft Dwelling Units**
    - 15 900 sq ft Dwelling Units
- Total Space – 42,289sq ft
- Plot Size ~ 12,289sq ft
- **FSI – 3.4**

Responding to the community’s interest in this location being redeveloped, we decided to include the site of Fountain Rental into our project site. Being adjacent to the fountain park, the plot holds potential for stunning panoramas of the surrounding area. It also sits half a block away from the main bus stop, creating incentive for future residence to take advantage of public transportation options. For these reasons, we suggested a very high floor space index. Yet, we also wanted to show the community that infill does need to be unattractive, so we proposed a building with lots of character and variety in its façade.
4. Site of Fountain Galleria Building – Increased Height Proposal

**Building Specs**

55’ tall  
0’ setback  
Retail Space – 9,039 sq ft  
Residential Space – 17,991 sq ft  
**19,750 sq ft Dwelling Units**  
3,100 sq ft Dwelling Units  
Total Space – 27,030 sq ft  
Plot Size ~ 13,426 sq ft  
**FSI – 2**  
Existing FSI – 1.3

The Fountain Galleria building serves as the cornerstone of our proposed development. Although we were unable to determine the structural integrity and capacity for additional stories, the building utilizes the property well, therefore we would not suggest any alteration to the building footprint if it were redeveloped. For this reason, we decided to adaptively reuse the existing structure. We propose building two additional stories on certain areas of the building - stepping the height up gradually to increase both solar exposure and the potential of viewing the park below.
5. Site of Business Bank, Intellect & Oltman Insurance – Increased Height Proposal

Recently developed, the Business Bank building is a perfect candidate for increased height. Just across the street from the Fountain Galleria on Meridian, this building serves as another central building to our project. It is currently only a one-story building with very high ceilings. We have proposed putting one additional story above the existing retail, increasing the FSI to 2.5.

Building Specs

- 45’ tall
- 0’ setback
- Retail Space – 6,279 sq ft
- Residential Space – 12,588 sq ft
  - 25 750 sq ft Dwelling Units
  - 18 1000 sq ft Dwelling Units
- Total Space – 18,837 sq ft
- Plot Size ~ 7,590 sq ft
- FSI – 2.5
- Existing FSI – 1.25
6. Site of the *Dance Studio* – New Building Proposal

**Building Specs**

- 48’ tall
- 0’ setback
- Retail Space – 14,798 sq ft
- Residential Space – 8,141 sq ft
  - 8 1000 Sq ft Dwelling Units
  - **10 750 Sq ft Dwelling Units**
- Total Space – 22,939 sq ft
- Plot Size ~ 27,732 sq ft
- FSI – .83
- Existing FSI - .24

This site of the dance studio has exceptional potential for increased density opportunities. Instead of manipulating the existing building, we proposed a completely new structure. We wanted to give the community another example of how well infill can work with the existing character of the area. This building provides interesting rooflines and height variations, creating a unique place at the center of our site.
7. Site of Business Bank of Skagit County & Intellect Computer Svc. Parking Lot – New Building Proposal

Building Specs

50’ tall
12’ setback
Retail Space – 3,700 sq ft
Residential Space – 11,100 sq ft

10 1100 Sq ft Dwelling Units
Total Space – 14,800 sq ft
Plot Size ~ 6,438 sq ft
FSI – 2.3
No existing structure

The site of this proposed mixed-use building is actually in part of Business Bank’s parking lot. Due to comments received about lack of parking in the area, we understood that this might not be the most well received proposal. However, parking issues have been considered and we suggested that a midsized mixed-use building be developed to better use the space within the project area.
8. Site of Griffith Furniture Inc. – Increased Height Proposal

**Building Specs**

- 50’ tall
- 0’ setback
- Retail Space – 18,830 sq ft
- Residential Space – 29,855 sq ft
- **39 750 sqft Dwelling Units**
  - 29 1000 sqft Dwelling Units
- Total Space – 48,685 sq ft
- Plot Size ~ 20,000 sq ft
- **FSI – 2.4**
- **Existing FSI – 1.1**

The Griffith Furniture building is another possible site for increased height. The group spoke to the owner, who mentioned his interest in seeing increased height and density on his building. The size of the structure lends itself to adding a significant amount of dwelling units. With an existing FSI of 1.1, additional stories doubled the FSI. Overall, this is an excellent opportunity to take advantage of an existing building.
9. Site of the 76 Station – New Building Proposal

This proposed building takes the place of the 76 Station on Meridian and W. North St. By no means are we suggesting ousting an existing business, but want to help the community rethink the way they see the Fountain District. This unique building fits the character of the area by remaining a two-story building that resembles a converted house. It could serve as a variety of uses, ranging from a market, coffee house, corner store or bookstore.

Building Specs

35’ tall
6’ Setback
Retail Space – 7,446 sq ft
Plot size ~ 14,065 sq ft
FSI - .53
Existing FSI - .1
NPD Credit 5: Reduced Parking Footprint, challenged us to not add any off-street parking lots to the development. Instead of increasing, we actually decreased the off-street parking in the area by 16,000 sq ft. We decided to convert two private and fairly unused parking lots into public parking - the two lots are highlighted with color in the above image. The lots would be used by residents and visitors of the area. We also marked on street parking to help inform drivers that on street parking is an option.
Street Improvements

Existing Street

Proposed Improvements
This illustration highlights the many improvements we made to Meridian St – human scaled lighting, bollards, vegetation, banners, bulbed sidewalks at key intersections and increased crosswalks. Overall, creating a more walkable, pedestrian friendly street defined in NPD Prerequisite 1: Walkable Streets.
Plaza Improvements

When designing the plaza, we did not want to go into detail. We wanted to address the community’s main concerns:

- Include a fountain that serves as both a sound and visual barrier from the main intersection.
- Improve the existing transit stop.
- Expand the plaza, by eliminating and removing the existing road (Monroe St) that currently separates the adjacent building from the park.

As you can see in the above image, the park is highlighted with color and detail is limited to suggest, not define.
Design Proposal

Proposal Achievements

In total, six new buildings were proposed and three existing buildings were built up.

Dwelling Units – 142 (this figure is inclusive of existing buildings current dwelling units – i.e. – There is already a second floor on the Fountain Galleria containing units. This figure is also inclusive of additional units proposed through design.)

Average FSI score for design – 1.9
Dwelling Units per acre - 59

Whether a LEED ND project is a reality or not, we would like to see a similar level of density achieved for the entire commercial core of the Fountain District.
Appendix D: Whatcom Transit Authority Bus Schedule

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<thead>
<tr>
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<th>232 Cordata/WCC Via NW Ave.</th>
<th>232 Downtown Via NW Ave.</th>
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### Saturdays

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### Weekdays

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### Saturdays

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**Route 232 | Whatcom Transportation Authority**
Appendix E: Native Northwest Plant Species

Native Plants for your Northwest Garden

Northwest native plants provide many benefits. Once established, they are drought-resistant, easy to care for, and attractive. They provide food and shelter for birds and wildlife, need less water, and prevent slides and erosion. These plants have adapted over thousands of years to Northwest weather, soil, and topography. When you plant a native plant into the soil, you are replacing a bit of lost flora and lost ecological history.

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<td>Ribes sanguineum</td>
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<td>Nodding Onion</td>
<td>Allium cernuum</td>
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<td>Red Columbine</td>
<td>Aquilegia formosa</td>
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<td>Cornus canadensis</td>
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<td>Bleeding Heart</td>
<td>Dicentra formosa</td>
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<td>Polystichum munitum</td>
<td>fern</td>
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If you would like more information about xeriscaping, please contact the Public Works Department at 676-6850. The Parks Volunteer Program also has a Backyard Habitat Mentor Program, please call 676-6001 for more information.
Appendix F: Definitions

**Adjacent site** – A site having at least 25% of its boundary bordering land that has been previously developed. For the purpose of this definition, a street does not constitute previously developed land; instead, the status of the property on the other side of the street is considered. Any fraction of the boundary that borders waterfront other than a stream is excluded from the calculation. A site is still considered adjacent if the 25% adjacent portion of its boundary is separated from previously developed parcels by undeveloped, permanently protected land averaging no more than 400 feet in width, and no more than 500 feet in any one place. The undeveloped land shall be permanently preserved as natural area, riparian corridor, park, greenway, agricultural land, or designated cultural landscape. Permanent pedestrian paths connecting the project through the protected parcels to the adjacent site may be counted to meet the requirement of SLLp1, option 2 that the project be connected to the adjacent parcel by a through-street or non-motorized right-of-way every 600 ft on average, provided that the path or paths traverse the undeveloped land at no more than a 10% grade for walking by persons of all ages and physical abilities.

**Alley** – A publicly-accessible right-of-way, generally located mid-block, which can accommodate slow-speed motor vehicle movement, bicycling and walking. An alley provides access to the side or rear of abutting properties for loading, parking, and other service functions, minimizing the need for these functions to be located along streets. An alley may be publicly dedicated or privately owned and deeded in perpetuity for general public use.

**Area median income** – The median income of a county as defined and available from the U.S. Department of Housing and Urban Development.

**Bicycle network** – A continuous network consisting of any combination of physically designated in-street bicycle lanes at least 5 feet wide, off-street bicycle paths or trails at least 8 feet wide for a two-way path and at least 5 feet wide for a one-way path, and/or streets designed for a target speed of 25 miles per hour or slower.

**Brownfield** – Real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

**Buildable land** – The portion of the site where construction can occur, including land voluntarily set aside and not constructed upon. When used in density calculations, buildable land excludes: public rights of way and land excluded from development by codified law or LEED for Neighborhood Development prerequisites. An applicant may exclude additional land not exceeding 15% of the buildable land base defined above, IF the following conditions are present:

a. The land is protected from residential and non-residential construction by easement, deed restriction, or other enforceable legal instrument;

b. Either 25% or more of the boundary of each contiguous parcel proposed for exclusion borders a water body or areas outside the project boundary that are protected by codified law; or ownership of, or management authority over, the exclusion area is transferred to a public entity.
Community supported agriculture (CSA) – A farm operation for which a community of individuals pledges support so that the farmland becomes, either legally or informally, the community's farm. The growers and consumers provide mutual support, sharing the risks and benefits of food production. Consumers receive portions of the farm's harvest throughout the growing season.

Connectivity – The number of publicly accessible street intersections per square mile, including intersections of streets with dedicated alleys and transit rights-of-way, and intersections of streets with non-motorized rights-of-way (up to 20% of total intersections). If one must both enter and exit an area through the same intersection, such an intersection and any intersections beyond that point are not counted; intersections leading only to culs-de-sac are also not counted. The square mileage shall exclude water bodies, parks over a 1/2-acre, public facility campuses, airports, rail yards, slopes over 15%, and areas non-buildable under codified law or the rating system. Street rights-of-way may not be excluded.

Construction impact zone – The project’s development footprint plus the areas around the improvement where construction crews, equipment, and/or materials are staged and moved during construction.

Covenants, conditions and restrictions (CC&Rs) – Limitations that may be placed on a property and its use, and which are made a condition of holding title or lease.

Cul-de-sac: A street segment that terminates without intersecting another street segment.

Cultural Landscape is an officially-designated geographic area, including both cultural and natural resources, associated with a historic event, activity, or person or exhibiting other significant cultural or aesthetic values.

Density – Density is the amount of building structures constructed on the project site, measured for residential buildings as dwelling units per acre of buildable land available for residential uses, and for non-residential buildings as the floor area ratio of buildable land area available for non-residential uses. In both cases, structured parking is excluded.

Dwelling unit – Living quarters intended for long-term occupancy that provide facilities for cooking, sleeping, and sanitation. This does not include hotel rooms.

Floor Space Index (FSI) – The density of non-residential land use, exclusive of parking. It is the total non-residential building floor area divided by the total buildable land area available for non-residential structures. For example, on a site with 10,000 square feet of buildable land area, an FSI of 1.0 would be 10,000 square feet of building floor area. On the same site, an FSI of 1.5 would be 15,000 square feet of built floor area; an FSI of 2.0 would be 20,000 built square feet and an FSI of 0.5 would be 5,000 built square feet.

Historic building – A building or structure listed or determined to be eligible as a historic structure or building or structure or as a contributing building or structure in a designated historic district, due to its historic, architectural, engineering, archeological, or cultural significance. The
building or structure must be designated as historic by a local historic preservation review board or
similar body, be listed in a state register of historic places, be listed in the National Register of
Historic Places, or have been determined eligible for listing in the National Register.

**Historic district** – A group of buildings, structures, objects and sites, of varying sizes, that have
been designated as historically and architecturally significant and categorized as either
contributing or non-contributing.

**Infill site** – A site that meets any of the following four conditions:
1) at least 75% of its boundary borders parcels that individually are at least 50% previously
developed, and that in aggregate are at least 75% previously developed;
2) the site, in combination with bordering parcels, forms an aggregate parcel whose boundary is
75% bounded by parcels that individually are at least 50% previously developed, and that in
aggregate are at least 75% previously developed;
3) at least 75% of the land area, exclusive of rights-of-way, within a ½ mile distance from the
project boundary is previously developed; or
4) the lands within a ½ mile distance from the project boundary have a pre-project connectivity of
at least 140 intersections per square mile.

**Native (or indigenous) plants** – A plant is considered native at a site if existing information
suggests the species did, or would have occurred on that site or within the subject county prior to
widespread land alterations that accompanied European Settlement. Cultivars of native plants may
be considered native plants.

**Planned Occupancy** – The highest estimate of building occupants based on planned use(s) and
industry standards for square foot requirements per employee. The minimum planned occupancy
for multi-unit residential buildings shall be one person for studio units, 1.5 persons for
one-bedroom units, and 1.25 persons per bedroom for two or more bedroom units.

**Plaza** – A publicly-accessible gathering space that is integrated as part of the street network, with
vehicular, bicycle, and/or pedestrian travel through the space. A plaza is generally paved, is
spatially defined by building fronts paralleling at least 66% of its perimeter, and may be privately
owned or publicly dedicated.

**Previously developed** – Land that has been altered (alterations may exist now or in the past) by
paving, construction, and/or land use that would typically have required regulatory permitting to
have been initiated, including a platted lot on which a building was constructed if the lot is no more
than one acre; previous development on lots larger than one acre is defined as the development
footprint and land alterations associated with the footprint. Land that is not previously developed
and altered landscapes resulting from current or historical clearing or filling, agricultural or
forestry use, or preserved natural area use are considered undeveloped land. The date of previous
development permit issuance constitutes the date of previous development, but permit issuance in
itself does not constitute previous development.

**Project** – The land, water, and construction that constitutes the project application. A project
applicant does not have to own or control all land or water within a project boundary, but all of the
area within the project boundary must comply with prerequisites and attempted credits.

**Project boundary** – The platted property line of the project defining land and water within it. Projects located on publicly-owned campuses that do not have internal property lines shall delineate a sphere of influence line to be used in place of a property line. The phrase ‘project site’ is equivalent to the land and water inside the project boundary. The project may not contain non-contiguous parcels, but parcels can be separated by public rights-of-way. Projects may also have enclaves of non-project properties that are not subject to the rating system, but such enclaves cannot exceed two percent of the total project area and cannot be described as certified.

**Single-family residential** - all residential units not defined as multi-unit residential are treated as single-family, including single, duplex, triplex, row house, townhouse and semi-attached residential building types.

**Street** – A dedicated right-of-way that can accommodate one or more modes of travel, but excluding alleys and paseos. A street is suitable for primary entrances and provides access to the front and/or sides of buildings and lots. A street may be privately owned as long as it is deeded in perpetuity for general public use. A street must be an addressable thoroughfare (for mail purposes) under the standards of the applicable regulating authority.

**Unique soils** – Soils with chemical, hydrographic and topological properties that make them especially suited to specific crops, as defined by the U.S. Natural Resources Conservation Service.

**Walk distance** – The distance that a pedestrian must travel between origins and destinations without obstruction, in a safe and comfortable environment on a continuous network of sidewalks, all-weather surface footpaths, crosswalks, woonerfs, or equivalent pedestrian facilities.

**Water bodies** – The surface water of a stream (first order and higher, including intermittent streams) arroyo, river, canal, lake, estuary, bay, or ocean; but excluding irrigation ditches.

**Water and wastewater infrastructure** – Publicly-owned water and wastewater infrastructure, excluding septic and mound wastewater treatment systems.

**Wetlands** – Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas, but exclude irrigation ditches unless delineated as part of an adjacent wetland.

**Woonerf** – A street, also known as a home zone, shared zone, or living street, where pedestrians have priority over vehicles and which have a posted speed limit no greater than 10 miles per hour. Physical elements within the roadway, such as shared surfaces, plantings, street furniture, parking, and play areas, slow traffic and invite pedestrians to use the entire right of way.

**Vehicle miles traveled (VMT)** – The number of miles traveled by motor vehicles in a specified period of time, such as a day or a year, by a number of motorists in absolute or per capita terms.
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