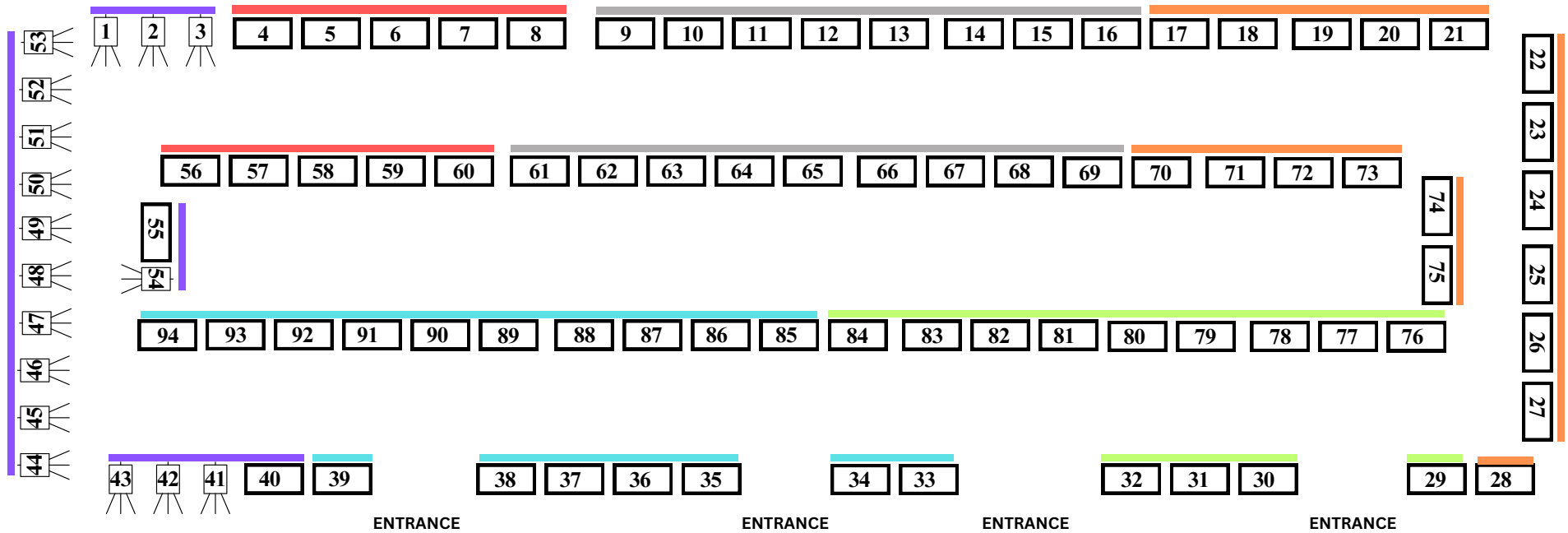


LSC GRAND BALLROOM

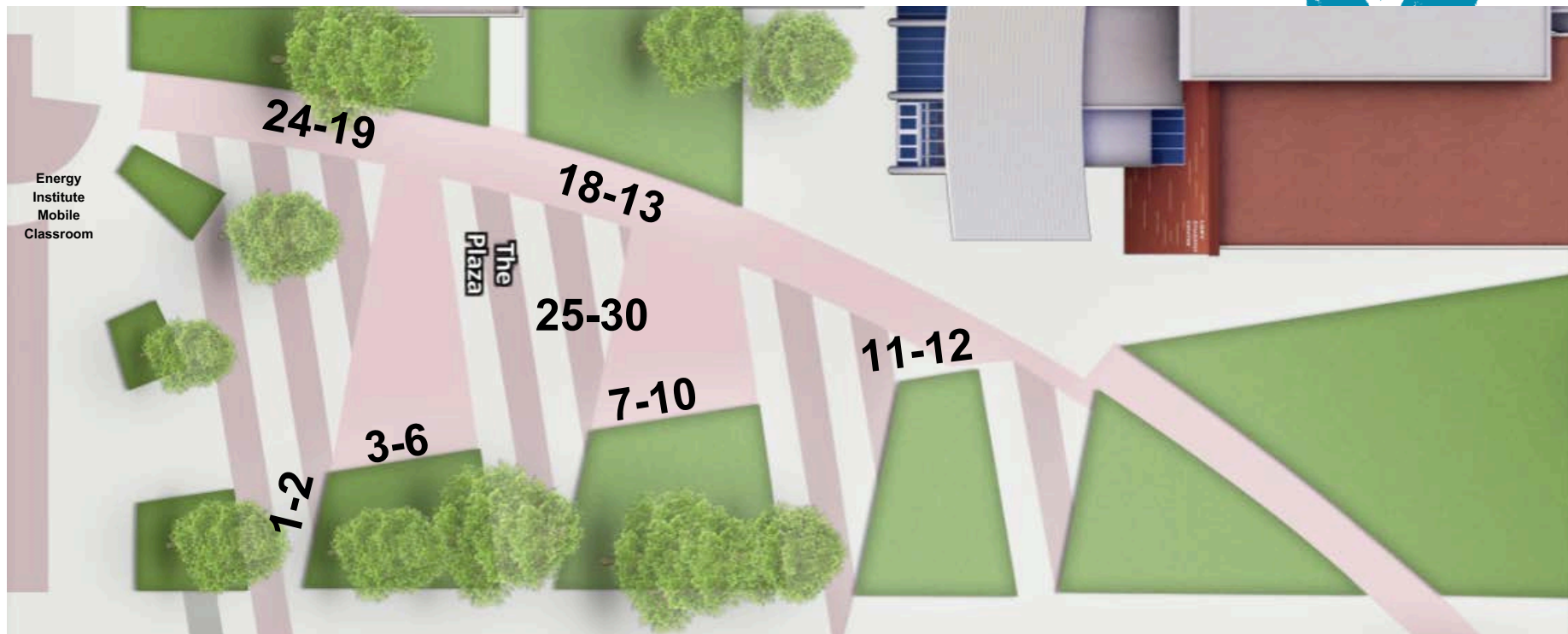


- Chemical and Biological Engineering** INSIDE: 4 - 8; 56 - 60 / ON PLAZA: 21-22
- Civil and Environmental Engineering** INSIDE: 9 - 16; 61 - 69 / ON PLAZA: 3-4; 23-24
- Electrical and Computer Engineering** INSIDE: 17 - 28; 70 - 75 / ON PLAZA: 29-30
- Mechanical Engineering** INSIDE: 29 - 32; 76 - 84 / ON PLAZA: 1-2; 5-12; 15-20; 25-30
- School of Biomedical Engineering** INSIDE: 33 - 39; 85 - 94
- Independent Capstone Projects:** INSIDE: 1 - 3; 40 - 55 / ON PLAZA: 13-14



**WALTER SCOTT, JR.
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LSC PLAZA



CHEMICAL AND BIOLOGICAL ENGINEERING

21-22: Potato Hydroponics Pathogen Detection

CIVIL AND ENVIRONMENTAL ENGINEERING

3-4: CSU Clark Building Addition - Structural Design

23-24: Greenback Consulting

ELECTRICAL AND COMPUTER ENGINEERING

29-30: Electric GoKart

INDEPENDENT CAPSTONE PROJECTS

13-14: Adaptive Morphology for a Robotic Fish using Tensegrity Structures

MECHANICAL ENGINEERING

1-2: CSU Formula SAE Ram Racing

5-6: Calf House

9-10: Roam Electric Bike

15-16: BAE Composite Cryo Struts

17-18: Clean Bean Machine

19-20: Caterpillar Methanol Pump

25-26: Bale Unwinder Optimization

27-28: 3rd Generation Liquid Fuel Control Valve

The following teams have moved inside to LSC 226-228:

A Blackjack Dealing Robot—Showing the Future of Automation
Lincoln Electric Autonomous Filler Wire Changer

INSIDE TABLE ASSIGNMENTS

CHEMICAL AND BIOLOGICAL ENGINEERING

- 4: Food Allergen Detection Device
- 5–6: Anheuser–Busch Heat Recovery
- 7–8: Anheuser–Busch Unitank Solids Removal Team
- 56: Sip Secure
- 57: Tolmar Senior Design
- 58: Design and Optimization of an Electrochemical Reactor for CO2 Reduction
- 59: Platte River Power Authority Carbon Capture/Regeneration
- 60: Cereus: Nitrogen Fixing Soil Probiotics

CIVIL AND ENVIRONMENTAL ENGINEERING

- 9–10: Elevation Engineering
- 11: Flow Hydro Engineering/ Spring Creek Channel Realignment Project
- 12: Timberline Underpass Design Project
- 13: Ram River Rehab
- 14: Red Rocks HydroTechnic
- 15: SH125 Denver Creek Culvert Replacement
- 16: Castor Conservation Corps
- 61: Arkansas River Restoration Project in Buena Vista
- 62: Low–Tech Process Based Restoration Design for Sheep Creek
- 63: Terrasun Engineering: Solar Facility Design
- 64: CSU Plaza CPTED Design
- 65–66: Ramsportation Engineering – University Avenue Redesign
- 67: Rock Solid Engineering
- 68: Streamline Solutions: Poudre River Streambank Restoration
- 69: StreamLink Solutions – Fish Passage Culvert Replacement Design

ELECTRICAL AND COMPUTER ENGINEERING

- 17: The G.A.I.A. System – An Automated Greenhouse
- 18: ECE Student Projects Lab
- 19: Launch Land and Recharge Drone
- 20: MRI
- 21: SRAM Fingerprint
- 22: Antenna Test Range
- 23: Greetings Ram
- 24: Development of Components for Fusion Energy Studies
- 25: Telemedicine
- 26–27: Machine Learning, Sensing, and Image Processing for Snow Research
- 28: RamBOTS
- 70: Development of a High Average Power Laser
- 71: Secure navigation
- 72: Grid Fault Current Contributions from Distributed Energy Resources
- 73: Wearable IoT Baby Monitoring Solution
- 74–75: Optical Neurons

MECHANICAL ENGINEERING

- 29: Kodak Alaris Film Winding Test Fixture
- 30–31: AIAA Design Build Fly
- 32: Advanced Aerospace Position Sensing System using Surface Acoustic Waves
- 76–78: NASA USLI Rocket Competition
- 79: Filament Adaptive Extrusion for 3D Printing
- 80: Pan–Tilt Mount
- 81: Carbon–Neutral Boiler Integration
- 82: Better Process Small Scale Automation Demo
- 83: W.M. Keck Observatory Calibration System
- 84: Data Center Cooling

SCHOOL OF BIOMEDICAL ENGINEERING

- 33-34: Step Up Prosthetics
- 35-36: AI-Powered Digital Twins for Predictive Tumor Modeling
- 37: ValorNBK: The Portable Nerve Block Kit for Military Use in Austere Environments
- 38: Chemiluminescence Reader for Point-of-Care Diagnostics
- 39: Automated Cell Tracking
- 85: Sperm Flagellum Traction Force Measurement System
- 86: PhotonPharma Innocell: Cancer Immunotherapy Device
- 87: Physical Model of Eye Movement
- 88: Accelerated Aging of Hydrogels
- 89: Development of a Light Weight Centrifuge Frame - Terumo BCT
- 90: Flourish: Feminine Stress Urinary Incontinence Device
- 91: MediFlex Prosthetics
- 92-93: Improved Knee Positioner For Total Knee Replacement Surgery
- 94: Kasooli: Transforming Agricultural Byproducts into Sustainable Period Products

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INDEPENDENT CAPSTONE RESEARCH

- 1: Converting a Natural Gas Industrial Burner to Hydrogen with Plasma-Assisted Combustion
- 2: Study of Combustion Characteristics of NH₃-H₂ Mixtures for Carbon-Free Emissions
- 3: Pneumatically Deployable Wheg
- 40-41: Using a UR5e for Pseudo Load Control Kinematic Testing
- 42: Medical Foam Development Using Surfactants: Field-Deployable Treatment for Open Trauma and Ocular Injuries
- 43: Direct Ink Writing with Tunable Hydrogel Utilizing Frontal Polymerization
- 44: Optimizing Hydrogen Refueling Station Configurations: A Techno-Economic Approach
- 45: A Study of Ignition and Combustion of Liquid Hydrocarbon Droplets in Premixed Fuel/Air Mixtures
- 46: Adaptive Robotics Lab-Multimodal Perching Robot
- 47: Transient Modeling with Empirical Validation of a Steam Generating Heat Pump
- 48: Design of a Gyroid Heat Exchanger for Stepper Motor Cooling Applications
- 49: Developing a Hydrogen Engine via Modification and Conversion of a Conventional Engine
- 50: 3D Printing Fibrocartilage Tissue Engineering Scaffolds with Cellulose
- 51: Experimental Investigation of a Continuous Optical Discharge (COD) for Combustion Applications
- 52: Optical Diagnostics of Neutral and Ionic Species in Inner Plasmas and Plasma Plumes
- 53: Optimization of Compositionally Graded CdSe/CdSeTe/CdTe Absorber with CdCl₂ Treatments
- 54: Automated High-Voltage Switch System for Gas Mixture Analysis

