This Masterplan is consistent with the vision expressed in the ‘Cache Valley SDAT’ report published by the AIA and the ‘envision Cache Valley’ report in attempting to preserve the agricultural heritage of the valley.

The South farm is an extension of Utah State University. As this area develops and expands more teaching and research for the College of Agriculture, it is the goal to have it recognized as a part of campus. The South Farm masterplan is created as a means to identify capital improvement projects and to reinforce this integration with campus from the standpoint of: maintenance, operation, infrastructure, service, and quality standards. A main goal of this 20 year masterplan is to strengthen, preserve, and protect the identity of the South Farm as the gateway into Utah State University, as well as continue to nurture the College of Agriculture’s mission: Teaching, Research, and Extension.

User Group Input:

We asked the various user groups from the College of Agriculture to participate in a questionnaire to provide valuable information in developing this Masterplan. Below are questions that were asked along with a compilation of their feedback:

1. Do you see any future need of new facilities, whether for the expansion of current programs or new programs? Yes, South Farm will continue to be a growing campus. There is no other area that agriculture can expand. Both Beef facilities need updating and possible new facilities for the Vet Program.

Masterplan Goals:

2. Do you see the need for any remodeling or removal of existing facilities? Is there any immediate and future need for infrastructure? Buildings are currently being remodeled now and the need will continue as the Agriculture Program grows. Infrastructure pathways need to be identified and developed to maintain and improve existing facilities as well as future buildings.

3. What areas or disciplines within the various department do you think could share classrooms, barns, land etc? Equine will be sharing the Matthew Hillyard Building until the Equine Center can be fully funded. When the WSU/USU 2+2 Vet Program starts they will be sharing the Matthew Hillyard and Caine Dairy Facilities. It is difficult to share barns because each has specific needs.

4. What new programs may be implemented at the South Campus that do not currently exist? USU plans to partner with WSU for a Vet Program in the near future, titled the WSU/USU 2+2 Vet Program.

5. How high a priority do you think an off-highway road is between South Farm and Caine Dairy? Extremely High! Mainly for safety reasons, The new Vet Program will be involving animals from both the South Farm and the Caine Dairy and using an access road other than the highway is critical.

6. How important and issue do you feel security from animal right activists is? Not high at this point. In respect to animal right activists, but Biosecurity and the need to be able to contain and isolate animal groups is a growing concern.
Facility Descriptions:

Equine Center
The new Equine facility will hold a large outdoor and indoor arena, horse stalls, and teaching and research functions for horses. Classes will be held in the Animal Teaching and Research Center across from the frontage road.

Matthew Hillyard Animal, Teaching and Research Center
This 20,500 s.f. building combines a meat harvesting facility, an animal reproduction lab, and a veterinary clinic. Each of these functions is integrated with classrooms for a hands-on learning environment.

Sheep Barn
This facility houses all the USU sheep. They are used for research studies and teaching students. 24,260 sq. ft.

Feed Mill
The processing of grains is an essential part of the research and studies at the South Farm. The grains are also used in the everyday feeding of animals. The mill stores, processes, and mixes the rations that are fed to some animals. 3200 sq. ft.

Metabolism Barn and Individual Pens
This building is used for the feeding and collection from animals individually. The data collected is used for research information. 10,000 sq. ft.

Shop
Used to repair and store farm vehicles, equipment, and tools.

Hay Barns
Two hay barns (a) used for hay storage for the cattle and teaching sheep, (b) hay storage for research sheep.

Old Pavilion
Storage and sheep shearing area.

Swine Facility
Housing for hogs used in teaching and judging contests.

Grain Storage
Two units (a) has 5 bays and (b) has 3 bays all used for supplemental grain storage.

Cattle Pens
Three units (a) has 7 pens, (b) has 5 pens and the new A.I. teaching facility (c) has 3 pens plus 5 small pens for bulls. All are used to house cattle for various teaching and research activities.

Teaching Pavilion
Used for teaching, judging contests, and club activities. 14,500 sq. ft.

Cattle Working Facility
Used for weighing and vaccination of cattle.

George B. Caine Dairy
As ‘big’ dairy industry slowly drives “small” dairy industry out of business, the dairy program in the college of agriculture is diminishing. There are not enough students in the program to justify keeping the functions within the Caine Dairy up and running. The building’s function will eventually need to convert to another function – perhaps solely research.

American West Heritage Center
A nonprofit organization devoted to celebrating and preserving the heritage of Cache Valley, Utah, and its surrounding regions. The Center provides living history activities, events, school programs, exhibits, and outreach activities. They also rent some of their buildings for weddings, meetings, conferences.
 Density:

South Farm Zone:
Land: 212 Acres
Density: 1.5% Building/Land Ratio

Teaching and Research Zone:
Land: 8.5 Acres
Building: 20,500 sq. ft.
Density: 5.6% Building/Land Ratio

Equine Zone:
Land: 36.5 Acres
Building: 77,000 sq. ft.
Density: 4.8% Building/Land Ratio

American Heritage Zone:
Land: 143 Acres
Building: 65,200 sq. ft.
Density: 1.0% Building/Land Ratio

Land Use:
Crop land that is in use now needs to maintained as such to allow the farm to grow its own hay and grain used at the farm. The Equine Center will require some crop land for horse grazing. Cows are not grazed due to limitations in crop land unless it is after the second hay cutting in the fall. Sheep have limited grazing for the same reason. Horses are grazed in some limited locations but will have pastures south of the Equine Center.
State mandates to move farm functions from Logan are cramping the South Campus' farm land needed for farming crops. A critical component of a creating a contiguous south campus is to make connections between the new Animal Teaching and Research Center, the Caine Dairy, and the American Heritage Center. A parcel of private land currently divides these two teaching and research components. USU is currently working to acquire this parcel to make this connection, and also ensure the land will not be privately developed with housing. The identity of the South Farm, including 'Farm buildings' and 'Farm open space' relies on acquiring this adjoining property.

Creating an access road off of Highway 89/91 is critical in the SAFE movement of people, animals, and equipment between the existing and proposed agriculture facilities of this South Campus. The American Heritage Center is across Highway 89/91. It operates in conjunction with USU and is included in the masterplanning for context and continuity of the 'Aggie' community. A new traffic light is proposed on Highway 89/91 at the main entrance to the Caine Dairy, and will subsequently serve as the new main entrance to the American Heritage Center. This traffic light will be critical in linking all of the adjacent sites of the South Farm Campus.
New development in this area needs to reinforce the agricultural heritage of Cache Valley and preserve the ‘Aggie’ corridor, which parallels highway 89/91 and will mark the entrance to Utah State University. The density desired of the south farm is such that each facility is integrated with open space, while also maintaining a compact feel (visually and for pedestrian friendliness). The signage for each of the facilities needs to be cohesive and legible (perhaps larger entrances signs to communicate a primary entrance to the South Farm). Future development should follow some simple building form, color, and material guidelines to maintain the agricultural vernacular.

Identity:

New development in this area needs to reinforce the agricultural heritage of Cache Valley and preserve the ‘Aggie’ corridor, which parallels highway 89/91 and will mark the entrance to Utah State University. The density desired of the south farm is such that each facility is integrated with open space, while also maintaining a compact feel (visually and for pedestrian friendliness). The signage for each of the facilities needs to be cohesive and legible (perhaps larger entrances signs to communicate a primary entrance to the South Farm). Future development should follow some simple building form, color, and material guidelines to maintain the agricultural vernacular.

Security:

Animal rights activists, general terrorism, and the spread of disease has raised a concern for the security of the South Farm. Access to each of the buildings needs to be controlled through the implementation of fences and gates. These secure perimeters need to occur while maintaining the openness of each of the facilities.
South Farm Enlarged Plan
South Campus MasterPlan, Utah State University
Background:
Utah State University (USU) owns and operates several facilities and farms along the US Highway 89/91 corridor from Wellsville to Nibley in Cache County, Utah. These facilities are located in three areas designated as South Farm, American West Heritage Center, and Caine Dairy.

The South Farm facility is dotted with existing buildings and structures, which are used by the College of Agriculture for research and development of the animal sciences. The property also contains a number of sheds and buildings used to house animals and conduct research as well as one residential house, located near US Highway 89/91. The Department of Animal, Dairy, and Veterinary Sciences recently built the Animal, Teaching and Research Center (ATRC), a 20,500 square foot building for classrooms, labs, and other department business. An adjacent equestrian indoor arena and complimentary classroom building are planned and will be built in the future.

The American West Heritage Center is a working historical farm. Culinary water service is supplied by Wellsville City and sewer is managed with an on-site septic system.

The Caine Dairy is a working research dairy and has adjacent land uses to support its research. Culinary water service is supplied by Wellsville City and sewer is managed with an on-site septic system.

Grading and Storm Water:
The lay of the land is flat and generally slopes from southeast to northwest (See CE 101).

US Highway 89/91 is approximately 2-3' higher than natural ground, thus disrupting the land’s natural drainage pattern. US Highway 89/91, therefore, acts as a barrier, creating flooding in some areas along the highway during spring melt or large storm events. Drainage of these areas is achieved through the use of two culverts that pass under the highway. One culvert is located at South Farm and the other is located at the American West Heritage Center (See CE 100). Storm water in the area either drains to the Little Bear River or to Spring Creek.

Storm water in all facilities is currently not collected in either detention or retention ponds. Storm water either sheet flows to adjacent landscaping and native areas where it can dissipate and infiltrate or is collected in catch basins and transported to sumps where it can infiltrate.

Sanitary Sewer:
The sanitary sewer system in the South Farm area was greatly enhanced with the construction of the ATRC. First, existing septic systems and new gravity lines in the area were directed to a new lift station. Second, pressurized sewer lines were installed from the lift station to a point of connection on Nibley City’s sewer system at approximately 3200 South and 1600 West in Nibley (See CE 100). Future expansion in the South Farm area will be serviced by this system.
Civil Engineering Statement (continued):

The Caine Dairy and the American West Heritage Center areas are serviced with existing septic systems (See CE 100). The Caine Dairy also has a self-contained lagoon system that manages all animal waste from the dairy. Both the Caine Dairy and the American West Heritage Center areas will be serviced in the future by a regional lift station, which will be located west of the American West Heritage Center. When installed, the lift station will become a part of the Wellsville City sewer system.

Water:
The culinary water system in the South Farm area was also greatly enhanced with the construction of the ATRC. A 12” mainline was installed from a point of connection on the Nibley City water system at approximately 3200 South and 1600 West in Nibley (See CE 100) to the corner of 3200 South and US Highway 89/91. A 10” mainline was installed from this point to the South Farm area. Future expansion in the South Farm area will be serviced by this culinary system. An existing well is used to supply water to the animals housed in the South Farm area.

The Caine Dairy area and the American West Heritage Center area are serviced by Wellsville City with an 8” mainline (See CE 100), which is limited to 1,000 GPM. A 12” mainline will need to be required in the future to meet fire flows as buildings are added to the area.

Gas:
An existing high-pressure gas line parallels the east side of US Highway 89/91 along the entire length of the study area. This gas line is the main transmission line for Cache Valley. During the construction of the ATRC, a new connection and line were installed to allow for future demands in the South Farm area. Any future needs for gas in the Caine Dairy area or the American West Heritage Center area could be met by connecting to this high-pressure line.

Overhead Power:
Existing overhead power lines parallel the east side of US Highway 89/91 along the entire length of the South Farm, American West Heritage Center, and Caine Dairy properties. Existing overhead power is located throughout these facilities. New underground power lines were installed to service the ATRC and future equine education facilities.

Irrigation Water:
An existing network of irrigation canals exists throughout the South Farm, American West Heritage Center, and Caine Dairy areas. These canals supply water from several different irrigation companies as well as collect runoff from surrounding fields. These canals will need to be considered as development occurs. Also, some landscaping areas around existing building in the area are irrigated with culinary water lines from either Nibley City or Wellsville City.

Access and Transportation:
The South Farm area has one entrance on the east side of US Highway 89/91. During construction of the ATRC, existing entrances were consolidated into one entrance and a deceleration lane and an acceleration lane were also installed to develop the main entrance to this facility.

The American West Heritage Center has two existing accesses, a public access and a maintenance access, between the South Farm and the Caine Dairy accesses.

The Utah Department of Transportation (UDOT) and the Cache Metropolitan Planning Organization (CMPO) completed the South US 89/91 Transportation Corridor Study (Cooperative Agreement 068499) in November 2005. The purpose of the study was to determine the location of future signalized intersections as well as public east/west connection points to the highway. It was determined that the intersections of 3200 South in Nibley and the Caine Dairy road would be signalized in the future. When the Caine Dairy road traffic signal is warranted, the existing access to the American West Heritage Center will be limited to right-in-right-out and a new access to the site will be constructed at the same location as the Caine Dairy access. A warranted signal at 3200 South will not affect the location of the existing site access to the South Farm area.

The County and Wellsville City have determined Meridian Road to be a collector to the south. This master-planned road will link the South Farm area with the Caine Dairy facility. It is anticipated that Meridian Road will eventually continue south to SR-101.