

Project Description:

Ribbons

Ribbons is a landscape sculpture for the Art and Architecture Program of the United States General Services Administration in the central courtyard of the Federal Building at 50 United Nations Plaza, San Francisco, CA. Ribbons is the social heart of the newly renovated headquarters of the historic Federal Building, home of the General Services Administration, Pacific Rim Offices. Within the context of the adaptive reuse and sustainable building systems employed in the renovation of the historic building, the Art in Architecture project, Ribbons, reframes the entire courtyard as a site specific work of art, employing sculptures made of recycled concrete and a previous ground plane of decomposed granite. The courtyard design transforms the classical symmetry of the original 1932 Arthur Brown design by strengthening its main axial connections and inserting a matrix of sculpture, paving, seating, fountains and plantings into the four-sided courtyard. Ribbons responds to the renovation and retrofitting of the existing historic building by employing sustainable technologies in its landscape and serving as the living room for the contemporary offices established within the historic building fabric.

The federal building at 50 United Nations Plaza is listed on the National Register of Historic Places and is a contributing building to the San Francisco Civic Center National Historic Landmark District, one of the best manifestations of the early 20th century City Beautiful Movement in the United States. While the building is an excellent example of the Beaux Arts style, architect Arthur Brown's vision for the central courtyard was never fully realized. One of the immediate challenges of the courtyard design was to create an exciting contemporary visual language that could belong to the historic fabric of the existing building as well as meet the GSA's aggressive sustainability requirements.

Ribbons responds to the hierarchy of the Beaux-Arts architecture by countering with a very plastic and horizontal sculpture. A central woven medallion of poured in place concrete ribbons is set into a permeable surface of decomposed granite. The medallion joins the massive granite steps on the north and south sides of the building and stretches to extend the sculpture and planting along the courtyard's east/west axis. This paving plan creates a rhythmically punctuated pedestrian circulation and planting system. The ribbons motif is also the horizontal basis for the sculptures, which also serve as benches. These sculptures rise, twist and fall back into the concrete paving ribbons. The benches rising from the woven ribbons of paving loosely reflect the twists of a ribbon, as if it could create the sides of a solid form.

There are three to four different surface textures, from polished to sandblasted on the sides of each sculpture that help the twisting motion to register its movement on the form. A recycled concrete mix was developed with additions of dolomite in order to achieve a material that could hold its own integrity alongside the white brick and grey granite of the building. The fabrication system developed for the concrete sculptures allowed the project to achieve a maximum effect for a minimum budget by working with a system of interchangeable and repeatable parts, which limited the cost and number of molds. The concrete sculptures were digitally designed and milled from solid foam. Fiberglass molds were made from these milled foam positives and the sculptures were cast in recycled concrete.

The twisting concrete sculptures that curve towards the center of the courtyard define an east and west axis, which terminates in semicircular seating arrangements surrounding a granite fountain at the east and west ends of the courtyard. The form of these granite fountains is based upon the same convex and concave movements of the ribbon-like benches. A slightly concave top of each fountain holds enough water to create a flat-mirrored surface spilling water evenly and gently down each curving face of the fountain. The subtle curves of each of these cubic fountains allow the low volume flow of water to create a soothing sound in each of these seating areas. A semicircular concrete twisting bench surrounds each fountain forming a termination of the east/west axis and setting up a destination for occupants of the building who are using the courtyard. The original plans drawn by Arthur Brown's office in 1932 show two fountains for the courtyard that were never built. Two new carved granite fountains share the formal vocabulary of the concrete sculptures, and have the same position as the fountains in the historical plan. The sound of the low volume of water moving over the granite provides a pleasant gathering place. The fountain mechanical system recycles water with a simple pump vault and ball valve to control evaporation.

A grove of 32 White Barked Himalayan Birch, form a continuous grid throughout the east and west sides of the courtyard. The vertical movement of the grove of birch counters the strong horizontal motion of the sculpture's ground plane. These horizontal and vertical movements come to a point of balance because of the absolute containment of the courtyard by its white brick walls. The white and black trunks of the birch form a beautiful contrast with the white brick of the building. The grove of birch is a unifying field over the bilaterally symmetrical design and the overallness of the grid is delightfully unexpected in the classical context. The low light situation in the courtyard is well suited to an understory tree like the birch, which are up-lighted with LED fixtures.

The low understory plants, deer fern and heuchera were selected because of their ability to adapt and represent a native California understory planting. These plants are normally found in or near stream channels and shade. With the dominance of shade in the courtyard these plants can use less water than in an inland environment, thus contributing to a water efficient landscape. The planting beds have a 3" layer of bark mulch to reduce evaporation and to keep the root zone a more constant temperature. The irrigation system is a subsurface drip emitter system, eliminating any runoff and bringing water directly to the plants. Evapotranspiration rate is also reduced with this system. The irrigation controller is an ET weather based controller or Smart Controller that regulates water to each zone according to its water requirement and adjusts the irrigation cycle or period to meet the needs of the plants in coordination with the day-to-day weather conditions. The immediate water savings can be up to 40% of normal use.

The building's architects HKS Architects designed a revised structural system and renovation of the building's central corridors that provides daylight penetration and ventilation to the building's core making the courtyard visually accessible from all four corridors of each floor of the building. Hybrid natural ventilation and open transoms allow for cross ventilation while reuse of the existing steam radiators provides the majority of the buildings heat. Adapting the high ceilings and generous spaces into open neighborhoods for a modern work place has consolidated office functions. Ribbons is the very heart of 50 UN Plaza serving as a central gathering space for the building providing a courtyard that is as beautiful as it is functional thereby enhancing the collaborative atmosphere of the modern work place. The project is certified LEED Gold with LEED Platinum pending.