



CAMPUS MASTER PLAN

Utah State University

UINTAH BASIN



ROOSEVELT CAMPUS
987 E Lagoon St.
Roosevelt, UT

VERNAL CAMPUS
320 N Aggie Blvd.
Vernal, UT



CRSA

Utah State University
UINTAH BASIN

"Planning is bringing the future into the present so that you can do something about it now." - Alan Lakein

ACKNOWLEDGMENTS



ACKNOWLEDGMENTS

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Thank You to all Faculty, Staff, Students, Stakeholders,
and the communities of Roosevelt and Vernal.

Published: August, 2015

Utah State University
UINTAH BASIN

"Everything you can imagine is real." - Pablo Picasso

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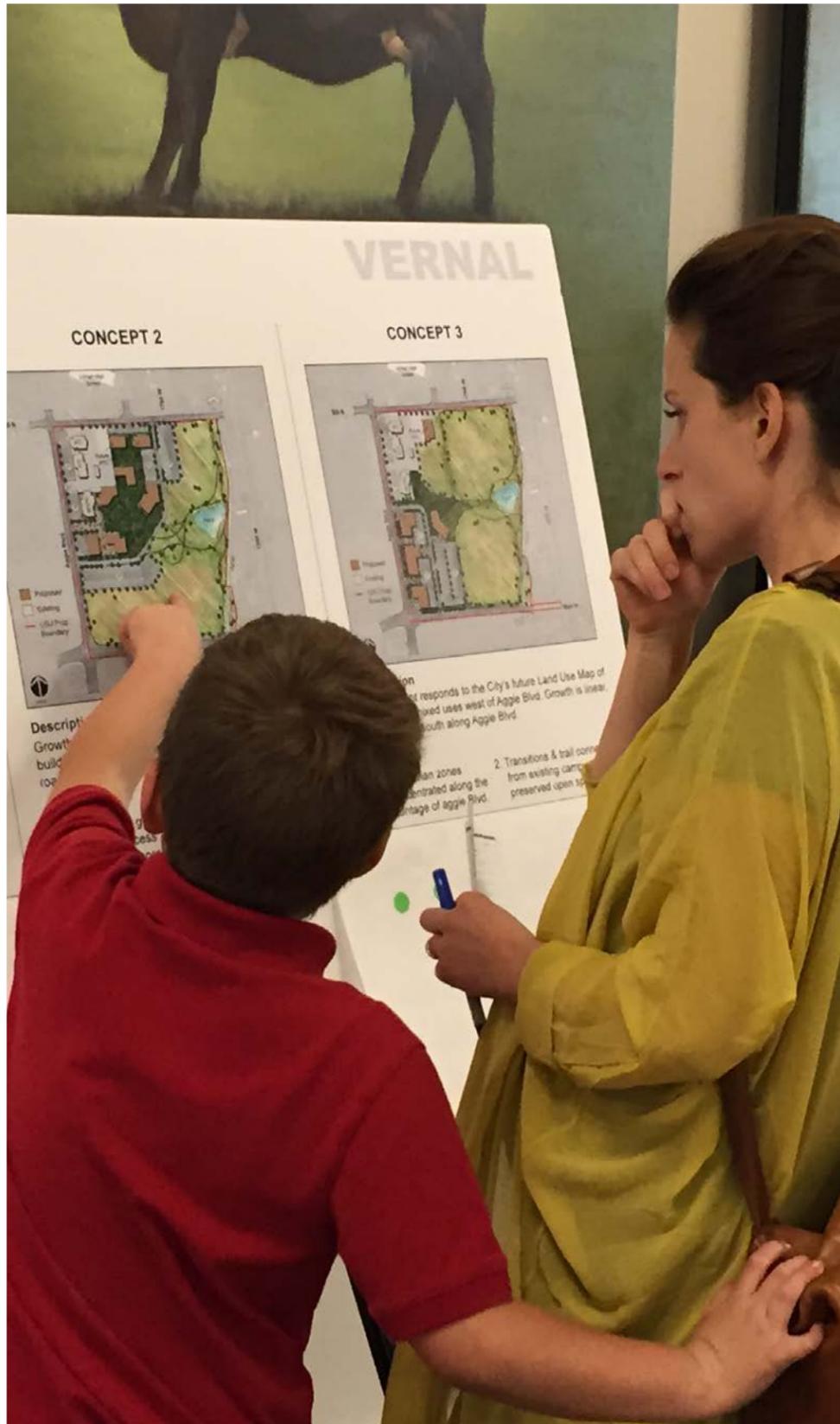


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Utah State University
UINTAH BASIN

"There is no substitute for hard work."
- Thomas A. Edison

INTRODUCTION



Message from the Dean

I am delighted to introduce to the residents of the Uintah Basin a vision for the future of higher education at the Utah State University Uintah Basin Regional Campus. The updated Campus Master Plan represents the long term vision for both the Roosevelt and Vernal Campus locations, outlining a logical progression for developing new infrastructure to support growing programs and educational needs in the Basin. Certain opportunities and constraints exist at each Campus location. This plan recognizes these

and organizes future opportunities around the objectives of the University in the Basin. Collaboration is an important theme of our new Master Plan. The Plan was prepared only after a thorough campus-wide planning effort that included collaboration with Faculty, Staff, Administration, Students, and Community Leaders. The objectives of the Master Plan included:

- **Respecting the needs of the residents of the Uintah Basin**
- **Developing a flexible plan to accommodate a wide variety of future programs**
- **Ensuring efficient use of available resources and expanding the campus responsibly**
- **Enhancing the experience of working and teaching on campus for faculty and staff**

The overall campus vision, based on these objectives, is presented in this document. For each Campus Site in Roosevelt and Vernal, implementation tools are presented to guide a phased growth scenario. The implementation, designed to be flexible, will support the overall mission of the Utah State University Regional Campus System in the Uintah Basin, and serve the needs of the community.

A handwritten signature in black ink that reads "Boyd Edwards". The signature is fluid and cursive.

Dr. Boyd Edwards

Dean & Executive Director, USU Uintah Basin

Overview

Since the 1960's, Utah State University has had a presence in the Uintah Basin. While starting small, the community support for the Campus has always been strong. Programs have continued to evolve to meet the growing needs of the residents of the Uintah Basin. The University has long had a physical campus in Roosevelt. Recently, a larger permanent physical presence has been established in Vernal. As educational delivery models change, the types of spaces that may be needed in the future may vary from what many recognize as a traditional campus. Many students in the Uintah Basin enroll in evening classes, or distance education classes. In fact, as a Regional Campus of Utah State University, students have access to courses taught around the state via distance education broadcasts.

In 2013, the University embarked upon a campus planning process to review the existing campus and develop a detailed understanding of the current conditions and ability of the campus to serve the needs of the community. The study also seeks to understand the potential future needs of students, faculty and staff in the Basin, so that the University may continue to evolve to meet the future needs of the community.

The University owns approximately 11 Acres in Roosevelt and 140 Acres in Vernal, and each offers a different set of opportunities and constraints. This Campus Master Plan explores these important aspects and recommends a logical progression for development at each location, with flexibility to change as then needs of the community changes.

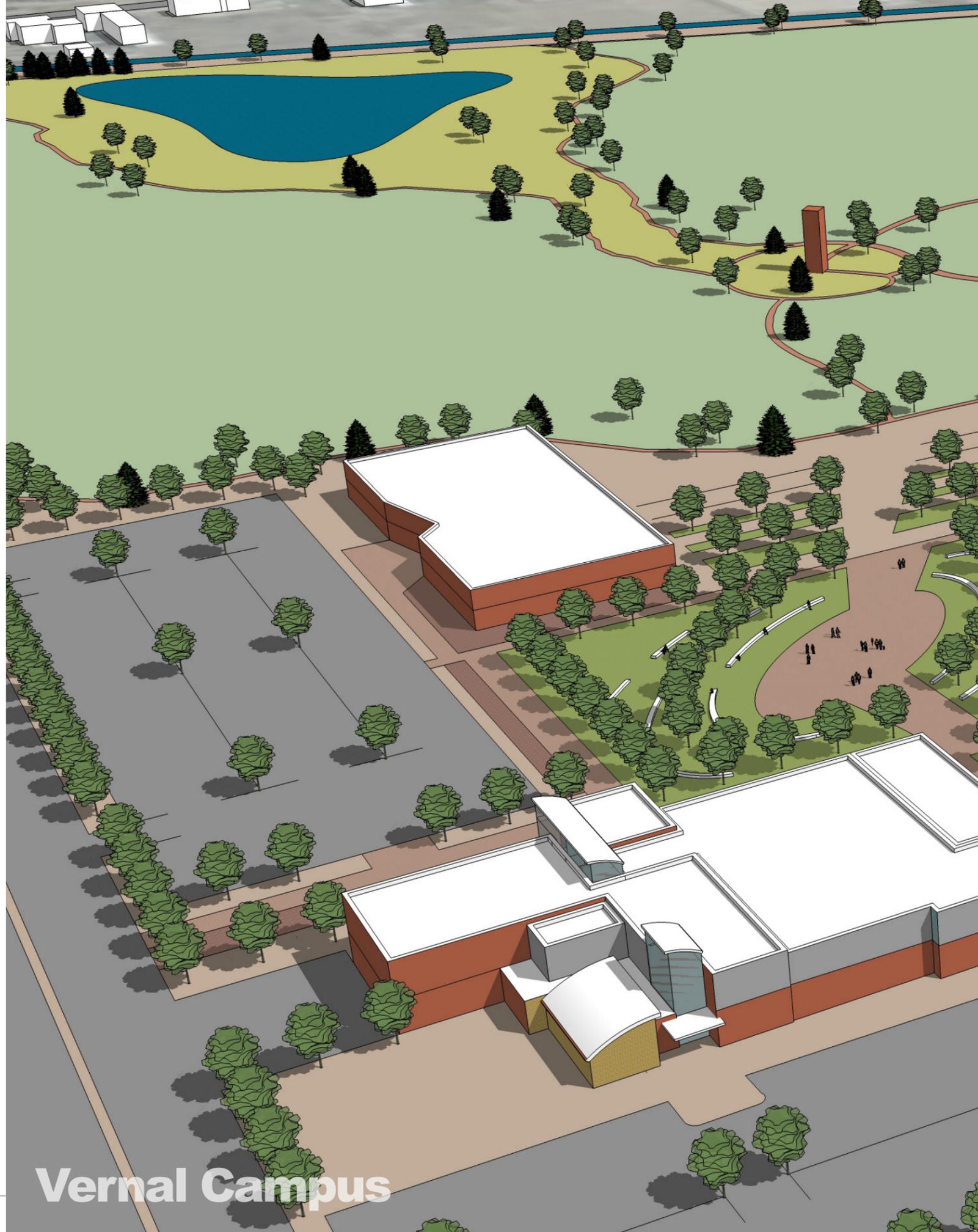
The Campus Master Plan includes the following key components:

- 1 - Campus Vision and Programming
- 2 - Site Analysis
- 3 - Illustrative Plan
- 4 - Design Guidelines

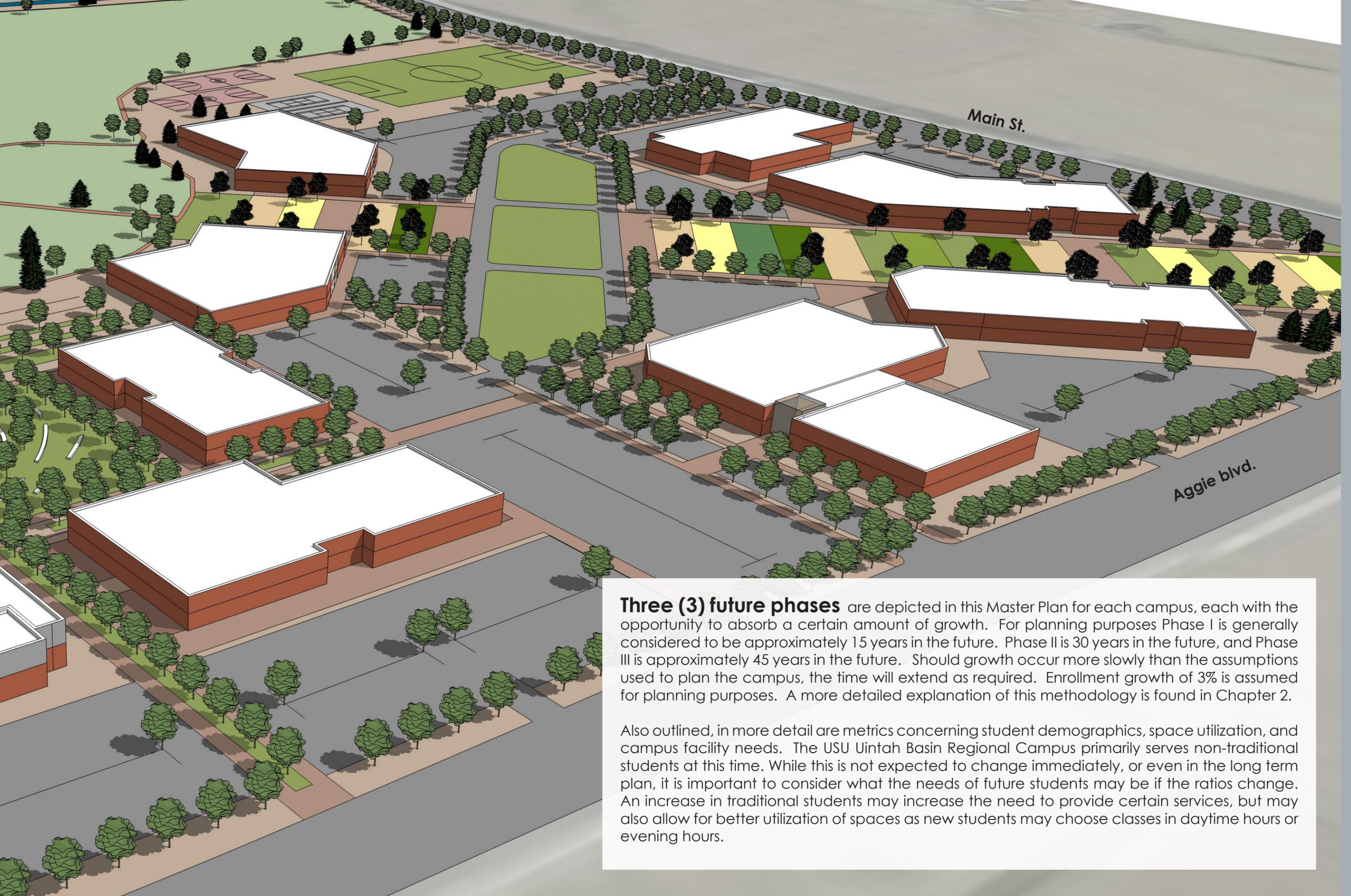
Appendix A: Engineering Appendices
Appendix B: Concept Plans and Drawings
Appendix C: Projections and Data



Roosevelt Campus



Vernal Campus



Three (3) future phases are depicted in this Master Plan for each campus, each with the opportunity to absorb a certain amount of growth. For planning purposes Phase I is generally considered to be approximately 15 years in the future. Phase II is 30 years in the future, and Phase III is approximately 45 years in the future. Should growth occur more slowly than the assumptions used to plan the campus, the time will extend as required. Enrollment growth of 3% is assumed for planning purposes. A more detailed explanation of this methodology is found in Chapter 2.

Also outlined, in more detail are metrics concerning student demographics, space utilization, and campus facility needs. The USU Uintah Basin Regional Campus primarily serves non-traditional students at this time. While this is not expected to change immediately, or even in the long term plan, it is important to consider what the needs of future students may be if the ratios change. An increase in traditional students may increase the need to provide certain services, but may also allow for better utilization of spaces as new students may choose classes in daytime hours or evening hours.

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"The philosophy of the school room in one generation
will be the philosophy of government in the next"
- Abraham Lincoln

**CAMPUS VISION
& PROGRAMMING**

2. CAMPUS VISION & PROGRAMMING

Why Master Plan?

A master plan establishes a **framework** for coordinating future development and physical change. This framework establishes patterns and characteristics that maintain a campus' unique qualities, while identifying strategic opportunities for growth.

The physical environment has a tremendous influence on the excellence of education, quality of life, and the image of a university. The master plan serves as a guide for shaping and reinforcing a campus' unique attributes, institutional culture and academic mission.



USU Mission Statement

The mission of Utah State University is to be one of the nation's premier student-centered land-grant and space-grant universities by fostering the principle that academics come first, by cultivating diversity of thought and culture and by serving the public through learning, discovery and engagement.

USU Uintah Basin Campus History - Prepared by John D. Barton

From early settlement of the Uinta Basin through the 1960s only a small minority of residents attended college due largely to isolation from higher education institutions. As early as 1940 there was an attempt to secure a junior college that narrowly missed approval by the State Legislature. A second attempt to establish a junior college was launched by the combined Uintah and Duchesne counties in 1959. The state legislature passed the measure and the governor signed a measure to build a junior college near the Uintah/Duchesne County line in Roosevelt. For the next two years hopes ran high, but funding failed to gain legislative approval.

Hope continued that a college would be located in the Basin. The economic vitality of any region rests, in part, on a well-educated public, and by the 1960s less than twenty-five percent of Basin graduates went on to post high-school training. With firm resolve to see higher education brought to the Uinta Basin, in 1967 State Representative Dr. Daniel Dennis introduced a bill to establish a Utah State University Extension Center in Roosevelt. Dennis' bill, with strong lobbying support from Alva Snow and others, won legislative approval and funding.

Utah State University Uintah Basin Extension Center began with a director and a secretary in a one-room office. Classes were held in both Roosevelt and Vernal in high school and junior high classrooms in the evenings with professors flown in from Logan. During the next few years the first two resident instructors were added, Bruce Goodrich in Math and Nels Carlson in Theater Arts, and the number of classes and degrees offered were expanded. An innovative program pioneered at the USU Center in Roosevelt was concurrent enrollment.

The USU Center provided educational opportunities for many adults that could not go to college otherwise. Local school districts had a hard time filling teaching positions with qualified people. Now Basin residents, armed with a Utah State University degree, applied for local teaching positions and stabilized the turnover rates. Business and government positions, long denied much of the area's population due to lack of educational opportunities were available.

The growth and identity of the USU Extension Center reached a significant mile-stone in 1989 with the dedication of a new 25,000 square-foot



Administration and Classroom building in Roosevelt

administrative and classroom building in Roosevelt. Funding for this project was obtained from a state Community Impact Board grant backed by Roosevelt City, Duchesne and Uintah Counties. As the building was completed area residents had more visible evidence of the University's presence in the community. Two years later a 40,000 square-foot building was purchased in Vernal, which more than doubled the classroom and office space. And in 2006 and 2008, generous gifts by Bob Williams of \$5.2 million in land, followed by \$15 million by Mark and Debbie Bingham allowed construction of two new buildings in Vernal. The Williams Building, owned by UBATC on USU-leased property, is shared with USU, and the Bingham Entrepreneurship and Energy Research Center houses classrooms, science laboratories, and offices.

1994, the Board of Regents approved a name change to Utah State University Uintah Basin Branch Campus, followed by another name change in 2006 to Utah State University Uintah Basin Regional Campus. Presently the Uintah Basin Campus serves some 1,100 students a semester. There are about 630 courses taught each semester, and 25 resident faculty are employed. USU-UBRC offers 5 Associates Degrees, 25 Bachelor's Degrees, 17 Masters Degrees, and 1 doctorate degree. All of the buildings in the Uintah Basin Campus were paid for with local efforts and not the regular legislative approval and funding for state higher education buildings. However, after their construction and/or



Bingham Research Center in Vernal

acquisition, the State did approve maintenance and operation funding for all buildings less the Bingham Entrepreneurship and Energy Research Center. The buildings on both campuses were acquired/constructed in the following order:

1. The Classroom Building (1989) - Roosevelt
2. The 1680 Building (1990) - Vernal
3. The Student Center (2001) - Roosevelt
4. Williams Building (2003) - Vernal
5. The Bingham Building (2010) - Vernal

See *The Architectural Design Guidelines* of this document for more information on each building.

CREDIT:
 John D. Barton
 Principal Lecturer History
 USU Uintah Basin Regional Campus
 Roosevelt

Projected Enrollment Growth & Student Demographics

The CRSA team developed a comprehensive campus growth projection model to guide the planning of the USU Uintah Basin Regional Campus. To determine what growth might occur on campus, the planning team considered the potential growth of the Uintah Basin as a whole, the potential shift in demographics, and other factors that often affect higher education enrollment. For each of these categories multiple data sources were reviewed. As often is the case when reviewing different data sources, there are key differences in the expected population growth in the Uintah Basin. Additionally, there are key differences in the expected economic growth of the basin, which is primarily a factor of the resource extraction industry. Natural and political economic cycles tend to upset the economic growth on the Uintah Basin, which can have a heavy effect on the enrollment at the Uintah Basin Regional Campus.

Although certain data sources project generous growth in the Uintah Basin, the data does not necessarily suggest that this growth will correlate with enrollment growth at the Utah State University Uintah Regional Basin Campus. Flat to modest growth is expected in the coming years. This is based on the assumption that the student demographic mix will remain similar. It has been, and will likely continue to be the mission of the University, to primarily serve non-traditional students in the Uintah Basin. This potential pool of students is not expected to increase significantly. However, there is potential that the University may increase its capture rate of this demographic.

It is University Policy to encourage traditional students to attend the main campus in Logan. Although there is a small contingent of traditional students at the Uintah Basin Campus, the University is not actively seeking to capture a larger portion of these students. Should this policy change over time, enrollment may climb beyond what can be expected from the current target student groups. Currently, most students take courses in the evening to work within their work schedules. This means that the greatest demand on parking and building facilities is not during the daytime hours normally associated with traditional university campuses.

PLANNING ASSUMPTIONS

For the purposes of planning the future physical campus in the Uintah Basin, key metrics have been selected. In some cases these metrics may not match the current expected population and enrollment growth in the Basin. However, the metrics have been chosen to be conservative and ensure the needs of the community are met should conditions or policies change in the future. For

planning purposes, a **45 year planning horizon** has been selected upon which to apply growth projections as follows:

- **Phase I:** Year 2030, 3.1% Growth
- **Phase II:** Year 2045, 3.1% Growth
- **Phase III:** Year 2060, 3.1% Growth

STUDENT ENROLLMENT

While **3%** (rounded from 3.1% in the above table) growth may seem modest, the overall student numbers could grow rather significantly over 45 years. Although the student head count growth may be high, growth can be accommodated in a number of ways that does not always require additional space. For example, should the new students come from a demographic that is not currently served in high numbers, it may be possible to serve them at times of the day when the facilities are not fully utilized.

Student enrollment is described in two forms, total headcount and full time equivalent students. The headcount includes all students on campus, regardless of if they are full time or part time students. Full time equivalent (FTE) is a conversion to normalize for the range of credits that students may actually be taking on campus. As all Universities have a portion of students that are part time, the FTE will always be lower than the actual headcount. For Universities serving primarily nontraditional students, the headcount will be significantly higher than the FTE count, and is the case at the Utah State University Uintah Basin Campus. As of 2014, the headcount in the Uintah Basin is approximately 833 and the FTE is 360, just under 45%. For planning purposes, this plan assumes that this ratio will change over time with a modest shift towards a traditional student demographic, which would be a higher FTE to headcount ratio. While this shift is not guaranteed, and only take place under a change in University Policy, for planning purposes it is important to recognize this potential as this type of change will require investment in facilities and resources.

- **Current FTE:** 43%
- **Phase I FTE Ratio:** 50%
- **Phase II FTE Ratio:** 55%
- **Phase III FTE Ratio:** 60%

In the 45 year planning horizon, a 60% FTE ratio does not represent a full shift to a traditional student population base. For example, Snow College which serves primarily traditional students during daytime hours has a FTE ratio of approximately 78%, while USU Eastern in Price has a ratio of approximately 69%.

STUDENT SERVICES

Currently the campus offers certain services that are highly valued by the non-traditional students on campus. These include preschool (Roosevelt Only), limited food service (temporary at Roosevelt Only) and certain parking ratios to accommodate commuter students. Nontraditional students do not tend to stay on campus for long periods of time, taking courses online and in evening hours, thus facilities that provide additional amenities are not usually necessary. For Universities that do achieve a higher FTE ratio, or more traditional students on campus, there is often a need to provide additional student services that may not have been required otherwise. These services require additional physical space and financial resources to implement.

For example, services that may be required to serve this student demographic include spaces such as comprehensive libraries, student centers with full food service, recreation facilities, and in some cases student housing. Although the Roosevelt campus does have a small recreation facility and library, Vernal does not. Neither campus offers student housing at this time. When the on campus population grow large enough to support/demand these additional uses, the parking ratio required may drop as alternatives for parking can be developed. For planning purposes, some land and programming square footage has been set aside to meet these needs should they be required. As the phasing plan does not specifically designate future buildings as specific uses, there is tremendous flexibility allowing the campus to grow as needed.

PARKING

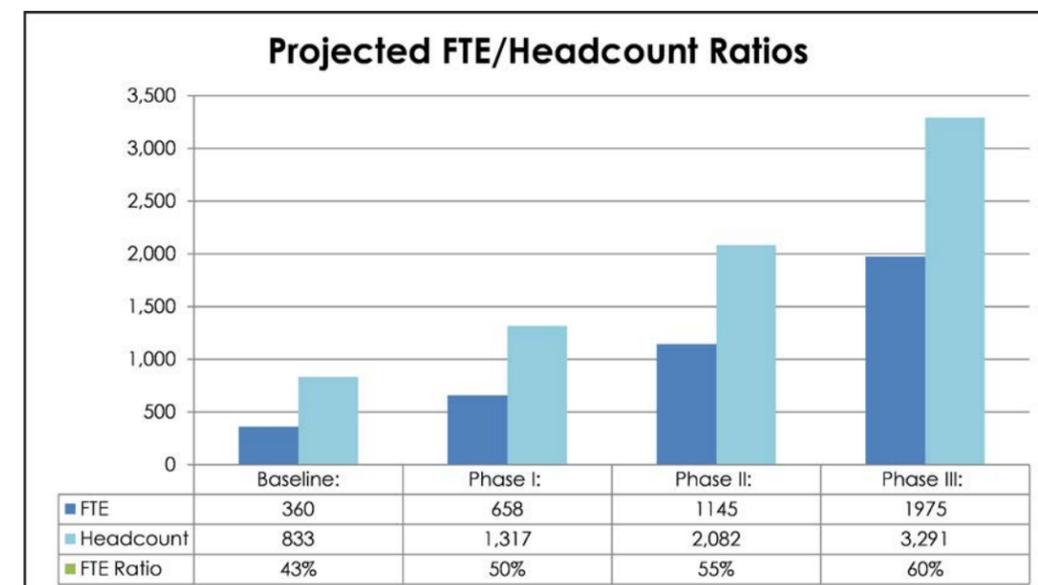
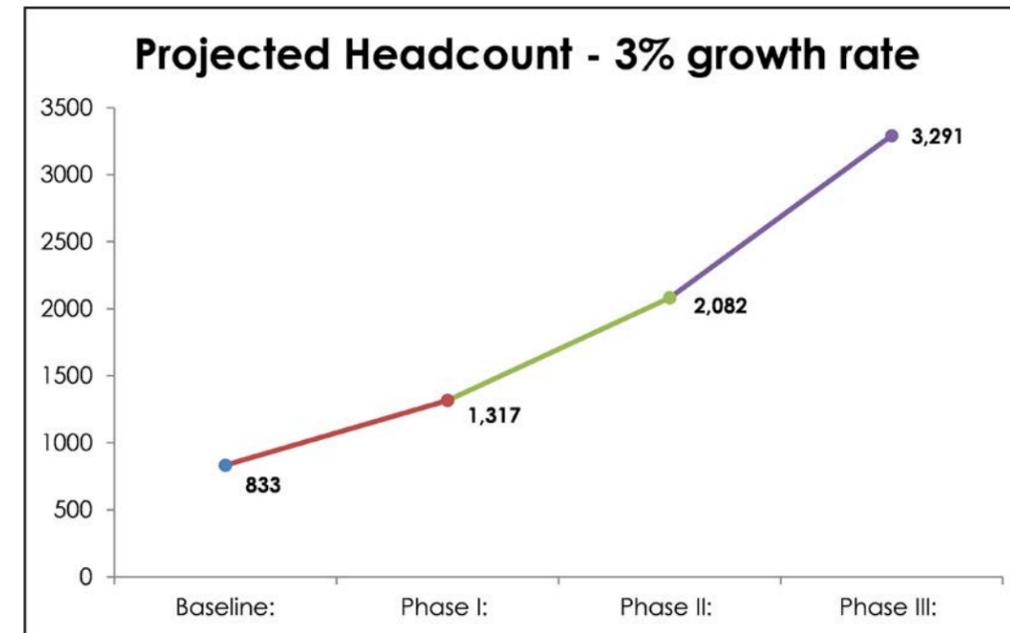
Currently there is approximately 4 parking stalls per 1000 square feet of gross square footage on campus. The future plans reduce this approximate ratio, assuming a modest growth in traditional students who will use campus at different times of day. Currently the majority of courses are offered in the evening. As more courses are offered during the day, student growth can occur without adding more building square footage or more parking. Also, additional parking efficiency may be found if more students arrive by transit or live on or near campus. Again, these opportunities tend to become a factor with the growth of traditional students over time. See pages 37 & 38 for more information on existing parking.

OPEN SPACE

While some usable open space exists at the Roosevelt Campus in the form of turf fields, they are not heavily used. No formal recreation or athletics exists on campus. No large formal open spaces exist at the Vernal campus at this time. Due to land limitations at Roosevelt, the amount of open space is expected to be limited in the future. However, with many acres available in Vernal there is opportunity to reserve land for open space or recreational uses. Open space uses at both campus locations will include informal outdoor gathering spaces and formal central gathering areas. At the Vernal campus formal recreational fields for use by the Campus or the Community have been considered.

CAMPUS GROWTH METRICS

With a growth rate of **3%** (rounded from 3.1%) selected for planning purposes, an overall student growth rate can be determined. In 2014 the Uintah Basin Campus student headcount was approximately 833 students. This count includes students on both campus sites. As students may take courses at both campus sites, planning is outlined in aggregate for the Campus as a whole. The following headcounts may need to be accommodated in each phase:



- **Phase I: 1,317 Students**
- **Phase II: 2,082 Students**
- **Phase III: 3,291 Students**

In most cases, campus planning is based on Full Time Equivalent Students. In 2014 the FTE equivalent was 360 students, or approximately 43%. For planning purposes it is expected that this ratio will rise. In other words, more students are expected to carry a full time course load each semester in the future. Should this assumption not take place, the growth in campus facilities will not increase as quickly as projected.

- **Baseline: 360 Students 43% Ratio**
- **Phase I: 658 Students 50% Ratio**
- **Phase II: 1,145 Students 55% Ratio**
- **Phase III: 1,975 Students 60% Ratio**

The purpose of the student growth analysis is to determine how much physical space the campus will need to serve the potential students that may be expected in the future. The actual space required per student is expected to change over time. The following trends may affect the change:

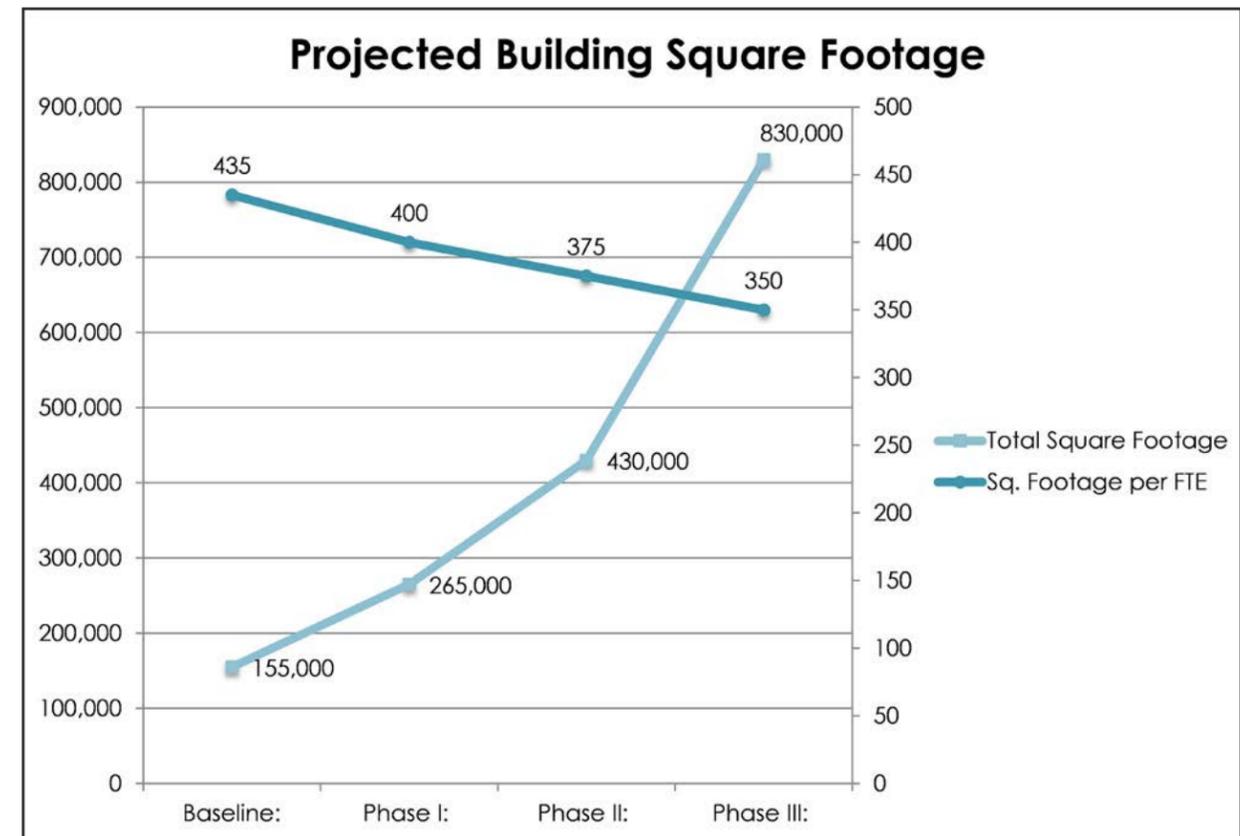
- Modest switch from non-traditional to traditional students over time, usually results in a need for more space
 - Extra space required often dedicated to student support spaces
 - Extra space required for research activities
 - Minimal extra space for academic teaching if growth can be captured during non-peak hours
- Alternative teaching methods such as distance based education and online courses, usually results in less space per student required
- Increased building utilization over time, resulting from increase in traditional students, allows buildings to be used daytime and evening.

Currently there is approximately 435 gross square feet per full time equivalent student available on campus of indoor building space. It is expected that this number will drop overtime as this is a fairly high ratio compared to in-state peers for the types of educational services offered. Although a modest increase in traditional students may be expected, the ability to accommodate them in existing buildings through better utilization should still allow the overall ratio to drop over time as shown in the following chart.

- **Baseline: 435 SF/FTE**
- **Phase I: 400 SF/FTE**
- **Phase II: 375 SF/FTE**
- **Phase III: 350 to 375 SF/FTE (Excluding additional auxiliary uses)**

- **Phase III (Option 2): 425 SF (Including two building pads at the Vernal campus for auxiliary uses such as a performing arts center)**

Currently, most students utilize campus only during a short range of evening hours such as between 5 and 8pm (depending on the specific class schedule). Traditional campuses often have utilization of buildings between 8am and 2 or 3pm. Thus, they are able to serve more students across the day. Growth of traditional students will allow USU Uintah Basin to add students without adding facility space. For example, Snow College in Ephraim Utah currently offers approximately 365 GSF/FTE while offering modest on-campus auxiliary services for its full time traditional students. A larger institution, Colorado Mesa University in Grand Junction, Colorado, currently offers approximately 435 GSF/FTE.



CMU offers a fully developed range of auxiliary services including a full recreation program, athletics program, housing, modest conference space and food service activities. Thus, a forecast of 325 to 350 GSF/FTE has been forecasted for the Uintah Basin campus in Phase III build out. If the campus makes the decision to add auxiliary uses to support nontraditional students, or other community uses, this ratio could rise. The total SF outlined in this plan, for planning purposes, is based on the 425 SF per student, to allow the campus to accommodate community uses (approximately two buildings).

An additional useful peer comparison is USU Eastern in Price. Currently USU Eastern also has approximately 435 GSF/FTE available. This number is higher than, for example, Snow College due to the large spaces devoted to technical training such as automotive technology. These large high bay spaces are not efficient compared to a traditional classroom for training. USU Eastern also offers a robust athletics and recreation program, as well as a full service student center. Food service and housing is also available on campus.

Additional metrics have been developed to guide the development of site related amenities such as parking, open spaces, and landscaped areas. These metrics vary greatly by each campus based on property available, adjacent uses, and resources to maintain facilities. For future planning general metrics have been developed to determine how much space may be required to accommodate all that is required to support both locations of the Utah State University Uintah Basin Regional campus. This aspect of the planning is outlined in more detail in the phasing detailed discussion in Chapter 4 of this document. Based upon the previous outlined metrics, the following total square footage is expected to exist on the Uintah Basin Campus (across both locations) in each phase. More information about each phase is outlined in Chapter 4 of this document.

- **Baseline: 155,000 GSF**
- **Phase I: 265,000 GSF**
- **Phase II: 430,000 GSF**
- **Phase III: 830,000 GSF**

For planning purposes, this square footage will primarily be developed within 2 story structures. Academic buildings will follow this pattern. Other structures that may not suit this pattern may be developed as needed.

*See **Appendix B** of this document for more detailed information on phasing and capacity projections, and campus growth assumptions.



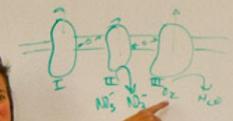
Classroom, Vernal



Workout Facilities, Roosevelt



Media
- starch plates
- spirit blue plates
- tryptic broth
- urea agar slants



nitrate \rightarrow nitrite \rightarrow ? (N₂)
reduces
red

Today
Inoculate:
- starch plate
- spirit blue plate
- tryptic broth
- urea slants

⊖ UK
⊖ B. subtilis
⊖ UK
⊖ S. aureus
⊖ UK + E. coli
⊖ UK + P. aeruginosa

OBSERVE -
PR
lac
man
nitrate broth
Gram stain?
Oxidase?

Specialized classroom, Vernal

Existing Conditions - Facilities, Space, Parking etc.

ROOSEVELT

Utah State University facilities located on the Roosevelt Campus are housed in three buildings. The buildings are fondly referred to as the barn, the church and the bank, either in reference to their architectural form or history. The buildings total 61,306, with 33,456 in the barn - or Student Center, 21,560 sf in the church - or Classroom Building, and 6,290 sf in the bank building. The Roosevelt Classroom Building dedicated in 1989, was made possible through strong community support and with funds from CIB and Mineral Lease Board, partnering with the State. In 2001 the \$5 million Student Center building funded primarily through Community Block Grants, Impact Board Grants, and private donations was open and housed classrooms, computer labs, student services, faculty offices, a food court and gymnasium. The bank building was a donation to USU in 1993 by First Security Bank.

The USU Uintah Basin Campus in Roosevelt is located in Duchesne County. The site is located just south of Highway 40, flanked on the west by 800 East and on the South by Lagoon Street. There are 217 parking stalls located on the site, divided between a major lot on the west of the site and minor lot on the east side of the site. Uintah Basin ATC was constructed on property donated by Uintah and Duchesne School Districts in Roosevelt in 1975, to serve multi-district needs of adult and high school students. The multi-building ATC campus is located southeast of the USU Uintah Basin Roosevelt campus on Lagoon Street.



Aggie Station in Roosevelt



VERNAL

The USU Uintah Basin Vernal Campus is located on approximately 140-acres on a parcel that overlaps Vernal City and County zoned property. While the acreage is not subject to local zoning overlays, it is important to understand zoning of neighboring properties, many of which are currently used for agricultural uses. In 2009 Aggie Boulevard was developed from Main Street to 500 North and put in place a five lane thoroughfare which intersected with Main Street at a roundabout ornamented with the USU mascot, a bull. This feature, roadway systems and development of sidewalks all increased access to the site, and the presence of Utah State University in the Uintah Basin. This set the stage for further development by the campus.

The campus has developed from the north to south, with the Williams Building constructed at the corner of Aggie Boulevard and 500 North by the Uintah Basin Applied Technology College. This first facility, constructed in 2009, continues to house programs for the ATC and USU, and support concurrent enrollment with Uintah High School. The ATC utilizes 191,636 square feet of State-owned facilities in both Vernal and Roosevelt and holds a lease on the northern portion of the site, which is available for long term development and land use. The site offers 140 parking stalls for the public and large laydown area and semi-truck driving course to the east of the facilities.

In 2010, Utah State University completed construction on the Bingham Entrepreneurship and Energy Research Center. The 69,000 square foot, two-story building was constructed just south of the UBATC off of Aggie Boulevard. The flagship building provides the local business community with state-of-the-art business research support and spaces for the support of entrepreneurship business development. It also provides laboratory space and advanced training in biology, chemistry, geology and natural resources for scientific research and education communities. Ten general use classrooms, faculty offices, staff support spaces supplement academic space needs under a single, multi-use roof. The facility provides community access to meeting and training space, student services, academic support space and site access - including 157 parking stalls. The USU Uintah Basin Campus in Vernal is located in Uintah County.



Campus Visioning & Public Involvement

CAMPUS VISIONING

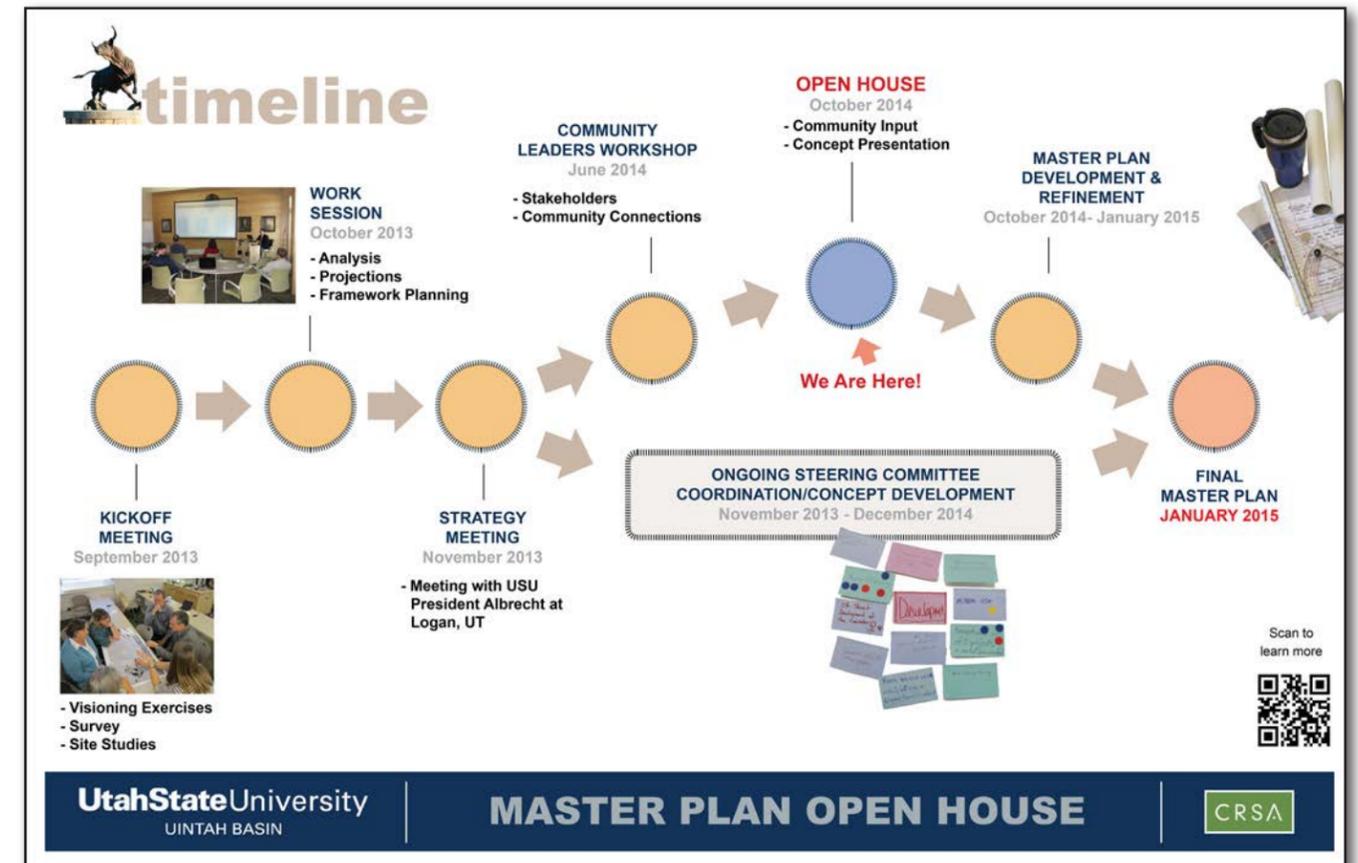
On September 18, 2013, the Uintah Basin Campus Master Planning Team participated in a visioning session to develop a list of characteristics that represented the Campus. Participants included the Master Planning steering Committee, Faculty, Staff, Students and the CRSA team. This meeting was held in Vernal with participants from Roosevelt joining by IVC.



Participants at the Visioning Session engage in visioning activities

The session started with an introduction to the project and a 'Planning 101' presentation by the CRSA team. A series of images were reviewed ranging from natural spaces to built places. The team was asked to agree on just four of the multiple images, four that best represented the Campus. The images on the next page were selected, and a list of defining words were generated from the images. The Master Planning Team utilized these images and boards to guide the master planning process. Although each individual image and defining word may seem abstract, as a whole the images and definitions form a vision for what campus should be.

An additional exercise took place that allowed the Master Planning Team to select from a separate set of image types of campus places that might represent what the Uintah Basin Campus should look like. Unlike the first set of images that represented abstract characteristics, this set of images represented existing campus outdoor spaces, campus buildings, and related spaces at various institutions across North America. Participants, including the campus community, voted on images by placing sticky dots on the board. Finally a mapping exercise was done to get participants to point out areas that were opportunities and constraints on the campus sites and to start crafting their vision for the campus layout.



A board created for the Public Open House which shows the Master Planning process

**4 IMAGES REPRESENTING THE
KEY VALUES OF USU UINTAH BASIN
MASTER PLAN**

**Risk Taking
Vision
Path to Unknown
Bend or Turn in Journey
Outreach
Linkages
Common Ground
Balance
Blazing a New trail**



**Hard Work
Unique
Individual
Multiple Combinations
Pioneering**

**Diversity
Unlimited Potential
Skills
Possibilities
Reflection of Commonalities**



**Youth
Emerging
Environment for Growth
Nurturing the Arts**

**Nurturing
Expression
Growth
Development**



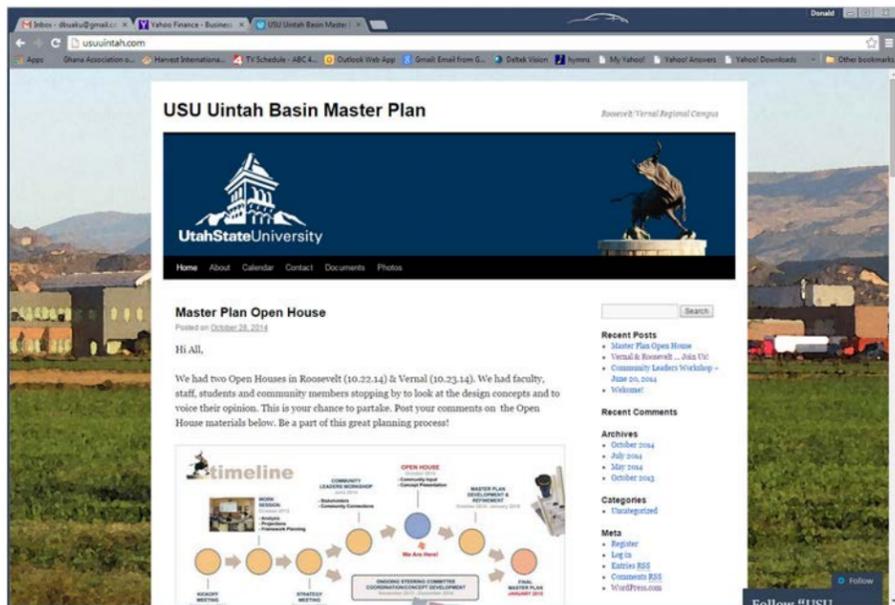
**Established
Continued Growth
Tenacity
Adaptable
Durable
Hub
History
Alive
Established
Branches**

PROCESS

Armed with this feedback, the CRSA team went back to the boards to synthesize all the information and to create framework plans (see framework plans in Chapter 4 of this document) that best represented all that had been said. These framework plans were presented to the Steering Committee a month later in October 2013. This meeting was also a time to discuss campus enrollment projections.

In November 2013, the Planning team met with USU President Albrecht at Logan for a strategy meeting and for his input on the Master planning process for the USU Uintah Basin Regional Campus and for the other regional campuses in the USU system. A number of iterations of concept plans were developed for both campuses and the CRSA team and the Steering Committee dialogued to refine these plans during the planning period.

A website (usuuintah.com) was set up for the planning process which provided information for people as well as a canvas for questions and suggestions.



A screenshot of the project website - usuuintah.com

Community Leaders Mtg. & Public Open House

Community leaders meetings were held in June 2014, in Roosevelt and Vernal to discuss the planning process with community leaders and stakeholders and to solicit their input. Some of their perspectives gave the planning team a broader insight into the impacts of USU on the community and the role the critical institution could play in the Uintah Basin as partnerships were fostered. Some of the community leaders' comments and inputs can be located in Appendix C of this document.

Public Open House

The Public Open Houses were the climax of the public involvement exercises. These were held in October 2014. The first was in Roosevelt and the second was in Vernal. These were held in the lobbies of the Student Center and the BEERC for Roosevelt and Vernal respectively, to receive the most foot traffic. The Open Houses were advertised in local media like the Vernal Express and the Nickel Ads.

A number of boards were developed which described the purpose and intent of the master plan, the process and the design concepts that had been developed (three (3) concepts had been developed by then for each campus. These concepts can be found in Appendix B of this document). Participants were given the opportunity to vote on their favorite concepts and to provide comments specific to the concepts and general comments. The Open Houses were very useful and helped the CRSA Team and the Steering Committee to narrow down all the ideas to one (1) design concept per site. Photos from the Open Houses are on the next page.

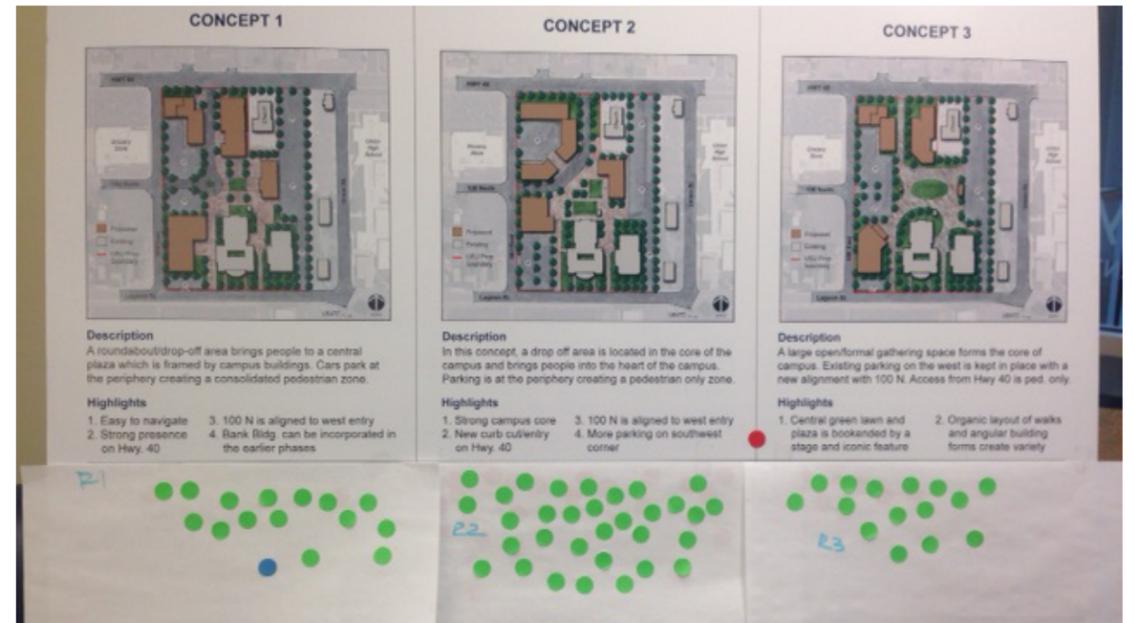
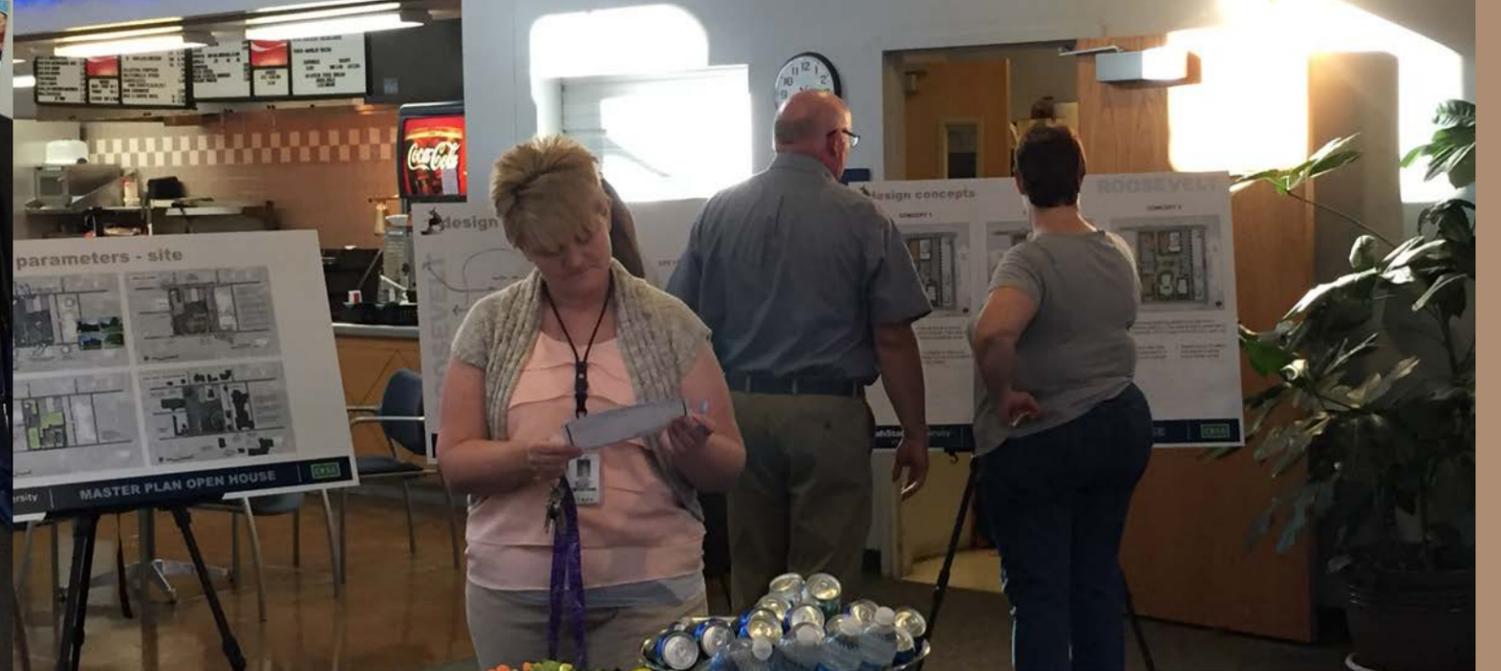


Photo of a board showing public votes for a concept in Roosevelt

Survey

As part of the public involvement exercises, a survey was conducted on the Survey Monkey online platform to reach as many users of the campuses as possible. This survey was open from January to February of 2015 and had 175 respondents. Results from the survey can be found in Appendix B of this document. Page 88 describes how the results from the survey impacted the Master Plan.



Open House Photos

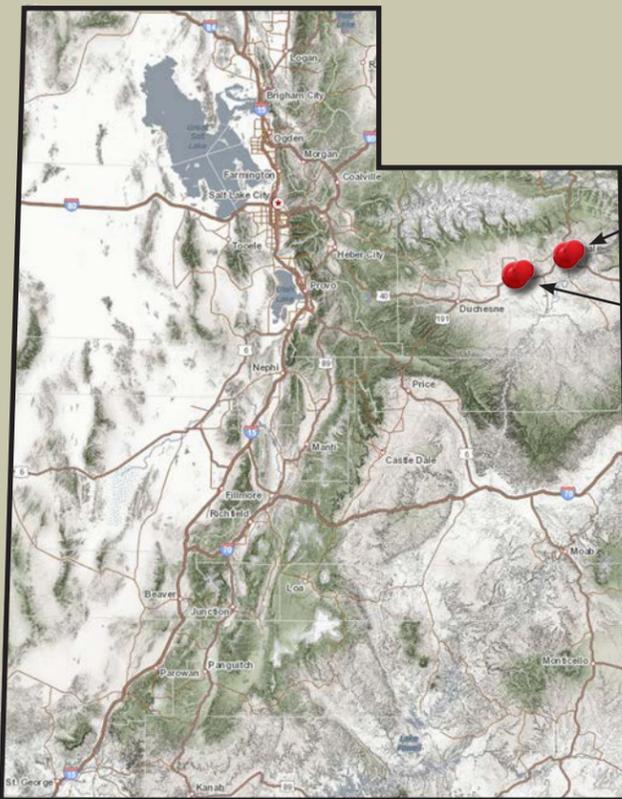


Utah State University
UINTAH BASIN

"Design is not just what it looks like and feels like.
Design is how it works" - Steve Jobs

SITE ANALYSIS

Regional Context

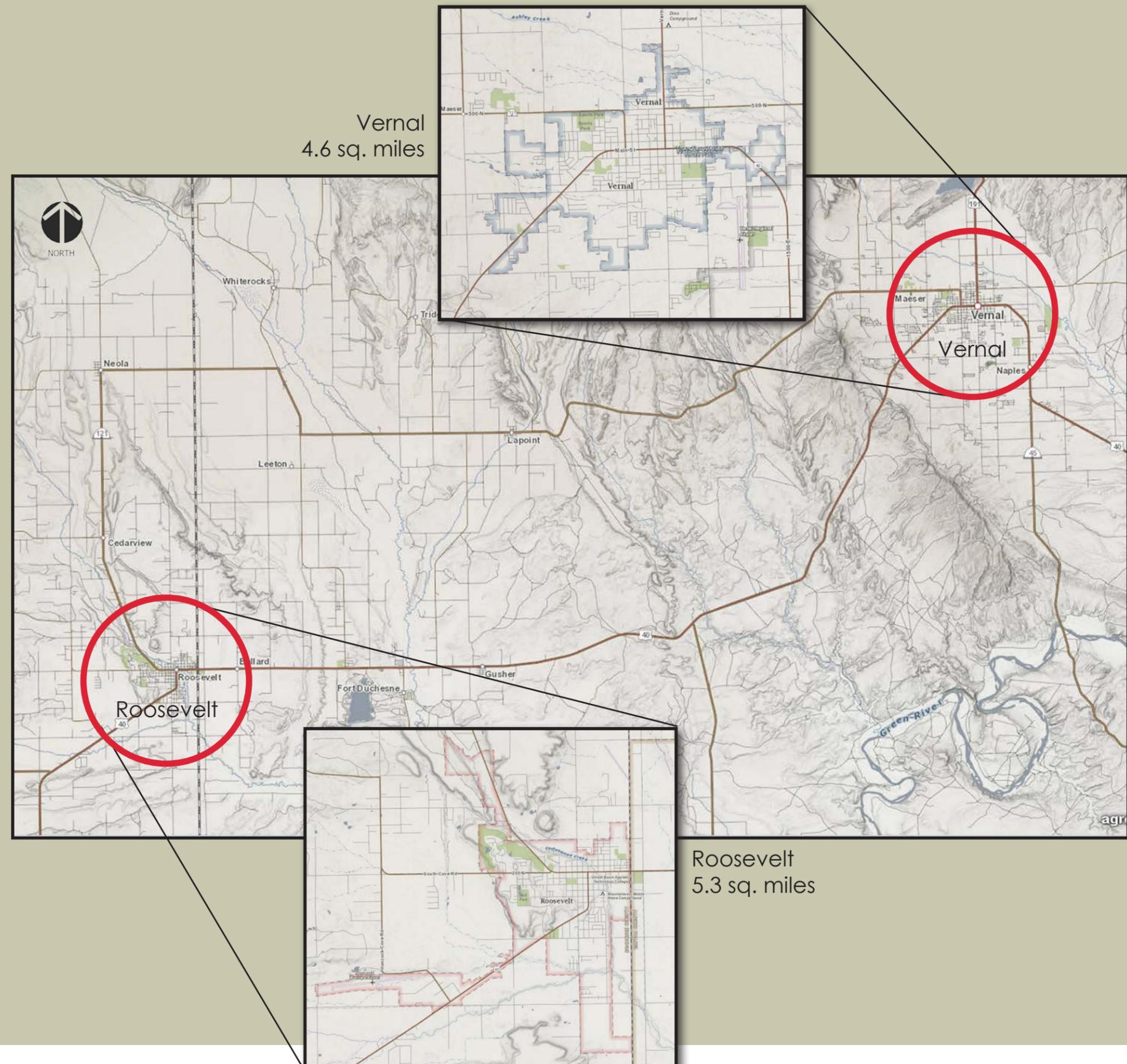


Vernal
Roosevelt

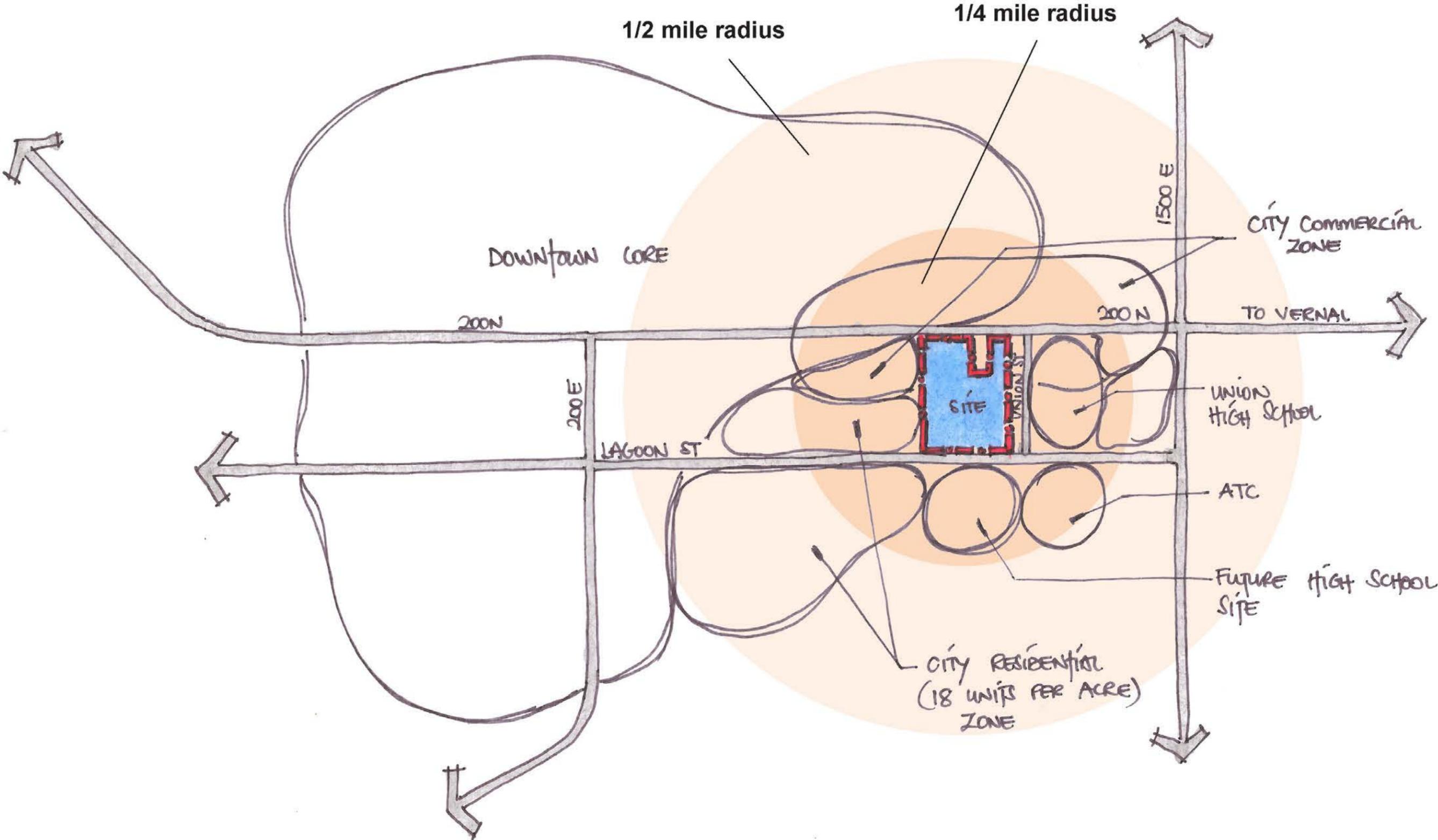
Map of Utah, showing the location of the cities of Roosevelt and Vernal

The USU Uintah Basin Regional Campus is located in northeastern Utah in the cities of Roosevelt and Vernal. Roosevelt is in Duchesne County, while Vernal is the county seat of Uintah County. Roosevelt is about 143 miles from the state capital of Salt Lake City, and Vernal is about 30 miles northeast of Roosevelt. The populations of Roosevelt and Vernal, as of 2012, were approximately 6,310 and 9,817 respectively.

The following pages outline the existing conditions found at each site.



Roosevelt Campus Site - Local Context





Hwy 40

Bank
Bldg.
(USU)

Church

Pizza
Hut

Grocery
Store

Union St.

Union High
School

USU property boundary
shown in red
Approximately
11 acres

100 N

800 E

LDS
Institute

600 E

Existing
USU

Existing
USU

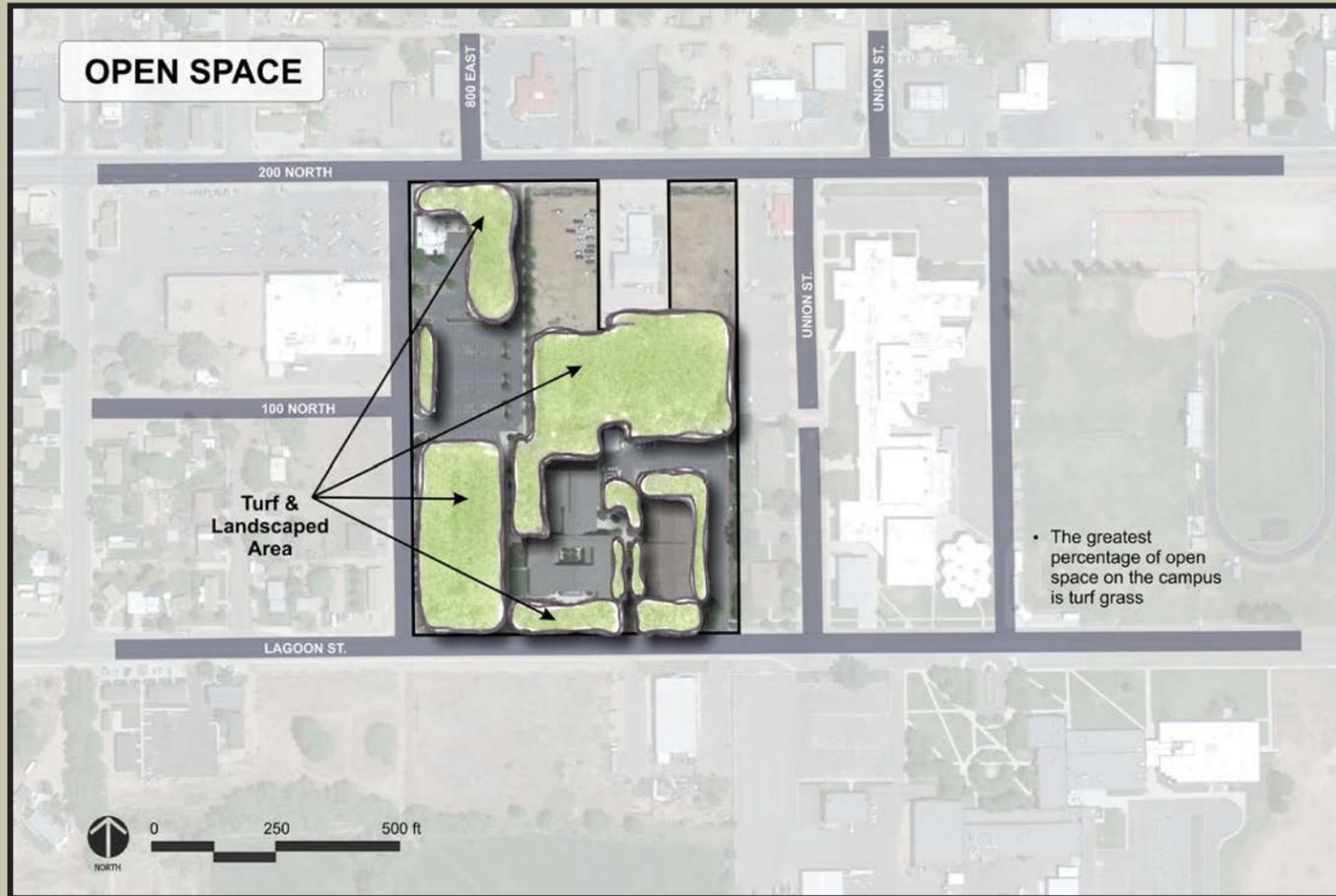
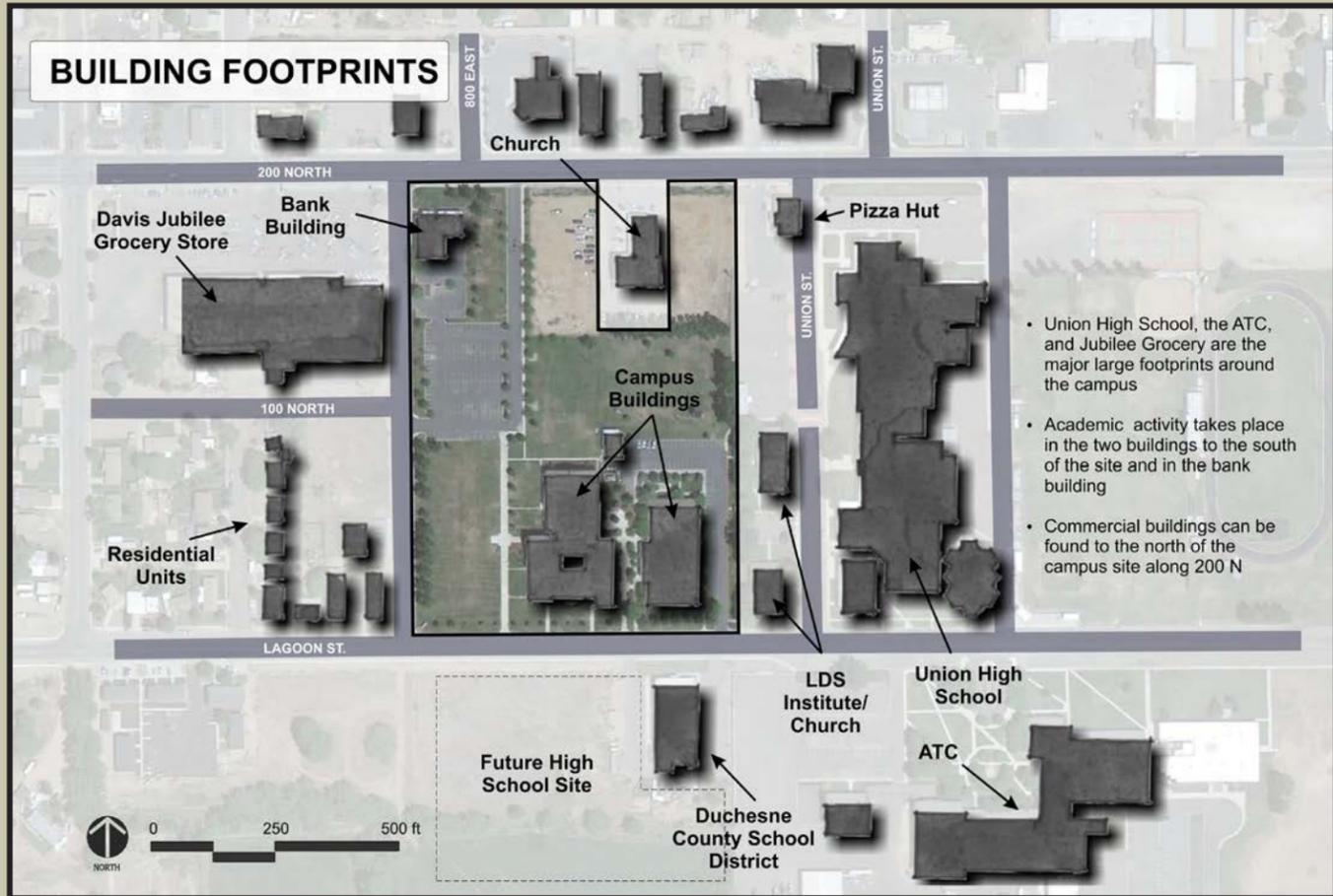
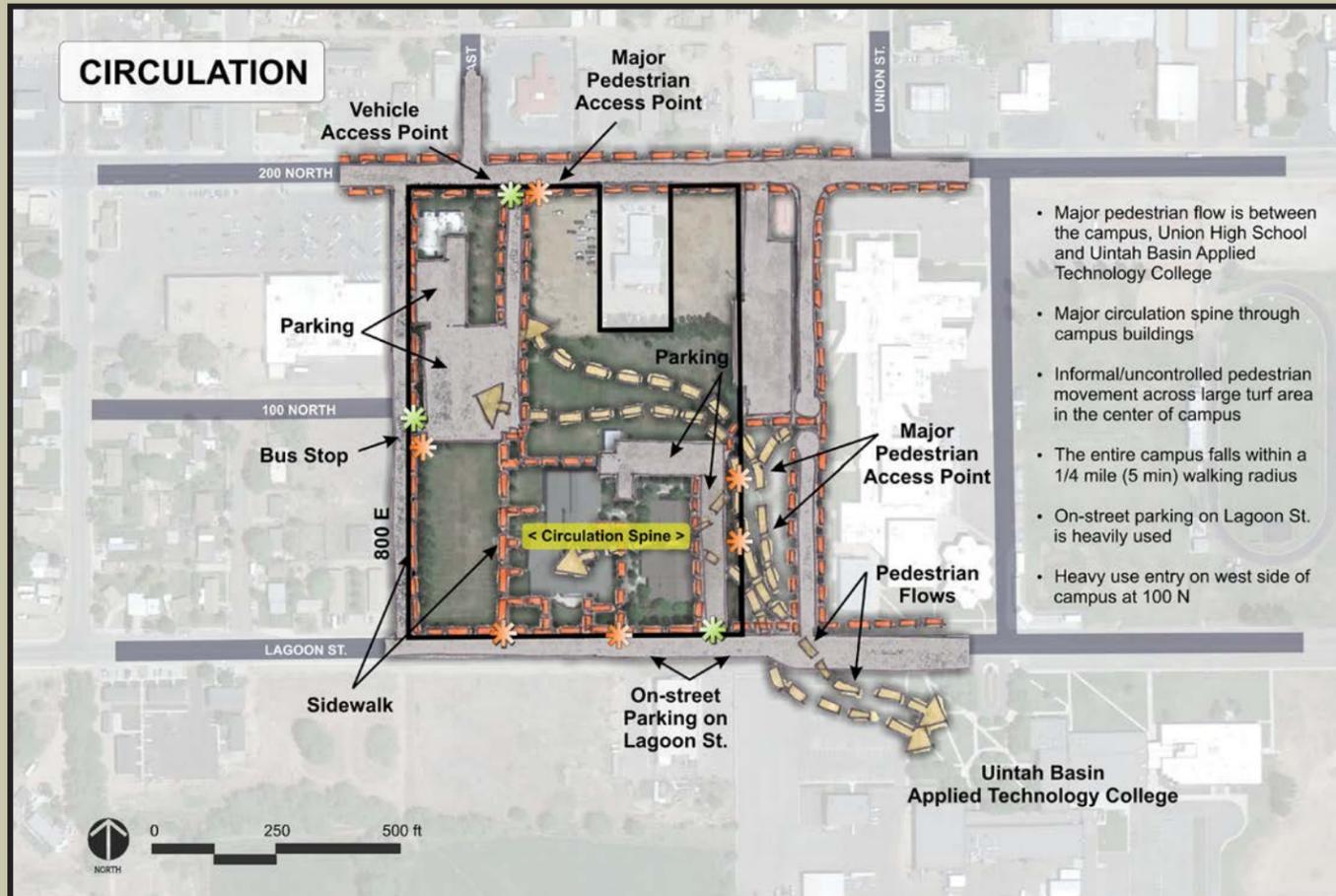
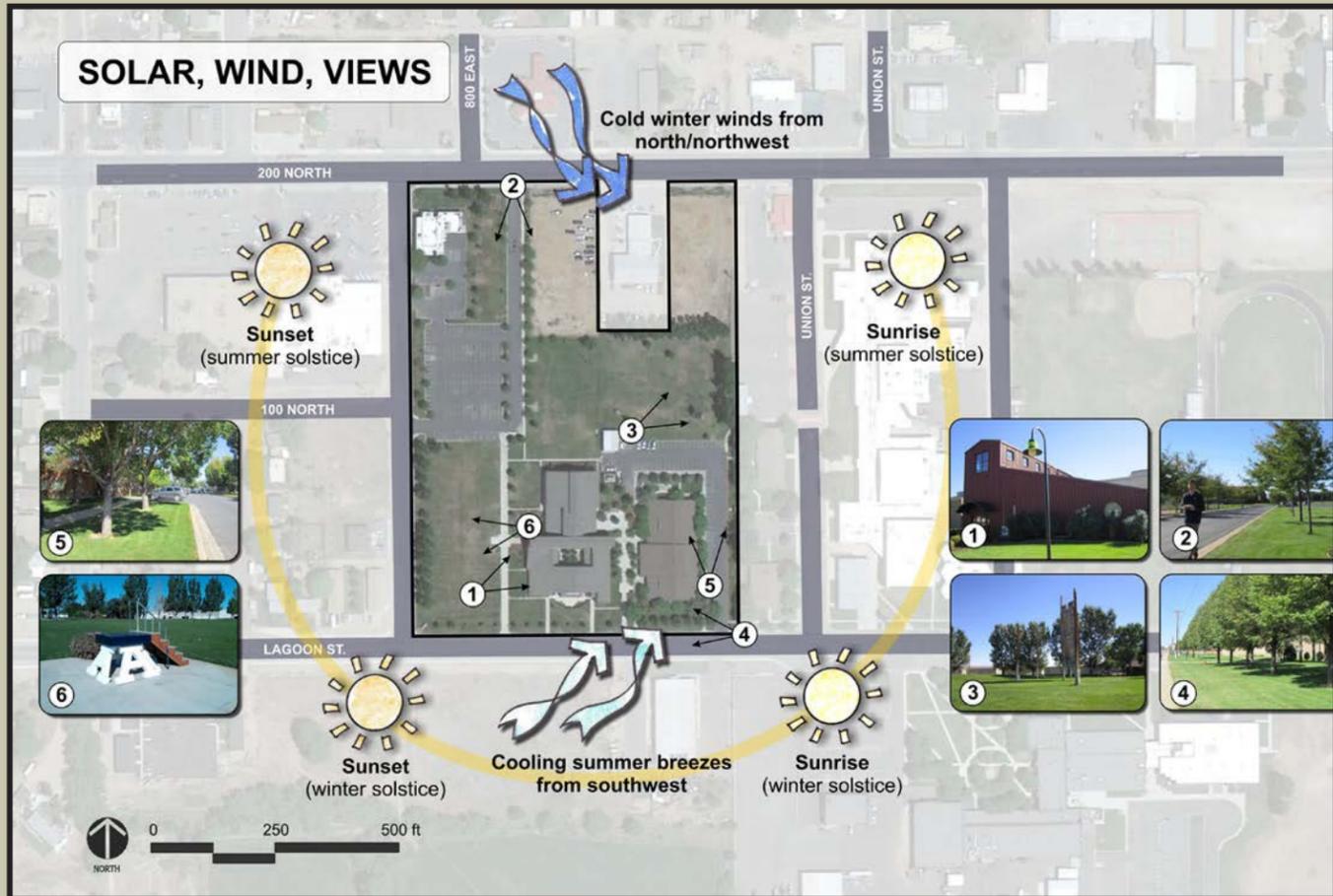
LDS
Institute

Lagoon St.

Future High
School Site

Duchesne
County School
District

UBATC



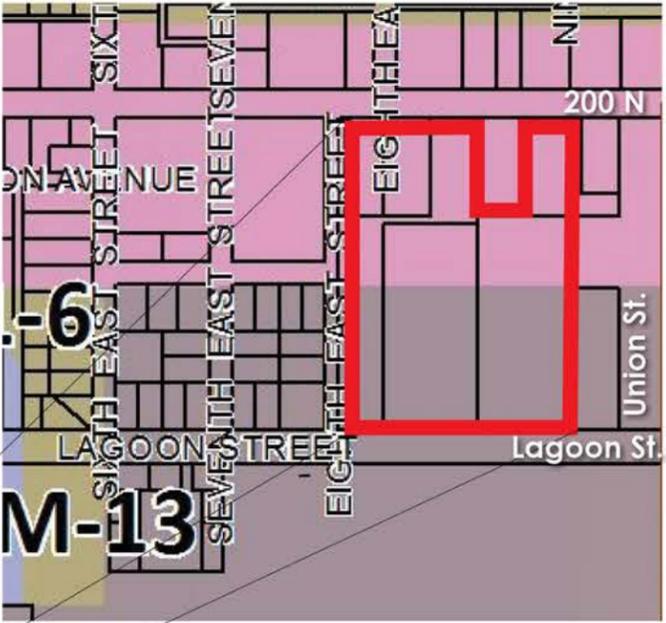
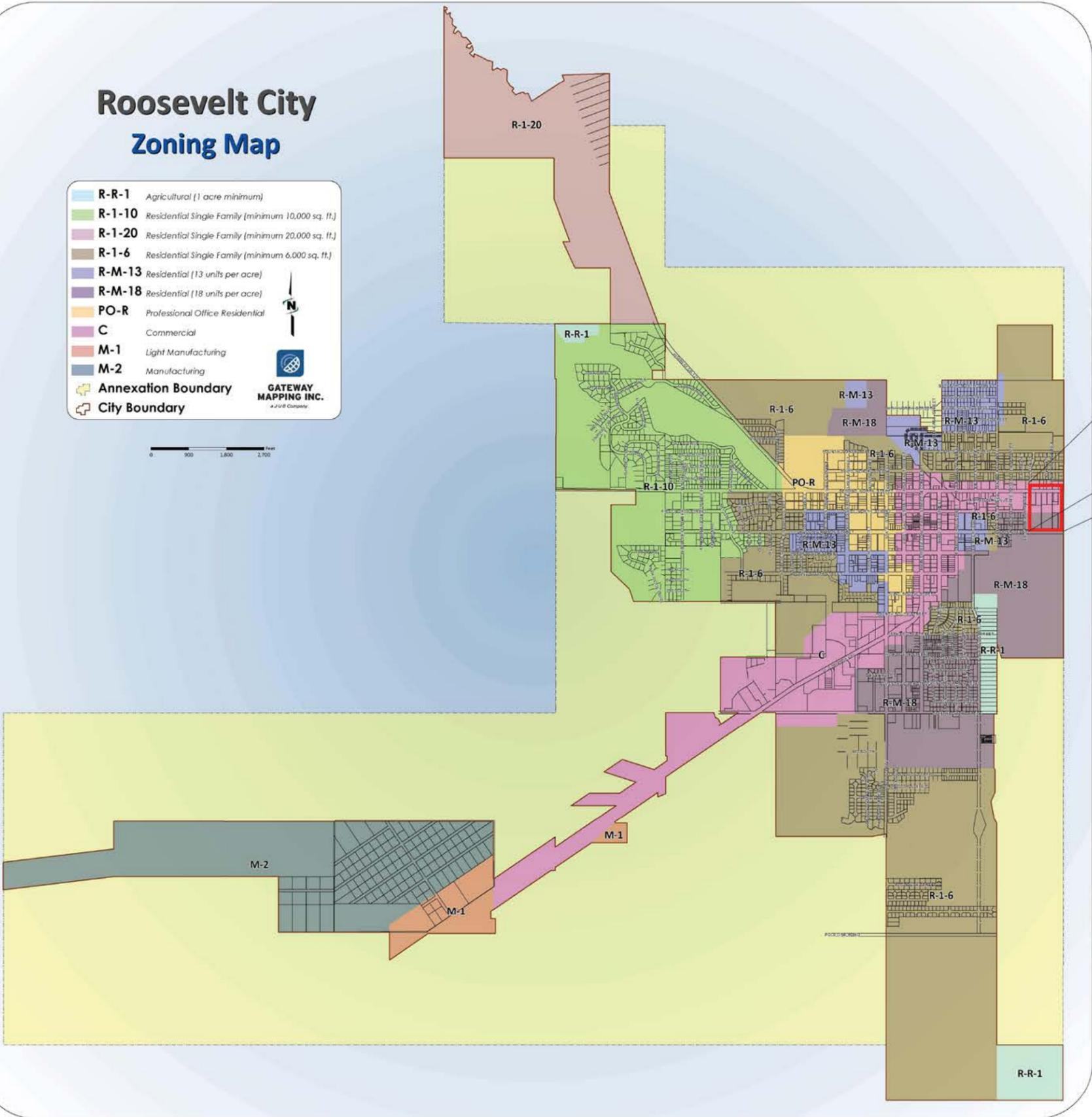
Roosevelt City Zoning Map

- **R-R-1** Agricultural (1 acre minimum)
- **R-1-10** Residential Single Family (minimum 10,000 sq. ft.)
- **R-1-20** Residential Single Family (minimum 20,000 sq. ft.)
- **R-1-6** Residential Single Family (minimum 6,000 sq. ft.)
- **R-M-13** Residential (13 units per acre)
- **R-M-18** Residential (18 units per acre)
- **PO-R** Professional Office Residential
- **C** Commercial
- **M-1** Light Manufacturing
- **M-2** Manufacturing
- Annexation Boundary**
- City Boundary**



GATEWAY
MAPPING INC.
a JUI Company

0 900 1,800 2,700 Feet

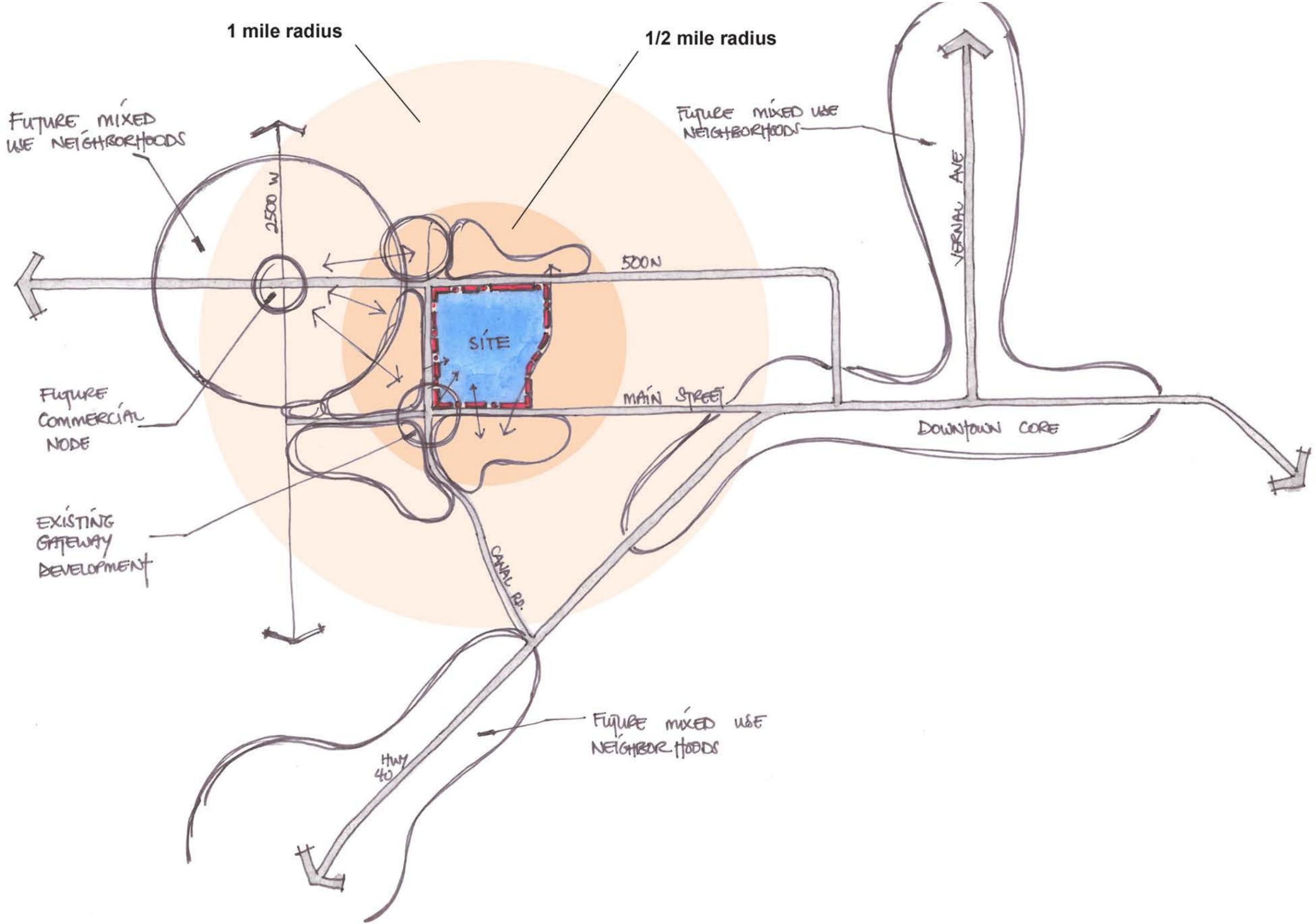


Current Roosevelt City zones within and adjacent to the site are:

C - Commercial
along 200 N

R-M-18 - Residential (18 units per acre)
along Lagoon Dr.

Vernal Campus Site - Local Context



Uintah High School

HWY 121

1700 W

UBATC

UBATC Leased Property

USU

Aggie Blvd.

1500 W

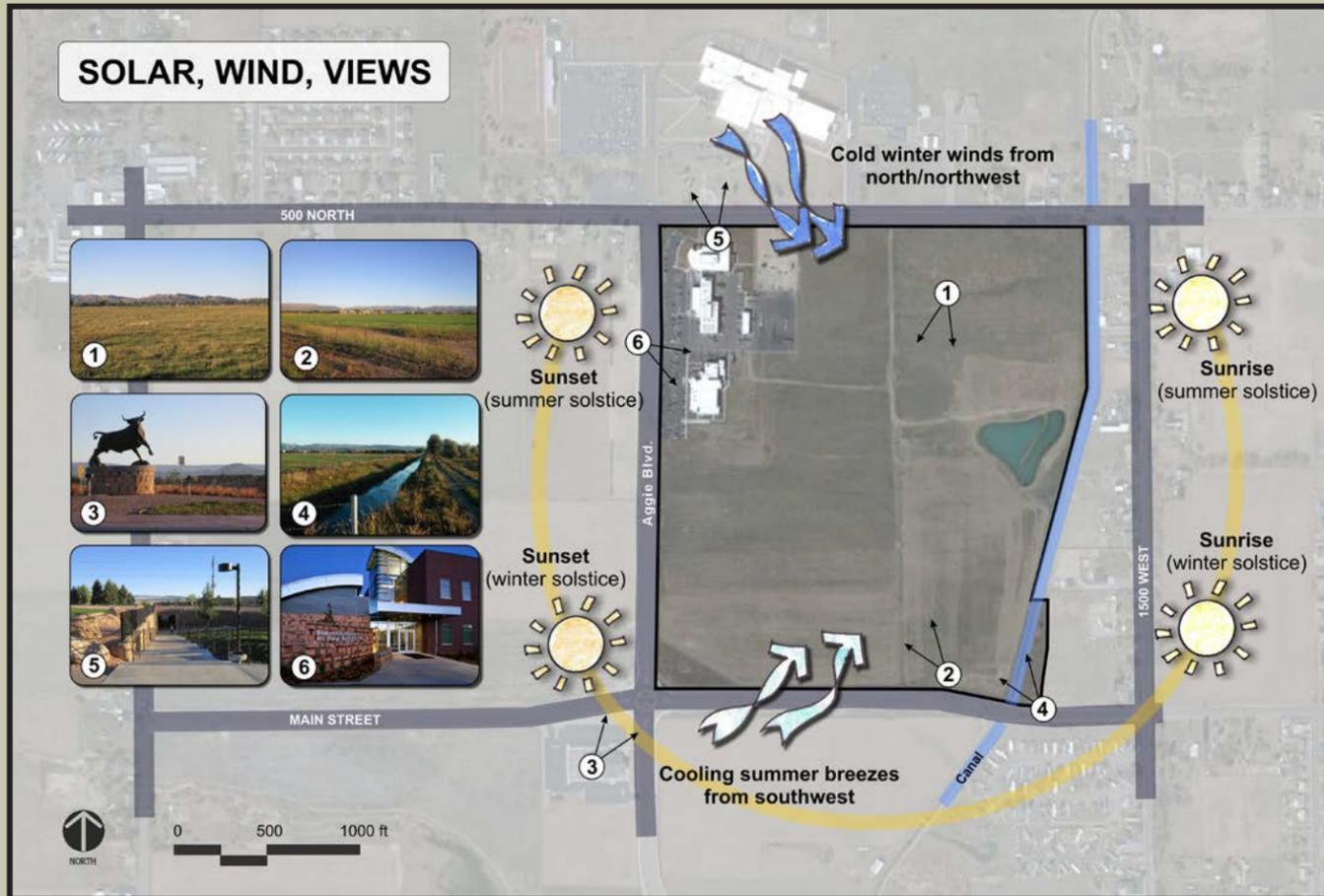
USU property boundary shown in red
Approximately 140 acres

Main St.

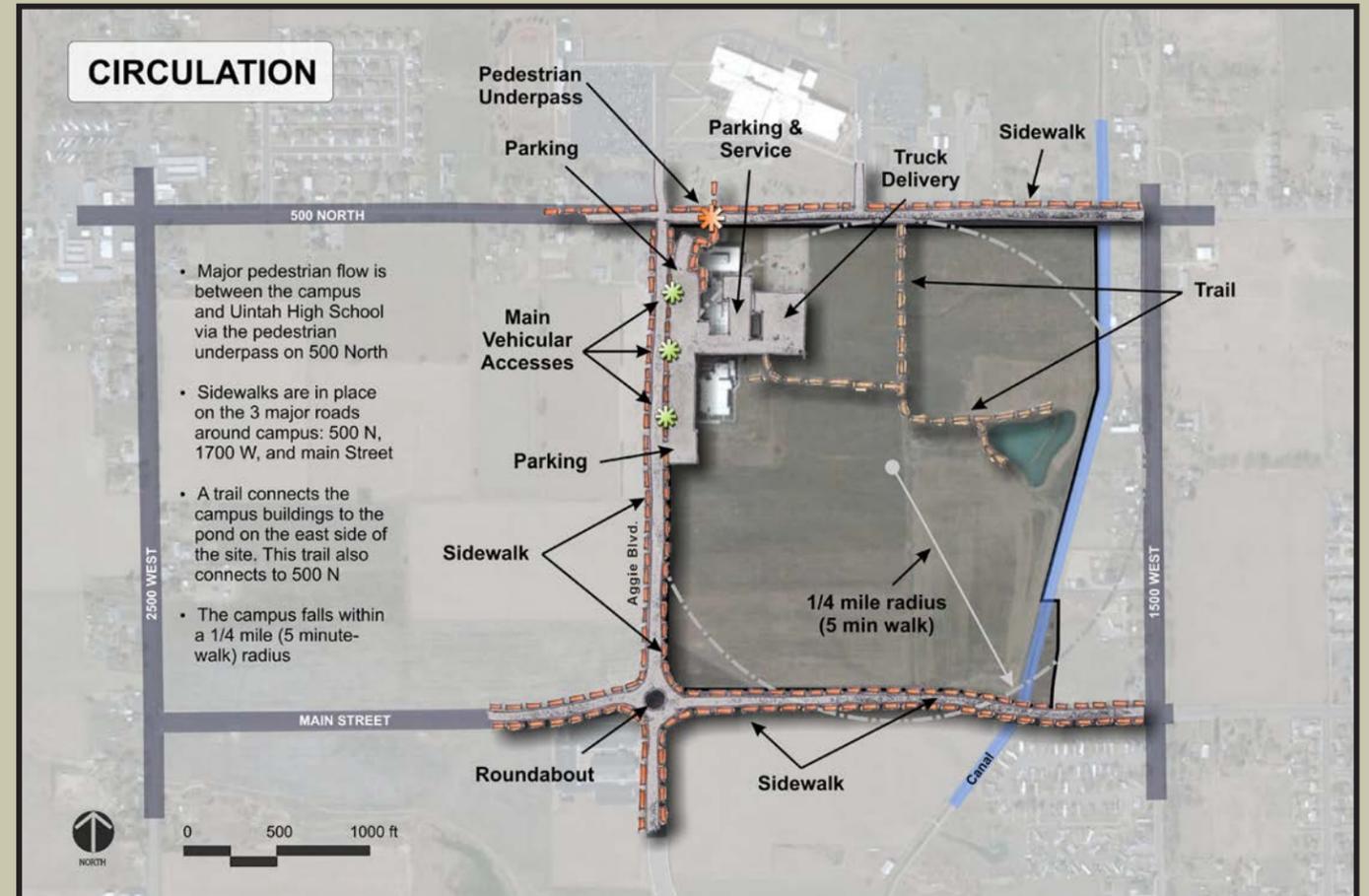
LDS Church



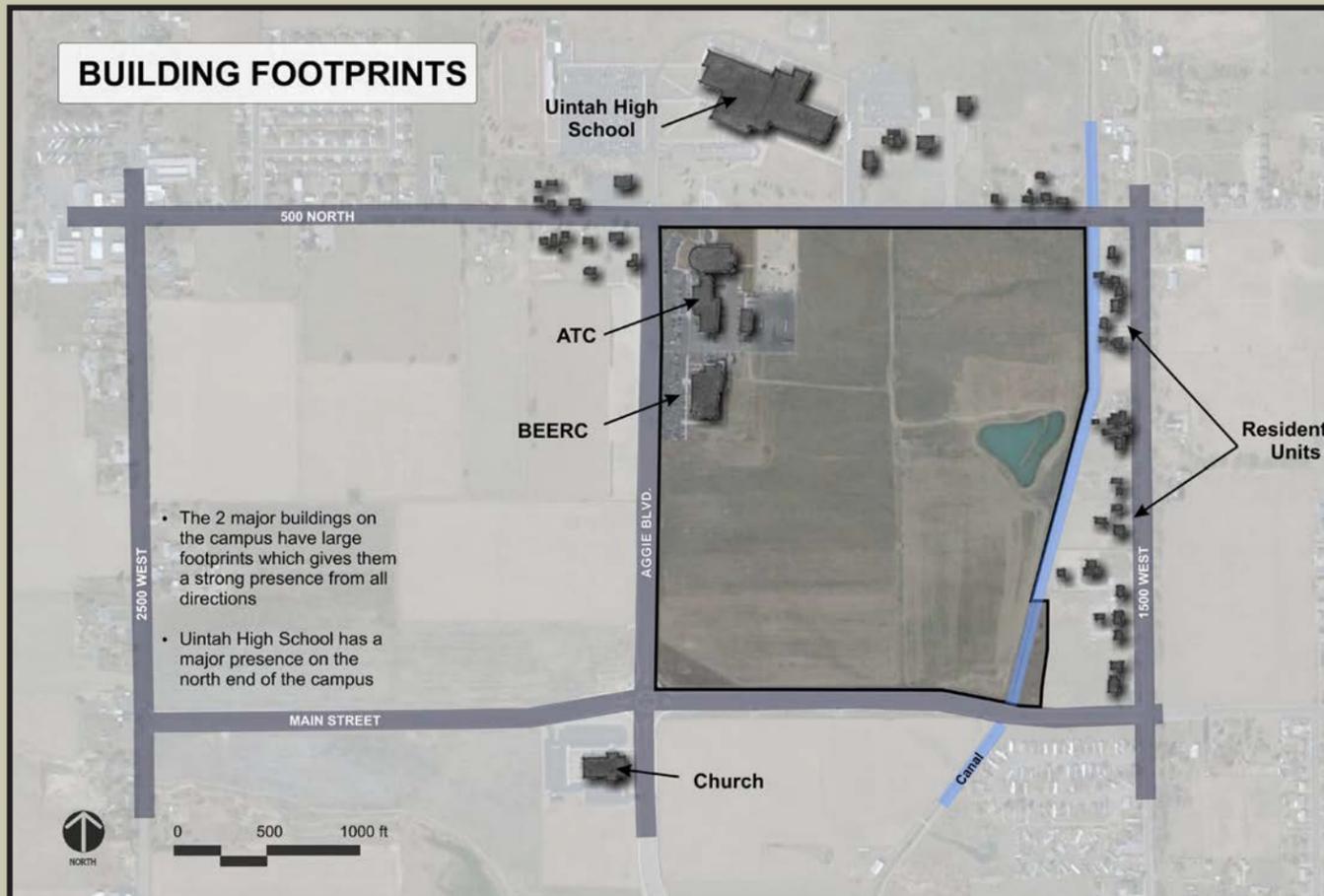
SOLAR, WIND, VIEWS



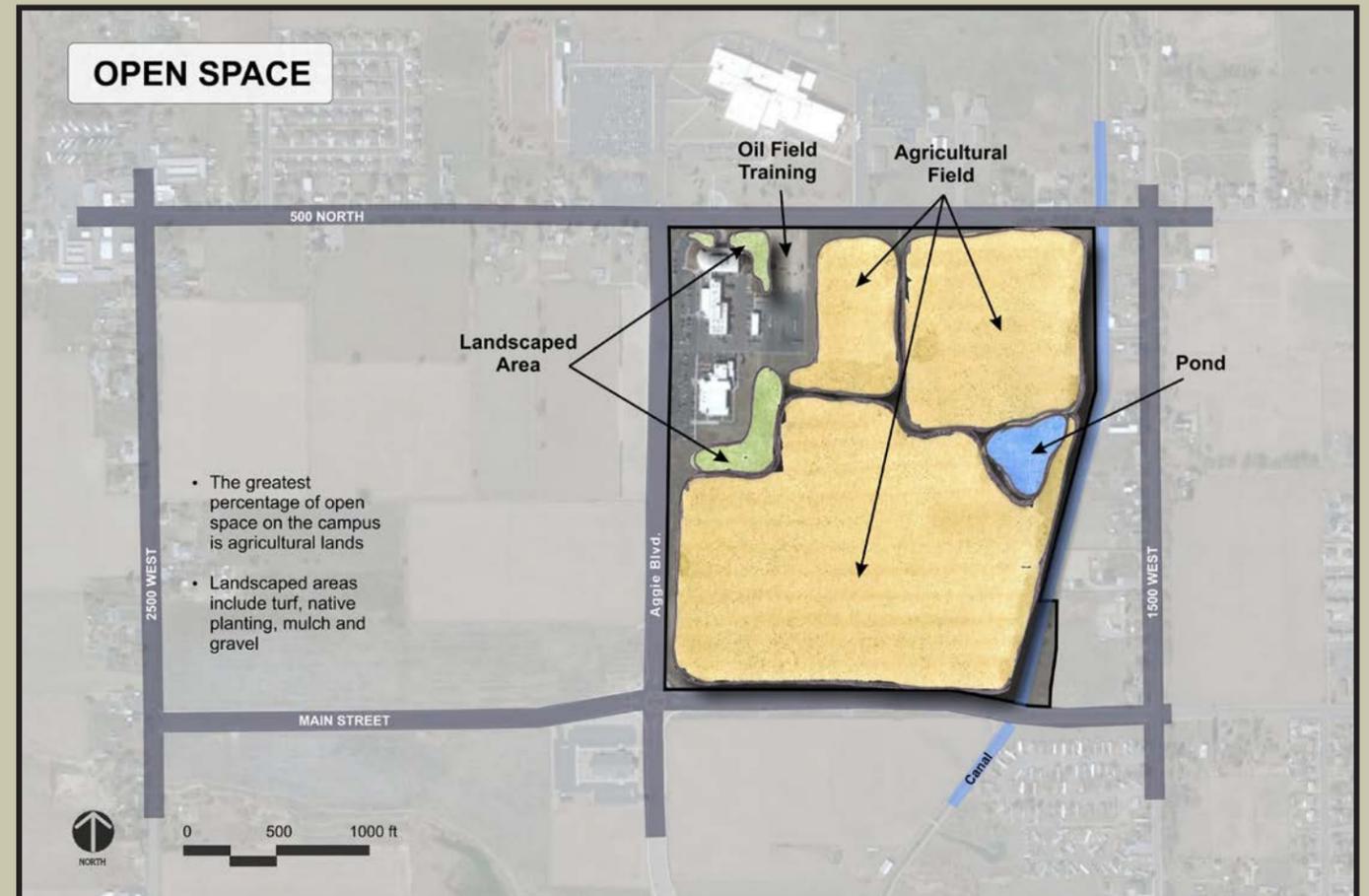
CIRCULATION

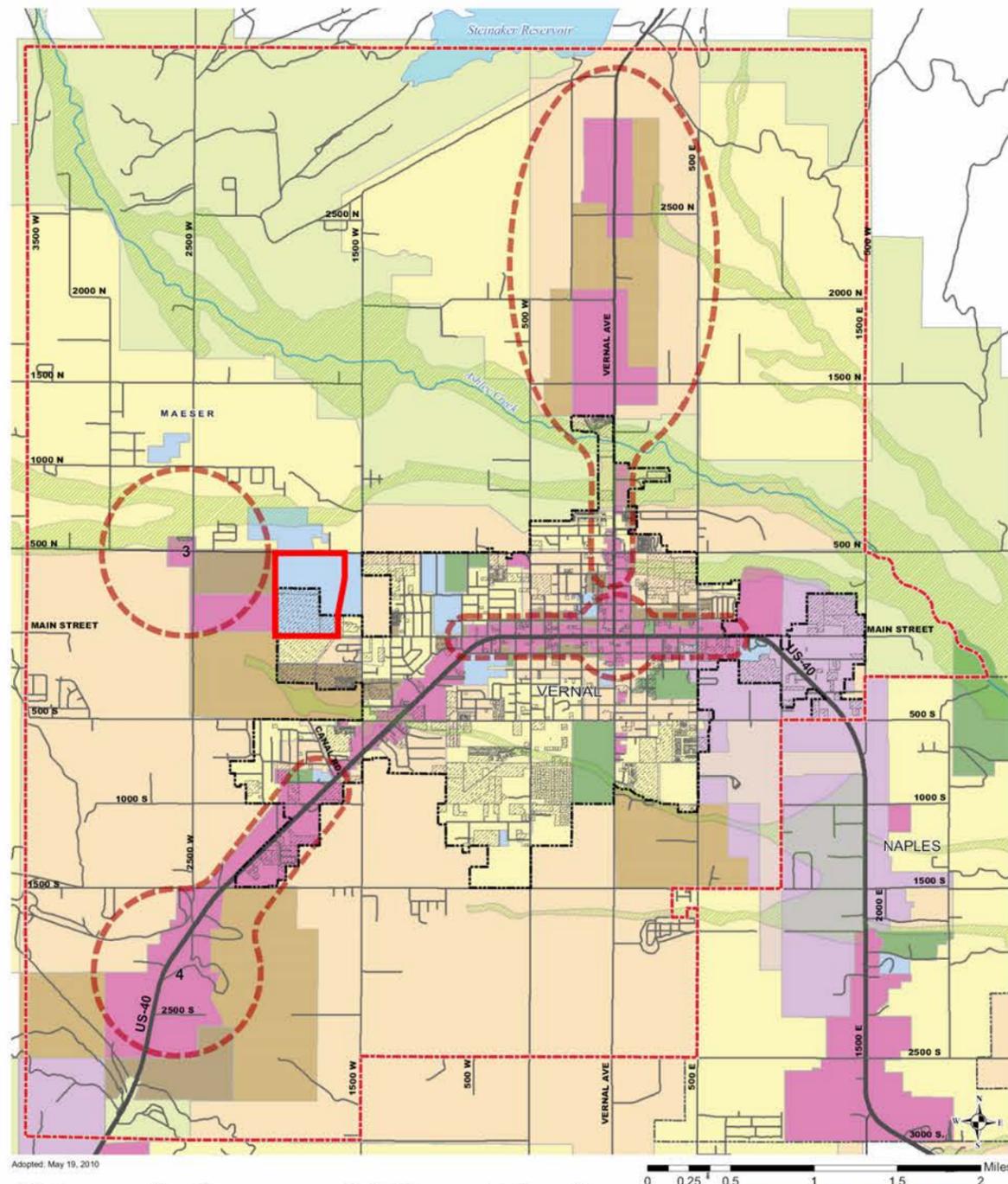


BUILDING FOOTPRINTS



OPEN SPACE





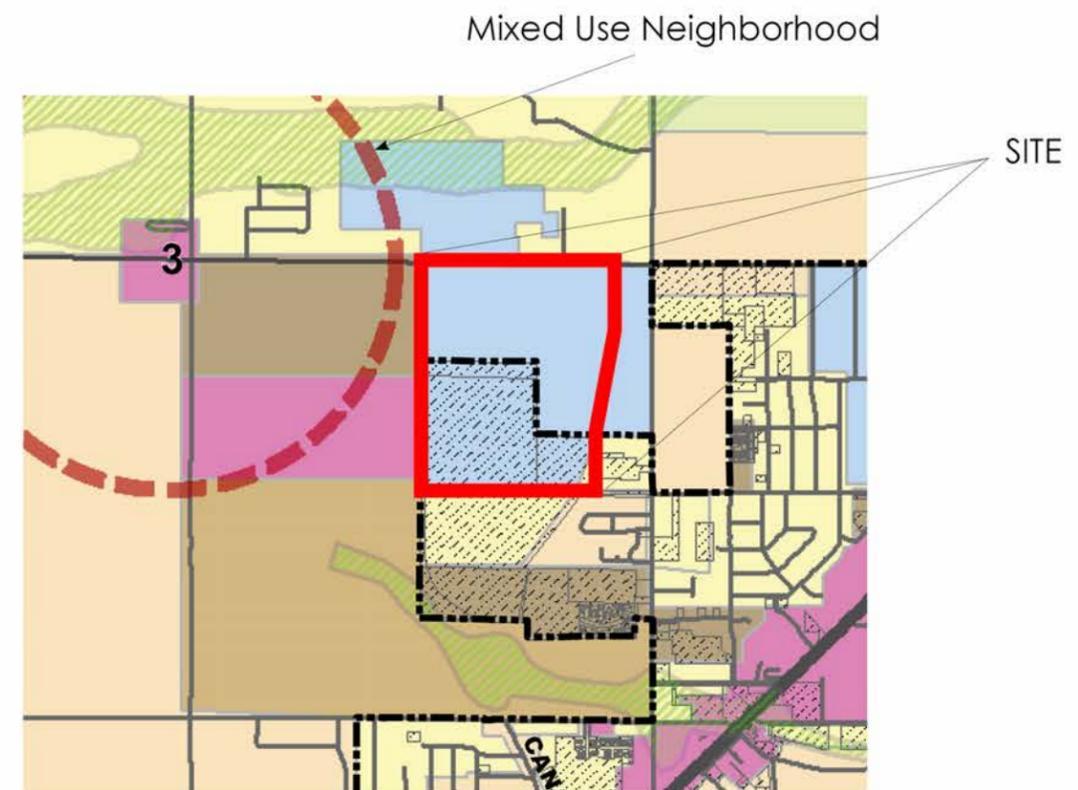
Adopted: May 19, 2010

Vernal General Plan Update

Legend			
Impact Area Boundary	Low Density Residential	Institutional	Mixed Use Neighborhoods
Vernal City Limit	Medium Density Residential	Commercial	1 - Downtown Vernal
Naples City Limit	Moderate Density Residential	Industrial	2 - North Gateway
100 Year Flood Plain	High Density Residential	Parks	3 - Maeser/College
Greenfield Growth Areas	Open Space/Agricultural/Rural Residential	Airport	4 - South Gateway



VERNAL CITY FUTURE LAND USE



Future Vernal City land use within the site boundary is primarily: **Institutional**

Adjacent land uses around the site:

- North:** Institutional & Low Density Residential
- West:** High/Moderate Density Residential & Commercial
- South:** Low/Medium Density Residential
- East:** Institutional & Low/Medium Density Residential

A *Mixed Use Neighborhood* is proposed in close proximity to the northwest corner of the site.

Map 2-3:
Future Land Use

Utility Analysis

INTRODUCTION

The following section outlines the utility analysis for the USU Vernal and Roosevelt Campuses. The buildout size, number of students, open space areas, etc is based upon the CRSA Campus Plan Feasibility Study for the Roosevelt and Vernal Campuses. The scope of this study is to analyze water, sewer, storm drain, and gas and identify any red flag issues associated with each utility. Utilities recommendations for the future plans can be found in on pages 60-63 & 80-85.

UTILITY INVENTORY

The utility inventory was gathered from a variety of entities. At the Roosevelt Campus, Roosevelt City provided data for the sewer and water, while at the Vernal location water, sewer and storm drain data were partially provided by Vernal city, and partially from as-built drawings of the existing USU campus provided by ESI. Questar, RMP and Strata communications provided data for both locations detailing their respective utilities.

EXISTING UTILITY ANALYSIS

VERNAL CAMPUS

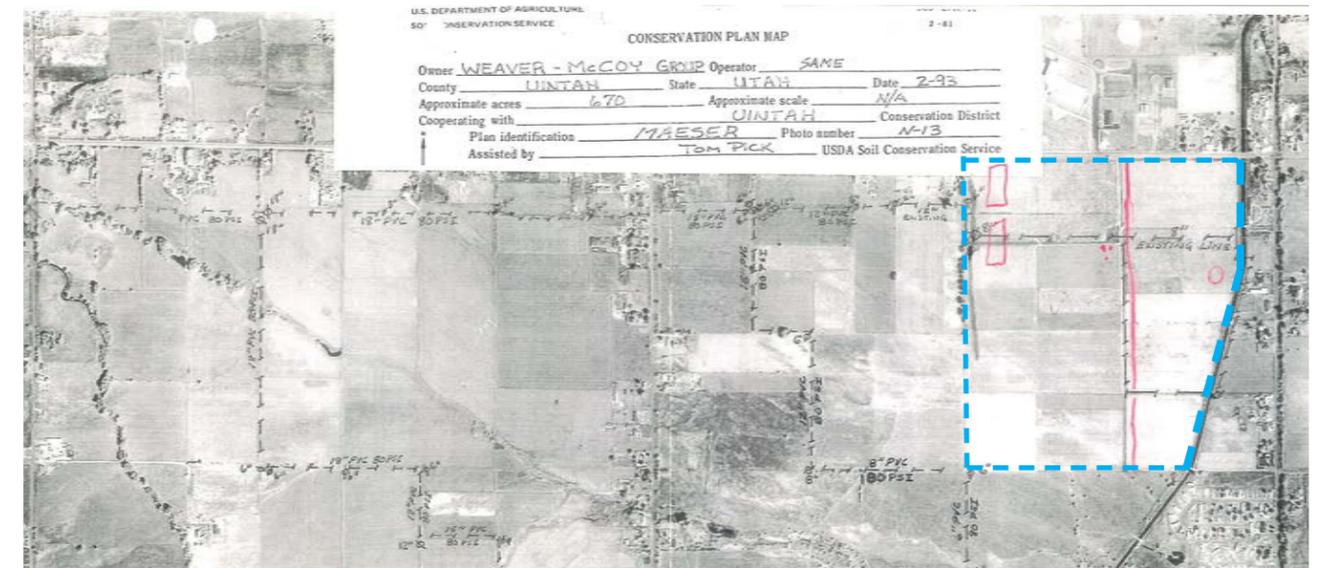
Sewer - The Vernal campus is surrounded by 12" sewer mains on the north, south, and west sides which also drain to the south and east. It is proposed that a new 8" sewer loop start at the south driveway entrance on Aggie Blvd.

Water - The Vernal campus is surrounded by 10" water lines to the north, west, and south, with an existing 8" line running east of the three existing buildings. It is proposed that this line extend south and connect into an 8" water loop that would follow roughly the same trajectory as the sewer loop previously described.

Storm Drain - The existing Vernal campus currently drains into an existing detention pond to the east. The utility analysis proposes an additional 18" storm drain mains coming from the southwest corner of the property and then coming due northeast through the proposed campus plaza area. A second main of 15" receiving storm water from the south parking lot is also proposed to drain to the same pond. It is possible that the pond would need to be expanded to receive this additional capacity, or that a second pond would need to be constructed; however, the required analysis to determine flow volumes is beyond the scope of this report.

Alternatively, a low impact design could be adopted that would capture the added runoff in a system of shallow interconnected bio-swales running through the plaza and parking lot areas. This approach has the potential to reduce upfront infrastructure cost and enhance campus aesthetics.

Secondary Irrigation - The Vernal campus has a existing pressurized secondary irrigation system as part of the Weaver-McCoy Pipeline (illustrated below).



Natural Gas - Questar also provides services to the Vernal campus with 4" lines running along Main Street and 500 North. An existing 4" lateral extends from the line in 500 North to service the existing campus buildings. Three additional gas services would be needed to service the proposed buildings at the northwest corner of the project. To service the southwest corner of the property a 4" gas line is proposed that would follow the same route as that previously described for the water and sewer lines.

Power - Existing buried high voltage phase 1 power lines run along the south and west sides of the Vernal Campus property. An existing buried 3 phase line also extends behind the back of the three existing buildings at the campus' northwest corner. The three proposed structures can be supplied by the same line. A buried line in the southwest portion routed through the same campus utility corridor as the water, sewer, and gas could adequately service the adjacent structures.

Communications - A full communication network was not designed as part of this study. However, data gathered from Strata Communications (see map on page 79) shows major communications lines running along all rights-of-way surrounding the Vernal campus.

Soils Conditions - As per a 2008 GSH Geotechnical Survey for the construction of the BEERC Building, the most significant geotechnical aspects of the site are:

- Highly compressible, normal to slightly over-consolidated layer of silty clay general encountered at depths from approximately 5 to 17 feet below the existing grade. These soils will exhibit poor engineering characteristics under the anticipated loadings (two-story masonry building) and will consolidate

beyond acceptable limits. The soft soils are not suitable for support of conventional spread and continuous wall foundations without being improved.

- Non-engineered fill piles encountered in the northern portion of the site.
- The moderately high ground water table, encountered at a depth of 5.7 to 11.1 feet below existing grade (measured in October).

ROOSEVELT CAMPUS

Sewer - The existing sewer system within the study area in Roosevelt consists of 8-inch sewer mains on the east and west sides, with a 12" main running down Lagoon Street (see map on page 60). The property drains generally to the southeast. Service connections are proposed between the existing system and the two proposed buildings. It is proposed that the current sewer connection to the building on the northwest corner be reused.

Water - 8" water lines surround the Roosevelt campus on the east, west and north sides (see map on page 58). A 12" line runs down Lagoon Street on the south. The property is also bisected from east to west by a water line of unknown size along what was once 100 North prior to the construction of the USU campus. It is assumed that the water line is 8" given the water mains down roads of similar size to 100 North are also 8". Keeping this line in place would provide the most efficient access to the future proposed buildings on USU campus, as well as maintain campus control of the utility.

Storm Drain - This analysis suggests that storm water from the proposed buildings be handled at the Roosevelt site by means of sumps. Sumps provide the benefit of not adding volume to the existing system and are preferred by LEED low-impact design standards as they help to recharge groundwater and are effective in filtering pollutants. Construction of larger network of pipes to drain the site would be out of character with the approach of the three existing structures.

Secondary Irrigation - The Roosevelt campus irrigation system is currently being supplied by city culinary water. No pressurized irrigation system exists. Future irrigation improvements would most likely continue to make use of city culinary water.

Natural Gas - At the Roosevelt site the Questar Gas Company services natural gas to the study area (see map on page 59) with 2" lines running on the north, south, east sides of the project boundary.

It is proposed that the southern building be serviced by the line running down Lagoon Street, while the northern building would utilize a longer stub connecting

through the east parking from Union Street. The reason for this longer connection is to avoid having to tap the closer line to the north which is located in a UDOT-owned right-of-way. It is possible that the additional cost of pipe may not be worth the added benefit of not having to do work within a state road.

Power - High voltage 1 phase overhead RMP lines currently run along the south and east edges of the Roosevelt project boundary (see map on page 59). An additional line heads east down 100 North, then travels north along 800 East until reaching a point approximately 200 feet south of the intersection with Main Street, at which point the line heads west. This overhead line if left in its existing location would cross over the top of the proposed north building. It is proposed that this line be dead-ended on 800 East 200 feet south of the intersection with Main and that a new buried line be extended east from the intersection of 100 north and 800 East until passing the northern proposed structure at which point the buried line can veer to the north, daylight and connect into its existing alignment. A service connection for the proposed northern building could be dropped from the proposed dead-end on 800 East. The existing line running down Lagoon Street could easily provide service to the southern proposed building.

Communications - At the Roosevelt site major lines are found in Lagoon Street and Highway 40, with an additional line following the same overhead power lines. It is presumed that communications lines could easily follow a similar configuration to the power lines as they generally do in most developments.

Sustainability Goals - Sustainability enhancements to future USU buildings and their appurtenances, such as products or methods that could help to reduce water, gas and power usage, are outside of the scope of this report. Of the external utilities associated with the project sites, stormwater improvements have the greatest potential to generate sustainable results. "Low Impact Development (LID)" is a design approach sponsored by the EPA which aims at turning stormwater into resource rather than a waste product. By using sumps, bioretention facilities, artificial wetlands, rain gardens, vegetated rooftops, and permeable pavements as onsite outfalls for the stormwater, local groundwater is recharged and pollutants are filtered out along the way.

In conventional stormwater design, pollutants are effectively concentrated and then discharged unfiltered into natural waterways. Should LID be used to design the Vernal campus, the proposed branches and trunklines associated with the Northern and Southern Sub-Basins, as described in the Stormwater section of this report, could be eliminated and the stormwater disposed of by on-site sumps, dispersed to multiple smaller on-site rain gardens, or diverted to artificial wetlands built just to the east of the campus. Additionally, the overall volume of runoff could be lessened by permeable pavements and/or reducing the total amount of hardscaped areas. For more information on LID, please visit: <http://water.epa.gov/polwaste/green>

Transportation Analysis

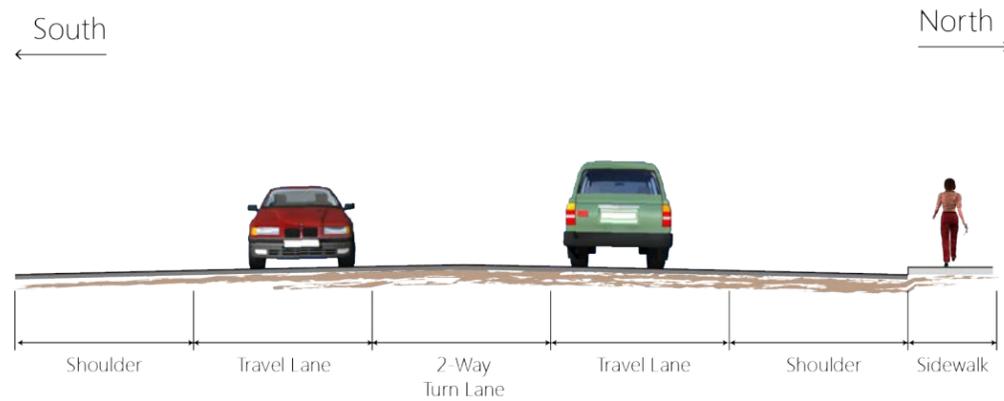
VERNAL CAMPUS

The Vernal Campus is located on 500 North and Aggie Boulevard just outside the city limits of Vernal, Utah.

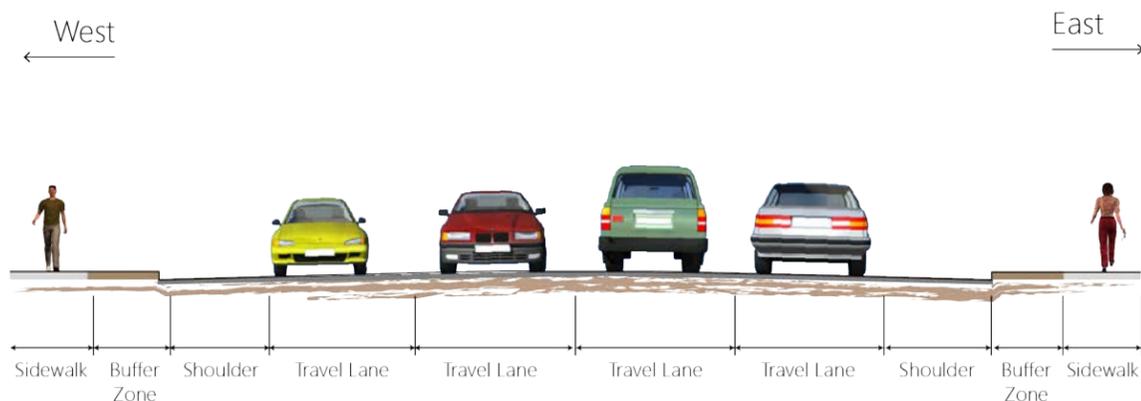
Existing Roadways

The Vernal USU Campus is bordered on the north by 500 North and on the west by Aggie Blvd. Other major roads in the area are Main Street, 500 South, 2500 West, and 1500 West.

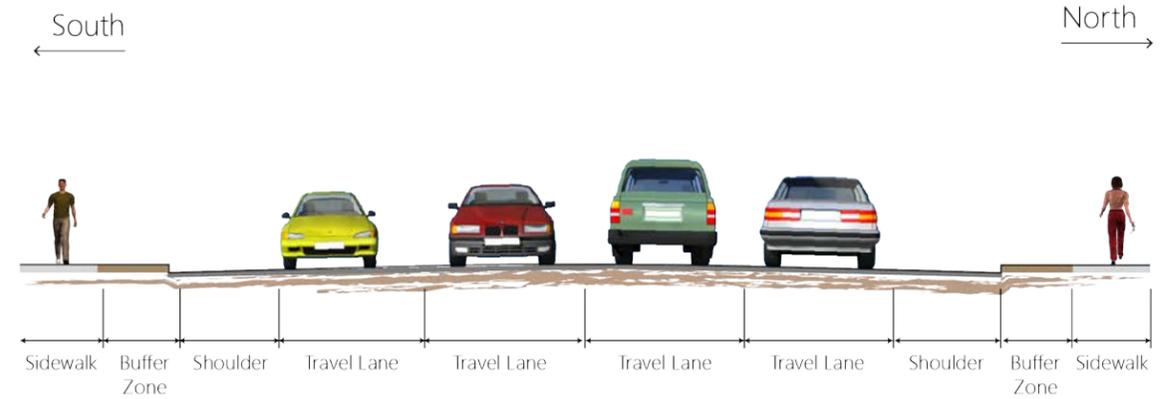
500 North - In the project vicinity, 500 North is a minor arterial, three-lane road. Just west and east of the site, 500 North loses its center turn lane. A pedestrian tunnel under 500 north connects the campus to Uintah High School. Sidewalks are present on the north side of the street. 500 North has a heavy truck percentage of 32% in the vicinity of the campus site.



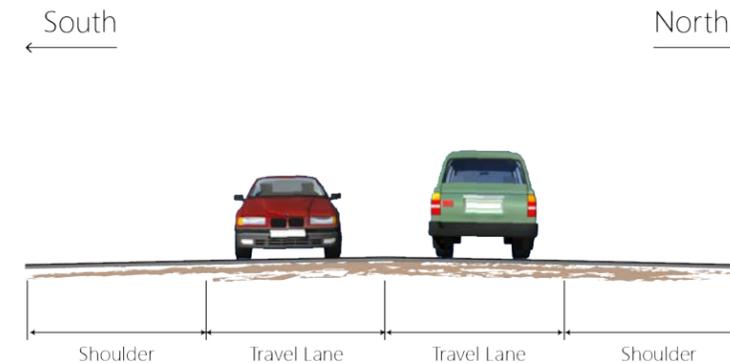
Aggie Blvd- Aggie Blvd is a principal arterial, four-lane road in the vicinity of the project area. South of Main Street, it becomes 1750 West/Canal Road, before ending at U-40/191. Sidewalks are present on both sides of the street.



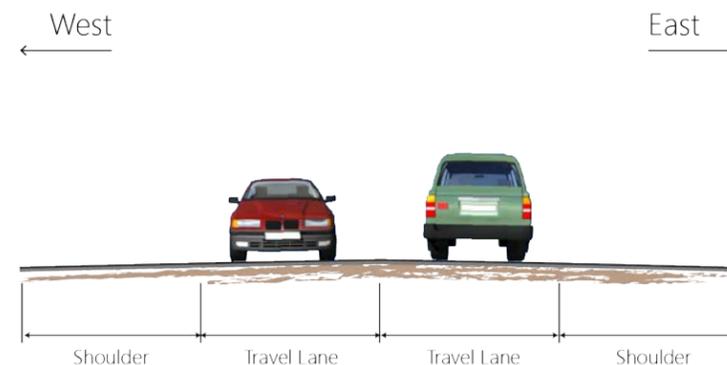
Main Street- West of 1500 West, Main Street is a principal arterial, four-lane road. East of 1500 West, is a two-lane road, sometimes with a center turn lane. Sidewalks are present on both sides of the street.



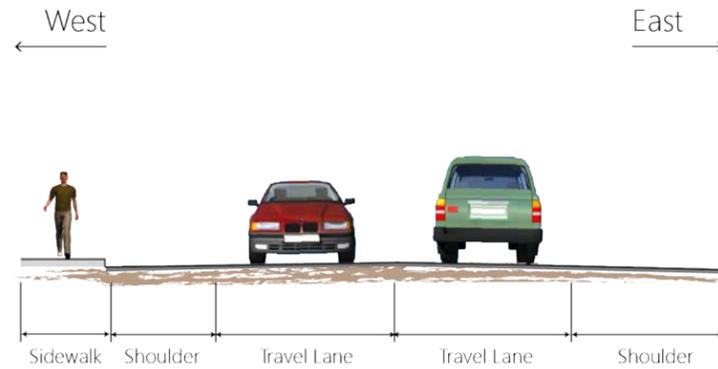
500 South - 500 South is a major collector, two-lane roadway that provides city-wide access. Sidewalks are not present.



2500 West - 2500 West is a major collector, two-lane roadway that provides north-south access on the west side of the City. Sidewalks are not present.



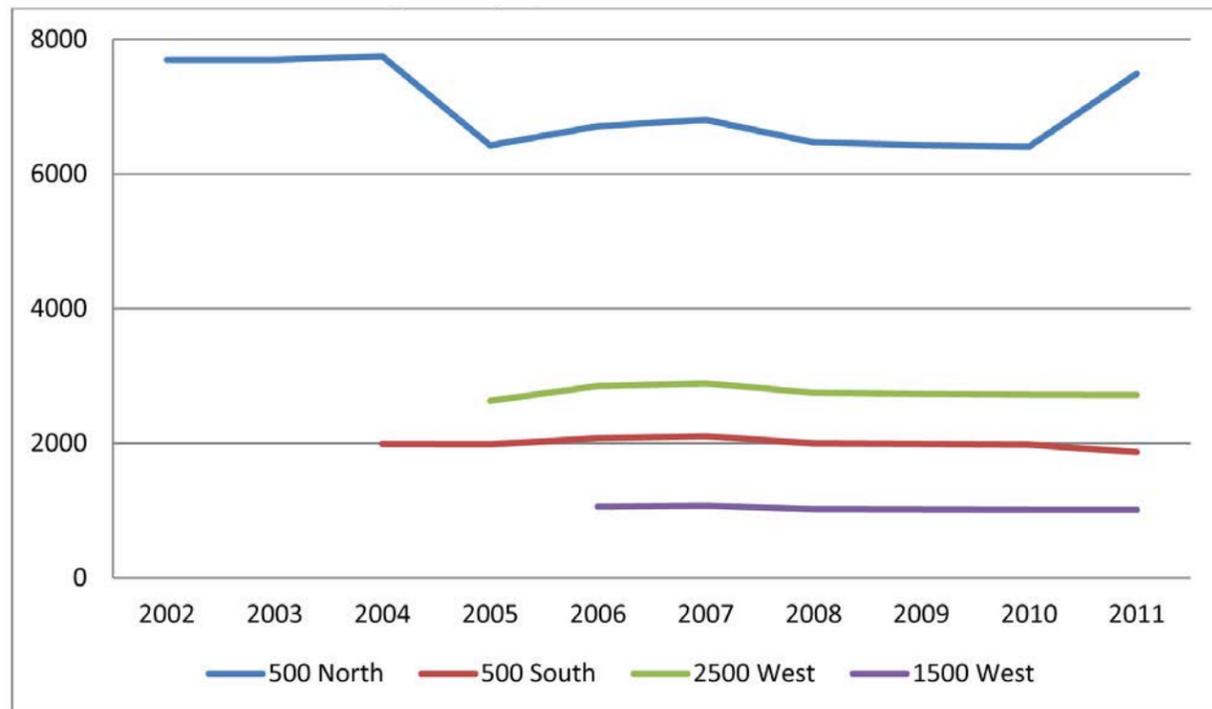
1500 West - 1500 West is a major collector, two-lane roadway that provides north-south access on the west side of the City. Sidewalks are present on the west side of the road.



According to the Vernal Master Plan (2010), capacity concerns are not expected on most roads within the 20-year planning horizon. There are no known improvements to the roadway in the future.

ADT

Average Daily Traffic (ADT) on 500 North in Vernal near the USU Campus was 7,500 in 2011. The chart below shows the last ten years of data, according to UDOT traffic counts, for 500 North, 2500 West, 500 South, and 1500 West in the vicinity of the project.



Parking

The existing parking for campus is located adjacent to Aggie Boulevard, with three points of access along Aggie Boulevard. The Vernal campus currently has a parking ratio of 2.89 stalls per 1,000 gross square feet, which is considered in-line and appropriate for a college of this size in a similar area.

Vernal Zoning

The Vernal Campus property is situated just outside of Vernal City limits. According to Uintah County zoning, the Campus and most surrounding land is zoned Residential Agricultural. According to the Vernal General Plan, the Vernal Campus is zoned schools, as is the property just to the south and north. The remainder of the property near the Campus is zoned low-density residential or agriculture. The General Plan outlines future use in the area as Institutional for the existing campus and schools, with commercial and high density residential to the west of Campus. The General Plan also calls for strengthening the role of the Uintah Basin Applied Technology Center and USU campuses by modifying existing ordinances and codes to allow limited commercial and serve uses in close proximity to campus areas.

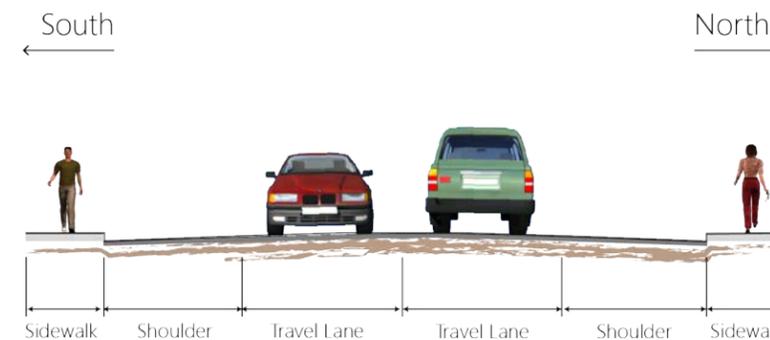
ROOSEVELT CAMPUS

The Roosevelt Campus is located on Lagoon Street between approximately Union Street and 1500 East on the city line between Ballard and Roosevelt, Utah.

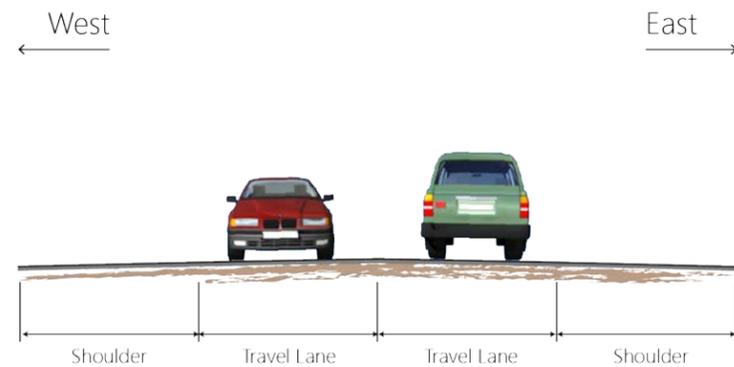
Existing Roadways

The Roosevelt USU Campus is bordered on the north by Lagoon Street and on the east by 1500 East. Other major roads in the area are 200 North and 200 East.

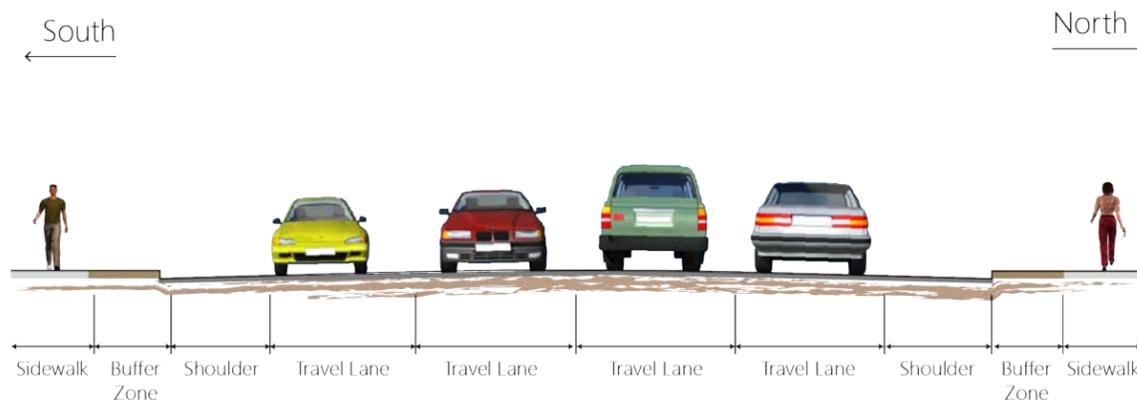
Lagoon Street - In the project vicinity, 500 North is a two-lane road that spans the width of the City. Sidewalks are present on the both sides of the street.



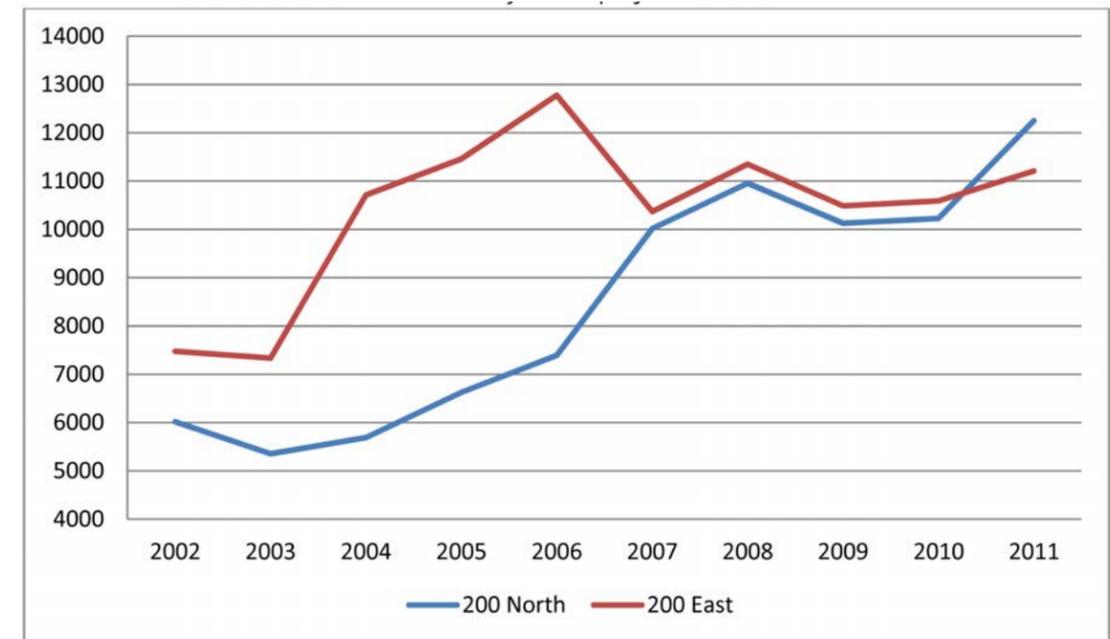
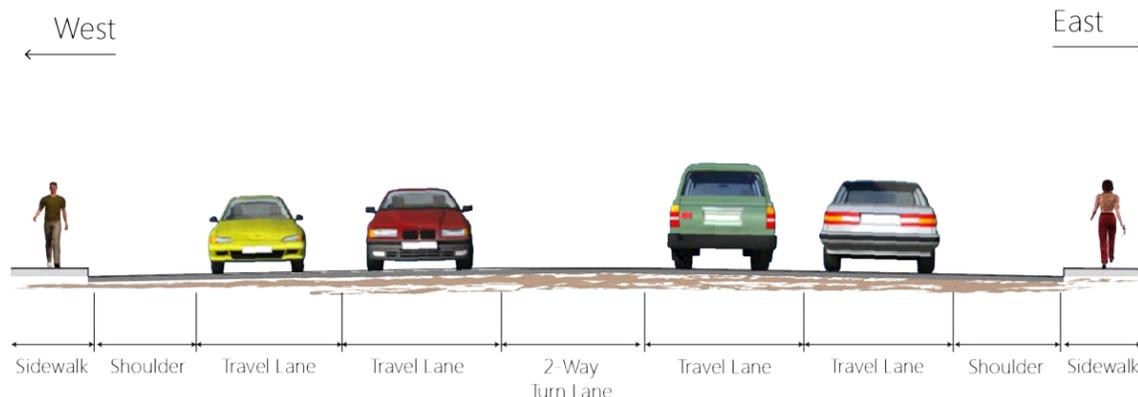
1500 East - 1500 East is a principal two-lane road. Sidewalks are not present.



200 North - 200 North is a five-lane roadway with center turn lane that provides city-wide access and is the main east-west road through the City. Sidewalks are present on both sides of the road. Heavy truck percentages range from 35% to 45% in the vicinity of the campus site.



200 East - 200 East is a five-lane roadway with center turn lane that provides north-south access through the City. Sidewalks are present on both sides of the road. The heavy truck percentage is 26% in the vicinity of the campus site.



ADT

Average Daily Traffic (ADT) on 200 North and 200 East in Roosevelt near the USU Campus were 12,250 and 11,210, respectively, 2011. The chart below shows the last ten years of data, according to UDOT traffic counts, for 200 North and 200 East in the vicinity of the project.

Parking

The existing parking for campus is located adjacent to 800 East, with access on US-89 and 800 East. The Roosevelt campus currently has a parking ratio of 4.01 stalls per 1,000 gross square feet, which is considered relatively high for a college.

Roosevelt Zoning

The Roosevelt Campus property is situated on the city line between Ballard and Roosevelt, Utah. The area nearest the Campus, but still in Roosevelt city limits is zoned R-M-18, or residential (18 units per acre). The Campus in Ballard is stated as land use Civic, but is surrounded by medium density residential and commercial land uses. Zoning designates the medium density residential as rural residential (RA 1/2).

Conclusion

In general, both campuses are located in areas that are not expected to have substantial growth in the next 20 to 50 years. The roadways that surround the campuses appear to have excess capacity to accommodate campus growth as well as background community growth. Both campuses are served by transit connections to centers of population. However, the headways on these routes are either one-hour or two-hour headways, which may discourage people from using transit. Bicycling is an increasing commute choice for many people, but there are virtually no facilities at either campus location to accommodate bicyclists. As the campuses grow, the University should work with each city to install bicycle facilities.



Looking north towards Aggie Blvd. from the roundabout on Main St. – Vernal Campus

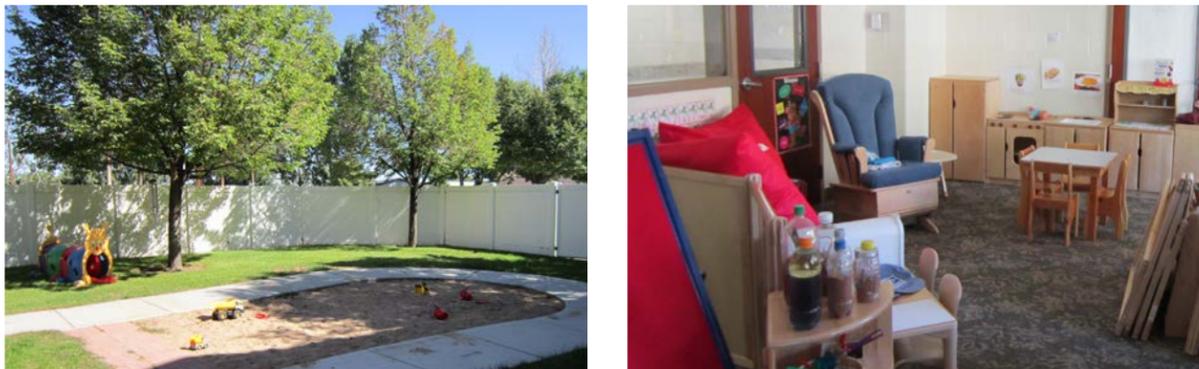
Utah State University
JINTAH BASIN

"Recognizing the need is the primary condition
for design" - Charles Eames

ILLUSTRATIVE PLAN

Philosophical Planning Approach to Campus

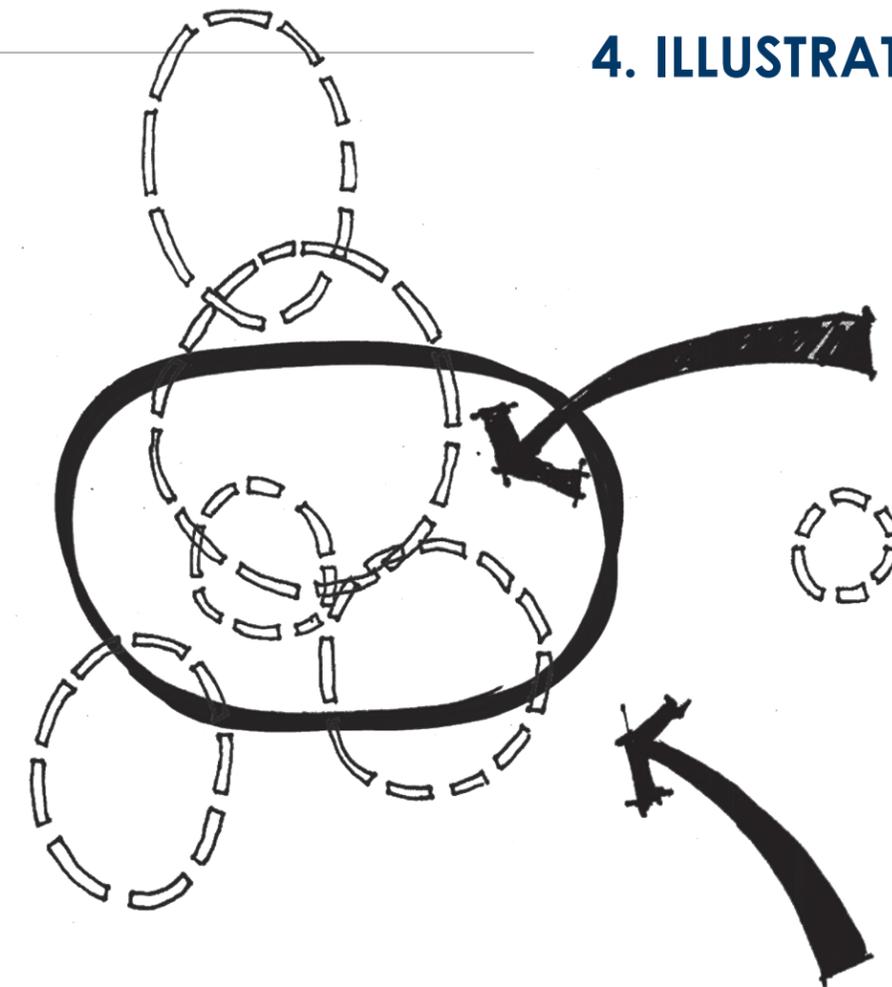
To guide the overall planning of campus, the Uintah Basin Campus Master Plan Team participated in programming exercises to discuss the key planning elements. Although the exact needs of the Roosevelt and Vernal campus sites are slightly different, strong shared goals were identified for the Uintah Basin Campus as a whole. This represents the overall key planning strategy, which is to acknowledge the importance of the campus in both communities. The Uintah Basin Campus should function as one campus, not as two separate campus sites.



Existing preschool facilities at the Roosevelt Campus

Another important planning element is the need for the campus to physically serve the community and the specific needs of the demographics being served. As primarily serving a non-traditional student population, currently a majority of students arrive on site for evening courses. The physical layout of campus should be organized in a way that reflects the needs of this population. For example, walking from a car to a class on a cold evening currently represents the most likely scenario that greets students. This does not preclude the need to develop a formal campus setting, however this fact should be given high consideration on this campus whereas it may not be on a traditional residential campus.

To increase activity on the campus during the day, and to foster stronger community connections, a need has been identified to add amenities that may invite users to campus. Amenities may include formal recreational fields or outdoor gathering civic spaces. It may also include the opportunity to share land with community civic facilities, or include the addition of student requested services such as child care or food services. These amenities may become feasible overtime as the campus grows. The phasing plan discussion suggests when these types of amenities may become available.



Phasing: General

To accommodate a logical pattern of growth on campus, the plans have been outlined in three phases. These include the following:

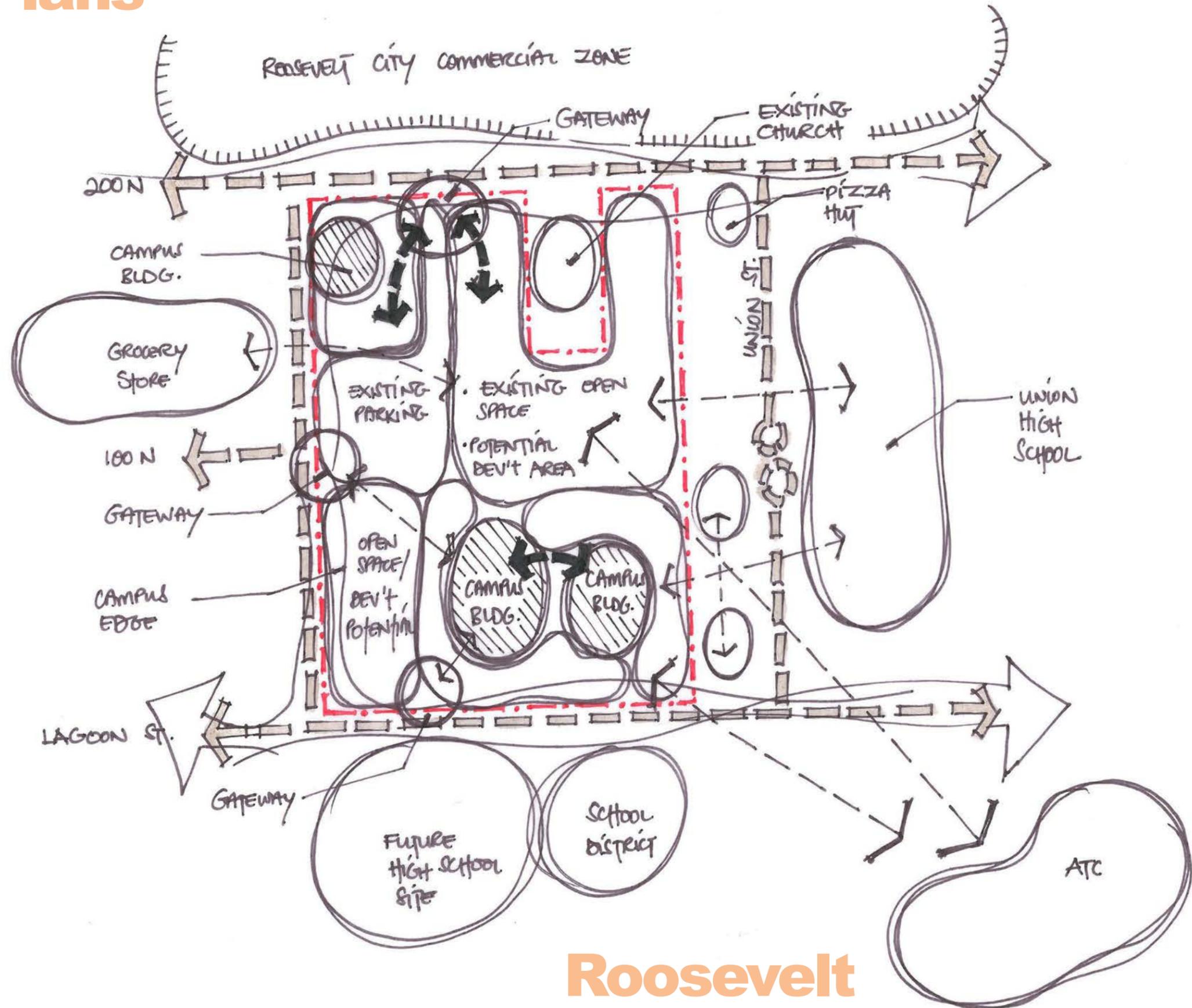
- **Phase I:** Year 2030
- **Phase II:** Year 2045
- **Phase III:** Year 2060

As outlined in Chapter 2, certain growth has been assumed to occur on campus for the purposes of planning. If this growth does not occur as expected the time frame for each phase can be extended as needed. Or, the phases can be shortened as needed should growth increase faster than anticipated.

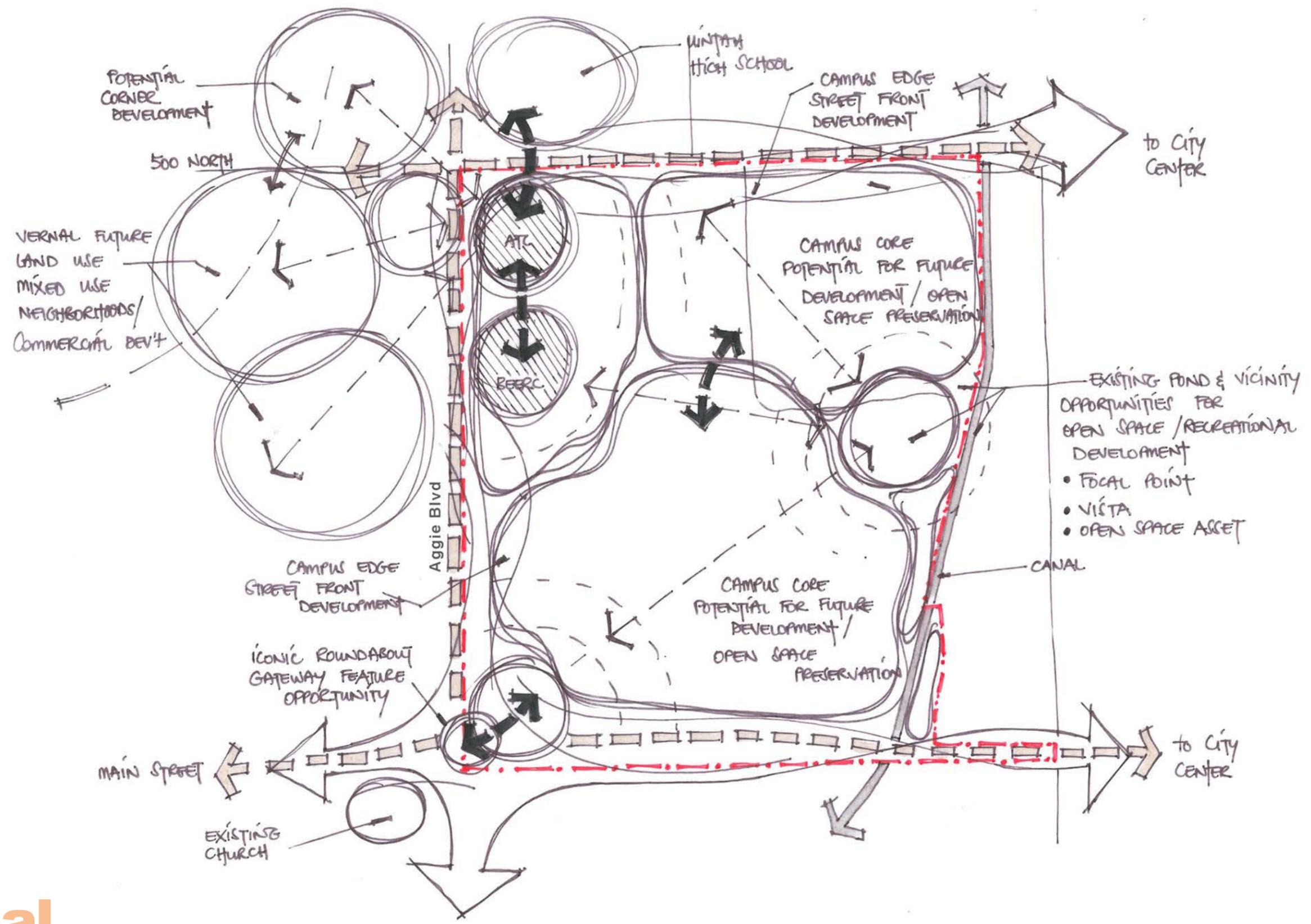
Framework Plans

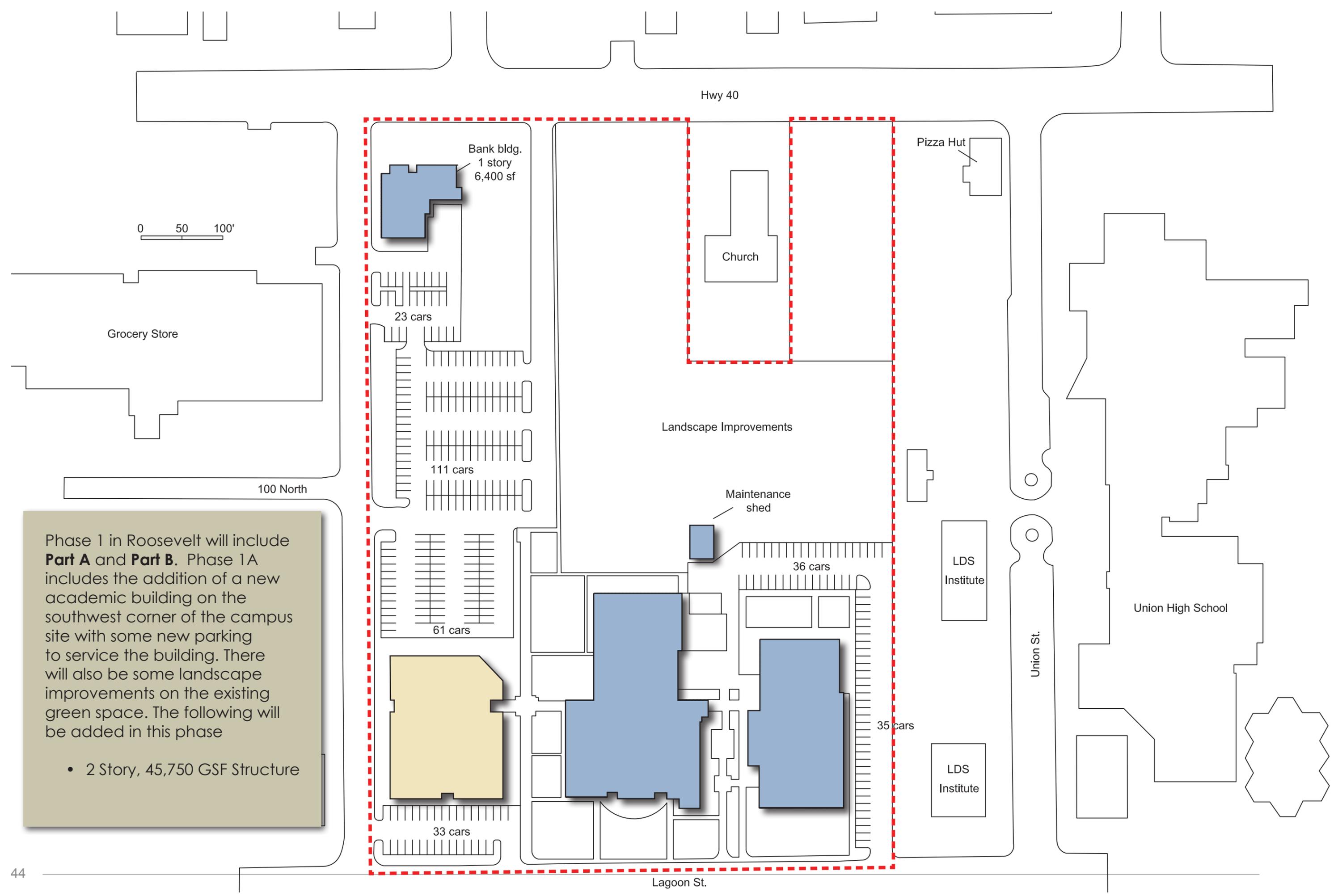
A Framework Plan is a critical tool in the master planning process. It is a graphic that synthesizes existing conditions as well as the aspirations for the campus. It helps to inform the design and planning team as they develop the site layout and design concepts. It becomes a quick reference for all major considerations usually discussed during early visioning sessions.

The Framework Plan becomes the canvas upon which the final plan is crafted.



Roosevelt



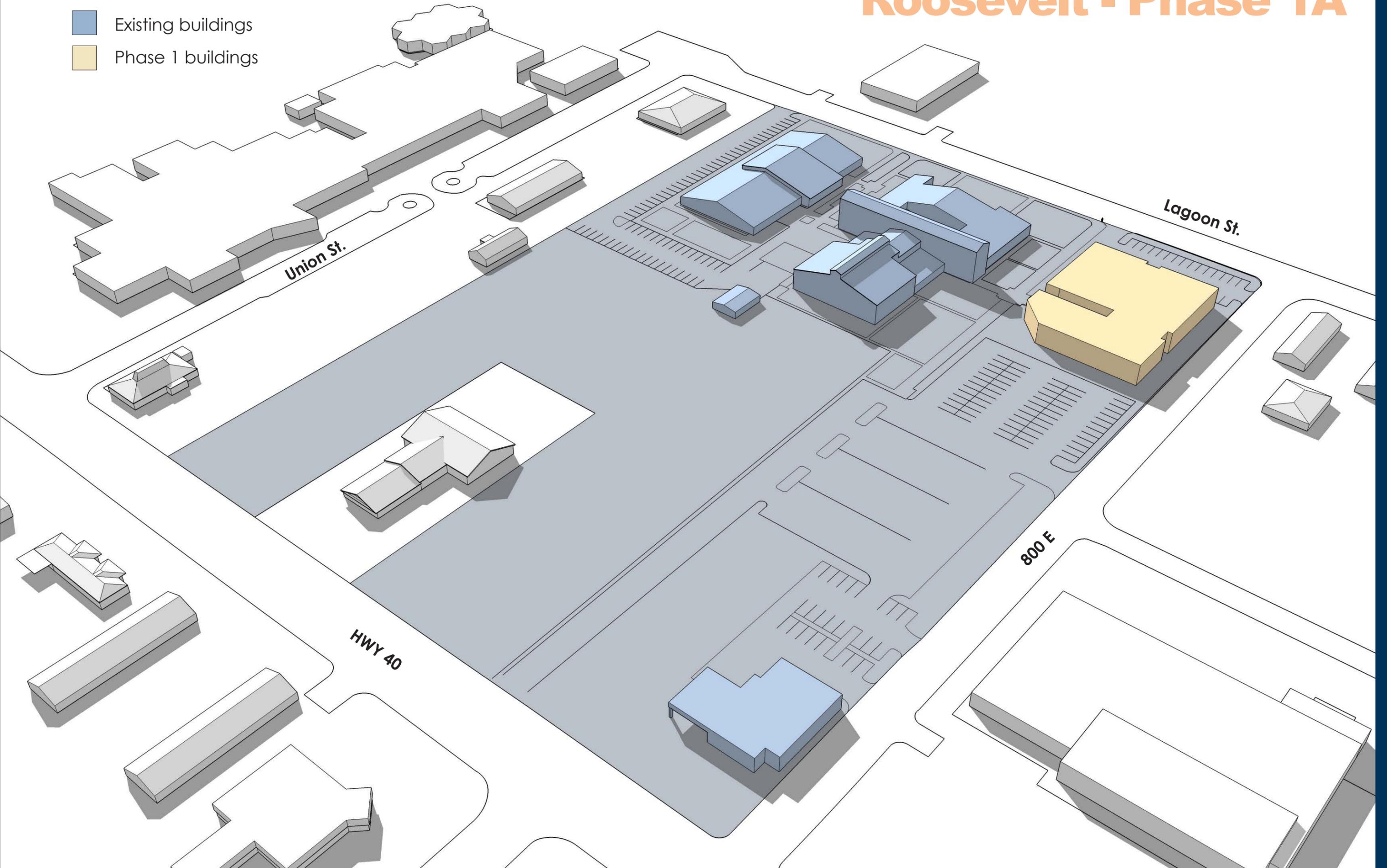


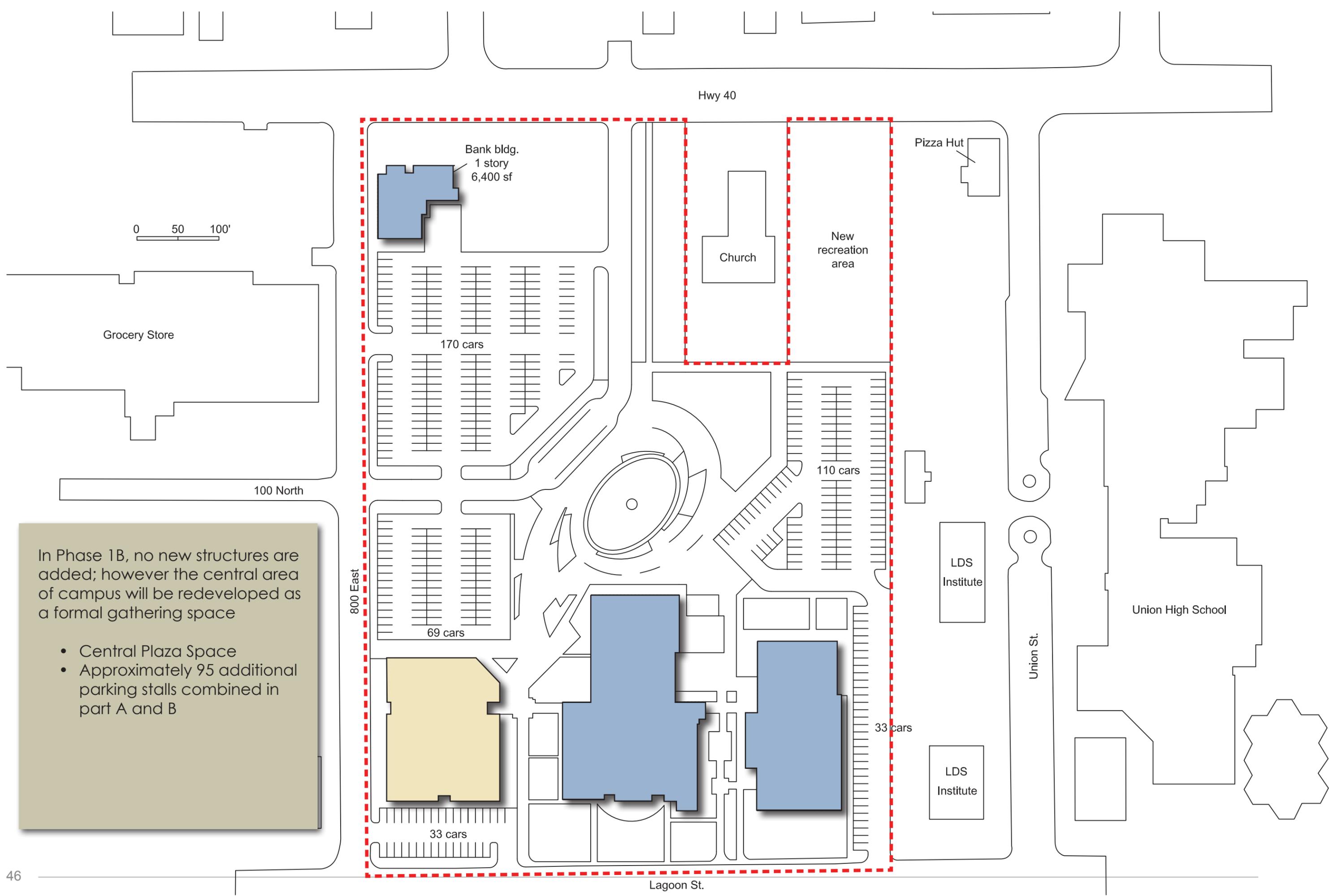
Phase 1 in Roosevelt will include **Part A** and **Part B**. Phase 1A includes the addition of a new academic building on the southwest corner of the campus site with some new parking to service the building. There will also be some landscape improvements on the existing green space. The following will be added in this phase

- 2 Story, 45,750 GSF Structure

Roosevelt - Phase 1A

- Existing buildings
- Phase 1 buildings





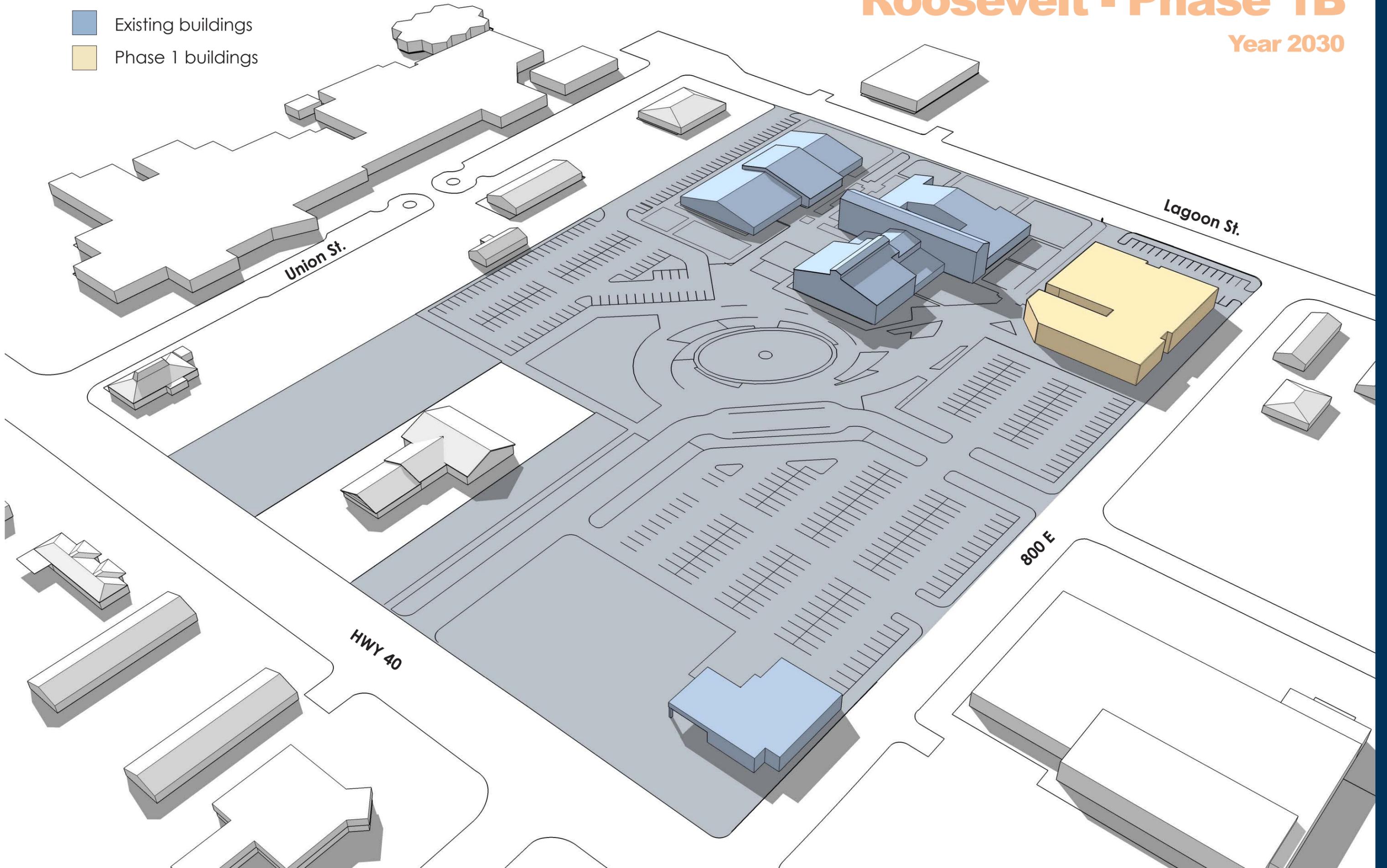
In Phase 1B, no new structures are added; however the central area of campus will be redeveloped as a formal gathering space

- Central Plaza Space
- Approximately 95 additional parking stalls combined in part A and B

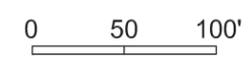
Roosevelt - Phase 1B

Year 2030

- Existing buildings
- Phase 1 buildings



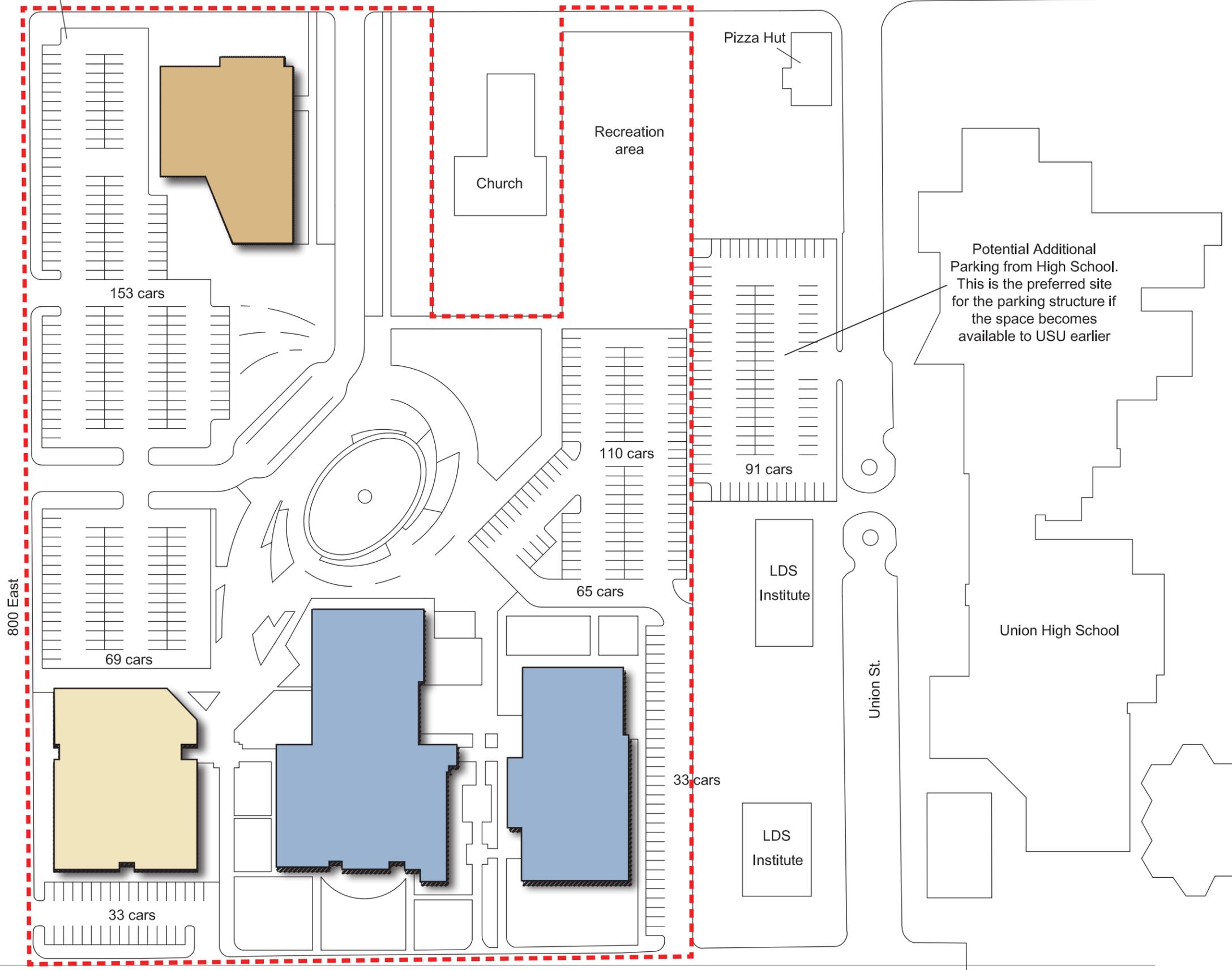
- Bank bldg. to be demolished
- Parking expanded



In this phase a new academic building is added on the north of campus. The bank building will be demolished during this phase.

- 2 Story, 37,200 GSF

The realization of this phase will require locating additional property for parking. Although no specific property has been selected, the sharing of parking at the adjacent Union High School may be a logical solution as many of the University students will need stalls in the evening hours when the high school is not in session.

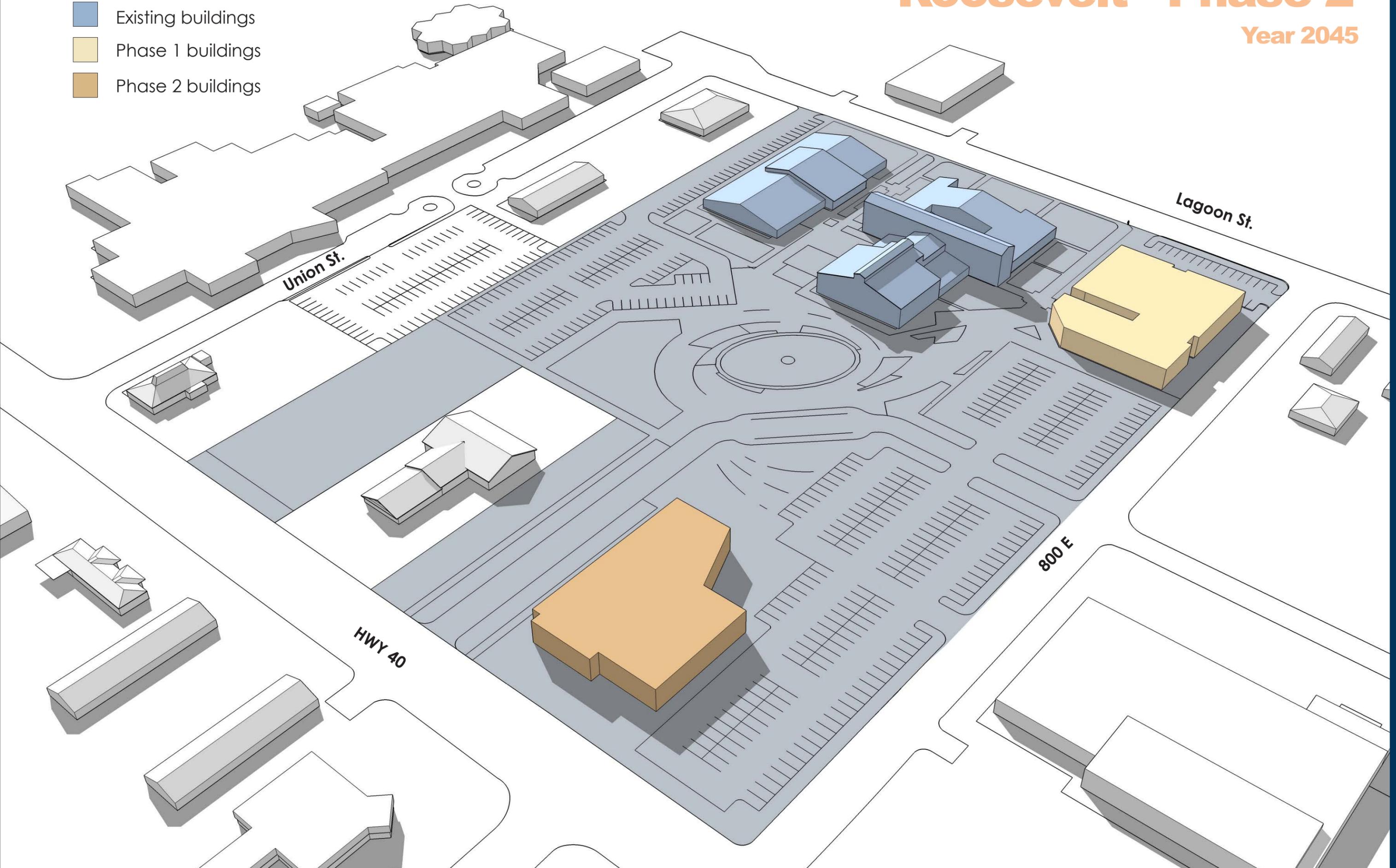


Potential Additional Parking from High School. This is the preferred site for the parking structure if the space becomes available to USU earlier

Roosevelt - Phase 2

Year 2045

- Existing buildings
- Phase 1 buildings
- Phase 2 buildings



0 50 100'

Building 3
2 story
24,000 sf

Hwy 40

Pizza Hut

Church

Recreation area

Potential Additional
Parking from High School

88 cars

110 cars

91 cars

100 North

In Phase 3 an expansion to
the north academic building is
introduced.

- 2 Story, 24,000 GSF

800 East

69 cars

LDS
Institute

Union High School

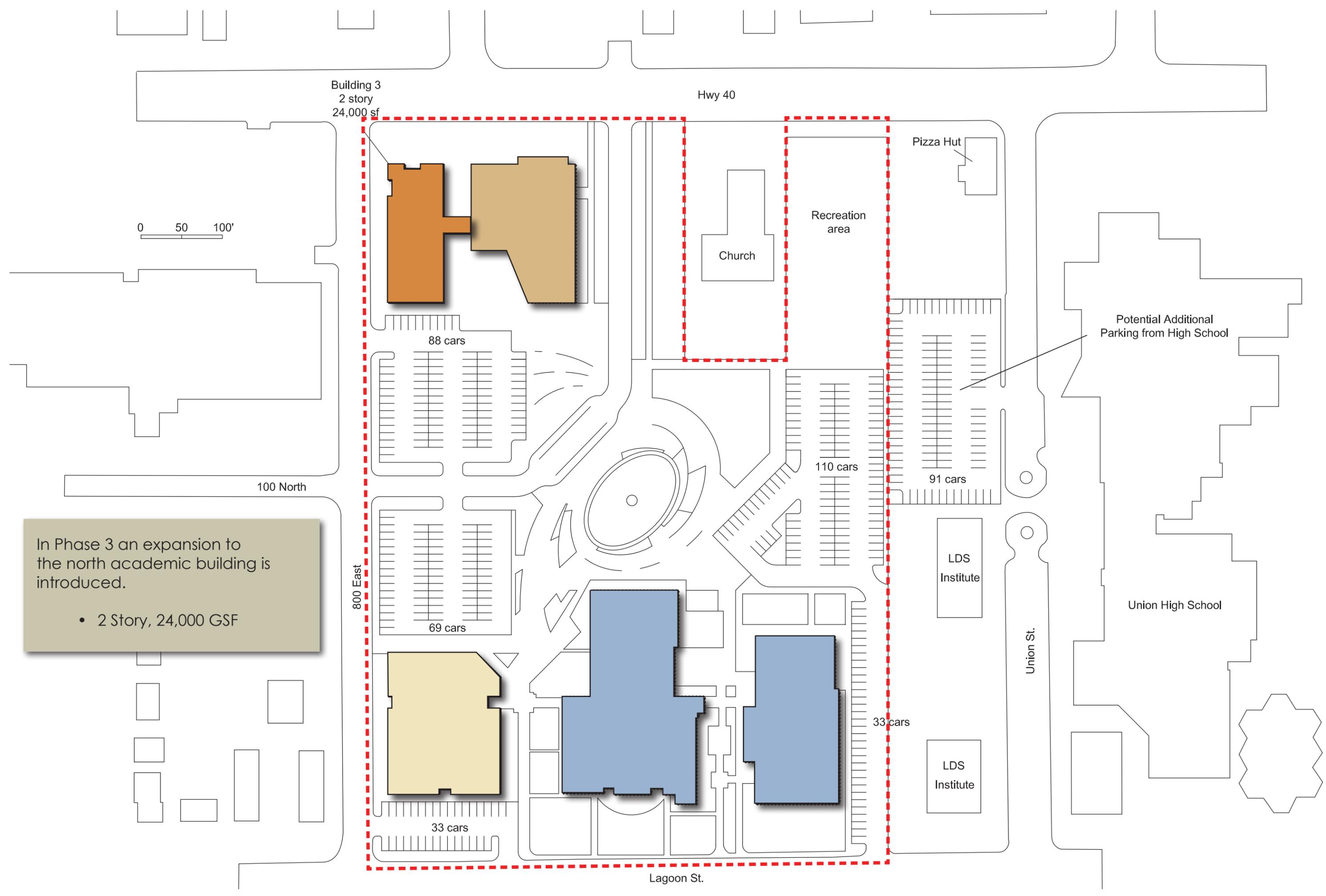
33 cars

33 cars

LDS
Institute

Union St.

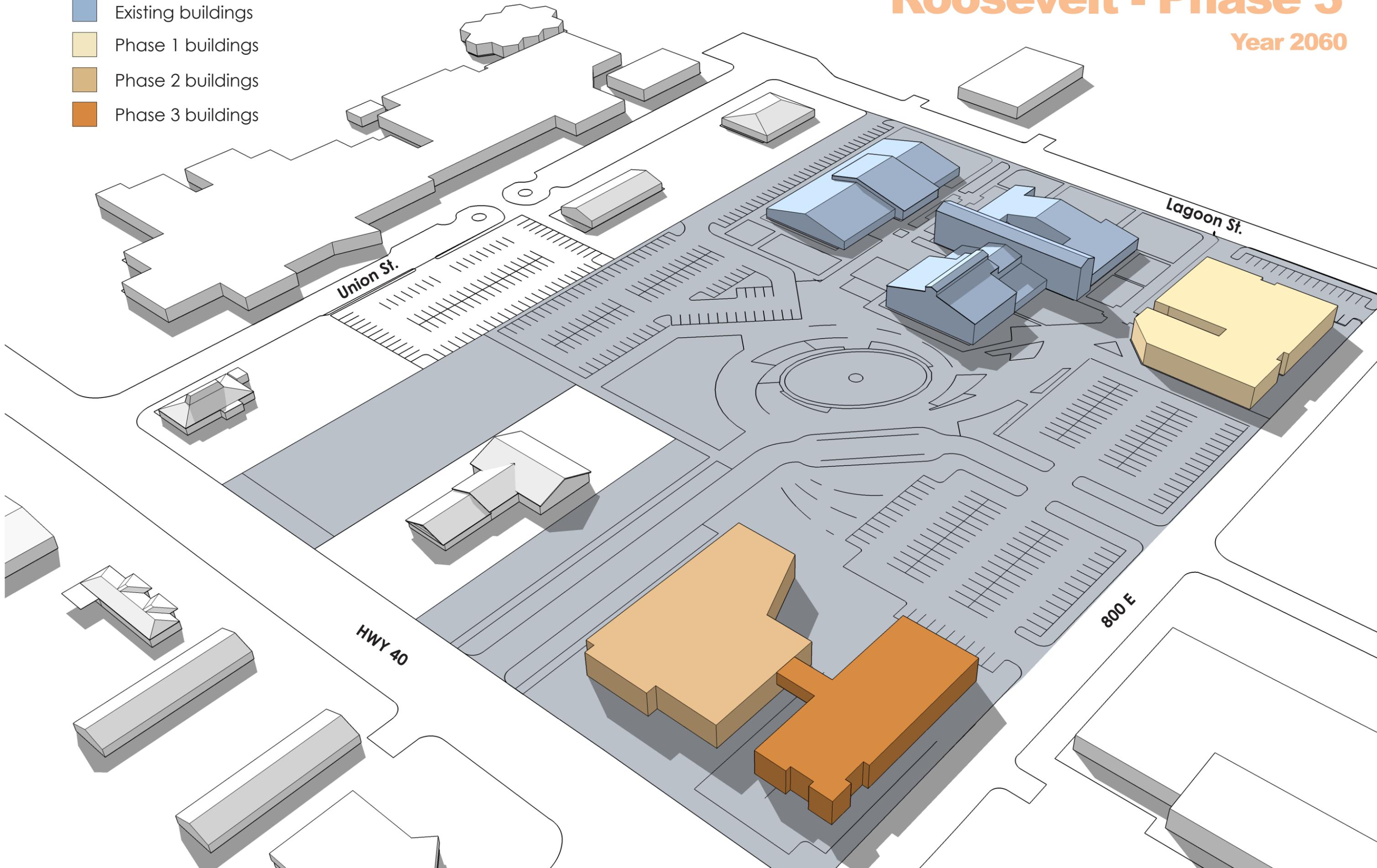
Lagoon St.



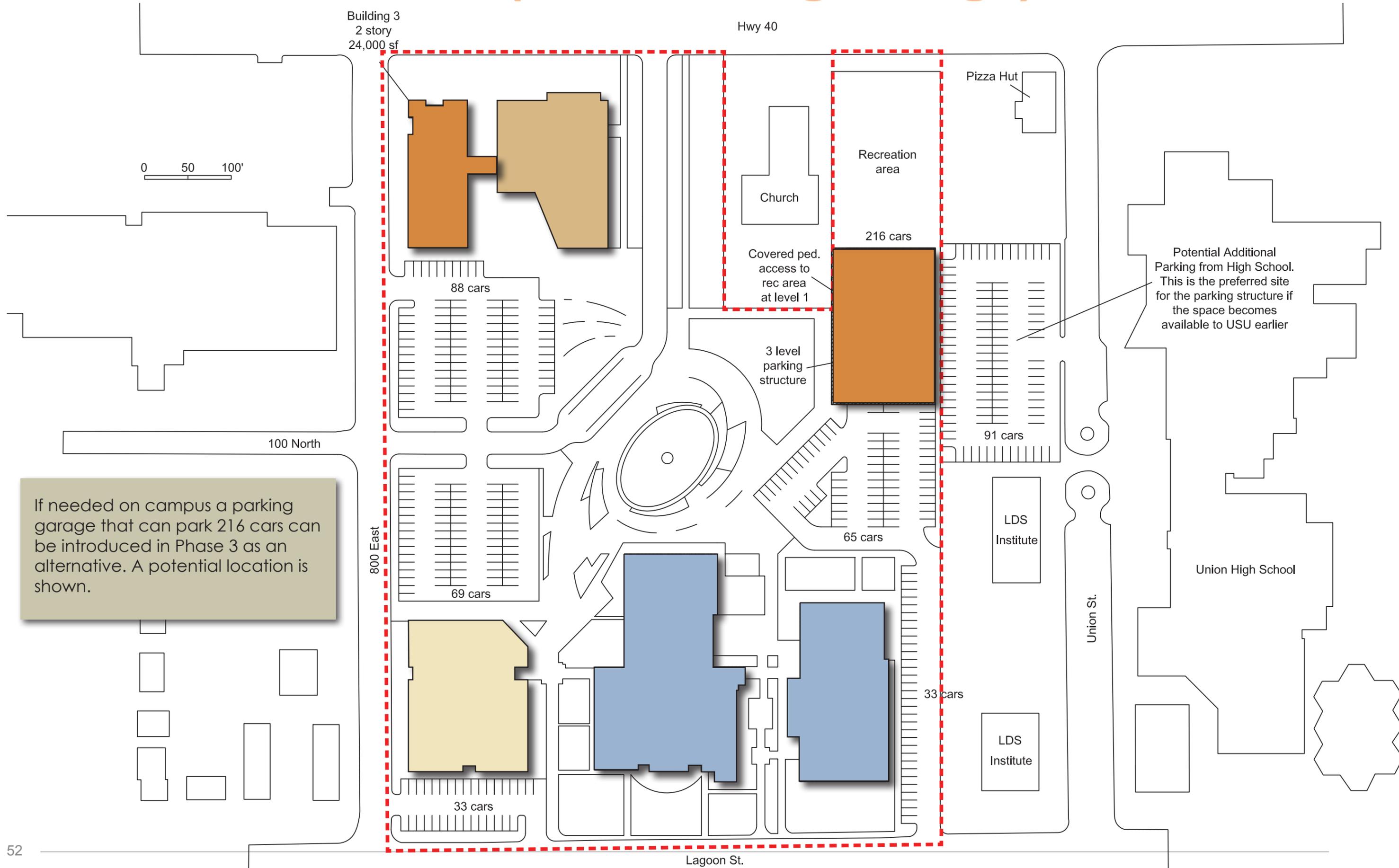
Roosevelt - Phase 3

Year 2060

- Existing buildings
- Phase 1 buildings
- Phase 2 buildings
- Phase 3 buildings



Alternative Phase 3 (With Parking Garage)

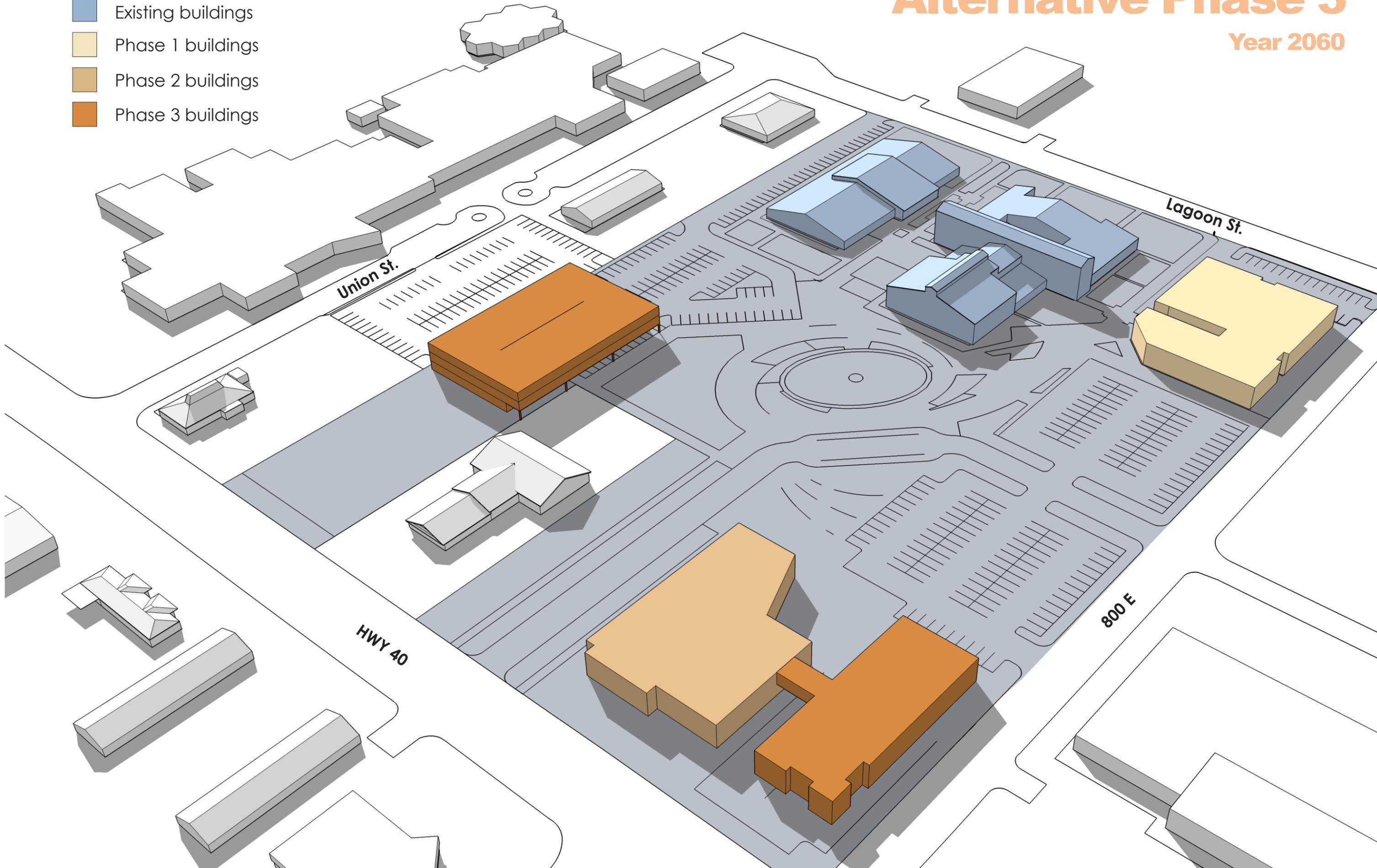


If needed on campus a parking garage that can park 216 cars can be introduced in Phase 3 as an alternative. A potential location is shown.

Alternative Phase 3

Year 2060

- Existing buildings
- Phase 1 buildings
- Phase 2 buildings
- Phase 3 buildings



Roosevelt - Full Build-out

If the Roosevelt Campus location develops as outlined, the following resources will be available.

- 100,500 New GSF
- 163,000 Total GSF
- 424 Parking Stalls
- 595 Parking Stalls (with garage)



HWY40 / 200 N

100 N

800 E

Lagoon St.

Union St.

Recreation area

Pizza Hut

Church

Central plaza

Union High School





Aerial view from northwest



Central plaza



View from Southeast



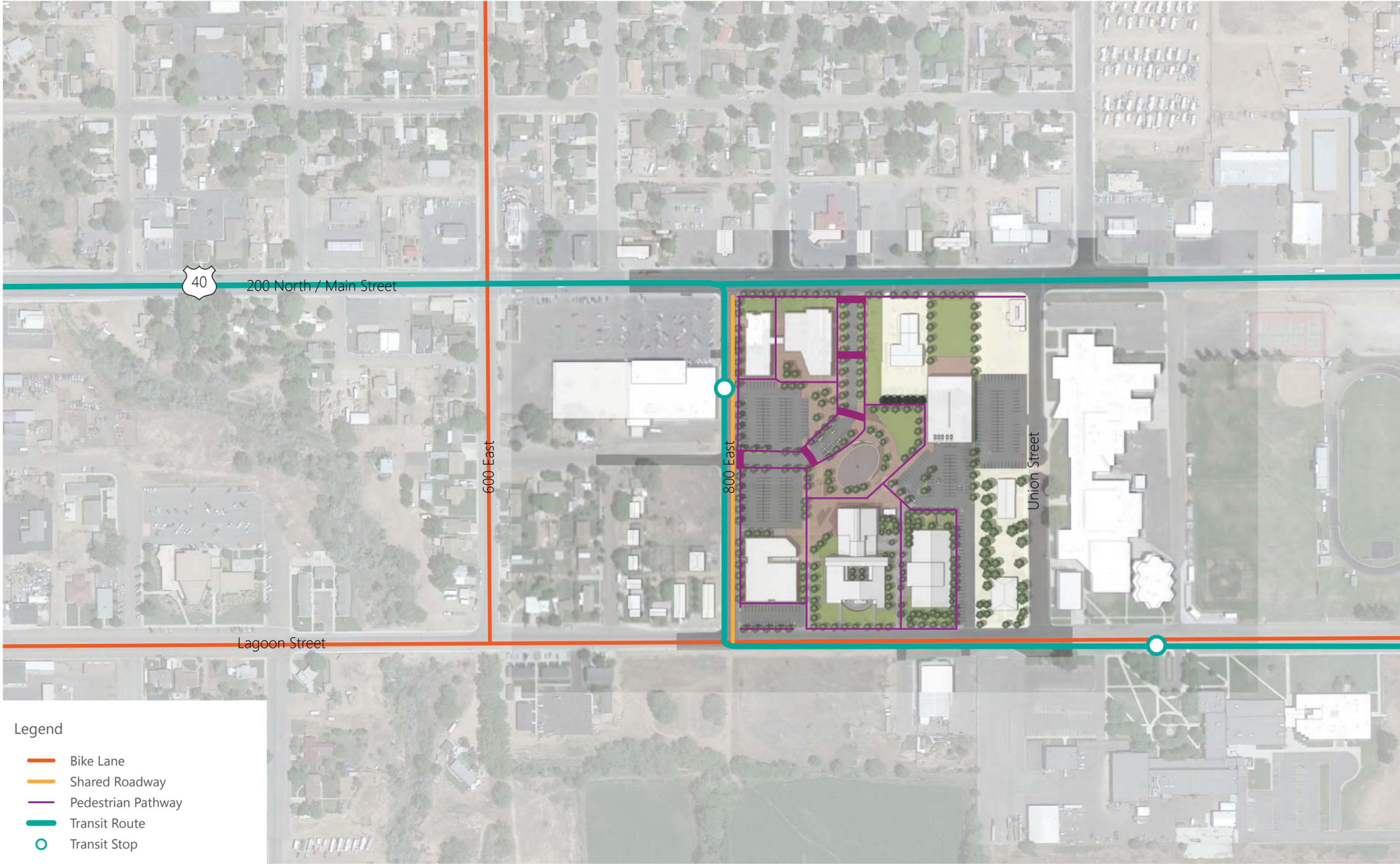
View from Northwest showing drop-off zone and central plaza



The Roosevelt Campus becomes a very pleasant and welcoming destination in the heart of Roosevelt. Different types and scales of open space offer opportunities for University patrons and the community for use, relaxation and events.

Vehicular/pedestrian conflicts are controlled, and parking/drop off areas are in close proximity to building entrances.

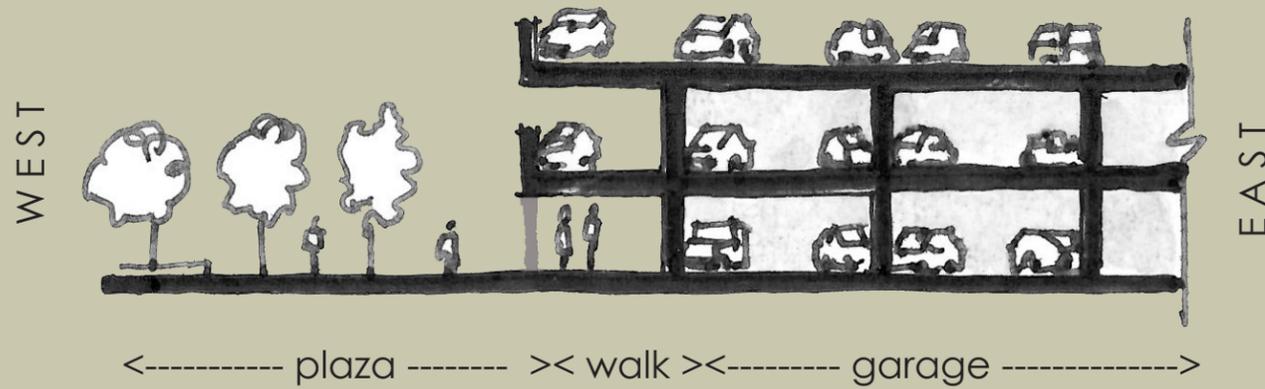
Transportation Recommendations Map - Roosevelt



Legend

- Bike Lane
- Shared Roadway
- Pedestrian Pathway
- Transit Route
- Transit Stop

Parking Study



ROOSEVELT

In order to accommodate projected student enrollment growth on current campus property and within a similar parking ratio as currently exists, USU Uintah Basin **may need to consider the construction of a structured parking terrace at the Roosevelt Campus as an option.** The northeast corner of the campus has been selected for this structure. The structure needs to be close enough to academic buildings for convenience and to avoid it taking a major position along Highway 40, which has been set aside as open space/play field. The parking structure will need to fit within the height limitation of other campus structures, preferable below 30'. The west facade should be planned for to allow either a covered or sheltered walking surface adjacent to landscaping. The structure will need to be accessed either from the south off of existing parking lots and access roads or from the east.

VERNAL

Sufficient land exists at Vernal to accommodate current and future parking ratios.

PARKING RATIOS

The table below shows the combined parking ratios for **both campuses**:

Phase	Existing	Phase I	Phase II	Phase III
Campus Population	1,193	1,975	3,227	5,265
Ratio	0.43	0.34	0.29	0.24
Number of Stalls	513	672	936	1,264

Transportation Recommendations - Roosevelt

CAMPUS ENTRANCES

The campus will be accessed on Highway 40, 800 East, and Lagoon Street. The main campus entrance will be an internal road between Highway 40 and 100 North.

VEHICULAR CIRCULATION

To improve vehicular circulation to campus, the existing access point on 800 East will be moved slightly north to align better with 100 North. The access point on Highway 40 will be moved slightly to the east to align with the existing business access and to provide greater spacing between intersections. The internal road of campus will provide access to approximately 160 parking stalls as well as the main pick-up/drop-off area on campus. Additional parking is provided at the intersection of Lagoon Street and 800 East, as well as on the eastern portion of campus. Parking is on the periphery to create a pedestrian only zone.

ROADWAY SIZES

Cross-sections were determined based on context, circulation routes, and parking access. For Roosevelt, the main route through campus was determined to be a two-lane cross-section from Highway 40 to the drop-off area. The drop-off area, (as shown on the next page), would consist of two travel lanes, a raised buffer on either side, and a drop-off lane on either side.

Near the parking access, a three-lane cross-section with left-turn pockets will provide adequate storage for the left-turns into parking (as shown on the next page) to not back up onto 800 East. Sidewalks with a buffer should be constructed on both sides of the internal roadway.

BICYCLE AND PEDESTRIAN ROUTES

The campus currently has adequate pedestrian access on all roadways to campus. There are no dedicated bicycle facilities on adjacent roadways or major routes to campus with the exception of bicycle lanes on Lagoon Street between 500 East and 800 East. In addition, bicycle lanes on 600 East and sharrows on 800 East should be installed and extend to connect population and commercial centers. For instance, 600 East should, at the barest of minimums, extend north of US-89. The City and University should work together to determine a city-wide bicycle network that would provide the safest routes to campus beyond the immediate campus area.

Bicycle routes leading to the USU Campus have the added benefit of providing access to Uintah Basin Applied Technology Campus. Bike racks should be placed at entrances to buildings, plazas, and other major destinations. Covered bike parking should be provided at major entrances to buildings. Proposed 8-foot walks along the main route through campus can accommodate cyclists as well.

TRANSIT

The Roosevelt campus is served by two of the three Basin Transit Association routes – the Green and the Blue routes. There are two stops near the campus – one just north of 100 North and 800 East and on Lagoon Street near Union Street. Although the routes and stops could be altered to serve the heart of campus, it is not recommended that the routes or stops be altered. The main reason for this is campus is easily accessible by both stops and moving either stop would reduce the convenience of other riders – mainly either high school students or those trying to access the Jubilee grocery store. It is recommended that headways on routes that serve the Roosevelt campus be reduced as the campus population grows to make transit a more viable option. Currently, transit operates on two-hour headways.

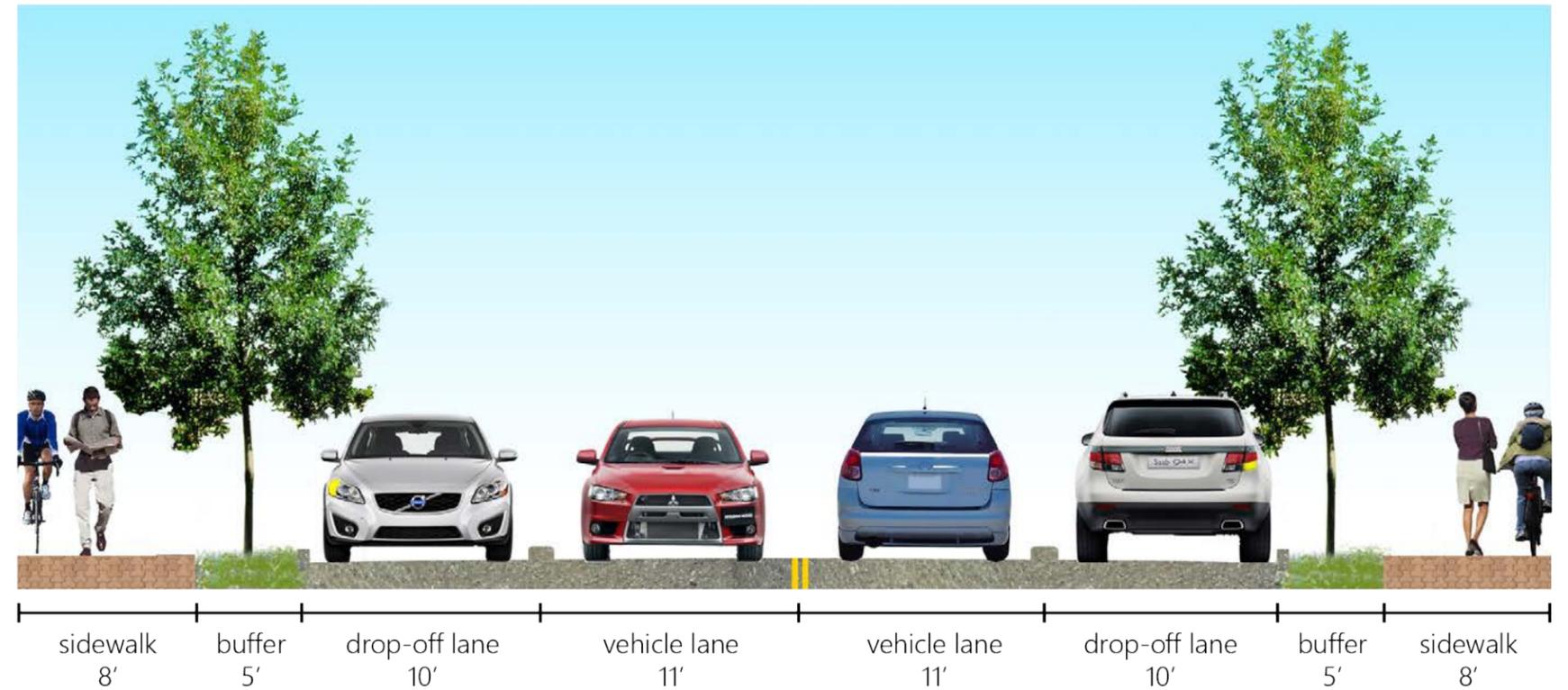
PARKING

Based on two campus populations (1,193) and current parking ratio (0.43), we are assuming there are approximately 513 parking stalls between the two campuses, including the ATC parking at Vernal Campus. Based on other community college campuses, such as USU Tooele, there is a roughly 80% utilization rate during the peak times. Based on this rate, the peak parking for USU UB would be 410 parking stalls, indicating an excess of existing parking. The parking ratio at the peak period is 0.34 stalls per campus population.

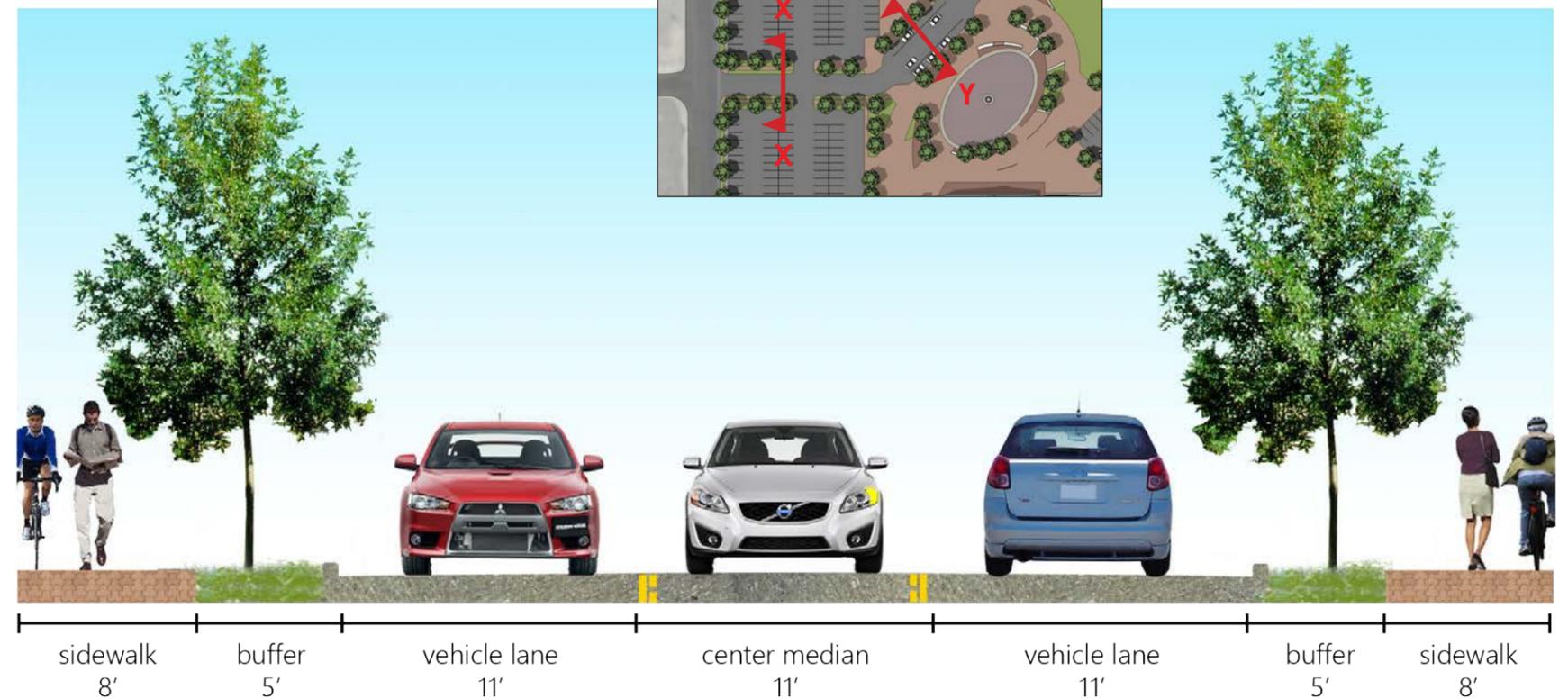
ITE parking generation rate for a community college is 0.18 vehicles per school population for the average peak period, with a range of 0.12 to 0.36 per school population. However, as the two campuses grow and evolve to provide more traditional daytime classes, the parking ratio will decrease as the student population will be spread more evenly across the day.

As the college continues to grow, USU Uintah Basin should aim for a parking ratio of 0.34 stalls per campus population in the shorter term with a parking ratio of 0.24 in the longer term. This is for only stalls assigned to USU, not stalls assigned to the ATCs. As the communities surrounding this area grow and densify and transportation options are available such as frequent bus service and regional trails, then these parking ratios should be re-evaluated to determine if less parking can be supplied.

Section YY showing the drop off area

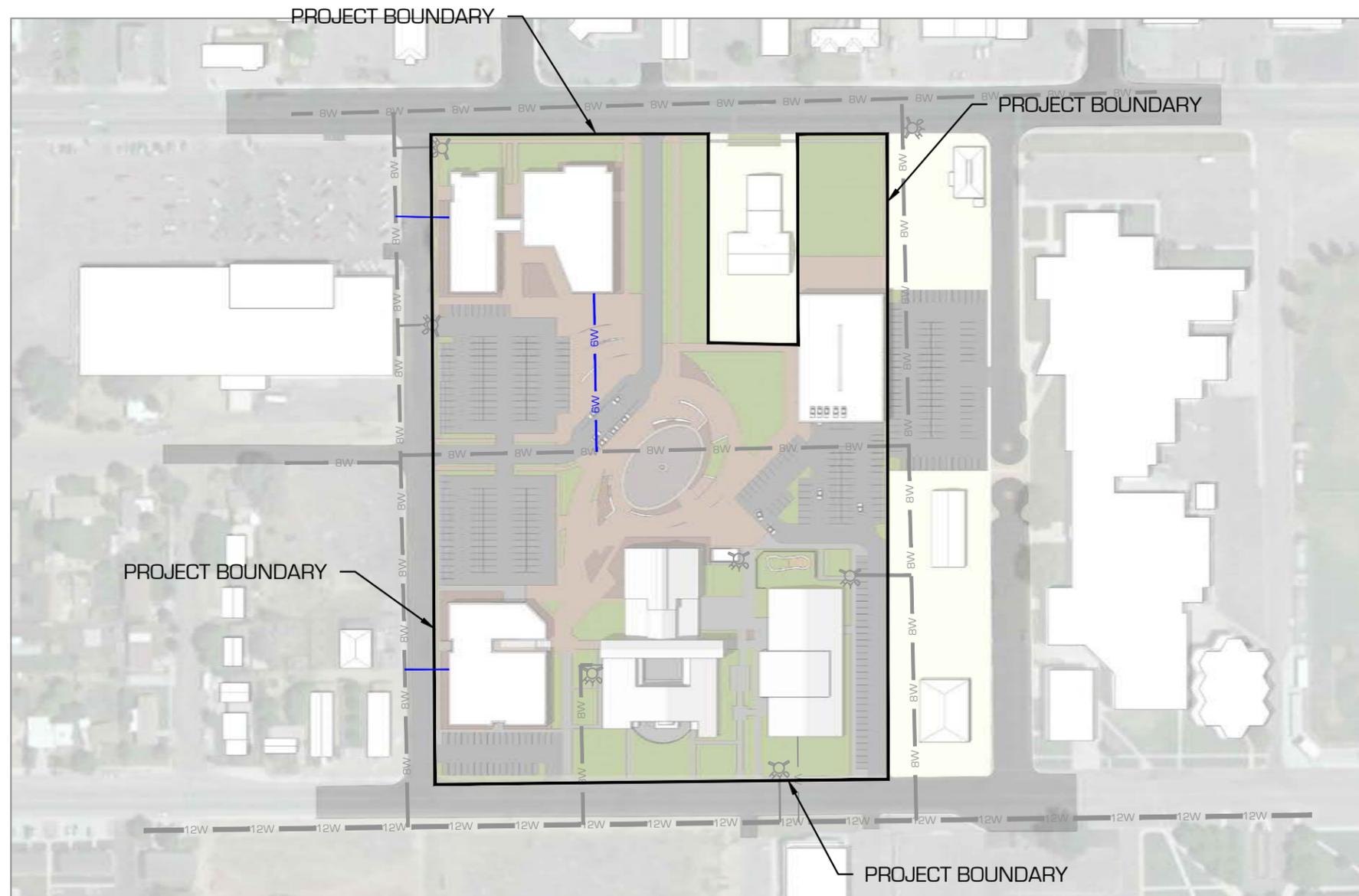


Section XX showing the left turn lane



Utilities Recommendations - Roosevelt

WATER MAP



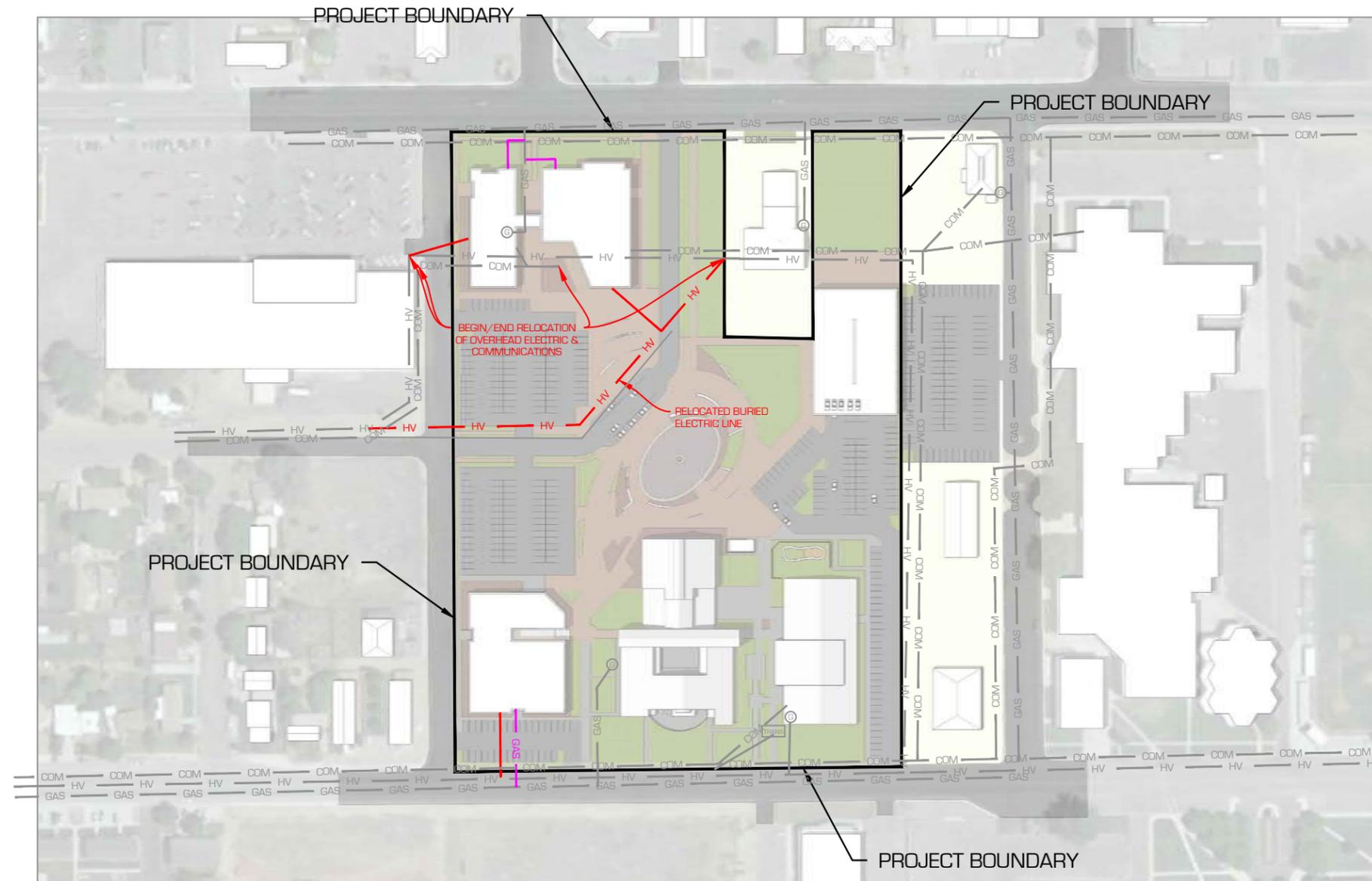
LEGEND

- Existing Water Line (Size Unknown)
- Existing 6 Inch Water Main Line
- Existing 8 Inch Water Main Line
- Existing 12 Inch Water Main Line
- Existing Fire Hydrant
- Existing Water Valve
- PROPOSED 6 INCH WATER MAIN LINE
- PROPOSED WATER VALVE

GENERAL NOTES:

FIELD MEASUREMENT OF WATER INFRASTRUCTURE WAS NOT INCLUDED IN THIS PROJECT SCOPE. LOCATION OF WATER INFRASTRUCTURE IS APPROXIMATE BASED UPON AVAILABLE DATA.

GENERAL UTILITIES MAP



LEGEND

- HV — HV — HV — HV — Existing HV Power Line
- GAS — GAS — GAS — GAS — Existing 2 Inch Gas Line
- GAS — GAS — GAS — GAS — Existing Gas Service
- Ⓞ Existing Gas Meter
- COM — COM — COM — COM — Existing Communications Line
- TRANS Existing Transformer Box
- HV — HV — HV — HV — PROPOSED POWER SERVICE
- HV — HV — HV — HV — PROPOSED BURIED HV POWER LINE
- GAS — GAS — GAS — GAS — PROPOSED GAS SERVICE

GENERAL NOTES:

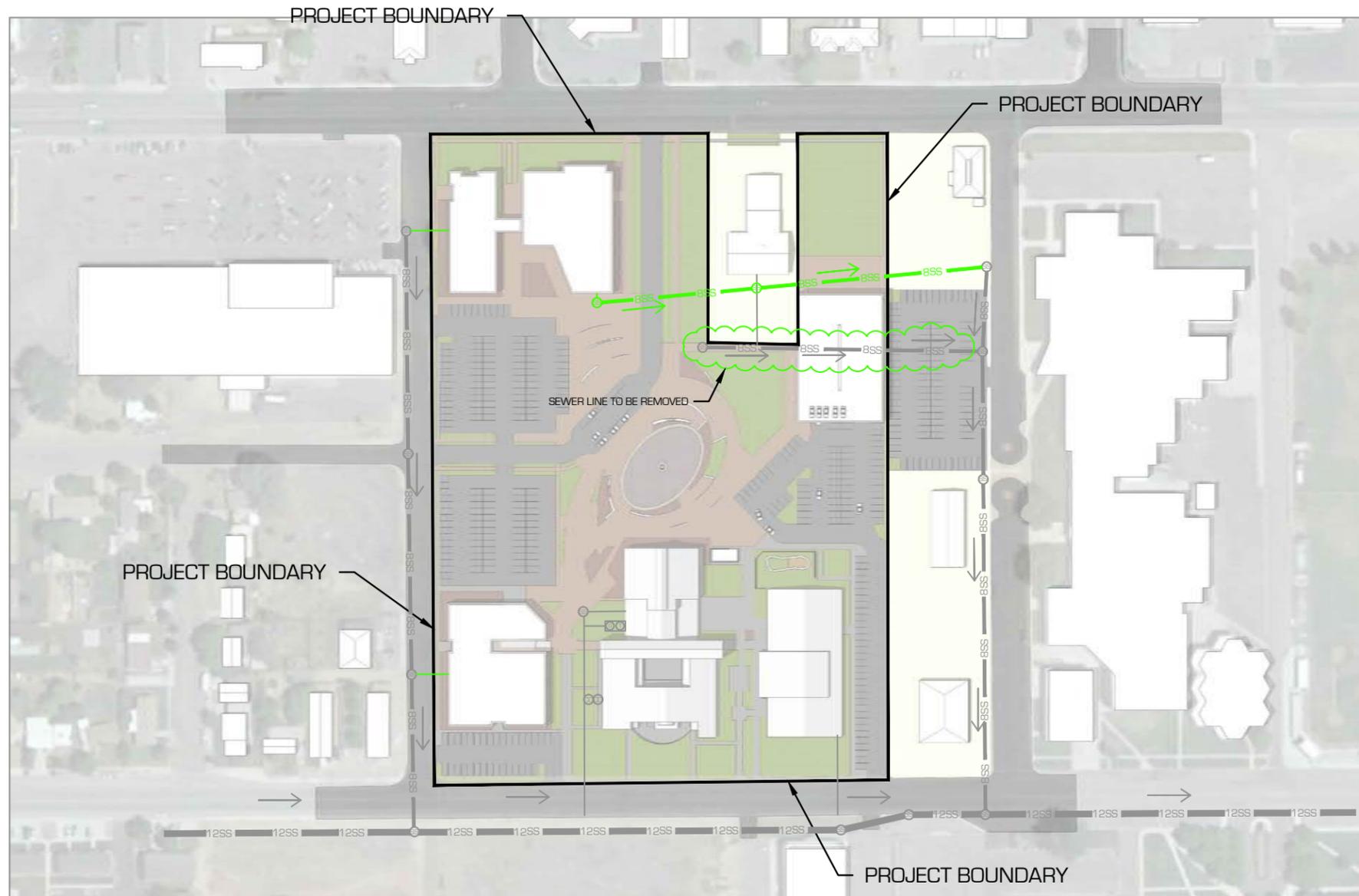
FIELD MEASUREMENT OF GENERAL UTILITY INFRASTRUCTURE WAS NOT INCLUDED IN THIS PROJECT SCOPE. LOCATION OF UTILITY INFRASTRUCTURE IS APPROXIMATE BASED UPON AVAILABLE DATA.

Utilities Recommendations - Roosevelt

SEWER MAP

LEGEND

-  Existing Sewer Service
-  Existing 8 Inch Sewer Line
-  Existing 12 Inch Sewer Line
-  Existing Sewer Manhole
-  Existing Grease Trap
-  Existing Sewer Cleanout
-  Existing Flow Direction
-  PROPOSED SEWER SERVICE
-  PROPOSED SEWER MANHOLE
-  PROPOSED FLOW DIRECTION



GENERAL NOTES:

FIELD MEASUREMENT OF SEWER MANHOLE DEPTH AND LOCATION ALONG WITH SEWER MAIN SLOPE WAS NOT INCLUDED IN THIS PROJECT SCOPE. LOCATION OF SEWER MAIN IS APPROXIMATE BASED UPON AVAILABLE DATA.

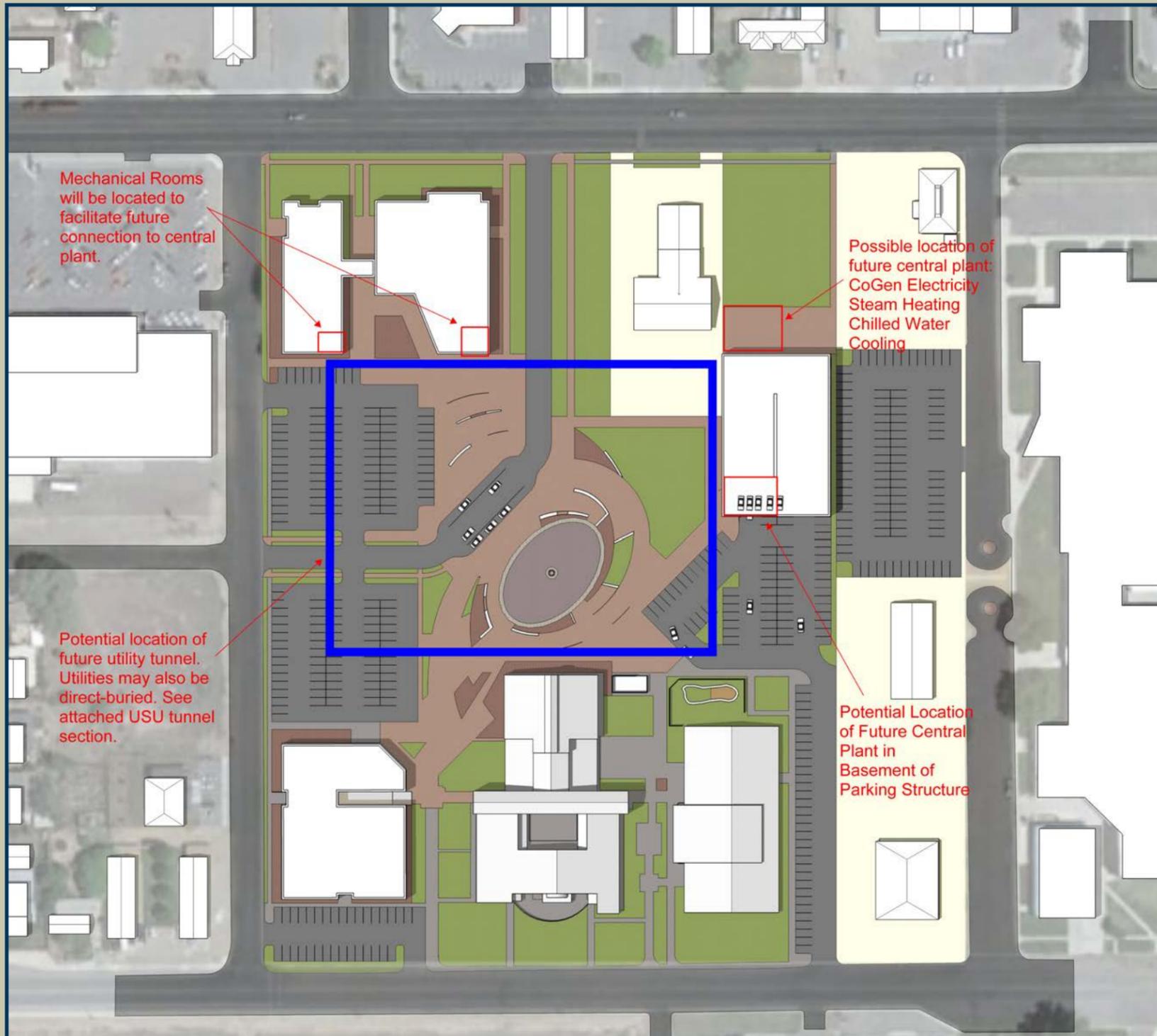
Mechanical

A mechanical analysis based on the master plan concept drawings, does not point to any issues that would adversely affect separate mechanical systems for each building at the USU Roosevelt Campus (a plan has been generated depicting a potential future central plant, however due to the low load densities, **the full benefits of a central plant will not be realized on the Roosevelt Campus**).

District heating and cooling are best used in applications where:

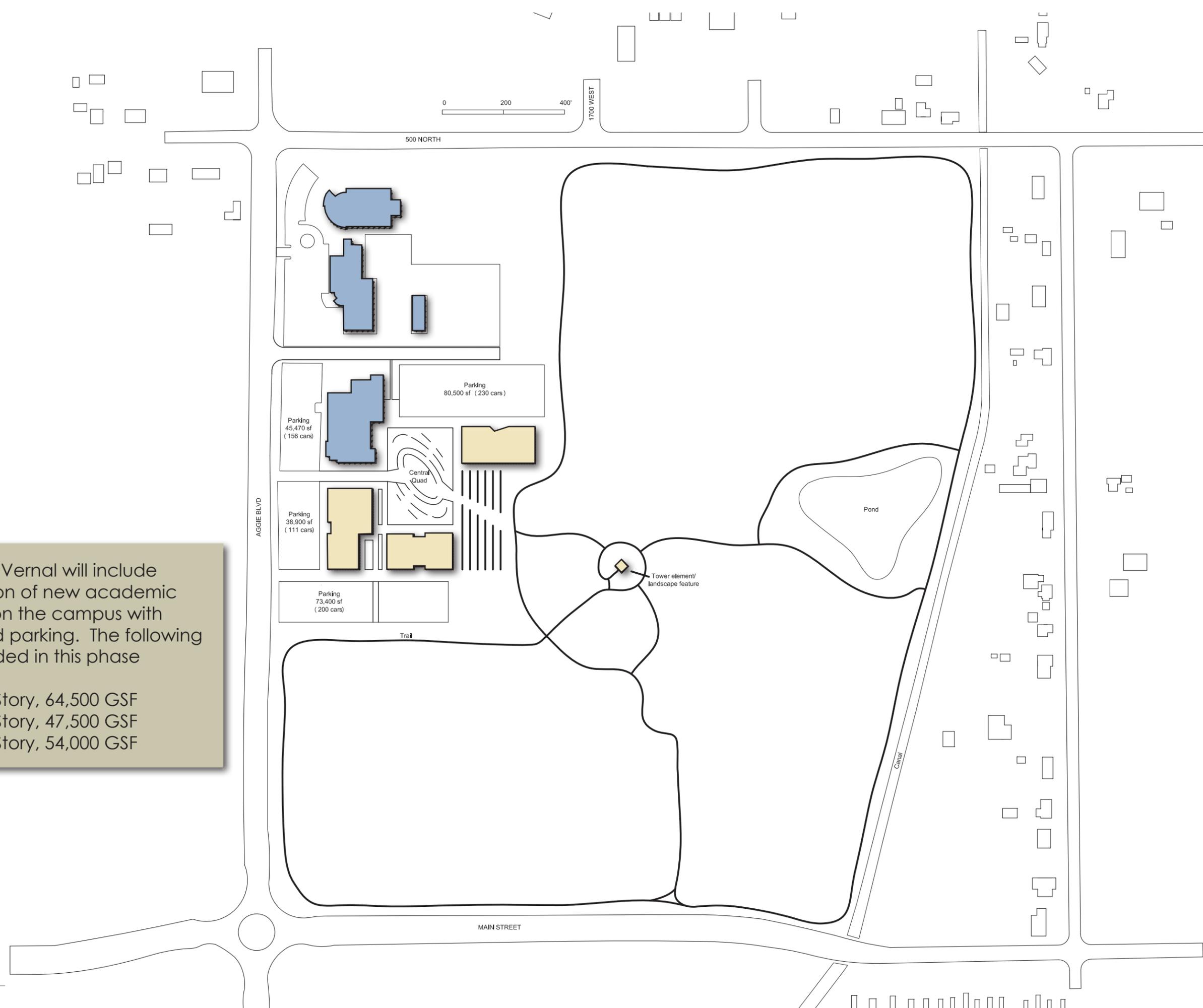
1. The thermal load density is high (i.e. high building density) and
2. When the annual load factor is high.

(See more of this discussion under the Vernal campus mechanical analysis)



Phase 1 in Vernal will include the addition of new academic buildings on the campus with associated parking. The following will be added in this phase

- 2 Story, 64,500 GSF
- 2 Story, 47,500 GSF
- 2 Story, 54,000 GSF



Vernal - Phase 1

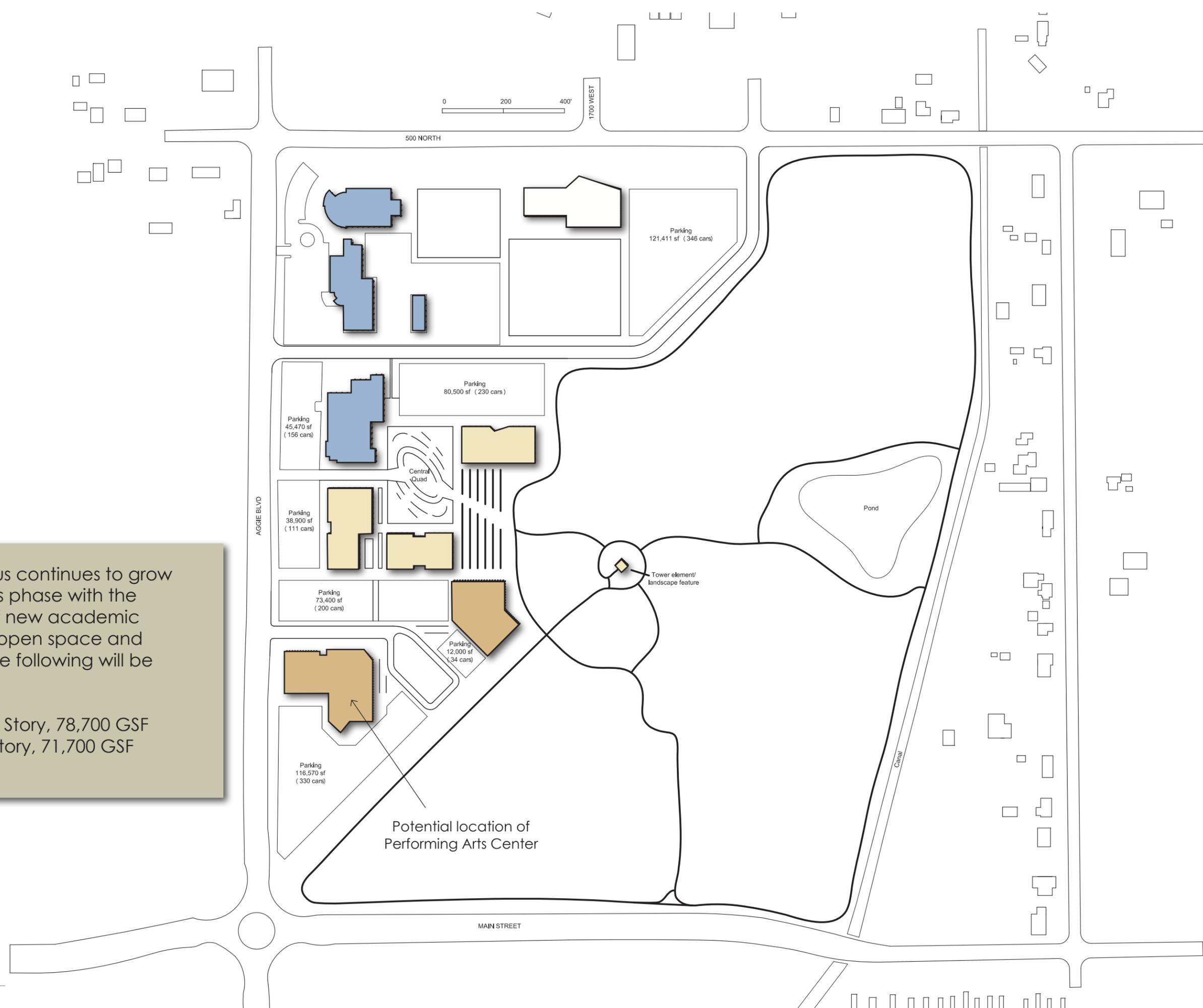
Year 2030



- Existing buildings
- Phase 1 buildings

The campus continues to grow south in this phase with the addition of new academic buildings, open space and parking. The following will be added:

- 1.5 Story, 78,700 GSF
- 2 Story, 71,700 GSF



Vernal - Phase 2

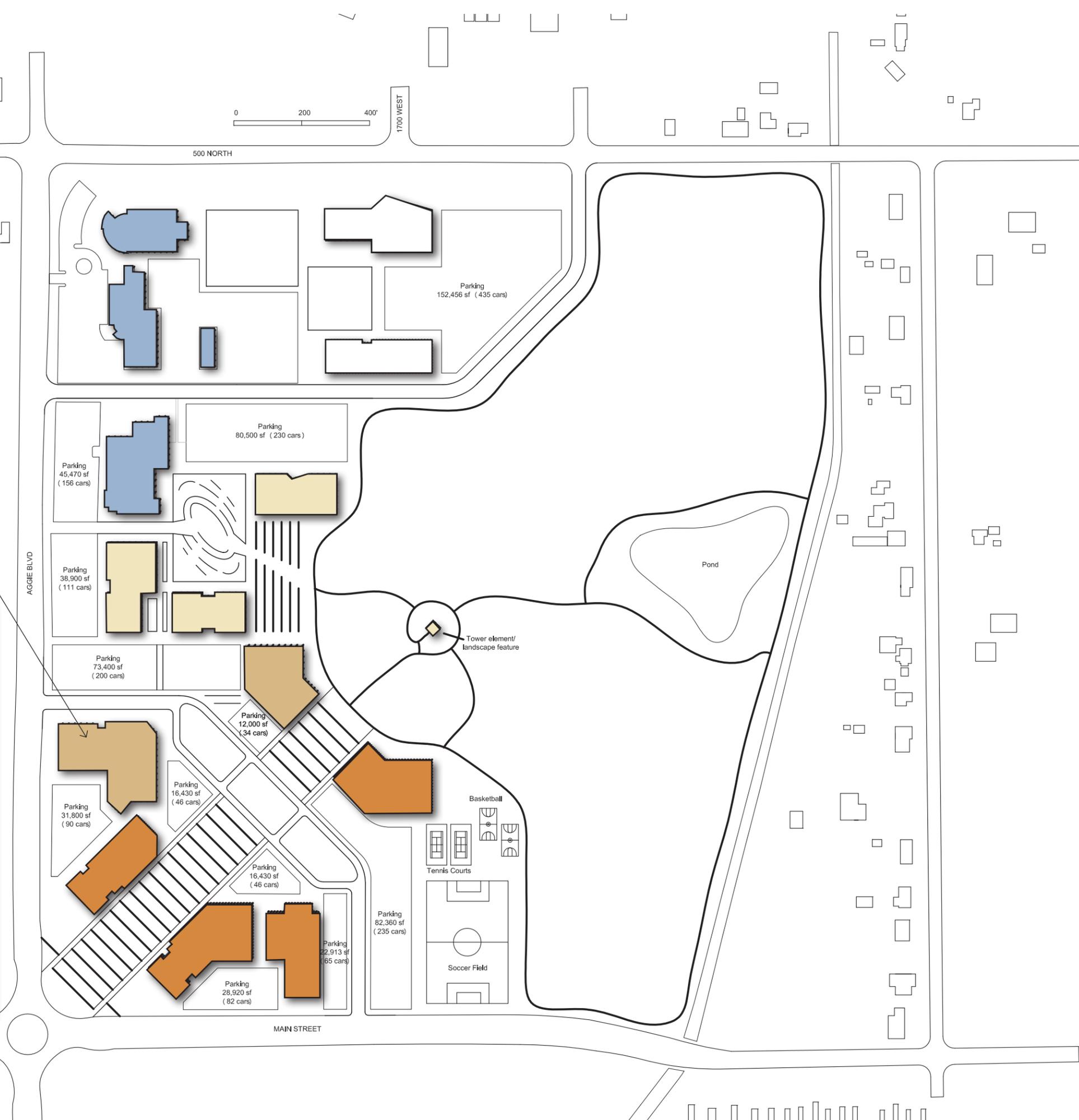
Year 2045



In this phase the campus grows to hug Main St. and the roundabout. This is envisaged to be the full buildout for ample open space preservation, even though there is still more holding capacity on the site. This phase can accommodate two community buildings (if needed) on the site.

- 2 Story, 66,000 GSF
- 2 Story, 90,400 GSF
- 2 Story, 66,600 GSF
- 2 Story, 81,380 GSF

Potential location of Performing Arts Center



Vernal - Phase 3

Year 2060



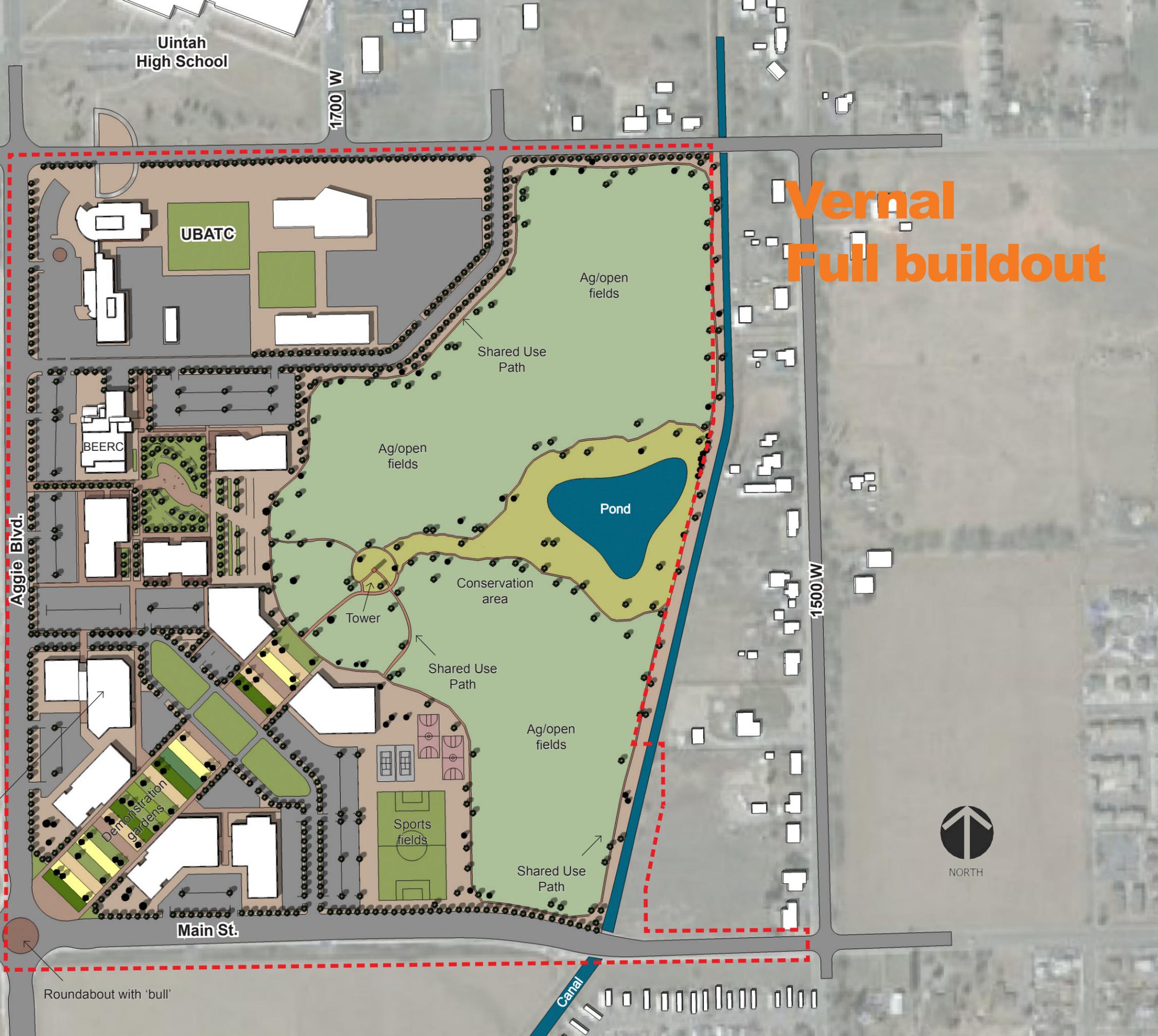
- Existing buildings
- Phase 1 buildings
- Phase 2 buildings
- Phase 3 buildings

If the Vernal Campus location develops as outlined, the following resources will be available. These numbers do not include the ATC or planned ATC Growth. (The UBATC leases land from the USU Uintah Basin Campus.)

- 715,000 New GSF
- 808,000 Total GSF
- 1,295 Parking Stalls

This campus may accommodate more students than is expected in Phase 3. However, additional square footage has been included to accommodate other uses that might materialize on campus. These may be shared community buildings or partnerships with private developers. Alternatively, this plan may represent a longer term growth strategy or faster than anticipated student growth.

Potential location of a Performing Arts Center

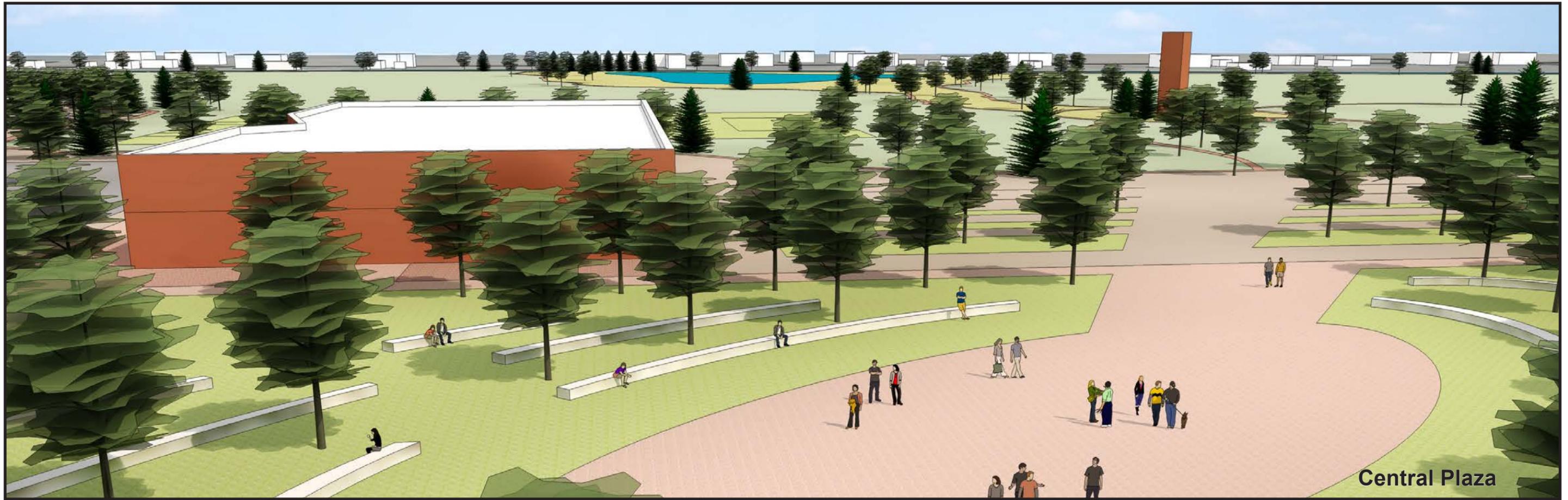


Vernal Full buildout





View from West



Central Plaza



View from East

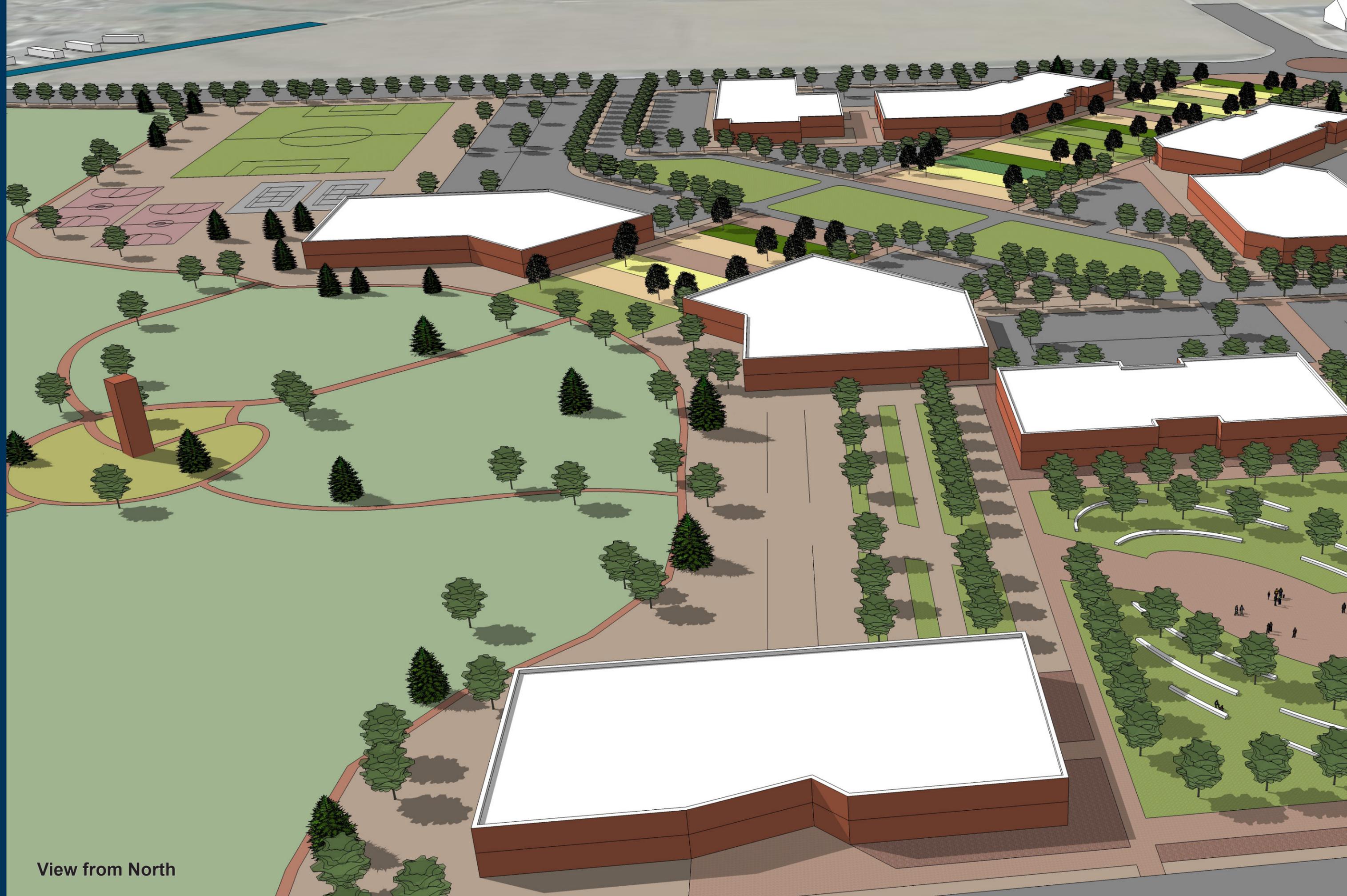


Aggie Blvd.

Main St.

View from Southwest

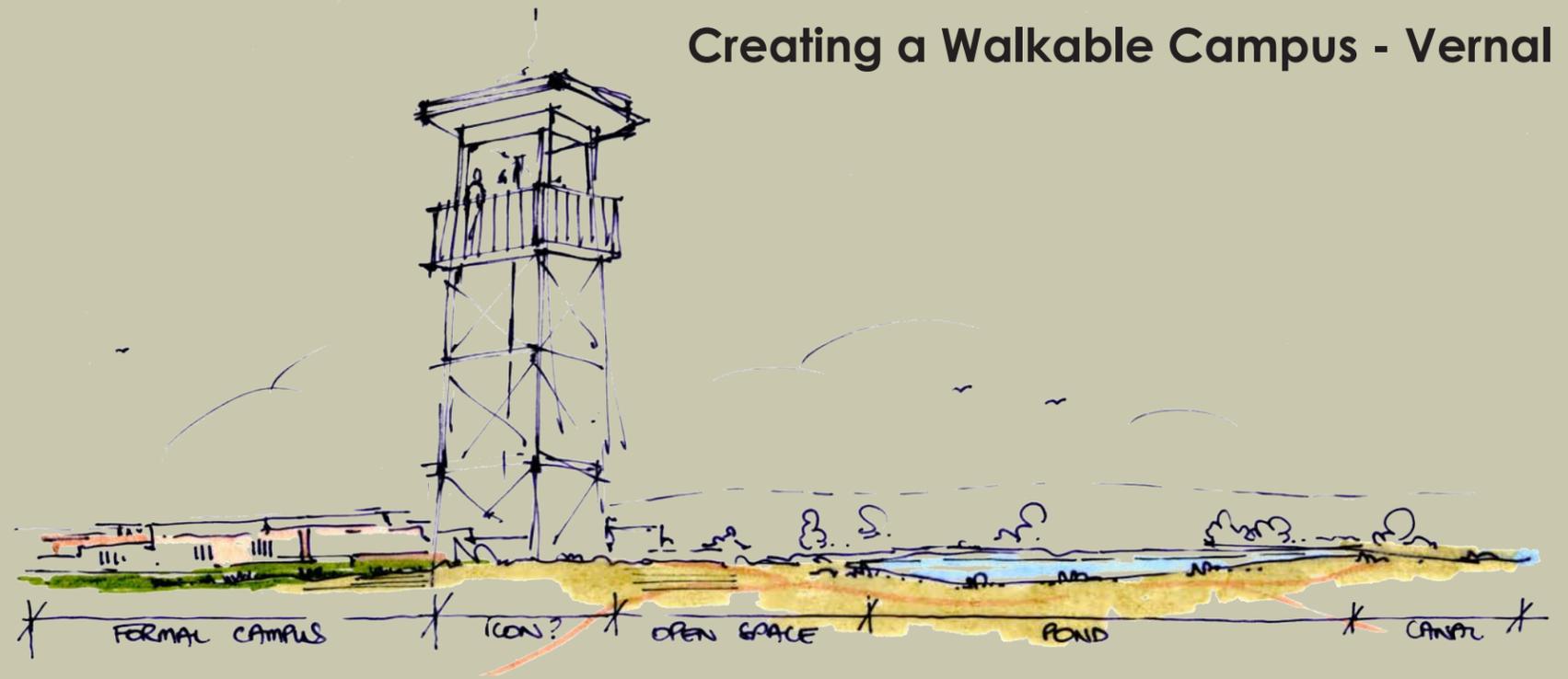
ILLUSTRATIVE PLAN



View from North



Creating a Walkable Campus - Vernal



The development of a walkable campus is key to the development of the Vernal Campus site. With 140-acres, the site has room for expansion for many decades to come. In the meantime, creating a site that reflects best practices of USU and provides opportunities for all users to access the site are important. The illustrative plan indicates the development of a trail system, site enhancements, pond access, outdoor teaching opportunities, native gardens, agricultural functions and enhancements of the streetscape. Each of these site development ideas will add to the vibrancy, and activity while illustrating land use best practices.

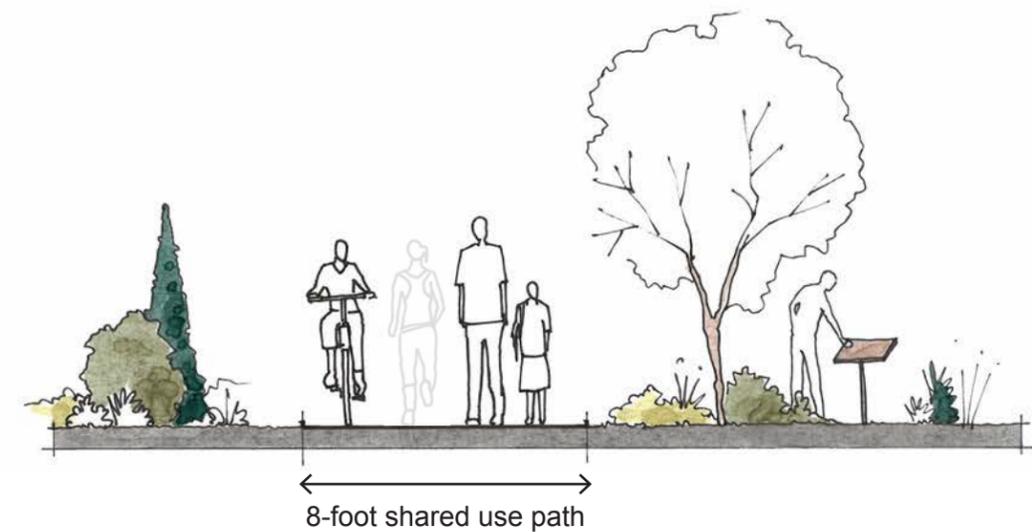
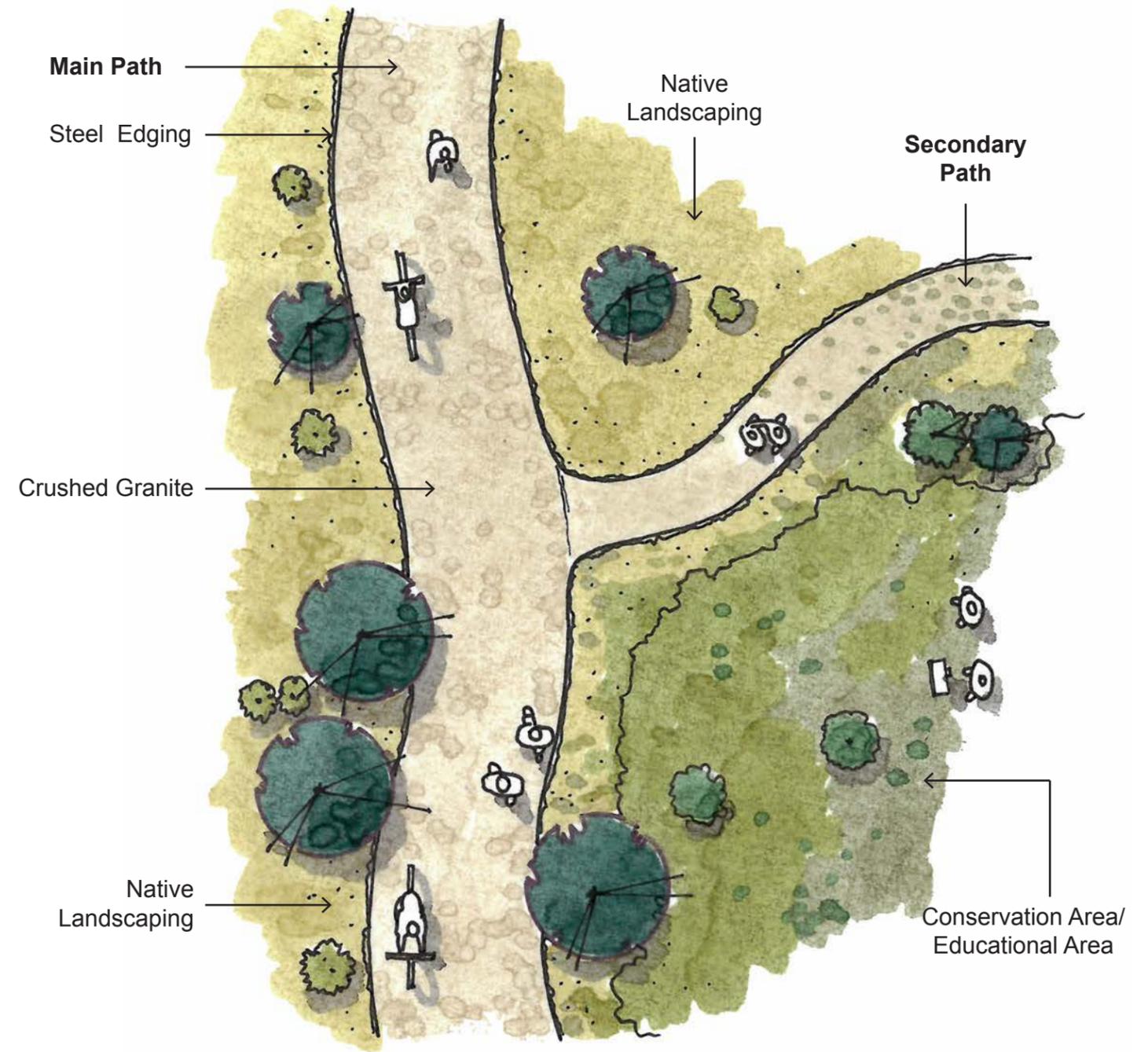
Located at a focal point of the Vernal Campus, a central tower element will serve as a beacon to connect visitors to the landscape of the Uintah Basin and the USU campus. This architectural element should be simple in form, but durable in aesthetic and construction. It gives the campus an iconic element that can be a draw that leads the visitor off of the heavily traveled pedestrian paths of the academic core of campus out into the diverse landscape of the eastern campus.

On the way to the pond, which borders the eastern property line, the tower can also serve as a feature around which additional landscape elements, such as seating, plaza or paths may converge. Its light and airy structure should draw the visitor up to see the view, but be grounded in the site and tie into the design elements prevalent in the architectural design guidelines.

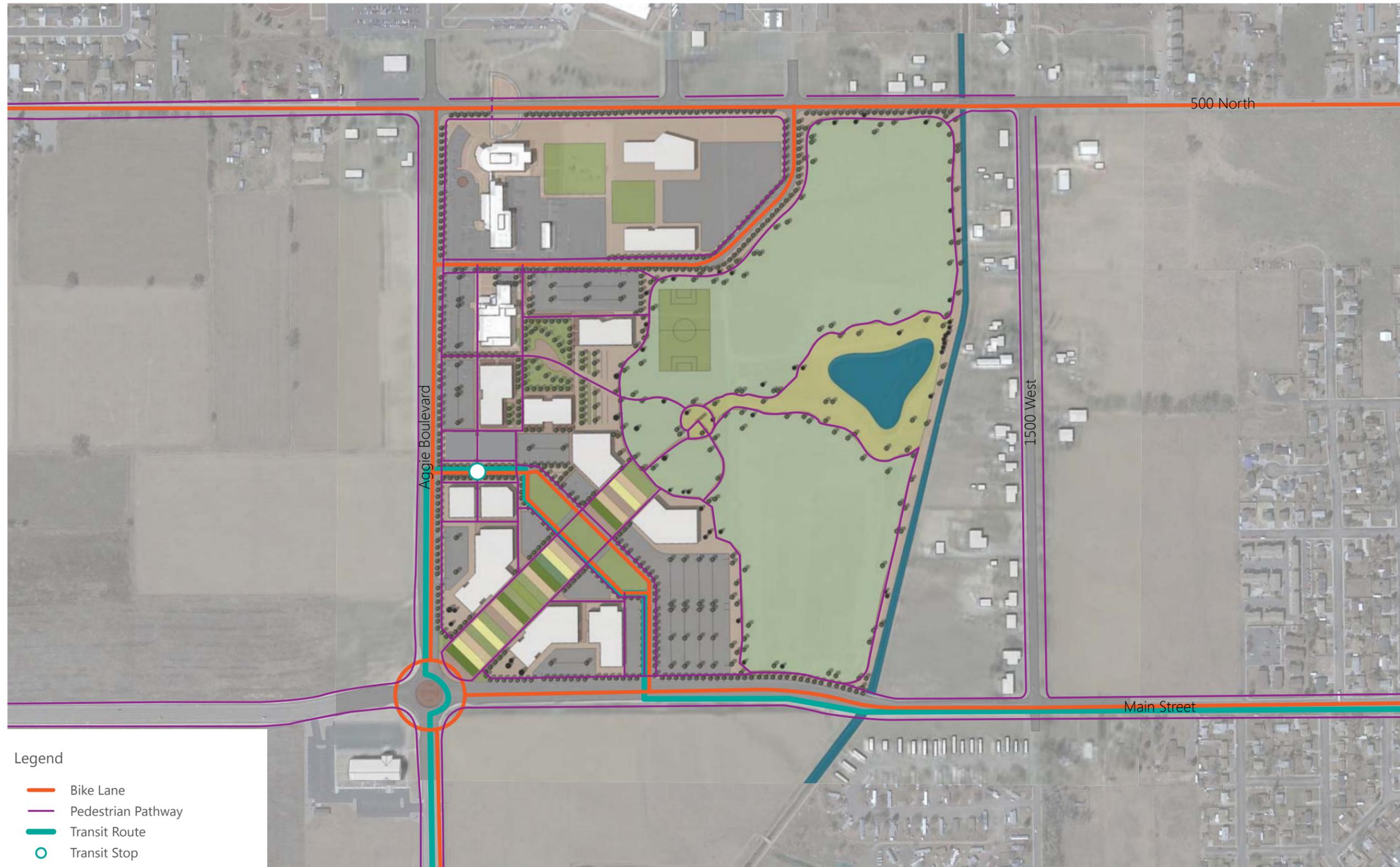
More discussion on some of these elements can be located in the Landscape Guidelines section (Page 108) of this document.

Shared Use Path - Vernal

Sample Use Photos



Transportation Recommendations - Vernal



Transportation Recommendations - Vernal

CAMPUS ENTRANCES

There are four entrances to campus – one on 500 North, two on Aggie Boulevard, and one on Main Street. These entrances serve pedestrians, bicyclists, and vehicles. In addition, there are bicycle and pedestrian accesses on the intersection of Aggie Boulevard and Main Street and from the trail on the eastern side of the campus (which can access main campus through new pathways).

VEHICULAR CIRCULATION

The proposed Vernal campus will have two internal roadways, one connecting Aggie Boulevard to 500 North and one connecting Aggie Boulevard to Main Street.

ROADWAY SIZES

Cross-sections were determined based on context, circulation routes, and parking access. The northernmost internal roadway (cross-section 'XX') accesses parking and may be used by bicyclists as a connection between the main portion of campus and destinations to the north, west, or east. It is recommended that bicycle lanes be accommodated on both sides of the street. A center left-turn lane will allow for more efficient and safer parking access. Where parking access is not an issue, the left-turn lane can be converted to a landscaped center median (cross-section 'YY').

The internal roadway from Aggie Boulevard to Main Street provides access through the heart of campus. On this roadway, sidewalks should be wider as they will accommodate more pedestrian traffic, and bicycle lanes should also be provided. This roadway should be a two-lane roadway, with either a raised median or a center turn lane near parking access. The cross-section 'ZZ' shows the roadway concept near the linear park/roundabout.

BICYCLE AND PEDESTRIAN ROUTES

Currently, there are no bicycle facilities around campus. There are currently sidewalks on Main Street, Aggie Boulevard, and 1500 West. Crosswalks are located on the north and south side of the intersection of 500 North and Aggie Boulevard, at the intersection of 500 North and 1500 West, on the west side of the intersection of Main Street and 1500 West, at the roundabout at Main Street and Aggie Boulevard. An underpass connects Uintah High School and the Vernal campus at 500 North.

Internal to campus, pedestrians will be well connected through plazas, walkways, and a series of walking trails that will provide access between the eastern portion of campus and the main core of campus. As the campus expands, bicycle lanes on all adjacent roads and on major corridors to campus should be implemented, as shown in the cross sections above, and extend to connect

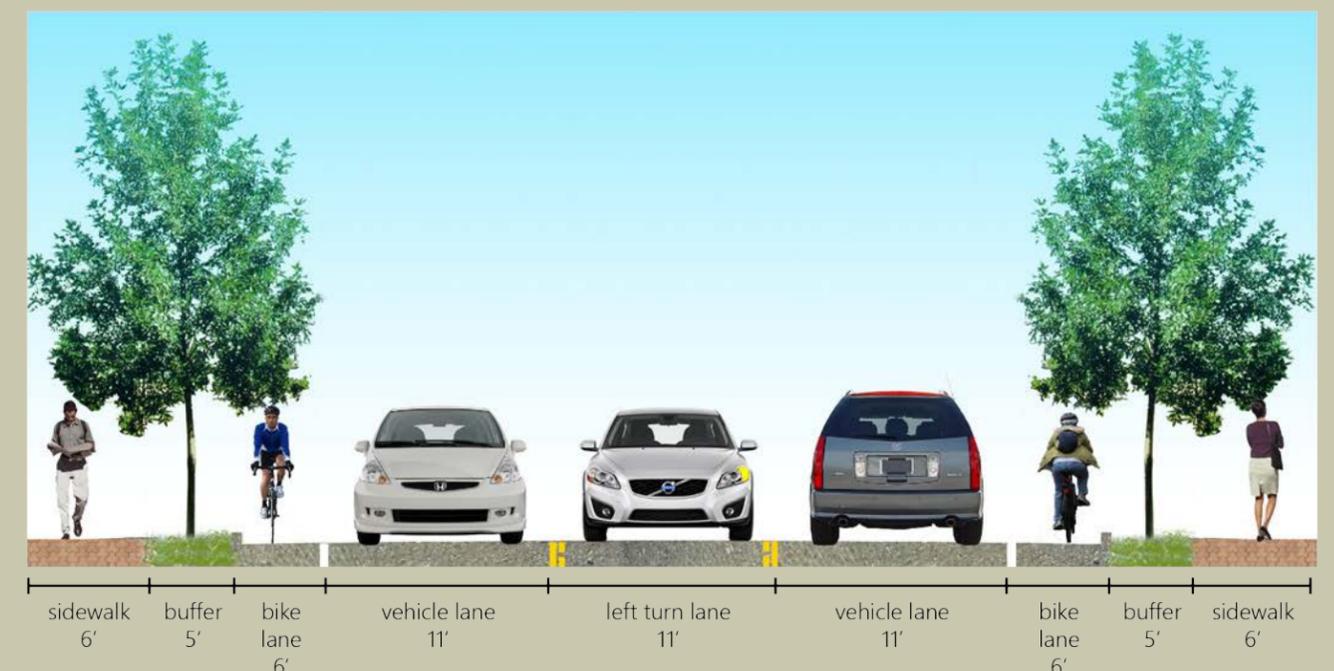
population and commercial centers. These facilities should be provided on 500 North, 1750 West, and Main Street. The City and University should work together to determine a city-wide bicycle network that would provide the safest routes to campus beyond the immediate campus area, with a focus on crossing US-40. Bicycle routes leading to the USU Campus have the added benefit of providing access to Uintah High School. A sidewalk should be constructed on 500 North near campus and additional crosswalks be striped on all approaches of intersections, including at access points to the campus.

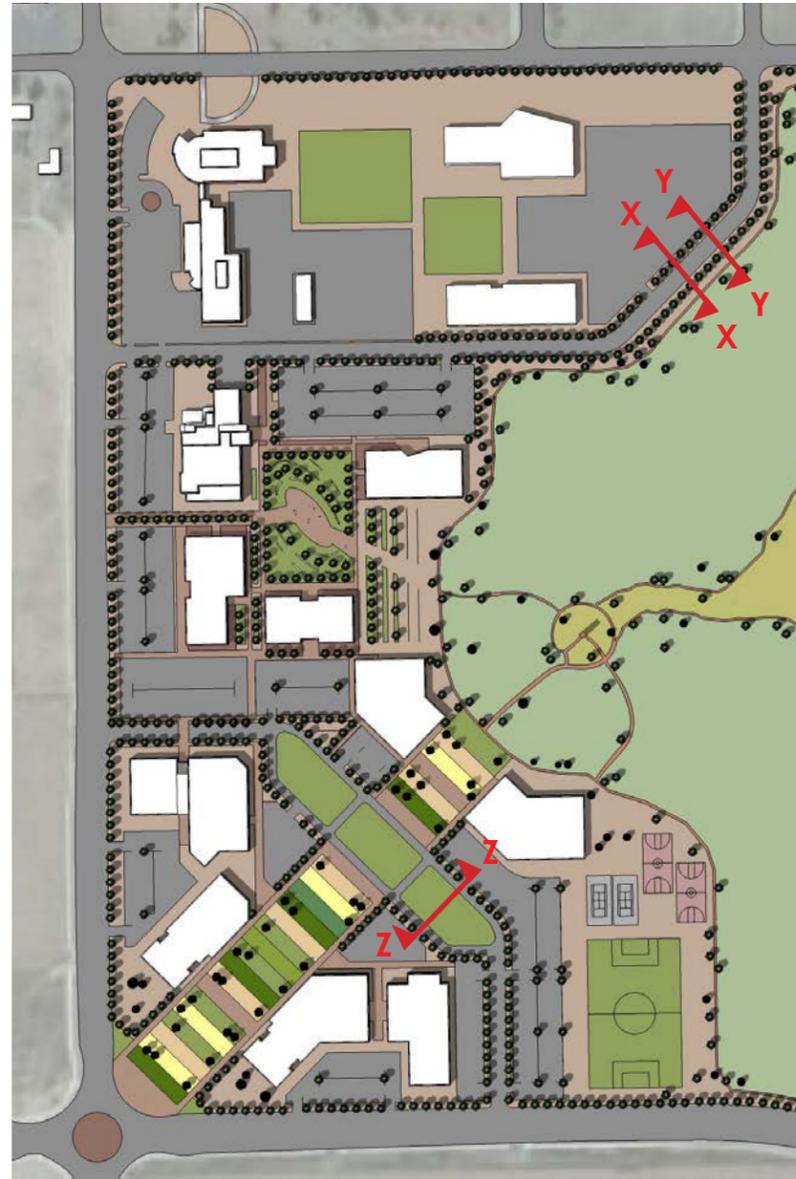
Bike racks should be placed at entrances to buildings, plazas, and other major destinations. Covered bike parking should be provided at major entrances to buildings.

TRANSIT

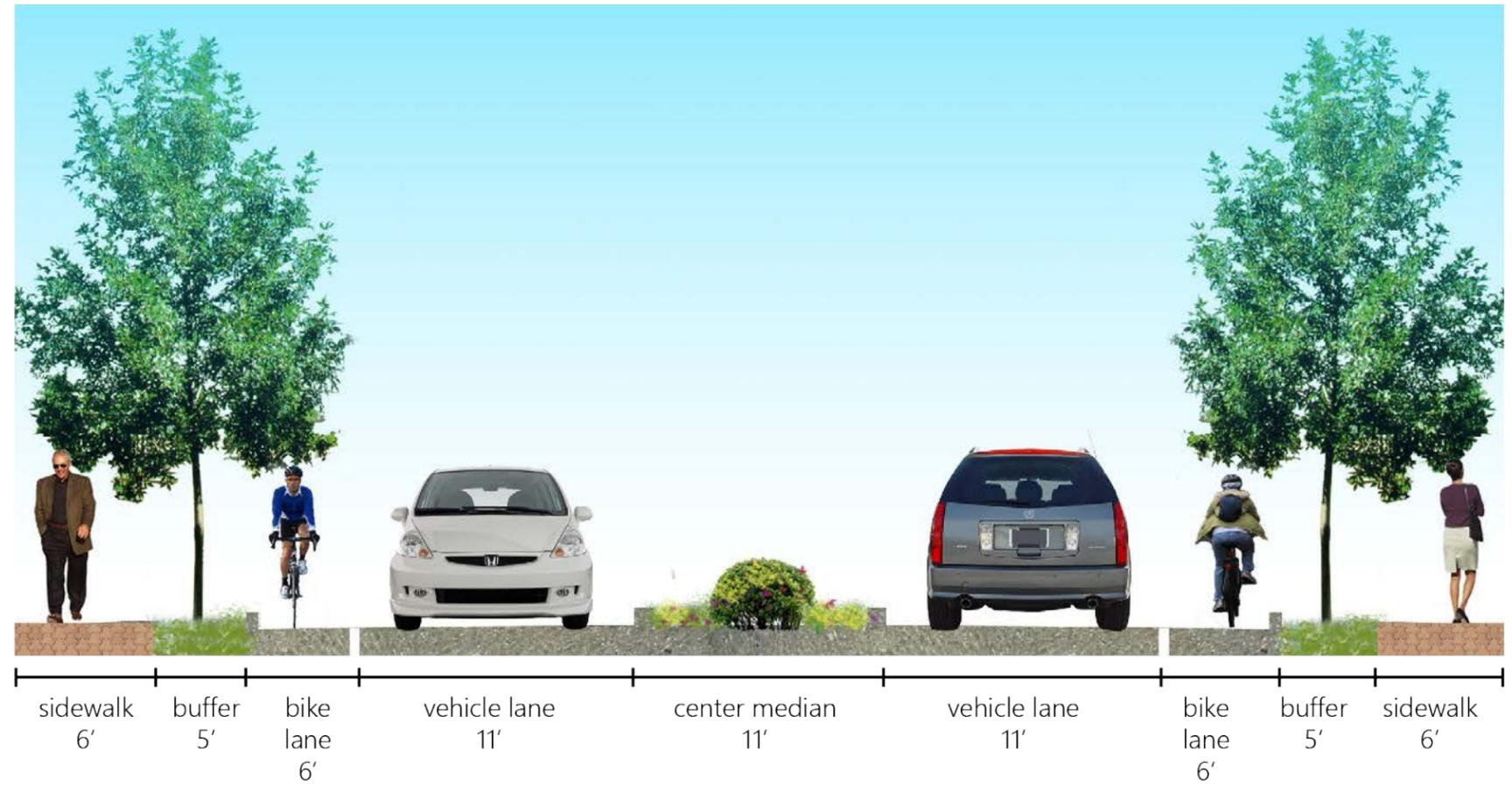
The Vernal campus is currently served by Basin Transit Association with a stop on Aggie Boulevard. Because this stop mainly serves the UBATC and USU campuses, it is recommended that in the future the stop be moved internal to campus. Although moving the stop to either internal roadway would work, the tradeoffs between better service to USU or the UBATC would need to be understood and weighed. The routes that serve this stop, the Green and Red Routes, could easily be altered to either internal roadway. In addition, moving the stop to the southern internal road could result in travel time savings by reducing out of direction travel. It is also recommended that headways on routes that serve the Vernal campus be reduced as the campus population grows to make transit a more viable option. Currently, transit operates on one- and two-hour headways.

Section XX showing left turn lanes

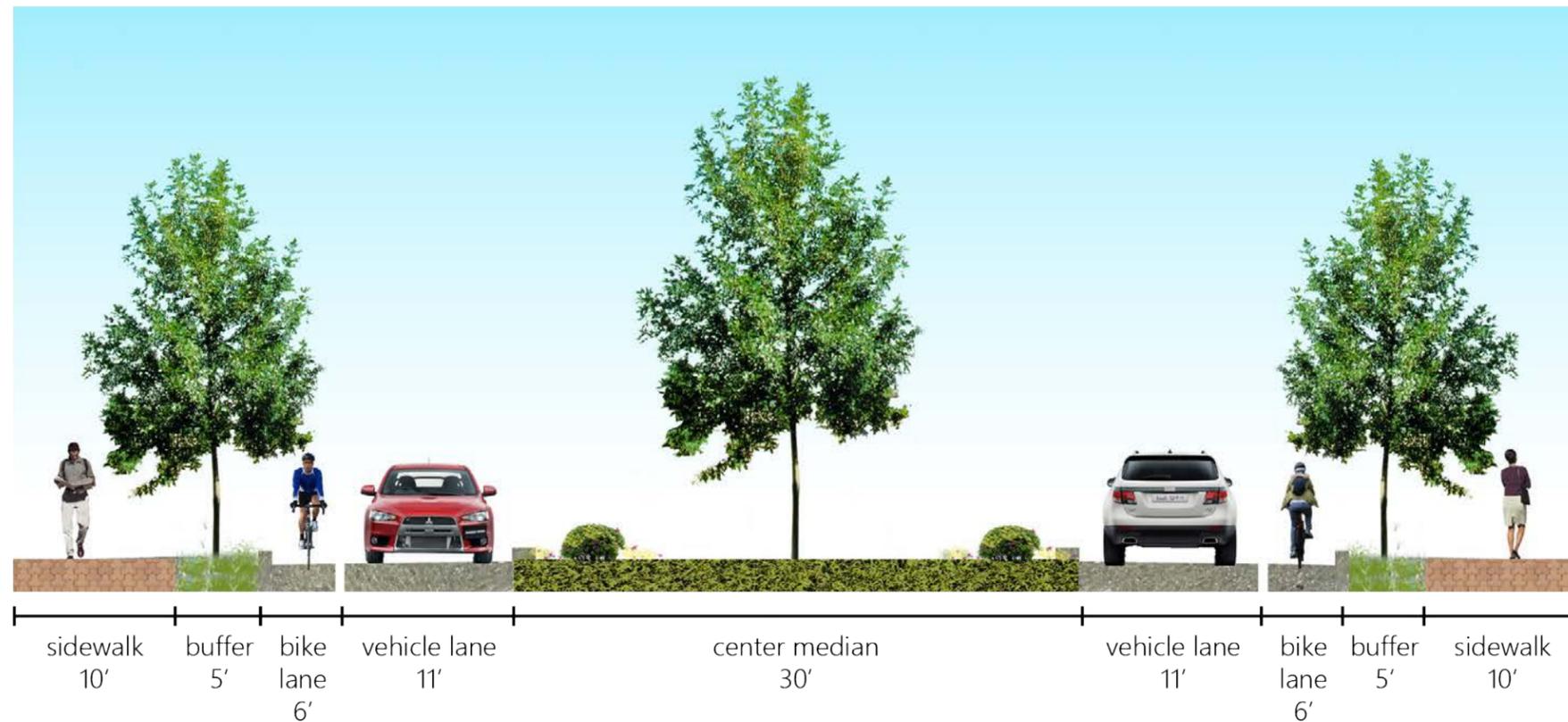




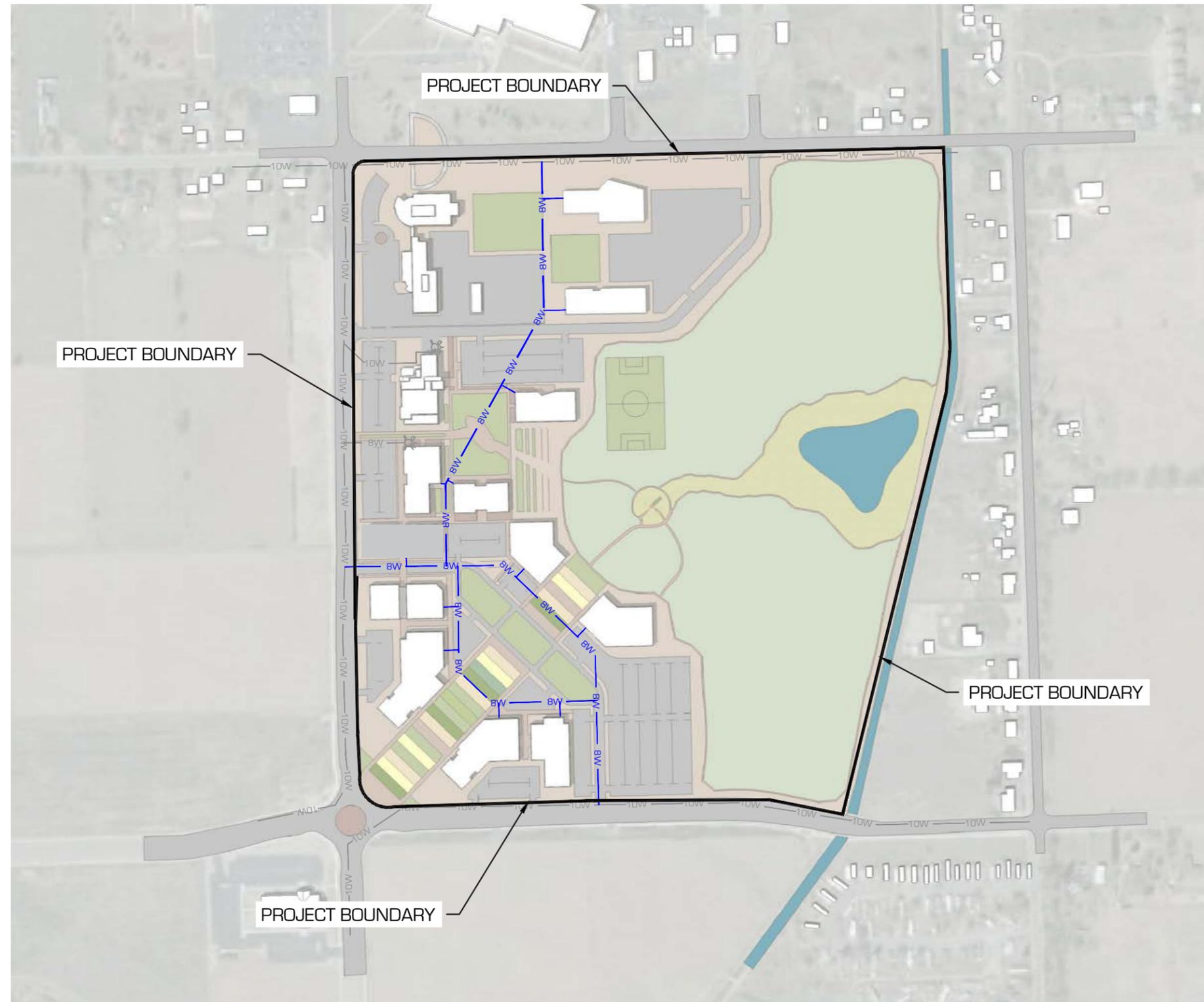
Section YY showing landscaped median



Section ZZ showing linear park



Utilities Recommendations - Vernal



WATER MAP

LEGEND

- 8W — 8W — 8W — 8W — Existing 8 Inch Water Line
- 10W — 10W — 10W — 10W — Existing 10 Inch Water Line
-  Existing Fire Hydrant
- 6W — 6W — 6W — 6W — PROPOSED 6 INCH WATER LINE
- 8W — 8W — 8W — 8W — PROPOSED 8 INCH WATER LINE

GENERAL NOTES:

FIELD MEASUREMENT OF WATER INFRASTRUCTURE WAS NOT INCLUDED IN THIS PROJECT SCOPE. LOCATION OF WATER INFRASTRUCTURE IS APPROXIMATE BASED UPON AVAILABLE DATA.



SEWER MAP

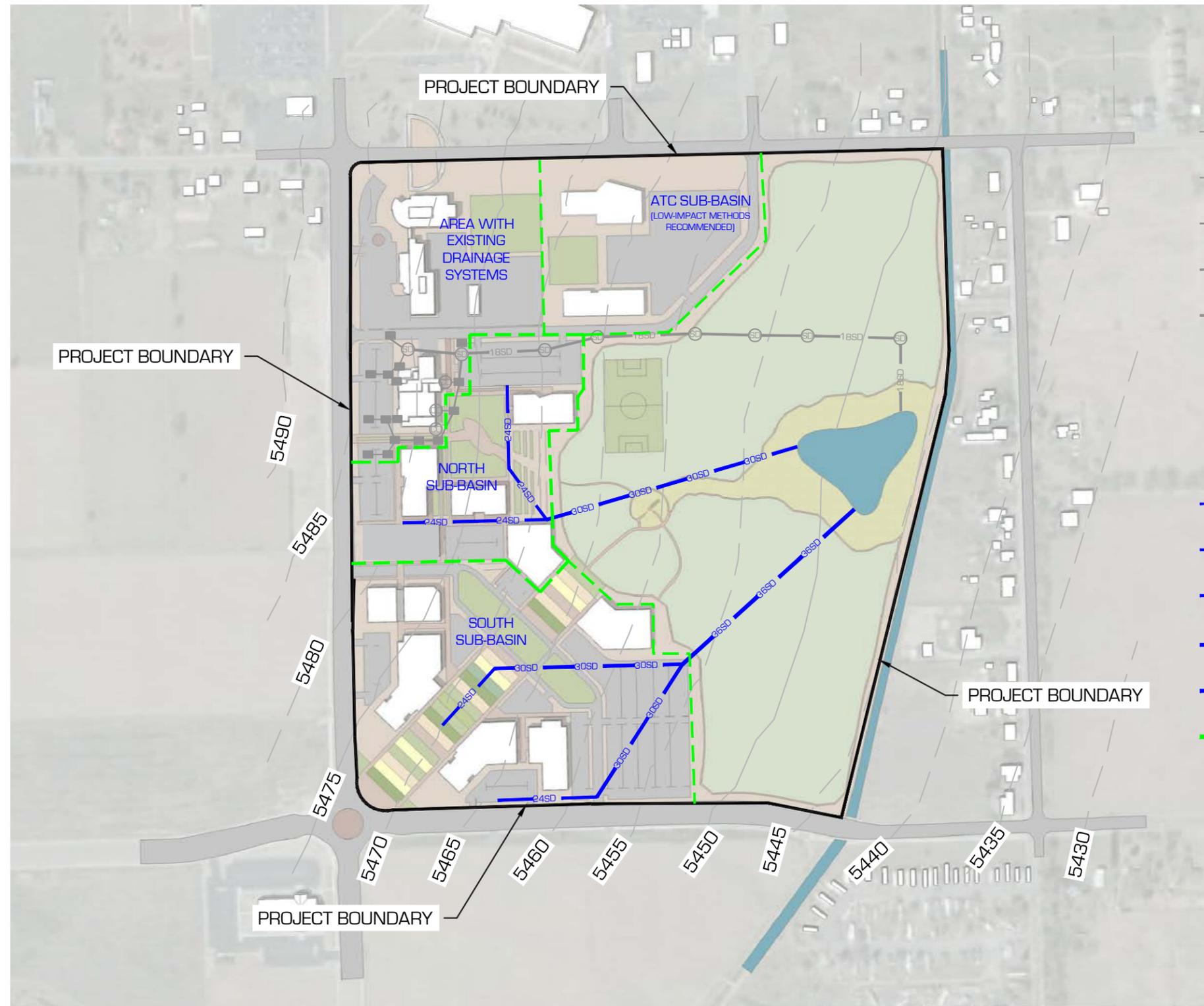
LEGEND

- Existing Sewer Service
- 6SS—6SS—6SS—6SS— Existing 6 Inch Sewer Line
- 8SS—8SS—8SS—8SS— Existing 8 Inch Sewer Line
- 12SS—12SS—12SS—12SS— Existing 12 Inch Sewer Line
- ⊙ Existing Sewer Manhole
- ⊙ Existing Sewer Cleanout
- ➔ Existing Flow Direction
- PROPOSED SEWER SERVICE
- 6SS—6SS—6SS—6SS— PROPOSED 8 INCH SEWER LINE
- ⊙ PROPOSED SEWER MANHOLE
- ➔ PROPOSED FLOW DIRECTION

GENERAL NOTES:

FIELD MEASUREMENT OF SEWER MANHOLE DEPTH AND LOCATION ALONG WITH SEWER MAIN SLOPE WAS NOT INCLUDED IN THIS PROJECT SCOPE. LOCATION OF SEWER MAIN IS APPROXIMATE BASED UPON AVAILABLE DATA.

Utilities Recommendations - Vernal



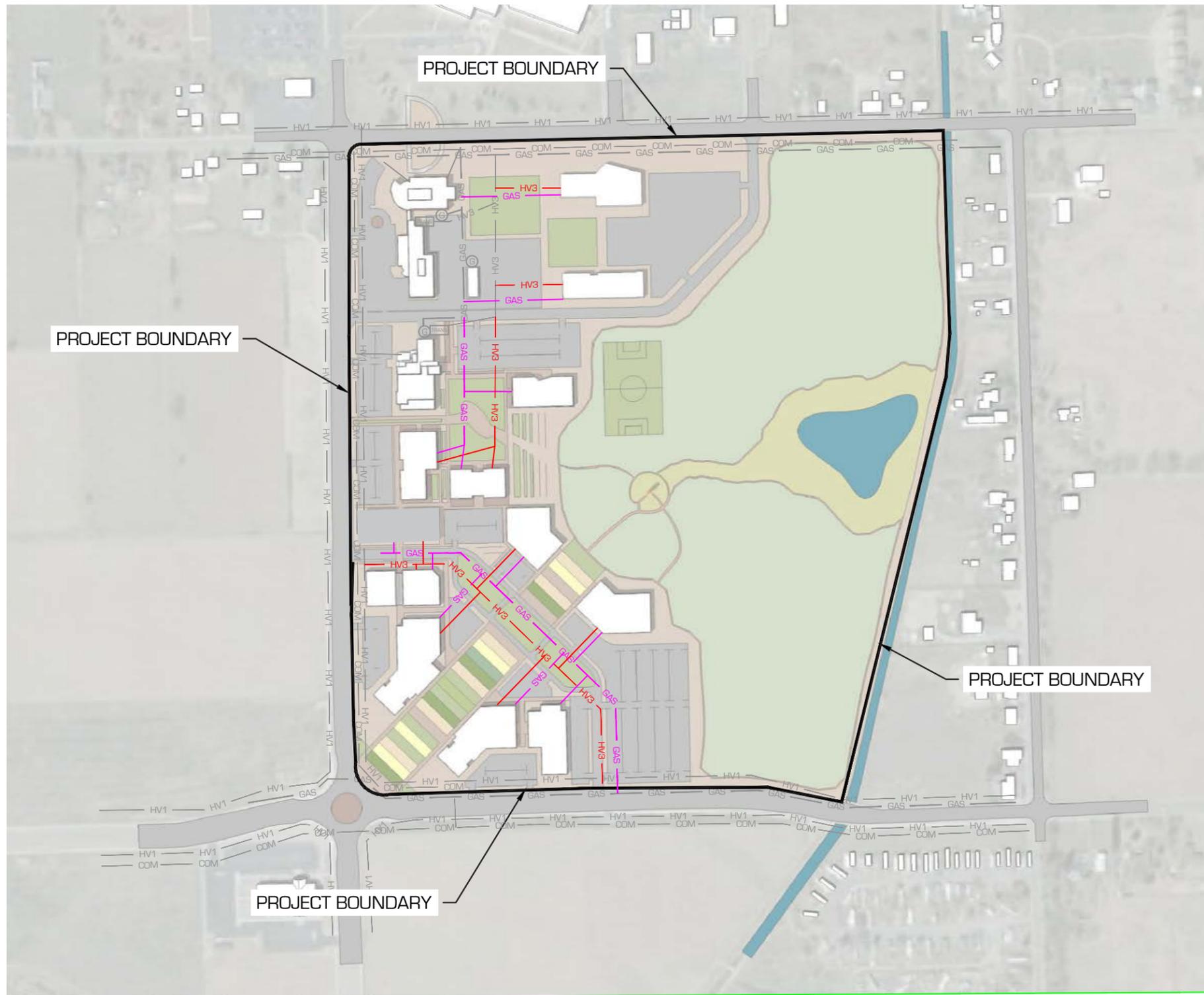
STORM DRAIN MAP

LEGEND

-  Existing 8 Inch Storm Drain Line
-  Existing 10 Inch Storm Drain Line
-  Existing 12 Inch Storm Drain Line
-  Existing 15 Inch Storm Drain Line
-  Existing 18 Inch Storm Drain Line
-  Existing Storm Drain Manhole
-  Existing Catch Basin
-  Existing Clean Out
-  PROPOSED 15 INCH STORM DRAIN LINE
-  PROPOSED 18 INCH STORM DRAIN LINE
-  PROPOSED 24 INCH STORM DRAIN LINE
-  PROPOSED 30 INCH STORM DRAIN LINE
-  PROPOSED 36 INCH STORM DRAIN LINE
-  SUB-BASIN LINE

GENERAL NOTES:

FIELD MEASUREMENT OF STORM DRAIN INFRASTRUCTURE WAS NOT INCLUDED IN THIS PROJECT SCOPE. LOCATION OF STORM DRAIN INFRASTRUCTURE IS APPROXIMATE BASED UPON AVAILABLE DATA.



GENERAL UTILITY MAP

LEGEND

	Existing 1 Phase HV Power Line
	Existing 3 Phase HV Power Line
	Existing 4 Inch Gas Line
	Existing Gas Service
	Existing Gas Meter
	Existing Communications line
	Existing Transformer Box
	PROPOSED 3 PHASE HV POWER LINE
	PROPOSED 4 INCH GAS LINE
	PROPOSED GAS SERVICE

GENERAL NOTES:

FIELD MEASUREMENT OF GENERAL UTILITY INFRASTRUCTURE WAS NOT INCLUDED IN THIS PROJECT SCOPE. LOCATION OF GENERAL UTILITY INFRASTRUCTURE IS APPROXIMATE BASED UPON AVAILABLE DATA.

Utilities Recommendations - Mechanical

The USU Vernal Campus is suited for a central plant. District heating and cooling are best used in applications where:

1. The thermal load density is high (i.e. high building density) and
2. When the annual load factor is high.

Load Density: The high load density is required to cover the capital investment associated for the transmission and distribution system, which usually constitutes most of the capital cost for the overall system (ASHRAE suggests the distribution system typically comprise 50-75% of the total cost associated with district heating and cooling.) A central plant and distribution system that utilizes multiple utilities (Phone, IT, etc. in addition to district heating & cooling) maximizes return on investment.

Load Factor (average power divided by peak power): It is important that the annual load factor be high because the total system is capital intensive. These factors make district heating and cooling systems most attractive in serving high-density building clusters with high thermal loads.

For the above reasons district heating is best suited to areas with high building and population density in relatively cold climates. District cooling applies in most areas that have appreciable concentrations of cooling loads such as schools, laboratories, rec-centers, etc.

Advantages. Central plant systems offer the following advantages:

1. 25% Diversity Factor: Typically the total required capacity of the plant is approximately 75% of the sum of each building's maximum instantaneous demand.
2. Less Capital: Due to economy of scale & diversity, the central plant requires less capital than providing heating and cooling individually at each building. It has been our experience, however, that distribution systems with walkways capable of supporting golf cart support vehicles often offsets the savings associated with the central plant.
3. Operations & Maintenance Staffing & Costs are Reduced: A central plant requires less, and higher trained, personnel. Optimization and continuous and accurate monitoring is practical.
4. Increased Efficiency: Central plants are typically equipped with multiple high efficient water cooled centrifugal chillers. Modern DDC control systems are able to stage chillers for optimum efficiency. For this reason, part load performance and efficiencies are substantially improved. District heating typically does not have an associated efficiency increase but

opportunities for heat reclamation and recovery are greatly improved with a central plant system (see item 5 below.)

5. Green Building Optimization is More Practical: Opportunities for thermal storage, Co-Gen, Heat Recovery, Wind, Solar, Ground Water Heat Rejection, Load Shedding (selective load reduction to maximize utility rates) etc. become more practical when the generation of heating, cooling, and electricity are centralized.
6. Building utility metering: Central plants offer the ability to meter the utilities at each building.
7. Redundancy: Central plants are typically equipped with N+1 redundancy. The loss of a single boiler or chiller typically results in no interruption. Central plants equipped with Co-Gen electricity generation also offer redundancy, typically limited to emergency power.

Disadvantages. Central plant systems typically have the following disadvantages:

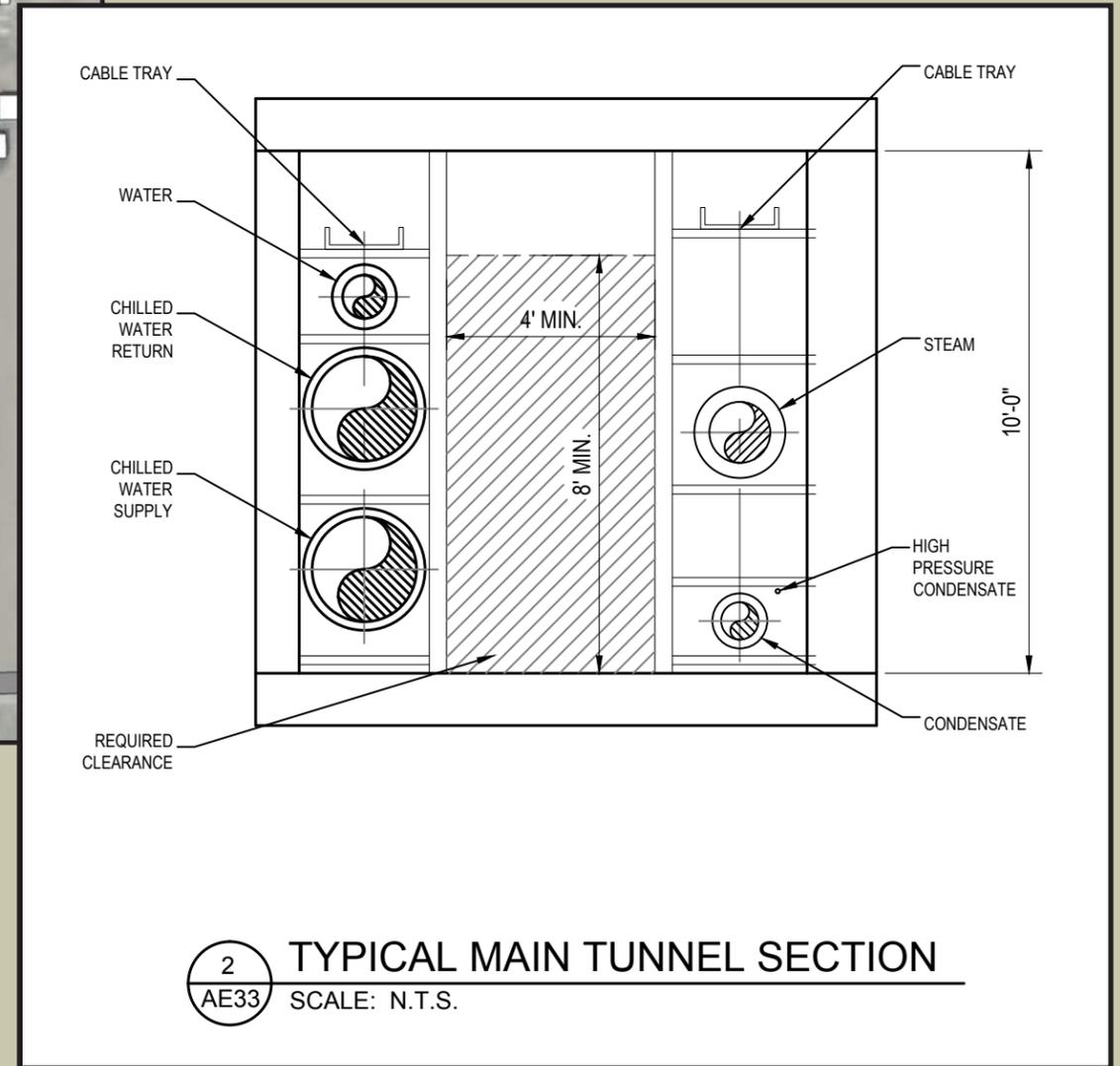
1. Thermal & Hydraulic losses occur in large distribution networks.
2. Initial construction costs require large capital investment.

Vernal Campus Feasibility: The total campus elevation delta is approximately 40-feet and the gradient is gradual. The central plant may therefore be located anywhere on campus without imposing an excessive load on any building. The campus high point is on the north-west corner, with the low point being on the south-east corner. Locating the central plant at the high or low point offers only a slight advantage with steam distribution.

Central Plant Capacity: The anticipated building square footage is 410,427 sq.ft. (46,902 existing and 363,525 future.) When the full capacity of 410,427 sq.ft. is reached the estimated central plant capacities will be as follows:

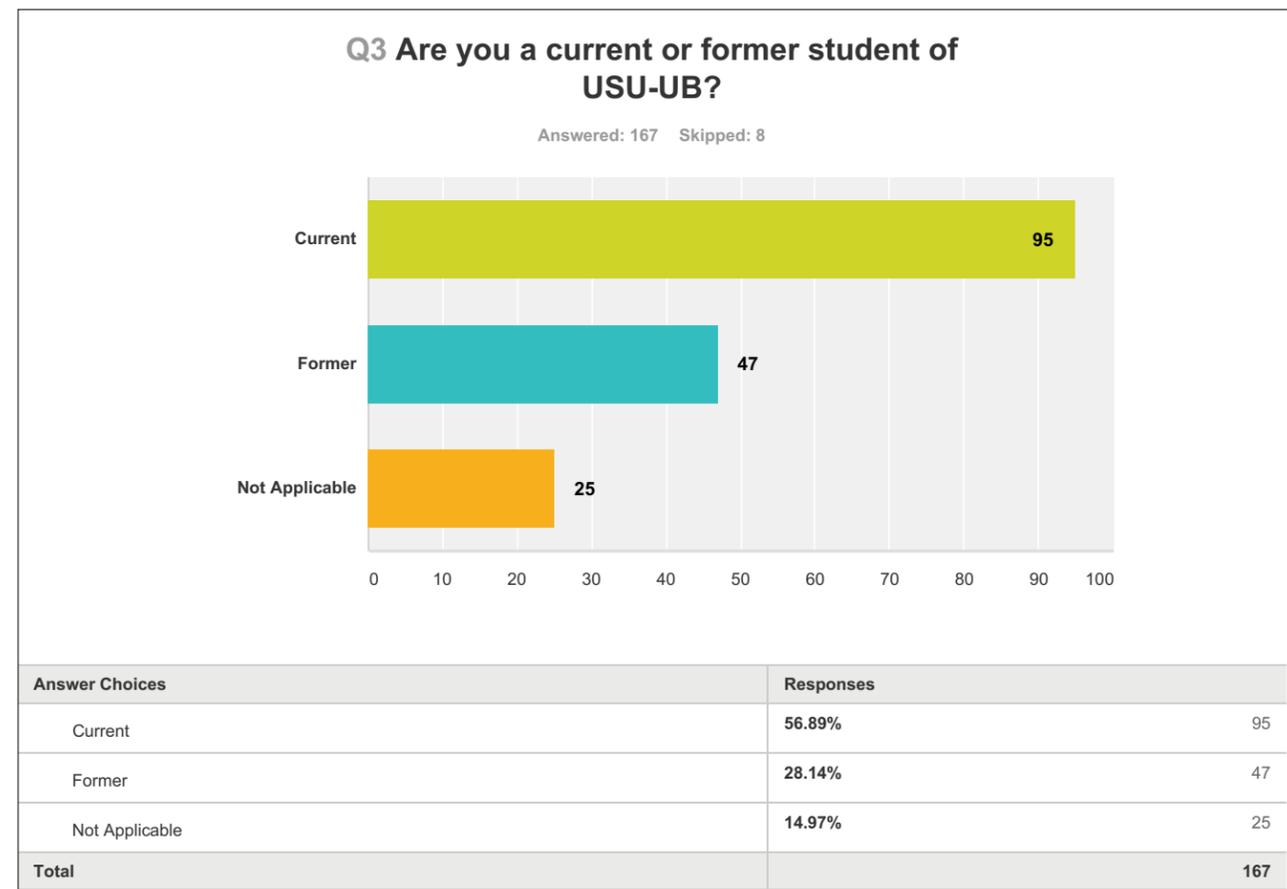
- Heating: 28,800,000 Btu/hr
- Cooling: 1,175 Tons

UBATC Property Lease: Prior to central plant, the building shall be equipped with utility electric, water and gas meters for lease purposes. When converted to the central plant, the UBATC property shall be equipped with Steam & Chilled Water BTU Meters for utility billing. The BTU meters shall be integrated in the campus BAS in accordance with USU guidelines to facilitate easy billing.

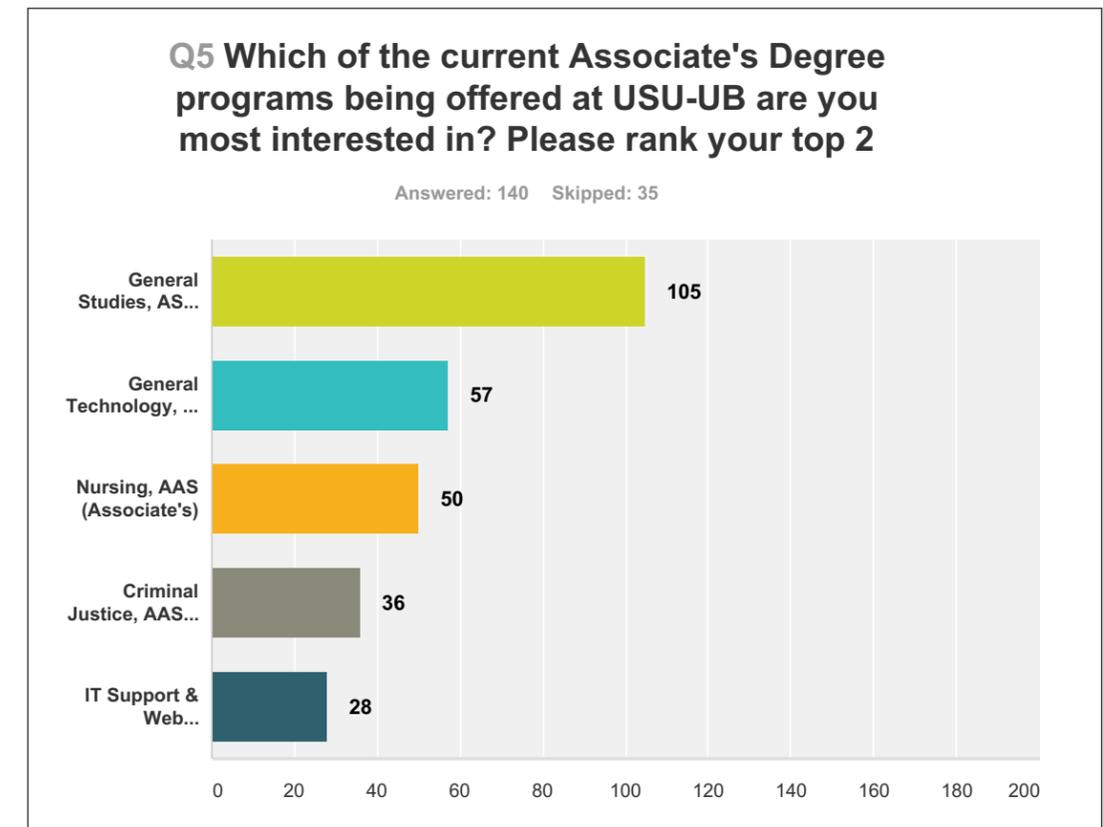


Survey Results and Impact on Master Plan

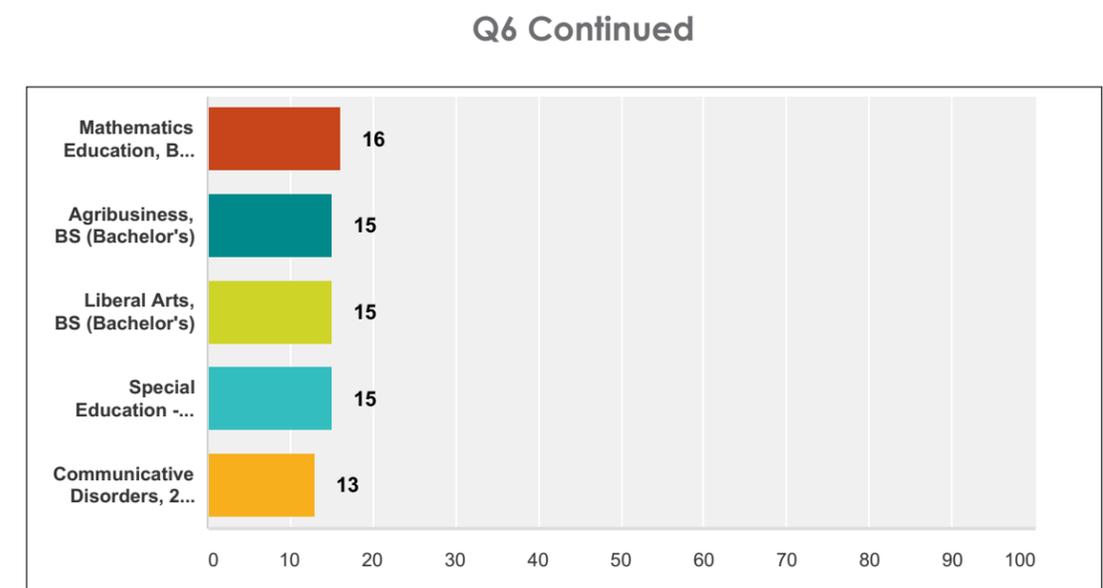
The Master Plan survey was a critical component of the planning process. The aim was to determine what the specific space needs of the campus users were and what impacts those needs had on the space provisions. The survey also included a few questions on academic programs offered at the campuses. There were 175 respondents to the online survey conducted through the *SurveyMonkey* platform. The survey questions that had a direct impact on some of the planning decisions have been outlined below. More information on the survey can be found in Appendix B, page 137 of this document.



About 57% of the survey respondents were current students. This meant that **they were very active users of the two campus sites and understood the issues that most pertained to them.** Most of the students at USU Uintah Basin are non-traditional students who utilize campuses differently from traditional students. Some of the classes offered are in the evenings and some are also via IVC.

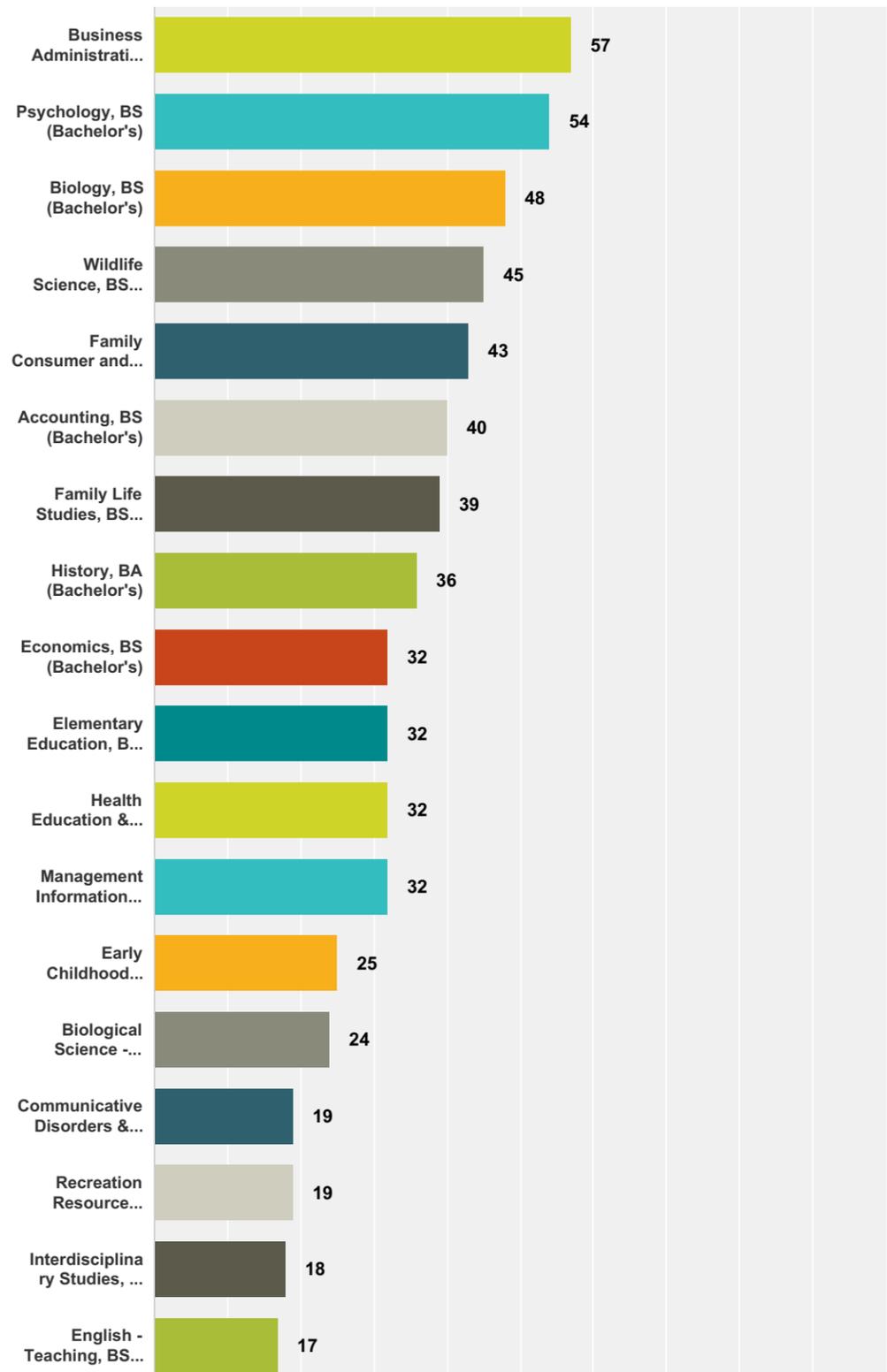


Responses to Questions 5-7 implied that the academic programs that respondents were most interested in **did not require specialty classrooms, and could be housed in general classroom spaces.** General Studies and Business Administration were the top academic program choices.



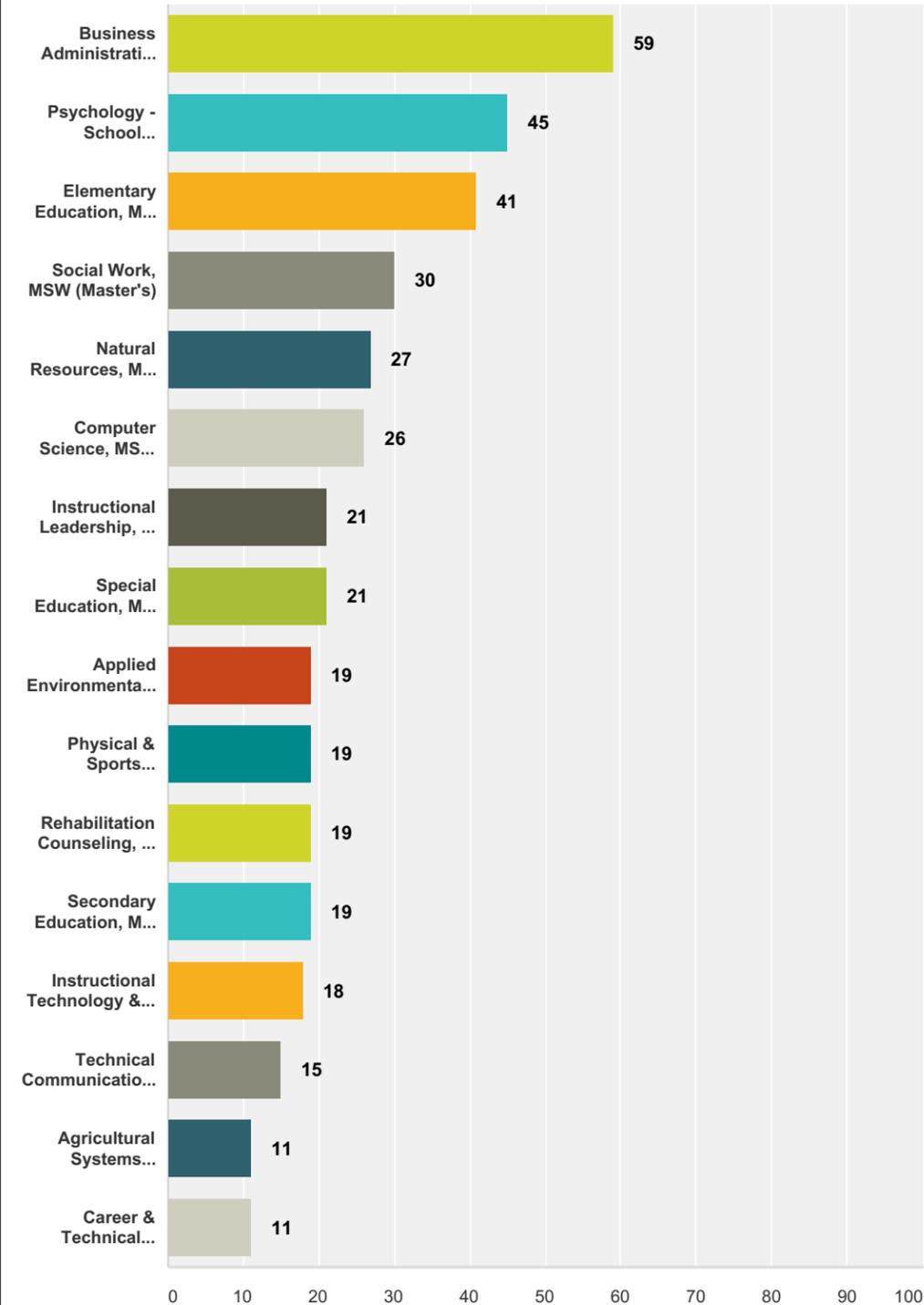
Q6 Which of the current Bachelor's degree programs being offered at USU-UB are you most interested in? Please rank your top 5

Answered: 142 Skipped: 33



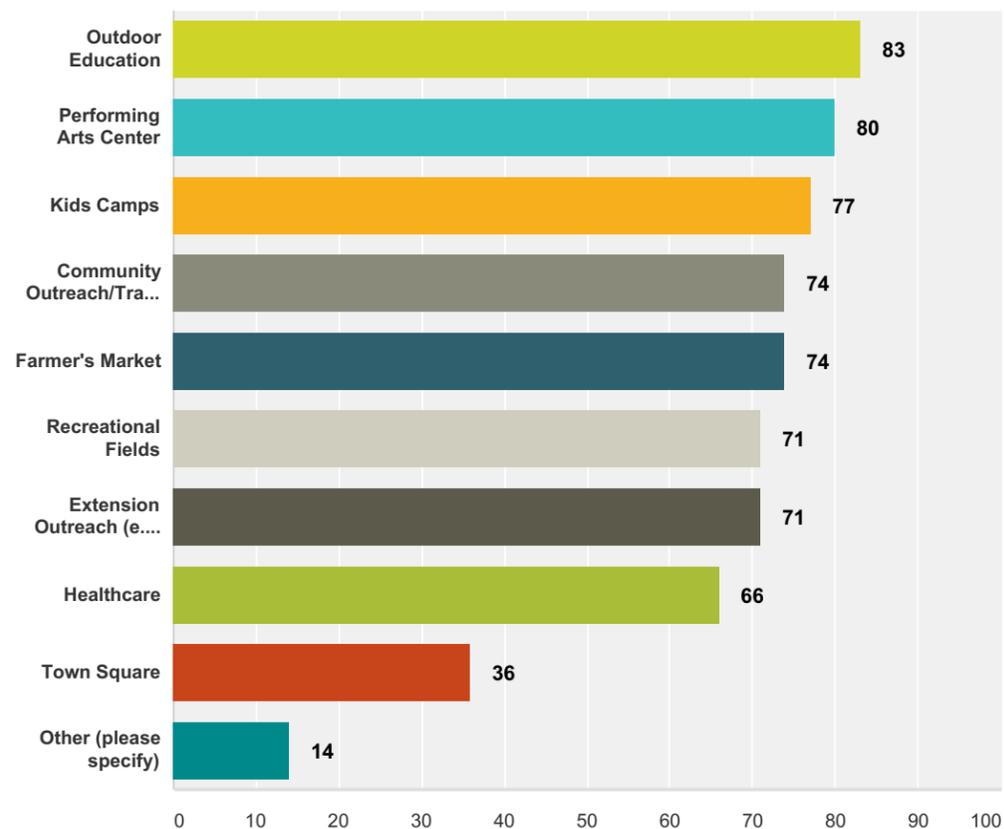
Q7 Which of the current Master's degree programs being offered at USU-UB are you most interested in? Please rank your top 3

Answered: 139 Skipped: 36



Q9 What existing/new programs (non-academic) or facilities should be continued/offered at USU-UB to help support the community? Check all that apply

Answered: 136 Skipped: 39

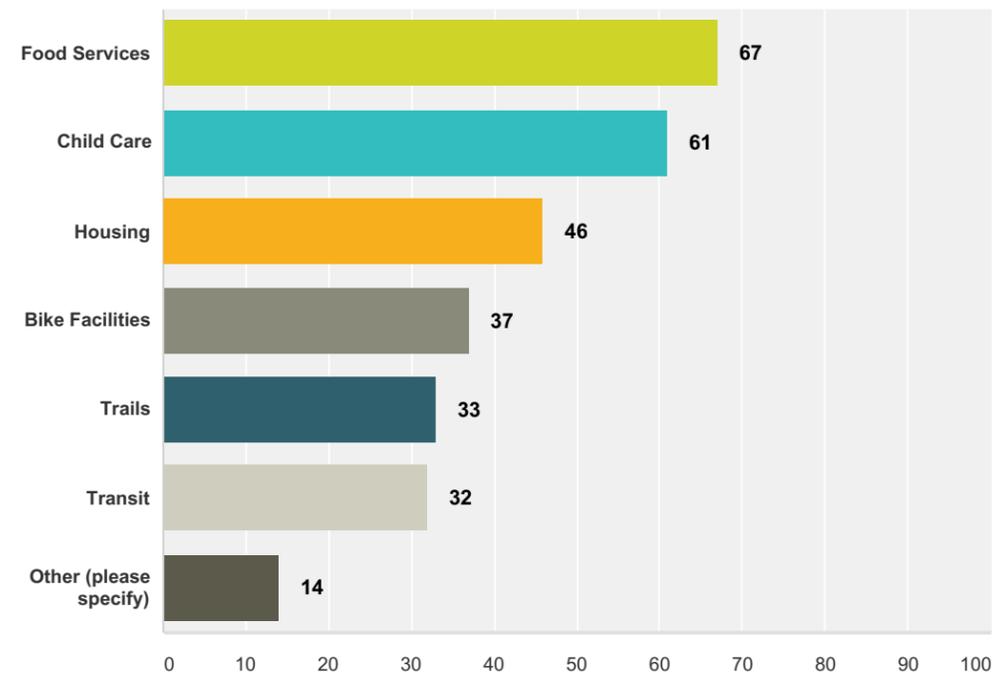


Center Rodeo Food Court

The layout for both campuses include **ample open space and landscaped areas** that can support some of the programs that topped the list in question 9. At the Vernal campus in particular there are large demonstration gardens and experiential landscape design that can be used for outdoor education. Both campus plans can boast of different scales and quality of open space that can accommodate these needs. The graphic on the next page shows potential locations for a Performing Arts Center, if desired, on the Vernal Campus.

Q10 What additional amenities are needed on the campuses? Check all that apply

Answered: 117 Skipped: 58



The amenities listed above as needed **have been largely accommodated** in the Master Plan:

- Food can be handled in any of the new academic or general campus buildings that come online over time.
- Child care and housing have not been addressed specifically in this Master Plan, but can be provided on adjacent properties in the future if so desired.
- Bike facilities have played a critical role in this planning process. USU's Sustainability Plan 2013-2020 talks about the Aggie Blue Bikes (ABB) program. Bike racks/parking, bike storage, bike lanes/infrastructure have been recommended in the Master Plan. (see pages 60 & 80).
- A trail system has been designed to encompass the open space on the east half of the Vernal campus. This system will tie in with the City-wide trail system and also create opportunities for community use for strolling, jogging, 3K or 5K runs and biking. (See more on page 78).
- Bus lines run along both campus sites and supportive amenities can be provided to enhance the use and experience of transit on both campuses. See pages 59 and 79 for more information on this.

Different types and scales of open space have been provided



ROOSEVELT

Parking and drop off areas are in close proximity to buildings for convenience and safety especially for non-traditional students

Potential location for large footprint uses such as a performing arts center



VERNAL

Demonstration gardens have been designed as one of the main features on campus. These can be used for outdoor education

Land is available for future uses

Utah State University
UINTAH BASIN

"Good design doesn't date. Bad design does."
- Paul Rand

DESIGN GUIDELINES

Architectural Design Guidelines

INTRODUCTION

These Architectural Design Guidelines for USU Uintah Basin are a component of the 2015 Master Plan for the university on its two sites in Roosevelt and Vernal. The overarching component in this group of documents is the Master Plan itself, including the Campus Landscape Master Plan.

The design guidelines contained herein are intended to be guidelines for design development of the campuses so that each remains a visually coherent place while also becoming increasingly accessible, functional and satisfying for the institution's community. As guidelines they are intended to communicate to designers those elements of the campus environment perceived to be particularly valued, warn against elements found wanting and set the direction for continued development.

PURPOSE

Intent

The Design Guidelines provide design direction for those architects and planners working on the USU Uintah Basin Campus. The document describes the rationale behind the guidelines through a narrative of the University's past, present and future. The guidelines suggest means by which future projects both respect the integrity of the Campus and enhance the experience of its students, faculty and community. It attempts not only to analyze the strengths and weaknesses of the Campus, as currently configured, but also to clarify these strengths and correct the weaknesses. In doing so, this document is based on the goals set forth in both Vision Plan and complements the Master Plan. Of course, flexibility in interpreting this document is assumed, in order for the Campus to be assured the best possible solutions. The intent of these guidelines is not to thwart the innovation or creativity in any specific design response. Rather, this document should serve to assist the architect, by clarifying the Campus's physical attributes, its sense of identity and its aspirations. The Design Guidelines ultimately describe the many contexts in which each architect or designer will be working.

Process

A series of meetings and workshops were held to solicit the input of the entire USU Uintah Basin Community, including the Advisory Board, students, faculty and staff. A more complete description of the meetings, workshops, planning

sessions and campus participation in the Master Plan process is given in the Introduction to the Master Plan itself. This chapter attempts to reflect the opinions of these many participants as they relate to Design Guidelines for architecture.

DESIGN DIRECTIVE

The input from constituents of the USU Uintah Basin Master Plan are synthesized in this document. An important voice in the development of these guidelines has been the input from the Board of Trustees, which has observed that the existing nature of the Campus be respected, clarified and strengthened by any future design or renovation. The master planning process identified the following four areas of concern regarding improvements to the Campus:

1. Architectural Aesthetics

The intent of the Master Plan is that the fabric of the Campus be respected and that new projects reinforce, not diminish, the existing character of the campus.

2. Landscape Design

The intent of the Master Plan retains the open, spacious feel of the campus and that new projects reinforce, not diminish, the nature or quantity of civic spaces on Campus. Wherever possible new spaces are to be created for outdoor student interaction. Mature trees shall be retained wherever possible. Low maintenance, drought tolerant landscapes are to be considered. Small and large scale outdoor gathering spaces are suggested as a focal point to landscape designs. (The Landscape Guidelines expand on these topics.)

3. Functionality and Accessibility

The intent of the Master Plan is to ensure new projects are functional and accessible to all, ensuring that instructional needs not be sacrificed solely for aesthetics. It is hoped that future buildings will take advantage of views to intimate and expansive landscaped spaces, as it has been to other structures on campus.

4. Sustainable Design

As mandated by USU principles of environmental design, especially sustainability and energy efficiency, be integrated into all new designs. USU mandates a minimum of LEED Silver certification and compliance with DFCM High Performance Building standards. Addition detail is provided in Section 6 - Sustainability.



ARCHITECTURE OF USU UINTAH BASIN

ROOSEVELT CAMPUS

Campus History and Site

The campus of USU Uintah Basin Roosevelt has a pragmatic history of building planning and design. The architectural influences on its planning and design help explain its specific development and to understand the strengths and weakness of the existing physical environment to support the present mission of the institution. The original building on Roosevelt Campus was completed in 1988, and was set on a relatively flat underdeveloped area of Roosevelt City. The buildings each were designed with little to no response to other structures on the site.

The cloistered campuses of closely grouped structures serve a long standing tradition in America and is unlike the typical development patterns for higher education in Europe. The non-residential collegiate structure of most twentieth century American regional and small scale institutions tended to make urban sites attractive to siting colleges and universities. The non-residential nature of these American institutions led to the exclusion of social and athletic functions to the assumed roles in larger institutions which in turn allowed these smaller scale institution more refined land areas than that focused on the task of simply the teaching of classes and allowing for institutional administration. Even though these smaller scale campuses do not include on-campus residences for the students, USU Regional Campuses capitalize on close proximity of services that tend to require significant contiguous land areas. Therefore the historical idea of a campus apart is not embraced at the Roosevelt campus, and is thus well integrated into its community.

With a close proximity to other academic institutions, Union High School and the Uintah Basin Applied Technology College, and commercial entities the campus is integrated into the community fabric. The perimeter of Campus, ringed by parking lots, reflects the predominance of auto commuters at the time of its founding and to the present. Approach to and arrival at the Campus, as well as much of its signage and identity, all emphasize the individual automobile.

Campus Form

The architectural style of the Roosevelt campus is varied with few unifying elements between the three existing buildings. The most prominent structure, the Student Center is clad with block and metal panel, its form and color reminiscent of agricultural buildings. Because the site is small, pedestrian circulation is easy. The Classroom Building and the Student Center sit side by side

with a short walkway linking the buildings. Access to the Bank Building is across the west parking lot or along sidewalks that flank 800 East.

Existing Architecture

The campus consists of three primary structures.

The Classroom Building: Construction for The Classroom Building, as it was named, started construction in the fall of 1988 and the building was dedicated in August 1989 in time for fall classes. The 25,000 square-foot Classroom Building was funded with support from the City of Roosevelt, and Duchesne and Uintah Counties who applied for and obtained a state Community Impact Board Grant. Local fund-raising coupled with Mineral Lease Monies that Alva Snow, Dan Dennis, and Laird Hartman secured from The Mineral Lease Board, it came together. The efforts raised \$1.33 for construction. Land just west of Union High School was acquired at a reduced purchase price from Verlin Labrum. Alva Snow, with long experience as a building contractor, spent many hours per week at the construction site ensuring the building's integrity and that it stayed on schedule.

The Student Center: The local residents and community leaders in Roosevelt City and Duchesne County, pleased at the growth of the Uintah Basin Branch Campus, wanted to see another building added to the Roosevelt Campus to meet the needs of rapidly increasing numbers of students, faculty members, and degree programs. When USU President George Emert learned of the plan to secure another building in the Basin, he told the committee to exit their plans. He feared the State Legislature would not fund the buildings on campus he hoped for if a building was constructed in Roosevelt, even though funding for the project was not coming from State funds. The committee was undaunted. In the next meeting Gordon Snow stood and said "we have political and community support and we are moving forward." Monies were raised through Community Block Grants, Impact Board Grants, and private donations. Duchesne County donated all the ground work and site preparation. In 2001, the five-million dollar building which houses classrooms, computer labs, student services, faculty offices, a food court, and a gymnasium was opened for use.

The Bank Building: In 1993, with a generous donation by First Security Bank, an additional building was purchased for an administration building in Roosevelt. The building is located on the northwest corner of the site.



ARCHITECTURE OF USU UINTAH BASIN

VERNAL CAMPUS

Campus History and Site

The 1680 Building: In 1990 the idea was breached to the Vernal City Council that the 1680 office building property would make a great building for USU. Initially the city council and Mayor Leonard Sweeney opposed. Some months passed and Dr. Hartman met again with Mayor Sweeney and the Counsel and detailed how it would increase the opportunities for higher education in Vernal. This time they approved. The wait was fortuitous because the price dropped from one-million dollars to one-hundred fifty thousand! In 1991 Uintah County and Vernal City secured Mineral Lease Monies for the purchase and an additional three-hundred thousand dollars to remodel the building into administrative space, faculty offices, classrooms, and a small science lab.

Campus Form

The USU Campus in Vernal consists of the Williams Building, primarily serving UBATC, and the USUUB Bingham Entrepreneurship and Energy Research Center (BEERC). BEERC is a two-story facility formed by a stone clad base, and brick and metal panel clad upper section. Both USU and UBATC buildings are highlighted by vertical atriums that penetrates the facade and projects an architectural presence both day and night. The BEERC building was planned with a primary entrance on the west, off of Aggie Boulevard, and on the east, off of a future academic quad. Currently, as there are few buildings on this campus they are primarily oriented for easy vehicular access and parking off of Aggie Boulevard. Both the ATC and USU building are well signed, both from the street and on primary building facades, parking lots and pedestrian walks that link the buildings on the west of both buildings are well lit.

Existing Architecture

The Williams Building Started in 2003 when Rob Behunin, then serving as Associate Director of the Uintah Basin Campus, was tasked with bringing new opportunity and expansion. Shortly afterwards local entrepreneur Robert (Bob) Williams came forward with ideas about expansion. He wanted to rescue the land across from the high school believing it was the perfect spot to expand USU. The property was within weeks of closing by developers who wanted to make a housing project. Williams offered to buy the property at full-market value from the developers. In 2006 he paid \$5.2 million for the 38 acres. President Albrecht came to Vernal, and he, along with Behunin and Williams met with other local leaders including Kenneth Anderton, Jim Drollinger, Gayle

McKeachnie, and Howard Carroll to bring the project to fruition. Williams completed the purchase and donated it to USU. Williams told President Albrecht, "I'll do this 5.2 million in property of 38 acres, if you commit to build a future campus as USU expands here. We have a nice campus in Roosevelt but need more here." Albrecht agreed. Vernal City, Uintah County, State politicians, Uintah County School District, Uintah Basin Applied Technology College, and Utah State University Uintah Basin Regional Campus were all team players to advance the educational opportunities of the region. Educational and political leaders state-wide marveled that all these institutions worked together for the good of all without regard for selfish interest. Utah Senator Kevin Van Tassel commented of the many partners working together: "If we divide ourselves we limit ourselves."

In 2006 Uintah Mitigation Special Impact Board was formed with the idea that the community needed to step up and Vernal City and the City Mayor and Council, Uintah County Commission, Ed Peterson as Uintah County attorney, all came together. The Recreation District and the Transportation District pooled their Mineral Lease monies and agreed that they needed to grow educational opportunities that came from leveraging the hydro-carbon taxing rebates.

From an economic scale this grew in an amazing manner. Williams provided a \$5.3 million gift. There was a \$27 million building for the ATC. An additional \$11 million was approved by the State ATC for construction. Local efforts committed \$10 million from the district for infrastructure. Anadarko Oil Company, along with other entities that wish to remain anonymous, made additional donations. All combined Utah State University, Uintah Basin ATC, Uintah County, Vernal City, private citizens, and corporate partners created a model that was followed by others throughout the USU system. In the end, UBATC owns the Williams Building, located on property leased from USU.

The BEERC Bingham Building: In 2008, a generous gift from Marc Bingham of \$15 million was supplemented by significant funding from the community and the Impact Mitigation Special Services District was used to design and construct the Bingham Building. In 2010, USU opened the Bingham Entrepreneurship and Energy Research Center (BEERC), designed by CRSA Architects, in Vernal just south of the Williams Building. This 70,000 square-foot building houses a research hub with an entrepreneurship center, National Research Lab, classrooms, teaching labs, office spaces for faculty and administration, and student services. The Center also houses offices for researchers with affiliation with the USU Research Foundation's Energy Dynamics Laboratory, Idaho National Laboratory, and USTAR.

ARCHITECTURAL GUIDELINES

INTRODUCTION

Across institutions, architectural design guidelines represent a spectrum of approaches to development. From highly prescriptive to visionary. USU Uintah Basin Campus at Roosevelt and Vernal encourage unity of development as a campus without strict uniformity of architectural style or material palette for its buildings. The design guidelines that follow are an effort to communicate to those who will design portions of the evolving USU Uintah Basin Campus environment the elements and attitudes the campus community feels will produce both a coherent and a dynamic built environment.

OVERALL DESIGN PRINCIPLES

The following overall guiding design principles have been established for new construction on the USU Uintah Basin Regional campus. The principles are:

1. New buildings are to reflect the general architectural character of existing buildings on campus.
2. Buildings, landscape and infrastructure improvements should incorporate elements of sustainability as appropriate and financially feasible.
3. Key nodes and gateways must be identified, capitalizing on major entrances. In Roosevelt, a focus on Hwy 40 and the 800 East street entry points as well as major campus corners. The roundabout in Vernal is the key entry node, but focus on major entry points off of Main Street and Aggie Blvd. is encouraged.
4. New structures shall be limited in height to three stories.
5. Building layout must create and shape outdoor space to develop a network of interconnected and diverse open spaces, which include quads, courtyards, plazas, squares and spaces that can be utilized for recreational activities.
6. Structures shall be designed to take advantage of views.
7. Parking should be adequate to support space needs, but not be a dominant feature from the campus perimeter. The design should be softened by integrating landscaping and pedestrian walkways.

PRIMARY ELEMENTS

Six primary elements of architectural design will provide aesthetic continuity and quality to the campus as it is built out over time. These include:

1. Building massing and façade articulation
2. Horizontal hierarchy and building entries
3. Building heights and vertical hierarchy
4. Windows and sunscreens
5. Stairways and circulation
6. Materials and color palette

BUILDING MASSING AND FACADE ARTICULATION

The following are guidelines relative to the massing and articulation of new buildings:

- a. New structures shall be limited in height to three stories, not including spaces that may demand additional height, such as fly towers, mechanical and elevator penthouses, and stair towers where roof access is required.
- b. New structures shall be predominantly rectangular in shape when facing major quad spaces, to respect the irregular orthogonal grid of the Campus, unless otherwise indicated.
- c. Major building masses shall have primarily flat roofs, with roof forms serving as architectural accents at entries and major circulation zones
- d. Circulation elements - stairs, walkways, etc. - may be expressed as separate components.
- e. Unique structures, administration, recreation, student service, and performing arts buildings, should be iconic and be articulated differently.



HORIZONTAL HIERARCHY & BUILDING ENTRIES

New buildings will have clearly defined entrances and exits and shall follow the guidelines outlined below:



- a. Buildings following the massing and height recommendations will be primarily horizontal. Vertical articulation should be used to add organizational structure and visual interest.
- b. Building facades that occur at the terminus of a street or quad, site gateway, or anchor a distinct site present major opportunities for articulation and change expression.
- c. Each new building shall have one identifiable primary entry. The entries shall be aligned

internally to provide a direct visual and physical connection between adjacent structures.

- d. Entries, atriums and passageways shall be well lit, serving as beacons on the campus during evening hours.
- e. For secondary building entries can serve as a means of vertical interruption or articulation of horizontal compositions, particularly on long facades.

ROOF OVERHANGS, COLONNADES AND LANDSCAPED BUILDING EXTENSIONS

Colonnades, roof overhangs and structured landscape spaces at the edge of buildings are important features in new buildings, designed to protect pedestrians from inclement weather including both extreme heat and sun, as well as rain and wind. By integrating these features into new buildings, students, faculty and staff will be able to move throughout the campus in a protected manner facilitating movement from one building to another.

- a. Overhangs, when used, can be incorporated into the architecture to serve as weather protection.
- b. Colonnades shall be a minimum of six feet clear in width.
- c. Colonnades should be light and open yet still create a distinction between circulation and plaza maintaining 90% open front. Spacing of columns should be approximately 15' - 0".
- d. Landscaped building extensions include pergola, low-medium high retaining walls, and raised walkways extend the pedestrian zone to the building edge and should be partnered with transparent walls to engage associated academic or campus community spaces.



Roofs are one of the final ingredients in the composition of a building, and again, play not only a functional role but an aesthetic one as well.

- a. Roofs shall be flat, yet designed to drain appropriately.
- b. Roofs shall be light in color to reflect sun and reduce heat gain.
- c. USU may pursue alternative energy sources on roofs.
- d. Green roofs, if feasible, are permitted.
- e. Roof terraces, if well connected to interior spaces, are encouraged.

WINDOWS AND SUNSCREENS

Window design is not only one of the most important aesthetic considerations in establishing the overall architectural character of a building, but it is also fundamental to achieving optimum energy efficiency and comfort for building occupants. Incorporating features that maximize natural daylight - yet minimize glare; allow building occupants control of their environment through operable windows; and minimizing the need for air conditioning and artificial light are all features that should be considered in the building's design. The choice of glazing is also important in ensuring good daylighting. A wide range of glazing is available that offers both good admission of light as well as low heat gain. Heavily tinted or reflective glass is not permitted. Specifically:

- a. The placement of windows shall be oriented and designed to maximize the climatic features of the site, including views.
- b. Where appropriate, windows can be operable.
- c. Windows are generally preferred to be flush to the exterior surface of the building, rather than punched or recessed.
- d. Windows shall be primarily horizontal in their orientation and shall be continuous where appropriate.



STAIRWAYS AND CIRCULATION

Stairways are not only an important functional element of buildings, but, if properly designed, can be the vertical movement of choice for the majority of the buildings' occupants, diminishing the need to rely on elevators for vertical transport. They can also be an opportunity for chance encounters and social

interaction, if designed as an integral part of the campus experience, rather than a purely practical application. As such,

- a. Where possible, exit stairs shall be incorporated into the design of the exterior facades of buildings.
- b. Stairways shall be primarily open to allow for visibility into and out of the stairwells.
- c. Stairwells shall be well lit and serve as secondary beacons on campus during evening hours.
- d. Where possible, primary internal stairwells such as in a building entry or atrium shall be exposed to the building's exterior through the use of curtain walls.



The exterior building materials shown in these guidelines express a range of materials approximating or complementary to those of the existing USU Uintah Basin Campus. They offer a suggested range of materials but also allude to the clarity and simplicity of material use represented by the buildings of the existing Campus. These materials also assume some consideration of both initial and maintenance costs for the lifetime of new buildings. Alternative materials to those shown may be considered but must be approved. Building Materials have been grouped in two categories, Primary Materials and Accent Materials.

PRIMARY MATERIALS

The following materials are suggested for primary exterior surfaces of buildings on the Campus:

- Masonry – USU Uintah Basin has developed approved brick and terra cotta colors to provide coherence to the campus. Concrete masonry units (CMU) may only be used in limited applications at the building base or as accents, but should not comprise more than one eighth of the building envelope.
- Metal and Glass Window Wall Construction – significant sections of primary building facades may be storefront or curtain wall with relatively clear glazing. No highly tinted glazing will be acceptable. High performance glazing with improved thermal characteristics highly encouraged.
- Metal Panels should have a limited application as accent or background materials.

Metal panel applications must follow these requirements:

- Face fastening metal siding is not an appropriate exterior finish, except at maintenance facilities.

- Where metal panels have received painted finish, the substrate must be non-ferrous and finish should be Kynar (maintenance-free, durable, and reasonably non-fading over the lifetime of the facility).
- Consider natural finish for metal panels, such as zinc, copper or COR-TEN, which have recycled content and develop a “self-healing” patina.

ACCENT MATERIALS

The following materials are suggested for secondary exterior surfaces of buildings and to be used with discretion:

- Stone – locally produced materials (such as stone) may be used as accents, with the approval of the owner.
- Exposed Metals – as defined under metal panels above.

Brick, used to create large facades, should be articulated to illustrate wall thickness and add shadow lines.

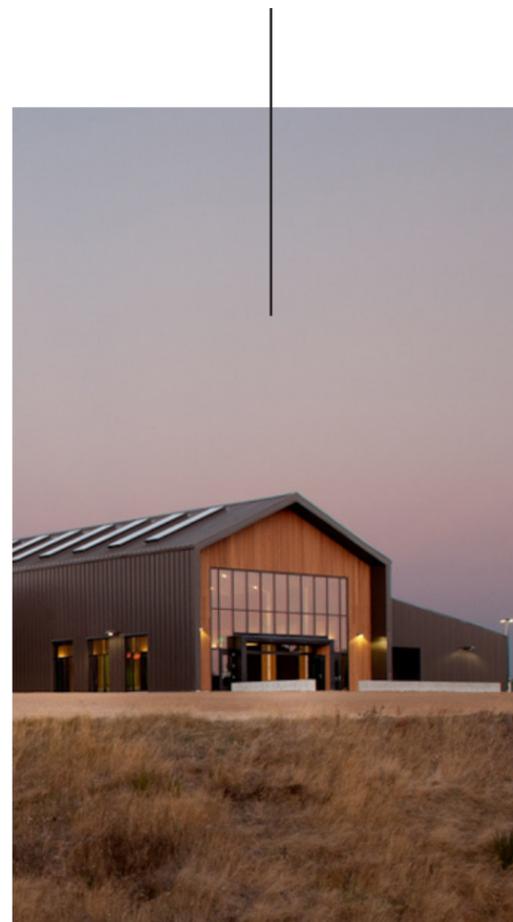
Terracotta as a primary facade treatment provides the same consistent architectural impression as brick masonry.

A more agrarian building form on the Roosevelt campus can be accomplished while still utilizing the primary building materials palette.

The use of COR-TEN, or other self-healing” material, as an accent material provides a sense of permanence.

Metal panels should serve in limited applications as an architectural accent or background material.

The transition from horizontal to vertical material use can be used to highlight building entrance and prime uses.



Architectural Materials Guidelines

Roosevelt Campus

CAMPUS BUILDING MATERIALS

There are only a few additional structures planned on the Roosevelt Campus. Currently campus buildings reflect a diverse set of architectural styles. Future buildings should try to conform to the context of the existing campus and support long term campus cohesiveness with a focus on form, materiality and fenestration.



- 1 BRICK**
Brick is a primary building material used in various forms on most buildings on the campus.



- 2 CONCRETE BLOCK**
Concrete block is to be used sparingly as a secondary building material.



- 3 GLASS**
Glass is intended to be used moderately on high-profile buildings to enhance connection to the campus context.



- 4 METAL PANEL**
Metal panel may be use to balance masonry and as an accent material.



- 5 BOARD FORMED CONCRETE**
Architectural concrete is a supporting material, primarily used as exposed foundation walls and accent walls.

Architectural Materials Guidelines

Vernal Campus

CAMPUS BUILDING MATERIALS

There are a number of buildings planned on the Vernal Campus. Not all will be iconic facilities and thus require the use of supporting cladding systems. Signature structures should stand out, within the context of the existing campus, and support long term campus cohesiveness with a focus on form, materiality and fenestration.



1 BRICK
Brick is a primary building material used in various forms on most buildings on the campus.



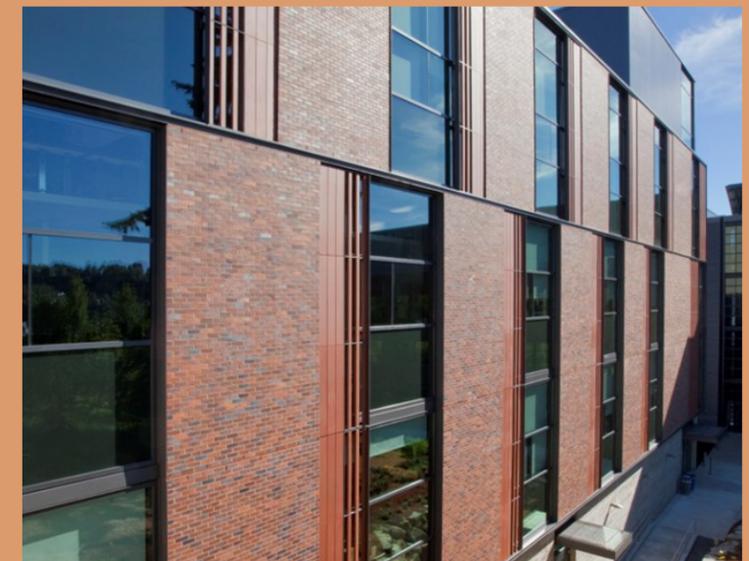
2 GLASS
Glass is intended to be used moderately on high-profile buildings to enhance connection to the campus context.



3 METAL PANEL
Metal panel may be used to balance masonry and as an accent material.



4 STONE ACCENTS
Stone is a signature element of important campus buildings.



5 TERRACOTTA
Terracotta may be used as another form of unit masonry on the signature buildings.



Roosevelt Campus

Landscape Guidelines

OVERALL OBJECTIVE

Practicable design is contingent upon the standards and objectives determined early in the development process which are conceived in a system of concise, measured and implementable study. The purpose of this Landscape Guideline is to delineate applicable standards by providing direction in the decision-making and application of landscape materials for the USU Uintah Basin Campus.

Both the Roosevelt and Vernal campuses are rooted in rural settings; therefore it is imperative that the Landscape Guidelines set firmly into motion standards of design and materials that reflects this heritage, as each campus evolves through time. This comprehensive landscape framework should therefore establish consistency and reliability that maintain the unique site qualities, sensitivity to context, and contribute to the quality of life of all campus patrons.

SITE DESIGN

The landscape elements for both campuses should speak to the use of the site and speak of the surrounding context for each campus. Both hardscape and softscape materials are equally important to a balanced site; both must exist symbiotically but contrast as well in order to create a holistic design. The qualities of the hardscape materials make the site durable and long-lasting, while the softscape features such as perennials, trees and shrubs foster a more livable, tranquil ambiance to the site. The consideration of the following criteria will position each of the USU Uintah Basin campuses to excel in site quality and user enjoyment.

- **Vegetation**
- **Circulation Networks**
- **Space Creation** (formal, bldg. sites, edges/open spaces, experiential)
- **Site Details**

VEGETATION

The following criteria will help in the selection of plant materials that will complement the spaces, architecture and context of the Uintah Basin Campus.

- Use native plant materials whenever possible and prescribe context sensitive planting materials that are adaptive to the environmental conditions of each campus.

A collage of potential plant materials that may be used on the campuses



Japanese Silver Grass: Exceptional flowering, foliage and growth habit



Autumn Leaves Coral Bells: Excellent color effects for all 4 seasons



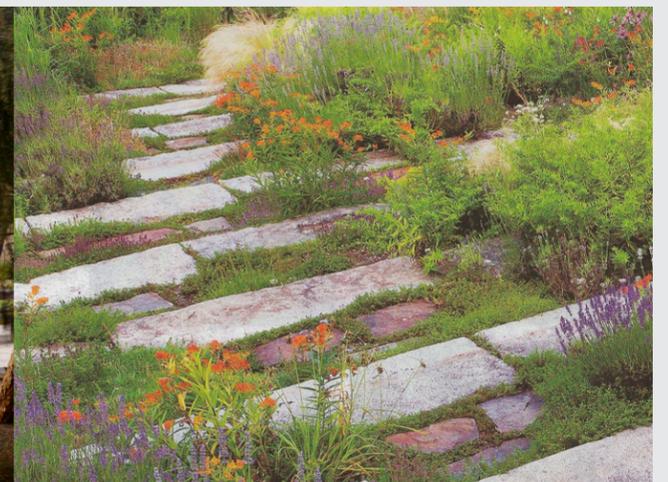
Puckered Sun Drops: Long blooming and very drought tolerant



Black-eyed Susan: Drought tolerant prairie native that thrives in hot conditions



Korean Feather Reed Grass: A stately ornamental that blooms well in shade



Creeping Mazus: Walkable groundcover with excellent mid-summer flowering

- Clearly define and delineate landscape zones of varying management requirements: for example areas of high ornamentation that require consistent maintenance, as opposed to areas that may need little or no maintenance to retain a healthy appearance.
- Spaces should be complemented by plant material of the appropriate scale, composition and color.
- Wherever possible, spaces that are in proximity to high pedestrian traffic areas should use the appropriate ground cover that can withstand the use.
- Through the effective use of plant screening, buffering, and cloistering, use plant material to create large-scale outdoor gathering spaces as well as small scale areas for seclusion.
- Establish rainwater collection areas with plants which can tolerate short durations of high water table.
- Planting for campus edges and open spaces should transition well to vegetation types that are outside of the property boundary.

The chart to the right shows examples of plant types that can generally be grown on both campuses. Both campuses fall within the same climatic region. There may be some specific variations on each site depending on soil and water table conditions, as well as use. For instance the area around the pond in Vernal may have a higher water table with **more saturated soils** than other areas. As such, particular attention should be paid to these particular instances during planting design.

With sustainability at the forefront of USU's future master planning efforts on all campuses, it is important that the plant types defined for these campuses help to promote this sustainability agenda with an emphasis on the minimal use of water for irrigation purposes.

Drought Tolerant plants are low maintenance plants, that are native or adaptive to the regional context.

Most areas on both campuses should be planted with drought tolerant plants with the exception of specific uses like grass areas in quads or recreational fields. Other plant types that fall under this category include Native and Adaptive plants.

Native Plants are naturally occurring plants that existed in the area without human introduction. The advantage to the use of such plants is because they require almost no irrigation. These plants, also serve as beautiful backdrops which blend seamlessly into the natural landscapes.

Adaptive Plants are those that were not originally part of the natural ecosystem but have evolved to a point where the physical conditions such as soil, climate and geology are conducive for healthy growth. Adaptive plants are not invasive.

Drought Tolerant

Trees



Golden Rain Tree

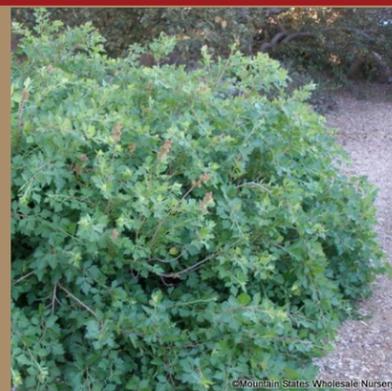


Austrian Pine

Shrubs

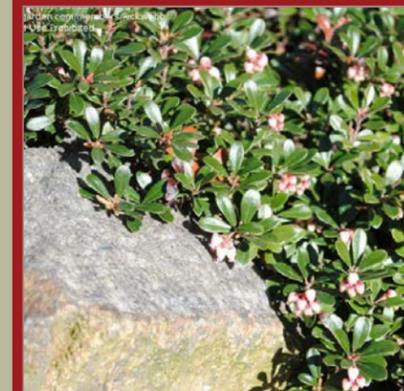


Rubber Rabbit Brush



Three-Leaf Sumac

Groundcover



Bearberry Kinnikinnick

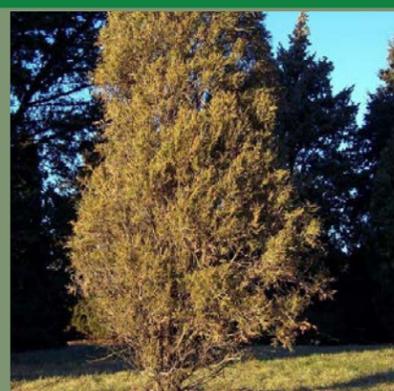


Fire Chalice

Native



Netleaf Hackberry



Rocky Mountain Juniper



Calgary Juniper



Lewis Mock Orange



Grow-low Sumac



Creeping Oregon Grape

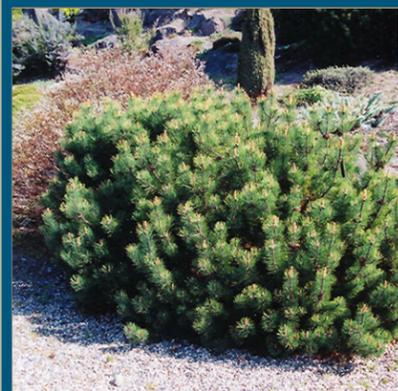
Adaptive



Flame Amur Maple



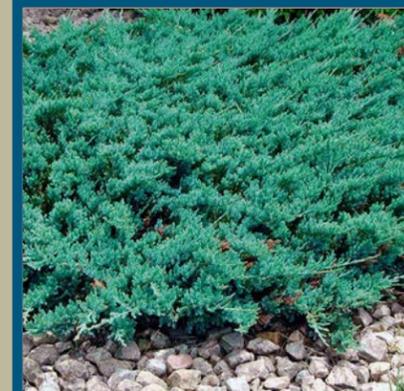
Vanderwolf's Limber Pine



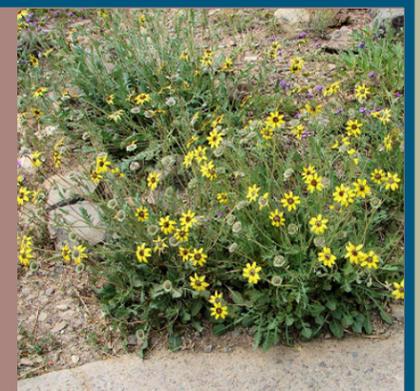
Mugo Pine



Purple Leaf Sand Cherry



Blue Chip Creeping Juniper



Chocolate Flower

Sample of appropriate plant types by category

CIRCULATION & OPEN SPACE

The physical environment has a tremendous influence not only on the form and function of the campus, but on the quality of life and education afforded to the students. It is imperative that the means of transition and movement within each campus is easily deciphered and navigable, providing intrigue and privacy, as well as safety and security - this can be established through thoughtful layout of sidewalks, plazas, crosswalks, trails, malls, etc. Due to the phased development schedule of the campus, this should work well through all phases of development.

Roosevelt Campus

The USU Roosevelt campus is smaller in scale, thus its circulation layout corresponds according to its given size.

A central ellipse courtyard will serve as both a communal hotspot for campus activities while also serving as the major circulation destination and drop-off/pick-up point. As development of the campus evolves, the proposed layout reveals three new additional buildings at full build-out. Circulation will correspond to lead the user directly to key destinations with ease. Vehicular circulation will be intuitive and easily understood; pedestrian circulation will be clearly delineated with complimentary plant materials, site lighting and way-finding signage. This central open space will work as a thoroughfare while offering moments/opportunities for individual or small group gathering. Seat walls, benches and shaded planted zones will help to achieve this along with other pedestrian amenities.

Vernal Campus

The circulation patterns for the Vernal campus will be more elaborate since the site has more opportunities for open space development. To avoid wasting space and to reduce distances from one building to another especially in cold weather, circulation patterns/systems have been crafted to respond to the phased development of the campus. Thus courtyards, quads and walkways are introduced to respond to overall growth of the campus. (Refer to phasing plans in Chapter 4 of this document)

Open Space Preservation & Development: With the ample property that USU owns, a lot of mention was made in the visioning session and subsequent public and Steering Committee meetings for the preservation of existing fields, agricultural lands and open space on the site. The CRSA team responded to this by proposing creative uses of the large swath of open space and incorporating these into the campus layout in the following ways:

Views: As the campus develops as a series of quads framed by buildings and advances towards the south, care is taken to ensure that there are opportunities for views to the open space on the east half of campus. Also formal quads bleed into the more natural landscapes. (Refer to plans in Chapter 4).

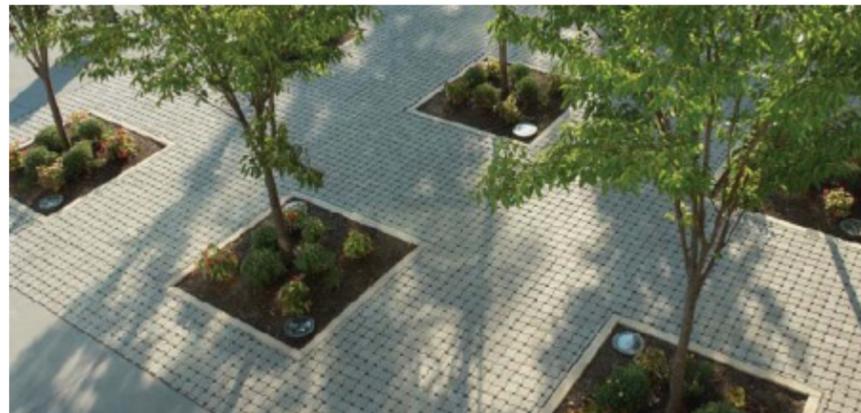
Conservation: The storm water retention pond and the canal have become prominent features on the site. These features can be taken advantage of to create a zone of natural vegetation and encourage the establishment of a bird refuge or other type of conservation initiative. A centrally located tower element proposed in the master plans will strengthen this initiative and serve as a focal point as well as a look out on the site.

Recreation: The Vernal Trails Planning Committee has plans to provide trails that run along the perimeter of the open space at the site. A great use of these trails will be to create a program that can accommodate 5K or 3K runs along the trails as a community activity. Portions of the open fields can also be re-purposed for rec fields as the need arises.

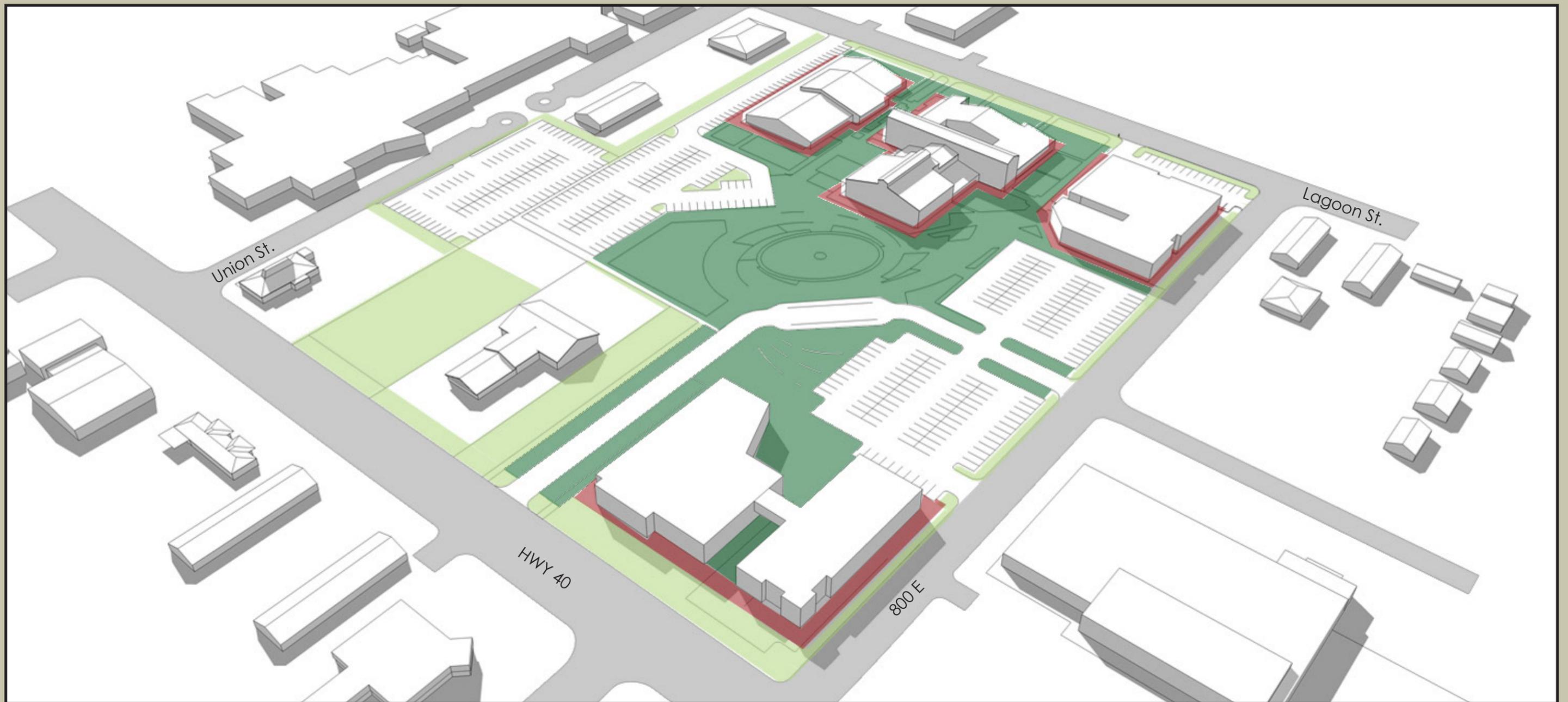
Demonstration Gardens/Exhibits: A zone of programmed open space has been created in the plan to connect the 'Bull' at the roundabout to the 'tower' and then to the 'pond'. This area can be used through public/private partnerships to showcase best practices in water conservation, xeriscape gardening, sustainability systems etc. It will be a place to celebrate the relationship between USU and the community and to provide opportunities for education in state of the art and cutting edge systems. These can also piggy back on some program offerings that bring together USU, the ATC and other institutions in the area.



Multiple uses and experiences in the open space is encouraged



Well crafted campus spaces of different scales and character create opportunities for interaction and seclusion



FORMAL CAMPUS LANDSCAPES

Formal campus grounds help to define the space and experience found in higher education institutions. It is in these institutions where academia preaches the importance of democracy and public voice. Creating spaces for students to express themselves are an important factor to a well-functioning campus. These spaces (shown in dark green) range from spaces for large gatherings to small courtyards, and are used for recreation and passive uses. These organized spaces include the reinforcing and/or the development of malls, quads, and recreational fields.

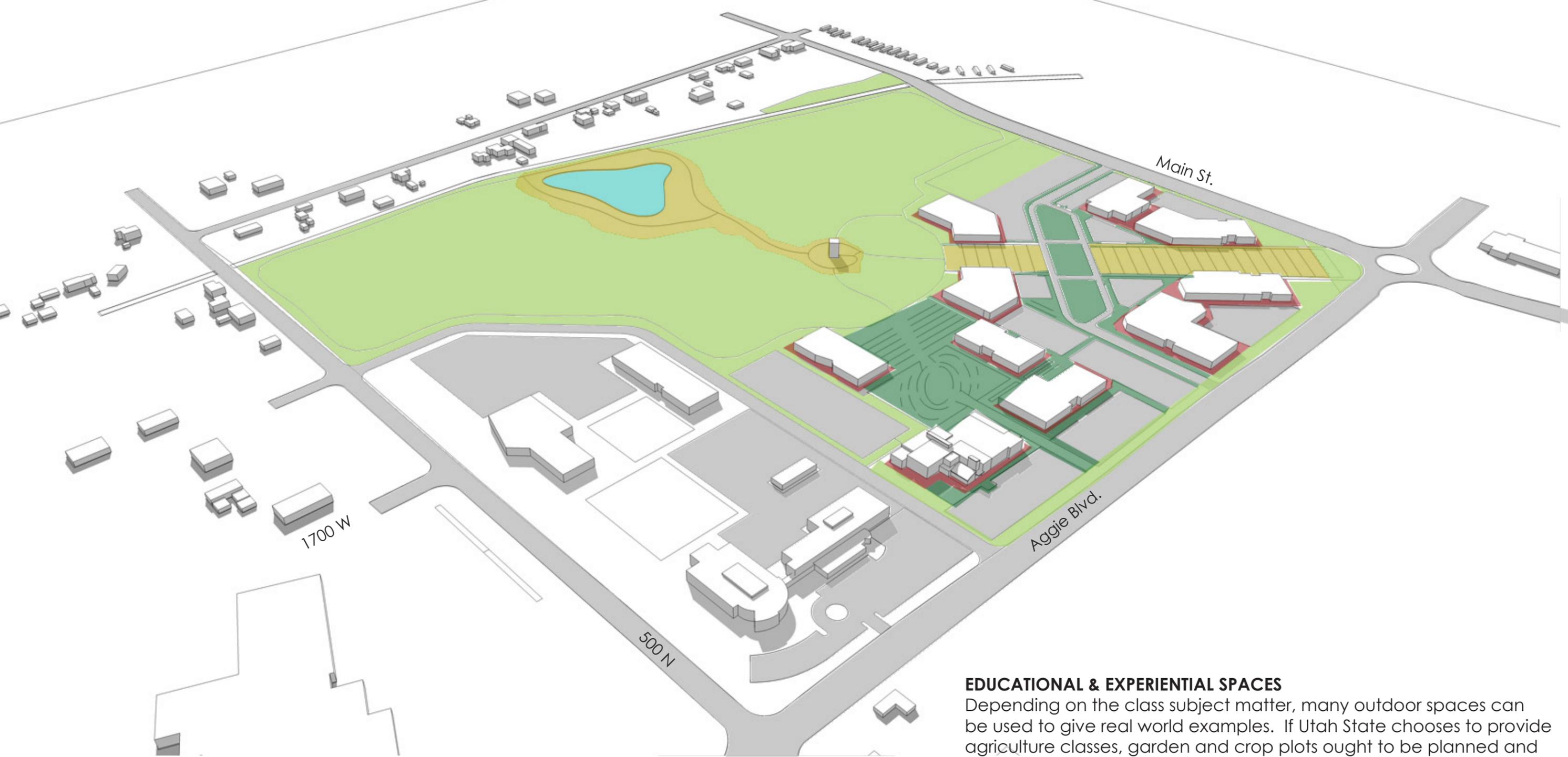
BUILDING SITES

Shown in the image as red, these spaces are landscapes immediately adjacent to buildings. Landscapes like these primarily are used to complement the build design and use, but are limited in how they are used. For example these sites could be developed with energy conservation and renewable energy in mind. Sites like these could also

play a significant part with rain water retention and harvesting. Specific building sites should complement both the structure/building use while maintaining a relationship to the overall master plan aesthetic and function.

EDGES AND OPEN SPACES

The student experience is processional in nature and the design of a college campus should reinforce this experience in the definition of academic spaces. The edges and open spaces of these campuses are both intensive and extensive landscapes, meaning there will be varying degrees of formality and informality. The uses of these types of landscapes can range from formal campus edges to open fallow fields. Because raw land has a “weedy” look to them, it would be recommended that these landscapes be purposely planted and reseeded with functional and active native plants. Sports and recreational fields are also included in this category.



- Edges and Open Spaces
- Formal Campus Landscapes
- Building Sites
- Educational & Experiential Spaces

EDUCATIONAL & EXPERIENTIAL SPACES

Depending on the class subject matter, many outdoor spaces can be used to give real world examples. If Utah State chooses to provide agriculture classes, garden and crop plots ought to be planned and designed to maximize the learning experience. These landscapes will work with the phasing of campus plan because they provide a use for vacant lands. Beside agricultural uses, other educational landscape may include sustainable civil engineering, architectural and landscape architectural design practices. Additionally vacant landscape become wildlife habitat and provide environmental/ ecological educational spaces. Besides actual outdoor type “labs”, these spaces ought to enhance a studying environment for the campus patron. These study-friendly spaces encourage the importance of education. Plazas, quads, malls and sitting areas encourage these types of outdoor room study environments.

There are many details to consider as the campus is developed that would help to create the academic experience. First, it's important to program various outdoor spaces that serve as both public and private uses. A commons or quad space is often centrally located within the campus grounds and helps to serve as the "democratic" space. This space would be used to host large public events like commencement and other university-wide outdoor activities. Attached or adjacent to the campus quad are supportive spaces that can act as more classrooms and small group gatherings. These types of spaces create opportunities to foster friends and facilitate comfortable social interactions.

Open spaces within campus boundaries are additional opportunities for providing in-depth teaching experiences that connect students with the landscape. Wetland areas, mountain edges, and fallow fields can act as outdoor classrooms that provide direct evidence how these landscapes work and function (depending on the subject matter). Like the design directive within formal landscape area on campus it also helps to provide various scales of spaces in these open lands to facilitate differing learning activities and experiences.

SITE DETAILS

When discussing the detail treatments it helps to think from the ground up.

Soil: A well-conditioned growing medium that will allow the establishment of all vegetation. It's important to remove all contaminants and have the appropriate depth for the specified plants.

Groundcovers: A medium ranging from turf grasses and shrubs to organic and inorganic mulches.

Ornamental shrubs: These plants help to define and enhance outdoor spaces through strategic placement. Color, size, shape, texture, and smell are important characteristics to consider when using these plants.

Pavement: A hard walking surface that is easily accessible and that addresses the adjacent environment appropriately.

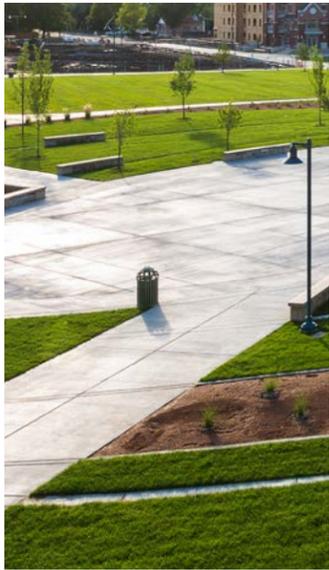
Drainage: A crucial component of landscape design is how precipitation is managed on a site. When considering sustainability practices in the design of this campus, storm water ought to be managed on-site. On-site retention, (which will most likely be on the southeast and lower end of the campus) should be incorporated in the landscape plan.

Trees: Important environmental elements that have a multitude of functions, i.e. air quality, climate control, aesthetics, and habitat. The appropriate placement of native and adaptive trees will help to establish the campus feel and function.



The Central Quad space at the Roosevelt Campus could have a look and feel like this, with the 'A' in the middle of the space





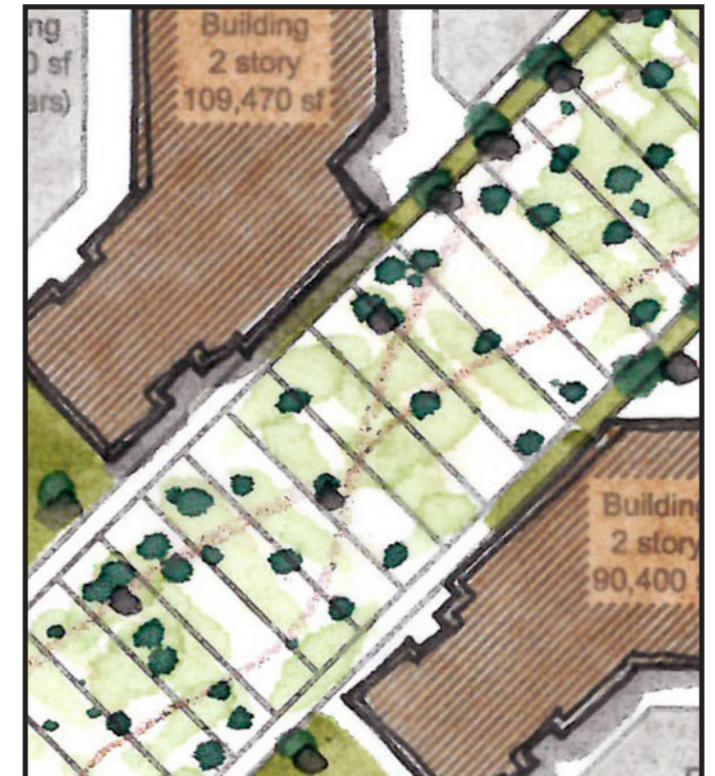
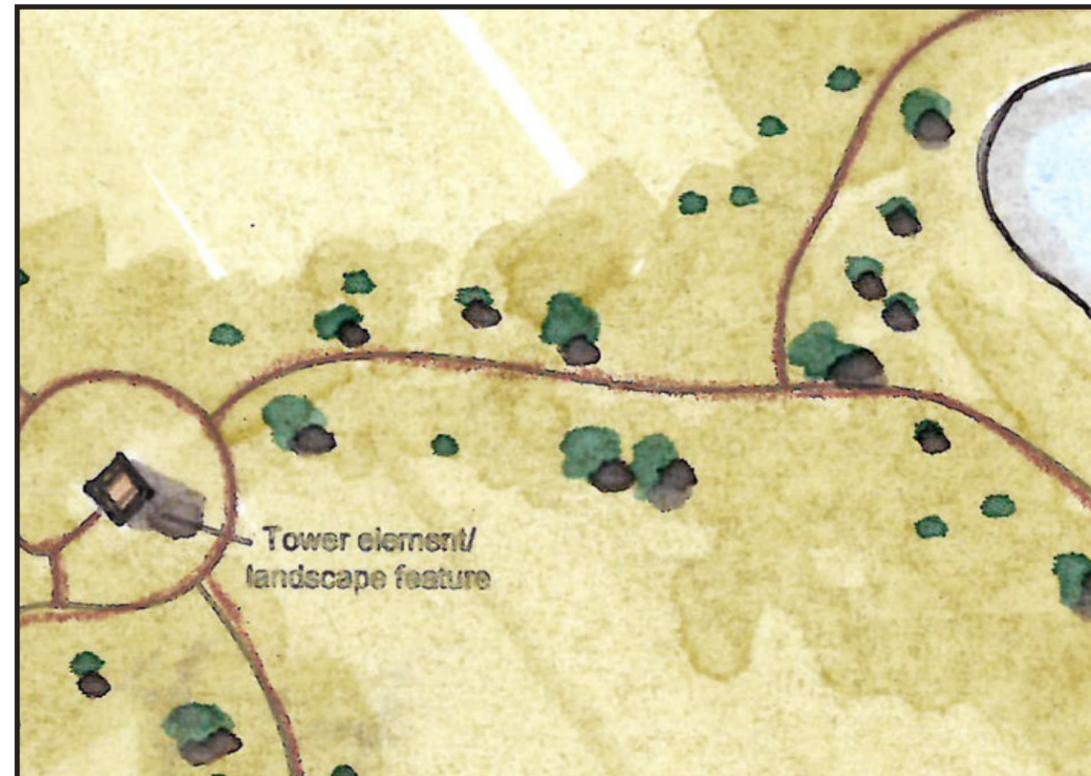
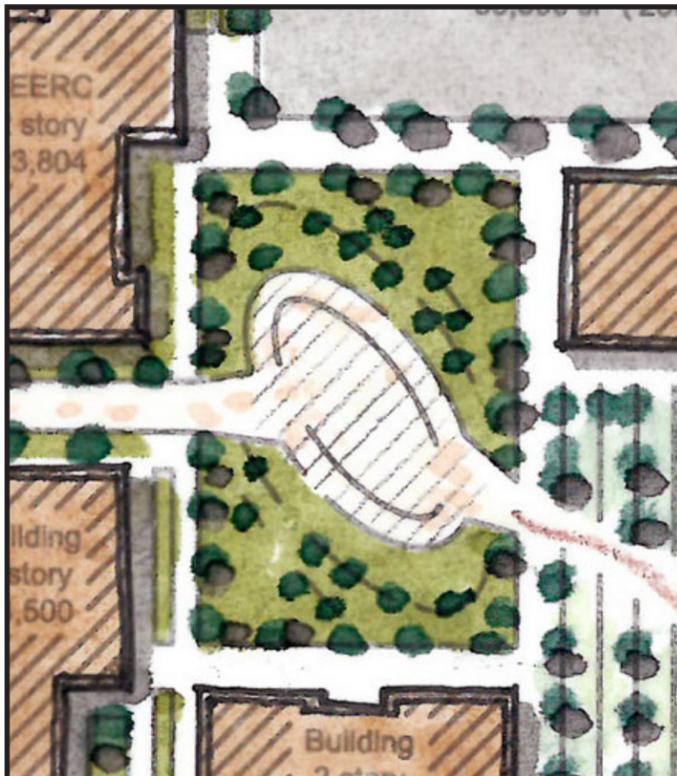
Various Scales of Outdoor Spaces or Outdoor Rooms at the Vernal Campus



Open Space/Educational Space on the east half of the Vernal Campus



Active Learning Spaces/Demonstration Gardens at the Vernal Campus



SITE ELEMENTS

The proper application and use of site elements should be based on a comprehensive approach that includes appearance, style, and usage - and whenever possible be of sustainable/recycled resources. This will be important in USU's continuance as an environmentally sensitive and sustainability driven institution. Site elements include but are not limited to: seating/benches, trash receptacles, planters, bike racks, light fixtures, etc.

Site elements, when properly placed and balanced, create great outdoor spaces which foster campus communities and encourage social interaction

Shade structures provide relief in hot weather and also provide areas for relaxation

Shade trees when strategically placed can also achieve this purpose

Signage and wayfinding elements are critical in the landscape for ease of use and navigation of the site by both motorized and non-motorized traffic.

Signage design should be well integrated with the overall theme of both campuses

** Refer to USU's Wayfinding and Signage Guidelines : <http://www.usu.edu/facilities/docs/SignageMPFinal.pdf>*

Planters and planter beds when appropriately placed bring color, texture and variety with every season



Benches and seat walls should be functional and comfortable, and contribute to the aesthetic quality of the open spaces

Bike racks, when available on campuses, encourage biking and multi-modal transportation. Well designed bike racks serve as nice landscape highlights.

Adequate lighting is critical on a college campus for security and navigability. Lighting choices should be appropriate for all users including pedestrians, cyclists and motorists.

Well designed trash receptacles are functional for litter prevention when appropriately placed while also serving as highlights in the landscape.

Light fixture choices depend on use, placement, luminance levels required, design of fixture and overall theme of campus landscape elements.

Ample space must be created to allow for the use of non-fixed landscape elements



Utah State University
UINTAH BASIN

"The wise man must remember that while he is a descendant of the past, he is a parent of the future."
- Herbert Spencer

SUSTAINABILITY

Sustainability Strategies

USU COMMITMENT TO SUSTAINABILITY

In early 2007, USU President Stan Albrecht signed the American College and University Presidents Climate Commitment, as part of a nationwide movement to reduce global warming by achieving climate neutrality. USU was the first institution of higher education in the state of Utah to sign on to the commitment. The USU Sustainability Council was convened immediately following the signing of the commitment, and was charged with developing strategies to achieve the goals and benchmarks set forth by the Climate Commitment, administered by the Association for the Advancement of Sustainability in Higher Education (AASHE). Since the signing, the university has developed a Sustainability Policy (Policy #106 of the USU Policies Manual). It reads:

Utah State University (USU) is one of the nation's premier, student-centered, land grant, and space-grant universities. The University is committed to enhancing the quality of life for individuals and communities by promoting sustainability in its operations and academic and service missions.

USU will develop appropriate systems for managing environmental, social, and economic sustainability programs with specific goals and objectives. This policy supports the goal of the USU statewide system to prepare students, faculty, and staff to proactively contribute to a high quality of life for present and future generations.

Additionally, USU established a benchmark document to establish its carbon footprint, and is tracking changes annually. The USU Climate Action Plan document outlines key areas of focus and strategies to achieve carbon neutrality by 2050.

Because the USU Climate Action Plan ambitiously aims for climate neutrality by 2050, USU will need to take big steps towards this goal. Commuting and energy usage by buildings are by far the biggest contributors to the university's carbon footprint. Energy efficiency, alternative energy, and alternative transportation strategies will be the major areas of focus in achieving climate neutrality. Culture and educational programs will also play a major role in behavioral shifts.

STATE OF UTAH COMMITMENT TO GREEN BUILDINGS

The State of Utah design requirements states that all new buildings must meet sustainable design standard, known as the High Performance Building

System. The guideline, implemented in March 2015, is diverse and includes requirements for site development as they relate to building design and construction. As the development of complete campuses are not the purview of the HPBS, it does require the following:

- A focus on pedestrian and bike access and circulation through the site
- An emphasis on limiting single rider vehicle impacts and increased focus on public transportation usage through the reduction of parking stalls
- A desire for reduced maintenance and reduced water consumptive native and adaptive landscapes
- Implementation of Best Management Practices for Storm Water
- Reduction of heat island effect and light pollution

These guidelines seek to incorporate recommendations from ongoing campus initiatives championed by "Blue Goes Green", the USU 2012 Energy Conservation Plan, as well as appropriate national trends and initiatives such as Leadership in Energy and Environmental Design (LEED) and Sustainable Sites Initiative (SITES). USU has met or exceeded this standard previously. USU continues to require LEED Silver certification or higher for all new buildings. In the past several years, USU has constructed two (2) LEED Platinum certified building, three (3) LEED Gold certified buildings (+2 pending), and two (2) LEED Silver building (+2 pending) and one (1) Sustainable Site Initiative Project.



The BEERC building on the Vernal Campus is LEED Silver certified

SUSTAINABILITY FOR THE UINTAH BASIN REGIONAL CAMPUS

The USU Uintah Basin Regional Campus in Vernal and Roosevelt has a unique opportunity to become an example for USU in sustainable campus design. As the campus is shaped, planning for sustainability should be emphasized from the start. Sustainable design may be accomplished on many levels, from neighborhood development, site design, transportation planning, and building design. Objectives for sustainability should be set early in the design process, and a system for developing measurable, high performance projects should be implemented and followed.

The design, transportation and engineering recommendations for this Master Plan made mention of sustainable practices that can help the Institution achieve its goals.



LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED)

One of the better known green building rating systems, Leadership in Energy and Environmental Design or LEED is an independent, third party verification that a building or community was designed and built using strategies aimed at achieving high performance in the following categories:

- Sustainable Sites
- Water Efficiency
- Energy Efficiency
- Materials Selection
- Indoor Environmental Quality
- Innovation & Design
- Regional Priority



Each project must achieve a set of prerequisites and will be awarded up to 100 possible points which will result in varying levels certification beginning with "Certified", graduating to "Silver", "Gold" and "Platinum" certification. As mentioned above, the State of Utah requires Silver certification for all new state buildings and Utah State University has commonly surpassed this goal.

With various potential rating system tracks within the LEED family, LEED for New Construction (LEED-NC) will likely be most commonly used for new buildings on the Uintah Basin Campus. However LEED for Neighborhood Development (LEED-ND), addressing larger scale community planning and growth, would be a beneficial guide for the campus development. Incorporating a specialized set of prerequisites and up to 110 potential points, LEED-ND rates high performance in the following categories:

- Smart Location & Linkage
- Neighborhood Pattern & Design
- Green Infrastructure & Buildings
- Innovation & Design
- Regional Priority

LOCATION AND RESOURCES

The location of the campuses, within Vernal and Roosevelt, sets it up for economic stability and increased walkability/bikeability by its placement near retail and within walking distance of downtown. The counties and cities have shown their support, both financial and by way of endorsement of the

project, giving it a commitment for success. Development of each campus site provides new life to the area and economic stimulus in the future. While the Uintah Basin Campus has its own challenges and advantages for sustainability, it is part of a large network of Utah State University campuses. Decisions and goals for this location should be made to maximize the location while taking into consideration the larger overarching goals of USU. Among others, USU's initiatives in transportation, carbon offsets, site and process water reduction, and recycling. Specific strategies to review for the Uintah Basin Campus location include ground source heat and solar opportunities.

SUSTAINABLE SITE INITIATIVE (SITES)

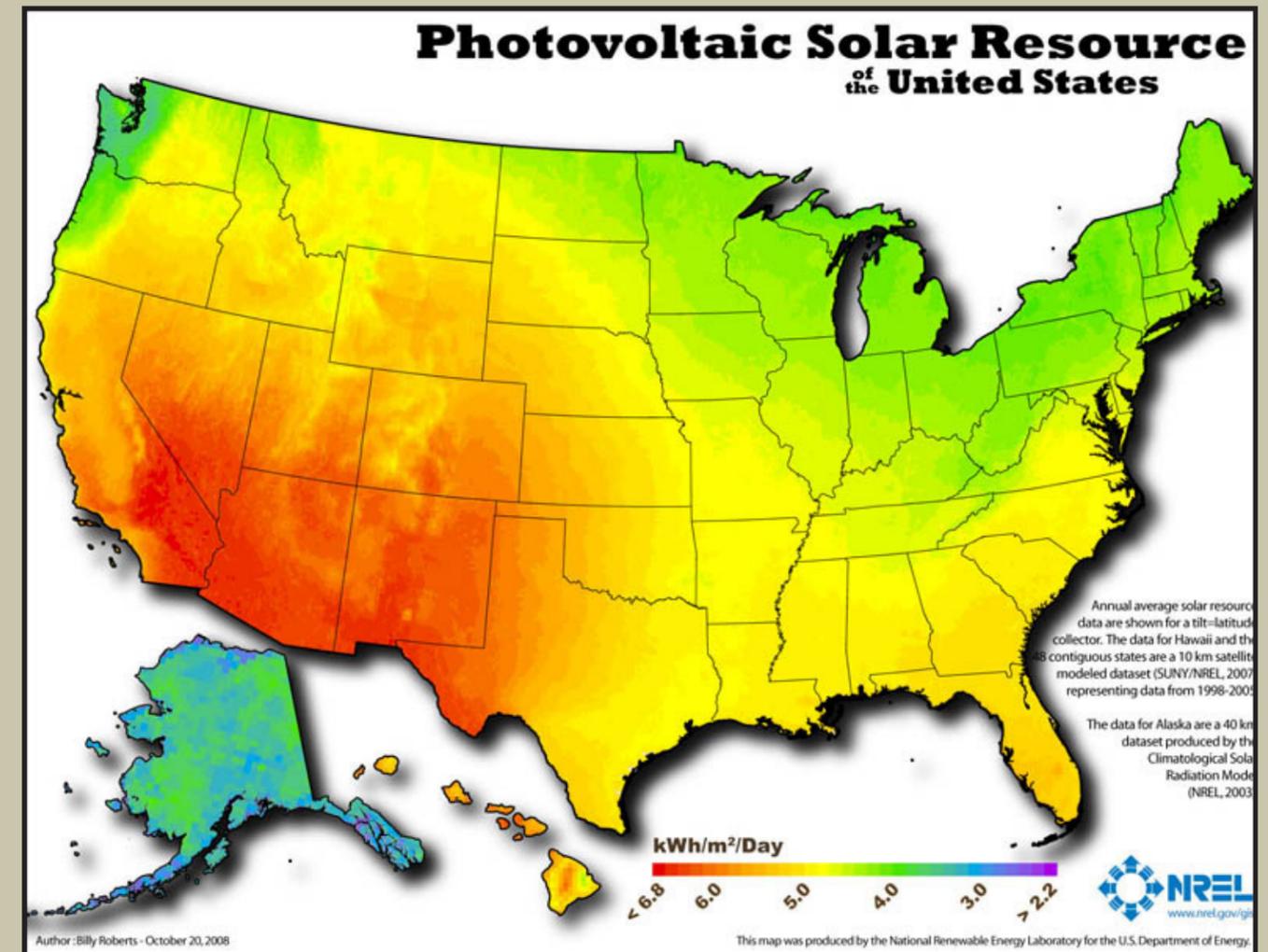
THE SUSTAINABLE SITES INITIATIVE™



A relatively new rating system has been developed by the American Society of Landscape Architects with the Lady Bird Johnson Wildflower Center and the United States Botanic Garden called the Sustainable Sites Initiative (SITES). This program promotes sustainable land development and management practices that can apply to sites with and without buildings. Using this guideline would offer a holistic approach of viewing the new campus and its design to fit within your sustainable culture. This rating system includes a system of prerequisites and points awarded for high performance in the following categories:

- Site Selection
- Pre-Design Assessment & Planning
- Water
- Soil & Vegetation
- Materials Selection
- Human Health & Well-Being
- Construction
- Operations & Maintenance
- Monitoring & Innovation

Achievement in these categories results in points rendering final ratings between one (1) and four (4) stars. Whether USU decides to pursue this certification or not, the guidelines within this rating system provide an organized approach and standards for sustainable site development.



SOLAR

Using photovoltaic solar resource maps from the National Renewable Laboratory, the state of Utah is estimated to produce between 5.3-6.3 kWh/m²/day or 5.3-6.3 kilowatt hours per square meter per day. This refers to the effective amount of power able to be harnessed through photovoltaic panels per day, providing power sufficient for panel installation to contribute to the campus building or site electrical use. In this same theme, solar hot water panels can use this same viable solar resource to provide low cost hot water for campus buildings. This is especially cost effective on dorms or recreational buildings which have higher hot water needs.

GROUND SOURCE HEAT

Many regions in Utah have been located as viable locations for ground source heat pump use including the Utah House located in Kaysville. With this system the relatively constant ground temperature can be used to pre-heat/ cool water or be used to reject waste heat/cooling. To review the Uintah Basin campus site for potential to use ground source heat pump, USU will need to commission a thermal conductivity (TC) test to explore the grounds ability to move and transmit heat.

Significant site development will occur over the lifespan of these campus sites. Work will include modification to previously developed sites on both campuses, the development of sites for new construction, as well as renovation and replacement of existing structures. As such, the following measures will respond to the opportunities for both new construction and with existing facilities and landscapes. A summary of potential sustainability opportunities and guidelines relevant for both campus sites are listed in the four following categories: Site Amenities, Water Conservation & Water Management, Building Systems and Land Use.



Well designed outdoor seating areas take into consideration season exposure, landscape diversity and creation of active and passive activity areas.



Bike racks support alternative transportation.



Trash and recycling containers in use.

SITE AMENITIES

Creating a holistic sustainable campus is the goal of the site amenities section of the guidelines. This includes use of recycled materials, supporting active and healthy lifestyles, and taking advantage of natural systems which already occur on site. The following potential strategies are just some ways that site sustainability can be improved on each campus site.

- Supporting bike use through planned pathways, as well as dedicated and secure parking near building entrances.
- Provide outdoor trash and recycling containers/receptacles.
- Plan for landscape elements adjacent to buildings and parking areas to provide shading/limit solar exposure.
- Design walks, drives and roofs with high albedo finish to limit heat island effects.
- Consider life-cycle costs when selecting site amenities.
- Emphasize acquisition of site infrastructure products which are locally produced using recycled materials.
- Utilize materials that are durable, long lasting and fit the overall style of the campus.
- Specify fully shielded outdoor lighting to support dark sky initiatives.



Outdoor lighting design respects dark sky initiatives while adding to campus safety.

WATER CONSERVATION & MANAGEMENT

Set in the semi-arid portion of the Intermountain West, much of the water utilized for building services and site irrigation comes from snowmelt. As such, it is a precious resource to be carefully managed. The following potential strategies are ways that water use can be managed and conserved.

- Reduce potable water use for irrigation. Utilize irrigation management systems which adjust irrigation for the weather.
- Rainwater reuse, through the use of bioswales, visible stormwater runnels and site design to accommodate seasonal snow storage.
- Manage stormwater on-site in coordination with local and state regulations.
- Selective use of turf grass and minimized areas dedicated to activity areas.
- Use of permeable paving to allow from stormwater and snow melt percolation.
- Green roofs to capture rainwater, extend roof life, increase thermal performance where feasible.
- Protect and restore natural hydrologic functions through the design of natural areas, use of native/adaptive planting and protection of on site water features.



Signage illustrates "Blue Goes Green" initiatives.



Bioswale integration in a parking lot.



This green roof design includes walking paths, skylights and dense adaptive planting.



Incorporate native landscapes into course offerings and campus welcome events.



Building integrated photovoltaics at the Agricultural Science Building at USU.



Passive strategies can be incorporated.



Material selection to plan for thermal lag.

BUILDINGS AND SYSTEMS

According to the US Environmental Protection Agency, buildings account for 36% of total energy use, and 65% of electricity consumption in the United States. Utah State University has committed to the ACUPCC to achieve carbon neutrality by 2050. The following strategies are some of the ways that existing and future facilities can assist in achieving this important goal.

- Use photovoltaic and wind turbines to produce alternative energy, in ways that are not obtrusive to the overall campus character of each site.
- Configure building massing for passive ventilation and solar gain as feasible.
- Consider building footprint and materials for daylighting and thermal lag opportunities in new construction.
- Consider geothermal opportunities for existing and new construction.
- Use occupancy sensors and automatic lighting controls where appropriate.
- Design and construct new facilities to meet LEED Silver or higher certification standards and DFCM High Performance Standards.
- Implement 2012 Campus Energy Conservation Plan measures addressing the climate accord to reduce energy use intensity (EUI), lower plug and phantom loads.
- Retro-commissioning of existing buildings to determine the needs and opportunities of existing facilities.

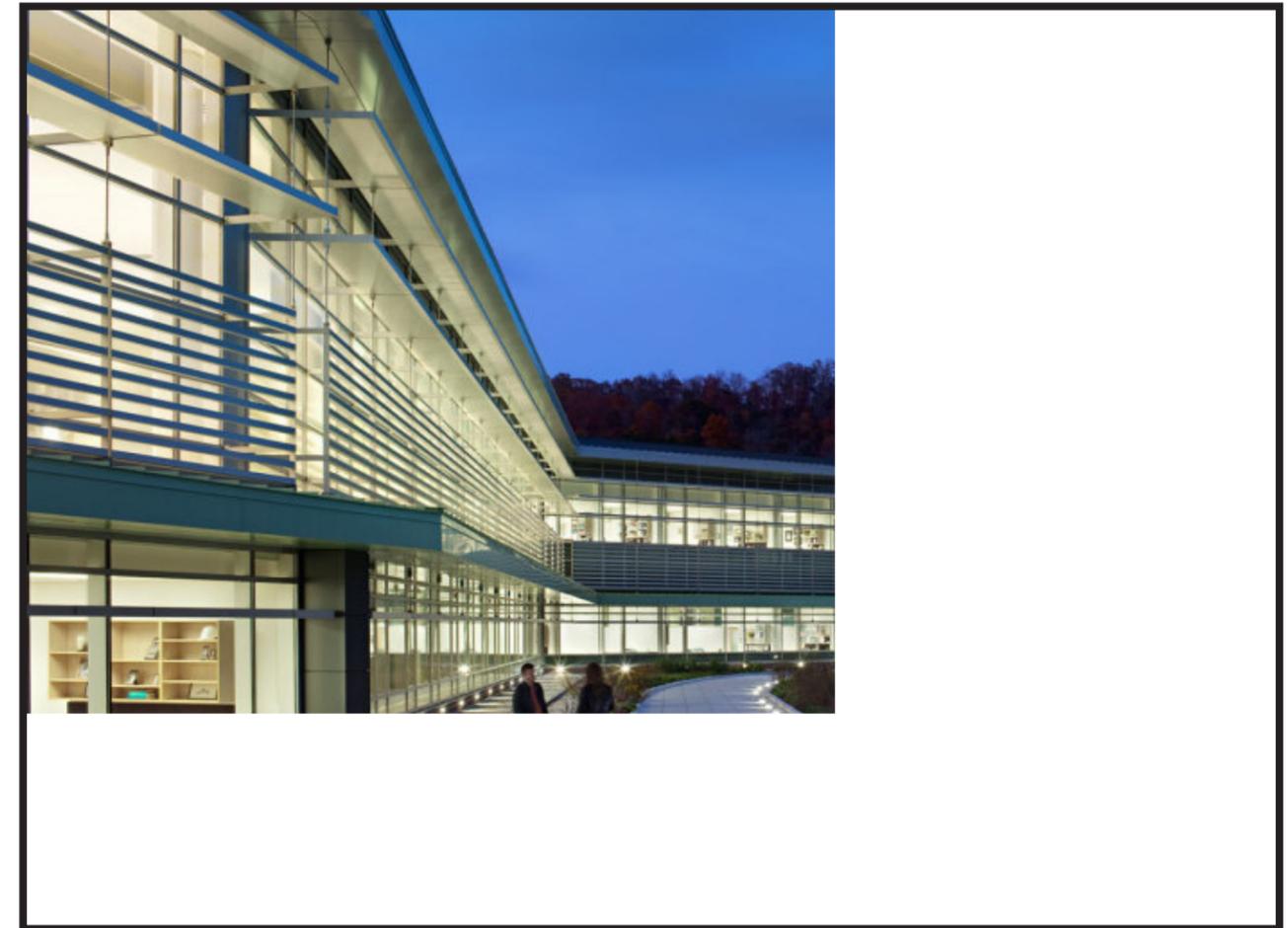


Retro-commissioning of existing facilities, such as the BEERC Building, could increase efficiency.

LAND USE

Each campus, Vernal and Roosevelt, is unique. Vernal's 140-acre site is surrounded by a mix of agricultural, residential, and other academic uses. The Roosevelt campus is sited in a growing urban core with neighboring retail, commercial and civic uses. Although opportunities for expansion on both campuses is readily available, the efficient use of the remaining land with potential future buildings of other forms of programmed development must be carefully managed. The following guidelines seek to maximize the land use efficiency for existing and future facilities, and landscape and site development space needs.

- Protect open space for agricultural, native/conservation landscapes, trails, to support outdoor teaching opportunities.
- Enhance streetscape landscapes and hardscapes to create identifiable site elements, signage and support walkable environments.
- Increase the density of buildings supporting the creation of identifiable campus environments supported by buildings, site amenities and landscape elements.
- Preserve viewsheds to and through each campus to enhance engagement and support regional identification.
- Further incorporate transit and alternative modes of transportation on campus.
- Identify transportation management goals to help reduce single rider vehicle impacts. Incentivize transit and bike use, carpool and low-emitting vehicle use.



Enhance the walkable quality of each campus, including increasing access to walking paths, localized landscaped environments, site lighting, site amenities and access to and through the site.



Enhance the functional qualities of each campus, incorporating active use areas close to buildings.



Incorporate regional trail system with site design.



Create identifiable campus environments.

Utah State University
UINTAH BASIN

"Success is the result of perfection, hard work,
learning from failure, loyalty, and persistence."
- Pablo Picasso

APPENDIX A: Concept Plans & Drawings



ARCHITECTURE · PLANNING · INTERIORS
649 E SOUTH TEMPLE · SLC, UT 84102 · 801.355.5915 · www.crsa-us.com

USU Uintah Basin Master Plan – Open House Results

Date: 10/27/14
 To: Dean Boyd Edwards, David Law, Derrik Tollefson, Barbara Hammond, Kalyn Shorthill; USU Uintah Basin - Jordy Guth, Joseph Beck, USU Logan
 CC: Kathy Wheadon, Kelly Gillman; CRSA
 From: Donald Buaku; CRSA
 RE: Open House Results

USU UINTAH MASTER PLAN | VOTING DOT TALLY

ROOSEVELT

<p>CONCEPT 1</p> <p>Description A roundabout/drop-off area brings people to a central plaza which is framed by campus buildings. Cars park at the periphery creating a consolidated pedestrian zone.</p> <p>Highlights</p> <ol style="list-style-type: none"> 1. Easy to navigate 2. Strong presence on Hwy. 40 3. 100 N is aligned to west entry 4. Bank Bldg. can be incorporated in the earlier phases <p style="text-align: center;">21 votes</p>	<p>CONCEPT 2</p> <p>Description In this concept, a drop off area is located in the core of the campus and brings people into the heart of the campus. Parking is at the periphery creating a pedestrian only zone.</p> <p>Highlights</p> <ol style="list-style-type: none"> 1. Strong campus core 2. New curb cut/entry on Hwy. 40 3. 100 N is aligned to west entry 4. More parking on southwest corner <p style="text-align: center;">63 votes</p>	<p>CONCEPT 3</p> <p>Description A large open/formal gathering space forms the core of campus. Existing parking on the west is kept in place with a new alignment with 100 N. Access from Hwy 40 is ped. only.</p> <p>Highlights</p> <ol style="list-style-type: none"> 1. Central green lawn and plaza is bookended by a stage and iconic feature 2. Organic layout of walks and angular building forms create variety <p style="text-align: center;">27 votes</p>
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VERNAL

<p>CONCEPT 1</p> <p>Description Growth of the campus will happen as a series of quads that progress south. A programmed open space will connect the roundabout to the preserved open space.</p> <p>Highlights</p> <ol style="list-style-type: none"> 1. Preserved open space 2. Programmed open space, ped. zones 3. Walking trails 4. Focus on existing Roundabout <p style="text-align: center;">100 votes</p>	<p>CONCEPT 2</p> <p>Description Growth of the campus is concentrated around the existing buildings framing a central quad/open space. An access road divides the campus from the preserved open space.</p> <p>Highlights</p> <ol style="list-style-type: none"> 1. Concentrated growth from campus core 2. Direct trail access 3. Walking trails, preserved open space 4. Roundabout not the focus <p style="text-align: center;">24 votes</p>	<p>CONCEPT 3</p> <p>Description This concept responds to the City's future Land Use Map of developing mixed uses west of Aggie Blvd. Growth is linear, progressing south along Aggie Blvd.</p> <p>Highlights</p> <ol style="list-style-type: none"> 1. Pedestrian zones concentrated along the frontage of Aggie Blvd. 2. Transitions & trail connections from existing campus to preserved open space. <p style="text-align: center;">13 votes</p>
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COMMENT CARDS - ROOSEVELT OPEN HOUSE 10.22.14

Jerry Runnels
 Evening Security Supervisor, Roosevelt Campus

Here are a few of my comments about the Roosevelt Facility. First and foremost is the security and safety outside the buildings. I looked at the plans that were submitted and they are very nice with some good ideas for the future. **I would like to see the main parking lot put directly on the west side of the Student Center** with adequate lighting and perhaps some security cameras. That would give main access to the West main doors and would more or less serve as the front door to the Facility. Registration would be the first thing that visitors would see. Students and guests wouldn't have so far to walk at night or in bad weather.

Next on my list is to fence in the parking on the north and possibly the east side of the classroom building. That way the fleet cars would be more secure. Maybe even have an electric coded gate for faculty and staff, therefore, no students could park on that side of the building. It's very hard to watch students go to their respective cars at night when they can leave in 4 directions.

Next on my list is to **connect the two buildings with some sort of hallway**. That would make crossing back and forth more secure reduce danger of injuries because of ice, etc.

Thanks for the opportunity to voice my opinion.

Christy Mathisen

uppercountrycatering@yahoo.com | 435.621.6019

Drive through for Aggie Station; More bathrooms in Student Center.

Keep the landscape in mind so we don't lose our natural beauty.

Susan L

s.lemon@aggiemail.usu.edu

Fix the problems that exist with the current Roosevelt buildings – there are many.

Which of the Master Plan Concepts do you prefer, and Why?

Roosevelt Campus 2 & 3. There are some features from both that could be made into a 4th concept and be both functional and appealing

What other factors should the planners and designers consider as they finalize the plans?

No need for an outdoor stage – for as long as I have been here, I haven't seen enough activity to warrant using one. As far as the old bank building, keep it as a USU facility, not something or some other company leasing it.

Tara Maylett

ktmaylett@yahoo.com | Tmaylett@dcsd.org | 435.6823.3059

USU Roosevelt has been a GREAT experience for me. Being a busy mom, working mom and wife USU Uintah Basin has been easy to work with and I feel helps to set me up for success. More family activities because many students from this area have families.

Which of the Master Plan Concepts do you prefer, and Why?

Good parking – easy access to building. Close to entrance of each building so I feel safe

What other factors should the planners and designers consider as they finalize the plans?

Good lighting in the parking lots

Need a signal on Hwy 40

Like the drive through/drop off.

Like the oval/stage area.

I am not sure that many who have not been to a larger campus can understand the value.

Would like to see the campus grow to **include dorms**.

Kids will stay if we turn it more into a 'real' college campus – and work with businesses to provide jobs for their education

Which of the Master Plan Concepts do you prefer, and Why?

Combo of 2 and 3 – Drop-off with round stage area

I am partial to Vernal as that's where I am from but regarding Vernal's concepts, I prefer 1 & 3. This is because of the larger presence both renderings offer. I don't like the idea of wasting space but I also don't want it to feel cramped.

Roosevelt: Consider incorporating the oval and soft landscaping in Concept 3 into Concept 2

COMMENT CARDS - VERNAL OPEN HOUSE 10.23.14

Miranda Liddell

Miranda.liddell@aggiemail.usu.edu | 435.823.8080

Vernal Campus: Biggest concern is **preservation of open space** for agriculture and research. I could care less about walking trails and architecture. What is important to me is ease of access and how it will affect future learning opportunities such as research.

Roosevelt Campus: Biggest concern is too much sidewalk. I enjoy the grass, it is awesome to hang out on.

Which of the Master Plan Concepts do you prefer, and Why?

Roosevelt: Concept 1 & 3 because of **how open they are and parking**. Concept 2 feels closed off.

Vernal: Concept 1 & 3 because of **preservation of open areas** especially focused around the pond.

What other factors should the planners and designers consider as they finalize the plans?
Students don't really care about architecture and fancy sculptures. Education is more important and building plans should be geared towards what will make a great learning environment and will provide the most research opportunities, not towards what is 'pretty' design

Which of the Master Plan Concepts do you prefer, and Why?
Concept 1 – seems more interactive. Better looking design. **Seems more like a campus instead of industrial**

Kaylie France
Kaylie-bird@msn.com

Which of the Master Plan Concepts do you prefer, and Why?
Concept 1 has a more **attractive, interactive layout of the buildings.**

John Gillman
trackhurdler47@hotmail.com

The ideas for trail areas is fantastic. Use one of the proposed buildings in Vernal for use by students outside of school, like a **fitness center.**

Which of the Master Plan Concepts do you prefer, and Why?
Concept 1 Vernal and Roosevelt great use of space plus open area

Melody Gillman
qt_pie_mm@hotmail.com

Right now the campus doesn't have very much space outside to relax, enjoy nature or wait. **I like the idea of trails, more sitting areas, and a bigger place for studying and social gatherings** even as there are expansions. It would allow USU Uintah Basin to be a more welcoming place for students and the community.

Which of the Master Plan Concepts do you prefer, and Why?
I like concept 1. It looks more **open and inviting. It also goes the entire way up to the roundabout,** which I like.

What other factors should the planners and designers consider as they finalize the plans?
Right now there are fields and a canal. It still isn't developed, but I like the feel of campuses that try to **incorporate natural beauty and surrounding** as they expand

My only hope is that more Native students can receive scholarship and stay in the Basin. Come and visit a "No Excuse University" school – Eagle View Elementary. I believe when staff/professors come and connect with children – it will continue their belief they can go to college.

Which of the Master Plan Concepts do you prefer, and Why?
Vernal #2 – because of the **open concept, walking trails** and learning options

What other factors should the planners and designers consider as they finalize the plans?
The **sustainability** of the area

Connie Johnson
connie.johnson@usu.edu | 435.289.6100

Child care
Food court
Student housing



design concepts

ROOSEVELT

CONCEPT 1



Description

A roundabout/drop-off area brings people to a central plaza which is framed by campus buildings. Cars park at the periphery creating a consolidated pedestrian zone.

Highlights

- 1. Easy to navigate
- 2. Strong presence on Hwy. 40
- 3. 100 N is aligned to west entry
- 4. Bank Bldg. can be incorporated in the earlier phases

Place a dot here if you prefer concept 1. You can also write comments here

CONCEPT 2



Description

In this concept, a drop off area is located in the core of the campus and brings people into the heart of the campus. Parking is at the periphery creating a pedestrian only zone.

Highlights

- 1. Strong campus core
- 2. New curb cut/entry on Hwy. 40
- 3. 100 N is aligned to west entry
- 4. More parking on southwest corner

Place a dot here if you prefer concept 2. You can also write comments here

CONCEPT 3



Description

A large open/formal gathering space forms the core of campus. Existing parking on the west is kept in place with a new alignment with 100 N. Access from Hwy 40 is ped. only.

Highlights

- 1. Central green lawn and plaza is bookended by a stage and iconic feature
- 2. Organic layout of walks and angular building forms create variety

Place a dot here if you prefer concept 3. You can also write comments here



design concepts

VERNAL

CONCEPT 1



Description

Growth of the campus will happen as a series of quads that progress south. A programmed open space will connect the roundabout to the preserved open space.

Highlights

- 1. Preserved open space
- 2. Programmed open space, ped. zones
- 3. Walking trails
- 4. Focus on existing Roundabout

Place a dot here if you prefer concept 1. You can also write comments here

CONCEPT 2



Description

Growth of the campus is concentrated around the existing buildings framing a central quad/open space. An access road divides the campus from the preserved open space.

Highlights

- 1. Concentrated growth
- 2. Direct trail access from campus core
- 3. Walking trails, preserved open space
- 4. Roundabout not the focus

Place a dot here if you prefer concept 2. You can also write comments here

CONCEPT 3



Description

This concept responds to the City's future Land Use Map of developing mixed uses west of Aggie Blvd. Growth is linear, progressing south along Aggie Blvd.

Highlights

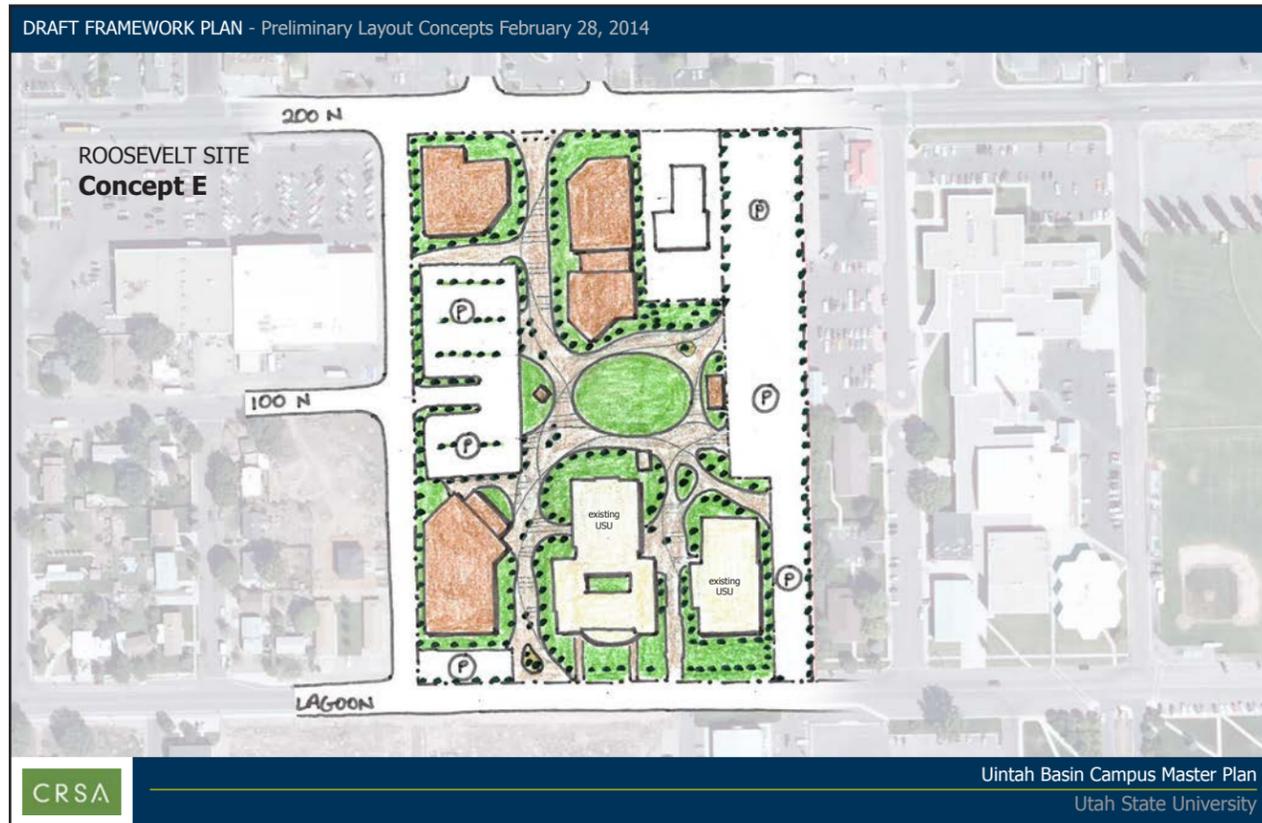
- 1. Pedestrian zones concentrated along the frontage of aggie Blvd.
- 2. Transitions & trail connections from existing campus to preserved open space.

Place a dot here if you prefer concept 3. You can also write comments here

Design Concepts - Earlier Concepts



August 2014, Roosevelt Concept



February 28, 2014 Steering Committee Review Concepts



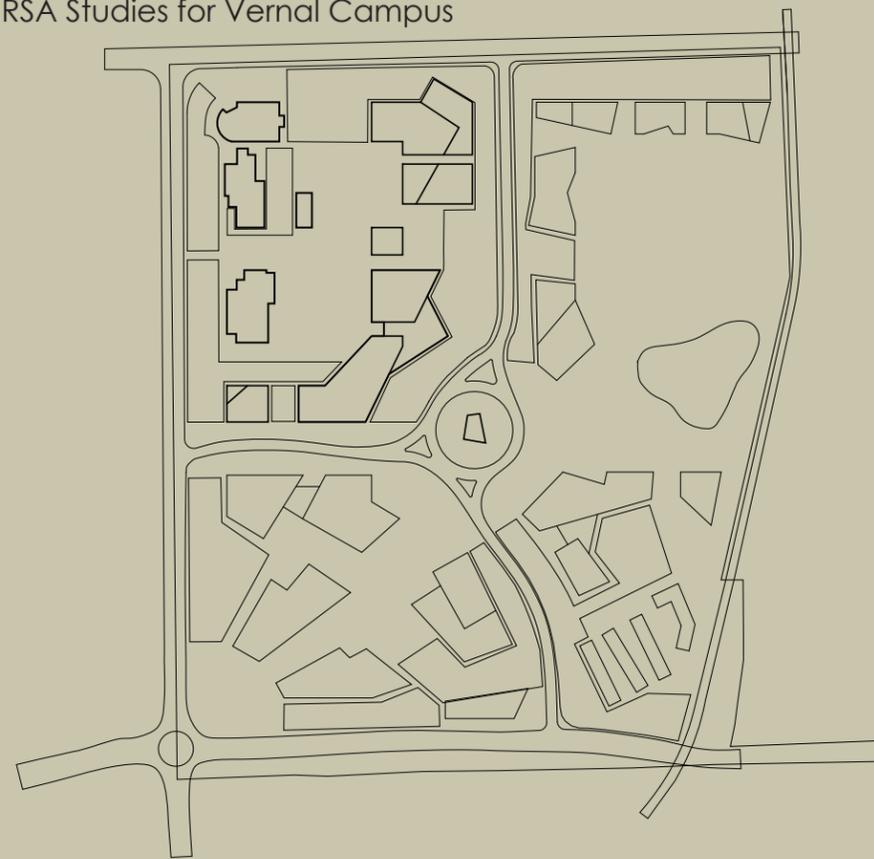


February 25, 2014 Steering Committee Review Concepts



February 25, 2014 Steering Committee Review Concepts

Early CRSA Studies for Vernal Campus



CAMPUS XPLOSION



QUADS



ORGANISM

Utah State University
UINTAH BASIN

"Man is still the most extraordinary
computer of all." - John F. Kennedy

APPENDIX B:

Data & Projections

Existing Conditions and Assumptions

The initial step in developing planning metrics for the USU Uintah Basin Regional Campus was to determine the existing conditions. The adjacent chart outlines the student enrollment at the commencement of the planning study. It also lists a number of common planning metrics that allowed the planning team to understand how the campus property is being used. This chart as a whole is considered the baseline scenario, and is used to as the starting point to project forward any changes to the campus that may be desired.

A common method for normalizing student counts is the use of the Full Time Equivalent metric. The full time equivalent student count is always smaller than the total headcount because there are always some students who are not full time students. For example, two students who are in school “half time” would equal one “full time” student. FTE is the basis of most metrics used. The current ratio of full time to headcount is 43.22% and is expected to rise over time.

Using existing square foot data the planning team developed other common metrics used to gauge how campus spaces are being utilized. Square Feet per student (again using the FTE method) is a common method for determining if the campus has adequate physical space to accommodate the needs of the students. 433 SF per Student (FTE) is current available on campus, with none allocated for student housing. The next set of metrics compares the amount of physical building space to the space allocated on the campus site.

Utah State University, Uintah Basin: Vernal & Roosevelt					
Assumptions & Existing Conditions					
Headcount Enrollment (Current)	833			<< ORANGE REPRESENTE INPUT CELLS	
FTE Enrollment (Current)	360			<< ORANGE REPRESENTE INPUT CELLS	
FTE Ratio (Current)	43.22%				
SF Per FTE Student (Current), All Uses	433.02				
SF Per FTE Student (Current), Residential Only	0.00				
Residential Ratio	0.00%				
SF Per FTE Student (Current), Excluding Residential	433.02				
BLDG Footprint (Current) of Developed Property	15.59%				
Floor Area Ratio (Current) of Developed Property	0.22				
AVG Floors (Current) of Developed Property	1.25				
Parking Ratio Property (Current) of Developed Property	25.92%				
Open Space Ratio Property (Current) of Developed Property	58.49%		% of Property	100.00%	
Projections: AREA USE METHOD		Year Intervals			
		2015	2030	2045	2060
RANGE Available = 30 years beyond what is entered into B34>>					

Physical building spaces, recreation and open spaces, and parking spaces are measured. Currently about 15% of the developed property is being used by the footprint of physical building space, with an average building height of 1.25 stories. In other words, most buildings are one story across both campuses. For the purposes of planning, the bulk of the undeveloped property

at the Vernal Campus is considered “undeveloped reserves” and not included in existing calculations while the entire Roosevelt Campus is considered “developer.” Currently approximately 25% of the developed property is parking, while nearly 59% is developed or manicured open space. Open spaces includes circulation area for pedestrians.

Utah State University, Uintah Basin: Vernal & Roosevelt

Assumption Revisions

	2015	2030	2045	2060
FTE Ratio (Current)	43.22%			
Enrollment Growth (High) Target Start Year	2015	<<Growth is higher starting this year		
Growth projected per year	3.1%	<<Initial Growth		
Enrollment Growth (Standard) Target Start Year	2045	<<Growth changes (likely slows) starting this year		
Growth projected per year	3.1%	<<Subsequent Growth		
SF Per FTE Student (Current), All Uses	433.02	400	375	420 SF
SF Per FTE Student (Current), Residential Only	0.00	0	0	84 SF
Additional Auxiliary Uses Ratio	0.00%	0%	0%	20%
SF Per FTE Student (Current), Excluding Residential	433.02	400	375	336 SF
AVG Floors (Target)	1.25	2.0	2.0	2.0
Parking Ratio by Floor Area of Developed Property	116.28%	110.00%	110.00%	110.00%
Open Space Ratio Property (Current) of Developed Property	262.35%	235.00%	215.00%	190.00%

Projections: AREA PER STUDENT METHOD

	Year Intervals			
	Existing	Phase I	Phase II	Phase III
	2015	2030	2045	2060
Headcount Projected Enrollment	833	1,317	2,082	3,291
FTE Projected Enrollment	360	569	900	1,422
FTE Ratio Target Update	43.22%	50.00%	55.00%	60.00%
Updated FTE Projected Enrollment (with new ratio)	360	658	1,145	1,974
Required Development Campus (Area)	699,225.00	1,040,284.37	1,610,015.97	2,902,375.00 SF
	146.63	23.88	36.96	66.63 Acre
Total BLDG SF	155,888.00	263,363.13	429,337.59	829,250.00 SF
Academic & Service Portion	155,888.00	263,363.13	429,337.59	663,400.00 SF
Additional Auxiliary Uses Portion	-	-	-	165,850.00 SF
Additional Auxiliary Uses Ratio	0.00%	0.00%	0.00%	20.00%
Total Floor Area Ratio	0.22	0.25	0.27	0.29
Total BLDG Footprint	108,986	131,681.57	214,668.80	414,625.00 SF
Footprint Ratio	15.59%	12.66%	13.33%	14.29%
Total Parking Footprint	181,270	289,699.44	472,271.35	912,175.00 SF
	116.28%	110.00%	110.00%	110.00%
Total Open Space Footprint	408,969.00	618,903.36	923,075.82	1,575,575.00 SF
Opens Space Fields	193,790.00	289,699.44	429,337.59	746,325.00 SF
Landscape, Circulation, Misc	215,179.00	329,203.91	493,738.23	829,250.00 SF
Open Space Ratio, by Floor Area	262.35%	235.00%	215.00%	190.00%
TOTAL BLDG SF REQUIRED	155,888	263,363.13	429,337.59	829,250.00 SF
TOTAL AREA FOOTPRINT REQUIRED	699,225.00	1,040,284.37	1,610,015.97	2,902,375.00 SF
TOTAL AREA AVAILABLE (FROM RESERVES)	6,387,040.00	6,387,040.00	6,387,040.00	6,387,040.00 SF

Projections & Assumptions

The charts on this page demonstrate numerically the changes to the campus that will drive the physical form of the campus in the future. Rather than expecting that the campus will grow exactly like it has in the past, certain changes are assumed. First, student population is currently anticipated to grow at a reasonable rate of approximately 3.1% in the near term and long term horizons. 2030, 2045, and 2060 are the selected planning horizons. Second, the planning team anticipates that the amount of space per student will drop over time. This decision is based on a comparison with peers who are more efficient with space. However, in the longest planning horizon the amount increases again. For planning purposes a place holder has been made for additional auxiliary services that don't currently exist on campus. This increases the SF/FTE from approximately 336 (between 325 to 350 as shown on page 16) to 420 SF/FTE. It is anticipated that additional auxiliary uses may be placed at the Vernal Campus, and could include student support spaces such as a student center, food service, and/or recreation. Additional targets have also been adjusted for future planning horizons. For efficiency of site utilization, it is anticipated that future buildings will be two stories in height.

Additionally, for planning purposes it is anticipated that a slightly lower parking ratio will be required in the future, but will remain fairly consistent in the long term as the majority of students will commute to campus. It is anticipated that open space ratios will drop over time as well as land is used for development of new facilities. A variable that has been adjusted on this chart is the FTE Ratio Target. Over time the USU Uintah Basin Regional Campus is expected to develop and provide a larger compliment of course offerings and services. Typically this will result in more full time students on campus. For planning purposes the planning team has projected this ratio to rise over time, which will increase the number of students on campus. To ensure the campus is not under planned, a slightly higher ratio than perhaps is likely has been chosen. If FTE growth is not as robust as planned, a simple adjustment of this ratio will rebalance the program (without changing other desired characteristics) and ensure that too much infrastructure is not developed. Final proposed square footage of the various uses, by planning year horizon, is outlined in the bottom chart on the adjacent page. Total Building, Parking, and Open Space square footages are outlined and roughly correspond to the phasing plans that are illustrated in this document. Square footage numbers should be considered as ball park figures as each is based on certain variables. There is adequate property available in the undeveloped property reserves to accommodate the modeled growth.

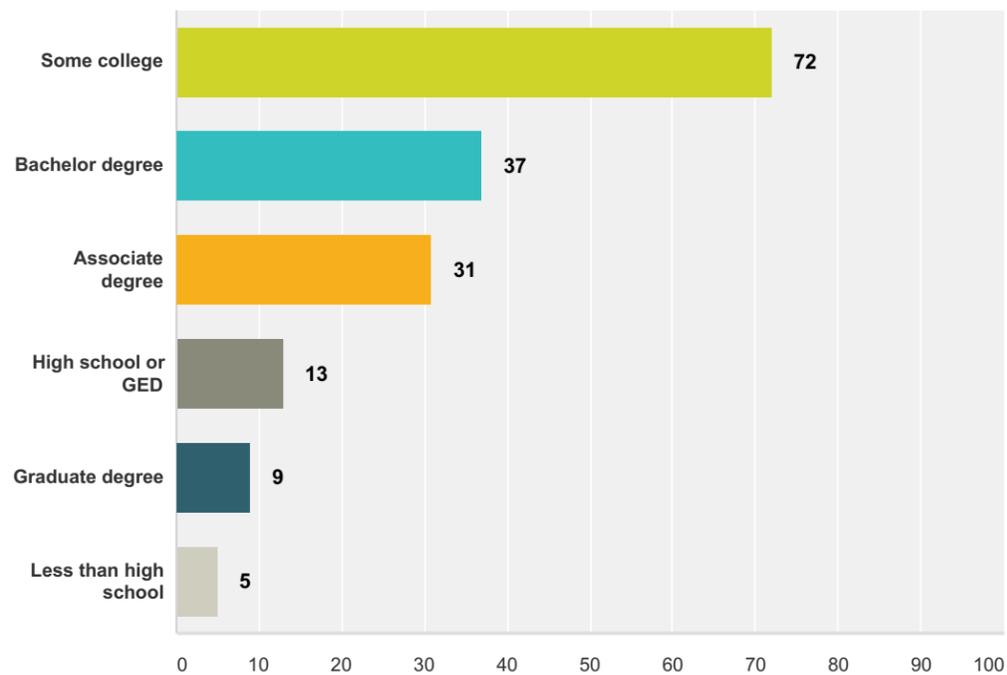
Survey

A survey was conducted on *Survey Monkey* to solicit input from students, faculty, staff and other campus users. A **summary** of the results which are directly relevant to the spatial planning of the Master Plan are shown below. The survey presented a perspective of some of the needs and aspirations of the campus users.

The word clouds on the open ended questions represent the most occurring themes and words mentioned in the responses. Larger text represent greater frequency.

Q2 What is your level of education?

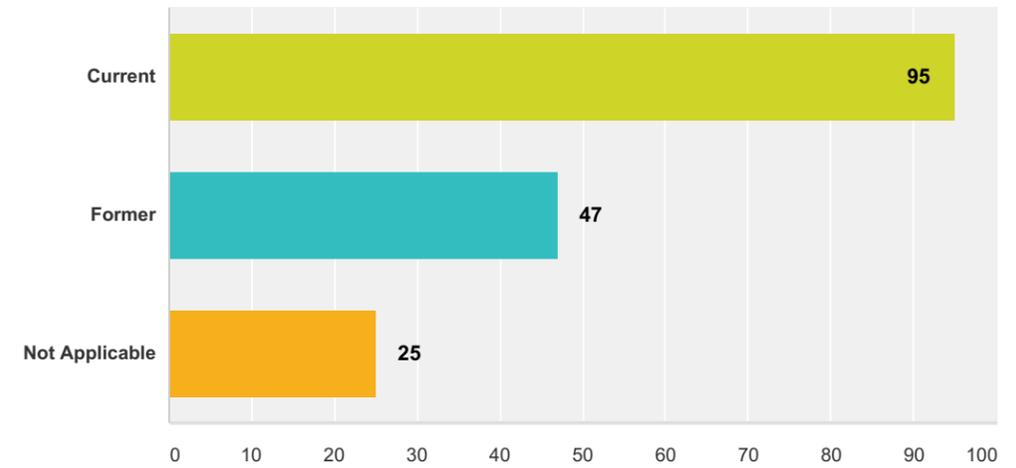
Answered: 167 Skipped: 8



Answer Choices	Responses	Count
Some college	43.11%	72
Bachelor degree	22.16%	37
Associate degree	18.56%	31
High school or GED	7.78%	13
Graduate degree	5.39%	9
Less than high school	2.99%	5
Total		167

Q3 Are you a current or former student of USU-UB?

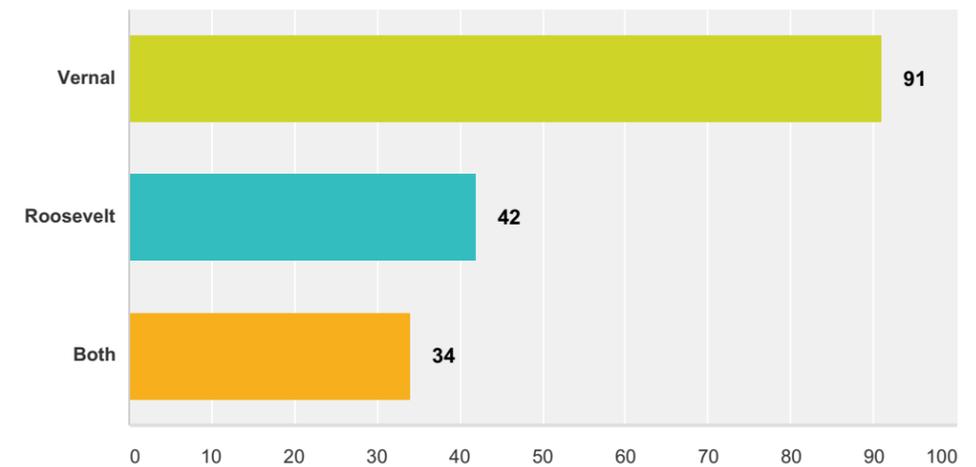
Answered: 167 Skipped: 8



Answer Choices	Responses	Count
Current	56.89%	95
Former	28.14%	47
Not Applicable	14.97%	25
Total		167

Q4 Which is your Campus of interest?

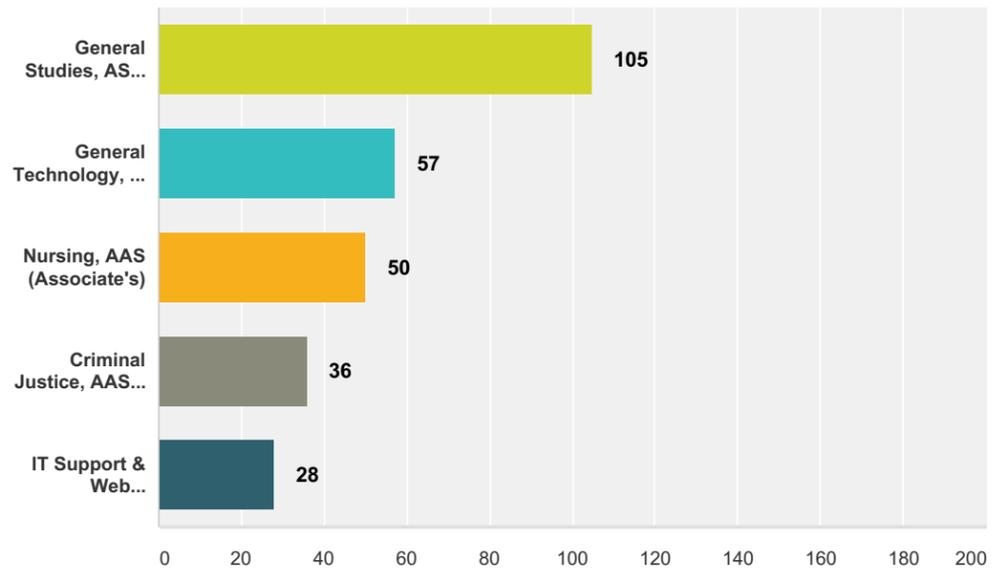
Answered: 167 Skipped: 8



Answer Choices	Responses	Count
Vernal	54.49%	91
Roosevelt	25.15%	42
Both	20.36%	34
Total		167

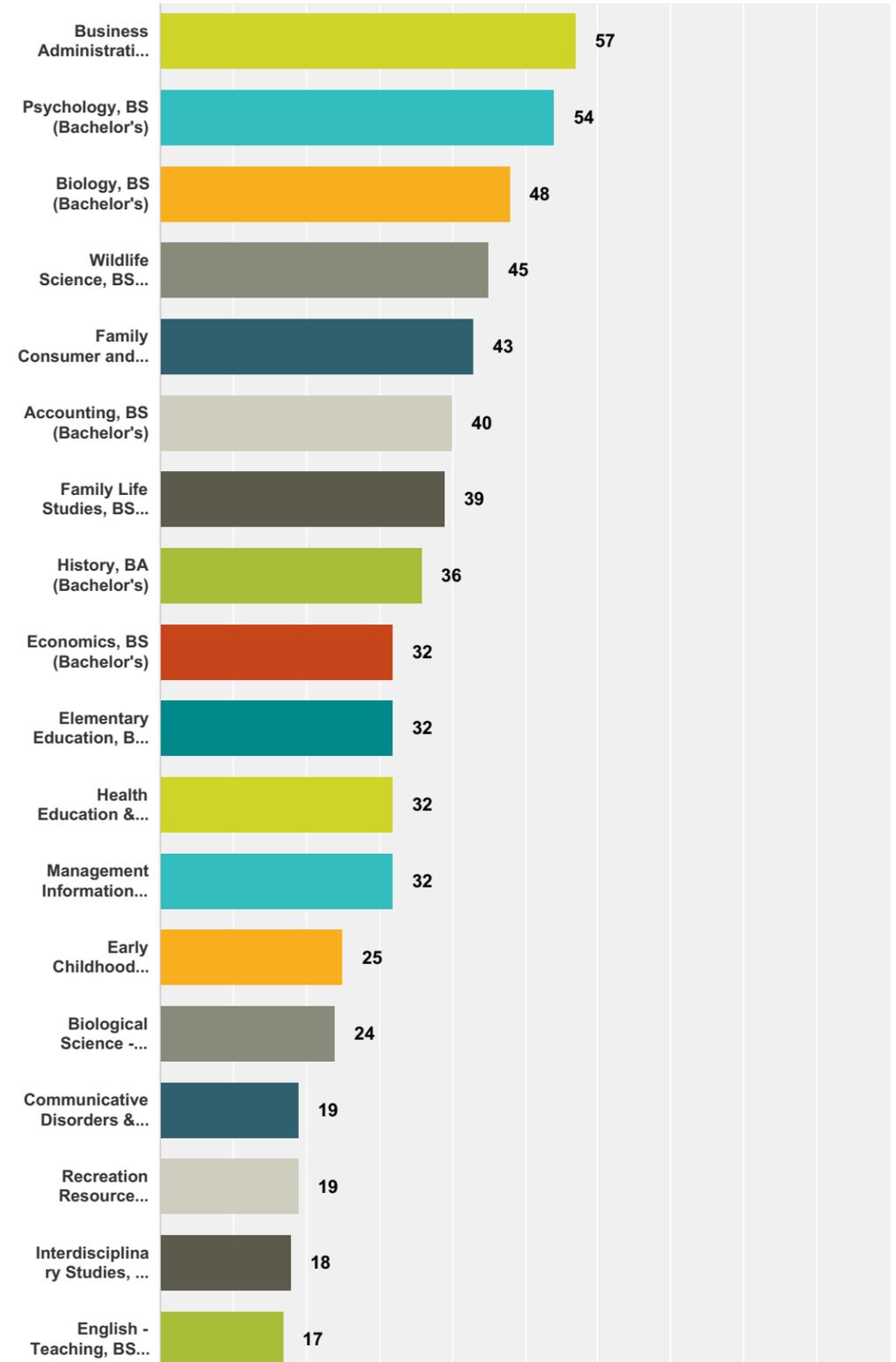
Q5 Which of the current Associate's Degree programs being offered at USU-UB are you most interested in? Please rank your top 2

Answered: 140 Skipped: 35

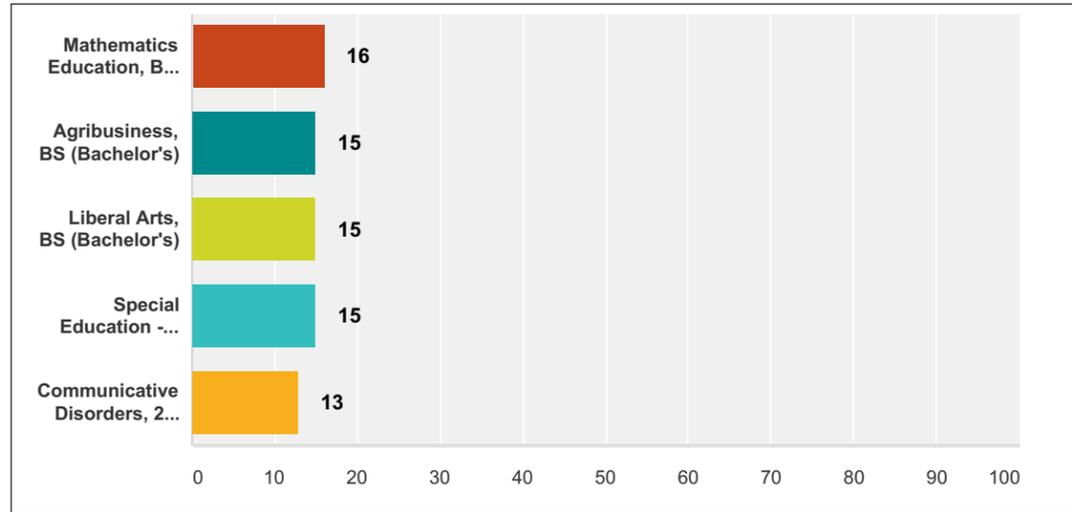


Q6 Which of the current Bachelor's degree programs being offered at USU-UB are you most interested in? Please rank your top 5

Answered: 142 Skipped: 33

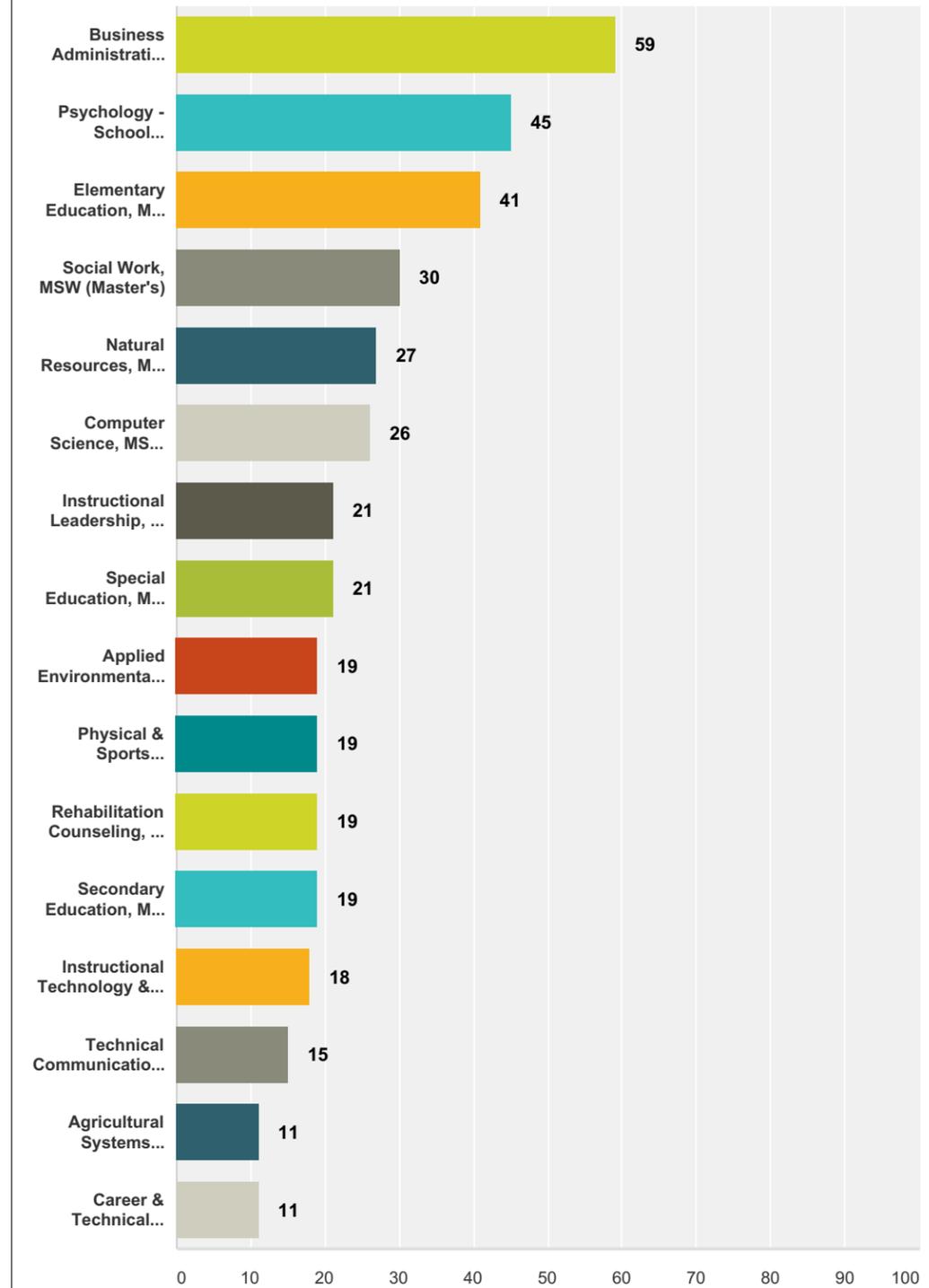


Q6 Continued



Q7 Which of the current Master's degree programs being offered at USU-UB are you most interested in? Please rank your top 3

Answered: 139 Skipped: 36



Q8

What academic programs, not already available, should be offered at USU-UB in order to meet the needs of the community?

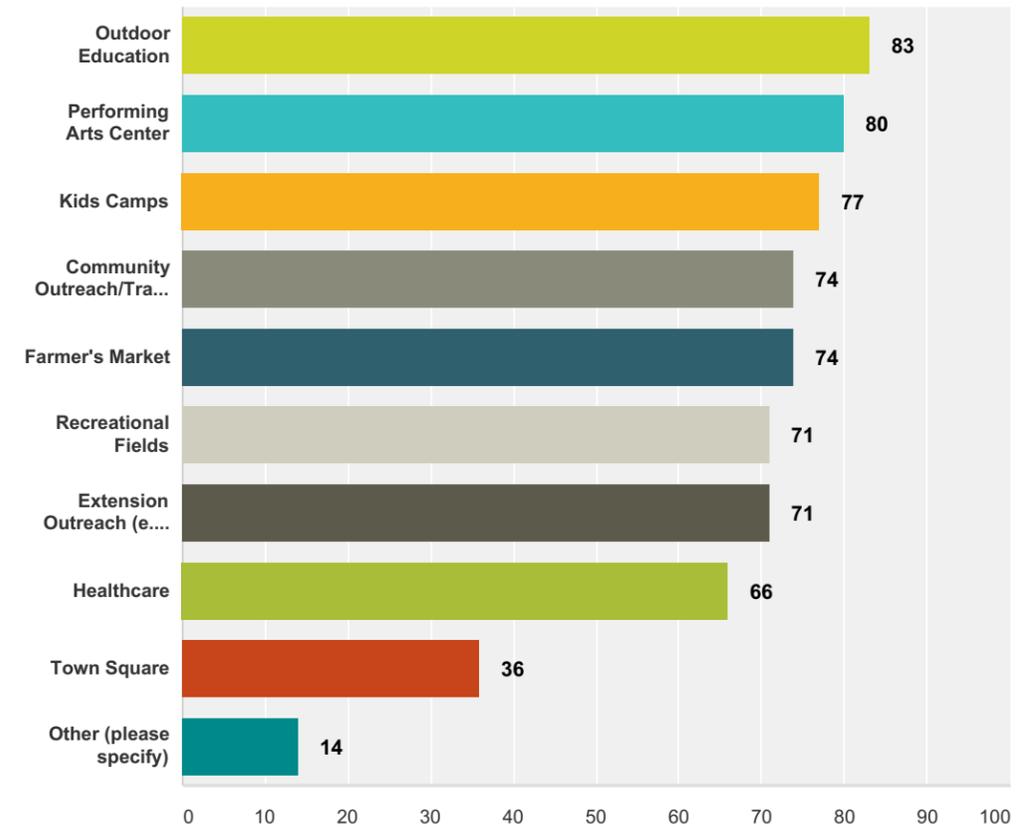
Answered: 86 Skipped: 89

Accounting Program Marketing Geology Nursing
Medicine Science Emphasis Bachelors
Education Engineering Management
Masters Specialized Art Pre Music Chemistry

USU Uintah Basin Master Plan | Invitation to Share Your Thoughts

Q9 What existing/new programs (non-academic) or facilities should be continued/offered at USU-UB to help support the community? Check all that apply

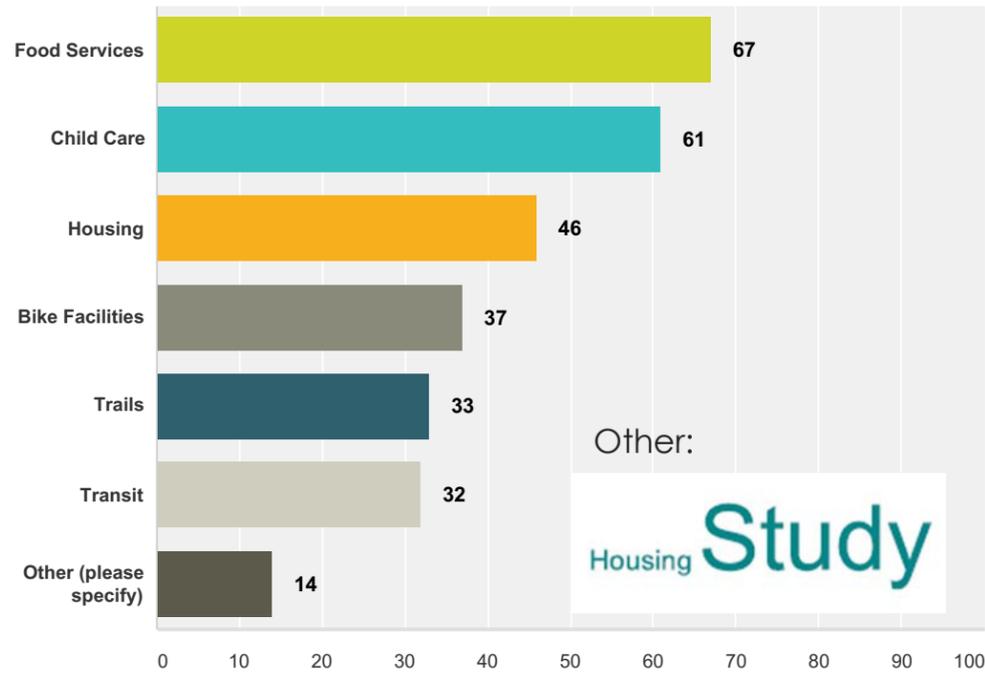
Answered: 136 Skipped: 39



Other:
Center Rodeo Food Court

Q10 What additional amenities are needed on the campuses? Check all that apply

Answered: 117 Skipped: 58



Q12 Are there other aspects of either campus in Roosevelt and Vernal that if changed would improve your experience at USU-UB?

Answered: 63 Skipped: 112

Programs Education Activities College Housing
 Attend Students Friendly Campus study
 Needs Ability Think Bring Awesome Distance
 Food Place

Q11 What are the greatest challenges or obstacles for you in pursuing a degree in higher education?

Answered: 126 Skipped: 49

Finding Needed Child Care Courses Finances
 Full-time School Getting Money Degree
 Cost Basin Financial Math Offered
 Night Classes Program Managing Schedule Mom
 Tuition

Q13 Any other thoughts?

Answered: 42 Skipped: 133

Love Room Logan Campus High School
 Concurrent Enrollment USU Vernal Students
 Education Think Glad Support Able

The entire survey results and individual responses are available upon request. Please contact the Dean's Office of USU Uintah Basin Regional Campus at 435.722.1766, or CRSA at 801.355.5915

Meeting Minutes

Date: 6/20/14
 To: Dean Boyd Edwards, David Law, Derrik Tollefson, Barbara Hammond, Kalyn Shorthill; USU Uintah Basin - Jordy Guth, Joseph Beck, Colby Goodliffe, USU Logan
 CC: Kathy Wheadon, Donald Buaku; CRSA
 From: Kelly Gillman; CRSA
 RE: Community Leaders Workshops – Roosevelt & Vernal

On June 20th, 2014, Kathy Wheadon and Kelly Gillman with CRSA attended two workshops in the Uintah Basin concerning the planning process for the two campus locations. Jordy Guth from Utah State University in Logan, and Boyd Edwards Dean of the Uintah Basin Campus hosted the event. A workshop was first held in Roosevelt followed by a workshop in Vernal. At each workshop Community leaders and stakeholders were invited to share their ideas. Attendees included city and county leaders (from the respective communities), State representatives, representatives of state and local agencies, and business owners.

ROOSEVELT WORKSHOP

Questions To Consider – Kathy Wheadon’s Table

1. **How can the growth at the USU Uintah Basin campuses support growth in the region?**
 - Energy Industry
 - Local, in depth knowledge of industry
 - ATC 6000 students/year training
 - Certificate – Leadership core 55-65 years old, build future leaders.
 - Many have gone on to USU with AA degree.
 - Bachelor’s degree to support the AAS degree (Weber – BA Applied Technology)
 - Educational linkages and additional degree programs coordination between USU – UBATC. Draw of students to basin for education.
 - Build local campus presence – student life looking for program diversity to hold students – get the Aggie experience.
 - Why not a stronger AG program here? Beef producers and supporting products.
 - Rodeo program – extracurricular activities, clubs, sports, intermural
2. **What academic programs help support regional growth and development?**
 - Advisory conference with quarterly review session to build programs.
 - Program – 600 of 900 hours paid internship during day.
 - Tribal fund
 - 5 of 6 kids left to find educational experience - send kids away also takes and parents and grandkids away.

- Fulltime BA Program
- Primary and secondary teachers
- Oil industry – robs young people of desire to get an education, but business degrees hold people in community
- ATC - Partnerships with healthcare
- Social work–
- Concurrent enrollment – with high school students and get tied to USU.

3. **What USU programs offerings are important to you as a community leader?**

- Social support. LDS institute only has evening
- Mostly for a daytime group.
- Residential life important. Daytime programing.
- Community surprised that there seems to be fewer students recruiting
- Rodeo program at USU?
- Intercollegiate sports
- Speed of degrees acquisition
- Take a risk.

4. **Are there partnerships with businesses, organizations, or governments that USU should continue to support and build?**

- Agricultural program – beef producers
- Diverse programs.

Questions To Consider – Kelly Gillman’s Table

1. **How can the growth at the USU Uintah Basin campuses support growth in the region?**

- Use sharing of buildings better. Why not use High School in the evening?
- Need a good local alumni association.

2. **What academic programs help support regional growth and development?**

- Teaching needed in community.
- Need to expand program - they are recruiting from out of area.
- Are classes at the right time during day?
- Business program needs to grow – need to educate oil field managers.

3. **What USU programs offerings are important to you as a community leader?**

- Nursing needs to grow as well and social work.
- Concurrent enrollment is useful to send students to Logan campus
- Get education back to community.
- Can’t convert community teaching positions to research positions, we need to keep focus in community needs.

4. Are there partnerships with businesses, organizations, or governments that USU should continue to support and build?

- Growth to south area might be best idea to share with high school.

General Notes: High school still looking at site to south, ATC hoping to swap out land high school fields. Put diesel training on fields, move school to site of diesel training so diesel isn't in middle of facilities.

Questions To Consider – Jordy Guth's Table

4. Are there partnerships with businesses, organizations, or governments that USU should continue to support and build?

- Student connection with community – local business, support/funding
- Student support for continuing education while working.
- Not immediate need for a while – existing buildings adequate.
- City council meetings – find out what government is doing.
- USU engineers – meet with city.
- Take a look at city master plan.
- ATC/USU partnership. High school – partnerships.
- Concurrent program - strong– recent changes
- USU – most programs and events facilitate the connections.
- Offer resources – expertise
- CEO think tank
- Fun events to bring people together.
- Acquire missing tooth properties
- Buildings – less important for education, more important for communities.
- USU chambers, Rotary, development meetings.
- Leadership/Education
- USU is a major presence/hub for activity
- Build support. Rural Utah succeeds through relationships.
- Creating connections/networking
- USU major stakeholder

General Notes:

- Green space – not functional. Use for farmers market. etc.
- Ropes course – non functional
- Child development lab – day car extension? * A big current demand *
- Gymnasium – other uses?
- Bring retail – use food etc. to bring to bldg.
- Energy and oilfield education night event.
- Need connection to education with programs.
- Science/sports camps.
- Business/entrepreneurial workshops
- Davis county has one – offers grants
- New Building?
- Encourage new housing adjacent to campus
- Support the degree programs that are here. Research \$\$

CRSA

VERNAL WORKSHOP

Questions To Consider – Kathy Wheadon's Table

1. How can the growth at the USU Uintah Basin campuses support growth in the region?

- Actively engaged to save regional issues.
- Research – support community growth
- Liberal arts – quality of life
- Workforce services – nurses / teachers. Go beyond nursing – coding technologies
- Use the site – agricultural research (use and aesthetic)
- New programs – computer technology

2. What academic programs help support regional growth and development?

- STEM – more classes
- Research facilities – best equipment in BEERC building.
- Nursing associates program now BA
- Grow own BA secondary ED. + step program
- Look at website – solve access issue
- Concurrent enrollment hook early, name
- Make college fun
- Petroleum technology program – full year – course thru
- ATC in high school next year (USU partnership of programing)
- Entrepreneurship
- Few more natural resources offerings
- Daytime offerings – full daytime program this year – general education

3. What academic programs help support regional growth and development?

- Fun activities – bring in community
- Get kids in pipeline
- Housing – no legislative assistance, traditional and non-traditional students.
- Business partnerships – oil/gas industry professionals
- Jump past working on the patch
- Don't forget agricultural roots of region/land management
- Veterinary lab – provide vet lab work testing
- With quick service results
- Childcare – community/facilities/staff/students with linkage to college of education
- More of a fun USU presence. Student programs. Recruit through activities. This should be a more 'traditional campus. Housing is difficult, very expensive, thus driving the young independent students out. Zoning and housing laws limits 'non-family' units/sharing. Non-profit housing partnership turned down by Logan Campus. Family-friendly and young adults events supported by Student Center. Draw for the entire community.
- Balance of programs/destination
- Oil and gas industry
- Collaborate with UBATC/AAS from ATC
- Ag program – summer ranch program
- Agricultural business

CRSA

4. What academic programs help support regional growth and development?

- Partnerships
- Housing could be beneficial to USU growth – not for in-migration – but to support local community both single and family housing that is affordable
- Partnerships with local gov't to solve the issue of competition with private market
- Land – Lease option to President Albrecht
- Heather Hoyt – grants administrator now working on a housing grant.
- Give a reason to enroll and stay in a higher ed. program
- Fun, longevity of lifelong learning/earning potentials.
- This region must support jobs for students as well – motels, hospital, service industry, etc.
- Qualify for housing subsidy as student
- Campus close to high school.

General Notes:

- Pathways – collaboration between industry
- Lab for Vet/Technology/lab testing
- Partnership with industry
- Key Issue: Childcare/Early childhood center – teachers like Edith Bowen like school pre K programming
- Scholarship.
- ENIFIT – 30,000 additional jobs by 2036
- Clarification on population data
- Circulation map for canal (Vernal) pedestrian trail on east
- Plan – cover canal – open water on west as small stream connected to pond and trail on west.(living pond)
- Utilities (Vernal) overlay
- Bureau of Reclamation – 2 drains lines north/south
- Show on irrigation map
- Get co. traffic counts for Vernal

Questions To Consider – Kelly Gillman’s Table

1. How can the growth at the USU Uintah Basin campuses support growth in the region?

- Research, liberal arts (including music), work force services are all needed in the community
- Need to grow nursing and teaching workshop jobs. Could be other technician as well.
- Attract businesses to area, maybe research spin off

2. What academic programs help support regional growth and development?

- These opportunities help provide quality of life opportunities to the community. This will attract people to community.
- Perhaps a cultural arts center on campus



3. What USU programs offerings are important to you as a community leader?

- Agricultural research on remaining property/Alfalfa fields. Computer technology/engineering/veterinary programs

4. What USU programs offerings are important to you as a community leader?

- Housing

General Notes:

- Community/connections
- Partner in community

Questions To Consider – Jordy Guth’s Table

2. What academic programs help support regional growth and development?

- R/N Program – adequate plans for bachelors important. (Already in planning)
- UPN Program offered. Online MBA now offered
- Addition of Masters Degrees good. Need more natural resources offerings. Geology? STEM
- Focused programs. Need more engineering offerings: civil, refining, environmental
- Use STEM as a guide post
- Education Programs – secondary ed. (need others?)
- Need more teachers
- Business – need for managers
- Research targeted to community needs
- Petroleum Technology – partner with USU by UBATC
- Daytime Programs

General Notes:

- Better partnering with UBATC
- Concurrent enrollment opportunities
- Construction – needs for skilled labor
- Journeyman support – business skills to business management



Utah State University
UINTAH BASIN

"Everything you can imagine is real." - Pablo Picasso

APPENDIX C: Engineering Data



January 23, 2015

Kelly Gillman, ASLA, AICP
CRSA, Senior Landscape Architect/Planner
649 E South Temple, SLC, UT 84102

RE: USU Vernal and Roosevelt Campuses Final Utility Analysis

Dear Kelly:

This report is per your request for a preliminary analysis of the existing utility systems within the study area (as shown on the Utility Maps in Appendix A of this report) of the Utah State University Roosevelt and Vernal City Campuses. The analysis of the existing utilities is based upon the year-2060 planning horizon and the most recent Preliminary Layout Concepts (12.18.14) illustrating the build-out of the two campuses. Civil Solutions Group determined that **there are no critical utility conflicts with the proposed conceptual plan dated 12.18.14.**

Adjacent rights-of-way provide adequate utility connections to the project boundary (including sewer, water, gas, communications and power) and are adequate for the Roosevelt and Vernal campuses. At the Vernal campus, given the high number of proposed buildings, efforts were made to minimize the direct street connections and associated saw-cutting. Accordingly it is proposed that utility mains servicing all needed structures be constructed within the Vernal Campus. This type of layout works to the advantage of the campus facilities group as it would grant them greater control over what would become internal campus utility systems. Developing a similar internal system would have been preferred at the Roosevelt site, but given that the three existing buildings all have direct connections to the adjacent streets, it was decided to take the same approach with the three proposed structures as well. Where possible utility connections with Main Street (US-40/191) were avoided given the higher degree of regulation typically associated with state-controlled rights-or-way. It should be noted that the Roosevelt site will incur some minor utility relocations to accommodate new building construction at the northwest corner and the installation of the proposed parking structure.

Options exist at both locations for storm water disposal. Given that the three existing buildings at the Roosevelt Campus site dispose of storm water via sumps, it is recommended that the three new buildings take this same approach. However, the new storm water could also be discharged into the city's system if first channeled to a detention basin and then released at historical flow rates. At the Vernal campus an internal conventional storm drain system draining to the pond on the east side of the campus is proposed. In order to receive the added runoff, pond expansion is likely. Alternatively, runoff from the new buildings and hardscapes could be handled sumps or other low-impact development (LID) methods as outlined in the sustainability section of this report.

540 W Golf Course Road, Suite B1 Providence, UT 84332 | www.CivilSolutionsGroup.net | 435.213.3762



The proposed layouts provided in the Appendix have been developed so as to be sensitive to phasing. With the exception of the Vernal Campus sewer mainline, all portions of the proposed infrastructure should be able to be constructed in discrete portions corresponding to Phases 1, 2, and 3 over the 2060 master plan.

Please feel free to contact me with any questions or comments.

Sincerely,

Michael Evan Taylor, P.E.

540 W Golf Course Road, Suite B1 Providence, UT 84332 | www.CivilSolutionsGroup.net | 435.213.3762

Utah State University - Vernal Regional Campus Utility Analysis for Phase III (Year 2060)		
Full time equivalent (FTE) Students 2060 ¹	1,974	students
Full time equivalent (FTE) Students 2060 at Vernal Campus ²	1,590	students
Percentage of Students Living on Campus ³	20%	

Indoor Water Demand

Peak Water Demand (Data from Utah Administrative Rules R309-510-7)

Type of Use, per person	FTE	Peak Demand per Person (gpd) ²	Total Peak Day Demand (gpd)	Total Peak Day Demand (gpm)
School Boarding per day	395	75	29,610	21
School, per day, with cafeteria, gym and showers	1,195	25	29,879	21
Total			59,489	41

Peak Instantaneous Demand

The State of Utah Administrative Rules for distribution pipe sizing is based upon the equivalent residential connection (ERC). For peak day demand the ERC for a residential connection is 800 gpd, while the demand for boarding per day is 75 gpd. To determine the peak instantaneous values for sizing purposes it is assumed that boarding per person per day is equivalent to 9.3% of an ERC and school facility, per day, with cafeteria, gym and showers is equivalent to 3.1% of an ERC.

Type of Use, per person	FTE	Total # of FTE per ERC	Total # of ERC's	Peak Instantaneous Demand (gpm)	Peak Instantaneous Demand (gpd)
School Boarding per day	395	10.80	37	108	155,624
School, per day, with cafeteria, gym and showers	1,195	32.25	37	109	156,994
Total			74	217	312,618

Outdoor Water Demand

Peak Water Demand (Data from Utah Administrative Rules R309-510-7)

Total Green Space (acres) ⁴	Peak Day Demand (gpm/irrigated acre) ^{5,7}	Peak Day Demand (gpm) ⁶	Peak Day Demand (gpd)
12.64	3.96	50	72,055

Peak Instantaneous Demand (Data from Utah Administrative Rules R309-510-7)

Total Green Space (acres) ⁴	Peak Instantaneous Demand (gpm/irrigated acre) ^{5,7}	Peak Instantaneous Demand (gpm) ⁶	Peak Instantaneous Demand (gpd)
12.64	7.92	100	144,110

Total Peak Day Water Demand	131,544	gpd
Total Peak Day Water Demand	91	gpm
Total Peak Instantaneous Water Demand	456,728	gpd
Total Peak Instantaneous Water Demand	317	gpm
Total Peak Instantaneous Water Demand	0.71	cfs ⁸
Assumed max Pipe Velocity to Prevent Cavitation	10	ft/s ⁹
Pipe Diameter Required	3.6	in
Pipe Diameter Used	8.0	in ¹⁰

¹The full time equivalent number of students is based upon the Campus Master Plan completed by CRSA for the year-2060 planning horizon. This total is for both Uintah Basin campuses.

²The Vernal Campus FTE count is calculated from the total Uintah Basin FTE count using the ratio of total non-residential Vernal campus building square footage to the total square footage of both campuses.

³Value gathered from CRSA planning worksheet. No student housing will exist at the Roosevelt campus, hence the 20% value is applied to the total Uintah Basin FTE count.

⁴The total green space acreage was gathered from CRSA planning worksheet.

⁵gpm is defined as gallons per minute

⁶gpd is defined as gallons per minute

⁷Based upon irrigation duty value of 4 (Utah Division of Water Rights, 2011)

⁸cfs is defined as cubic feet per second

⁹ft/s is defined as feet per second

¹⁰State Rule R309-5505-5 requires a minimum water line size of 8" for buildings requiring fire suppression

Wastewater Flows

*Assume 15% Depletion

*Assume flows occur during a 14-hour period

*A peaking factor of 3.0 is generally applied to the average water demand to determine wastewater flows for design.

This analysis will apply a peaking factor of 1.5 to the peak day demand which is double the average day demand.

Total Indoor Peak Water Demand (gpd)	Peaking Factor	Adjusted Total Indoor Peak Water Demand (gpd)	Depletion (gpd)	Wastewater Flow (gpd)	Wastewater Flow (14 hour period, gph)	Wastewater Flow (14 hour period, cfs)
59,489	1.5	89,234.2	13,385	75,849	5,418	0.201

Civil Solutions Group, Inc.
 Leaders in Sustainable Engineering and Planning

Project: USU Vernal Campus - Phase 3
 Date: 15-Jan-15
 Location: Vernal, UT
 Method: Rational

North Stormwater Trunkline - Post Development Runoff:

Condition	Area (acres)	Runoff Coefficient	Weighted Area
Buildings / Asphalt	10.39	0.9	9.35
Developed Open Space	2.71	0.3	0.81
Total Area (ac):	13.10		
Total Weighted Area:			10.16
Time of Concentration Calculated (min):			7.38
Time of Concentration Used (min):			10.00
Rainfall Intensity at Time of Concentration (in/hr):			4.11
Expected Flow (cfs):			41.77
Required Storm Drain Trunk Diameter Calculated (ft):			2.26
Required Storm Drain Trunk Diameter Calculated (in):			30.00

NOTES:

Areas from CRSA concept drawings
 Remainder of sub-basin

Calculated using SCS Method
 10-min time of concentration used
 From rainfall curve below
 Manning's equation used to calculate Q

$$Q = \frac{1.49}{n} \left(\frac{d^2}{4} \right)^{2/3} \sqrt{s}$$

n=0.015, S=0.015 $d = 1.33308 \left(\frac{nQ}{\sqrt{s}} \right)^{3/8}$

South Stormwater Trunkline - Post Development Runoff:

Condition	Area (acres)	Runoff Coefficient	Weighted Area
Buildings / Asphalt	16.89	0.9	15.20
Developed Open Space	10.01	0.3	3.00
Total Area (ac):	26.90		
Total Weighted Area:			18.20
Time of Concentration Calculated (min):			18.27
Time of Concentration Used (min):			15.00
Rainfall Intensity at Time of Concentration (in/hr):			3.40
Expected Flow (cfs):			61.88
Required Storm Drain Trunk Diameter Calculated (ft):			2.85
Required Storm Drain Trunk Diameter Calculated (in):			36.00

Areas from CRSA concept drawings
 Remainder of sub-basin

Calculated using SCS Method
 10-min time of concentration used
 From rainfall curve below
 Manning's equation used to calculate Q

$$Q = \frac{1.49}{n} \left(\frac{d^2}{4} \right)^{2/3} \sqrt{s}$$

n=0.015, S=0.015 $d = 1.33308 \left(\frac{nQ}{\sqrt{s}} \right)^{3/8}$

Undeveloped Open Space Runoff:

Condition	Area (acres)	Runoff Coefficient	Weighted Area
Undeveloped Open Space	60.80	0.2	12.16
Total Area (ac):	60.80 acres		
Total Weighted Area:			12.16

Area measured in CAD

Design Storm: 100 year, 1-hr storm
 Allowable Discharge: 0 cfs

Full retention is assumed

Duration (min)	Intensity (in/hr)	Post.Dev. Runoff (cfs)	Total Runoff (CF)	Cumulative Allow. Discharge (CF)	Detention Storage Req'd (CF)
5	5.40	218.84	65,651	-	65,651
10	4.11	166.56	99,936	-	99,936
15	3.40	137.79	124,008	-	124,008
30	2.29	92.80	167,046	-	167,046
60	1.42	57.55	207,167	-	207,167

Rainfall "Intensity Duration Frequency Curve" from NOAA

Required Storage Volume Retention: **207,167** Cubic Feet.
4.76 Acre-Feet

Autodesk® Storm and Sanitary Analysis 2015 - Version 9.1.140 (Build 1)

 Project Description

 File Name Sewer Model.SPF

 Analysis Options

 Flow Units cfs
 Link Routing Method Kinematic Wave
 Storage Node Exfiltration.. None
 Starting Date JAN-15-2015 00:00:00
 Ending Date JAN-16-2015 00:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:05:00
 Routing Time Step 30.00 sec

 Element Count

 Number of rain gages 0
 Number of subbasins 0
 Number of nodes 8
 Number of links 7
 Number of pollutants 0
 Number of land uses 0

 Node Summary

Node ID	Element Type	Invert Elevation ft	Maximum Elev. ft	Ponded Area ft²	External Inflow
Jun-01	JUNCTION	5465.89	5475.89	0.00	Yes
Jun-02	JUNCTION	5464.38	5474.38	0.00	Yes
Jun-03	JUNCTION	5462.26	5472.26	0.00	Yes
Jun-04	JUNCTION	5461.32	5471.32	0.00	Yes
Jun-05	JUNCTION	5459.17	5469.17	0.00	Yes
Jun-06	JUNCTION	5462.22	5472.22	0.00	Yes
Jun-08	JUNCTION	5460.25	5470.25	0.00	
Out-01	OUTFALL	5456.04	5456.71	0.00	

 Link Summary

Link ID	From Node	To Node	Element Type	Length ft	Slope %	Manning's Roughness
Link-01	Jun-01	Jun-02	CONDUIT	302.4	0.4994	0.0150
Link-02	Jun-02	Jun-03	CONDUIT	423.7	0.5004	0.0150
Link-03	Jun-03	Jun-04	CONDUIT	188.6	0.4984	0.0150
Link-04	Jun-04	Jun-08	CONDUIT	214.5	0.4977	0.0150
Link-06	Jun-08	Jun-05	CONDUIT	216.4	0.5000	0.0150
Link-07	Jun-06	Jun-08	CONDUIT	394.3	0.4990	0.0150
Link-08	Jun-05	Out-01	CONDUIT	626.1	0.4999	0.0150

Autodesk Storm and Sanitary Analysis

Cross Section Summary

Link Design ID Flow	Shape	Depth/Diameter	Width	No. of Barrels	Cross Sectional Area	Full Flow Hydraulic Radius
Capacity		ft	ft		ft ²	ft
cfs						
Link-01	CIRCULAR	0.67	0.67	1	0.35	0.17
0.74						
Link-02	CIRCULAR	0.67	0.67	1	0.35	0.17
0.74						
Link-03	CIRCULAR	0.67	0.67	1	0.35	0.17
0.74						
Link-04	CIRCULAR	0.67	0.67	1	0.35	0.17
0.74						
Link-06	CIRCULAR	0.67	0.67	1	0.35	0.17
0.74						
Link-07	CIRCULAR	0.67	0.67	1	0.35	0.17
0.74						
Link-08	CIRCULAR	0.67	0.67	1	0.35	0.17
0.74						

Flow Routing Continuity	Volume acre-ft	Volume Mgallons
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	0.000	0.000
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.399	0.130
External Outflow	0.396	0.129
Surface Flooding	0.000	0.000
Evaporation Loss	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.004	0.001
Continuity Error (%)	-0.133	

Node Depth Summary

Node ID	Average Depth Attained	Maximum Depth Attained	Maximum HGL Attained	Time of Max Occurrence	Total Flooded Volume	Total Time Flooded	Retention Time
	ft	ft	ft	days hh:mm	acre-in	minutes	hh:mm:ss
Jun-01	0.07	0.07	5465.96	0 00:00	0	0	0:00:00
Jun-02	0.13	0.13	5464.51	0 01:28	0	0	0:00:00
Jun-03	0.15	0.15	5462.41	0 01:35	0	0	0:00:00
Jun-04	0.17	0.17	5461.49	0 01:37	0	0	0:00:00
Jun-05	0.24	0.24	5459.41	0 01:37	0	0	0:00:00
Jun-06	0.12	0.12	5462.34	0 00:00	0	0	0:00:00
Jun-08	0.21	0.21	5460.46	0 01:36	0	0	0:00:00
Out-01	0.24	0.24	5456.28	0 01:48	0	0	0:00:00

Node Flow Summary

Autodesk Storm and Sanitary Analysis

Node ID	Element Type	Maximum Lateral Inflow	Peak Inflow	Time of Peak Inflow Occurrence	Maximum Flooding Overflow	Time of Peak Flooding Occurrence
		cfs	cfs	days hh:mm	cfs	days hh:mm
Jun-01	JUNCTION	0.01	0.01	0 00:00	0.00	
Jun-02	JUNCTION	0.05	0.06	0 01:30	0.00	
Jun-03	JUNCTION	0.02	0.09	0 01:35	0.00	
Jun-04	JUNCTION	0.02	0.11	0 01:37	0.00	
Jun-05	JUNCTION	0.04	0.20	0 01:37	0.00	
Jun-06	JUNCTION	0.06	0.06	0 00:00	0.00	
Jun-08	JUNCTION	0.00	0.16	0 01:38	0.00	
Out-01	OUTFALL	0.00	0.20	0 01:48	0.00	

Outfall Loading Summary

Outfall Node ID	Flow Frequency (%)	Average Flow	Peak Inflow
		cfs	cfs
Out-01	99.97	0.20	0.20
System	99.97	0.20	0.20

Link Flow Summary

Link ID	Total Reported	Element Type	Time of Peak Flow Occurrence	Maximum Velocity Attained	Length Factor	Peak Flow during Analysis	Design Flow Capacity	Ratio of Maximum Flow /Design Flow
	Time	Condition	days hh:mm	ft/sec		cfs	cfs	
Link-01	0.10	Calculated	0 01:30	0.83	1.00	0.01	0.74	0.02
Link-02	0.20	Calculated	0 01:35	1.30	1.00	0.06	0.74	0.09
Link-03	0.23	Calculated	0 01:37	1.41	1.00	0.09	0.74	0.11
Link-04	0.25	Calculated	0 01:38	1.50	1.00	0.11	0.74	0.14
Link-06	0.32	Calculated	0 01:37	1.69	1.00	0.16	0.74	0.22
Link-07	0.18	Calculated	0 01:21	1.24	1.00	0.05	0.74	0.07
Link-08	0.36	Calculated	0 01:48	1.80	1.00	0.20	0.74	0.27

Autodesk Storm and Sanitary Analysis



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