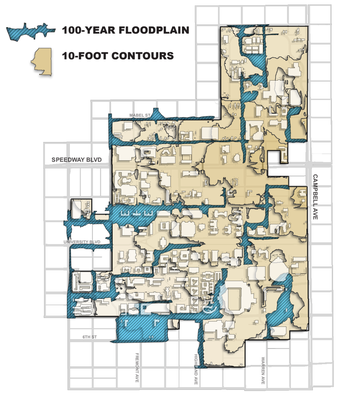
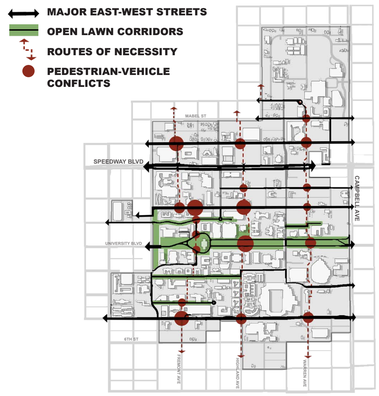
AGAINST THE GRAIN

CARVING CAMPUS CORRIDORS THROUGH STORMWATER DIVERSION AND CAPTURE

Rather than treat stormwater as a nuisance to be rapidly removed from the landscape, *Against the Grain* uses it to carve three north-south corridors across campus that address social and environmental needs by diverting stormwater from major east-west streets into connected north-south basins that accommodate infiltration, decrease reliance on supplemental irrigation, and address flooding issues. The basins line newly defined north-south pedestrian and bicycle greenways that promote connectivity and safety, providing a dense canopy of native shade trees that increase human comfort and define UA as an institution uniquely rooted in the Sonoran Desert.

These corridors are phased to address watershed-scale issues, while locations respond to major flooding, existing infrastructure, and high-traffic routes for pedestrians and cyclists. Phase I - the subwatershed with the historic and academic core of campus - is shown here in more detail. Three context-based typologies along the corridor illustrate the stacked functions of green infrastructure.





CAMPUS STREET WASHES

The campus lacks underground stormwater infrastructure and relies on streets for flood management. By conveying stormwater offsite as quickly as possible, precious rainwater irrigation is lost and impassable flooding issues are created both on campus and downstream.

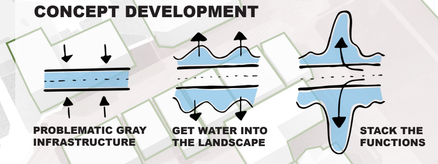
AGAINST THE GRAIN OF TRAVEL

Existing north-south travel accross campus is undefined, awkward and dangerous. There are high-traffic routes of necessity, but their haphazard character and fragmented infrastructure leave pedestrians and cyclists feeling unaccounted for.

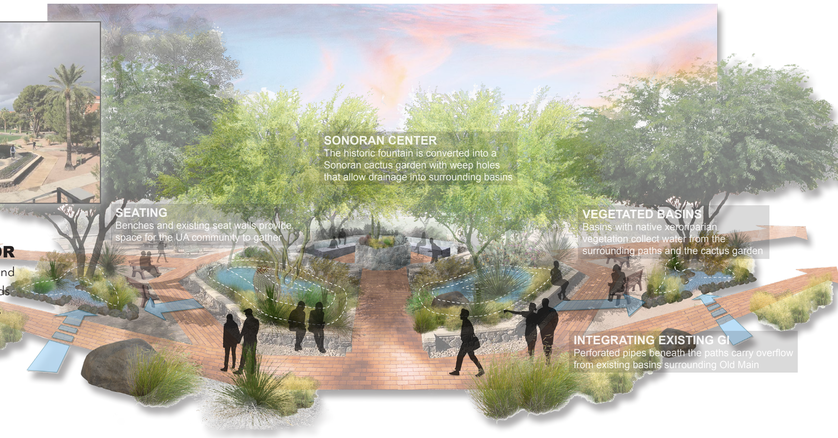
PROPOSED NORTH-SOUTH GREENWAYS

Integrating green infrastructure with new pedestrian and bike pathways, *Against the Grain* transforms existing high-traffic yet undefined routes into comfortable greenways that are lined with dense Sonoran Desert vegetation, made possible by connected basins.

CONCEPT DEVELOPMENT

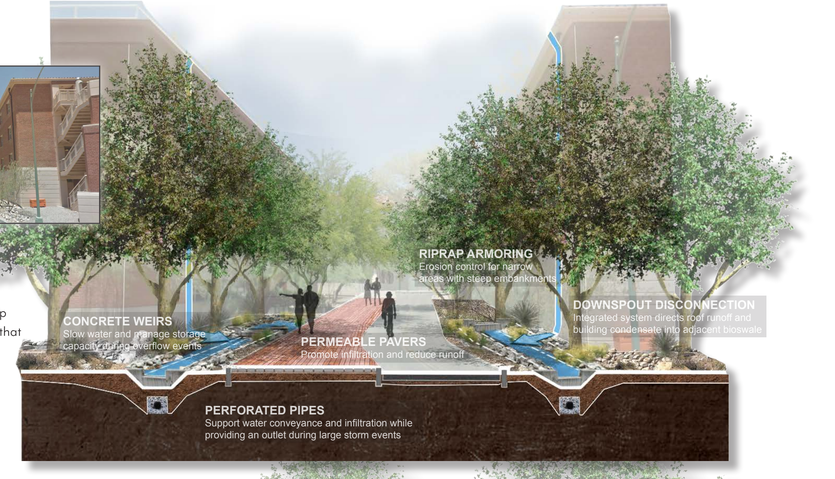


The University of Arizona
Jingjiao Deng, Marie Nafus-Whelan, Isaac Palomo, Tess Wagner,
Hannah Felkins-Talkington, Peter Price
Jesús Felix, Jesús Mulgado, Joyce Wang



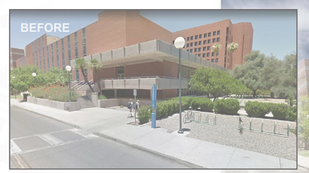
PATCHES ALONG THE CORRIDOR

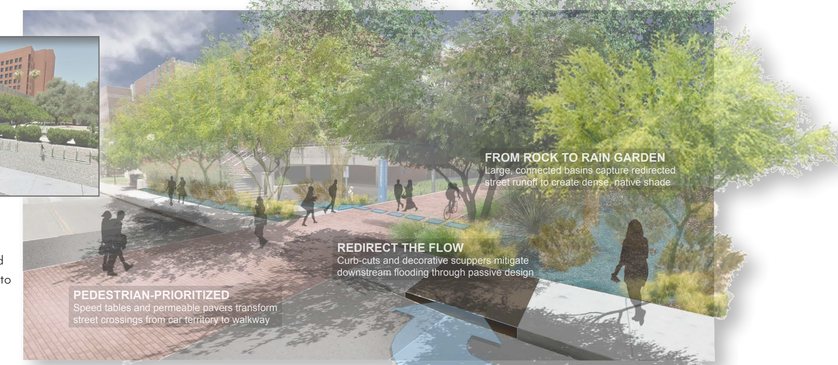
At major nodes like historic areas and existing plazas, the corridor expands to create breakout gathering areas and east-west connections.



ARCHITECTURE AS IRRIGATION

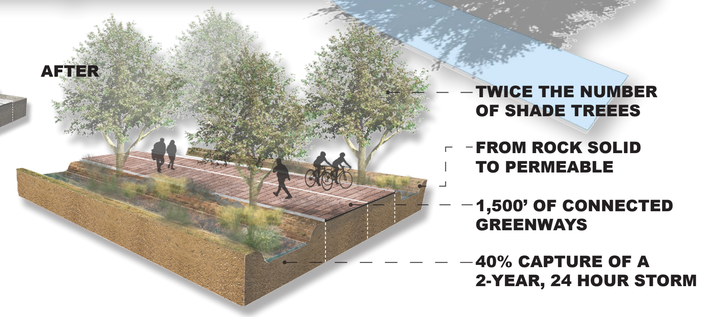
Disconnected downspouts and redirected building condensate help sustain large, riparian tree species that would otherwise be inappropriate.





INTERCEPT THE STORMWATER

Street crossings layer GI with raised walkways to redirect stormwater into densely-planted basins.



LAYERED PERFORMANCE

Stacking GI with circulation improvements, *Against the Grain* transforms vehicle-dominated, forgotten spaces into high-performing, Sonoran Desert greenways.