Lane Community College

ACHIEVING DREAMS

Conceptual Vision DRAFT

THE URBAN DESIGN LAB

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School of Architecture and Allied Arts

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DRAFT

CONCEPTUAL VISION

AUGUST 2010

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Acknowledgements:

Special thanks to:

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Part Three

LCC Tomorrow

Executive Summary

This conceptual visioning document and the master planning process is a Lane Community College shared governance led process that the Urban Design Lab is helping to carry out.

The New Oxford American dictionary defines the verb planning as the act of making "preparations for an anticipated event or time"; and the noun, plan, as "a detailed proposal for doing or achieving something" (McKean 2005). Planning for new development is created by forming a vision, assembling a team, and by generating goals and principles to implement the vision. It is imperative to have a plan in place prior to the need. Planning takes foresight and timing.

By linking contemporary research and lessons from case studies with results from a survey, this conceptual vision attempts to identify a sustainable growth management strategy for the twenty-first century community college.

Institutions of higher education across the country are being hit by economic hardship. The current recession is forcing more state legislatures to cut funding in support of higher education, leaving schools to compete for limited resources just at the time when enrollment is increasing (Halligan 2008). The initial extent of this project was to prepare a visioning document for Lane Community College (LCC) that uses its perimeter – non-core campus land – for expansion. Subsequently, it has led the Urban Design Lab to develop a long range conceptual vision proposal* plan that uses its land as a resource to support the educational mission of the institution through economic, social, and environmental sustainability. (*This proposal is not an official LCC approved document.)

Although LCC did not choose to hire a professional design team, they knew that outside collaboration was necessary. A local architect affiliated with LCC and with prior experience working with the University of Oregon's School of Architecture and Allied Arts Department, contacted the Urban Design Lab (UDL), a landscape architecture, architecture and urban design based organization. The initial design team consisted of students in their final architecture studio working to collect data, research case studies and formulate alternative framework designs. Later in the process, the design team consisted of four architecture student interns and a project manager.

The Urban Design Lab started with the following hypothesis:

> **By integrating housing and services with the campus, Lane Community College could create a living, learning, and working environment that generates an alternative revenue stream while supporting its educational mission and fulfilling its obligations to the community in a sustainable and ethical manner.**

To facilitate this process, the UDL developed a mixed methodological approach that investigates the history of campus form leading up to contemporary community colleges. First, if one is to design for the future of community colleges, one must understand its past. How did commu-

nity colleges originally develop? What factors were used in choosing sites? What development typologies, characteristics and forms exist? Part one, **On Community Colleges**, focuses on these questions. The first chapter gives an account of how institutions of higher education are dealing with the economic crisis, budget cuts and spiking enrollment. The second chapter tracks the influence sprawl and contemporary urbanization has had on urban form, presents community colleges as a representative development typology, and illustrates examples of how contemporary innovations are changing the community college campus. The third chapter explores the characteristics and forms of the campus as it has evolved and concludes the chapter with key lessons from a comparative mapping case study.

Part two, **LCC Today**, focuses on the site and the participatory planning process that facilitated the identification of the choices, preferences and opinions of the people who use LCC in its current state. Chapter four presents the history and theory behind the method of participatory planning; highlight its history, advantages, shortcomings, and outline the over arching concepts and procedures of the process. The fifth chapter looks at the site, its characteristics and history, and provide a description of the site through narrative of the people who use it on a daily basis – highlighting the findings from public workshops. Ultimately, it will link together the findings from the previous chapters to bridge the gap between the iterative planning and design processes to identify the vision, goals, and principles. The vision and goals have been developed by the Urban Design Lab with data gathered through two collaborative, public design workshops. The principles incorporate 100% of LCC's existing design guidelines with several additions also gathered at the design workshops.

The Vision, Goals and Principles would need to go through Lane Community College's shared governance system to be formally approved, adopted, and incorporated into the College's planning efforts.

Part three, **LCC Tomorrow**, introduces the draft alternative visions, reports on the iterative stakeholder evaluation process, and presents the draft preferred framework. Chapter six addresses how, by integrating housing and services with the campus, LCC could create a living & learning environment that also generates an alternative revenue stream supporting its educational mission while fulfilling its obligations to the community in an sustainable and ethical manner.

Several appendicies present other research and findings from the planning and design process. Appendix I presents prototype designs produced by graduating architecture students in the 2009-2010 academic year. Appendix II reviews the existing LCC Bond Projects. These bond projects are a list of projects made possible through voter-approved bonds. Appendices III-V present and discuss the methodology and results from the dual-objective preference assessment survey, and documents multiple survey/questionnaires.

PART ONE: ON COMMUNITY COLLEGES

Image: New York Times Tuesday, September 16, 2008


New York

NEW YORK, TUESDAY, SEPTEMBER 16, 2008

WALL ST. IN WORST LOSS SINC
DESPITE REASSURANCES B

ula
torm:
Way Out

ays, 'Miracle'
Texas Couple

By SHAILA DEWAN
H ISLAND, Tex First
cages containing seven
s were unloaded from the
cue boat Then two dogs Then
e figures of a man and a woman
ncurled from their huddle at the
ottom of the boat and stepped
onto dry land.
"I'm a miracle standing here
talking to you," said the woman,
Deeann Sherman, hovering over
the bird cages
Full of shaky relief and grat-
itude, the couple told of their
four-day ordeal on the Bolivar
Peninsula, the fragile barrier
beach community that was virtu-
ally destroyed by the storm surge
of Hurricane Ike beginning on
Friday Like several hundred oth-
er Bolivar residents, the Sher-
mans were trapped by high wa-
ter, praying that the boats of res-
crews would eventually find
finally made it
peninsula,

DAILY PRESS

THE STATE

Stocks fell sharply Monday as investors tried to digest the turmoil on Wall Street. Henry M. Paulson Jr., above, the Treasury secretary, said the financial system was sound.

DOW JONES INDUSTRIAL AVERAGE
11,600

Its finances deteriorating
Merrill Lynch is being
bought by Bank of Am

MERRILL LYNCH
$30 a share
20
10
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Chapter One
The Perfect Storm

COMPONENTS OF THE PROBLEM

Upon return from a trip abroad and having not picked up a newspaper or turned on a television, I was faced with the surprising collapse of the American banking system. This was soon compounded by the 2008 foundering of the mortgage lending industry and rising unemployment figures. As a current student, fear of not being able to find work was a real concern and I contemplated spending more time in academia. I knew I was not alone in this prospect as Americans started to return to universities, technological schools and community colleges to retool. Doug, a friend of mine working at a community college, echoed my concerns and confirmed the notion that a portion of society was, in fact retooling. I recall a conversation with Doug we had several years earlier about his job security, rising gas prices and how he was changing his lifestyle to fit the tough economic times prior to the recession. Now, still concerned with his personal circumstances, he was telling another story. He was concerned about funding and educational accessibility.

This conversation led me to think that this project was not just about finding a way to better design a campus, but to help create economic, social and environmental accessibility through the built environment. To do this, it is important for designers to understand the components of the problem, the dynamic history of the subject and current strategies being employing. -Barry Gordon

This chapter presents an account of how the economic crisis, budget cuts and spiking enrollment have conspired to create a perfect storm for higher education. It will then provide a brief history of the American community college, present some current innovations community colleges are pursuing and how they are changing their campuses. The chapter concludes with a discussion of the limited literature on community college housing.

Strong competition for scarce state funding.
Community colleges across the country already have to stretch their dollar further than their four-year counterparts prior to the current economic hardship (Anon. 2009), but how much farther would they have to stretch their funding now? Despite the massive, yet temporary, federal stimulus package's ability to relieve state and federal fiscal shortfalls in the short term ($150 billion over fiscal years: 2008-09, 09-10, 10-11), the projections show that increases in state tax revenues will not rise sharply enough to avoid the need for more budget cuts or tax increases in the future (Donald Boyd 2009).

In fact, the current recession is forcing state legislatures to cut higher education funding, leaving schools to compete for limited resources at the time when enrollment is rising (Bers 2008). Boyd's (2002) study, using an adapted methodology from Hovey's (1999) survey; published by the National Center for Higher Education Management Systems, says that several states, including Oregon, have been increasing state funding on primary education and healthcare, while budget shortfalls in every state in the country leave higher

education with less financial support.

When comparing the national, state & local revenue surplus (gap) from Boyd's (2002) to Hovey's (1999) study the results are less grim on the national average -3.4 (2002) versus -3.8 (1999), but worse in Oregon -1.3 (2002) compared to -.1 (1999). In another comparison, Katsinas (2005) and Hovey (1999) both recognize increased spending on Medicaid, as the primary reason why state budgets cut higher education financial support. Additionally, higher education is typically the last and largest discretionary item to be decided in most state budgeting processes, leading to tuition hikes, accessibility, and affordability issues (Katsinas et al. 2008).

Tuition, enrollment & discretionary spending.
Community Colleges have been mentioned in most presidential State of the Union addresses over the last decade. In 2005 and 2010, Presidents Bush and Obama both referred to community colleges, highlighting concerns of accessibility and affordability, yet "presidential attention does not translate into hard dollars to finance preservation – much less expansion – of the open door college" (Katsinas 2005). In fact, according to the Washington D.C. based Center on Budget and Policy Priorities, at least 44 states faced shortfalls in their 2009 budgets. The effects of these financial shortfalls can be seen in California, Massachusetts, New York and Oregon:

- On its website, the Community College League of California reports that proposed budget cuts of more than $332 million could force the Golden State's 110 community colleges to turn away 262,845 current students;

-The Boston Business Journal reports that Massachusetts' community colleges face some $12 million in budget cuts;

-New York Governor, David Paterson proposed eliminating a combined $348 million from the State University of New York (SUNY) and City University of New York systems (Anon. 2009); and

-Oregon was one of 20 states with community college funding formulas that did not receive full funding for funding year 2007-2008 (Katsinas et al. 2008).

With four-year universities raising tuition, students, short on money; are being driven to community colleges at the same time laid-off workers and recent high school graduates are trying to enroll (Katsinas et al. 2008; Greengard 2009). This situation – what Greengard describes as the perfect storm of crumbling economy, budget cuts and spiking enrollment – is forcing schools to place enrollment caps on traditionally open-enrollment policies (Greengard 2009) or accept the students with no additional funding.

The rapid reduction of federal and state appropriations continues to leave community college leaders struggling to

maintain their institutions fiscal viability. The community college model in the United States is in the midst of a significant transformation, giving them the opportunity to assert their creative thinking and to help adapt in this erratic fiscal landscape to ensure access to those that need the community college most.

This project focuses on trying to help community colleges adapt in a fiscally challenged time through a process of participatory planning and design. But to do that, we must understand how the the changes have come to pass.

ADAPTATION

> *"The community college is the most flexible of educational institutions, keeping in touch with local needs and having the ability to adjust to rapid change."* *Community College Journal (Roueche 1995)*

Pre-community college. This is not the first time colleges have had to adapt. In the 1930s the cost of attending colleges was on the rise regardless of the negative effects from the Great Depression. At that time, there was no financial aid to students or to struggling professors and institutions. Professors accepted scrip (IOU's) – or were not paid at all (Thelin 2004). When jobs and money were in short supply, the best option for students and professor was to continue as business as usual until something changed.

The federal government provided some relief through the Federal Employment Act. Under the Work Progress Administration (WPA) and the Public Works Administration (PWA) campus construction projects were undertaken – although this was short lived. The most significant transformation came from the newly appointed president at Harvard University, James Conant. He introduced what would become 'need based financial aid'. This effort pushed higher education, in that era, towards mass participation.

Another change occurred in 1944 with the GI Bill. According to Edwin Kiester, Jr., the bill guaranteed veterans "a year of education for 90 days' service, plus one month for each month of active duty, for a maximum of 48 months. Tuition, fees, books and supplies…paid directly to the college or university" (Kiester 1994). This infusion of potential enrollees initiated a robust advertising and recruitment program that resulted in many colleges and universities experiencing a doubling of enrollments between 1943 and 1946. This quick increase in enrollment prompted a wholesale change in the application and evaluation policies and increased the use of standardized testing throughout American higher education.

The President's letter. As enrollment increased due to the introduction of the GI Bill, President Truman saw a need for widening educational opportunities. In a 1946 letter, President Truman asked the presidential commission on higher education to examine "ways and means of expanding educational opportunities for all able young people; the adequacy of curricula…the desirability of establishing

a series of intermediate technical institutes; the financial structure of higher education with the particular reference to the requirements for the rapid expansion of physical facilities" (Woolley and Peters). The Commission's recommendation highlighted the need for community colleges in the United States.

Although state and local governments supported an expanded higher education system, state and local governments vehemently opposed the committee's recommendation, due to the high level of federal involvement. The U.S. Constitution reserves the topic of education for state and local government. The 10th Amendment of the U.S. Constitution reads, "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States, respectively, or to the people." Soon after the federal government brought the topic of higher education to the attention of the public on a national level, the state governments, private institutions and public colleges and universities followed the commissions lead to carry out its recommendations on their own. Soon after, significant national and state investment in higher education was regarded as a way to bolster Americans technological and scientific dominance in the early days of the Cold War (Astin 1993).

In the last sixty years, community colleges have reached the commissions goal of broadening access to higher education for Americans at all socioeconomic levels by providing educational opportunities for low-income students, minority students, and students interested in special vocational education (Medsker and Tillery 1971). A 2006-2007 survey by the National Center for Education Statistics, published in 2008 states that there are 1,045 community colleges in the United States teaching nearly 6.2 million students annually, which closely mirrors the number of students enrolled in public four-year colleges. The number totals 1,600 when including branch campuses of community colleges (Provasnik and Planty) (see figure 1-1). While community colleges support a considerable number of part-time students, nearly 40% of students attend community college full time (American Association of Community Colleges 2008). With decreased funding and enrollment on the rise, it is time for the fringe community college to evolve once again.

Figure 1-1
Community colleges in the United States. Image available at aacc.nche.edu.

Figure 1-2
Butte College pv shaded parking. Image Barry Gordon.

Figure 1-3
Lone Star CyFair's new college campus. Image available at http://www.lonestar.edu/cyfair.

MAKING SENSE OF CHANGE

Contemporary innovations. In 2000, the United States Census Bureau developed three population growth scenarios for the United States at low, medium and high projections. The medium and high estimates are projected at 571 million and 1.26 billion Americans by 2100. When the U.S. population surpassed the lowest projections in 2006, the Census Bureau recalculated its projections stating that they could reach 400 million Americans by 2039. Presently, half the world's population lives in urban areas (United Nations 2010). A recent article in Planning Magazine is one among many professional periodicals asking, "[w]here will the roughly 100 million more Americans live" (Lang, Alfonzo, and Dawkins 2009)? What development patterns will be used? Are they the most efficient patterns? What is the role of the present community college model in this age of fiscal insecurity? Changing demand from students and employees coupled with the economic and demographic shifts in society are forcing institutions of higher education to reassess their roles in the wider community (Harrison and Tsao 2006). Through research and site visits, the Urban Design Lab found three contemporary innovations that are worth reviewing.

1. Interweaving Sustainability. We visited thirteen community colleges as part of this research and many of them are interweaving sustainability into their educational mission and built environment. Three-hundred university presidents and chancellors in over forty countries, including Lane Community College, have already signed on to the American College & University Presidents Climate Commitment, which calls for "each participating institution to develop a comprehensive plan to reach climate neutrality as quickly as possible…in an effort to reduce and offset emissions of potentially harmful greenhouse gases." Institutions are making the effort to include many of the following strategies in to their operations: buying Energy Star compliant machinery and computers; constructing LEED silver certified buildings (Cape Cod Community College, Butte College); installing a biomass heating facility that saves $2.5 million in electricity a year (Mount Wachusett Community College) (Wong 2008); Butte College plans on adding more solar photo voltaic panels than any other institution in the country (see figure 1-2); and by installing a solar panel array and electric vehicle charging stations (Lane Community College – planned). Interweaving sustainability usually means requiring an up front investment creating cost savings in the long run. But rarely do we find ourselves in a place when doing the right thing can also be prudent. This may be one of those times.

2. Facility Design. Another key innovation that institutions rely on is a plan that matches their educational mission with their physical plant. Community colleges have the responsibility to provide facilities that meet the goals of educational and institutional excellence. Joch (2008) asserts that there is a connection between innovative new approaches to community college facility designs and academic success of its students, faculty and the institution itself. Two schools that Joch highlights have "captured the connection between

an innovative approach to facilities design and academic success." The first is Lone Star-CyFair, located in suburban Houston (see figure 1-3). Lone Star-CyFair has created a new campus that is noted for its unique clean slate approach to design, creating – what they call an oasis – of modern, modular classrooms, with outdoor spaces to study and socialize set within a native and natural environment. Lone Star-CyFair has seen "students happy and excited to be on campus" in an environment that supports learning in a collaborative environment. The second is Maryland's Cecil College Bainbridge campus, located on a former Naval training facility. A developer gave the college a 15-acre parcel, part of a 1200-acre land swap that will eventually include commercial, residential and public facilities in a phased development plan. To ensure growth in enrollment, the school has created partnerships with local public schools, and the state-of-the-art facilities have helped attract faculty and students, making recruitment easier.

3. On-Campus Housing. In an informal poll of University of Oregon undergraduate and graduate students, the UDL asked "how many people lived on campus during their undergraduate education?" Four out of five respondents said they did, and that at least one year was mandatory. In further discussion, most of the respondents commented that they thought the mandatory housing requirement was to acclimatize new students to college living and generate revenue for the institution. They all said that benefits of living on-campus include, "making friends" and added to the "true college experience." There are important findings from literature on well-planned and administered residence facilities at four-year institutions that back up this informal poll. Some of these benefits include: positive improvement of academic performance, student persistence, and higher level of student involvement of on-campus and extracurricular activities (Chickering and Kuper 1971; Chickering 1974; Pascarella and Terenzini 1991; Astin 1993; Moeck 2007). It would be reasonable to hypothesize that this would hold true for on-campus housing at two-year institutions because students would spend less time traveling to and from school and would have more opportunities to create bonds with faculty and other students outside of their academic activities.

LITERATURE ON RESIDENTIAL COLLEGES

Universities and colleges have provided on-campus housing for their students on this continent as far back as Colonial times. Harvard, established in 1636, added its first student housing in 1645, almost four-decades before the second college, William and Mary in Virginia, 1693, was founded. The colonial educational model, later the America model, followed the traditional English archetype, where students and educator(s) lived and studied together. Community colleges have been in existence for approximately one-sixth the time of what we now know as, four-year institutions. This is reflected in the quantity of literature found on on-campus housing. Less than ten studies of on-campus housing for two-year institutions were found, while there was extensive literature for four-year institutions.

Four-year colleges. The Urban Design Lab found evidence of extensive literature for four-year institution on-campus housing relating to issues ranging from benefits, drawbacks, governance, and operations. The literature pertains almost entirely to four-year institutions (Pascarella and Terenzini 2005; Moeck et al. 2008). In both the 1991 and 2005 volumes Pascarella and Terezini's How College Affects Students: A Third Decade of Research, the authors references more than 524 (1991) studies on the effects of residence halls on students in four-year institutions, out of 2,600, the 2005 volume included 176 references to such studies. Moeck notes, "[that] none [of the studies] made reference to community college housing (Moeck et al. 2008).

The literature search for two-year institutions yielded quite the opposite in the quantity of sources found. In one article investigating student perceptions of the academic environment in residence hall on community college campuses, the UDL found "[that] in contrast to four-year colleges no research has been conducted on two-year campus [housing] as of 1998 (Murrell et al. 1998)."

Two-year colleges. A review of the literature has revealed several studies germane to on-campus housing at community colleges. One study, used from the 1980s until1992, reported the result of CEOs at 244 community colleges. The findings were published as a chapter in a 1987 report issued by the members of the American Association of Community and Junior Colleges' Rural-Small Colleges Commission (AACJC). The survey, created by Summers and Budig of Vincennes University, reported that a third of respondents who operated residence halls were coed, with an average of five hundred beds per institution. Roughly one half of the 77 colleges surveyed offered housing specifically for student athletes; 17 were dedicated to married student housing; and 12 were for international students (Summers and Budig 1988).

Three doctoral dissertations focus on community college housing. Doggett's study (1981) attempts to learn whether or not community colleges had a logical philosophy related to the roles of residences halls in education and student development. The second, by Catt (1998), focuses mainly on student development theory and how it translated into attitudes and policies that enable student's ability to learn. The third dissertation, by Moeck (2005), built upon these other studies and added questions intended to examine issues related to residential life on community college campuses. Moeck's follow up research on motivation and benefits of on-campus housing on two-year campuses is most relevant to this study.

Motivation and benefits. The UDL felt that it was important to understand some of the motivations of, and benefits for community colleges to develop and offer housing on their campuses since the results of this project yields plans for housing and further development on institutional land. A 2007 survey of community college leaders found five motives behind rural community college leaders reasons for getting involved with on-campus housing (Moeck

2007).

1. The top reason why colleges offer on-campus housing is in commitment to reducing geographic barriers to access.
2. Residential housing allows the college to serve students who live a long distance from the campus.
3. Rural community colleges also offer housing in order to increase the number of full-time enrollments.
4. To attract minority students.
5. To attract student athletes.

In addition, the student services that are offered to full-time residents also become available to commuter students who attend on either a full- or part-time basis. For these institutions, then, on-campus housing allows the college to offer a collegiate experience that includes a broad mix of programs and services that otherwise would be unavailable (Moeck 2005).

In her 2005 published doctoral dissertation, Moeck first pointed out the potential positive financial impacts on-campus housing could have on two-year college campuses (Moeck 2005).

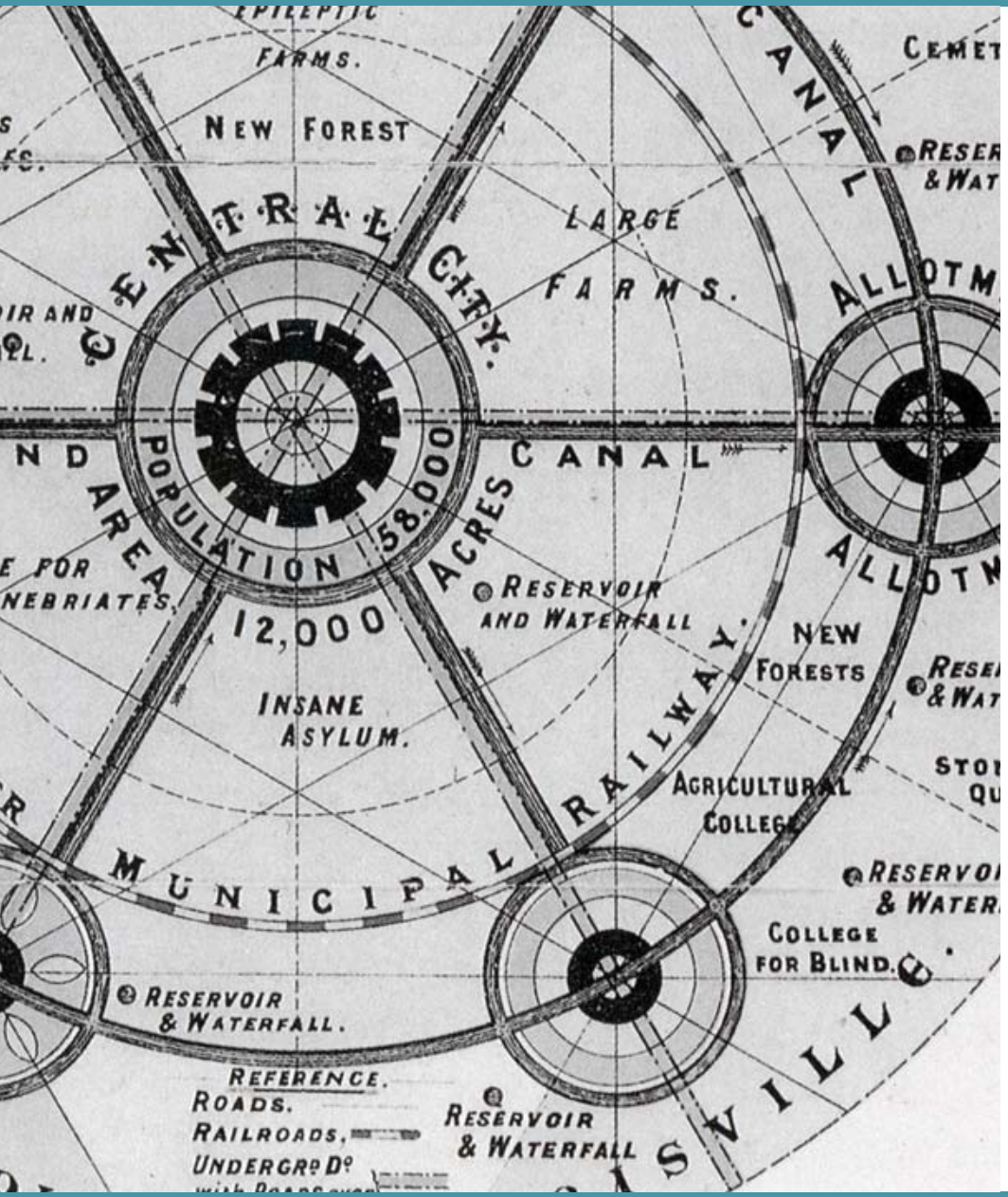
Moeck's research and survey relyed on U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS) survey data focusing on residential living at rural community colleges. Of the 117 usable responses, "27 (23 percent) were small rural institutions, 75 (64 percent) were medium rural institutions, and 15 (13 percent) were large rural institutions" (Moeck et al. 2007). Her research found that 74% of respondents reported that on-campus housing "provides a positive impact on institutional finances" while lowering transportation costs to communting students.(Moeck et al. 2007). Only a small percentage of respondents answered the question inquiring about how much money was generated by their on-campus residences halls. "Of the thirty-two that did respond, the average revenue generated...exceeded $1 million per year." Moeck reports that since IPEDS 2000-2001 reporting indicated average total current funds revenues for all small, medium-sized, and large rural-serving colleges was roughly $10 million, $20 million, and $48 million, respectively (Hardy, 2005)., this may be highly significant since for small rural community colleges housing revenues may make up 10 percent of total current funds revenues.

Moeck postulates that this significant revenue stream may be the reason "why half of the rural community colleges responding to [her] survey indicated that their institutions were considering constructing new housing (Moeck, 2007)."

Dreaming of a new community college model. There are many forces upon community colleges that are influencing the rapid adaptation that we see today. The integration of contemporary innovations of on-campus housing

and sustainable initiatives coordinated within new facilities planning is, and has been, creating vibrant, active, educational settings that help create a milieu of collaboration and community. The Urban Design Lab postulate that by blurring the boundaries between corporate, academic, living, and learning, we have the opportunity to dream up a new development typology; to capitalize on community college's existing portfolio of land, while earning additional revenue and amplifying the quality of the user experience (Harrison, Wheeler, and Whitehead 2004). The next chapter will explore the evolution of human settlement and how social, environmental and economic conditions are reshaping the American campus paradigm.

Image: Diagram of "Social Cities" from Ebenezer Howard's To-Morrow: Garden Cities of To-Morrow.



Chapter Two

Perpetual Transformation

HUMAN SETTLEMENT

The creep of urbanization has defined the American landscape. Throughout recorded history, it has been human nature to push beyond the tamed, inhabited land into the unknown. Examples of this can be found in pre-civilized times when indigenous civilizations followed seasonal climate patterns to survive; in the fifteenth century when explorers set off across land and sea in search of new trade routes; and in America, where moving outside of the village, town or city was considered stepping out into the wild frontier.

This chapter recognizes the influence automobiles have had on the pattern of urbanization, and build upon the three contemporary innovations identified in chapter one by exploring the concept of crossover communities. This chapter sets out to outline the changing university and college paradigm.

Early civilization. In the long history of human settlement, people traveled to and from seasonal villages, following the patterns of subsistence in order to survive. Survival was a constant struggle due to fluctuation and dispersal of the population spread over large areas (Jenkins, Connelly, and Aikens 2004), climactic change, unpredictable food sources, and subsistence farming (Fagan 2005). As climactic settings became more favorable over longer periods of time, civilizations became more sedentary, allowing for increases in social and cultural complexities (Fagan 2005). This, in turn, allowed population rates to rise and communities quickly outgrew themselves. Large segments of social groups moved to outlying areas, creating a network of new trade routes along the way. Can you imagine congestion on the trade routes of early civilization? By extrapolating this example of population growth and community expansion over the last hundred and fifty years, it becomes easier to visualize how city growth and transportation patterns formed in this country.

Industrialization. The rapid industrialization of America in the late 1800s is one instance of this growth and expansion pattern. Trains and trolleys became more widespread, people began moving and living outside of the traditional city, to what later became known as sprawl and could be seen in the form of satellite cities. Satellite cities are defined as socially and economically independent cities that are physically separated by rural land (Davis 1965). In an attempt to circumvent the harsh conditions found throughout English cities in the 1840s, American industrialists like George Pullman (1880), and Walter Kohler (1913) developed entire cities, called company towns. By using a similar framework of European industrialist Robert Owens at New Lanark in Scotland and in New Harmony in the United States (Johnson 1971), Pullman and Kohler attempted to create towns that were, in fact, great social experiments (Benevolo 1967; Gillem 2001). But this was nothing new in America. Dutch Mennonites, French Labadists, and English Quakers left Europe for religious freedom in the New World, all preceeding the company town. Social experimentation is synonymous with the New World and laid the foundation for the greatest of social experiments:

America (Benevolo 1967). These men were trying to balance the moral and economic instability that follows rapid industrialization. A common thread that runs between these men and their experiment is the development of a town, away from the city and rife with abundant resources, clean air and land. The nineteenth and twentieth century company town - found from St. Louis to Chicago to New York (Taylor 1915) is an example of a type of early satellite city that can now be seen on the outskirts of all American metropolitan areas (see figures 2-1 and 2-2). The UDL addresses company towns in this project because of the locational similarities they have with contemporary community colleges: sitting on the fringe of metropolitan areas with their single use industrial or educational focus; and the potential for community colleges of the future - where institutions could meet the daily needs of the community on sites that are home to cafes and restaurants, housing, parks and recreation, along with other opportunities for retail and commercial supporting services.

Automobiles plus roads equals sprawl. In the 1900s, the automobile provided individuals the means to travel long distances, away from constricting rail and trolley lines. Instead of coming together in city centers, people firmly grabbed hold of the autonomy the automobile afforded them (LeGates 2007). The chance to get away allowed the automobile consumer to get out of the soot filled air of the urban realm; breath the fresh air of the wildness; and feel the proverbial wind in their hair, swept the countryside.

The mass production of the automobile caught the collective imagination of the nation, and the forces of urban development began to pick up speed. As quickly as roads were built, their capacity filled and level of service diminished. The roads were widened and again came to capacity (Pisarski 1989). By the 1950s, the unprecedented urbanization of the countryside was in full swing. With the help of veterans' war savings and developments like Hicksville, New York and Levittown, Pennsylvania, the dream house replaced the ideal city with the spatial representation of the American Dream: the suburb (LeGates 2007; Hayden 1984; Brower 1989) (see figure 2-3). The phrase, "urban sprawl" became a household term between 1945 and 1980, due to the tendency towards scattered developments (Hayden 1984). Separation between uses, and the need to expand infrastructure networks to support the spreading urban form consumed massive amounts of land otherwise available for farming, forests and open space. Many states have

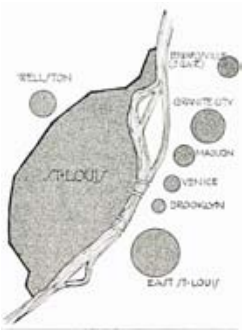


Figure 2-1
The city of St. Louis and its surounding satellite cities

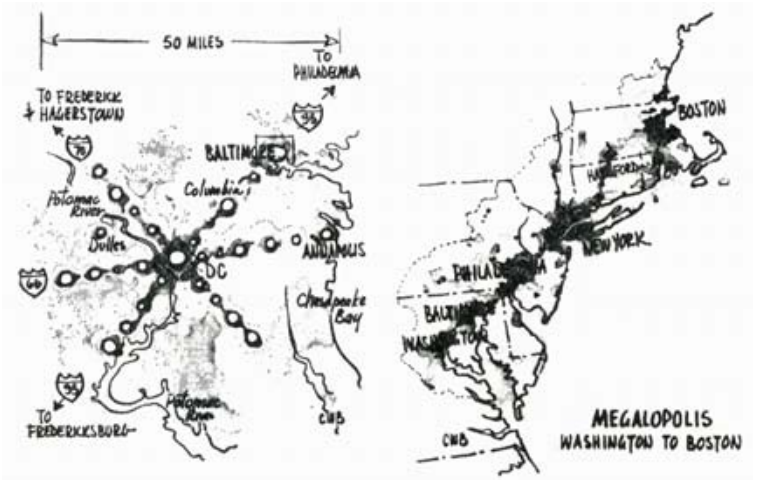


Figure 2-2
Satellite cities merging along the eastern seaboard.

Figure 2-3
Levittown, Pennsylvania.
Image at biocrawler.com.

taken action to try to contain such expansion. One example can be found in the State of Oregon and its statewide planning goals and urban growth boundaries (UGB).

REPRESENTATIVE FRINGE DEVELOPMENT

Oregon's Statewide Planning Goals (OSPGs), adopted in 1973, provide state-mandated guidelines for local development policies. Goal 14, of the OSPGs, deals with Urbanization: requiring incorporated cities to establish an urban growth boundary "to identify and separate urbanizable land from rural land [with a] 20-year supply of land for future residential development inside the boundary (Oregon Land Conservation and Development)." While the rules governing the Oregon planning system are rigid and refer to "efficient" and "compact" development, it does not legislate strict standards or specific development patterns.

This is where Lane Community College comes into the picture. A majority of community colleges were constructed on the edge of metropolitan areas and near highway interchanges across the country (Parker and Smith 1968). This pattern reaches back to early American colleges (Turner 1984). Many schools continue this pattern and now either sit on the urban fringe of these developments or have been completely encircled by development. The identification of an alternative pattern for urban living starts with the suitable and appropriate location of a site. Such newly created communities use land efficiently and employ environmental technologies to maintain a healthy flux between ecological and human habitat.

This section focuses on land that is located at the edge of a metropolitan area and adjacent to a major interstate highway. This site typology, which is pervasive throughout America, is developed at the edge because of the low cost of land. It is primarily designed to support vehicular access and, to a lesser extent, public transit; its focus is towards a single industry and is oriented around large parking lots (Parker and Smith 1968). In fact, the location of many community colleges highlights a suburban focus. As Andrew and Fonseca note, many community colleges are located near high volume roadways at the fringe of metropolitan American communities (1998). These campuses have poor connectivity to the metropolitan fabric and they typically do not integrate industries that support their mission on their land. These fringe developments enforce inefficient land use patterns, contribute to time lost due to congestion, and restrict transportation options. In light of the current eco-

nomic downturn, increasing transportation costs, a growing percentage of full-time students, and a parallel growth in full-time support faculty and staff at community colleges, the locational advantage these fringe sites provided could now be considered a disadvantage unless they adopt a new model for land uses and transportation access for the 21st century.

BLURRING THE BOUNDARIES

Representative metropolitan fringe single-use landholders are realizing their opportunity to capitalize on their landholdings. Four-year institutions have been linking teaching hospitals to their educational mission for years (University of Michigan, Georgetown University). More recently, four-year institutions have been coupling academic programs with outside or incubator businesses. Presently, over 60 campuses nationwide have links to retirement facilities, including Cornell University in Ithaca, New York; Dartmouth College in Hanover, New Hampshire, as do smaller schools, such as Lasell College in Newton, Massachusetts outside of Boston. These schools are taking advantage of their value as academic institutions to heighten the quality of their users experience and create an additional revenue stream (Freedman 2002; Harrison and Tsao 2006). So why haven't community colleges grabbed on to this model of crossover development? Harrison and Tsao (2006) assert the opportunities and possibilities of blurring the boundaries between "the corporate and the academic world " are ripe. They outline four catalysts that can help create crossover developments:

1. a mutual interests between college and private/public entities;
2. straight up property development to expand their revenue stream;
3. demand from developers looking for land;
4. response to fulfill an imbalance in the housing-to-job ratio.

When formulating plans to develop a crossover community, it is important to address the level of involvement a community college will have with the linking industry, business, or use. Some examples of crossover communities separate the educational mission from the incoming business, while other academic programs integrate the community, generating a mutually supportive environment where community members can integrate with students in open spaces, through academics, and through recreation. Businesses can also link with academic programs like restaurants and hospitality schools; retirement communities and nursing programs; theater and the performing arts; and renewable/alternative energies businesses and other academic programs.

FISCAL SUSTAINABILITY

Ingenuity is everywhere, and community colleges are not immune. Many schools are pursuing business-like approach-

Figure 2-4
A view of the courtyard at the Century Court Apartments. Image at centurycourt.com.

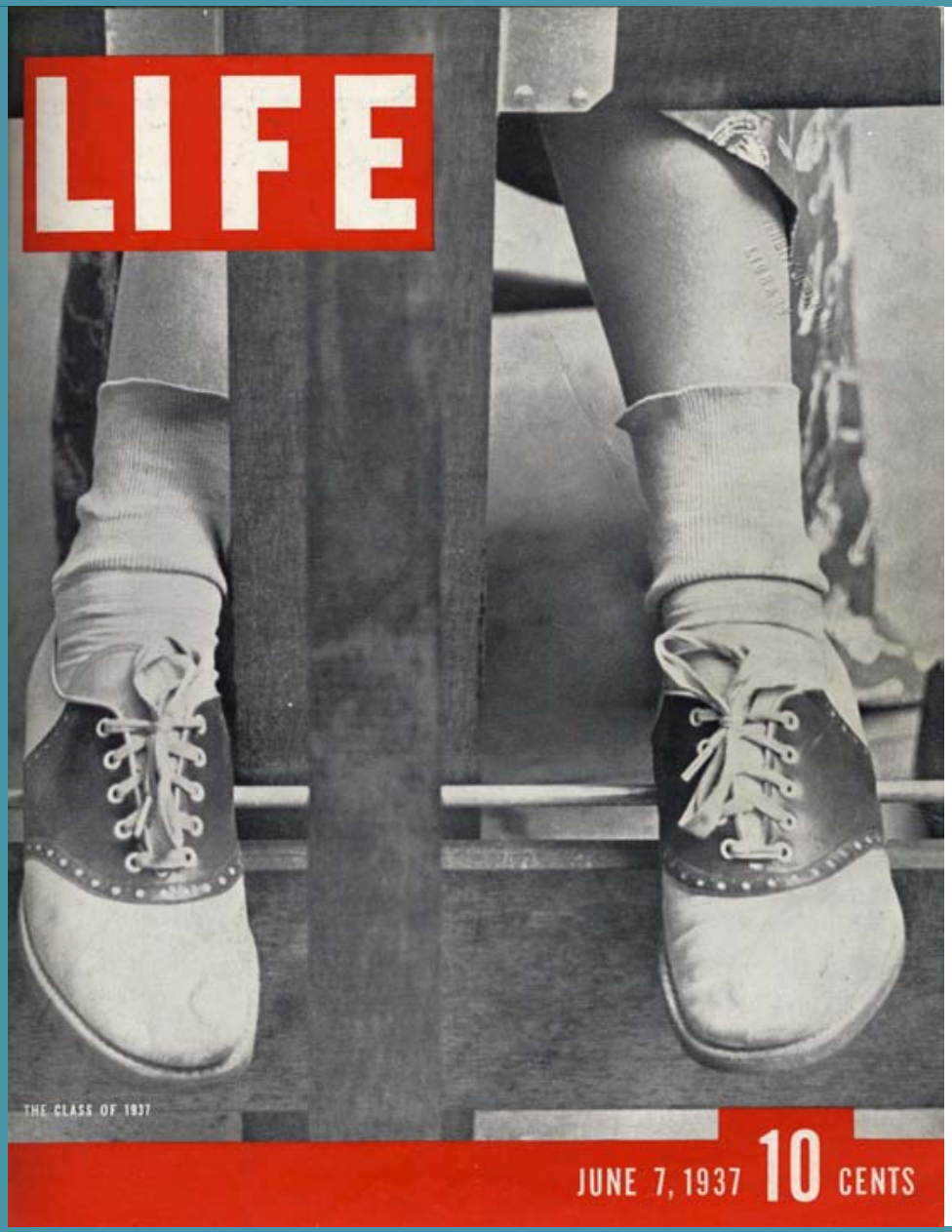
Figure 2-5
Brookldale Community College's Student Life Center. Image at http://brookdale.smugmug.com/.

es to improve efficiencies, trim costs and implement next-generation ideas to produce alternative revenue streams while keeping the mission of education in the forefront. Harrison and Tsao (2006) identify factors that allow universities to "capitalize on existing property to earn revenue." Again, this study only highlights four-year institutions and fails to mention the missed opportunity at two-year institutions.

Two examples of how contemporary community colleges are approaching funding issues follow. The first example looks at Collin County Community College's Spring Creek campus, where the school sold a parcel of land to a construction company who then bore all the cost for a new 296-bed complex (see figure 2-4). Through the schools fundraising foundation, the college shares in the profits that could be as much as $250,000 a year, depending on its occupancy rate. In this example, the complex is 98 percent occupied (Lords 1999). The second example looks at a self-funded capital project at New Jersey's Brookdale Community College (BCC) (see figure 2-5). BCC had capital needs and the state had no funds to meet them. Capital bonds were sold for construction of two new buildings that are both used as on-campus revenue generators. The construction of a new bookstore and student life facility was built with flex space that the campus could rent out when not in use. The additional revenue stream covers the debt service on the bonds, saving money for taxpayers. Other schools have found that start-up costs are nominal, because private developers are courting the college market (Lords 1999).

Ethical Use of Public Land. While there is a sufficient amount of literature for on-campus housing and crossover communities, most of it covers four-year institutions. Recently, some community colleges are looking into a divergent model of development. But, without adequate data on the topic, schools are hesitant to take action. Acting proactively, the creation of a living/learning/working environment on-campus would help to solve the age-old challenge of commuter colleges. Students will not just drop in to attend classes; they will linger, interact with peers and community members, and learn through collaboration and life experience, all while helping to mitigate the economic challenges that schools are presently navigating.

Image: Life Magazine, June 7, 1937. The entire issue was dedicated to universities and college life.



Chapter Three

The Campus Paradigm

> "…whenever ideological convictions were strongly entrenched in the educational curriculum, architectural continuity was consistently related to the institution's past preferences for architectural style or campus form. Whenever new educational concepts broke away from the main stream they were sure to be clothed in something new. Whenever institutions continued to hold on to the task of being the leading edge of thought, their buildings and campuses were as advanced or as retrogressive as their time."
>
> (Dober 1964)

In a comparison of college campuses to a city neighborhood or district, the diverse uses included on a campus are coordinated in support of the academic mission. And, as in a city, the whole of the campus is comprised of many pieces. The academic setting of a university or college is more than the sum of individual buildings or open spaces. They are a layering of lessons - passed along from Europe to America - in a long lineage of educational tradition. As noted in chapters one and two, growth of higher education in America is reflected in campus design. Periodic surges of campus construction can be linked to an influx of migration and increase in population (Dober 1964). Dober (1964) notes, "this generalization holds true for the Colonial era and for the cycle of population maturation [baby boomers], that began just after World War II".

The purpose of this chapter is not to provide an in depth study of the history of campus planning. Rather the objective is to pinpoint, define and diagram the different campus and building form typologies by presenting research on the history of campus development. I will then introduce one of three methods used in this project.

CAMPUS PLANNING TRENDS

European precedents. The medieval system of master and scholar, found in the guilds, form the basis of universities in Western civilization, setting forth the model for the Colonial college. This model can be traced back to Cambridge and Oxford. The Old World collegiate systems consisted of a grouping of separate colleges - usually endowed by wealthy benefactors - housed under a single university. The model of this university-college system was based on an even older model found at the University of Paris, both in curricula, which was firmly rooted in the dialectical analysis of the Christian doctrine, and the modus operandi. The students attended lectures by appointed teachers, but their housing was their own responsibility. At first, students sought lodging in the homes of the townspeople nearest the university, and then turned to renting entire buildings under the direction of a master. These hostels, or halls; are where the students ate and slept, but otherwise there was little educational framework. This room and board structure was quite common and by the mid-fifteenth century, Oxford had 70 such structures (Turner 1984). Over the next two centuries, the collection of buildings located at each

institution standardized, consisting of a chapel, a hall (for dining, lectures and other assemblies), scholars' and masters' chambers and accommodations for the head of the college, collectively forming the college. Their composition made up an enclosed quadrangle. This landscape element, shaped by the form of the buildings, created a living and learning environment that became "…the heart of the Oxford and Cambridge pedagogy" (Turner 1984; Thelin 2004).

In America: The early years. Nine colleges were chartered between 1636 and 1780, all with their common heritage from the Old World. The founders of the English Colonies knew the importance of education and had a desire to preserve the Old World intellectual and cultural traditions in the new. Additionally important to the founders was the feeling of permanence of the institution and the connection to the old ways in the New World. In the search for educational stability, colonists donated their homes and privately held libraries for the greater good of a growing population. Meanwhile, the English Crown intentionally held back funding for public spaces, parks, public works, cathedrals and public architecture, thinking there was no reason to invest in the vast wilderness. This included the architectural structures for higher education. The lack of funds available at this time was evident in the layout and architectural simplicity found at Harvard College (Dober 1964). Yet, this changed very quickly with the construction of a new building at Harvard, known as Old College (1638), the largest in New England. Some forty years later, Old College was replaced by the New College building (1674)

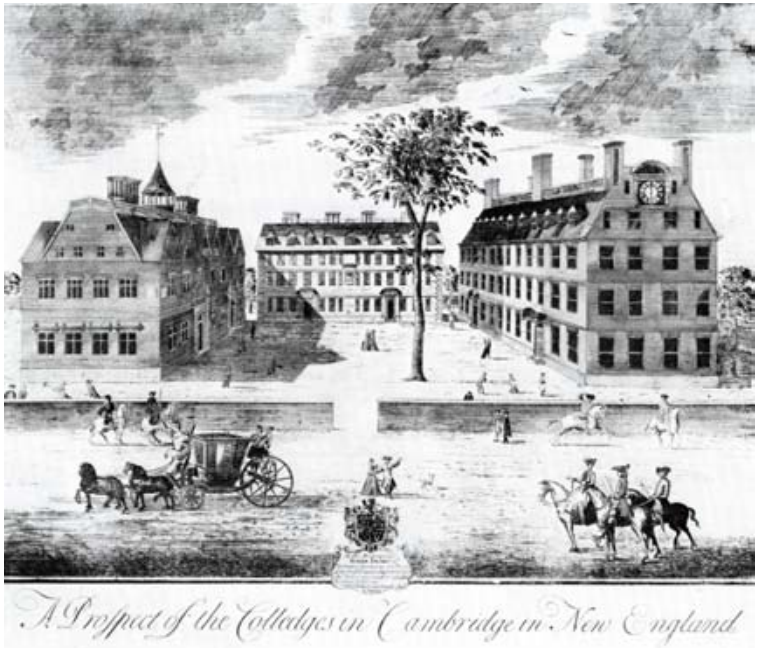


Figure 3-1
The New College Building. "A Prospect of Colledges in Cambridge in New England." Engraved view, looking east, by William Burgis, 1726. (Massachussetts Historical Society)

with a structure that was now the largest in the Colonies (see figure 3-1). The importance of education was clearly stated through this architectural anchoring (Dober 1964; Turner 1984; Riera Ojeda 1997; Thelin 2004). In 1753, Princeton University built Nassau Hall, then, the largest building in North America (see figure 3-2). If the importance of education was doubted at this point; in any way, it was surely solidified with the construction of this building.

A new nation. If the first phase of establishing the college is rooted in the size and form of buildings, then the second phase is rooted in the rapid expansion of the college. This is quite apparent post-Revolutionary War. In the first three-quarters of the 1800s, 281 colleges were

founded, of which 40 then ceased to operate (Thelin 2004). As demand for education rose, the incremental addition of individual buildings created, in some cases more formal spaces, and in others, less formal. Although colleges and the United States were in their infancy, innovation was rapidly taking place. The educational model and its physical form was changing in tandem with societies changing approach to education (Dober 1964; Turner 1984; Taylor 1990; Riera Ojeda 1997; Thelin 2004; Flynn 2008). The change in curricula, educational model, form and character are encapsulated in Thomas Jefferson's concept of the "academical village" at the University of Virginia (Riera Ojeda 1997). Built between 1817 and 1829, Jefferson's academic village represents the enlightenment attitude of education and that of a new nation (see figure 3-3). It changed the focus from the chapel, in the old world, to the library, in the new, as the center of learning. The physical characteristics of the traditional campus represent a more stable world in its axial, formal and balanced arrangement. It was intended to instill educational tradition during the cultural evolution in America. Although this traditional plan was not the first mall plan in the New World, it ultimately became the exemplar and the most popular form for the American campus.

Figure 3-2
College of New Jersey, Princeton's Nassau Hall. Engraved by Henry Dawkins, 1764. (Princeton University)

Figure 3-3
Jefferson's University of Virginia. Engraved by B. Tanner in 1827. (University of Virginia)

Rapid change. In the Colonial era, college founders thought that the placement of an institution of higher education in the country would rid the scholars of the evils of the city. But, by the mid-1800s, the appeal of nature transformed college planning. Fredrick Law Olmsted's concept of the pictorial and his emphasis of natural systems and the environment were taking hold. From 1856 through the 1890s Olmsted designed over twenty campus plans, which he incorporated serious architecture with the picturesque landscape. Examples of his designs are still evident at many schools including Stanford University in California and

Figure 3-4
Olmsted and Coolidge's master plan for Stanford University, 1888. (Stanford University Archives)

Cornell University in New York (see figure 3-4). Olmsted regarded his campus aesthetic as bestowing the liberal and democratic ideals of education at the time and included many of these principles in his plans. The weaving of community with the institution created less rigid (formal) landscapes and hence, created a new campus form – the naturalistic park. Olmsted gave two reasons for his divergence from the rectilinear, rigidity applied to universities of the time. The first was to arrange the academic buildings in a way that would create harmony with the characteristics of the connected neighborhood, and the second allows for the flexibility needed for future growth. And this growth came rapidly by the close of the Civil War.

A new tradition. The last half of the nineteenth century saw a tripling of enrollment in thirty years – 70,000 students in 1870 to 238,000 in 1900. By the turn of the century the American university increased in size and complexity (Turner 1984). As the campus called for a more organized strategy, the notions of the picturesque slowly faded and made way for the Beaux-Arts style of architecture. The Beaux-Arts tradition was brought to the attention of the populace through Daniel Burnham's 1893 Columbian Exposition - uniting the symmetrical organization of a plan through axes, open and closed spaces, and grand vistas. The most prominent idea of the Beaux-Arts style was the overarching unity and balance it could bring to a plan that incorporated different uses on the same site. This was particularly important because of the needed ad-

ditions to buildings and expansion of the sites. At this point in campus planning, many universities had evolved from their formal beginnings and were now grasping at Beaux-Arts style as the catalyst to transform back into formality. This concept influenced many planners and schools, including Henry Hornbostel's formal plan for Carnegie-Melon University and later the University of Pittsburgh. The latter is known for its unusual rows of buildings climbing up the hilly site. This tiered effect led to the suggestion of "an academic acropolis", a "citadel of learning" (see figure 3-5). Again, the architectural style reflected much of societies values and views on life. Although an emphasis on the built form was back in the forefront, the formation of landscape elements was still of central concern and the relationship between that of the built environment and the human environment was of utmost importance.

Accommodating growth: part deux. American popular culture assisted with the rise of the modern university. Widespread coverage of the academic lifestyle - through journalism, literature and branding of the school- helped create cultural norms that would bolster enrollment, camaraderie, and especially introduce the idea that socioeconomic mobility, earning power, and social standing were all attainable through a proper education (Thelin 2004). The need to accommodate this growth was met with the implementation of the overall plan – the master plan. Although the use of a plan and the implementation of planning were already widespread, it became ubiquitous in university design after Olmsted and Burnhams' collaboration on the Columbian Exposition and the Chicago Plan. This is evident from the number of plans produced and the number of buildings being erected, especially after the turn of the century (Turner 1984). The University of Illinois constructed less than one building a year prior to 1900, but would average two buildings a year from 1900-1910, and over four per year in the next decade (Leetaru). The pace of construction of other institutions nationwide is comparable. Academics note that this fast growth led to large, complex campuses that quickly supplanted the close relationship

Figure 3-5
Hornbostel's "academic acropolis"., 1908. Although the plan was not completed many of the lower buildings were constructed and are still used today. (Architecuteal Review, July 1908)

between professor and student. Many educators desired a return to the traditional American college - "…an intimate community of undergraduate students and teachers, with shared intellectual and social values, emphasizing the development of character or culture more than the learning of trades" (Turner 1984). The intimacy of the academic village returned, manifested in the Medieval English quadrangle. Although the Medieval quadrangle had not been a big part of the American campus, beginning in the 1910s, the intimate quadrangle reinforced the idea of the residential college – centrally located and easily governed. (see figure 3-6). The quadrangle captured the ideals of the time and helped establish collegiate traditionalism (Turner 1984).

Between World War I and World War II, the national commitment to educational accessibility to colleges and universities resulted in an increase of enrollment from 250,000 to 1.3 million people (Thelin 2004). The American campus continued to be a major source of interest and intrigue to the American people. This could be best seen when Life magazine devoted its entire June 7, 1937 issue to the American campus (chapter three cover image). The summary of this transformation is as follows:

> This growth has moved the centre of educational gravity from the Atlantic seaboard to the Middle West. It has made 80% of higher education coeducation. It has changed the campus from a scholarly retreat to a new and fabulous design for four year living. It has caused colleges to expand and multiply until their mere brick and stone is worth two billion dollars [$23.9 billion in 2000 dollars]. Behind this vast investment is tremendous faith in the benefit of higher education. This faith is a cornerstone of any democratic philosophy, the pith and kernel of what writers since Jefferson have called the American Dream.

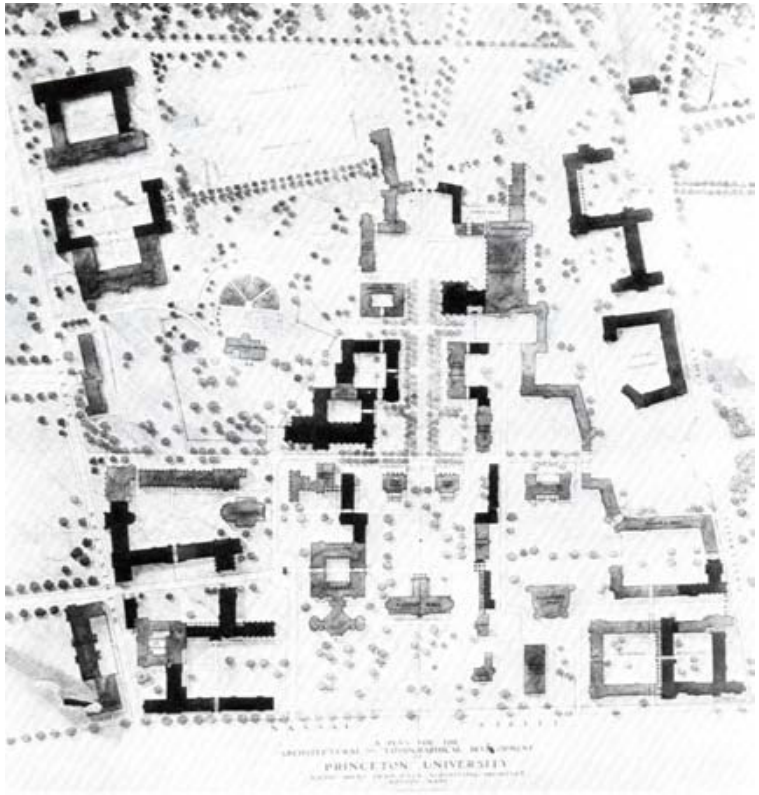


Figure 3-6
Development plan for Princeton University by Ralph Adams Cram, 1906-1911. Dark structures are proposed, light existing. (Princeton University Archives)

With the onset of America's involvement in World War II, resources and participation in the development of universi-

ties and colleges waned. But, by the end of the war, another burgeoning era of college expansion resumed. With help from funding distributed through the GI Bill, and pressure on the growing youth population to further their social status, enrollment expanded rapidly and campus growth ensued. The utilitarian, factory-like campus form reflects the post-war and economic optimism about technology and the future. This continued into the 1960's with another rise in enrollment as the baby boom generation entered the realm of higher education..

DEFINING FORM AND CHARACTER

In the relatively short history of community colleges, no era has seen the unparalleled growth of the late 1960s. At a 1967 conference sponsored by the College of Architecture and Urban Planning and the Center for Development of Community College Education at the University of Washington, the American Association of Junior Colleges presented a list of over two hundred new community colleges, all in the development process, and planning to open between 1967 and 1970. Unlike existing four-year institutions, having been constructed and invested in over time, the community college model has been developed from scratch; and in many instances, facilities capable to accommodate thousands of faculty, staff and students were constructed in a single phase. Like four-year colleges, community college designers looked to the past for precedents to generate their character and form. C. William Brubaker describes the American campus' attributes and credits their design and development to three factors:

1. Site: the landscape is vast and varied and no two locations can be exactly the same, hence no two plans can be exactly the same;

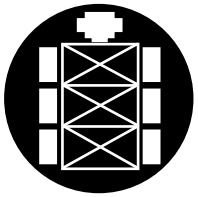
2. Education program: outside of the traditional educational components, i.e. math, history, science, etc; each school has its own needs based on community characteristics, broad social needs and niche markets, [i.e. renewable energies, gunsmithing]; and

3. Age: all four-year institutions have their own architectural form and aesthetic due to the range of time they were built and what the popular ideas of architecture were during that time. Most two-year schools were developed all at once, under the one popular form and aesthetic of the era in which it was built.

The Urban Design Lab agrees that Brubaker's three form generators – the unique nature of site, education program and age – influence each and every campus. By comparing research in this chapter with existing literature on the planning and design of junior and community colleges from the 1960's, the UDL has composed a series of icons based on campus characteristics and building typologies highlighted by Brubaker.

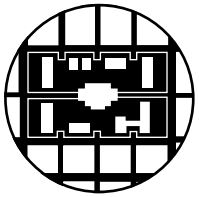
CAMPUS CHARACTER

Building and landscape form dictates campus character.

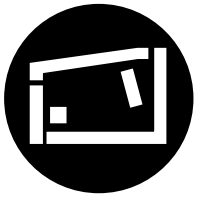


Traditional: axial, formal, balanced

Naturalistic: informal, set within the landscape



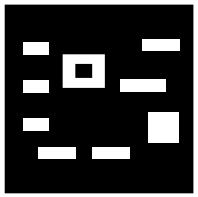
Urban: geometric grid, city within a city



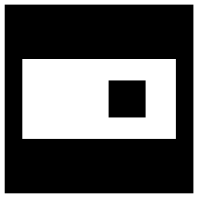
Quadrangle: enclosed space, surrounded by continuous structures

BUILDING TYPOLOGY

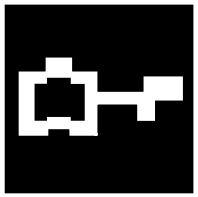
Both site and program influence building form.



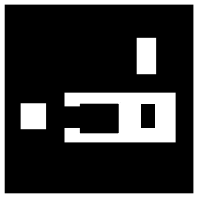
Compartmented: independent structures, departmental separation per structure



Compact: mega-structures, all in one



Continuous: close departmental relations, flex spaces, uninterrupted circulation



Composite: combination of two or three building types

COMPARATIVE MAPPING

To better understand the design needs for the community college of the 21st century, existing community colleges, and physical characteristics of regional schools needed to be identified and compared. A modified comparative analysis method employed by Michael Southworth (1995), in his study Walkable Suburbs, and Ayers Saint Gross Architects (ASG), in their study titled Comparing Campuses (1998-2000) will be particularly appropriate. The analysis describes and evaluates the colleges by combining ASG and Southworth's comparative models looking at:

- Built form - showing the footprints of all campus structures and adjacent developments; including roads, parking lots/spaces and pedestrian pathways through figure-ground graphics.
- Access - showing distance and accessibility throughout campus shown through figure-ground graphics.
- Layout and character – expressing the quality and character of the campus.

In addition to studying the form, circulation, access and character, the analysis compares each community colleges' facts and figures to compare the proportions or scale of community college campuses:

- Campus Population: full time equivalency students (FTES), total student population, number of faculty and staff, total campus population;
- Campus Housing facts: number of dorms and bed count;
- Campus Land Use: number of buildings, gross square footage, acreage of land holdings, floor area ratio, number of parking spaces, and acres of parking.

I will also attempt to link Brubaker's campus characteristic and building typologies from the previous section by assigning one or more icon from both the campus characteristics and building typologies to each campus.

Community college selection. Selection of each community college was based on characteristics that best met the ideal conditions discussed with the local community college, LCC's, representative(s). The selection process was carried out by an internet search to compile a complete list of regional community colleges in Oregon, Washington and Northern California. An examination of each schools' website excluded schools that did not have a housing component on or in association with their campus. To complete the initial selection process, a review of aerial photos was used to assess the school's land-use pattern, proximity to the urban fringe and closeness to a major highway. In the fall of 2009, twenty University of Oregon architecture, landscape architecture, and planning students made visits to thirteen community colleges. The students produced precedent studies that have helped inform the analysis

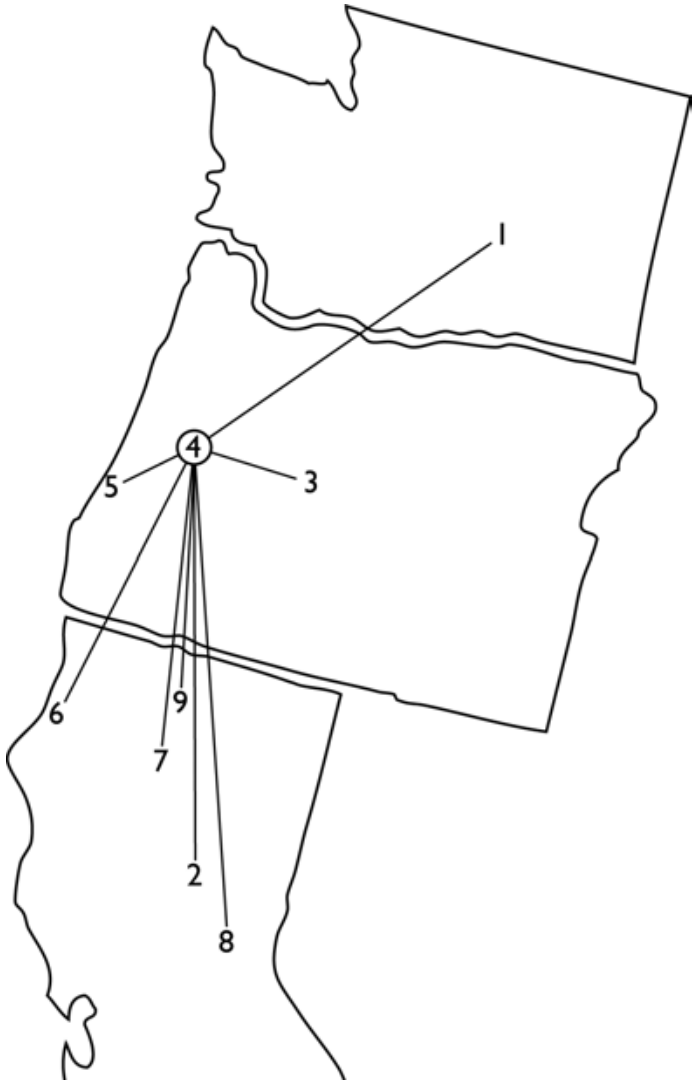
of each school. The sites were studied to glean lessons learned from them that can contribute to the creation of a framework for the planning and design standards for the 21st century community college.

In the spring of 2010, the Urban Design Lab commenced a secondary examination of the thirteen community colleges to gather the data we would need for the comparative mapping process. Four of the schools were excluded from the final selection process due to a lack of data, leaving nine case study sites to compare, which included Lane Community College for comparative purposes (see figure 3-7).

Figure 3-7

Map Key

1. Big Bend Community College
2. Butte College
3. Central Oregon Community College
4. Lane Community College
5. Oregon Coast Community College
6. College of the Redwoods
7. Shasta College
8. Sierra College
9. College of the Siskiyous



BIG BEND COMMUNITY COLLEGE

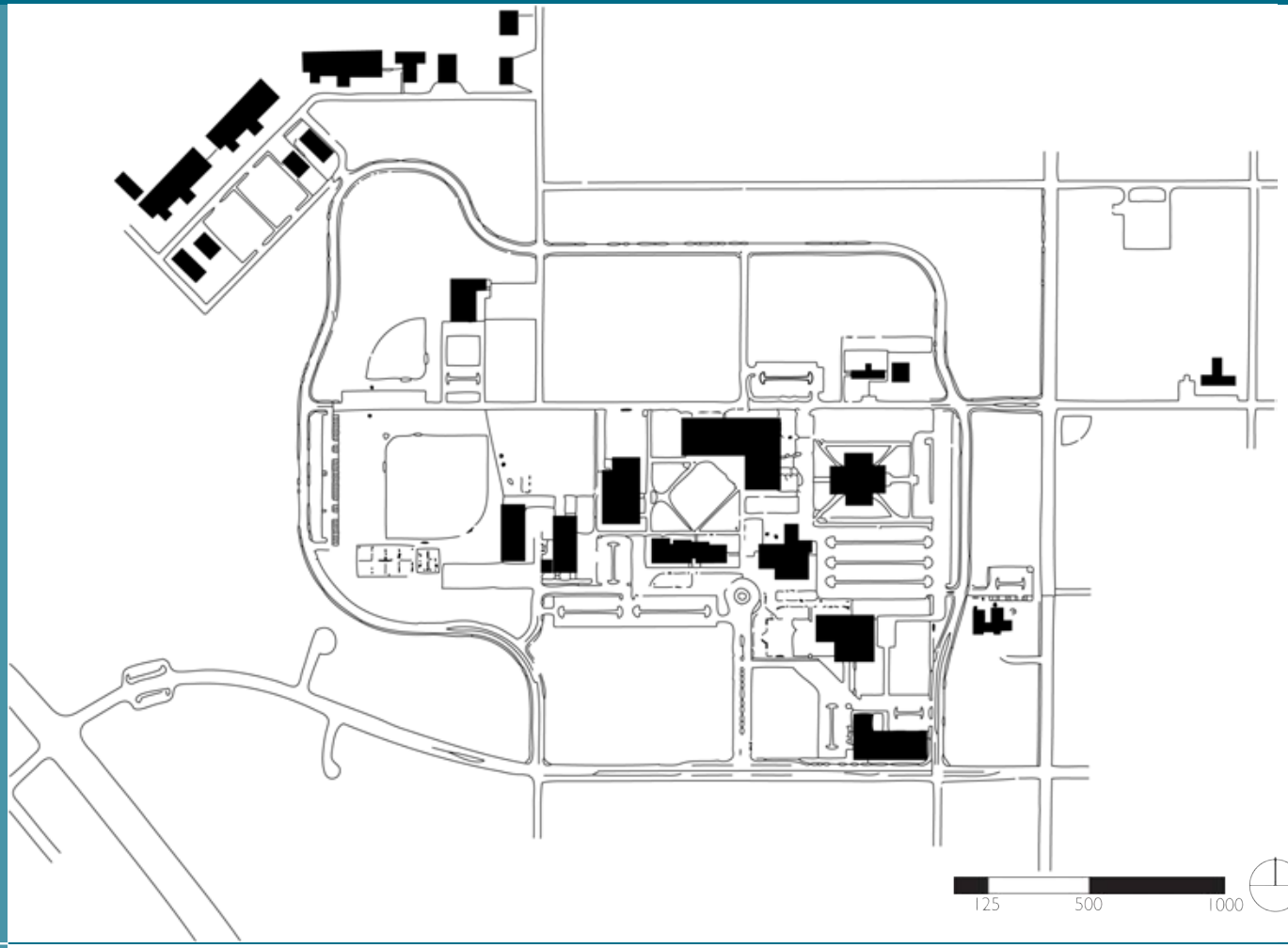
Moses Lake, Washington Founded: 1962

LAYOUT AND CHARACTER

Big Bend Community College (BBCC) acquired the 159-acre former Larson Air Force Base in 1966, and in 1975, it became the permanent college campus for all programs. Grant County International Airport is located to the north of the school. To the northwest, the land is undeveloped, non-irrigated open space. And to the south lays the city of Lake Moses. BBCC is situated two blocks north of the Moses Lake's nearest residential neighborhood and directly east of Coulee Corridor, otherwise known as Route 17. The remaining land surrounding the college is predominantly agricultural.

The prior use has significantly defined its physical layout and character of the school. The distance between buildings discourages students and employees from walking, particularly in the winter months. Big Bend's vehicular entrances are in-line with the city grid and lead to parking lots that front most buildings. The campus is surrounded by a ring road, enforcing the dominance of the automobile on campus and disrupting the urban grid. BBCC continues to use many of the old hangars and barracks from the base. Todd Davis, head of maintenance and operations explains the campus motto regarding retrofitting old building when he said, "that there is no permanent wall." This maxim helps explain why the hangar buildings are used for automotive, aeronautics and welding courses, and the barracks are used for dormitories.

Even with the reuse maxim, many buildings are prohibitively expensive to renovate. This has led to new construction in the core of the campus. The construction has begun to centralize facilities, enhancing accessibility and concurrently updating the look and feel of the campus creating a more welcoming aesthetic.



POPULATION

Full Time Students --- 1,914

Total Student Population --- 5,111

Number of Faculty --- 177

Number of Staff --- 267

Total Campus Population --- 5,554

HOUSING

Number of Dorms --- 2

Bed Count --- 240

Type --- Renovated Air Force Barracks

LAND USE

Number of Buildings --- 24

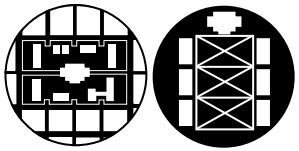
Gross Square Footage --- 462,134

Acreage of Land Holdings --- 159

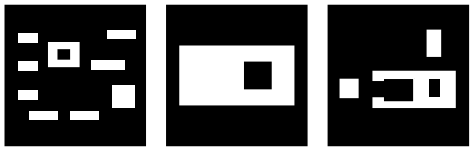
Floor Area Ratio --- .07

Number of Parking Spaces --- 1,632

Acres of Parking --- 16



CAMPUS CHARACTER



BUILDING TYPOLOGY

BUTTE COLLEGE

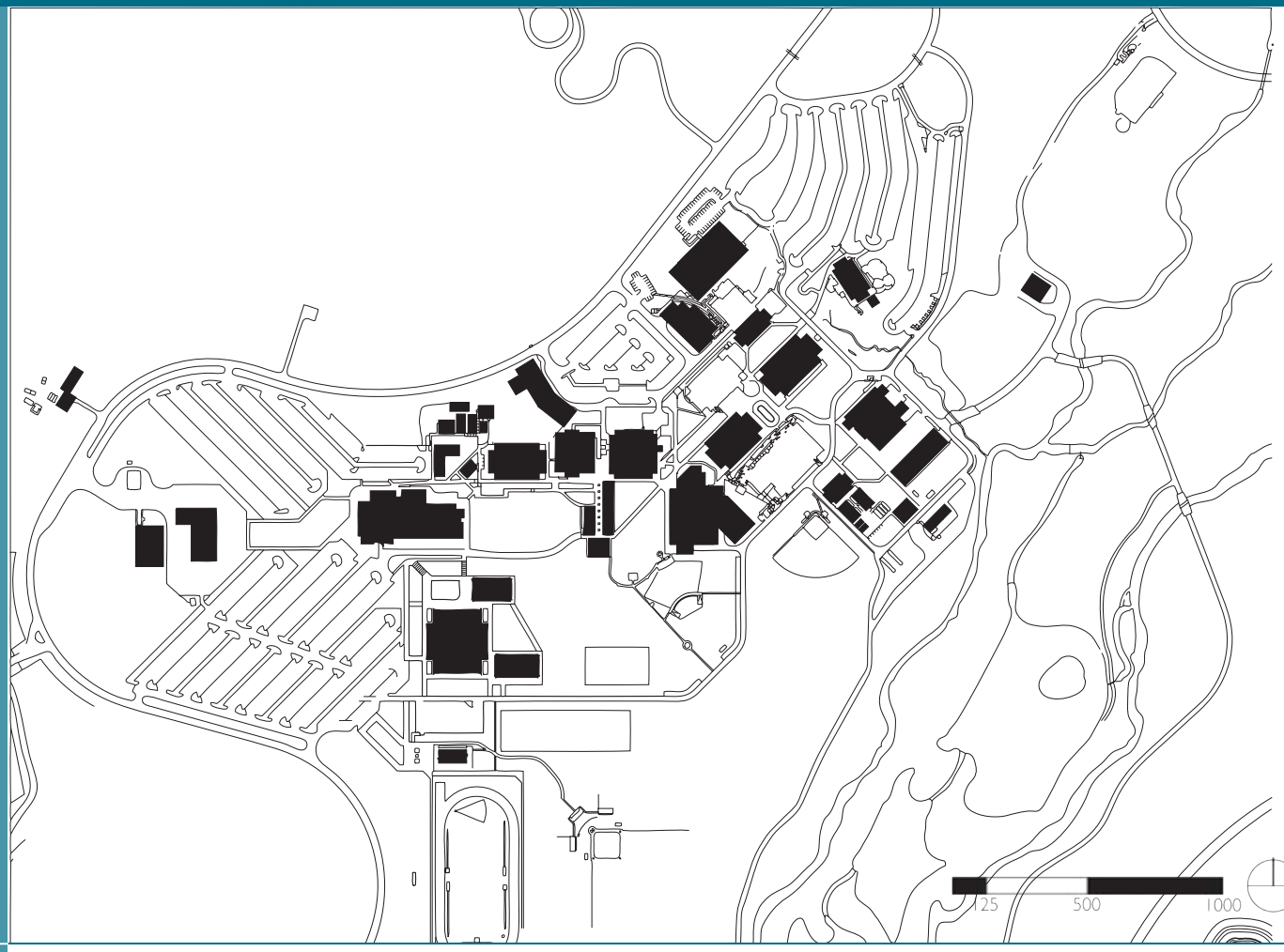
Oroville, California Founded: 1967

LAYOUT AND CHARACTER

The campus is located on a 928-acre wildlife refuge located fifteen miles south-east of Chico, California and is four miles east of Highway 99. Nestled within the Sierra Nevada foothills, the campus has a large change in elevation and provides interesting views in and out of campus. Many of the buildings are built into hillsides helping to break up large open spaces into intimate, human-scaled areas. In a location where temperatures exceed 100 degrees; shaded indoor and outdoor spaces are necessary.

Due to budget cuts in the late 1970's, only partial construction of the campus was completed. Butte College has met their 250% increase in enrollment with the use of temporary portable facilities; some of these trailers have been in uses for almost 40 years. In 2001, the Butte College community created educational and facilities master plans. The plans helped facilitate the award of an $85 million dollar bond measure and subsequent renovation of the Library (2007), the demolition of trailers as construction progressed and new buildings such as: the Public Health Center (2001); the Learning Resource Center (2004); the Arts Center (2008/$28.7m); and the Student & Administrative Services Building (2010/$22.3m).

As members of the American College & University President's Climate Commitment, Butte College has agreed to follow specific actions leading towards greater environmental sustainability. This is partly accomplished with over 10,000 PV generating almost 2 megawatts of DC electricity, on-site water treatment and energy plant. Butte has the largest community college transportation system in California, moving over 1,700 students a day. Despite the rural surroundings and with the help of new construction, the campus core feels quite dense and almost urban. The abundance of outdoor gathering spaces and wide sidewalks allows circulation to be unimpeded while groups congregate.



POPULATION

Full Time Students --- 10,812

Total Student Population --- 21,1833

Number of Faculty --- 746

Number of Staff --- 323

Total Campus Population --- 22,902

HOUSING

Number of Dorms --- n/a

Bed Count --- n/a

Type --- off campus

LAND USE

Number of Buildings --- 36

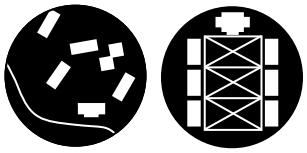
Gross Square Footage --- 740,000

Acreage of Land Holdings --- 928

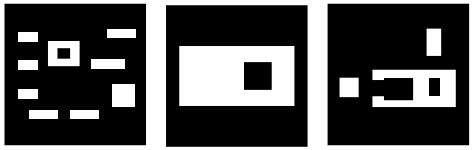
Floor Area Ratio --- .02

Number of Parking Spaces --- 2,172

Acres of Parking --- 217



CAMPUS CHARACTER



BUILDING TYPOLOGY

CENTRAL OREGON COMMUNITY COLLEGE

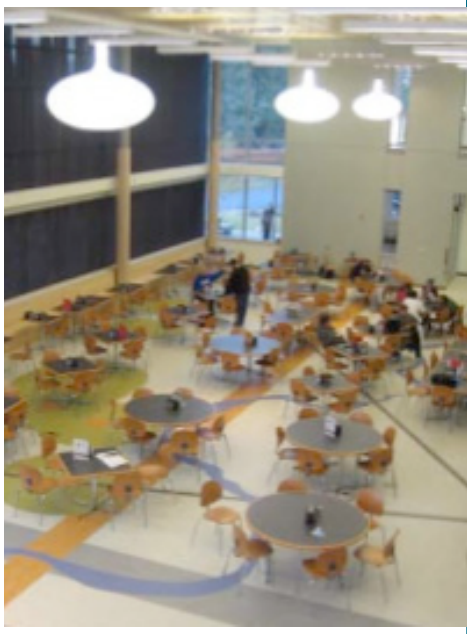
Bend, Oregon Founded: 1949

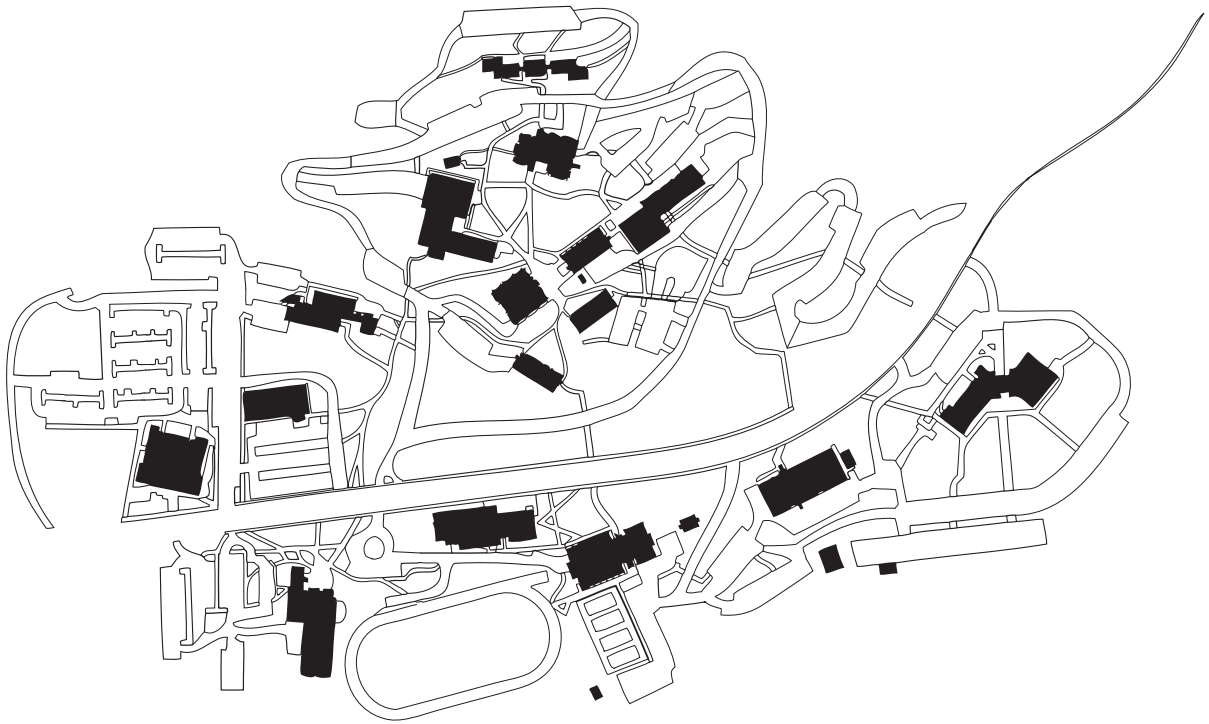
LAYOUT AND CHARACTER

Central Oregon Community College (COCC), voted most beautiful campus by Newsweek in 1960, lies in the high desert of Bend, Oregon. COCC is surrounded by single-family homes on all sides and is bisected by its main access road, NW College Way. Initial planning for the campus focused buildings near the summit of Aubrey Butte, where the slope is the fairly steep. This allowed COCC to take advantage of the magnificent views, but also created accessibility issues the school has been coping with ever since.

The upper campus - the steeper of the two – has more accessibility and way-finding issues than the lower campus, creating greater dependency on the automobile and auto related issues like parking and carbon monoxide emissions. Although many of the lots are smaller, they disrupt pathways, obstruct views and disburse outdoor social spaces. The sprawling organization of the upper campus diminishes the sense of a unified campus.

The lower campus, on the other hand, is flatter and offers COCC opportunities to address some of these issues. Recent planning efforts on the lower campus include a pedestrian thoroughfare along NW College Way that could create a better pedestrian experience; and a new campus center building that has created gathering and social space previously lacking, while focusing on a friendlier centralized campus core.





POPULATION

Full Time Students --- 4,160

Total Student Population --- 17,487

Number of Faculty --- 256

Number of Staff --- 184

Total Campus Population --- 17,926

HOUSING

Number of Dorms --- 1

Bed Count --- 102

Type --- Traditional

LAND USE

Number of Buildings --- 22

Gross Square Footage --- 434,000

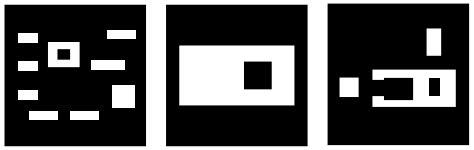
Acreage of Land Holdings --- 201

Floor Area Ratio --- .05

Number of Parking Spaces --- 1,908

Acres of Parking --- 19

CAMPUS CHARACTER



BUILDING TYPOLOGY

LANE COMMUNITY COLLEGE

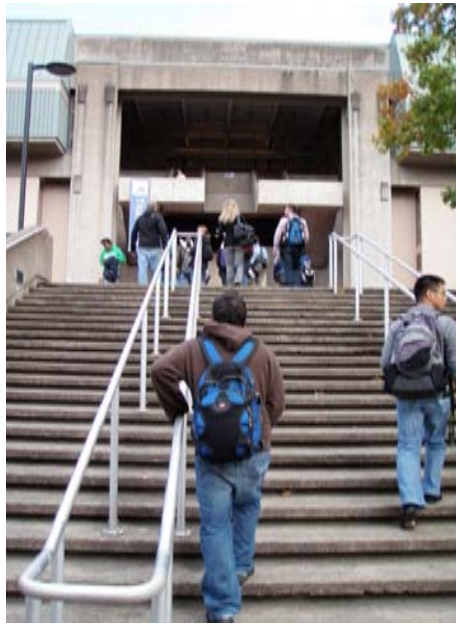
Eugene, Oregon Founded: 1964

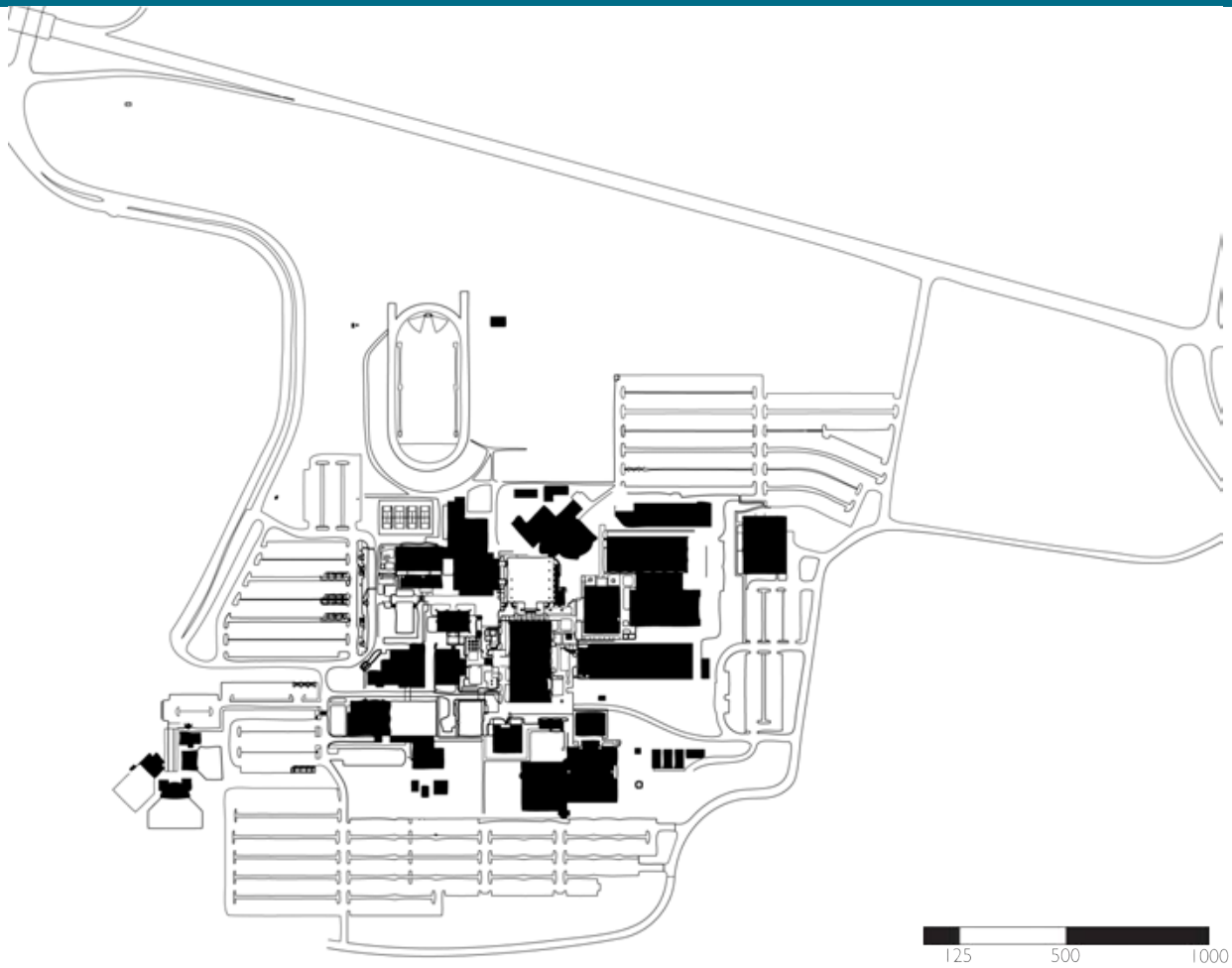
LAYOUT AND CHARACTER

Nestled in the south hills of Eugene, Oregon, Lane Community College (LCC) is home to over 36,000 students. LCC sits in the Russell Creek Basin and is surrounded by a mixed diciduous forest to the south and west. To the north lies a vast wetlands with 30th Avenues bisecting. Interstate - 5 (I-5) runs north south to the east with two parcels of land separating it from the main campus. Just beyond the wetlands are large lot single family homes, some commercial and light industrial business. LCC exists today much as it did when it was first constructed with several new buildings surrounded by a vast sea of parking.

LCC is located less than one quarter mile from I-5 and has two entrances, two of them located directly off 30th Avenue. The westerly most entrance has a serpentine boulevard that directs facutly, staff, students and visitors directly to one of many parking lots and the secondary 30th Avenue entrance is closer to I-5. A potential third entrance, although on maps was never realized and would split off from Eastway Drive at the intersection of Eldon Schafer Road, which could runs perpendicular to I-5 and connect with McVay Highway.

The college is built into a slope and therefore quite terraced. The design of the campus attempts to ameliorate this site constraint by tiering the campus into the hillside. The buildings were constructed in the Brutalist style of architecture, in French, beton brut, literally meaning raw concrete. Lane Community College is challenging to navigate and although set within a beautiful setting, is not aesthetically pleasing.





POPULATION

Full Time Students --- 13,316

Total Student Population --- 5,111

Number of Faculty --- 628

Number of Staff --- 478

Total Campus Population --- 38,005

HOUSING

Number of Dorms --- no

Bed Count --- n/a

Type --- n/a

LAND USE

Number of Buildings --- 23

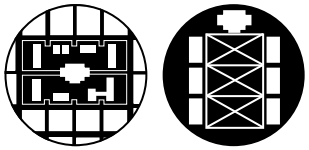
Gross Square Footage --- 1,141,011

Acreage of Land Holdings --- 330

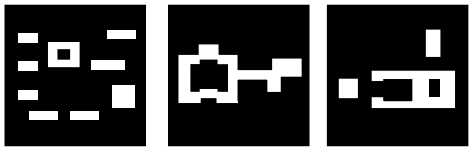
Floor Area Ratio --- .08

Number of Parking Spaces --- 3,230

Acres of Parking --- 32



CAMPUS CHARACTER



BUILDING TYPOLOGY

OREGON COAST COMMUNITY COLLEGE

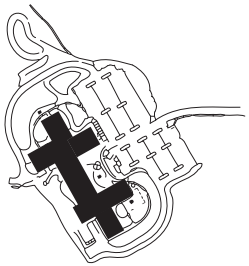
Newport, Oregon Founded: 1987, New Campus 2009

LAYOUT AND CHARACTER

Oregon Coast Community College (OCCC) has a brand new campus located in the coastal town of Newport, Oregon. It is nestled in the woods above the Yaquina River and surrounded by lush coastal forest. A bond measure passed in May 2004 funded the facilities. Prior to the transition to the permanent campus, OCCC leased facilities in town.

Currently, there is a single building that has been in operation since October 2009. The new building was constructed larger than the current services require, ensuring future growth. There is one entrance to the OCCC campus with one large parking lot capable of holding 200 vehicles.

OCCC is located next to Wilder, a mixed-use development that is under construction. The college and Wilder are developing simultaneously and with each other in mind. To create a more cohesive, livable environment the two entities have partnered to create a node of shops and conveniences that both the college community and the residents' of Wilder can enjoy. An Aquarium Science building, in the construction documentation stage of design, is the next building in the works at OCCC.



POPULATION

Full Time Students --- 500

Total Student Population --- 2,300

Number of Faculty --- 44

Number of Staff --- 40

Total Campus Population --- 2,384

HOUSING

Number of Dorms --- planned

Bed Count --- n/a

Type --- n/a

LAND USE

Number of Buildings --- 1

Gross Square Footage --- 80,000

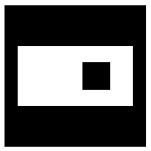
Acreage of Land Holdings --- 25

Floor Area Ratio --- .07

Number of Parking Spaces --- 200

Acres of Parking --- 2

CAMPUS CHARACTER



BUILDING TYPOLOGY

COLLEGE OF THE REDWOODS

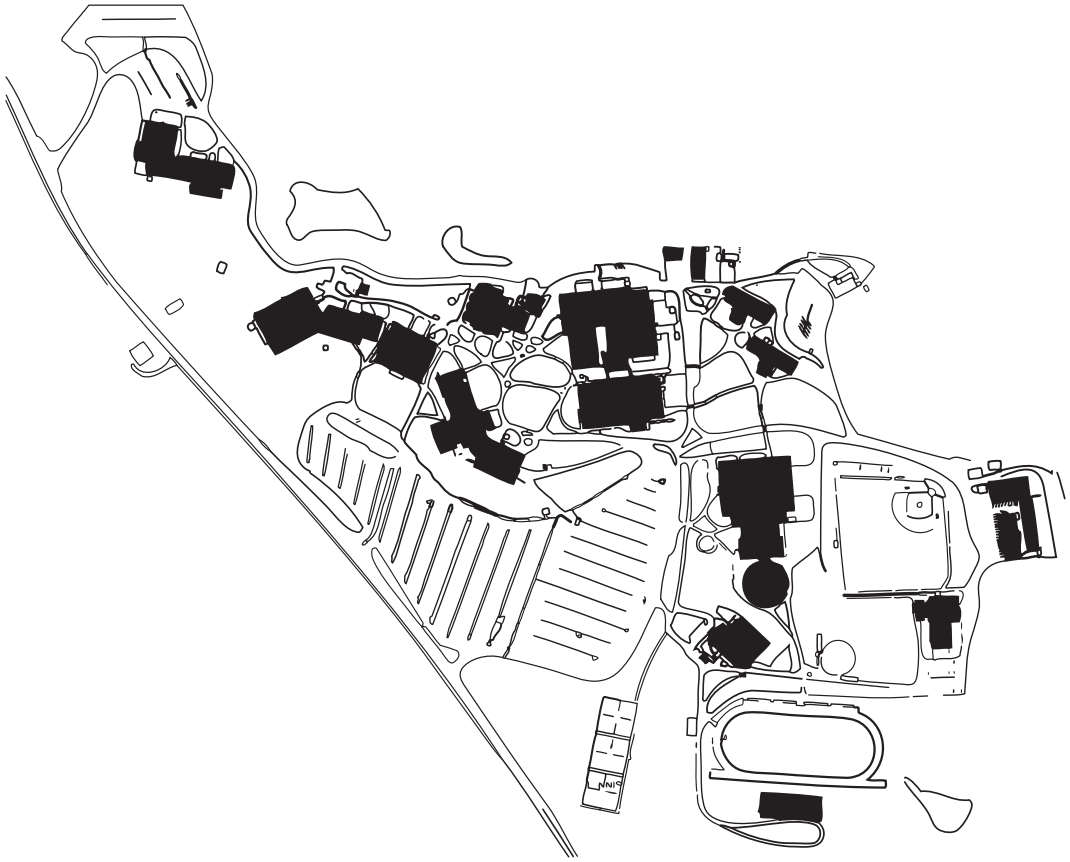
Eureka, California Founded: 1964

LAYOUT AND CHARACTER

The campus is located on a 334-acre site, approximately seven miles from the city of Eureka. Nestled below the redwood forest, the campus has expansive views to the water. College of the Redwoods has been developed over time and creates a cohesively designed environment.

A modern Learning Resource Center, constructed in 2002, fits well aesthetically with the older facilities and surrounding campus. The rolling topography of the existing campus, along with the spread-out facilities, creates a campus that is somewhat difficult to navigate.

There are three entrances to the Eureka campus, all from Tompkins Hill Road. The majority of parking is located on the south side of the campus with some smaller lots on the north side. A new entry drive and pedestrian drop-off was developed in 2009, which improved access to the campus and to the proposed new Student Services/Administration/Theatre building.



POPULATION

Full Time Students --- 7,518

Total Student Population --- 14,084

Number of Faculty --- 332

Number of Staff --- 211

Total Campus Population --- 14,627

HOUSING

Number of Dorms --- 2

Bed Count --- 160

Type --- Traditional

LAND USE

Number of Buildings --- 24

Gross Square Footage --- 449,1948

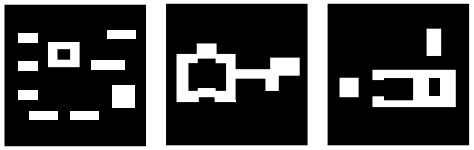
Acreage of Land Holdings --- 334

Floor Area Ratio --- .03

Number of Parking Spaces --- 1,500

Acres of Parking --- 15

CAMPUS CHARACTER



BUILDING TYPOLOGY

SHASTA COLLEGE

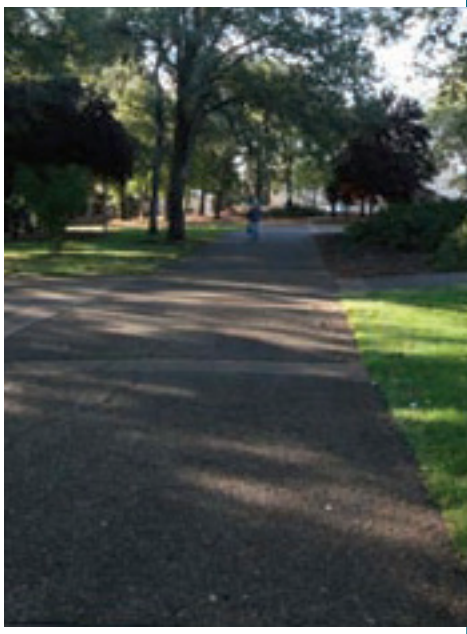
Redding, California Founded: 1950

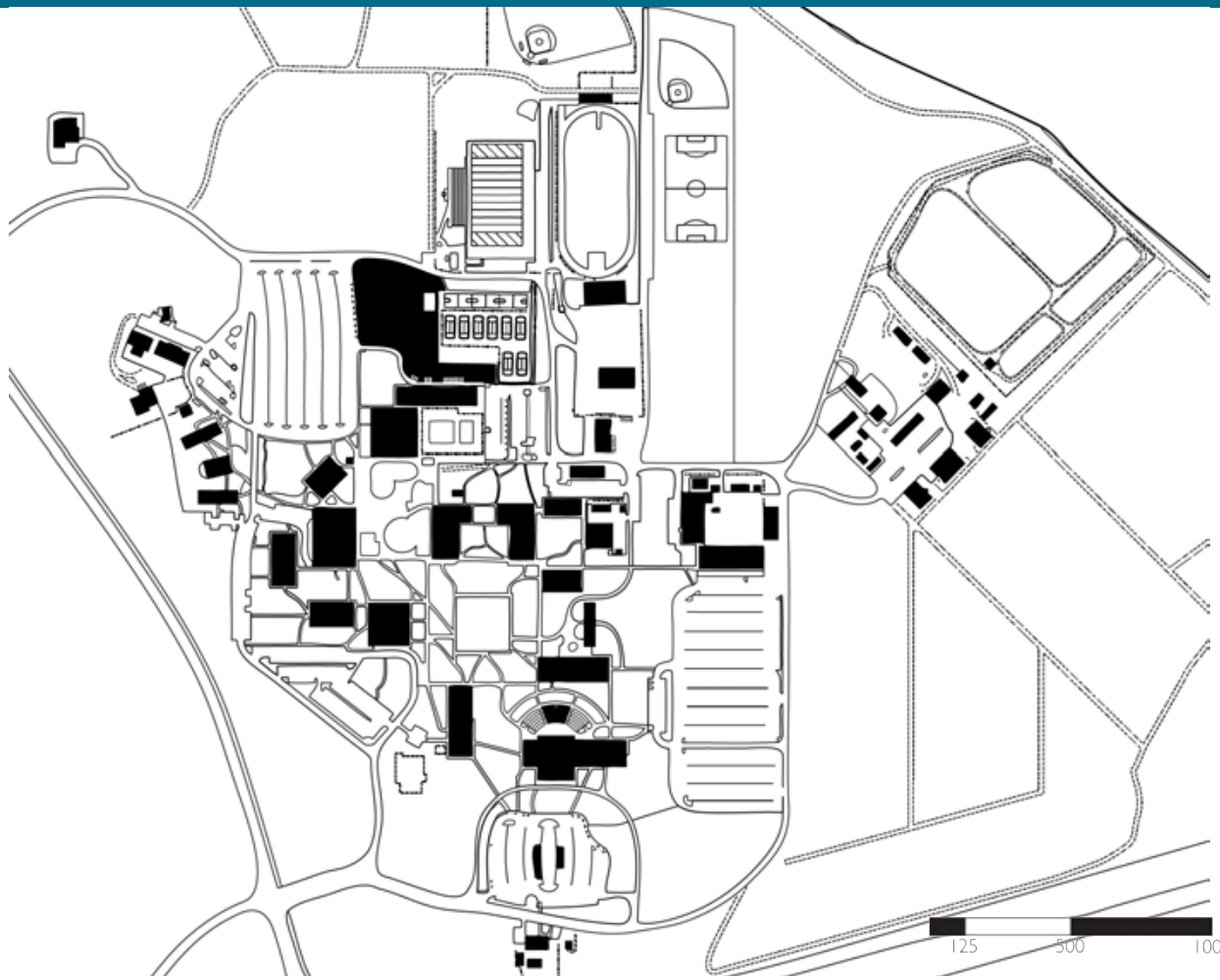
LAYOUT AND CHARACTER

Shasta College (SC) is located approximately two miles from the city of Redding. The Shasta College campus was originally a fur and trading center of the Wintu Indians, later owned by a soldier and his family after the Mexican-American War. Shasta College grew so rapidly that, in 1964, voters approved a bond issue for construction of a 337-acre campus at the current main campus location.

The college is relatively flat. The southern edge abuts Highway 299 and is approximately three miles from Interstate 5. The area surrounding SC is predominantly large lot, single-family neighborhoods.

There are two entrances onto the campus, both from Old Oregon Trail leading to three large parking areas located on the north, east and south sides of the campus, with some smaller lots throughout. The campus is spread out with accessible pathways that weave from building to building. In 2005, a $1.5 million Early Childhood Educational childcare center and instructional facility opened. Their latest project also includes a new Health Sciences and University Center Building completed in the fall of 2007. Despite the vast timeframe that the campus had been developed, the overall campus fits seamlessly.





POPULATION

Full Time Students --- 3,760

Total Student Population --- 12,885

Number of Faculty --- 425

Number of Staff --- 251

Total Campus Population --- 13,561

HOUSING

Number of Dorms --- 2

Bed Count --- 120

Type --- Traditional

LAND USE

Number of Buildings --- 28

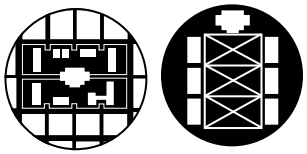
Gross Square Footage --- 364,674

Acreage of Land Holdings --- 337

Floor Area Ratio --- .02

Number of Parking Spaces --- 2,400

Acres of Parking --- 24



CAMPUS CHARACTER

BUILDING TYPOLOGY

SIERRA COLLEGE

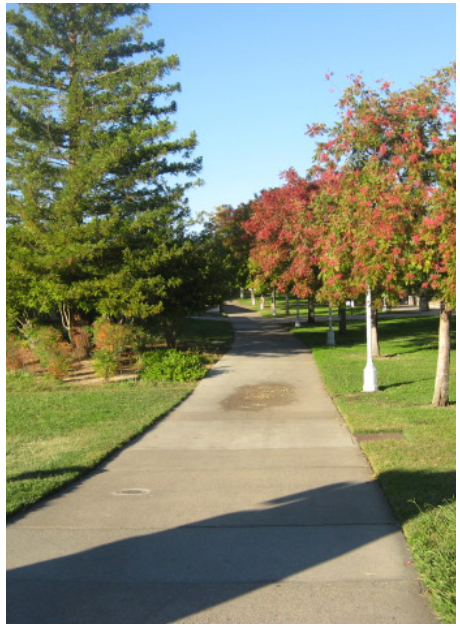
Rocklin, California Founded: 1936 (Placer Junior College)

LAYOUT AND CHARACTER

Sierra College is a rural campus located near the foothills of the Sierra Nevada Mountains at the edge of suburban Rocklin, California. The campus is approximately twenty miles from the State Capitol along Interstate 80. Sierra's origins date back to the beginning of junior colleges in California. Founded in 1914, Placer Junior College was Sierra's forerunner.

The campus is bound on three sides by Sierra College Blvd to the east, Rocklin Road to the south, and Interstate 80 running diagonally from the southwest to the northeast. The surrounding land to the south is predominantly suburban neighborhoods; to the east, open scrub brush; and to the west, strip mall development along I-80 and a mix of light industrial and residential.

Sierra College has three main entries leading to three large parking lots and several small parking lots scattered throughout campus. A large unpaved, gravel parking area sits across Rocklin Road. The campus is developed on a gently sloping hillside with 70 acres of nature trails to the north. The pathways are very accessible leading to a variety of open spaces and buildings. Several new buildings have been added recently.



POPULATION

Full Time Students --- 5,429

Total Student Population --- 42,214

Number of Faculty --- 976

Number of Staff --- 300

Total Campus Population --- 43,490

HOUSING

Number of Dorms --- 2

Bed Count --- 144

Type --- Traditional

LAND USE

Number of Buildings --- 50

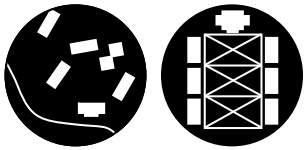
Gross Square Footage --- 600,000

Acreage of Land Holdings --- 300

Floor Area Ratio --- .05

Number of Parking Spaces --- 2,500

Acres of Parking --- 25



CAMPUS CHARACTER

BUILDING TYPOLOGY

COLLEGE OF THE SISKIYOUS

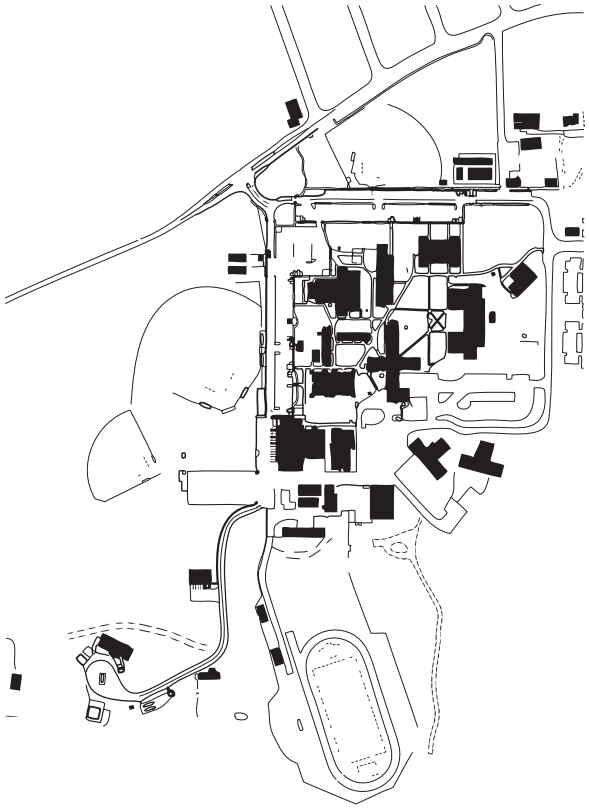
Weed, California Founded: 1957

LAYOUT AND CHARACTER

College of the Siskiyous (CS) is a small campus on relatively level ground for the area. The campus is located on the southwest side of Interstate 5, opposite of the nearest town, Weed. To the south and east of the campus lie several buttes, while a mix of single-family homes and multifamily apartments lie to the east and north side of campus.

The campus has two main entrances to the north and east. The campus core is planted with grass between the buildings with appropriate pedestrian pathways. Parking surrounds the campus with recreation fields beyond. Though the campus seems quiet and low key it is actually quite attentive in its attempts to work with the newest ideas of working towards a sustainable future. The facilities directors are acting as leading stewards to drive the college in this direction.

There are multiple opportunities for enjoying the great outdoors in this lush region. Just beyond the edge of the housing there is natural forest and wildlife areas with nature trails.



POPULATION

Full Time Students --- 1,246

Total Student Population --- 4,564

Number of Faculty --- 248

Number of Staff --- 102

Total Campus Population --- 4,914

HOUSING

Number of Dorms --- 2

Bed Count --- 136

Type --- Traditional

LAND USE

Number of Buildings --- 23

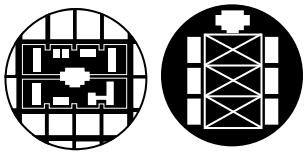
Gross Square Footage --- 226,303

Acreage of Land Holdings --- 268

Floor Area Ratio --- .02

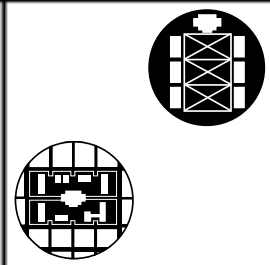
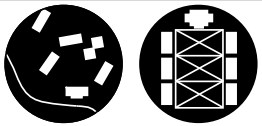
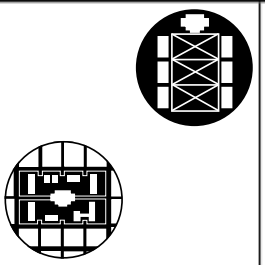
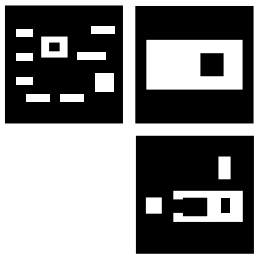
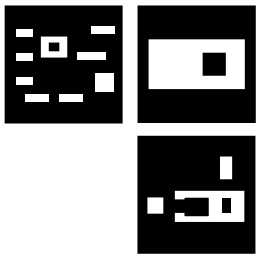
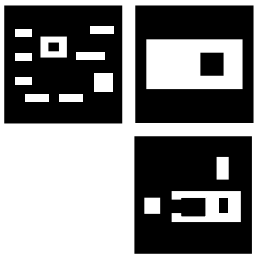
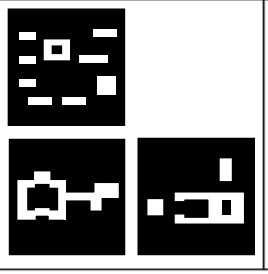
Number of Parking Spaces --- 434

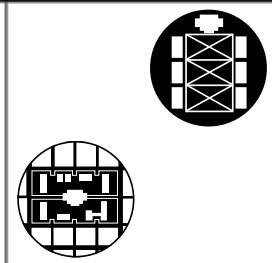
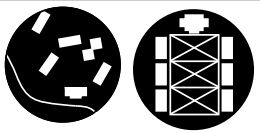
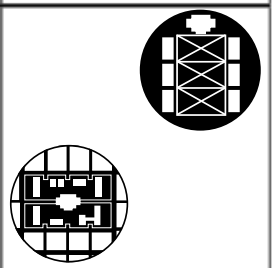
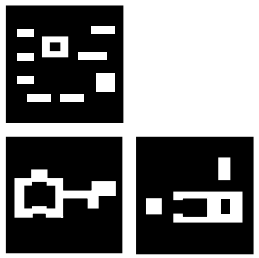
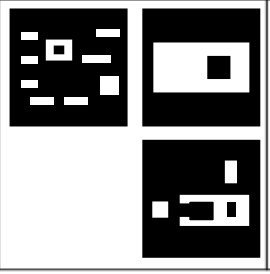
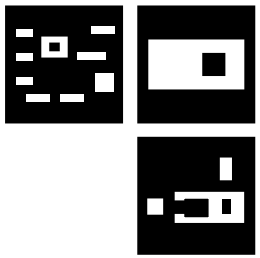
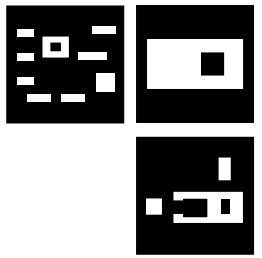
Acres of Parking --- 4



CAMPUS CHARACTER

BUILDING TYPOLOGY

	Big Bend	Butte College	Central Oregon CC	Lane CC	Oregon Coast CC
Location	Moses Lake, Washington	Oroville, California	Bend, Oregon	Eugene, Oregon	Newport, Oregon
Founded	1962	1967	1949	1964	1987
Full Time Student (FTES)	1,914	10,812	4,160	13,316	500
Total Student Population	5,111	21,833	17,487	36,899	2,300
Faculty	177	746	256	628	44
Staff	267	323	183	478	40
Total Campus Population	5,554	22,902	17,926	38,005	2,384
On-Campus Housing	2 dorms, 240 beds	off campus	1 dorm, 102 beds	no	planned
Number of Buildings	24	36	22	23	1
Building (gsf)	462,134	740,000	434,000	1,141,011	80,000
Land (acres)	159	928	201	330	25
Floor Area Ratio (FAR)	0.07	0.02	0.05	0.08	0.07
Parking Spaces	1,632	2,172	1,908	3,239	200
Parking (acres)	16	22	19	32	2
Campus Typology Traditional, Naturalistic, Urban, Quadrangle					
Building Typology Compartmented, Compact, Continuous, Composite					

College of the Redwoods	Shasta College	Sierra College	College of the Siskiyous
Eureka, California	Redding, California	Rocklin, California	Weed, California
1964	1950	1936	1957
7,518	3,760	5,429	1,246
14,084	12,885	42,214	4,564
332	425	976	248
211	251	300	102
14,627	13,561	43,490	4,914
2 dorms, 160 beds	2 dorms, 120 beds	2 dorms, 144 beds	2 dorms, 136 beds
24	28	50	23
449,948	364,674	600,000	226,303
334	337	300	268
0.03	0.02	0.05	0.02
1,500	2,400	2,500	434
15	24	25	4
			
			

CONCLUSION

Studying community college form has helped the Urban Design Lab understand how these educational villages have formed. Many of the case studies were designed and developed in the 1960s. Each campus has its own unique setting - high desert, lush forest, or old military base - but each share the designation of being located at the fringe of a city in the county they serve.

All of the campuses have a predominant campus characteristic and most have a secondary. An example is Big Bend Community College. It sits at the edge of town, yet the streets and buildings fit into the urban grid. The newer section of campus starts to create a more traditional campus setting; linking buildings with walkways - creating a city, within the city. Every campus, except Oregon Coast Community College has the same building typology: compartmented and one other, developing towards a composite as growth and expansion occur.

The ratio of people to parking spaces ranged from 3.4:1 to 17.4:1 with a mean of 10.1. LCC fall just above the average with 11.7:1 All the school have low Floor Area Ratios; LCC the highest.

PART TWO: LCC TODAY

Images: Particpants at the charrette style workshops.

Chapter Four
Participation

Many plans, master plans, and comprehensive plans are collecting dust on a shelf – dead on arrival. Why is this? Is it the fault of the client not being able to effectively describe their dreams, hopes and desires? Is it the fault of the professional for not listening well enough, or the inability to translate those dreams successfully? Were cultural norms taken into consideration? This list can go on, ad infinitum. An important question to ask is, "what method of practice was used for planning and design and was it appropriate for the project?" The University of Oregon's Urban Design Lab uses the method of participatory research and design Dr. Gillem uses in academia and in his professional practice with The Urban Collaborative, LLC. This mode of practice engages the client - and a wider spectrum of users - to generate knowledge to inform the design process in a transparent, collaborative, consensus-building process.

This chapter indirectly answer the questions above, while expressing why the method of participation in planning and design is an appropriate method to use. Additionally, the Urban Design Lab defines what participatory planning entails, and look into the method's history, its advantages, its shortcomings, and the overarching concepts of the process and how they works.

DEFINITIONS

Participation is a flexible concept. It has different meanings for different people in different fields, who use different methodologies. The following are synonyms for participation in planning and design: citizen participation, community design, community planning, participatory democracy, deliberative democracy, participatory action planning, citizen involvement, citizens' action group, participatory design, democratic participation, and a variety of action planning methods. The United Nations requires participation in many of its programs and defines participation as "sharing by people in the benefits of development and involvement of people in decision making at all levels of society." This is neither clear nor a complete definition. Henry Sanoff asserts that participatory design stresses the importance of the user and the collaborative learning process with the professional. This process is about creating knowledge simultaneously with education, and development of an actionable plan (Sanoff 2008). In a 2005 article, Sanoff described community design with the same definition, stating there are many alternative styles of participation, based on the idea that professional knowledge is insufficient in the resolution of social problems (Sanoff 2005). For the purpose of using a singular name, we will refer to the process of planning and design that includes participation as 'participatory planning' for the remainder of this document and found Comerio's working definition of participatory planning the most complete. Comerio defines participatory planning as a transparent, democratic process that uses consensus building through the collaboration of ideals, values, objectives and input from all participants (Comerio 1984). It is implied that through the participation of user groups, the design process

is transparent, would give the users/client more control and therefore, through this method, be more just and complete.

Participatory planning, as a method, has been used extensively in the design fields of landscape architecture, architecture, urban design, and planning due to its institutionalization in those fields at universities like Harvard, UC Berkeley, the University of Oregon, and others. A significant number of landscape architects, architects and planners use participation as a primary part of their practice (Francis 1983), including American landscape architects Randy Hester and Mark Francis; architects Giancarlo De Carlo (Italy), Christopher Alexander (America), John Habraken (Netherlands), Ralph Erskine (England-Sweden), Walter Segal (England), Lucien Kroll (Belgium), Nabeel Hamdi (England); and American planners Judith Innes, Katherine Crewe, and Raymond Burby. In view of the fact that participatory planning has many aliases and proponents, it is germane to point out that participatory planning also has many organizations geared to furthering the use of participation in its varied fields. Some of these include:

- An alliance called Computer Professionals for Social Responsibility (CPSR) defines participatory design as "an approach to the assessment, design, and development of technological and organizational systems (CPSR, 2010).

- The International Association for Public Participation (IAP2), founded in 1990, is an organization that promotes the values and best practices associated with involving the public in participation with government, private, individual and institutional endeavors (IEP2, 2010).

- The Participatory Geographies Working Group (PyGyWG, pronounced PiggyWig), a UK based organization, which focuses on raising awareness, perceived value, and furthers the knowledge and use of participatory approaches, methods, tools and principles within academic geography (Royal Geographical Society, 2010).

SEVEN DEGREES OF PARTICIPATION.

In 1946, Kurt Lewin introduced the term, "action research" (Chein et al. 1948). Action research is one approach of social research that combines generation of knowledge with changing the social system through professional interacting in or on the social system. John Collier also saw the need for developing an approach to action-oriented research that demands collaboration between client and practitioner (Susman et al. 1978). The act of changing the system through user experience is the basis of action research and is intertwined within the methodology and history of participatory planning. Numerous articles and books have been written about participation. Schneekloth and Shibly (1995) write about place making, Sanoff (2000, 2005, 2008) writes about community participation, Whyte (1991) about participatory action research; and Hester (1984, 1990, 2006) about community design. There are differences

among their methods, but they are all supporters of participation in planning and design. More specific to the fields of landscape architecture, architecture, and planning, New Urbanist firms Duany Plater-Zyberk & Company (DPZ) and Calthorpe Associates have integrated the solicitation of public opinion prior to designing new communities. DPZ launched the Mashpee Commons, a strip mall to New England Village transformation. DPZ incorporated dialogue with nearby businesses and social groups. Calthorpe Associate's commenced the planned Playa Vista community, a former Howard Hughes Aircraft plant in Los Angeles, with a public charette. The above examples highlight participation, but to what degree are the participants really included?

Participatory planning implies an open process that is best described by Wulz as, "ranging from well-meaning listening, to discussion, to the self-build 'do it yourself' concept" (Wulz 1986). In the article, The Field of Action Research (1948), authors Chein, Cook and Harding outline four categories of action research:

1. Diagnostic: the least interactive with the client, where the professional is only associated with the gathering and translating of information and then gives the findings back to the client.

2. Empirical: this happens when the professional only examines the issues and feeds that data back to the client.

3. Participant: the most collaborative method occurs when client and professional gather, translate, and take action through dialogue.

4. Experimental: this method occurs when client and professional collaborate continuously throughout the entire process on all levels.

This four-category outline varies in some degree from and fits within the Wulz spectrum (1986). Wulz outlines seven modes of participation ranging from least to most involvement by the user in the decision-making and design process. The degree of participation ranges from active to passive are:

1. Representation: the most passive form of participation where the designer has complete autonomy over the design process; using expert knowledge, ideas and values, although the client sets the scope.

2. Questionary: a systematic study using a survey or questionnaire to gather user needs and desires, and put through a rigorous statistical analysis. In this mode, there is still no limited interaction between the researchers and researched.

3. Regionalism: by combining some aspects from the two previous modes of participation,

regionalism focuses on gathering knowledge through values, ideals and culture specific to the local characteristics of a geographical delimited area.

4. Dialogue: is based on the notion that through informal conversation designers can glean experiential knowledge from the client and use that information as a source that may or may not guide the process and its outcomes.

5. Alternative: this occurs when the designer presents the user with a range of alternatives, in an understandable format, that allow the user to impart their opinion through choice; it is especially pertinent when the alternatives have been developed through the preceding classifications.

6. Co-design: this category of decision-making creates the most balance between the designer and the user; it necessitates that the user participate in decision-making from the onset of the process.

7. Self-decision: in this approach, the designer provides technical advice to self-help, design and build activities and otherwise has a minimal role in the design process.

Wulz's different levels of involvement - best thought of as a spectrum between poles - are a result of the varying influence and interaction on and between the professional and the user in planning and design. On the left side of the spectrum (see figure 4-1), the process is professional-centric, and on the right, user-centric. The spectrum creates a sliding scale where the decreasing influence of the professional is directly followed by an increase of the user's influ-

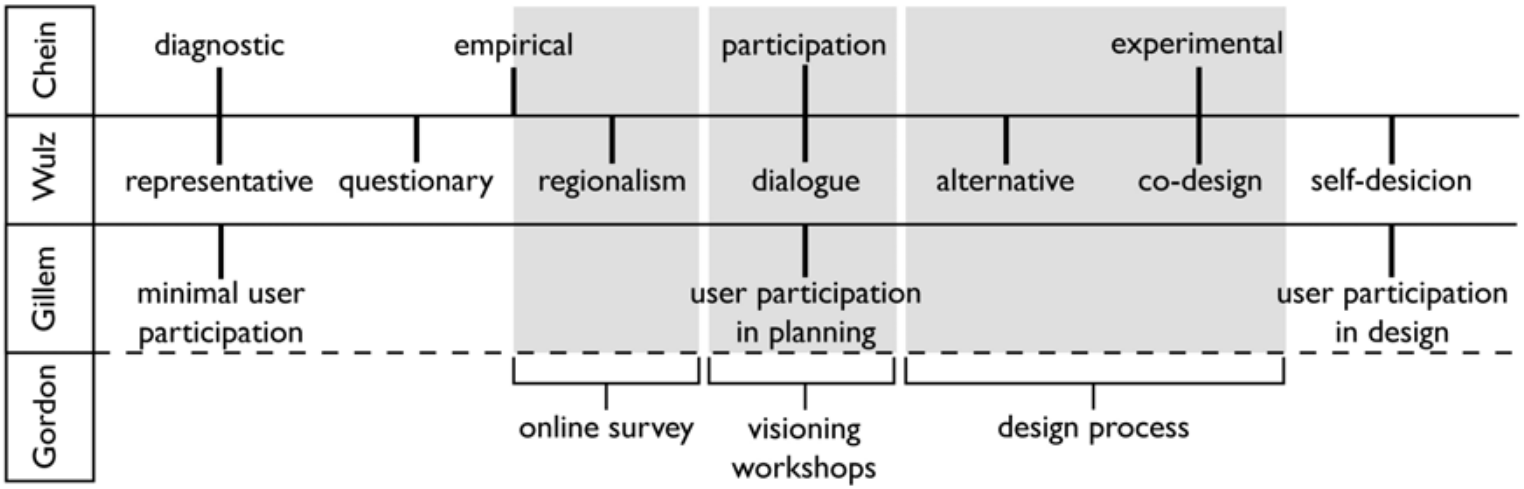


Figure 4-1
Spectrum of participation in planning and design.

ence. In Gillem's (1996) published master thesis, he states that, "this seven-point structure is flexible enough that it can be applied in the planning phase, where project goals and concepts are generated, and in the design phase, where solutions are created" (Gillem 1996).

In Francis' 1999 article, Proactive Practice, he argues that most traditional practitioners approach practice where the client comes to them with a solution, not a problem; only to give form to a preconceived solution (Francis 1999). By following the traditional approach to design, the professional places themselves on the left side of the spectrum. This spectrum is also outlined in Shelly Arnstein's seminal work, A Ladder of Citizen Participation, which produced an understanding of the degree of citizen participation, ranging from nonparticipation, to the manipulation of citizens described as tokenism, to complete citizen control in the process (Arnstein 1969). Professionals choose the methods they employ and therefore they choose the degree and timing participation takes in their process.

For the planning process of this project, The Urban Design Lab (labeled Gordon on the Spectrum) uses multiple categories on the spectrum of participation that range from regionalism to dialogue. The UDL used an online survey to collect values, ideals, and preferences that are culturally specific to the local characteristics of Lane Community College users; and have engaged the client, community members, local landowners, developers and professionals to generate knowledge to inform the design process in a transparent, collaborative, consensus-building process. For the design process of the project, we lean slightly to the right of the spectrum, utilizing both alternative and co-design to create the most balance between the designer and the user through collaboration and consensus-building. Using an iterative, interactive process of participation I expect that the level of participation, in the planning and design phases on the scale to slide slightly left and right.

A BRIEF HISTORY

Praxis, meaning 'do' or 'doing' in Greek; refers to the ability to change particular circumstances by acting upon them (Susman et al. 1978). Marx made praxis a central belief in his theories on social reform, justice, equity and equality (Marx 1963). The America principles of democracy, freedom of speech, the right to assemble, voting, and equal representation (Comerio 1984) can also be found in the philosophical backings of participation, and can trace its theoretical roots back to the principles of democracy in Plato's Republic. The theory of praxis was the foundation of the civil rights movement of the 1960's, and theoretically centered around social justice through empowerment; hence citizen participation (Susman and Evered 1978; Comerio 1984; Sanoff 2008).

In the 1960s, community design in the United States developed out of advocating for the rights of poor and minority groups, and was supported by government funding and programming. Many designers used community or partici-

patory design as a means for social change (Francis 1983; Crewe 2001; Sanoff 2005; Sanoff 2008). Social conflict and the desire to improve the physical environment for people who were underserved and did not have the resources distinguished the 1960s as the era for change through advocacy. Designers taking part in the participatory planning movement saw themselves as educators, enablers, facilitators, and social activists. Two phases of advocacy in community design characterized the late 1960s and 1970s. The first was idealistic and the second, entrepreneurialism.

The 1970s was characterized as a decade of incredible grassroots organization, during which professionals provided technical assistance through Community Design Centers (CDC) (Comerio 1984). Many of these centers were organized by university faculty, students, and young volunteers and funded by government programs. Most of the professionals staffing the CDCs had limited technical experience, but strong ideological beliefs. Trends towards enabling the community instead of providing for it helped maximize the collective knowledge of local demands and needs (Hamdi and Goethert 1997). A change in practice from idealism to entrepreneurism began to shift in the late 1970s as the political climate became more conservative. Funding cuts had the greatest influence in this shift, forcing community design participants to become more practical. The goal of the ideological practice was to promote social justice and empowerment, while the latter model replaced the political model of empowerment with one of economics. Comerio, among others, argues that the end of government funding was only one of the market forces influencing the new shift in entrepreneurial practice. Another was that people were willing to pay for these services.

By the 1980s professionals and community members had realized that participatory planning was a strong mechanism for expressing the communities' needs by translating them into usable plans for social and environmental change (Francis 1983). A changing economy and designers' entrepreneurial endeavors have forever broadened the focus of this method (Francis 1983; Crewe 2001). Additionally, environmental perception studies by Henry Sanoff's (1978) participatory model for environmental awareness; John Zeisel's (1984) participatory designs for children's environment, elderly housing, and central business districts; and Christopher Alexander's (1987) collaborative campus experiment at the University of Oregon. Alexander and his colleagues used a participatory process to bring people together, to create community, and to design their own space. In The Oregon Experiment, Alexander noted two reasons for user participation:

> "First, participation is inherently good; it brings people together…in their world…involves them in their world…creates feeling between people and the world around them, because it is a world which they have helped to make. Second, the…users…know more about their needs than anyone else…so the process of participation tends to create places which are better

adapted to human functions than those created by a centrally administered planning process" (Alexander 1975, 40)

Other design activities include: small town conservation, historic preservation, downtown economic revitalization, management of neighborhood change, and landscape and building assessment.

The 1990s and 2000s brought refreshed activity in participatory design, as individuals like Randy Hester and Mark Francis worked to empower communities. Changes in practice and theory have greatly transformed participatory planning from its beginnings as a tool of radical intervention in neighborhoods and quest for social justice into an established methodology of professional practice (Francis 1983). Today, practitioners like Henry Sarnoff maintain that participatory planning "continues to be one of the key concepts in American society" (Sanoff 2008).

BENEFITS AND LIMITATIONS.

The main difference between the participation process in the past and the present is that today it tends to be driven more by professional norms than legislative mandates. In its long history as an acceptable method of planning and design, participation and collaboration have been vetted innumerable times; its theories remain the same. Hence the benefits and limitations of this planning and design methodology are well documented. Almost every article I reviewed critiqued the many methodologies that were presented and all of them have benefits and limitations.

Benefits of participation. In his book, Participatory Action Research, William Foote-Whyte refers to the merging of research and organizational goals, suggesting, "that research is designed to enable, empower and generally facilitate the goals of the organization or group being researched." Bonilla notes that by using a participatory design process, results that the user identified, can be used to develop a vision and culminate in a design intervention that is genuine and legitimized by the agents and actors involved in the planning process (Bonilla 2009). Additionally, Sanoff found that citizen participation also means building an increased sense of community among the population (Sanoff 2008), which creates a more stabilizing process (Atlee 2003). Bonilla believes that "people come to learn about each other, to share their experiences and different points of view, to build a better understanding and awareness of the project and process (2009).

Many people come to the table with the preconceived notion that their ideals and values are different only to learn that they share the same concerns. Innes agrees that the inclusion of stakeholders can ensure that local knowledge is incorporated into the plan, and thus it should contribute to learning and better plans as ideas flow back and forth between planners and affected interests (1995). Additionally, creating events that allow social interaction between groups that normally do not mix can develop a sense of commu-

nity through face-to-face interaction, and publicly affirming community values - creating citizen attachment to community and place (Burby 2003). It also increases empowerment by allowing people, organizations, and communities to have control over their affairs, adding to social capital and mutual trust (Francis 1983; Sanoff 2008). Moreover, Crewe postulates that "[t]he more designers value the input of citizens, the more appropriate their designs will be for the users concerned" (Crewe 2001). The transparent, collaborative process provides solutions to problems from participants of different backgrounds, with different ideals and interests. Participants put forth their knowledge and opinions at an equal level regardless of position - economic, political or social – creating a place of shared learning where professionals and participants learn from each other. This planning process reflects on solving problems collaboratively, increases understanding of planning, participation and design, builds social capital, while finding real solutions and strategies for better economic, social and environmental development.

Consensus-building is necessary for decision-making, and effective communication is needed for consensus. The idea of planning as a consensus-building process is well documented in planning and plan-making. Specifically, four chapters in The Practice of Local Government Planning, Third Edition, (Baum 2000; Hoch 2000; Kaiser and Godschalk 2000; Klein 2000) emphasize consensus-building. Participant-inspired design guidelines can increase the confidence of the designer and fosters a sense of solidarity amongst the participants (Albrecht 1988; Silverman et al. 2008). Schneekloth and Shibley write that place-making stresses the importance of creating dialogue where groups of people can question and construct the knowledge needed for greater satisfaction. According to a survey by Crewe, participation has encouraged park use by furnishing participant-preferred environments, and created a sense of ownership through community participation, assuring protection of the space over time. Additionally, Wulz and Crewe believes that participation can unite opposing views and opinions through consensus and dialogue (Wulz 1986) and can ease conflicts between designers and residents (Crewe 2001).

Limitations of participation. Arnstein discusses some of the limitations inherent to community participation in her influential 1968 article regarding tokenism and the perception of user power and powerlessness (Arnstein 1969). The level of participation a professional decides to incorporate into their process can create limitations. "The nature of shared responsibility is both a strength and a weakness of the process (Goethert and Hamdi 1988)." Hamdi makes the point that a 'shared' level of participation is the most advantageous for participants. This is "when both community and outsider share responsibility, both assume a 'stakeholder role and both assume active involvement [in the decision-making and consensus building process] (Goethert and Hamdi 1988)." Consensus-building in collaborative work is bound to have some semblance of bias. Research by Day (1997) points out that community participation can be biased towards individuals and groups who have access to resources and information, allowing for those

individuals and groups to become more engaged in public dialogue and hijack the process. Additionally, competing interests among community members or stakeholders also impede full participation. As participants grow in number, the difficulty in attaining helpful group action rises because each person holds their own set of values and needs and everyone must be heard within the timeframe available (Peña 2001). Furthermore, control of the overall process is variable depending on the level of consensus. In Johann Albrecht's *examination of humanistic planning theories*, he affirms that "[t]he greater the consensus, the less the need for control, and the less the consensus, the more the need for control" (Albrecht 1988).

The professionals' abilities and expertise as a facilitator of the process can have significant influence on the process. The professional holds a position that balances on a fine line between dominating the project and allowing it to flow naturally. For instance, David's article on the problems of participation highlights the loss of perspective when a researcher participates in the planning process and must keep in their mind that whether they play the part of facilitator or educator, the professional is an active participant in the process and that position must not be misused (David 2002). It is important not to use the findings to support their own preconceived design solutions and expert knowledge. This goes for the participants also. For example, a key stakeholder, who did not participate in any of the planning workshops; reviewed one of the alternatives and verbalized his prejudice against a design move that supported a key idea generated through the participatory process. According to Schneekloth and Shibley, "part of the professionals role is to embed the work, research, and action in the framework of the people who must live in, manage, and maintain the environment in question" (Schneekloth and Shibley 1995). To do this, professionals must observe and interpret information gathered during the process. Francis concurs that "[a]s designers, it is essential to remind ourselves that the project is ultimately theirs, not ours" (Francis 1983).

THE SIX PRINCIPLES

Practice, whether traditional or participatory, involves a process that is, hopefully, a means to an implementable plan. In this process, the traditional model advocates for the client, regardless if the work is public or private, large or small scale; and uses a top-down design approach. The top-down design approach is restricted by what Mark Francis calls "the culture of practice" (Francis 1999). The traditional culture of practice, used by many design professionals in a variety of fields, can be characterized as client-serving, exclusive, project-oriented and authoritarian. In an article published in the *Journal of Architectural Education*, Mary Comerio's assertions overlap with many of the differences Francis points out between traditional and participatory methods (see figure 4-2). Participatory methods use a bottom-up procedure; takes the focus off the client and expands it to include the users, is problem oriented and is inclusive; creating a collaborative process that unites and empowers its partici-

pants in a democratic way (Comerio 1984b; Francis 1999). So, why is it that many plans are never implemented? In Goethert and Hamdi's book Making Microplans, they state "problems of implementation arise not so much because people locally lack information or skills, but because they lack an adequate framework for articulating and prioritizing problems, defining solutions, and building consensus and partnerships"(Goethert and Hamdi 1988). Introducing a participatory planning process provides the opportunity for dialogue to create greater stakeholder involvement, develops a stronger plan, and increases the likelihood that a plan would be implemented. Hence, producing a plan that will be referenced, often (Burby 2003).

In *Making Microplans*, and in their follow up book, *Action Planning for Cities*, Nabeel Hamdi and Reinhard Goethert assert that the collaborative-consensus building approach to participation is built around an interdependent collection of principles. Gillem (2001) highlights some of these principles and asserts that the following six principles are crucial for successful user-participation:

1. **User involvement:** The pursuit of participation in planning and design is based on the premise that environments work better and are more readily accepted when user participation is integrated into the process. An effective step to broader stakeholder involvement is to invite a variety of groups to take part in the process and to ensure that participation is meaningful. According to Schneekloth and Shibly, "the inclusion or exclusion of peoples and knowledges frame all action by limiting what can be known and who is empowered to make decisions" (Schneekloth and Shibley 1995). According to Burby, by involving a broad stakeholder group there is increased understanding of the issues for the participants and professionals, stronger plans are developed, and an increase in consensus amongst the group (Burby 2003). Cameron agrees that user involvement in the process creates better experiential knowledge and ownership of outcomes among the participants, and in the case of professionals, improves the inputs through expert knowledge and technical information (Cameron, Hayes, and Wren 2000). Furthermore, by taking part in collective action, participants become aware of common needs and identify with one another (Healey 1997).

Traditional	Participatory
client focused	user focused
top down approach	bottom up approach
exclusive	inclusive
project oriented	problem oriented
authoritarian	collaborative & empowering

Figure 4-2
Comparing modes of practice.

2. **User decision-making:** This principle is based in the enabling quality of a user-involved, participatory process. Sanoff asserts that the process of consensus building "allows for an iterative dialogue of idea generation and debate towards decision making (Sanoff 2000)." Peña characterizes the

decision-making process as something that must be done in a "timely [manner]…by the client - not the [professional] (Peña 2001)." And Gillem advocates that "[t]he aim [of user decision-making] is to enable the users to make decisions early and often… (Gillem 1996)" thereby fulfilling two objectives: (1) to produce knowledge, leading to action that is directly useful to the user group, and (2) to empower the participants through the process of constructing and using their own knowledge. According to Peña, if the consensus and decision-making process produces the benefits of enabling the user group…"every decision the client makes during programming [should simplify] the design problem by reducing the number of alternative design solutions to those that meet the program requirements (Peña 2001)."

3. Group focus: Interaction and interdisciplinary work among the participants necessitates the principle of collaboration. According to Sanoff, people become involved only if they feel they will be affected (Sanoff 2000), therefore limiting the cross section of people, experiences, and knowledge they bring to the table. Each person holds their own set of complex needs and values, and until all of the groups concerns are out on the table, the participants will not be group oriented. Moreover, self-interest is a basic human trait that can add contention amidst the group decision-making process. According to Hamdi and Goethert, successful collaboration will "begin with a discovery of common interest and subsequently with inducing a convergence of interests…(Hamdi and Goethert 1997)." Additionally, Sanoff maintains that in order to effectively facilitate user-based group decision-making, an atmosphere must be created that… "is clear, communicative, open, and encourages dialogue, debate and collaboration (Sanoff 2000)."

4. Workshop atmosphere: Many professionals use planning and design workshops as a platform for participation to gather knowledge through dialogue and consensus (Schneekloth and Shibley 1995). There are many advantages to facilitating a workshop atmosphere. For example, Tom Atlee's concept of collective intelligence is defined as, "[a] shared insight that comes about through the process of group interaction, particularly where the outcome is more insightful and powerful than the sum of individual perspectives (Atlee 2003)." The workshop process Atlee discusses takes its form through group interaction, is problem based and opportunity driven, is focused on an intentional process that produces decisions, objectives, and recommendations for the shared environment. There are a variety of strategies to developing an effective workshop. For instance, workshops with fewer participants can be held in a single room with everybody participating in the same activities, as opposed to workshops with many participants, where they

may have to be broken up into separate rooms for break-out sessions, only later to reconvene and report on their findings to the entire group. Either way, Sanoff believes that dividing the participants into working groups of six to eight participants is optimal. Peña agrees, "increased involvement… causes more conflicting information." Hamdi reinforces the idea of smaller groups, which allows each participant to share their personal ideas and values, keeping the focus community oriented (Goethert and Hamdi 1988). "Good technique may be summarized into good communication (Goethert and Hamdi 1988)."

5. On-site: Another principle important to the process is to conduct the collaborative workshop in the local area (Peña 2001). Goethert recommends that there are two benefits to holding workshops on-site. "(1) it reinforces the bias towards the community; and (2) it allows involvement by other community members normally excluded, i.e., women and children (Goethert and Hamdi 1988)." The cost of overlooking a particular user who, for instance may not be able to participate if the workshop is off-site could completely immobilize a project (Thomas 1995). Schneekloth and Shipley call the on-site space the 'dialogic space' and define it as a place "in which hopes, fears, ideas and frustrations about a place and the people who live there are discussed (Schneekloth and Shibley 1995)." Additionally, holding workshops on-site may afford the opportunity for participants to feel more comfortable and empowered (Sanoff 2000), which leads back to the first benefit of on-site workshops.

6. Improvisational nature: There is no single way of working with participants. But Sanoff, Peña, and Hamdi and Goethert support that the process must maintain a level of flexibility. Schneekloth and Shibley recognize that since each project has different problems and its participants have different values and needs, each workshop will have a different nature, leading to improvisation (Schneekloth and Shibley 1995). Additionally, Schneekloth and Shibley assert that through their experiences "the tasks [that unfold in the workshop atmosphere] are not discrete, [or] sequential…they occur simultaneously and iteratively throughout…(Schneekloth and Shibley 1995). Goethert and Hamdi add that since the goal of the workshop is to identify alternative ways in which the problems can be addressed there is no one-way to predict for the outcome (Goethert and Hamdi 1988).

THE PROFESSIONALS ROLE

By using a participatory method, the professional brings their theoretical knowledge and professional expertise to the process, while the participants bring their experiential knowledge and the state of the circumstances which they

are trying to change. Although the professional must bring many other skills to the process, there are really only two hats the professional must wear. One is as a facilitator and the other is as a documenter.

Facilitator: Working in a setting where collecting and interpreting knowledge depends upon conversation, Schneekloth and Shibley "stress the importance of creating a dialogue wherein groups of people can affirm, interrogate and construct the knowledge they need to make and maintain their own places (Schneekloth and Shibley 1995)." The collection of knowledge is not an exact science. It frames the possibilities and outlines a course of action. It is individualistic and sometimes short sighted on the participants' part (Schneekloth and Shibley 1995; Peña 2001). Peña continues to assert that it is the professionals' responsibility to remain observant and vigilant over the collaborative, consensus building process and to identify, translate and evaluate the ideas generated through dialogue. It is this role that allows the professional to invoke a sense of openness among the participants. Francis continues to assert that participation requires discussion and that the professional needs to foster an open, safe, enabling environment in order to raise the right issues or ask the right questions and manage the discussion (Francis 1983).

When community members participate, they come with their own baggage, whether they are for or against the project at hand; they must be welcomed in to the workshop where dialogue can proceed unimpeded. The workshop is a space that must remain committed to the "openness to many points of view…(Schneekloth and Shibley 1995)." Dialogue will almost always stimulate disagreements and conflict. It is up to the facilitator to acknowledge and constructively maintain the mission of the workshop and the creation of new knowledge. Friedman argues,

> "Dialogue includes the possibility and indeed the likelihood of conflict. Outside the domain of dialogue, such conflict is destructive: we seek victory over the other. But within a relation of dialogue, conflict – insofar as it leads to discoveries and transformations of the self – will only strengthen the relation. In agreement, we confirm each other in our shared experiences; but in disagreement, we affirm each other in our difference."

Documenter: Planners and designers need to be good listeners, observers and most importantly good recorders. A good practitioner needs all of these skills. This process of documentation "is premised by two notions: (1) the process of writing the description sharpens the thinking of the participants and draws out commitments, and (2) the charts allow traceability or review and awareness of the steps taken in reaching a conclusion (Goethert and Hamdi 1988)." The participatory method has multiple steps. During the first step, the planning process, participants take a very active role in documenting and presenting their collec-

tive group knowledge by sorting and prioritizing. There are numerous ways professionals facilitate good documentation of a project. One is by designating a second professional as a note taker of the over all process. Another is by assigning one professional to each user-group workshop table, facilitating within the group and making sure that sufficient notes are taken.

During the workshops, massive amounts of information will be produced and will need to quickly and effectively be sorted into broad groupings. Peña suggests using the analysis card technique of brainstorming and collecting ideas. Gillem suggests the Crawford Slip Technique. This technique allows for the quick brainstorming and collection of ideas that are then sorted thematically and ranked through a syntax analysis. The themed data is then graphically represented and presented to the entire group. Hamdi points out that diagramming, mapping and modeling are additional good procedures that can be used for data gathering and documentation (Hamdi and Goethert 1997). All of these techniques create dialogue and facilitate teamwork that is supportive of the collaborative, consensus building process.

A good documentation process can make the second step of the process, design; easier. The professional needs to be able to organize the mess of information into understandable plans. The documentation process allows for a clear prioritization of issues in both graphic and written form. This allows the professional and client to quickly and efficiently trace the sequence and steps of each stage of the workshop. The documentation of the planning process should lead to a series of broad goals with a number of key issues that are referred to as principles. By the conclusion of the workshop a problem statement should be agreed upon. Peña says, " The product of [the] programming is a statement of the problem. Stating the problem is the last step in the [planning stage] and it is also the first steps in the [design stage] (Peña 2001)." It is the responsibility of the professional to implant the knowledge gathered from the workshop back into the framework of the plans of the people who live, work and recreate in the environment under study.

Data Collection. To obtain valid information the right information must be acquired to study. Hester and Gillem both highlight two primary areas to study and analyze: (1) the physical environment, and (2) the human environment (Gillem 1996; Hester 2006). The physical environment, as described by Gillem as the built environment "deals with those elements that are observable and measurable and that may influence the projects direction (Gillem 1996)". The elements Gillem refers to are the hierarchal pattern or structure of buildings, roadways and pathways that link together to create a sense of place. Hester contends that the built environment reflects our values and can often lead to changes in our behavior (Hester 2006) and therefore is linked to the latter area of study; the human environment. The human environment encapsulates the needs of the user and how the physical environment makes the user feel, i.e. a dark courtyard might make a person feel unsafe lead-

ing to a space that will be left unused.

The professional is the catalyst in the participatory process with the necessary expertise to introduce the methods and techniques available for effective communication. The following are a variety of methods and techniques available to effectively study the two areas:

- Attentive observation of the user at the workshop, meetings and interviews allow for the collection and documentation of participant needs, problems, perceptions and values (Schneekloth and Shibley 1995; Hamdi and Goethert 1997).

- Brainstorming allows for numerous ideas to be generated in a short amount of time and "concentrates on generating ideas, discovering alternatives and soliciting response from the group (Hamdi and Goethert 1997)."

- Graphic techniques, like diagramming, mapping, and modeling, are helpful approaches to documentation, prioritization of views, and opinions for realizing broad principles and project goals (Peña 2001).

- The professional is accountable for the process of inquiry to review and evaluate, clarify and extend the understanding of the inputs and outcomes generated throughout the participatory process (Dick 2009).

Taking action. This chapter has been outlining the collective process that makes up participatory planning, while also pointing out that ideals, values and needs are collected along with opportunities and constraints connected to the site. Every choice made during the design stage of the process must correspond with the principles, which support the goals that are rooted in the vision, which was generated from the users' participation in the planning stage. The result of the participatory process should lead to "an explicit statement" of the problem (Peña 2001). Goethert and Hamdi outline the course of action that informs the participatory planning process (Goethert and Hamdi 1988):

(1) Problem identification: identifying, prioritizing, documenting and analyzing the problem;

(2) General strategies: preparing alternate approaches of the problem(s);

(3) Program agreement: review and evaluation of alternative approaches measured against the vision, principles, and goals;

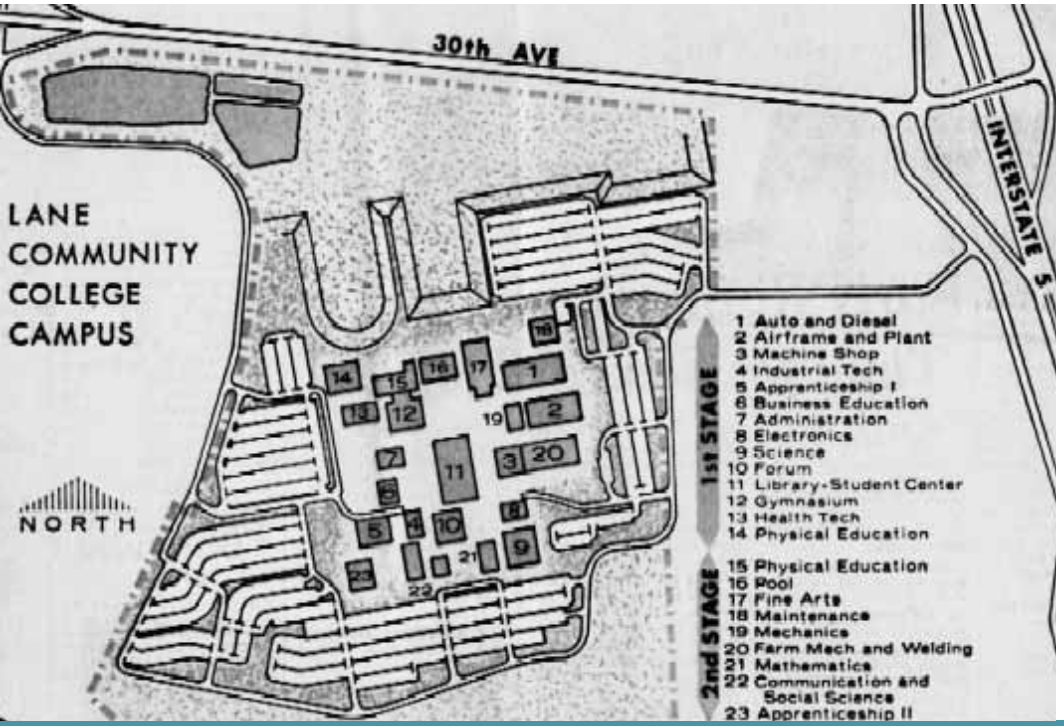
(4) Implementation: planning for how to best carry out the agreed upon proposal; and

(5) Monitoring and evaluation: learning and reflecting on the actions and results.

Participatory planning is a professionally-led effort that produces decisions and actions that are shaped and guided

by a process that seeks to merge knowledge, created by local experience; with expert theory, of the professional; to generate a guiding vision. Improved quality of decisions, consensus building, empowerment, generating a greater sense of community and a better understanding of shared experiences are many of the benefits of successful participation. However, with all of its benefits, this methodology also has many limitations. A concerted effort of the project facilitator must make user involvement meaningful and real, while remaining mindful of any obstacles that may block the equitable participation of all users. With this in mind, it is the responsibility of the professional to maintain effective communication in a safe collaborative environment, to foster a transparent, consensus-building and reflective approach that allows for the participation of a broad group of stakeholders.

Image top: Aerial view of LCC site on 30th Avenue, 1965, courtesy LCC Archives, photography collection.
Image bottom: Site map, LCC Archives, photography collection, coutresy of Eugene Register Guard February 19, 1967



Chapter Five

The Present Conditions

Chapter four introduced the theory and methods of participatory planning as "a transparent, democratic process that uses consensus building through the collaboration of ideals, values, objectives and input from all participants (Comerio 1984)." Additionally, this model opposes the traditional model, top-down approach to planning, which is customarily client-serving rather than vision-making (Francis 1999). This method is intended to enable and empower the participants; identify problems and opportunities; and facilitates the vision, goals and principles developed during the workshops process (Hamdi and Goethert 1997; Sanoff 2000). As identified in chapter one, the economic crisis, budget cuts and spiking enrollment have conspired to create a perfect storm for higher education is one of many reasons LCC has pursued a line of research that will help develop an alternative development strategy for the 21st century community college; one that will help foster economic, social and environmental accessibility.

This chapter presents this initiative under the framework of participatory planning as discussed in chapter four. It also presents the sites' characteristics and history, the participatory planning experience, and then reveals the opportunities and constraints identified from the two public workshops.

THE STUDY AREA

This project focuses on land that is located at the edge of the Eugene and Springfield metropolitan areas that runs perpendicular to Interstate Highway 5 (I-5) although partitioned by two adjacent properties. The site selection process in LCC's Long Range Plan (1966-76) is similar to those discussed at a 1967 Council of Educational Facility Planners conference identifying five general site location factors: geography, general and school population, transportation and communication, and economy (Parker and Smith 1968). After a review of these factors, the LCC Board of Land Acquisitions chose the existing site out of nine potential locations, which involved a gift of one hundred acres and the purchase of forty-eight additional acres (LCC Long Range Plan 1966). This locational typology would become pervasive for community colleges throughout America and confirms that development at the edge, primarily designed to support automobile access and, to a lesser extent, public transit; focused towards a single industry, developed at a

Figure 5-1
Community colleges and urbanicity. Source: IPEDS 2003

low floor-area-ratio, and oriented around large parking lots, is characteristic of contemporary shopping malls, hospitals, religious organizations and community colleges in the United States (American Association of Community Colleges 2008). Furthermore, roughly 24% of community colleges are defined as being on the fringe of both large and mid-sized cities (see figure 5.1) capturing approximately 32% of total enrollment (see figure 5.2).

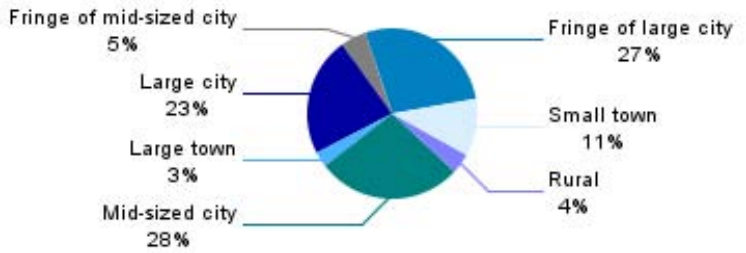


Figure 5-2
Community colleges enrollment by urbanicity. Source: IPEDS 2003

An overarching goal for LCC was, and still is, to provide "access" to every citizen of Lane County (LCC Long Range Plan 1966). "Education for all" is a democratic notion that manifests itself both literally and figuratively in the selection of a site that is geographically accessible to all county residents (LCC Long Range Plan 1966).

In fact, the location of many community colleges highlights a suburban focus. As Andrew and Fonseca note, many community colleges are located near high volume roadways at the fringe of metropolitan American communities (Andrews and Fonseca 1998). Their campuses have poor connectivity to the metropolitan fabric and they typically do not integrate industries that support their mission on their land. These fringe developments enforce inefficient land use patterns, contribute to time lost due to congestion, and restrict transportation options.

In addition to Lane Community College's main campus being an ideal study area because it is a representative model of single industry peripheral metropolitan development, it also has a user group of over 40,000 people - full and part time faculty, staff and students - that travel to and use its campus annually.

Site and History. Lane Community College (LCC) website states they serve a 4,600 square miles area, with a county population of 346,500, ranging from the Cascade Mountains to the Pacific Ocean. LCC is located outside of the Eugene and Springfield Urban Growth Boundaries (UGB), but within the Metro Plan Boundary (MPB) in the south hills of Eugene, Oregon (see figure 5.3). Eugene (population 154,000) and adjoining Springfield (population 57,000) make up the second largest population center in the state (US Census, American Fact Finder 2006-2008). In 1964, local citizens voted to establish the college. The Eugene-based architecture firm, Balzhiser, Seder & Rhodes, developed the Comprehensive Campus Plan for Lane Community College in 1965-66 with two main principles:

> 1) An egalitarian view where the vocational/technical and college transfer programs are integrated to create a collective campus community focused around a center building, literally set in the middle of campus, to serve all students; and

2) The flexibility of all spaces to be built with non-structural walls to enable the remodeling of spaces, changing with the college's enrollment and educational needs.

The main campus opened in 1968 and currently has branch facilities in downtown Eugene, a Flight Technology Center at the Mahon Airport (Eugene) a Business Development Center in the Wildish Building (Eugene) and two additional centers in Cottage Grove and Florence. In 1995 a bond measure passed and several new buildings were added to the campus. Most recently, in 2009, in conjunction with a second bond measure, state and private funding, some renovations and two new buildings are being funded. Besides these recent projects the main campus has had very little change since its initial development (see figure 5-4).

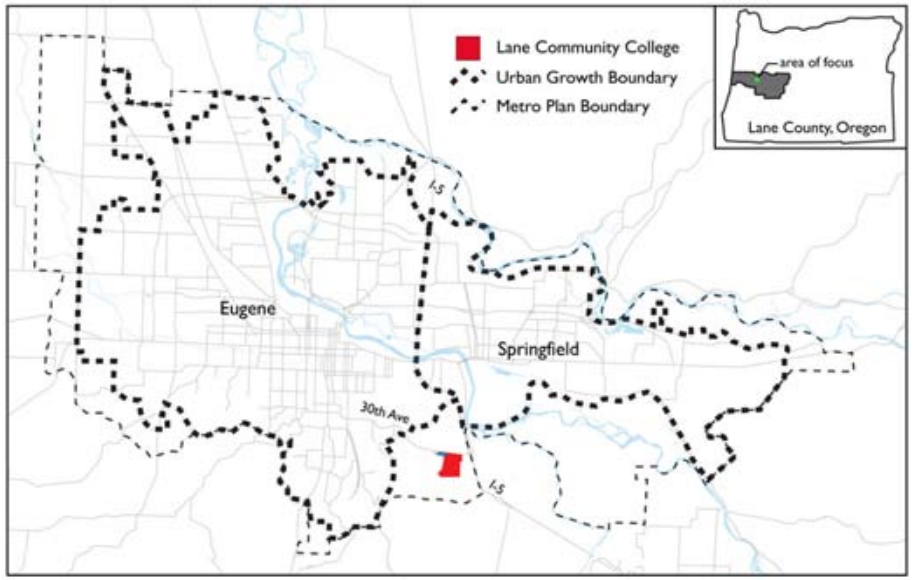


Figure 5-3
Context map.

Figure 5-4
Aerial view, November 1968. Image from the LCC Archives, photography collection courtesy of Skyview Aerial Surveys, inc.

Zoning and Land Use. The UGB is the primary growth management technique for controlling urbanization in Oregon communities that controls the potential for urban sprawl and scattered development (Porter 2008). The UGB separates urban and urbanizable lands from rural lands. The MPB bounds the area that includes Springfield, Eugene, and unincorporated urban, urbanizable, rural, and agricultural lands and is defined in the Metro Plan (2004). The Metro Plan lays out the planning policies and land use allocations allowable within its boundary. It serves as the basis for the "coordinated development of programs concerning the use and conservation of physical resources, furtherance of assets, and development or redevelopment of the metropolitan area. The Metro Plan is intended to designate a sufficient amount of urbanizable land to accommodate the need for further urban expansion… of metropolitan Lane County and the cities of Eugene and Springfield" (Metro Plan 2004).

LCC is made up of roughly 330 acres divided into five parcels (see figure 5-5 and 5-6). The entirety of LCC's land holdings are roughly bound by I-5 and Eldon Schafer Drive to the east, 30th Avenue to the north, Gonyea Road to the west, and undeveloped forest land to the south. A description of each parcel and its Metro Plan designated land use

Figure 5-5
LCC parcel map.

- 30 acres of forested wetlands lies to the north of 30th Avenue and west of McVay Highway. The eastern portion of this area is fill from illegal dumping that has long been halted. This parcel has a handle which protrudes north towards Bloomberg Road.

The last group is designated 'Forest Land'.

- 127 acres of mixed Douglas-Fir forest lies to the southeast. It is disconnected from the main campus core and there is rumor that this site was used as a Native American winter camp site.

follow.

The first two groupings are designated as 'Government and Education' land in the Metro Plan.

- The main parcel is 153 acres and includes: 35 acres of the core campus surrounded by 32 acres of parking, 7 acres of wastewater-treatment lagoons, and 83 acres of road and open space.

- Two parcels, 10 acres each, lie to the west and south of Gonyea Road and are predominantly a mixed Douglas-Fir forest and wetlands.

The third grouping is designated as 'agriculture'.

Figure 5-6
Adjacent parcel map.

PARTICIPATORY PLANNING IN ACTION

Participation is important because people have the right to participate in decision-making that directly affects their environment. "This means direct public involvement in decision-making processes whereby people share in social decisions that determine the quality and directions of their lives (Sanoff 2000)." Taking into account these ideas, Lane Community College choose to work with the Urban Design Lab (UDL) as a partner, who is committed to promoting participation in planning through the participatory planning method and strategy outlined in chapter four. Some main goals of the UDL were to organize ongoing meetings for consultation about the present situation of LCC (this chapter), administer and analyze an online user survey (appendices III-V), prepare a vision statement, guiding principles and measureable goals that took place during the two workshops (this chapter); create and evaluate alternative design approaches and submit an agreed upon preferred alternative that is implementable (chapter six).

Administrative Roundtable. In early October, to lead off the planning process, the Urban Design Lab sat and listened to the concerns and hopes of the LCC administration. The discussion that ensued served as the beginning framework for the two public workshops.

> Mary Spilde, the President of LCC Public, pointed out that "funding on the national level can be challenging…that Oregon was a poster child of disinvestment" and now that the country is in a recession, noted that funding is even more challenging. She also acknowledged "there will never be enough funding, even with the twelve billion dollars investment President Obama's administration is making available."

President Spilde remarked that out of this process she hoped "to leave a legacy…to the greater community"

> Sonya Christian, the VP of Academic & Student Affairs, felt that LCC's commitment to the long range visioning process mirrored its commitment to the future of the college. She also pointed out that the school needed to continue its commitment towards sustainability, specifically referencing: (1) how environmental sustainability was already inline with their key values; (2) that their continued support of social sustainability (social justice) needed to be imbedded in to the physical plan; and (3) the need to ensure their own future through fiscal sustainability.
>
> The chief financial officer, Greg Morgan, was very insistent that "all residents of Lane County were shareholder of LCC's assets" and "that the public should be included in the process." President Spilde agreed and was interested in finding out "what the stakeholders thought were LCC's strengths and how best to capitalize on them…taking our destiny into our own hands."
>
> Other LCC administrators' hopes included: "want-

ing to use our land as an asset…the desire for the long range visioning document to coincide with the educational mission to help ensure fiscal and educational future success…better wayfinding… taking advantage of the spectacular site…the need for curb appeal in a new design was important…" Furthermore, the administration brought to our attention three additional concerns that needed to be considered: (1) the current LCC design guidelines have incorporated the results of a student survey capturing preferences and opinions on environmental quality at LCC; (2) that LCC sits outside the urban growth boundary and that there is potential for an expansion of either the Eugene or Springfield urban growth boundaries; (3) LCC has interest in pursuing public and private partnerships that could create opportunities to better serve the college.

Visioning Workshop. The workshops aim was to identify, prioritize, document and analyze the local environmental, social and economic challenges, and opportunities through a collaborative discussion of shared knowledge, in which people came to learn about potential impacts, problems and opportunities, and possible ways of valuing and addressing them. The information collected during the two workshops was used to compile a list of goals and broad objectives to formulate a vision statement that directs the ongoing development vision design process.

Both workshops were held at Lane Community College's Center for Meeting and Learning, therefore adhering to the fundamental principles of holding the collaborative group workshops on-site. The first workshop was held on Monday, October 19th and the second, on Saturday, October 24th, 2009. Both workshops were held from 9am to 2pm. Twenty-five LCC faculty, staff and students, two design professionals, and one adjacent landowner representative (EWEB) participated in the first workshop; and nine LCC faculty, staff or students, three neighbors, two local professionals, and one adjacent landowner representative (Arlie & Co.) participated in the second workshop.

The participants were asked to sit at round tables of six to eight people and to the best of their ability, sit with people with whom they had no affiliation. Participants were asked to actively participate in the brainstorming exercise and told that no one should criticize any ideas. Guidance was provided at each table by University of Oregon Architecture students (UDL interns) and under the supervision of the faculty advisor and UDL founder, Mark Gillem. The UDL project manager, Barry Gordon led the workshops. Twenty-seven design team members took part in the visioning process acting as presenters, facilitators and scribes. Input from the design team was not included in the data analysis. In order to keep their data separate the letters "UO" were placed next to design team member's input. After the introduction of the day's goals for the workshop, but prior to the beginning of the participatory process, the Urban Design Lab presented its findings from precedent studies of regional community colleges. Hamdi calls the process

of precedent studies as "measuring" and describes it as "[l] ooking, listening, and talking" (Hamdi and Goethert 1997). Although, Hamdi described this method as more quantitative than qualitative, our experiences during the case studies were quite the opposite. We held both formal and informal interviews, toured the campuses and diagrammed. These studies can be found in chapter three of this document.

Problem Seeking: The visioning workshops were structured to maximize collaborative participation through a series of four exercises. The discussion started with identifying, prioritizing, documenting and analyzing opinions and preferences in the first two exercises by using the Crawford Slip technique. Dr. C.C. Crawford, Professor of Education at the University of Southern California, invented the Crawford Slip technique in the 1920's. This method allows for large groups of people to brainstorm a lot of ideas in a short period of time by writing and then collating the input or ideas on slips of paper (Andersen 2007). Using the Crawford Slip data gathering technique, the participants brainstormed ideas for two minutes per question - one idea per piece of paper - with no limit in the quantity of ideas, except for the time. The data was gathered quickly and collected in separate envelopes. After all the questions had been asked, each team was assigned an envelop to sort and discuss the ideas, order them thematically, and prioritize them by syntax quantity. The themed data was then developed into concept tree diagrams – this is a graphic representation of the ideas - then presented the diagrams to the entire group. (Major themes are presented in italics.)

S.W.O.T. Analysis. The first exercise asked questions dealing with the strengths, weaknesses, opportunities and threats at LCC. What materialized out of this exercise was a hierarchy of beliefs and preferences that have helped create the collection of opportunities and issues for the project.

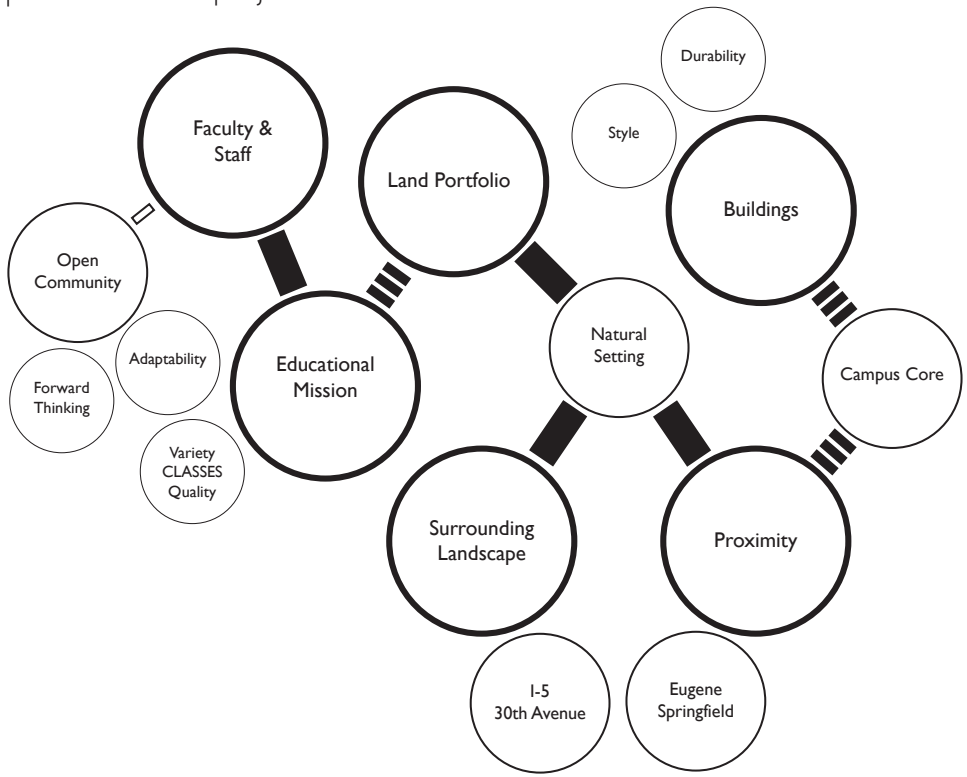
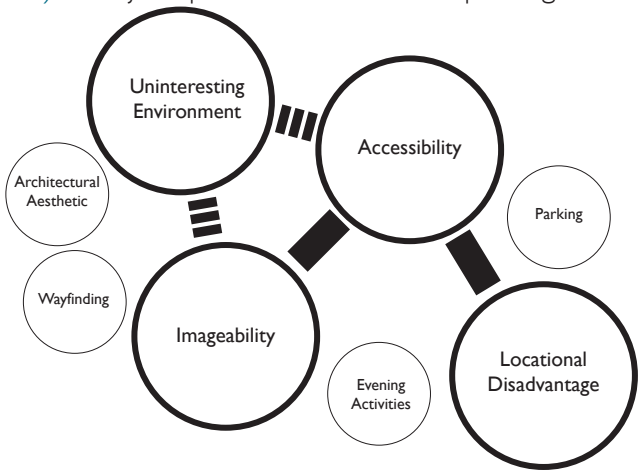


Figure 5-7
Strengths diagram.

Six main **STRENGTHS** were identified in this section (see figure 5-7). Recognition of the commitment and caring leadership of the ***Staff and Faculty*** are intimately connected to forward thinking, and an open community that continues to support LCC's continuous ability to adapt and add variety and quality classes to its ***Educational Mission***. In addition, LCC has a large ***Portfolio of Land*** that presents the chance to utilize the ***Surrounding Landscape*** to its advantage. The qualities of accessibility and circulation are linked to the ***Proximity*** of surroundings cities (Eugene and Springfield), the natural setting, the campus core and nearness of two major roadways. The last theme – ***Buildings*** – deals with cohesion of style, durability, closeness to each other, and the indiscernible center of campus.

A majority of the **WEAKNESSESS** illustrated the ***Locational Disadvantage*** and the issues of campus parking (see figure 5-8). The juxtaposition of the sea of parking to surrounding natural areas encroaches on the ***Accessibility*** and ***Imageability*** of the campus. Additionally, the qualities of wayfinding, architectural aesthetic, and lack of after-hours activities create a bland and ***Uninteresting Environment***.

All the **OPPORTUNITIES** recorded connect the universal desire by the participants for Growth (see figure 5-9). LCC's ***Land Holdings*** can be developed as an incubator to



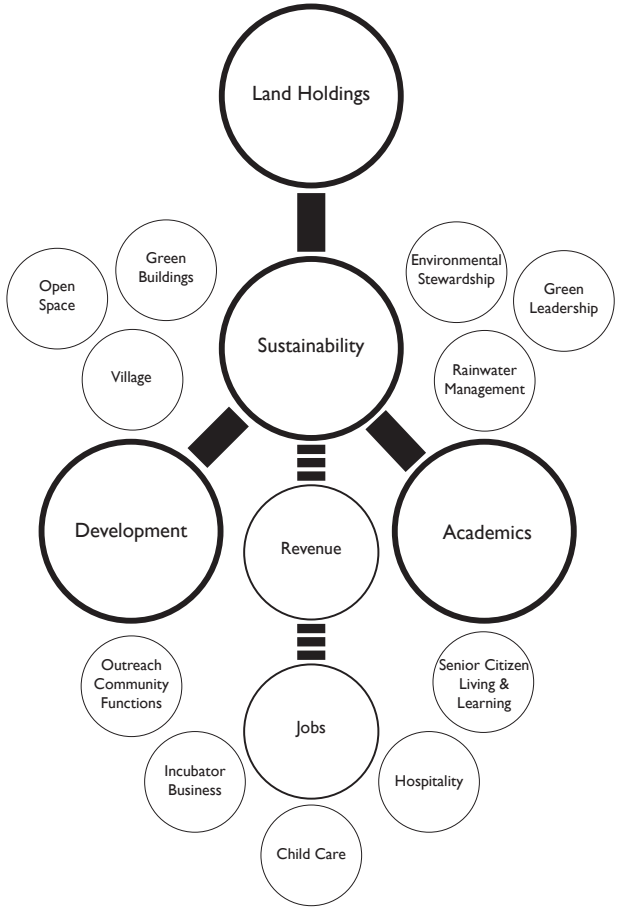


Figure 5-8 (left)
Weakness diagram.

Figure 5-9 (right)
Opportunities diagram.

create jobs, increase revenue, and reaffirm its commitment to ***Sustainability*** practices by linking and growing existing and new ***Academic Programs*** to this mission. Many of the supporting intentions are listed here: childcare, senior living and learning, arts, housing, hospitality, environmental stewardship, green leadership programs and buildings, open space and rainwater management, enterprising partnerships, a campus village, outreach support to community functions, students, and the college's attractiveness to international and out-of-state students.

The list of **THREATS** was long and comprehensive (see figure 5-10). The lack of a ***Long Term Planning Vision*** connects all of the major themes of this category and is closely linked to the ills of ***Unguided Development*** and the concern of encroaching ***Sprawl***. Additionally, being located outside the urban growth boundary is another planning hurdle and includes the lack of ***Urban Services***, such as sewer and water. This ***Locational Disadvantage*** highlights many public safety concerns like limited campus security, emergency response time, and isolation and lighting limitations. The poor and intimidating ***Architectural Style*** of the buildings was also noted as costly to maintain, limited in terms of functionality and credited for creating unhealthy environments. The ***Lack of Funding*** and competition in these poor economic times is a major concern when budgets are getting cut, the cost of transportation is rising, an overflow of students that can not be accommodated, a lessening of community support and a lack of federal loans to students means lower affordability. The ***Community*** is listed as a threat that heightens a perceived lack of political support, mindless naysayers, and competition between other regional colleges and universities. Climate change, the surrounding habitat and fear of

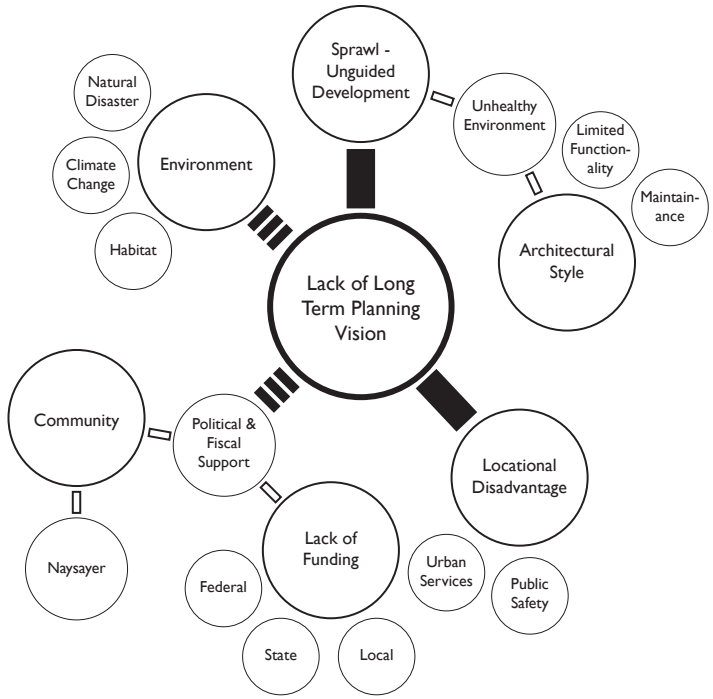


Figure 5-10
Threats diagram.

natural disasters round out the threats in the ***Environmental*** theme.

Blights and Rights. In the second exercise, the participants were asked to brainstorm as many blights and rights as possible in a five minute period. *Blights* are any physical or environmental attributes that are an issue and need to either be removed or significantly addressed; and *Rights* are any physical or environmental attributes that should continue or enhanced. At each table the workshop participants

grouped the data into a 'David Letterman style' top-ten list of blights and rights. Each group was given two minutes to present their top-ten list to the entire group. The data was then compiled into corresponding topics and given a more detailed theme heading. The consolidated list of blights and rights below is not in a hierarchical order. General comments from workshop participants are either in quotations or are preempted by a statement like "meeting participants felt…" The comments that follow "◊" symbol and that are in italics are prescriptions from the Urban Design Lab members. The hope is that the long range vision will correct the blights and not violate the rights.

Consolidated Blights

Entry. There is no clear definition or hierarchy to the two entries to the campus. Many of the meeting participants felt that "there is little to no designation that you have arrived at LCC…the boulevard along the western edge of campus comes to an abrupt stop when entering the campus… while on 30th Avenue the view into campus is too industrial and unwelcoming." ◊ *A solution is required that creates a deliberate hierarchy of gateways that shows Lane Community College's character as a place of higher education and its place in the community.*

Gathering Spaces. "LCC was designed as a commuter college and there are few if any services that keep people on campus unless they have to be." Although there are many gathering spaces on campus, a common complaint was that "there are no quality spaces". ◊ *The design team witnessed many people (mostly smoking) using outdoor spaces and this made the environment unpleasant. Locating businesses, cafes, services and improved gathering spaces on or near campus would give faculty, staff and students the option to run errands, study between classes, grab a bite to eat or gather with classmates/friends, and create the lively campus environment that is desired.*

Way-finding. Meeting participants commented that the massive size of the architecture, the building names [actually numbers], the lack of a clear central axis and the complex directional kiosk are all factors that led to way-finding issues. ◊ *The lack of easily understood directions or cues leads to doubt, confusion and gives rise to a loss of time that could be spent in class or studying. A solution is required that creates clear visual links between buildings, architectural diversity, building uniqueness and necessary signage. In addition, the use of a central clock along converging axis could allow for spatial and time awareness.*

Location. Workshop participants commented "the site feels isolated in distance and in safety, sitting alone, outside of the urban growth boundary." ◊ *The future plans should investigate the possibility of ODOT upgrading the I-5 interchange; adding support or incubator services; and developing at a higher density to create the perceived safety needed to foster a safe, lively environment. Hence, bringing the community to the community college.*

Accessibility. Meeting participants commented that topography at LCC makes circulation confusing, especially for

people with disabilities. ◊ *Connections to surrounding recreation, bikeways and nearby cities need to be kept in mind. The future vision of the campus should help create more equitable parking solutions and be mindful of accessible circulation systems for pedestrians, bicycles and maintenance vehicles.*

Disconnected Parcels. The original plan for LCC states a tight core of buildings that would create the density needed to foster community. Many workshop participants were unaware that LCC owned so much unutilized land. ◊ *The discontinuous parcels should be looked at to connect the community and the campus. Efforts need to look at design and political solutions necessary to generate synergy within and amongst the campus and its surroundings. A solution is required that may use transfer of development rights, land swaps or proven design implementations that incorporate connections to adjacent and disconnected parcels.*

Transportation. Workshop participants all commented on the morning commute and the back up that occurs due to the low capacity at the I-5 interchange. Others complained about insufficient bicycle access and facilities, and LTD bus scheduling. ◊ *Any plans should include ODOT's responsibility to upgrade the I-5 interchange and the addition by Lane County of several lights along 30th Avenue. The lights could facilitate new, prominent entry gateways into campus.*

Architecture. Meeting participants remarked that the lack of human scale and architectural aesthetic created disconnectedness and sensitivity issues. Other comments collected speak about "sick buildings that lack natural light and have seemingly no soul." ◊ *Research has shown that natural light promotes productivity and creativity. New buildings should be designed to maximize daylight and fit with the region Pacific Northwest aesthetic. Existing buildings should be upgraded to take advantage of sustainable technology and modified to integrate more holistically with its surroundings. In addition, existing buildings should be retrofit to take topographic change, accessibility and human scale into consideration.*

Views. Many of the workshop participants commented that a large portion of the campus does not take into consideration the "outstanding views of the valley." Additionally, one of the highest elevation and "best viewing areas on campus is dedicated to parking." ◊ *Common knowledge says that this is high value land; using this space for parking is not using the land at its best and highest value use. Creating view sheds and focusing people-oriented activities like recreation and housing, will allow people to take priority over parking and to enjoy the natural beauty and setting of the LCC basin.*

Layout. Workshop participants comment that the core "campus is densely packed around the 'Center' building and almost completely surrounded by parking…and lacks a true focal point." ◊ *The absence of a true center, varying levels of circulation and weak wayfinding makes the visual hierarchy of spaces difficult to traverse. The future vision for the campus should cultivate a building, circulation and open space hierarchy that include gathering spaces and multi-use areas that connect academic, administrative and recreational buildings with multi-use path systems linking the existing with the new.*

Consolidated Rights

View Shed. Many of the workshop participants commented on the views to the east, to Mount Pisgah; and open farmland as "beautiful" and "iconically Oregon". ◊ *Although the original design of the campus does not take advantage of this natural view shed, it is not too late. Any future development should take into consideration view corridors and consider building siting. Planning for future development will help ensure optimal view corridors for future generations.*

Location. Participants thought the proximity and connection to "surrounding natural and recreation networks…wetlands and forests" make LCC a unique location. ◊ *The immediate access to outdoor recreation and educational sites is a quality that is not found at many colleges and should be used to LCC's advantage. In addition, the site could allow for living or outdoor classrooms using earthworks, wetlands and the oak forest.*

Compact Campus. Workshop participants liked the "tight clustering of buildings" that allow for "ease of walking" on campus. ◊ *The '10-minute walk' is well documented to be the time frame that most people would consider walking to get to a specific location. Any future plans at LCC must take into consideration the distance/compactness between districts. Furthermore, designing pleasant, appealing, safe and direct street, pathway and building connections will make the walk more pleasant.*

Sturdy Construction. Many of the participants stated that the "architectural style of the buildings is a distinctive quality" at LCC. ◊ *The stark juxtaposition of buildings to their surroundings highlight the delicacy of the natural environment while displaying great strength in its solid fabrication. While the buildings may stand for a hundred years, the infrastructure of the building will need to be upgraded. In addition, the renovation of restrictive buildings and the application of new facades may be necessary to create a more welcoming environment. New development should take into consideration material use and technology, while being creative and innovative.*

Space to Grow. Workshop participants commented that room to grow is not really an issue, but it was the "where and how that needs to be planned for." ◊ *Without a vision for growth, development is doomed to failure. LCC has over 330 acres of land, of which 295 are either parking or open space. Buildings could be phased so as to not impede existing usage or operation. New districts could finance the next phase of growth. Careful planning, direction, political, and financial out-of-the-box thinking will be needed to allow for a new model of community college to be developed on LCC property.*

Transportation. Participants noted they are "lucky to have cutting edge public transportation options" such as the LTD's bus rapid transit line (Emx), and dedicated bicycle lanes. ◊ *Proximity to I-5, partnership with LTD, and massive amounts of free public parking allow LCC to be a heavily used facility. In order to accommodate growth and density LCC's transportation assets must grow along with it. The I-5 interchange is already at capacity and could be upgraded to allow for a better level of service. LTD could create a dedicated*

southern BRT loop between Eugene and Springfield Stations at LCC; parking needs can be accommodated with on-street and center block parking in new districts. Underground parking and parking structures could be added as the need to accommodate more people arise.

Art. "The art is great here"…is a comment many participants made at the workshop. ◊ *Art should be integrated into any new development on campus. This includes in landscape ecology and sustainable innovation. Revolving art installations and "green" beautification projects were also emphasized during the visioning session.*

Values. Many of the participants remarked that all "future planning should reflect LCC's core values": Learning, Diversity, Collaboration and Partnership, Innovation, Integrity, Accessibility and Sustainability. ◊ *Planners should look to minimize stormwater runoff, sprawl and greenfield development, while maximizing compact and transit-oriented design. In addition, planners should consider sustainability in environmental, social, and economic concerns by containing stormwater runoff in parking gardens, in green space or on green roofs; creating universal access and use of space; and through pioneering partnerships while integrating core curricular programs.*

Great Community. Participants made it a point to acknowledge the cooperation and coordination amongst all levels of LCC staff, faculty and students. Additional comments included "how amazing leadership, collaboration and participation" throughout the planning process was. The leadership was said to be "proactive, forward thinking and willing to invest in the future of LCC." ◊ *The enthusiasm and willingness of the LCC community is its greatest asset.*

Unique Facilities. Many workshop participants shared the opinion that "future planning at LCC can integrate with existing facilities and educational programs" to further the educational mission of the school. ◊ *Future development should take into consideration the addition of commercial and retail business, including the linking of incubator businesses with existing and future education programs, internships and employment opportunities. These unique programs can become the cornerstone of future development, contributing to the stability and durability of Lane Community College and future development opportunities.*

The outcomes from the workshop process are separated into current and future conditions. The current conditions, reported on in the first half of this chapter gathered collective knowledge – opinions and perceptions – from LCC faculty, staff, and students along with input from community member and area landowners and professionals. The second area of focus, future conditions; was centered on creating a guiding vision statement, establishing broad objectives and measurable goals based on the same principles of collaboration and consensus building outlined in chapter four.

RESEARCH FOR THE FUTURE

The work effort thus far has been focused on learning from the past, through the comparative mapping methodology in chapter three; learning from the present, by gathering the users' experiential knowledge of the sites in the first half of this chapter, and by developing the patterns, preferences opinions, and needs from the preference assessment survey that can be found in appendix III. The first step in the planning process is to establish the issues through problem seeking. The second is to determine a catalogue of design goals and objectives (Hamdi and Goethert 1997) to create a user-informed vision statement. Peña defines a problem statement as "a description of the crucial conditions [problems] and design premises [goals and principles] that become the starting point for schematic design (Peña 2001, 134)."

To help create the vision, the Urban Design Lab focused on facilitating two more exercises in the latter half of the planning and design workshops. This part of the workshop was focused on collecting the community's needs and preferences. The exercises centered around two sets of questions. The first set of questions asked about what makes great physical and human environments, and the second set surveyed the future needs and possible uses of the LCC property. This set of exercises used the same procedures as the first two exercises described in this chapter. All participants would answer the questions individually, the answers would be collected; each team then sorted and discussed the ideas, and ordered and prioritized them. Each group then shared their responses to all the participants. The following two sets of questions were asked to the group.

Physical and Human Environment

1. What makes a great place?
2. What are the physical elements of a great college campus?
3. What makes a great building?
4. What makes a great learning space?

Future Needs and Uses

1. What is your idea of LCC's (educational) vision for the next 20 years?
2. What current programs could use new facilities?
3. What should be done with LCC's surrounding landholdings?

Physical and Human Environment

(Themes are presented in italics.)

1. What makes a great place? The creation of a ***great place*** combines ***building aesthetics, varied spaces, modern technology*** and the formation of ***identifiable districts***. All have their role in creating a cohesive design & vision identified through a formal planning process. Integrating multiple ***transit options*** into the ***accessibility*** of a place can help to alleviate congestion, lost time and pollution. Developing a positive ***(learning) environment*** for students through the di-

rection of curricula and learning goals can help with student body diversity, motivation and aid in raising the enrollment of international students. Other ideas investigate entrepreneurial and financial avenues that add to the ***sense of place*** including public-private partnerships, ***innovative revenue streams***, support service and an incubator service sector that links to the existing educational mission.

2. What are the physical elements of a great college campus? Connectivity, buildings, outdoor environment, and sociological factors are four main themes that have been identified in this question. Transportation, nature trails, urban fabric, community programs, housing and commercial uses are all linked to ***connectivity. Natural light, sustainable principles, health and safety***, variety and quality of forms, design and materials, and inhabitable edges are connected to the ***built environment.*** The use of ***art, landscaping*** and ***seating***; making a variety of places accessible and ***hiding large parking lots*** all create positive ***outdoor environments***. Another theme identifies the necessary thoughtfulness needed in design work to establish ***sociologically supportive*** spaces that inspire, welcome, create comfort, community and identity within the institution.

3. What makes a great building? ***Building functions*** that encourage interaction and provide ***positive healthy environments*** (psychological) that incorporate security and well-being and nurture creativity help to create great buildings. Additionally, ***natural lighting, views*** and ***protected pathways*** are attributes that help create connections to nature and campus. Ease of ***access*** to and around campus through ***wayfinding***, easily identifiable ***circulation systems,*** and environmental and energy ***sustainability*** are three other themes that were identified in the process.

4. What makes a great learning space? The concept map for this question has a hierarchy starting at the architectural level with spaces and ***connections*** to ***wayfinding*** and ***accessibility***. The theme of ***architecture*** incorporates ***sustainable buildings*** that use energy efficiencies and the use of local materials that would impart the northwest aesthetic. The next themes include a ***welcoming, diverse environment*** for both staff and students that are defined, yet flexible, have ***natural light*** and can include both ***in and outdoor spaces***. The qualities linking architecture and space create another heading: ***healthy buildings*** and includes ***operable windows***, allow ***quality light, ventilation*** options, and lead to ***good views***. ***Technology*** is the final theme, highlighting both wireless access and outlets that are easily accessible and equitably located around campus.

Future Needs and Use.

1. What is your idea of LCC's (educational) vision for the next 20 years? The theme ***built environment*** generated the most data, illustrating some of the desired goals as: incorporating a ***defined campus center, housing, retail, multi-use buildings*** and a ***hotel***; ***public transportation, parking***, population growth, and ***walkability*** of campus; and ***habitat, storage, art*** and ***community pride***. A strong graphic link illustrates the

desire that the college become more sustainable by incorporated ***carbon neutrality*** and ***alternative energy solutions*** into the campus and its buildings; the ***environment*** was also noted. Aspirations such as affordability, American Disabilities Act requirements and inclusiveness were all attached to accessibility, which was also linked to the built environment. The next two themes were not connected to the first three. They include educational offerings and educational community. Educational Offerings encompass' departmental breadth, using campus as a ***learning lab*** and the connection to transfer and trade students. The last theme, educational community, links the communities needs and the research mission to the overall twenty-year (educational) vision of LCC.

2. What current programs could use new facilities? The answers from this question illustrate one overwhelming desire for a ***new facility*** for the environmental energies program, with two other sizeable desires for a ***new student center*** and ***biology facility.*** Linked beneath those are ***hospitality, athletics,*** and ***advanced technology***. Additionally, the fourth tier lists the departments of aviation, welding and automotive.

3. What should be done with LCC's surrounding landholdings? There are four main groups with linking subgroups for each. The primary themes for this diagram are ***connections, preservation, building types*** and ***utilities***. These themes are connected to each other. ***Surrounding roadways, cities*** and ***transportation options*** and ***facilities, landmarks, wayfinding, neighboring communities*** and the ***environment*** all fall under the connections' main heading. The environment is shown to have a strong connection to the ***preservation*** theme, with subgroups connected to ***outdoor classrooms*** and ***recreation trails*** with ***urban farming,*** an ***interpretive center*** and an ***arboretum*** linking. ***Building types*** links ***housing*** with students, faculty, and community; ***commercial*** links with ***retail*** and a movie theater; ***nature*** links with an interpretive center with a ***sport/recreation complex,*** while taking parking and classroom needs into consideration. The fourth main theme considers ***utility*** needs that encompass ***green power generation*** and moving the existing ***power-lines*** and ***dumpsters*** out of view.

The results from the workshops created a vocabulary based on experiential knowledge created by the participants through consensus-building exercises. Throughout the workshop, the work produced was pinned up on the walls and at the conclusion of the workshops, it was evident that the participants were excited see the breadth and scope of information they generated by working collaboratively. The concluding exercise asked participants to develop a conceptual vision using tracing paper, a base map and the "knowledge" hanging on the walls. Each vision was considered when transitioning into the design phase of the process and is presented in chapter six: *Common Themes*. Out of this mass of participant-created knowledge, the Urban Design Lab was tasked to synthesize and analyze the data to generate the measurable goals, which support project objectives that are rooted in the vision statement.

VISION, GOALS, PRINCIPLES

At the UDL studio, the design team sorted and discussed the data created from the workshops to identify the dominant framework and key themes. The completed results from the 'physical and human environments' and 'future needs and uses' exercises were combined with data from the 'rights and blight' and 'S.W.O.T. analysis' to create a series of broad design goals. The participant identified principles helped guide the outcomes of the recognized problems. The UDL grouped the principles in categories called goals. Each goal is a broad statement that incorporates the principles that were identified through discussion from the workshops and represented in the diagrammed concept maps. The vision statement was then developed to provide guidance and motivation for the ensuing design process.

Vision statement. The vision is integral to the identification of an alternative pattern of development and without a vision for the design, development would most likely not be implementable. This is the vision statement that emerged from the workshops:

> **To create a campus that has appropriate infrastructure that fosters educational excellence through sustainable building and landscape practices organized around equitable accessibility contributing to a complete community.**

Guiding Goals

Goal 1: Appropriate Infrastructure. Layout a strategy that incorporates camouflaged support services into the campus core that are efficient and logical.

Goal 2: Sustainable Building and Landscape Practices. Produce a vision that maximizes environmental stewardship and green technologies through attractive, well designed, safe, convenient, and comfortable buildings and outdoor spaces.

Goal 3: Equitable Accessibility. Provide easily identifiable hierarchy of gateways, roadways and pathways that promote safe, convenient, and comfortable options.

Goal 4: Complete Community. Provides places to learn, live, shop, work and play that help create a well-balanced environment for all Lane County residents.

Design Principles

Six months prior to the visioning process, LCC's College Council adopted a comprehensive list of design guidelines. The Urban Design Lab analyzed these goals and incorporated 100% of them with the results from the visioning workshops' findings to create an expanded comprehensive list of design goals and principles. The design principles are grouped by goal. Each principle has an accompanying image that expresses its spirit and a written recommendation for the problem identified in the workshops.

EQUITABLE ACCESSIBILITY GOALS

Optimal Wayfinding.

Wayfinding on campus should be clear and easily understood. Pedestrian and vehicular circulation, landmarks, signage and architecture should create a hierarchy of space that will add to imageability and wayfinding; helping to facilitate travel to, from, and within buildings and parking areas.

Hierarchy of Paths.

Pedestrian circulation needs to be clear, safe and comfortable. Circulation networks need to be sized appropriately, directing people through campus. Building entries and intersecting paths should create places to interact.

Clear Circulation Routes.

Paths should be clearly articulated and contribute to a sense of direction and purpose. Wheelchair routes should be straightforward and easy to find and follow.

Gateways.

All circulation networks should be clearly marked with art, architecture or landscaping to create identifiable transition zones between spaces, adding to imageability and wayfinding cues.

Accessible Routes.

Circulation networks through campus should be accessible to pedestrians, bicycles and maintenance vehicles. Alternative routes for automobiles traffic should be clearly identifiable and have minimal intrusion on the campus core.

Connected Sidewalks.

Sidewalks should be organized and connected in logical ways that follow natural routes of circulation throughout campus. Sidewalks should be a minimum of 5 feet wide, shaded/covered naturally when possible and separated from the roadway with planting strips.

EQUITABLE ACCESSIBILITY GOALS

Great Streets.

Streets should be pedestrian friendly, incorporating trees, separated sidewalks and other traffic calming devices such as medians and narrow lanes to prevent speeding.

1500-Foot Walk.

Most destinations on campus should be within a 1500-foot walk of each other. This walk should take five minutes to complete. This distance allows for a compact campus and decreases the likelihood that students will drive between classes.

Convenient Bus Stops.

Bus stops should be in convenient places, evenly dispersed across campus and should be within a 1500-foot walk of anywhere they serve.

Safe Access for Bikes.

Bicycle traffic should have separate lanes from vehicular traffic when possible. Integration of other principles like Great Streets, Clear Circulation Routes, Hierarchy of Paths should keep bicyclists and pedestrians safer.

Accessible Entries.

Building and campus entries should be visually distinct and will help with wayfinding. Students with mobility limitations should be able to use the same entrances and when possible should have similar travel distances between buildings as those without limitations.

Safe Access for Pedestrians.

Pedestrians should have safe routes to, from, and within campus. Planting strips, designated pedestrian paths in parking lots, on street parking and street trees all help to create physical barriers from vehicular traffic and other hazards.

SUSTAINABLE BUILDING & LANDSCAPE PRACTICE GOALS

Windows to the Campus.

The design of new buildings should include for visual transparency to promote and activate academic activities both inside and outside of the classroom and draw people to interesting and engaging opportunities.

Four Story Limit.

A four-story above-round limit should be observed for all new buildings on campus. A height limit will ensure equitable access to sunlight and views, optimize energy consumption, and retain the unity of the campus form (Alexander 1977).

Narrow Buildings.

Buildings with widths ranging from 50-65' maximize access to sun light, allow the potential for natural ventilation and promoting environmental sustainability. They also help define exterior spaces and allow more "eyes on the street" that help create better Natural Surveillance (Jacobs).

Identifiable Entries.

Building entries must be marked clearly and in such a way that people who approach the building see the entry when they see the building. Entries should be visible from all directions and lines of sight.

Covered Walkways.

Where possible and appropriate, covered walkways should be designed using trees and architectural features. Covered walkways should be designed to retain access to daylight and personal safety, to avoid concealment of building entries, and obstruction of clear wayfinding.

Articulated Walls.

Great buildings usually have expressive elevations that give them life and relate them to the greater context. Certain push and pulls within the face or walls inside of a structure can indicate or hide specific elements of its program. The idea is to create walls with more character.

SUSTAINABLE BUILDING & LANDSCAPE PRACTICE GOALS

Art on Campus.

Personalizing space shows the most honest sense of character. It allows visitors to understand a place and the people that consume the particular location.

Perimeter Support Buildings.

When there are new or expanding programming needs, preference should be given to the following strategies: retrofitting, remodeling, building additions, new buildings only if strong burden of proof that it is required. If faculty and staff offices must be relocated, those offices should be moved minimally. New perimeter buildings should be added to financially and academically benefit student programs.

Orientation to Sun and Wind.

Buildings should be designed to minimize energy and water use, to respond to local climate, and to maximize the use of natural daylight and ventilation. Designs should include consideration of shading options on south and west exposures, which reduce heat, gain in summer and admit light in winter. Each building should provide its inhabitants with a clear sense of location, weather, and time.

SUSTAINABLE BUILDING & LANDSCAPE PRACTICE GOALS

Shaped Pathways and Spaces.

Buildings should be designed to shape outdoor spaces and pathways that are safe, day-lit and provide for a hierarchy of needs and activities. The design of new buildings should consider efficient circulation throughout campus. Landscape elements should avoid areas of concealment around building entrances, pedestrian walkways, or parking lot perimeters.

Natural Surveillance.

Appropriate landscape and building designs should follow best practices to provide perceived and actual security. Visual connectivity through building windows, use of outdoor spaces and suitable lighting will help to intensify and activate the campus creating a higher level of perceived and actual sense of safety, "eyes on the street" (Jacobs 1961).

Civic Structure.

The collective of circulation, open space, and building systems that makes up a campus (Robertson 2010). The primary function of buildings and open spaces is to shape space, not to provide decoration. New projects should make a positive contribution to the experience and imageability of the campus.

Classrooms with Views.

Views to exterior spaces increase classroom productivity, help create comfortable, well lit interior space and allow for the natural surveillance of campus.

Teaching Landscapes.

Design outdoor spaces for and as classrooms with the implementation of sustainable ideas. These outside spaces can be used as great learning environments.

View Corridors.

Buildings, parks, pathways and streets should be sited to maximize views to the borrowed landscape and take advantage of the rich natural resources of the area.

SUSTAINABLE BUILDING & LANDSCAPE PRACTICE GOALS

Background Buildings.

Background buildings should be placed and designed to provide support for programmatic needs, outdoor spaces and landmark buildings on campus. In contrast to landmark buildings, these buildings should be parts of the greater whole in their proximity to other buildings, form and aesthetic.

Entrance Transitions.

Rather than being thrust into a space after walking through one set of doors, why not create an entry sequence that eases a person into a new place. Integrating art and display areas of academic achievements help generate interesting spaces and points of interest (Alexander 1977).

Landmark Buildings.

Landmark buildings shall be identified and designed or remodeled to benefit campus wayfinding and civic structure. Landmark buildings should mark entry points and reinforce the campus heart by shaping major open spaces. In addition to their placement, these buildings should be designed to be symbols of Lane Community College's identity. Examples of this on campus currently are the LCC Longhouse and building 1 (student services).

Seating Along Pathways.

Seating opportunities away from building should provide places to rest between destinations, take into consideration view corridors and landscape planting.

Varied Seating.

Providing for a variety of seating options allows for choice and flexibility. Diversity of seating helps activate spaces and be continually used.

SUSTAINABLE BUILDING & LANDSCAPE PRACTICE GOALS

Adapted Buildings.

Along with creating new structures, the renovation of existing buildings reduces construction costs and keeps the original campus feel as a cohesive whole. Old buildings can become revitalized with the integration of technological and sustainable elements.

Entries on Public Spaces

Entrances to buildings and public spaces contain high concentrations of activity. Building entries, courtyards and quads should be welcoming and comfortable. Sidewalks and hardscape gathering spaces should be appropriately landscaped, allow for visual connectivity and safety.

Active Ground Floors.

Great entrances and programmatic rooms that allow for places to congregate can enliven the first floor of any building. Activity seen from outside the building act as windows to the campus and will give viewers more of a reason to enter the indoor space.

Green Roofs.

Integrating vegetated or electricity producing photovoltaic panels can provide energy for the campus and clean catchment water by taking advantage of relatively unused rooftop space.

Legible Landscape.

It is important to provide desirable outdoor spaces complete with appropriate trees and plants. Landscaping helps form views, nooks, provides excitement and connects to the surrounding landscape.

Shaped Spaces.

Scale and the shaping of space, not style, are essential elements in building and open space design. Create spaces that are inviting and unique and allow for different experiences.

SUSTAINABLE BUILDING & LANDSCAPE PRACTICE GOALS

Offset Outdoor Seating.

Allowing seating to be in close relation to a building entrance, while still keeping a distance from traffic is a helpful solution to give people a pause before or after taking part in activities within a building, having a private conversation, reading a book or eating lunch.

Places to Smoke.

Create designated zones to smoke, away from high traffic areas should be clearly identified with signage and seating. There are now 394 100% smoke free campuses and more that allowing smoking only in remote areas (American Nonsmokers' Rights Foundation 2010).

Small Parking Lots.

Screening and vegetating parking areas can diminish the effects of stormwater runoff, parking lot pollution, "the heat island effect" and create a smaller visual blight. It is more aesthetically pleasing to break up parking lots and provide small lots and on-street parking options.

Ecological Preservation and Restorations.

It is important to look at the history behind something that already exists. It can often be in the best interest to upgrade and preserve rather than demolish and start over. Preserving zones of environmentally sensitive and special habitat will ensure the preservation of vital ecological areas, as well as provide Teaching Landscapes for students and the community about the environment.

APPROPRIATE INFRASTRUCTURE GOALS

Hidden Building Support.
Masking maintenance and support functions of existing campus buildings, and designing new buildings in a way that will eliminate their functions from being an eye-sore to the college community as a way to promote a healthy educational environment.

Hidden Infrastructure.
Hidden utilities can add from the visual clutter that large institutions accrue creating a healthier environment.

Accessible Building Support.
Allowing for ADA accessible design throughout buildings on campus, so that all amenities may be easily accessible, regardless of physical ability.

Recycling Places.
Creating specific areas throughout campus, in and around buildings, provide opportunities to recycle and create a culture of recycle, reuse, renew.

COMPLETE COMMUNITY GOALS

Places to Learn.

This includes classrooms, but also other spaces such as Teaching Landscapes, Entrance Transitions, and Shaped Spaces that foster a healthy environment in which learning can occur.

Campus Cafes.

Café and eateries help foster interaction between students, faculty, staff, and community memebers. Additionally, they provide a destination location to see and be seen, a place to hang out on campus, and help create a better sense of community.

Campus Housing.

Housing within walking distance from campus allow for students, families, community members and faculty to live close to their place of work or education. It helps eliminate the need for auto-centric transit, and creates a local community.

Campus Retail.

Provide retail services within immediate proximity of the campus core, so that students, faculty, staff, and community memebers can access amenities nearer to their community without the need to get in their cars.

Places to Play.

Quads and great lawns are traditional open green spaces on college campuses. Connections to surrounding nature trails, programmed sport fields, parks and a central recreation building are important.

FEASABILITY GOALS

Phaseability.

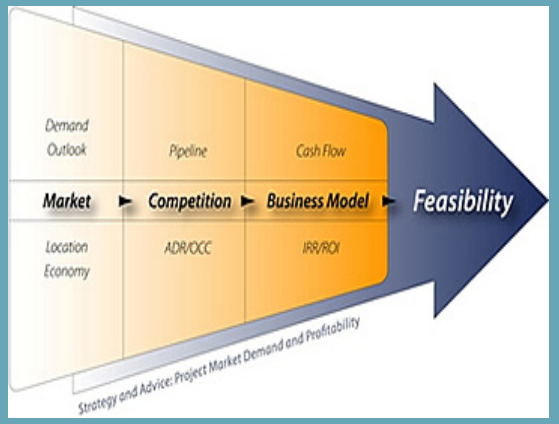
Phasing improvements and additions for the college in a way that allows for the campus to remain a healthy learning environment, while also ensuring its future. One phase of construction can help create a revenue stream for the next phase.

Cost.

Keeping all costs, from design to construction, within the budget set out for the college to allow for the continuation of financial academic support.

Constructability.

Designing buildings and infrastructure in a way that would ensure their construction and eliminate the need for excessive maintainance.



Political Feasibility.

Making sure all design proposals are realistic in terms of the students, faculty, staff, and community memebers opinions, and allowing for change to ensure its support from the greater community and county.

PART THREE:
LCC TOMORROW

Image: Entry & campus core from the preferred alternative vision.

Chapter Six
Putting It All Together

The collaborative consensus-building exercises have allowed the Urban Design Lab to develop a quality conceptual vision proposal - for consideration by LCC's shared governance system - that considers LCC faculty, staff and student opinions, preferences and experiences along with community input, as opposed to non-user, donor interests. This chapter follows the third step described in Hamdi as program agreement. This step consists of a review and evaluation of alternative approaches, which are measured against the vision, goals, and principles developed throughout the planning process that are "based on the balance between feasibility and desirability" (Goethert and Hamdi 1988, 22). Alternative approaches 1-3 and the preferred alternative described in this chapter were drafted at the University of Oregon's School of Architecture and Allied Arts, in an architecture studio. The design workshop operated like a professional firm to create draft alternative visions for Lane Community College that used the lessons learned from the case studies presented in the comparative mapping exercise (chapter three), guided by the design vision, principles, and goals (chapter five), and the survey findings (appendix III). Throughout the process, the design team met periodically with the stakeholder group (LCC) and used these sessions as a forum for mutual learning where new and modified information was presented, evaluated and discussed. This iterative process created a realm to facilitate discussion, to hear feedback and to direct the draft designs.

Defining the level of detail. The development program is intentionally vague; therefore there are no designated building uses or potential programming needs that were specifically designed during the schematic design phase. Parking calculations are based on existing and proposed spaces, keeping in mind that in the design development stage, specific buildings will have particular requirements. Working with a two-phase programming process, (1) planning and (2) schematic design; did not allow for a higher level of detail and was outside of the scope of this project.

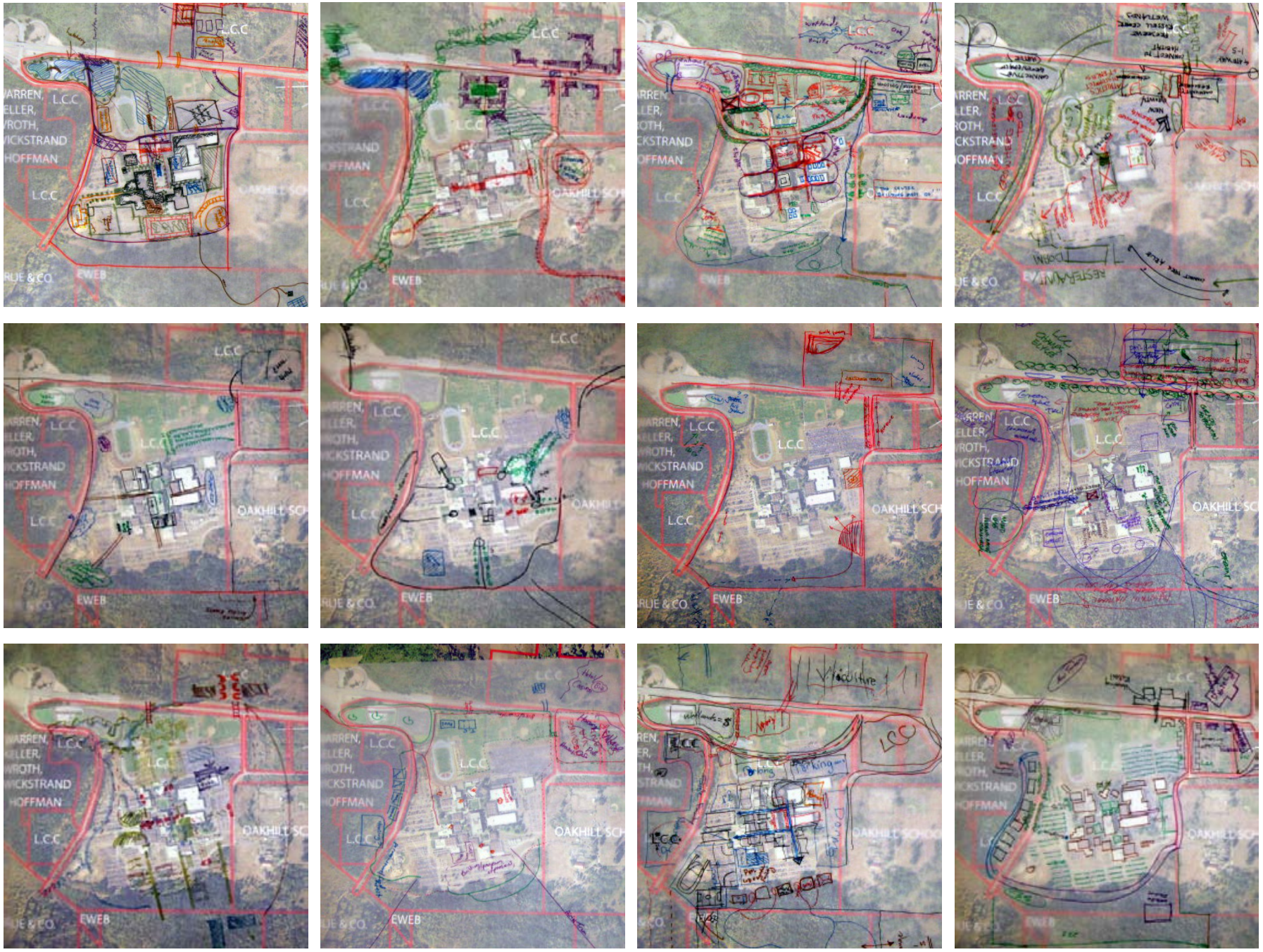
TWELVE SCHEMES

During the two visioning workshops the participants developed twelve concept development schemes based on the current and future themes gathered during the planning phase of the workshop. Each of these concept development schemes was consulted as the Urban Design Lab proceeded with the design process.

Some key ideas that emerged from the workshops are:

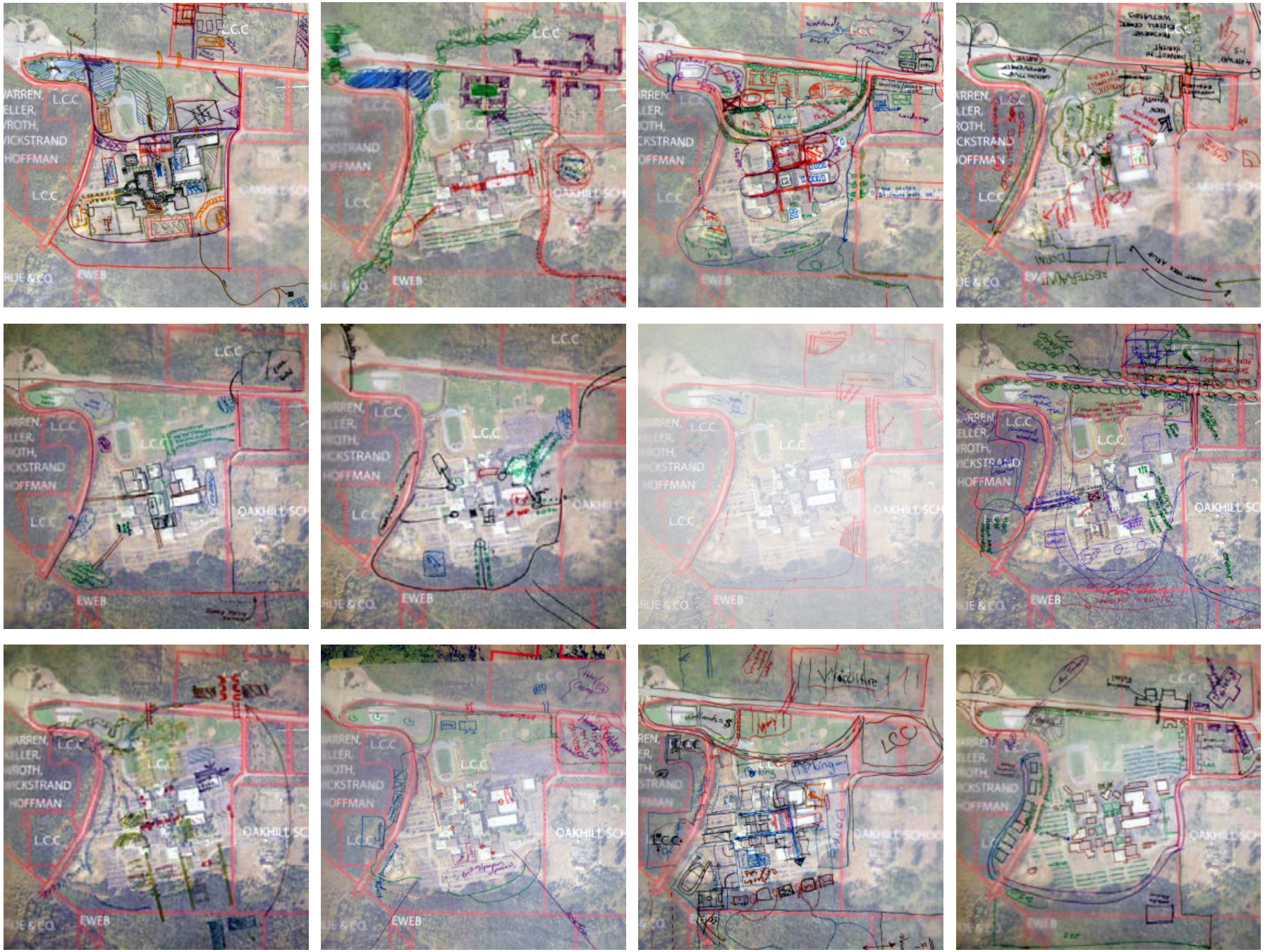
- Campus Quads
- Nodal Development Along I-5
- Preserve the Wetlands
- Preserve the LCC Forest
- Short Walks
- Preserve the Recreation Fields
- Connect to Nature
- Develop a Campus Gateway
- Housing on the South Side
- Perimeter Parking

TWELVE SCHEMES



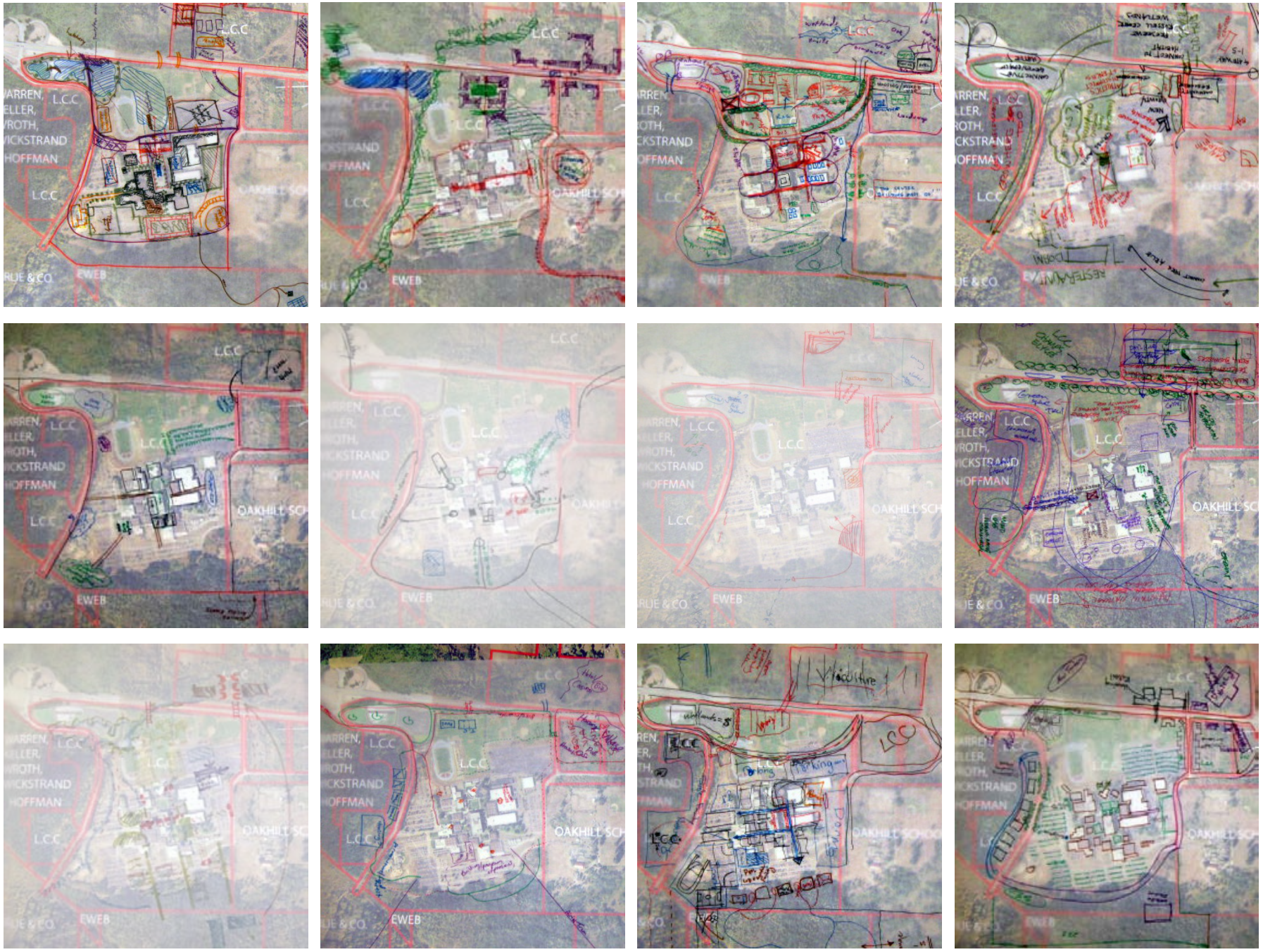
CAMPUS QUADS

IN 11/12 PLANS



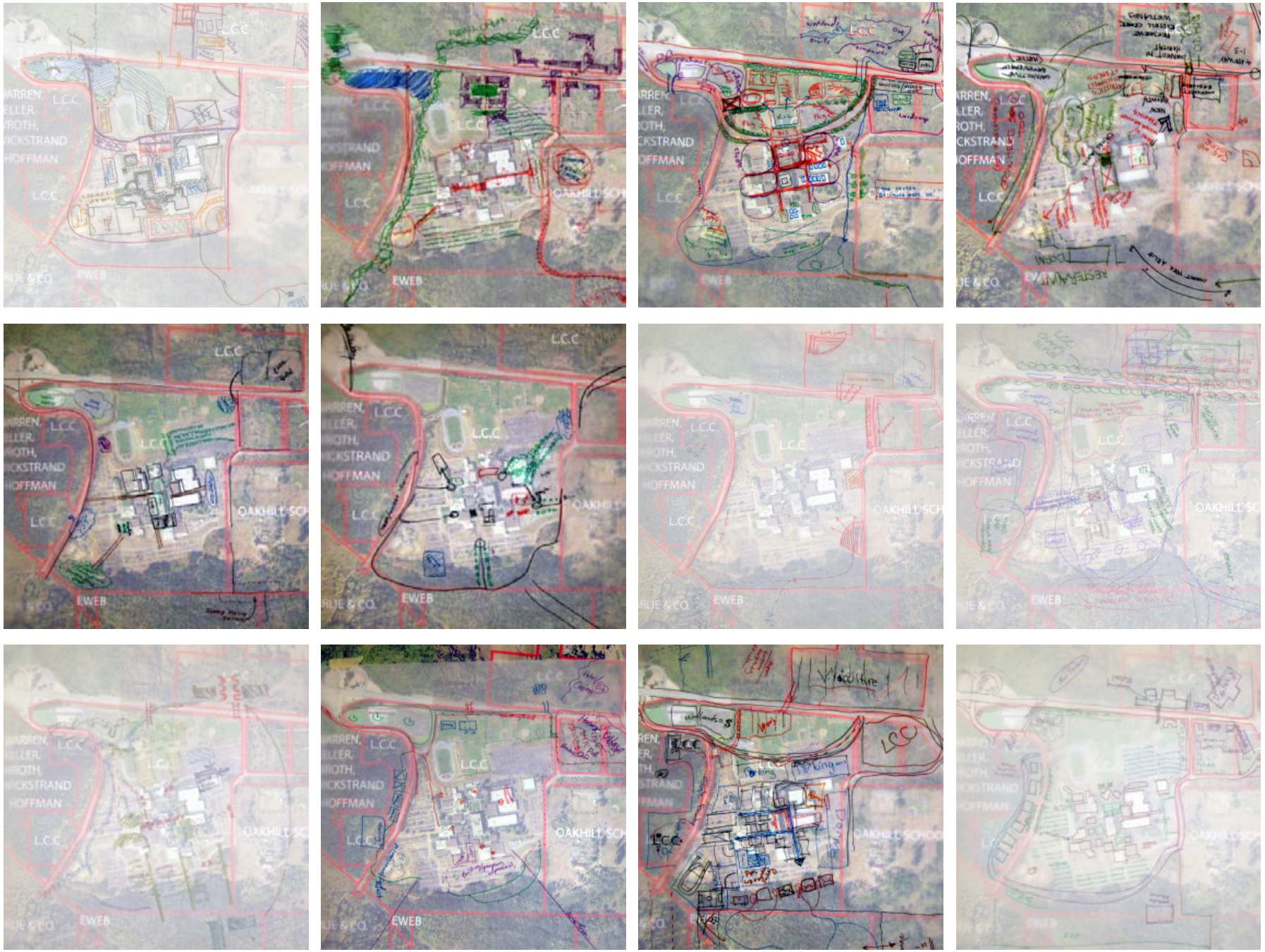
NODAL DEVELOPMENT ALONG I-5

IN 9/12 PLANS



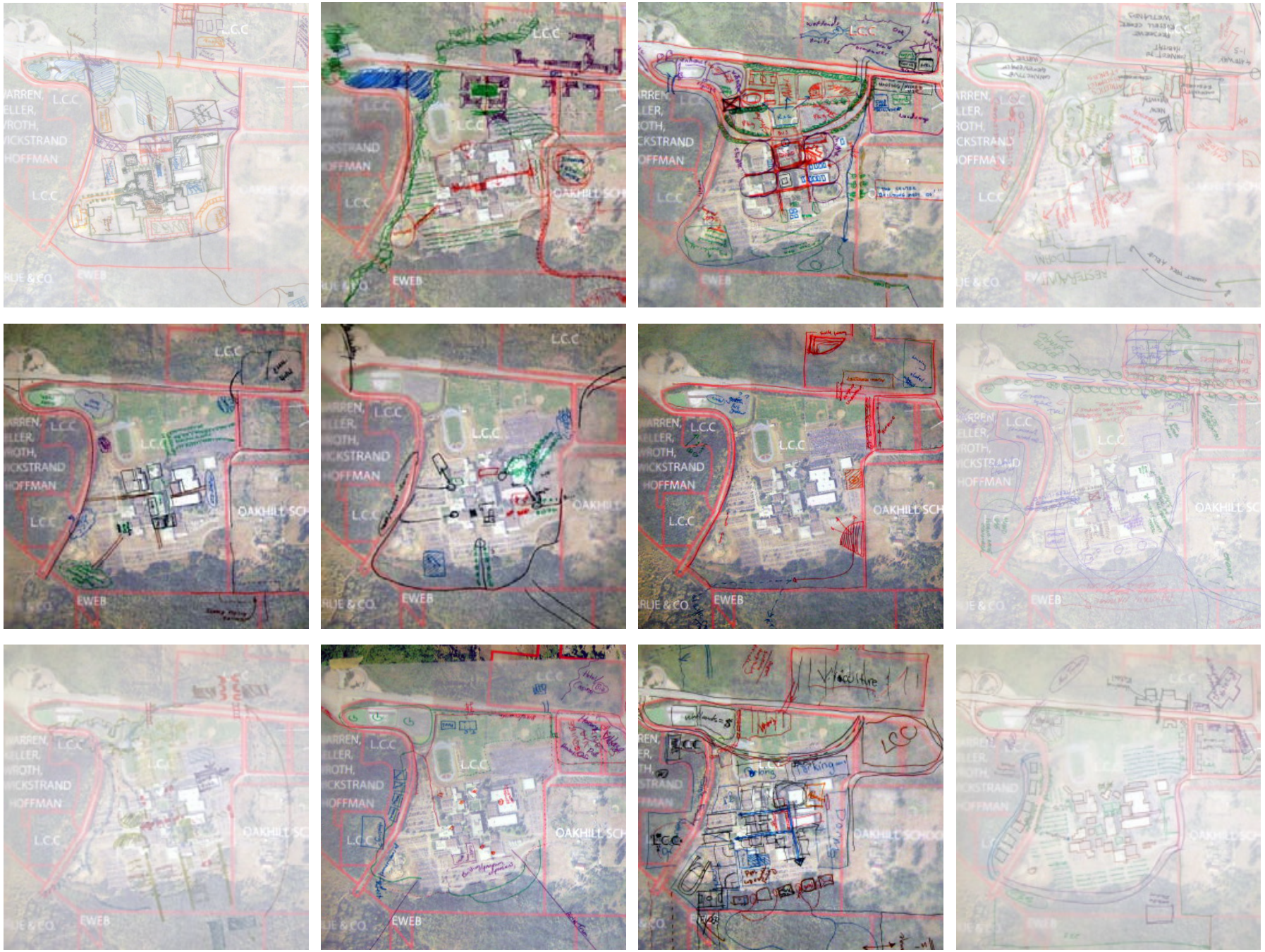
PRESERVE THE WETLANDS

IN 7/12 PLANS



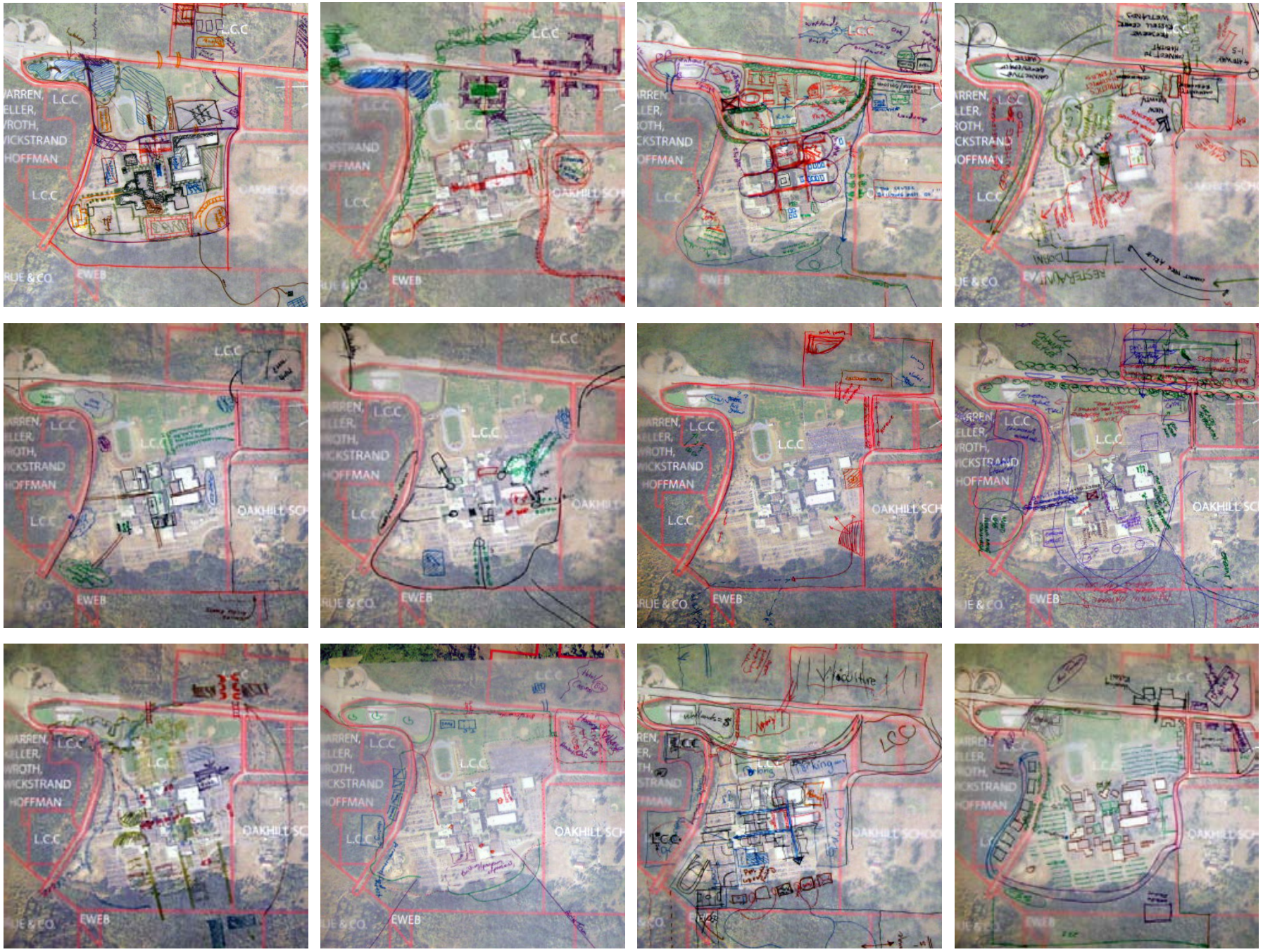
PRESERVE THE FOREST

IN 7/12 PLANS



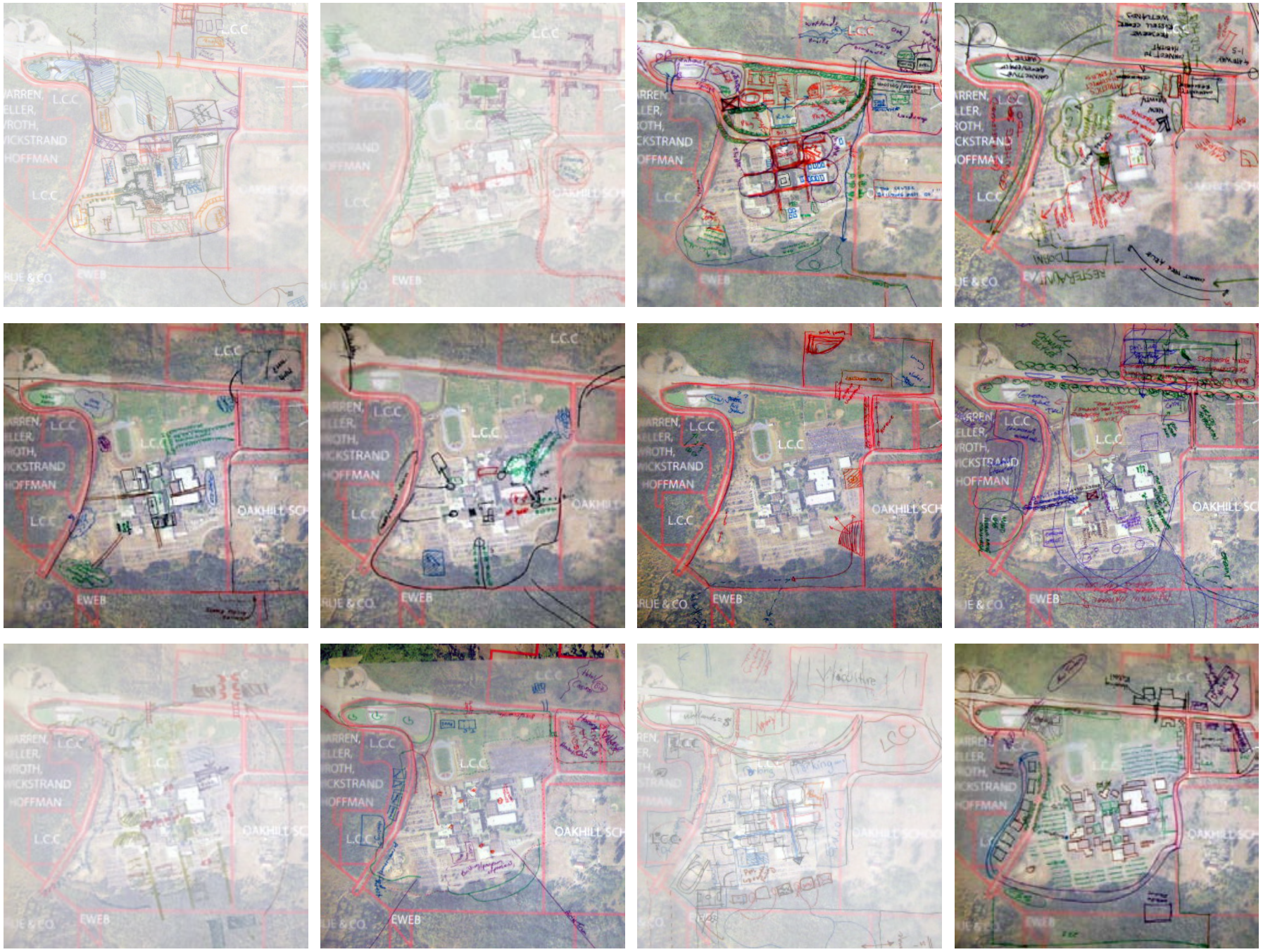
SHORT WALKS

IN 12/12 PLANS



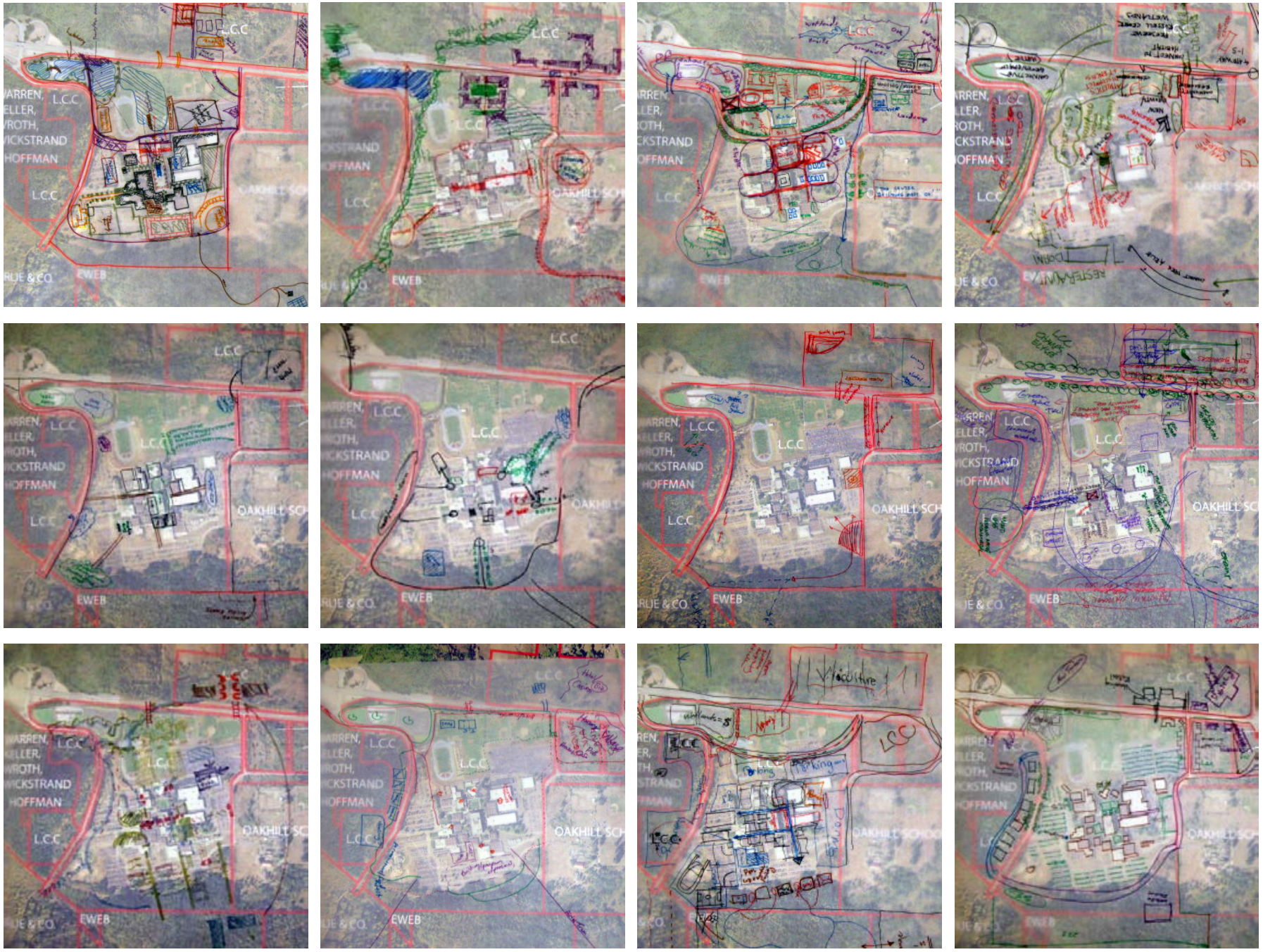
PRESERVE THE RECREATION FIELDS

IN 8/12 PLANS



CONNECTION TO NATURE

IN 12/12 PLANS

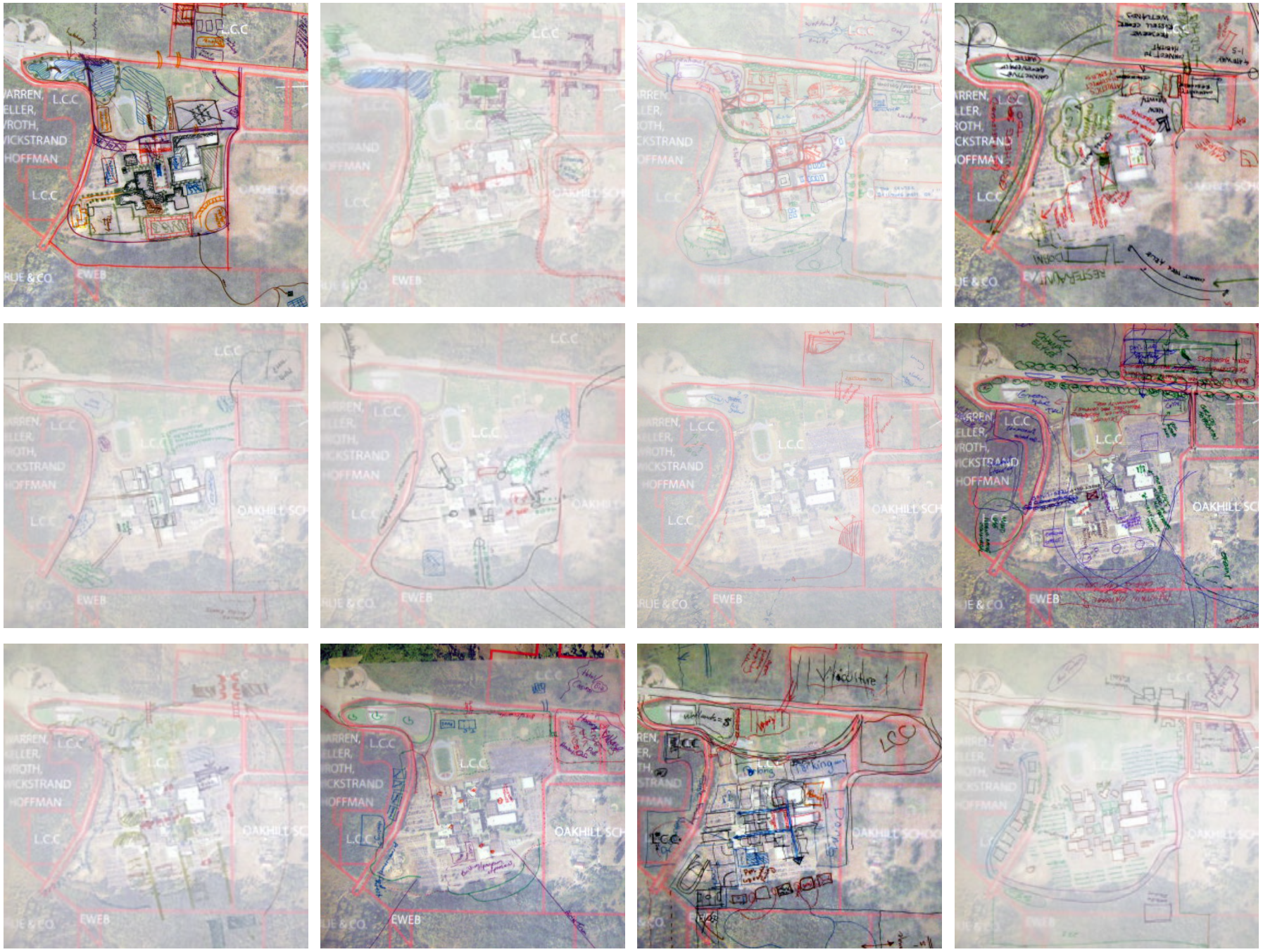


DEVELOP A CAMPUS GATEWAY

IN 6/12 PLANS

HOUSING ON THE SOUTH SIDE

IN 5/12 PLANS



PERIMETER PARKING

IN 9/12 PLANS

TWELVE SCHEMES AND COMMON THEMES

- Campus Quads — IN 11/12 PLANS
- Nodal Development Along I-5 — IN 9/12 PLANS
- Preserve the Wetlands — IN 7/12 PLANS
- Preserve the LCC Forest — IN 7/12 PLANS
- Short Walks — IN 12/12 PLANS
- Preserve the Recreation Fields — IN 8/12 PLANS
- Connect to Nature — IN 12/12 PLANS
- Develop a Campus Gateway — IN 6/12 PLANS
- Housing on the South Side — IN 5/12 PLANS
- Perimeter Parking — IN 9/12 PLANS

DEVELOPMENT OPTION 1

DESCRIPTION

Option one focuses less on perimeter land and more on land adjacent to the core, while assuming land could be purchased from the Oak Hill School and by removing building numbers three, seven and seventeen on the campus core. The removal of these buildings is key to creating open space within the campus core, hence creating better civic structure and wayfinding. This alternative creates a main entrance drawing LCC users directly into campus, as opposed to along the perimeter. It also develops along 30th Avenue, and moves the playing fields to create a recreation district to the northwest. The new institutional buildings, running east west and north south; start to frame new quads and uses the quads as park blocks and green-connectors; additionally creating view corridors. Diagonal, and parallel on street parking is added.

STRENGTHS

- Creates a good entry to campus
- Recreation district allows for separation of uses
- Creates well defined circulation routes
- Addition of green-spaces in core helps add to civic structure of campus

WEAKNESSES

- Concerned with view in and out of campus.
- Less development along 30th Avenue
- Assumes development of property not owned by LCC
- Demolition of three buildings

ATTRIBUTES

PARKING

ON STREET --- 1,356 SPACES
OFF STREET --- 2,775 SPACES
SPACES GAINED --- 892

NEW BUILDINGS (IN SQUARE FEET)

MINIMUM --- 2,001,532
MAXIMUM --- 3,581,865

BUILDABLE PARCEL AREA

28 ACRES

Option 1

Building Key

1. Student Services
2. Business
3. Administration
4. Health
5. Physical Education
6. Performing Arts
7. Campus Services
8. Welding
9. Auto/Diesel
10. Aviation
11. Art/ESL/GED
12. Manufacturing/Auto
13. Annexes
14. Center
15. Electrinics
16. Math/Science
17. Forum
18. Drafting/GD
19. CML/Work Force
23. Family and Child Care
31. Longhouse

DEVELOPMENT OPTION 2

DESCRIPTION

Option two focuses on higher-density development along 30th Avenue, on currently owned LCC property; and creates a neighborhood development node to the southwest. It builds out from existing core campus with minimal building demolition. The removal of building eighteen allows for a stronger connection to surrounding forest and reinforcing the north south quad through campus. A new entrance and approach to campus from 30th Avenue could allow for a new transit hub central to the campus and proposed development. Consolidating the sport fields can create an athletic perimeter along western edge of campus. This alternative assumes that all new roads have parallel parking on both sides, with the potential for development of a parking structure on the lot east of building 12, using phased development. Buildings on 30th Avenue create opportunities for entrepreneurial pursuits: living learning, grocery, culinary institute, and senior center; housing to the south, keep the current density on LCC's main parcel and leaving the wetlands and oak habitat undeveloped.

STRENGTHS

- Preserves current campus core
- East-west park blocks add to civic structure, paths and wayfinding
- Preservation of stormwater storage in lagoons
- Keeps track in existing location

WEAKNESSES

- Weak entry sequence
- Concerned with view in and out of campus.
- Large parking in northeast corner is far from campus
- Too much development along 30th Avenue

ATTRIBUTES

PARKING

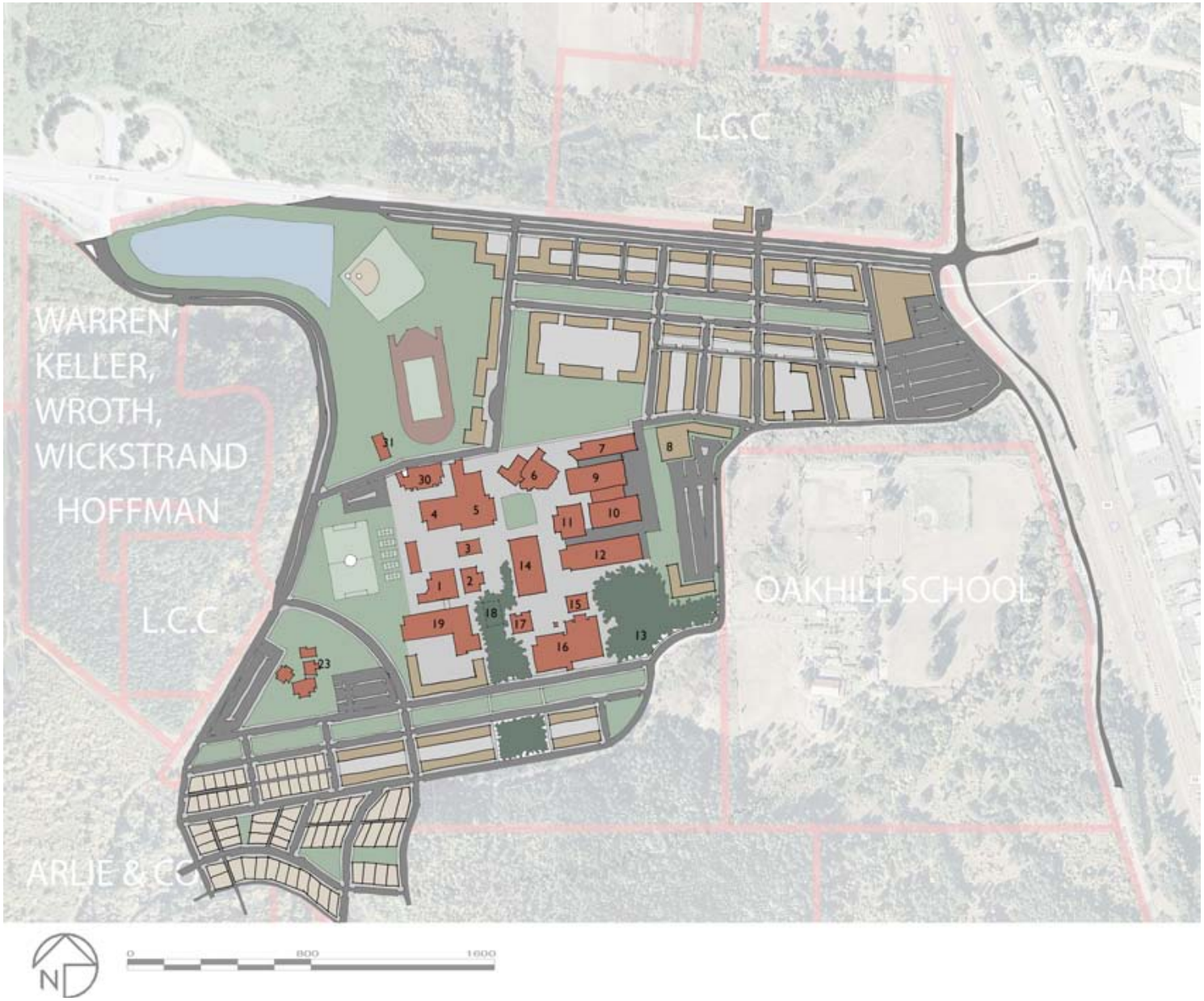
ON STREET --- 2,971 SPACES
OFF STREET --- 1,025 SPACES
SPACES GAINED --- 757

NEW BUILDINGS (IN SQUARE FEET)

MINIMUM --- 2,228,095
MAXIMUM --- 3,757,531

BUILDABLE PARCEL AREA

42 ACRES



Option 2

Building Key

1. Student Services
2. Business
3. Administration
4. Health
5. Physical Education
6. Performing Arts
7. Campus Services
8. Welding
9. Auto/Diesel
10. Aviation
11. Art/ESL/GED
12. Manufacturing/Auto
13. Annexes
14. Center
15. Electrinics
16. Math/Science
17. Forum
18. Drafting/GD
19. CML/Work Force
23. Family and Child Care
31. Longhouse

DEVELOPMENT OPTION 3

DESCRIPTION

Option three focuses on a higher density mixed use, commercial district near the I-5 interchange and a recreation/central park concept separating the mixed-use district from the campus. This vision expands the lower density neighborhood to the south. An entry sequence leads through a gateway of buildings and reinforces the recreation/central park district, shaping the road and entrance to bring people in. Additional key gateway buildings are proposed just north of existing buildings five and six - creating an 'Acropolis of knowledge'. The removal of building eighteen reinforcing the north south quad through campus and creates an identifiable courtyard at the southern entrance to the Center building. The south side lower density housing could be possible, assuming a land-swap would be amenable. Creating a green-connection to the campus saves the oak habitat. By acquiring the Marquess Trust, the north side of campus proposes higher density housing, retail and commercial, while developing up to I-5, allowing room for a visual landscape barrier, and proposes to build up along 30th Avenue. The avenue could be developed into a modified multiway boulevard, with wide medians between thru lanes and access lanes on the south side. Additional development could be focused at the edge of the wetlands on existing fill. On street and scattered parking lots would handle parking.

STRENGTHS

- Generates hierarchy of open space, quads and recreation district
- Creates prominent, clear entry gateway
- Develops a strong connection with nodal development up to I-5
- Strong commitment to housing
- Places housing in hills with optimal views of campus and beyond

WEAKNESSES

- Concern for wetlands along north side of 30th and edge of forest to the south
- Concerned with view in and out of campus.
- Development along 30th is not appropriate
- Housing may not take into consideration topography

ATTRIBUTES

PARKING

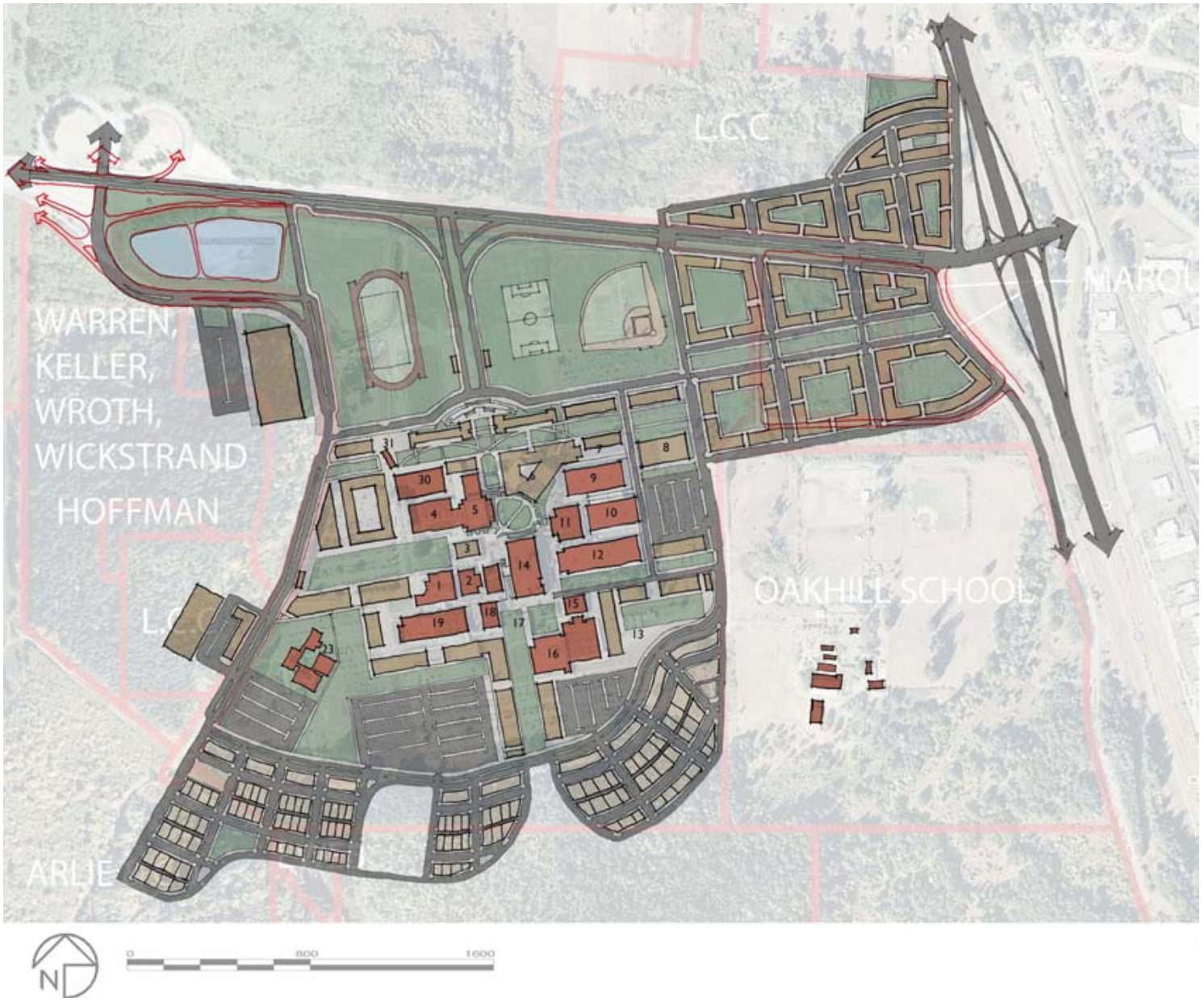
ON STREET --- 2,462 SPACES
OFF STREET --- 1,101 SPACES
SPACES GAINED --- 324

NEW BUILDINGS (IN SQUARE FEET)

MINIMUM --- 3,042,914
MAXIMUM --- 5,505,117

BUILDABLE PARCEL AREA

51 ACRES



Option 3

Building Key

1. Student Services
2. Business
3. Administration
4. Health
5. Physical Education
6. Performing Arts
7. Campus Services
8. Welding
9. Auto/Diesel
10. Aviation
11. Art/ESL/GED
12. Manufacturing/Auto
13. Annexes
14. Center
15. Electrinics
16. Math/Science
17. Forum
18. Drafting/GD
19. CML/Work Force
23. Family and Child Care
31. Longhouse

EVALUATION WORKSHOP

The Urban Design Lab held a third workshop that presented the vision statement, broad goals and guiding principles to eighteen participants. Prior to this workshop, a survey was sent out to the LCC stakeholder group asking them to rank the design goals, weighting each item on a scale of 1 (not important) to 3 (important). The average of the rankings became the Average Item Weight. The workshop reviewed the evaluation criteria and deemed 36 of the principles to be too detailed to effectively rate the draft alternative visions at the schematic stage of the design . The following goals were removed:

Appropriate Infrastructure

Hidden Infrastructure, Recycling Places, Hidden Building Support, Accessible Building Support

Complete Communities

Places to Learn, Campus Cafes, Campus Housing, Campus Retail, Places to Play

Sustainable Building and Landscape Practices:

Oriented to Sun and Wind, Four Story Limit, Narrow Buildings, Perimeter Support Buildings, Identifiable Entries, Covered Walkways, Articulated Walls, Adapted Buildings, Entries on Public Spaces, Active Ground Floors, Entrance Transitions, Green Roofs, Classrooms with Views, Varied Seating, Offset Outdoor Seating, Seating Along Pathways, Places to Smoke, Legible Landscapes, Art on Campus, Street Trees, Bioswales, Ecological Preservation & Restoration

Equitable Accessibility:

Connected Sidewalks, Great Streets, Safe Access for Bikes, Accessible Entries, Safe Access for Pedestrians

The most important criterion was Optimal Wayfinding (3.0), Clear Circulation Routes (3.0) and Accessible Routes (3.0). Four principles were added to the Goal of Feasibility: Phaseability, Constructability, Political Feasibility, and Cost. Of these new principles, the most important criterion was Phaseability (3.0) and Constructability (3.0).

At the evaluation workshop, the participants evaluated each draft alternative vision against the criteria. We used a 3-point scale: 1 (does not meet criteria) to 3 (meets criteria), then developed a weighted average by multiplying the average item weight of the criteria against the weighted average of the draft alternative vision for each criterion. For example, optimal wayfinding had an average item weight of 3.0; Alternative 1 scored an average of 1.8 for optimal wayfinding. We then multiplied 3.0 by 1.8 to get a weighted average of 5.5. These were then added to create a total score and that total score was divided against the maximum possible total to achieve a percentage score for each building type.

The results are very close for alternatives one (60.8%) and two (60.1%) with alternative three scoring the highest, with a rating of 63.9%. Although the weighted scores showed alternative three scoring highest, it was not by much. We turned to group discussion to hear and collect individual comments from the participants.

LCC Alternative Analysis	Average Item Weight	Alternative 1 Average	Weighted Score	Alternative 2 Average	Weighted Score	Alternative 3 Average	Weighted Score	Maximum Possible Score	Principle Average
GOAL: EQUITABLE ACCESSIBILTY									
Optimal Wayfinding	**3**	1.8	**5.5**	1.5	**4.5**	1.9	**5.7**	**9.0**	1.7
Hierarchy of Paths	**2.5**	1.7	**4.3**	1.6	**4.0**	2.0	**5.0**	**7.5**	1.8
Clear Circulations Routes	**3**	2.1	**6.3**	1.8	**5.3**	2.3	**7.0**	**9.0**	2.1
Gateways	**2.5**	1.8	**4.5**	1.3	**3.1**	2.4	**6.0**	**7.5**	1.8
Accessible Routes	**3**	1.9	**5.7**	1.7	**5.0**	2.0	**6.0**	**9.0**	1.9
1500 Foot Walk	**2**	2.3	**4.6**	2.2	**4.3**	2.0	**4.0**	**6.0**	2.2
Convenient Bus Stops	**2.5**	2.3	**5.8**	2.0	**5.0**	2.4	**6.0**	**7.5**	2.2
GOAL:SUSTAINABLE BUILDINGS									
Windows to the Campus	**2.5**	1.4	**3.5**	1.6	**4.1**	1.8	**4.4**	**7.5**	1.6
Natural Surveillance	**2.5**	1.5	**3.8**	1.9	**4.8**	1.9	**4.8**	**7.5**	1.8
Buildings for Spatial Structure	**2.5**	1.8	**4.5**	2.0	**5.0**	2.0	**5.0**	**7.5**	1.9
Shaped Pathways and Spaces	**2.5**	1.7	**4.3**	2.0	**5.0**	2.1	**5.2**	**7.5**	1.9
Landmark Buildings	**2.5**	1.3	**3.2**	1.5	**3.8**	1.4	**3.5**	**7.5**	1.4
Background Buildings	**2**	1.7	**3.4**	1.8	**3.6**	1.8	**3.6**	**6.0**	1.8
GOAL: SUSTAINABLE LANDSCAPES									
Civic Structure	**2.5**	1.9	**4.8**	1.9	**4.8**	1.9	**4.8**	**7.5**	1.9
Shaped Space	**2**	1.7	**3.4**	1.8	**3.6**	2.0	**4.0**	**6.0**	1.8
Ecological Preservation	**2.5**	2.1	**5.2**	2.0	**5.0**	1.5	**3.9**	**7.5**	1.9
Teaching Landscapes	**2.5**	2.1	**5.2**	2.3	**5.6**	1.3	**3.3**	**7.5**	1.9
View Corridors	**2**	1.7	**3.4**	1.3	**2.5**	2.3	**4.5**	**6.0**	1.7
Campus Quads	**2.5**	2.1	**5.3**	1.5	**3.8**	2.3	**5.8**	**7.5**	2.0
Small Parking Lots	**1.5**	1.8	**2.7**	1.9	**2.9**	1.7	**2.6**	**4.5**	1.8
GOAL: COMPLETE COMMUNITY									
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GOAL:APPROPRIATE INFRASTRUCTURE									
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GOAL: FEASABILITY									
Phaseability	**3**	2.2	**6.7**	2.5	**7.5**	2.1	**6.3**	**9.0**	2.3
Constructability	**3**	1.9	**5.6**	2.1	**6.4**	1.9	**5.7**	**9.0**	2.0
Political feasability	**2.5**	1.3	**3.1**	2.1	**5.3**	1.6	**3.9**	**7.5**	1.6
Cost	**2.5**	1.5	**3.8**	1.0	**2.5**	1.3	**3.1**	**7.5**	1.3
Total Score			108.5		107.3		114.0	178.5	
Percentage			60.8%		60.1%		63.9%		61.6%

The discussion turned to the strengths and weaknesses of all three alternatives. Some comments from the stakeholders include: the need to open up the north side of campus along 30th Avenue to allow for an unobstructed view of campus from the road, which mirrored many of the comments regarding curb appeal collected at the first two workshops. This would also allow more view from campus outwards. Housing on the hill was noted several times to be desirable. Alternatives one and three have better wayfinding. Additional strengths and weakness comments for each vision follow.

At the end of the workshop an LCC administrator added,

> "Shame on us if we haven't shared something with you that has been a part of our thinking. Currently, building #7 is the facilities building. The facilities staff has been talking about completely flipping the facilities building to the southwest corner of campus, out of sight from the main campus. Noise, activity, and deliveries would be separated from the academic core, making Gonyea Road a convenient delivery point. Additionally, that would free up the existing front door for academic purposes and create a hole for a new building opportunity, which we will one day be lacking."

REVISED DEVELOPMENT OPTION 4

DESCRIPTION

Using comments from the evaluation workshop, discussed previously in this chapter, the Urban Design Lab incorporated the strengths from the three draft alternatives to create a more optimal solution.

The revised development option 4 vision focuses on a reconfigured higher-density mixed-use commercial district nearest the I-5 interchange. This district took advantage of the buildable land on the north side of 30th Avenue, while preserving the existing wetlands. We assume a land swap or purchase of the Marquess Trust land area and concentrated development along 30th Avenue up to the south side of the I-5 interchange. Several east west park blocks allow for clear wayfinding and additional green space connecting this district to the campus. The vision also assumes that the Oregon Department of Transportations (ODOT) will upgrade the current insufficient interchange; we overlaid a single-point urban interchange over the existing condition. We also designed a modified multiway-boulevard (mwb) along 30th Avenue. These streets, common in Europe and Vietnam, have faster moving through traffic in the middle, separated by medians with parking and access lanes on the outside. The slower moving access lanes allows for local traffic – vehicular and bicycle – to gain entrance to shops, apartments, and classrooms. The development on the south and north sides of 30th Avenue use the built form and the road upgrades to mitigate congestion and create a gateway to the LCC community and into Eugene. Additionally, the upgrade of 30th Avenue could permit for multiple left-hand turn lanes, traffic signals, and planted medians; create alternative entries into the campus. Re-siting the ball fields farther north permits for an optimal visual corridors to and from the campus. A grand entry sequence is designed to slow traffic though the use of planted access lanes and a boulevard bisecting the recreation district at which terminates at a new campus core campus gateway. A proposed living learning center frames this entry and a new east west linear quad terminates at the Native American Long House. At the behest of the facilities administrator, the facilities building and its supporting needs are flipped to the west side of campus making room for additional new buildings as the need arises. A proposed renovation of the Performing Arts and Center buildings helps define a new central courtyard at Bristow Square. In this vision, only one building is razed to help frame the north-south linear green. Additional buildings as needed could frame the greens and lead to a residential district in the hills above campus, terminating in native oak habitat and surrounding forest. Additional support buildings are proposed that reinforce and shape the civic, open, and teaching spaces throughout campus.

ATTRIBUTES

PARKING

ON STREET --- 2,874 SPACES

OFF STREET --- 1,101 SPACES

SPACES GAINED --- 736

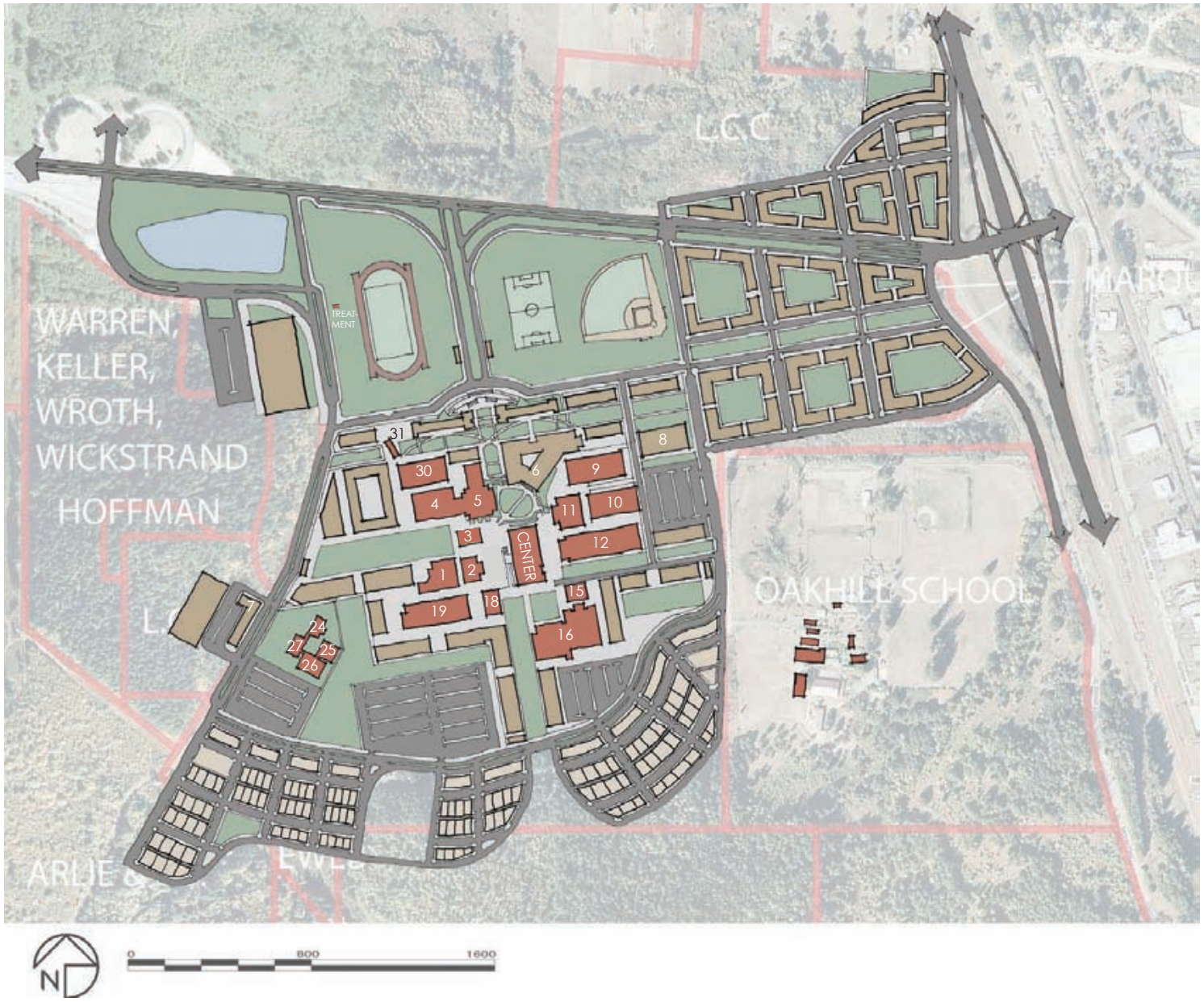
NEW BUILDINGS (IN SQUARE FEET)

MINIMUM --- 2,822,976

MAXIMUM --- 5,177,210

BUILDABLE PARCEL AREA

45 ACRES



Revised Option 4

Building Key

1. Student Services
2. Business
3. Administration
4. Health
5. Physical Education
6. Performing Arts
7. Campus Services
8. Welding
9. Auto/Diesel
10. Aviation
11. Art/ESL/GED
12. Manufacturing/Auto
14. Center
15. Electrinics
16. Math/Science
18. Drafting/GD
19. CML/Work Force

24-26. Family and Child Care

31. Longhouse

STRENGTHS

1. Responds to the planning vision.
2. Satisfies all stakeholder comments.
3. Meets the Design Principles – highlights include:

   a. The goal of equitable accessibility provides optimal wayfinding throughout campus by defining gateways and setting up a hierarchy of paths, while maintaining a 1500-foot walk perimeter between convenient bus stops.

   b. The vision supports the goal of complete community by proposing support districts that could facilitate services and amenities like campus cafes, housing, retail, and places to play to the LCC community, while maintaining the educational mission by providing varied places to learn.

   c. The vision works within the context of sustainable building and landscape practices by utilizing buildings to create shaped pathways and space linked by campus quads that preserve view corridors and hide small parking lots.

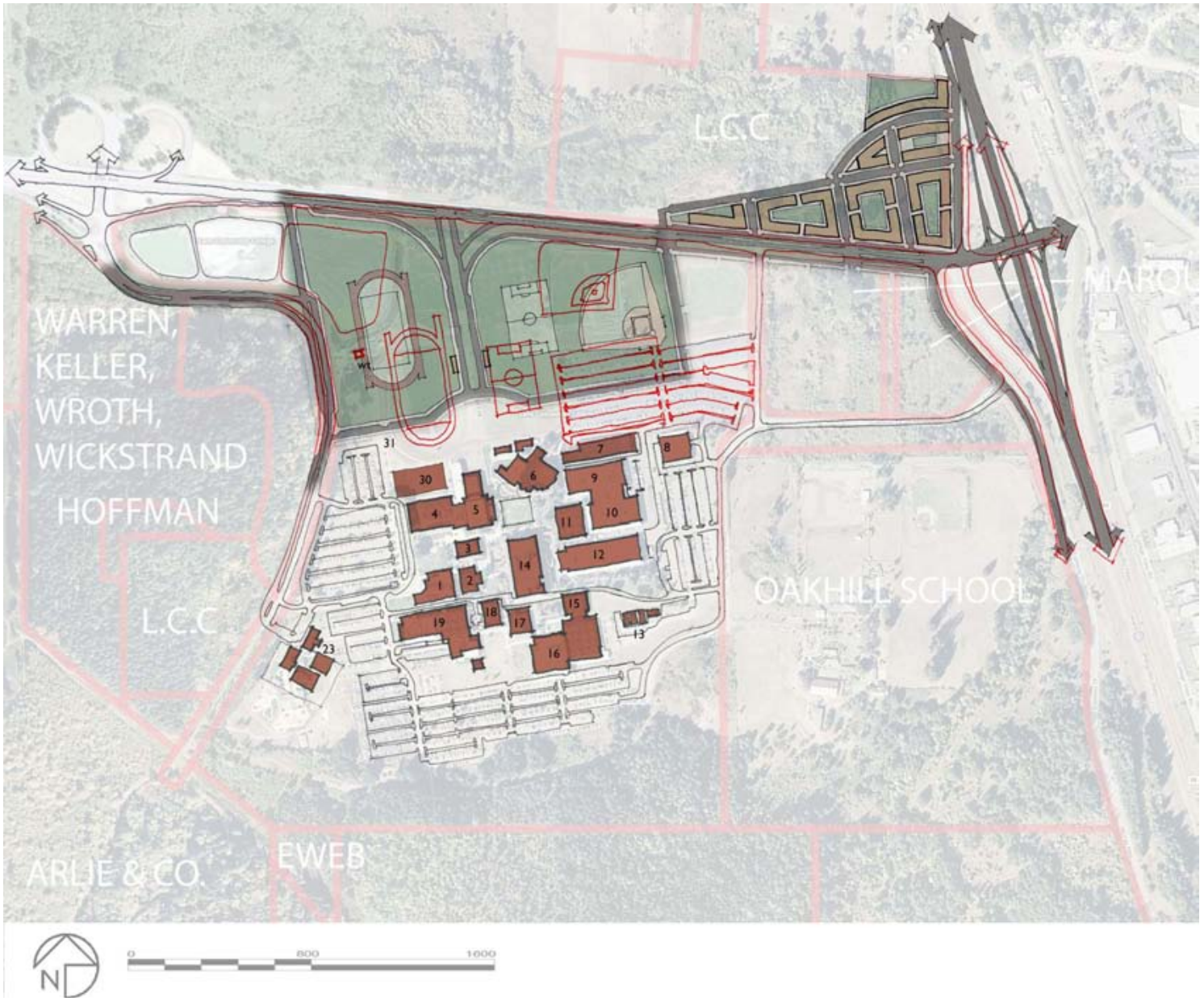
4. Preserves a majority of LCC's unbuildable land holdings as natural and native habitat for recreation and education.
5. The recreation fields and pond create a verdant front entry providing 'curb appeal' and a clear view out from and in to campus.
6. Requires minimal building demolition.
7. Replaces the multilayered campus core with a universally designed tiered campus.
8. Creates connections to the surrounding landscape.
9. Adds great streets that link the mixed-use district to the campus core and lower density residential neighborhood maximizing the use of buildable land.
10. Provides an alternative revenue stream through the development of housing, commercial, and retail spaces.

ISSUES

1. The track is ready for renovation. If the renovation was to proceed as planned it would halt the primary design implementation: the new entry sequence, green fields as the front door and primary north south link into campus.
2. Per this vision, one of the three retention ponds would be removed, while the remaining ponds would stay connected to the new wastewater treatment plant.
3. The Performing Arts building is slated for several additions that would not add to the building structure forming the main east west quad. By waiting, a new design could add to the civic structure of campus and furthermore create additional space not planned in the current addition.
4. The Center Building is a mega structure that currently disrupts the flow movement, ease of access and adds the separation of space on many levels. A renovation of the interior and exterior space could draw light into the building and add to the campuses civic structure. It could literally become the beating heart to an ever-active campus.
5. Building seventeen (Forum) is one of two buildings proposed for demolition in this vision. The removal of the Forum building would allow for better wayfinding, civic structure through linking spaces from the upper, middle, and eventually, lower campuses.

PHASE 1

The following images detail proposed phasing drawings for implementation of the development vision. Facilities shown in rust are existing facilities. Those shown in red are being removed during that phase and those shown in illustration are additions during that phase.



PHASE 1:

Building Key

1. Student Services
2. Business
3. Administration
4. Health
5. Physical Education
6. Performing Arts
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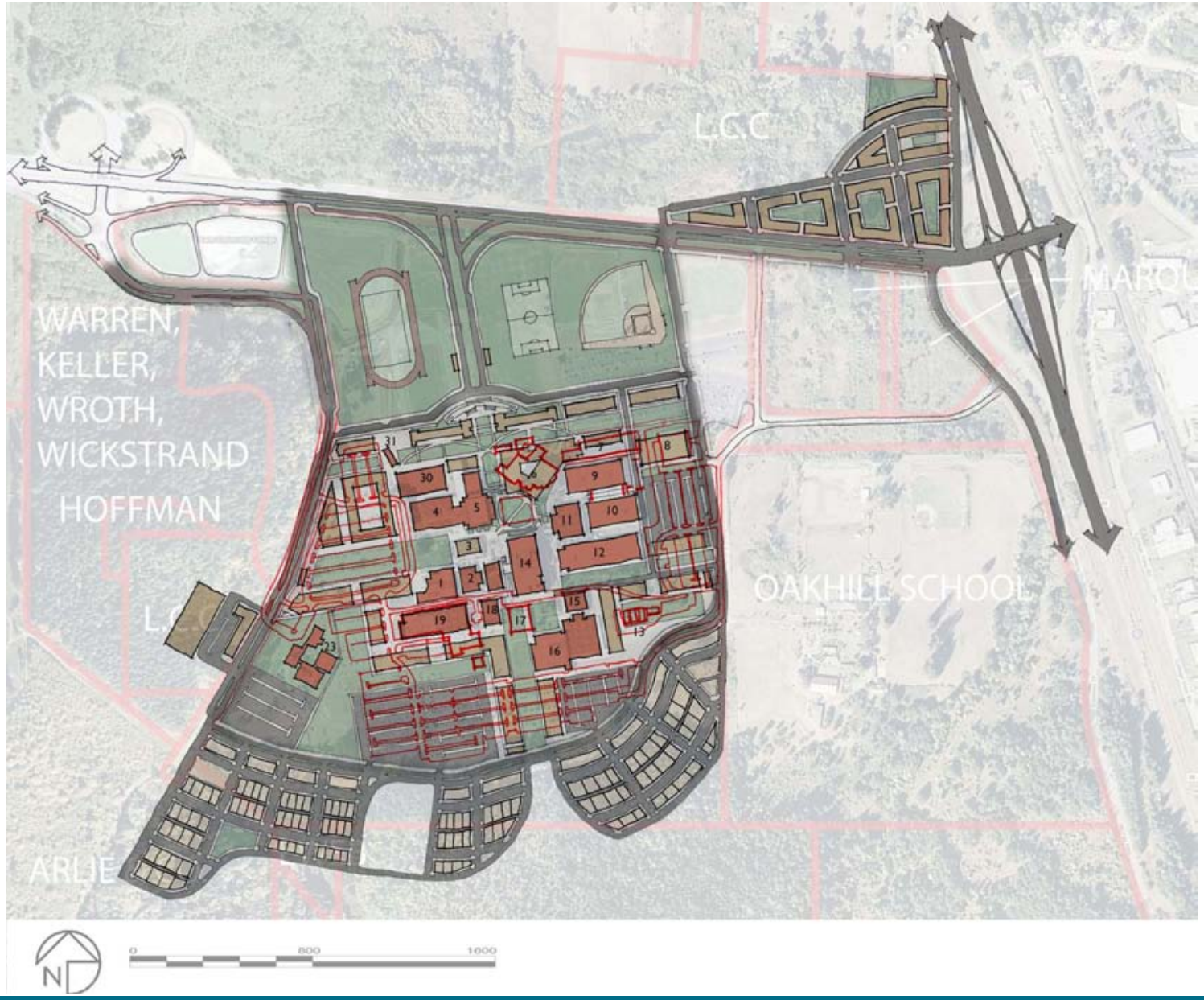
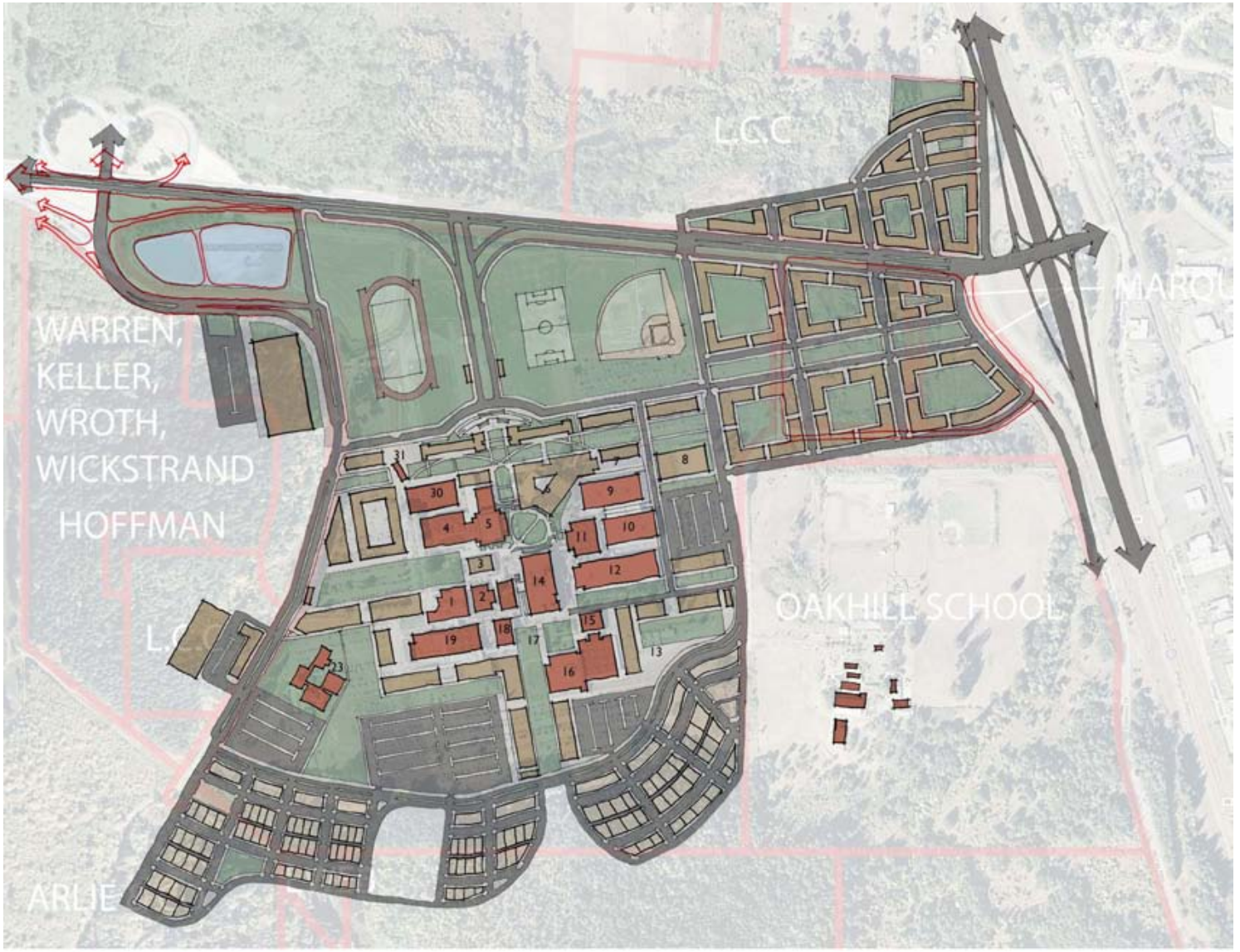
17. Forum
18. Drafting/GD
19. CML/Work Force
23. Family and Child Care
31. Longhouse



PHASE 2:

Building Key

1. Student Services
2. Business
3. Administration
4. Health
5. Physical Education
6. Performing Arts
7. Campus Services
8. Welding
9. Auto/Diesel
10. Aviation
11. Art/ESL/GED
12. Manufacturing/Auto
13. Annexes
14. Center
15. Electrinics
16. Math/Science
17. Forum
18. Drafting/GD
19. CML/Work Force
23. Family and Child Care
31. Longhouse

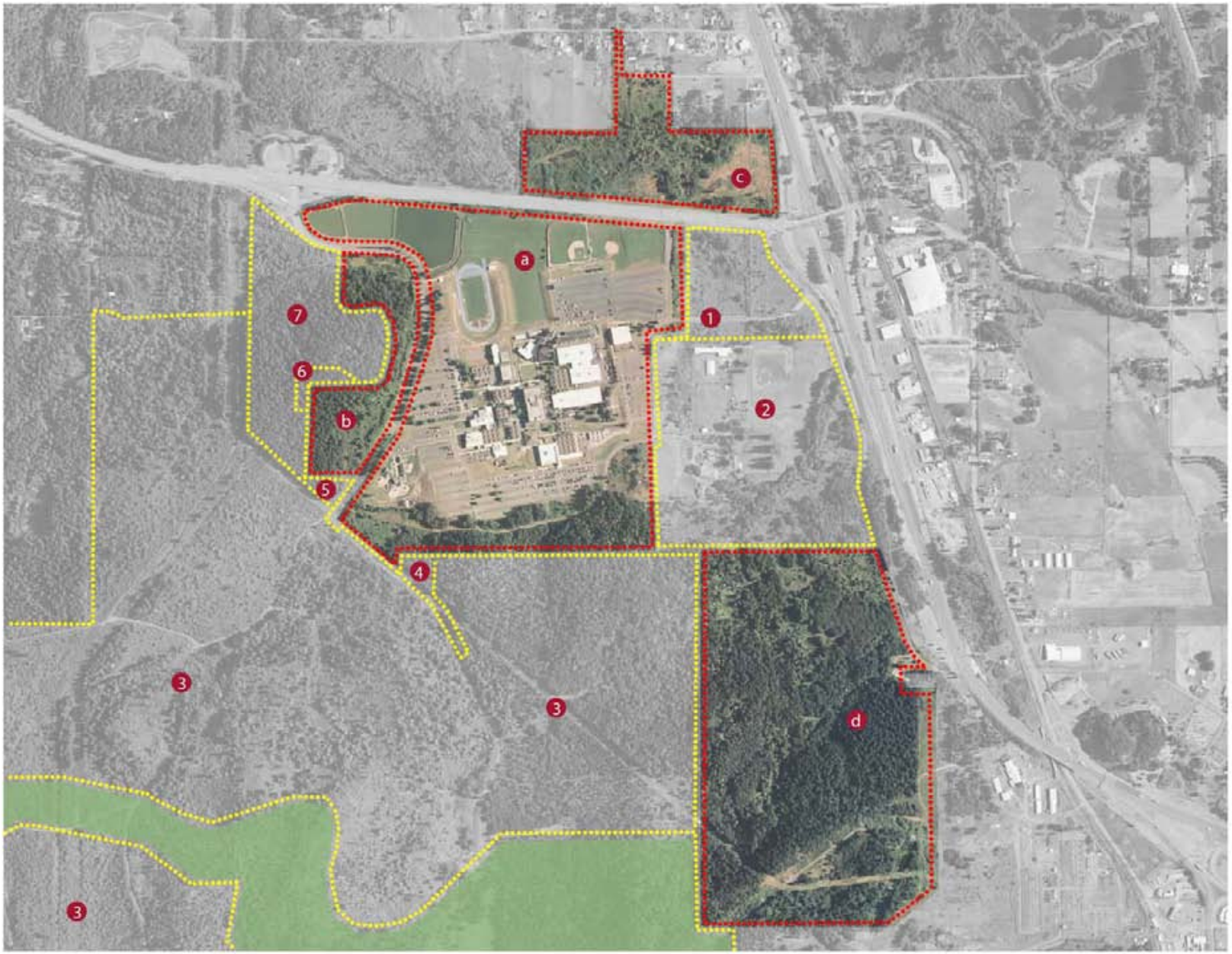


PHASE 3:

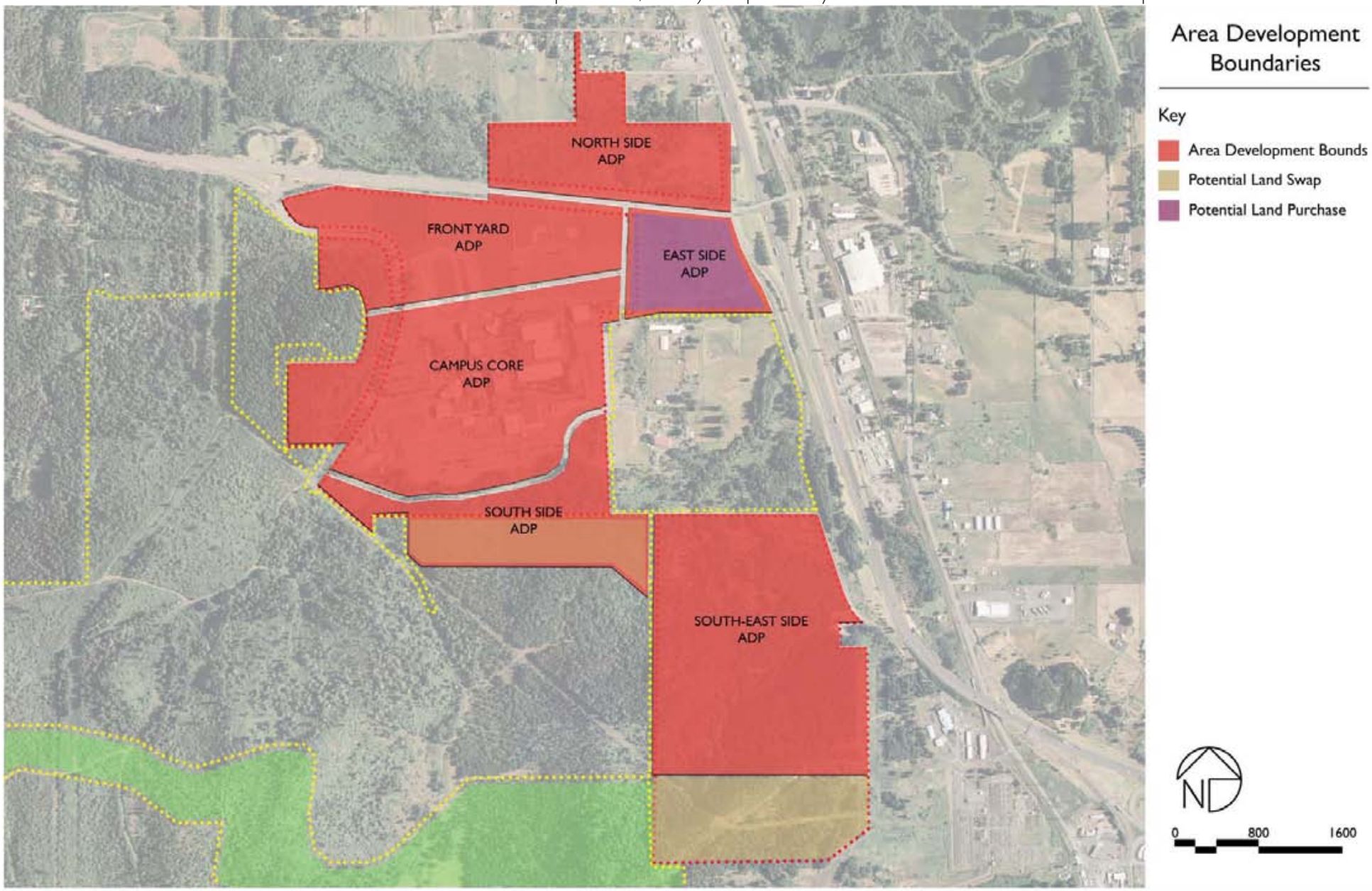
Building Key

1. Student Services
2. Business
3. Administration
4. Health
5. Physical Education
6. Performing Arts
7. Campus Services
8. Welding
9. Auto/Diesel
10. Aviation
11. Art/ESL/GED
12. Manufacturing/Auto
13. Annexes
14. Center
15. Electrinics
16. Math/Science
17. Forum
18. Drafting/GD
19. CML/Work Force
23. Family and Child Care
31. Longhouse

This map shows the LCC and adjacent area parcels including the extention of the Ridgeline Trail at a scale that will be used from here forward.



This map shows one scenario of how LCC can divide its and surrounding land into detailed development scenarios. Three distinct phases of development are represented here and in the following development option: 1) LCC Owned Land, 2) the possibility for a Land Swap or easement with Arlie to connect the South-East Side ADP to the South Side and Campus Core, and 3) the possibility to Purchase land for future development.



REVISED DEVELOPMENT OPTION 5
LCC OWNED LAND

DESCRIPTION

Using comments from the Lane Community College Open House, and subsequent meetings with the athletic pug, the Urban Design Lab incorporated the strengths from the Revised Development Option 4 and made additional changes from many of the weaknesses.

This revised development option 5 vision focuses on using LCC's existing portfiolio of land only. It continues to create a higher-density mixed-use commercial district nearest the I-5 interchange and the portion of buildable land on the north side of 30th Avenue, while preserving the existing wetlands.

This option also designed a modified multiway-boulevard (mwb) along 30th Avenue. These streets, common in Europe and Vietnam, have faster moving through traffic in the middle, separated by medians with parking and access lanes on the outside. The slower moving access lanes allows for local traffic – vehicular and bicycle – to gain entrance to shops, apartments, and classrooms. The development on the south and north sides of 30th Avenue use the built form and the road upgrades to mitigate congestion and create a gateway to the LCC community and into Eugene.

The boulevard could be developed piece-meal, as adjacent buildable lands are developed. Additionally, the upgrade of 30th Avenue could permit for multiple left-hand turn lanes, traffic signals, and planted medians; create alternative entries into the campus. Re-siting the ball fields farther north permits for an optimal visual corridors to and from the campus.

LCC's two main entrances are designed to divide and slow traffic though the use of planted access lanes and a boulevard bisecting the recreation district at which terminates at a new campus core campus gateway.

The soccer pitch and baseball field are shifter north and east to make room for the first of two proposed living learning centers that starts to frame the entry and new east west linear quad. At the behest of the facilities administrator, the facilities building and its supporting needs are flipped to the west side of campus making room for additional new buildings as the need arises. A proposed renovation of the Performing Arts and Center buildings helps define a new central courtyard at Bristow Square. No buildings are removed from this option. Additional support buildings are proposed that reinforce and shape the civic, open, and teaching spaces throughout campus.

ATTRIBUTES

PARKING

ON STREET --- 987 SPACES

OFF STREET --- 1,966 SPACES

SPACES LOST --- 286

NEW BUILDINGS (IN SQUARE FEET)

MINIMUM --- 2,346,729

MAXIMUM --- 5,510,818

BUILDABLE PARCEL AREA

51 ACRES


Development Option
LCC Owned Land
Key
Existing Buildings
Notional Buildings
Grass
Roads
Pathways
Water
Removed
N
0
800
1600

REVISED DEVELOPMENT OPTION 5: SECOND PHASE LAND SWAP

DESCRIPTION

This phased option continues to use current LCC owned land to develop and assume a land swap or easement to gain access to southern LCC forest district.

This option also assumes that the Oregon Department of Transportations (ODOT) will upgrade the current insufficient interchange; we overlaid a single-point urban interchange over the existing condition.

The LCC forest district allows for added residential and commercial development while linking the Suzanne Arlie Ridgeline Trail Connector to the campus. The street framework is made up of main through streets and service alleyways.

The below attributes include the calculations from the first phase.

ATTRIBUTES

PARKING

ON STREET --- 2,209 SPACES

OFF STREET --- 1,966 SPACES

SPACES GAINED --- 936

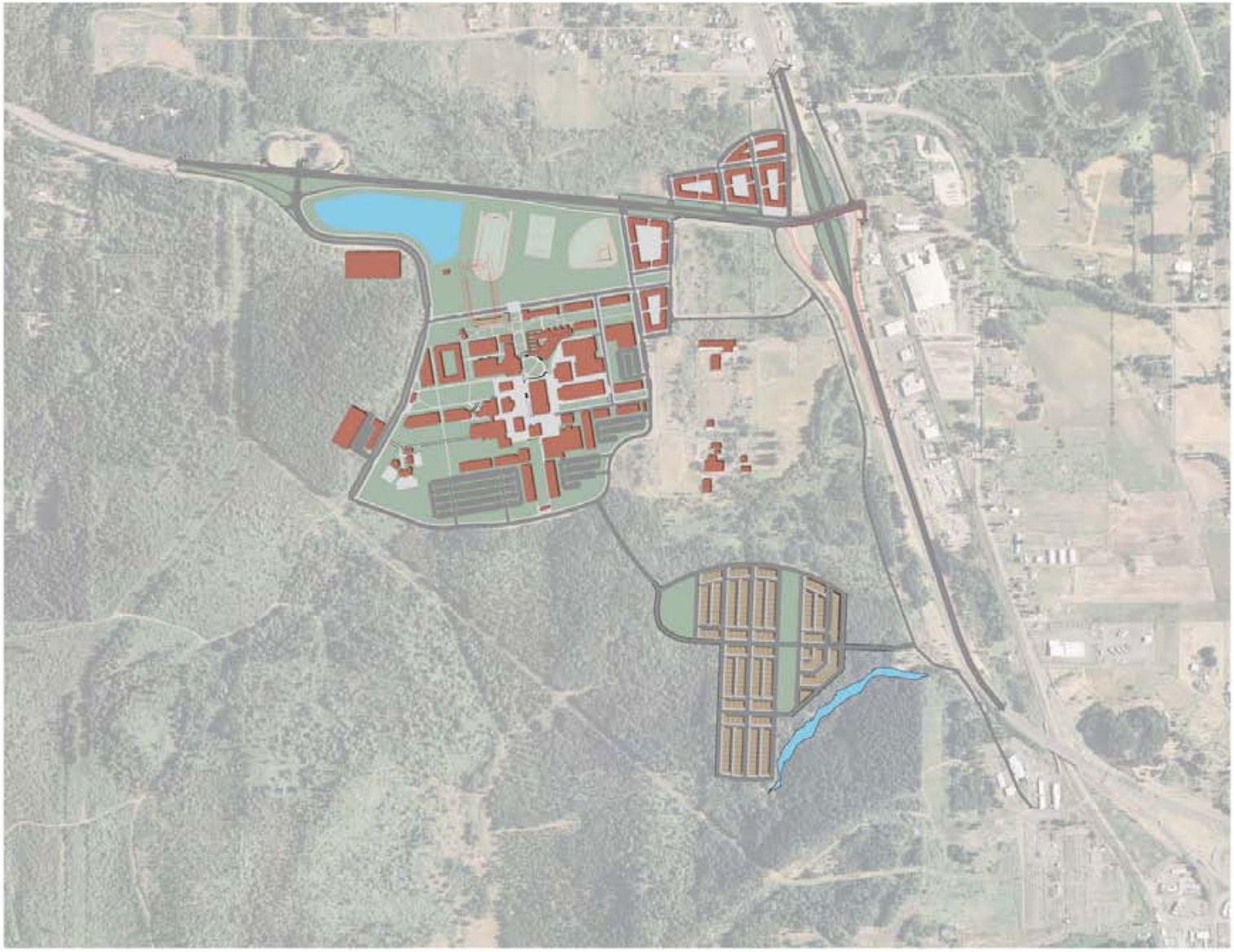
NEW BUILDINGS (IN SQUARE FEET)

MINIMUM --- 3,489,909

MAXIMUM --- 7,892,664

BUILDABLE PARCEL AREA

85 ACRES


Development Option
Land Swap
Key
Existing Buildings
Notional Buildings
Grass
Roads
Pathways
Water
Removed
N
0
800
1600

REVISED DEVELOPMENT OPTION 5: THIRD PHASE PARCEL PURCHASE

DESCRIPTION

This phase of development focuses on the purchase of the Marquess Trust land area furhter concentrating development along 30th Avenue up to the south side of the I-5 interchange. Several east west park blocks allow for clear wayfinding and additional green space connecting this district to the campus.

The below attributes include calculations from the first and second phases.

ATTRIBUTES

PARKING

ON STREET --- 2,526 SPACES

OFF STREET --- 3,196 SPACES

SPACES GAINED --- 2,483

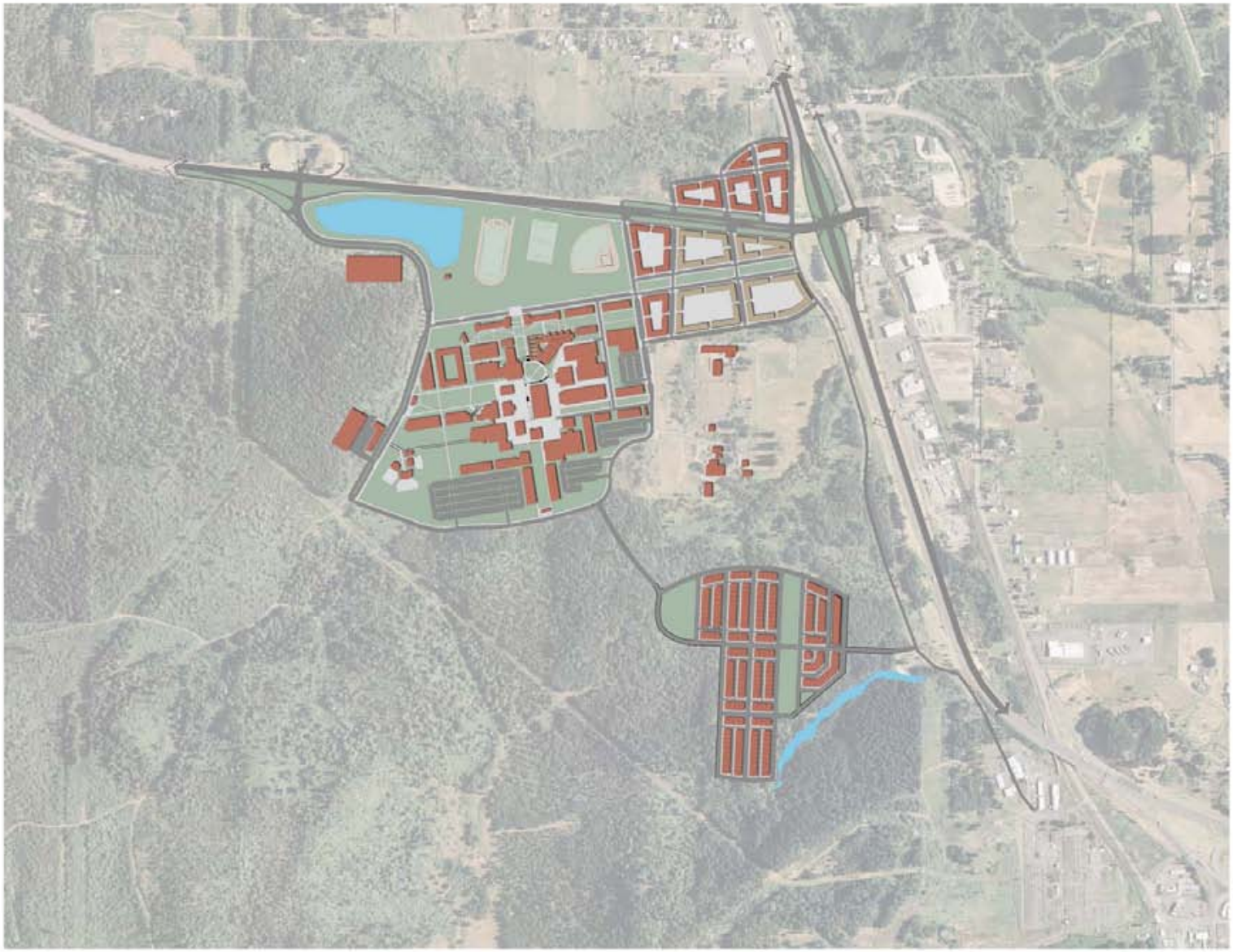
NEW BUILDINGS (IN SQUARE FEET)

MINIMUM --- 3,743,211

MAXIMUM --- 8,905,872

BUILDABLE PARCEL AREA

119 ACRES


Development Option
Parcel Purchase
Key
Existing Buildings
Notional Buildings
Grass
Roads
Pathways
Water
Removed
N
0
800
1600

Appendix I

LIST OF PROTOTYPE PROJECTS & PROFORMAS

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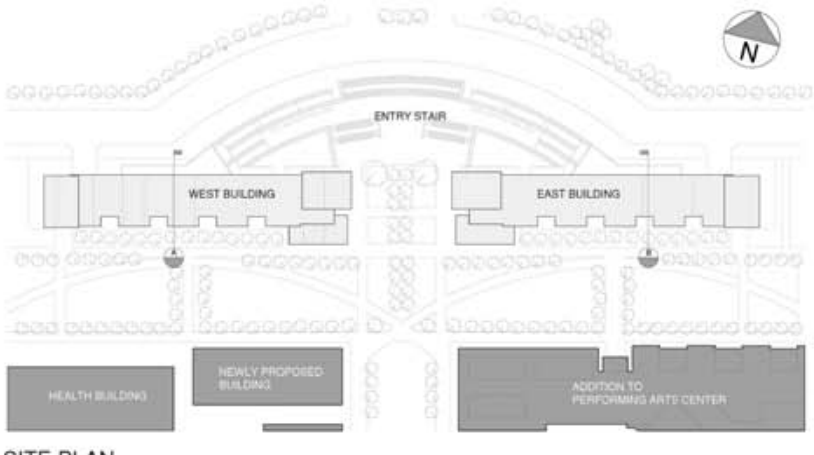
Student Prototype Project 1

LCCSC LANE COMMUNITY COLLEGE STUDENT CENTER

MATHEW DRESKA TERMINAL STUDIO ARCH 486 WINTER 2010 PROF: MARK GILLEM

VISION

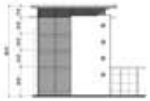
To create a sustainable student living center that utilizes natural light and provides comfortable rooms for every student with easily accessible outdoor social and gathering spaces.



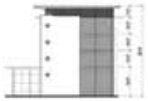
SITE PLAN
1:50

NORTH ELEVATION
1:20

EAST ELEVATION
1:20

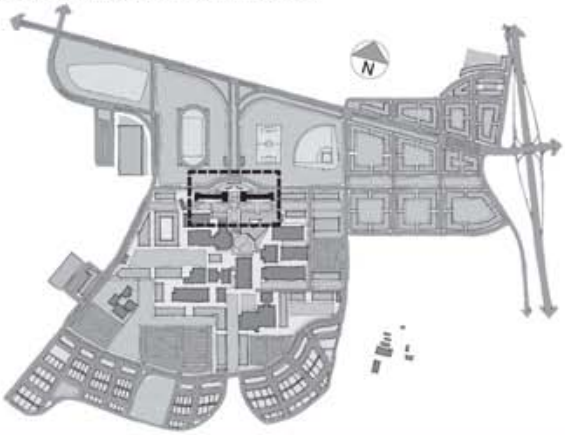


WEST ELEVATION
1:20



EAST ELEVATION
1:20

WEST ELEVATION
1:20



CONTEXT PLAN
1:300

SOUTH ELEVATION
1:20

Student Project 1: Feasibility Analysis

Construction cost budget at $125 PSF (wood) and $150 PSF (post tension concrete) plus a contingency of 6%.

Area and Density

Site 1

Acreage	1.74		
Beds	168	86	Units
Density (beds/acre)	0.0	49.4	Density (units/acre)

Income and Unit Mix

Site 1

Unit Type Beds/Baths	Quantity of Units*	Quantity of Beds	Fraction of Total	Gross Area (SF)	Total Area (SF)	Correlated Rent	Correlated Rent per SF	Pro Forma Rent	Pro Forma Rent per SF	Income
Double	64	128	76.2%	320	20,480	$958	$2.99	$950	$2.97	$121,600
Single	4	4	2.4%	320	1,280	$1,195	$3.73	$1,000	$3.13	$4,000
Suite Double	18	36	21.4%	638	11,484	$1,432	$2.24	$1,300	$2.04	$46,800
4 BR/2.5 TH- Sgles	0	0	0.0%	309	0		$0.00	$850	$2.75	$0
										$0
						0		0		
Total/Average	86	168	100.0%	388	33,244	$1,065	$2.74	$1,026	$2.64	$172,400

Parking, Amenity, and Commercial Income:	Qty.		Price		Total
Garage Parking	88	@	$75		$6,600
Premium View	0	@	-		0
Commercial Space	0	SF @	-	NNN	0
Muliti Purpose Space Rental	4	@	1,000		$4,000
Gross Monthly Rental Income					$183,000
Gross Annual Rental Income					$2,196,000

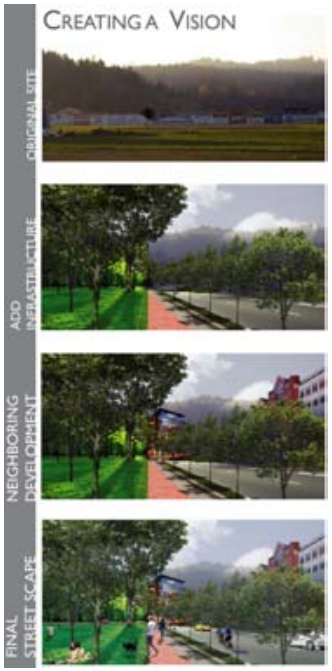
Building Areas and Costs

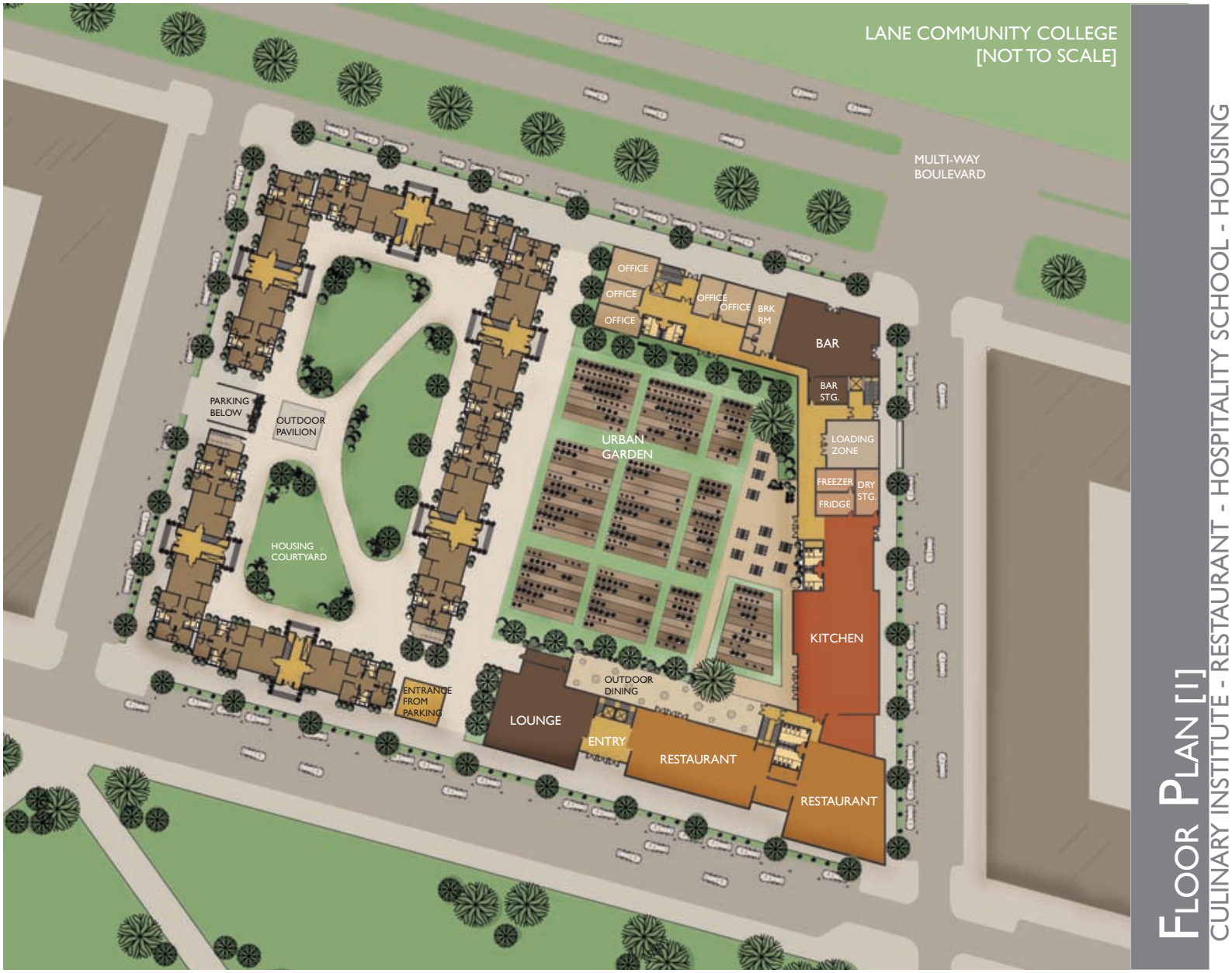
Unit Type	Qty.	Gross Area	Common Area & Circulation	Commercial Area	Program Area	Net Rentable SF	Hard Cost per SF	Hard Cost per Unit
Demo Area	0	0	-	0	-	0	$15.00	$0
Site 1 Building Area	1	99,312	36,604	0	9,300	33,244	$125.00	$12,414,000
Site 2 Wood Frame	0	0	-	0	-	0	$125.00	$0
Site 2 Tower	0	0	-	0	3,200	0	$150.00	$0
LEED Upgrade								$744,840
Garage Area	1	25,484		0		28,600	$92.90	$2,367,464
Total	1	124,796	36,604	0	12,500	33,244	156.34	$15,526,304
Average		1,451	426	-	145	387	$467.04	$180,538
Percentage of Total Area		66.0%	29.3%	0.0%	10.0%	26.6%		

Development Budget		Total	Per Bed	Per Gross SF
Land Leased		$0	$0	$0.00
Architectural & Engineering	8% of Hard Cost	1,242,104	$7,393	9.95
Municipal Fees, Permits & Mitigation	(entered manually)	300,000	$1,786	2.40
Hard Construction Costs	(from Building Area Matrix)	15,526,304	$92,418	124.41
Furniture, Fixtures and Equipment		352,000	$2,095	2.82
Nonprofit Start-up OH Fee		130,000	$774	1.04
Development Fee	6.0% of Total Development Costs	1,735,000	$10,327	13.90
Construction Financing (net of interim NOI)	(From Interest worksheet)	1,957,950	$11,654	15.69
Legal, Closing & Taxes	(formula)	50,000	$298	0.40
Pre-leasing and Marketing		200,000	$1,190	1.60
Contingency	6.0% of Hard Costs	931,578	$5,545	7.46
Total Development Costs		$22,424,936	$133,482	$179.69

Yield Analysis	2010 As if Stabilized	2012 As if Stabilized
Yield on Cost	7.31%	8.07%
Yield on Cost without g.c. and offiste overhead fees	7.97%	8.80%

Student Prototype Project 2





Floor Plan [1]

CULINARY INSTITUTE - RESTAURANT - HOSPITALITY SCHOOL - HOUSING

Student Project 2: Feasibility Analysis

Value to Nonprofit Entity- 6.00% Cap Rate	$ 33,000,000
Development Cost excluding Land Value- Funded in Credit Enhanced Series A Bonds	23,200,000
Land Value- Leased to Nonprofit Entity	0
Series C Bond- Unrecovered cost and Profit	$ 9,800,000

Project:
Financing with a tax exempt bond of $23,200,000
Construction cost budget at $125 PSF (wood) and $150 PSF (post tension concrete) plus a contingency of 6%.

Area and Density

Site 1

Acreage	3.34		
Beds	144	36	Units
Density (beds/acre)	0.0	10.8	Density (units/acre)

Site 2

Acreage	0.00		
Beds	0	26	Units
Density (beds/acre)	0.0	7.8	Density (units/acre)

Income and Unit Mix

Site 1

Unit Type Beds/Baths	Quantity of Units*	Quantity of Beds	Fraction of Total	Gross Area (SF)	Total Area (SF)	Correlated Rent	Correlated Rent per SF	Pro Forma Rent	Pro Forma Rent per SF	Income
2 BR/2.5 TH- Sgles	0	0	0.0%	264	0	$1,165	$4.41	$850	$3.22	$0
2 BR/2.5 TH- Dbles	0	0	0.0%	264	0	$876	$3.31	$750	$2.84	$0
2 BR/2.5 TH- Dbles	0	0	0.0%	1,373	0	$876	$0.64	$750	$0.55	$0
4 BR/2 TH- Sgles	36	144	100.0%	1,470	211,680	$1,165	$0.79	$850	$0.58	$122,400
4 BR/2.5 TH- Dbles	0	0	0.0%	309	0	$876	$2.83	$750	$2.43	$0
Total/Average	36	144	100.0%	1,470	211,680	$1,165	$0.79	$850	$0.58	$122,400

*Total of 29 units: 14 2 BR units on the north parking lot; 5 2 BR units above the church addition; 5 2 BR units and 5 4 BR units on the Patterson Street side.

Note-2009-2010 Dorm rents have been increased 12% to 17% across the board.

Parking, Amenity, and Commercial Income:	Qty.		Price		Total
Garage Parking	234	@	$50		$11,700
Premium View	0	@	50		0
Commercial Space	44,041	SF @	3.00	NNN	132,123
Muliti Purpose Space Rental	0	@	500		$0
Gross Monthly Rental Income					$266,223
Gross Annual Rental Income					$3,194,676

Building Areas and Costs

Unit Type	Qty.	Gross Area	Common Area & Circulation	Commercial Area	Program Area	Net Rentable SF	Hard Cost per SF	Hard Cost per Unit
Demo Area	0	0	-	0	-	0	$15.00	$0
Site 1 Building Area	30	63,796	10,440	0	9,300	211,680	$125.00	$7,974,500
Site 2 Wood Frame	12	0	-	0	-	0	$125.00	$0
Site 2 Tower	22	133,772	26,121	44,041	3,200	0	$150.00	$20,065,800
LEED Upgrade								$1,682,418
Garage Area	1	98,110		0		98,110	$50.00	$4,905,500
Total	64	295,678	36,561	44,041	12,500	211,680	175.27	$34,628,218
Average		8,213	1,016	1,223	347	5,880	$163.59	$961,895
Percentage of Total Area		103.1%	12.4%	14.9%	4.2%	71.6%		

Development Budget

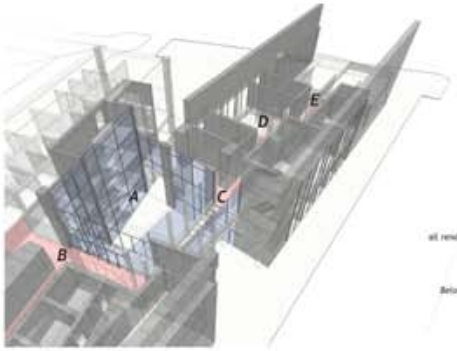
		Total	Per Bed	Per Gross SF
Land Leased		$0	$0	$0.00
Architectural & Engineering	8% of Hard Cost	2,770,257	$19,238	9.37
Municipal Fees, Permits & Mitigation	(entered manually)	300,000	$2,083	1.01
Hard Construction Costs	(from Building Area Matrix)	34,628,218	$240,474	117.11
Furniture, Fixtures and Equipment		316,000	$2,194	1.07
Nonprofit Start-up OH Fee		130,000	$903	0.44
Development Fee	6.0% of Total Development Costs	-	$0	0.00
Construction Financing (net of interim NOI)	(From Interest worksheet)	2,281,274	$15,842	7.72
Legal, Closing & Taxes	(formula)	50,000	$347	0.17
Pre-leasing and Marketing		200,000	$1,389	0.68
Contingency	6.0% of Hard Costs	2,077,693	$14,428	7.03
Total Development Costs		$42,753,443	$296,899	$144.59

Yield Analysis	2010 As if Stabilized	2012 As if Stabilized
Yield on Cost	6.08%	6.70%
Yield on Cost without g.c. and offiste overhead fees	6.09%	6.72%

Student Prototype Project 3

Madulid Spa & Mixed Use Building

PATRICK MADULID TERMINAL STUDIO PROF MARK GILLEM



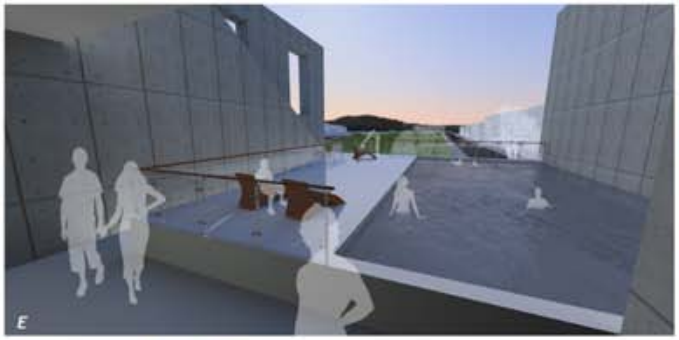
Below, left: View up entry stairs (diagram at left, A); all renderings generated in Kerkythea Rendering System 2008

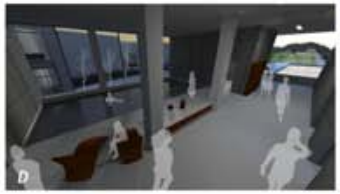
Below: View into courtyard from men's floor (B)

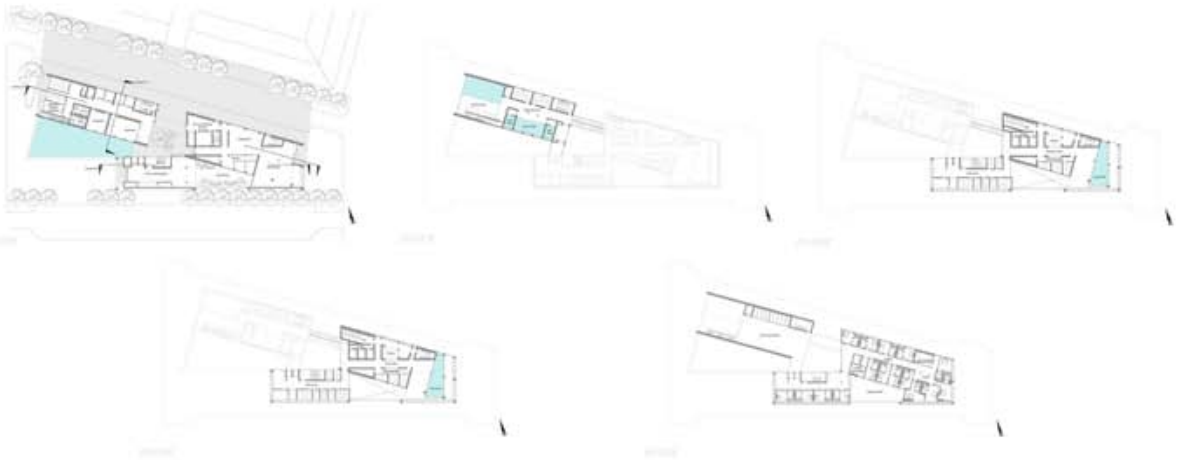
Below, right: View into courtyard from communal area (C)

Below, far right: View of indoor communal pool (D)

Right: View of outdoor communal pool (E)







Student Project 3: Feasibility Analysis

Development Cost excluding Land Value- Funded in Credit Enhanced Series A Bonds	23,200,000
Land Value- Leased to Nonprofit Entity	0
Series C Bond- Unrecovered cost and Profit	$ 9,800,000

Project:
Financing with a tax exempt bond of $23,200,000
Construction cost budget at $125 PSF (wood) and $150 PSF (post tension concrete) plus a contingency of 6%.

Area and Density
Site 1

Acreage	1.351		
Beds	16.000	16.000	Units
Density (beds/acre)	11.843	11.843	Density (units/acre)

Site 2

Acreage			
Beds			
Density (beds/acre)			

Income and Unit Mix
Site 1

Unit Type Beds/Baths	Quantity of Units*	Quantity of Beds	Fraction of Total	Gross Area (SF)	Total Area (SF)	Room RATE	75% Occupancy	Pro Forma Rent	Pro Forma Rent per SF	Income
1bdrm/1ba	12	12	75.0%	351	4,212	$175	22.50	$0	$0.00	$47,250
1bdrm/1ba (Suites)	4	4	25.0%	446	1,784	$200	22.50	$0	$0.00	$18,000
2 BR/2.5 TH- Dbles	0	0	0.0%	0	0	$0	$0.00	$0	$0.00	$0
4 BR/2.5 TH- Sgles	0	0	0.0%	0	0	$0	$0.00	$0	$0.00	$0
4 BR/2.5 TH- Dbles	0	0	0.0%	0	0	$0	$0.00	$0	$0.00	$0
Total/Average	**16**	**16**	**100.0%**	375	**5,996**	$181	$0.48	$0	$0.00	**$65,250**

Parking, Amenity, and Commercial Income:	Qty.		Price	Total
Spa Rental (Private)	4	@	$500.00	$2,000
Spa Rental	37,725	@	$2.00	75,450
Retail Rental	2,858	@	$2.00	5,717
Classroom Rental	6,000	SF @	$0.00	$0.00
student fee	16,000	@	$1.00	$16,000
staff fee	1,000	@	$1.00	$1,000
Gross Monthly Rental Income				$165,417
Gross Annual Rental Income				$1,985,004

Building Areas and Costs

Unit Type	Qty.	Gross Area	Common Area & Circulation	Commercial Area	Program Area	Net Rentable SF	Hard Cost per SF	Hard Cost per Unit
Demo Area	0	0	-	0	-	0	$15.00	$0
Spa Building Area	1	82,764				2,858	$150.00	$12,414,536
Subfloor Systems	1	25,048	-	0	-	0	$150.00	$3,757,138
-	0	0	-	0	-	0	$150.00	$0
LEED Upgrade								$1,617,167
Garage Area	1	0		0		0	$50.00	$0
Total	2	107,811	0	0	0	2,858	165.00	**$17,788,842**
Average		6,738	-	-	-	179	$6,224.23	$1,111,803
Percentage of Total Area		2.7%	0.0%	0.0%	0.0%	2.7%		

Development Budget		Total	Per Bed	Per Gross SF
Land Leased		$0	$0	$0.00
Architectural & Engineering	8% of Hard Cost	1,423,107	$88,944	13.20
Municipal Fees, Permits & Mitigation	(entered manually)	300,000	$18,750	2.78
Hard Construction Costs	(from Building Area Matrix)	17,788,842	$1,111,803	165.00
Furniture, Fixtures and Equipment		124,000	$7,750	1.15
Nonprofit Start-up OH Fee		130,000	$8,125	1.21
Development Fee	6.0% of Total Development Costs	$0.00	$0	0.00
Construction Financing (net of interim NOI)	(From Interest worksheet)	1,989,080	$124,317	18.45
Legal, Closing & Taxes	(formula)	50,000	$3,125	0.46
Pre-leasing and Marketing		200,000	$12,500	1.86
Contingency	6.0% of Hard Costs	1,067,331	$66,708	9.90
Total Development Costs		$23,072,360	$1,442,022	$214.01

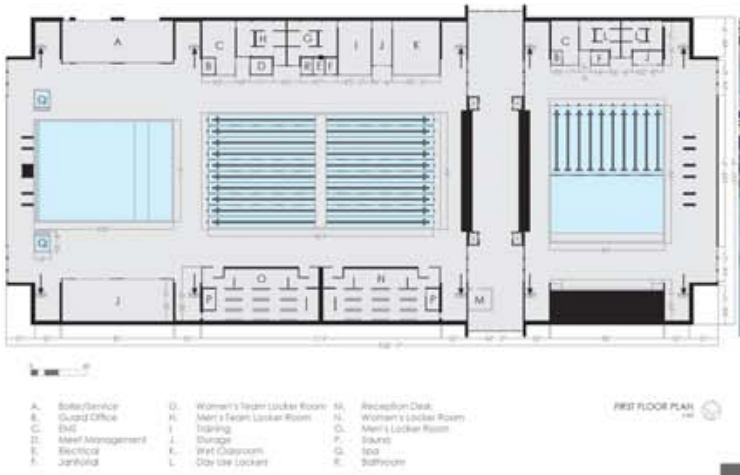
Yield Analysis

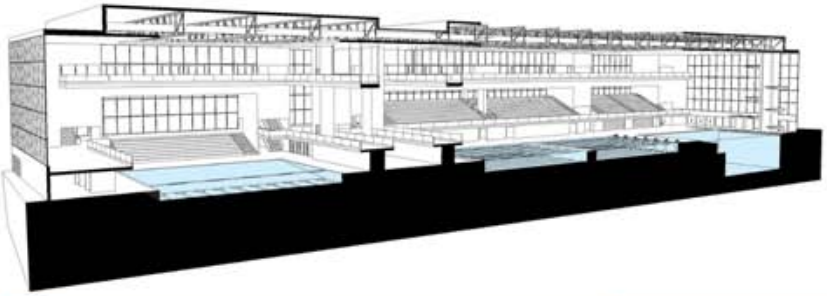
	2010 As if Stabilized	2012 As if Stabilized
Yield on Cost	**6.74%**	**7.47%**
Yield on Cost without g.c. and offiste overhead fees	6.78%	7.51%

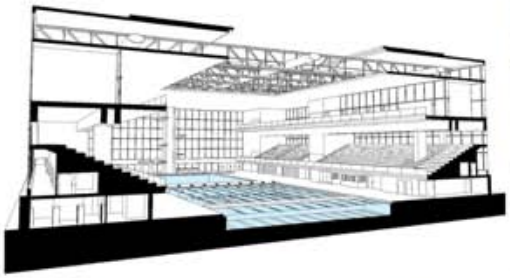
Student Prototype Project 4

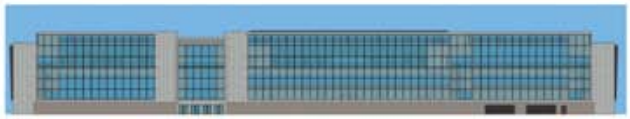
LANE COUNTY AQUATIC CENTER

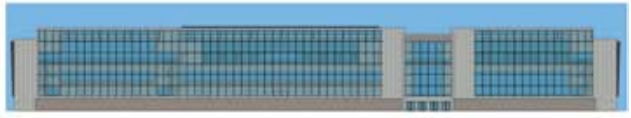
MIKE WILSON TERMINAL STUDIO PROF. MARK GILLEM

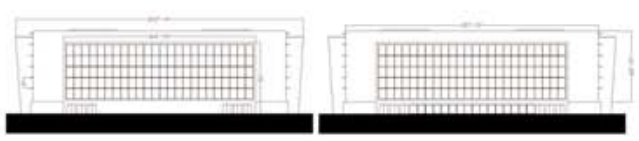


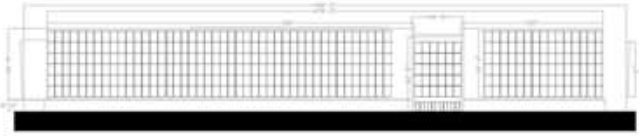












Student Project 4: Feasibility Analysis

Value to Nonprofit Entity- 6.00% Cap Rate	$ 36,681,426
Development Cost excluding Land Value- Funded in Credit Enhanced Series A	14,325,216
Land Value	0
Series C Bond- Unrecovered cost and Profit	$ 22,356,210

Area and Density

Site 1

Acreage	1.47		
Beds	0	30	Units
Density (beds/acre)	0.0	20.4	Density (units/acre)

Site 2

Acreage	0.41		
Beds	1	26	Units
Density (beds/acre)	0.7	17.7	Density (units/acre)

Income and Unit Mix

Site 1

Unit Type Beds/Baths	Quantity of Units*	Quantity of Beds	Fraction of Total	Gross Area (SF)	Total Area (SF)	Correlated Rent	Correlated Rent per SF	Pro Forma Rent	Pro Forma Rent per SF	Income
2 BR/2.5 TH- Sgles	14	0	#DIV/0!	264	0	$1,165	$4.41	$850	$3.22	$0
2 BR/2.5 TH- Dbles	0	0	#DIV/0!	264	0	$876	$3.31	$750	$2.84	$0
2 BR/2.5 TH- Dbles	10	0	#DIV/0!	309	0	$876	$2.83	$750	$2.43	$0
4 BR/2.5 TH- Sgles	5	0	#DIV/0!	309	0	$1,165	$3.77	$850	$2.75	$0
4 BR/2.5 TH- Dbles	0	0	#DIV/0!	309	0	$876	$2.83	$750	$2.43	$0
Total/Average	**29**	**0**	**#DIV/0!**	#DIV/0!	**0**	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**$0**

*Total of 29 units: 14 2 BR units on the north parking lot; 5 2 BR units above the church addition; 5 2 BR units and 5 4 BR units on the Patterson Street side.

Note-2009-2010 Dorm rents have been increased 12% to 17% across the board.

Parking, Amenity, and Commercial Income:	Qty.		Price	Total
Garage Parking	0	@	$75	$0
Premium View	0	@	$50	0
USER FEE (PER VISIT)	3,500	@	$7	24,500
USER FEE (PER MONTH)	16,000	@	$13	$208,000
Gross Monthly Rental Income				$232,500
Gross Annual Rental Income				$2,790,000

Building Areas and Costs

Unit Type	Qty.	Gross Area	Common Area & Circulation	Commercial Area	Program Area	Net Rentable SF	Hard Cost per SF	Hard Cost per Unit
Demo Area	0	0	-	0	-	0	$15.00	$0
Site 1 Building Area	0	0	-	0	-	0	$125.00	$0
Site 2 Wood Frame	0	0	-	0	-	0	$125.00	$0
Natatorium	1	204,000	-	0	204,000	0	$150.00	$30,600,000
LEED Upgrade								$1,836,000
Garage Area	0	0		0		0	$50.00	$0
Total	1	204,000	0	0	204,000	0	159.00	**$32,436,000**
Average		6,800	-	-	6,800	-	#DIV/0!	$1,081,200
Percentage of Total Area		100.0%	0.0%	0.0%	100.0%	0.0%		

Development Budget		Total	Per Bed	Per Gross SF
Land Leased		$0	$0	$0.00
Architectural & Engineering	8% of Hard Cost	2,594,880	$2,594,880	12.72
Municipal Fees, Permits & Mitigation	(entered manually)	300,000	$300,000	1.47
Hard Construction Costs	(from Building Area Matrix)	32,436,000	$32,436,000	159.00
Furniture, Fixtures and Equipment		101,500	$101,500	0.50
Nonprofit Start-up OH Fee		130,000	$130,000	0.64
Development Fee	0.0% of Total Development Costs	-	$0	0.00
Construction Financing (net of interim NOI)	(From Interest worksheet)	1,488,929	$1,488,929	7.30
Legal, Closing & Taxes	(formula)	50,000	$50,000	0.25
Pre-leasing and Marketing		200,000	$200,000	0.98
Contingency	6.0% of Hard Costs	1,946,160	$1,946,160	9.54
Total Development Costs		$39,247,469	$39,247,469	$192.39

Yield Analysis	2010 As if Stabilized	2012 As if Stabilized
Yield on Cost	**6.12%**	**6.74%**
Yield on Cost without g.c. and offiste overhead fees	6.14%	6.77%

Appendix II

BOND PROJECTS

LIST OF BOND PROJECTS

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3.
4.
5.

PLACE HOLDER INTENTIONALLY LEFT BLANK

BOND PROJECTS

PLACE HOLDER INTENTIONALLY LEFT BLANK

Appendix III

PREFERRENCE ASSESSMENT SURVEY

As identified in chapter four, survey tools are one mode of participation and an excellent method to use when gathering information from large quantities of people who are intimately familiar with the site. Wulz called the use of a "systematic study…in gathering knowledge through values, ideals, and cultural specific [data] to the local…geographic region…" Regionalism (Wulz 1986). The Urban Design Lab worked together with Lane Community College administrators and information technology personel at LCC to implement the survey. The purpose of the survey was twofold. The first objective was to help acquire a deeper understanding of opinions, attitudes, usage and needs from Lane Community College faculty, staff, and students with respect to development on Lane Community College's campus. The second objective was to apply the stakeholder knowledge to aid in formulating a design solution that was responsive to the clients design problems (Peña 2001). The survey has five sections that include current housing choice and preference; transportation choice and frequency; neighborhood preference and opinion; campus living preference and opinion. Transportation, housing and neighborhood qualities and amenities are all important topics when considering development. The respondents' opinions, preferences and desires were used to inform the vision, principles, and goals and can be found in chapter five. Appendix III describes the methodology used for the preference assessment survey and summarize its limitations. It provides a descriptive analysis for each of the four survey topics along with characteristics of the survey respondents. Key findings for each survey topic appear in advance of the descriptive analysis.

METHODOLOGY

The survey was disseminated with the assistance of Craig Taylor, LCC's Director of Institutional Research, Assessment and Planning Department, and LCC's Internet Technology and Enrollment Services staff. Two emails, one to faculty and staff and the other to students were sent via the LCC electronic mail server (email). The email was sent in mid-December (2009), with a follow-up reminder email in mid-January (2010). The survey was intended to take approximately 15-20 minutes to complete all five sections. It was decided that the length of time between the initial and reminder be spaced out due to the holiday break between terms. The survey was administered through an imbedded link in the email that the participant would have to click. The link would automatically redirect the respondents' web screen to the survey housed at surveymonkey.com. The UDL researchers never directly contacted the email recipients, although the lead researchers' contact information was made available in the introduction letter of the survey. Completing and clicking the "finished" button on the final page of the questionnaire constitutes the participants consent to participate.

Target population. The survey was sent to faculty, staff and students at Lane Community College during the fall and winter terms of 2009/2010. The entire population

was selected to participate in the survey because of their experience traveling to and spending time at LCC. The populations' first-hand experiences will allow for a current preference and opinions assessment.

Survey method. The exploratory survey used a form of non-probabilistic sampling called availability or convenience sampling. I chose this method partly because I had a complete list of users, due to the support of the community college administration. The second reason I used convenience sampling was because the target population would be self-selected. The target population included faculty, staff and students employed by and enrolled at Lane Community College during the fall and winter of 2009/2010. When sampling is non-probabilistic a sampling error can occur that may make the target population unrepresentative of the broader population (Schutt 1999, 128).

Sampling. The survey questionnaire was sent to 14,075 people via Lane Community College internal email system. 1,420 emails were sent to current LCC faculty and staff, and 12,655 emails were sent to current LCC students.[1] Surveymonkey received 1,822 started surveys. Of the 1,822 responses, 396 were not finished and were removed from the population, yielding a sample size of 1,426, or 10.1%. Each survey table or chart is accompanied by the response rate for that survey question.

Limitations. A possible limitation of any non-probability sampling method is its generalization to the greater population. That is why it is important to recognize and describe the demographic characteristics collected from the survey respondents and compare them to the demographic characteristics of the entire population being studied. Notable differences between the sample population and the entire population could signify potential response bias. A non-random sample, by nature, is not representative of the greater population. Therefore, the UDL did not intent to compare the Lane Community College survey population to Lane County data and it will not be represented in the results section.

However, Lane Community College does compile data on student and on employee characteristics, the latter to a much lesser degree. The LCC data is referred to as the "LCC Profile". To test the response bias of the random, self-selecting survey I compared the characteristics of the survey respondents to the Lane Community College Profile 2008-2009.

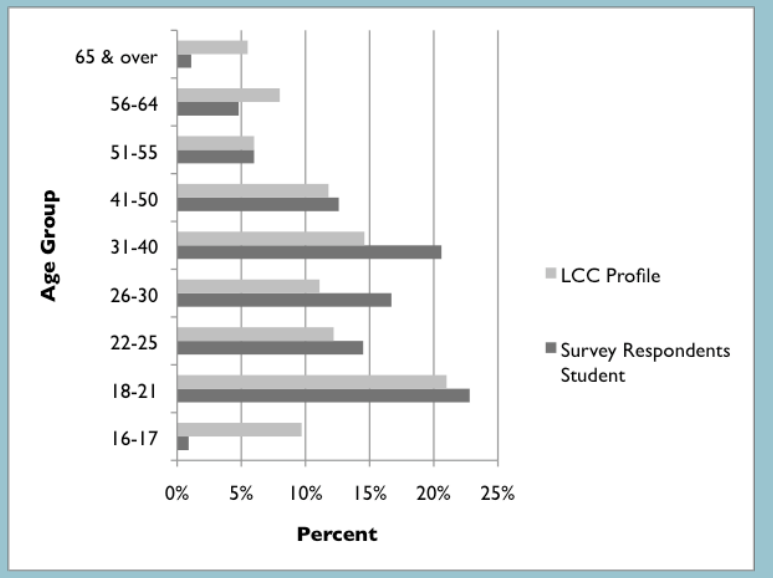
RESULTS: RESPONDENT CHARACTERISTICS[2]

1. Faculty and staff variables were combined and will be referred to as "employee" for the remainder of the document.

2. The Institutional Research, Assessment and Planning Department at Lane Community College do not collect data on employee age; therefore no age comparison for employee respondents will be presented in this results section.

3. The question regarding living arrangements has been moved to the "Housing" section. A second question indicating respondent status at LCC, i.e. faculty, staff, and student, has been omitted because each question reports on how many people fit into each category.

Figure RC-1. Age of survey respondents



Source: LCC Survey, 2009; LCC Profile 2009-2009; n= 1217.

The demographics section of the survey has seven questions.[3] Results from five of those questions are reported below, however, two questions will be reported on in other sections . This section presents key findings followed by a descriptive analysis of the results.

Key Findings

- Student survey respondents displayed some semblance of likeness to the Lane Community College Profile (LCC Profile), however for employees, the LCC Profile does not report adequately on data for employee survey respondents to identify significant characteristic similarities. In general, survey respondents are somewhat older, more frequently female, are more likely to own their home, and more frequently have a higher educational attainment.

Descriptive Analysis

Figure RC-1 shows the age of the survey respondents for students compared to the age of the LCC Profile, students. Respondents 16 to 17 and 56 and older were under represented in the survey responses, especially for the respondents aged 16 to 17 and 65 and over. Respondents between the ages of 18 and 50 were over represented in the survey responses, particularly for the respondents aged 26 to 40. Respondents 51 to 55 were represented equally.

4. Lane Community College does not have employee characteristics for residency, therefore it is not reported on.

5. The survey characteristics for location of residence were renamed to match the LCC Profile characteristics. Eugene and Greater Lane County were concatenated to be renamed "In District"; Outside of Lane County was renamed "Out of District"; Outside of Oregon was renamed "Out of State"; and "International" was added.

Table RC-1 shows the gender distribution of the survey respondents.[4,5] Female employees, students and the aggregate are over represented in the survey, with 68% of survey respondent being female employees, compared with 61% of LCC's female employee population; 61% of survey respondents being female students, compared with 51% of LCC's female student population. The opposite distribution is true for the male distribution. Male respondent employees, students and the aggregate were all under represented, with 32% of survey respondents being male employees, compared with 39% of LCC's male employee population; 39% of male student survey respondents, compared with 43% of LCC's male student population.

Table RC-2 best illustrates the location of survey respondents' place of residence. Sixty-one percent of the survey respondents resided in the City of Eugene and 38% resided in Greater Lane County. Approximately one percent of survey respondents lived outside of Lane County and the State of Oregon.

Table RC-3 best illustrates the location of student survey respondents' place of residence. Approximately 99% of student survey respondents resided in the LCC district, otherwise known as Lane County; compared to the total student population reported in the LCC Profile. Over one percent of student respondents lived outside of the district and less than half of one percent of student survey respondents lived out of the State of Oregon or out of the United States. The LCC Profile shows Out of State and International student percentages as 3% and 1%, respectively,

Table RC-1. Gender of survey respondents

	Percentage of Survey Respondents			LCC		Lane
Gender	Employee	Student	All	Employee	Student	County
Female	68%	61%	61%	61%	51%	51%
Male	32%	39%	39%	39%	43%	49%
	n=176	n=1206	n=1390			

Source: LCC Survey, 2009; LCC Profile 2009-2009.

Table RC-2. Location of residence: all respondents

Location	Number	Percentage
Eugene	843	61%
Greater Lane County	524	38%
Outside Lane County	19	1%
Outside Oregon	3	0%

Source: LCC Survey, 2009; LCC Profile 2009-2009.

Table RC-3. Location of residence: students

Location	Student	LCC
In-District	99%	89%
Out of District	1%	8%
Out of State	0%	3%
International	0%	1%

Source: LCC Survey, 2009; LCC Profile 2009-2009; n=1389

and recognizes these categories as people whom are not in-state residents. This does not mean they commute from either out-of-state our from another country.

HOUSING, TRANSPORTATION, NEIGHBORHOOD AND CAMPUS

The following four sections of the survey asked questions to develop a better understanding of the current situations and choices of the survey respondents, and to gain insight into what type of preferences, needs, and opinions the respondents had concerning amenities, housing types, and transportation situations. The respondents' input, ideals and values gathered in the survey responses will be considered throughout the planning process to help produce a more livable community. Additionally, using participant input can lead to many benefits including empowerment (Whyte 1991), added legitimacy to the research (Crewe 2001), and can help create a sense of ownership of the project (Burby 2003).

RESULTS: HOUSING

The General Housing Section of the survey consists of eight questions asking survey respondents' about current housing choice, situation, and level of satisfaction and their preferences of living situations. This section presents key findings followed by a descriptive analysis of the results.

Key Findings

- Sixty-eight percent of students responding to the housing tenure question indicated they rented their current housing.

- Eighty-seven percent of employee and 62% of student survey respondents indicated they lived in single-family housing. A majority of the people surveyed indicated they would prefer to continue living in single-family housing, while roughly one quarter would prefer to live in duplex or condominium/ townhouse style housing.

- About 4% of employee, and 10% of student survey respondents indicated they lived in the duplex style housing. Over 100 respondents indicated they would prefer to live in single-family housing, and over 100 respondents indicated they would prefer duplex or condominium/townhouse style housing.

- Five percent of employee and 21% of students indicated they lived in multi-family style apartments. Many of these people indicated they would prefer to live in single-family, duplex or condominium/ townhouse style housing.

- Fifty-one percent of employee and 71% of student respondents indicated they were satisfied with their current housing. Four percent of employee and 12% of student respondents indicated they were unsatisfied with their current housing; leaving 12% of employee and 12% of student respondents neither satisfied or unsatisfied with their current housing situation.

- Employee respondents indicated, in ranked order, their most preferred to least preferred housing type: single-family housing, condominium/townhouse, duplex, retirement community and multi-family apartments; and student survey respondents indicated: single-family housing, duplex, condominium/townhouse, multi-family apartments, and retirement community.

Descriptive Analysis

The survey asked respondents to indicate what type of housing they currently lived in at the time the survey was administered.[6] Table H-1 shows housing tenure of survey respondents by employee, student, and all survey respondents. Thirty-eight percent of survey respondents owned their home and 62% of survey respondents were renters. The City of Eugene is a college town housing the University of Oregon (UO), Northwest Christian College (NWCC) and Lane Community College (LCC). Many students attending UO and NWCC simultaneously attend LCC. This dual enrollment could attribute to the high rate of student survey respondent renters.

TABLE H-2 shows the housing type survey respondents lived in at the time of the survey. The majority of employee and student survey respondents indicated lived in single-family housing, while only 4% of employee, and 10% of

Table H-1. Housing tenure of respondents

	Survey Respondents			Lane County
Response	Employees	Student	All	
Own	82%	32%	38%	61%
Rent	18%	68%	62%	38%
	n=185	n=1200	n=1680	

Source: LCC Survey, 2009.

Table H-2. Current housing type

	Survey Respondents			Lane County
Housing Type	Employees	Student	All	
Singe Family House	87%	62%	65%	62%
Duplex	4%	10%	9%	6%
Multi-Family Apartment	5%	21%	19%	21%
Condominium/Townhouse	2%	4%	4%	6%
Retirement Community	0%	0%	0%	-
Other	2%	4%	4%	9%
	n=185	n=1238	n=1719	

Source: LCC Survey, 2009.

6. The term "currently" is used throughout the survey. This term corresponds to the time the survey was administered.

Table H-3. Housing tenure by current housing type

	Housing Type	Own		Rent	
Employee	Single Family	146 97%	91%	14 41%	9%
	Duplex	- -	-	8 24%	100%
	MultiFamily	- -	-	9 27%	100%
	Condominium/Townhouse	2 1%	50%	2 6%	50%
	Retirement Community	- -	-	- -	-
n=185	Other	15 4%	94%	1 3%	6%
Student	Single Family	353 93%	49%	374 46%	51%
	Duplex	6 2%	5%	111 14%	95%
	MultiFamily	1 30%	0%	252 31%	100%
	Condominium/Townhouse	5 1%	10%	45 6%	90%
	Retirement Community	1 0%	50%	1 0%	50%
n=1197	Other	15 4%	31%	33 4%	69%

Source: LCC Survey, 2009.

student respondents specified they lived in the duplex style housing. Twenty-one percent of students indicated they lived in Multi-family style apartments. The majority of respondents who indicated "other" listed that they lived in trailers or fifth wheels, referring to a trailer-style that uses a tow hitch.

TABLE H-3 shows housing tenure broken down by housing type. This table indicates that 91% of employee survey respondents lived in single-family housing and owned their home compared to 9% who rented their single-family house. Ninety-seven percent of employee respondents owned a single-family house, while 41% of renters rented single-family housing and 24% and 27% of employee respondents rented duplexes and multifamily housing, respectively. Forty-nine percent of student survey respondents lived in single-family housing and owned their home compared to 51% of student respondents who rented their single-family house. Ninety-three percent of student respondents owned a single-family house and 30% owned multifamily apartments. Forty-six percent of renters' rented single-family housing and 31% and 14% of student respondents rented multifamily apartments and duplex housing, respectively. Unfortunately, the survey did not ask respondents if they lived in single-family housing that is rented and shared with multiple-nonfamily members. This housing/tenure category potentially could be considered multifamily or duplex living.

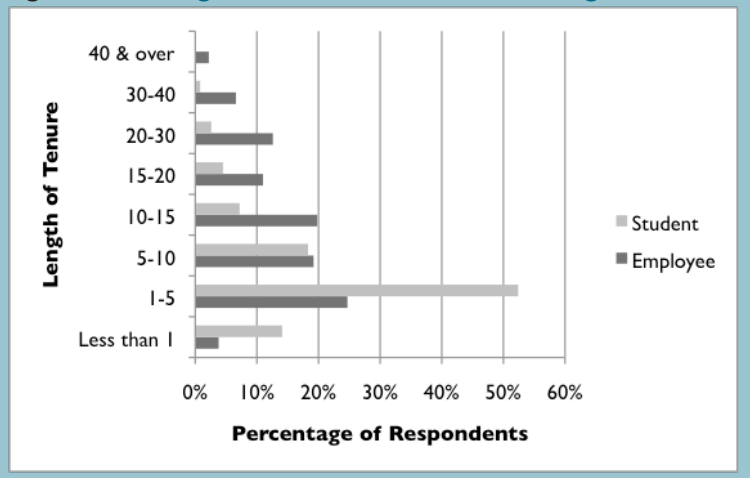
The survey asked respondents how long they have lived at their current residence. Figure H-1 shows that a majority

of student survey respondents have lived at their current housing type 1-5 years. About 20% of employee and student respondents indicated living at their current residence 5-10 years. Employee survey respondents indicated living at their current residence at a higher frequency than their student counterparts 10 years or longer.

Figure H-2 shows that roughly 84% of students lived in housing with two to four bedrooms compared to 89% of employee survey respondents who live in housing with two-four bedrooms. It would be reasonable to hypothesize that many of the 84% share single-family housing, therefore accounting for the large quantity of students living in homes with two to four bedrooms. About 40% of all student respondents lived in residences with three bedrooms and nearly half of the employee respondents who lived in two to four bedroom units lived in residences with three bedrooms.

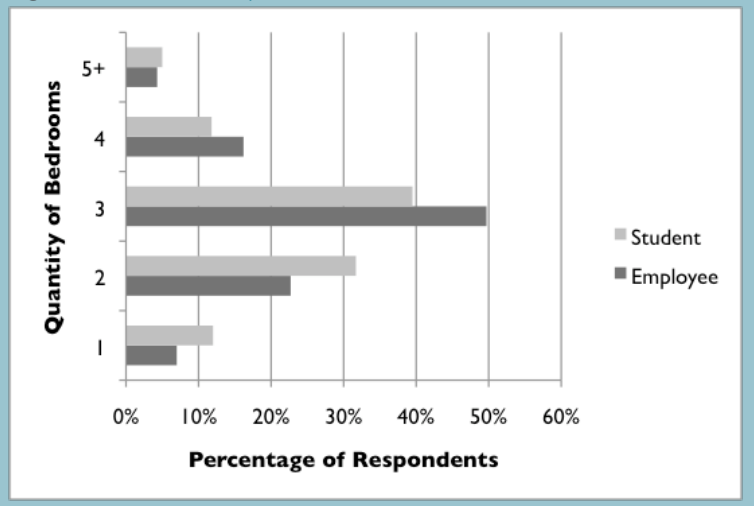
Table H-4 shows the survey respondents' level of satisfaction with the type of housing they currently lived in at the time of the survey. Employee and student survey respondents indicated 51% and 71% satisfaction, respectively. Only 4% of employee respondents indicated they were unsatisfied with their current housing. Twelve percent of student respondents indicated they were unsatisfied with their current housing situation.

Figure H-1. Length of tenure at current housing



Source: LCC Survey, 2009; Employee n=182, Student n=1205.

Figure H-2. Quantity of bedrooms in current house



Source: LCC Survey, 2009; Employee n=182, Student n=1205.

7. The survey asked for respondents' preferences on a scale of 1 to 5, where 1=most preferred and 5=least preferred. The table was collapse to combine ranking 1+2=Prefer, 3=Neutral, and 4+5=Not Prefer.

Table H-4. Level of satisfaction in current housing

	Percentage of Respondents	
Level of Satisfaction	Employee	Student
Satisfied	51%	71%
Neutral	12%	12%
Unsatisfied	4%	12%

Source: LCC Survey, 2009. Employee n=184, Student n=1235.

Table H-5. Preferred housing type

	Percentage of Respondents						
	Prefer		Neutral		Not Prefer		
Housing Type	Employee	Student	Employee	Student	Employee	Student	Mean
Singe Family House	95%	90%	1%	3%	4%	7%	1.36
Duplex	46%	50%	36%	37%	18%	14%	2.66
Condominium/Townhouse	51%	44%	32%	32%	17%	23%	2.77
Multi-Family Apartment	5%	12%	17%	23%	79%	65%	3.66
Retirement Community	9%	7%	14%	5%	77%	88%	4.51

Source: LCC Survey, 2009. Employee n=184, Student n=1235.

Table H-5 shows employee and student respondents' preferences about housing type ranked by the mean score for each type (where 1=most preferred and 3= least preferred).[7] The most preferred housing type was single family housing for both employee and student respondents. Duplexes and condominium/townhouses were the second and third most preferred housing type, where employee respondents most preferred the condominium/townhouse to the duplex and students preferred the inverse, duplexes to the condominium/townhouse type. Both employee and student respondents indicated that the retirement community housing type as the least preferred.

Table H-6 cross-references current housing type by the respondents preferred housing type. This table is made up of five sub-tables and is read left to right, top to bottom; each sub-table is numbered (1-5). The title of each numbered sub-table signifies the desired housing typology; the current housing type is in the left column. This sub-table is read as follows:

Sub-table 1. Eight hundred and ten (147 employee/663 student) survey respondents who currently live in single-family housing prefer to live in single-family housing, while 211 (5 employee and 206 student) respondents who currently live in multifamily style housing want to live in single-family housing.

Sub-table 2. Three hundred and twenty one (49 employee/272 student) survey respondents who currently live in single-family housing prefer to live in duplex style housing,

while 123 (2 employee and 121 student) respondents who currently live in multifamily style housing respondents want to live in duplex style housing, while 70 (6 employee/73 student) respondents want to live in duplex style housing want to continue living in duplex style housing.

Sub-table 3. Fifty-five student survey respondents who currently live in single-family housing would prefer to live in multifamily housing, and 52 students would like to stay living in multifamily housing.

Sub-table 4. Sixty-four employee and 309 student respondents who currently live in single-family housing would prefer to live in condominium/townhouse style housing.

Sub-table 5. The 86 respondents currently living in various housing types would prefer to live in a retirement community.

RESULTS: TRANSPORTATION

The Transportation Section of the survey consists of seven questions asking survey respondents' about current transportation choice, usage, and preferences. This section presents key findings followed by a descriptive analysis of the results.

Key Findings

- About 84% of employee and 71% of student respondents owned between two and three vehicles. Only two percent of employee compared to 17%

Table H-6 (subtables 1-5). Current housing type by Preferred housing type

1. Desired Housing Type: Single Family Housing

Current Housing Type	Employee	Student	All
Single Family	147	663	810
	89%	63%	66%
Duplex	6	108	113
	4%	10%	9%
MultiFamily	5	206	211
	3%	20%	17%
Condominium/Townhouse	4	38	42
	2%	4%	3%
Retirement Community	0	2	3
	0%	0%	2%
Other	4	39	43
	2%	4%	4%
	n=166	1056	

2. Desired Housing Type: Duplex

Current Housing Type	Employee	Student	All
Single Family	49	272	321
	78%	54%	57%
Duplex	6	73	79
	10%	15%	14%
MultiFamily	2	121	123
	3%	24%	22%
Condominium/Townhouse	2	14	16
	3%	3%	3%
Retirement Community	0	0	0
	0%	0%	0%
Other	4	24	28
	6%	5%	5%
	n=63	n=504	

3. Desired Housing Type: MultiFamily

Current Housing Type	Employee	Student	All
Single Family	2	55	57
	33%	44%	44%
Duplex	0	7	7
	0%	6%	5%
MultiFamily	4	52	56
	67%	42%	43%
Condominium/Townhouse	0	4	4
	0%	3%	3%
Retirement Community	0	0	0
	0%	0%	0%
Other	0	6	130
	0%	5%	3%
	n=6	n=124	

4. Desired Housing Type: Condominium/Townhouse

Current Housing Type	Employee	Student	All
Single Family	64	309	373
	88%	67%	69%
Duplex	4	31	35
	6%	7%	7%
MultiFamily	4	82	86
	6%	18%	16%
Condominium/Townhouse	1	27	28
	1%	6%	5%
Retirement Community	0	0	0
	0%	0%	0%
Other	0	16	16
	0%	3%	3%
	n=73	n=465	

5. Desired Housing Type: Retirement Community

Current Housing Type	Employee	Student	All
Single Family	13	46	59
	100%	63%	69%
Duplex	0	5	5
	0%	7%	6%
MultiFamily	0	12	12
	0%	16%	14%
Condominium/Townhouse	0	7	7
	0%	10%	8%
Retirement Community	0	1	1
	0%	1%	1%
Other	0	2	16
	0%	3%	3%
	n=13	n=73	

Source: LCC Survey, 2009.

of student respondents owned one vehicle. Twenty-eight percent of student respondents owned one bicycle compared to 19% of employee respondents.

- Nineteen percent of employee compared to 28% of student respondents owned one bicycle, while 67% of employee and 64% of student respondents indicated they owned two to three bicycles.

- About 81% of employee respondents indicated they used their personal vehicles to get to LCC, while 11% indicated they used public transportation, while less than 8% of employee survey respondents indicated they either carpooled, biked or walked.

- About 66% of student respondents indicated they used their personal vehicles to get to LCC, while 28% indicated they used public transportation, while less than 6% of employee survey respondents indicated they either carpooled, biked or walked.

- Employee respondents indicated how they would rather travel to LCC (in ranked order most preferred to least preferred): personal vehicle, public transportation and bike ranked equal, followed by walking and carpooling.

- Student respondents indicated how they would rather travel to LCC (in ranked order most preferred to least preferred): personal vehicle, carpool, public transportation, bike, and walking.

- Employee respondents had an average travel time (one-way) to get to LCC of 32 minutes, and

student respondents had an average travel time of 43 minutes. The average distance traveled to get to LCC was ten miles with a an average maximum distance of 66 miles. Approximately 68% of employee and 53% of student respondents traveled six to thirty minutes one way to get to LCC. Less than one-quarter of employee survey respondents traveled between 31 and 90 minutes to get to LCC, while 38% of student respondents traveled the same frequency of time.

- About 58% of employee respondents traveled an average of 32 minutes for shopping or running errands outside of traveling to LCC, while 52% of student respondents traveled an average of 51 minutes for shopping or running errands outside of traveling to LCC.

Descriptive Analysis

The survey asks respondents their number of automobiles and bicycles they owned. Table T-1 shows that 84% of employee respondents owned between two and three vehicles, while 71% of student survey respondents owned between two and three vehicles. Seventeen percent of student respondents owned one vehicle compared to 2% of employees respondents. Nineteen percent of employees compared to 28% of student respondents owned one bicycle, while 67% of employee and 64% of student respondents indicated they owned two to three bicycles.

Table T-1. Pattern of ownership

		Survey Respondents	
Number of		Employee	Student
Personal Vehicle	1	2%	17%
	2	46%	56%
	3	38%	21%
	4	9%	5%
	5	4%	2%
		n=181	n=1215
Bicycle	1	19%	28%
	2	45%	49%
	3	22%	15%
	4	7%	4%
	5	8%	4%
		n=170	n=1197

Source: LCC Survey, 2009.

Table T-2. General mode of travel to LCC

	Survey Respondents		
Mode	Employee	Student	All
Walk	1%	0%	0%
Bike	2%	1%	1%
Personal Vehicle	81%	66%	67%
Carpool	5%	5%	5%
Public Transportation	11%	28%	26%
Other	0%	0%	0%
	n=177	n=1226	n=1759

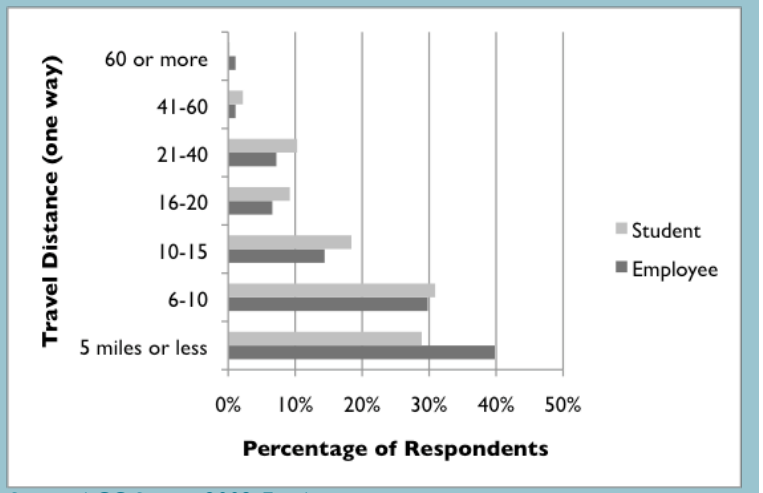
Source: LCC Survey, 2009.

Table T-3. Preferred mode of travel to LCC

	Prefer		Neutral		Not Prefer		
Mode	Employee	Student	Employee	Student	Employee	Student	Mean
Personal Vehicle	70%	65%	22%	21%	8%	15%	2.24
Public Transportation	43%	42%	48%	43%	10%	15%	2.84
Carpool	27%	45%	48%	41%	25%	14%	3.02
Bike	43%	28%	34%	47%	23%	25%	3.43
Walk	30%	21%	21%	16%	50%	63%	4.24

Source: LCC Survey, 2009. Employee n=184, student n=1235.

Figure T-1. Distance respondents need to travel one way to get to LCC



Source: LCC Survey, 2009. Employee n=181, student n=1223.

Table T-2 shows the general mode of travel survey respondents used to get to LCC at the time of the survey. Sixty-seven percent of all survey respondents generally use personal vehicle to travel to LCC, and 26% of total respondents choose to use public transportation. Twenty-eight percent of student respondents chose to use public transportation, while only 11% of employee respondents chose to use public transportation. It is not surprising that few people walked or biked to LCC.

Table T-3 shows employee and student respondents' preferred choice of how they would rather travel if all the options were available to them ranked by the mean score for each transportation type (where 1=most preferred and 3= least preferred).[8] The most preferred transportation choice for employee and student respondents was the personal vehicle. Public transportation was ranked second and almost equally between employee and student respondents with 43% and 42%, respectively. Surprisingly, 45% of student respondents indicated that they preferred carpooling and 43% of employee respondents indicated they would prefer to bike to LCC. Walking ranked the least preferred between employee and student respondents.

Figure T-1 shows the percentage of respondents' travel distance in one way to get to LCC. The majority of employee, and student respondents traveled 15 miles or less to get

8. The survey asked for respondents' preferences on a scale of 1 to 6, where 1=most preferred and 5=least preferred. The table was collapse to combine ranking 1+2=Prefer, 3+4=Neutral, and 5+6=Not Prefer.

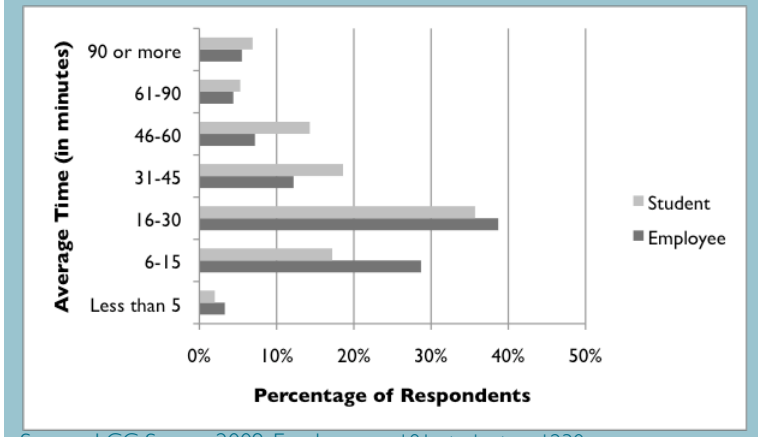
to LCC. Fourteen percent of employee respondents traveled 16 to 20 and 21 to 40 miles (7% each) to get to LCC, while student survey respondents in the same mileage range traveled 9% and 10%, respectively. Two percent or less of employee, and student survey respondents traveled a distance of 41 miles or more, one way, to get to LCC.

Figure T-2 shows respondents' percentage of time, in minutes it took for them to travel to LCC one way. Less than 3% of employee and student respondents traveled five minute or less in travel time to get to LCC. Sixty-eight percent of employee and 53% of student respondents traveled six to thirty minutes one way to get to LCC. Less than one-quarter of employee survey respondents traveled between 31 and 90 minutes to get to LCC, while 38% of student respondents traveled the same frequency of time. Less than 7% of employee and student respondents travel 90 minutes or more to get to LCC.

The survey asked respondents about whether or not they combined trips shopping or running errands while traveling to or from LCC. Table T-3 shows that 58% of employee and 52% student respondents do combine trips, while 43% of employee and 48% of student respondents do not combine shopping or errands while traveling to or from LCC.

Figure T-3 shows the percentage of time, in minutes, that respondents traveled to shopping or errands while traveling to or from LCC. Roughly 78% of employee respondents travel 45 minutes or less traveling to shopping or errands. Of those employee respondents, 24% traveled 15 minutes

Figure T-2. Average time respondents travel to get to LCC



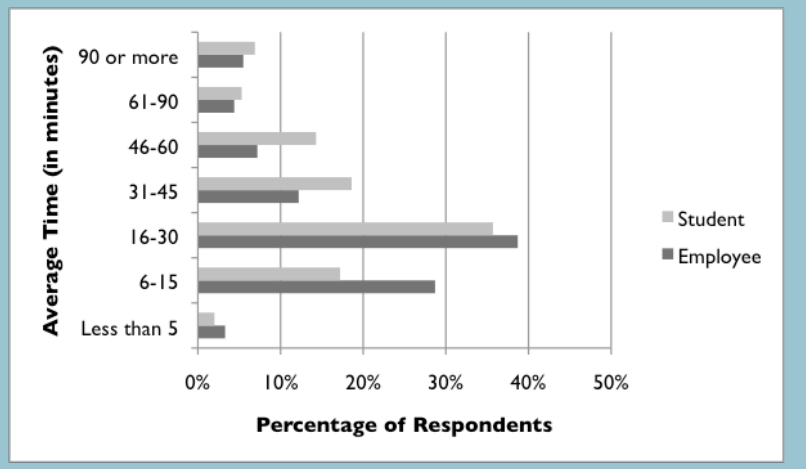
Source: LCC Survey, 2009. Employee n=181, student n=1230.

Table T-3. Pattern of whether respondents combine shopping or errands while traveling to or from LCC

	Survey Respondents	
Pattern	Employee	Student
Yes	58%	52%
No	43%	48%
	n=179	n=1231

Source: LCC Survey, 2009.

Figure T-3. Average time respondents spend traveling to shopping or errands while traveling to or from LCC



Source: LCC Survey, 2009. Employee n=179, student n=1231.

or less, 27% traveled 15-30 minutes, and 27% traveled 30-45 minutes. Less than 5% traveled 45 minutes to one hour. The remaining 17% of employee respondents traveled one hour or more to shopping or errands while travel to or from LCC. More than half of student respondents indicated that they traveled 45 minutes or less to shopping or errands (58%). Six percent indicated they traveled between 45 minute and one hour, and the remaining 25% of student respondents traveled 45 minutes to one hour.

RESULTS: NEIGHBORHOOD

The Neighborhood Section asks seven questions regarding preferences, opinions and level of importance of neighborhood and community amenities and characteristics. One question, on housing tenure, was moved to the previous section on Housing. This section presents key findings followed by a descriptive analysis of the results.

Key Findings

-The top five amenities respondents indicated were important to be within walking distance were: (employee respondents) grocery store, neighborhood park, public transportation, work place, and running trails; while student respondents indicated their top five amenities as: grocery store, public transportation, neighborhood park, work place, and small convenience shop.

-Student respondents indicated a higher percentage of willingness to walk to all amenities within

ten-minutes compared to employee respondents to walk to all but four (community center, library, restaurant and workplace); and employee respondents indicated they are willing to walk 15 to 20 minutes to 20 out of 26 amenities compared to student respondents.

-Student respondents indicated a higher percentage of willingness to bike to all but three amenities (library, school, workplace) within a ten-minutes compared to employee respondents who would be willing to bike to 10 of the 26 amenities (daycare, gas station, laundromat, personal and public garage, public transportation, religious center, small convenience shop, tot lot, and vet clinic); and employee respondents indicated they are willing to bike 15 to 20 minutes to 17 out of 26 amenities, while student respondents indicated their willingness to bike to three (grocery store, library, and restaurant).

- Sixty-seven percent of employee, and 73% of student respondents hope to live in a neighborhood with a strong sense of community. Sixty percent or employee, and 65% or student respondents indicated that they would hope to have close relationships with people in their neighborhood, yet the majority of employee and student respondents do not live within walking distance of people they regularly socialize with.

Table N-1. Respondents' preference to be within walking distance of the following neighborhood amenities

	Percent of Respondents						
	Important		Neutral		Unimportant		
Amenities	Employee	Student	Employee	Student	Employee	Student	Mean
Dry Cleaners	4%	4%	9%	8%	87%	88%	1.41
Barber Shop	5%	6%	10%	10%	86%	85%	1.53
Public Garage	4%	6%	8%	11%	88%	82%	1.58
Beauty Salon	34%	6%	15%	12%	80%	82%	1.59
Daycare	5%	14%	9%	8%	86%	78%	1.68
Tot Lot	10%	13%	15%	9%	75%	78%	1.75
Religious Center	17%	16%	15%	15%	68%	69%	1.96
Laundromat	8%	21%	6%	12%	86%	67%	2.01
Pub/Bar	15%	20%	14%	16%	72%	65%	2.09
Vet Clinic	19%	18%	19%	20%	61%	62%	2.13
Ballfields	16%	20%	9%	19%	75%	61%	2.19
Community Center	24%	24%	26%	25%	51%	51%	2.45
Playground	44%	48%	12%	15%	45%	37%	2.70
Coffee Shop	32%	35%	10%	20%	57%	45%	2.70
Gas Station	18%	37%	23%	21%	59%	42%	2.70
Gym/Fitness Center	36%	35%	19%	22%	45%	44%	2.76
Running Trails	50%	37%	13%	23%	37%	40%	2.91
Restaurant	43%	44%	19%	28%	38%	28%	3.11
Personal Garage	35%	36%	13%	15%	52%	49%	3.17
Library	43%	51%	21%	23%	36%	26%	3.24
Small Convenience Shop	36%	52%	20%	24%	44%	24%	3.27
School	36%	33%	15%	17%	49%	21%	3.50
Workplace	52%	58%	23%	23%	24%	19%	3.51
Neighborhood Park	66%	64%	11%	18%	23%	18%	3.68
Public Transportation	59%	66%	22%	14%	19%	21%	3.75
Grocery Store	69%	77%	15%	12%	17%	10%	4.04

Source: LCC Survey, 2009. Employee n=181, student n=1194.

Table N-2. Respondents' willingness to WALK to each of the following neighborhood amenites

	Percent of Respondents							
	5 Minutes		10 Minutes		15 Minutes		20 Minutes	
Amenities	Employee	Student	Employee	Student	Employee	Student	Employee	Student
Ballfields	26%	41%	27%	25%	21%	17%	27%	17%
Barber Shop	37%	52%	17%	20%	17%	12%	28%	16%
Beauty Salon	33%	51%	20%	20%	18%	13%	29%	17%
Coffee Shop	27%	39%	32%	29%	17%	17%	24%	15%
Community Center	17%	40%	32%	28%	25%	16%	26%	16%
Daycare	40%	54%	19%	20%	14%	10%	28%	16%
Dry Cleaners	41%	60%	17%	15%	13%	9%	29%	16%
Gas Station	42%	49%	21%	25%	12%	13%	26%	13%
Grocery Store	21%	31%	35%	33%	22%	23%	21%	14%
Gym/Fitness Center	16%	34%	35%	24%	19%	22%	26%	21%
Laundromat	50%	59%	15%	21%	10%	8%	34%	12%
Library	14%	25%	29%	28%	22%	25%	34%	21%
Neighborhood Park	17%	30%	36%	32%	19%	22%	28%	16%
Personal Garage	59%	68%	11%	15%	7%	6%	23%	11%
Playground	29%	40%	35%	28%	13%	17%	24%	16%
Pub/Bar	22%	42%	27%	21%	21%	17%	30%	20%
Public Garage	42%	57%	18%	17%	10%	10%	30%	16%
Public Transportation	43%	46%	29%	32%	10%	11%	18%	11%
Religious Center	30%	50%	27%	18%	10%	14%	32%	18%
Restaurant	13%	29%	34%	34%	26%	21%	28%	16%
Running Trails	21%	36%	31%	28%	21%	17%	28%	19%
School	19%	25%	33%	27%	18%	23%	31%	25%
Small Convenience Shop	27%	42%	37%	32%	14%	15%	22%	11%
Tot Lot	45%	56%	19%	18%	8%	10%	29%	17%
Vet Clinic	32%	44%	27%	23%	16%	14%	24%	19%
Workplace	10%	22%	26%	24%	22%	23%	43%	31%

Source: LCC Survey, 2009. Employee n=147, student n=1194.

Descriptive Analysis

Table N-1 shows residents' preference about the importance of being within walking distance to various neighborhood amenities, ranked by the mean score of each amenity (where 3=most important and 1= least important).[9] Since the survey ranking was switch from 1=least important to 5=most important (see footnote 10) the mean ranking shows the least important amenities to survey respondents at the top, and the most important, at the bottom of Table N-1. The top five amenities respondents indicated were important to be within walking distance were: (employee respondents) grocery store, neighborhood park, public transportation, work place, and running trails; student respondents indicated their top five amenities as: grocery store, public transportation, neighborhood park, work place, and small convenience shop. Fifty-one percent of student respondents indicated that being within walking distance to a library was important (ranked sixth). The amenities that respondents indicated were least important to be within walking distance were: (employee respondents) dry cleaners, public garage, barber shop, daycare, Laundromat; (student respondents) dry cleaners, barber shop, public garage, beauty salon, and a tot lot.

Table N-2 shows how long respondents would be willing

9. The survey asked for respondents' preferences on a scale of 1 to 5, where 1=least important and 5=most important. The table was collapse to combine ranking 5+4=Important, 3=Neutral, and 2+1=Not Prefer.

to walk to neighborhood amenities in five, ten, fifteen and twenty-minute increments. Student respondents indicated a higher percentage of willingness to walk to all amenities within ten-minutes compared to employee respondents; and employee respondents indicated they are willing to walk 15 to 20 minutes to 20 out of 26 amenities compared to student respondents. When looking at employee and student respondents' willingness to walk up to five-minutes, 59% of employee respondents indicated they would walk to a personal garage, while student respondents indicated their willingness to walk up to five-minutes to: personal garage (68%), dry cleaners (60%), laundromat (59%), public garage (57%), tot lot playground (56%), daycare (54%), barber shop (52%), and the beauty salon (51%). The highest percentage of employee and student respondents that indicated their willingness to walk up to 10-minutes are: 37% of employee respondents to a small convenience shop and 34% of student respondents to a restaurant. The highest percentage of employee and student respondents that indicated their willingness to walk up to 15-minutes are: 26% of employee respondents to a restaurant and 25% of student respondents to a library. The highest percentage of employee and student respondents that indicated their willingness to walk up to 20-minutes are: 43% of employee and 31% of students to a workplace.

Table N-3 shows how long respondents would be willing to bike to neighborhood amenities in five, ten, fifteen and twenty-minute increments. Student respondents indicated a higher percentage of willingness to bike to all but three

Table N-3. Respondents' willingness to BIKE to each of the following neighborhood amenites

	Percent of Respondents							
	5 Minutes		10 Minutes		15 Minutes		20 Minutes	
Amenities	Employee	Student	Employee	Student	Employee	Student	Employee	Student
Ballfields	24%	29%	21%	27%	23%	18%	33%	26%
Barber Shop	26%	36%	20%	25%	22%	16%	32%	23%
Beauty Salon	28%	38%	20%	23%	3%	16%	30%	23%
Coffee Shop	24%	31%	22%	28%	23%	18%	31%	23%
Community Center	17%	30%	26%	27%	25%	19%	32%	23%
Daycare	32%	42%	19%	22%	17%	14%	32%	22%
Dry Cleaners	33%	45%	16%	19%	21%	14%	30%	23%
Gas Station	35%	27%	20%	26%	20%	16%	26%	22%
Grocery Store	20%	25%	27%	29%	25%	23%	27%	24%
Gym/Fitness Center	14%	27%	27%	25%	28%	21%	32%	27%
Laundromat	37%	45%	20%	23%	16%	12%	28%	20%
Library	15%	21%	23%	27%	27%	25%	36%	27%
Neighborhood Park	16%	27%	30%	28%	22%	20%	32%	25%
Personal Garage	45%	49%	137%	19%	14%	12%	27%	20%
Playground	24%	33%	27%	26%	20%	17%	28%	24%
Pub/Bar	21%	35%	24%	22%	22%	17%	33%	26%
Public Garage	35%	44%	17%	18%	17%	15%	31%	23%
Public Transportation	25%	36%	32%	26%	21%	18%	22%	21%
Religious Center	28%	41%	27%	19%	14%	16%	31%	25%
Restaurant	18%	25%	30%	31%	18%	21%	34%	23%
Running Trails	25%	31%	23%	25%	20%	17%	31%	27%
School	17%	22%	29%	24%	20%	23%	34%	32%
Small Convenience Shop	25%	34%	31%	29%	20%	16%	24%	21%
Tot Lot	37%	48%	20%	18%	15%	12%	28%	23%
Vet Clinic	34%	40%	27%	21%	17%	15%	25%	24%
Workplace	16%	20%	15%	20%	26%	24%	42%	36%

Source: LCC Survey, 2009. Employee n=138, student n=1152.

Table N-4. Respondents' opinions of the following statements considering their current neighborhood

	Percent of Respondents						
	TRUE		NEUTRAL		FALSE		
Statement	Employee	Student	Employee	Student	Employee	Student	Mean
I frequently have neighbors over to my house to visit	20%	18%	19%	14%	61%	68%	2.13
I visit with my neighbors in their homes	25%	21%	22%	15%	53%	65%	2.25
A feeling of fellowship runs deep between me and others in my neighborhood	25%	19%	27%	22%	48%	59%	2.34
I borrow things and exchange favors with my neighbors	38%	27%	18%	17%	44%	57%	2.47
If I needed advice about something I could go to someone in my neighborhood	35%	27%	20%	17%	45%	56%	2.52
I agree with most people in my neighborhood about what is important in life	32%	24%	31%	29%	37%	47%	2.62
My friendships and associations with others in my neighborhood mean a lot	33%	28%	28%	22%	39%	50%	2.65
I like to think of myself as similar to the people who live in my neighborhood	37%	28%	31%	25%	33%	47%	2.69
I think of community planning in my neighborhood as a "we" not a "they" activity	40%	30%	25%	23%	35%	48%	2.70
Living in my neighborhood gives me a sense of community	41%	30%	23%	25%	36%	46%	2.74
I feel loyal to people in my neighborhood	46%	32%	25%	24%	29%	44%	2.82
I regularly stop and talk with people in my neighborhood	50%	33%	18%	20%	32%	47%	2.84
If I were given the opportunity to move, I would choose to stay in my neighborhood	47%	36%	27%	22%	27%	42%	2.91
I feel like I belong in my neighborhood	59%	40%	20%	25%	20%	36%	3.08
If I can, I will remain a resident of my neighborhood for a number of years	62%	42%	17%	20%	21%	38%	3.13
Overall, I am very attracted to living in my neighborhood	66%	45%	17%	23%	17%	32%	3.25
I would work together with others to improve something in my neighborhood	71%	57%	18%	22%	11%	21%	3.58
I believe my neighbors would help me in an emergency	78%	64%	10%	20%	12%	17%	3.81

Source: LCC Survey, 2009. Employee n=180, student n=1197.

amenities within ten-minutes compared to employee respondents; and employee respondents indicated they are willing to bike 15 to 20 minutes to 17 out of 26 amenities more than student respondents. When looking at employee and student respondents' willingness to bike up to five-minutes, no majority of employee or student respondents indicated they would willing to bike. Forty-five percent of employee and 49% of student respondents indicated they would be willing to bike up to five minutes to reach a personal garage. The highest percentage of employee and student respondents that indicated their willingness to bike up to 10-minutes are: 31% of employee respondents to a small convenience shop and 29% of student respondents to a small convenience shop and to a grocery. The highest percentage of employee and student respondents that indicated their willingness to bike up to 15-minutes are: 28% of employee respondents to a gym/fitness center and 25% of student respondents to a library. The highest percentage of employee and student respondents that indicated their willingness to bike up to 20-minutes are: 36% of employees to a library and 36% of students to a workplace.

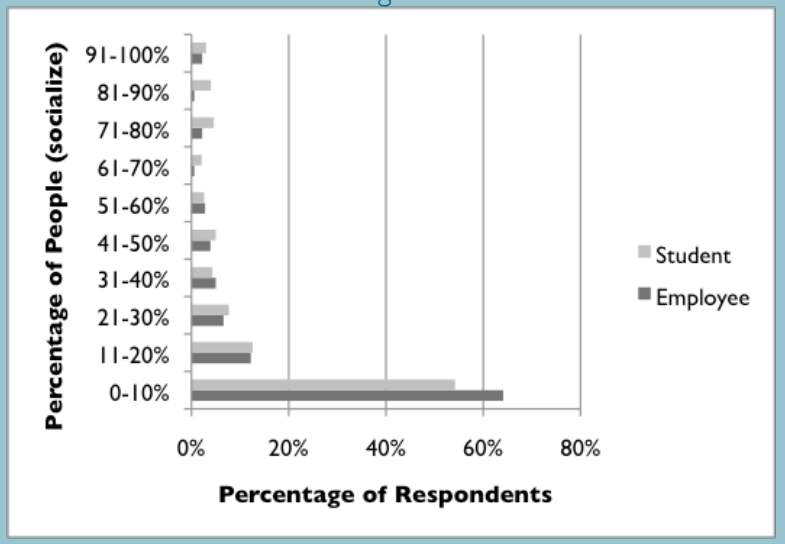
Table N-4 shows residents' opinions considering their current neighborhood, ranked by the mean score of each amenity (where 3=most important and 1= least important).[10] Since the survey ranking was switch from 1=not at all true to 5=very true (see footnote 10) the mean

10. The survey asked for respondents' opinions on a scale of 1 to 5, where 1=not at all true and 5=very true. The table was collapse to combine ranking 5+4=True, 3=Neutral, and 2+1=Not True.

ranking shows what respondents believed not to be true about their current neighborhood at the top, and what they believe to be true at the bottom of Table N-4. The top two statements respondents indicated were true coincided between employee and student respondents; 78% of employee and 64% of student respondents believe that their neighbors would help them in an emergency; and 71% of employee and 57% of student respondents thought that they would work together with others to improve something in their neighborhood. Sixty-six percent of employee respondents indicated that overall, they were very attracted to living in their neighborhood; 62% indicated they would remain a resident of their neighborhood for a number of years if they could; and 59% of employee respondents indicated they felt like they belonged in their neighborhood. No more than 45% of student respondents indicated that the remaining statements were true.

Figure N-1 shows the percentage of all the people that survey respondents regularly socialize within that are within walking distance of their residence. A majority of employee and student respondents do not live within walking distance of people they regularly socialize with. Sixty-four percent of employee and 54% of student respondents indicated that up to 10% of the people they socialize with do live within walking distance to their residence. Twelve percent of employee and 13% of student respondents indicated that 11% to 20% of the people they socialize with do live within walking distance to their residence. Twelve percent of both employee and student respondents indicated that 21% to

Figure N-1. Percentage of all people that the respondents regularly socialize with that are within walking distance from their home



Source: LCC Survey, 2009.

Table N-5. Respondents' opinions of how true the following statements are considering where they may want to live in the future

	Percent of Respondents					
	TRUE		NEUTRAL		FALSE	
Statement	Employee	Student	Employee	Student	Employee	Student
I hope to live in a neighborhood with a strong sense of community	67%	73%	20%	18%	13%	10%
I hope to have close relationships with people in my neighborhood	60%	65%	21%	22%	19%	14%

Source: LCC Survey, 2009.

Table C-1. Respondents' opinion of whether or no to live near or on campus

	Survey Respondents		
Campus	Employee	Student	All
Yes	46%	62%	59%
No	55%	39%	41%
	n=176	n=1207	n=1403

Source: LCC Survey, 2009.

Table C-2. Respondents' opinion on how many floors above ground they would be willing to live if the building HAD an elevator and could only be accessed by a shared entryway

	Survey Respondents	
Floors	Employee	Students
2	18%	19%
3	22%	26%
4	10%	10%
5	9%	8%
6	5%	3%
7	1%	2%
8	1%	1%
9	1%	0%
10+	33%	43%
	n=163	n=1161

Source: LCC Survey, 2009.

40% of the people they socialize with live within walking distance. Seven percent of employee and 8% of student respondents indicated that 41% to 60% of the people they socialize with live within walking distance. Three percent of employee and 7% student respondents indicated that 61% to 80% and 81% to 100% of the people they socialize with live within walking distance of their residences.

Table N-5 asked respondents to consider where they might live in the future and rate how true each of the following questions is for them. This table shows that both employee and student respondents have indicated both statements to be true. Sixty-seven percent of employee, and 73% of student respondents hope to live a neighborhood with a strong sense of community. Sixty percent or employee, and 65% or student respondents indicated that they would hope to have close relationships with people in their neighborhood.

RESULTS: CAMPUS

The Campus Housing Section of the survey asks five questions regarding preferences and level of importance of campus housing amenities and characteristics. This section presents key findings followed by a descriptive analysis of the results.

Key Findings

-Forty-six percents of employee and 62% of student respondents indicated that they would consider living on or near campus.

-All of the amenities received an important rating from employee and student respondents. Type of housing and outdoor space received the highest ratings from employee respondents with 91% each; and amenities in the interior of a residence received the highest rating from student respondents with 91%.

-The top five characteristics that respondents indicated were most desirable for establishing housing located on a campus were: private rear yards, private balconies, attached private garage, front yard, and a front porch big enough for a table and four chairs.

Descriptive Analysis

Survey respondents were asked whether or not they would consider living on or near campus. Table C-1 shows that 46% of employee and 62% of student respondents indicated that they would consider living on or near campus.

Survey respondents were are asked if they lived in an apartment in a multi-story building, how many floors above ground would they be willing to live if the building had an elevator and could only be accessed by a shared entryway. Table C-2 shows that more than half of all respondents' would be willing to live up to five floors above ground level. Less then 10% of all respondents indicated they would be willing to live in a building that was seven eight and nine floors above ground. Thirty-three percent of employee, and 43% of student survey respondents would be willing to live

Table C-3. Respondents' preference on how many floors above ground they would be willing to live if the building DID NOT have an elevator

	Survey Respondents	
Floors	Employee	Students
2	44%	45%
3	34%	25%
4	10%	11%
5	5%	8%
6	3%	2%
7	2%	2%
8	1%	1%
9	0%	0%
10+	2%	7%
	n=154	n=1127

Source: LCC Survey, 2009.

Table C-4. Respondents' preferences on the aspects of campus housing attributes in terms of importance

Amenities	Percent of Respondents: Important Employee	Important Student	Neutral Employee	Neutral Student	Unimportant Employee	Unimportant Student	Mean
Neighborhood cohesion/community (e.g., sense of community among neighbors)	52%	58%	30%	25%	18%	17%	3.60
Amount of interior space (e.g., large size and number of rooms)	71%	76%	18%	18%	12%	6%	4.12
Type of housing (e.g., apartment in a tower, single-family home, etc.)	91%	83%	6%	12%	3%	6%	4.35
Location of a residence (e.g., distance from work, school, shopping, etc.)	80%	87%	15%	11%	5%	3%	4.37
Outdoor aspects of a residence (e.g., parking, yard space, porch, etc.)	91%	86%	8%	10%	2%	4%	4.41
Amenities in the interior of a residence (e.g., appliances, laundry facilities, etc.)	86%	91%	9%	8%	4%	2%	4.49

Source: LCC Survey, 2009. Employee: n=183, student n=1208

ten or more floors above ground level if the building had an elevator and could be accessed by a shared entryway.

Survey respondents were asked if they lived in an apartment in a multi-story building, how many floors above ground would they be willing to live if the building DID NOT had an elevator. Table C-3 shows that more than half of all respondents' would be willing to live up to three floors above ground level. Approximately 10% of all employee and student respondents indicated they would be willing to live in a building that was four floors above ground. Five percent of employee, and 8% of student respondents indicated they would be willing to live five floors above ground level if the building had an elevator. Less than 5% of the remaining employee respondents indicated they would be willing to live six stories or higher if there was no elevator; and 10% of student respondents indicated the same.

Table C-4 shows preferences on the aspects of housing attributes in terms of desirability, ranked by the mean score of each amenity (where 3=most important and 1= least important). Since the survey ranking was switch from 1=not at all important to 5=very important (see footnote 10) the mean ranking shows what amenities respondents believed not to be important about aspects of campus housing at the top, and what they believe to be important at the bottom of Table C-4. All of the amenities received an important rating from employee and student respondents. Type of housing and outdoor space received the highest ratings from employee respondents with 91% each; and

amenities in the interior of a residence received the highest rating from student respondents with 91%. Neighborhood cohesion was rated the least important by employee and student respondents with 52% and 58%, respectively.

Table C-5 shows level of importance of housing aspects in terms of desirability, ranked by the mean score of each amenity (where 3=most important and 1= least important). Since the survey ranking was switched from 1=not at all important to 5=very important (see footnote 10) the mean ranking shows what amenities respondents believed not to be important about aspects of campus housing at the top, and what they believe to be important at the bottom of Table C-5. The top five characteristics that employee and student respondents indicated that were most desirable for establishing housing located on a campus were: private rear yards (84% and 82%), private balconies (73% and 76%), attached private garage (72% and 71%), front yard (67% and 70%), and a front porch big enough for a table and four chairs (66% and 64%). The top five attributes that employee respondents indicated were least desirable were: to a high quality of life were: neighbors directly on top, neighbors directly below, neighbors directly on both sides, neighbors directly on one side, and off street parking in a shared carport. The top five attributes that student respondents indicated were least desirable were: neighbors directly on top, neighbors directly below, neighbors directly on both sides, three level living, and neighbors directly on one side.

Table C-5 Respondents' preferences on the aspects of campus housing attributes in terms of desireablility

	Percent of Respondents						
	Desirable		Neutral		Undesirable		
Attributes	Employee	Student	Employee	Student	Employee	Student	Mean
Neighbors directly on top	2%	6%	15%	22%	83%	69%	1.77
Neighbors directly below	7%	11%	25%	27%	68%	62%	2.07
Neighbors directly on both sides	7%	12%	28%	32%	65%	56%	2.22
Three-level living	65%	20%	21%	33%	14%	47%	2.45
Neighbors directly on one side	16%	20%	35%	37%	49%	43%	2.57
On-street parking for each unit	51%	31%	21%	28%	29%	41%	2.76
Off-street parking in a shared carport	28%	35%	31%	31%	41%	35%	2.92
Off-Street parking in a shared parking garage	31%	35%	28%	30%	41%	35%	2.93
Access to the front door from double-loaded interior hallway	28%	31%	31%	39%	41%	30%	2.97
Off-street parking in a lot	27%	39%	24%	26%	49%	34%	2.98
Two-level living	32%	39%	37%	35%	31%	26%	3.14
Detached private garage	44%	47%	28%	30%	28%	23%	3.32
Front Garage	37%	51%	35%	30%	29%	19%	3.46
Rear Garage	42%	45%	32%	33%	26%	22%	3.35
Off-street parking in a private carport	53%	54%	27%	26%	20%	20%	3.52
Access to the front door from street	63%	55%	22%	28%	15%	17%	3.63
Front Stoop	64%	57%	21%	28%	14%	15%	3.68
Single-level living	65%	62%	21%	27%	14%	12%	3.86
Front Porch big enough for a table and four chairs	66%	64%	22%	22%	12%	13%	3.86
Front yard	67%	70%	22%	20%	11%	10%	4.01
Attached private garage	72%	71%	13%	18%	15%	11%	4.06
Private balconies	73%	76%	15%	15%	12%	10%	4.10
Private rear yard	84%	82%	11%	12%	5%	6%	4.38

Source: LCC Survey, 2009. Employee: n=178, student n=1197

Appendix IV

LANE COMMUNITY COLLEGE SURVEY QUESTIONNAIRE

Thank you so much for being willing to participate in this survey!

The purpose of this survey will increase the understanding of the factors that affect people's opinions and preferences of urban form; housing type; amenities and facilities; transportation choices, needs, and usage (current and future) and will help inform the development of a sustainable growth management strategy for Lane Community College. You were selected to participate in this survey because you are Faculty, Staff or Students at Lane Community College (LCC). Your input is valuable because of your experiences traveling to and spending time at LCC. We ask that the household member who completes this survey is 18 years of age or older and be current or past faculty, staff or students at LCC.

Your participation in this survey is voluntary, and you may discontinue your participation at any time. Completing and returning the questionnaire constitutes your consent to participate. Please be assured that all of your survey responses are anonymous. The survey will take approximately 10-20 minutes to complete, and consists of 35 questions. Thank you for your help in this important project!

This survey is being conducted by Barry Gordon, a graduate student from the University of Oregon's Departments of Community and Regional Planning, Landscape Architecture and Architecture, as part of a cooperative and supported research and planning project with Lane Community College.

Please tell us about your transportation choices, needs and usage:

1. How do you generally travel to LCC? Walk Bicycle Personal Vehicle Car-pool Public Transportation Other (please specify)

2. Rank in order of importance HOW you would rather travel to LCC if all options were available to you? (1 being the most important, 6 the least important) Walk Bicycle Personal Vehicle Car-pool Public Transportation Other (please specify)

3. About how many miles do you have to travel (one way) to get to LCC?

4. On average, how much time do you spend commuting to LCC each day (please give you response in minutes)?

5. On average, how much time do you spend traveling each day (outside of LCC) to places like shops, activities, errands, etc. (please give you response in minutes)?

6. Do you usually shop/run errands while traveling to or from LCC? Yes No

7. How many of the following do you own: Personal Vehicle, Bicycle

GENERAL HOUSING QUESTIONS Please tell us about your current housing:

1. Please indicate what type of housing that you currently live in:

Single family house, Duplex (2 unit structure), Multi-Family Apartment (structure with 3 or more units), Condominium/townhouse,Retirement community, Other

2. How satisfied are you with the type of housing that you currently live in? (Level of satisfaction: 5= very satisfied, 1 not very satisfied)

3. Please explain your level of satisfaction with the type of housing that you currently live in:

4. Please rank the type of housing you would prefer to live in:(1 being

the most important, 5 the least important) Single family house, Duplex (2 unit structure), Multi-Family Apartment (structure with 3 or more units), Condominium/townhouse,Retirement community, Other

5. Do you: Own or Rent

6. How much is your monthly rent or mortgage?

7. How many bedrooms do you have in your present home?

8. How many bathrooms do you have in your present home?

NEIGHBORHOOD QUESTIONS Please tell us about the community you live in:

1. Please rate how important to you it is to be within walking distance of each of the following amenities: 5 (Very important) 1 (Not at all important) Ballfields (e.g., soccer, baseball, etc.), Barber Shop, Beauty Salon, Coffee Shop, Community Center, Daycare, Dry Cleaners, Gas Station, Grocery Store,Gym/Fitness Center, Laundromat, Library, Neighborhood Park, Personal Garage, Playground, Pub/Bar, Public Garage, Public Transportation, Religious Center, Restaurant, Running trails, School, Small Convenience Shop, Tot lot (playground for children between 1-3 years old), Vet clinic, Workplace.

2. How long would you be willing to WALK to each of the following amenities: (5 minutes 10 minutes 15 minutes 20 minutes) Ballfields (e.g., soccer, baseball, etc.), Barber Shop, Beauty Salon, Coffee Shop, Community Center, Daycare, Dry Cleaners, Gas Station, Grocery Store,Gym/Fitness Center, Laundromat, Library, Neighborhood Park, Personal Garage, Playground, Pub/Bar, Public Garage, Public Transportation, Religious Center, Restaurant, Running trails, School, Small Convenience Shop, Tot lot (playground for children between 1-3 years old), Vet clinic, Workplace.

3. How long would you be willing to BIKE to each of the following amenities: Ballfields (e.g., soccer, baseball, etc.), Barber Shop, Beauty Salon, Coffee Shop, Community Center, Daycare, Dry Cleaners, Gas Station, Grocery Store,Gym/Fitness Center, Laundromat, Library, Neighborhood Park, Personal Garage, Playground, Pub/Bar, Public Garage, Public Transportation, Religious Center, Restaurant, Running trails, School, Small Convenience Shop, Tot lot (playground for children between 1-3 years old), Vet clinic, Workplace.

4. Approximately what percentage of all of the people who you and your family (including your children) regularly socialize with are within walking distance of your residence?

5. Please indicate how long you have lived at your current residence (in years):

6. Please consider your current neighborhood and rate how true each of the following statements is for you. 5 (Very true) 1 (Not at all true)

-I like to think of myself as similar to the people who live in my neighborhood
-I think of community planning in my neighborhood as a "we" not a "they" activity
-My friendships and associations with others in my neighborhood mean a lot
-I visit with my neighbors in their homes
-A feeling of fellowship runs deep between me and others in my neighborhood
-I believe my neighbors would help me in an emergency
-I regularly stop and talk with people in my neighborhood
-I would work together with others to improve something in my neighborhood

-I feel loyal to people in my neighborhood

-If I can, I will remain a resident of my neighborhood for anumber of years

-I frequently have neighbors over to my house to visit

-Overall, I am very attracted to living in my neighborhood

-If I needed advice about something I could go to someone in my neighborhood

-I borrow things and exchange favors with my neighbors

-I feel like I belong in my neighborhood

-Living in my neighborhood gives me a sense of community

-I agree with most people in my neighborhood about what is important in life

-If I were given the opportunity to move, I would choose to stay in my neighborhood

7. Please consider where you may live in the future and rate how true each of the following statements is for you.

-I hope to live in a neighborhood with a strong sense of community

-I hope to have close relationships with people in my neighborhood

CAMPUS HOUSING Please tell us your opinions and preferences in campus housing.

1. Would you consider living on or near campus? Yes, No

2. Please rate the following aspects of housing in terms of what is very important to not at all important to you. 5 (Very important) 1 (Not at all important)

-Outdoor aspects of a residence (e.g., parking, yard space, porch, etc.)

-Amount of interior space (e.g., large size and number of rooms)

-Type of housing (e.g., apartment in a tower, single-family home, etc.)

-Amenities in the interior of a residence (e.g., appliances, laundry facilities, etc.)

-Location of a residence (e.g., distance from work, school, shopping, etc.)

Neighborhood cohesion/community (e.g., sense of community among neighbors)

3. If you lived in an apartment in a multi-story building, how many floors above the ground would you be willing to live if the building had an elevator and could only be accessed by a shared entryway?

4. If you lived in an apartment in a multi-story building, how many floors above the ground would you be willing to live if the building DID NOT have an elevator?

5. Please rate the following attributes in terms of how desirable each is to you: 5 (Very desirable) 1 (Not at all desirable) Private rear yard, Front Porch big enough for a table and four chairs, On-street parking for each unit, Neighbors directly on both sides, Front yard, Off-street parking in a private carport, Neighbors directly on one side, Three-level living, Off-Street parking in a shared parking garage, Two-level living, Neighbors directly below, Front Garage, Rear Garage, Neighbors directly on top, Off-street parking in a lot, Private balconies, Access to the front door from double loaded interior hallway, Front Stoop, Detached private garage, Attached private garage, Off-street parking in a shared carport, Single-level living, Access to the front door from street

DEMOGRAPHIC QUESTIONS

1. Please indicate your gender: Female, Male

2. Please indicate the number of people in your household in each category:Child(ren) less than 5 years old, Child(ren) between 5 and 17

years old, Adults (including yourself) between the ages of 18 and 64, Adults over the age of 65, Live Alone

3. Please check the box which best describes your living arrangements: Single Parent household with children under 18, Married, no children, Married with children under 18, Live with unrelated householder(s), Other (please specify)

4. Please indicate your zip code:

5. Please enter your age in years:

6. Please indicate the highest level of education that you have completed: High School/GED, Some College, College Graduate, Post Graduate Work, Other (please specify)

7. Please indicate your current status: Faculty, Staff, Student, Other

8. Please indicate which of the following categories best describes your

2008 total household income, before taxes (in thousands): <10,000, 10-19, 20-29, 30–39, 40–49, 50-59, 60-69, 70-79, 80-89, 90-99, 100K+, Other (please specify)

Thank you so much for completing the survey!

Appendix V

SURVEY QUESTIONNAIRE:

WEIGHTING LCC'S DESIGN GOALS

Thank you for your willingness to participate in this survey.

The survey's purpose is to provide guidance to the UO Perimeter Planning Team as they finalize the plans they are developing for LCC. Your opinions about the importance of different elements of Lane's Design Guidelines, which were approved by College Council last May, will help the UO Team focus their plans and recommendations. Additional supporting guidelines have been added based on the findings of the UO Perimeter Master Plan Design Workshops held in October 2009. All responses will be confidential and will be combined and reported only in an aggregate form.

GOAL: SUITABLE ACCESSIBILITY

Please rank the level of importance of each goal. (3 being very important, 1 being not very important)

1. Optimal Wayfinding - Wayfinding on campus should be clear and easily understood. Pedestrian and vehicular circulation, landmarks, signage and architecture should create a hierarchy of space that will add to imageability and wayfinding helping to facilitate travel to, from, and within buildings and parking areas.

2. Hierarchy of Paths - Pedestrian circulation needs to be clear, safe and comfortable. Circulation networks need to be sized appropriately, directing people through campus. Building entries and intersecting paths should create places to interact.

3. Clear Circulation Routes - Paths should be clearly articulated and contribute to a sense of direction and purpose. Wheelchair routes should be straightforward, easy to find and follow.

4. Gateways - All circulation networks should be clearly marked with art, architecture or landscaping to create identifiable transition zones between spaces adding to imageability and wayfinding cues.

5. Accessible Routes - Circulation networks through campus should be accessible to pedestrians, bicycles and maintenance vehicles. Alternative routes for automobiles traffic should be clearly identifiable and have minimal intrusion on the campus core.

6. Connected Sidewalks - Sidewalks should be organized and connected in logical ways that follow natural routes of circulation throughout campus. Sidewalks should be a minimum of 5 feet wide, shaded/covered naturally when possible and separated from the roadway with planting strips.

7. Great Streets - Streets should be pedestrian friendly, incorporating trees, separated sidewalks and other traffic calming devices such as medians and narrow lanes to prevent speeding.

8. 1500-Foot Walk - Most destinations on campus should be within a 1500-foot walk of each other. This walk should take ten minutes to complete. This distance allows for a compact campus and decreases the likelihood that students will drive between classes.

9. Convenient Bus Stops - Bus stops should be in convenient places, evenly dispersed across campus and should be within a 1500-foot walk of anywhere they serve.

10. Safe Access for Bikes - Bicycle traffic should have separate lanes from vehicular traffic when possible. Integration other principles like Great Streets, Clear Circulation Routes, Hierarchy of Paths should keep bicyclists and pedestrians safer.

11. Accessible Entries - Building and campus entries should be visually

distinct and will help with wayfinding. Students with mobility limitations should be able to use the same entrances and when possible should have similar travel distances between buildings as those without limitations.

12. Safe Access for Pedestrians - Pedestrians should have safe routes to, from, and within campus. Planting strips, designated pedestrian paths in parking lots, on street parking and street trees all help create physical barriers from vehicular traffic and other hazards.

GOAL: SUSTAINABLE BUILDINGS

Please rank the level of importance of each goal. (3 being very important, 1 being not very important)

1. Oriented to Sun and Wind - Buildings should be designed to minimize energy and water use, to respond to local climate, and to maximize the use of natural daylight and ventilation. Designs should include consideration of shading options on south and west exposures, which reduce heat gain in summer and admit light in winter. Each building should provide its inhabitants with a clear sense of location, weather, and time.

2. Windows to the Campus - The design of new buildings should include for visual transparency to promote and activate academic activities both inside and outside of the classroom and draw people to interesting and engaging opportunities.

3. Natural Surveillance - Appropriate landscape and building designs should follow best practices to provide perceived and actual security. Visual connectivity through building windows, use of outdoor spaces and suitable lighting will help to intensify and activate the campus creating a higher level of perceived and actual sense of safety, "eyes on the street".

4. Four Story Limit - A four-story above ground limit should be observed for all new buildings on campus. A height limit will ensure equitable access to sunlight and views, optimize energy consumption, and retain the unity of the campus form.

5. Narrow Buildings - Buildings with widths ranging from 50-65' maximize access to sun light, allow the potential for natural ventilation and promoting environmental sustainability. They also help define exterior spaces and allow more "eyes on the street" that help create better Natural Surveillance goal.

6. Building for Spatial Structure - Spaces should be designed which support learning, build community, and foster feelings of inclusion for all people, regardless of user group, culture, race, religion, gender, sexual orientation, age, learning style, or ability. Buildings, landscapes and lighting should be designed to promote personal safety.

7. Shaped Pathways and Spaces - Buildings should be designed to shape outdoor spaces and pathways that are safe, day-lit and provide for a hierarchy of needs and activities. The design of new buildings should consider efficient circulation throughout campus. Landscape elements should avoid areas of concealment around building entrances, pedestrian walkways, or parking lot perimeters.

8. Perimeter Support Buildings - When there are new or expanding programming needs, preference will be given to the following strategies: retrofitting, remodeling, building additions, new buildings only if strong burden of proof that it is required. If faculty and staff offices must be relocated, those offices should be moved minimally. New perimeter buildings should be added to financially and academically benefit student programs.

9. Landmark Buildings - Landmark buildings shall be identified and de-

signed or remodeled to benefit campus Wayfinding and Civic Structure. Landmark buildings should mark entry points and reinforce the campus heart by shaping major open spaces. In addition to their placement, these buildings should be designed to be symbols of Lane Community College's identity.

10. Background Buildings - Background buildings should be placed and designed to provide support for programmatic needs, outdoor spaces and landmark buildings on campus. In contrast to landmark buildings, these buildings should be parts of the greater whole in their proximity to other buildings, form and aesthetic.

11. Identifiable Entries - Building entries must be marked clearly and in such a way that people who approach the building see the entry when they see the building. Entries should be visible from all directions and lines of sight.

12. Covered Walkways - Where possible and appropriate, covered walkways should be designed using trees and architectural features. Covered walkways should be designed to retain access to daylight and personal safety, to avoid concealment of building entries, and obstruction of clear wayfinding.

13. Articulated Walls - Great buildings usually have expressive elevations that give them life and relate them to the greater context. Certain push and pulls within the face or walls inside of a structure can indicate or hide specific elements of its program. The idea is to create walls with more character.

14. Adapted Buildings - Along with creating new structures, the renovation of existing buildings reduces construction costs and keeps the original campus feel as a cohesive whole. Old buildings can become revitalized with the integration of technological and sustainable elements.

15. Entries on Public Spaces - Entrances to buildings and public spaces contain high concentrations of activity. Building entries, courtyards and quads should be welcoming and comfortable. Sidewalks and hardscape gathering spaces should be appropriately landscaped, allow for visual connectivity and safety.

16. Active Ground Floors - Great entrances and programmatic rooms that allow for places to congregate can enliven the first floor of any building. Activity seen from outside the building act as windows to the campus and will give viewers more of a reason to enter the indoor space.

17. Entrance Transitions - Rather than being thrust into a space after walking through one set of doors, why not create an entry sequence that eases a person into a new place. Integrating art and display areas of academic achievements help generate interesting spaces and points of interest.

18. Green Roofs - Integrating vegetated or electricity producing photovoltaic panels can provide energy for the campus and clean catchment water by taking advantage of relatively unused rooftop space.

19. Classrooms with Views - Views to exterior spaces increase classroom productivity, help create comfortable, well lit interior space and allow for the natural surveillance of campus.

SUSTAINABLE LANDSCAPES

Please rank the level of importance of each goal. (3 being very important, 1 being not very important)

1. Civic Structure - The primary function of buildings and open spaces is to shape space, not to provide decoration. New projects should make a positive contribution to the experience and imageability of the campus.

2. Shaped Space - Scale and the shaping of space, not style, are essential elements in building and open space design. Create spaces that are inviting and unique and allow for different experiences.

3. Ecological Preservation - Preserving environmentally sensitive and special habitat areas will ensure the preservation of vital ecological areas, as well as provide Teaching Landscapes for students and the community about the environment.

4. Teaching Landscapes - Design outdoor spaces for and as classrooms with the implementation of sustainable ideas. These outside spaces can be used as great learning environments.

5. View Corridors - Buildings, parks, pathways and streets should be sited to maximize views to the borrowed landscape and take advantage of the rich natural resources of the area.

6. Varied Seating - Providing for a variety of seating options allows for choice and flexibility. Diversity of seatin- g helps activate spaces and be continually used.

7. Offset Outdoor Seating - Allowing seating to be in close relation to a building entrance, while still keeping a distance from traffic is a helpful solution to give people a pause before or after taking part in activities within a building, having a private conversation, read a book or eat lunch.

8. Seating Along Pathways - Seating opportunities away from building should provide places to rest between destinations, take into consideration view corridors and landscape planting.

9. Places to Smoke - Create designated places to smoke away from high traffic areas should be clearly identified with signage and seating.

10. Legible Landscapes - It is important to provide desirable outdoor spaces complete with appropriate trees and plants. Landscaping helps form views, nooks, provides excitement and connects to the surrounding landscape.

11. Art on Campus - Personalizing space shows the most honest sense of character. It allows visitors to understand a place and the people that consume the particular location.

12. Campus Quads - Buildings create the shape given to outdoor rooms creating a sense of place. Elements of quads include places to sit, area to run, are appropriately scaled and connect pathways. Quads provide pedestrians direction between buildings and the surrounding areas.

13. Street Trees - Trees provide shade, create a ceiling for the street network and are used as a traffic-calming instrument. They should be planting in the strip between curbs and sidewalks creating shade for the street and the sidewalk. The trunks make a more secure pedestrians area.

14. Bioswales - Bioswales help filter runoff of rainwater, provides a softer edge to such areas like parking lots and sloping streets and can be used as a safety separator between the auto and pedestrian realm.

15. Ecological Preservation and Restoration - It is important to look at the history behind something that already exists. It can often be in the best interest to upgrade and preserve rather than demolish and start over to really keep the true nature of an area.

16. Small Parking Lots - Screening and vegetating parking areas can diminish the effects of stormwater runoff, parking lot pollution, "the heat island effect" and create a smaller visual blight. It is more aesthetically pleasing to break up parking lots and provide small lots and on-street parking options.

GOAL: COMPLETE COMMUNITY

Please rank the level of importance of each goal.

(3 being very important, 1 being not very important)

1. Places to Learn - This includes classrooms, but also other spaces that foster a healthy environment in which learning can occur.

2. Campus Cafes - Café and eateries help foster interaction between students and faculty, provide a destination location to see and be scene, a place to hang out on campus, and help create a better sense of community.

3. Campus Housing - Housing within walking distance from campus allow for students, families, community members and faculty to live close to their place of work or education. It helps eliminate the need for autocentric transit, and creates a local community.

4. Campus Retail - Provide retail services within immediate proximity of the campus core, so that students and faculty can access amenities nearer to their community without the need to get in their car.

5. Places to Play - Quads and great lawns are traditional open green spaces on college campuses. Connections to surrounding nature trails, programmed sport fields, parks and a central recreation building are important.

GOAL: APPROPRIATE INFRASTRUCTURE

Please rank the level of importance of each goal.(3 being very important, 1 being not very important)

1. Hidden Infrastructure - Hidden utilities can add from the visual clutter that large institutions accrue creating a healthier environment.

2. Recycling Places - Creating specific areas throughout campus, in and around buildings, provide opportunities to recycle and create a culture of recycle, reuse, renew.

3. Hidden Building Support - Masking maintenance and support functions of existing campus buildings, and designing all the new buildings in a way that will eliminate their functions from being an apparent to the college community as a way to promote a focus on a healthy educational environment.

4. Accessible Building Support - Allowing for ADA accessible design throughout buildings on campus, so that all amenities may be easily accessible, regardless of physical ability.

GOAL: FEASABILITY

Please rank the level of importance of each goal.(3 being very important, 1 being not very important)

1. Phaseability - Phasing improvements and additions to the college is a way that allows for the campus to remain a healthy learning environment, while also ensuring its future health. One phase of construction can help create a revenue stream for the next.

2. Constructability - Designing buildings and infrastructure in a way that would ensure their construction, and eliminate the need for excessive maintenance.

3. Political Feasibility - Making sure all design proposals are realistic in terms of the student and faculty opinion, and allowing for change to ensure its support from the greater community and county.

4. Cost - Keeping all costs, from design to construction, within the budget set out for the college to allow for the continuation of financial academic support.

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