



UCI CENTER FOR ADVANCED CARE

The Center for Advanced Care (CAC) consists of a 5-story, 167,600 square foot medical and a 7—tier parking structure with 749 parking stalls. The program of the MOB includes primary and specialty clinics for pediatric and adult care as well as an urgent care and autism center. The CAC faces Jamboree Road and it will anchor the northwest side of the new Irvine Campus Medical Complex.

MCCARTHY

SMITHGROUP

TAYLOR design

Sustainability Features:

- 1.The CAC building is designed to achieve LEED v4 Platinum building certification.
- 2.The entrance lobby, patient waiting areas are placed on the South. The southern façade includes deep exterior shading devices to reduce solar loads and daylight glare while maximizing daylight availability and view to wetland.
- 3.Offices, workstations, and staff lounges are placed north. The north façade with a higher window-to-wall ratio brings in uniform daylight and enhances the view. Shallow vertical exterior shading devices on the northern facades to address morning & evening glare and reduce solar loads while maintaining daylight availability.
- 4.A high-performance glazing system (Viracon VNE1-53) with a low solar heat gain coefficient, higher visual light transmittance (VLT) is used on top floors to minimize solar gains and enhance daylight. Higher VLT glazing (Viracon VNE1-2M) is used for the lower-level entry lobby and emergency areas to maximize view and daylight.
- 5.The thermal performance of walls and roofs meet and exceed California T24 2019 prescriptive values.
- 6.A high reflective roof with a Solar Reflective Index (SRI) value of 63 or higher is considered to reduce the urban heat island effect. Photovoltaics located on the parking structure roof will provide shade to the parking.
- 7.LED lights are used throughout the project. Dimmable or multilevel lighting controls are provided for 90% of the occupant spaces. Daylight harvesting, continuous dimming with shut-off controls is provided for all perimeter spaces.
- 8.A 10% reduction in interior lighting power density (LPD) over T24 2019 standards is achieved through efficient fixtures and enhanced controls.
- 9.All lighting fixtures achieve Unified Glare Rating (UGR) rating <19. Surface Reflectivity for ceilings, walls, work surfaces, and movable partitions are carefully selected to have higher reflectance values to avoid glare.
- 10.Outdoor light fixtures meet BUG (Backlight, Up light & Glare) rating to minimize nighttime light pollution.
- 11.Variable air volume reheat systems with heat recovery chillers provide space cooling and heating to the building.
- 12.MERV 14 pre-filters before coils and final filters after the fan is used for enhanced air filtration.
- 13.Demand control ventilation is used for high occupant density areas to minimize tempering the outside air during unoccupied times.
- 14.Highly efficient system in combination with high-performance envelope, reduced lighting and photovoltaics achieve greater than 55% annual energy cost savings with respect to ASHRAE 90.1 2010, achieving all 18 points under energy and atmosphere credit, plus an exemplary performance for higher performance.
- 15.Demand response infrastructure is included in the systems, will be capable of load shedding based on a signal from utility to reduce peak demand and increase grid reliability.
- 16.Monitor-based enhanced commissioning along with envelope commissioning will be performed to test and verify the performance of equipment & envelope systems.
- 17.A 390 KW PV array to be installed on the parking lot, which generates ~30% of the annual energy cost of the building, achieving 3 points in renewable energy production credit and 1 exemplary performance for high performance.
- 18.All plumbing fixtures are designed to meet CALGreen standards of 1.28 Gallons Per Flush for water closet, pint urinals, and 0.5 gpm faucets.
- 19.Recycled water from IRWD (Irvine Ranch Water District) is used for flushing toilets to reduce water demand. Water-efficient fixtures in combination with recycled water achieve greater than 70% water reduction against the ASHRAE baseline achieving all 6 points under indoor water use reduction credit and an exemplary performance for high performance.
- 20.Native and adapted vegetation along with a drip irrigation system is used throughout the site to reduce water demand. 100% outdoor water use reduction is achieved using climate-appropriate plants, an efficient irrigation system, and recycled water supplemented by IWRD.
- 21.The site design includes greater than 50% open space, 45% of which is vegetated for outdoor access and occupant & patient wellbeing.
- 22.LID development, use of bioswales to infiltrate stormwater and promote vegetation.
- 23.Short-term bicycle racks, long-term bicycle storage, and showers are provided to promote bicycling on campus. The bike lane will be connected to the campus bicycling route.
- 24.Dedicated carpool/vanpool parking spaces & zip cars are provided to discourage single-use vehicles.
- 25.30 Electric Vehicles (EV) chargers will be installed on day 1 to encourage the use of zero-emission vehicles.
- 26.Natural materials, recycled materials, the material with improved life cycle impacts & healthy materials are used wherever applicable.
- 27.Greater than 75% of construction debris and waste to be diverted, recycled and reused.
- 28.Low Volatile Organic Compounds (VOC) paints, adhesives, sealants, insulation, ceilings, tiles, and carpets and are used throughout the project.
- 29.Biophilic design elements incorporated throughout the project. The project site includes a walkable pathway covered by a canopy of trees, outdoor benches to promote walkability.

