



601 MARSHALL – REDWOOD CITY'S FIRST LEED-CS PLATINUM OFFICE DEVELOPMENT

601 Marshall LEED Platinum development by DDC

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Dostart Development Completes Redwood City's First LEED-CS Platinum Office Development

*Highly sustainable site near transit, high density residential, restaurants & entertainment*

Dostart Development Company, LLC (DDC) just completed 601 Marshall as the first Leadership in Energy and Environmental Design for Core & Shell (LEED® – CS) Platinum-certified office development ever built in the City of Redwood City, California. DDC has proven to be one of the Silicon Valley's premier developers, with more than 25 years and 2.8 million square feet of experience developing, redeveloping and investing in office space in Silicon Valley and the San Francisco Peninsula. In addition to being known for its local expertise and the high quality of its projects and tenants, DDC has been a pioneer in Transit-Oriented Development and utilizing LEED standards for sustainable design.

Prior to this year, DDC and its principals developed the first LEED-designed office shell in Palo Alto, the first Transit-Oriented Development in Mountain View, and the first Transit-Oriented Development in Sunnyvale, among other LEED Gold and Silver projects. DDC has now raised the bar again with 601 Marshall becoming the first LEED – CS Platinum office development in Redwood City.

USGBC's LEED's principles of sustainability have been a hallmark of 601 Marshall from site selection through initial design to construction completion. Below are some of the green building initiatives that contribute

to making this a highly efficient and sustainable property:

Sustainable Sites

601 Marshall was first identified as an ideal office site given its core downtown location just blocks from a transit center and "baby bullet" Caltrain station. This provides easy access by bike or by foot while the "baby bullet" Caltrain designation provides express access to the major hubs in San Francisco to the north and San Jose to the south. In addition, when DDC first began looking at the site, Redwood City had recently implemented its Downtown Precise Plan to facilitate the development of 2,500 nearby apartment units, along with new office, retail

and hotel space. Much of this space has since been completed and further transformed the area into a true live work play environment ideal for sustainable development.

Given proximity to transit, the building was developed with a reduced parking supply which is one of the most effective strategies for reducing drive-alone rates for commuters. The building itself is equipped with secure bike lockers and employee showers to encourage tenants to use the nearby network of bike paths and public transit system rather than drive to the property. For those who need to drive, over 5% of parking stalls are reserved as preferential parking for carpools, over 5% of parking stalls are reserved as preferential parking for low emitting vehicles and over 3% of stalls are equipped with EV charging stations. These initiatives all serve to get people out of their cars, to drive more environmentally friendly cars when driving is necessary, and ultimately to reduce pollution and land development impacts from automobiles.

Water Efficiency

California's history of droughts and inconsistent rainfall make water efficiency a critical issue for all new development in the State. While this has always been a priority for DDC, the State was also in the middle of a five year drought during the planning of 601 Marshall, which further highlighted water efficiency as a major priority for the development team. The project was designed with the intent to reduce the project's total potable water use, reduce its impact on the municipal water system, and prepare for the future availability of recycled water.



Bioswale with drought resistant plants

The property's fixtures are highly efficient and reduce the building's water consumption by over [40%] while its landscaping was selected for its efficiency and drought tolerance and reduces potable water consumption for irrigation by over [50%]. Recycled water was not yet available in

Redwood City when the project was completed, but it is on the horizon. The property was plumbed for recycled water to enable it to convert to recycled water for flushing toilets as soon as it becomes available.



Trees selected for water efficiency and drought resistance

Energy & Atmosphere

The property's building envelope, HVAC, lighting and other systems were efficiently designed to use [27%] less energy than the baseline. One of the major innovative features is the property's use of a Variable Refrigerant Flow (VRF) HVAC system that is highly efficient and flexible. This system supports variable compressor loads that enable substantial energy savings by operating in partial-load (as opposed to full-load) conditions. This enables exceptional control over the system and a better ability to customize zones within thermal controlled areas. This efficient system also utilizes an energy recovery wheel that supplies fresh makeup air using the energy recovered from the building's exhaust air.



Operating under partial-load conditions enables the building to take advantage of Redwood City's temperate climate. After all, the City's motto is "Climate Best by Government Test!"

In addition to designing and selecting efficient equipment, the property's systems were also evaluated to ensure they were properly installed. This entailed a full commissioning of the envelope and building systems to verify that its systems and equipment were performing according to their design intent. The property's building

management system also enables on-going measurement and verification of the systems. Following the initial commissioning, the property's performance has been actively monitored to ensure these efficiencies are maintained. The tenant spaces have also been sub-metered to allow them to independently communicate with the building management system to develop a more complete understanding of the building's energy usage.



Building systems are commissioned and then monitored for on an ongoing basis

Materials & Resources

One of the main LEED categories is Materials & Resources, which encourages recycling or salvaging waste and using sustainable materials throughout the project's construction. For 601 Marshall, more than [75%] of the construction and demolition materials were either recycled or salvaged. In addition, more than [50%] of the property's wood was certified in accordance with the principles and criteria of the Forest Stewardship Council (FSC). FSC certified wood is one of the more visible design features in the ground floor lobby and can be seen cladding the lobby's planters and on certain lobby furniture and walls.



Main elevator lobby clad in FSC-certified wood

Indoor Environmental Quality

The last major LEED category is Indoor Environmental Quality, which promotes a healthy and comfortable indoor environment that supports occupants' productivity and well-being. This was achieved at the property by installing low emitting indoor materials, ensuring occupied areas are well ventilated, and designing the systems to maintain

thermal conditions within a comfortable range.



Building systems support comfortable thermal conditions to promote occupant well-being

Low-emitting and low-VOC materials were selected for adhesives, sealants, paints, coatings and carpet systems. This protects the air in the building from potential fumes and contaminants emitted from these materials. The property is then mechanically ventilated to promote fresh air within the building and provide occupied areas with

outdoor air ventilation rates at least 30% above the baseline standard. Lastly, the systems have been designed to keep the building's occupants comfortable and happy. In order to achieve this, the mechanical systems, control systems and thermal envelope were all designed to enable comfortable thermal conditions to be maintained in occupied areas.

Development Takeaways

DDC has long been an advocate for sustainability and energy efficiency in its developments. Given the strong framework that LEED provides for achieving these sustainability goals, it was never a question of whether DDC would certify 601 Marshall but only a question of which level made the most sense. The high standards of California building codes alone are close to the LEED Silver level so it was clear that at a minimum, it made sense to pursue Gold certification. After engaging a LEED consultant early in the process, it quickly became clear that Platinum certification was not only within

reach, but would be achievable at a nominal increase in cost. This made for an easy decision. DDC then opted to apply for LEED Platinum pre-certification, which resulted in the U.S. Green Building Council providing valuable feedback before the project broke ground. Once approved, pre-certification also helped the marketing efforts for the property as potential tenants appreciated both the sustainability aspects and the future savings in operating expenses.



LEED education sign next to main lobby entrance

