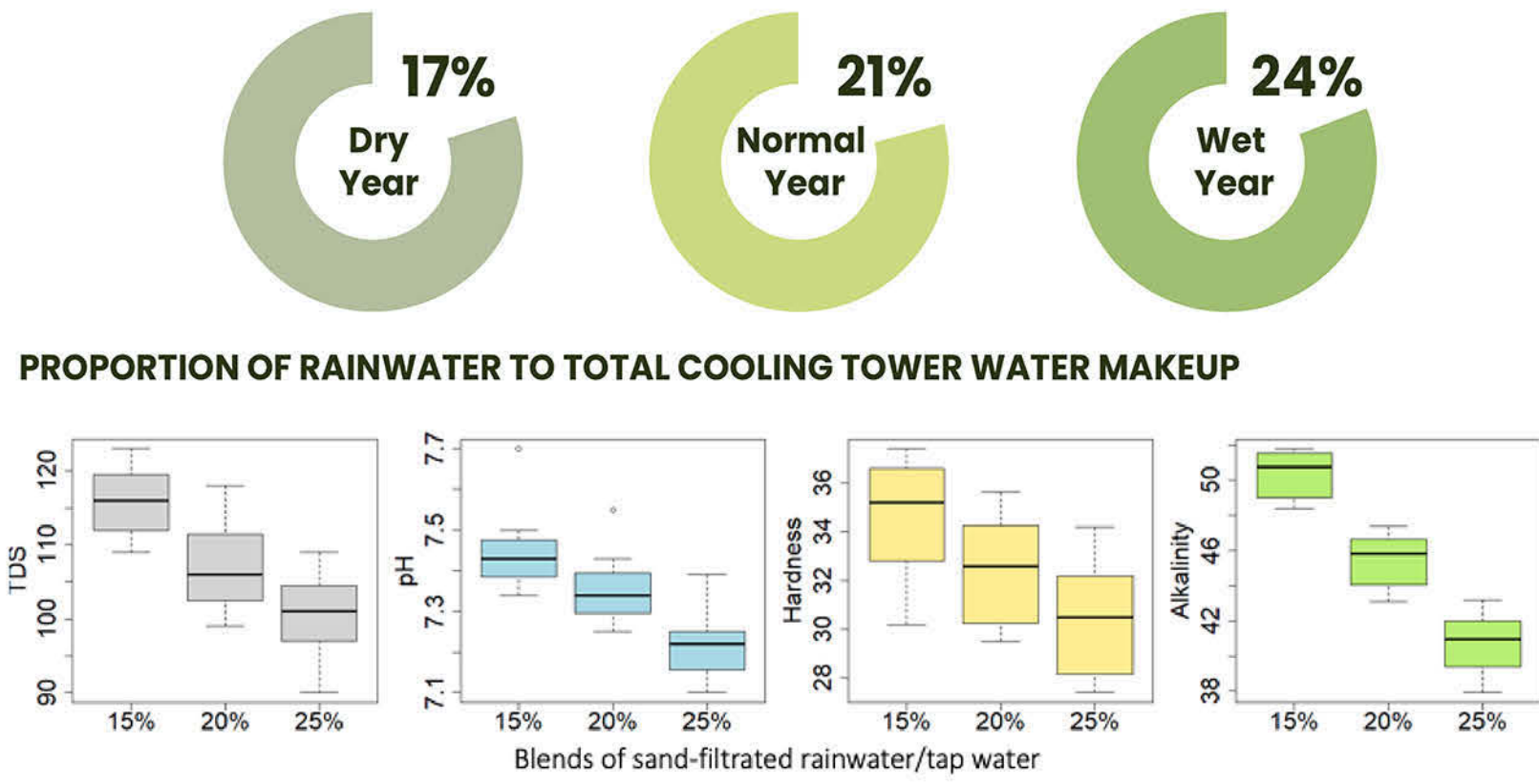




Towards a Climate-Resilient Campus



WATER QUALITY FOR DIFFERENT BLENDS OF TAP WATER & RAINWATER



PROPOSED SMART GREEN INFRASTRUCTURES & RHS FOR EC CAMPUS

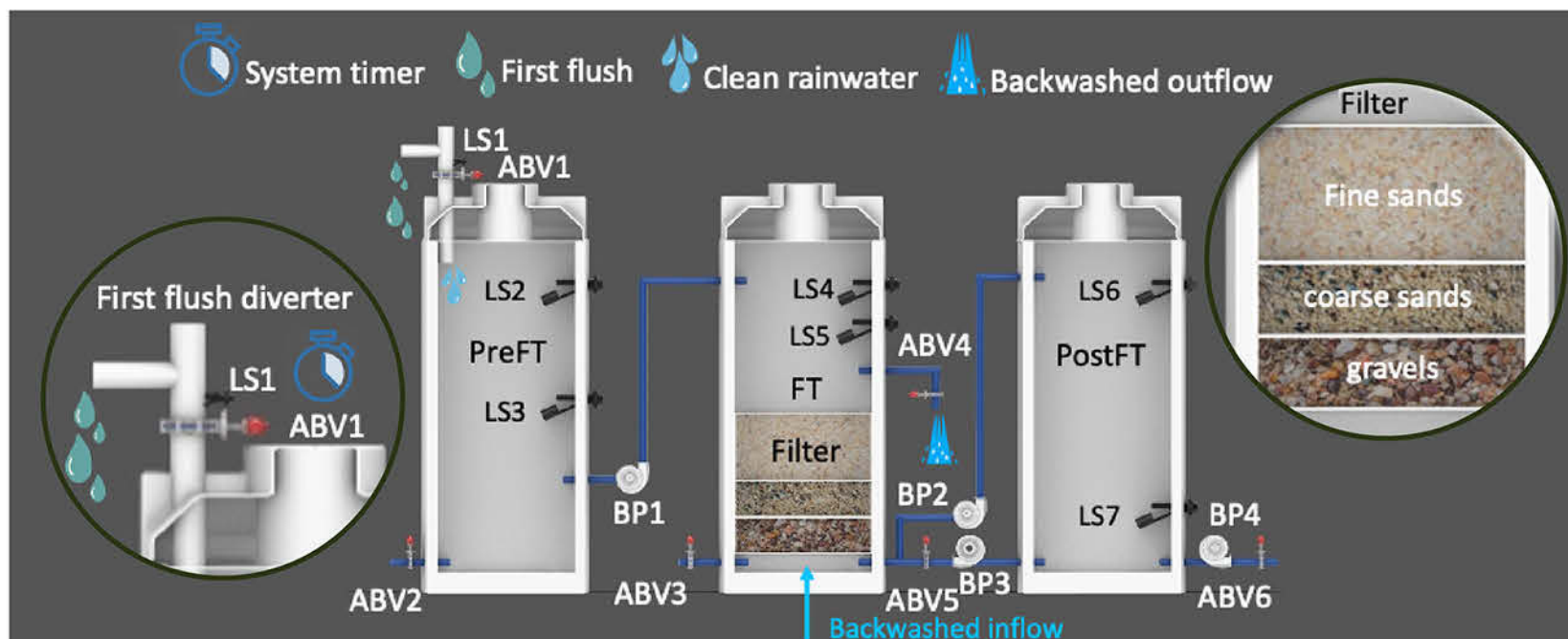
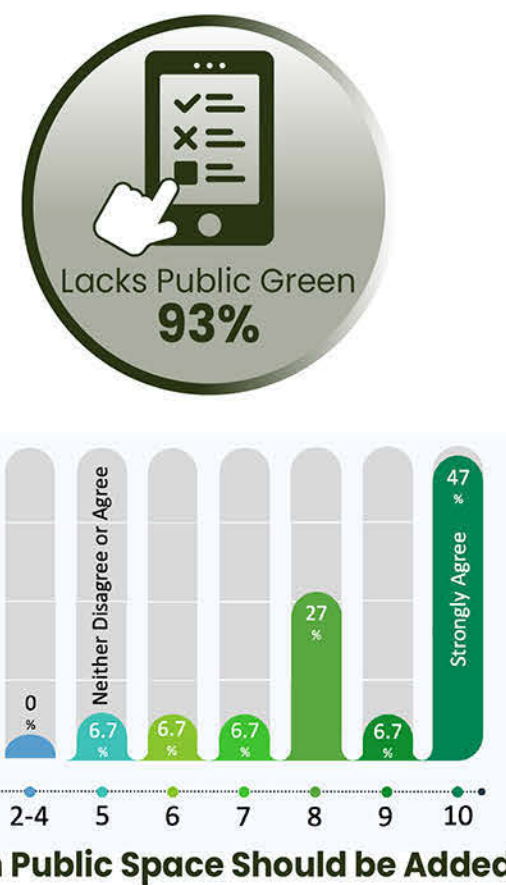


RHS FOR EC SOLAR CANOPIES

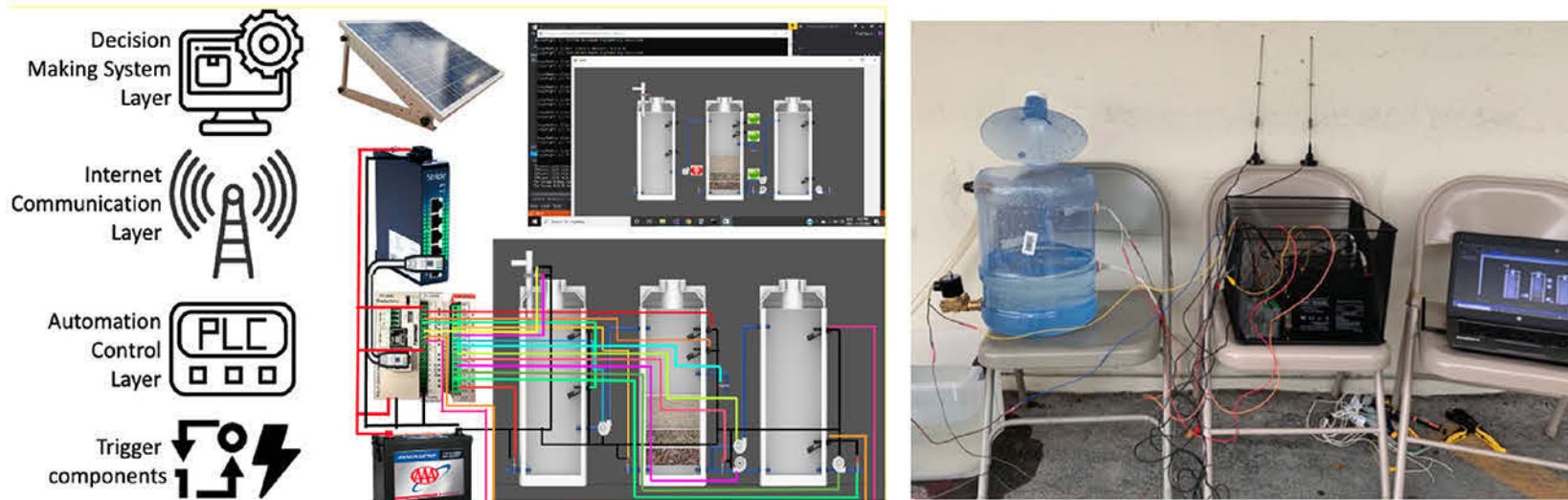
## PONDING & FLOODING



## LACKING SUFFICIENT LANDSCAPING

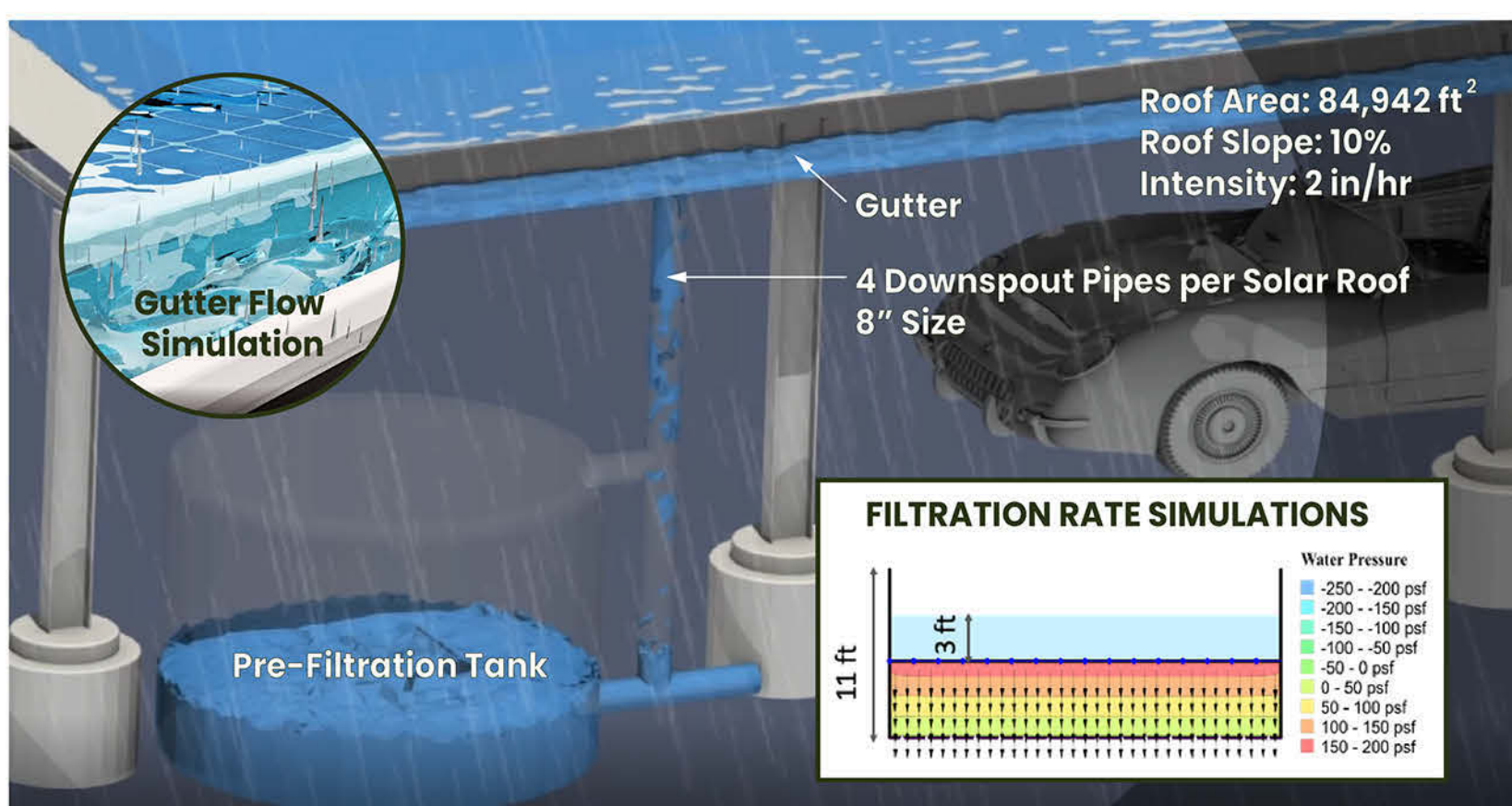


REMOTELY OPERATED & SELF-CLEANING RAINWATER TANK SYSTEM (ROSCRTS)

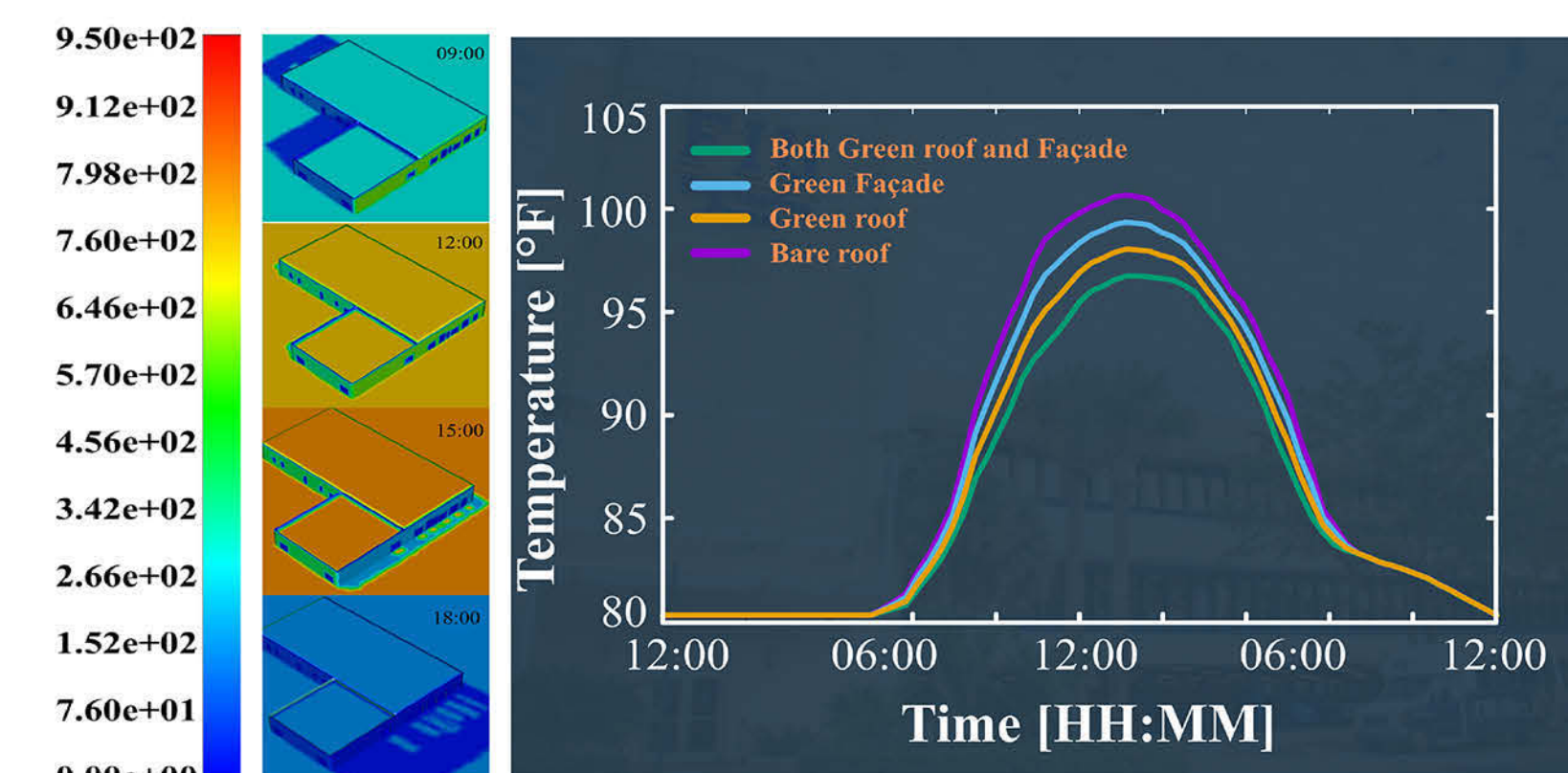


HARDWARE ARCHITECTURE OF THE ROSCRTS

DEMONSTRATION PROTOTYPE



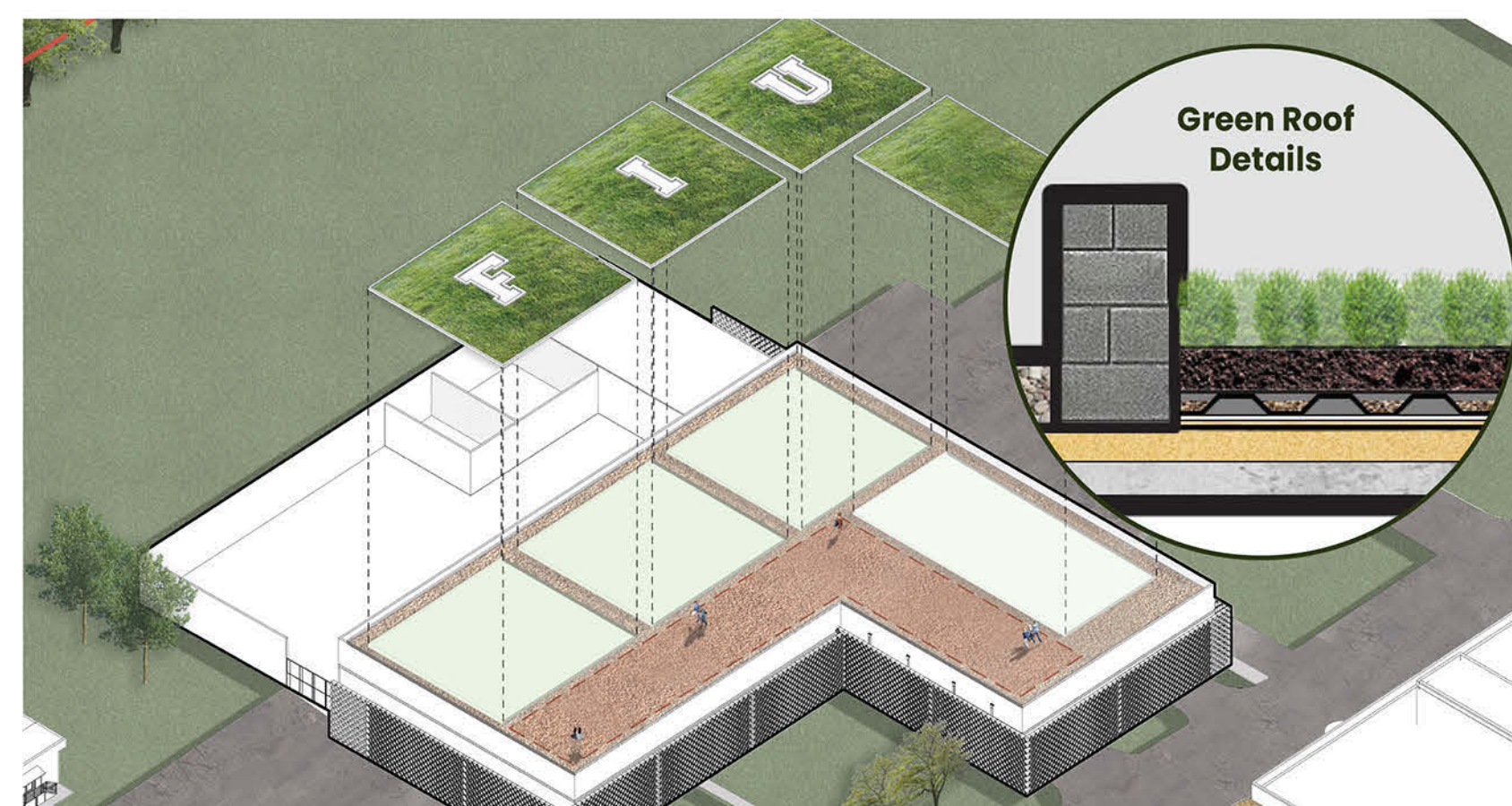
RAINWATER HARVESTING SYSTEM (RHS)



SIMULATED SOLAR HEAT FLUX ON OU BUILDING



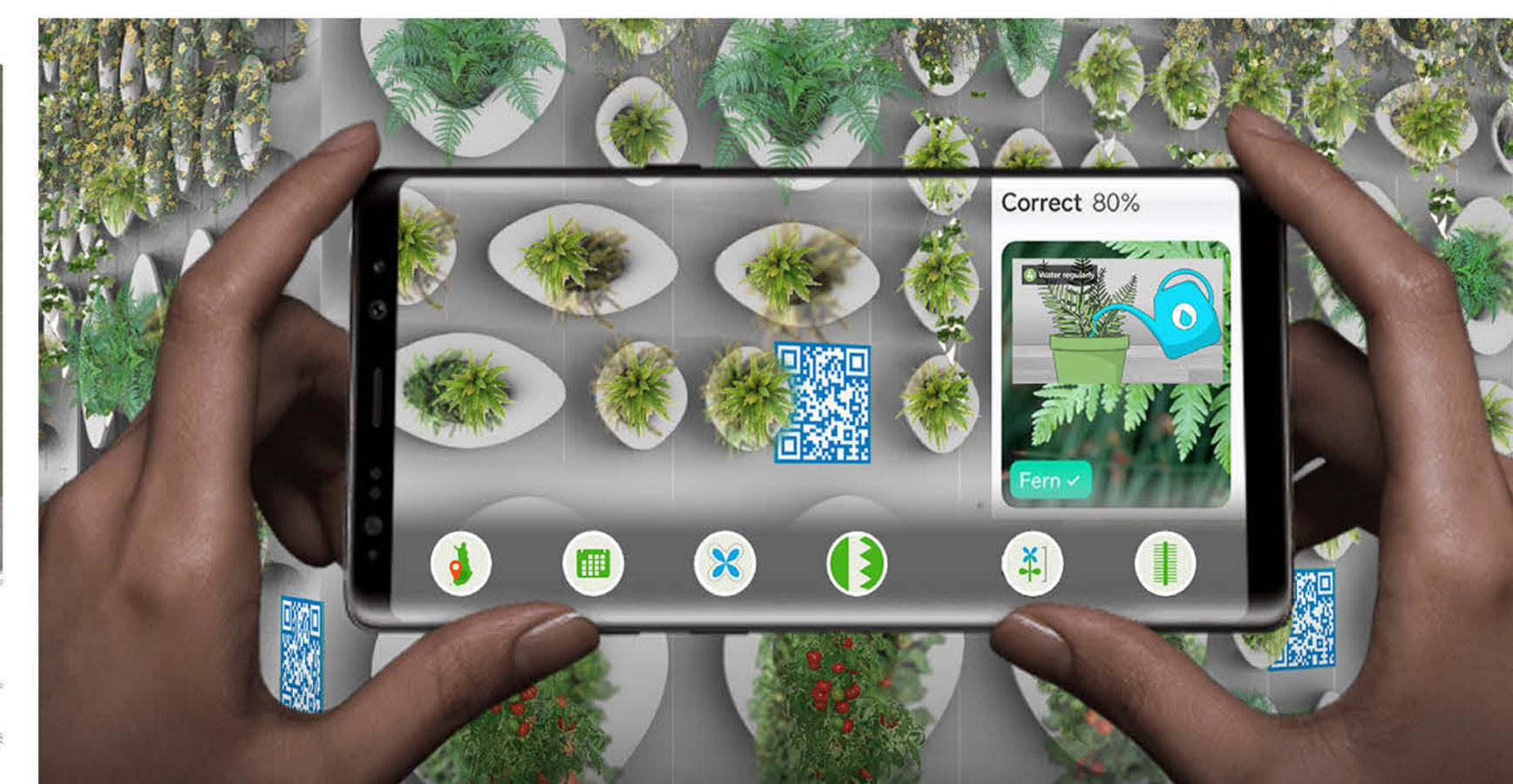
PROPOSED SMART GREEN INFRASTRUCTURES FOR EC OU BUILDING



PROPOSED GREEN ROOFS FOR EC OU BUILDING



PROPOSED SMART GREEN FACADE FOR EC OU BUILDING



AUGMENTED REALITY APP OVERLAYING & COMMUNICATING THE VEGETATION, WATER USE & SUSTAINABILITY EFFORTS OF THE PROJECT TO THE CAMPUS COMMUNITY

## STRATEGIES & BENEFITS

PROBLEMS	PROPOSAL	INNOVATIVE COMPONENTS	BENEFITS
<ul style="list-style-type: none"> <li>PONDING &amp; FLOODING</li> <li>CAMPUS AESTHETICS LACKING LANDSCAPING</li> </ul>	<ul style="list-style-type: none"> <li>SMART ECO-WATER USE</li> </ul>	<ul style="list-style-type: none"> <li><b>RAINWATER HARVESTING FOR COOLING TOWER MAKE-UP</b> <ul style="list-style-type: none"> <li>Automated Rainwater Filtration Tanks</li> <li>Self-cleaning System &amp; First Flush Diverter</li> <li>Remotely-operated System</li> </ul> </li> <li><b>SMART GREEN INFRASTRUCTURE SYSTEM</b> <ul style="list-style-type: none"> <li>Green Roof w/ Automated Irrigation System</li> <li>Green Façade w/ Automated Irrigation System</li> <li>Augmented Reality Mobile App</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>14 MG of Water Saved Per Year Saving \$27,621/yr. in Water Bill</li> <li>43,911 kWh Saved Per Year Saving \$3,829/yr. in Electricity Bill</li> <li>\$31,450 Saved Per Year (Water &amp; Electricity)</li> <li>3.6 °F Temperature Reduction</li> <li>511 lbs. of Carbon Sequestration</li> <li>Augmented Reality App to Promote Green Education</li> </ul>

## EVAPORATIVE COOLING TOWERS

