TOWN OF CHAPEL HILL

CONCEPT PLAN PROPOSAL

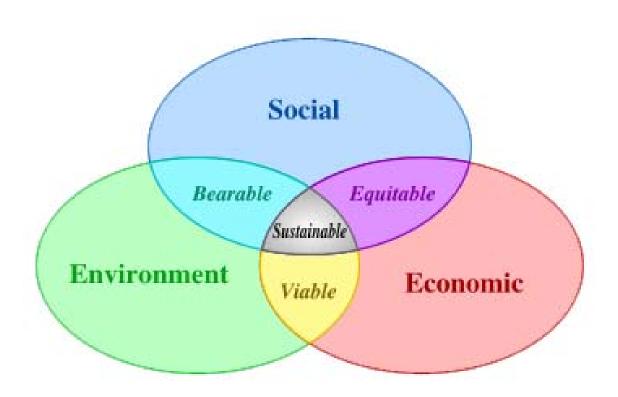
Applicant Information		
Name: Szostak Design, Incorporated		
Address: 310 ½ West Franklin Street	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
City: Chapel Hill	State: NC	Zip: <u>27516</u>
Phone (Work): 919-929-5244	FAX: <u>919-960-7967</u>	E-Mail: <u>rivers@szostakdesign.com</u>
Property Owner Information (incli	uded as attachment if n	nore than one owner)
Name: Szostak Design, Incorpor	Name: Szostak Design, Incorporated Phone 919-929-5244	
Address: 310 1/2 West Franklin S	treet	
City: Chapel Hill	City: Chapel Hill State: NC Zip: 27516	
Development Information		
Name of Development: COLUMBIA ST	TREET ANNEX	
Tax Map: <u>126</u> Block: <u>E</u>	Lot(s): 1 Parcel	1 ID #: <u>9788-20-4502</u>
Address/Location: N/W Intersect	tion of Highway 54 and S.	Columbia Street
Existing Zoning: <u>R-2</u>	New Zoning District if Rez	oning Proposed: <u>MU-V</u>
Proposed Size of Development (Acres / Square Feet):4.6 Acres	/ 200,376.0 Square Feet
Permitted / Proposed Floor Area	(Square Feet): <u>100,188.0</u>	Square Feet / 87,000.0 Square Feet
Minimum # Parking Spaces Req	uired: 80 + 5 Bicycle	# Proposed: 80 + 5 Bicycle
Proposed Number of Dwelling U	Inits: <u>32</u>	# Units per Acre: <u>9.23</u>
Existing / Proposed Impervious	Surface Area (Square Feet)	: 0 Square Feet /58,502 Square Feet
Is this Concept Plan subject to ac	lditional review by Town C	Council? NO-Will Request
Fee \$311		
The undersigned applicant hereby cerproposal b) authorizes on-site review belief, all information supplied with this Signature:	by authorized staff; and c) proposal is true and accura	to the best of his/her knowledge and

DEVELOPER'S PROGRAM

Project Description

The Columbia Street Annex (CSA) is proposed as a fully sustainable, pedestrian-friendly living and working environment. Though designed for a diverse community of local residents, the inhabitants of CSA will share common lifestyles and a goal to minimize their ecological footprints. This is a measure in which the negative impacts inflicted upon, and human demands placed on, the natural environment in everyday life are calculated. This ambition will mainly be determined by habitual and acquired environmentally sound choices, but will also be achieved through a specialized built environment and the implementation of zero carbon emitting energy sources. The project will be powered redundantly of the main electric grid, as all the energy needs of the community will be supplied by an electronically synchronized team of locally available, non-polluting and renewable energies. Moreover, CSA will go beyond being "carbon neutral", at times producing an excess of energy able to be sold back to the central grid. As a fully sustainable endeavor, the project will be financially viable and provide social equitability.

This transit-oriented community, sited along South Columbia Street and Highway 54, will provide a unique combination of residential and work space. The new pedestrian and transit node will also be interconnected with the existing public transportation system, as well as existing and future bicycle and pedestrian paths, making it readily accessible from downtown Franklin Street, the University of North Carolina, UNC Hospital, and Southern Village, as well as the wider Triangle area.



SUSTAINABLE DEVELOPMENT DIAGRAM

Existing Conditions

Anchored on a 4.6-acre, sloped wooded lot within the Urban Services Boundary, CSA will be located at Chapel Hill's primary southern entrance. Two streams and abundant undergrowth currently traverse the site. Located immediately south and across the street from UNC Hospital and nestled at the northwest corner of the intersection of South Columbia Street and the Highway 54 Bypass, the proposed site has a key position halfway between the University and Southern Village. Currently a stop for public transit, this location also affords regional access.

The parcel is currently zoned R-2 (Residential) and adjacent zones include R-4 (Residential) and NC (Neighborhood Commercial). The parcels currently zoned as NC include an adjacent gravel commuter lot and Merritt's Store across South Columbia Street.





PROPOSED SITE

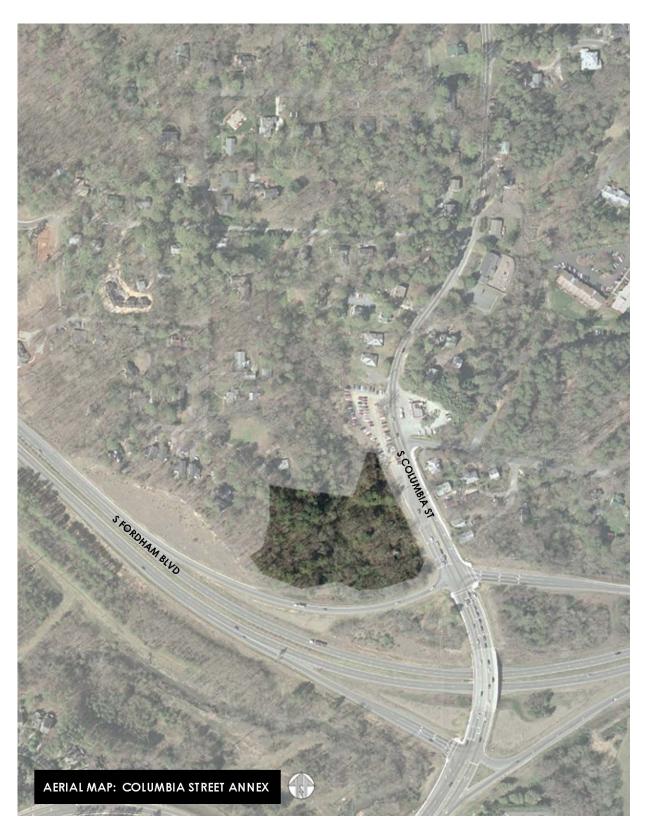
BUS STOP LOCATED AT SITE





LOOKING SOUTH TOWARDS SITE (RIGHT)

LOOKING NORTH FROM SITE



COLUMBIA STREET ANNEX VICINITY MAP

Market

As a model development for both sustainability and a unified conservation effort, Columbia Street Annex will provide an ideal place to live and work for those who desire a zero-carbon lifestyle in an urban setting. The central and accessible location, contemporary style, and sustainable mantra of the work spaces will attract progressive start-up companies and individuals, as well as anyone who appreciates a strong metropolitan cohesion with their community and the wider geographic region.

The project's live-work and affordable housing assembly will provide dwellings, as well as working and recreational spaces, for a diverse community of people and businesses. Environmental design and technology throughout the complex will ensure low energy costs to users and the transit element will address fuel, poverty and car-dependency. Thus, its sustainable design and convenient access to alternative transportation modes that link major teaching, employment and shopping areas will create unparalleled opportunities for affordable and market rate housing in an attractive and lively residential setting.

CSA will also serve as an example for the type and style of development currently needed to address several global issues, such as global warming, population increases, terrorism, rising fuel prices, and energy crises (e.g. blackouts).

Uses and Floor Area Proposed

75,000 SQUARE FEET - GROSS FLOOR SPACE (including circulation, mechanical, and living space [including 15% affordable housing])

12,000 SQUARE FEET - WORK FLOOR SPACE - TOTAL SQUARE FEET

Sustainable Design and Construction

As one of both the nation's and North Carolina's first zero carbon communities, the Columbia Street Annex will use zero fossil fuels and 100% renewable energy for power. The environmentally friendly design will enable low carbon lifestyles for its residents and patrons, and serve as a prototype for a new generation of sustainable architecture. The building orientations, forms, and functions, as well as the sourcing, types, installation, and maintenance of the construction materials and energy sources will be strategically selected and designed to adhere to the primary ecologically based goal of minimizing the ecological footprint and the future environmental, social, and financial welfare of the site. Some features of CSA that will be fully integrated into the design of the building, some of which will be electronically synthesized on a microgrid, may include:

- CCHP Unit (Combined Cooling, Heating, and Power)
- Geothermal Closed Loop System
- Ecological storm water treatment
- Wind Powered ventilation systems
- Greywater filtration and irrigation system
- Rooftop gardens
- Vegetated "sustainable" screens
- Passive solar heating and cooling
- Natural daylighting
- Photovoltaic Panels
- Solar Tubes
- Native landscaping
- Reclaimed wastewater

- Construction waste recycling
- Plug in and Shared Vehicular Facilities
- Bicycle facilities
- Recycled, Reclaimed, and Regional building materials

Systems Integration Approach

System integration uses an integrated building design process, which is a collaborative, integrated planning and design process that uses a "project team" in addition to the architect to make decisions in all stages of a project's planning and delivery, starting with design. Whole-building integrated design establishes performance goals right from the start for siting, energy, water, materials, and indoor environmental quality along with other comprehensive design goals. It ensures incorporation of these goals throughout the design and lifecycle of the building.

Architecture

The architectural character of the Columbia Street Annex is envisioned as an environmentally responsive living and working environment composed of two main live/work structures; two outbuildings will serve as locations for major solar installations, as well as live/work spaces. The residential elements are situated over resident-occupied workspaces and on-grade parking. The project will be contemporary in character but respectful of the surrounding residential context, utilizing familiar materials and a fluid, intimately scaled language of form.

The emphasis of the project will be on its environmental, economic, and social sustainability. These features will be fully integrated into a reposed architectural composition of a scale and character in keeping with the natural context of the site, its immediate surrounding environs, and the greater Chapel Hill community. While the central elements of the project will face Columbia Street and the access ramp to Highway 54, the majority of the site abutting residential neighborhoods to the west and north will remain largely undeveloped and in its existing natural state. Enhancements to this environment will include water-retaining landscape features and the preservation of all significant specimen trees species, vegetation, and habitats.

Affordable Housing

Addressing the Town's ever present need to provide low-income housing, this project will reserve 15 percent of the dwelling units for affordable housing. Moreover, CSA will go beyond the norm by providing state-of-the-art living spaces that will save residents additional expenditures regarding traditional energy and transportation costs.

Transportation

The transportation element of this project is key to acknowledging Columbia Street Annex as a unique and environmentally sound place to live, work, or simply utilize as an access point for Chapel Hill. Its design and location will inherently minimize daily use of the automobile and enable people to take advantage of other forms of transportation; buses, community cars, carpooling, bicycles, walking, and other sustainableway alternatives will be readily available to and from the site.

Parking

While usually an integral problem with development in an urban setting, parking availability will not be a hitch for CSA. Paving materials, location, and drainage of the parking areas will minimize detriment to the natural environment while emphasizing function and aesthetics. More specifically, the parking lots will contribute to the drainage and cleansing of the site as excess stormwater will be channeled to designated areas where it can be filtered and reused. Parking areas will also be properly buffered so as to add to the beauty of the site as well as the environmental soundness of the project. Finally, by employing alternative modes of transportation (as described above) and using techniques such as

shared parking between the uses (residential and service) on the site, empty parking spaces will be readily available. The developer also proposes that ten percent of the total parking spaces be dedicated as community cars. Community cars revolve around a membership-based carsharing company providing automobile rental to its members. Members are able to view vehicle availability and reserve a self-service car via the internet or by telephone, in increments as short as one hour, and pay only for time they reserve.

Traffic

A proper entrance and exit has been designed so as to maximize safety for ingress, egress, and general traffic flow in and around the site. Buildings, open spaces, and parking lots have also been designed to minimize hazard and promote logical traffic flow throughout the entire site. The site adjacent to the redesigned and widened Columbia Street will also contribute to the safety of the area and promote non-motorized (bicycling, walking, etc.) circulation and flow among the surrounding areas and communities.

Stormwater

A bio-swale to capture, filter, and reuse the stormwater runoff from the site is another key component of the project. Mitigation techniques are planned to minimize impervious pavement areas and provide retention, filtration and stormwater re-use for irrigation and other non-potable uses. Existing stormwater management requirements will be met and exceeded and no variance to these standards is being requested.

Stream Preservation

As an old home-site, the land once had two streams which have subsequently been abused and piped off-site. A creek study was initiated to determine the watercourse needs and buffer requirements of the streams. This study showed that one of the water courses was an intermittent stream and the other was an ephemeral stream.

It was the intermittent stream, closest to S. Columbia Street, which had several fifteen-inch pipe sections and invasive species of plant material that had taken over its edges. Please note an earlier stream determination by the Town indicated that this stream should be considered as a perennial stream. This project is asking for review and relief from this finding.

While two streams penetrate the site, the project will preserve, reclaim and rebuild these watercourses where necessary to improve the filtering and natural capacity of these minor watercourses. These measures will preserve both the natural systems and serene setting, as well as create a harmonious coexistence with CSA and its residents.

Stormwater run-off will be filtered on-site so that any water leaching into the streams will not cause any damage or alterations to the delicate balance the streams rely on to thrive. The streams will be a central design component of project and will be able to be enjoyed in their natural states by visitors and the residents who live in and around the community.

STATEMENT OF COMPLIANCE

The following information demonstrates how the Columbia Street Annex's (CSA) proposed building specifications, uses, designs, fundamental objectives and long-term effects are consistent with those in the Design Guidelines of Chapel Hill, the Land Use Management Ordinance and the 2000 Comprehensive Plan of Chapel Hill. It should be noted that the building specifications and design objectives of CSA also correlate with the goals and objectives of many other local, regional and national entities that promote sustainable design, alternative modes of transportation, and affordable housing.

Due to the intended mixed-use of the property, a zoning map amendment from R-2 (Residential) to MU-V (Mixed-Use Village) will be sought. In lieu of a land disturbance in excess of 40,000 square feet and developed square footage exceeding 20,000 square feet, a mandatory Special Use Permit will be applied for simultaneously.

The following information delineates how the design, objectives, and long-term effects of the proposed project correspond with the aforementioned documents and organizations.

Design Guidelines – Town of Chapel Hill

Livability

Columbia Street Annex will provide an ideal environment for living, working, shopping, or visiting. The buildings and surrounding grounds will be sized and oriented so as to maximize safety, serenity, and harmony with the surrounding neighborhoods. Moreover, the concept under girding the project is to maximize environmental stewardship and thus provide both the ecological systems and ecologically conscious individuals a high degree of livability.

Visual Impact

A primary doorway to Chapel Hill and located along two major thoroughfares, Columbia Street Annex's visual impact was a primary consideration. Though it will be a major alteration to the existing undeveloped lot, CSA will be visually appealing and will be compatible with development in the surrounding area. Buffers, high quality building materials, and a unified design scheme will ensure Columbia Street Annex as a place of pride for the entire community.

Vegetation

A central aspect of sustainable design is the utilization and integration of natural elements and systems. While the grounds will remain as natural as possible, including the stream corridors and the abundance of trees, the structures themselves will incorporate a heavy degree of vegetation and rely on surrounding vegetation for absorption, retention and filtration. Rooftop gardens will be social and recreational amenities for residents as well as design components for passive heating and cooling. Buffers and green space around the structures and parking areas will also provide adequate vegetation.

Mobility

The transit-oriented design of Columbia Street Annex will provide a network of interconnected bicycle paths, sidewalks and a key transit hub for the Town, including residents of the community and non-residents, enhancing mobility within the entire region. A redesigned intersection across South Columbia Street will connect the two wider areas currently stratified by the busy roadway. Also, social mobility will be a central factor as affordable housing located at a transit node will provide access to distant locations.

Activity Centers

With the non-residential component of the mixed-use community, the bustle of the transit node and the bikeway/greenway/sidewalk systems, and the general proximity to downtown Chapel Hill, UNC, and UNC Hospital, Columbia Street Annex will inevitably become a destination point and activity center for the immediate and wider areas. Additionally, the unique and innovative design of the community, including the building and surrounding premises, will bring visitors and activity to the site. Despite anticipation of perpetual activity involving residents, patrons, and visitors, a system of roads and pathways will ensure the safe movement of vehicles, bicycles, and pedestrians. Adequate lighting will also provide a safe setting.

Views

Nested on a heavily wooded lot, CSA will have pleasant views both towards and looking from the development. From the street, riders along the corridors will enjoy a modern yet restrained complex surrounded by vegetation that blends harmoniously into the landscape and adjacent neighborhoods. From the interior of the community, people will have the opportunity to experience an attractively built environment encompassed by wildlife. Streams, greenways, ample landscaping, the surrounding forest, and rooftop gardens will be complimented by inviting and appropriately sized, textured, and colored buildings.

Land Use Management Ordinance - Town of Chapel Hill

Mixed-Use Village (MU-V) Zoning District

Currently zoned R-2, the project will require a rezoning of the property to the Mixed-Use Village (MU-V) zoning district. Conforming to the intended purpose of the MU-V, the Columbia Street Annex will provide for the coordinated development of office, commercial, and residential uses and their necessary support functions in the vicinity of key highway intersections and transit corridors in Chapel Hill. They will be designed to facilitate public policies to encourage design which emphasizes lively, people oriented environments and compatible, visually interesting development.

CSA will also be a development within which mutually supporting residential, commercial and office uses are scaled, balanced and located to reduce general traffic congestion by providing housing close to principal destinations, and convenient pedestrian and bicycle circulation systems and mass transit to further reduce the need for private automobile usage. Moreover, this community will allow multiple destinations to be achieved with a single trip. The design of the project will be such that uses within a mixed use district are arranged in a manner that encourages internal vehicular trip capture and will provide development patterns that encourage walking, transit and bicycling as alternatives to automotive travel.

CSA adjoins residential development and it is intended that the arrangement of the buildings, uses, open space, and vehicular or pedestrian and bicycle access shall be such as to provide appropriate transition and reduce potentially adverse effects.

The mix of floor area within the proposed development will contain at least twenty-five percent of the floor area devoted to residential uses and at least twenty-five percent of the floor area devoted to office uses. The uses will include multi-family dwelling units and office space. In addition to a density of less than 10 units per acre, the height of the buildings will not exceed five stories ,and all setback

requirements will be met. Also, maximum impervious surface and maximum floor area requirements will be strictly adhered to.

Resource Conservation District (RCD)

The property once had two streams which have subsequently been abused and piped off-site. A creek study was initiated to determine the watercourse needs and buffer requirements of the streams. This study showed that one of the water courses was an intermittent stream and the other was an ephemeral stream. Our development will reclaim the intermittent stream, bring it back to its once natural state, and utilize it as an amenity for residents or visitors to the site.

Stormwater Management

Through an advanced system to reclaim all stormwater run-off for non-potable uses such as irrigation, CSA will reduce flooding, siltation and streambank erosion and maintain the integrity of stream channels. Through a system of swales, filters, and circulation, the development will minimize increases in non-point source pollution caused by stormwater runoff from development that would otherwise degrade local water quality. The new contours to the site, as well as the orientations of the buildings and parking areas will reduce stormwater runoff rates and volumes, soil erosion and non-point source pollution, and replicate the pre-development hydrology to the maximum extent practicable. An on-going monitoring of the site will ensure that these management controls are properly maintained, pose no threat to public safety, and will meet the requirements of the National Pollutant Discharge Elimination System (NPDES Phase 2) regulations as established by the Clean Water Act and administered by the North Carolina Department of Natural Resources, or its successor agency.

Recreation and Open Space

As a sustainable development, the Columbia Street Annex will use natural systems as much as possible to reduce its ecological footprint. Therefore, a maximum amount of natural open space will be preserved and maintained. This will include the reclamation of a stream and the preservation of many large specimen trees. Recreation areas, including bicycle and pedestrian paths, will be located throughout the site.

Parking and Traffic

Parking will not be a problem for this development. Exceeding the parking requirements for both vehicles and bicycles, this project will also provide other transit amenities, such as access to regional green trails, a bus stop providing regional access, and community cars available to anyone living in the community. Shared parking will also be employed so that space typically used for parking can be utilized as open space. Adequate buffers will be located throughout the parking areas and circulation throughout the parking areas will be a priority. Access to the project will be a large and safe entrance and exit located off of South Columbia Street. Two new crosswalks across South Columbia Street will further increase safety, circulation, and access.

The central location of the project, available alternative modes of transportation, and mixing of uses (commercial and residential) is projected to minimize the long-term and overall traffic impacts of CSA on the wider community and Town.

2000 Comprehensive Plan - Town of Chapel Hill

Maintain the Urban Services/Rural Buffer Boundary

The project site is located well within the Urban Services/Rural Boundary of Chapel Hill and will occupy lots currently served by public utilities and public transportation.

Participate in the Regional Planning Process

It is a primary goal of the Comprehensive Plan to establish effective regional cooperation that promotes sustainable growth patterns, recognizing that economic development, land use, transportation, environmental, natural area linkages, and other planning issues transcend the boundaries of Chapel Hill (Section 5.2). The Columbia Street Annex has fulfilled this goal of full integration with regional interests through the location, design, and use of the project. More specifically, regional planning efforts on behalf of the Town of Chapel Hill, Orange County, State and non-profit agencies, and other entities promote the development of high-density, environmentally-friendly, transit-oriented, mixed-use, infill projects with an affordable housing component.

Conserve and Protect Existing Neighborhoods

Partly surrounded by a low-density residential neighborhood, CSA's overall design and mix of uses will make certain that the project blends into its residential surroundings. Structures located nearest to the adjacent neighborhood will be oriented, sized, and designed to create a pleasing and appropriate setting for all residents, patrons, and passers-by. Green space, including buffers, open space and pedestrian/bicycle paths will flow naturally into adjacent lots. Lastly, the gradual evolution of the site in the near future into a pedestrian transit hub will ensure that the proposed community will help strengthen the residential character and enhance the "livability" of the entire area and wider community.

Conserve and Protect the Town's Existing Natural Setting

The project is located on a wooded lot containing two streams. A fundamental objective and outcome of the project will be to preserve, to the highest degree, both the streams and the entire site in their natural states. The aim of the design and primary purpose of the project is to be an on-site net zero energy emissions complex with its renewable energy sources located on-site. This translates into maximum reduction of the project's ecological footprint, minimizing temporary and permanent detriment to the natural environment during both the development of the site and long-term existence of the community. Also, as a transit-oriented development, CSA is a model of planning and design that minimizes the infrastructure, such as parking lots, needed for the single-occupant automobile. The proposed project will serve as a model of good green architecture, engineering, and urban planning.

Identify Areas Where There Are Creative Development Opportunities

This property was specifically chosen as the site for the project because of its creative development opportunities. As a mixed-use, transit-oriented, affordable housing project, the location along two major transportation corridors surrounded by a low-density residential neighborhood, in close proximity to surrounding urban/employment centers, UNC and UNC Hospital, has created an ideal place to construct this type and size of development. Though CSA will use a creative design to fully utilize a low-lying building lot, as a site predicted to be surrounded by intense future development, including population increase, a business boom, and a more developed public transportation network (Chapel Hill-Carrboro Long-Range Transit Plan), this specific location provides an ideal "infill" opportunity. This project also provides an opportunity to implement an on-site net zero energy emissions community which will aid in our endeavor to fight global warming.

Encourage Desirable Forms of Non-Residential Development; Create and Preserve Affordable Housing Opportunities

This community will be composed of an eclectic mix of live/work floor plans for its residents as well as a variety of work spaces for non-residents. Providing a dynamic that is of short supply and in high demand in Chapel Hill, the net zero energy emissions affordable work spaces will be ideal for a large range of start-up companies, home offices, and other businesses that require little space and a manageable mortgage.

In addition to providing a unique non-residential element, this venture will present an opportunity to merge low-income housing with green design. Affordable housing will comprise 15% of the residential floor space and located along major transit corridors will provide qualifying residents with a unique opportunity for increased mobility.

Work Towards a Balanced Transportation System

Located along two major transportation corridors, 15-501 and Highway 54, near key urban centers, and founded on the principles of environmentally friendly design, CSA was designed as a transit-oriented development. As a zero emissions development, this project will serve as an example of the consummate transit node. With transit services currently stopping at the site and a multitude of others passing by the site on their current daily routes, this hub will be readily and smoothly integrated into the current transportation network. Future local and regional plans for increased public transportation as outlined by local and State agencies also demonstrate that this type of development in this area will assist towards a more balanced transportation system. Programs to facilitate carpooling, telecommuting, and other forms of transit will reduce reliance on traditional single-occupant vehicles and these programs will help disseminate information related to "alternative transportation modes" to residents and visitors. Enabling non-motorized transportation opportunities and other alternatives to the automobile, this community will be interconnected with existing regional bicycle and pedestrian paths and sidewalks.

Complete the Bikeway/Greenway/Sidewalk Systems

Integrating non-motorized transit into the design of the structures, the lifestyles of the occupants, and other people traversing the site, this community will have state-of-the-art bicycle facilities, a cohesive network of sidewalks, and will tie into existing area-wide paths. Pedestrian and bicycle mobility will be key to realizing many of the environmental and social objectives of the design of Columbia Street Annex, optimizing recreational and transportation opportunities.

Provide Quality Facilities and Services

Columbia Street Annex will provide quality facilities and services not usually found in a mixed-use development. Also a transit-oriented, this project will have a plethora of transportation-oriented public amenities and services on-site. These include bicycle facilities, a bus stop (future station for light rail), and pedestrian walkways. The affordable housing units will provide a basic lodging service for those residents that qualify. The retail/service component of the mixed-use design will provide a services and goods for residents and patrons. Finally, certain green design features such using filtered grey water for all non-potable uses, and rooftop gardens will ensure that the buildings themselves are quality facilities for the residents.

