Typical Design Characteristics

While the previous section describes the general character of the various districts and corridors, this section provides more specific direction on the neighborhood's buildings, open spaces and streets.

These typical design characteristics are "overlays" that are applicable throughout the neighborhood, where appropriate. However, they may vary in their function and application from district to district or even block to block, depending upon final site planning. The typical design characteristics are guides to ensure that the visions set forth by the district plans are translated to actual development at the building, site and street levels.

The design parameters in this section include:

- **Environmental Design**, including environmentally sound development practices and techniques related to solar access, wind, drainage and transportation.
- **Buildings**, including typical unit sizes, densities, lot sizes, building placement, building frontage, parking placement, building heights and open spaces for: Faculty/Staff Detached House; Townhouse; "Main Street" House; Cottage; Faculty/Staff Apartment; Mixed-Use Housing; and Student Apartment.
  
The building guidelines are intended to illustrate characteristics of various building and housing types. However, actual lot layouts or specific dimensions may vary from these parameters as long as they are generally consistent with the intended building type and district guidelines.
- **Open Spaces**, including proposed sizes, activities, uses and design for the Village Square, Transit Green, Recreation Fields, Elementary School, Park/Neighborhood Parks, Buffers/Edges, and Bicycle/Pedestrian Greenways.
- **Street Types**, including dimensions and cross-sections for Arterial, Collector, Local and Student Parking streets, as well as the bus transit line and alleyways.
ENVIRONMENTAL DESIGN

From site layout to building orientation and design, the neighborhood incorporates an array of environmentally-sound development techniques and practices. These methods are primarily related to four key areas: solar access, wind, on-site drainage, and transportation.

The building types in this section are all designed to integrate various environmental opportunities where feasible. Packaging of several techniques at the building and block scales may make environmental design practices more economically viable. Such options will be explored during the development stage.

SOLAR ACCESS

Solar access at the building scale is an important feature for all building types in the neighborhood. By either using or shading radiant heat from the sun, buildings can minimize their dependency on non-renewable heating and cooling methods. Houses, townhouses, apartments, cottages, mixed-use housing and educational facilities are all oriented to maximize solar heat gain during the winter months and minimize solar heat gain during summer months. Tools such as window shades, overhangs, deciduous trees, and south facing windows are all used, where feasible, to achieve higher energy efficiency. Solar panels are used where feasible throughout the neighborhood to provide hot water and power to homes and other buildings. Building placement and adjacencies are also considered, to ensure that all structures have adequate access to sunlight.

Deciduous trees on the south side of structures are scaled properly to shade windows and preserve solar access to roots.
WIND

Neighborhood buildings are oriented to take advantage of the prevailing “Delta breeze” winds in the summertime, which provide natural afternoon and evening cooling during the hot summer months. Windows are located on the south side of structures, with flow-through ventilation of solar chimneys to draw through cooling winds. Buildings are also oriented to block cold winter winds from the north. Vegetation is placed to optimize the effects of wind around homes and other structures.

ON-SITE DRAINAGE

Stormwater drainage at the building scale is captured and directed into nearby drains and drainage swales. The swales provide natural habitat and percolation areas. Water is channeled to the ponds at the north end of the neighborhood during large rain events. Vegetated roofs and pervious paving surfaces on apartment complexes, homes and other buildings will be used, where feasible, to retain water, reduce impervious surfaces, and reduce the size of the neighborhood stormwater infrastructure. Some structures may also capture drainage for on-site irrigation and “grey water” use in the building.

TRANSPORTATION

Transit and bicycle orientation helps to greatly reduce the neighborhood’s environmental impacts, particularly with regard to traffic congestion and air quality. All housing is located within a five-minute walk of the Unitrans bus line. Buildings and community activities are oriented toward this transit amenity and bikeways to encourage its use, resulting in reduced dependency on the automobile for trips to school, work, shopping and recreational activities.
BUILDINGS

Faculty/Staff Detached House
Faculty/Staff Detached Houses are typically one to two stories in height. However, some homes may be three stories tall, especially when a bottom or top level is utilized for rental unit space.

Typical Unit Size
1,500 to 2,200 square foot average unit (one to three stories)

Density
5.7 - 9.2 dwelling units/acre without cottages
7.6 - 12.2 dwelling units/acre with cottages

Lot Size
5,500 - 7,260 square feet

Building Placement
Buildings are to be located close to the street and sidewalk to create a more pedestrian-oriented and intimate scale along the street. Side yards are wide enough to provide access to rear units. Upper floors are stepped back from adjoining housing to preserve daylighting into adjacent yards and homes and reduce views from second story windows into neighboring private spaces. Typical setbacks range from 10' to 12' for fronts, 5' to 10' for sides, 10' to 12' for sides to the street, and 5' to 12' for backs.

Building Frontage
Building entries, front porches and windows front onto the street to provide visual surveillance of the public spaces along the street. Typical design includes stoops, balconies, bay windows, open porches, common lawn areas and good lighting.

Parking Placement
To reduce the visual impact of garage doors along the street, vehicular access to on-site parking is primarily from alleyways or side streets. However, if alley or side street access cannot be accommodated, access can occur from the main street. In general, two covered or uncovered on-site parking spaces are provided for each main residential unit. Visitor parking is located along street areas.
Open Space

The design and orientation of semi-public, semi-private and private open space areas fosters a rich community life by ensuring a range of spaces, from fully private yards to settings where residents can meet. Each open space takes advantage of available sunlight, wind and weather patterns. Spaces on each lot are sized and oriented to the adjoining buildings, to re-inforce their function as distinct open space realms. Yard spaces on each lot are designed to be usable by residents. Undefined or “left-over” open spaces and yards are avoided.

SEMI-PUBLIC OPEN SPACE
Front yards help activate the pedestrian realm (sidewalks, on-street parking, street trees and buffer landscape, streetscape) and foster a sense of community.

SEMI-PRIVATE OPEN SPACE
Side yards, alleys and cottage greenways are utilized to provide Faculty/Staff Detached Houses with additional semi-private open space.

PRIVATE OPEN SPACE
Private open spaces are provided for Faculty/Staff Detached Houses in the form of backyard areas.