



UNITED WORLD COLLEGE USA LANDSCAPE MASTER PLAN DRAFT

SCOPE

- Vision and goals
- Approach and aesthetic
- Identify landscape projects
- Project budget ranges
- Projects implementation type
- Proposed phasing

OUT OF SCOPE

- Existing academic and dormitory buildings area
- The Hot Springs area
- The Agro-Ecology Farm
- The forested areas



LANDSCAPE VISION + GOALS

"The landscape of United World College USA is a place of natural beauty and an integral part of the sustainable education of its students, staff, alumni, and surrounding community. The campus landscape is designed and maintained to engage resources, people, and efforts wisely, sustainably, and effectively."

- Sustainability is the primary focus for the campus landscape in its resource use, design, maintenance, and educational goals.
- Implementation of the sustainable landscape will integrate a variety of opportunities including campus-wide student-staff efforts, curriculum based efforts, on-site maintenance activities, community assisted, and contracts with out-side firms.
- An established collaborative process will coordinate educational and landscape development activities that occur within the landscape.

- The campus landscape will be low-maintenance and low-resource using with funding to support that landscape system.
- The campus landscape is **consistent in image and** has a native, natural sensibility.
- The campus landscape allows personal respite and opportunities to socialize at a variety of scales.
- Site elements within the landscape should incorporate renewable energy and water conservation strategies.
- The open sense of the lower turf oval is maintained as a part of the site history and its role in UWC-USA's and the surrounding community's life.

MASTER PLAN APPROACH

1. Balance water use with availability. **PRIMARILY THROUGH REDUCTION OF IRRIGATED TURF.**

Total irrigation for current turf = 21 acre feet per year UWC Water Right = 3 acre feet



Artificial Turf = 0.01/a.f./yr Native Grass = 1.0 a.f./yr S

Shrubs = 1.5 a.f / yr

Agriculture = crop based

MASTER PLAN APPROACH

2. Use water harvesting and low-impact development stormwater management to augment water resources.



- 3. Match maintenance with the capacity of maintenance staff and landscape systems.
 - Upgrade irrigation systems. At end of 30-year life cycle.
 - Reduce areas needing high maintenance.

4. Incorporate educational and social opportunities with projects.









WHAT COULD CHANGE LOOK LIKE?

- Consistent image in critical locations
- More natural looking and native planted areas
- Places for people to work & play



CONCEPT IDEAS









MONTEZUMA CASTLE ENTRY

- Reduce maintenance by paving below flags and create smaller maintained planter at edge of circle
- Adjust signage to reinforce image from Welcome Center
 Change planter east of Castle to native grasses and shrubs similar to around Edith Field house. Reduces maintenance.





OLD STONE HOTEL

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- Improve visibility of Old Stone Hotel Create gathering area, circle as symbol of community
- Integrate signage with gather area wall
 Reduce water use by using artificial turf in panel north of walk to Stone Hotel
- Change other planting areas to native grasses and native shrubs

PROJECTS

ORGANIZED BY CAMPUS AREA PROJECTS INCLUDE: PLANTINGS WAYFINDING IRRIGATION DRAINAGE



WELCOME CENTER

<u>MAIN SIGN</u>

• Renovate to unify wayfinding, light, and improve views to field and school

<u>CIRCLE</u>

- Unify design with new sign and edging.
- Remove bench and fountain

WELCOME CENTER

- Plant evergreens at East parking lot to screen lot.
- Redefine parking edge
- Replant areas around building to compliment circle

IRRIGATION

• Irrigation to all planters



LAGOON + VISITOR PARKING

VISITOR PARKING

- Redesign visitor parking median to capture water and screen cars
- Extend irrigation to plantings.
- Design material storage area to prevent migration of pollutants

LAGOON SCREENING

- Replace or reinforce existing fence
- Add vines or plantings
- Coordinate drainage improvements near Welcome Center



WEST SIDE

DWAN LIGHT SANCTUARY

- Allow to go natural, fire safety management •
- Maintain only around Sanctuary sign

ACEQUIA WALKWAY

- Safety-ADA issue •
- Replace walkway paving •

SASAKAWA REAR + SOUTH

- Replace lawn with artificial turf
- Replant south with natives and add irrigation
- Revegetation seeding of the area to West on regular basis 3-5 yrs.

PRESIDENT'S YARD

- Replace lawn with artificial turf
- Engineering analysis to repair south • retaining wall
- Remove two arborvitaes •
- Define planter edges and replant as ۰ needed

STONE HOTEL - SASAKAWA FRONT • Remove Arborvitae and Rocky Mountain Junipers @

Stone Hotel

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- Refurbish sitting area
- Replace panel 3 with artificial turf
- Replace panel 3 with armician control of the second seco plants

STAFF HOUSING



- Overhanging trees
- Remove abutting plants
- New fire-resistant landscape
- Irrigation to all landscape



CASTLE





SLOPE





EAST DRAINAGE

UPPER WATER SHED

- One-rock dam structures. Can be student-staff-community planned and built.
- Create detention basin to slow speed of upper watershed runoff. Build 36" ht. wall at road edge to redirect water to the east side of the road.
- Improve drainage to flow east along wall north of drop-off circle to Castle.

EAST ROAD DRAINAGE

- Improve drainage swale on east side of road.
- Reshape slope adjacent to road as needed to create east drainage swale.
- Install (4) zuni bowls where erosion is cutting upslope in the drainage swale.
- Regrade area in lower Ponderosa grove to spread and absorp stormwater.
- Improve headwall at existing culvert under road, redirect ditch downstream of culvert to Lagoon.

WEST OF WELCOME CENTER

- Regrade area to west of Welcome Center to detain stormwater and to redirect flows from new detained area to Lagoon.
- Centrifical sediment separator to clean storm waters before deposit into Lagoon. Will need engineering study.



CENTRAL DRAINAGE

NORTHWEST PARKING DRAINAGE

- Install stormwater diverters on Well access road. Needs Engineering analysis.
- Install speed bump in road behind loading dock area to direct water coming from housing driveway toward the northwest parking lot.
- Redesign the median in the parking lot to either detain stormwater or consider subsurface stormwater storage under parking area. Stormwater if cleaned can be used for irrigation.

MONTEZUMA CASTLE SOUTH DRAINAGE

• Install pumic wick within or at foot of sloped planter adjacent to southside of Castle. Coordinate with additional landscape plants in the planter.

MONTEZUMA CASTLE CISTERN

• Capture large existing stormwater drainage pipe (8"-10" dia.) from Castle to large-capacity cistern or subterraneon storage system. Requires detailed analysis to evaluate potential.

TURF OVAL

• Opportunity for subterraneon storage system under west section of Turf Oval area. Requires detailed analysis to evaluate potential.



WEST DRAINAGE

COUNTY ROAD DRAINAGE

• Collaborate with County, neighbors and UWC to develop an overall drainage and grading plan to correct stormwater management issues along the County Road. Issues include: road grades, driveway culverts, road edge drainage controls.

ROAD CULVERT DRAINAGE

• Install large zuni bowl uphill of existing concrete road culvert and stablize route through the existing stormwater acequia west of Sasakawa and President's Yard. Requires detailed analysis to evaluate potential.

PRESIDENT'S YARD CISTERN

 Opportunity to capture stormwater from existing stormwater acequia west of Sasakawa and President's Yard into a largecapacity cistern or subterraneon storage system. Requires detailed analysis to evaluate potential.



TURF OVAL OPTIONS



(17.7 ac.ft./yr)

- Option B = Keep one (half) as is Use alternate in other half
- Option C = Replace one play field with artificial turf Use alternate on other half
- Option D = Replace all with artificial turf Replace all with alternate use - native grasses

(8.87 ac.ft./yr) (2 to 3 ac.ft/yr)

(zero water use) (2 to 3 ac.ft/yr)

(zero water use) (4-6 ac.ft./yr)

WHAT SHOULD BE PRIORITIES FOR CHANGE?

Where?

What?

Why?

Who?

