BUILT FOR ALL

GONZAGA UNIVERSITY

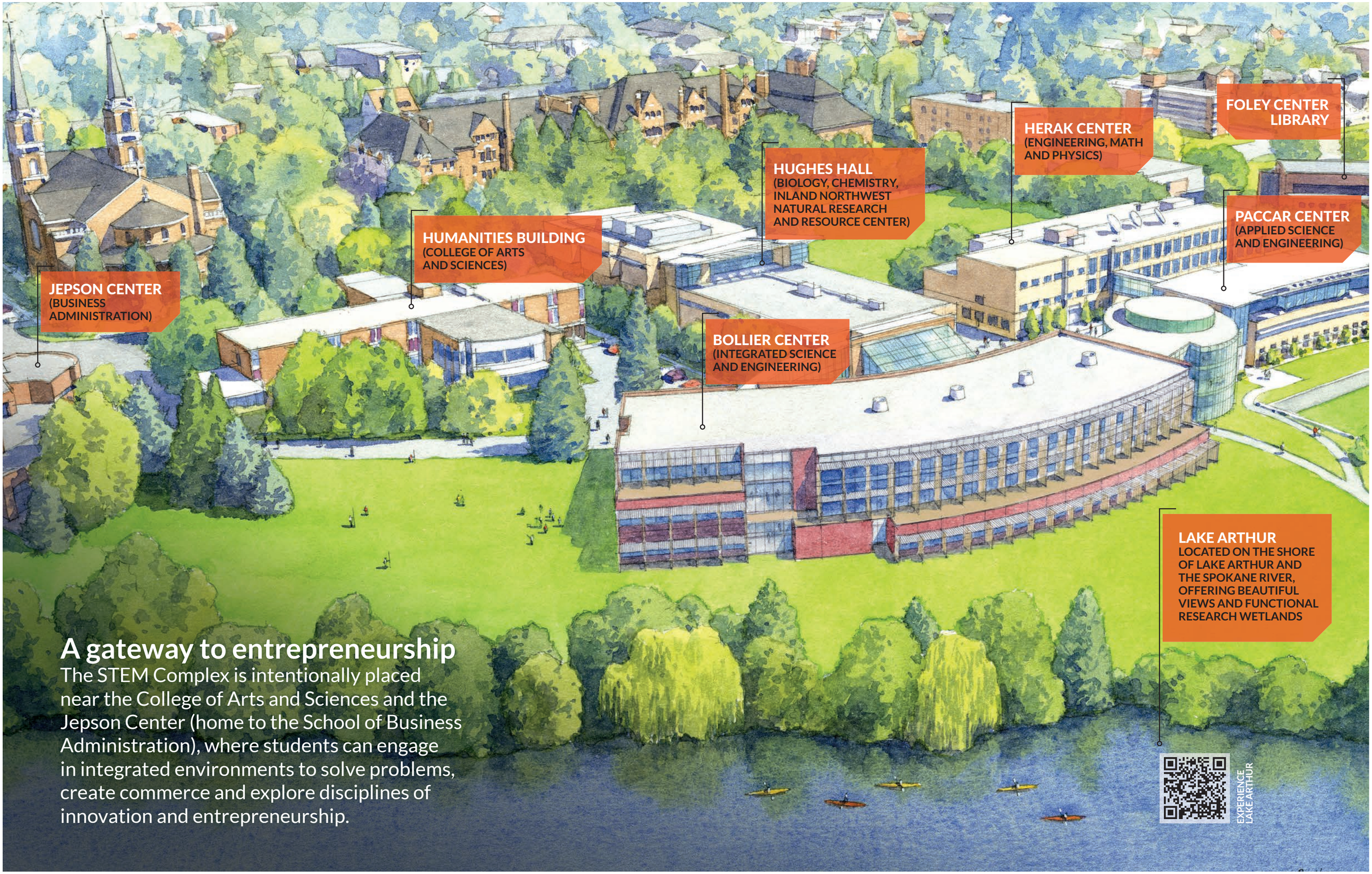
JOHN AND JOAN BOLLIER FAMILY
CENTER FOR INTEGRATED
SCIENCE AND ENGINEERING

DESIGNED TO CONNECT

Gonzaga University's new John and Joan Bollier Family Center for Integrated Science and Engineering completes a quadrangle of buildings on campus that takes STEM education to a new level of engagement and real-world preparation.

Situated between Foley Center Library and the Humanities Building, and connected to the existing Herak Center, Hughes Hall and PACCAR Center, the Bollier Center promotes and enables interactions between students and faculty of the **School of Engineering and Applied Science (SEAS)** and the **College of Arts and Sciences (CAS)** to learn and collaborate in unprecedented ways.

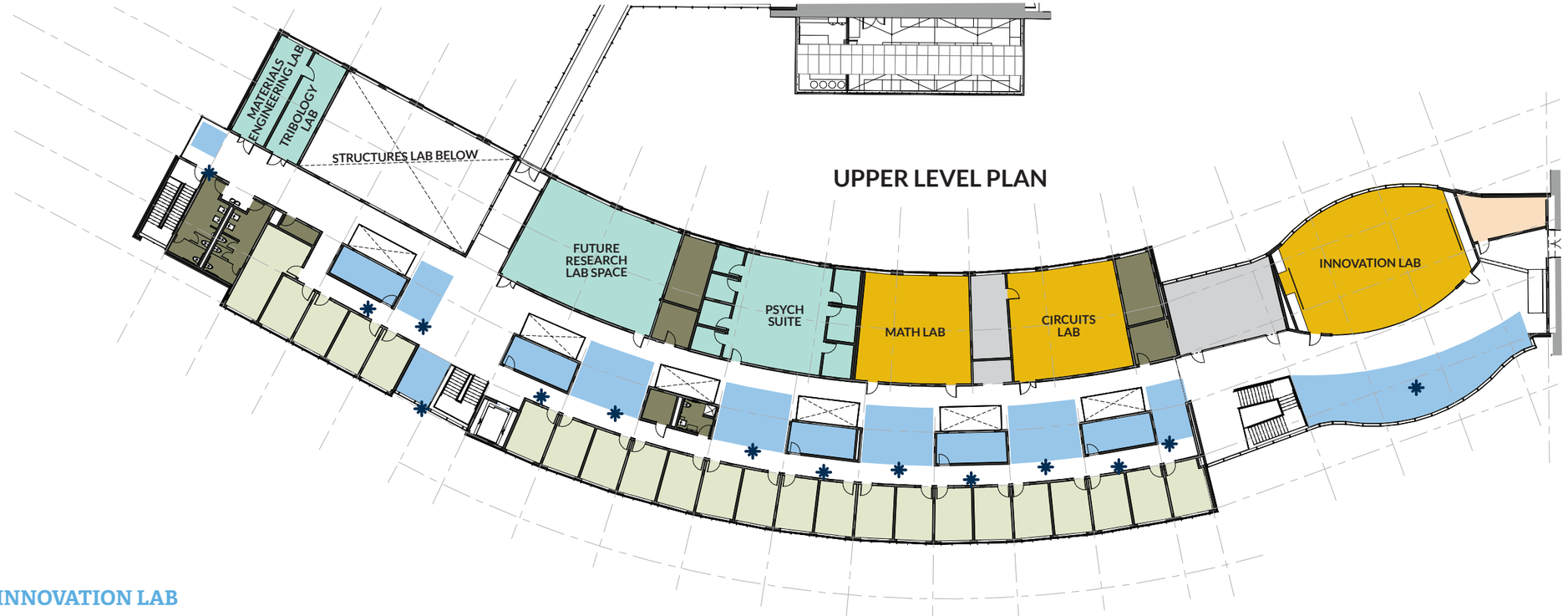
Dedicated to innovation in teaching, learning and research, this transparent and Jesuit-inspired space creates opportunity for engineering and applied and natural sciences to live and grow with each other in response to tomorrow's demands.



A gateway to entrepreneurship

The STEM Complex is intentionally placed near the College of Arts and Sciences and the Jepson Center (home to the School of Business Administration), where students can engage in integrated environments to solve problems, create commerce and explore disciplines of innovation and entrepreneurship.

BUILT TO INNOVATE



UPPER LEVEL PLAN

PSYCH SUITE

- The Operant Choice Lab — fostering collaboration between psychology and electrical and computer engineers focusing on psychological choice vulnerabilities in cybersecurity and more
- Positive Emotion and Social Behavior Lab — researching personal well-being outcomes and the psychology of gratitude
- Cultural Psychology Lab — studying psychological consequences of marginalization due to globalization, attitudes toward climate change and public health research

MATH LAB

- Researching electrical impedance tomography (used for a new type of medical imaging)
- Modeling trees blowing in the wind, algebraic genetics and graph theory (with applications in computer science)
- Studying knot theory, statistical analysis of repeated measurements on each subject (in collaboration with local hospitals) and understanding how individual differences affect overall population dynamics

INNOVATION LAB

- Fostering innovation and entrepreneurship in senior design and undergraduate research projects
- Promoting collaboration with industry professionals and entrepreneurs

CIRCUITS LAB

- Demonstrating the fundamentals of electronic circuit elements and networks to mechanical, electrical, computer engineering and engineering management students

TRIBOLOGY LAB

- Uncovering the fundamentals of surfaces in relative motion at both macro and nano scales
- Developing advanced coatings for aerospace applications and hydrogel-based bearing materials as candidates for advanced prosthesis

MATERIALS ENGINEERING LAB

- Engaging in fundamental studies of fiber reinforced polymer composites
- Exploring new manufacturing technologies of interpenetrating polymer network adhesives

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34%

OF THE TOTAL SPACE IS DEDICATED TO COLLABORATION AREAS

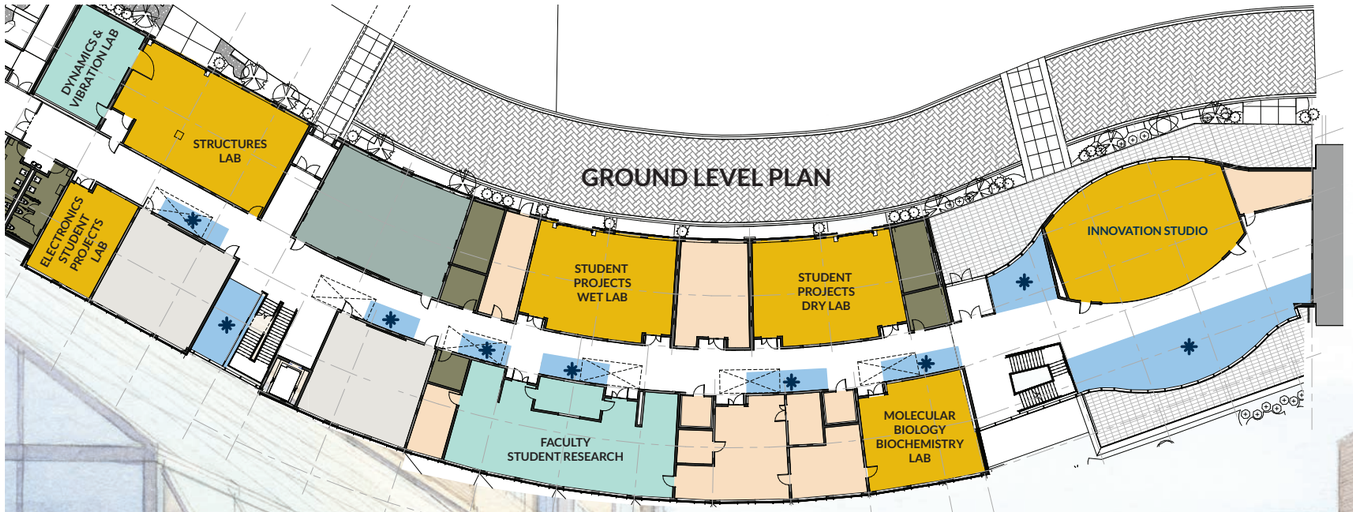
Students can connect and collaborate with each other with ample space to spread out, plan and create

ABET Computing & Engineering Accreditation Commissions

All SEAS undergraduate programs are accredited by ABET

79K
NEW STEM JOBS IN WASHINGTON BY 2030

TOP 10%
SEAS RANKED IN TOP 10% / 23RD BEST ENGINEERING PROGRAM NATIONWIDE
(FOR NON-DOCTORAL ENGINEERING SCHOOLS)



STEM STUDENT RESEARCH

CONSISTENTLY SUPPORTED BY NATIONAL SCIENCE FOUNDATION, M.J. MURDOCK CHARITABLE TRUST, AVISTA CORP.

BUILT TO ENGAGE

STRUCTURES LAB

- Expanding the capability for full structural and material testing of a scale that enables collaboration with area businesses
- Reducing the embodied carbon footprint in construction materials

DYNAMICS & VIBRATION LAB

- Uncovering the mechanics of complex systems that move
- Conducting vibration tests on large frames and structures to test their fatigue life

STUDENT PROJECT WET/DRY LABS

Providing specialized areas for distinct project needs:

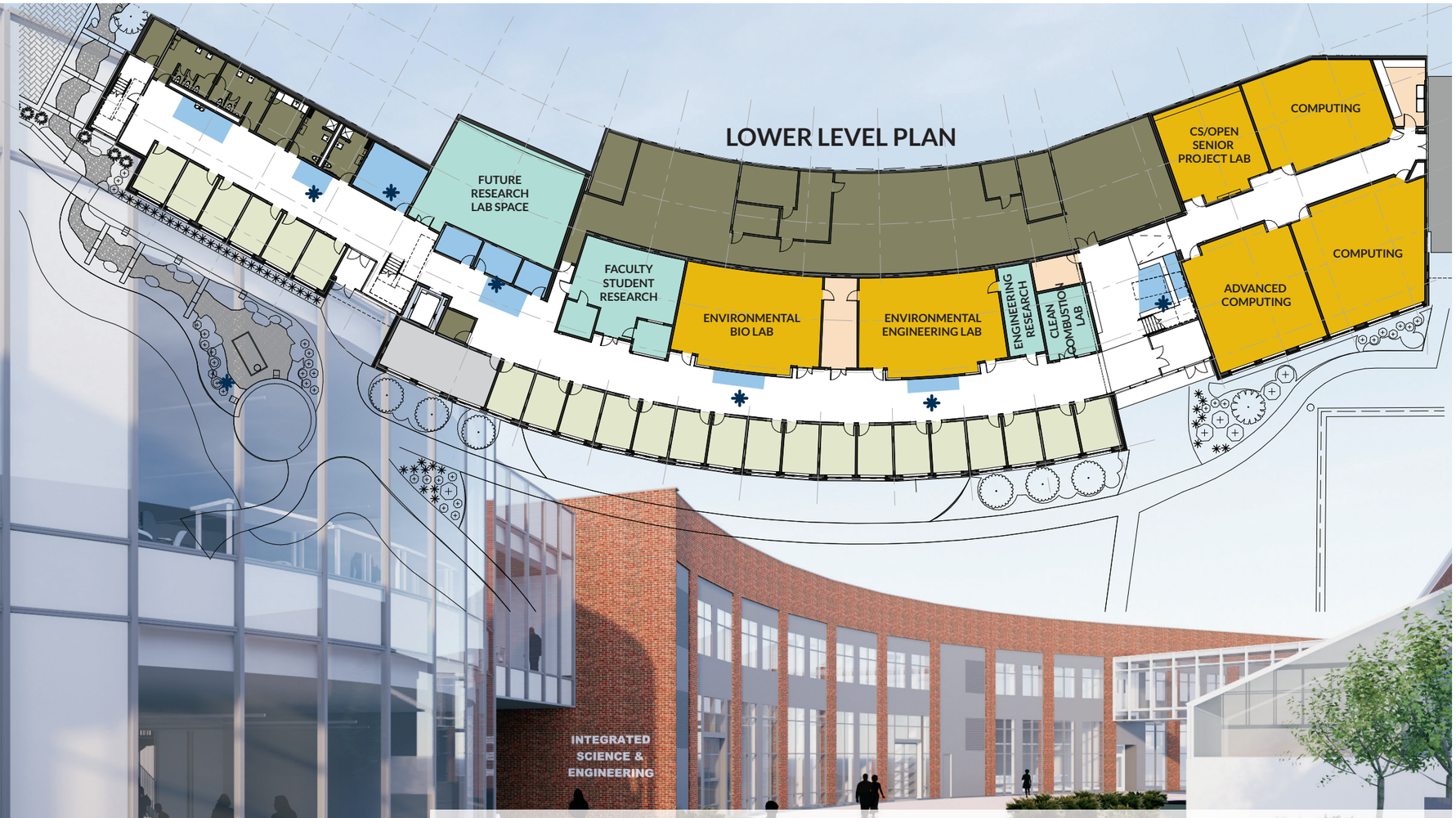
- Dry lab — enabling continuous testing of projects in a non-moisture setting
- Wet lab — allowing for water and related projects to function within a proper setting

ELECTRONICS STUDENT PROJECTS LAB

- Allowing electrical and computer engineering students to conduct unstructured activities
- Promoting divergent aspects of engineering design and applying existing technologies in new ways

INNOVATION STUDIO

- Engaging students in introductory, hands-on engineering activities
- Sparking innovation through design challenges



270,490 sq. ft.

STEM Complex

44% increase in STEM space with the addition of the Bollier Center, including **18 new labs**

Located on Gonzaga's south rim, connecting students to downtown Spokane and the region's businesses, including:

AVISTA
BOEING
BUCK KNIVES
CITY OF SPOKANE
COFFMAN ENGINEERS
HAAKON INDUSTRIES
INTEGRUS ARCHITECTURE
ITRON CORPORATION
KAISER ALUMINUM
KATERRA
KNIFE RIVER PRESTRESS
LUNG TECHNOLOGIES LLC
NIOSH (NATIONAL INSTITUTE OF SAFETY AND HEALTH)
OSBORN CONSULTING
QUANTA SUBSURFACE
SEL INC.
SKILS'KIN
SPOKANE COUNTY
WSDOT (WASHINGTON STATE DEPARTMENT OF TRANSPORTATION)

BUILT TO TRANSFORM

COMPUTING LABS

- Testing advances in cybersecurity, data science, artificial intelligence and the Internet of Things
- Accommodating evolving and emerging computing technology needs

CLEAN COMBUSTION LAB

- Creating cleaner-burning combustion systems
- Improving the efficiency and emission of devices that use promising bio-fuels

ENVIRONMENTAL ENGINEERING LAB

- Addressing water scarcity, climate change and resource depletion
- Using natural byproducts of agricultural and forestry waste as filtration agent

GIVING OPPORTUNITIES

NAME A SPACE

Naming opportunities start with faculty offices at $50,000, and classrooms, labs and suites ranging from $100,000 to $1 million.

EQUIPMENT, LAB MATERIALS, AND RESEARCH SUPPORT

Fund the tools, technology, and materials essential to a cutting-edge learning environment for today's STEM students.

ZAG NATION CLASSROOM

A community-funded classroom that represents the collective power of giving at all levels.

WAYS TO GIVE

- Cash, check, credit/debit
- Pledges with payment schedules up to five years
- Appreciated stocks & bonds
- IRA Rollover (age 70 ½)
- Donor Advised Funds
- Corporate Matching Gifts
- …and more

Contact your University Advancement representative for details.

VIEW A FLY-THROUGH OF THE **BOLLIER CENTER**

Visit **gonzaga.edu/ISE** to learn why and how this space is being built for all.

GONZAGA UNIVERSITY