Summary

- **901 Cherry Street in San Bruno, CA**
- Construction completed in 1997
- Two-story, 195,000 SF Office Building
- Originally the Corporate Office for The Gap, Inc.
- Currently YouTube Headquarters

Source: American Hydrotech
Key players

GAP
OWNER

William McDonough + Partners
Architecture and Community Design
DESIGN ARCHITECT

ARUP
MEP & STRUCTURAL ENGINEERS

Gensler
EXECUTIVE/INTERIOR ARCHITECT

Swinerton Builders
BUILDING CONTRACTOR
Consultants

- Civil - BKF Engineers
- Landscape Architect - Hargreaves Associates
- Grasslands Consultant - Rana Creek
- Interiors Contractor - Webcor Builders

Source: www.archnews.com
Source: www.greenroofs.com
Project Impetus

• Gap, Inc. in the early 1990’s was extremely successful under CEO Don Fisher and his son, Bob Fisher
• Back office operations were in San Bruno, main operations in San Francisco
• Bob Fisher was friends with McDonough, a green-focused architect
• Commissioned McDonough to design an environmentally friendly headquarters for the company

Source: William McDonough + Partners
Design

"901 Cherry is designed to be a great place to work"
– William McDonough + Partners

Source: www.californiahomedesign.com
What is different?

Original Site Plan

Phase 2 & 3 (Never Built)

Current Day Aerial

Source: William McDonough + Partners

Source: Google Earth
Green Roof

• First extensive green roof in California
  – 6-inch soil membrane (Hydrotech MM6125®)
  – Planted with native grasses

Source: www.dgreenwriting.com
Green Roof

• Benefits
  – Habitat preservation
  – Rainwater retention
  – Assists with thermal needs of building
  – Provides acoustic barrier from nearby San Francisco Airport
• Three main office sections are organized around a 30’ x 90’ atrium topped by a skylight

• Extra high ceilings

• **ALL** workspaces are located within 30’ of windows or daylighting from atriums

Source: www.greatbuildings.com
Daylighting

Source: William McDonough + Partners
Heating/Cooling

- **UFAD System**
  - Displacement ventilation provides local mixing of air and a smaller cooling loads

- Separate systems for perimeter offices

- Operable windows

- Nighttime precooling system
  - Climate of San Bruno is fairly temperate and ideal temperatures for thermal comfort are reached at night during summers

Source: Alisdair McGregor, ARUP
Materials Sourcing

- Reduced materials use
  - Two-story design reduced need for fireproofing and associated design considerations

- FSC-certified wood in flooring, veneers and benches

- Recycled wood flooring and veneers, office furniture, interior benches, ceiling tiles

- Low-VOC paints and carpets

Source: William McDonough + Partners
Issues

- Frequent design changes during construction
  - One of McDonough’s first major projects

- Building sprawl
  - Two-story limitation

- Over-daylit
  - Largely IT-heavy workforce

- Acoustic issues within building
  - Very quiet UFAD system

Source: William McDonough + Partners
Financials

- Total building cost: $25 Million (~$130/SF)
  - Core/Shell: $110/SF
  - 10-15% Premium over traditional builds at the time

- Green Roof:
  - 130% of Conventional Roofs at the time
  - Net first costs of 185%
  - Projected payback – 11 years*

*Source: 2003 Green Roofs Awards of Excellence
Results

- Flexible design is good design
- **30%** more energy efficient than Title 24 Mandates (4-8 year payback)
- LEED Comparison
  - Gold?
  - Not transit oriented

Source: Vanity Fair
Awards

- 1998- Good Design is Good Business Award, BusinessWeek and Architectural Record
- 1998- Pride of Place, BusinessWeek
- 1998- Design Award, BusinessWeek Magazine
- 1999- A Whole New World, Time
- 2000- DC Award of Excellence, AIA
- 2000- Savings by Design Integration
- 2001- I.D. Forty, I.D. Magazine
- 2003- Green Roofs for Healthy Cities, Green Roof Award of Excellence (New Extensive)
References

Burke, Kevin. Personal interview. 22 Apr 2014.
Lehrer, David. Personal interview. 1 May 2014.
Kelly, Tim. Personal interview. 1 May 2014.