



Transbay Transit Center

SUSTAINABILITY FEATURES OF TRANSBAY TRANSIT CENTER

The Transbay Transit Center is a modern regional transit hub connecting eight Bay Area counties and the State of California through 11 transit systems: AC Transit, BART, Caltrain, Golden Gate Transit, Greyhound, Muni, SamTrans, WestCAT Lynx, Amtrak, Paratransit and future High Speed Rail from San Francisco to Los Angeles/Anaheim. The new Transit Center will accommodate up to 45 million riders annually, including bus, commuter rail and high speed rail passengers, of which many will walk or ride their bicycles to and from the Center.

The Transbay Transit Center will be a gold certified LEED building development, which will incorporate the use of natural lighting, geothermal regulation, and greywater recycling. All of these elements help reduce Green House Gases. The project design incorporates many sustainability elements.

Rooftop Park: Instead of a five-acre roof absorbing and radiating heat, the 5.4 acre rooftop park will absorb carbon dioxide from bus exhaust, absorb and filter stormwater, and provide a habitat for local wildlife.

Extensive Use of Natural Lighting: Lighting is the biggest energy use in the Transbay Transit Center building. Light columns and skylights will be used extensively to bring natural light into the building and reduce energy costs. Additional lighting controls will allow dimming of electric lighting in response to the presence of daylight, and lighting will be completely shut off in much of the Transit Center during “off-peak” hours.

Greywater/Stormwater Reuse: In order to minimize potable water consumption and substitute other non-potable water, the facility incorporates dual drainage piping so that greywater is collected from select plumbing uses and then recycled back for flushing toilets and urinals. Greywater and stormwater reuse, combined with water-conserving fixtures, will save over 12 million gallons of potable water each year. Water reuse also reduces energy consumption associated with transporting water to the site.

Geothermal System: To significantly reduce the energy required to cool the building, a geothermal system will harness the relatively low temperature of the ground to chill water passively. Pipes will be coiled under the building footprint, circulating water deep below grade. The geothermal cooling system contributes to water conservation efforts by reducing cooling tower use by approximately 350,000 gallons per year (60% less than a typical cooling tower system).

Natural Ventilation: The building is substantially a naturally ventilated facility. Only limited parts of it are air conditioned (individual retail stores, for example). The bus deck is open on the sides and will not require exhaust or air filtration – similar to an open parking garage. Air/ventilation systems are designed to take advantage of the San Francisco climate by using cool night-time outside air to pre-cool and reduce daytime cooling needs.

Strong Commitment to Recycling: The Transit Center will help support San Francisco's aggressive recycling goal of reaching 75 percent diversion (and eventually zero waste) by providing three-stream waste separation that includes compost and recyclables. During demolition of the former Transbay Terminal, TJPA recycled over 7,500 tons of steel and over 92,000 cubic yards of concrete, enough to fill 28 Olympic size swimming pools.

Reduced Emissions: Greatly encourages public transit use throughout the Bay Area and State of California, significantly reducing emissions of air pollutants, including reducing carbon dioxide emissions by tens of thousands of tons each year. Completion of the full high speed rail system is projected to reduce these emissions by more than 3 million tons each year system-wide by 2028.

ECONOMIC BENEFITS OF TRANSBAY PROJECT

In addition to conserving resources and promoting transit, the Transbay Project will generate jobs, property value, personal income, and gross regional product while concentrating new residential and commercial development in a high-density, walkable neighbourhood.

Job Creation: Overall, the Transbay project will create an estimated 125,000 jobs, directly and indirectly, including approximately 8,300 construction and 27,000 permanent jobs.

SBE/DBE Programs: Over the life of the Transbay Program, 21 percent of contract awards have been awarded to Small Business Enterprises and 13 percent of contracts have been awarded to Disadvantaged Business Enterprises.

Increased Property Values: People want to live and work near transit and the other amenities of the Transbay Project, which will add approximately \$3.9 billion in premium value to new and existing commercial and residential properties located within $\frac{3}{4}$ of a mile of the Transit Center.

Catalyst for Regional Growth: Regionally, construction of the Transit Center and buildout of the surrounding Transbay neighborhood will generate more than \$87 billion in Gross Regional Product and \$52 billion in personal income through 2030. The Downtown Rail Extension will help remove thousands of commuters from the road, resulting in \$360 million in travel time savings, more than \$120 million in avoided vehicle operation and maintenance costs, and more than \$20 million in benefits from improved safety.